LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 39

2023

Bate Stamp Numbers
01204909 – 01206850

Prepared for

Department of the Army
Longhorn Army Ammunition Plant

1976–2023

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

VOLUME 39

2023

A.	Title:	Report (Cont'd) – Appendix C File 3, Level IV DoD to Quarterly Evaluation Report, 2nd Quarter (April–June) 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:	December 21, 2023
	Bate Stamp:	01204909–01206850

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	025_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:45:32-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	-0.020	-266.4	83398	0.8	0.5	
Be	9	1	No Gas	-0.002	-116.1	38	32.8	0.5	
V	51	2	He	-0.214	-8.5	5193	2.2	2.5	
Cr	52	2	He	0.240	22.7	22719	3.1	2.5	
Fe	56	2	He	-0.162	-27.5	23354	0.4	100	
Se	78	2	He	0.092	61.0	197	3.9	1	
As	75	2	He	-0.040	-54.0	380	6.3	2.5	
Ca	44	2	He	-6.950	-27.6	947	10.8	100	
Na	23	2	He	-8.407	-8.8	66177	0.4	100	
Mg	24	2	He	-0.081	-48.6	680	2.9	100	
K	39	2	He	0.350	441.6	174636	0.4	100	
Mn	55	2	He	0.019	33.0	1600	1.2	2.5	
Co	59	2	He	0.001	81.0	150	6.7	2.5	
Ni	60	2	He	0.314	4.6	1127	2.7	2.5	
Cu	63	2	He	0.060	10.7	2744	2.9	1	
Zn	66	2	He	-0.133	-40.0	820	10.6	2.5	
Al	27	2	He	-2.362	-7.9	1203	8.3	5	
B	11	1	No Gas	3.228	9.0	33540	2.1	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-2.316	-1.8	37962	1.0	5	
Si	28	1	No Gas	0.441	262.1	582958	0.6	10	
Ag	107	1	No Gas	-0.001	-172.4	197	10.6	2.5	
Cd	111	1	No Gas	0.003	0.2	-1	0.0	1	
Sr	88	1	No Gas	-0.040	-2.9	1017	6.0	2.5	
Mo	95	1	No Gas	-0.052	-175.4	1107	66.7	2.5	
Sn	118	1	No Gas	0.058	45.6	1970	13.7	5	
Sb	121	1	No Gas	0.100	10.5	1964	8.7	2.5	
Ba	137	1	No Gas	-0.058	-7.5	273	8.4	2.5	
Tl	205	1	No Gas	0.001	703.6	650	20.0	1	
Tl	203	1	No Gas	0.003	177.2	313	18.7	1	
Pb	208	1	No Gas	0.005	36.9	1287	6.5	2.5	
U	238	1	No Gas	0.000	-3865.4	160	16.5	2.5	
Ca	43	2	He	-5.743	-32.6	53	10.8	100	
Sb	121	2	He	0.094	13.6	880	12.3	2.5	
Ti	47	2	He	0.096	19.4	37	15.7	2.5	
Se	82	1	No Gas	-0.746	-27.0	-19	-304.5	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	1277184	0.51	1302276	98.07	70	120	
Ge	72	2	He	932419	1.43	934309	99.80	70	120	
Ge	72	1	No Gas	3213118	1.54	3249936	98.87	70	120	
In	115	1	No Gas	3527724	2.40	3564377	98.97	70	120	
Bi	209	1	No Gas	2773198	1.01	2833408	97.87	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	027ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:52:55-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	0.053	191.4	77609	1.9	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.001	183.9	52	24.4	0	ICSA Main CR1 Failed
V	51	2	He	0.078	21.8	6846	1.2	0	ICSA Main CR1 Failed
Cr	52	2	He	1.906	4.1	33628	1.6	0	ICSA Main CR1 Failed
Fe	56	2	He	97545.616	1.9	669064830	0.9	0	
Se	78	2	He	0.158	118.5	192	14.0	0	ICSA Main CR1 Failed
As	75	2	He	0.296	20.3	768	10.3	0	ICSA Main CR1 Failed
Ca	44	2	He	95052.936	1.2	5369914	0.6	0	
Na	23	2	He	99779.012	1.9	114416835	1.3	0	
Mg	24	2	He	98900.390	1.5	69452162	0.6	0	
K	39	2	He	99043.077	1.9	111265598	0.9	0	
Mn	55	2	He	1.352	1.8	9834	2.2	0	ICSA Main CR1 Failed
Co	59	2	He	0.615	2.7	6422	2.5	0	ICSA Main CR1 Failed
Ni	60	2	He	1.001	7.1	2727	5.8	0	ICSA Main CR1 Failed
Cu	63	2	He	0.308	3.9	4091	0.8	0	ICSA Main CR1 Failed
Zn	66	2	He	2.364	2.6	4157	1.9	0	ICSA Main CR1 Failed
Al	27	2	He	97710.919	1.9	51688664	0.9	0	
B	11	1	No Gas	3.261	5.4	30836	0.3	0	
Al	27	1	No Gas	93116.933	2.0	1678428775	0.2	0	
Si	28	1	No Gas	34.482	4.2	876115	0.6	0	
Ag	107	1	No Gas	0.161	6.1	2934	4.6	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	0.389	16.8	1284	18.4	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	4.341	0.9	157215	2.1	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1944.499	2.1	13516197	0.9	0	
Sn	118	1	No Gas	0.029	36.6	1473	8.0	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.264	3.5	4311	5.4	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.569	1.8	3754	1.3	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.008	38.4	747	8.7	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.017	39.7	427	15.6	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.176	1.3	7058	2.6	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.005	13.4	320	8.3	0	ICSA Main CR1 Failed
Ca	43	2	He	95266.487	0.4	307636	0.6	0	
Sb	121	2	He	0.299	7.9	2377	8.4	0	ICSA Main CR1 Failed
Ti	47	2	He	2032.951	1.8	592876	1.2	0	
Se	82	1	No Gas	-0.087	-234.9	157	33.7	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	1171069	1.28	1302276	89.92	70	120	
Ge	72	2	He	865497	1.01	934309	92.63	70	120	
Ge	72	1	No Gas	2977757	2.26	3249936	91.63	70	120	
In	115	1	No Gas	3174001	2.72	3564377	89.05	70	120	
Bi	209	1	No Gas	2427270	1.44	2833408	85.67	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	028ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:55:08-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	95.047	1.213	1533525	1.49	100	95.0	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	93.060	2.213	445051	0.45	100	93.1	80	120	
V	51	2	He	99.322	1.395	701109	0.64	100	99.3	80	120	
Cr	52	2	He	99.999	0.870	777871	0.33	100	100.0	80	120	
Fe	56	2	He	107659.983	1.299	744157722	1.50	100	107660.0	80	120	
Se	78	2	He	101.735	1.010	14774	1.11	100	101.7	80	120	
As	75	2	He	101.597	1.719	126801	1.09	100	101.6	80	120	
Ca	44	2	He	103661.919	1.590	5901031	1.53	100	103661.9	80	120	
Na	23	2	He	108507.764	0.376	125378578	0.40	100	108507.8	80	120	
Mg	24	2	He	109336.710	1.607	77367519	0.87	100	109336.7	80	120	
K	39	2	He	108048.462	1.338	122304125	1.20	100	108048.5	80	120	
Mn	55	2	He	98.592	0.830	623578	0.75	100	98.6	80	120	
Co	59	2	He	96.759	1.178	997899	0.43	100	96.8	80	120	
Ni	60	2	He	97.692	1.323	240980	0.57	100	97.7	80	120	
Cu	63	2	He	94.288	1.754	595113	1.03	100	94.3	80	120	
Zn	66	2	He	101.692	2.069	140327	1.33	100	101.7	80	120	
Al	27	2	He	97125.293	0.212	51776921	0.77	100	97125.3	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	472.359	1.328	1200651	2.43	100	472.4	80	120	
Al	27	1	No Gas	90742.244	1.591	1661561149	0.65	100	90742.2	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	510.363	1.360	5659938	1.24	100	510.4	80	120	
Ag	107	1	No Gas	98.149	1.486	1663032	2.44	100	98.1	80	120	
Cd	111	1	No Gas	100.305	0.821	330288	0.25	100	100.3	80	120	
Sr	88	1	No Gas	105.247	0.372	3725241	1.05	100	105.2	80	120	
Mo	95	1	No Gas	2050.351	1.181	14133563	1.72	100	2050.4	80	120	
Sn	118	1	No Gas	96.705	0.682	993360	0.38	100	96.7	80	120	
Sb	121	1	No Gas	99.525	3.217	1532172	0.98	100	99.5	80	120	
Ba	137	1	No Gas	99.507	1.078	552606	0.40	100	99.5	80	120	
Tl	205	1	No Gas	96.625	0.638	2461897	0.49	100	96.6	80	120	
Tl	203	1	No Gas	91.070	0.161	1001534	0.56	100	91.1	80	120	
Pb	208	1	No Gas	99.368	0.885	3450741	1.07	100	99.4	80	120	
U	238	1	No Gas	103.135	0.981	3506761	0.48	100	103.1	80	120	
Ca	43	2	He	105501.152	0.668	343275	0.44	100	105501.2	80	120	
Sb	121	2	He	97.162	0.669	747943	0.66	100	97.2	80	120	
Ti	47	2	He	2136.503	1.021	627847	0.28	100	2136.5	80	120	
Cu	63	1	No Gas	94.807	2.608	1359164	1.02	100	94.8	80	120	
Se	82	1	No Gas	99.970	2.839	27109	2.39	100	100.0	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	1148922	2.54	1302276	88.22	70	120	
Ge	72	2	He	872091	0.74	934309	93.34	70	120	
Ge	72	1	No Gas	3024761	2.22	3249936	93.07	70	120	
In	115	1	No Gas	3146442	1.06	3564377	88.27	70	120	
Bi	209	1	No Gas	2425504	0.59	2833408	85.60	70	120	

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	199CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T20:59:22-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	74961	0.00
Be	9	1	No Gas	25	138.56
V	51	2	He	5022	0.06
Cr	52	2	He	15846	0.02
Fe	56	2	He	22472	0.01
Se	78	2	He	173	5.54
As	75	2	He	338	4.54
Ca	44	2	He	1053	0.55
Na	23	2	He	78118	0.00
Mg	24	2	He	1017	1.20
K	39	2	He	155154	0.00
Mn	55	2	He	687	0.68
Co	59	2	He	77	35.42
Ni	60	2	He	253	4.76
Cu	63	2	He	1273	1.04
Zn	66	2	He	470	3.62
Al	27	2	He	1763	0.47
B	11	1	No Gas	56845	0.00
Al	27	1	No Gas	72864	0.00
Si	28	1	No Gas	467782	0.00
Ag	107	1	No Gas	77	25.99
Sr	88	1	No Gas	2847	0.16
Mo	95	1	No Gas	423	2.25
Sn	118	1	No Gas	1787	0.73
Sb	121	1	No Gas	377	2.85
Ba	137	1	No Gas	837	0.08
Tl	205	1	No Gas	147	11.70
Tl	203	1	No Gas	47	115.56
Pb	208	1	No Gas	800	2.85
U	238	1	No Gas	67	46.84
Ca	43	2	He	70	88.96
Sb	121	2	He	157	22.44
Ti	47	2	He	17	549.91
Cu	63	1	No Gas	3210	0.14

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	No Gas	1094872	1.39

Calibration Blank Report

Ge	72	2	He	759178	1.33
Ge	72	1	No Gas	2974836	1.63
In	115	1	No Gas	3399243	2.32
Bi	209	1	No Gas	2779836	2.74

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	200CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:01:32-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	7215	0.01
V	51	2	He	16620	0.01
Cr	52	2	He	29258	0.00
Fe	56	2	He	1234035	0.00
Se	78	2	He	367	2.50
As	75	2	He	2491	0.02
Ca	44	2	He	9927	0.02
Na	23	2	He	283195	0.00
Mg	24	2	He	126897	0.00
K	39	2	He	344609	0.00
Mn	55	2	He	11265	0.03
Co	59	2	He	17675	0.00
Ni	60	2	He	4938	0.08
Cu	63	2	He	13477	0.04
Zn	66	2	He	4704	0.04
Al	27	2	He	2797	0.22
B	11	1	No Gas	76287	0.00
Al	27	1	No Gas	108464	0.00
Si	28	1	No Gas	554514	0.00
Ag	107	1	No Gas	34947	0.00
Cd	111	1	No Gas	6894	0.08
Sr	88	1	No Gas	75671	0.00
Mo	95	1	No Gas	14031	0.03
Sn	118	1	No Gas	22406	0.01
Sb	121	1	No Gas	29353	0.01
Ba	137	1	No Gas	12459	0.02
Tl	205	1	No Gas	57041	0.00
Tl	203	1	No Gas	24047	0.01
Pb	208	1	No Gas	78885	0.00
U	238	1	No Gas	72843	0.00
Ca	43	2	He	543	0.98
Sb	121	2	He	12533	0.03
Cu	63	1	No Gas	32723	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	1078764	0.95	1094872	98.53	70	120	
Ge	72	2	He	759753	0.12	759178	100.08	70	120	
Ge	72	1	No Gas	2975181	1.23	2974836	100.01	70	120	

Calibration Standard Report

In	115	1	No Gas	3451517	1.82	3399243	101.54	70	120	
Bi	209	1	No Gas	2822839	0.92	2779836	101.55	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	201CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:03:27-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	18592	0.01
V	51	2	He	34626	0.00
Cr	52	2	He	49794	0.00
Fe	56	2	He	3033826	0.00
Se	78	2	He	731	1.15
As	75	2	He	5695	0.03
Ca	44	2	He	23340	0.01
Na	23	2	He	600525	0.00
Mg	24	2	He	321686	0.00
K	39	2	He	631352	0.00
Mn	55	2	He	26773	0.01
Co	59	2	He	44356	0.00
Ni	60	2	He	10764	0.05
Cu	63	2	He	28594	0.00
Zn	66	2	He	6505	0.06
Al	27	2	He	3877	0.23
B	11	1	No Gas	106943	0.00
Al	27	1	No Gas	144899	0.00
Si	28	1	No Gas	691601	0.00
Ag	107	1	No Gas	88438	0.00
Cd	111	1	No Gas	17370	0.02
Sr	88	1	No Gas	183803	0.00
Mo	95	1	No Gas	34238	0.00
Sn	118	1	No Gas	54332	0.00
Sb	121	1	No Gas	74190	0.00
Ba	137	1	No Gas	29153	0.00
Tl	205	1	No Gas	143749	0.00
Tl	203	1	No Gas	59669	0.00
Pb	208	1	No Gas	193323	0.00
U	238	1	No Gas	182184	0.00
Ca	43	2	He	1360	0.25
Sb	121	2	He	31472	0.00
Cu	63	1	No Gas	70043	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	1044348	2.80	1094872	95.39	70	120	
Ge	72	2	He	754142	1.15	759178	99.34	70	120	
Ge	72	1	No Gas	2958451	2.05	2974836	99.45	70	120	

Calibration Standard Report

In	115	1	No Gas	3381035	1.62	3399243	99.46	70	120	
Bi	209	1	No Gas	2765877	3.01	2779836	99.50	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	202CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:05:25-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	35896	0.00
V	51	2	He	62251	0.00
Cr	52	2	He	82008	0.00
Fe	56	2	He	5799208	0.00
Se	78	2	He	1263	0.21
As	75	2	He	10621	0.01
Ca	44	2	He	45131	0.00
Na	23	2	He	1089293	0.00
Mg	24	2	He	620705	0.00
K	39	2	He	1115889	0.00
Mn	55	2	He	52230	0.00
Co	59	2	He	87651	0.00
Ni	60	2	He	21754	0.00
Cu	63	2	He	55527	0.00
Zn	66	2	He	12903	0.02
Al	27	2	He	5785	0.04
B	11	1	No Gas	156989	0.00
Al	27	1	No Gas	218753	0.00
Si	28	1	No Gas	947165	0.00
Ag	107	1	No Gas	174751	0.00
Cd	111	1	No Gas	34364	0.01
Sr	88	1	No Gas	365912	0.00
Mo	95	1	No Gas	67688	0.00
Sn	118	1	No Gas	106647	0.00
Sb	121	1	No Gas	146290	0.00
Ba	137	1	No Gas	57849	0.00
Tl	205	1	No Gas	282135	0.00
Tl	203	1	No Gas	117133	0.00
Pb	208	1	No Gas	379280	0.00
U	238	1	No Gas	352998	0.00
Ca	43	2	He	2804	0.29
Sb	121	2	He	63608	0.00
Cu	63	1	No Gas	132292	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	1046903	1.72	1094872	95.62	70	120	
Ge	72	2	He	756777	1.67	759178	99.68	70	120	
Ge	72	1	No Gas	2931373	1.91	2974836	98.54	70	120	

Calibration Standard Report

In	115	1	No Gas	3408604	2.71	3399243	100.28	70	120	
Bi	209	1	No Gas	2760398	3.55	2779836	99.30	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	203CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:07:21-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	359152	0.00
V	51	2	He	589403	0.00
Cr	52	2	He	664429	0.00
Fe	56	2	He	57803989	0.00
Se	78	2	He	11758	0.01
As	75	2	He	105242	0.00
Ca	44	2	He	443832	0.00
Na	23	2	He	9983465	0.00
Mg	24	2	He	5888403	0.00
K	39	2	He	9323031	0.00
Mn	55	2	He	522357	0.00
Co	59	2	He	868262	0.00
Ni	60	2	He	216252	0.00
Cu	63	2	He	545844	0.00
Zn	66	2	He	123626	0.00
Al	27	2	He	44789	0.00
B	11	1	No Gas	1090796	0.00
Al	27	1	No Gas	1665062	0.00
Si	28	1	No Gas	4673673	0.00
Ag	107	1	No Gas	1747633	0.00
Cd	111	1	No Gas	339759	0.00
Sr	88	1	No Gas	3569734	0.00
Mo	95	1	No Gas	672413	0.00
Sn	118	1	No Gas	1046192	0.00
Sb	121	1	No Gas	1544085	0.00
Ba	137	1	No Gas	576346	0.00
Tl	205	1	No Gas	2863957	0.00
Tl	203	1	No Gas	1191696	0.00
Pb	208	1	No Gas	3819059	0.00
U	238	1	No Gas	3735151	0.00
Ca	43	2	He	26382	0.00
Sb	121	2	He	648166	0.00
Cu	63	1	No Gas	1286736	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	1021380	2.08	1094872	93.29	70	120	
Ge	72	2	He	750963	1.19	759178	98.92	70	120	
Ge	72	1	No Gas	2951390	2.33	2974836	99.21	70	120	

Calibration Standard Report

In	115	1	No Gas	3321061	0.70	3399243	97.70	70	120	
Bi	209	1	No Gas	2738696	2.92	2779836	98.52	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	204CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:09:13-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	717246	0.00
V	51	2	He	1181508	0.00
Cr	52	2	He	1341174	0.00
Fe	56	2	He	114678118	0.00
Se	78	2	He	23478	0.01
As	75	2	He	209053	0.00
Ca	44	2	He	881759	0.00
Na	23	2	He	19653853	0.00
Mg	24	2	He	11733924	0.00
K	39	2	He	18241173	0.00
Mn	55	2	He	1054884	0.00
Co	59	2	He	1810629	0.00
Ni	60	2	He	425786	0.00
Cu	63	2	He	1091361	0.00
Zn	66	2	He	239482	0.00
Al	27	2	He	87793	0.00
B	11	1	No Gas	2099774	0.00
Al	27	1	No Gas	3242382	0.00
Si	28	1	No Gas	8655673	0.00
Ag	107	1	No Gas	3373809	0.00
Cd	111	1	No Gas	677070	0.00
Sr	88	1	No Gas	7047688	0.00
Mo	95	1	No Gas	1379134	0.00
Sn	118	1	No Gas	2134477	0.00
Sb	121	1	No Gas	3090888	0.00
Ba	137	1	No Gas	1161223	0.00
Tl	205	1	No Gas	5466401	0.00
Tl	203	1	No Gas	2347051	0.00
Pb	208	1	No Gas	7648616	0.00
U	238	1	No Gas	7277203	0.00
Ca	43	2	He	52966	0.01
Sb	121	2	He	1390759	0.00
Cu	63	1	No Gas	2530063	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	992857	0.34	1094872	90.68	70	120	
Ge	72	2	He	752657	0.57	759178	99.14	70	120	
Ge	72	1	No Gas	2900633	2.07	2974836	97.51	70	120	

Calibration Standard Report

In	115	1	No Gas	3338513	1.74	3399243	98.21	70	120	
Bi	209	1	No Gas	2728062	1.75	2779836	98.14	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICCV
Data File Name	206_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:13:10-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	199CALB.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	99.106	3.680	1325706	1.97	100	99.1	90	110	
Be	9	1	No Gas	97.523	0.516	370940	1.07	100	97.5	90	110	
V	51	2	He	100.057	1.540	608032	0.23	100	100.1	90	110	
Cr	52	2	He	98.496	2.138	682819	0.70	100	98.5	90	110	
Fe	56	2	He	10120.341	1.780	59630201	1.28	10000	101.2	90	110	
Se	78	2	He	99.978	3.118	12110	2.20	100	100.0	90	110	
As	75	2	He	101.865	1.275	109501	0.36	100	101.9	90	110	
Ca	44	2	He	10155.862	2.552	460265	1.16	10000	101.6	90	110	
Na	23	2	He	10089.285	2.774	10233645	1.36	10000	100.9	90	110	
Mg	24	2	He	10092.218	2.989	6078229	1.62	10000	100.9	90	110	
K	39	2	He	10145.698	1.135	9597069	0.33	10000	101.5	90	110	
Mn	55	2	He	98.636	1.671	532921	1.75	100	98.6	90	110	
Co	59	2	He	97.133	1.761	894613	1.77	100	97.1	90	110	
Ni	60	2	He	100.710	1.831	220724	1.52	100	100.7	90	110	
Cu	63	2	He	99.290	1.420	556341	1.42	100	99.3	90	110	
Zn	66	2	He	99.770	1.336	123558	1.95	100	99.8	90	110	
Al	27	2	He	99.327	2.793	45619	1.36	100	99.3	90	110	
B	11	1	No Gas	487.538	1.463	1116482	1.51	500	97.5	90	110	
Al	27	1	No Gas	100.212	1.575	1713436	1.50	100	100.2	90	110	
Si	28	1	No Gas	512.312	1.812	4827613	1.51	500	102.5	90	110	
Ag	107	1	No Gas	102.452	1.940	1770050	1.10	100	102.5	90	110	
Cd	111	1	No Gas	99.936	1.456	344278	1.25	100	99.9	90	110	
Sr	88	1	No Gas	103.314	1.619	3713118	1.30	100	103.3	90	110	
Mo	95	1	No Gas	97.794	1.212	682415	1.64	100	97.8	90	110	
Sn	118	1	No Gas	99.793	3.933	1078914	2.32	100	99.8	90	110	
Sb	121	1	No Gas	98.534	1.242	1569764	1.02	100	98.5	90	110	
Ba	137	1	No Gas	99.375	1.368	586173	1.59	100	99.4	90	110	
Tl	205	1	No Gas	102.481	0.097	2905948	0.56	100	102.5	90	110	
Tl	203	1	No Gas	101.868	1.416	1232627	1.98	100	101.9	90	110	
Pb	208	1	No Gas	98.714	0.532	3878816	0.86	100	98.7	90	110	
U	238	1	No Gas	100.325	2.613	3771046	3.12	100	100.3	90	110	
Ca	43	2	He	10127.269	2.034	27524	3.10	10000	101.3	90	110	
Sb	121	2	He	95.127	1.146	669237	0.38	100	95.1	90	110	
Ti	47	2	He	102.187	0.822	24829	0.69	100	102.2	90	110	
Cu	63	1	No Gas	102.072	2.535	1337344	2.41	100	102.1	90	110	
Se	82	1	No Gas	104.065	3.303	26812	2.62	100	104.1	90	110	

QC ISTD Table

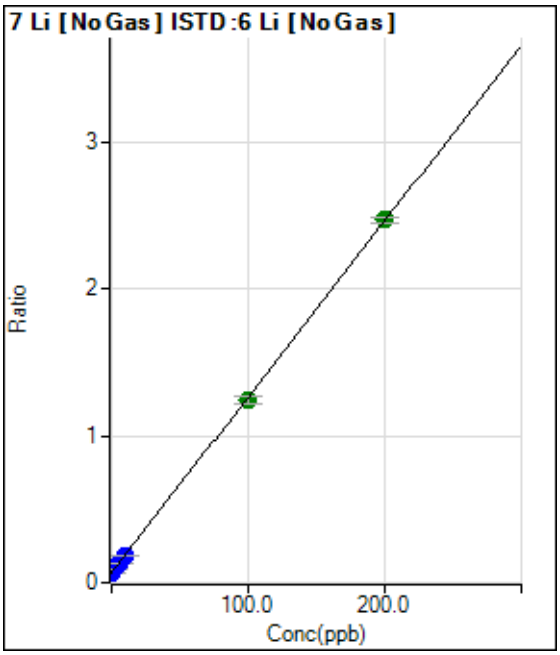
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1058698	1.59	1094872	96.70	70	120	
Ge	72	2	He	771778	1.41	759178	101.66	70	120	
Ge	72	1	No Gas	3000382	0.73	2974836	100.86	70	120	
In	115	1	No Gas	3391939	2.72	3399243	99.79	70	120	
Bi	209	1	No Gas	2804927	0.59	2779836	100.90	70	120	

Calibration for 206_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071223A.b\
Analysis File: 071223A.batch.bin
DA Date-Time: 7/12/2023 10:19:40 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	199CALB.d	CAL BLK	7/12/2023 8:59:22 PM
2	200CALS.d	2/10/200	7/12/2023 9:01:32 PM
3	201CALS.d	5/25/500	7/12/2023 9:03:27 PM
4	202CALS.d	10/50/100	7/12/2023 9:05:25 PM
5	203CALS.d	100/500/10K	7/12/2023 9:07:21 PM
6	204CALS.d	200/1000/20K	7/12/2023 9:09:13 PM

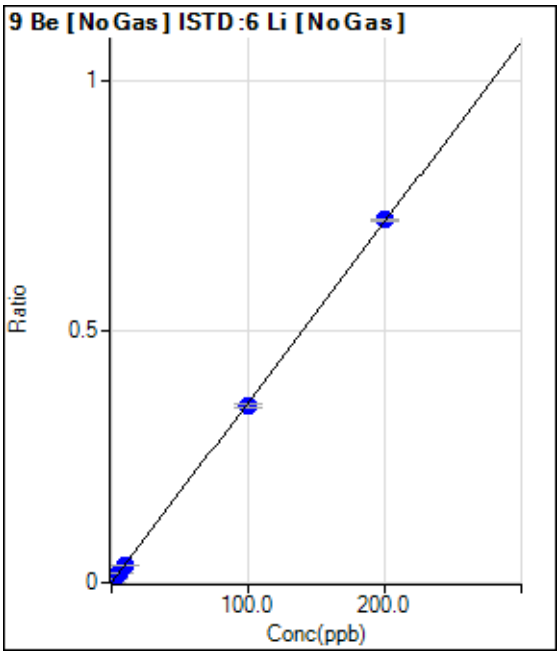
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74961.42	0.0685	P	3.4
2	☐	2.000	1.966	99227.99	0.0920	P	0.3
3	☐	5.000	5.110	135216.77	0.1295	P	2.7
4	☐	10.000	9.868	195086.28	0.1864	P	2.9
5	☐	100.000	98.472	1271015.53	1.2451	A	4.0
6	☐	200.000	200.768	2449704.81	2.4674	A	1.9

y = 0.0119 * x + 0.0685
R = 1.0000
DL = 0.5818
BEC = 5.732

Weight: <None>
Min Conc: <None>

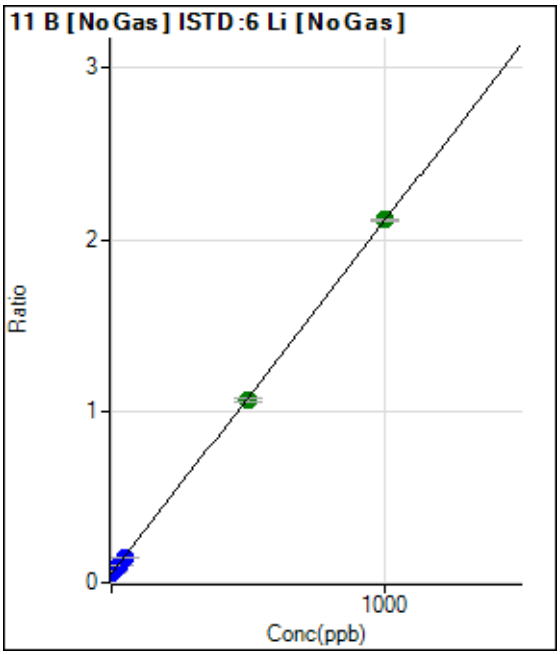


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	35.6
2	☐	2.000	1.855	7215.23	0.0067	P	0.4
3	☐	5.000	4.950	18592.34	0.0178	P	1.3
4	☐	10.000	9.539	35895.75	0.0343	P	1.9
5	☐	100.000	97.907	359151.69	0.3518	P	2.8
6	☐	200.000	201.072	717246.11	0.7224	P	0.7

y = 0.0036 * x + 2.2909E-005
R = 0.9999
DL = 0.006816
BEC = 0.006377

Weight: <None>
Min Conc: <None>

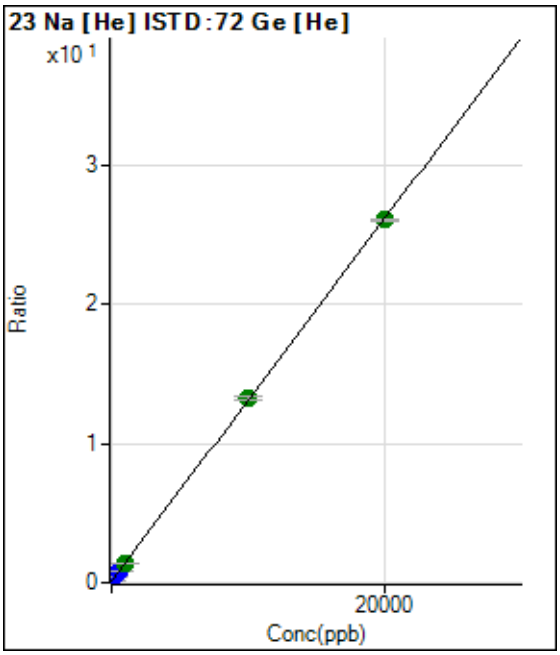
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56844.58	0.0519	P	1.8
2	☐	10.000	9.135	76287.27	0.0707	P	1.1
3	☐	25.000	24.554	106943.37	0.1024	P	1.3
4	☐	50.000	47.675	156989.16	0.1500	P	1.4
5	☐	500.000	494.183	1090796.49	1.0683	A	2.4
6	☐	1000.000	1003.045	2099774.35	2.1149	A	0.6

y = 0.0021 * x + 0.0519
R = 1.0000
DL = 1.372
BEC = 25.25

Weight: <None>
Min Conc: <None>

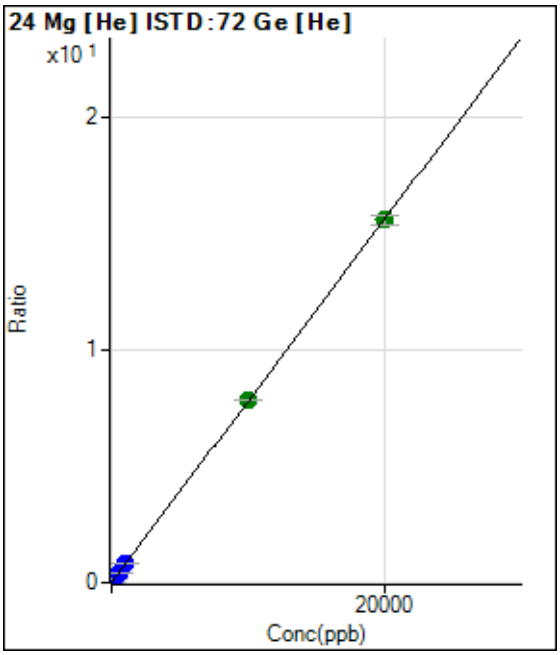


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	78117.82	0.1029	P	0.6
2	☐	200.000	206.874	283195.36	0.3727	P	0.7
3	☐	500.000	531.634	600524.82	0.7964	P	1.3
4	☐	1000.000	1024.663	1089293.45	1.4395	A	0.5
5	☐	10000.00	10115.33	9983465.06	13.2972	A	2.8
6	☐	20000.00	19940.24	19653853.46	26.1127	A	0.4

y = 0.0013 * x + 0.1029
R = 1.0000
DL = 1.525
BEC = 78.89

Weight: <None>
Min Conc: <None>

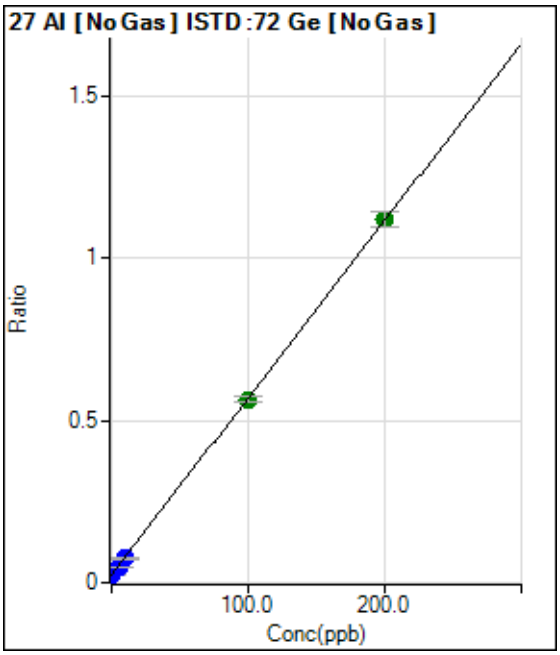
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1016.72	0.0013	P	11.6
2	☐	200.000	212.295	126896.86	0.1670	P	1.5
3	☐	500.000	544.875	321686.05	0.4266	P	0.9
4	☐	1000.000	1049.259	620705.25	0.8202	P	0.4
5	☐	10000.00	10045.53	5888403.25	7.8414	A	0.4
6	☐	20000.00	19973.52	11733924.41	15.5897	A	2.3

y = 7.8045E-004 * x + 0.0013
R = 1.0000
DL = 0.5957
BEC = 1.715

Weight: <None>
Min Conc: <None>

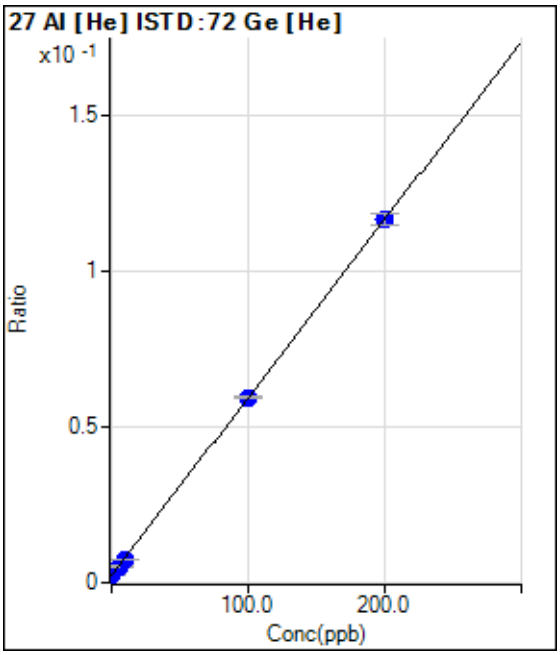


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72863.74	0.0245	P	2.8
2	☐	2.000	2.192	108464.22	0.0365	P	0.2
3	☐	5.000	4.487	144898.71	0.0490	P	0.8
4	☐	10.000	9.193	218752.63	0.0746	P	1.7
5	☐	100.000	98.985	1665061.69	0.5644	A	2.9
6	☐	200.000	200.559	3242382.24	1.1184	A	4.1

y = 0.0055 * x + 0.0245
R = 1.0000
DL = 0.3718
BEC = 4.492

Weight: <None>
Min Conc: <None>

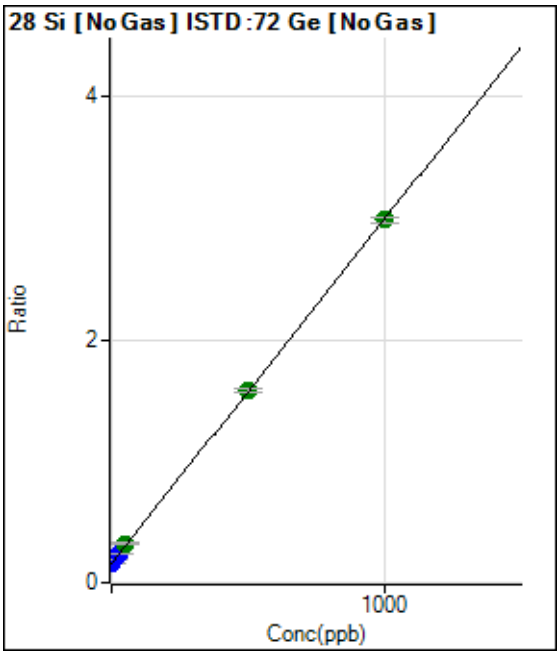
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1763.48	0.0023	P	9.3
2	☐	2.000	2.373	2797.01	0.0037	P	6.1
3	☐	5.000	4.933	3877.30	0.0051	P	10.0
4	☐	10.000	9.303	5784.63	0.0076	P	2.1
5	☐	100.000	100.245	44789.03	0.0596	P	1.5
6	☐	200.000	199.910	87792.73	0.1166	P	3.1

y = 5.7184E-004 * x + 0.0023
R = 1.0000
DL = 1.129
BEC = 4.065

Weight: <None>
Min Conc: <None>

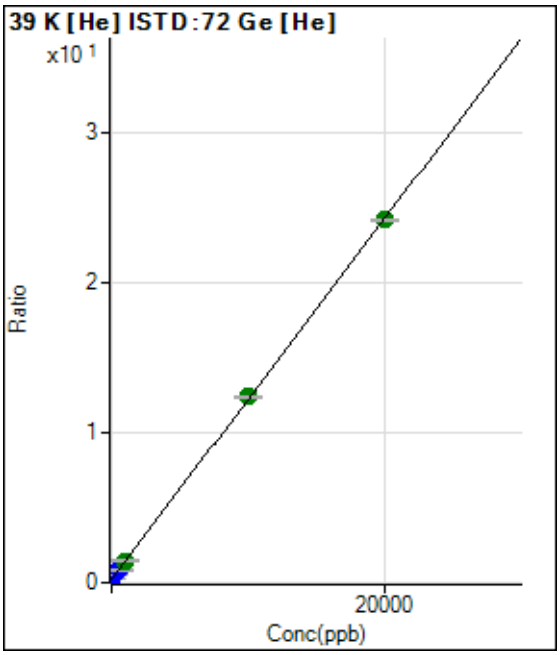


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	467781.61	0.1573	P	1.5
2	☐	10.000	10.279	554514.47	0.1864	P	1.5
3	☐	25.000	27.010	691601.06	0.2338	P	1.3
4	☐	50.000	58.522	947164.62	0.3231	A	1.3
5	☐	500.000	503.474	4673673.37	1.5840	A	1.8
6	☐	1000.000	997.784	8655672.79	2.9848	A	1.9

y = 0.0028 * x + 0.1573
R = 1.0000
DL = 2.579
BEC = 55.5

Weight: <None>
Min Conc: <None>

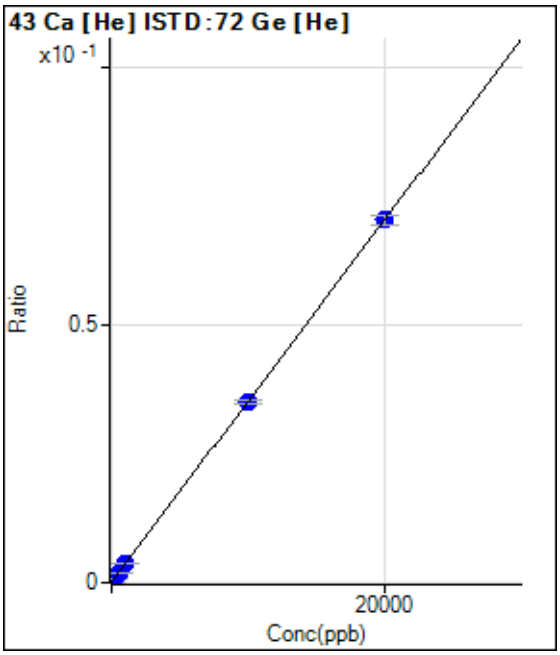
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155153.67	0.2044	P	1.0
2	☐	200.000	206.695	344609.21	0.4536	P	0.8
3	☐	500.000	524.926	631351.96	0.8372	P	1.1
4	☐	1000.000	1053.716	1115889.28	1.4748	A	1.6
5	☐	10000.00	10128.70	9323030.70	12.4158	A	1.2
6	☐	20000.00	19932.27	18241172.65	24.2353	A	0.7

y = 0.0012 * x + 0.2044
R = 1.0000
DL = 4.841
BEC = 169.5

Weight: <None>
Min Conc: <None>

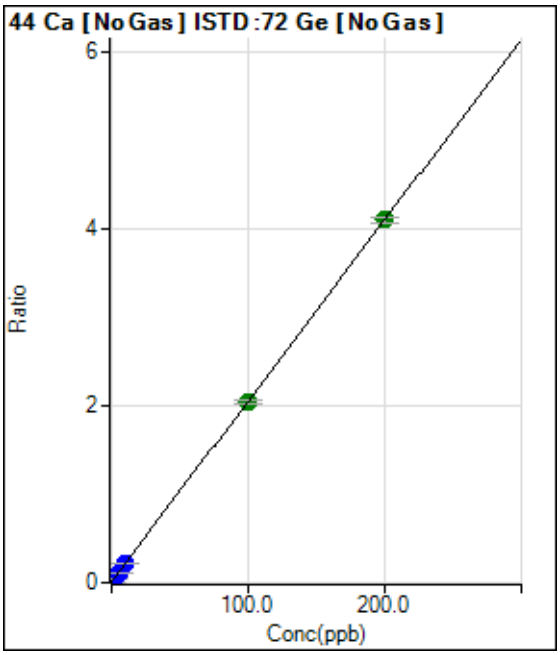


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	63.7
2	☐	200.000	177.228	543.36	0.0007	P	5.2
3	☐	500.000	487.173	1360.10	0.0018	P	3.6
4	☐	1000.000	1027.730	2803.68	0.0037	P	6.5
5	☐	10000.00	9977.909	26382.13	0.0351	P	1.7
6	☐	20000.00	20010.20	52965.51	0.0704	P	2.7

y = 3.5120E-006 * x + 9.2728E-005
R = 1.0000
DL = 50.48
BEC = 26.4

Weight: <None>
Min Conc: <None>

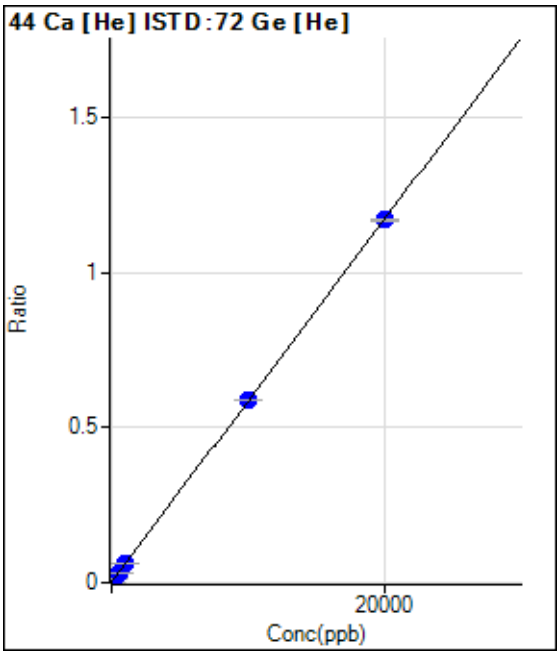
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	28215.77	0.0095	P	1.3
2	☐	2.000	2.034	151772.14	0.0510	P	0.4
3	☐	5.000	5.053	333138.79	0.1126	P	0.9
4	☐	10.000	10.150	635076.46	0.2167	P	0.8
5	☐	100.000	99.569	6024389.49	2.0418	A	2.2
6	☐	200.000	200.206	11877933.15	4.0960	A	1.9

y = 0.0204 * x + 0.0095
R = 1.0000
DL = 0.0184
BEC = 0.4647

Weight: <None>
Min Conc: <None>

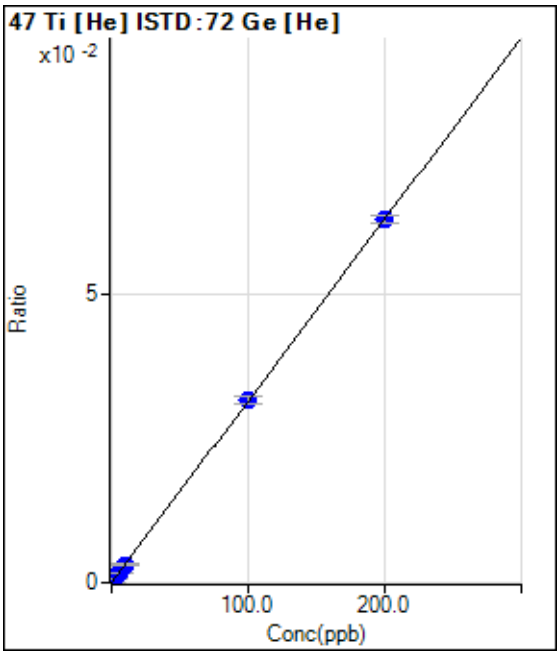


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1053.40	0.0014	P	7.1
2	☐	200.000	199.285	9927.07	0.0131	P	1.9
3	☐	500.000	504.606	23340.06	0.0310	P	3.6
4	☐	1000.000	994.117	45130.99	0.0596	P	1.7
5	☐	10000.00	10062.28	443831.56	0.5910	P	0.2
6	☐	20000.00	19969.04	881759.13	1.1716	P	0.6

y = 5.8599E-005 * x + 0.0014
R = 1.0000
DL = 5.065
BEC = 23.69

Weight: <None>
Min Conc: <None>

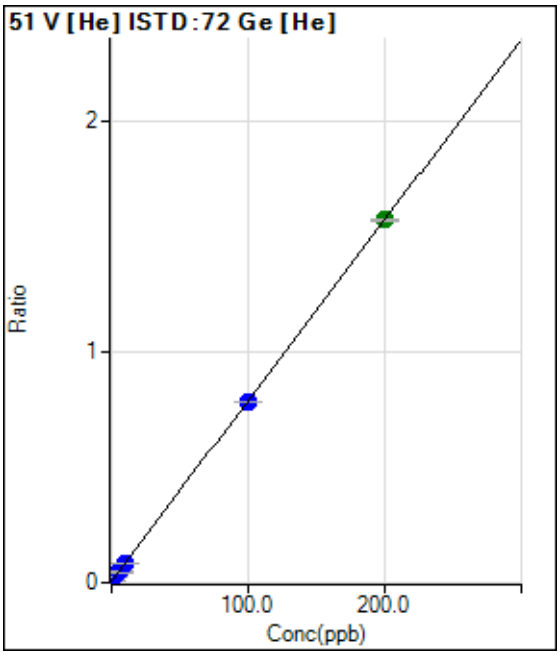
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	92.2
2	☐	2.000	2.008	496.69	0.0007	P	14.6
3	☐	5.000	5.187	1246.75	0.0017	P	9.3
4	☐	10.000	9.769	2343.57	0.0031	P	10.9
5	☐	100.000	100.525	23760.89	0.0317	P	4.3
6	☐	200.000	199.744	47318.59	0.0629	P	2.0

y = 3.1464E-004 * x + 2.2090E-005
R = 1.0000
DL = 0.1942
BEC = 0.07021

Weight: <None>
Min Conc: <None>

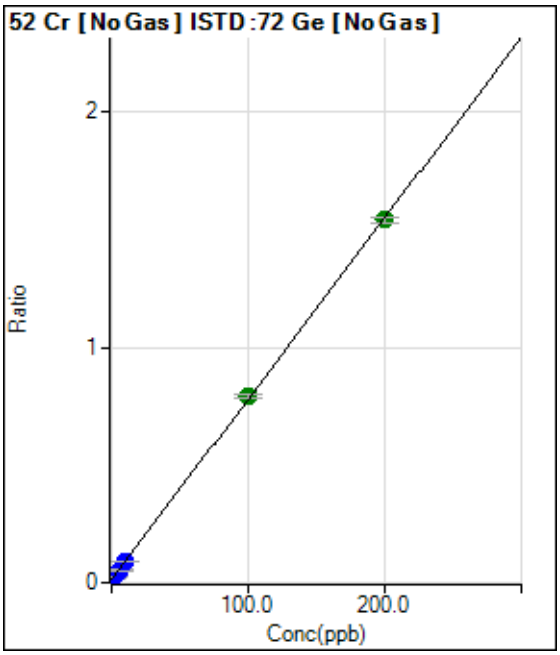


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5022.05	0.0066	P	1.7
2	☐	2.000	1.954	16620.12	0.0219	P	1.8
3	☐	5.000	5.033	34625.85	0.0459	P	1.2
4	☐	10.000	9.688	62250.63	0.0823	P	0.8
5	☐	100.000	99.662	589402.70	0.7849	P	0.1
6	☐	200.000	200.184	1181508.01	1.5698	A	0.8

y = 0.0078 * x + 0.0066
R = 1.0000
DL = 0.04425
BEC = 0.847

Weight: <None>
Min Conc: <None>

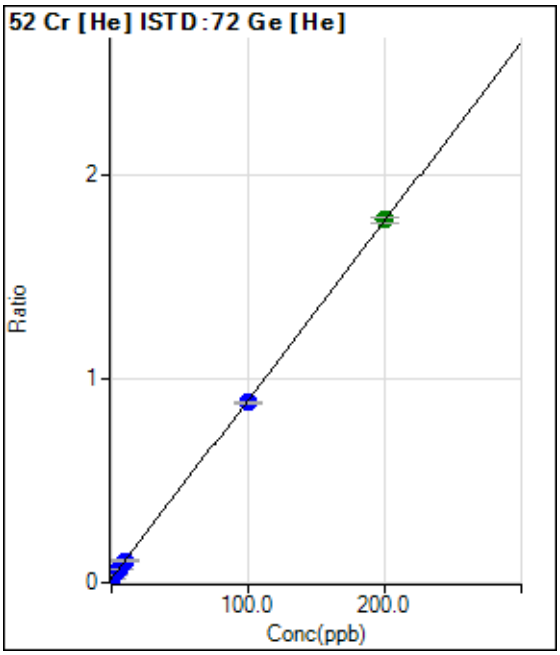
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37866.05	0.0127	P	2.2
2	☐	2.000	2.046	84667.28	0.0285	P	2.1
3	☐	5.000	5.237	156722.23	0.0530	P	2.5
4	☐	10.000	10.373	271058.79	0.0925	P	0.6
5	☐	100.000	101.819	2347271.17	0.7955	A	1.6
6	☐	200.000	199.065	4475297.85	1.5431	A	1.2

y = 0.0077 * x + 0.0127
R = 0.9999
DL = 0.1112
BEC = 1.656

Weight: <None>
Min Conc: <None>

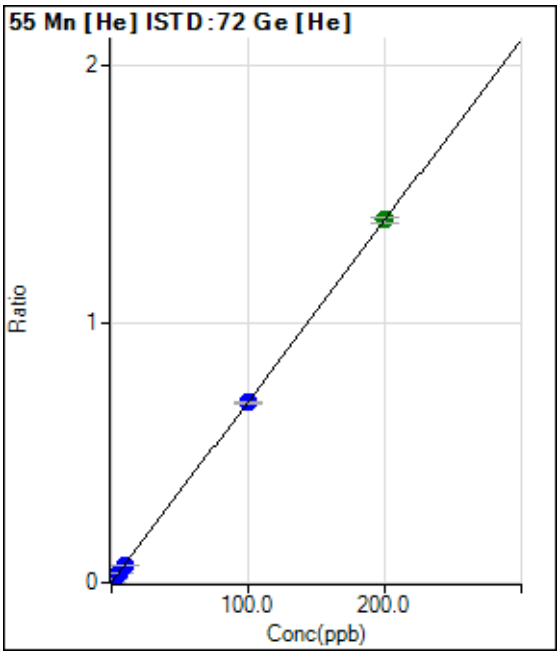


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15846.13	0.0209	P	3.6
2	☐	2.000	2.010	29258.20	0.0385	P	0.8
3	☐	5.000	5.149	49794.16	0.0660	P	2.8
4	☐	10.000	9.976	82007.93	0.1084	P	1.9
5	☐	100.000	98.486	664428.89	0.8848	P	0.9
6	☐	200.000	200.754	1341173.84	1.7819	A	1.8

y = 0.0088 * x + 0.0209
R = 1.0000
DL = 0.2564
BEC = 2.38

Weight: <None>
Min Conc: <None>

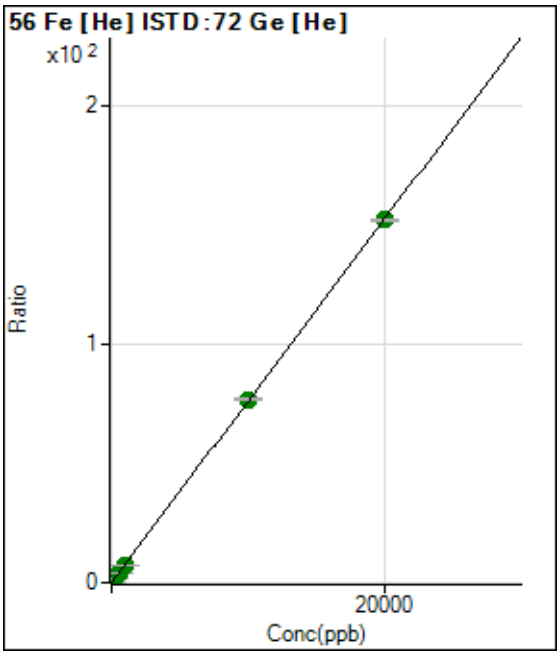
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	686.70	0.0009	P	3.4
2	☐	2.000	1.991	11264.85	0.0148	P	3.6
3	☐	5.000	4.948	26773.15	0.0355	P	1.2
4	☐	10.000	9.744	52230.00	0.0690	P	2.1
5	☐	100.000	99.362	522356.80	0.6956	P	0.7
6	☐	200.000	200.333	1054884.18	1.4016	A	1.9

y = 0.0070 * x + 9.0426E-004
R = 1.0000
DL = 0.01315
BEC = 0.1293

Weight: <None>
Min Conc: <None>

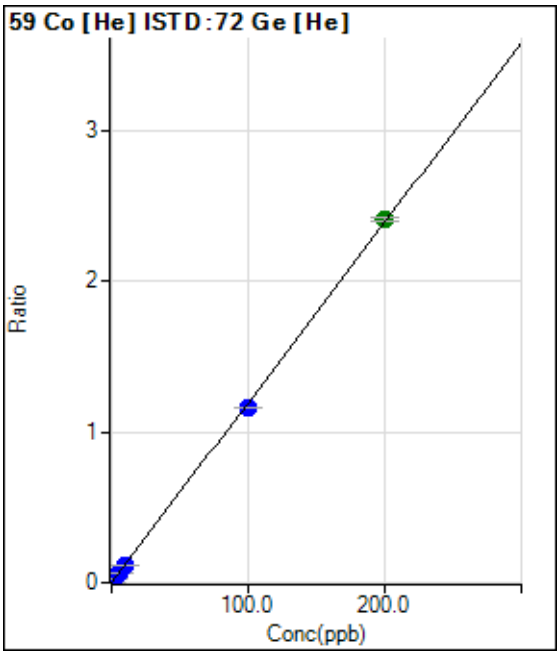


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22472.06	0.0296	P	2.0
2	☐	200.000	208.929	1234035.24	1.6242	A	1.5
3	☐	500.000	523.243	3033826.10	4.0232	A	1.3
4	☐	1000.000	1000.124	5799208.04	7.6630	A	0.2
5	☐	10000.00	10081.24	57803989.14	76.9741	A	0.4
6	☐	20000.00	19958.70	114678118.2	152.363	A	0.3

y = 0.0076 * x + 0.0296
R = 1.0000
DL = 0.2379
BEC = 3.879

Weight: <None>
Min Conc: <None>

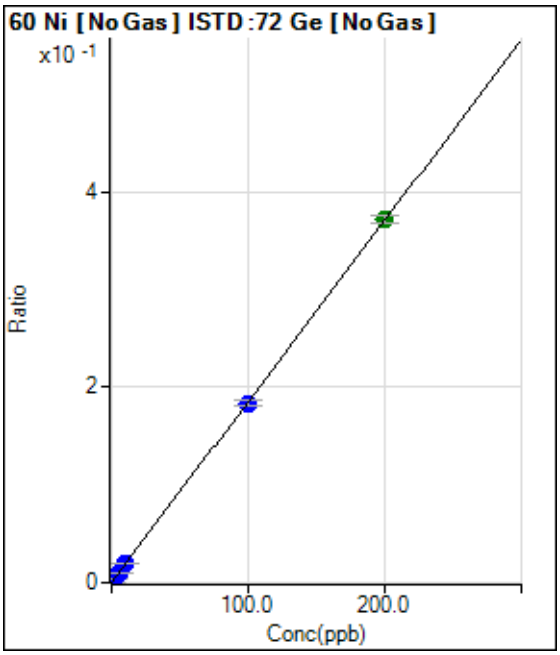
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0001	P	26.3
2	☐	2.000	1.941	17675.08	0.0233	P	0.8
3	☐	5.000	4.920	44355.99	0.0588	P	2.0
4	☐	10.000	9.698	87651.46	0.1158	P	1.5
5	☐	100.000	96.880	868262.02	1.1562	P	0.2
6	☐	200.000	201.578	1810629.04	2.4056	A	1.2

y = 0.0119 * x + 1.0083E-004
R = 0.9998
DL = 0.006664
BEC = 0.008449

Weight: <None>
Min Conc: <None>

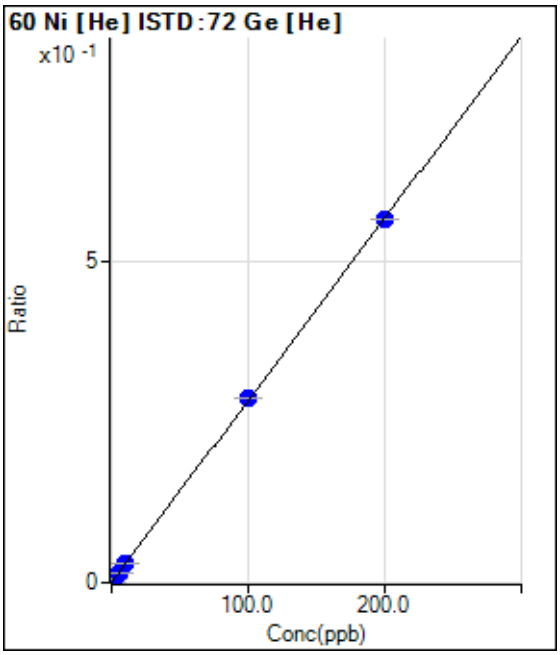


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	760.04	0.0003	P	11.7
2	☐	2.000	2.110	12372.46	0.0042	P	1.5
3	☐	5.000	5.076	28530.20	0.0096	P	1.6
4	☐	10.000	10.134	55707.28	0.0190	P	1.0
5	☐	100.000	99.089	541522.95	0.1836	P	2.7
6	☐	200.000	200.446	1076245.30	0.3711	A	2.2

y = 0.0018 * x + 2.5574E-004
R = 1.0000
DL = 0.04863
BEC = 0.1382

Weight: <None>
Min Conc: <None>

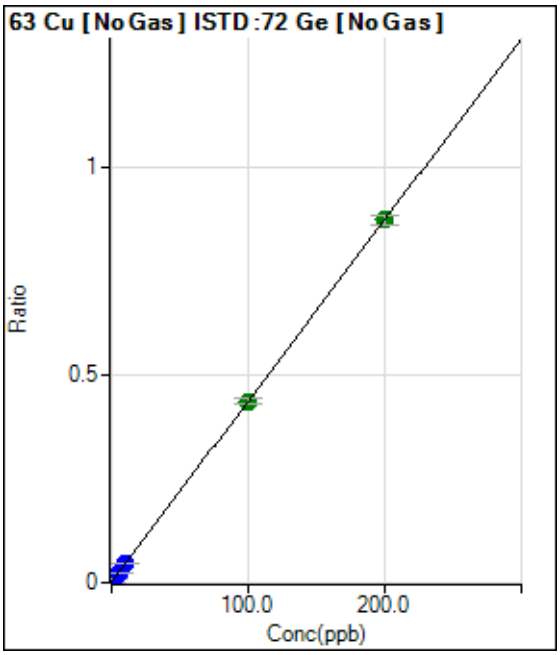
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	253.34	0.0003	P	13.1
2	☐	2.000	2.173	4937.64	0.0065	P	4.0
3	☐	5.000	4.913	10764.45	0.0143	P	3.9
4	☐	10.000	10.017	21754.24	0.0288	P	1.7
5	☐	100.000	101.391	216251.84	0.2880	P	0.6
6	☐	200.000	199.304	425786.29	0.5657	P	0.1

y = 0.0028 * x + 3.3402E-004
R = 1.0000
DL = 0.04637
BEC = 0.1177

Weight: <None>
Min Conc: <None>

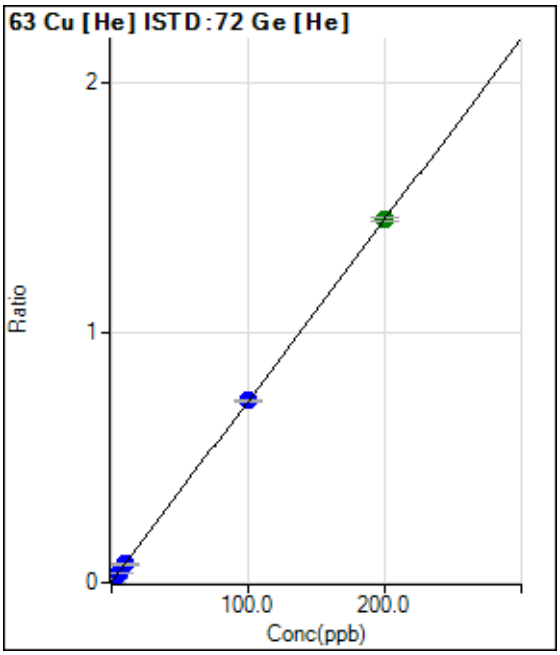


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3210.43	0.0011	P	3.0
2	☐	2.000	2.278	32722.96	0.0110	P	3.4
3	☐	5.000	5.189	70043.22	0.0237	P	2.3
4	☐	10.000	10.112	132292.25	0.0451	P	0.2
5	☐	100.000	99.879	1286736.47	0.4362	A	3.2
6	☐	200.000	200.047	2530063.40	0.8726	A	2.9

y = 0.0044 * x + 0.0011
R = 1.0000
DL = 0.02235
BEC = 0.2477

Weight: <None>
Min Conc: <None>

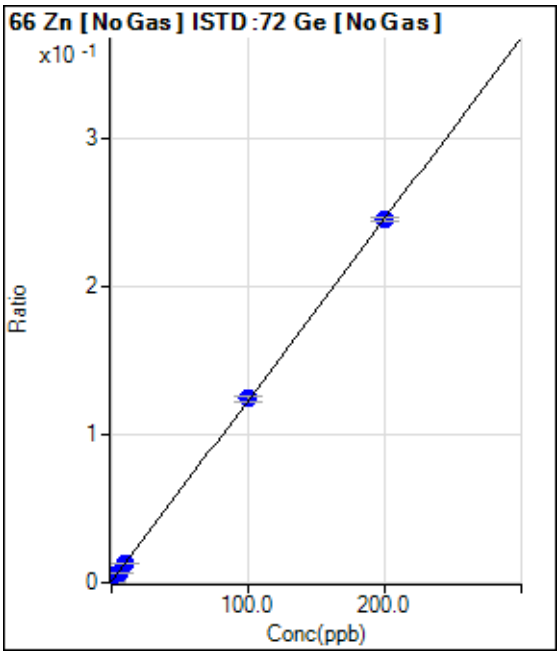
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1273.42	0.0017	P	13.8
2	☐	2.000	2.217	13476.94	0.0177	P	6.0
3	☐	5.000	5.004	28593.79	0.0379	P	2.4
4	☐	10.000	9.899	55526.78	0.0734	P	1.5
5	☐	100.000	100.118	545843.51	0.7269	P	0.8
6	☐	200.000	199.944	1091360.82	1.4500	A	0.9

y = 0.0072 * x + 0.0017
R = 1.0000
DL = 0.09577
BEC = 0.2317

Weight: <None>
Min Conc: <None>

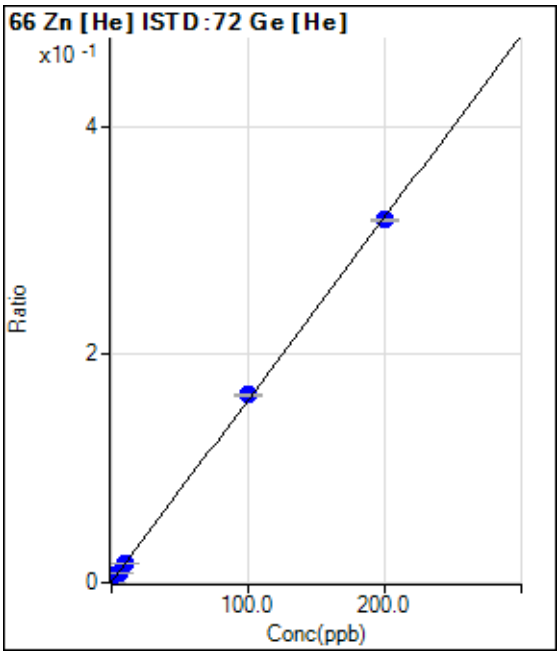


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1950.19	0.0007	P	4.2
2	☐	2.000	3.580	15008.53	0.0050	P	3.1
3	☐	5.000	4.948	19884.94	0.0067	P	1.8
4	☐	10.000	10.303	38952.91	0.0133	P	1.5
5	☐	100.000	100.836	366746.77	0.1243	P	2.6
6	☐	200.000	199.552	711616.00	0.2454	P	1.1

y = 0.0012 * x + 6.5542E-004
R = 1.0000
DL = 0.06709
BEC = 0.5345

Weight: <None>
Min Conc: <None>

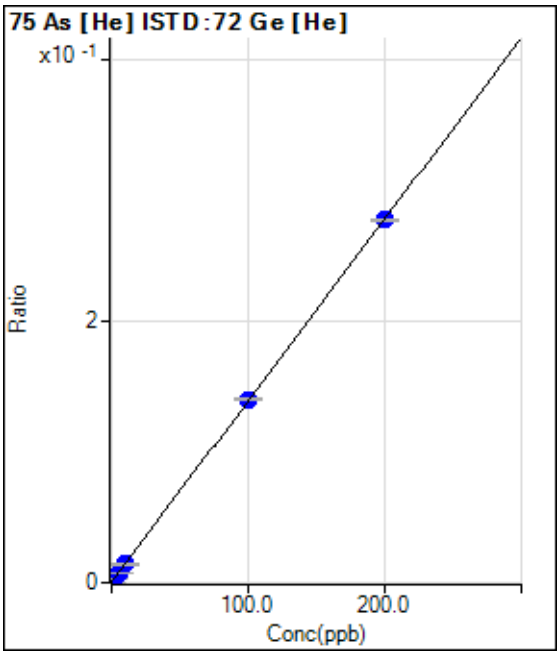
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	470.02	0.0006	P	18.2
2	☐	2.000	3.486	4704.23	0.0062	P	1.9
3	☐	5.000	5.007	6505.01	0.0086	P	2.8
4	☐	10.000	10.280	12903.02	0.0171	P	3.2
5	☐	100.000	102.606	123626.00	0.1646	P	0.5
6	☐	200.000	198.668	239482.00	0.3182	P	0.5

y = 0.0016 * x + 6.2000E-004
R = 0.9999
DL = 0.2122
BEC = 0.3879

Weight: <None>
Min Conc: <None>

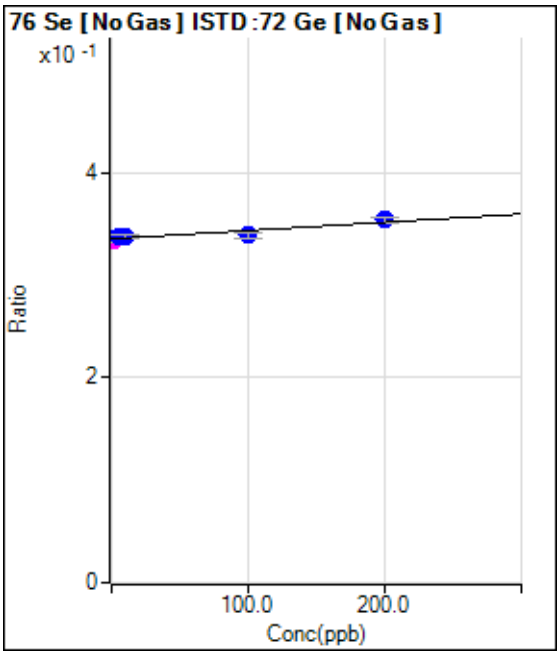


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	337.78	0.0004	P	15.7
2	☐	2.000	2.041	2491.35	0.0033	P	0.5
3	☐	5.000	5.117	5694.56	0.0076	P	0.7
4	☐	10.000	9.787	10620.87	0.0140	P	1.5
5	☐	100.000	100.604	105241.51	0.1401	P	1.0
6	☐	200.000	199.705	209053.25	0.2778	P	0.7

y = 0.0014 * x + 4.4516E-004
R = 1.0000
DL = 0.1505
BEC = 0.3206

Weight: <None>
Min Conc: <None>

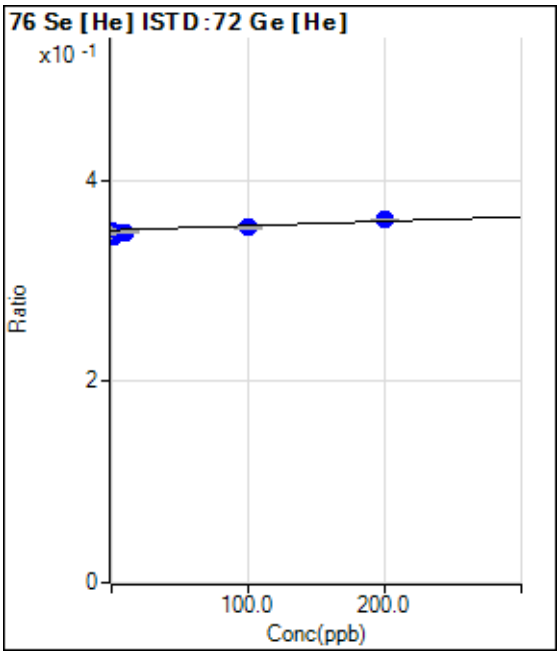
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	997567.46	0.3354	P	1.4
2	☐	2.000	-21.355	992556.86	0.3336	M	1.4
3	☐	5.000	21.184	997083.29	0.3371	P	1.3
4	☐	10.000	28.042	989669.80	0.3376	P	0.7
5	☐	100.000	42.467	999674.23	0.3388	P	1.8
6	☐	200.000	227.694	1026039.23	0.3538	P	1.6

y = 8.0911E-005 * x + 0.3354
R = 0.9347
DL = 176.2
BEC = 4145

Weight: <None>
Min Conc: <None>

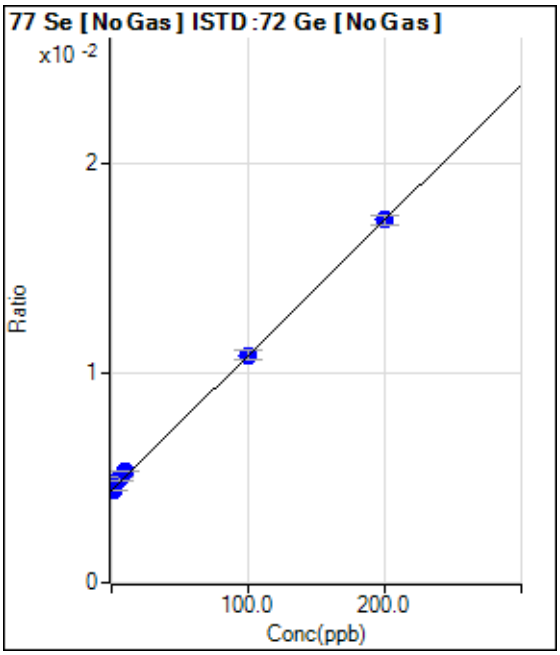


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	265929.23	0.3503	P	1.5
2	☐	2.000	-147.097	261167.92	0.3438	P	1.3
3	☐	5.000	-51.099	262429.81	0.3480	P	1.8
4	☐	10.000	-37.669	263818.78	0.3486	P	0.4
5	☐	100.000	54.105	264861.99	0.3527	P	0.9
6	☐	200.000	228.224	271293.73	0.3604	P	0.6

y = 4.4477E-005 * x + 0.3503
R = 0.9207
DL = 361.2
BEC = 7876

Weight: <None>
Min Conc: <None>

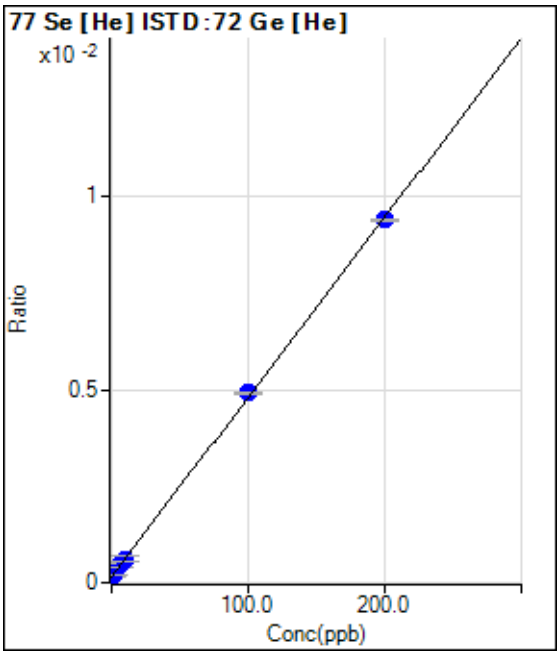
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13093.29	0.0044	P	1.3
2	☐	2.000	0.096	13116.65	0.0044	P	1.5
3	☐	5.000	9.007	14741.64	0.0050	P	4.1
4	☐	10.000	14.358	15629.37	0.0053	P	1.5
5	☐	100.000	100.015	32105.29	0.0109	P	3.9
6	☐	200.000	199.694	50290.70	0.0173	P	2.8

y = 6.4808E-005 * x + 0.0044
R = 0.9996
DL = 2.621
BEC = 67.92

Weight: <None>
Min Conc: <None>

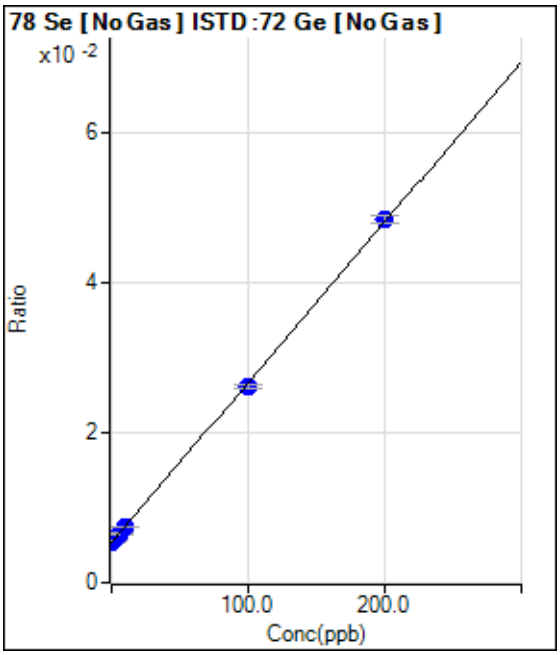


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0002	P	20.4
2	☐	2.000	0.749	143.33	0.0002	P	10.7
3	☐	5.000	6.191	333.34	0.0004	P	14.3
4	☐	10.000	9.917	466.68	0.0006	P	26.7
5	☐	100.000	102.395	3690.59	0.0049	P	1.0
6	☐	200.000	198.790	7071.99	0.0094	P	0.4

y = 4.6492E-005 * x + 1.5383E-004
R = 0.9999
DL = 2.024
BEC = 3.309

Weight: <None>
Min Conc: <None>

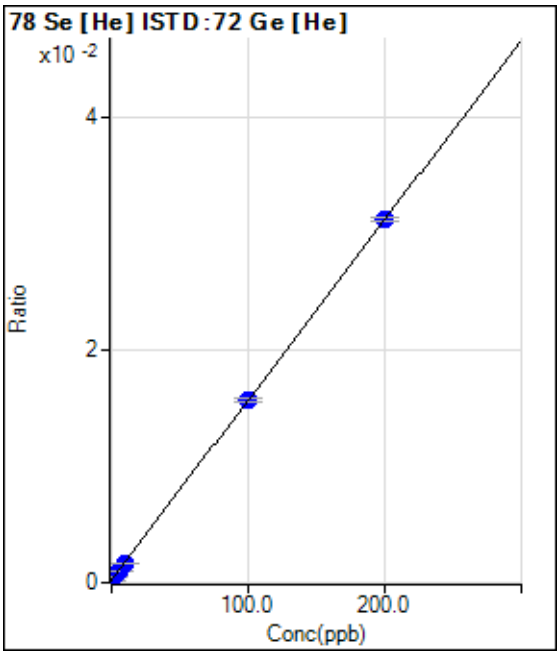
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15873.00	0.0053	P	3.1
2	☐	2.000	1.120	16590.41	0.0056	P	0.9
3	☐	5.000	5.158	19033.75	0.0064	P	5.1
4	☐	10.000	9.713	21714.41	0.0074	P	1.9
5	☐	100.000	97.180	76875.36	0.0261	P	2.5
6	☐	200.000	201.429	140019.18	0.0483	P	2.0

y = 2.1321E-004 * x + 0.0053
R = 0.9999
DL = 2.324
BEC = 25.03

Weight: <None>
Min Conc: <None>

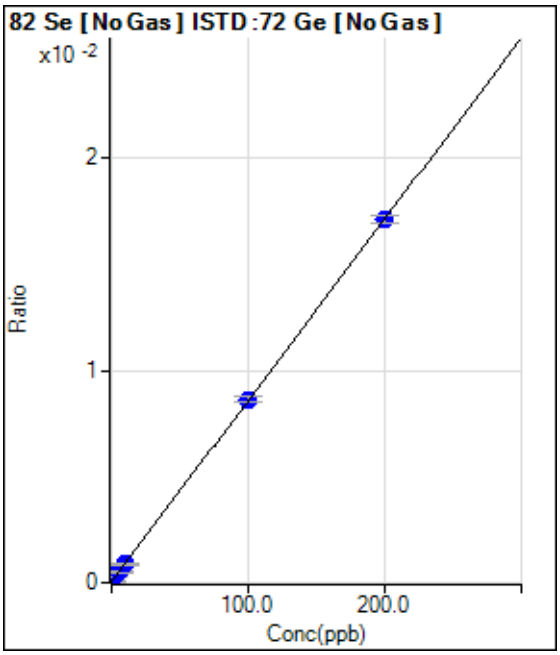


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	173.33	0.0002	P	9.2
2	☐	2.000	1.644	366.68	0.0005	P	9.1
3	☐	5.000	4.791	730.69	0.0010	P	9.3
4	☐	10.000	9.312	1262.73	0.0017	P	3.0
5	☐	100.000	99.755	11758.48	0.0157	P	1.8
6	☐	200.000	200.166	23478.44	0.0312	P	0.9

y = 1.5470E-004 * x + 2.2829E-004
R = 1.0000
DL = 0.4088
BEC = 1.476

Weight: <None>
Min Conc: <None>

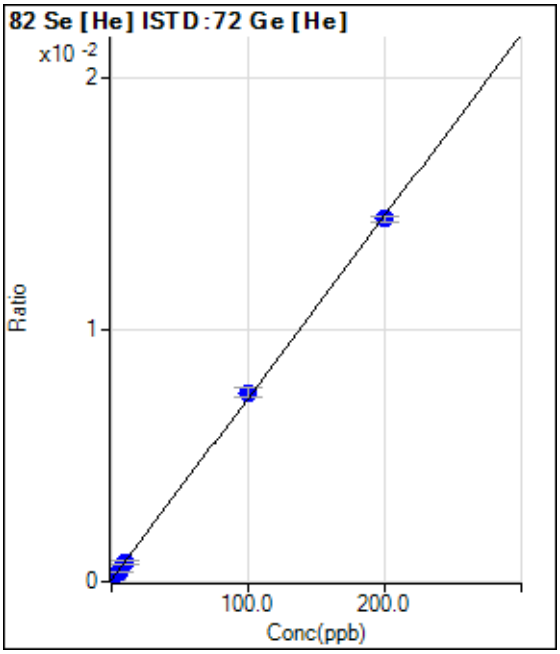
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	124.18	0.0000	P	33.1
2	☐	2.000	2.468	751.07	0.0003	P	13.1
3	☐	5.000	5.431	1494.46	0.0005	P	14.1
4	☐	10.000	9.860	2588.13	0.0009	P	14.6
5	☐	100.000	100.626	25499.75	0.0086	P	3.1
6	☐	200.000	199.678	49617.14	0.0171	P	2.2

y = 8.5483E-005 * x + 4.1700E-005
R = 1.0000
DL = 0.4851
BEC = 0.4878

Weight: <None>
Min Conc: <None>

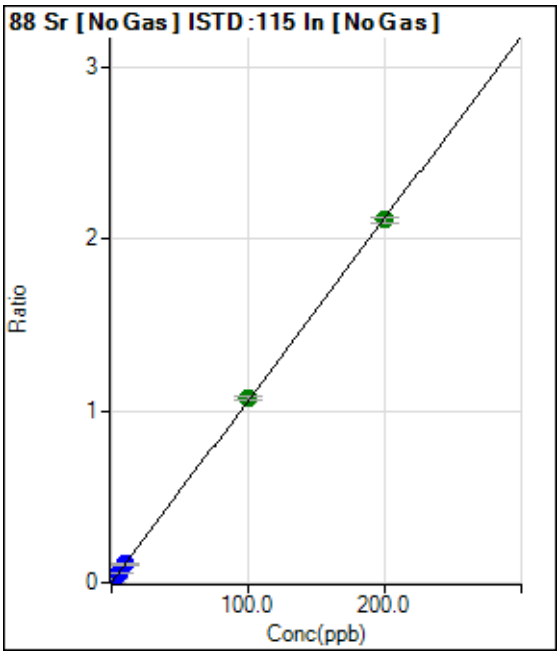


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	30.0
2	☐	2.000	2.669	200.01	0.0003	P	22.9
3	☐	5.000	4.410	293.34	0.0004	P	4.9
4	☐	10.000	10.074	603.36	0.0008	P	18.6
5	☐	100.000	103.113	5647.96	0.0075	P	4.7
6	☐	200.000	198.448	10841.20	0.0144	P	1.2

y = 7.2230E-005 * x + 7.0429E-005
R = 0.9998
DL = 0.878
BEC = 0.9751

Weight: <None>
Min Conc: <None>

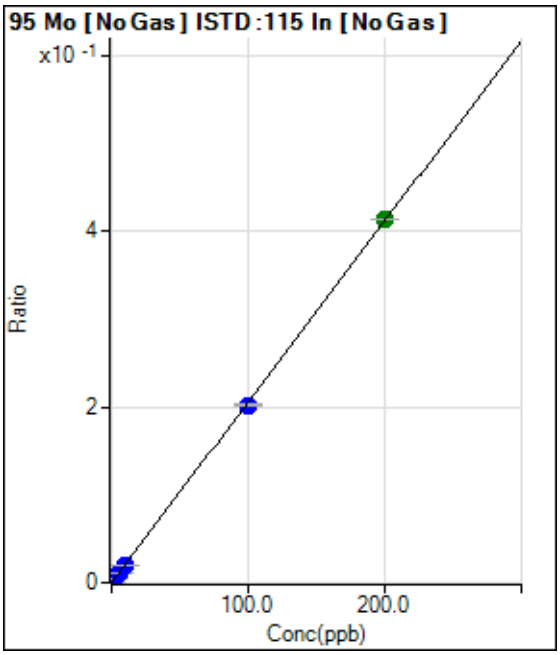
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2847.03	0.0008	P	2.2
2	☐	2.000	1.992	75670.52	0.0219	P	2.4
3	☐	5.000	5.055	183803.17	0.0544	P	1.4
4	☐	10.000	10.061	365912.00	0.1074	P	2.1
5	☐	100.000	101.420	3569733.80	1.0749	A	1.5
6	☐	200.000	199.286	7047688.23	2.1114	A	1.6

y = 0.0106 * x + 8.3727E-004
R = 1.0000
DL = 0.005304
BEC = 0.07906

Weight: <None>
Min Conc: <None>

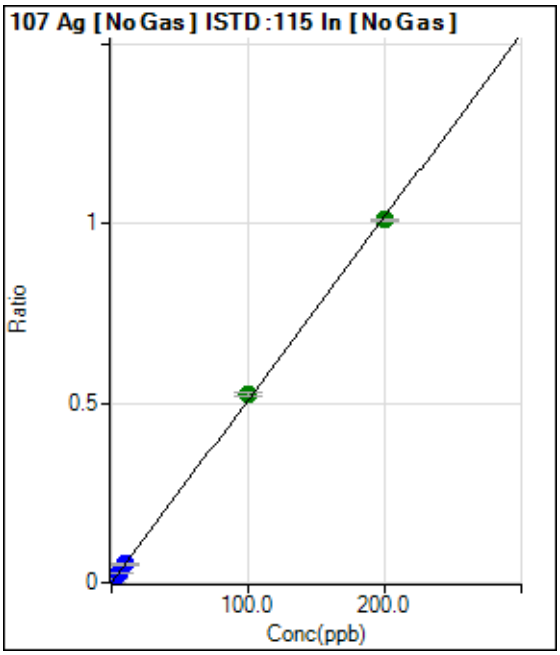


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	423.35	0.0001	P	7.8
2	☐	2.000	1.916	14031.02	0.0041	P	3.3
3	☐	5.000	4.865	34237.61	0.0101	P	2.8
4	☐	10.000	9.600	67688.34	0.0199	P	2.1
5	☐	100.000	98.398	672412.93	0.2025	P	0.9
6	☐	200.000	200.825	1379134.41	0.4131	A	0.1

y = 0.0021 * x + 1.2443E-004
R = 1.0000
DL = 0.01419
BEC = 0.06051

Weight: <None>
Min Conc: <None>

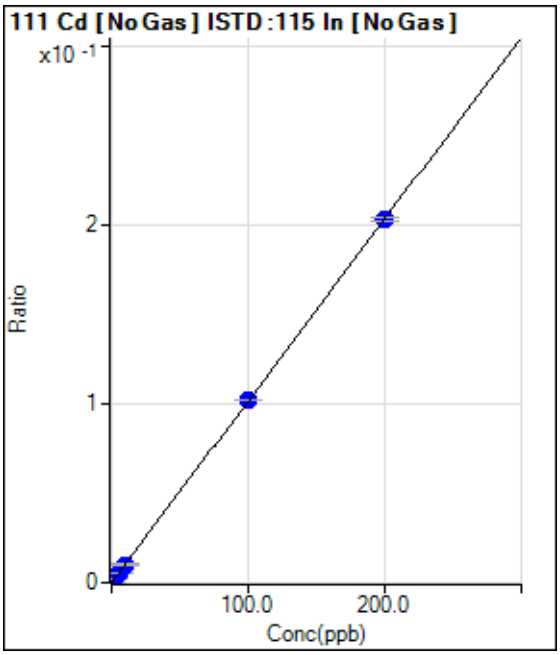
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0000	P	21.5
2	☐	2.000	1.983	34946.68	0.0101	P	1.8
3	☐	5.000	5.130	88438.33	0.0262	P	1.0
4	☐	10.000	10.062	174750.83	0.0513	P	2.0
5	☐	100.000	103.283	1747633.05	0.5262	A	1.7
6	☐	200.000	198.352	3373809.32	1.0106	A	0.4

y = 0.0051 * x + 2.2605E-005
R = 0.9998
DL = 0.002861
BEC = 0.004437

Weight: <None>
Min Conc: <None>

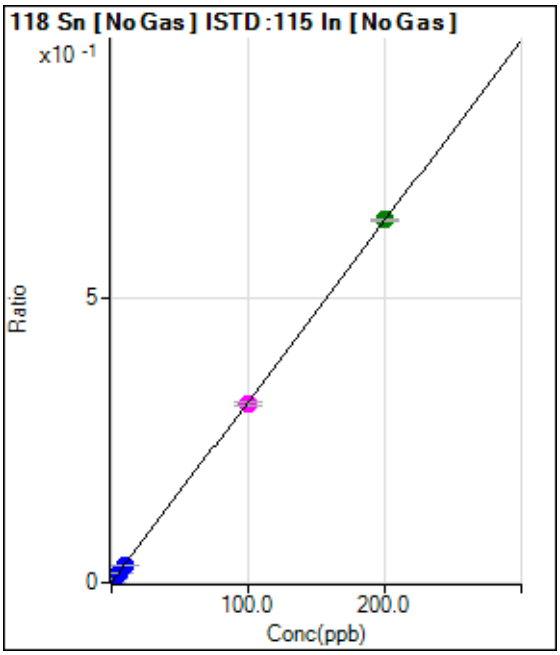


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-4.06	0.0000	P	-632.0
2	☐	2.000	1.966	6893.56	0.0020	P	3.7
3	☐	5.000	5.057	17369.79	0.0051	P	2.2
4	☐	10.000	9.929	34363.73	0.0101	P	3.1
5	☐	100.000	100.703	339759.07	0.1023	P	0.4
6	☐	200.000	199.651	677070.12	0.2028	P	0.9

y = 0.0010 * x - 1.1210E-006
R = 1.0000
DL = 0.02092
BEC = -0.001103

Weight: <None>
Min Conc: <None>

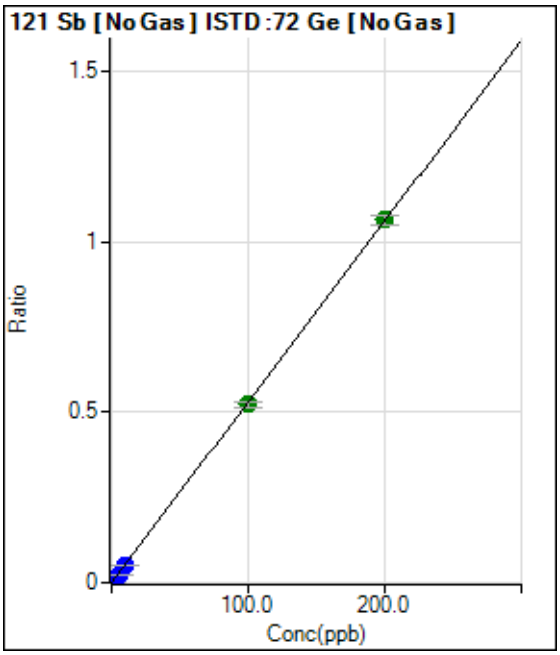
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1786.88	0.0005	P	11.2
2	☐	2.000	1.875	22406.21	0.0065	P	2.8
3	☐	5.000	4.883	54332.49	0.0161	P	2.5
4	☐	10.000	9.668	106647.31	0.0313	P	3.5
5	☐	100.000	98.766	1046191.76	0.3150	M	2.0
6	☐	200.000	200.638	2134477.05	0.6394	A	0.5

y = 0.0032 * x + 5.2500E-004
R = 1.0000
DL = 0.05526
BEC = 0.1649

Weight: <None>
Min Conc: <None>

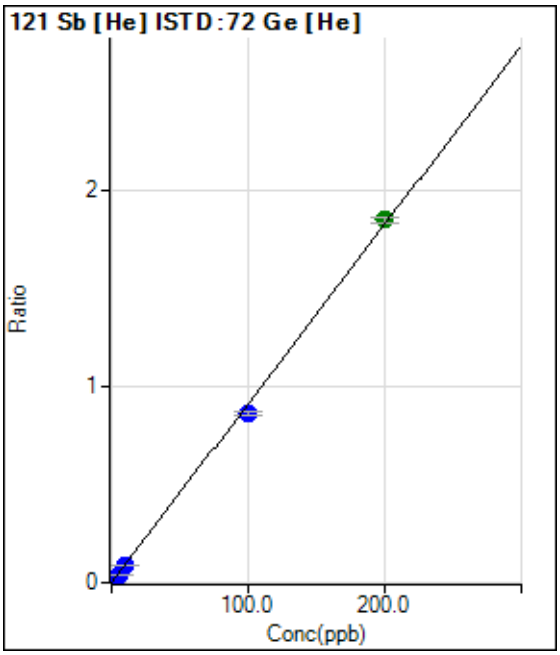


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	376.68	0.0001	P	11.8
2	☐	2.000	1.834	29353.22	0.0099	P	1.6
3	☐	5.000	4.701	74189.57	0.0251	P	1.6
4	☐	10.000	9.379	146289.83	0.0499	P	1.7
5	☐	100.000	98.567	1544084.77	0.5234	A	2.8
6	☐	200.000	200.757	3090888.39	1.0659	A	2.3

y = 0.0053 * x + 1.2673E-004
R = 1.0000
DL = 0.008452
BEC = 0.02387

Weight: <None>
Min Conc: <None>

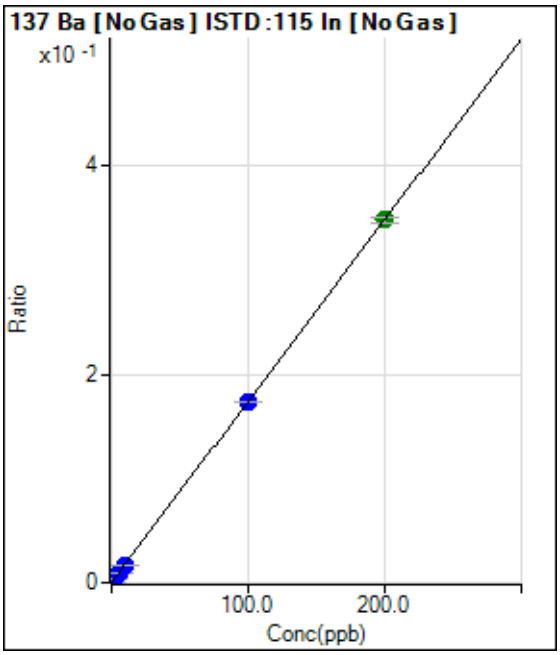
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156.67	0.0002	P	36.6
2	☐	2.000	1.787	12532.88	0.0165	P	4.2
3	☐	5.000	4.556	31471.54	0.0417	P	1.3
4	☐	10.000	9.199	63607.62	0.0841	P	0.3
5	☐	100.000	94.691	648165.60	0.8633	P	2.1
6	☐	200.000	202.708	1390758.63	1.8477	A	1.7

y = 0.0091 * x + 2.0703E-004
R = 0.9995
DL = 0.02497
BEC = 0.02272

Weight: <None>
Min Conc: <None>

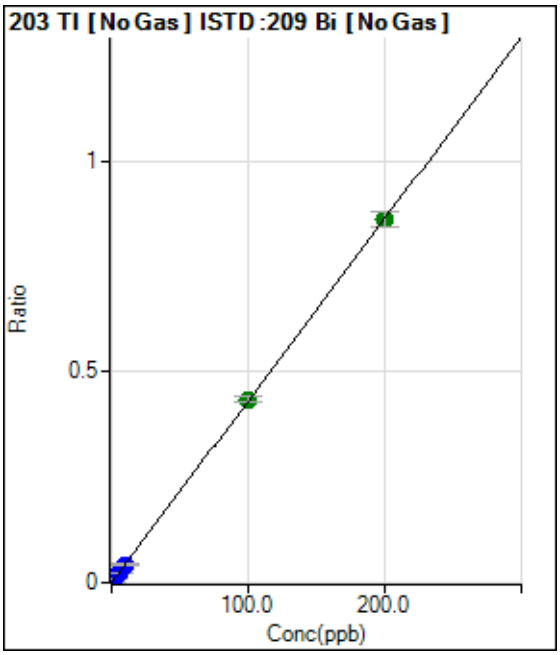


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	836.71	0.0002	P	2.6
2	☐	2.000	1.937	12459.48	0.0036	P	2.6
3	☐	5.000	4.824	29153.02	0.0086	P	2.5
4	☐	10.000	9.631	57849.25	0.0170	P	1.0
5	☐	100.000	99.771	576346.07	0.1735	P	0.3
6	☐	200.000	200.138	1161222.77	0.3479	A	1.8

y = 0.0017 * x + 2.4624E-004
R = 1.0000
DL = 0.01125
BEC = 0.1418

Weight: <None>
Min Conc: <None>

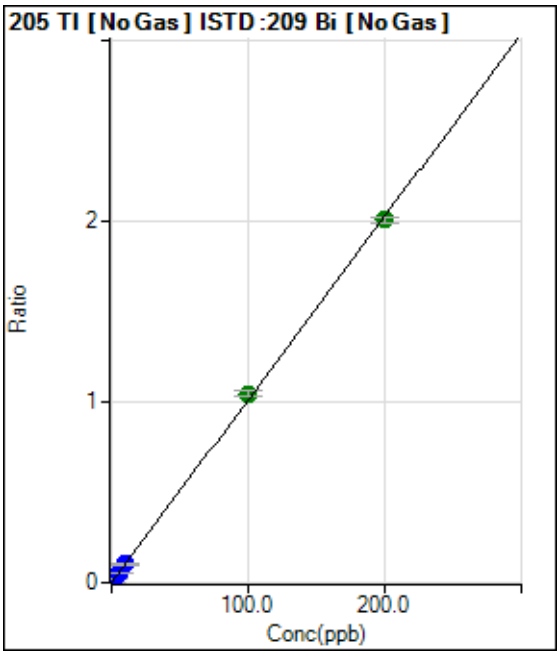
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0000	P	52.3
2	☐	2.000	1.971	24046.80	0.0085	P	3.7
3	☐	5.000	5.001	59669.25	0.0216	P	3.7
4	☐	10.000	9.842	117132.71	0.0425	P	4.2
5	☐	100.000	100.933	1191695.71	0.4354	A	3.1
6	☐	200.000	199.542	2347051.01	0.8607	A	4.1

y = 0.0043 * x + 1.6636E-005
R = 1.0000
DL = 0.006053
BEC = 0.003857

Weight: <None>
Min Conc: <None>

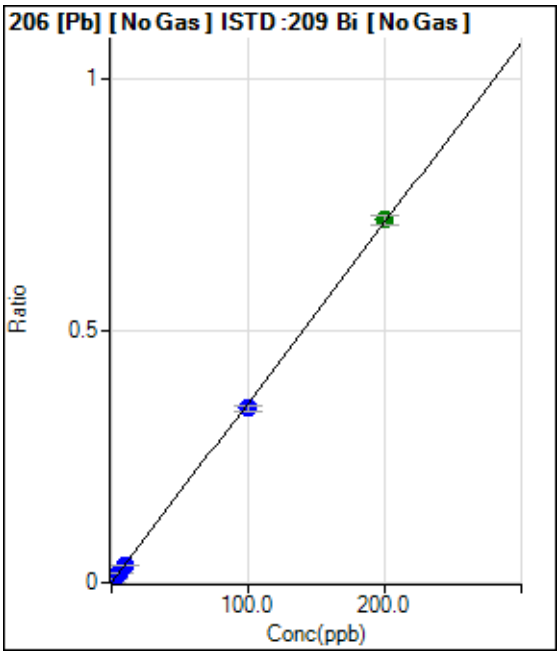


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	146.67	0.0001	P	14.7
2	☐	2.000	1.994	57040.54	0.0202	P	1.7
3	☐	5.000	5.140	143748.60	0.0520	P	4.3
4	☐	10.000	10.113	282135.44	0.1023	P	3.5
5	☐	100.000	103.482	2863957.46	1.0461	A	2.3
6	☐	200.000	198.250	5466401.38	2.0041	A	1.5

y = 0.0101 * x + 5.2628E-005
R = 0.9998
DL = 0.002303
BEC = 0.005206

Weight: <None>
Min Conc: <None>

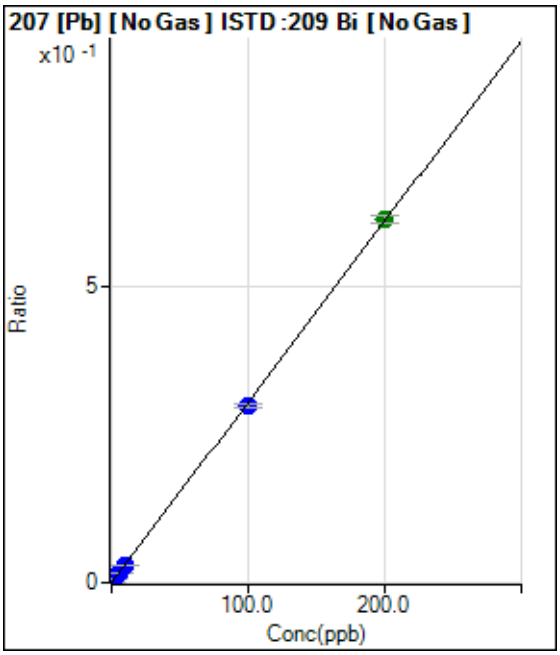
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	200.01	0.0001	P	10.8
2	☐	2.000	2.004	20410.29	0.0072	P	1.0
3	☐	5.000	4.897	48574.86	0.0176	P	1.3
4	☐	10.000	9.594	94765.51	0.0343	P	2.5
5	☐	100.000	96.838	947237.02	0.3460	P	3.0
6	☐	200.000	201.604	1964537.89	0.7203	A	2.5

y = 0.0036 * x + 7.1816E-005
R = 0.9998
DL = 0.006518
BEC = 0.0201

Weight: <None>
Min Conc: <None>

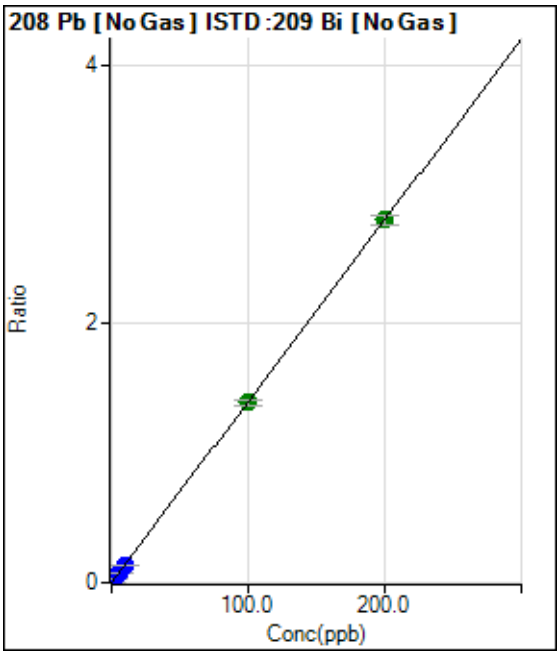


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	173.34	0.0001	P	36.6
2	☐	2.000	1.939	16911.80	0.0060	P	3.5
3	☐	5.000	4.990	42372.23	0.0153	P	1.2
4	☐	10.000	9.708	82086.59	0.0298	P	2.3
5	☐	100.000	98.305	823265.09	0.3007	P	2.4
6	☐	200.000	200.863	1675582.00	0.6143	A	2.0

y = 0.0031 * x + 6.2104E-005
R = 1.0000
DL = 0.02228
BEC = 0.02031

Weight: <None>
Min Conc: <None>

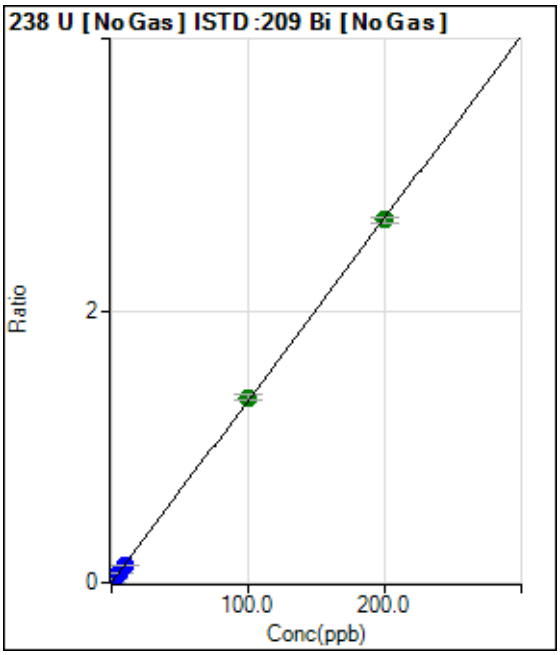
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	800.03	0.0003	P	21.0
2	☐	2.000	1.975	78885.19	0.0279	P	2.0
3	☐	5.000	4.972	193322.93	0.0699	P	1.5
4	☐	10.000	9.795	379280.50	0.1375	P	2.5
5	☐	100.000	99.591	3819059.21	1.3951	A	3.0
6	☐	200.000	200.216	7648615.87	2.8045	A	2.5

y = 0.0140 * x + 2.8716E-004
R = 1.0000
DL = 0.01292
BEC = 0.0205

Weight: <None>
Min Conc: <None>

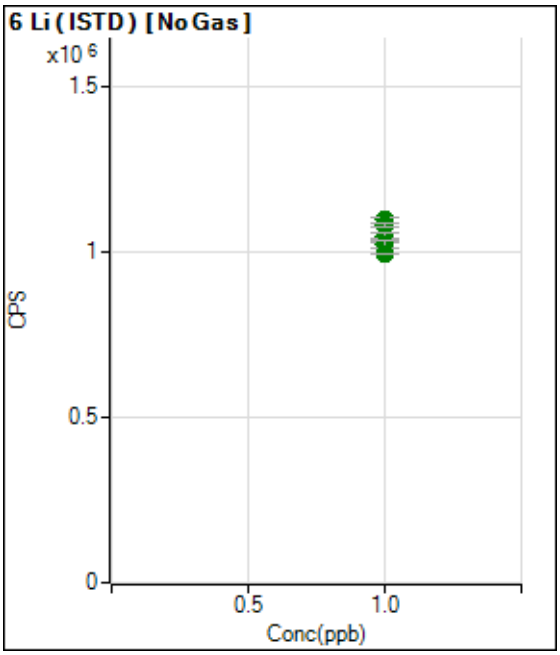


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0000	P	29.7
2	☐	2.000	1.924	72843.14	0.0258	P	0.5
3	☐	5.000	4.917	182184.29	0.0659	P	2.6
4	☐	10.000	9.545	352997.93	0.1279	P	1.6
5	☐	100.000	101.822	3735150.78	1.3644	A	2.2
6	☐	200.000	199.115	7277203.23	2.6680	A	1.8

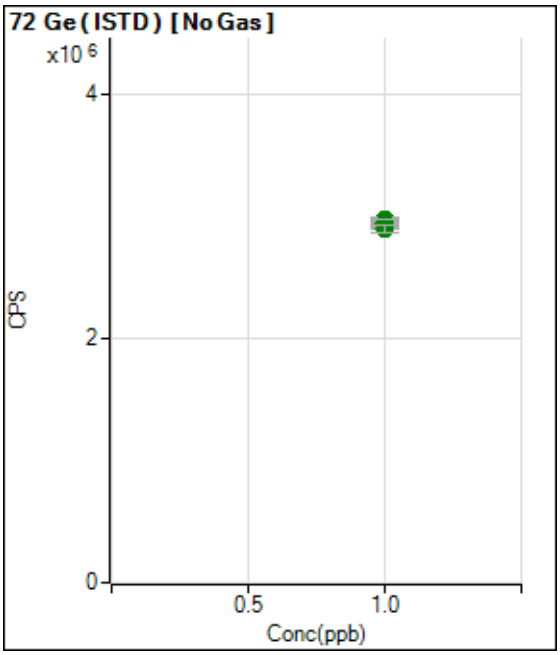
y = 0.0134 * x + 2.3907E-005
R = 0.9999
DL = 0.001588
BEC = 0.001784

Weight: <None>
Min Conc: <None>

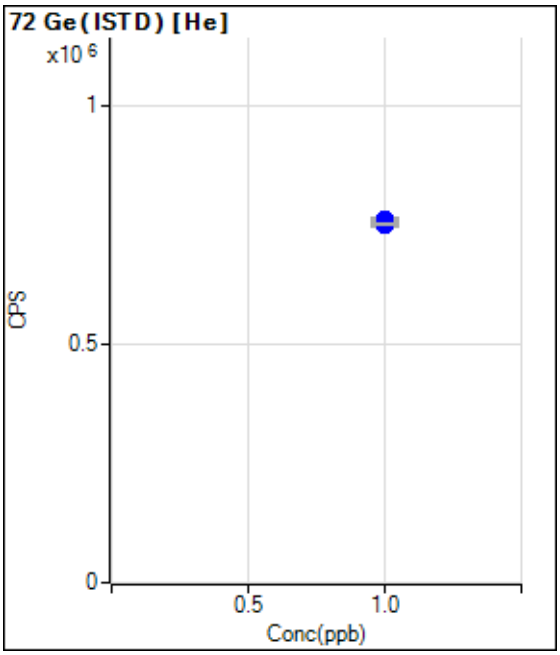
Calibration for 206_ICV.d



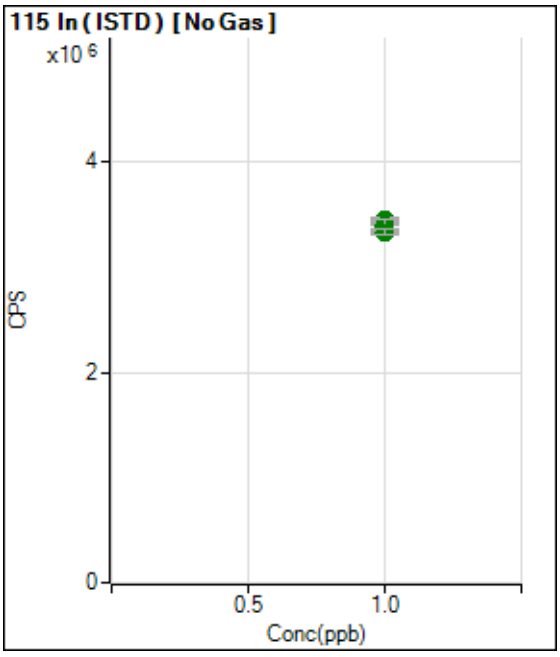
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1094872.39		A	1.4
2	☐	1.000		1078763.89		A	0.9
3	☐	1.000		1044348.09		A	2.8
4	☐	1.000		1046902.64		A	1.7
5	☐	1.000		1021380.09		A	2.1
6	☐	1.000		992856.72		A	0.3



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2974835.68		A	1.6
2	☐	1.000		2975180.69		A	1.2
3	☐	1.000		2958451.10		A	2.0
4	☐	1.000		2931373.29		A	1.9
5	☐	1.000		2951389.85		A	2.3
6	☐	1.000		2900632.98		A	2.1

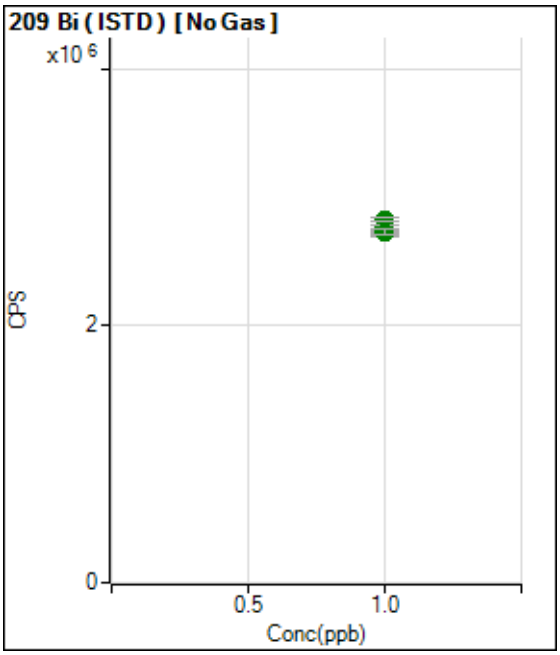


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		759177.98		P	1.3
2	☐	1.000		759752.70		P	0.1
3	☐	1.000		754141.81		P	1.1
4	☐	1.000		756777.39		P	1.7
5	☐	1.000		750962.93		P	1.2
6	☐	1.000		752657.44		P	0.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3399243.06		A	2.3
2	☐	1.000		3451516.99		A	1.8
3	☐	1.000		3381035.34		A	1.6
4	☐	1.000		3408604.39		A	2.7
5	☐	1.000		3321061.29		A	0.7
6	☐	1.000		3338513.00		A	1.7

Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2779836.00		A	2.7
2	☐	1.000		2822838.91		A	0.9
3	☐	1.000		2765877.25		A	3.0
4	☐	1.000		2760397.67		A	3.6
5	☐	1.000		2738696.00		A	2.9
6	☐	1.000		2728061.52		A	1.8

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	207LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:15:12-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	199CALB.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	1.955	1.955	12.53	99161	0.00	2	
Be	9	1	No Gas	1.976	1.976	4.13	7690	0.03	2	
V	51	2	He	1.671	1.671	3.86	15549	0.01	2	
Cr	52	2	He	1.968	1.968	5.64	30154	0.01	2	
Fe	56	2	He	210.012	210.012	5.90	1290468	0.02	200	
Se	78	2	He	1.728	1.728	10.10	392	0.44	2	
As	75	2	He	1.945	1.945	2.59	2488	0.08	2	
Ca	44	2	He	204.384	204.384	3.33	10568	1.93	200	
Na	23	2	He	199.856	199.856	2.08	287527	0.07	200	
Mg	24	2	He	216.716	216.716	1.38	134817	0.16	200	
K	39	2	He	202.640	202.640	2.04	354832	0.06	200	
Mn	55	2	He	1.925	1.925	2.10	11362	0.02	2	
Co	59	2	He	1.939	1.939	2.50	18376	0.01	2	
Ni	60	2	He	2.147	2.147	2.88	5081	0.04	2	
Cu	63	2	He	2.251	2.251	3.69	14221	0.02	2	
Zn	66	2	He	3.367	3.367	6.19	4748	0.07	2	NewName Main CR1 Failed
Al	27	2	He	2.283	2.283	7.36	2870	0.08	2	
B	11	1	No Gas	10.441	10.441	14.44	79237	0.01	10	
Al	27	1	No Gas	2.197	2.197	5.65	111182	0.00	2	
Si	28	1	No Gas	11.784	11.784	7.29	581016	0.00	10	
Ag	107	1	No Gas	2.067	2.067	0.48	36778	0.01	2	
Cd	111	1	No Gas	1.977	1.977	2.69	6995	0.03	2	
Sr	88	1	No Gas	2.041	2.041	1.67	78255	0.00	2	
Mo	95	1	No Gas	2.046	2.046	2.70	15095	0.01	2	
Sn	118	1	No Gas	2.081	2.081	2.87	24924	0.01	2	
Sb	121	1	No Gas	2.304	2.304	2.76	37665	0.01	2	
Ba	137	1	No Gas	1.931	1.931	2.57	12546	0.02	2	
Tl	205	1	No Gas	2.109	2.109	3.75	60989	0.00	2	
Tl	203	1	No Gas	2.081	2.081	0.76	25673	0.01	2	
Pb	208	1	No Gas	1.977	1.977	1.26	79876	0.00	2	
U	238	1	No Gas	1.941	1.941	2.27	74298	0.00	2	
Ca	43	2	He	187.446	187.446	27.79	593	31.59	200	
Sb	121	2	He	2.083	2.083	3.19	15172	0.01	2	
Ti	47	2	He	2.178	2.178	13.85	560	0.39	200	
Cu	63	1	No Gas	2.269	2.269	3.09	33405	0.01	2	
Se	82	1	No Gas	2.627	2.627	7.31	812	0.32	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	1080052	1.74	1094872	98.65	70	120	
Ge	72	2	He	790891	1.34	759178	104.18	70	120	
Ge	72	1	No Gas	3047608	1.17	2974836	102.45	70	120	
In	115	1	No Gas	3485345	0.39	3399243	102.53	70	120	
Bi	209	1	No Gas	2855327	2.65	2779836	102.72	70	120	

Sample Report

Sample Table

Sample Name	LLCCV5
Data File Name	208LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:17:23-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	199CALB.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	4.759	4.759	5.25	136657	0.00	5	
Be	9	1	No Gas	4.690	4.690	0.76	18397	0.03	5	
V	51	2	He	4.565	4.565	1.50	33563	0.01	5	
Cr	52	2	He	4.869	4.869	0.17	50500	0.01	5	
Fe	56	2	He	507.866	507.866	0.42	3102187	0.02	500	
Se	78	2	He	4.627	4.627	9.05	750	0.62	5	
As	75	2	He	4.798	4.798	2.92	5645	0.08	5	
Ca	44	2	He	481.838	481.838	1.02	23527	2.05	500	
Na	23	2	He	508.346	508.346	1.09	608344	0.08	500	
Mg	24	2	He	526.263	526.263	0.83	327261	0.16	500	
K	39	2	He	499.153	499.153	0.43	640284	0.08	500	
Mn	55	2	He	4.809	4.809	2.45	27421	0.02	5	
Co	59	2	He	4.829	4.829	1.02	45848	0.01	5	
Ni	60	2	He	4.870	4.870	5.60	11238	0.04	5	
Cu	63	2	He	4.892	4.892	2.26	29479	0.02	5	
Zn	66	2	He	5.014	5.014	3.37	6859	0.07	5	
Al	27	2	He	4.559	4.559	5.61	3917	0.12	5	
B	11	1	No Gas	21.123	21.123	4.00	103976	0.02	25	
Al	27	1	No Gas	4.375	4.375	7.08	148604	0.00	5	
Si	28	1	No Gas	27.065	27.065	9.22	718992	0.00	25	
Ag	107	1	No Gas	5.053	5.053	0.57	90116	0.01	5	
Cd	111	1	No Gas	4.788	4.788	1.60	17009	0.03	5	
Sr	88	1	No Gas	5.052	5.052	1.16	190009	0.00	5	
Mo	95	1	No Gas	4.745	4.745	2.64	34552	0.01	5	
Sn	118	1	No Gas	4.798	4.798	1.09	55267	0.01	5	
Sb	121	1	No Gas	4.709	4.709	4.51	77200	0.01	5	
Ba	137	1	No Gas	4.765	4.765	2.46	29805	0.02	5	
Tl	205	1	No Gas	4.936	4.936	0.88	143203	0.00	5	
Tl	203	1	No Gas	4.934	4.934	2.27	61060	0.01	5	
Pb	208	1	No Gas	4.852	4.852	1.00	195637	0.00	5	
U	238	1	No Gas	4.695	4.695	2.41	180402	0.00	5	
Ca	43	2	He	499.704	499.704	11.69	1467	34.07	500	
Sb	121	2	He	4.518	4.518	1.45	32868	0.01	5	
Ti	47	2	He	4.854	4.854	7.82	1230	0.39	5	
Cu	63	1	No Gas	4.947	4.947	4.03	69528	0.01	5	
Se	82	1	No Gas	5.342	5.342	5.50	1531	0.35	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	1090515	1.98	1094872	99.60	70	120	
Ge	72	2	He	794235	0.69	759178	104.62	70	120	
Ge	72	1	No Gas	3074808	2.90	2974836	103.36	70	120	

Sample Report

In	115	1	No Gas	3497365	1.65	3399243	102.89	70	120	
Bi	209	1	No Gas	2867249	2.02	2779836	103.14	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICCB
Data File Name	209_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:19:31-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	199CALB.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	Upper Limit	QC Flag
Li	7	1	No Gas	-0.160	-84.3	72644	1.6	0.5	
Be	9	1	No Gas	0.008	113.9	57	62.6	0.5	
V	51	2	He	-0.212	-4.8	3893	1.9	2.5	
Cr	52	2	He	0.117	28.8	17204	2.5	2.5	
Fe	56	2	He	-0.426	-50.9	20689	5.2	100	
Se	78	2	He	-0.072	-169.3	171	10.1	1	
As	75	2	He	0.023	238.6	376	17.4	2.5	
Ca	44	2	He	-6.951	-27.0	770	10.3	100	
Na	23	2	He	-17.071	-6.6	63330	1.2	100	
Mg	24	2	He	0.141	146.4	1137	9.7	100	
K	39	2	He	-0.257	-1947.0	160259	1.6	100	
Mn	55	2	He	0.016	106.2	800	13.0	2.5	
Co	59	2	He	0.002	6.8	100	0.0	2.5	
Ni	60	2	He	0.185	24.8	673	14.1	2.5	
Cu	63	2	He	0.082	39.0	1783	8.8	1	
Zn	66	2	He	0.234	16.3	780	5.6	2.5	
Al	27	2	He	-2.112	-9.9	877	10.0	5	
B	11	1	No Gas	-4.457	-15.7	46651	2.3	0.5	
Al	27	1	No Gas	-2.447	-3.6	34047	6.2	5	
Si	28	1	No Gas	0.208	572.8	481621	0.8	10	
Ag	107	1	No Gas	0.004	63.4	157	31.5	2.5	
Cd	111	1	No Gas	0.008	51.3	26	58.9	1	
Sr	88	1	No Gas	-0.032	-9.3	1750	6.0	2.5	
Mo	95	1	No Gas	-0.002	-375.1	417	13.2	2.5	
Sn	118	1	No Gas	0.061	41.9	2501	10.0	5	
Sb	121	1	No Gas	0.116	11.8	2267	7.2	2.5	
Ba	137	1	No Gas	-0.026	-79.0	697	16.8	2.5	
Tl	205	1	No Gas	0.014	13.1	550	9.4	1	
Tl	203	1	No Gas	0.015	6.2	233	4.9	1	
Pb	208	1	No Gas	0.005	37.1	987	6.7	2.5	
U	238	1	No Gas	0.005	25.1	257	18.4	2.5	
Ca	43	2	He	-16.775	-32.7	27	57.3	100	
Sb	121	2	He	0.112	10.9	963	10.2	2.5	
Ti	47	2	He	0.037	273.9	27	94.4	2.5	
Se	82	1	No Gas	-0.569	-76.9	-19	-594.1	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	1091333	1.79	1094872	99.68	70	120	

Initial Calibration Blank (ICB) Report

Ge	72	2	He	785511	1.41	759178	103.47	70	120	
Ge	72	1	No Gas	3052021	2.69	2974836	102.59	70	120	
In	115	1	No Gas	3484851	1.51	3399243	102.52	70	120	
Bi	209	1	No Gas	2803595	0.14	2779836	100.85	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	211_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:23:25-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
n	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	97.571	2.199	1303428	2.18	100	97.6	90	110	
Be	9	1	No Gas	98.015	1.101	371870	1.00	100	98.0	90	110	
V	51	2	He	99.298	1.733	601956	0.36	100	99.3	90	110	
Cr	52	2	He	97.811	1.327	676555	0.30	100	97.8	90	110	
Fe	56	2	He	10101.559	2.004	59369809	1.08	10000	101.0	90	110	
Se	78	2	He	99.308	1.060	12002	0.88	100	99.3	90	110	
As	75	2	He	99.556	1.394	106760	0.12	100	99.6	90	110	
Ca	44	2	He	10035.790	1.761	453747	0.59	10000	100.4	90	110	
Na	23	2	He	10021.629	2.628	10140585	1.26	10000	100.2	90	110	
Mg	24	2	He	9926.725	1.397	5964724	0.54	10000	99.3	90	110	
K	39	2	He	10112.579	2.104	9541769	0.71	10000	101.1	90	110	
Mn	55	2	He	98.739	1.754	532104	0.66	100	98.7	90	110	
Co	59	2	He	96.729	1.528	888636	0.80	100	96.7	90	110	
Ni	60	2	He	100.368	1.851	219423	1.14	100	100.4	90	110	
Cu	63	2	He	98.863	1.260	552560	0.45	100	98.9	90	110	
Zn	66	2	He	99.174	0.696	122512	0.85	100	99.2	90	110	
Al	27	2	He	96.591	2.465	44304	1.34	100	96.6	90	110	
B	11	1	No Gas	489.360	0.975	1117641	0.75	500	97.9	90	110	
Al	27	1	No Gas	99.612	3.564	1705276	1.80	100	99.6	90	110	
Si	28	1	No Gas	505.958	2.428	4779059	1.13	5000	10.1	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.804	1.071	1752364	2.98	100	100.8	90	110	
Cd	111	1	No Gas	99.040	1.612	343167	0.63	100	99.0	90	110	
Sr	88	1	No Gas	100.931	3.541	3647900	2.03	100	100.9	90	110	
Mo	95	1	No Gas	96.891	1.489	680022	0.92	100	96.9	90	110	
Sn	118	1	No Gas	96.558	1.555	1050385	0.58	100	96.6	90	110	
Sb	121	1	No Gas	95.720	1.485	1526809	0.78	100	95.7	90	110	
Ba	137	1	No Gas	98.334	1.474	583390	0.64	100	98.3	90	110	
Tl	205	1	No Gas	102.391	3.269	2854141	1.02	100	102.4	90	110	
Tl	203	1	No Gas	102.579	3.096	1220157	1.10	100	102.6	90	110	
Pb	208	1	No Gas	98.731	2.249	3814375	1.10	100	98.7	90	110	
U	238	1	No Gas	101.689	1.777	3757965	0.47	100	101.7	90	110	
Ca	43	2	He	9695.337	2.633	26282	2.29	10000	97.0	90	110	
Sb	121	2	He	91.350	1.368	641069	0.49	100	91.3	90	110	
Ti	47	2	He	99.512	5.532	24111	4.49	100	99.5	90	110	
Cu	63	1	No Gas	100.849	1.259	1323201	2.31	100	100.8	90	110	
Se	82	1	No Gas	101.389	3.156	26154	0.93	100	101.4	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	1055983	0.24	1094872	96.45	70	120	
Ge	72	2	He	769867	1.36	759178	101.41	70	120	
Ge	72	1	No Gas	3004582	2.22	2974836	101.00	70	120	
In	115	1	No Gas	3411405	1.98	3399243	100.36	70	120	
Bi	209	1	No Gas	2758676	2.22	2779836	99.24	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	212_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:25:30-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	199CALB.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	Upper Limit	QC Flag
Li	7	1	No Gas	-0.084	-81.9	73532	0.8	0.5	
Be	9	1	No Gas	0.015	16.9	85	11.8	0.5	
V	51	2	He	-0.250	-3.5	3674	1.5	2.5	
Cr	52	2	He	0.097	13.3	17131	0.6	2.5	
Fe	56	2	He	-0.031	-470.7	23153	3.8	100	
Se	78	2	He	-0.104	-40.3	167	3.0	2	
As	75	2	He	0.000	18630.2	351	7.1	2.5	
Ca	44	2	He	-7.820	-27.4	733	13.5	100	
Na	23	2	He	-17.340	-3.7	63300	1.0	100	
Mg	24	2	He	0.517	23.8	1373	5.5	100	
K	39	2	He	2.441	81.5	163469	1.2	100	
Mn	55	2	He	0.062	48.0	1053	15.5	2.5	
Co	59	2	He	0.007	14.1	150	6.7	2.5	
Ni	60	2	He	0.110	35.1	510	17.0	2.5	
Cu	63	2	He	-0.039	-74.0	1100	15.0	2	
Zn	66	2	He	0.302	5.2	870	2.3	2.5	
Al	27	2	He	-2.246	-9.1	820	11.2	5	
B	11	1	No Gas	-2.761	-10.4	50392	1.7	0.5	
Al	27	1	No Gas	-2.392	-0.1	34884	0.9	5	
Si	28	1	No Gas	0.387	96.5	482264	0.8	10	
Ag	107	1	No Gas	0.009	41.2	243	28.0	2.5	
Cd	111	1	No Gas	0.003	57.5	5	98.2	1	
Sr	88	1	No Gas	-0.020	-8.6	2167	1.4	2.5	
Mo	95	1	No Gas	0.059	50.6	843	23.5	2.5	
Sn	118	1	No Gas	0.144	29.8	3377	13.3	5	
Sb	121	1	No Gas	0.567	16.8	9537	15.4	2.5	
Ba	137	1	No Gas	-0.075	-5.3	397	6.3	2.5	
Tl	205	1	No Gas	0.081	22.7	2464	22.1	1	
Tl	203	1	No Gas	0.086	13.5	1093	13.8	1	
Pb	208	1	No Gas	0.010	17.7	1187	6.4	2.5	
U	238	1	No Gas	0.027	22.5	1103	21.9	2.5	
Ca	43	2	He	-15.570	-23.2	30	33.3	100	
Sb	121	2	He	0.391	4.1	2974	3.9	2.5	
Ti	47	2	He	-0.043	-53.7	7	86.6	2.5	
Cu	63	1	No Gas	-0.019	-48.8	3037	3.1	2.5	
Se	82	1	No Gas	-0.356	-40.4	35	109.9	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag

Continuing Calibration Blank (CCB) Report

Li	6	1	No Gas	1089651	1.43	1094872	99.52	70	120	
Ge	72	2	He	788461	0.04	759178	103.86	70	120	
Ge	72	1	No Gas	3045275	0.94	2974836	102.37	70	120	
In	115	1	No Gas	3437491	1.41	3399243	101.13	70	120	
Bi	209	1	No Gas	2810689	0.88	2779836	101.11	70	120	

Sample Report

Sample Table

Sample Name	MBLK-197423
Data File Name	213SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:27:40-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	-0.128	-0.128	-43.90	72452	0.00	2000	
Be	9	1	No Gas	0.005	0.005	22.69	45	0.01	2000	
V	51	2	He	-0.261	-0.261	-1.96	3623	-0.01	2000	
Cr	52	2	He	-0.008	-0.008	-676.81	16473	0.00	2000	
Fe	56	2	He	-0.233	-0.233	-18.73	22041	0.00	200000	
Se	78	2	He	-0.207	-0.207	-107.07	155	-0.13	2000	
As	75	2	He	-0.014	-0.014	-189.75	338	0.00	2000	
Ca	44	2	He	-2.579	-2.579	-34.48	980	-0.26	200000	
Na	23	2	He	-14.729	-14.729	-4.50	66287	-0.02	200000	
Mg	24	2	He	0.189	0.189	74.25	1177	0.02	200000	
K	39	2	He	0.700	0.700	423.49	162538	0.00	200000	
Mn	55	2	He	-0.003	-0.003	-740.44	697	0.00	2000	
Co	59	2	He	0.002	0.002	21.17	103	0.00	2000	
Ni	60	2	He	-0.034	-0.034	-61.74	187	-0.02	2000	
Cu	63	2	He	-0.062	-0.062	-41.59	973	-0.01	2000	
Zn	66	2	He	0.086	0.086	30.39	600	0.01	2000	
Al	27	2	He	0.468	0.468	37.80	2054	0.02	2000	
B	11	1	No Gas	-5.840	-5.840	-7.44	43176	-0.01	2000	
Al	27	1	No Gas	0.110	0.110	71.08	76831	0.00	2000	
Si	28	1	No Gas	1.117	1.117	59.58	491128	0.00	2000	
Ag	107	1	No Gas	0.003	0.003	62.11	127	0.00	2000	
Cd	111	1	No Gas	0.005	0.005	87.05	13	0.04	2000	
Sr	88	1	No Gas	0.007	0.007	113.42	3164	0.00	2000	
Mo	95	1	No Gas	0.002	0.002	306.38	447	0.00	2000	
Sn	118	1	No Gas	-0.007	-0.007	-118.90	1747	0.00	2000	
Sb	121	1	No Gas	0.126	0.126	9.12	2427	0.01	2000	
Ba	137	1	No Gas	-0.011	-0.011	-185.81	793	0.00	2000	
Tl	205	1	No Gas	0.010	0.010	25.02	440	0.00	2000	
Tl	203	1	No Gas	0.013	0.013	11.81	203	0.01	2000	
Pb	208	1	No Gas	0.001	0.001	349.39	840	0.00	2000	
U	238	1	No Gas	0.005	0.005	10.70	250	0.00	2000	
Ca	43	2	He	-6.147	-6.147	-184.65	57	-10.85	200000	
Sb	121	2	He	0.115	0.115	13.19	990	0.01	2000	
Ti	47	2	He	0.024	0.024	104.93	23	0.10	2000	
Cu	63	1	No Gas	-0.037	-0.037	-61.66	2804	0.00	2000	
Zn	66	1	No Gas	-0.014	-0.014	-179.05	1954	0.00	2000	
Se	82	1	No Gas	0.738	0.738	39.83	321	0.23	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	1081914	1.04	1094872	98.82	70	120	
Ge	72	2	He	792128	1.55	759178	104.34	70	120	
Ge	72	1	No Gas	3061223	1.23	2974836	102.90	70	120	
In	115	1	No Gas	3482070	0.89	3399243	102.44	70	120	

Sample Report

Bi	209	1	No Gas	2790005	1.89	2779836	100.37	70	120	

Sample Report

Sample Table

Sample Name	LCS-197423
Data File Name	214SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:29:40-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	93.699	93.699	1.77	1332428	0.01	2000	
Be	9	1	No Gas	45.931	45.931	1.26	185102	0.02	2000	
V	51	2	He	44.367	44.367	1.55	288553	0.02	2000	
Cr	52	2	He	44.174	44.174	1.15	333764	0.01	2000	
Fe	56	2	He	4667.144	4667.144	0.52	29138267	0.02	200000	
Se	78	2	He	45.894	45.894	0.36	5989	0.77	2000	
As	75	2	He	45.736	45.736	1.56	52269	0.09	2000	
Ca	44	2	He	4728.729	4728.729	1.37	227599	2.08	200000	
Na	23	2	He	4681.047	4681.047	3.03	5073987	0.09	200000	
Mg	24	2	He	4776.679	4776.679	1.62	3047926	0.16	200000	
K	39	2	He	4714.151	4714.151	0.97	4812148	0.10	200000	
Mn	55	2	He	44.400	44.400	0.67	254465	0.02	2000	
Co	59	2	He	43.931	43.931	0.83	428564	0.01	2000	
Ni	60	2	He	45.460	45.460	1.81	105664	0.04	2000	
Cu	63	2	He	45.245	45.245	0.88	269232	0.02	2000	
Zn	66	2	He	47.631	47.631	2.50	62725	0.08	2000	
Al	27	2	He	94.423	94.423	1.27	46033	0.21	2000	
B	11	1	No Gas	445.200	445.200	2.29	1085102	0.04	2000	
Al	27	1	No Gas	98.314	98.314	0.73	1797089	0.01	2000	
Si	28	1	No Gas	581.932	581.932	0.30	5789387	0.01	2000	
Ag	107	1	No Gas	47.013	47.013	2.73	839674	0.01	2000	
Cd	111	1	No Gas	46.569	46.569	2.26	165845	0.03	2000	
Sr	88	1	No Gas	95.476	95.476	2.45	3547408	0.00	2000	
Mo	95	1	No Gas	45.061	45.061	2.93	325232	0.01	2000	
Sn	118	1	No Gas	91.187	91.187	0.91	1019848	0.01	2000	
Sb	121	1	No Gas	43.895	43.895	0.79	747212	0.01	2000	
Ba	137	1	No Gas	44.761	44.761	3.25	273358	0.02	2000	
Tl	205	1	No Gas	37.356	37.356	1.80	1090442	0.00	2000	
Tl	203	1	No Gas	36.244	36.244	0.97	451443	0.01	2000	
Pb	208	1	No Gas	44.321	44.321	0.78	1793093	0.00	2000	
U	238	1	No Gas	91.774	91.774	0.15	3550579	0.00	2000	
Ca	43	2	He	4693.400	4693.400	1.88	13547	34.65	200000	
Sb	121	2	He	43.446	43.446	1.22	323795	0.01	2000	
Ti	47	2	He	138.812	138.812	1.50	35714	0.39	2000	
Cu	63	1	No Gas	45.911	45.911	1.13	644428	0.01	2000	
Zn	66	1	No Gas	48.024	48.024	1.14	190834	0.03	2000	
Se	82	1	No Gas	44.748	44.748	0.77	12393	0.36	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	1121655	1.20	1094872	102.45	70	120	
Ge	72	2	He	817338	0.90	759178	107.66	70	120	
Ge	72	1	No Gas	3205002	1.03	2974836	107.74	70	120	
In	115	1	No Gas	3506706	2.37	3399243	103.16	70	120	

Sample Report

Bi	209	1	No Gas	2887262	0.10	2779836	103.86	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05SD
Data File Name	216SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:33:58-05:00
Sample Type	Sample
Dilution	5
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	5.444	27.219	2.41	146559	0.00	2000	
Be	9	1	No Gas	0.013	0.067	9.74	78	0.02	2000	
V	51	2	He	-0.124	-0.620	-11.82	4492	0.00	2000	
Cr	52	2	He	43.946	219.729	2.25	323312	0.01	2000	
Fe	56	2	He	19325.005	96625.023	1.73	117377708	0.02	200000	
Se	78	2	He	-0.205	-1.023	-151.99	156	-0.13	2000	
As	75	2	He	0.005	0.023	729.41	359	0.00	2000	
Ca	44	2	He	4937.406	24687.029	1.93	231300	2.13	200000	
Na	23	2	He	17710.421	88552.107	2.51	18460938	0.10	200000	
Mg	24	2	He	2656.341	13281.703	2.46	1650404	0.16	200000	
K	39	2	He	677.051	3385.256	3.55	811954	0.08	200000	
Mn	55	2	He	227.068	1135.341	2.68	1263731	0.02	2000	
Co	59	2	He	0.103	0.517	5.01	1063	0.01	2000	
Ni	60	2	He	7.636	38.180	3.24	17498	0.04	2000	
Cu	63	2	He	0.674	3.370	3.39	5221	0.01	2000	
Zn	66	2	He	1.782	8.911	0.81	2760	0.06	2000	
Al	27	2	He	5.212	26.060	9.85	4221	0.12	2000	
B	11	1	No Gas	5.369	26.843	7.16	69117	0.01	2000	
Al	27	1	No Gas	5.063	25.315	3.83	158809	0.00	2000	
Si	28	1	No Gas	4246.558	21232.789	1.09	37153005	0.01	2000	>LDR
Ag	107	1	No Gas	0.005	0.023	45.98	160	0.00	2000	
Cd	111	1	No Gas	0.023	0.117	42.21	79	0.03	2000	
Sr	88	1	No Gas	98.536	492.682	2.85	3603178	0.00	2000	
Mo	95	1	No Gas	0.295	1.476	1.61	2524	0.01	2000	
Sn	118	1	No Gas	0.069	0.347	18.38	2574	0.00	2000	
Sb	121	1	No Gas	0.072	0.359	4.84	1547	0.00	2000	
Ba	137	1	No Gas	90.758	453.790	1.03	544767	0.02	2000	
Tl	205	1	No Gas	0.060	0.302	22.38	1847	0.00	2000	
Tl	203	1	No Gas	0.061	0.307	19.63	783	0.01	2000	
Pb	208	1	No Gas	0.021	0.105	2.61	1623	0.00	2000	
U	238	1	No Gas	0.015	0.074	25.77	617	0.00	2000	
Ca	43	2	He	4961.088	24805.441	6.82	13941	35.59	200000	
Sb	121	2	He	0.072	0.359	7.91	687	0.01	2000	
Ti	47	2	He	0.663	3.317	25.81	183	0.36	2000	
Cu	63	1	No Gas	0.900	4.500	5.21	15232	0.01	2000	
Zn	66	1	No Gas	1.502	7.509	4.89	7609	0.02	2000	
Se	82	1	No Gas	0.166	0.828	137.83	171	0.10	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	1097682	1.45	1094872	100.26	70	120	
Ge	72	2	He	795826	2.05	759178	104.83	70	120	
Ge	72	1	No Gas	3047750	1.30	2974836	102.45	70	120	
In	115	1	No Gas	3450661	1.38	3399243	101.51	70	120	

Sample Report

Bi	209	1	No Gas	2787492	0.84	2779836	100.28	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05MS
Data File Name	217SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:35:54-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	117.286	117.286	1.24	1643549	0.01	2000	
Be	9	1	No Gas	44.149	44.149	1.83	177373	0.02	2000	
V	51	2	He	44.760	44.760	1.44	286734	0.02	2000	
Cr	52	2	He	247.927	247.927	1.58	1767812	0.01	2000	
Fe	56	2	He	95738.831	95738.831	1.84	588325378	0.02	200000	
Se	78	2	He	44.592	44.592	3.07	5737	0.78	2000	
As	75	2	He	45.385	45.385	2.38	51096	0.09	2000	
Ca	44	2	He	29964.026	29964.026	1.53	1414779	2.12	200000	
Na	23	2	He	90130.446	90130.446	1.24	94737155	0.10	200000	
Mg	24	2	He	17004.031	17004.031	1.60	10685538	0.16	200000	
K	39	2	He	7965.476	7965.476	2.23	7896054	0.10	200000	
Mn	55	2	He	1088.649	1088.649	3.20	6128389	0.02	2000	
Co	59	2	He	44.039	44.039	2.69	423164	0.01	2000	
Ni	60	2	He	80.556	80.556	3.00	184236	0.04	2000	
Cu	63	2	He	47.408	47.408	0.96	277844	0.02	2000	
Zn	66	2	He	49.942	49.942	2.13	64771	0.08	2000	
Al	27	2	He	140.055	140.055	14.23	66318	0.21	2000	
B	11	1	No Gas	499.793	499.793	1.89	1207391	0.04	2000	
Al	27	1	No Gas	129.218	129.218	3.62	2280862	0.01	2000	
Si	28	1	No Gas	20809.314	20809.314	2.16	184938104	0.01	2000	>LDR
Ag	107	1	No Gas	45.171	45.171	2.26	780706	0.01	2000	
Cd	111	1	No Gas	45.474	45.474	1.54	156727	0.03	2000	
Sr	88	1	No Gas	568.025	568.025	2.00	20408458	0.00	2000	
Mo	95	1	No Gas	45.960	45.960	1.99	321013	0.01	2000	
Sn	118	1	No Gas	88.625	88.625	2.61	958907	0.01	2000	
Sb	121	1	No Gas	42.592	42.592	0.97	707700	0.01	2000	
Ba	137	1	No Gas	488.126	488.126	1.50	2876988	0.02	2000	
Tl	205	1	No Gas	37.422	37.422	2.57	1002708	0.00	2000	
Tl	203	1	No Gas	36.402	36.402	2.57	416187	0.01	2000	
Pb	208	1	No Gas	44.365	44.365	2.02	1647708	0.00	2000	
U	238	1	No Gas	94.896	94.896	3.87	3369449	0.00	2000	
Ca	43	2	He	28461.846	28461.846	1.70	80552	35.33	200000	
Sb	121	2	He	42.289	42.289	1.16	310494	0.01	2000	
Ti	47	2	He	142.868	142.868	1.85	36208	0.39	2000	
Cu	63	1	No Gas	47.934	47.934	0.79	656607	0.01	2000	
Zn	66	1	No Gas	50.839	50.839	2.72	197046	0.03	2000	
Se	82	1	No Gas	47.578	47.578	2.76	12851	0.37	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	1118236	1.05	1094872	102.13	70	120	
Ge	72	2	He	805179	0.84	759178	106.06	70	120	
Ge	72	1	No Gas	3128446	1.31	2974836	105.16	70	120	
In	115	1	No Gas	3393052	2.23	3399243	99.82	70	120	

Sample Report

Bi	209	1	No Gas	2651066	1.86	2779836	95.37	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05MSD
Data File Name	218SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:38:05-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	119.238	119.238	4.22	1636553	0.01	2000	
Be	9	1	No Gas	44.750	44.750	2.33	176284	0.03	2000	
V	51	2	He	44.921	44.921	0.66	284266	0.02	2000	
Cr	52	2	He	250.422	250.422	1.21	1763858	0.01	2000	
Fe	56	2	He	94809.237	94809.237	0.89	575571978	0.02	200000	
Se	78	2	He	43.780	43.780	2.92	5569	0.79	2000	
As	75	2	He	45.116	45.116	0.45	50184	0.09	2000	
Ca	44	2	He	30010.537	30010.537	1.26	1399850	2.14	200000	
Na	23	2	He	90523.608	90523.608	1.28	93998455	0.10	200000	
Mg	24	2	He	17072.623	17072.623	0.60	10598899	0.16	200000	
K	39	2	He	7885.279	7885.279	0.39	7723931	0.10	200000	
Mn	55	2	He	1089.781	1089.781	1.03	6061161	0.02	2000	
Co	59	2	He	43.603	43.603	1.26	413935	0.01	2000	
Ni	60	2	He	80.804	80.804	0.60	182582	0.04	2000	
Cu	63	2	He	46.922	46.922	0.69	271669	0.02	2000	
Zn	66	2	He	50.297	50.297	1.80	64440	0.08	2000	
Al	27	2	He	128.738	128.738	3.27	60400	0.21	2000	
B	11	1	No Gas	501.420	501.420	2.69	1187523	0.04	2000	
Al	27	1	No Gas	125.134	125.134	1.33	2201589	0.01	2000	
Si	28	1	No Gas	20834.967	20834.967	1.50	184317477	0.01	2000	>LDR
Ag	107	1	No Gas	45.108	45.108	0.48	770568	0.01	2000	
Cd	111	1	No Gas	45.844	45.844	0.75	156138	0.03	2000	
Sr	88	1	No Gas	571.131	571.131	0.73	20281233	0.00	2000	
Mo	95	1	No Gas	45.957	45.957	0.36	317260	0.01	2000	
Sn	118	1	No Gas	89.370	89.370	0.60	955760	0.01	2000	
Sb	121	1	No Gas	42.503	42.503	1.36	702914	0.01	2000	
Ba	137	1	No Gas	490.855	490.855	1.52	2859042	0.02	2000	
Tl	205	1	No Gas	37.454	37.454	0.89	998524	0.00	2000	
Tl	203	1	No Gas	36.768	36.768	2.71	418195	0.01	2000	
Pb	208	1	No Gas	44.270	44.270	1.47	1635607	0.00	2000	
U	238	1	No Gas	94.394	94.394	2.14	3334973	0.00	2000	
Ca	43	2	He	28415.609	28415.609	0.78	79448	35.77	200000	
Sb	121	2	He	42.050	42.050	0.32	304998	0.01	2000	
Ti	47	2	He	141.129	141.129	2.29	35336	0.40	2000	
Cu	63	1	No Gas	47.964	47.964	0.43	653975	0.01	2000	
Zn	66	1	No Gas	51.014	51.014	1.32	196821	0.03	2000	
Se	82	1	No Gas	46.057	46.057	4.97	12390	0.37	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	1096802	2.75	1094872	100.18	70	120	
Ge	72	2	He	795372	0.17	759178	104.77	70	120	
Ge	72	1	No Gas	3113765	0.76	2974836	104.67	70	120	
In	115	1	No Gas	3352622	0.50	3399243	98.63	70	120	

Sample Report

Bi	209	1	No Gas	2637215	1.98	2779836	94.87	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05PDS
Data File Name	219SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:40:14-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	26.193	26.193	2.60	426165	0.01	2000	
Be	9	1	No Gas	86.687	86.687	1.06	348001	0.02	2000	
V	51	2	He	88.682	88.682	3.13	555869	0.02	2000	
Cr	52	2	He	293.876	293.876	3.70	2066220	0.01	2000	
Fe	56	2	He	99412.655	99412.655	3.63	603261124	0.02	200000	
Se	78	2	He	87.711	87.711	2.96	10970	0.80	2000	
As	75	2	He	90.041	90.041	2.24	99780	0.09	2000	
Ca	44	2	He	33953.235	33953.235	3.34	1583078	2.14	200000	
Na	23	2	He	93924.940	93924.940	2.03	97508312	0.10	200000	
Mg	24	2	He	21537.790	21537.790	3.19	13365650	0.16	200000	
K	39	2	He	12552.404	12552.404	2.62	12196039	0.10	200000	
Mn	55	2	He	1120.776	1120.776	3.47	6231285	0.02	2000	
Co	59	2	He	85.586	85.586	2.44	812240	0.01	2000	
Ni	60	2	He	122.210	122.210	1.95	275959	0.04	2000	
Cu	63	2	He	89.653	89.653	1.79	517798	0.02	2000	
Zn	66	2	He	94.196	94.196	2.99	120209	0.08	2000	
Al	27	2	He	132.003	132.003	7.45	61825	0.21	2000	
B	11	1	No Gas	47.600	47.600	2.50	167391	0.03	2000	
Al	27	1	No Gas	141.329	141.329	11.29	2439607	0.01	2000	
Si	28	1	No Gas	20505.442	20505.442	0.74	178680251	0.01	2000	>LDR
Ag	107	1	No Gas	91.657	91.657	0.50	1557255	0.01	2000	
Cd	111	1	No Gas	89.599	89.599	0.63	303510	0.03	2000	
Sr	88	1	No Gas	467.787	467.787	1.34	16522699	0.00	2000	
Mo	95	1	No Gas	89.191	89.191	0.27	612002	0.01	2000	
Sn	118	1	No Gas	0.346	0.346	12.87	5421	0.01	2000	
Sb	121	1	No Gas	85.979	85.979	2.57	1400276	0.01	2000	
Ba	137	1	No Gas	529.772	529.772	1.84	3068841	0.02	2000	
Tl	205	1	No Gas	79.895	79.895	2.72	2084119	0.00	2000	
Tl	203	1	No Gas	76.175	76.175	1.41	847991	0.01	2000	
Pb	208	1	No Gas	88.491	88.491	1.82	3199086	0.00	2000	
U	238	1	No Gas	0.048	0.048	26.62	1734	0.00	2000	
Ca	43	2	He	32565.386	32565.386	3.54	91003	35.78	200000	
Sb	121	2	He	82.721	82.721	2.23	599720	0.01	2000	
Ti	47	2	He	95.643	95.643	1.72	23951	0.40	2000	
Cu	63	1	No Gas	94.595	94.595	2.53	1267198	0.01	2000	
Zn	66	1	No Gas	95.074	95.074	0.62	359570	0.03	2000	
Se	82	1	No Gas	91.682	91.682	3.67	24160	0.38	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	1117442	1.66	1094872	102.06	70	120	
Ge	72	2	He	795479	2.37	759178	104.78	70	120	
Ge	72	1	No Gas	3066762	0.55	2974836	103.09	70	120	
In	115	1	No Gas	3334530	0.90	3399243	98.10	70	120	

Sample Report

Bi	209	1	No Gas	2580936	1.31	2779836	92.84	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	220_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:42:23-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
n	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	95.683	3.777	1337674	0.46	100	95.7	90	110	
Be	9	1	No Gas	94.195	3.335	373626	0.31	100	94.2	90	110	
V	51	2	He	99.664	0.897	611235	0.66	100	99.7	90	110	
Cr	52	2	He	97.891	1.126	684996	0.88	100	97.9	90	110	
Fe	56	2	He	10071.940	1.041	59888859	0.59	10000	100.7	90	110	
Se	78	2	He	98.618	2.055	12058	1.61	100	98.6	90	110	
As	75	2	He	100.014	1.094	108503	0.91	100	100.0	90	110	
Ca	44	2	He	10220.136	1.199	467471	0.87	10000	102.2	90	110	
Na	23	2	He	10195.111	0.315	10436645	0.52	10000	102.0	90	110	
Mg	24	2	He	10210.595	0.381	6207107	0.83	10000	102.1	90	110	
K	39	2	He	10251.407	2.353	9783895	1.99	10000	102.5	90	110	
Mn	55	2	He	98.243	1.314	535628	0.92	100	98.2	90	110	
Co	59	2	He	96.748	1.002	899192	0.73	100	96.7	90	110	
Ni	60	2	He	100.276	1.593	221783	1.31	100	100.3	90	110	
Cu	63	2	He	98.814	0.573	558734	0.27	100	98.8	90	110	
Zn	66	2	He	98.675	1.791	123309	1.30	100	98.7	90	110	
Al	27	2	He	98.036	1.180	45468	0.80	100	98.0	90	110	
B	11	1	No Gas	480.178	3.423	1147729	1.66	500	96.0	90	110	
Al	27	1	No Gas	100.604	0.825	1730946	1.31	100	100.6	90	110	
Si	28	1	No Gas	526.693	2.433	4981102	1.14	5000	10.5	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.847	0.848	1740496	0.78	100	100.8	90	110	
Cd	111	1	No Gas	99.931	1.324	343862	0.48	100	99.9	90	110	
Sr	88	1	No Gas	101.214	1.866	3633492	1.21	100	101.2	90	110	
Mo	95	1	No Gas	98.249	0.987	684769	0.30	100	98.2	90	110	
Sn	118	1	No Gas	96.414	1.157	1041581	0.60	100	96.4	90	110	
Sb	121	1	No Gas	94.616	1.851	1516893	0.27	100	94.6	90	110	
Ba	137	1	No Gas	96.770	0.711	570170	0.41	100	96.8	90	110	
Tl	205	1	No Gas	103.713	2.333	2784441	1.39	100	103.7	90	110	
Tl	203	1	No Gas	99.982	1.235	1145471	0.44	100	100.0	90	110	
Pb	208	1	No Gas	98.554	1.457	3666725	0.42	100	98.6	90	110	
U	238	1	No Gas	100.027	2.670	3559317	1.37	100	100.0	90	110	
Ca	43	2	He	9988.555	3.036	27394	3.50	10000	99.9	90	110	
Sb	121	2	He	90.055	0.895	639360	0.55	100	90.1	90	110	
Ti	47	2	He	103.536	0.020	25387	0.48	100	103.5	90	110	
Cu	63	1	No Gas	101.293	2.759	1335384	0.76	100	101.3	90	110	
Se	82	1	No Gas	100.916	3.983	26164	1.97	100	100.9	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	1104746	3.15	1094872	100.90	70	120	
Ge	72	2	He	778783	0.49	759178	102.58	70	120	
Ge	72	1	No Gas	3019982	2.03	2974836	101.52	70	120	
In	115	1	No Gas	3387425	1.07	3399243	99.65	70	120	
Bi	209	1	No Gas	2656199	1.36	2779836	95.55	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	221_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:44:15-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	199CALB.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	Upper Limit	QC Flag
Li	7	1	No Gas	0.066	58.4	77332	1.1	0.5	
Be	9	1	No Gas	0.015	56.1	87	40.9	0.5	
V	51	2	He	-0.368	-3.6	2966	2.4	2.5	
Cr	52	2	He	0.120	51.0	17401	2.4	2.5	
Fe	56	2	He	3.394	20.7	44049	9.4	100	
Se	78	2	He	0.001	10136.7	181	9.2	2	
As	75	2	He	-0.003	-945.2	350	7.6	2.5	
Ca	44	2	He	-7.482	-30.4	753	13.3	100	
Na	23	2	He	-12.079	-16.0	69155	2.3	100	
Mg	24	2	He	0.288	100.9	1240	13.8	100	
K	39	2	He	9.179	28.6	170978	0.6	100	
Mn	55	2	He	0.059	15.6	1047	5.8	2.5	
Co	59	2	He	0.012	36.9	197	21.2	2.5	
Ni	60	2	He	0.081	20.1	447	9.0	2.5	
Cu	63	2	He	-0.040	-65.1	1100	13.4	2	
Zn	66	2	He	0.109	91.1	630	19.2	2.5	
Al	27	2	He	-1.634	-9.2	1103	6.4	5	
B	11	1	No Gas	-0.752	-138.2	56215	2.7	0.5	
Al	27	1	No Gas	-2.391	-1.3	34874	1.4	5	
Si	28	1	No Gas	7.305	13.4	541484	0.5	10	
Ag	107	1	No Gas	0.013	6.7	300	3.3	2.5	
Cd	111	1	No Gas	0.004	79.2	9	114.0	1	
Sr	88	1	No Gas	-0.017	-58.3	2267	13.9	2.5	
Mo	95	1	No Gas	0.103	26.1	1153	14.8	2.5	
Sn	118	1	No Gas	0.180	19.4	3767	9.0	5	
Sb	121	1	No Gas	0.626	15.0	10481	12.9	2.5	
Ba	137	1	No Gas	-0.063	-17.9	467	12.9	2.5	
Tl	205	1	No Gas	0.172	16.2	4884	16.7	1	
Tl	203	1	No Gas	0.174	21.6	2084	22.3	1	
Pb	208	1	No Gas	0.010	37.5	1163	13.5	2.5	
U	238	1	No Gas	0.028	34.0	1073	32.7	2.5	
Ca	43	2	He	-18.023	-11.8	23	24.7	100	
Sb	121	2	He	0.469	9.2	3557	8.1	2.5	
Ti	47	2	He	-0.004	-1656.0	17	91.7	2.5	
Cu	63	1	No Gas	-0.041	-35.6	2740	5.5	2.5	
Se	82	1	No Gas	-0.158	-266.0	85	126.5	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag

Continuing Calibration Blank (CCB) Report

Li	6	1	No Gas	1116355	1.61	1094872	101.96	70	120	
Ge	72	2	He	793653	0.87	759178	104.54	70	120	
Ge	72	1	No Gas	3042992	1.68	2974836	102.29	70	120	
In	115	1	No Gas	3434621	1.67	3399243	101.04	70	120	
Bi	209	1	No Gas	2718651	1.15	2779836	97.80	70	120	

Sample Report

Sample Table

Sample Name	HS23061821-03
Data File Name	227SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:56:48-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	23.743	23.743	0.66	425304	0.01	2000	
Be	9	1	No Gas	0.103	0.103	10.78	477	0.02	2000	
V	51	2	He	6.356	6.356	2.06	48592	0.01	2000	
Cr	52	2	He	470.881	470.881	2.11	3586278	0.01	2000	
Fe	56	2	He	14240.471	14240.471	2.22	93915012	0.02	200000	
Se	78	2	He	-0.084	-0.084	-162.94	186	-0.05	2000	
As	75	2	He	0.707	0.707	6.49	1232	0.06	2000	
Ca	44	2	He	10977.503	10977.503	1.90	556888	1.97	200000	
Na	23	2	He	53175.623	53175.623	1.62	60008456	0.09	200000	
Mg	24	2	He	5734.213	5734.213	2.18	3867045	0.15	200000	
K	39	2	He	610.211	610.211	1.81	812114	0.08	200000	
Mn	55	2	He	141.916	141.916	1.09	858007	0.02	2000	
Co	59	2	He	17.361	17.361	0.69	179077	0.01	2000	
Ni	60	2	He	1391.659	1391.659	0.63	3410985	0.04	2000	
Cu	63	2	He	14.891	14.891	1.55	94634	0.02	2000	
Zn	66	2	He	9.286	9.286	0.57	13360	0.07	2000	
Al	27	2	He	3269.648	3269.648	2.83	1617053	0.20	2000	>LDR
B	11	1	No Gas	-2.832	-2.832	-11.49	55671	-0.01	2000	
Al	27	1	No Gas	3042.034	3042.034	1.70	55646156	0.01	2000	>LDR
Si	28	1	No Gas	37405.465	37405.465	1.40	355503128	0.01	2000	>LDR
Ag	107	1	No Gas	0.011	0.011	51.24	283	0.00	2000	
Cd	111	1	No Gas	0.109	0.109	12.05	406	0.03	2000	
Sr	88	1	No Gas	166.078	166.078	1.78	6500222	0.00	2000	
Mo	95	1	No Gas	1.237	1.237	7.57	9850	0.01	2000	
Sn	118	1	No Gas	0.146	0.146	5.92	3661	0.00	2000	
Sb	121	1	No Gas	0.113	0.113	9.35	2434	0.00	2000	
Ba	137	1	No Gas	221.710	221.710	1.78	1423269	0.02	2000	
Tl	205	1	No Gas	0.016	0.016	29.72	637	0.00	2000	
Tl	203	1	No Gas	0.016	0.016	16.46	257	0.01	2000	
Pb	208	1	No Gas	0.343	0.343	1.72	15077	0.00	2000	
U	238	1	No Gas	0.140	0.140	2.83	5601	0.00	2000	
Ca	43	2	He	10783.627	10783.627	0.48	32799	32.88	200000	
Sb	121	2	He	0.105	0.105	23.17	1007	0.01	2000	
Ti	47	2	He	69.480	69.480	2.15	18904	0.37	2000	
Cu	63	1	No Gas	15.364	15.364	0.93	227761	0.01	2000	
Zn	66	1	No Gas	9.374	9.374	0.46	40692	0.02	2000	
Se	82	1	No Gas	0.585	0.585	81.52	307	0.19	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	1207662	0.46	1094872	110.30	70	120	
Ge	72	2	He	863975	1.13	759178	113.80	70	120	
Ge	72	1	No Gas	3349086	0.67	2974836	112.58	70	120	
In	115	1	No Gas	3694172	1.60	3399243	108.68	70	120	

Sample Report

Bi	209	1	No Gas	2957359	0.40	2779836	106.39	70	120	

Sample Report

Sample Table

Sample Name	HS23061821-05
Data File Name	228SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:58:58-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	13.413	13.413	1.27	286062	0.00	2000	
Be	9	1	No Gas	0.026	0.026	34.61	145	0.02	2000	
V	51	2	He	-0.029	-0.029	-65.00	5641	0.00	2000	
Cr	52	2	He	1.006	1.006	3.93	26222	0.00	2000	
Fe	56	2	He	11403.226	11403.226	2.56	76857896	0.01	200000	
Se	78	2	He	-0.120	-0.120	-101.56	185	-0.06	2000	
As	75	2	He	9.982	9.982	1.44	12632	0.08	2000	
Ca	44	2	He	7772.719	7772.719	1.82	403327	1.93	200000	
Na	23	2	He	22507.890	22507.890	0.97	26010691	0.09	200000	
Mg	24	2	He	4460.664	4460.664	1.73	3074575	0.15	200000	
K	39	2	He	1058.764	1058.764	3.10	1307235	0.08	200000	
Mn	55	2	He	323.329	323.329	2.96	1996342	0.02	2000	
Co	59	2	He	4.819	4.819	2.44	50862	0.01	2000	
Ni	60	2	He	2.584	2.584	5.39	6768	0.04	2000	
Cu	63	2	He	0.535	0.535	4.93	4904	0.01	2000	
Zn	66	2	He	8.278	8.278	4.78	12226	0.07	2000	
Al	27	2	He	61.881	61.881	69.61	33151	0.19	2000	
B	11	1	No Gas	4.404	4.404	1.65	76267	0.01	2000	
Al	27	1	No Gas	45.276	45.276	13.49	934583	0.00	2000	
Si	28	1	No Gas	21195.799	21195.799	0.64	207247984	0.01	2000	>LDR
Ag	107	1	No Gas	0.002	0.002	102.35	117	0.00	2000	
Cd	111	1	No Gas	0.061	0.061	5.97	232	0.03	2000	
Sr	88	1	No Gas	134.364	134.364	1.63	5403398	0.00	2000	
Mo	95	1	No Gas	1.249	1.249	0.58	10217	0.01	2000	
Sn	118	1	No Gas	0.049	0.049	24.14	2580	0.00	2000	
Sb	121	1	No Gas	0.039	0.039	12.66	1153	0.00	2000	
Ba	137	1	No Gas	135.990	135.990	1.80	897255	0.02	2000	
Tl	205	1	No Gas	0.003	0.003	52.04	237	0.00	2000	
Tl	203	1	No Gas	0.001	0.001	145.77	67	0.00	2000	
Pb	208	1	No Gas	0.069	0.069	3.66	3807	0.00	2000	
U	238	1	No Gas	0.018	0.018	10.29	823	0.00	2000	
Ca	43	2	He	7905.223	7905.223	3.56	24589	32.15	200000	
Sb	121	2	He	0.044	0.044	5.48	537	0.01	2000	
Ti	47	2	He	4.902	4.902	14.43	1380	0.36	2000	
Cu	63	1	No Gas	0.854	0.854	2.17	16510	0.01	2000	
Zn	66	1	No Gas	8.192	8.192	1.60	36827	0.02	2000	
Se	82	1	No Gas	-0.168	-0.168	-190.50	94	-0.18	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	1250636	1.15	1094872	114.23	70	120	
Ge	72	2	He	882917	1.09	759178	116.30	70	120	
Ge	72	1	No Gas	3441550	0.87	2974836	115.69	70	120	
In	115	1	No Gas	3795598	2.28	3399243	111.66	70	120	

Sample Report

Bi	209	1	No Gas	3037279	2.38	2779836	109.26	70	120	

Sample Report

Sample Table

Sample Name	HS23061821-08
Data File Name	229SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:01:08-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	127.707	127.707	2.83	1855285	0.01	2000	
Be	9	1	No Gas	0.662	0.662	6.89	2794	0.02	2000	
V	51	2	He	0.779	0.779	10.24	11333	0.01	2000	
Cr	52	2	He	1.500	1.500	11.94	30377	0.00	2000	
Fe	56	2	He	280.567	280.567	0.74	1936740	0.01	200000	
Se	78	2	He	0.167	0.167	63.49	227	0.07	2000	
As	75	2	He	0.580	0.580	6.72	1117	0.05	2000	
Ca	44	2	He	57334.626	57334.626	1.49	2998206	1.91	200000	
Na	23	2	He	757231.691	757231.691	0.59	881203240	0.09	200000	>LDR
Mg	24	2	He	46809.709	46809.709	0.65	32592322	0.14	200000	
K	39	2	He	684.020	684.020	3.93	918318	0.07	200000	
Mn	55	2	He	1916.137	1916.137	0.97	11951399	0.02	2000	>LDR
Co	59	2	He	7.241	7.241	2.79	77158	0.01	2000	
Ni	60	2	He	110.021	110.021	1.05	278697	0.04	2000	
Cu	63	2	He	0.944	0.944	5.61	7599	0.01	2000	
Zn	66	2	He	51.637	51.637	1.76	74176	0.07	2000	
Al	27	2	He	477.342	477.342	4.01	245627	0.19	2000	
B	11	1	No Gas	-4.209	-4.209	-13.70	50350	-0.01	2000	
Al	27	1	No Gas	476.073	476.073	10.50	8640305	0.01	2000	
Si	28	1	No Gas	31284.835	31284.835	2.74	292958276	0.01	2000	>LDR
Ag	107	1	No Gas	0.014	0.014	7.09	330	0.00	2000	
Cd	111	1	No Gas	0.259	0.259	6.59	917	0.03	2000	
Sr	88	1	No Gas	1136.099	1136.099	2.41	42051531	0.00	2000	
Mo	95	1	No Gas	0.070	0.070	18.45	937	0.01	2000	
Sn	118	1	No Gas	0.012	0.012	32.49	1974	0.00	2000	
Sb	121	1	No Gas	0.086	0.086	5.00	1930	0.00	2000	
Ba	137	1	No Gas	37.764	37.764	1.72	230147	0.02	2000	
Tl	205	1	No Gas	0.020	0.020	11.82	653	0.00	2000	
Tl	203	1	No Gas	0.021	0.021	12.55	273	0.01	2000	
Pb	208	1	No Gas	0.104	0.104	7.00	4464	0.00	2000	
U	238	1	No Gas	0.061	0.061	4.06	2150	0.00	2000	
Ca	43	2	He	54938.806	54938.806	0.39	172216	31.90	200000	
Sb	121	2	He	0.061	0.061	5.46	683	0.01	2000	
Ti	47	2	He	15.559	15.559	27.70	4400	0.35	2000	
Cu	63	1	No Gas	7.090	7.090	3.27	105440	0.01	2000	
Zn	66	1	No Gas	53.571	53.571	2.32	218892	0.02	2000	
Se	82	1	No Gas	12.699	12.699	4.34	3719	0.34	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	1164218	3.00	1094872	106.33	70	120	
Ge	72	2	He	892109	1.59	759178	117.51	70	120	
Ge	72	1	No Gas	3300439	2.98	2974836	110.95	70	120	
In	115	1	No Gas	3496328	2.98	3399243	102.86	70	120	
Bi	209	1	No Gas	2571222	3.02	2779836	92.50	70	120	

Sample Report

Sample Table

Sample Name	HS23061821-09
Data File Name	230SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:03:09-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	130.246	130.246	1.63	2077918	0.01	2000	
Be	9	1	No Gas	0.703	0.703	3.48	3260	0.02	2000	
V	51	2	He	0.970	0.970	4.23	12628	0.01	2000	
Cr	52	2	He	1.473	1.473	3.76	30083	0.00	2000	
Fe	56	2	He	327.873	327.873	6.91	2253235	0.01	200000	
Se	78	2	He	0.132	0.132	77.86	221	0.06	2000	
As	75	2	He	0.650	0.650	3.63	1200	0.05	2000	
Ca	44	2	He	59377.950	59377.950	1.50	3098361	1.92	200000	
Na	23	2	He	802896.687	802896.687	0.71	932365426	0.09	200000	>LDR
Mg	24	2	He	49690.938	49690.938	1.19	34521627	0.14	200000	
K	39	2	He	716.463	716.463	1.48	950840	0.08	200000	
Mn	55	2	He	2036.103	2036.103	1.49	12673699	0.02	2000	>LDR
Co	59	2	He	7.889	7.889	0.29	83887	0.01	2000	
Ni	60	2	He	113.932	113.932	1.03	287999	0.04	2000	
Cu	63	2	He	0.918	0.918	7.37	7412	0.01	2000	
Zn	66	2	He	53.628	53.628	2.05	76851	0.07	2000	
Al	27	2	He	485.927	485.927	5.90	249418	0.19	2000	
B	11	1	No Gas	-5.713	-5.713	-8.55	51375	-0.01	2000	
Al	27	1	No Gas	468.025	468.025	4.89	9038614	0.01	2000	
Si	28	1	No Gas	33227.482	33227.482	0.74	330830015	0.01	2000	>LDR
Ag	107	1	No Gas	0.013	0.013	7.55	330	0.00	2000	
Cd	111	1	No Gas	0.285	0.285	8.85	1053	0.03	2000	
Sr	88	1	No Gas	1177.695	1177.695	1.64	45482748	0.00	2000	
Mo	95	1	No Gas	0.072	0.072	16.89	997	0.01	2000	
Sn	118	1	No Gas	0.382	0.382	3.44	6352	0.01	2000	
Sb	121	1	No Gas	0.062	0.062	19.22	1597	0.00	2000	
Ba	137	1	No Gas	39.251	39.251	2.74	249471	0.02	2000	
Tl	205	1	No Gas	0.019	0.019	7.21	653	0.00	2000	
Tl	203	1	No Gas	0.020	0.020	11.60	280	0.01	2000	
Pb	208	1	No Gas	0.116	0.116	6.99	5114	0.00	2000	
U	238	1	No Gas	0.070	0.070	7.00	2570	0.00	2000	
Ca	43	2	He	58264.951	58264.951	1.76	182233	31.97	200000	
Sb	121	2	He	0.069	0.069	16.00	747	0.01	2000	
Ti	47	2	He	15.879	15.879	26.89	4466	0.36	2000	
Cu	63	1	No Gas	7.150	7.150	2.46	113028	0.01	2000	
Zn	66	1	No Gas	54.386	54.386	1.22	236228	0.02	2000	
Se	82	1	No Gas	13.877	13.877	1.91	4308	0.32	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	1279198	2.05	1094872	116.84	70	120	
Ge	72	2	He	890174	0.76	759178	117.26	70	120	
Ge	72	1	No Gas	3507697	0.72	2974836	117.91	70	120	
In	115	1	No Gas	3646934	1.37	3399243	107.29	70	120	
Bi	209	1	No Gas	2681886	0.89	2779836	96.48	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	235_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:19:00-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
n	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	103.010	5.323	1446725	3.05	100	103.0	90	110	
Be	9	1	No Gas	100.223	2.980	401059	0.54	100	100.2	90	110	
V	51	2	He	103.823	1.443	658008	0.17	100	103.8	90	110	
Cr	52	2	He	101.674	1.791	734819	0.74	100	101.7	90	110	
Fe	56	2	He	10502.159	2.528	64546939	1.05	10000	105.0	90	110	
Se	78	2	He	104.820	1.500	13239	1.28	100	104.8	90	110	
As	75	2	He	103.623	0.983	116206	0.70	100	103.6	90	110	
Ca	44	2	He	10598.615	2.016	501090	1.07	10000	106.0	90	110	
Na	23	2	He	10509.279	1.508	11118580	0.60	10000	105.1	90	110	
Mg	24	2	He	10576.093	2.912	6645192	1.68	10000	105.8	90	110	
K	39	2	He	10691.310	1.528	10541357	0.49	10000	106.9	90	110	
Mn	55	2	He	102.777	1.203	579247	0.50	100	102.8	90	110	
Co	59	2	He	100.767	2.232	968074	0.88	100	100.8	90	110	
Ni	60	2	He	104.156	1.535	238131	0.55	100	104.2	90	110	
Cu	63	2	He	102.013	1.402	596244	0.43	100	102.0	90	110	
Zn	66	2	He	102.588	2.355	132499	0.93	100	102.6	90	110	
Al	27	2	He	103.702	3.185	49613	2.94	100	103.7	90	110	
B	11	1	No Gas	489.244	3.153	1178575	1.11	500	97.8	90	110	
Al	27	1	No Gas	104.908	3.363	1832234	1.88	100	104.9	90	110	
Si	28	1	No Gas	545.096	3.212	5226106	1.38	5000	10.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	104.735	0.118	1831043	0.89	100	104.7	90	110	
Cd	111	1	No Gas	102.883	1.569	358592	0.59	100	102.9	90	110	
Sr	88	1	No Gas	106.265	2.232	3863846	1.22	100	106.3	90	110	
Mo	95	1	No Gas	102.246	1.733	721800	0.92	100	102.2	90	110	
Sn	118	1	No Gas	100.492	1.222	1099601	0.65	100	100.5	90	110	
Sb	121	1	No Gas	97.700	2.078	1593212	1.39	100	97.7	90	110	
Ba	137	1	No Gas	100.467	0.872	599584	0.81	100	100.5	90	110	
Tl	205	1	No Gas	104.123	3.782	2901137	2.52	100	104.1	90	110	
Tl	203	1	No Gas	102.686	2.259	1220975	0.77	100	102.7	90	110	
Pb	208	1	No Gas	100.353	2.895	3874646	1.02	100	100.4	90	110	
U	238	1	No Gas	102.981	2.696	3803383	0.98	100	103.0	90	110	
Ca	43	2	He	10552.819	3.498	29906	2.31	10000	105.5	90	110	
Sb	121	2	He	94.125	2.052	690759	0.51	100	94.1	90	110	
Ti	47	2	He	108.332	0.715	27461	1.30	100	108.3	90	110	
Cu	63	1	No Gas	104.294	2.349	1398544	1.06	100	104.3	90	110	
Se	82	1	No Gas	106.604	1.422	28115	0.29	100	106.6	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	1114395	2.89	1094872	101.78	70	120	
Ge	72	2	He	805164	1.54	759178	106.06	70	120	
Ge	72	1	No Gas	3071581	1.59	2974836	103.25	70	120	
In	115	1	No Gas	3431231	1.01	3399243	100.94	70	120	
Bi	209	1	No Gas	2757647	2.96	2779836	99.20	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	236_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:20:53-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	199CALB.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	Upper Limit	QC Flag
Li	7	1	No Gas	0.101	75.0	84156	1.1	0.5	
Be	9	1	No Gas	0.012	19.2	82	12.7	0.5	
V	51	2	He	-0.256	-14.6	3916	5.2	2.5	
Cr	52	2	He	0.154	27.6	18873	2.6	2.5	
Fe	56	2	He	0.026	246.8	25304	2.2	100	
Se	78	2	He	-0.085	-143.8	183	8.2	2	
As	75	2	He	-0.035	-46.0	337	6.9	2.5	
Ca	44	2	He	-11.630	-15.2	600	14.2	100	
Na	23	2	He	-0.614	-328.3	86682	1.8	100	
Mg	24	2	He	-0.024	-796.6	1120	10.9	100	
K	39	2	He	-2.736	-54.8	170735	0.3	100	
Mn	55	2	He	0.049	31.7	1057	7.6	2.5	
Co	59	2	He	0.007	37.7	160	16.5	2.5	
Ni	60	2	He	0.062	69.8	433	23.3	2.5	
Cu	63	2	He	0.006	188.4	1463	4.0	2	
Zn	66	2	He	0.157	25.2	740	8.4	2.5	
Al	27	2	He	-1.947	-18.4	1027	15.8	5	
B	11	1	No Gas	-8.265	-4.1	42176	1.8	0.5	
Al	27	1	No Gas	-2.364	-2.0	38106	1.7	5	
Si	28	1	No Gas	1.050	17.7	526045	0.6	10	
Ag	107	1	No Gas	0.009	26.2	253	19.5	2.5	
Cd	111	1	No Gas	0.009	61.1	30	67.8	1	
Sr	88	1	No Gas	-0.023	-28.2	2187	9.3	2.5	
Mo	95	1	No Gas	0.185	26.1	1871	21.5	2.5	
Sn	118	1	No Gas	0.183	56.0	4065	26.9	5	
Sb	121	1	No Gas	0.619	16.1	11205	15.3	2.5	
Ba	137	1	No Gas	-0.067	-3.7	480	4.2	2.5	
Tl	205	1	No Gas	0.106	27.4	3347	26.5	1	
Tl	203	1	No Gas	0.100	21.8	1330	21.4	1	
Pb	208	1	No Gas	0.002	71.7	953	7.9	2.5	
U	238	1	No Gas	0.025	38.2	1067	36.0	2.5	
Ca	43	2	He	-12.985	-26.2	40	25.0	100	
Sb	121	2	He	0.453	3.8	3684	4.7	2.5	
Ti	47	2	He	-0.033	-200.0	10	173.2	2.5	
Cu	63	1	No Gas	0.012	119.7	3717	6.3	2.5	
Se	82	1	No Gas	-0.306	-24.4	51	41.3	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag

Continuing Calibration Blank (CCB) Report

Li	6	1	No Gas	1207572	0.28	1094872	110.29	70	120	
Ge	72	2	He	849132	1.23	759178	111.85	70	120	
Ge	72	1	No Gas	3282756	0.95	2974836	110.35	70	120	
In	115	1	No Gas	3691312	2.42	3399243	108.59	70	120	
Bi	209	1	No Gas	2975173	0.49	2779836	107.03	70	120	

Sample Report

Sample Table

Sample Name	HS23061821-10
Data File Name	237SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:22:51-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	61.807	61.807	3.28	934194	0.01	2000	
Be	9	1	No Gas	0.065	0.065	18.64	295	0.02	2000	
V	51	2	He	1.347	1.347	2.03	14454	0.01	2000	
Cr	52	2	He	632.544	632.544	1.31	4699466	0.01	2000	
Fe	56	2	He	23937.052	23937.052	0.81	154177048	0.02	200000	
Se	78	2	He	-0.026	-0.026	-663.20	189	-0.01	2000	
As	75	2	He	5.369	5.369	0.99	6666	0.08	2000	
Ca	44	2	He	88597.410	88597.410	1.55	4381434	2.02	200000	
Na	23	2	He	384096.816	384096.816	1.21	422812794	0.09	200000	>LDR
Mg	24	2	He	55060.759	55060.759	1.27	36257833	0.15	200000	
K	39	2	He	1931.154	1931.154	0.72	2136909	0.09	200000	
Mn	55	2	He	1143.931	1143.931	1.14	6749011	0.02	2000	
Co	59	2	He	16.717	16.717	2.11	168405	0.01	2000	
Ni	60	2	He	683.720	683.720	2.06	1636699	0.04	2000	
Cu	63	2	He	20.496	20.496	1.48	126686	0.02	2000	
Zn	66	2	He	6.671	6.671	1.54	9520	0.07	2000	
Al	27	2	He	15.235	15.235	6.60	9310	0.16	2000	
B	11	1	No Gas	34.741	34.741	4.61	142835	0.02	2000	
Al	27	1	No Gas	15.861	15.861	17.21	358900	0.00	2000	
Si	28	1	No Gas	19742.522	19742.522	1.14	181540484	0.01	2000	>LDR
Ag	107	1	No Gas	0.031	0.031	13.45	620	0.01	2000	
Cd	111	1	No Gas	0.082	0.082	8.75	282	0.03	2000	
Sr	88	1	No Gas	1660.470	1660.470	1.92	60393134	0.00	2000	
Mo	95	1	No Gas	7.765	7.765	0.54	55273	0.01	2000	
Sn	118	1	No Gas	0.197	0.197	5.13	3961	0.00	2000	
Sb	121	1	No Gas	0.185	0.185	7.32	3594	0.01	2000	
Ba	137	1	No Gas	395.655	395.655	1.75	2360972	0.02	2000	
Tl	205	1	No Gas	0.022	0.022	13.34	717	0.00	2000	
Tl	203	1	No Gas	0.030	0.030	12.00	390	0.01	2000	
Pb	208	1	No Gas	0.152	0.152	3.82	6407	0.00	2000	
U	238	1	No Gas	0.147	0.147	2.10	5291	0.00	2000	
Ca	43	2	He	86293.571	86293.571	1.26	255777	33.74	200000	
Sb	121	2	He	0.173	0.173	8.01	1503	0.01	2000	
Ti	47	2	He	3.483	3.483	7.25	943	0.37	2000	
Cu	63	1	No Gas	24.235	24.235	0.71	345117	0.01	2000	
Zn	66	1	No Gas	6.880	6.880	0.09	29422	0.02	2000	
Se	82	1	No Gas	6.946	6.946	10.39	2057	0.34	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	1158183	2.45	1094872	105.78	70	120	
Ge	72	2	He	843754	0.58	759178	111.14	70	120	
Ge	72	1	No Gas	3236006	1.32	2974836	108.78	70	120	
In	115	1	No Gas	3434681	1.31	3399243	101.04	70	120	
Bi	209	1	No Gas	2645251	1.42	2779836	95.16	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	246_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:41:04-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
n	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	100.787	2.282	1412810	0.76	100	100.8	90	110	
Be	9	1	No Gas	99.559	2.109	397082	0.89	100	99.6	90	110	
V	51	2	He	100.178	0.681	642041	0.55	100	100.2	90	110	
Cr	52	2	He	99.404	1.091	726657	0.91	100	99.4	90	110	
Fe	56	2	He	10141.608	0.833	63019804	0.64	10000	101.4	90	110	
Se	78	2	He	99.482	0.358	12711	0.51	100	99.5	90	110	
As	75	2	He	100.221	1.688	113623	1.47	100	100.2	90	110	
Ca	44	2	He	10181.843	1.525	486700	1.32	10000	101.8	90	110	
Na	23	2	He	10222.770	0.995	10935986	0.98	10000	102.2	90	110	
Mg	24	2	He	10342.397	1.107	6570180	0.92	10000	103.4	90	110	
K	39	2	He	10256.604	1.924	10229860	1.68	10000	102.6	90	110	
Mn	55	2	He	99.993	1.373	569719	1.21	100	100.0	90	110	
Co	59	2	He	97.142	0.549	943539	0.74	100	97.1	90	110	
Ni	60	2	He	100.841	0.419	233085	0.61	100	100.8	90	110	
Cu	63	2	He	99.302	0.525	586779	0.30	100	99.3	90	110	
Zn	66	2	He	99.909	0.812	130473	0.62	100	99.9	90	110	
Al	27	2	He	101.087	1.074	48936	0.90	100	101.1	90	110	
B	11	1	No Gas	487.913	2.904	1171608	2.03	500	97.6	90	110	
Al	27	1	No Gas	103.214	2.957	1823857	2.14	100	103.2	90	110	
Si	28	1	No Gas	530.999	1.782	5160185	0.73	5000	10.6	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	102.875	2.986	1823948	0.91	100	102.9	90	110	
Cd	111	1	No Gas	100.683	3.680	355889	1.67	100	100.7	90	110	
Sr	88	1	No Gas	104.452	2.726	3852477	1.16	100	104.5	90	110	
Mo	95	1	No Gas	99.905	2.646	715368	0.79	100	99.9	90	110	
Sn	118	1	No Gas	101.618	2.780	1127802	1.56	100	101.6	90	110	
Sb	121	1	No Gas	96.705	2.657	1594186	1.61	100	96.7	90	110	
Ba	137	1	No Gas	99.079	2.448	599766	1.30	100	99.1	90	110	
Tl	205	1	No Gas	103.938	2.589	2965983	2.29	100	103.9	90	110	
Tl	203	1	No Gas	100.882	1.489	1228408	1.10	100	100.9	90	110	
Pb	208	1	No Gas	99.110	2.718	3918917	2.10	100	99.1	90	110	
U	238	1	No Gas	101.296	1.115	3831568	1.02	100	101.3	90	110	
Ca	43	2	He	9905.028	0.727	28386	0.55	10000	99.1	90	110	
Sb	121	2	He	91.122	1.126	676085	1.08	100	91.1	90	110	
Ti	47	2	He	102.152	2.563	26175	2.45	100	102.2	90	110	
Cu	63	1	No Gas	103.848	3.145	1407748	1.80	100	103.8	90	110	
Se	82	1	No Gas	102.627	1.867	27367	0.73	100	102.6	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	1110336	1.86	1094872	101.41	70	120	
Ge	72	2	He	813852	0.22	759178	107.20	70	120	
Ge	72	1	No Gas	3105193	1.32	2974836	104.38	70	120	
In	115	1	No Gas	3481185	2.13	3399243	102.41	70	120	
Bi	209	1	No Gas	2822925	0.61	2779836	101.55	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	247_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:43:06-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	199CALB.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	Upper Limit	QC Flag
Li	7	1	No Gas	-0.218	-5.1	77524	0.9	0.5	
Be	9	1	No Gas	0.011	67.5	72	42.6	0.5	
V	51	2	He	-0.166	-14.9	4382	3.3	2.5	
Cr	52	2	He	0.200	18.0	18660	2.2	2.5	
Fe	56	2	He	-0.147	-80.3	23477	1.9	100	
Se	78	2	He	-0.087	-195.4	177	13.5	2	
As	75	2	He	0.025	40.8	396	4.0	2.5	
Ca	44	2	He	-9.892	-8.6	667	5.7	100	
Na	23	2	He	4.828	47.0	90029	2.1	100	
Mg	24	2	He	0.108	49.6	1173	3.0	100	
K	39	2	He	-3.138	-146.9	165374	1.6	100	
Mn	55	2	He	0.032	52.6	930	9.2	2.5	
Co	59	2	He	0.008	80.2	160	39.0	2.5	
Ni	60	2	He	0.063	17.7	423	4.9	2.5	
Cu	63	2	He	-0.006	-192.5	1347	4.1	2	
Zn	66	2	He	0.103	29.1	647	5.0	2.5	
Al	27	2	He	-1.957	-6.5	993	4.8	5	
B	11	1	No Gas	-10.447	-4.7	35811	2.8	0.5	
Al	27	1	No Gas	-2.366	-3.1	37154	3.3	5	
Si	28	1	No Gas	2.043	38.2	522443	0.6	10	
Ag	107	1	No Gas	0.008	23.7	233	13.8	2.5	
Cd	111	1	No Gas	0.001	1118.5	2	3632.6	1	
Sr	88	1	No Gas	-0.014	-73.8	2497	17.5	2.5	
Mo	95	1	No Gas	0.057	55.6	877	26.0	2.5	
Sn	118	1	No Gas	0.089	37.5	2930	11.6	5	
Sb	121	1	No Gas	0.520	19.0	9243	17.5	2.5	
Ba	137	1	No Gas	-0.064	-14.4	493	10.2	2.5	
Tl	205	1	No Gas	0.079	32.3	2480	31.2	1	
Tl	203	1	No Gas	0.081	21.5	1067	20.6	1	
Pb	208	1	No Gas	0.005	49.4	1037	10.6	2.5	
U	238	1	No Gas	0.020	28.4	837	27.2	2.5	
Ca	43	2	He	-18.391	-28.0	23	65.5	100	
Sb	121	2	He	0.347	10.5	2777	10.5	2.5	
Ti	47	2	He	0.019	225.7	23	49.5	2.5	
Cu	63	1	No Gas	-0.011	-257.6	3307	10.2	2.5	
Se	82	1	No Gas	-0.337	-54.2	41	120.9	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag

Continuing Calibration Blank (CCB) Report

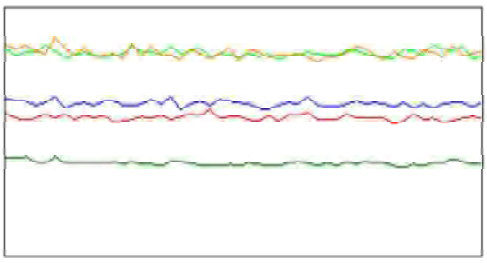
Li	6	1	No Gas	1176588	0.85	1094872	107.46	70	120	
Ge	72	2	He	824582	1.32	759178	108.62	70	120	
Ge	72	1	No Gas	3204302	1.32	2974836	107.71	70	120	
In	115	1	No Gas	3634033	1.54	3399243	106.91	70	120	
Bi	209	1	No Gas	2926149	1.87	2779836	105.26	70	120	

Tune Check Report

Operator Name	ALSHS.NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq. Date-Time	7/12/2023 12:24:12 PM
Report Comment	---
Instrument Name	G8421A SG18523544

[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	10000	5617	56172.59		
24	20000	16425	164248.50		
59	50000	30868	308680.63		
115	50000	41124	411235.21		
208	50000	18880	188797.30		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	1.990	5.000	
24	1.657	5.000	
59	2.000	5.000	
115	2.331	5.000	
208	2.376	5.000	

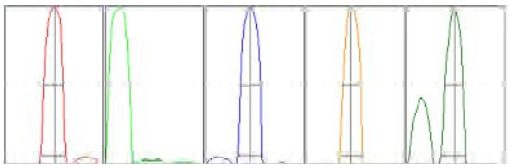
Mass	Background	Background (Required)	Background (Flag)
9	2.200		
24	1.600		
59	2.100		
115	2.000		
208	4.300		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.275 %
Doubly Charged	70 / 140 0.948 %

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	5789.75	9.05	8.90 - 9.10	
24	16763.94	23.90	23.90 - 24.10	
59	31738.32	58.90	58.90 - 59.10	
115	42057.17	114.90	114.90 - 115.10	
208	18692.32	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.60	0.771		
24	0.63	0.738		
59	0.60	0.733		
115	0.53	0.688		
208	0.56	0.757		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.55 L/min	Dilution Gas	0.52 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	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.7 V	Deflect	15.8 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-90 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	134	Axis Gain	1.0006	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.05		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-0.8 mm

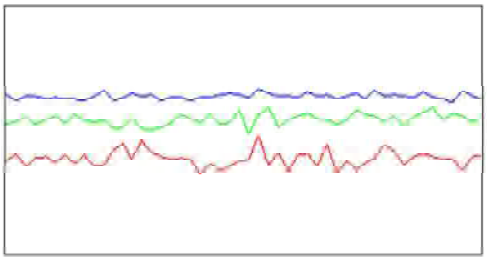
EM

Discriminator	4.5 mV	Analog HV	3004 V	Pulse HV	1633 V

[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	500	193	1933.13		
24	2000	1089	10887.42		
59	20000	12753	127525.60		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

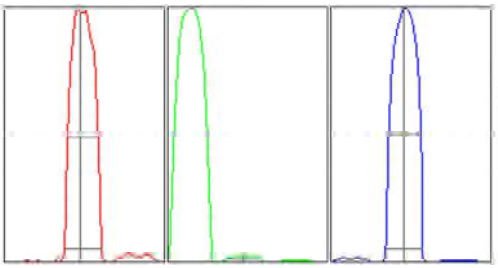
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	8.638	5.000	Fail
24	4.391	5.000	
59	1.821	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.400		
24	0.000		
59	0.400		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 2.361 %
Doubly Charged	70 / 140 0.969 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	199.02	8.95	8.90 - 9.10	
24	1087.45	23.95	23.90 - 24.10	
59	12942.22	58.90	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.59	0.695		
24	0.63	0.737		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.59	0.693		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.55 L/min	Dilution Gas	0.52 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	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.4 V	Deflect	0.9 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-90 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	3.8 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	134	Axis Gain	1.0006	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.05		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-0.8 mm

EM

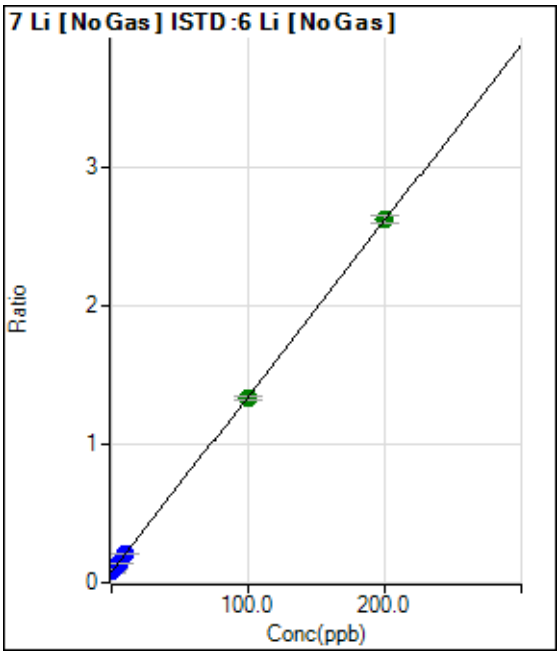
Discriminator	4.5 mV	Analog HV	3004 V	Pulse HV	1633 V

Calibration for 289_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071323A.b\
Analysis File: 071323A.batch.bin
DA Date-Time: 7/14/2023 8:11:05 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	282CALB.d	CAL BLK	7/13/2023 11:13:07 PM
2	283CALS.d	2/10/200	7/13/2023 11:15:16 PM
3	284CALS.d	5/25/500	7/13/2023 11:17:13 PM
4	285CALS.d	10/50/100	7/13/2023 11:19:22 PM
5	286CALS.d	100/500/10K	7/13/2023 11:21:17 PM
6	287CALS.d	200/1000/20K	7/13/2023 11:23:10 PM

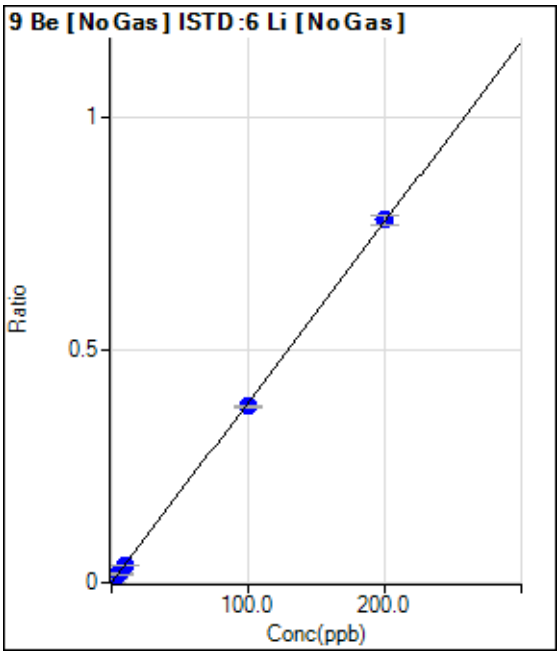
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69532.35	0.0769	P	2.5
2	☐	2.000	1.848	92450.86	0.1003	P	2.9
3	☐	5.000	5.001	127709.37	0.1402	P	1.1
4	☐	10.000	9.982	186534.42	0.2033	P	0.9
5	☐	100.000	99.123	1156042.09	1.3319	A	1.3
6	☐	200.000	200.441	2091879.97	2.6147	A	2.1

y = 0.0127 * x + 0.0769
R = 1.0000
DL = 0.4524
BEC = 6.074

Weight: <None>
Min Conc: <None>

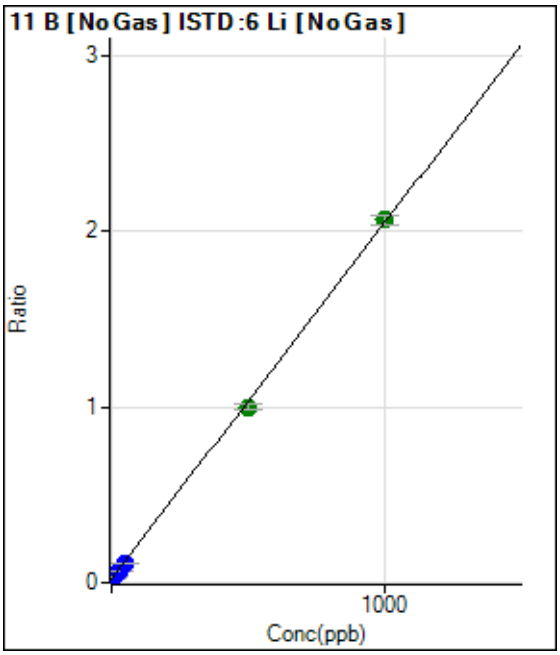


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.00	0.0000	P	46.3
2	☐	2.000	1.863	6684.98	0.0072	P	1.7
3	☐	5.000	4.798	16961.98	0.0186	P	0.9
4	☐	10.000	9.548	33967.61	0.0370	P	1.2
5	☐	100.000	97.901	329184.66	0.3793	P	0.9
6	☐	200.000	201.078	623123.16	0.7789	P	2.6

y = 0.0039 * x + 3.3452E-005
R = 0.9999
DL = 0.012
BEC = 0.008636

Weight: <None>
Min Conc: <None>

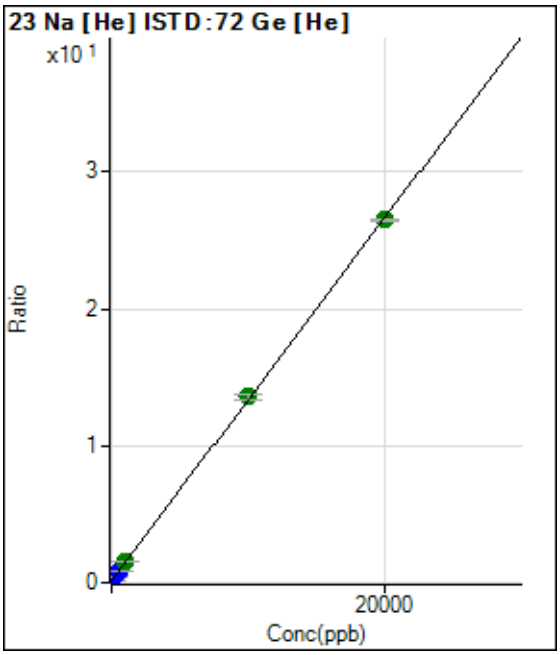
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19330.03	0.0214	P	4.9
2	☐	10.000	7.255	33257.69	0.0361	P	2.0
3	☐	25.000	21.573	59252.68	0.0651	P	1.3
4	☐	50.000	45.748	104589.01	0.1140	P	1.0
5	☐	500.000	483.421	867651.11	0.9998	A	2.6
6	☐	1000.000	1008.615	1650203.73	2.0628	A	2.9

y = 0.0020 * x + 0.0214
R = 0.9998
DL = 1.562
BEC = 10.57

Weight: <None>
Min Conc: <None>

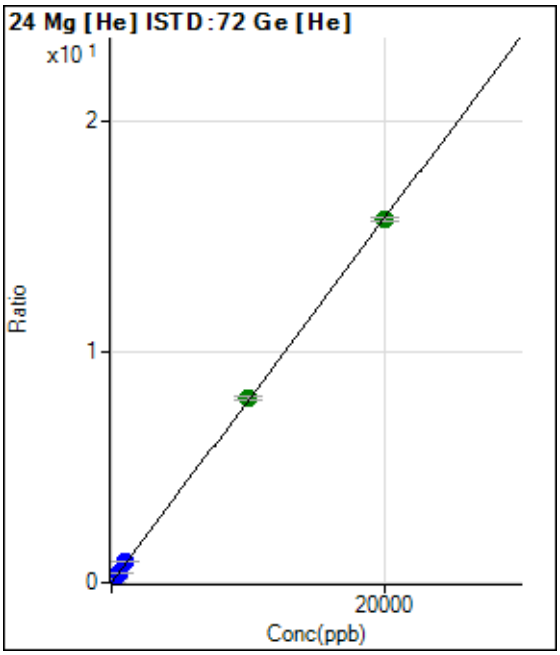


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74006.00	0.1254	P	0.7
2	☐	200.000	215.162	248077.77	0.4102	P	0.8
3	☐	500.000	535.301	507880.55	0.8341	P	1.1
4	☐	1000.000	1058.228	929485.14	1.5264	A	1.0
5	☐	10000.000	10173.432	7952351.34	13.5945	A	2.8
6	☐	20000.000	19909.339	15143591.02	26.4844	A	0.7

y = 0.0013 * x + 0.1254
R = 0.9999
DL = 2.022
BEC = 94.69

Weight: <None>
Min Conc: <None>

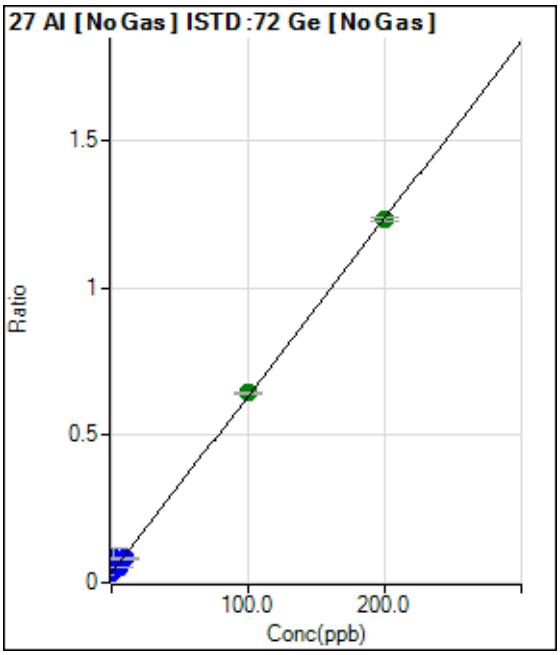
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1113.40	0.0019	P	7.8
2	☐	200.000	224.689	108590.28	0.1796	P	0.9
3	☐	500.000	556.861	269260.55	0.4422	P	0.9
4	☐	1000.000	1128.888	544666.31	0.8945	P	0.5
5	☐	10000.000	10153.807	4697759.72	8.0307	A	1.9
6	☐	20000.000	19914.984	9005164.45	15.7490	A	1.2

y = 7.9072E-004 * x + 0.0019
R = 1.0000
DL = 0.5574
BEC = 2.386

Weight: <None>
Min Conc: <None>

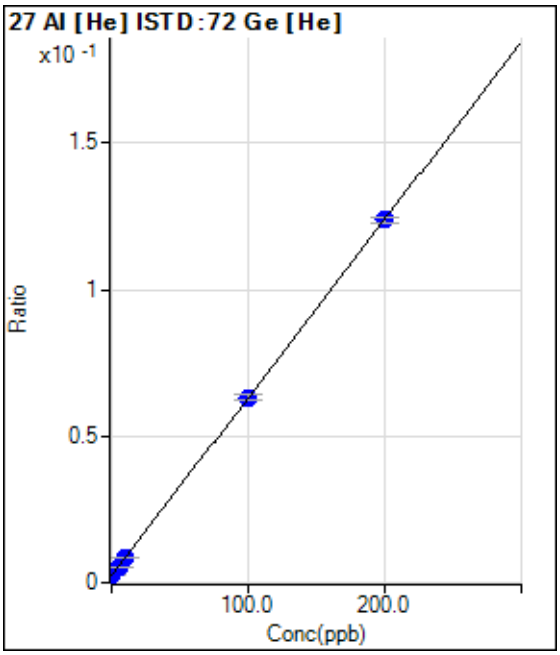


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69546.16	0.0322	P	29.3
2	☐	2.000	8.679	186478.78	0.0843	P	76.5
3	☐	5.000	3.431	116776.43	0.0528	P	2.0
4	☐	10.000	8.293	181937.09	0.0820	P	1.9
5	☐	100.000	101.521	1382768.21	0.6422	A	1.5
6	☐	200.000	199.297	2546992.67	1.2297	A	1.1

y = 0.0060 * x + 0.0322
R = 0.9993
DL = 4.701
BEC = 5.352

Weight: <None>
Min Conc: <None>

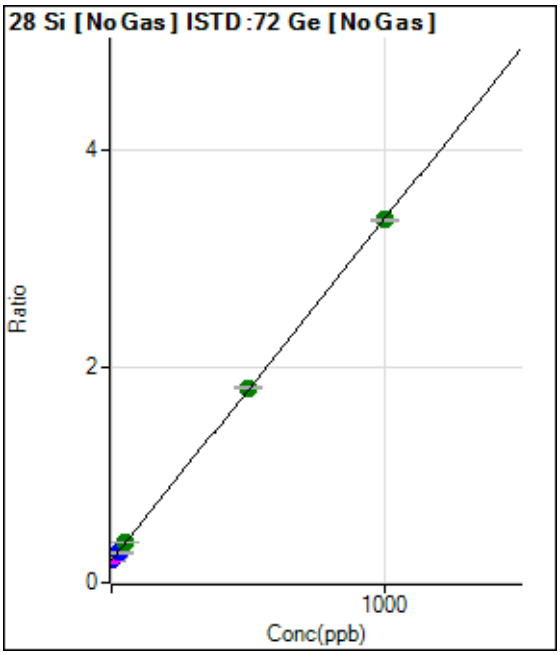
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1410.10	0.0024	P	5.5
2	☐	2.000	2.775	2463.60	0.0041	P	2.5
3	☐	5.000	5.138	3353.80	0.0055	P	2.2
4	☐	10.000	9.915	5117.72	0.0084	P	4.9
5	☐	100.000	100.162	36972.77	0.0632	P	2.6
6	☐	200.000	199.912	70773.01	0.1238	P	1.5

y = 6.0719E-004 * x + 0.0024
R = 1.0000
DL = 0.6502
BEC = 3.933

Weight: <None>
Min Conc: <None>

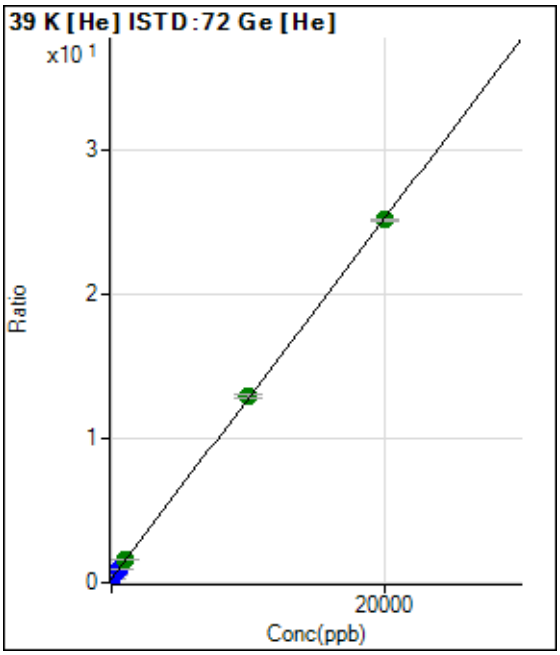


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	442766.04	0.2054	P	2.5
2	☐	10.000	15.933	561783.87	0.2558	M	14.3
3	☐	25.000	22.675	613282.41	0.2772	P	1.9
4	☐	50.000	51.882	820126.32	0.3695	A	0.6
5	☐	500.000	504.975	3880943.69	1.8025	A	1.4
6	☐	1000.000	997.417	6959164.27	3.3599	A	0.8

y = 0.0032 * x + 0.2054
R = 1.0000
DL = 4.878
BEC = 64.96

Weight: <None>
Min Conc: <None>

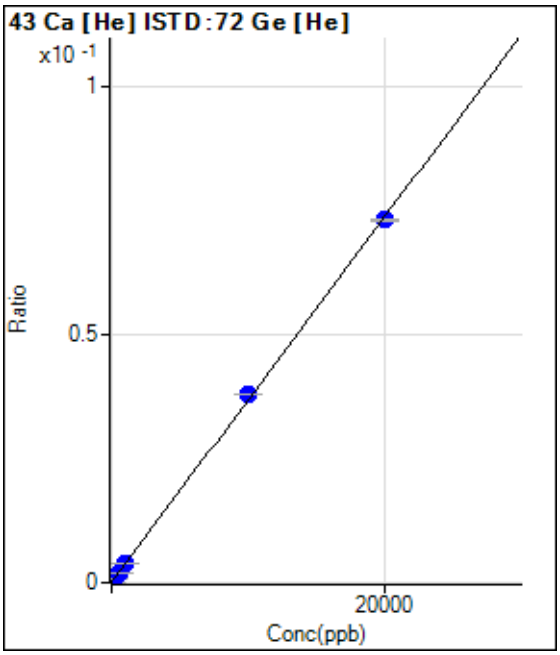
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	167620.99	0.2840	P	0.8
2	☐	200.000	200.377	322902.28	0.5339	P	0.2
3	☐	500.000	516.005	564903.70	0.9277	P	0.5
4	☐	1000.000	1045.694	967231.08	1.5886	A	0.7
5	☐	10000.000	10118.727	7550828.22	12.9081	A	1.9
6	☐	20000.000	19937.948	14385630.62	25.1585	A	0.5

y = 0.0012 * x + 0.2840
R = 1.0000
DL = 5.226
BEC = 227.6

Weight: <None>
Min Conc: <None>

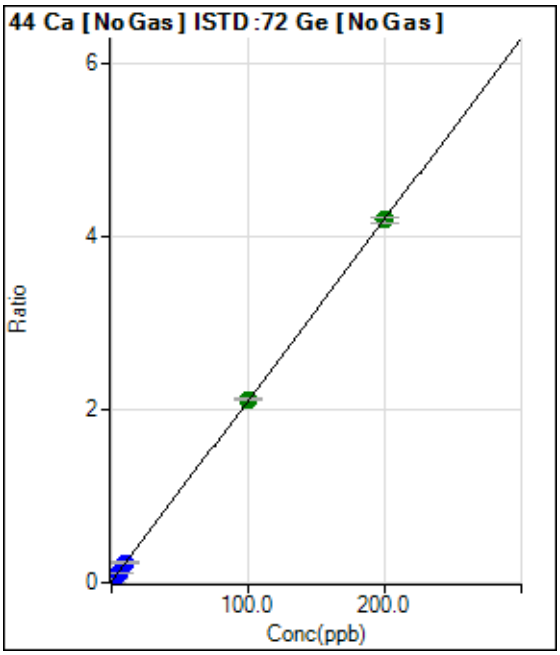


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0001	P	41.4
2	☐	200.000	187.129	453.35	0.0007	P	7.7
3	☐	500.000	487.902	1130.07	0.0019	P	4.9
4	☐	1000.000	992.964	2260.22	0.0037	P	1.5
5	☐	10000.000	10299.860	22184.90	0.0379	P	0.9
6	☐	20000.000	19850.853	41760.46	0.0730	P	0.8

y = 3.6760E-006 * x + 6.2028E-005
R = 0.9998
DL = 20.97
BEC = 16.87

Weight: <None>
Min Conc: <None>

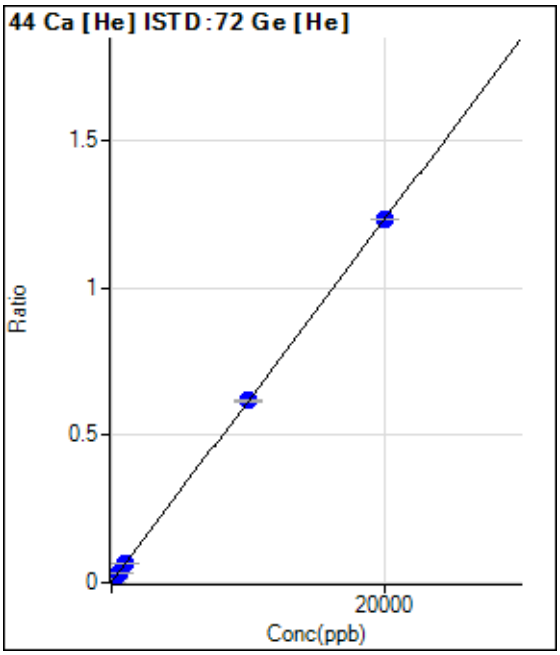
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23880.99	0.0111	P	0.6
2	☐	2.000	2.054	118748.58	0.0542	P	2.3
3	☐	5.000	5.229	267198.71	0.1208	P	2.6
4	☐	10.000	10.589	517473.04	0.2332	P	1.3
5	☐	100.000	100.494	4562364.20	2.1189	A	1.2
6	☐	200.000	199.717	8698800.08	4.2001	A	1.4

y = 0.0210 * x + 0.0111
R = 1.0000
DL = 0.008896
BEC = 0.5284

Weight: <None>
Min Conc: <None>

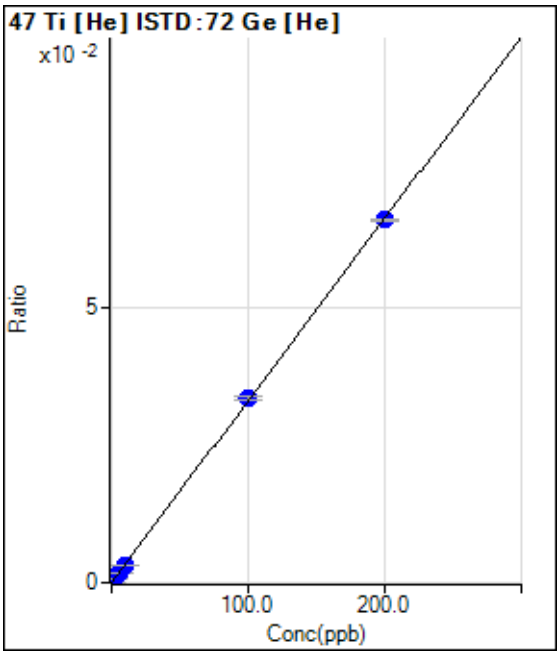


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	886.71	0.0015	P	10.6
2	☐	200.000	201.574	8406.02	0.0139	P	4.8
3	☐	500.000	491.900	19343.95	0.0318	P	1.9
4	☐	1000.000	1013.576	38885.10	0.0639	P	1.3
5	☐	10000.000	10030.737	361934.11	0.6187	P	1.4
6	☐	20000.000	19984.139	703975.95	1.2312	P	0.0

y = 6.1532E-005 * x + 0.0015
R = 1.0000
DL = 7.793
BEC = 24.41

Weight: <None>
Min Conc: <None>

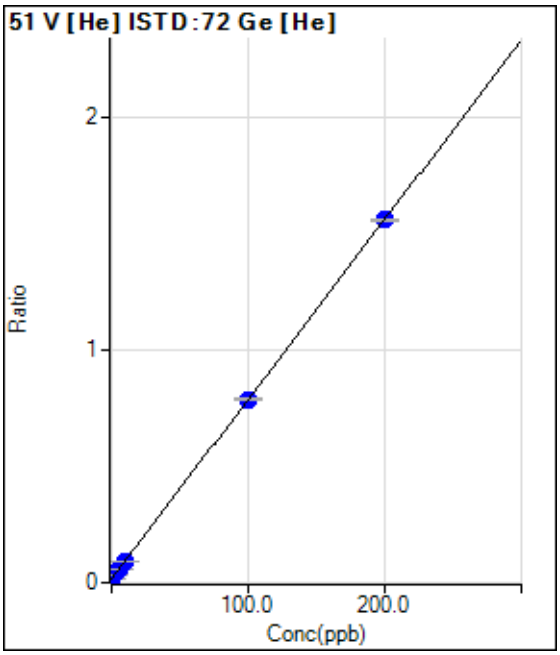
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	100.5
2	☐	2.000	1.963	403.35	0.0007	P	19.8
3	☐	5.000	5.151	1046.73	0.0017	P	6.8
4	☐	10.000	9.640	1950.18	0.0032	P	5.2
5	☐	100.000	101.238	19584.23	0.0335	P	2.7
6	☐	200.000	199.395	37691.94	0.0659	P	0.4

y = 3.3051E-004 * x + 1.6982E-005
R = 1.0000
DL = 0.155
BEC = 0.05138

Weight: <None>
Min Conc: <None>

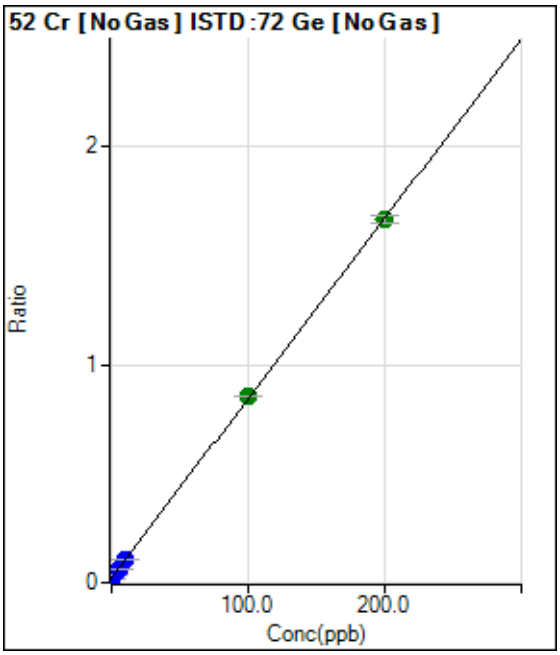


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9267.62	0.0157	P	0.7
2	☐	2.000	2.018	18916.41	0.0313	P	0.7
3	☐	5.000	4.996	33044.17	0.0543	P	0.8
4	☐	10.000	10.119	57121.72	0.0938	P	0.9
5	☐	100.000	100.139	461332.19	0.7887	P	1.7
6	☐	200.000	199.924	891350.80	1.5589	P	0.8

y = 0.0077 * x + 0.0157
R = 1.0000
DL = 0.04249
BEC = 2.034

Weight: <None>
Min Conc: <None>

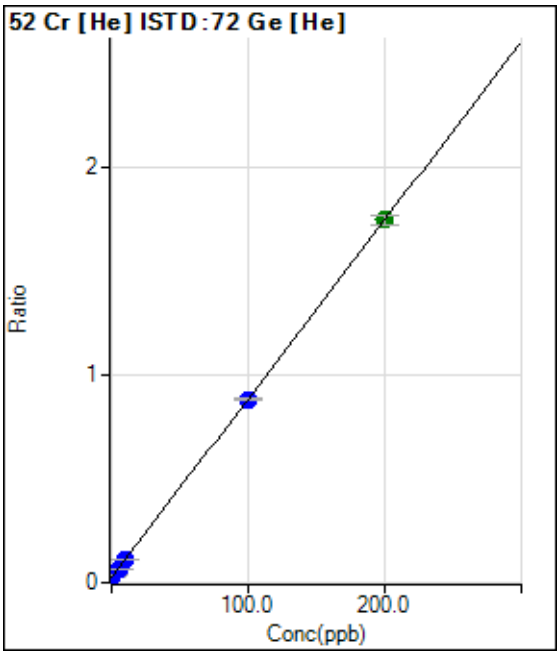
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46298.32	0.0215	P	3.5
2	☐	2.000	2.085	84784.67	0.0387	P	0.9
3	☐	5.000	5.217	142660.18	0.0645	P	2.5
4	☐	10.000	10.365	237207.16	0.1069	P	0.9
5	☐	100.000	101.224	1841914.61	0.8554	A	0.9
6	☐	200.000	199.363	3445704.01	1.6639	A	2.2

y = 0.0082 * x + 0.0215
R = 1.0000
DL = 0.2705
BEC = 2.609

Weight: <None>
Min Conc: <None>

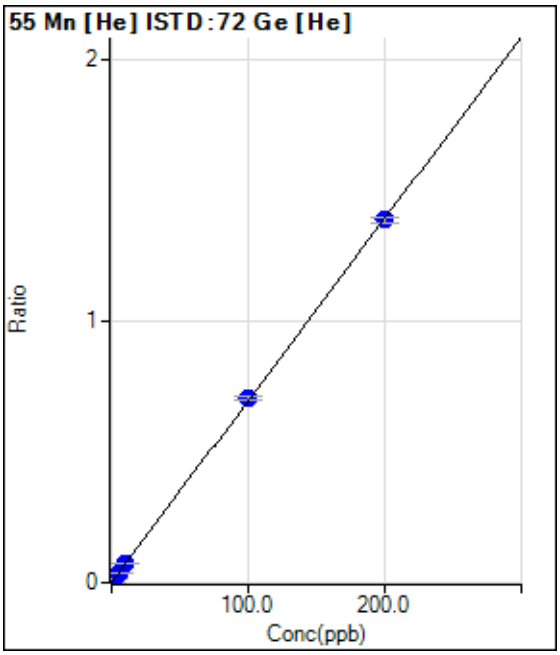


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14504.61	0.0246	P	2.1
2	☐	2.000	2.047	25520.88	0.0422	P	2.6
3	☐	5.000	4.949	40924.83	0.0672	P	1.4
4	☐	10.000	10.031	67550.12	0.1110	P	2.9
5	☐	100.000	99.697	516710.26	0.8833	P	1.2
6	☐	200.000	200.151	999828.63	1.7486	A	2.9

y = 0.0086 * x + 0.0246
R = 1.0000
DL = 0.1822
BEC = 2.853

Weight: <None>
Min Conc: <None>

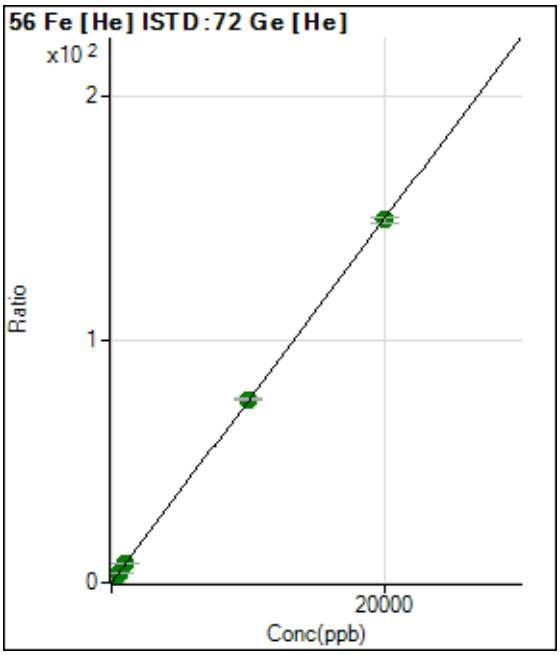
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	490.02	0.0008	P	5.3
2	☐	2.000	2.094	9296.66	0.0154	P	2.2
3	☐	5.000	5.235	22645.74	0.0372	P	2.0
4	☐	10.000	10.295	44041.22	0.0723	P	1.8
5	☐	100.000	101.058	411094.21	0.7028	P	1.9
6	☐	200.000	199.449	792611.03	1.3862	P	1.6

y = 0.0069 * x + 8.2983E-004
R = 1.0000
DL = 0.01906
BEC = 0.1195

Weight: <None>
Min Conc: <None>

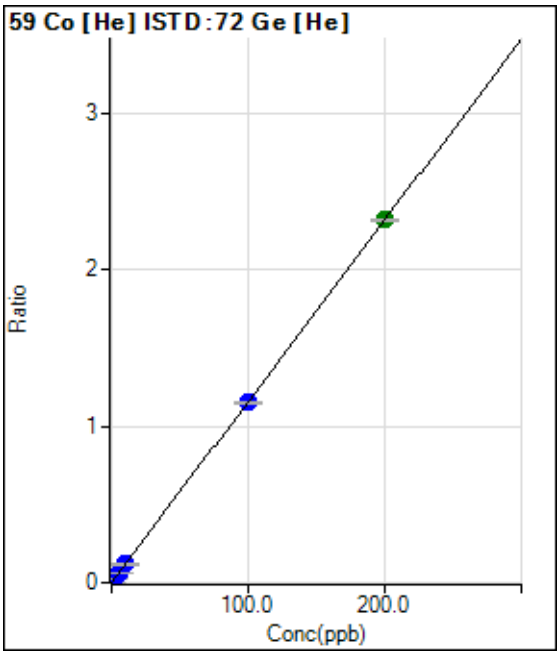


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22746.31	0.0385	P	3.6
2	☐	200.000	209.118	968993.63	1.6025	A	1.9
3	☐	500.000	524.126	2410363.19	3.9584	A	1.0
4	☐	1000.000	1037.523	4747898.68	7.7979	A	0.8
5	☐	10000.000	10095.281	44187512.67	75.5389	A	0.5
6	☐	20000.000	19949.789	85333238.73	149.2385	A	1.8

y = 0.0075 * x + 0.0385
R = 1.0000
DL = 0.5591
BEC = 5.152

Weight: <None>
Min Conc: <None>

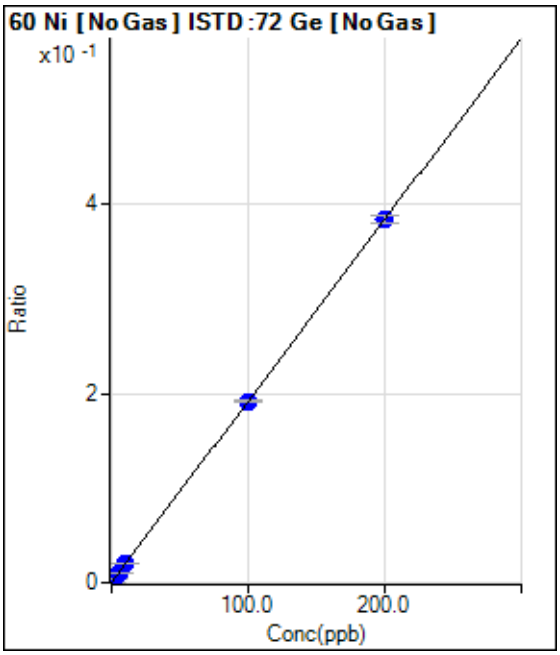
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0001	P	25.5
2	☐	2.000	1.954	13710.42	0.0227	P	0.5
3	☐	5.000	4.930	34758.00	0.0571	P	0.6
4	☐	10.000	10.123	71323.00	0.1171	P	2.0
5	☐	100.000	99.385	672173.79	1.1491	P	0.9
6	☐	200.000	200.304	1324162.95	2.3158	A	0.8

y = 0.0116 * x + 7.9142E-005
R = 1.0000
DL = 0.005235
BEC = 0.006846

Weight: <None>
Min Conc: <None>

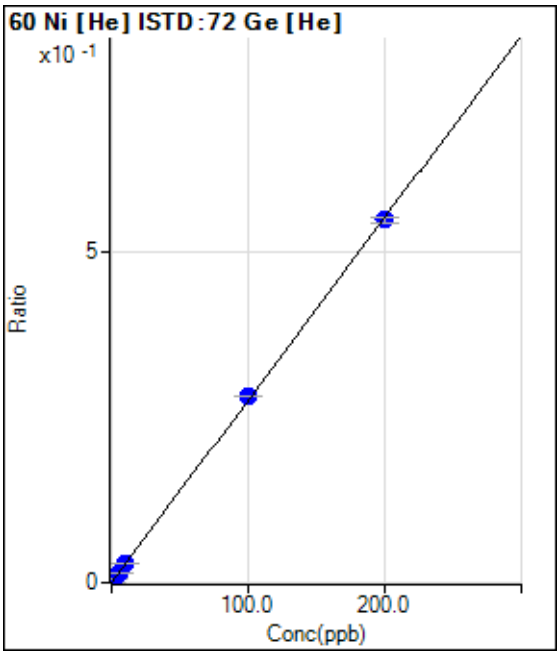


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	516.69	0.0002	P	17.4
2	☐	2.000	2.134	9483.47	0.0043	P	7.7
3	☐	5.000	5.091	22115.04	0.0100	P	5.8
4	☐	10.000	10.324	44435.99	0.0200	P	0.8
5	☐	100.000	99.999	413144.80	0.1919	P	0.9
6	☐	200.000	199.981	794124.67	0.3835	P	2.1

y = 0.0019 * x + 2.3958E-004
R = 1.0000
DL = 0.06527
BEC = 0.125

Weight: <None>
Min Conc: <None>

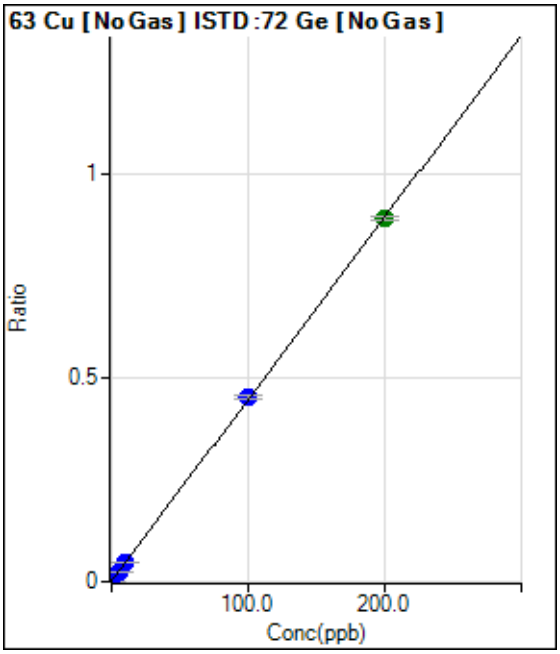
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	96.67	0.0002	P	12.7
2	☐	2.000	2.137	3670.57	0.0061	P	1.4
3	☐	5.000	5.162	8782.97	0.0144	P	2.0
4	☐	10.000	10.347	17498.20	0.0287	P	3.4
5	☐	100.000	102.134	165144.15	0.2823	P	0.6
6	☐	200.000	198.910	314293.04	0.5497	P	1.6

y = 0.0028 * x + 1.6384E-004
R = 0.9999
DL = 0.02254
BEC = 0.05931

Weight: <None>
Min Conc: <None>

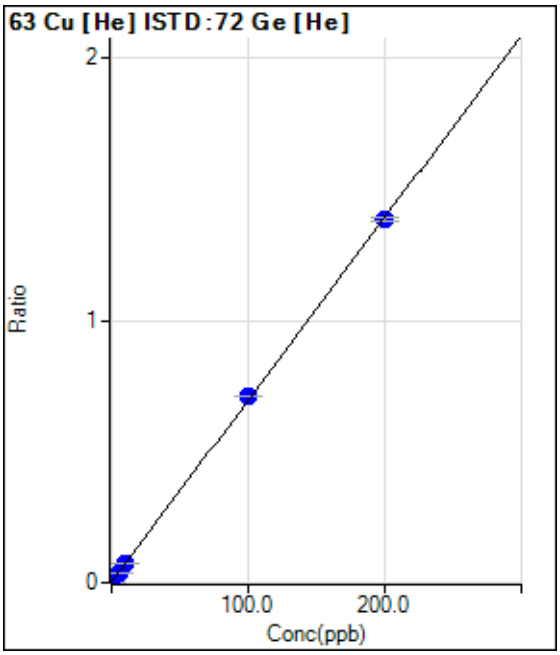


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2210.22	0.0010	P	2.6
2	☐	2.000	2.491	26639.71	0.0122	P	4.1
3	☐	5.000	5.113	52802.76	0.0239	P	2.2
4	☐	10.000	10.354	104899.01	0.0473	P	1.6
5	☐	100.000	101.442	977778.97	0.4541	P	1.7
6	☐	200.000	199.254	1845504.87	0.8910	A	1.0

y = 0.0045 * x + 0.0010
R = 1.0000
DL = 0.01769
BEC = 0.2297

Weight: <None>
Min Conc: <None>

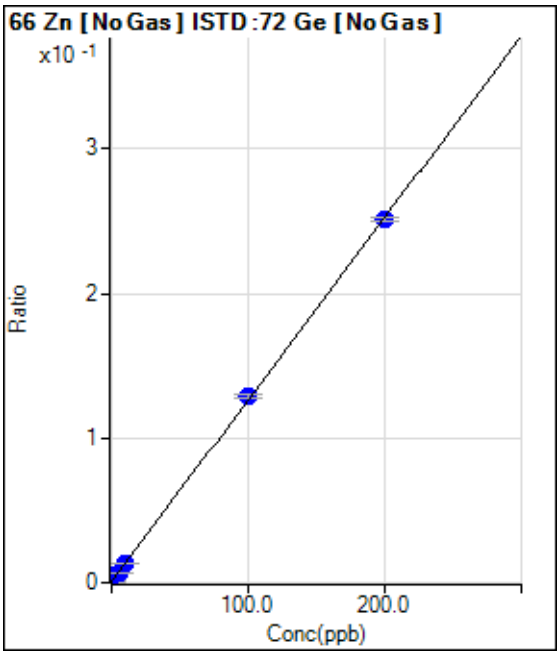
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	823.37	0.0014	P	12.7
2	☐	2.000	2.564	11611.79	0.0192	P	2.2
3	☐	5.000	5.003	22008.24	0.0361	P	4.5
4	☐	10.000	10.280	44329.19	0.0728	P	0.5
5	☐	100.000	102.161	415928.48	0.7110	P	0.7
6	☐	200.000	198.900	790791.39	1.3830	P	1.1

y = 0.0069 * x + 0.0014
R = 0.9999
DL = 0.07666
BEC = 0.2008

Weight: <None>
Min Conc: <None>

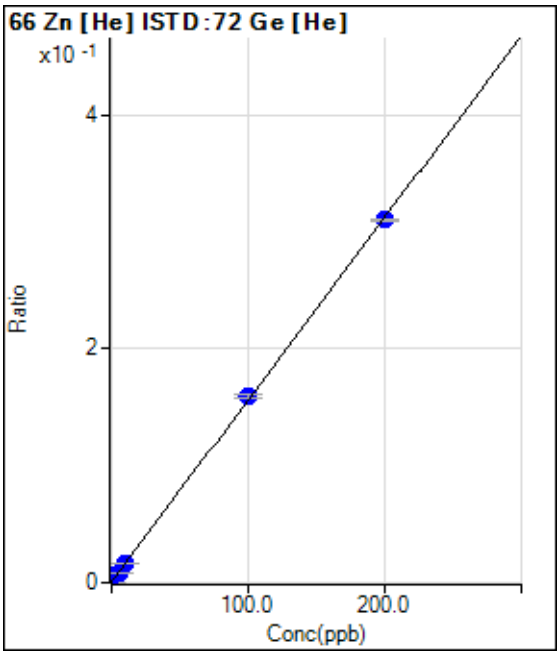


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1353.43	0.0006	P	12.6
2	☐	2.000	3.571	11224.85	0.0051	P	4.1
3	☐	5.000	5.003	15315.56	0.0069	P	2.3
4	☐	10.000	10.400	30421.19	0.0137	P	2.2
5	☐	100.000	102.053	277705.63	0.1290	P	1.6
6	☐	200.000	198.938	519510.66	0.2508	P	1.2

y = 0.0013 * x + 6.2897E-004
R = 0.9999
DL = 0.1883
BEC = 0.5001

Weight: <None>
Min Conc: <None>

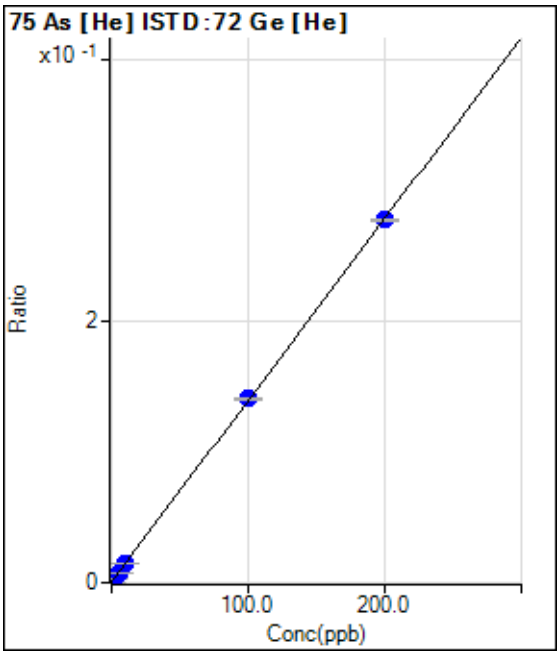
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	400.02	0.0007	P	33.8
2	☐	2.000	3.702	3890.65	0.0064	P	7.3
3	☐	5.000	4.941	5091.04	0.0084	P	6.9
4	☐	10.000	10.217	10093.90	0.0166	P	4.6
5	☐	100.000	102.195	93379.43	0.1596	P	1.4
6	☐	200.000	198.876	177258.71	0.3100	P	0.9

y = 0.0016 * x + 6.7801E-004
R = 0.9999
DL = 0.442
BEC = 0.4359

Weight: <None>
Min Conc: <None>

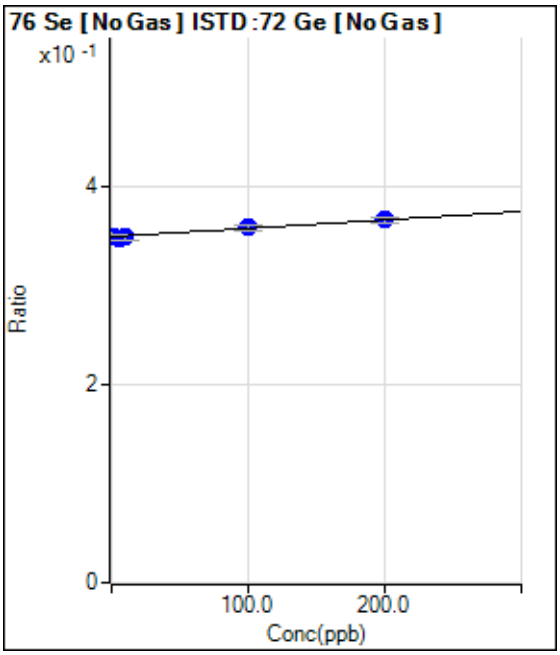


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	365.56	0.0006	P	17.7
2	☐	2.000	2.016	2065.72	0.0034	P	4.4
3	☐	5.000	5.006	4606.36	0.0076	P	2.1
4	☐	10.000	10.057	8872.95	0.0146	P	3.1
5	☐	100.000	100.871	82230.82	0.1406	P	0.9
6	☐	200.000	199.561	158671.91	0.2775	P	0.4

y = 0.0014 * x + 6.1945E-004
R = 1.0000
DL = 0.2367
BEC = 0.4465

Weight: <None>
Min Conc: <None>

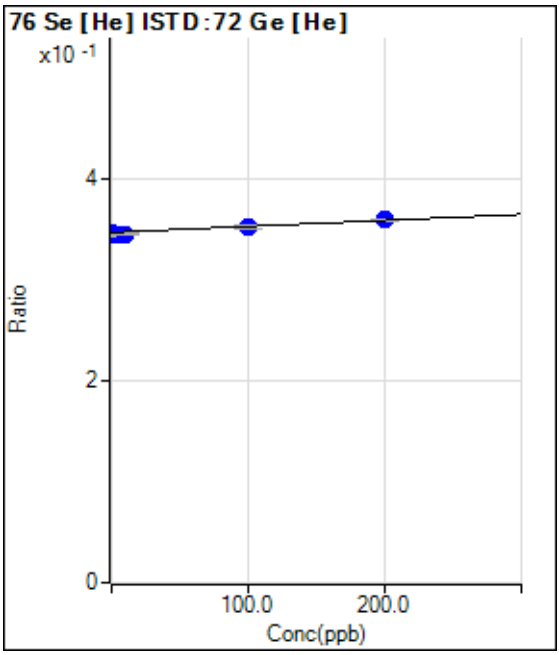
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	752471.42	0.3493	P	0.9
2	☐	2.000	6.843	766951.99	0.3498	P	1.6
3	☐	5.000	-14.428	770170.69	0.3480	P	1.6
4	☐	10.000	-5.783	773974.34	0.3488	P	1.6
5	☐	100.000	103.978	771012.38	0.3581	P	1.1
6	☐	200.000	199.237	758403.11	0.3662	P	1.3

y = 8.4879E-005 * x + 0.3493
R = 0.9934
DL = 115.6
BEC = 4115

Weight: <None>
Min Conc: <None>

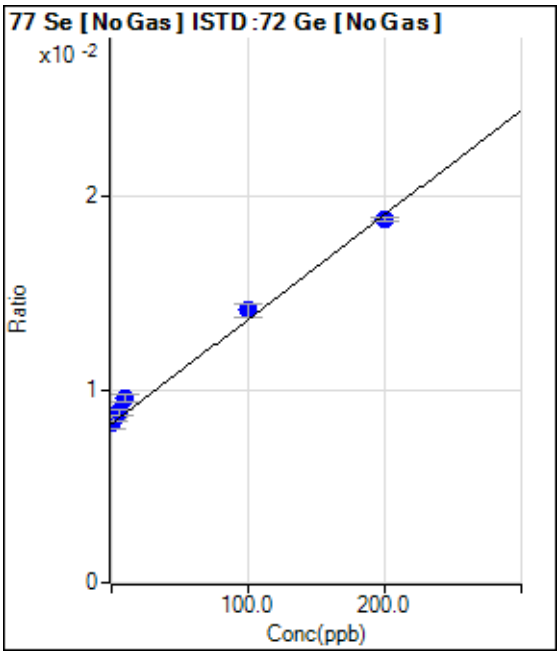


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	204469.32	0.3464	P	1.3
2	☐	2.000	-31.058	208339.72	0.3445	P	0.8
3	☐	5.000	-51.533	209041.84	0.3433	P	0.8
4	☐	10.000	-27.318	209922.40	0.3447	P	0.5
5	☐	100.000	94.254	205906.60	0.3520	P	1.0
6	☐	200.000	206.483	205091.04	0.3587	P	0.4

y = 5.9588E-005 * x + 0.3464
R = 0.9821
DL = 219.4
BEC = 5813

Weight: <None>
Min Conc: <None>

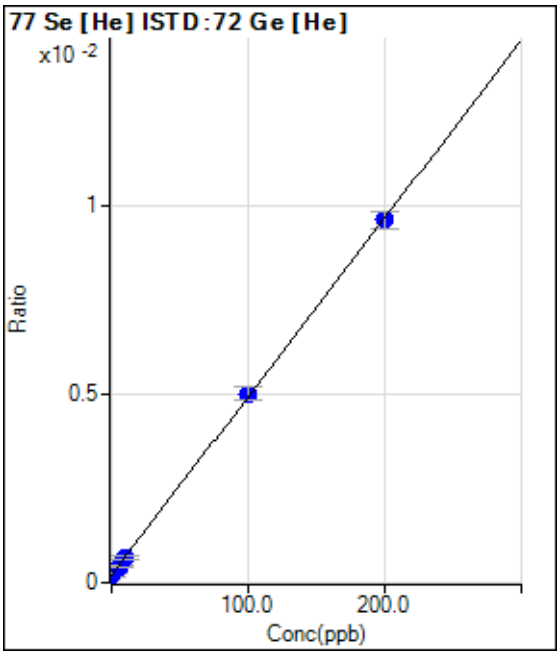
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17728.56	0.0082	P	6.2
2	☐	2.000	4.571	18596.53	0.0085	P	2.9
3	☐	5.000	10.941	19541.19	0.0088	P	4.2
4	☐	10.000	24.667	21233.64	0.0096	P	3.4
5	☐	100.000	108.249	30344.47	0.0141	P	4.4
6	☐	200.000	194.968	38929.88	0.0188	P	0.9

y = 5.4151E-005 * x + 0.0082
R = 0.9971
DL = 28.42
BEC = 152.1

Weight: <None>
Min Conc: <None>

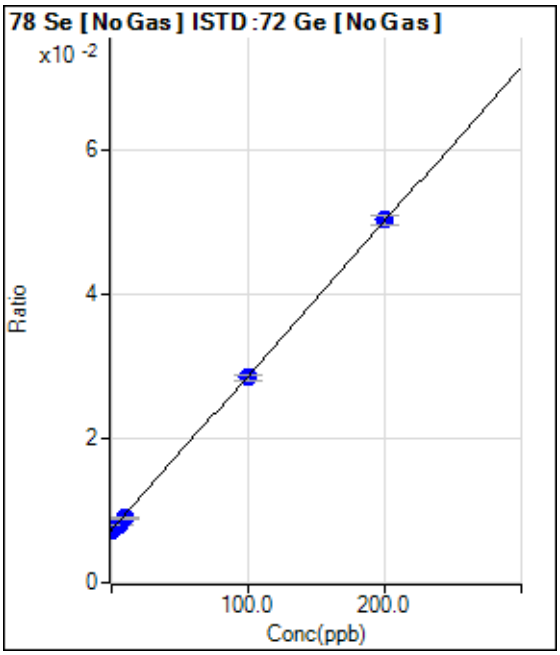


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.33	0.0002	P	36.0
2	☐	2.000	2.005	183.34	0.0003	P	19.8
3	☐	5.000	4.508	256.68	0.0004	P	14.0
4	☐	10.000	9.974	413.34	0.0007	P	16.5
5	☐	100.000	101.735	2933.70	0.0050	P	7.1
6	☐	200.000	199.146	5497.89	0.0096	P	4.9

y = 4.7236E-005 * x + 2.0868E-004
R = 0.9999
DL = 4.769
BEC = 4.418

Weight: <None>
Min Conc: <None>

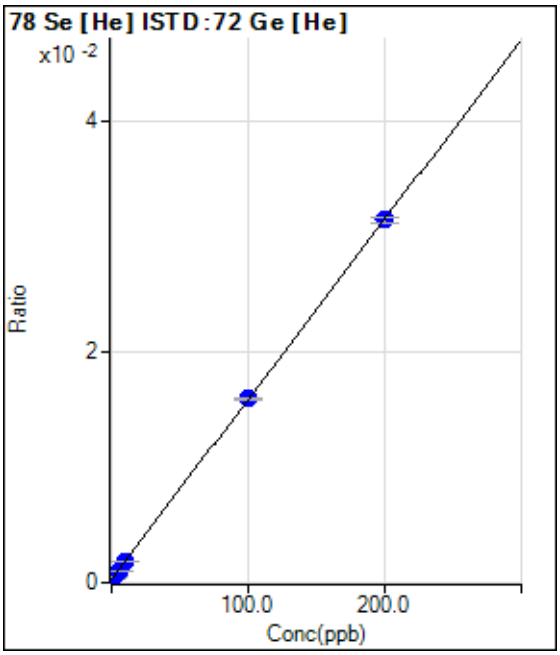
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15722.73	0.0073	P	1.1
2	☐	2.000	1.170	16547.00	0.0075	P	2.2
3	☐	5.000	3.139	17635.05	0.0080	P	1.3
4	☐	10.000	7.696	19845.08	0.0089	P	1.4
5	☐	100.000	98.697	61145.75	0.0284	P	2.2
6	☐	200.000	200.822	104027.02	0.0502	P	2.5

y = 2.1381E-004 * x + 0.0073
R = 0.9999
DL = 1.148
BEC = 34.13

Weight: <None>
Min Conc: <None>

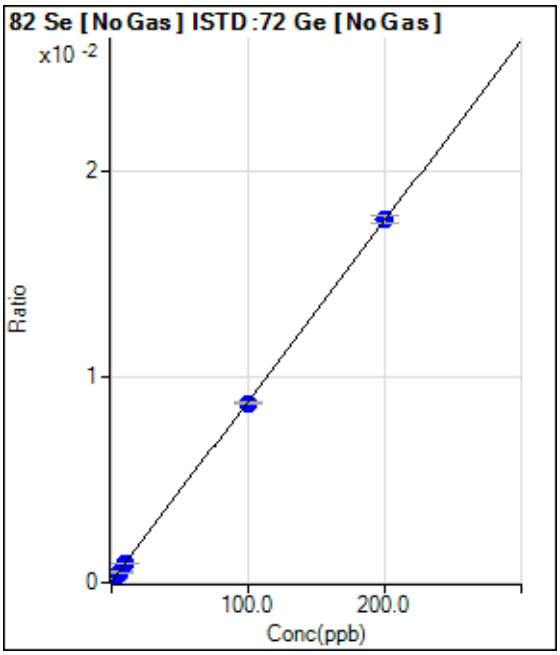


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	180.67	0.0003	P	9.6
2	☐	2.000	1.718	347.34	0.0006	P	10.5
3	☐	5.000	4.441	608.02	0.0010	P	0.4
4	☐	10.000	9.784	1115.38	0.0018	P	3.4
5	☐	100.000	100.381	9333.26	0.0160	P	1.6
6	☐	200.000	199.837	17988.66	0.0315	P	1.6

y = 1.5590E-004 * x + 3.0609E-004
R = 1.0000
DL = 0.566
BEC = 1.963

Weight: <None>
Min Conc: <None>

Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	131.60	0.0001	P	39.8
2	☐	2.000	1.818	484.47	0.0002	P	8.1
3	☐	5.000	4.968	1101.56	0.0005	P	7.9
4	☐	10.000	9.747	2034.55	0.0009	P	3.0
5	☐	100.000	98.943	18831.91	0.0087	P	1.4
6	☐	200.000	200.544	36585.71	0.0177	P	2.1

y = 8.7777E-005 * x + 6.1339E-005

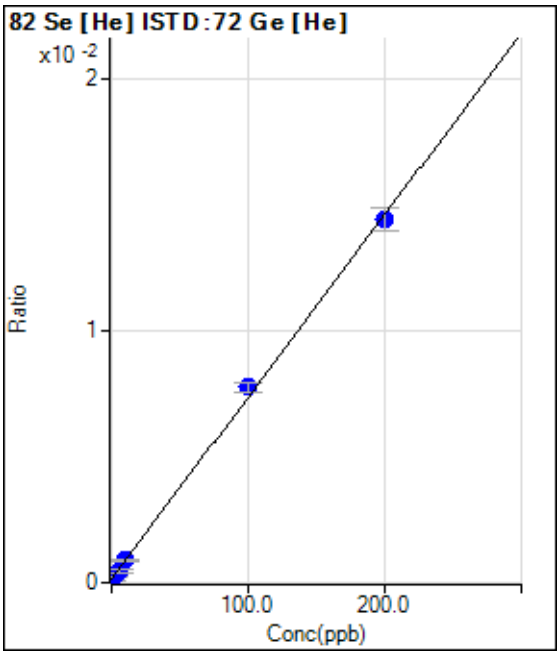
R = 1.0000

DL = 0.8342

BEC = 0.6988

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0001	P	63.0
2	☐	2.000	1.558	156.67	0.0003	P	7.8
3	☐	5.000	4.715	296.67	0.0005	P	31.2
4	☐	10.000	10.338	543.35	0.0009	P	11.4
5	☐	100.000	105.353	4537.54	0.0078	P	4.3
6	☐	200.000	197.318	8232.73	0.0144	P	6.3

y = 7.2230E-005 * x + 1.4657E-004

R = 0.9995

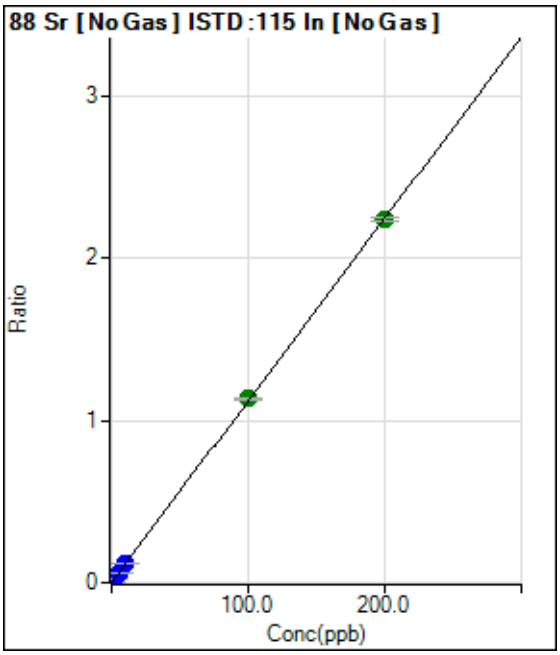
DL = 3.837

BEC = 2.029

Weight: <None>

Min Conc: <None>

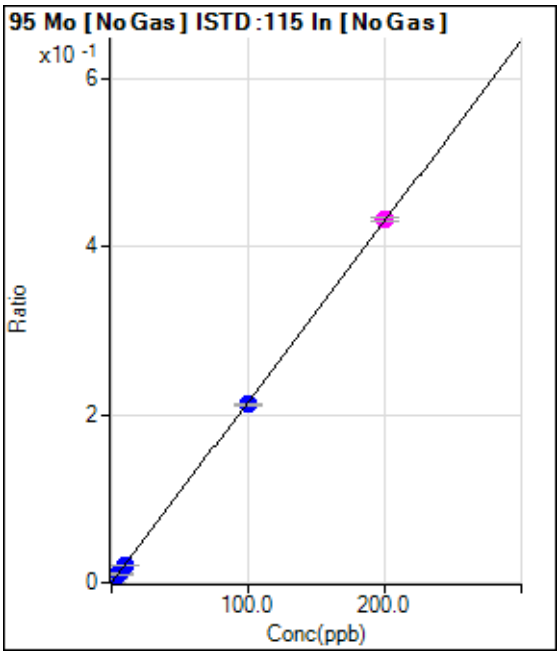
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2233.56	0.0009	P	5.3
2	☐	2.000	2.026	58494.47	0.0237	P	2.4
3	☐	5.000	5.075	144230.38	0.0578	P	0.8
4	☐	10.000	10.226	286931.91	0.1156	P	2.5
5	☐	100.000	101.055	2720421.73	1.1341	A	0.8
6	☐	200.000	199.459	5124619.30	2.2375	A	1.2

y = 0.0112 * x + 9.3718E-004
R = 1.0000
DL = 0.01341
BEC = 0.08358

Weight: <None>
Min Conc: <None>

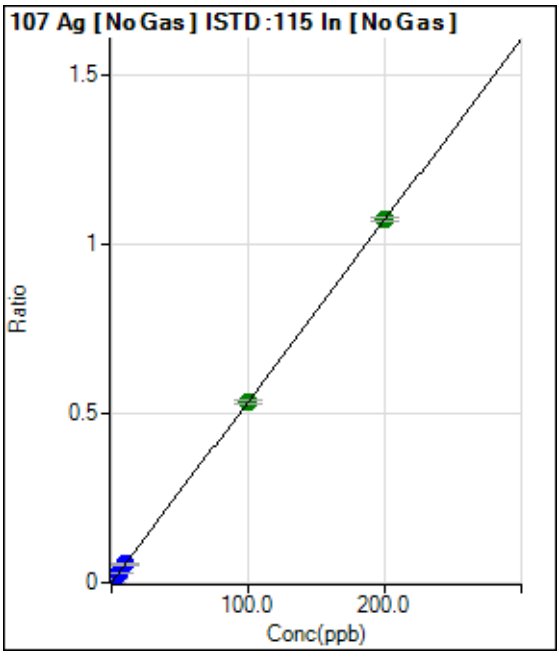


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.67	0.0001	P	12.9
2	☐	2.000	1.906	10357.53	0.0042	P	1.8
3	☐	5.000	4.821	26072.53	0.0105	P	3.8
4	☐	10.000	9.835	52697.80	0.0212	P	3.0
5	☐	100.000	98.540	508322.53	0.2119	P	1.0
6	☐	200.000	200.744	988477.88	0.4316	M	1.2

y = 0.0021 * x + 9.0733E-005
R = 1.0000
DL = 0.01633
BEC = 0.04221

Weight: <None>
Min Conc: <None>

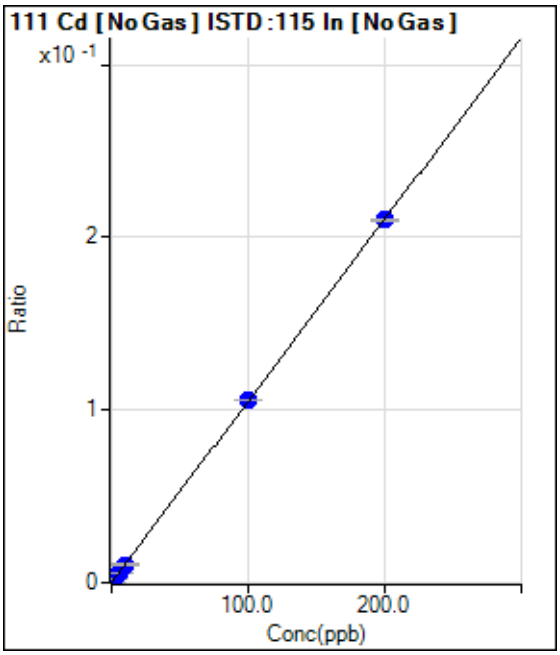
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0000	P	7.8
2	☐	2.000	2.001	26533.63	0.0107	P	3.5
3	☐	5.000	5.022	67029.59	0.0269	P	1.3
4	☐	10.000	10.143	134680.00	0.0543	P	1.6
5	☐	100.000	99.580	1276779.75	0.5323	A	2.2
6	☐	200.000	200.202	2450953.97	1.0702	A	1.2

y = 0.0053 * x + 3.6385E-005
R = 1.0000
DL = 0.001598
BEC = 0.006807

Weight: <None>
Min Conc: <None>

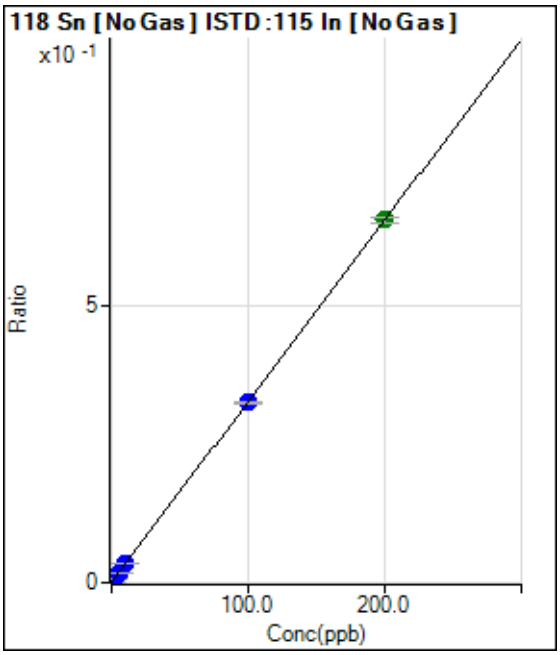


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-14.55	0.0000	P	-39.8
2	☐	2.000	1.988	5153.10	0.0021	P	4.1
3	☐	5.000	4.908	12852.67	0.0052	P	5.4
4	☐	10.000	9.977	26016.58	0.0105	P	3.3
5	☐	100.000	100.343	253036.30	0.1055	P	0.3
6	☐	200.000	199.832	481099.37	0.2101	P	0.8

y = 0.0011 * x - 6.0857E-006
R = 1.0000
DL = 0.00691
BEC = -0.005789

Weight: <None>
Min Conc: <None>

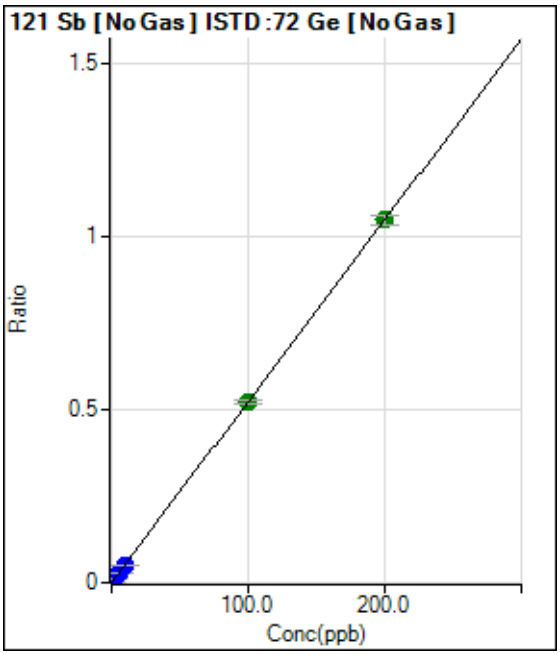
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1693.47	0.0007	P	3.9
2	☐	2.000	1.915	17241.58	0.0070	P	2.2
3	☐	5.000	4.867	41429.14	0.0166	P	0.1
4	☐	10.000	10.056	83343.90	0.0336	P	1.5
5	☐	100.000	99.345	780451.18	0.3254	P	0.6
6	☐	200.000	200.329	1500953.05	0.6553	A	1.6

y = 0.0033 * x + 7.1034E-004
R = 1.0000
DL = 0.02526
BEC = 0.2174

Weight: <None>
Min Conc: <None>

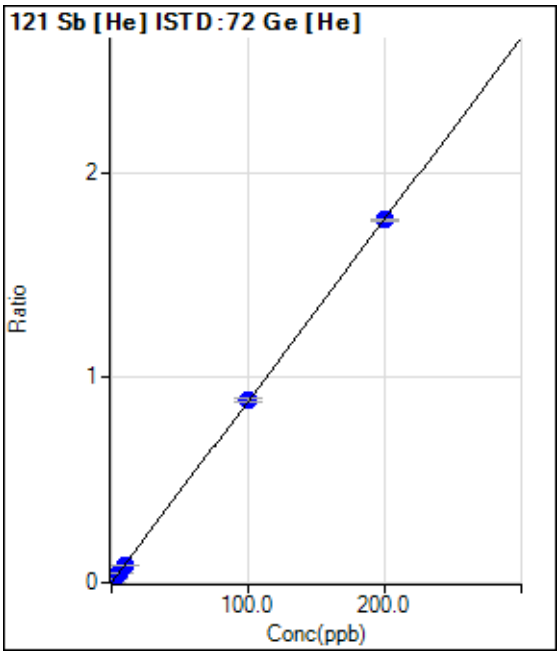


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156.67	0.0001	P	20.3
2	☐	2.000	1.873	21648.22	0.0099	P	3.8
3	☐	5.000	4.820	56002.61	0.0253	P	2.3
4	☐	10.000	9.900	115172.58	0.0519	P	1.9
5	☐	100.000	99.586	1122958.73	0.5214	A	2.2
6	☐	200.000	200.218	2170814.61	1.0483	A	2.4

y = 0.0052 * x + 7.2884E-005
R = 1.0000
DL = 0.00848
BEC = 0.01392

Weight: <None>
Min Conc: <None>

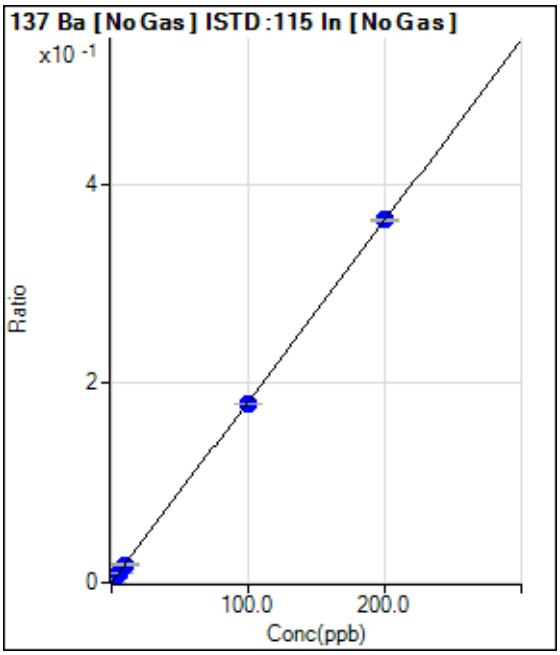
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	52.9
2	☐	2.000	1.966	10584.49	0.0175	P	4.7
3	☐	5.000	4.837	26126.28	0.0429	P	1.9
4	☐	10.000	9.623	51916.13	0.0853	P	0.8
5	☐	100.000	100.545	520468.49	0.8897	P	1.7
6	☐	200.000	199.751	1010652.69	1.7675	P	0.9

y = 0.0088 * x + 1.1313E-004
R = 1.0000
DL = 0.02027
BEC = 0.01279

Weight: <None>
Min Conc: <None>

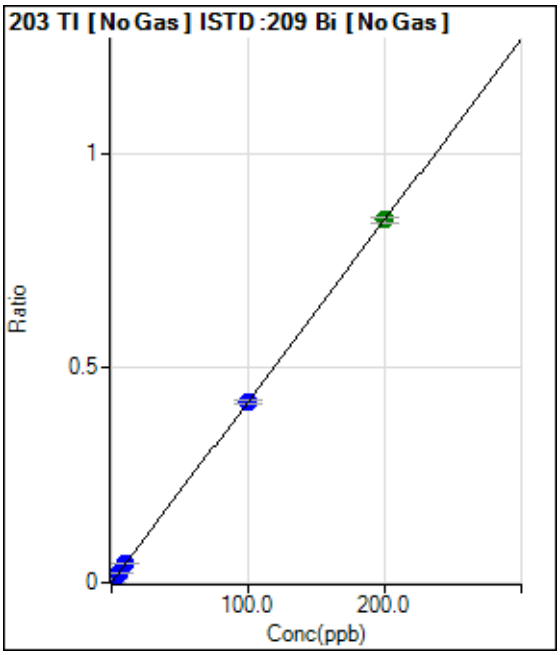


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	586.69	0.0002	P	28.7
2	☐	2.000	1.955	9380.21	0.0038	P	2.1
3	☐	5.000	4.854	22573.32	0.0091	P	0.4
4	☐	10.000	9.912	45242.53	0.0182	P	3.8
5	☐	100.000	99.126	432042.14	0.1801	P	0.2
6	☐	200.000	200.445	833539.02	0.3639	P	0.7

y = 0.0018 * x + 2.4601E-004
R = 1.0000
DL = 0.1169
BEC = 0.1356

Weight: <None>
Min Conc: <None>

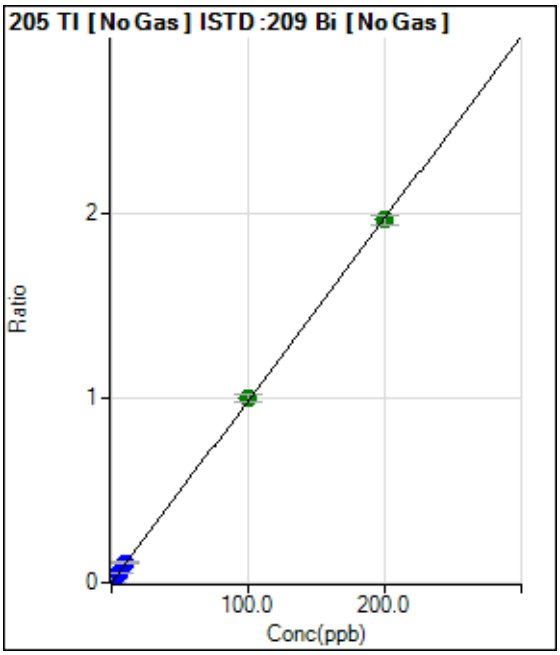
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	103.33	0.0001	P	14.4
2	☐	2.000	2.079	16601.31	0.0088	P	3.0
3	☐	5.000	5.241	42582.82	0.0222	P	1.8
4	☐	10.000	10.583	85159.01	0.0447	P	3.2
5	☐	100.000	99.588	780631.03	0.4205	P	2.1
6	☐	200.000	200.170	1513178.42	0.8452	A	1.6

y = 0.0042 * x + 5.7801E-005
R = 1.0000
DL = 0.005933
BEC = 0.01369

Weight: <None>
Min Conc: <None>

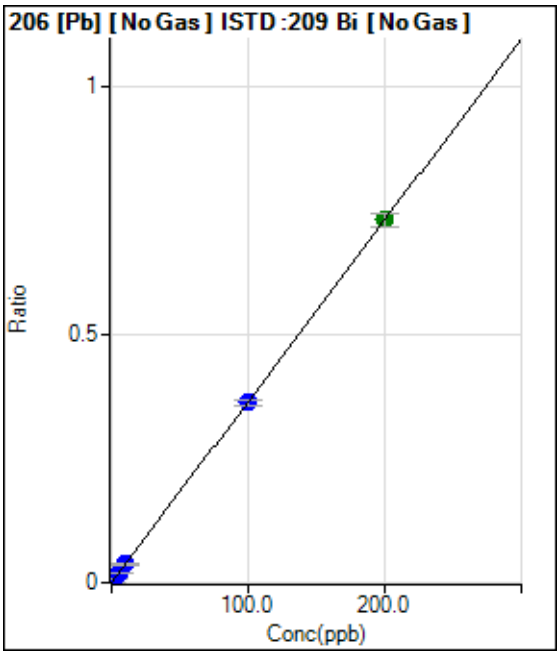


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0001	P	16.9
2	☐	2.000	2.140	39813.85	0.0212	P	3.6
3	☐	5.000	5.319	100987.52	0.0526	P	1.0
4	☐	10.000	10.897	204991.66	0.1077	P	4.2
5	☐	100.000	101.317	1857937.99	1.0010	A	3.8
6	☐	200.000	199.287	3524792.13	1.9689	A	2.5

y = 0.0099 * x + 6.5198E-005
R = 1.0000
DL = 0.003336
BEC = 0.006599

Weight: <None>
Min Conc: <None>

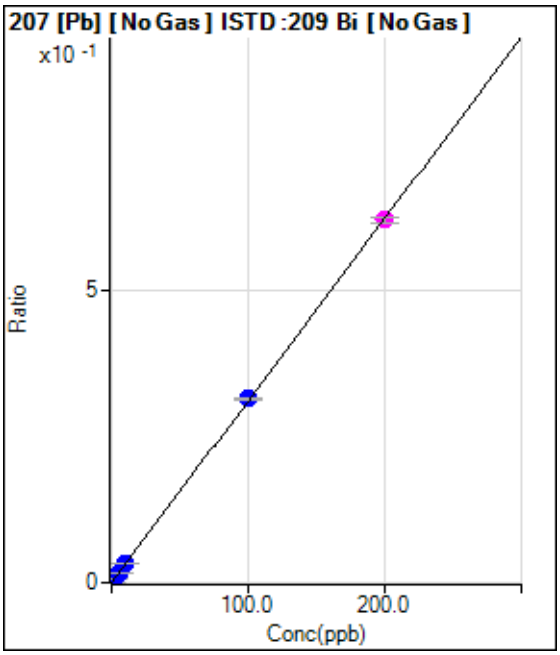
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.33	0.0001	P	11.3
2	☐	2.000	1.934	13394.11	0.0071	P	5.8
3	☐	5.000	5.068	35657.92	0.0186	P	4.3
4	☐	10.000	10.140	70639.89	0.0371	P	3.9
5	☐	100.000	99.405	674322.25	0.3633	P	2.9
6	☐	200.000	200.289	1310306.59	0.7319	A	3.4

y = 0.0037 * x + 6.8944E-005
R = 1.0000
DL = 0.006408
BEC = 0.01887

Weight: <None>
Min Conc: <None>

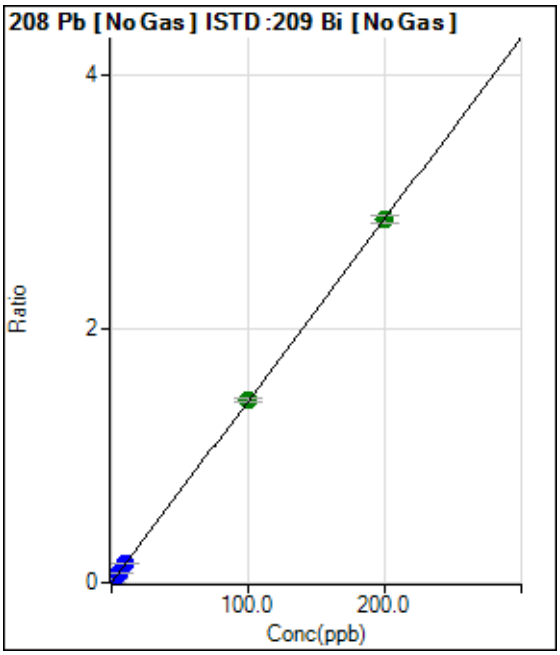


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	120.00	0.0001	P	22.4
2	☐	2.000	2.016	11865.91	0.0063	P	4.2
3	☐	5.000	5.090	30434.11	0.0159	P	0.7
4	☐	10.000	10.274	60767.79	0.0319	P	4.2
5	☐	100.000	101.008	581697.77	0.3134	P	1.7
6	☐	200.000	199.480	1107802.54	0.6188	M	1.4

y = 0.0031 * x + 6.7189E-005
R = 1.0000
DL = 0.01456
BEC = 0.02166

Weight: <None>
Min Conc: <None>

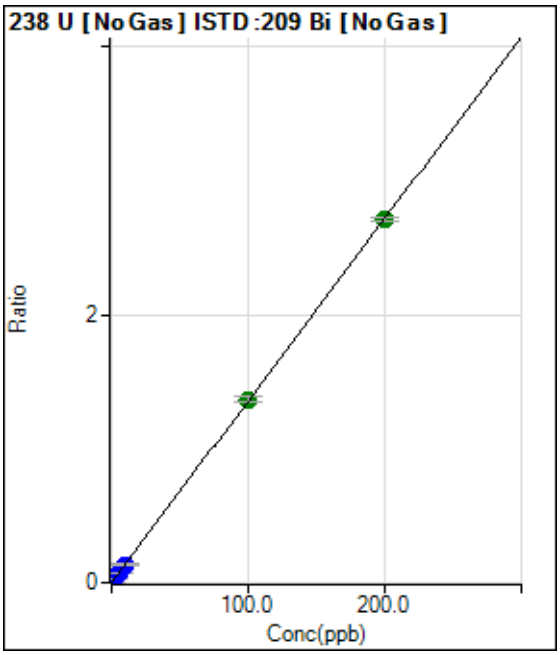
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	406.67	0.0002	P	6.5
2	☐	2.000	2.001	54180.71	0.0288	P	2.8
3	☐	5.000	5.094	140258.96	0.0731	P	1.7
4	☐	10.000	10.246	279315.53	0.1468	P	3.2
5	☐	100.000	100.699	2673708.64	1.4404	A	2.1
6	☐	200.000	199.636	5111804.19	2.8553	A	2.0

y = 0.0143 * x + 2.2737E-004
R = 1.0000
DL = 0.003112
BEC = 0.0159

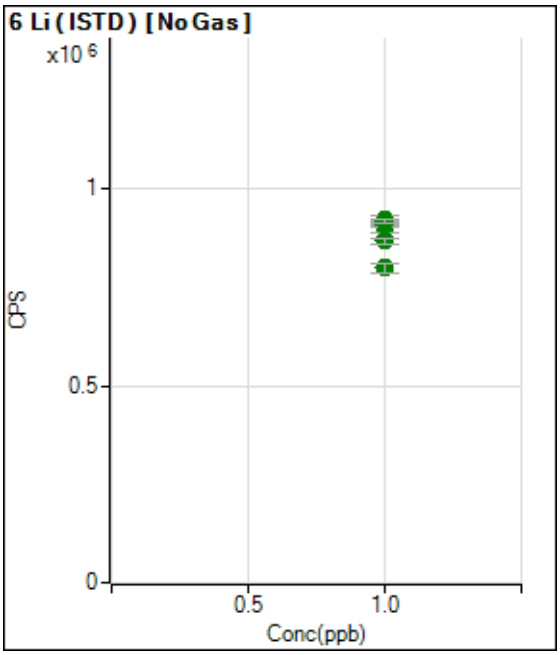
Weight: <None>
Min Conc: <None>



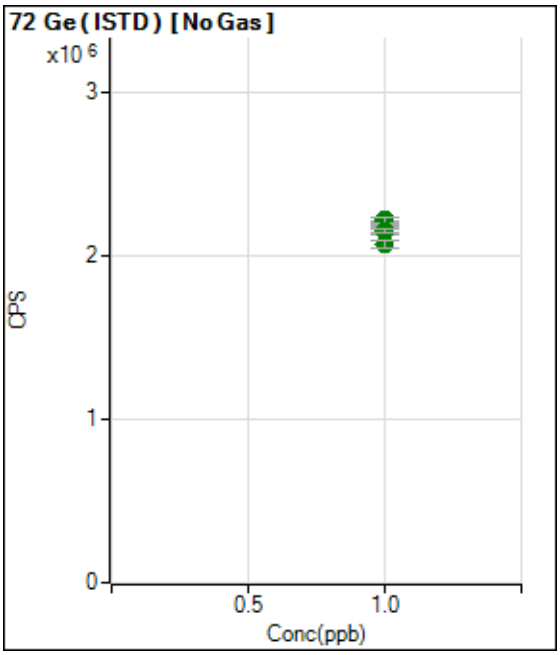
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40.00	0.0000	P	89.3
2	☐	2.000	1.966	50189.93	0.0267	P	2.3
3	☐	5.000	4.972	129614.16	0.0675	P	2.2
4	☐	10.000	9.943	257017.35	0.1350	P	2.6
5	☐	100.000	100.987	2545217.57	1.3712	A	2.3
6	☐	200.000	199.510	4849667.63	2.7089	A	1.2

y = 0.0136 * x + 2.2335E-005
R = 1.0000
DL = 0.004408
BEC = 0.001645

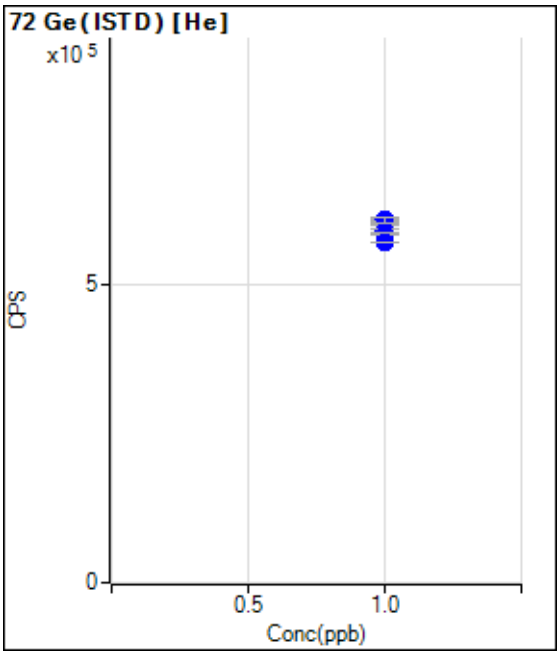
Weight: <None>
Min Conc: <None>



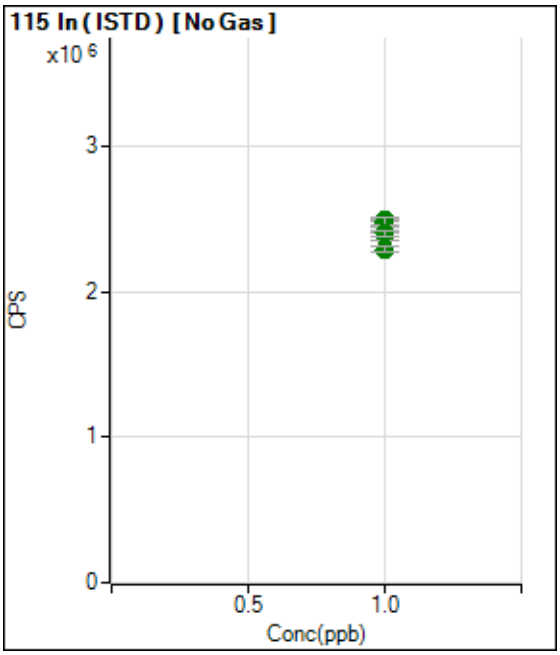
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		904727.58		A	3.6
2	☐	1.000		922253.32		A	2.7
3	☐	1.000		910942.42		A	1.5
4	☐	1.000		917613.18		A	1.0
5	☐	1.000		868032.10		A	1.5
6	☐	1.000		800392.36		A	3.1



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2154684.39		A	2.0
2	☐	1.000		2192588.35		A	2.0
3	☐	1.000		2213471.27		A	2.5
4	☐	1.000		2219313.25		A	1.4
5	☐	1.000		2153288.25		A	1.0
6	☐	1.000		2071539.29		A	2.5

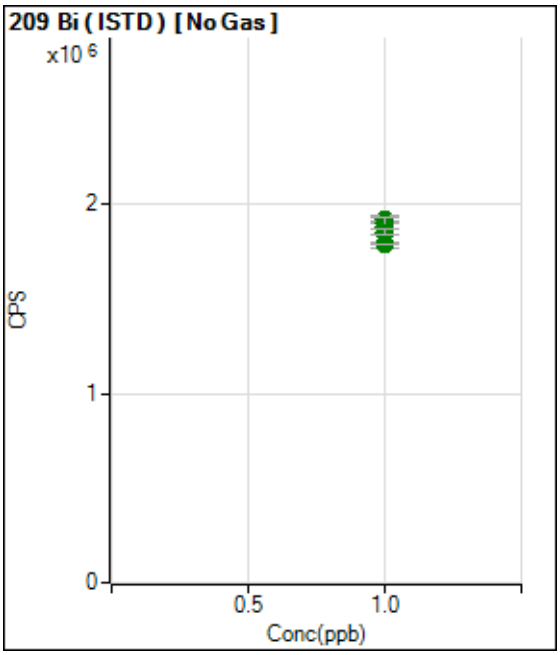


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		590340.50		P	0.8
2	☐	1.000		604759.64		P	1.4
3	☐	1.000		608926.75		P	0.7
4	☐	1.000		608893.96		P	1.6
5	☐	1.000		584968.28		P	0.4
6	☐	1.000		571796.55		P	0.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2383688.60		A	2.2
2	☐	1.000		2473421.03		A	2.5
3	☐	1.000		2493363.29		A	0.6
4	☐	1.000		2482873.98		A	1.9
5	☐	1.000		2398933.91		A	1.6
6	☐	1.000		2290463.71		A	1.7

Calibration for 289_ICV.d



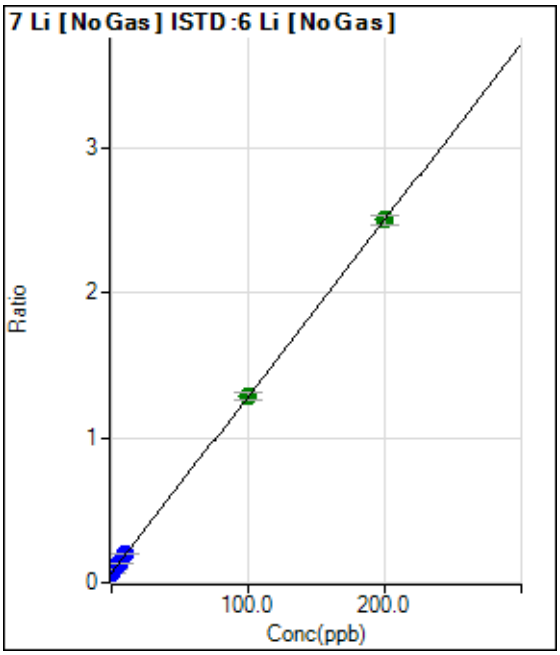
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1787494.09		A	1.5
2	☐	1.000		1879244.19		A	3.8
3	☐	1.000		1919766.85		A	2.2
4	☐	1.000		1904605.08		A	3.3
5	☐	1.000		1856654.35		A	1.5
6	☐	1.000		1790349.40		A	0.3

Calibration for 213_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071323A.b\
Analysis File: 071323A.batch.bin
DA Date-Time: 7/14/2023 8:11:04 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	206CALB.d	CAL BLK	7/13/2023 8:36:49 PM
2	207CALS.d	2/10/200	7/13/2023 8:38:59 PM
3	208CALS.d	5/25/500	7/13/2023 8:41:07 PM
4	209CALS.d	10/50/100	7/13/2023 8:43:17 PM
5	210CALS.d	100/500/10K	7/13/2023 8:45:24 PM
6	211CALS.d	200/1000/20K	7/13/2023 8:47:27 PM

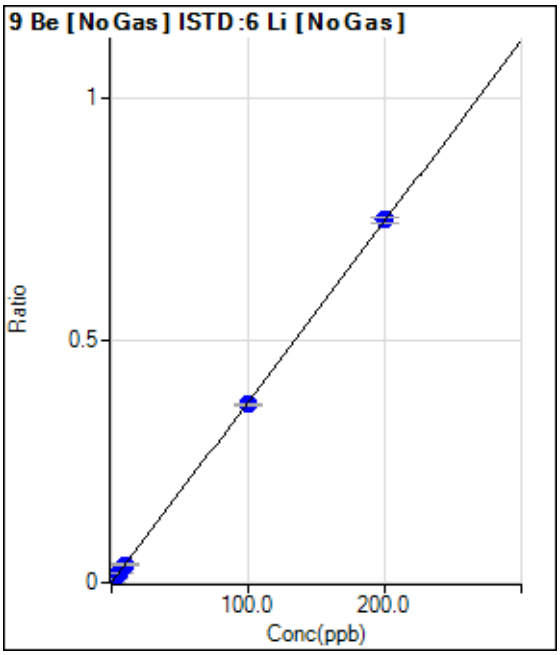
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76301.75	0.0681	P	1.6
2	☐	2.000	2.110	102403.87	0.0938	P	2.1
3	☐	5.000	5.165	142384.95	0.1309	P	1.1
4	☐	10.000	10.790	209294.88	0.1993	P	0.9
5	☐	100.000	99.712	1351784.20	1.2808	A	4.3
6	☐	200.000	200.100	2506917.10	2.5017	A	2.4

y = 0.0122 * x + 0.0681
R = 1.0000
DL = 0.2631
BEC = 5.602

Weight: <None>
Min Conc: <None>

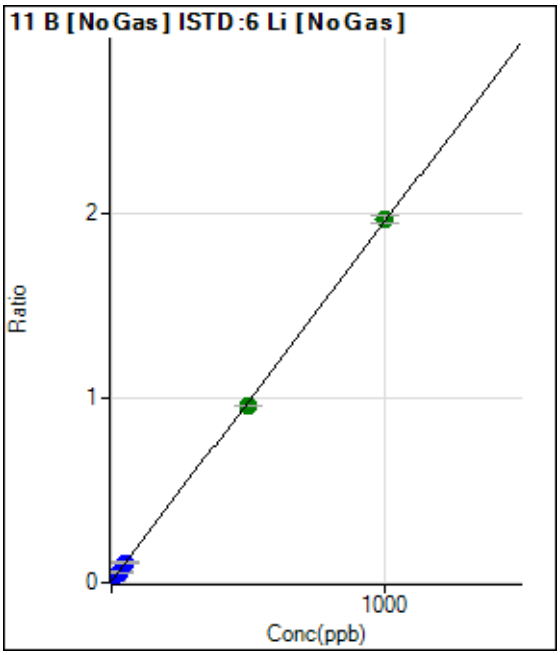


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	75.5
2	☐	2.000	1.968	8045.71	0.0074	P	3.7
3	☐	5.000	4.884	19850.74	0.0183	P	3.0
4	☐	10.000	10.032	39346.64	0.0375	P	2.9
5	☐	100.000	98.470	388150.12	0.3677	P	1.7
6	☐	200.000	200.766	751269.60	0.7496	P	1.6

y = 0.0037 * x + 2.0931E-005
R = 1.0000
DL = 0.01269
BEC = 0.005606

Weight: <None>
Min Conc: <None>

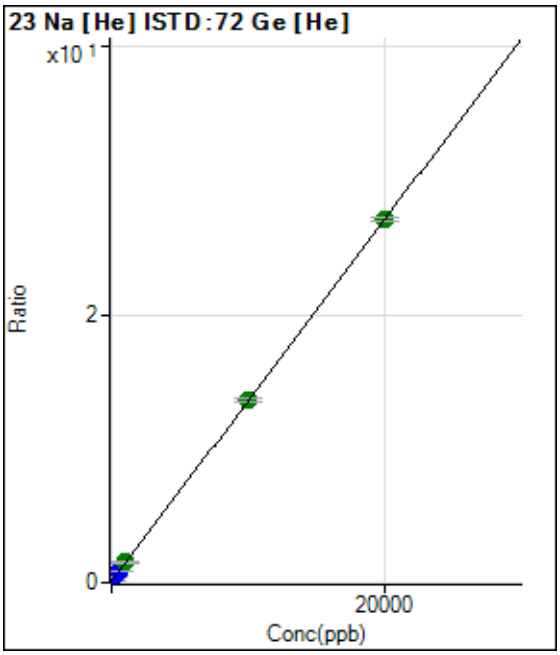
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8911.23	0.0080	P	1.6
2	☐	10.000	9.901	29673.02	0.0272	P	1.7
3	☐	25.000	25.233	61907.22	0.0569	P	1.3
4	☐	50.000	51.773	113826.48	0.1084	P	3.0
5	☐	500.000	488.089	1008580.79	0.9553	A	0.1
6	☐	1000.000	1005.862	1964389.29	1.9602	A	2.2

y = 0.0019 * x + 0.0080
R = 0.9999
DL = 0.1928
BEC = 4.099

Weight: <None>
Min Conc: <None>

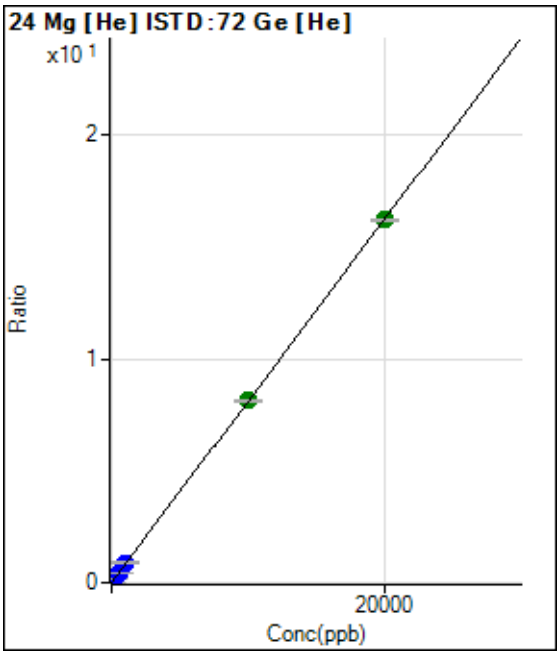


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56825.89	0.0824	P	0.8
2	☐	200.000	221.725	263264.68	0.3817	P	1.2
3	☐	500.000	553.025	574557.62	0.8290	P	1.0
4	☐	1000.000	1057.915	1035182.67	1.5106	A	1.3
5	☐	10000.000	9998.713	9145441.74	13.5811	A	2.0
6	☐	20000.000	19996.205	17874660.98	27.0781	A	1.0

y = 0.0014 * x + 0.0824
R = 1.0000
DL = 1.51
BEC = 61.01

Weight: <None>
Min Conc: <None>

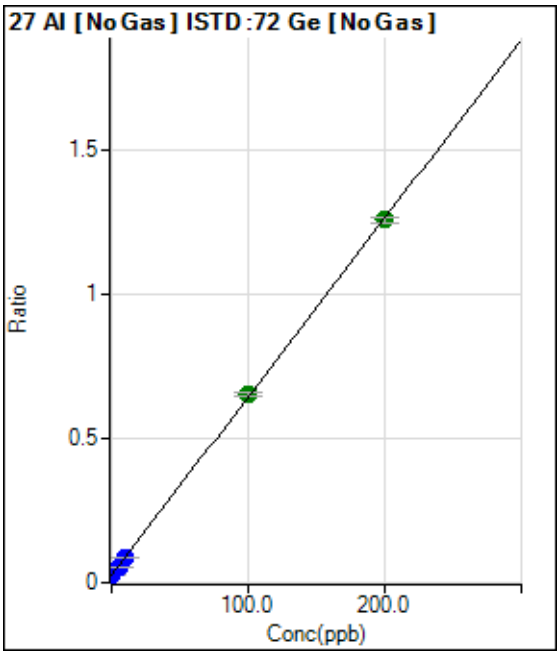
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	840.04	0.0012	P	10.0
2	☐	200.000	224.361	126408.94	0.1833	P	1.1
3	☐	500.000	563.970	318027.29	0.4588	P	0.2
4	☐	1000.000	1107.304	616407.05	0.8997	P	2.0
5	☐	10000.000	10032.099	5482787.84	8.1414	A	1.2
6	☐	20000.000	19976.743	10701127.76	16.2106	A	0.7

y = 8.1141E-004 * x + 0.0012
R = 1.0000
DL = 0.4503
BEC = 1.499

Weight: <None>
Min Conc: <None>

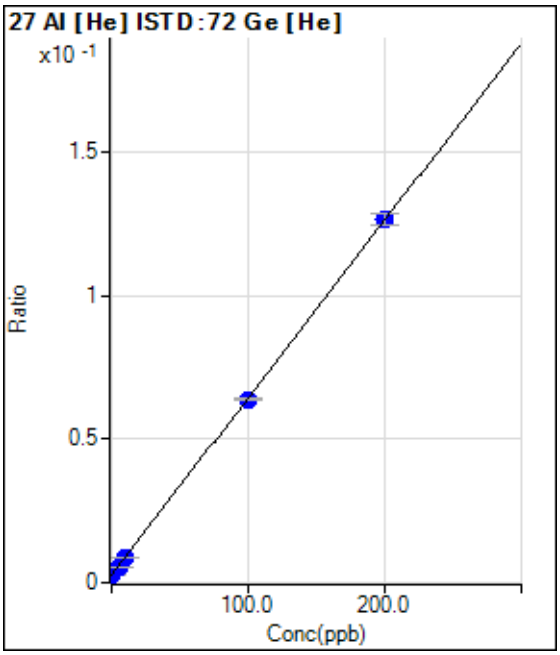


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	64161.30	0.0258	P	2.0
2	☐	2.000	2.308	100118.89	0.0401	P	1.6
3	☐	5.000	4.674	135231.53	0.0547	P	1.3
4	☐	10.000	9.817	211957.76	0.0864	P	0.8
5	☐	100.000	101.593	1587380.76	0.6533	A	1.5
6	☐	200.000	199.218	2973288.60	1.2563	A	1.3

y = 0.0062 * x + 0.0258
R = 1.0000
DL = 0.2501
BEC = 4.178

Weight: <None>
Min Conc: <None>

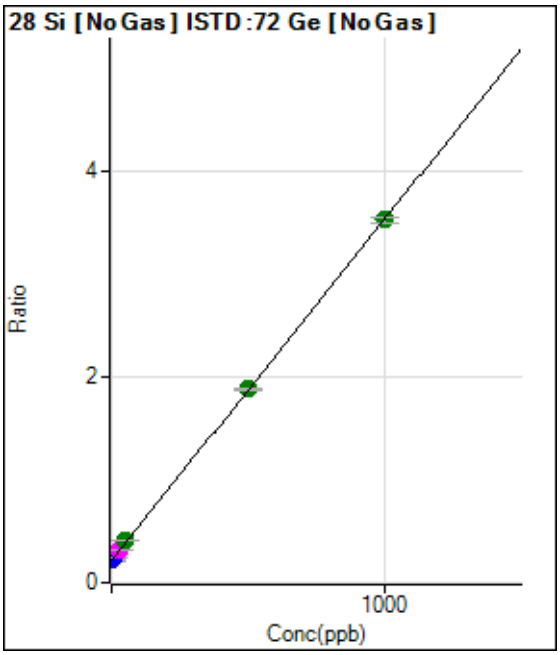
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1850.16	0.0027	P	3.7
2	☐	2.000	2.276	2817.00	0.0041	P	7.9
3	☐	5.000	4.576	3813.94	0.0055	P	2.6
4	☐	10.000	9.971	6048.07	0.0088	P	4.5
5	☐	100.000	99.271	43036.96	0.0639	P	0.9
6	☐	200.000	200.374	83335.43	0.1262	P	3.1

y = 6.1667E-004 * x + 0.0027
R = 1.0000
DL = 0.4806
BEC = 4.348

Weight: <None>
Min Conc: <None>

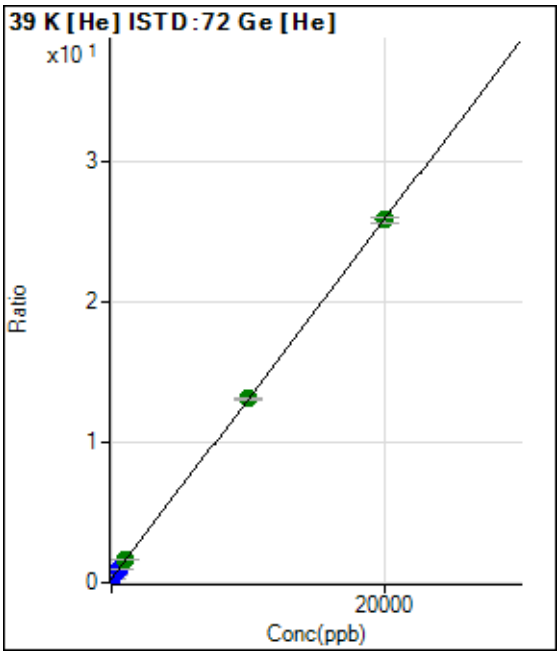


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	535979.17	0.2156	P	1.3
2	☐	10.000	10.419	625070.26	0.2501	P	1.5
3	☐	25.000	31.403	790683.79	0.3196	M	3.2
4	☐	50.000	58.617	1004805.35	0.4098	A	0.6
5	☐	500.000	501.851	4563836.91	1.8782	A	1.1
6	☐	1000.000	998.480	8339375.50	3.5236	A	1.3

y = 0.0033 * x + 0.2156
R = 1.0000
DL = 2.619
BEC = 65.07

Weight: <None>
Min Conc: <None>

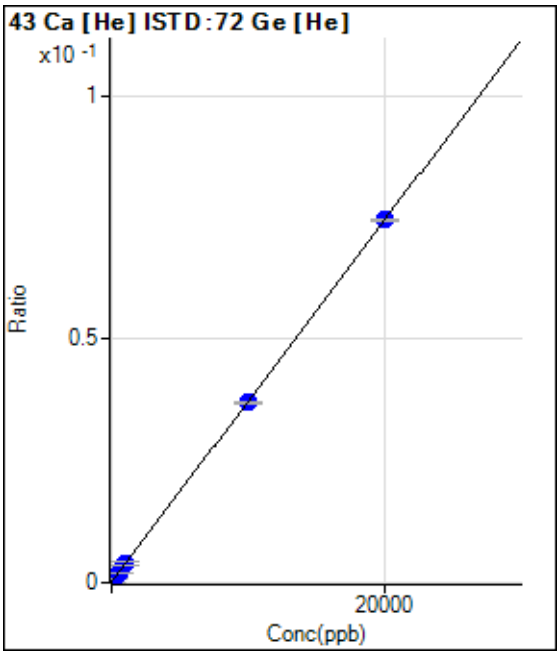
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190312.89	0.2758	P	1.1
2	☐	200.000	216.270	381319.93	0.5529	P	1.0
3	☐	500.000	534.512	665743.84	0.9605	P	0.9
4	☐	1000.000	1059.855	1119244.85	1.6334	A	3.4
5	☐	10000.000	10042.921	8848902.79	13.1399	A	1.3
6	☐	20000.000	19974.521	17071491.00	25.8614	A	1.4

y = 0.0013 * x + 0.2758
R = 1.0000
DL = 7.264
BEC = 215.4

Weight: <None>
Min Conc: <None>

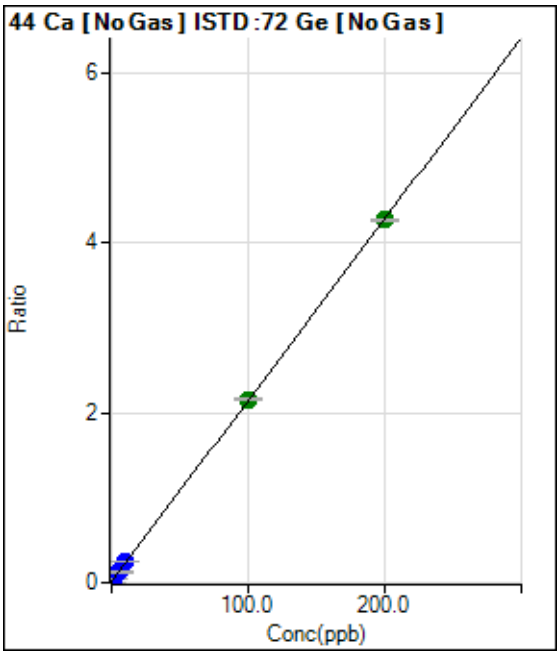


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	22.5
2	☐	200.000	207.073	610.03	0.0009	P	9.1
3	☐	500.000	489.639	1340.09	0.0019	P	6.8
4	☐	1000.000	1024.212	2683.65	0.0039	P	12.5
5	☐	10000.000	9938.863	24926.10	0.0370	P	1.1
6	☐	20000.000	20029.546	49154.61	0.0745	P	0.3

y = 3.7118E-006 * x + 1.1609E-004
R = 1.0000
DL = 21.12
BEC = 31.27

Weight: <None>
Min Conc: <None>

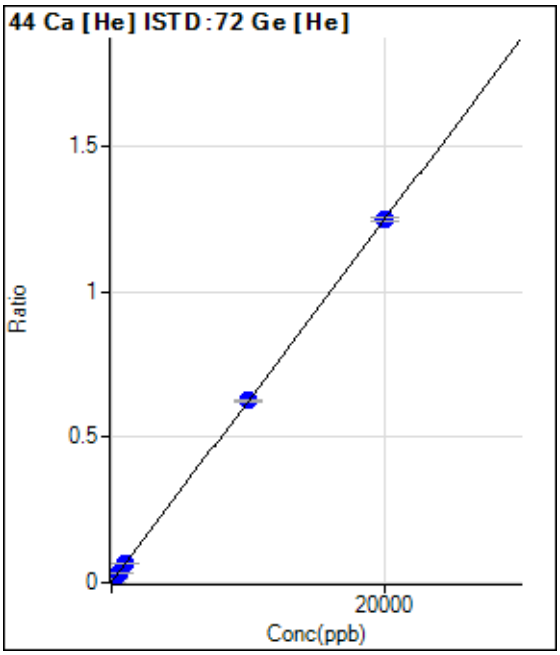
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27200.51	0.0109	P	3.0
2	☐	2.000	2.113	140126.82	0.0561	P	0.7
3	☐	5.000	5.324	308233.56	0.1246	P	0.8
4	☐	10.000	10.715	587894.44	0.2397	P	0.6
5	☐	100.000	100.614	5247175.23	2.1595	A	0.8
6	☐	200.000	199.648	10115830.89	4.2742	A	0.7

y = 0.0214 * x + 0.0109
R = 1.0000
DL = 0.04661
BEC = 0.5124

Weight: <None>
Min Conc: <None>

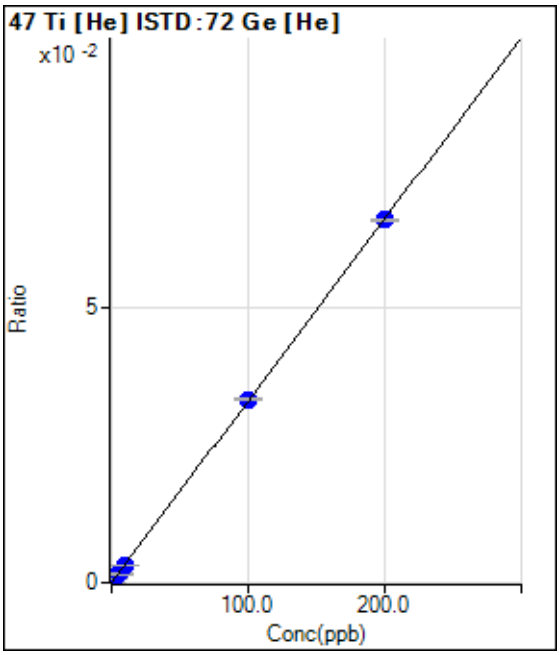


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1046.72	0.0015	P	10.0
2	☐	200.000	209.481	10047.15	0.0146	P	5.2
3	☐	500.000	513.533	23223.15	0.0335	P	3.5
4	☐	1000.000	999.370	43693.05	0.0638	P	0.7
5	☐	10000.000	10012.963	421081.75	0.6252	P	0.6
6	☐	20000.000	19993.117	823111.26	1.2469	P	0.9

y = 6.2291E-005 * x + 0.0015
R = 1.0000
DL = 7.296
BEC = 24.35

Weight: <None>
Min Conc: <None>

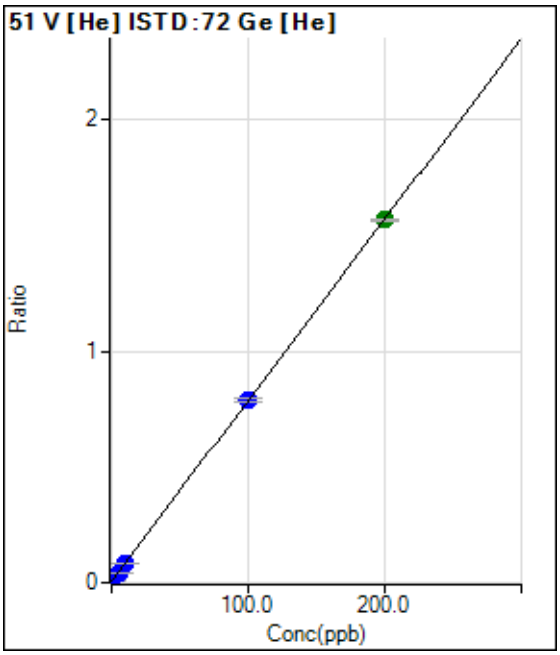
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	25.6
2	☐	2.000	1.879	450.01	0.0007	P	25.1
3	☐	5.000	4.842	1130.07	0.0016	P	8.6
4	☐	10.000	9.569	2183.55	0.0032	P	4.7
5	☐	100.000	100.756	22388.62	0.0332	P	1.5
6	☐	200.000	199.649	43462.30	0.0658	P	0.6

y = 3.2961E-004 * x + 3.3864E-005
R = 1.0000
DL = 0.07891
BEC = 0.1027

Weight: <None>
Min Conc: <None>

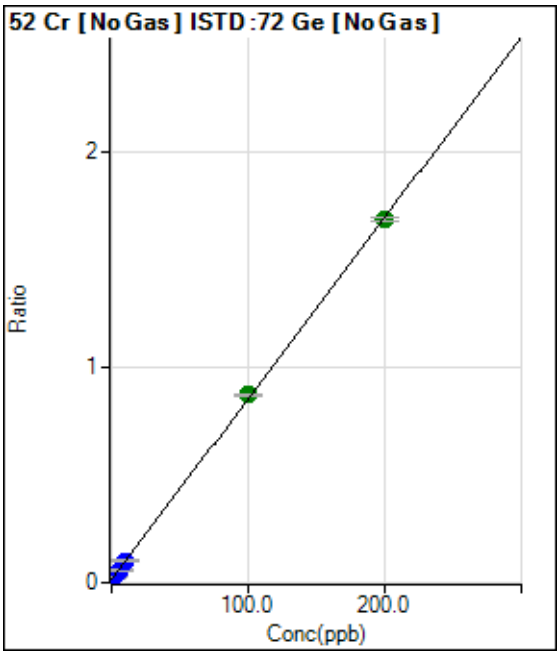


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3956.15	0.0057	P	3.0
2	☐	2.000	2.000	14742.42	0.0214	P	2.0
3	☐	5.000	5.048	31333.55	0.0452	P	0.8
4	☐	10.000	9.987	57432.96	0.0838	P	1.3
5	☐	100.000	100.291	532003.43	0.7900	P	1.2
6	☐	200.000	199.854	1035425.93	1.5685	A	0.8

y = 0.0078 * x + 0.0057
R = 1.0000
DL = 0.06655
BEC = 0.7332

Weight: <None>
Min Conc: <None>

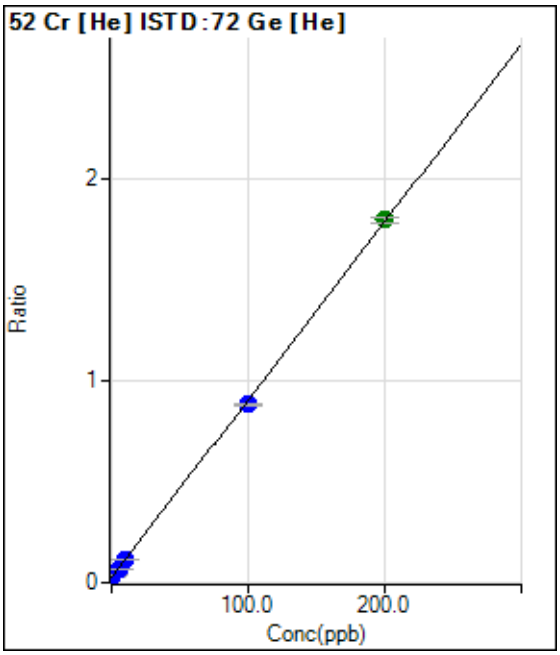
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35459.54	0.0143	P	2.0
2	☐	2.000	2.019	77991.36	0.0312	P	1.4
3	☐	5.000	5.198	143142.23	0.0579	P	1.2
4	☐	10.000	10.462	250232.75	0.1020	P	1.2
5	☐	100.000	102.146	2117229.19	0.8713	A	0.4
6	☐	200.000	198.899	3983471.19	1.6831	A	1.2

y = 0.0084 * x + 0.0143
R = 0.9999
DL = 0.104
BEC = 1.7

Weight: <None>
Min Conc: <None>

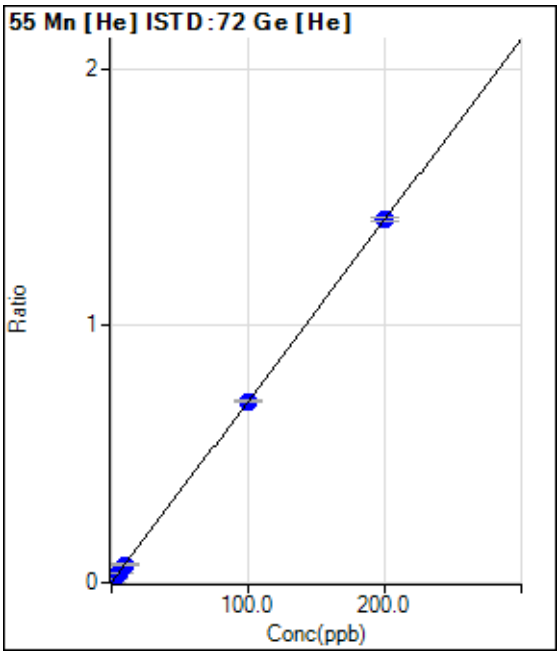


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17317.89	0.0251	P	3.1
2	☐	2.000	2.020	29565.62	0.0429	P	1.2
3	☐	5.000	5.026	48031.18	0.0693	P	0.7
4	☐	10.000	10.241	78909.82	0.1152	P	0.4
5	☐	100.000	97.540	594514.46	0.8828	P	1.1
6	☐	200.000	201.217	1184522.61	1.7945	A	1.8

y = 0.0088 * x + 0.0251
R = 0.9999
DL = 0.262
BEC = 2.855

Weight: <None>
Min Conc: <None>

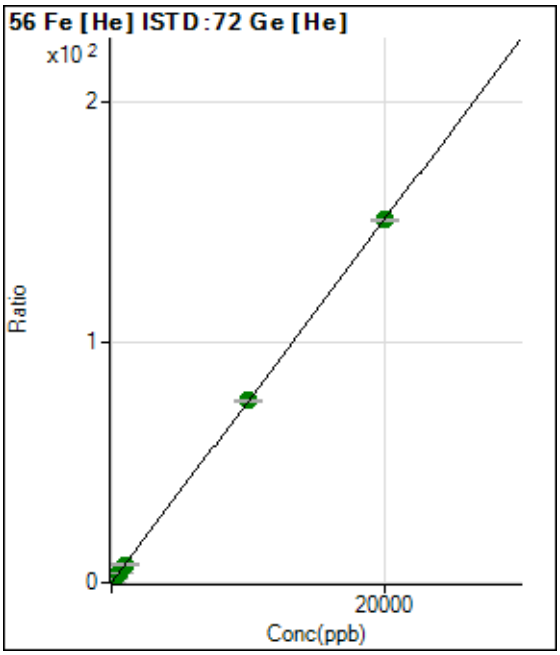
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	630.03	0.0009	P	19.4
2	☐	2.000	2.071	10697.70	0.0155	P	2.7
3	☐	5.000	5.339	26709.72	0.0385	P	4.5
4	☐	10.000	9.946	48646.75	0.0710	P	0.8
5	☐	100.000	99.818	474283.45	0.7043	P	0.9
6	☐	200.000	200.084	931275.82	1.4107	P	1.1

y = 0.0070 * x + 9.1456E-004
R = 1.0000
DL = 0.07563
BEC = 0.1298

Weight: <None>
Min Conc: <None>

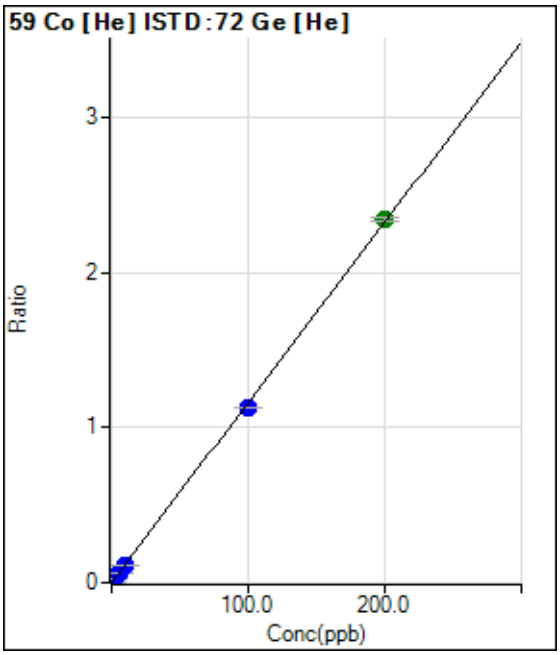


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25644.37	0.0372	P	0.7
2	☐	200.000	209.772	1119897.12	1.6236	A	1.8
3	☐	500.000	520.243	2752908.92	3.9717	A	0.8
4	☐	1000.000	1001.140	5212839.92	7.6087	A	1.7
5	☐	10000.000	10020.541	51064894.24	75.8211	A	0.6
6	☐	20000.000	19989.069	99819555.18	151.2117	A	0.6

y = 0.0076 * x + 0.0372
R = 1.0000
DL = 0.09783
BEC = 4.914

Weight: <None>
Min Conc: <None>

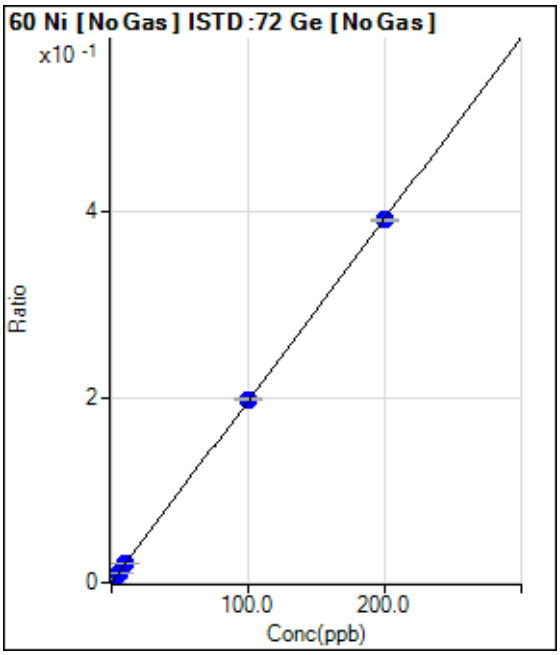
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0001	P	36.8
2	☐	2.000	2.035	16413.42	0.0238	P	1.3
3	☐	5.000	5.021	40570.60	0.0585	P	2.1
4	☐	10.000	9.774	77978.89	0.1138	P	1.2
5	☐	100.000	97.195	761399.39	1.1306	P	0.8
6	☐	200.000	201.413	1546412.17	2.3427	A	1.1

y = 0.0116 * x + 1.2544E-004
R = 0.9999
DL = 0.01191
BEC = 0.01079

Weight: <None>
Min Conc: <None>

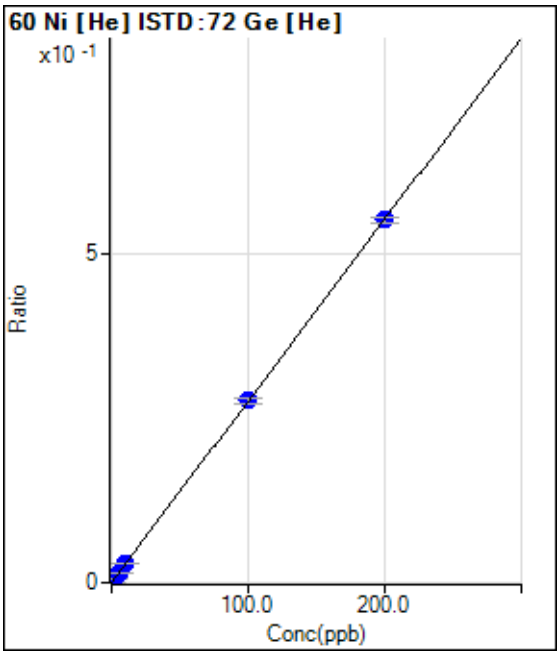


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	520.02	0.0002	P	6.6
2	☐	2.000	2.128	10937.87	0.0044	P	1.5
3	☐	5.000	5.118	25303.78	0.0102	P	0.9
4	☐	10.000	10.320	50065.52	0.0204	P	0.9
5	☐	100.000	100.778	479996.31	0.1975	P	1.1
6	☐	200.000	199.591	925443.76	0.3910	P	0.8

y = 0.0020 * x + 2.0905E-004
R = 1.0000
DL = 0.02117
BEC = 0.1068

Weight: <None>
Min Conc: <None>

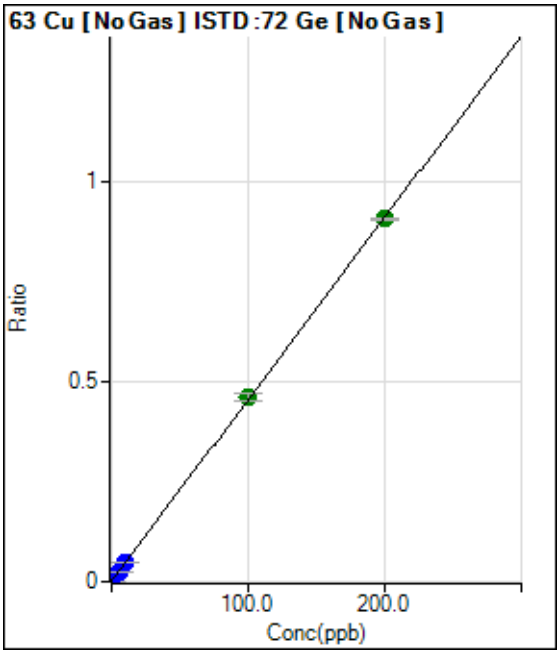
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0002	P	40.0
2	☐	2.000	2.110	4140.71	0.0060	P	4.4
3	☐	5.000	5.270	10217.32	0.0147	P	4.1
4	☐	10.000	10.203	19450.75	0.0284	P	1.3
5	☐	100.000	100.197	186773.95	0.2774	P	2.5
6	☐	200.000	199.884	365127.65	0.5531	P	1.8

y = 0.0028 * x + 1.6425E-004
R = 1.0000
DL = 0.07131
BEC = 0.05937

Weight: <None>
Min Conc: <None>

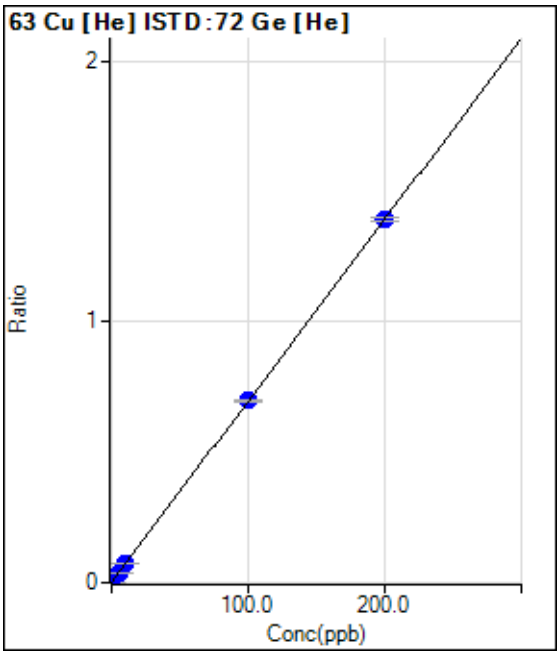


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2790.33	0.0011	P	4.4
2	☐	2.000	2.553	31820.92	0.0127	P	3.2
3	☐	5.000	5.188	61093.93	0.0247	P	1.2
4	☐	10.000	10.292	117464.14	0.0479	P	0.2
5	☐	100.000	101.218	1120432.98	0.4612	A	3.9
6	☐	200.000	199.366	2147359.08	0.9073	A	0.8

y = 0.0045 * x + 0.0011
R = 1.0000
DL = 0.0324
BEC = 0.2469

Weight: <None>
Min Conc: <None>

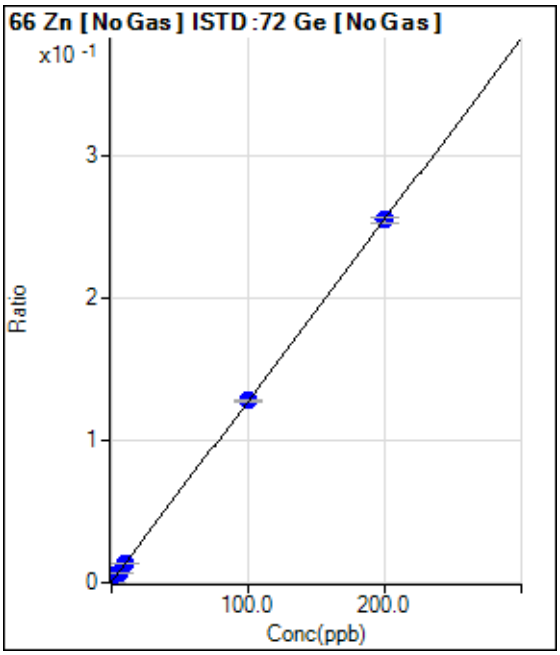
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	796.70	0.0012	P	11.7
2	☐	2.000	2.587	13199.93	0.0191	P	1.6
3	☐	5.000	5.194	25821.53	0.0373	P	2.2
4	☐	10.000	10.208	49403.29	0.0721	P	1.5
5	☐	100.000	100.095	469360.53	0.6969	P	0.7
6	☐	200.000	199.931	918107.77	1.3908	P	1.1

y = 0.0070 * x + 0.0012
R = 1.0000
DL = 0.05842
BEC = 0.1663

Weight: <None>
Min Conc: <None>

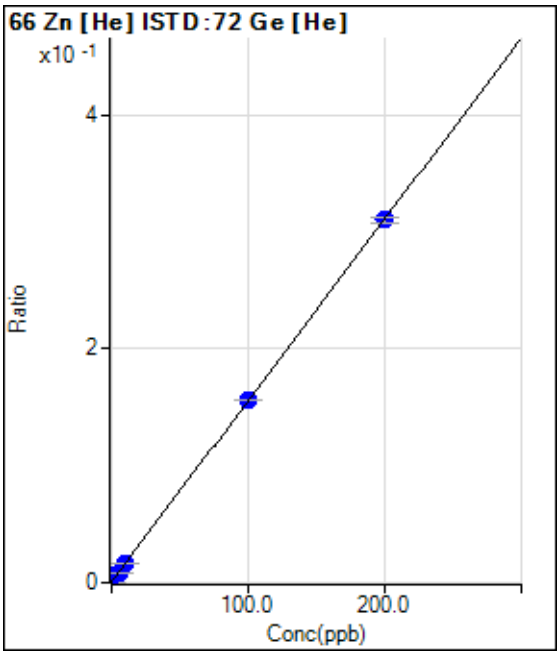


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1390.09	0.0006	P	14.0
2	☐	2.000	3.575	12786.27	0.0051	P	3.0
3	☐	5.000	5.049	17294.57	0.0070	P	1.9
4	☐	10.000	10.364	33755.64	0.0138	P	1.1
5	☐	100.000	100.121	311362.98	0.1281	P	1.2
6	☐	200.000	199.904	604218.65	0.2553	P	1.4

y = 0.0013 * x + 5.5961E-004
R = 1.0000
DL = 0.1839
BEC = 0.4392

Weight: <None>
Min Conc: <None>

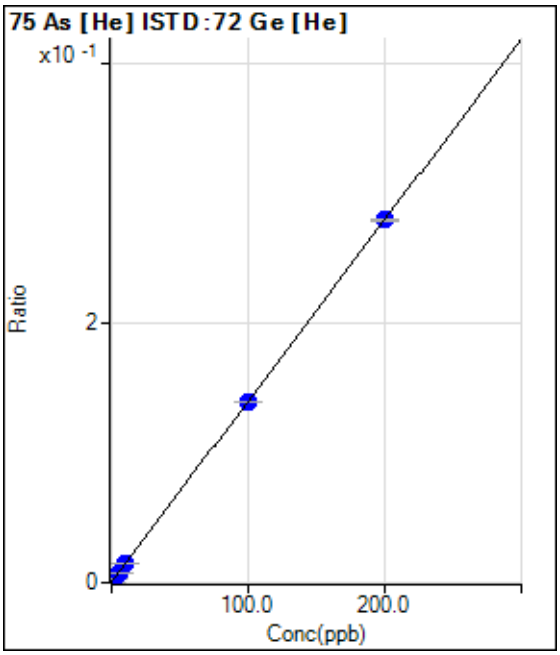
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	490.02	0.0007	P	7.3
2	☐	2.000	3.472	4204.08	0.0061	P	3.7
3	☐	5.000	4.877	5734.64	0.0083	P	1.7
4	☐	10.000	9.918	11024.67	0.0161	P	1.4
5	☐	100.000	100.556	105504.59	0.1567	P	0.5
6	☐	200.000	199.715	204926.01	0.3104	P	1.3

y = 0.0016 * x + 7.1061E-004
R = 1.0000
DL = 0.1003
BEC = 0.4582

Weight: <None>
Min Conc: <None>

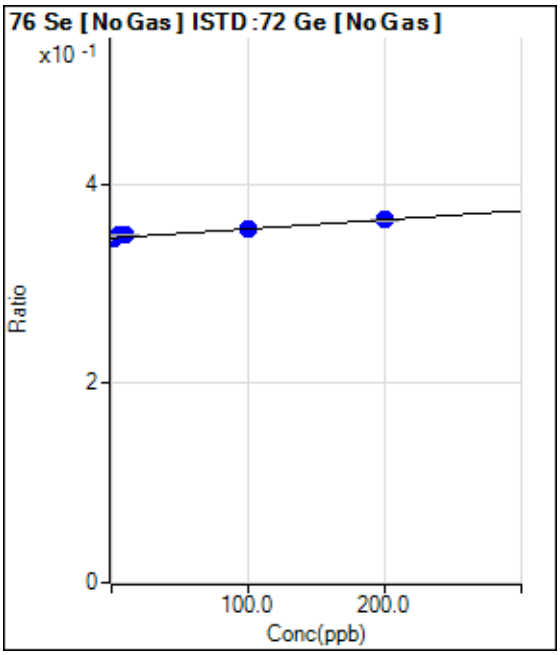


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	332.23	0.0005	P	7.6
2	☐	2.000	2.097	2351.33	0.0034	P	5.7
3	☐	5.000	5.173	5338.86	0.0077	P	2.1
4	☐	10.000	10.028	9920.36	0.0145	P	2.5
5	☐	100.000	99.653	94021.39	0.1396	P	0.8
6	☐	200.000	200.167	184789.33	0.2799	P	0.3

y = 0.0014 * x + 4.8174E-004
R = 1.0000
DL = 0.07837
BEC = 0.3451

Weight: <None>
Min Conc: <None>

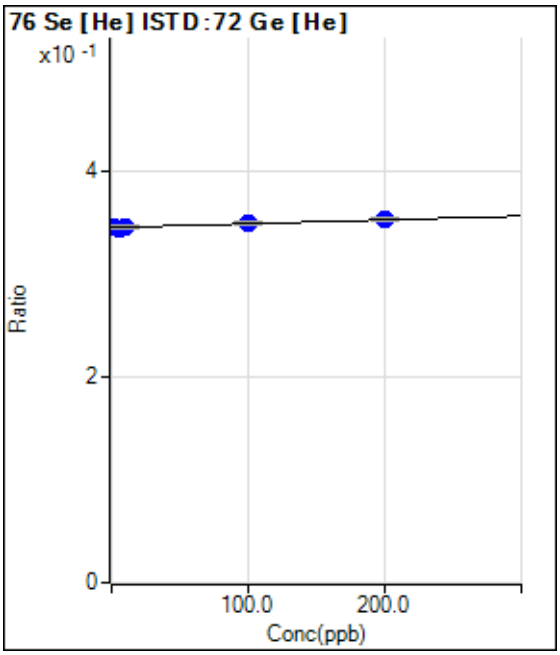
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	861054.34	0.3463	P	1.0
2	☐	2.000	-0.556	865445.79	0.3463	P	1.5
3	☐	5.000	30.570	863583.79	0.3491	P	0.4
4	☐	10.000	37.838	857804.39	0.3498	P	0.5
5	☐	100.000	100.451	864090.93	0.3556	P	0.3
6	☐	200.000	197.769	862813.66	0.3646	P	0.5

y = 9.2188E-005 * x + 0.3463
R = 0.9856
DL = 110
BEC = 3757

Weight: <None>
Min Conc: <None>

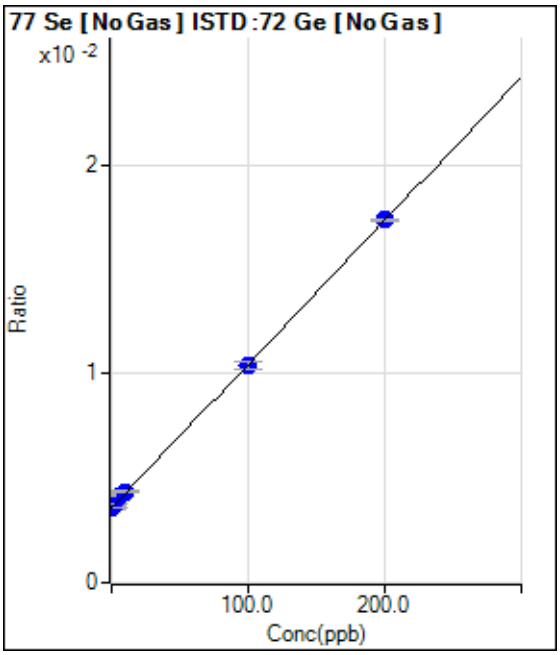


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	238564.49	0.3457	P	0.6
2	☐	2.000	-4.930	238337.92	0.3456	P	0.5
3	☐	5.000	-37.197	238684.19	0.3444	P	0.3
4	☐	10.000	16.957	237329.93	0.3464	P	0.8
5	☐	100.000	107.981	235580.32	0.3498	P	1.1
6	☐	200.000	196.786	233067.69	0.3531	P	1.0

y = 3.7276E-005 * x + 0.3457
R = 0.9793
DL = 162.3
BEC = 9275

Weight: <None>
Min Conc: <None>

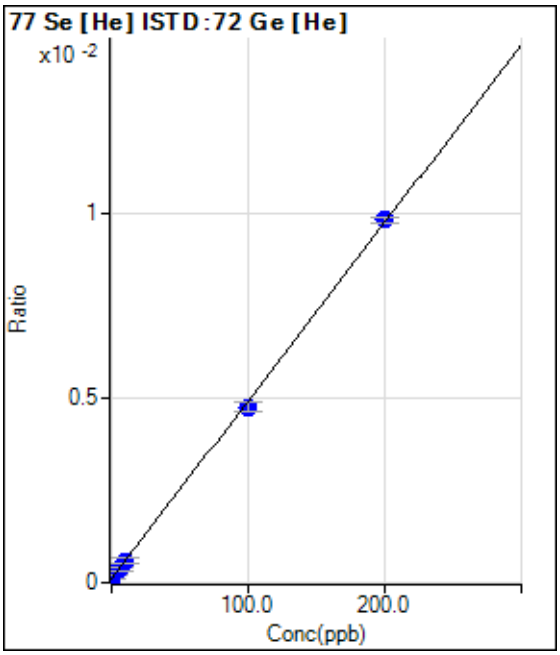
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8916.42	0.0036	P	5.5
2	☐	2.000	1.878	9280.03	0.0037	P	4.2
3	☐	5.000	8.570	10324.12	0.0042	P	1.5
4	☐	10.000	11.378	10707.78	0.0044	P	3.3
5	☐	100.000	98.850	25230.59	0.0104	P	3.3
6	☐	200.000	200.418	41109.65	0.0174	P	0.8

y = 6.8782E-005 * x + 0.0036
R = 0.9998
DL = 8.612
BEC = 52.12

Weight: <None>
Min Conc: <None>

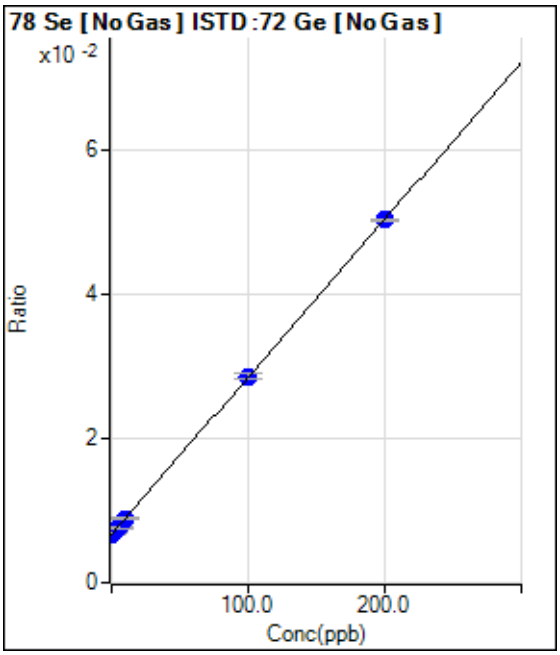


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0001	P	40.7
2	☐	2.000	2.927	170.00	0.0002	P	26.4
3	☐	5.000	5.486	256.68	0.0004	P	24.3
4	☐	10.000	10.215	410.02	0.0006	P	20.7
5	☐	100.000	96.601	3200.44	0.0048	P	4.8
6	☐	200.000	201.668	6475.00	0.0098	P	1.6

y = 4.8111E-005 * x + 1.0598E-004
R = 0.9998
DL = 2.691
BEC = 2.203

Weight: <None>
Min Conc: <None>

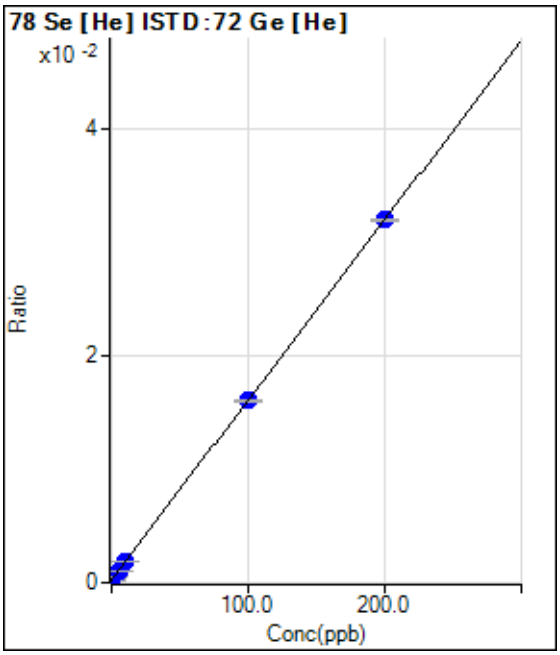
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16687.23	0.0067	P	2.9
2	☐	2.000	1.118	17384.81	0.0070	P	1.7
3	☐	5.000	4.382	18963.70	0.0077	P	3.4
4	☐	10.000	10.063	21841.33	0.0089	P	2.6
5	☐	100.000	100.427	69565.88	0.0286	P	2.4
6	☐	200.000	199.807	119092.94	0.0503	P	0.5

y = 2.1825E-004 * x + 0.0067
R = 1.0000
DL = 2.653
BEC = 30.76

Weight: <None>
Min Conc: <None>

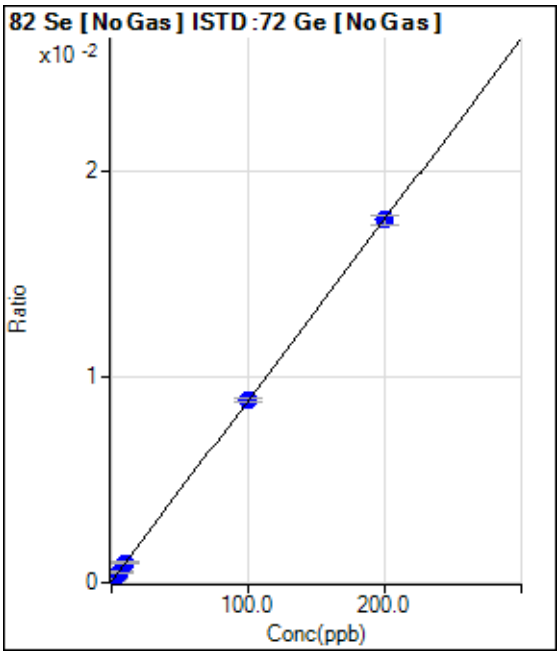


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	174.00	0.0003	P	6.8
2	☐	2.000	2.289	424.68	0.0006	P	10.1
3	☐	5.000	4.830	706.02	0.0010	P	2.8
4	☐	10.000	10.043	1264.73	0.0018	P	6.0
5	☐	100.000	99.566	10810.35	0.0161	P	1.8
6	☐	200.000	200.216	21138.53	0.0320	P	0.3

y = 1.5868E-004 * x + 2.5229E-004
R = 1.0000
DL = 0.3261
BEC = 1.59

Weight: <None>
Min Conc: <None>

Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	167.84	0.0001	P	45.7
2	☐	2.000	1.712	544.39	0.0002	P	12.9
3	☐	5.000	5.074	1271.25	0.0005	P	3.6
4	☐	10.000	10.365	2401.45	0.0010	P	2.1
5	☐	100.000	100.381	21619.22	0.0089	P	2.6
6	☐	200.000	199.792	41757.08	0.0176	P	2.8

y = 8.7969E-005 * x + 6.7539E-005

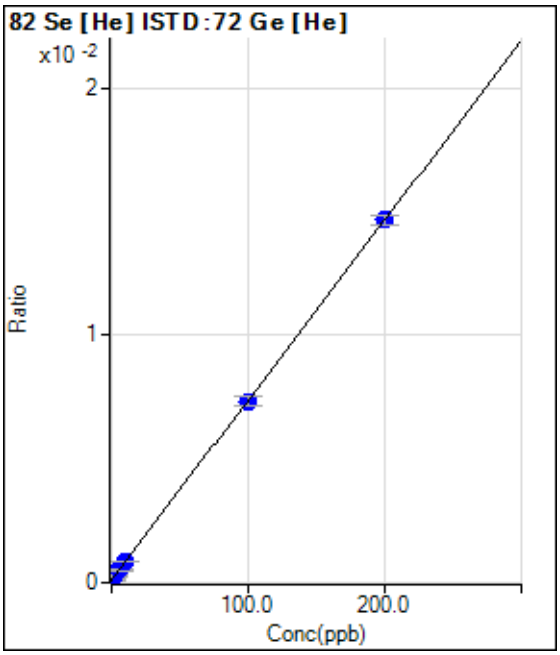
R = 1.0000

DL = 1.052

BEC = 0.7678

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	34.0
2	☐	2.000	1.921	176.67	0.0003	P	40.5
3	☐	5.000	5.415	353.35	0.0005	P	9.3
4	☐	10.000	9.979	576.69	0.0008	P	5.8
5	☐	100.000	99.389	4944.35	0.0073	P	4.8
6	☐	200.000	200.297	9687.03	0.0147	P	2.5

y = 7.2682E-005 * x + 1.1627E-004

R = 1.0000

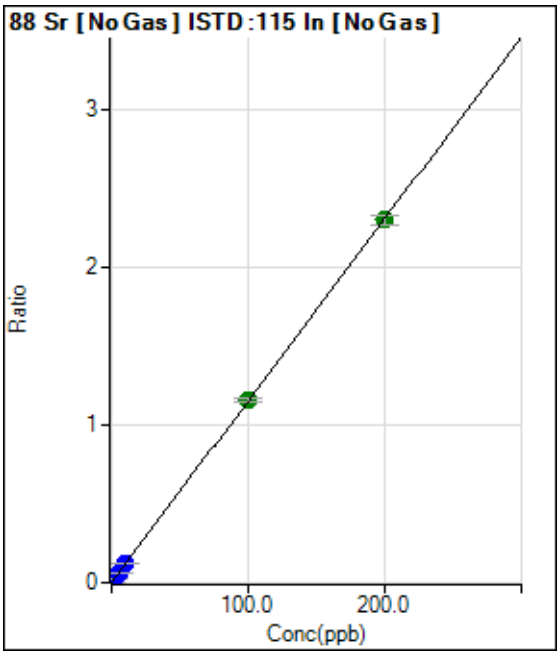
DL = 1.631

BEC = 1.6

Weight: <None>

Min Conc: <None>

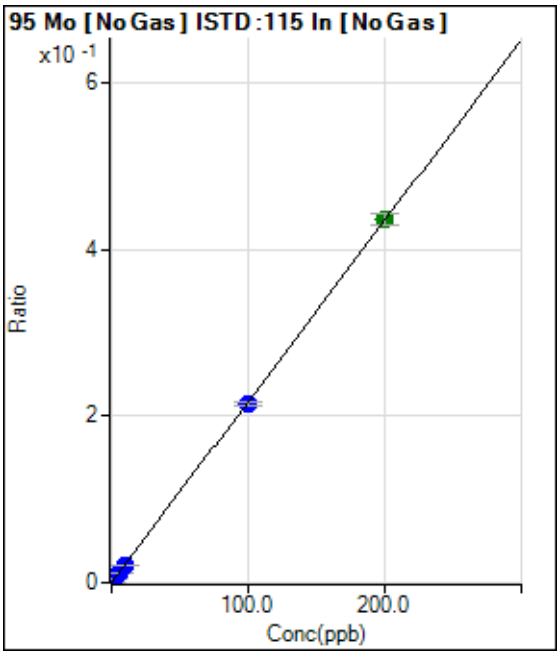
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2236.90	0.0008	P	3.2
2	☐	2.000	2.041	65768.39	0.0243	P	2.2
3	☐	5.000	5.179	158702.02	0.0605	P	2.3
4	☐	10.000	10.206	316267.59	0.1183	P	0.8
5	☐	100.000	100.849	3035804.22	1.1621	A	2.0
6	☐	200.000	199.560	5837140.54	2.2987	A	2.3

y = 0.0115 * x + 8.1883E-004
R = 1.0000
DL = 0.00684
BEC = 0.07111

Weight: <None>
Min Conc: <None>

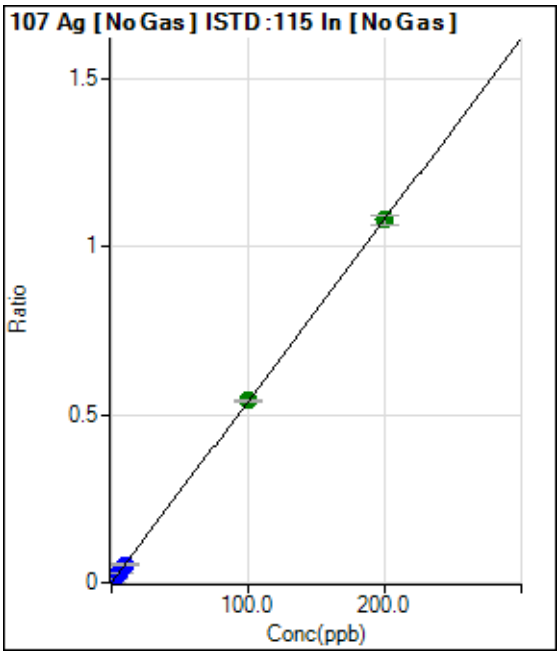


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	333.34	0.0001	P	22.8
2	☐	2.000	1.894	11465.14	0.0042	P	2.2
3	☐	5.000	4.989	28784.64	0.0110	P	2.7
4	☐	10.000	9.858	57587.77	0.0215	P	1.6
5	☐	100.000	99.017	562564.05	0.2153	P	1.7
6	☐	200.000	200.500	1106888.29	0.4359	A	3.1

y = 0.0022 * x + 1.2204E-004
R = 1.0000
DL = 0.03846
BEC = 0.05615

Weight: <None>
Min Conc: <None>

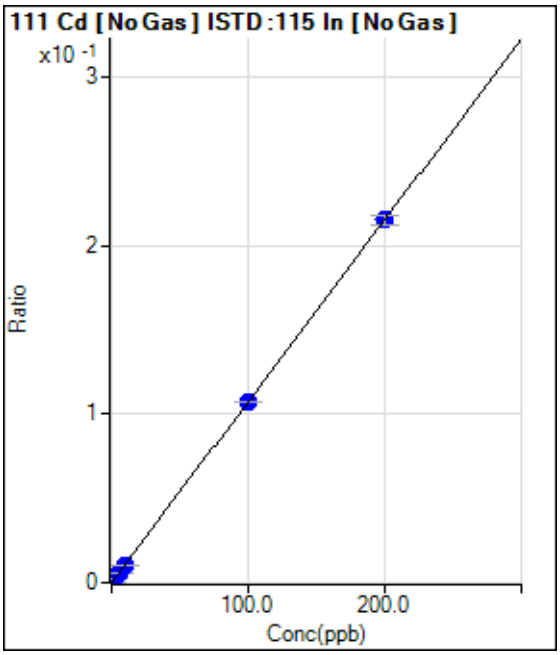
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	143.33	0.0001	P	28.7
2	☐	2.000	2.025	29750.42	0.0110	P	3.1
3	☐	5.000	5.081	72193.19	0.0275	P	4.2
4	☐	10.000	10.020	144897.57	0.0542	P	1.3
5	☐	100.000	100.186	1414946.75	0.5416	A	1.3
6	☐	200.000	199.904	2744235.37	1.0806	A	2.4

y = 0.0054 * x + 5.2435E-005
R = 1.0000
DL = 0.008338
BEC = 0.0097

Weight: <None>
Min Conc: <None>

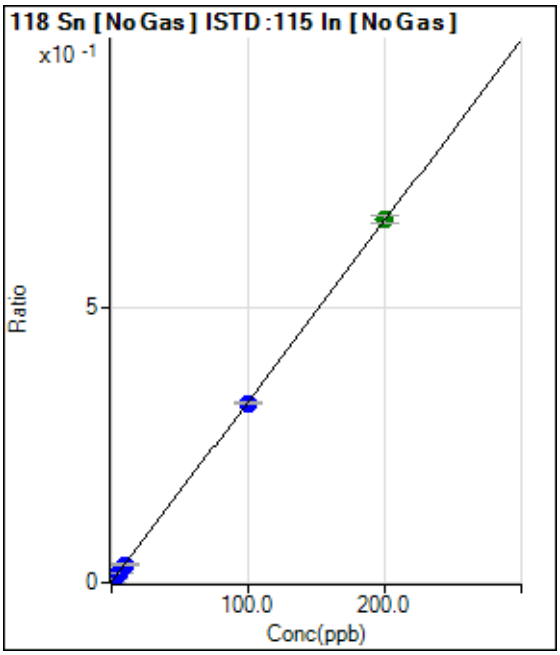


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.09	0.0000	P	67.2
2	☐	2.000	2.012	5875.75	0.0022	P	1.8
3	☐	5.000	4.963	14041.06	0.0053	P	1.5
4	☐	10.000	9.856	28363.06	0.0106	P	1.0
5	☐	100.000	99.564	279868.36	0.1071	P	0.3
6	☐	200.000	200.226	547062.41	0.2154	P	2.4

y = 0.0011 * x + 8.4398E-006
R = 1.0000
DL = 0.01581
BEC = 0.007845

Weight: <None>
Min Conc: <None>

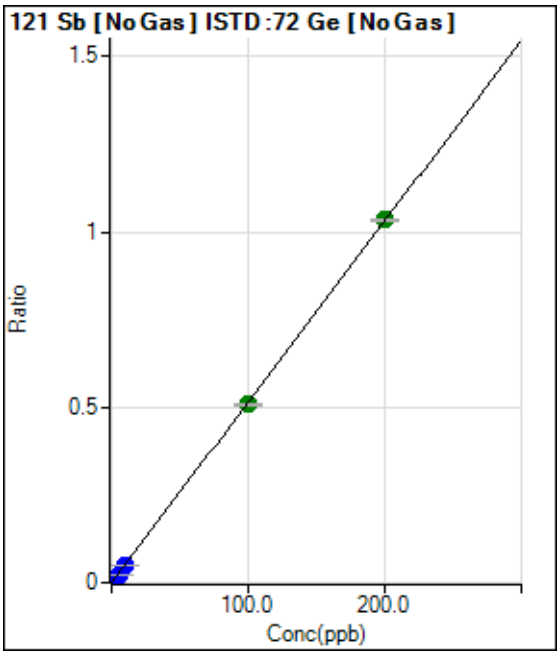
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2374.94	0.0009	P	37.5
2	☐	2.000	1.923	19485.44	0.0072	P	1.9
3	☐	5.000	4.812	43883.72	0.0167	P	4.0
4	☐	10.000	9.835	88916.94	0.0333	P	0.6
5	☐	100.000	99.182	855914.41	0.3276	P	0.8
6	☐	200.000	200.423	1678979.30	0.6612	A	2.1

y = 0.0033 * x + 8.6995E-004
R = 1.0000
DL = 0.2968
BEC = 0.2641

Weight: <None>
Min Conc: <None>

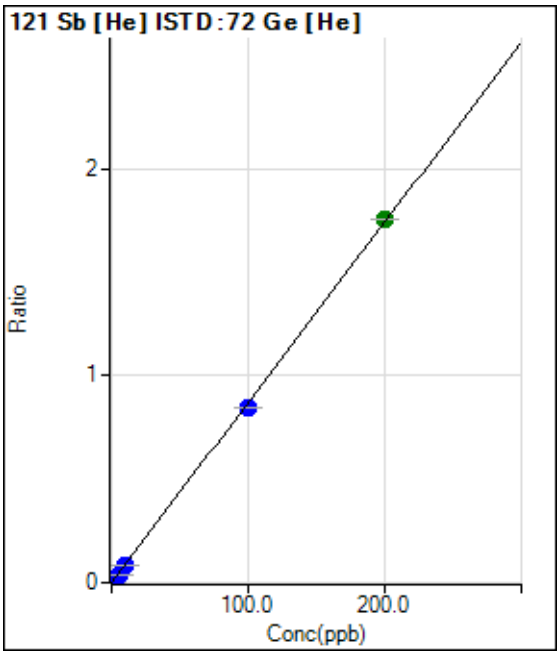


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	180.00	0.0001	P	25.6
2	☐	2.000	1.866	24206.05	0.0097	P	2.1
3	☐	5.000	4.701	60064.33	0.0243	P	2.5
4	☐	10.000	9.681	122448.08	0.0499	P	1.1
5	☐	100.000	98.474	1232542.74	0.5073	A	1.8
6	☐	200.000	200.788	2447798.19	1.0343	A	0.8

y = 0.0052 * x + 7.2396E-005
R = 1.0000
DL = 0.01078
BEC = 0.01406

Weight: <None>
Min Conc: <None>

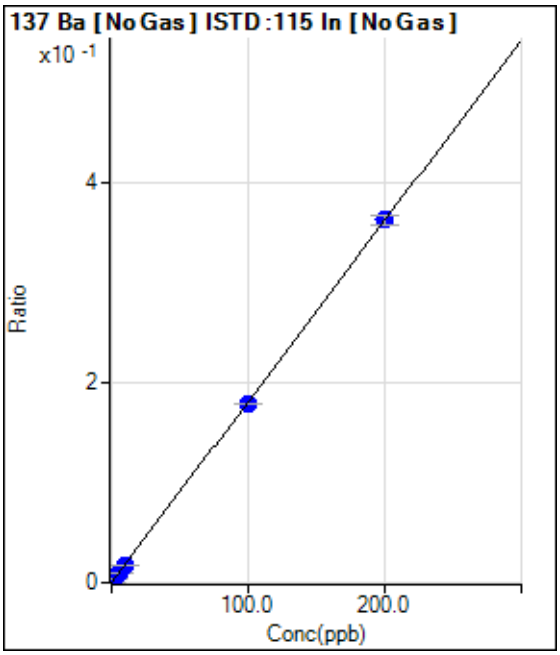
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0002	P	11.7
2	☐	2.000	1.868	11328.43	0.0164	P	1.3
3	☐	5.000	4.732	28675.17	0.0414	P	1.9
4	☐	10.000	9.459	56562.03	0.0825	P	0.9
5	☐	100.000	97.313	570973.27	0.8478	P	0.6
6	☐	200.000	201.379	1158038.42	1.7543	A	0.1

y = 0.0087 * x + 1.5470E-004
R = 0.9999
DL = 0.006219
BEC = 0.01776

Weight: <None>
Min Conc: <None>

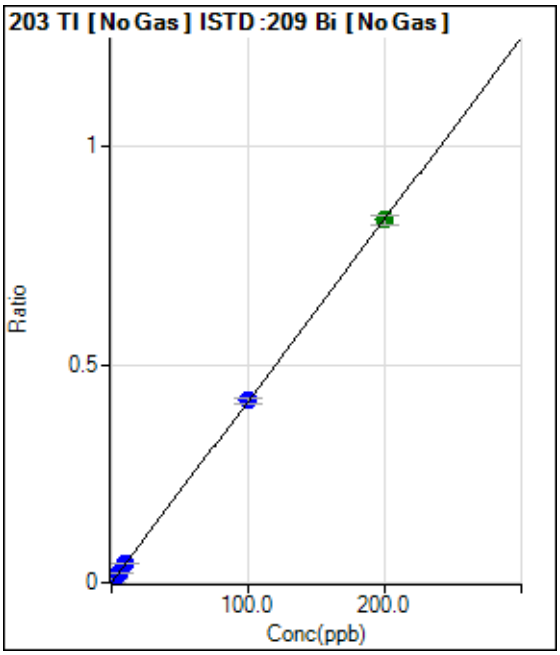


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.36	0.0003	P	4.5
2	☐	2.000	1.969	10314.25	0.0038	P	1.9
3	☐	5.000	4.984	24309.67	0.0093	P	3.2
4	☐	10.000	9.669	47373.37	0.0177	P	2.7
5	☐	100.000	98.815	467138.83	0.1788	P	0.8
6	☐	200.000	200.610	921082.23	0.3627	P	2.8

y = 0.0018 * x + 2.5751E-004
R = 1.0000
DL = 0.01914
BEC = 0.1425

Weight: <None>
Min Conc: <None>

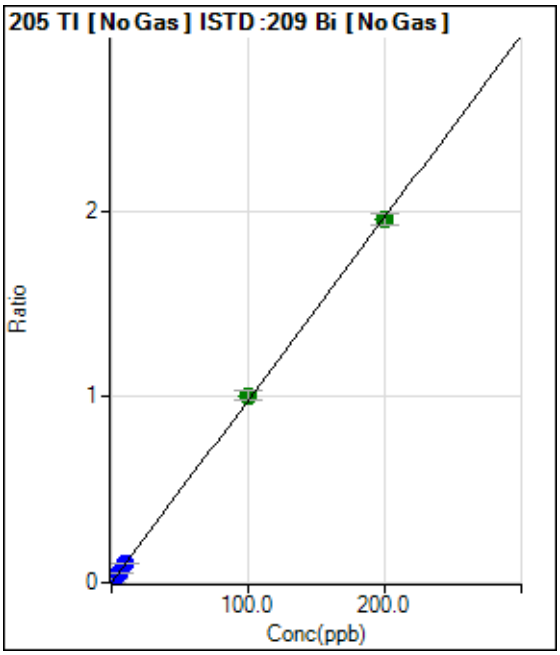
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0001	P	19.3
2	☐	2.000	2.062	16804.88	0.0086	P	5.0
3	☐	5.000	5.248	43415.84	0.0219	P	3.7
4	☐	10.000	10.578	86830.64	0.0441	P	3.2
5	☐	100.000	100.388	809332.54	0.4180	P	2.9
6	☐	200.000	199.770	1595801.80	0.8317	A	2.7

y = 0.0042 * x + 5.4675E-005
R = 1.0000
DL = 0.007585
BEC = 0.01313

Weight: <None>
Min Conc: <None>

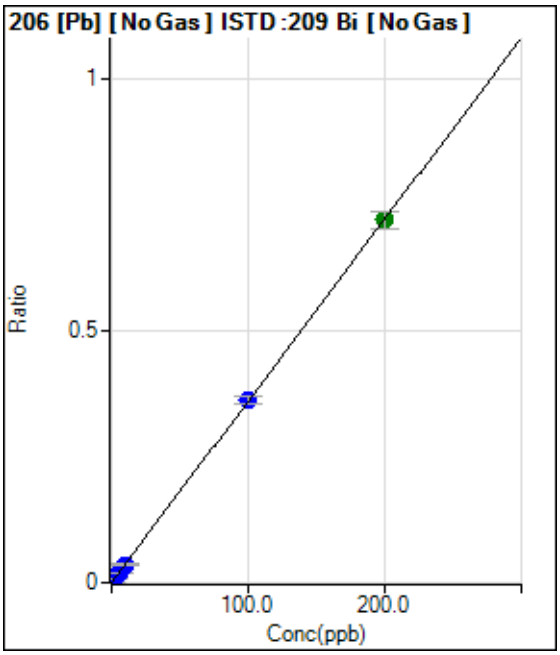


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0001	P	28.8
2	☐	2.000	2.154	41348.65	0.0213	P	4.9
3	☐	5.000	5.336	104142.33	0.0525	P	4.1
4	☐	10.000	10.754	208329.02	0.1058	P	4.0
5	☐	100.000	102.466	1950034.08	1.0075	A	5.1
6	☐	200.000	198.719	3748695.15	1.9538	A	3.3

y = 0.0098 * x + 8.4594E-005
R = 0.9999
DL = 0.007423
BEC = 0.008604

Weight: <None>
Min Conc: <None>

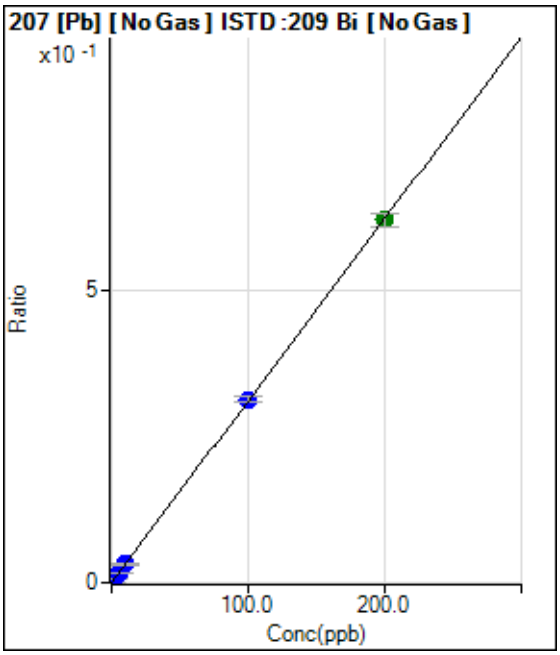
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.34	0.0001	P	43.6
2	☐	2.000	2.065	14612.06	0.0075	P	6.0
3	☐	5.000	5.018	36018.85	0.0182	P	3.4
4	☐	10.000	10.025	71354.05	0.0362	P	3.8
5	☐	100.000	100.419	701666.53	0.3625	P	3.7
6	☐	200.000	199.788	1382875.76	0.7211	A	4.5

y = 0.0036 * x + 6.3036E-005
R = 1.0000
DL = 0.02284
BEC = 0.01747

Weight: <None>
Min Conc: <None>

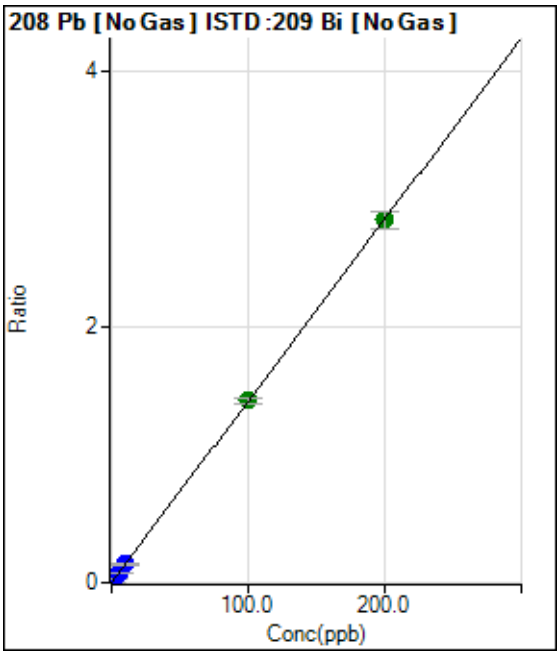


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0001	P	41.9
2	☐	2.000	2.037	12436.40	0.0064	P	3.9
3	☐	5.000	5.001	30871.93	0.0156	P	5.5
4	☐	10.000	10.074	61622.44	0.0313	P	5.5
5	☐	100.000	100.922	606109.55	0.3131	P	3.1
6	☐	200.000	199.535	1187120.69	0.6189	A	4.0

y = 0.0031 * x + 7.3072E-005
R = 1.0000
DL = 0.02965
BEC = 0.02356

Weight: <None>
Min Conc: <None>

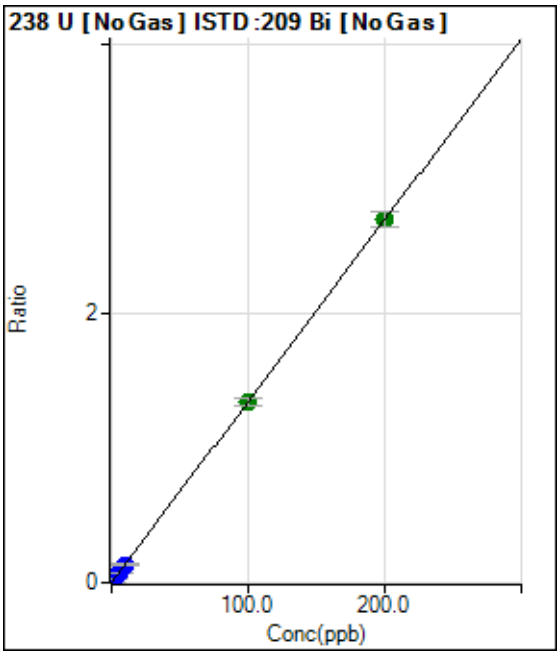
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	540.02	0.0003	P	13.4
2	☐	2.000	2.074	57763.33	0.0297	P	3.1
3	☐	5.000	5.015	141392.70	0.0714	P	4.7
4	☐	10.000	10.096	282227.36	0.1434	P	5.0
5	☐	100.000	100.264	2751765.48	1.4215	A	3.7
6	☐	200.000	199.862	5432980.88	2.8332	A	5.1

y = 0.0142 * x + 2.7835E-004
R = 1.0000
DL = 0.00788
BEC = 0.01964

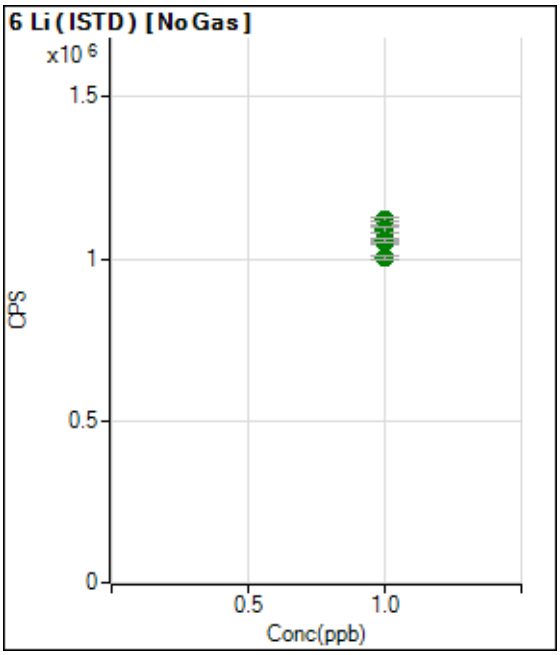
Weight: <None>
Min Conc: <None>



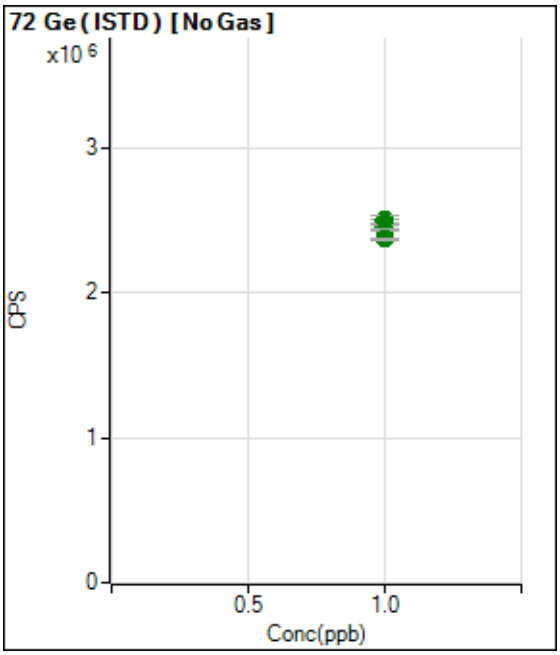
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	69.6
2	☐	2.000	1.933	50584.96	0.0260	P	4.7
3	☐	5.000	4.859	129553.71	0.0654	P	3.4
4	☐	10.000	9.784	258942.01	0.1316	P	6.0
5	☐	100.000	99.777	2598038.76	1.3419	A	3.7
6	☐	200.000	200.127	5162590.76	2.6916	A	4.3

y = 0.0134 * x + 1.2296E-005
R = 1.0000
DL = 0.001909
BEC = 0.0009143

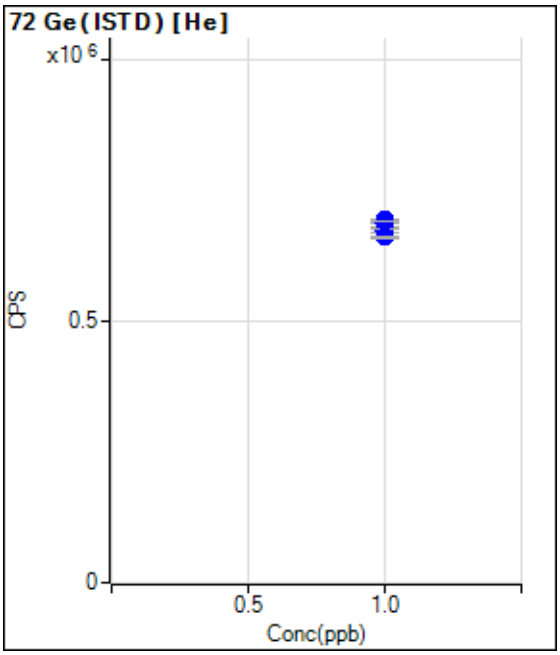
Weight: <None>
Min Conc: <None>



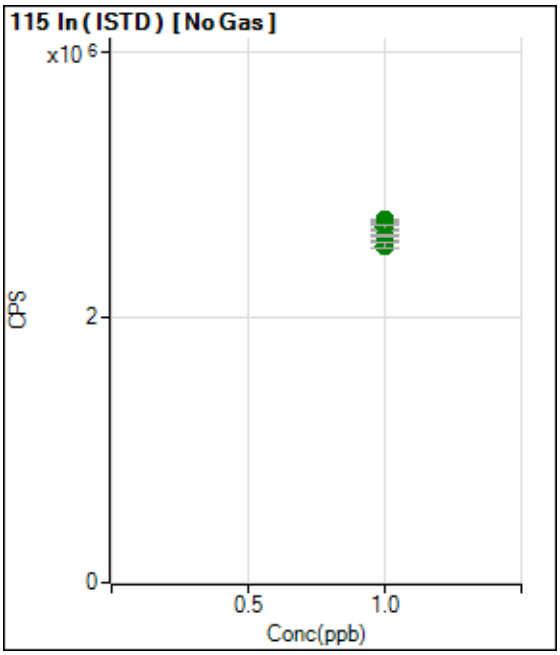
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1120139.33		A	1.2
2	☐	1.000		1092174.65		A	1.9
3	☐	1.000		1087572.34		A	1.6
4	☐	1.000		1049992.93		A	1.5
5	☐	1.000		1055797.43		A	1.5
6	☐	1.000		1002298.64		A	1.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2486363.97		A	1.1
2	☐	1.000		2499642.25		A	2.0
3	☐	1.000		2473353.03		A	0.8
4	☐	1.000		2452084.08		A	0.8
5	☐	1.000		2429983.30		A	1.0
6	☐	1.000		2366701.11		A	0.2

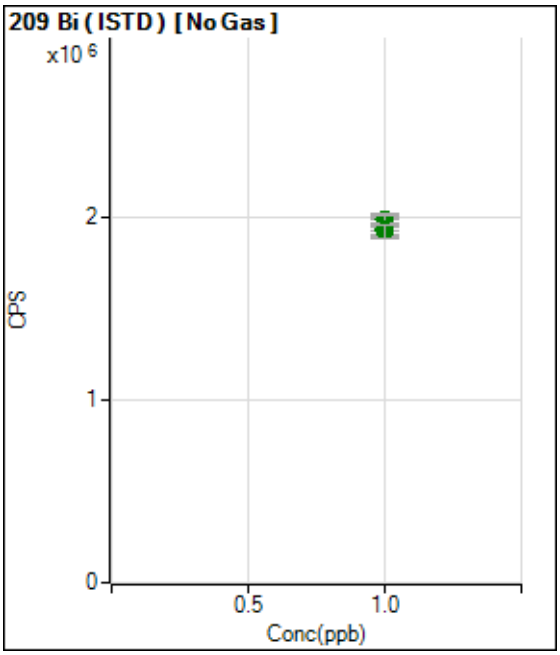


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		689982.65		P	1.3
2	☐	1.000		689735.09		P	0.7
3	☐	1.000		693131.99		P	0.7
4	☐	1.000		685233.74		P	1.7
5	☐	1.000		673502.65		P	1.2
6	☐	1.000		660124.50		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2731714.21		A	0.4
2	☐	1.000		2703981.64		A	0.7
3	☐	1.000		2626148.35		A	3.3
4	☐	1.000		2672733.04		A	1.3
5	☐	1.000		2612503.52		A	0.6
6	☐	1.000		2539910.09		A	1.5

Calibration for 213_ICV.d



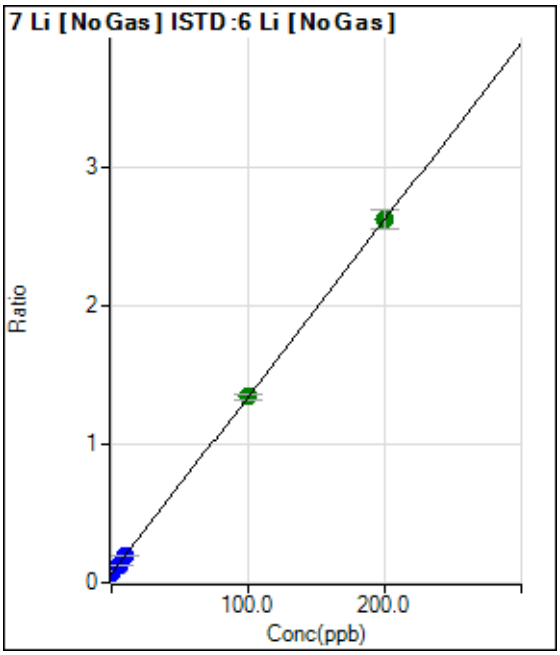
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1939317.89		A	4.7
2	☐	1.000		1947951.38		A	4.7
3	☐	1.000		1983806.48		A	3.8
4	☐	1.000		1970973.25		A	4.2
5	☐	1.000		1937362.42		A	3.1
6	☐	1.000		1919798.88		A	3.5

Calibration for 181_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071323A.b\
Analysis File: 071323A.batch.bin
DA Date-Time: 7/13/2023 8:18:40 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	174CALB.d	CAL BLK	7/13/2023 7:01:29 PM
2	175CALS.d	2/10/200	7/13/2023 7:03:39 PM
3	176CALS.d	5/25/500	7/13/2023 7:05:47 PM
4	177CALS.d	10/50/100	7/13/2023 7:07:45 PM
5	178CALS.d	100/500/10K	7/13/2023 7:09:40 PM
6	179CALS.d	200/1000/20K	7/13/2023 7:11:33 PM

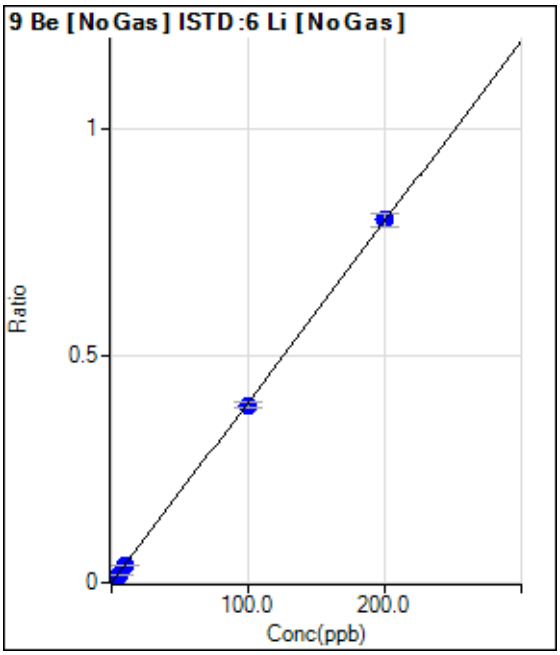
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	64567.00	0.0670	P	1.7
2	☐	2.000	1.841	89460.03	0.0905	P	2.4
3	☐	5.000	4.928	126361.01	0.1299	P	0.1
4	☐	10.000	9.799	190440.46	0.1921	P	0.4
5	☐	100.000	99.989	1245561.05	1.3440	A	2.5
6	☐	200.000	200.019	2275686.79	2.6214	A	5.2

y = 0.0128 * x + 0.0670
R = 1.0000
DL = 0.261
BEC = 5.247

Weight: <None>
Min Conc: <None>

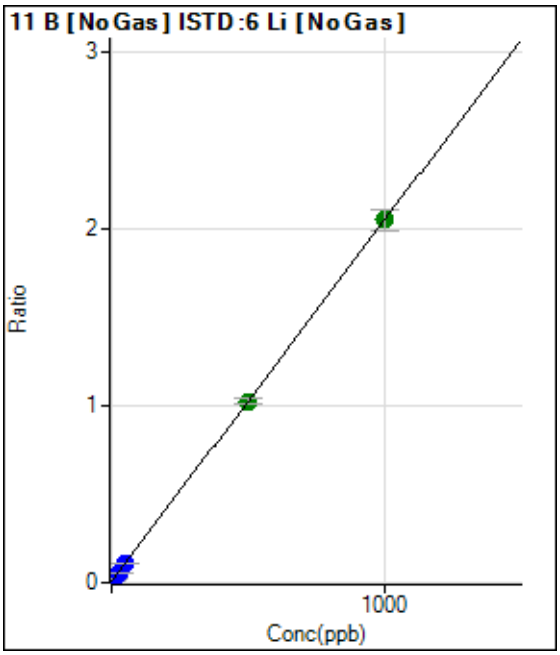


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.67	0.0000	P	26.3
2	☐	2.000	1.923	7588.75	0.0077	P	4.6
3	☐	5.000	4.736	18372.11	0.0189	P	1.3
4	☐	10.000	9.427	37259.16	0.0376	P	1.6
5	☐	100.000	98.331	363290.52	0.3920	P	2.7
6	☐	200.000	200.870	695416.42	0.8008	P	3.6

y = 0.0040 * x + 1.2136E-005
R = 1.0000
DL = 0.002404
BEC = 0.003044

Weight: <None>
Min Conc: <None>

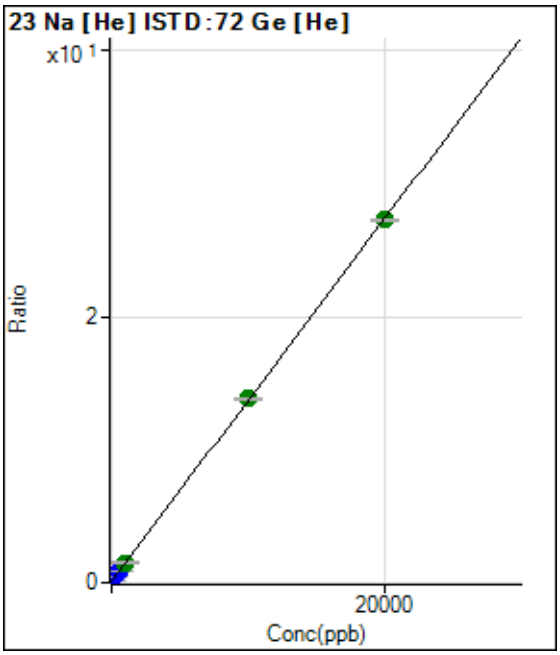
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7373.67	0.0077	P	1.4
2	☐	10.000	9.268	26279.58	0.0266	P	3.1
3	☐	25.000	24.018	55166.07	0.0567	P	0.8
4	☐	50.000	47.899	104589.11	0.1055	P	1.0
5	☐	500.000	498.115	950372.75	1.0255	A	2.8
6	☐	1000.000	1001.079	1782267.47	2.0532	A	5.7

y = 0.0020 * x + 0.0077
R = 1.0000
DL = 0.1556
BEC = 3.745

Weight: <None>
Min Conc: <None>

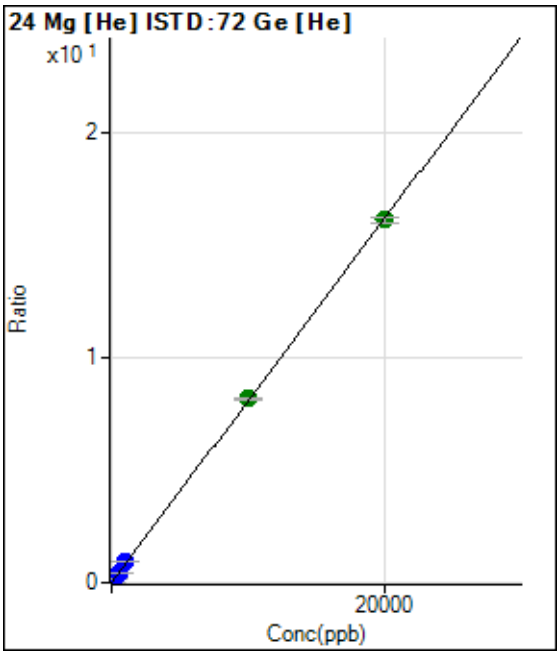


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50621.81	0.0771	P	1.6
2	☐	200.000	218.066	241237.87	0.3740	P	0.4
3	☐	500.000	548.701	529653.26	0.8243	P	0.4
4	☐	1000.000	1050.049	960439.10	1.5071	A	2.4
5	☐	10000.000	10091.307	8605284.67	13.8207	A	1.2
6	☐	20000.000	19950.446	16600623.92	27.2481	A	0.8

y = 0.0014 * x + 0.0771
R = 1.0000
DL = 2.655
BEC = 56.58

Weight: <None>
Min Conc: <None>

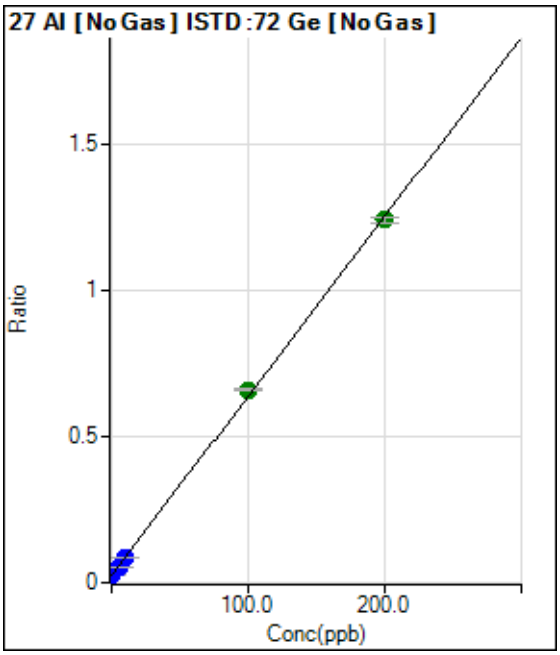
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	923.38	0.0014	P	2.2
2	☐	200.000	224.627	118032.31	0.1830	P	0.5
3	☐	500.000	566.634	295242.24	0.4595	P	1.0
4	☐	1000.000	1115.860	575844.42	0.9036	P	1.1
5	☐	10000.000	10113.213	5091792.42	8.1777	A	1.1
6	☐	20000.000	19935.688	9820163.60	16.1190	A	1.5

y = 8.0848E-004 * x + 0.0014
R = 1.0000
DL = 0.114
BEC = 1.739

Weight: <None>
Min Conc: <None>

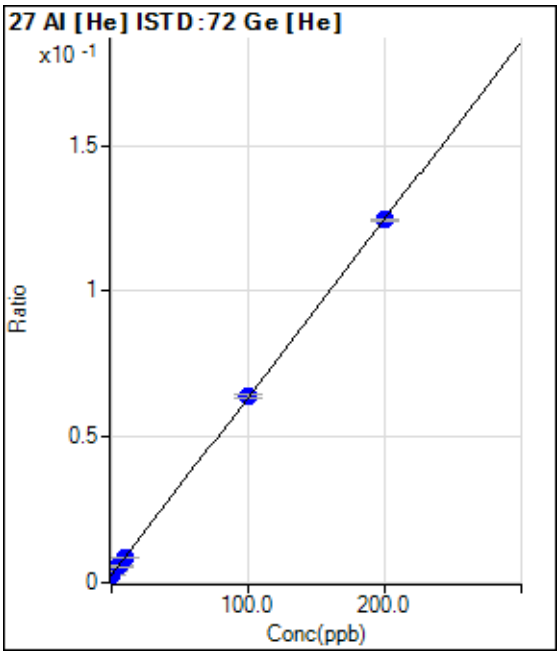


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58004.05	0.0251	P	1.4
2	☐	2.000	2.384	91526.54	0.0398	P	1.7
3	☐	5.000	4.772	122532.39	0.0544	P	2.4
4	☐	10.000	9.654	192091.82	0.0844	P	3.2
5	☐	100.000	103.444	1453197.01	0.6601	A	1.2
6	☐	200.000	198.297	2711767.56	1.2424	A	1.3

y = 0.0061 * x + 0.0251
R = 0.9998
DL = 0.1711
BEC = 4.095

Weight: <None>
Min Conc: <None>

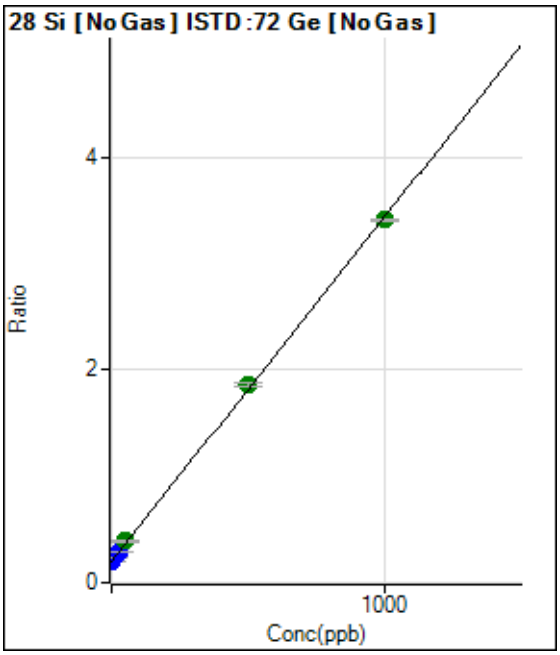
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1720.14	0.0026	P	11.1
2	☐	2.000	2.849	2810.34	0.0044	P	5.0
3	☐	5.000	4.933	3617.20	0.0056	P	3.1
4	☐	10.000	10.067	5584.56	0.0088	P	3.2
5	☐	100.000	100.546	39830.49	0.0640	P	1.4
6	☐	200.000	199.717	75842.74	0.1245	P	0.4

y = 6.1018E-004 * x + 0.0026
R = 1.0000
DL = 1.426
BEC = 4.292

Weight: <None>
Min Conc: <None>

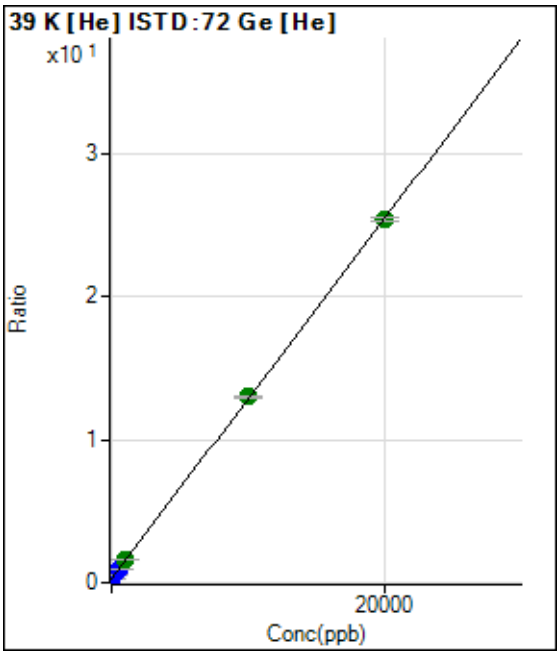


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	462157.30	0.2003	P	0.2
2	☐	10.000	11.184	544157.47	0.2365	P	1.0
3	☐	25.000	29.648	666901.29	0.2962	P	0.7
4	☐	50.000	59.686	895452.77	0.3934	A	2.7
5	☐	500.000	514.996	4108312.34	1.8665	A	2.3
6	☐	1000.000	991.889	7442561.97	3.4094	A	0.5

y = 0.0032 * x + 0.2003
R = 0.9998
DL = 0.3253
BEC = 61.9

Weight: <None>
Min Conc: <None>

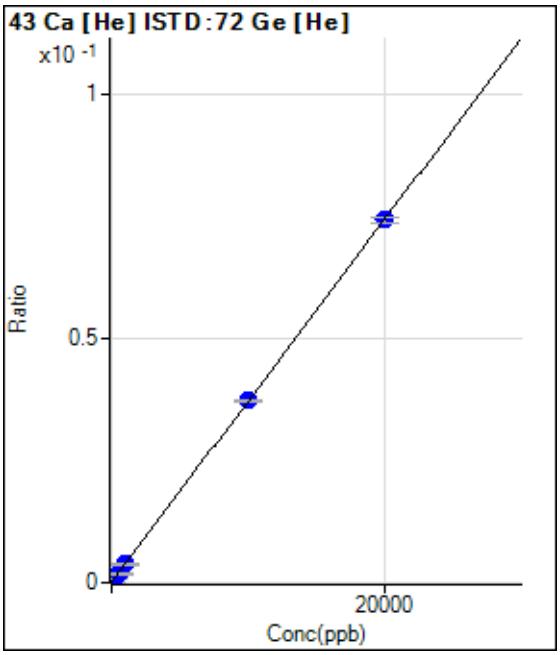
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	179815.20	0.2737	P	1.7
2	☐	200.000	217.877	353416.34	0.5480	P	0.9
3	☐	500.000	544.497	616236.11	0.9591	P	0.7
4	☐	1000.000	1075.160	1036924.57	1.6271	A	1.9
5	☐	10000.000	10111.623	8095287.38	13.0015	A	0.6
6	☐	20000.000	19939.140	15457191.44	25.3717	A	1.1

y = 0.0013 * x + 0.2737
R = 1.0000
DL = 11.28
BEC = 217.5

Weight: <None>
Min Conc: <None>

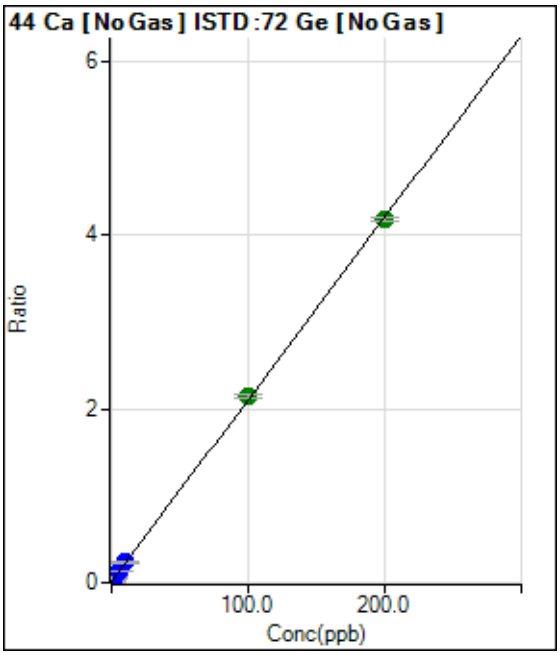


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0001	P	48.4
2	☐	200.000	192.685	503.35	0.0008	P	28.7
3	☐	500.000	477.767	1180.08	0.0018	P	12.0
4	☐	1000.000	1036.385	2490.27	0.0039	P	10.6
5	☐	10000.000	10022.403	23173.10	0.0372	P	1.3
6	☐	20000.000	19987.608	45184.39	0.0742	P	1.9

y = 3.7069E-006 * x + 6.6117E-005
R = 1.0000
DL = 25.88
BEC = 17.84

Weight: <None>
Min Conc: <None>

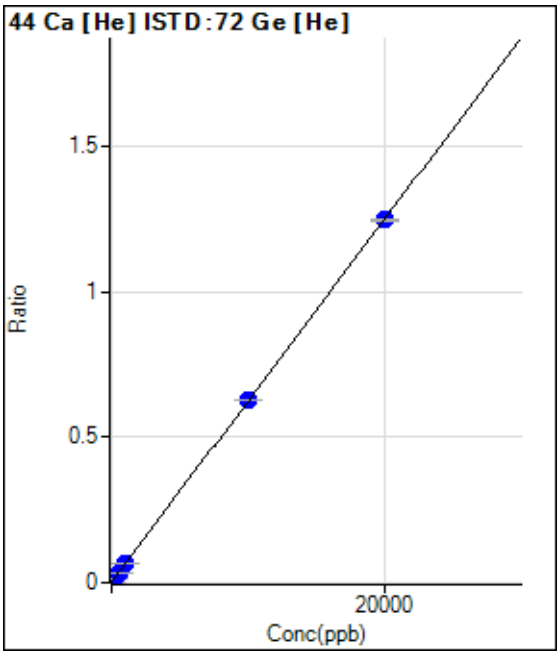
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25453.86	0.0110	P	2.1
2	☐	2.000	2.112	127250.53	0.0553	P	1.0
3	☐	5.000	5.391	279183.51	0.1240	P	1.4
4	☐	10.000	10.752	537877.96	0.2363	P	3.5
5	☐	100.000	102.408	4748167.22	2.1570	A	2.0
6	☐	200.000	198.747	9115745.70	4.1759	A	1.1

y = 0.0210 * x + 0.0110
R = 0.9999
DL = 0.03324
BEC = 0.5264

Weight: <None>
Min Conc: <None>

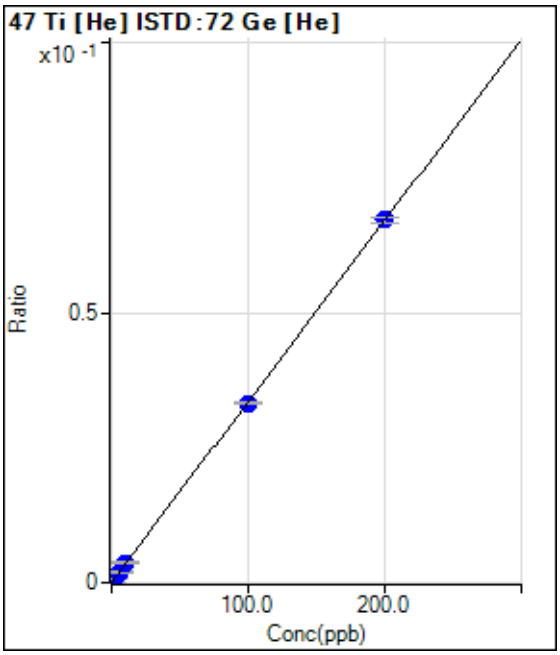


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	986.72	0.0015	P	11.7
2	☐	200.000	201.618	9083.15	0.0141	P	2.0
3	☐	500.000	511.917	21490.46	0.0334	P	1.3
4	☐	1000.000	1011.827	41202.10	0.0646	P	2.7
5	☐	10000.000	10058.275	391750.25	0.6292	P	0.6
6	☐	20000.000	19969.957	760182.41	1.2477	P	0.5

y = 6.2403E-005 * x + 0.0015
R = 1.0000
DL = 8.474
BEC = 24.07

Weight: <None>
Min Conc: <None>

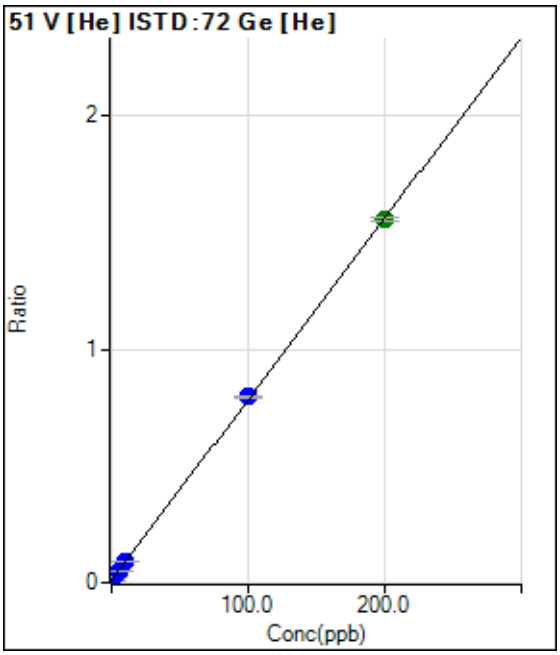
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	91.2
2	☐	2.000	1.945	436.68	0.0007	P	15.3
3	☐	5.000	5.419	1183.41	0.0018	P	17.1
4	☐	10.000	10.684	2296.90	0.0036	P	7.9
5	☐	100.000	99.006	20672.50	0.0332	P	1.3
6	☐	200.000	200.453	40937.96	0.0672	P	1.3

y = 3.3507E-004 * x + 2.5321E-005
R = 1.0000
DL = 0.2067
BEC = 0.07557

Weight: <None>
Min Conc: <None>

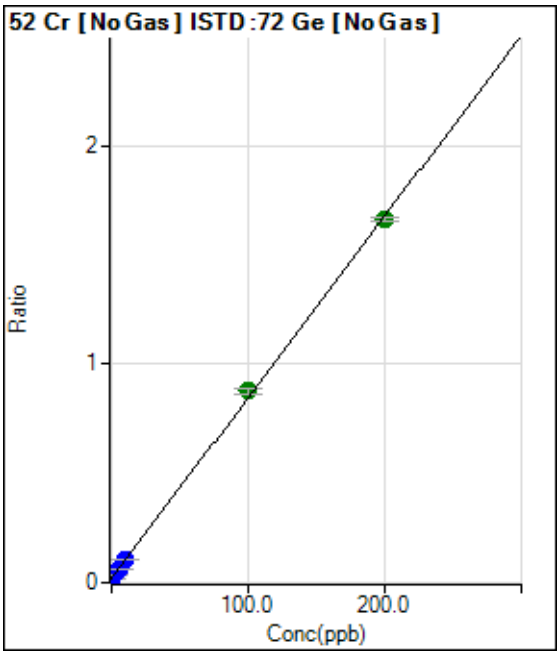


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6358.17	0.0097	P	2.8
2	☐	2.000	2.012	16307.49	0.0253	P	2.5
3	☐	5.000	5.078	31528.39	0.0491	P	1.0
4	☐	10.000	10.265	56916.44	0.0893	P	1.2
5	☐	100.000	101.406	495818.83	0.7963	P	0.6
6	☐	200.000	199.282	947695.87	1.5555	A	1.1

y = 0.0078 * x + 0.0097
R = 1.0000
DL = 0.1033
BEC = 1.248

Weight: <None>
Min Conc: <None>

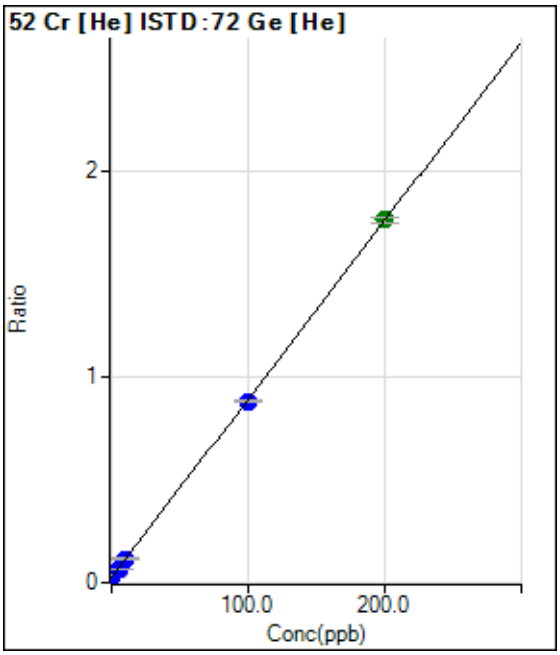
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44074.81	0.0191	P	2.3
2	☐	2.000	1.946	81032.63	0.0352	P	1.4
3	☐	5.000	5.291	141629.39	0.0629	P	1.9
4	☐	10.000	10.464	240629.67	0.1057	P	3.2
5	☐	100.000	103.664	1931044.97	0.8773	A	2.9
6	☐	200.000	198.138	3621919.95	1.6594	A	0.9

y = 0.0083 * x + 0.0191
R = 0.9998
DL = 0.1605
BEC = 2.307

Weight: <None>
Min Conc: <None>

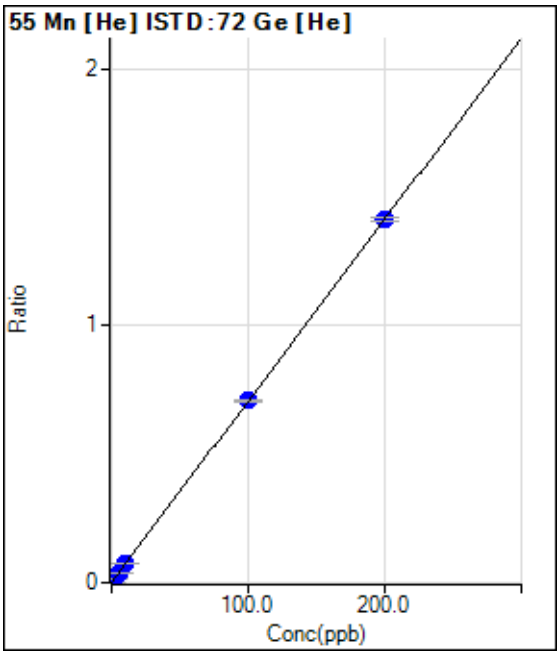


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16653.75	0.0254	P	3.3
2	☐	2.000	1.989	27467.85	0.0426	P	3.4
3	☐	5.000	4.989	44074.42	0.0686	P	1.3
4	☐	10.000	10.461	73935.83	0.1160	P	2.8
5	☐	100.000	98.943	549780.64	0.8830	P	0.9
6	☐	200.000	200.506	1074271.26	1.7633	A	1.3

y = 0.0087 * x + 0.0254
R = 1.0000
DL = 0.2864
BEC = 2.925

Weight: <None>
Min Conc: <None>

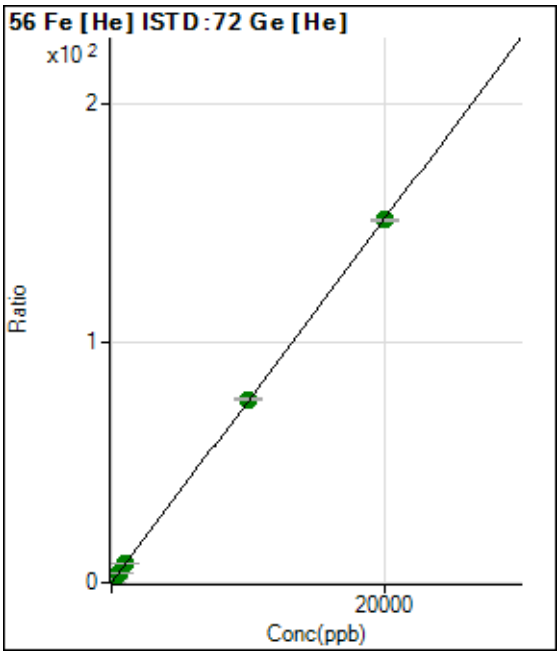
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	613.36	0.0009	P	25.8
2	☐	2.000	2.045	9920.44	0.0154	P	5.0
3	☐	5.000	5.170	24064.83	0.0375	P	2.0
4	☐	10.000	10.312	47014.31	0.0738	P	2.3
5	☐	100.000	100.134	440980.21	0.7082	P	1.0
6	☐	200.000	199.913	860925.07	1.4130	P	1.0

y = 0.0071 * x + 9.3460E-004
R = 1.0000
DL = 0.1024
BEC = 0.1323

Weight: <None>
Min Conc: <None>

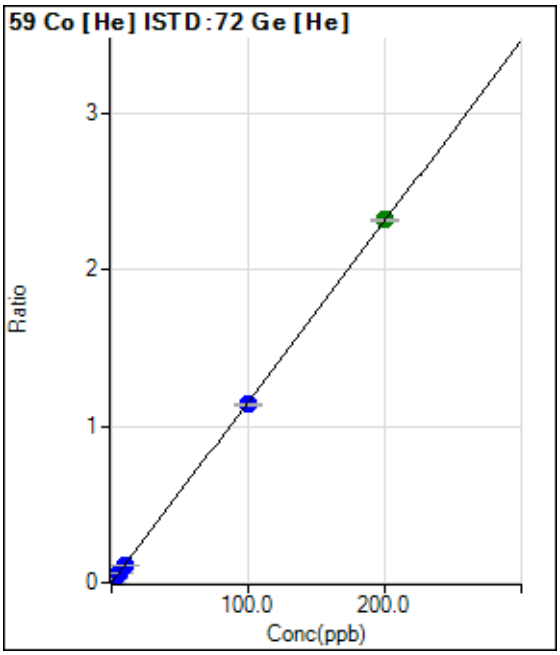


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24458.88	0.0372	P	4.8
2	☐	200.000	212.471	1062318.60	1.6471	A	2.3
3	☐	500.000	514.642	2529377.46	3.9367	A	1.4
4	☐	1000.000	1027.852	4986946.17	7.8254	A	0.6
5	☐	10000.000	10080.293	47580224.29	76.4165	A	1.0
6	☐	20000.000	19957.970	92158158.63	151.2605	A	0.6

y = 0.0076 * x + 0.0372
R = 1.0000
DL = 0.7116
BEC = 4.915

Weight: <None>
Min Conc: <None>

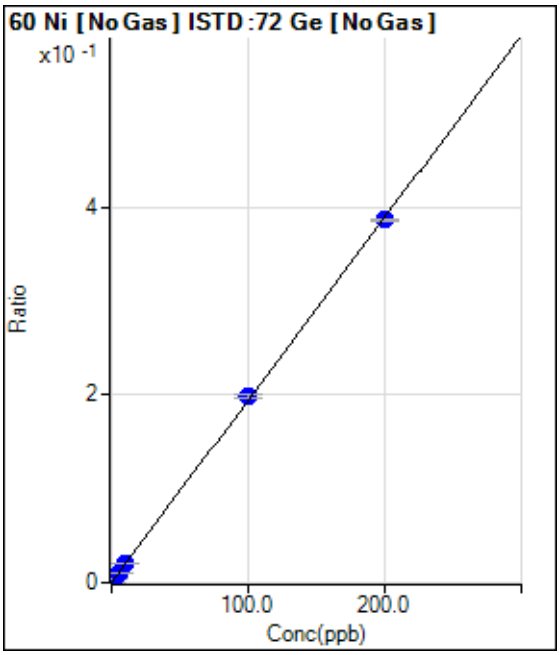
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.33	0.0001	P	25.1
2	☐	2.000	2.019	15101.92	0.0234	P	1.7
3	☐	5.000	5.084	37789.23	0.0588	P	0.6
4	☐	10.000	10.046	74010.39	0.1161	P	0.8
5	☐	100.000	98.471	708256.35	1.1375	P	0.6
6	☐	200.000	200.760	1412917.32	2.3190	A	0.8

y = 0.0116 * x + 9.6563E-005
R = 1.0000
DL = 0.0063
BEC = 0.00836

Weight: <None>
Min Conc: <None>

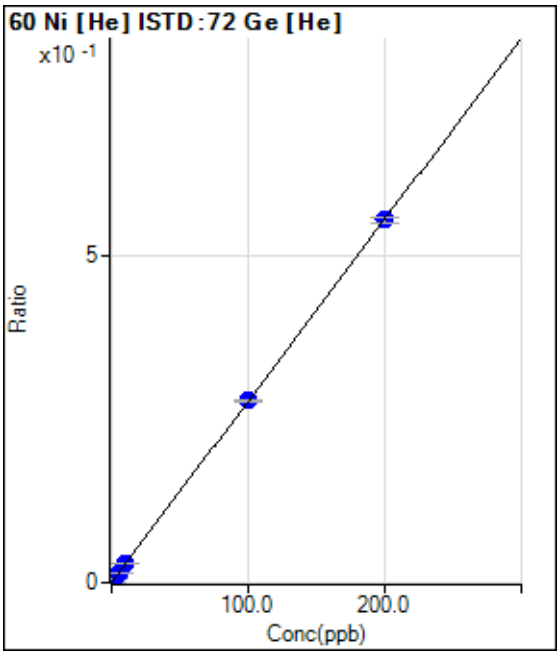


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	433.35	0.0002	P	4.4
2	☐	2.000	2.045	9566.86	0.0042	P	3.2
3	☐	5.000	5.197	23139.90	0.0103	P	1.9
4	☐	10.000	10.374	46265.46	0.0203	P	3.5
5	☐	100.000	102.191	437134.38	0.1986	P	2.0
6	☐	200.000	198.881	843215.17	0.3863	P	0.6

y = 0.0019 * x + 1.8777E-004
R = 0.9999
DL = 0.0127
BEC = 0.09672

Weight: <None>
Min Conc: <None>

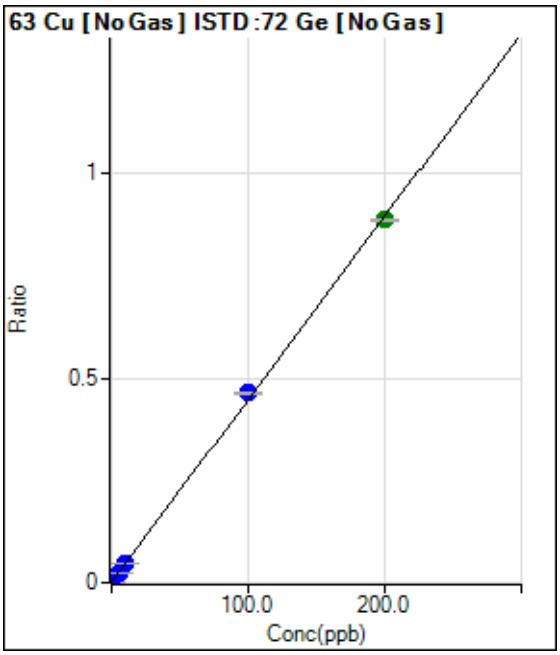
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	153.34	0.0002	P	23.2
2	☐	2.000	2.146	4000.66	0.0062	P	6.8
3	☐	5.000	4.907	8919.74	0.0139	P	4.8
4	☐	10.000	10.301	18409.33	0.0289	P	0.5
5	☐	100.000	100.208	173700.02	0.2790	P	0.4
6	☐	200.000	199.882	338884.59	0.5562	P	1.3

y = 0.0028 * x + 2.3357E-004
R = 1.0000
DL = 0.05851
BEC = 0.08397

Weight: <None>
Min Conc: <None>

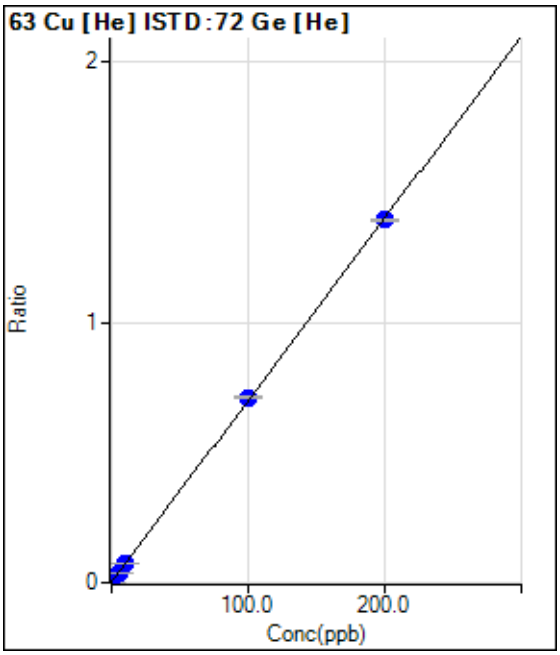


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2260.23	0.0010	P	4.7
2	☐	2.000	2.574	28737.45	0.0125	P	3.2
3	☐	5.000	5.243	54984.83	0.0244	P	1.1
4	☐	10.000	10.469	108755.61	0.0478	P	3.5
5	☐	100.000	103.470	1020576.44	0.4636	P	1.3
6	☐	200.000	198.230	1936710.65	0.8873	A	0.9

y = 0.0045 * x + 9.7964E-004
R = 0.9998
DL = 0.03059
BEC = 0.2191

Weight: <None>
Min Conc: <None>

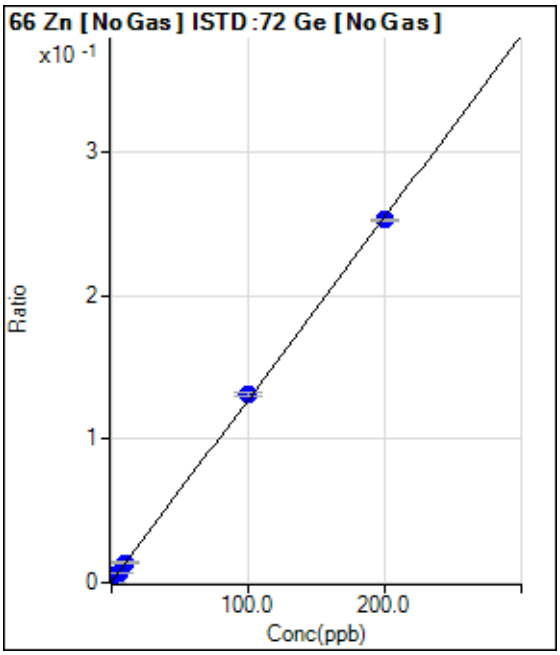
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	793.37	0.0012	P	3.3
2	☐	2.000	2.564	12342.51	0.0191	P	5.1
3	☐	5.000	5.106	23721.01	0.0369	P	1.9
4	☐	10.000	10.244	46429.57	0.0729	P	0.7
5	☐	100.000	101.476	442668.51	0.7109	P	0.7
6	☐	200.000	199.241	849757.56	1.3947	P	0.5

y = 0.0070 * x + 0.0012
R = 1.0000
DL = 0.01716
BEC = 0.1726

Weight: <None>
Min Conc: <None>

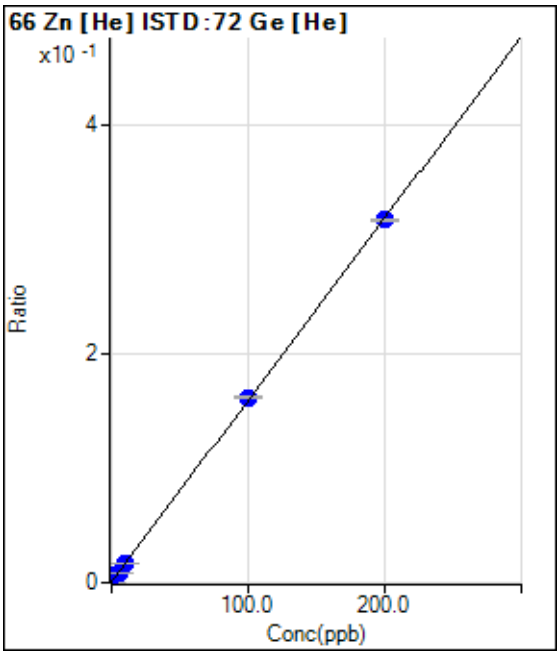


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1243.42	0.0005	P	9.7
2	☐	2.000	3.439	11278.19	0.0049	P	2.5
3	☐	5.000	5.182	16013.01	0.0071	P	1.4
4	☐	10.000	10.579	31774.26	0.0140	P	3.0
5	☐	100.000	102.635	287760.03	0.1307	P	2.2
6	☐	200.000	198.635	551164.09	0.2525	P	0.9

y = 0.0013 * x + 5.3888E-004
R = 0.9999
DL = 0.1235
BEC = 0.4248

Weight: <None>
Min Conc: <None>

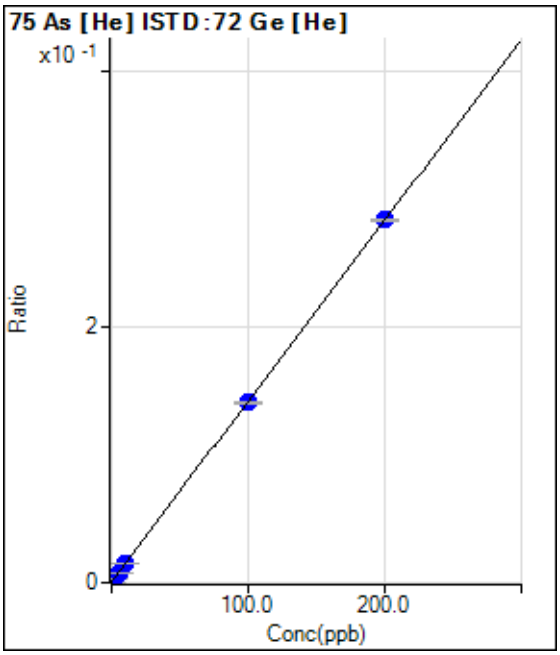
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	450.02	0.0007	P	2.9
2	☐	2.000	3.399	3917.31	0.0061	P	2.8
3	☐	5.000	4.886	5417.85	0.0084	P	6.5
4	☐	10.000	10.447	10991.30	0.0172	P	2.2
5	☐	100.000	101.510	100637.98	0.1616	P	0.8
6	☐	200.000	199.212	192848.63	0.3165	P	0.2

y = 0.0016 * x + 6.8510E-004
R = 0.9999
DL = 0.03728
BEC = 0.4321

Weight: <None>
Min Conc: <None>

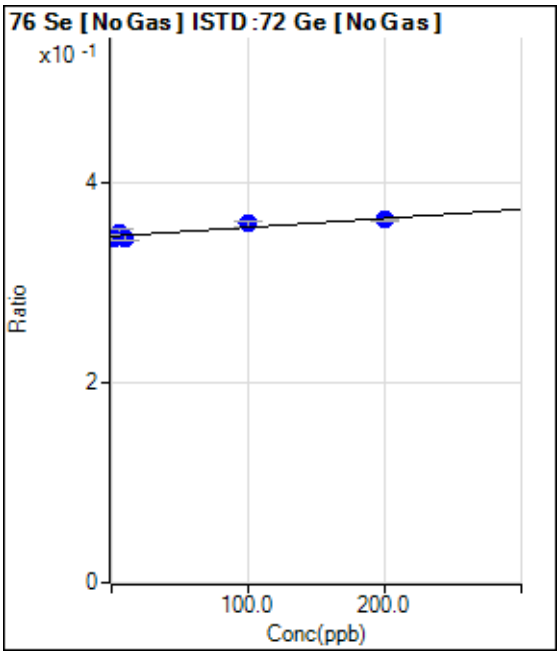


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	392.23	0.0006	P	6.1
2	☐	2.000	1.965	2177.96	0.0034	P	5.2
3	☐	5.000	5.018	4944.26	0.0077	P	2.2
4	☐	10.000	9.869	9276.55	0.0146	P	0.7
5	☐	100.000	99.297	87814.52	0.1410	P	0.7
6	☐	200.000	200.358	173009.58	0.2840	P	0.4

y = 0.0014 * x + 5.9713E-004
R = 1.0000
DL = 0.07739
BEC = 0.4222

Weight: <None>
Min Conc: <None>

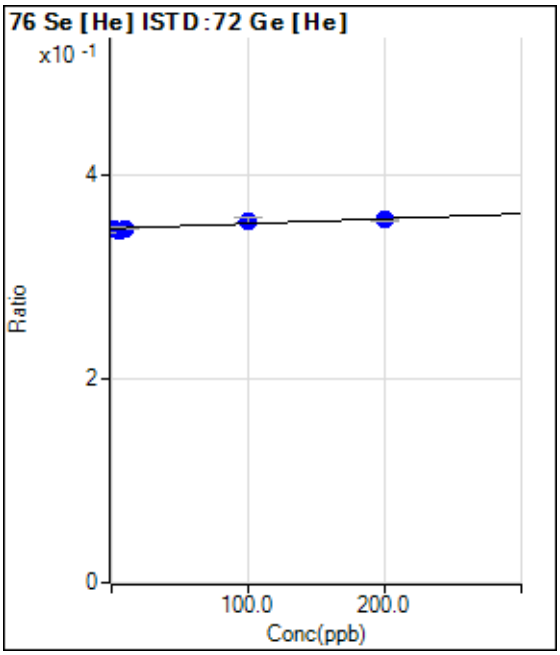
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	798130.41	0.3459	P	1.3
2	☐	2.000	-20.701	791688.89	0.3440	P	0.7
3	☐	5.000	38.323	786400.82	0.3493	P	2.2
4	☐	10.000	-15.878	784151.06	0.3445	P	2.1
5	☐	100.000	137.357	788481.60	0.3582	P	1.8
6	☐	200.000	182.009	790626.16	0.3622	P	0.7

y = 8.9606E-005 * x + 0.3459
R = 0.9442
DL = 146.4
BEC = 3860

Weight: <None>
Min Conc: <None>

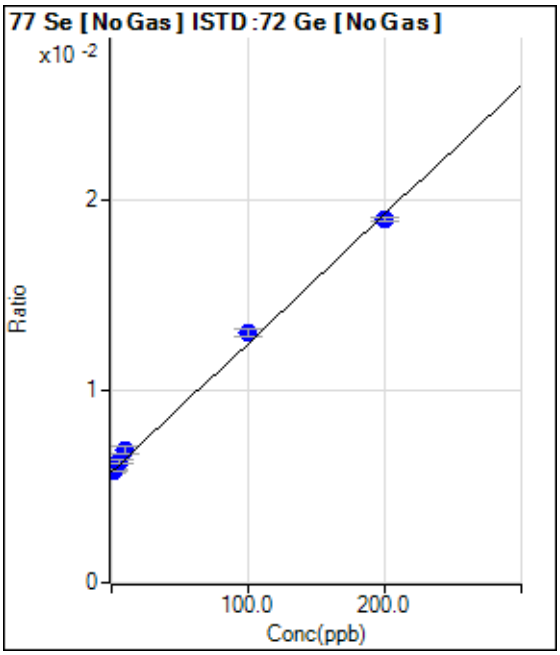


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	228248.21	0.3475	P	1.3
2	☐	2.000	-12.410	223703.73	0.3469	P	0.7
3	☐	5.000	-32.940	222225.73	0.3459	P	1.3
4	☐	10.000	10.371	221752.41	0.3480	P	0.3
5	☐	100.000	152.753	220910.16	0.3548	P	1.6
6	☐	200.000	174.697	216801.63	0.3559	P	0.8

y = 4.8113E-005 * x + 0.3475
R = 0.9380
DL = 285
BEC = 7222

Weight: <None>
Min Conc: <None>

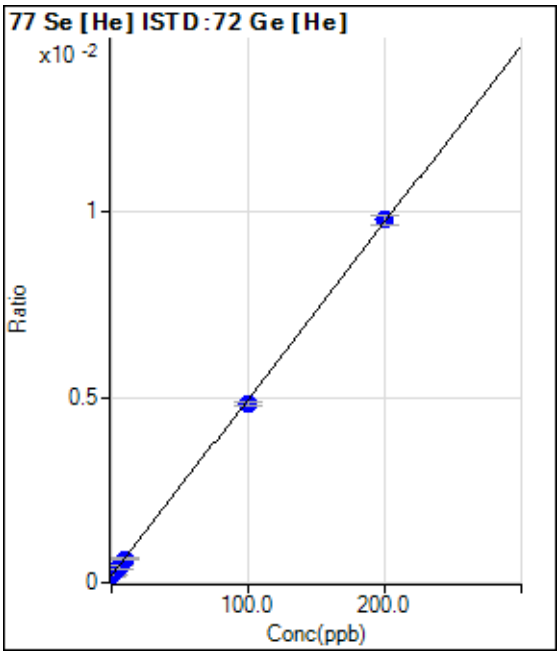
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13333.47	0.0058	P	0.9
2	☐	2.000	1.274	13493.68	0.0059	P	0.6
3	☐	5.000	8.114	14234.39	0.0063	P	3.8
4	☐	10.000	17.139	15769.45	0.0069	P	6.0
5	☐	100.000	108.144	28737.52	0.0131	P	2.6
6	☐	200.000	195.500	41316.84	0.0189	P	1.2

y = 6.7268E-005 * x + 0.0058
R = 0.9984
DL = 2.202
BEC = 85.9

Weight: <None>
Min Conc: <None>

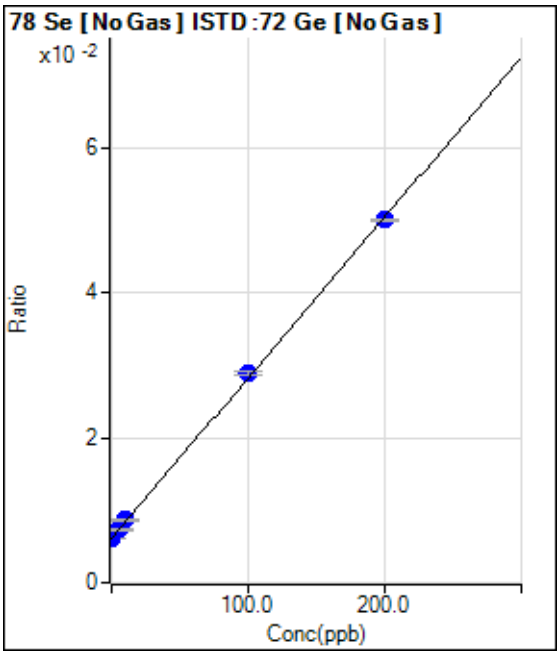


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.33	0.0002	P	31.9
2	☐	2.000	1.818	176.67	0.0003	P	41.7
3	☐	5.000	4.885	270.01	0.0004	P	30.0
4	☐	10.000	9.246	400.01	0.0006	P	8.8
5	☐	100.000	97.266	3000.39	0.0048	P	3.0
6	☐	200.000	201.409	5958.09	0.0098	P	2.4

y = 4.7617E-005 * x + 1.8734E-004
R = 0.9999
DL = 3.765
BEC = 3.934

Weight: <None>
Min Conc: <None>

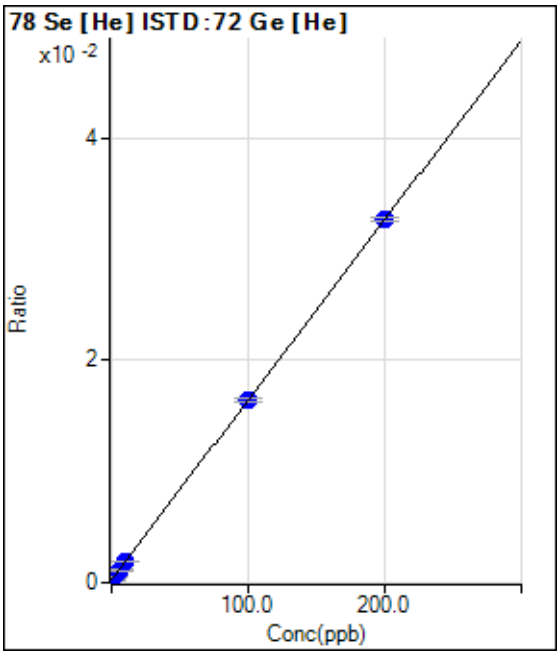
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14147.61	0.0061	P	1.0
2	☐	2.000	3.157	15716.10	0.0068	P	1.2
3	☐	5.000	5.543	16563.70	0.0074	P	2.4
4	☐	10.000	11.480	19734.75	0.0087	P	2.7
5	☐	100.000	102.954	63616.77	0.0289	P	2.0
6	☐	200.000	198.424	109176.45	0.0500	P	0.7

y = 2.2117E-004 * x + 0.0061
R = 0.9999
DL = 0.84
BEC = 27.72

Weight: <None>
Min Conc: <None>

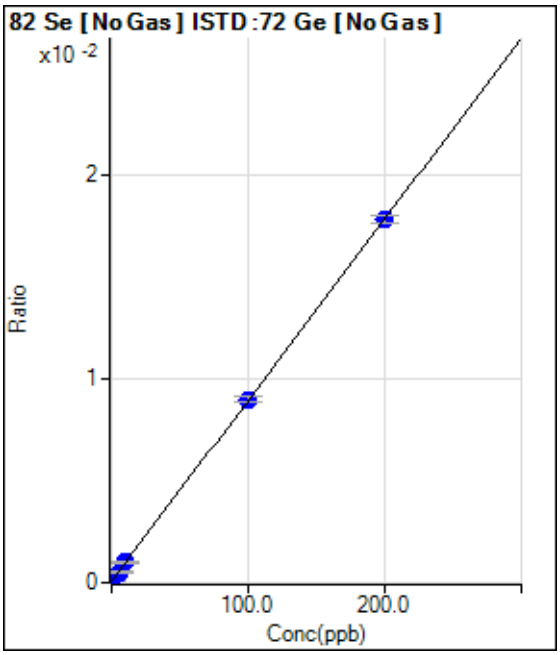


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	170.67	0.0003	P	11.9
2	☐	2.000	1.965	372.68	0.0006	P	5.1
3	☐	5.000	5.193	706.69	0.0011	P	4.8
4	☐	10.000	10.392	1236.73	0.0019	P	2.6
5	☐	100.000	99.690	10200.54	0.0164	P	2.0
6	☐	200.000	200.131	19877.97	0.0326	P	1.0

y = 1.6173E-004 * x + 2.5997E-004
R = 1.0000
DL = 0.5716
BEC = 1.607

Weight: <None>
Min Conc: <None>

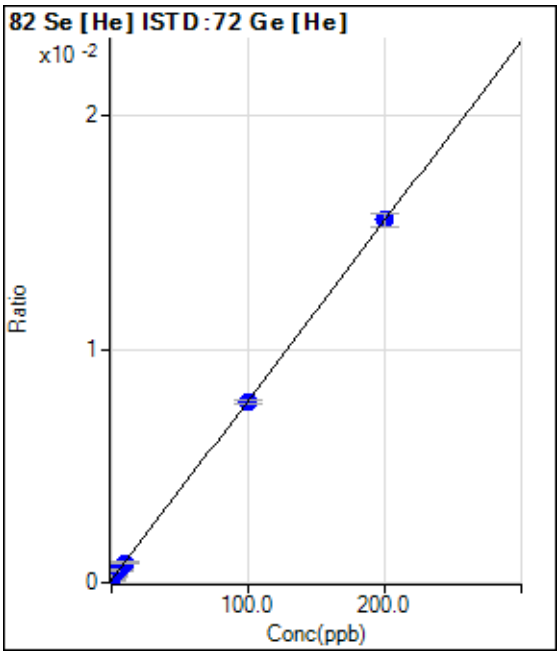
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	171.54	0.0001	P	29.3
2	☐	2.000	2.040	588.20	0.0003	P	4.8
3	☐	5.000	4.780	1121.41	0.0005	P	27.5
4	☐	10.000	10.477	2284.44	0.0010	P	11.5
5	☐	100.000	100.627	19839.77	0.0090	P	3.8
6	☐	200.000	199.668	38891.88	0.0178	P	2.1

y = 8.8849E-005 * x + 7.4350E-005
R = 1.0000
DL = 0.7368
BEC = 0.8368

Weight: <None>
Min Conc: <None>

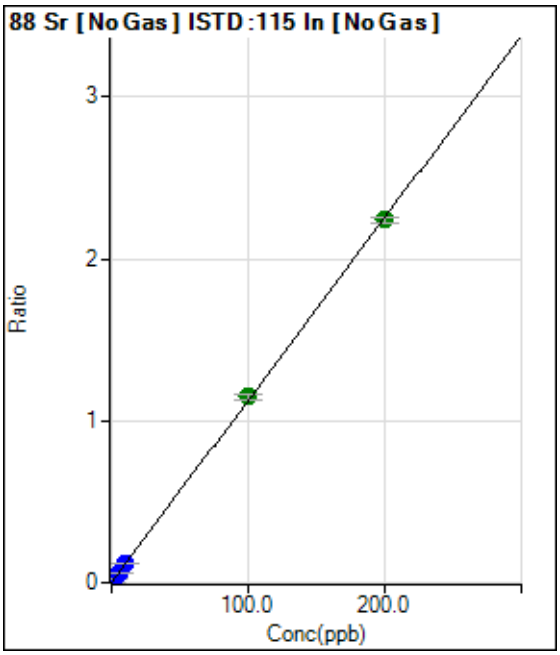


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	51.1
2	☐	2.000	2.512	193.34	0.0003	P	23.3
3	☐	5.000	5.829	356.68	0.0006	P	18.0
4	☐	10.000	9.766	546.69	0.0009	P	9.6
5	☐	100.000	99.065	4814.28	0.0077	P	2.8
6	☐	200.000	200.454	9466.83	0.0155	P	3.5

y = 7.6972E-005 * x + 1.0646E-004
R = 1.0000
DL = 2.122
BEC = 1.383

Weight: <None>
Min Conc: <None>

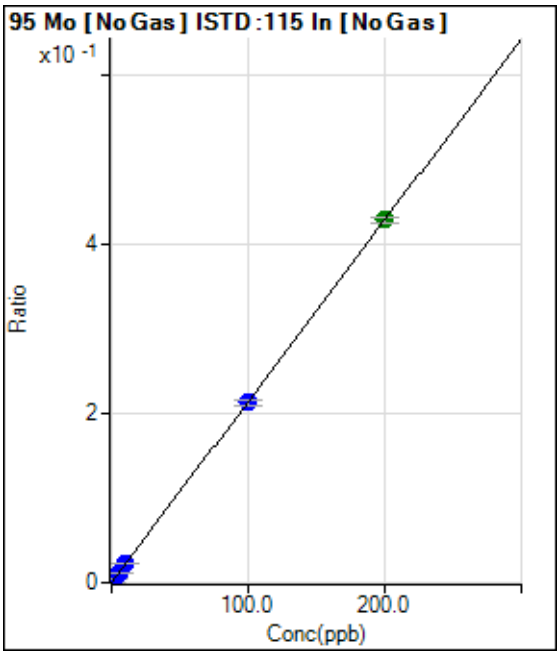
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2130.22	0.0008	P	7.6
2	☐	2.000	2.084	60603.72	0.0243	P	0.9
3	☐	5.000	5.099	147042.89	0.0582	P	1.5
4	☐	10.000	10.473	294907.15	0.1187	P	1.1
5	☐	100.000	102.000	2847461.73	1.1484	A	3.4
6	☐	200.000	198.973	5431626.38	2.2394	A	1.8

y = 0.0113 * x + 8.3542E-004
R = 0.9999
DL = 0.01697
BEC = 0.07425

Weight: <None>
Min Conc: <None>

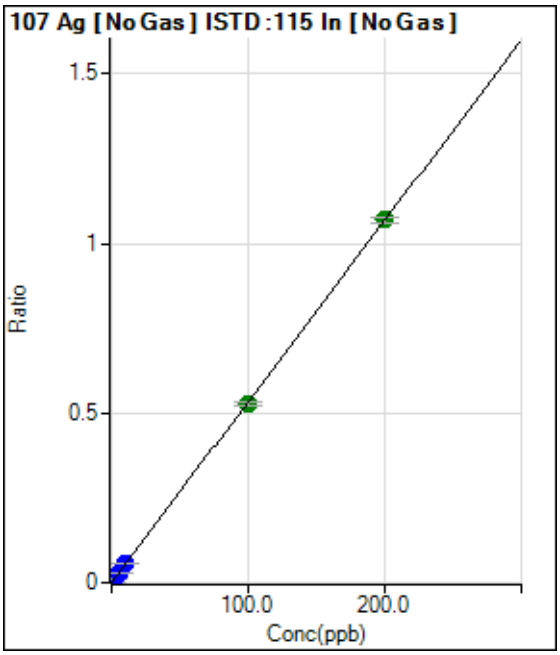


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	240.01	0.0001	P	11.4
2	☐	2.000	1.985	10847.94	0.0043	P	3.7
3	☐	5.000	4.837	26433.44	0.0105	P	3.8
4	☐	10.000	10.384	55539.08	0.0223	P	1.6
5	☐	100.000	99.463	528841.38	0.2133	P	2.9
6	☐	200.000	200.254	1041195.22	0.4293	A	1.8

y = 0.0021 * x + 9.4135E-005
R = 1.0000
DL = 0.01504
BEC = 0.04392

Weight: <None>
Min Conc: <None>

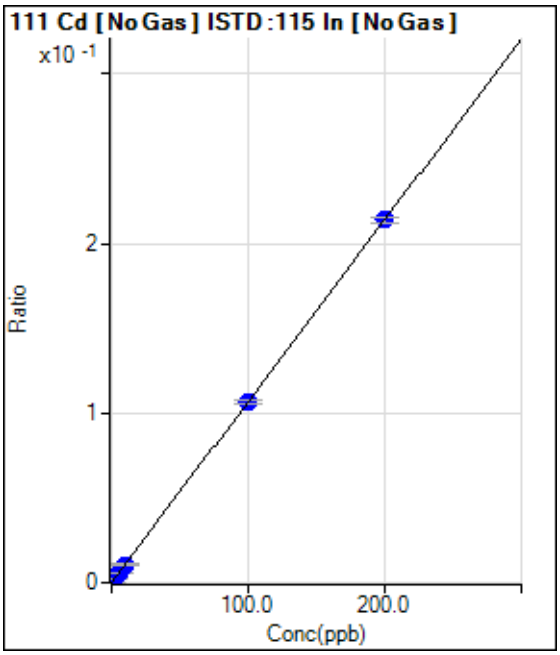
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	126.67	0.0000	P	39.5
2	☐	2.000	2.024	27037.94	0.0108	P	0.5
3	☐	5.000	5.048	68101.80	0.0270	P	0.6
4	☐	10.000	10.348	137175.64	0.0552	P	1.5
5	☐	100.000	98.816	1306211.55	0.5267	A	3.1
6	☐	200.000	200.573	2592984.44	1.0691	A	1.3

y = 0.0053 * x + 4.9650E-005
R = 1.0000
DL = 0.01105
BEC = 0.009316

Weight: <None>
Min Conc: <None>

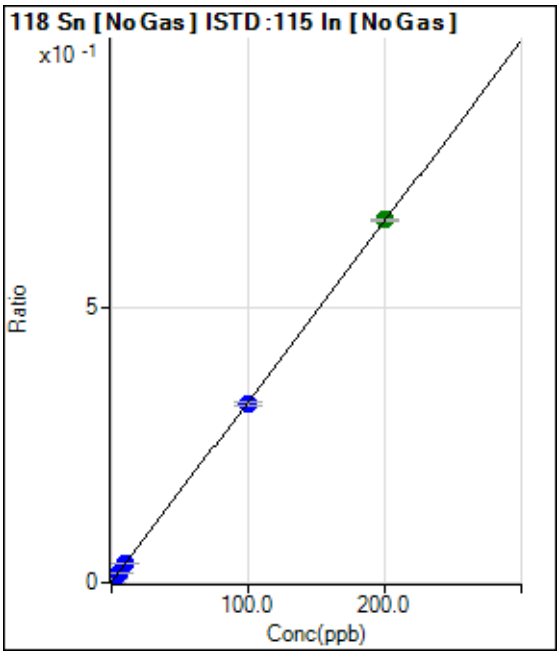


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	173.2
2	☐	2.000	1.954	5211.37	0.0021	P	8.8
3	☐	5.000	4.877	13168.66	0.0052	P	1.3
4	☐	10.000	10.046	26673.21	0.0107	P	2.4
5	☐	100.000	99.624	263914.65	0.1064	P	2.9
6	☐	200.000	200.189	518707.19	0.2139	P	1.5

y = 0.0011 * x + 2.6251E-006
R = 1.0000
DL = 0.01277
BEC = 0.002457

Weight: <None>
Min Conc: <None>

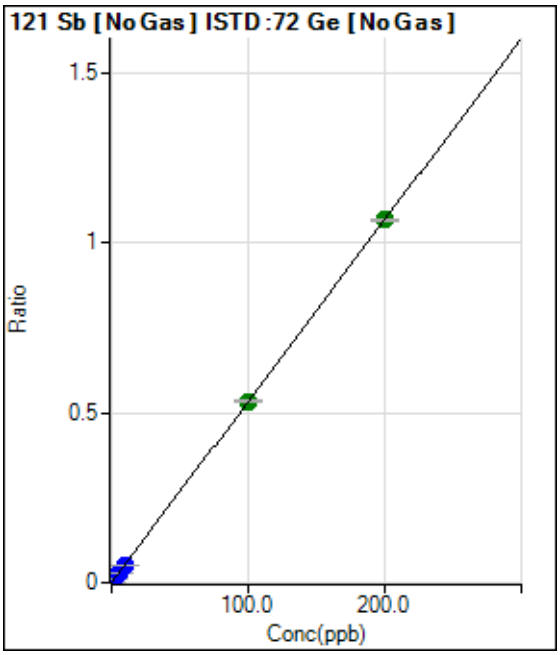
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1626.80	0.0006	P	7.4
2	☐	2.000	2.020	18192.86	0.0073	P	1.4
3	☐	5.000	4.868	42104.29	0.0167	P	1.2
4	☐	10.000	10.234	85319.07	0.0343	P	2.5
5	☐	100.000	98.515	806012.96	0.3250	P	2.4
6	☐	200.000	200.734	1604686.07	0.6616	A	0.3

y = 0.0033 * x + 6.3796E-004
R = 1.0000
DL = 0.04326
BEC = 0.1938

Weight: <None>
Min Conc: <None>

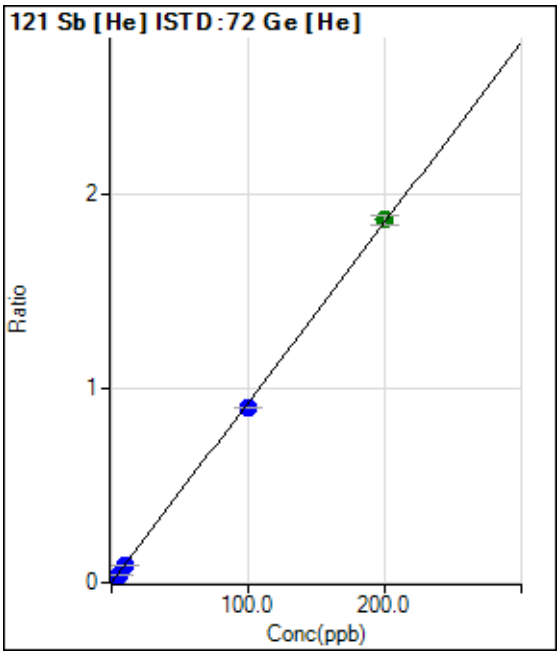


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	150.00	0.0001	P	22.9
2	☐	2.000	1.955	24122.47	0.0105	P	2.6
3	☐	5.000	4.827	58071.94	0.0258	P	1.8
4	☐	10.000	9.655	117250.93	0.0515	P	4.2
5	☐	100.000	99.876	1172276.94	0.5324	A	1.1
6	☐	200.000	200.084	2327878.98	1.0665	A	0.8

y = 0.0053 * x + 6.4986E-005
R = 1.0000
DL = 0.008364
BEC = 0.01219

Weight: <None>
Min Conc: <None>

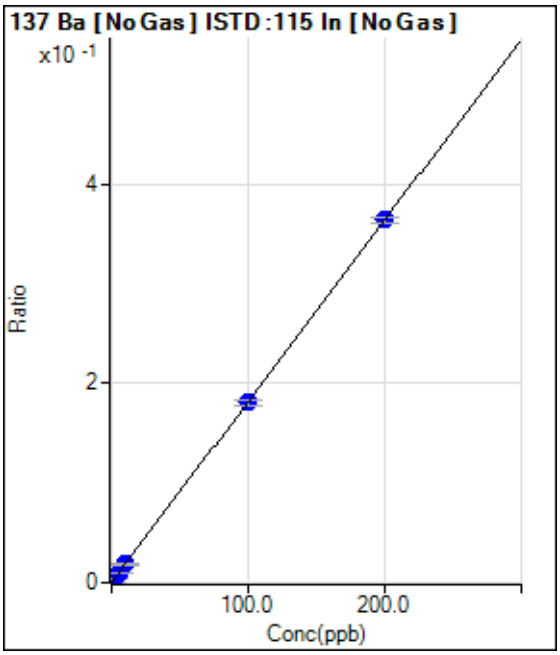
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	110.5
2	☐	2.000	1.808	10841.33	0.0168	P	2.6
3	☐	5.000	4.641	27639.34	0.0430	P	1.0
4	☐	10.000	9.426	55634.61	0.0873	P	1.0
5	☐	100.000	97.166	559796.75	0.8991	P	0.8
6	☐	200.000	201.456	1135558.45	1.8640	A	2.7

y = 0.0093 * x + 8.1749E-005
R = 0.9999
DL = 0.02928
BEC = 0.008836

Weight: <None>
Min Conc: <None>

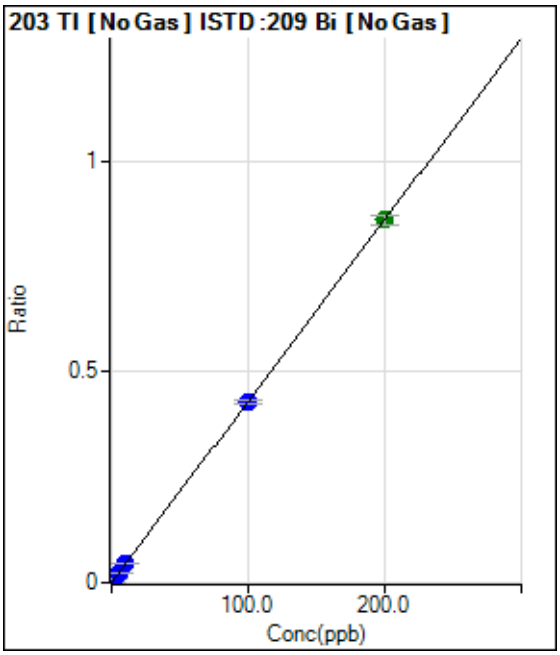


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	716.70	0.0003	P	6.8
2	☐	2.000	1.992	9737.15	0.0039	P	2.0
3	☐	5.000	5.010	23718.75	0.0094	P	1.6
4	☐	10.000	10.008	45898.09	0.0185	P	2.9
5	☐	100.000	99.363	448545.72	0.1809	P	2.7
6	☐	200.000	200.318	883729.78	0.3644	P	1.4

y = 0.0018 * x + 2.8097E-004
R = 1.0000
DL = 0.0315
BEC = 0.1546

Weight: <None>
Min Conc: <None>

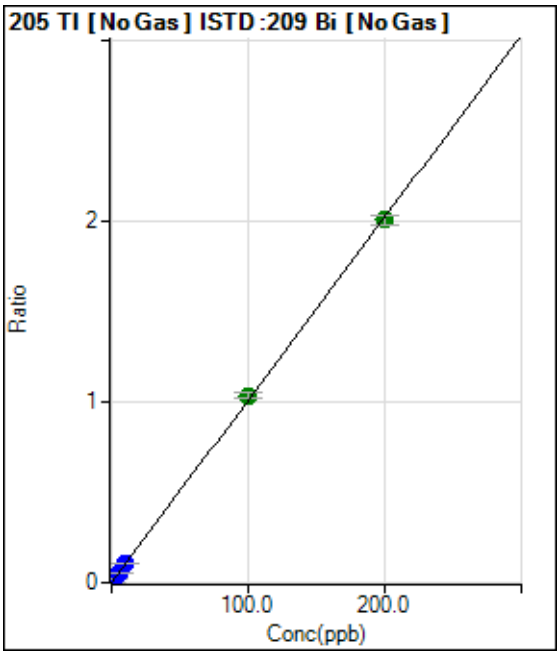
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40.00	0.0000	P	50.0
2	☐	2.000	2.160	17602.66	0.0093	P	7.1
3	☐	5.000	5.293	43379.14	0.0228	P	5.7
4	☐	10.000	10.581	86501.33	0.0456	P	3.1
5	☐	100.000	99.826	810320.98	0.4296	P	1.9
6	☐	200.000	200.049	1606674.40	0.8608	A	2.7

y = 0.0043 * x + 2.0790E-005
R = 1.0000
DL = 0.007252
BEC = 0.004831

Weight: <None>
Min Conc: <None>

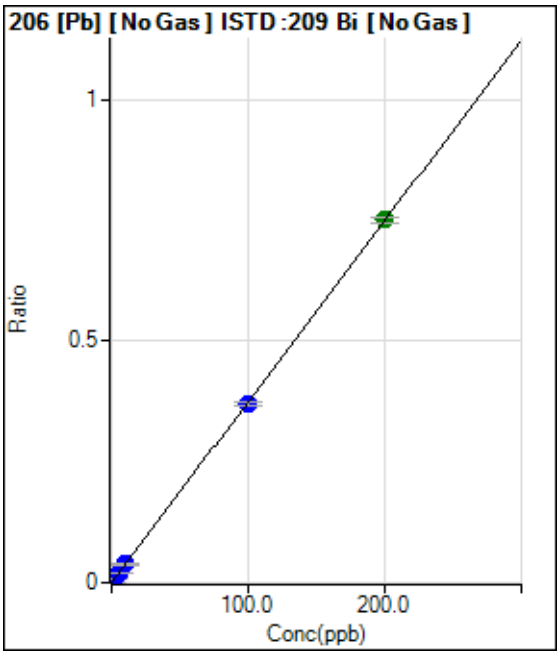


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0001	P	12.5
2	☐	2.000	2.158	41322.08	0.0218	P	3.4
3	☐	5.000	5.350	102878.83	0.0540	P	3.9
4	☐	10.000	10.829	207507.64	0.1093	P	3.7
5	☐	100.000	102.379	1947628.09	1.0326	A	2.7
6	☐	200.000	198.759	3741326.82	2.0046	A	2.8

y = 0.0101 * x + 8.4734E-005
R = 0.9999
DL = 0.003141
BEC = 0.008402

Weight: <None>
Min Conc: <None>

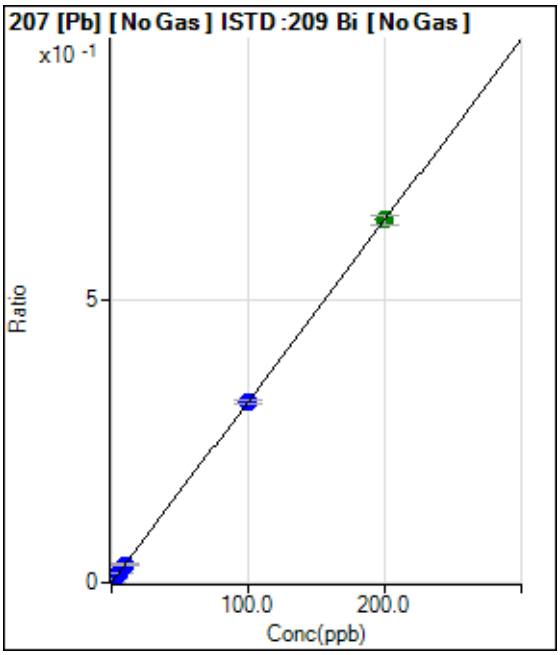
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.67	0.0001	P	46.3
2	☐	2.000	1.976	14118.21	0.0075	P	7.2
3	☐	5.000	5.032	35995.67	0.0189	P	5.1
4	☐	10.000	10.095	71897.25	0.0379	P	4.4
5	☐	100.000	98.683	697165.33	0.3696	P	2.5
6	☐	200.000	200.653	1402674.62	0.7515	A	1.7

y = 0.0037 * x + 7.0232E-005
R = 1.0000
DL = 0.02607
BEC = 0.01875

Weight: <None>
Min Conc: <None>

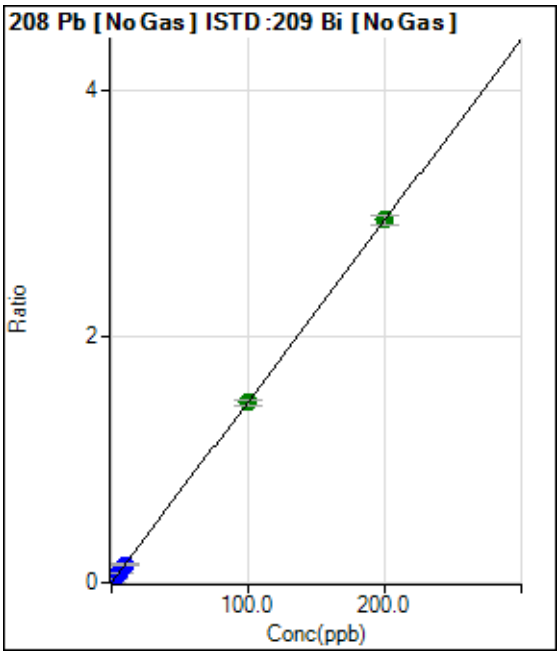


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0001	P	16.3
2	☐	2.000	2.036	12416.36	0.0066	P	7.7
3	☐	5.000	4.997	30527.96	0.0160	P	4.8
4	☐	10.000	10.005	60824.85	0.0321	P	6.3
5	☐	100.000	99.562	600619.70	0.3184	P	2.3
6	☐	200.000	200.219	1195060.50	0.6403	A	2.4

y = 0.0032 * x + 6.0587E-005
R = 1.0000
DL = 0.009255
BEC = 0.01895

Weight: <None>
Min Conc: <None>

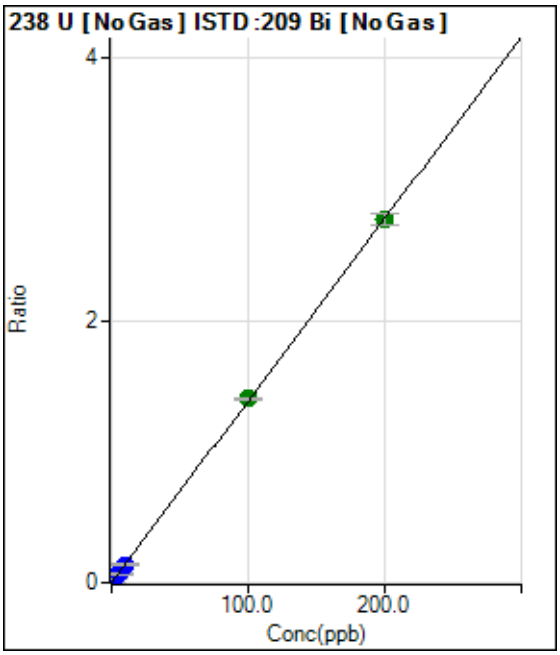
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	533.35	0.0003	P	25.5
2	☐	2.000	2.020	56698.25	0.0300	P	4.9
3	☐	5.000	4.976	139789.17	0.0735	P	5.4
4	☐	10.000	10.043	280902.83	0.1480	P	4.5
5	☐	100.000	99.329	2755940.32	1.4611	A	2.3
6	☐	200.000	200.334	5499371.33	2.9465	A	2.6

y = 0.0147 * x + 2.7534E-004
R = 1.0000
DL = 0.01431
BEC = 0.01872

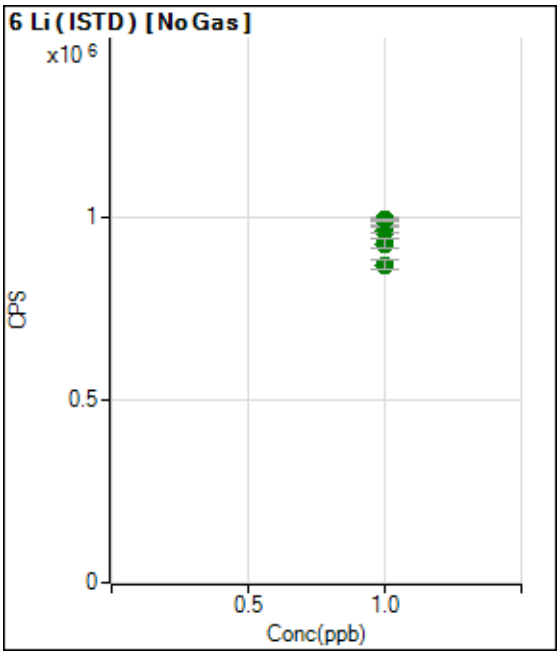
Weight: <None>
Min Conc: <None>



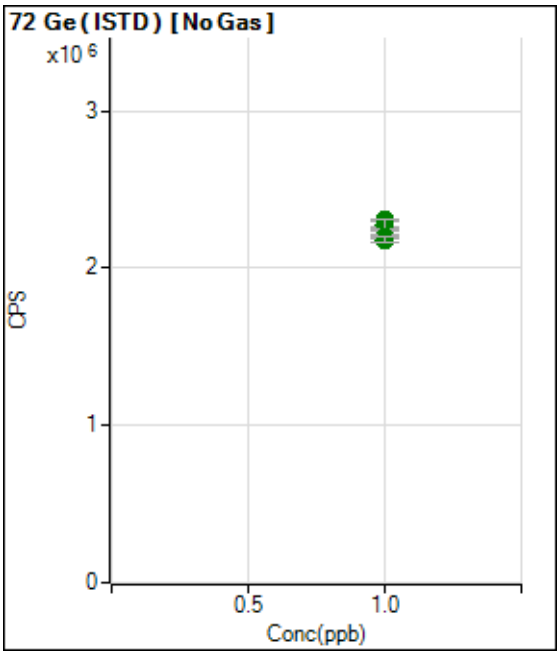
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	32.3
2	☐	2.000	1.943	50976.21	0.0269	P	3.7
3	☐	5.000	4.826	127405.62	0.0669	P	4.0
4	☐	10.000	9.861	259621.59	0.1368	P	4.1
5	☐	100.000	101.019	2642350.07	1.4008	A	1.7
6	☐	200.000	199.503	5163031.17	2.7664	A	3.1

y = 0.0139 * x + 8.5655E-006
R = 1.0000
DL = 0.0005981
BEC = 0.0006177

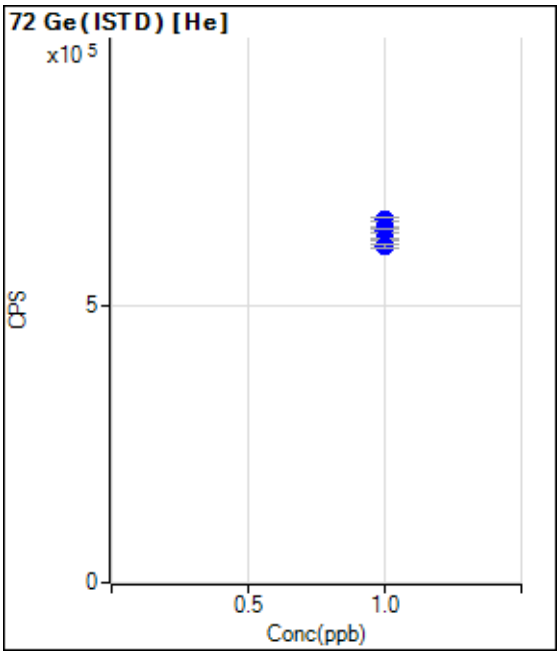
Weight: <None>
Min Conc: <None>



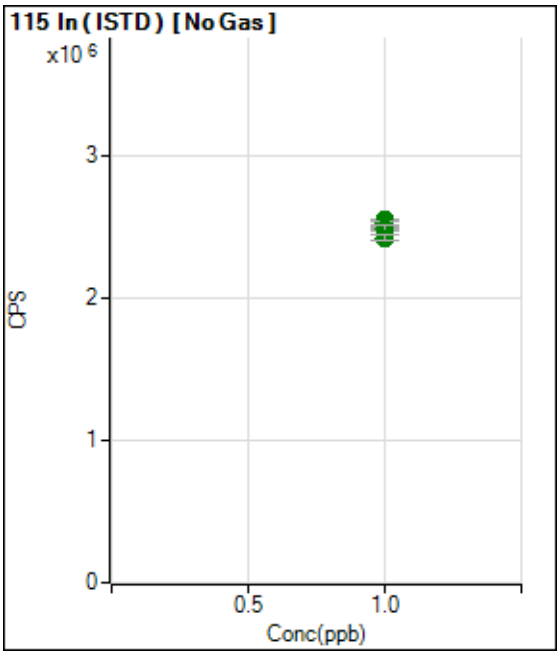
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		963756.99		A	1.7
2	☐	1.000		988744.31		A	2.4
3	☐	1.000		972440.25		A	0.7
4	☐	1.000		991126.47		A	0.8
5	☐	1.000		927167.33		A	3.0
6	☐	1.000		868919.88		A	2.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2307508.30		A	0.5
2	☐	1.000		2301191.06		A	0.5
3	☐	1.000		2251583.14		A	1.3
4	☐	1.000		2277238.61		A	2.7
5	☐	1.000		2201589.08		A	1.5
6	☐	1.000		2182815.33		A	1.5

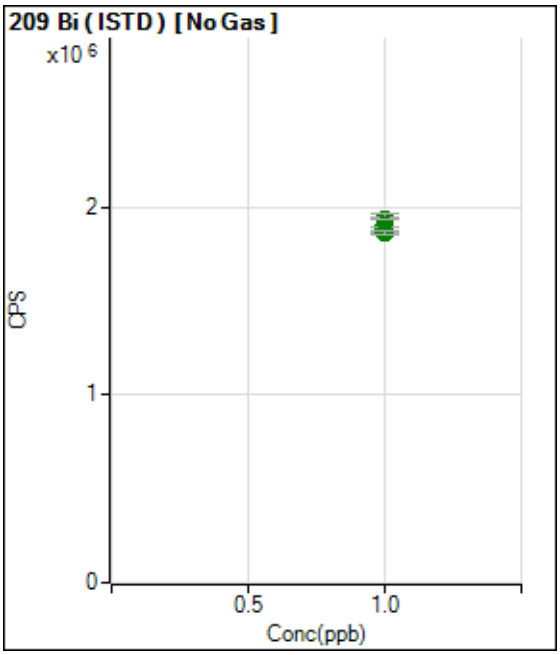


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		656963.81		P	1.0
2	☐	1.000		644940.95		P	0.1
3	☐	1.000		642514.20		P	0.4
4	☐	1.000		637297.26		P	0.7
5	☐	1.000		622650.28		P	0.4
6	☐	1.000		609259.10		P	0.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2550375.99		A	0.4
2	☐	1.000		2495437.29		A	1.0
3	☐	1.000		2526579.36		A	1.0
4	☐	1.000		2485412.53		A	1.3
5	☐	1.000		2481210.47		A	3.2
6	☐	1.000		2425504.10		A	1.4

Calibration for 181_ICV.d



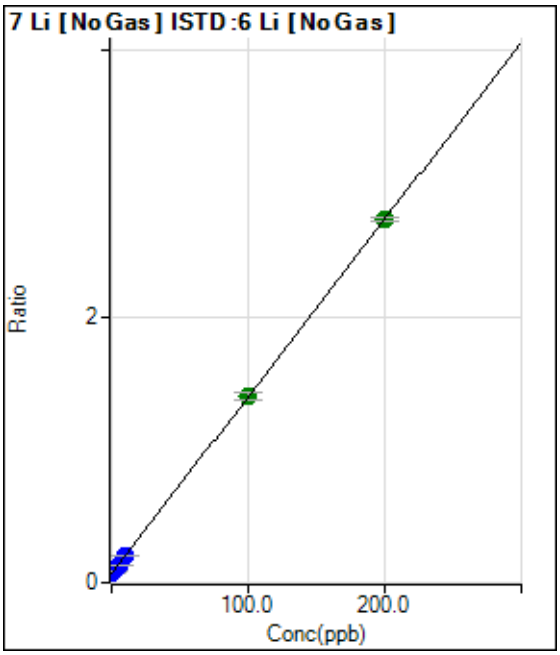
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1932505.18		A	3.4
2	☐	1.000		1893320.70		A	4.1
3	☐	1.000		1905732.42		A	4.2
4	☐	1.000		1900422.16		A	3.8
5	☐	1.000		1886619.61		A	1.3
6	☐	1.000		1866705.96		A	1.0

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071323A.b\
Analysis File: 071323A.batch.bin
DA Date-Time: 7/13/2023 8:18:40 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	014CALB.d	CAL BLK	7/13/2023 11:15:43 AM
2	015CALS.d	2/10/200	7/13/2023 11:17:53 AM
3	016CALS.d	5/25/500	7/13/2023 11:19:48 AM
4	017CALS.d	10/50/100	7/13/2023 11:21:46 AM
5	018CALS.d	100/500/10K	7/13/2023 11:23:41 AM
6	019CALS.d	200/1000/20K	7/13/2023 11:25:47 AM

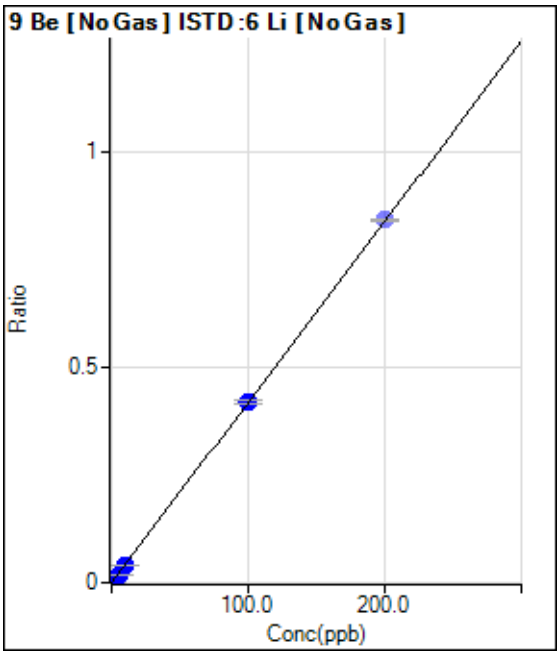
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63078.80	0.0673	P	0.2
2	☐	2.000	1.813	86268.82	0.0914	P	3.7
3	☐	5.000	4.744	121075.29	0.1305	P	1.9
4	☐	10.000	9.796	181607.49	0.1978	P	2.4
5	☐	100.000	100.429	1210546.21	1.4052	A	3.5
6	☐	200.000	199.804	2276068.77	2.7290	A	1.2

y = 0.0133 * x + 0.0673
R = 1.0000
DL = 0.03338
BEC = 5.052

Weight: <None>
Min Conc: <None>

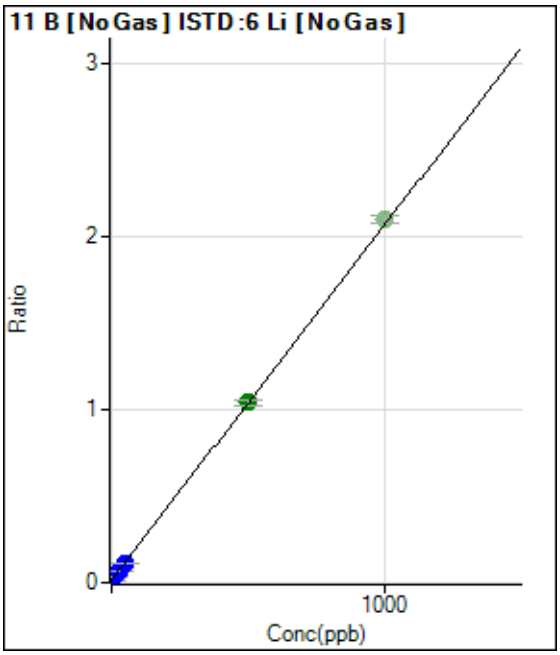


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	39.9
2	☐	2.000	1.903	7558.75	0.0080	P	3.8
3	☐	5.000	4.695	18301.98	0.0197	P	3.8
4	☐	10.000	9.570	36898.22	0.0402	P	2.0
5	☐	100.000	100.060	361802.22	0.4199	P	2.4
6	☑	200.000		703646.79	0.8436	P	0.6

y = 0.0042 * x + 2.6673E-005
R = 1.0000
DL = 0.007614
BEC = 0.006356

Weight: <None>
Min Conc: <None>

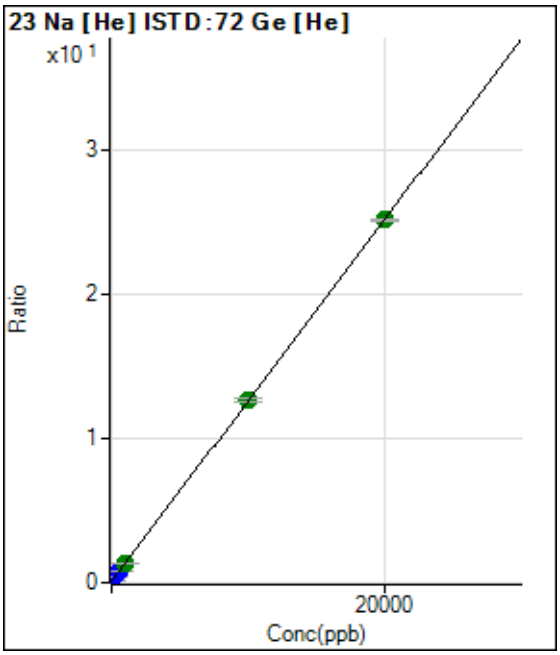
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13284.71	0.0142	P	2.7
2	☐	10.000	9.320	31381.71	0.0333	P	2.3
3	☐	25.000	24.458	59620.76	0.0643	P	1.4
4	☐	50.000	48.478	104154.16	0.1134	P	2.4
5	☐	500.000	500.193	894625.25	1.0384	A	3.0
6	☑	1000.000		1745142.21	2.0924	A	2.2

y = 0.0020 * x + 0.0142
R = 1.0000
DL = 0.5564
BEC = 6.922

Weight: <None>
Min Conc: <None>

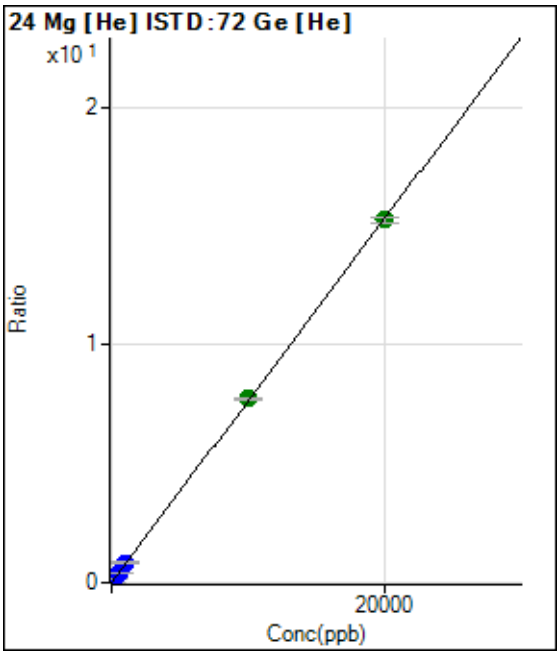


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53586.41	0.0770	P	1.3
2	☐	200.000	219.089	246955.73	0.3523	P	1.2
3	☐	500.000	546.710	523591.51	0.7639	P	1.4
4	☐	1000.000	1046.618	948446.63	1.3920	A	0.7
5	☐	10000.000	9996.304	8557522.37	12.6364	A	2.0
6	☐	20000.000	19998.158	16593810.59	25.2027	A	0.6

y = 0.0013 * x + 0.0770
R = 1.0000
DL = 2.33
BEC = 61.32

Weight: <None>
Min Conc: <None>

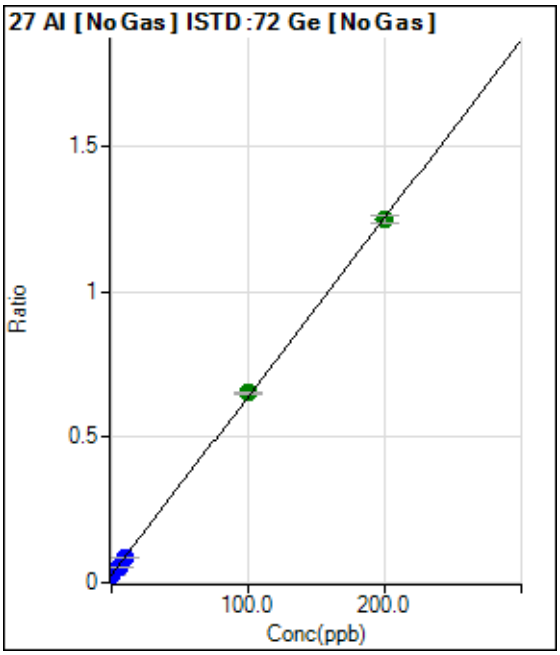
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	516.69	0.0007	P	15.2
2	☐	200.000	220.688	118833.40	0.1695	P	0.5
3	☐	500.000	559.887	293995.26	0.4290	P	1.7
4	☐	1000.000	1105.764	576692.93	0.8465	P	1.8
5	☐	10000.000	10105.389	5234989.09	7.7295	A	1.6
6	☐	20000.000	19940.313	10040672.35	15.2515	A	1.6

y = 7.6482E-004 * x + 7.4293E-004
R = 1.0000
DL = 0.4443
BEC = 0.9714

Weight: <None>
Min Conc: <None>

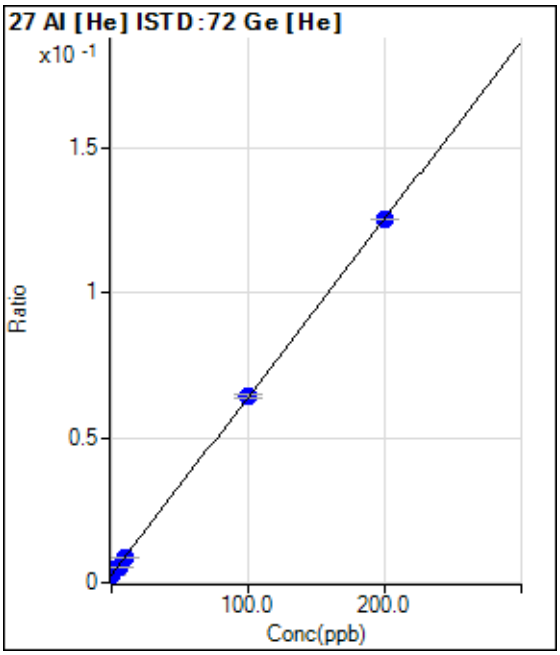


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61238.03	0.0267	P	1.3
2	☐	2.000	2.189	92711.35	0.0401	P	2.2
3	☐	5.000	4.581	122771.23	0.0548	P	0.5
4	☐	10.000	9.500	188959.39	0.0850	P	1.0
5	☐	100.000	102.042	1424318.26	0.6523	A	1.2
6	☐	200.000	199.012	2651431.68	1.2469	A	1.9

y = 0.0061 * x + 0.0267
R = 0.9999
DL = 0.1734
BEC = 4.356

Weight: <None>
Min Conc: <None>

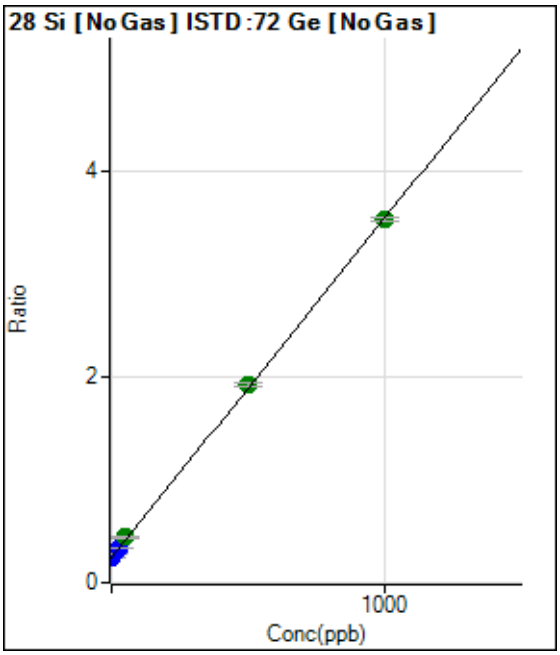
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1910.17	0.0027	P	3.0
2	☐	2.000	2.663	3070.39	0.0044	P	3.9
3	☐	5.000	4.599	3817.26	0.0056	P	1.6
4	☐	10.000	9.646	5904.69	0.0087	P	2.1
5	☐	100.000	100.850	43779.14	0.0646	P	2.0
6	☐	200.000	199.596	82466.89	0.1252	P	0.2

y = 6.1375E-004 * x + 0.0027
R = 1.0000
DL = 0.3983
BEC = 4.474

Weight: <None>
Min Conc: <None>

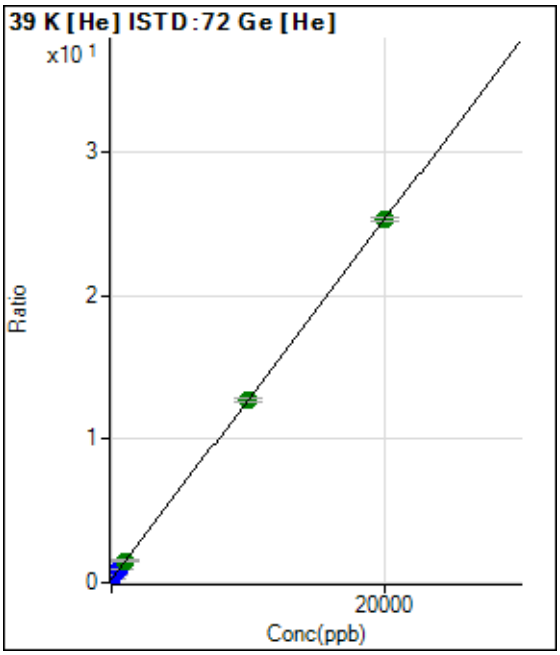


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	559990.16	0.2442	P	0.5
2	☐	10.000	10.270	642683.22	0.2782	P	0.6
3	☐	25.000	29.033	762007.51	0.3401	P	0.5
4	☐	50.000	60.832	989847.72	0.4451	A	2.8
5	☐	500.000	508.196	4196812.64	1.9223	A	2.2
6	☐	1000.000	995.257	7507763.84	3.5306	A	1.2

y = 0.0033 * x + 0.2442
R = 0.9999
DL = 1.057
BEC = 73.97

Weight: <None>
Min Conc: <None>

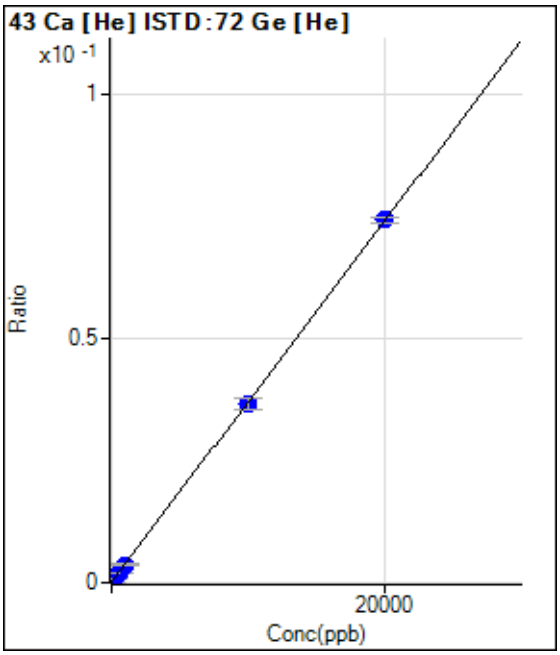
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156795.68	0.2254	P	0.3
2	☐	200.000	214.204	346010.01	0.4936	P	0.6
3	☐	500.000	546.408	623462.04	0.9096	P	0.5
4	☐	1000.000	1044.075	1044351.31	1.5327	A	1.2
5	☐	10000.000	10010.097	8640482.37	12.7594	A	2.4
6	☐	20000.000	19991.445	16628885.58	25.2574	A	1.1

y = 0.0013 * x + 0.2254
R = 1.0000
DL = 1.746
BEC = 180

Weight: <None>
Min Conc: <None>

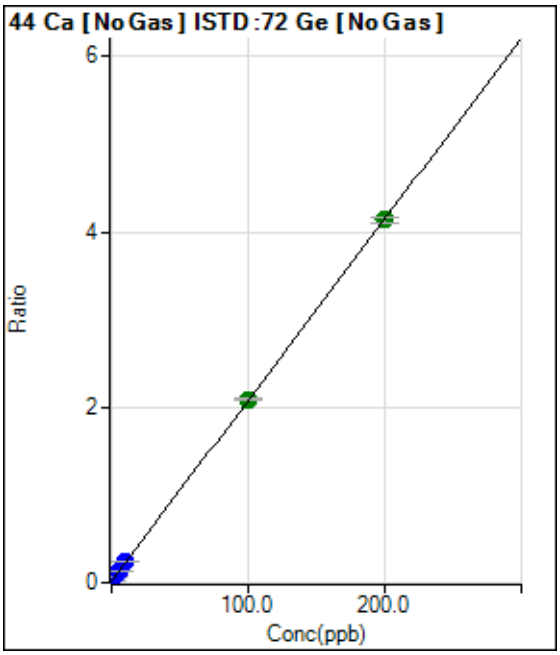


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	9.8
2	☐	200.000	165.570	483.35	0.0007	P	10.4
3	☐	500.000	498.090	1316.76	0.0019	P	10.3
4	☐	1000.000	969.102	2496.93	0.0037	P	5.3
5	☐	10000.000	9860.356	24759.22	0.0366	P	6.3
6	☐	20000.000	20071.759	48963.71	0.0744	P	1.7

y = 3.7017E-006 * x + 7.6623E-005
R = 1.0000
DL = 6.067
BEC = 20.7

Weight: <None>
Min Conc: <None>

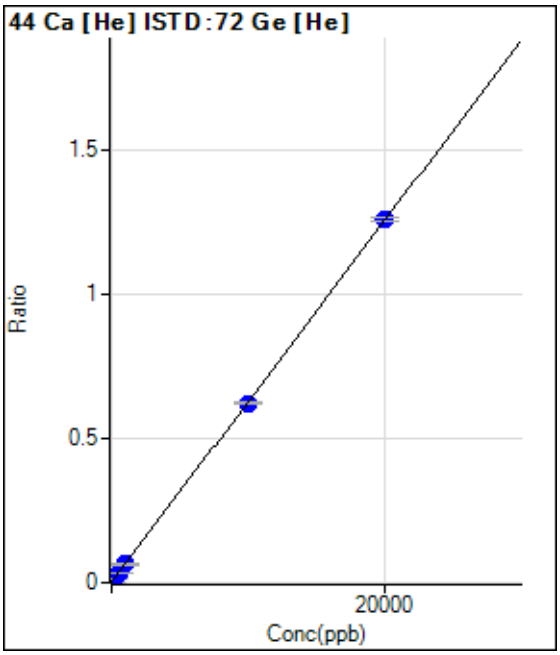
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35446.11	0.0155	P	1.6
2	☐	2.000	2.053	133619.87	0.0578	P	0.2
3	☐	5.000	5.242	276960.55	0.1236	P	0.9
4	☐	10.000	10.664	523790.45	0.2355	P	0.9
5	☐	100.000	100.581	4565369.83	2.0908	A	0.7
6	☐	200.000	199.670	8793813.20	4.1354	A	1.4

y = 0.0206 * x + 0.0155
R = 1.0000
DL = 0.03688
BEC = 0.7493

Weight: <None>
Min Conc: <None>

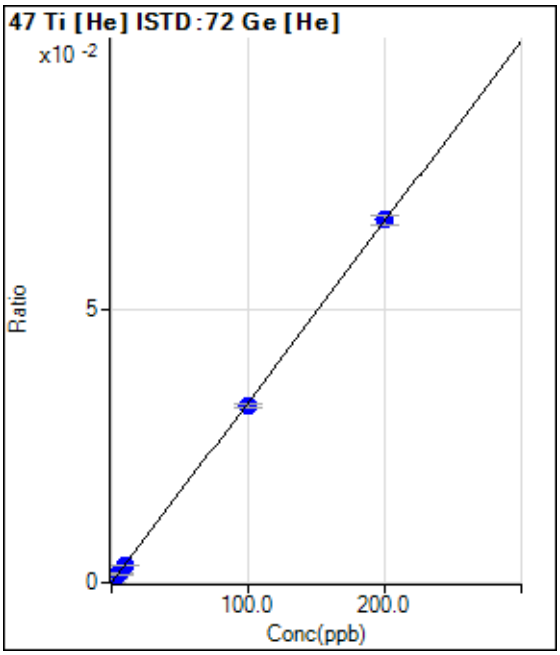


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1106.74	0.0016	P	7.8
2	☐	200.000	211.817	10414.09	0.0149	P	0.8
3	☐	500.000	503.068	22682.22	0.0331	P	2.3
4	☐	1000.000	987.580	43217.98	0.0634	P	1.2
5	☐	10000.000	9886.039	420361.89	0.6207	P	1.1
6	☐	20000.000	20057.406	827946.16	1.2576	P	1.2

y = 6.2620E-005 * x + 0.0016
R = 1.0000
DL = 5.918
BEC = 25.42

Weight: <None>
Min Conc: <None>

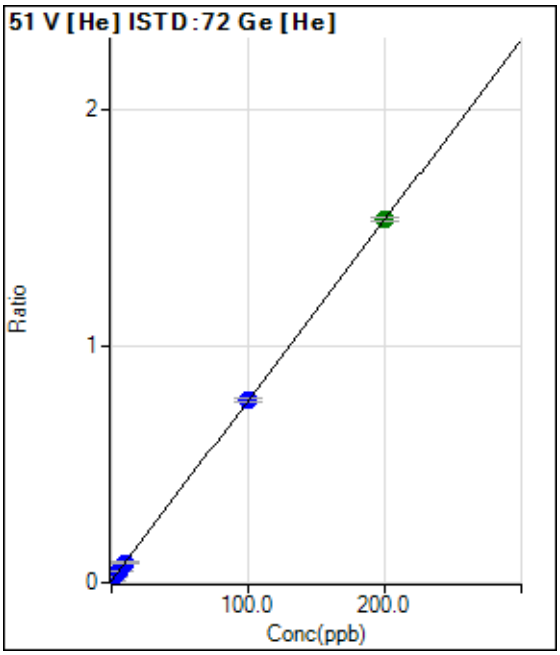
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	23.6
2	☐	2.000	1.914	466.69	0.0007	P	25.7
3	☐	5.000	4.961	1146.73	0.0017	P	10.7
4	☐	10.000	9.616	2190.21	0.0032	P	7.5
5	☐	100.000	98.131	22001.21	0.0325	P	2.8
6	☐	200.000	200.956	43773.09	0.0665	P	3.0

y = 3.3075E-004 * x + 3.3491E-005
R = 0.9999
DL = 0.0718
BEC = 0.1013

Weight: <None>
Min Conc: <None>

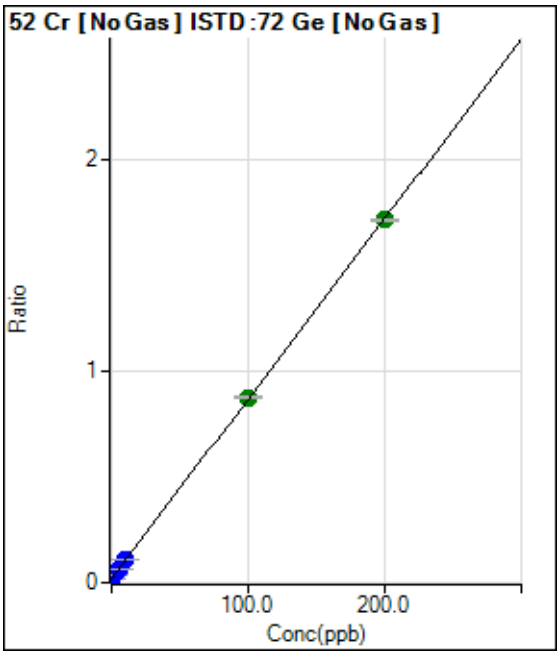


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5823.50	0.0084	P	2.2
2	☐	2.000	2.065	16902.67	0.0241	P	2.8
3	☐	5.000	5.109	32421.61	0.0473	P	1.6
4	☐	10.000	10.083	58047.68	0.0852	P	1.2
5	☐	100.000	99.786	520581.45	0.7687	P	2.2
6	☐	200.000	200.099	1009351.70	1.5331	A	1.1

y = 0.0076 * x + 0.0084
R = 1.0000
DL = 0.07295
BEC = 1.099

Weight: <None>
Min Conc: <None>

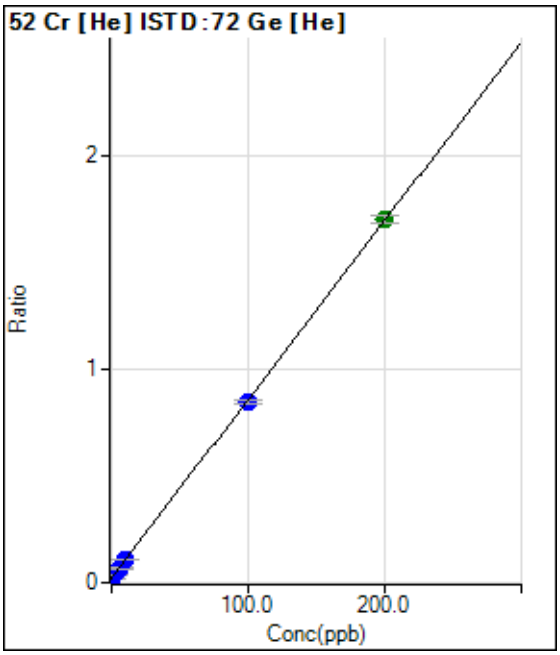
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42874.08	0.0187	P	0.7
2	☐	2.000	2.008	82557.56	0.0357	P	2.2
3	☐	5.000	5.224	141171.38	0.0630	P	1.2
4	☐	10.000	10.268	235308.96	0.1058	P	1.4
5	☐	100.000	100.844	1908588.93	0.8741	A	1.6
6	☐	200.000	199.559	3639957.86	1.7115	A	0.8

y = 0.0085 * x + 0.0187
R = 1.0000
DL = 0.04308
BEC = 2.204

Weight: <None>
Min Conc: <None>

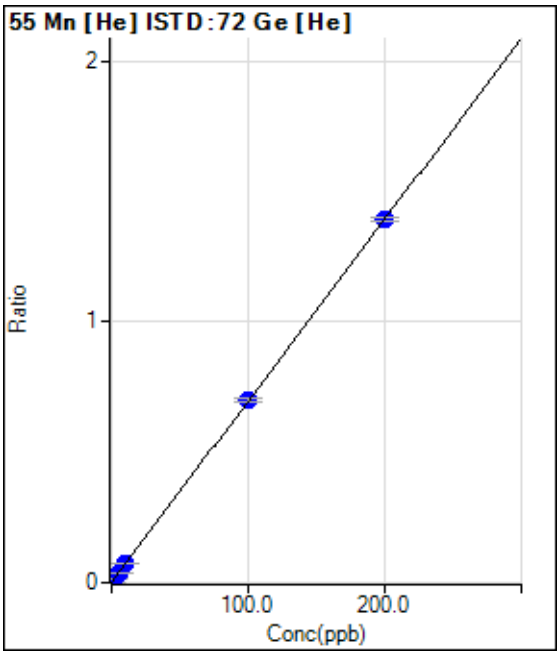


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15345.55	0.0221	P	2.1
2	☐	2.000	2.063	27581.35	0.0394	P	2.7
3	☐	5.000	5.331	45740.11	0.0667	P	3.0
4	☐	10.000	10.294	73825.10	0.1084	P	2.3
5	☐	100.000	98.837	576064.16	0.8506	P	1.7
6	☐	200.000	200.558	1121352.69	1.7033	A	2.3

y = 0.0084 * x + 0.0221
R = 1.0000
DL = 0.1645
BEC = 2.632

Weight: <None>
Min Conc: <None>

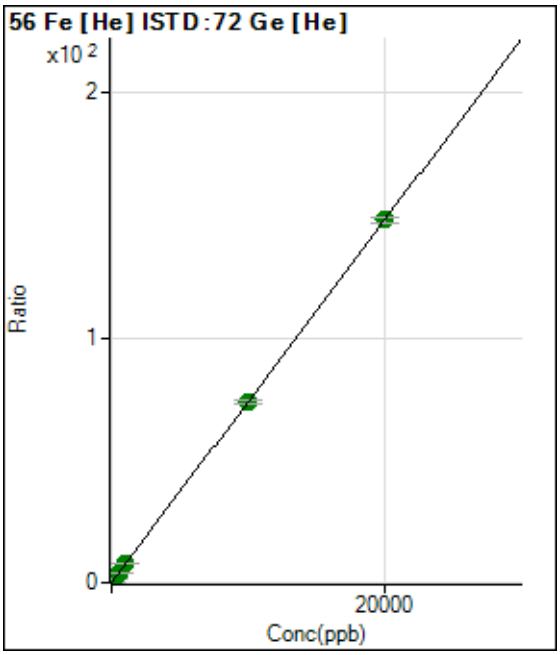
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	700.03	0.0010	P	4.8
2	☐	2.000	2.084	10867.82	0.0155	P	4.1
3	☐	5.000	5.232	25634.38	0.0374	P	1.0
4	☐	10.000	10.253	49269.03	0.0723	P	1.0
5	☐	100.000	100.175	472518.78	0.6977	P	2.0
6	☐	200.000	199.893	916014.08	1.3913	P	1.0

y = 0.0070 * x + 0.0010
R = 1.0000
DL = 0.02096
BEC = 0.1447

Weight: <None>
Min Conc: <None>

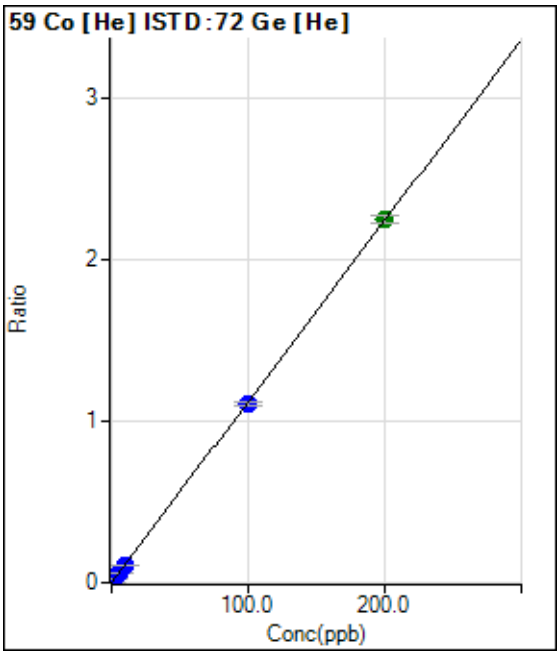


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23119.88	0.0332	P	0.4
2	☐	200.000	209.188	1106478.37	1.5787	A	2.2
3	☐	500.000	521.334	2662305.07	3.8847	A	2.3
4	☐	1000.000	1021.426	5164050.24	7.5793	A	1.4
5	☐	10000.000	9939.462	49751764.26	73.4634	A	1.9
6	☐	20000.000	20028.572	97438321.88	147.9991	A	1.7

y = 0.0074 * x + 0.0332
R = 1.0000
DL = 0.05498
BEC = 4.499

Weight: <None>
Min Conc: <None>

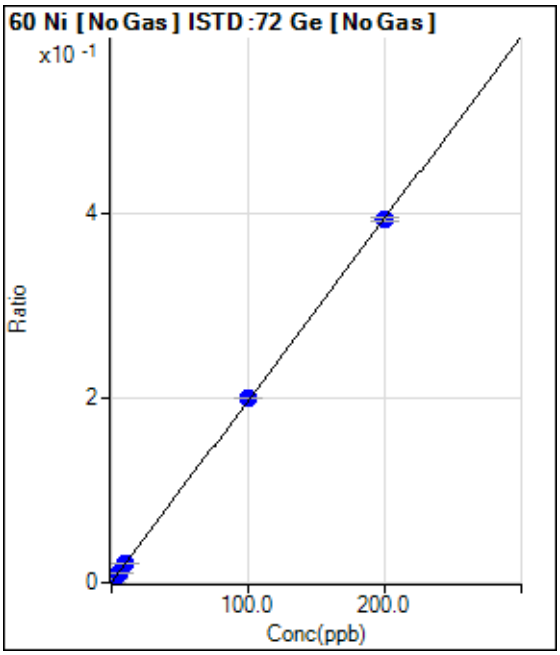
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0002	P	8.2
2	☐	2.000	1.988	15722.66	0.0224	P	0.8
3	☐	5.000	4.968	38220.71	0.0558	P	1.3
4	☐	10.000	10.036	76604.46	0.1124	P	0.6
5	☐	100.000	98.914	749238.56	1.1063	P	1.7
6	☐	200.000	200.542	1476640.81	2.2428	A	2.2

y = 0.0112 * x + 2.0138E-004
R = 1.0000
DL = 0.004429
BEC = 0.01801

Weight: <None>
Min Conc: <None>

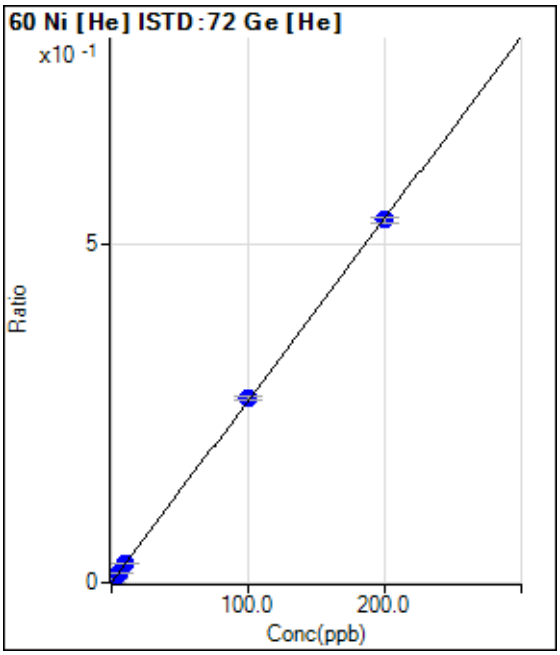


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	576.69	0.0003	P	13.0
2	☐	2.000	2.097	10113.90	0.0044	P	1.7
3	☐	5.000	5.227	23607.38	0.0105	P	1.5
4	☐	10.000	10.133	44914.23	0.0202	P	1.7
5	☐	100.000	101.421	436295.65	0.1998	P	0.6
6	☐	200.000	199.276	834352.30	0.3924	P	1.0

y = 0.0020 * x + 2.5161E-004
R = 1.0000
DL = 0.04968
BEC = 0.1279

Weight: <None>
Min Conc: <None>

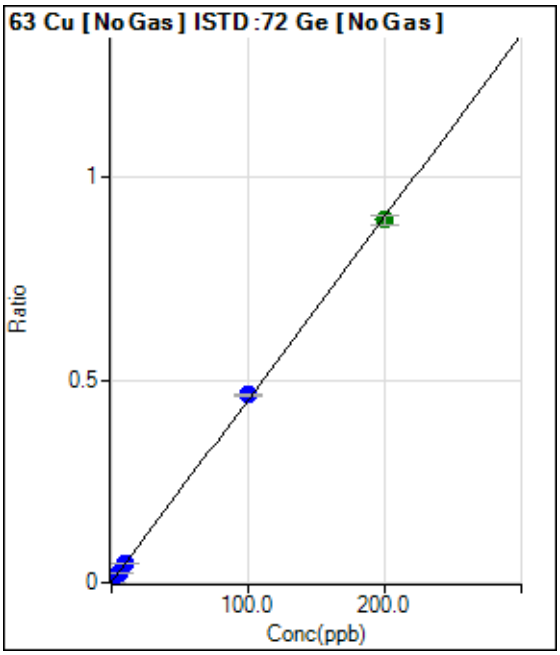
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190.00	0.0003	P	30.3
2	☐	2.000	2.169	4280.74	0.0061	P	3.1
3	☐	5.000	5.097	9580.20	0.0140	P	3.9
4	☐	10.000	10.129	18743.14	0.0275	P	2.9
5	☐	100.000	101.280	184633.98	0.2726	P	1.6
6	☐	200.000	199.350	353106.50	0.5363	P	1.6

y = 0.0027 * x + 2.7372E-004
R = 1.0000
DL = 0.09253
BEC = 0.1018

Weight: <None>
Min Conc: <None>

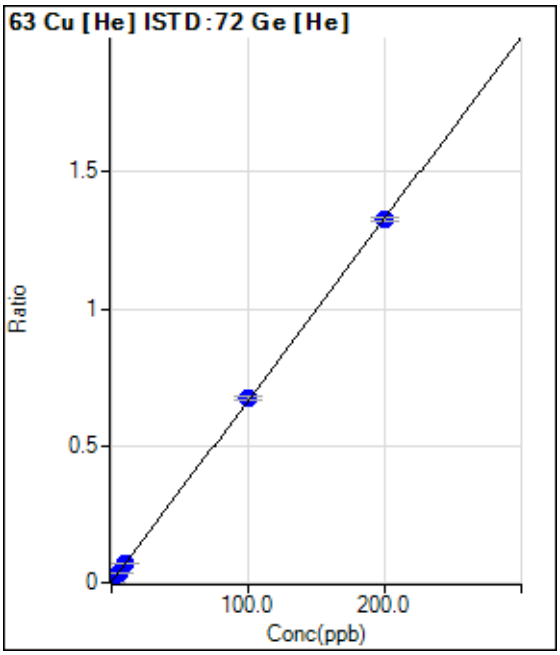


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2606.97	0.0011	P	6.4
2	☐	2.000	2.436	27962.37	0.0121	P	0.8
3	☐	5.000	5.250	55493.21	0.0248	P	1.9
4	☐	10.000	10.502	107673.70	0.0484	P	0.5
5	☐	100.000	102.916	1013918.40	0.4644	P	1.1
6	☐	200.000	198.506	1902099.40	0.8946	A	2.8

y = 0.0045 * x + 0.0011
R = 0.9999
DL = 0.04823
BEC = 0.2526

Weight: <None>
Min Conc: <None>

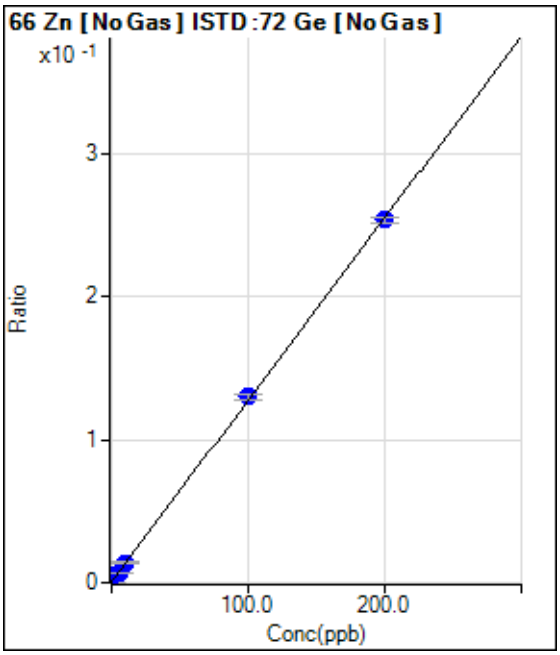
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1090.07	0.0016	P	18.4
2	☐	2.000	2.510	12776.20	0.0182	P	3.4
3	☐	5.000	5.145	24475.62	0.0357	P	2.8
4	☐	10.000	10.314	47710.44	0.0700	P	0.4
5	☐	100.000	101.296	456377.61	0.6739	P	1.7
6	☐	200.000	199.328	872070.15	1.3245	P	1.0

y = 0.0066 * x + 0.0016
R = 1.0000
DL = 0.1303
BEC = 0.2364

Weight: <None>
Min Conc: <None>

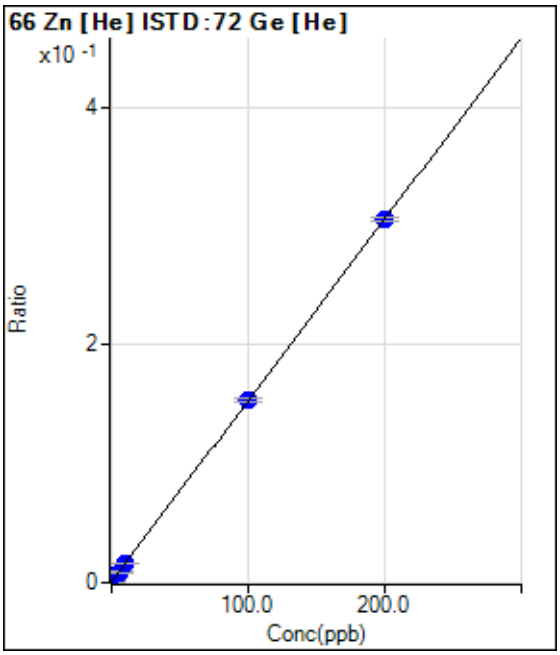


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1300.08	0.0006	P	10.2
2	☐	2.000	3.572	11801.99	0.0051	P	5.5
3	☐	5.000	5.192	16053.04	0.0072	P	3.7
4	☐	10.000	10.622	31283.12	0.0141	P	2.7
5	☐	100.000	101.642	283226.63	0.1297	P	2.2
6	☐	200.000	199.127	539281.08	0.2536	P	1.3

y = 0.0013 * x + 5.6720E-004
R = 0.9999
DL = 0.137
BEC = 0.4464

Weight: <None>
Min Conc: <None>

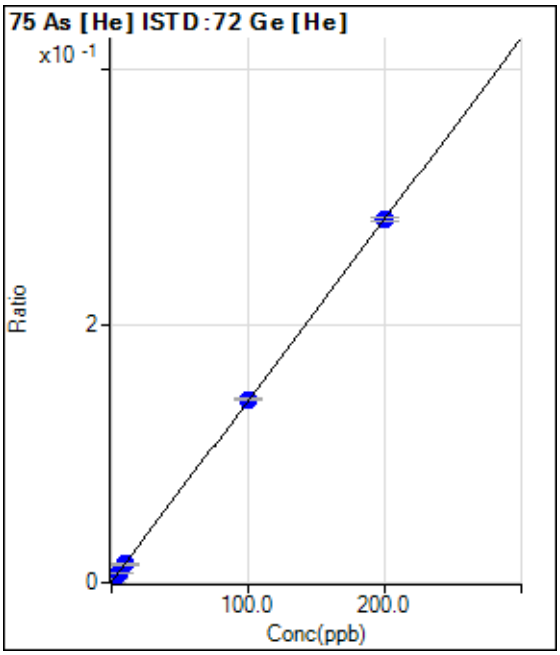
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	503.35	0.0007	P	25.7
2	☐	2.000	3.553	4304.08	0.0061	P	1.7
3	☐	5.000	5.245	5978.09	0.0087	P	4.3
4	☐	10.000	10.322	11214.79	0.0165	P	1.5
5	☐	100.000	100.517	104254.88	0.1539	P	1.9
6	☐	200.000	199.703	200893.04	0.3051	P	1.2

y = 0.0015 * x + 7.2493E-004
R = 1.0000
DL = 0.3669
BEC = 0.4756

Weight: <None>
Min Conc: <None>

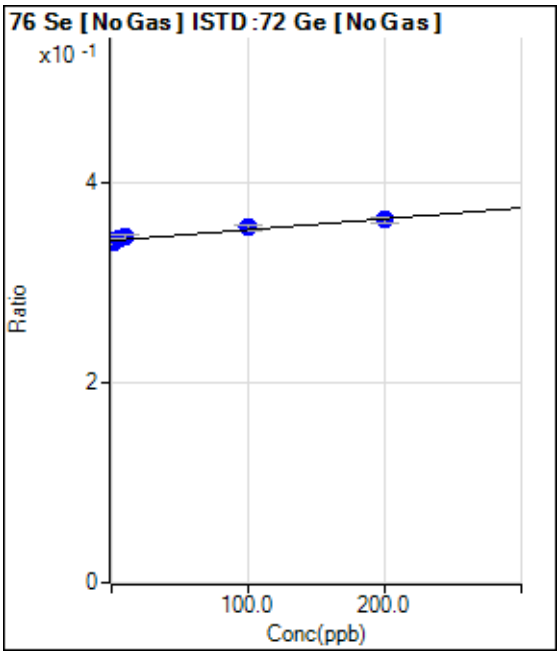


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	401.12	0.0006	P	9.1
2	☐	2.000	2.017	2398.00	0.0034	P	3.3
3	☐	5.000	5.016	5243.26	0.0076	P	3.5
4	☐	10.000	9.804	9812.49	0.0144	P	3.6
5	☐	100.000	100.594	96462.98	0.1424	P	1.5
6	☐	200.000	199.712	185796.08	0.2822	P	1.2

y = 0.0014 * x + 5.7635E-004
R = 1.0000
DL = 0.1117
BEC = 0.4087

Weight: <None>
Min Conc: <None>

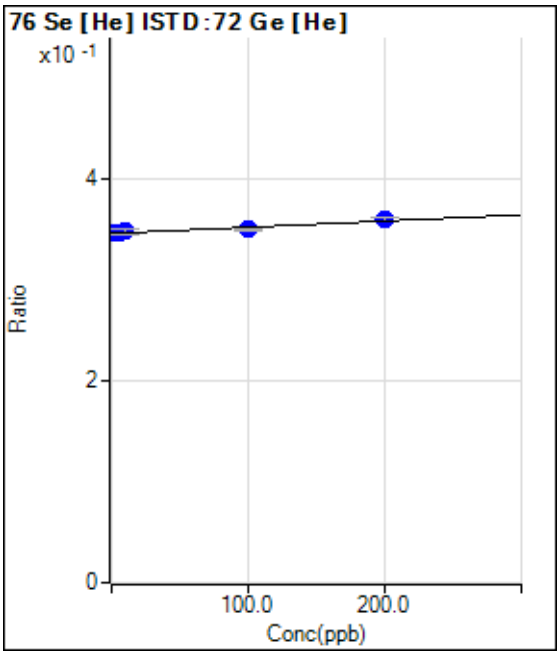
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	786163.95	0.3429	P	0.6
2	☐	2.000	-16.364	788104.05	0.3411	P	0.7
3	☐	5.000	20.715	773333.11	0.3452	P	0.5
4	☐	10.000	31.021	770192.72	0.3463	P	1.1
5	☐	100.000	119.078	777196.13	0.3560	P	1.5
6	☐	200.000	189.201	773308.82	0.3637	P	1.3

y = 1.0977E-004 * x + 0.3429
R = 0.9790
DL = 59.33
BEC = 3124

Weight: <None>
Min Conc: <None>

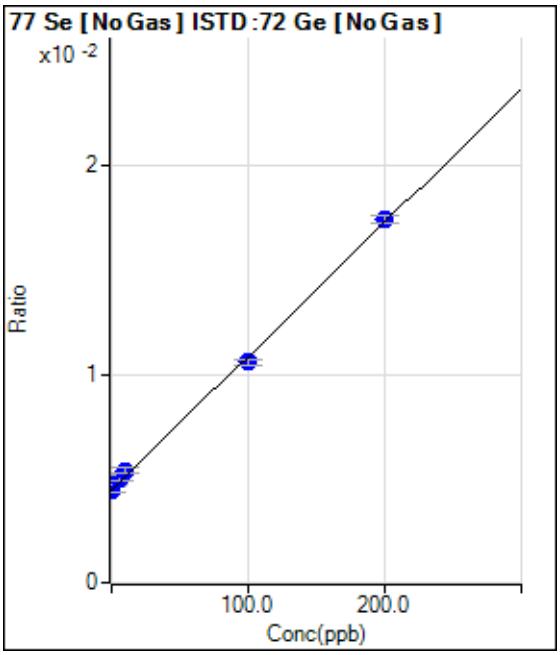


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	240572.72	0.3458	P	0.7
2	☐	2.000	17.684	243177.68	0.3469	P	0.7
3	☐	5.000	-2.951	236933.52	0.3457	P	0.3
4	☐	10.000	29.778	236860.92	0.3477	P	1.7
5	☐	100.000	64.183	236924.22	0.3498	P	0.4
6	☐	200.000	216.961	236480.30	0.3592	P	1.0

y = 6.1548E-005 * x + 0.3458
R = 0.9670
DL = 114.4
BEC = 5619

Weight: <None>
Min Conc: <None>

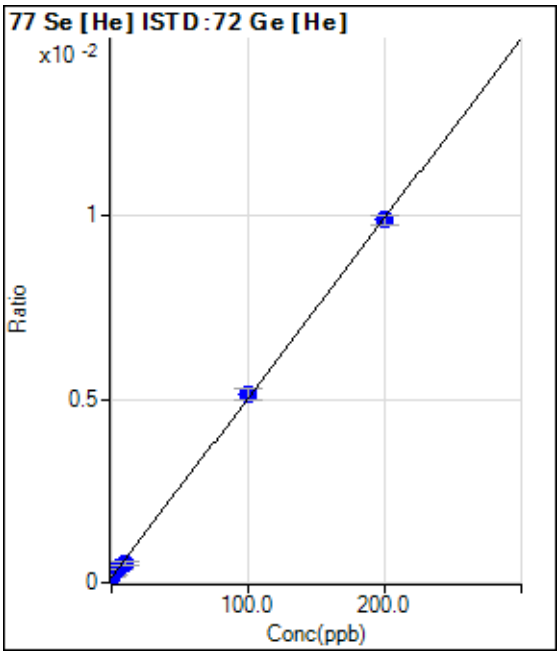
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10214.06	0.0045	P	7.4
2	☐	2.000	4.673	10984.65	0.0048	P	1.6
3	☐	5.000	8.528	11204.87	0.0050	P	4.9
4	☐	10.000	14.372	11962.19	0.0054	P	4.7
5	☐	100.000	95.417	23090.08	0.0106	P	2.0
6	☐	200.000	201.958	37004.51	0.0174	P	2.2

y = 6.4115E-005 * x + 0.0045
R = 0.9993
DL = 15.48
BEC = 69.48

Weight: <None>
Min Conc: <None>

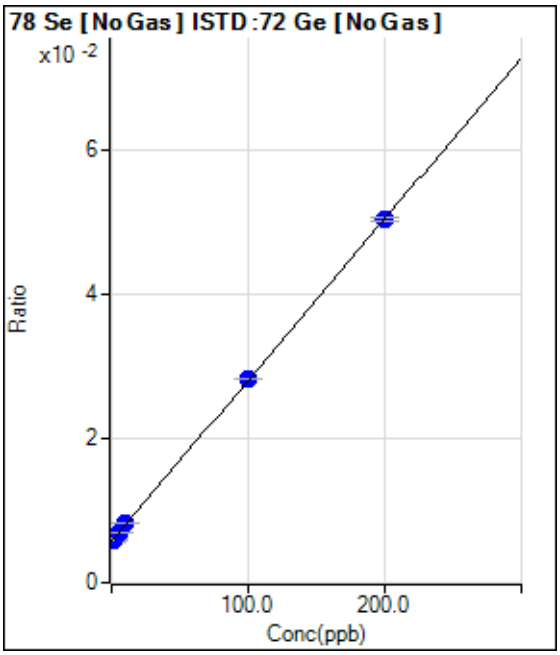


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	96.67	0.0001	P	7.0
2	☐	2.000	2.793	193.34	0.0003	P	30.8
3	☐	5.000	5.581	283.34	0.0004	P	28.8
4	☐	10.000	8.033	363.34	0.0005	P	17.5
5	☐	100.000	102.090	3483.85	0.0051	P	6.1
6	☐	200.000	199.031	6518.34	0.0099	P	2.8

y = 4.9054E-005 * x + 1.3903E-004
R = 0.9998
DL = 0.5912
BEC = 2.834

Weight: <None>
Min Conc: <None>

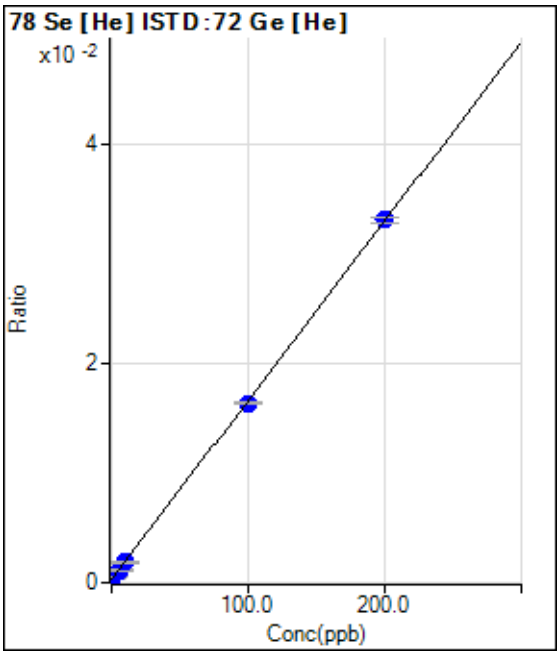
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13193.33	0.0058	P	6.7
2	☐	2.000	0.972	13797.26	0.0060	P	1.4
3	☐	5.000	5.324	15559.19	0.0069	P	1.0
4	☐	10.000	10.940	18239.24	0.0082	P	0.8
5	☐	100.000	100.858	61798.16	0.0283	P	0.6
6	☐	200.000	199.526	107089.85	0.0504	P	1.1

y = 2.2355E-004 * x + 0.0058
R = 1.0000
DL = 5.21
BEC = 25.74

Weight: <None>
Min Conc: <None>

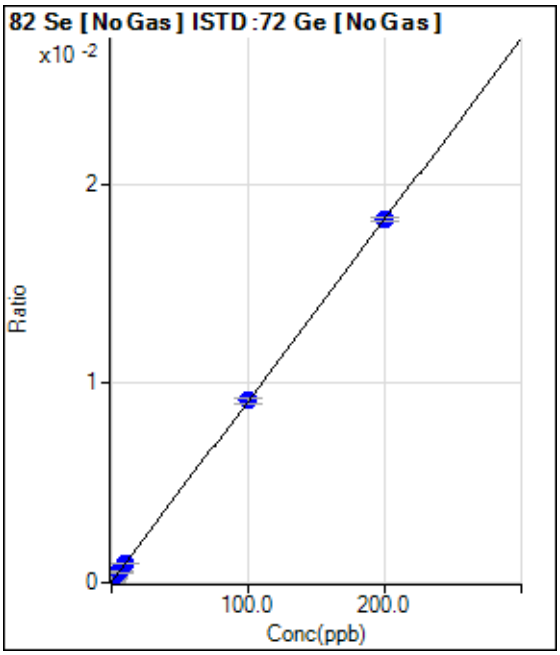


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	203.33	0.0003	P	5.8
2	☐	2.000	2.181	454.68	0.0006	P	11.8
3	☐	5.000	5.033	764.03	0.0011	P	6.4
4	☐	10.000	9.647	1273.40	0.0019	P	5.6
5	☐	100.000	98.532	11108.59	0.0164	P	1.6
6	☐	200.000	200.749	21800.27	0.0331	P	1.7

y = 1.6350E-004 * x + 2.9226E-004
R = 1.0000
DL = 0.3112
BEC = 1.788

Weight: <None>
Min Conc: <None>

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74.48	0.0000	P	121.9
2	☐	2.000	2.566	615.03	0.0003	P	21.3
3	☐	5.000	5.783	1251.67	0.0006	P	14.0
4	☐	10.000	10.027	2101.89	0.0009	P	0.7
5	☐	100.000	100.225	19986.98	0.0092	P	3.3
6	☐	200.000	199.861	38748.20	0.0182	P	1.1

y = 9.0999E-005 * x + 3.2541E-005

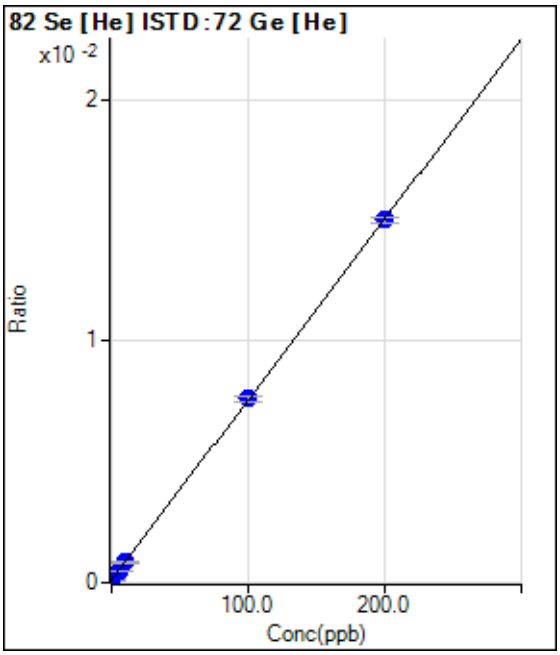
R = 1.0000

DL = 1.308

BEC = 0.3576

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0001	P	42.5
2	☐	2.000	2.406	203.34	0.0003	P	6.6
3	☐	5.000	4.972	330.01	0.0005	P	12.8
4	☐	10.000	10.124	590.02	0.0009	P	8.2
5	☐	100.000	100.498	5154.42	0.0076	P	3.8
6	☐	200.000	199.741	9883.80	0.0150	P	1.7

y = 7.4588E-005 * x + 1.1051E-004

R = 1.0000

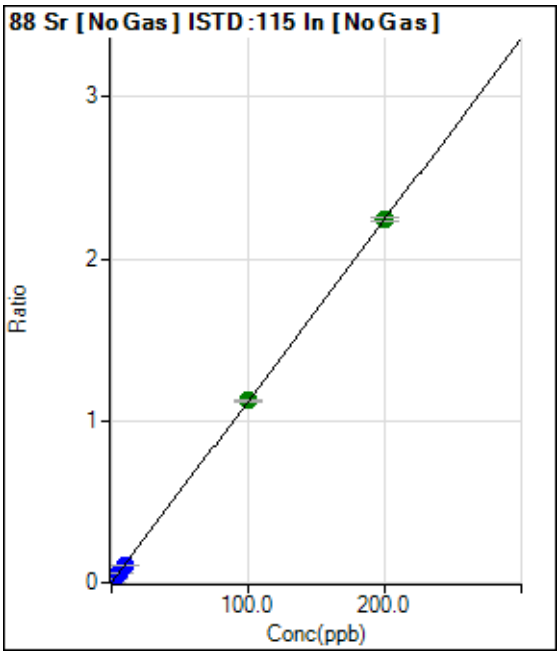
DL = 1.889

BEC = 1.482

Weight: <None>

Min Conc: <None>

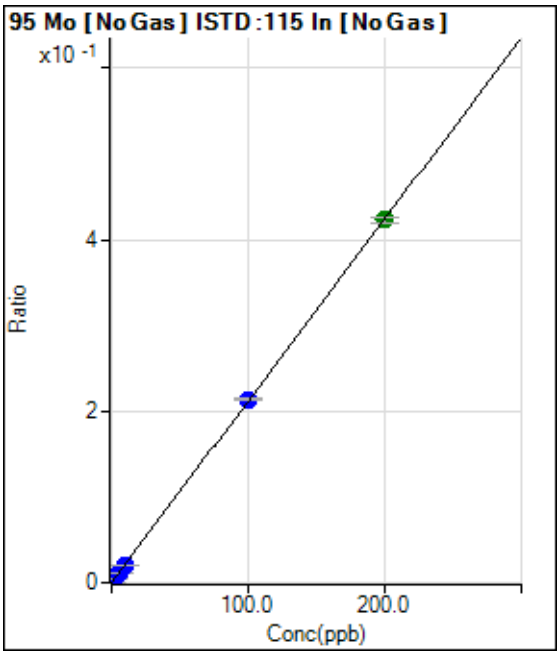
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2063.53	0.0008	P	1.5
2	☐	2.000	2.017	61069.08	0.0234	P	0.5
3	☐	5.000	5.031	145592.16	0.0571	P	1.2
4	☐	10.000	9.933	288544.70	0.1120	P	1.0
5	☐	100.000	100.148	2796544.75	1.1222	A	0.9
6	☐	200.000	199.929	5383500.96	2.2396	A	1.0

y = 0.0112 * x + 8.0004E-004
R = 1.0000
DL = 0.003112
BEC = 0.07145

Weight: <None>
Min Conc: <None>

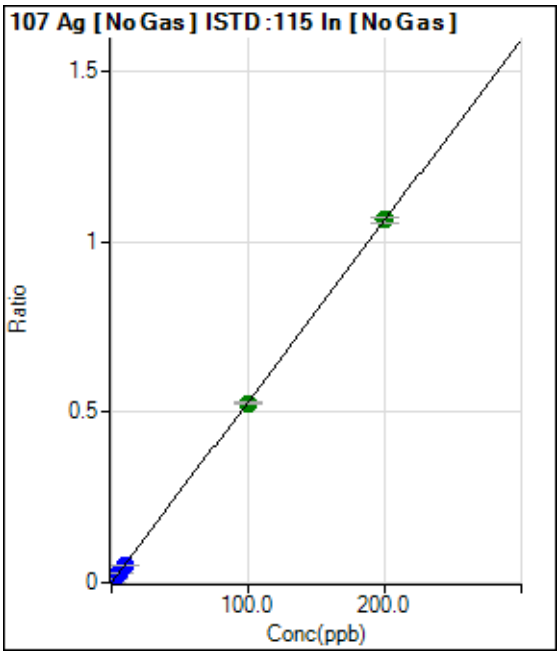


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	350.01	0.0001	P	12.5
2	☐	2.000	1.921	10981.33	0.0042	P	0.6
3	☐	5.000	4.853	26536.87	0.0104	P	2.7
4	☐	10.000	9.741	53490.85	0.0208	P	0.7
5	☐	100.000	100.653	531580.74	0.2133	P	1.2
6	☐	200.000	199.691	1016981.68	0.4231	A	1.4

y = 0.0021 * x + 1.3584E-004
R = 1.0000
DL = 0.02413
BEC = 0.06413

Weight: <None>
Min Conc: <None>

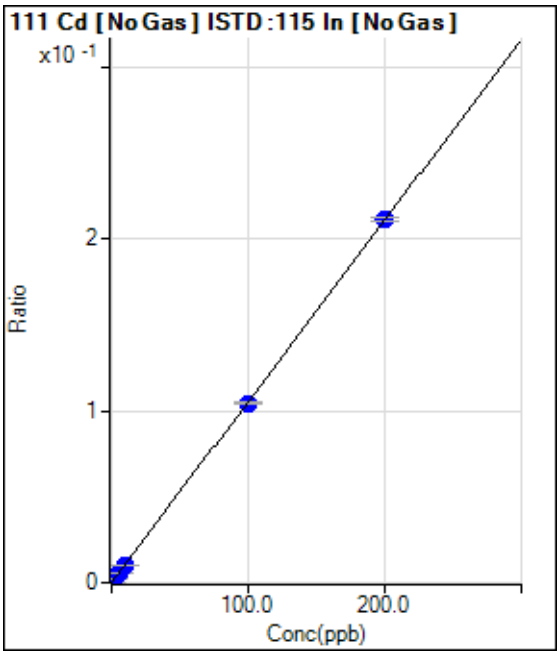
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.34	0.0000	P	79.0
2	☐	2.000	2.015	28073.41	0.0107	P	1.3
3	☐	5.000	5.015	67994.43	0.0267	P	1.6
4	☐	10.000	10.041	137513.47	0.0534	P	0.2
5	☐	100.000	99.279	1314444.15	0.5275	A	1.9
6	☐	200.000	200.358	2558622.93	1.0645	A	1.5

y = 0.0053 * x + 4.3686E-005
R = 1.0000
DL = 0.01948
BEC = 0.008223

Weight: <None>
Min Conc: <None>

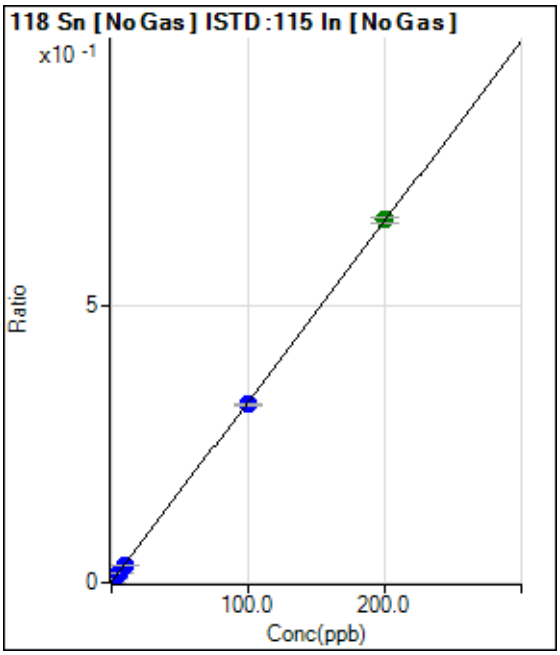


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9.51	0.0000	P	188.4
2	☐	2.000	1.938	5349.02	0.0020	P	2.2
3	☐	5.000	5.090	13686.15	0.0054	P	2.3
4	☐	10.000	9.828	26701.39	0.0104	P	3.6
5	☐	100.000	99.266	260874.07	0.1047	P	0.8
6	☐	200.000	200.374	507939.84	0.2113	P	1.1

y = 0.0011 * x + 3.7363E-006
R = 1.0000
DL = 0.02003
BEC = 0.003543

Weight: <None>
Min Conc: <None>

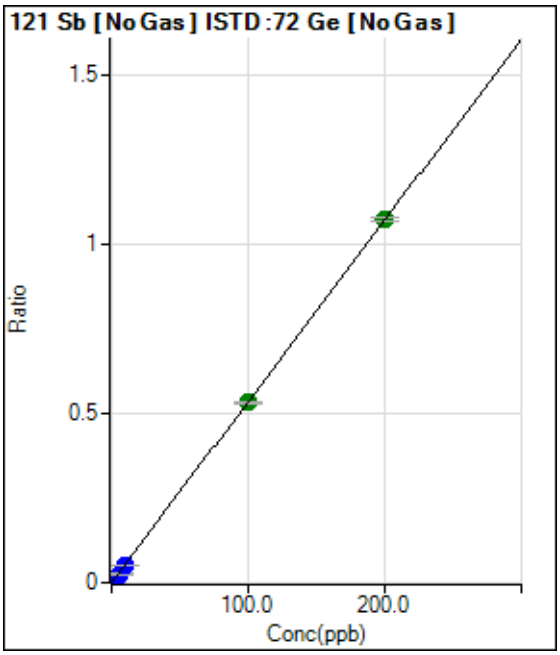
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2326.97	0.0009	P	54.2
2	☐	2.000	1.839	18052.72	0.0069	P	1.6
3	☐	5.000	4.751	41863.81	0.0164	P	0.4
4	☐	10.000	9.513	82387.37	0.0320	P	2.1
5	☐	100.000	98.367	803233.92	0.3223	P	1.3
6	☐	200.000	200.849	1579699.04	0.6572	A	1.7

y = 0.0033 * x + 9.0311E-004
R = 1.0000
DL = 0.449
BEC = 0.2764

Weight: <None>
Min Conc: <None>

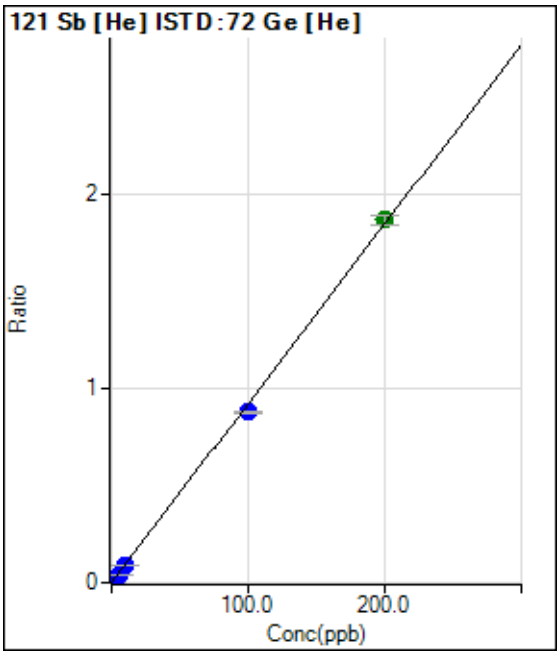


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	226.67	0.0001	P	17.9
2	☐	2.000	1.872	23387.84	0.0101	P	2.4
3	☐	5.000	4.708	56712.81	0.0253	P	2.7
4	☐	10.000	9.557	114059.28	0.0513	P	2.4
5	☐	100.000	99.382	1162485.89	0.5324	A	0.6
6	☐	200.000	200.340	2282055.33	1.0731	A	1.0

y = 0.0054 * x + 9.8878E-005
R = 1.0000
DL = 0.009916
BEC = 0.01846

Weight: <None>
Min Conc: <None>

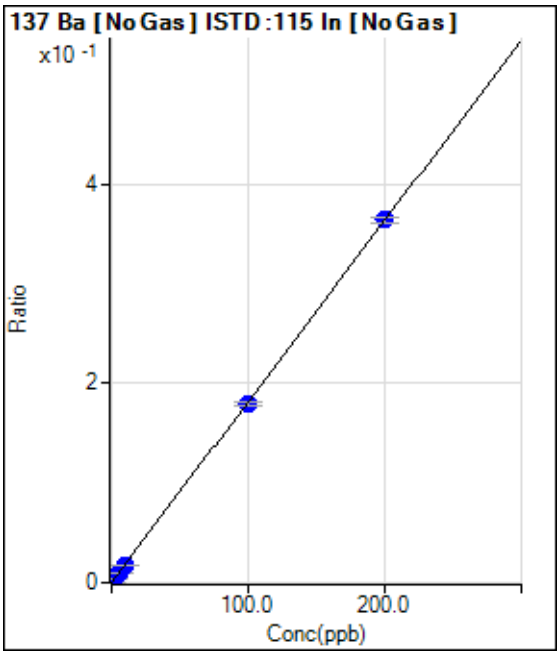
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	183.34	0.0003	P	30.6
2	☐	2.000	1.822	11945.62	0.0170	P	2.7
3	☐	5.000	4.692	29787.44	0.0435	P	1.7
4	☐	10.000	9.486	59672.32	0.0876	P	2.6
5	☐	100.000	95.132	593326.97	0.8760	P	1.1
6	☐	200.000	202.469	1227147.40	1.8642	A	2.5

y = 0.0092 * x + 2.6325E-004
R = 0.9996
DL = 0.02628
BEC = 0.0286

Weight: <None>
Min Conc: <None>

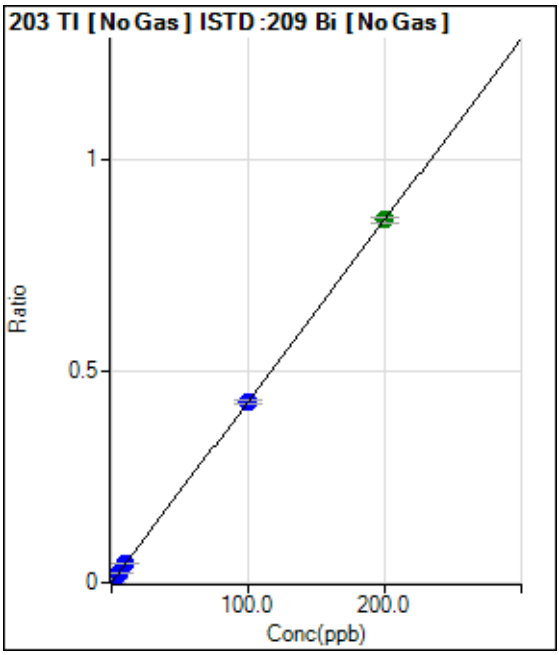


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	620.03	0.0002	P	4.7
2	☐	2.000	1.849	9400.24	0.0036	P	3.8
3	☐	5.000	4.888	23234.49	0.0091	P	1.0
4	☐	10.000	9.651	45757.50	0.0178	P	1.6
5	☐	100.000	98.919	448212.86	0.1799	P	2.0
6	☐	200.000	200.562	875973.45	0.3644	P	1.7

y = 0.0018 * x + 2.4034E-004
R = 1.0000
DL = 0.01874
BEC = 0.1323

Weight: <None>
Min Conc: <None>

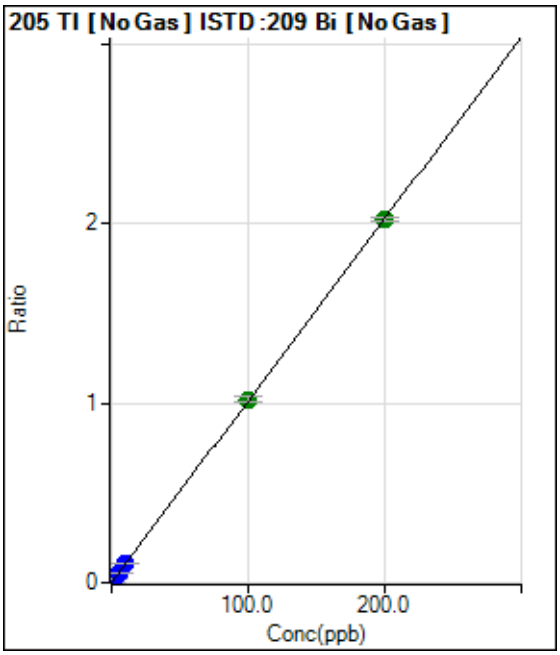
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	193.34	0.0001	P	31.1
2	☐	2.000	2.095	18193.55	0.0091	P	2.1
3	☐	5.000	5.303	43874.15	0.0228	P	1.3
4	☐	10.000	10.223	85938.17	0.0439	P	1.2
5	☐	100.000	99.773	821096.94	0.4274	P	2.4
6	☐	200.000	200.094	1590657.11	0.8571	A	1.3

y = 0.0043 * x + 9.8525E-005
R = 1.0000
DL = 0.02149
BEC = 0.023

Weight: <None>
Min Conc: <None>

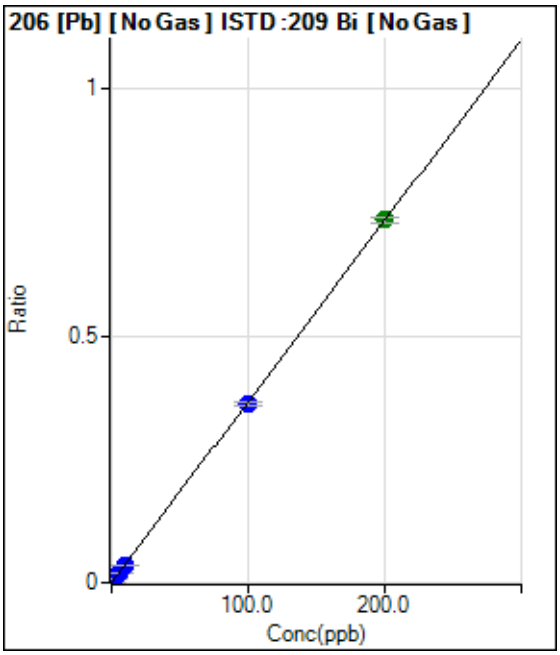


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	510.02	0.0003	P	6.9
2	☐	2.000	2.068	42469.49	0.0212	P	2.6
3	☐	5.000	5.330	104156.22	0.0542	P	3.1
4	☐	10.000	10.433	207139.90	0.1058	P	2.5
5	☐	100.000	100.810	1959430.13	1.0200	A	2.8
6	☐	200.000	199.564	3746714.11	2.0190	A	1.1

y = 0.0101 * x + 2.5865E-004
R = 1.0000
DL = 0.005264
BEC = 0.02557

Weight: <None>
Min Conc: <None>

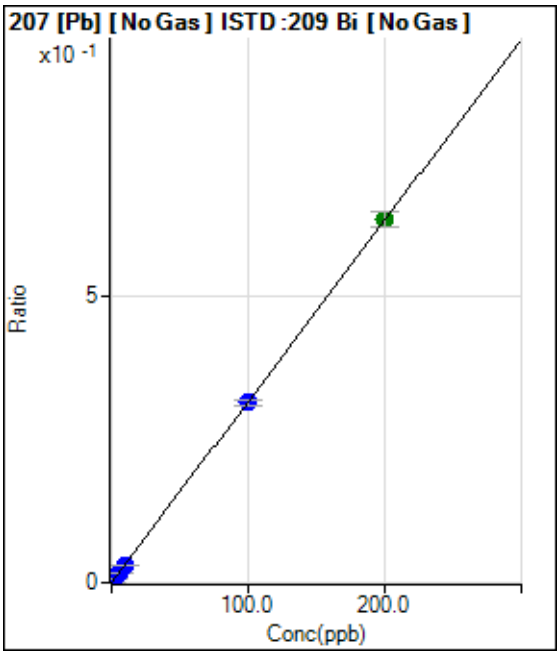
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	206.68	0.0001	P	16.1
2	☐	2.000	1.995	14879.13	0.0074	P	3.4
3	☐	5.000	5.052	35818.56	0.0186	P	2.4
4	☐	10.000	9.764	70311.56	0.0359	P	1.5
5	☐	100.000	98.952	697209.54	0.3629	P	2.5
6	☐	200.000	200.535	1364695.97	0.7354	A	1.3

y = 0.0037 * x + 1.0504E-004
R = 1.0000
DL = 0.01382
BEC = 0.02865

Weight: <None>
Min Conc: <None>

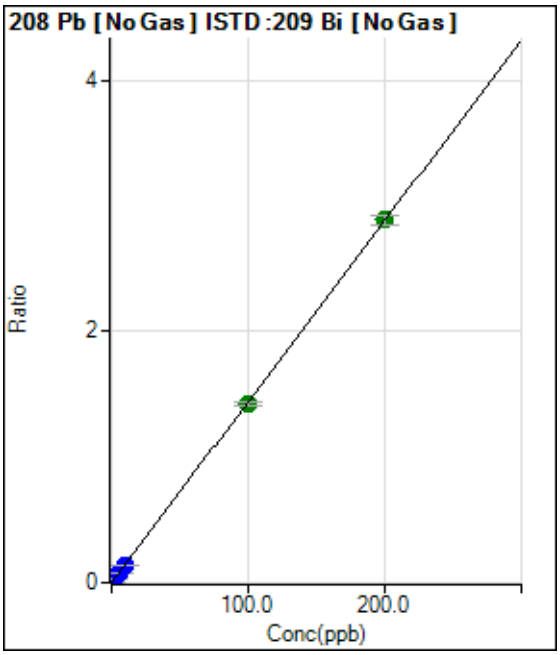


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	176.67	0.0001	P	43.5
2	☐	2.000	2.066	13290.64	0.0066	P	3.9
3	☐	5.000	4.975	30450.83	0.0158	P	1.3
4	☐	10.000	9.732	60486.96	0.0309	P	1.2
5	☐	100.000	99.290	603722.77	0.3143	P	3.2
6	☐	200.000	200.369	1176648.00	0.6342	A	4.1

y = 0.0032 * x + 8.8685E-005
R = 1.0000
DL = 0.03661
BEC = 0.02802

Weight: <None>
Min Conc: <None>

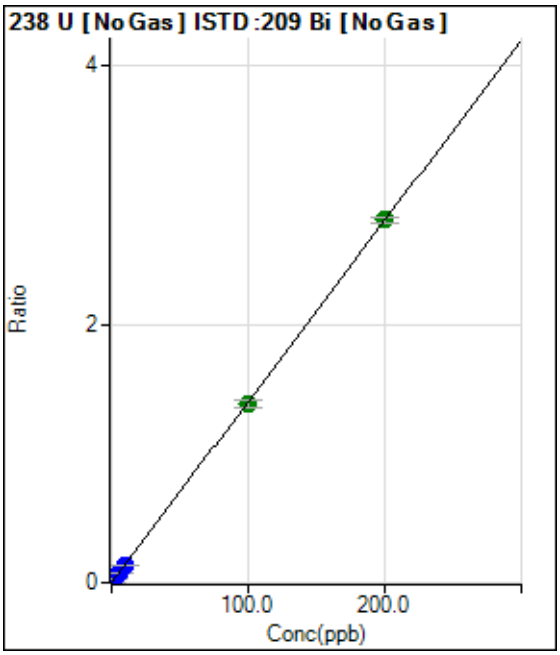
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	823.37	0.0004	P	9.0
2	☐	2.000	2.013	58965.01	0.0294	P	4.0
3	☐	5.000	5.087	141690.95	0.0737	P	2.5
4	☐	10.000	9.888	279708.48	0.1428	P	1.3
5	☐	100.000	98.708	2732027.08	1.4222	A	2.2
6	☐	200.000	200.649	5363498.30	2.8905	A	2.3

y = 0.0144 * x + 4.1672E-004
R = 1.0000
DL = 0.00783
BEC = 0.02893

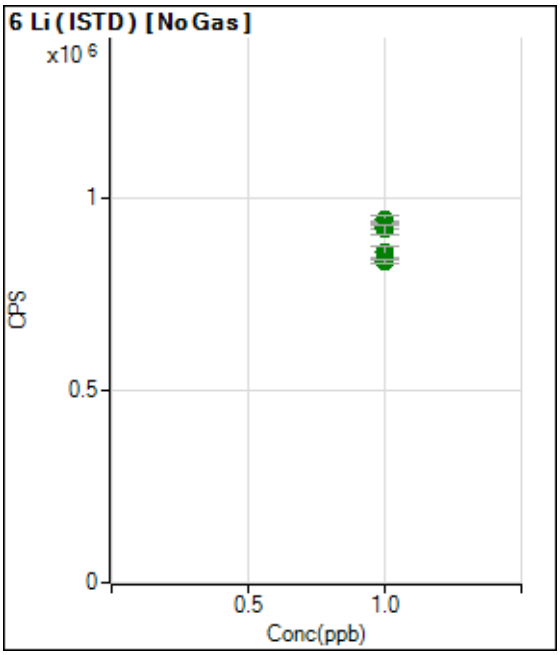
Weight: <None>
Min Conc: <None>



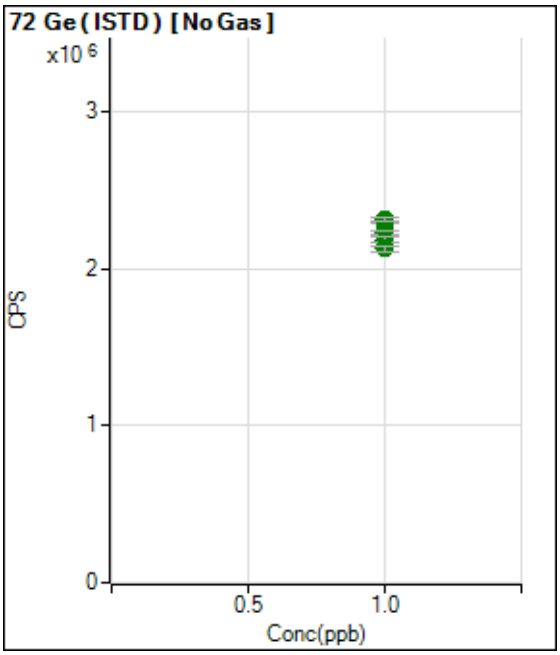
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0000	P	13.3
2	☐	2.000	1.943	54642.20	0.0273	P	3.7
3	☐	5.000	4.962	133706.43	0.0695	P	3.4
4	☐	10.000	9.712	266449.22	0.1361	P	3.0
5	☐	100.000	98.848	2659759.08	1.3849	A	3.4
6	☐	200.000	200.592	5214869.09	2.8102	A	1.6

y = 0.0140 * x + 2.8828E-005
R = 1.0000
DL = 0.0008215
BEC = 0.002058

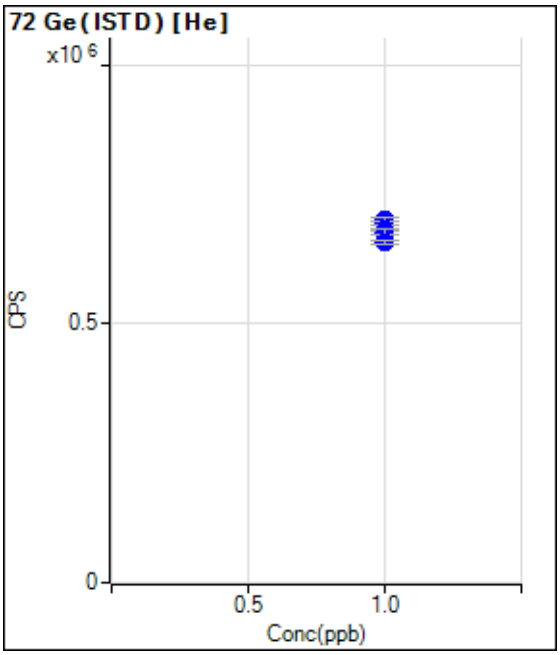
Weight: <None>
Min Conc: <None>



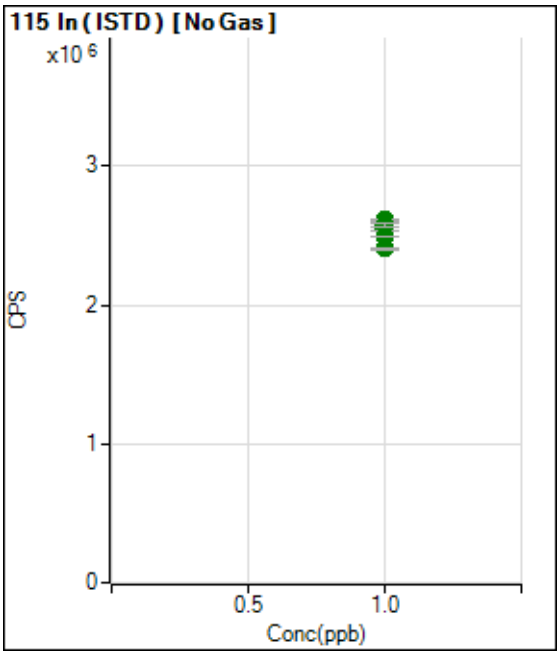
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		937352.59		A	0.4
2	☐	1.000		943893.75		A	2.1
3	☐	1.000		928015.29		A	1.5
4	☐	1.000		918557.10		A	2.8
5	☐	1.000		862100.76		A	3.3
6	☐	1.000		834092.42		A	1.1



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2292754.70		A	0.4
2	☐	1.000		2310627.36		A	0.9
3	☐	1.000		2240532.73		A	0.5
4	☐	1.000		2224293.88		A	1.2
5	☐	1.000		2183647.10		A	1.5
6	☐	1.000		2126741.59		A	1.6

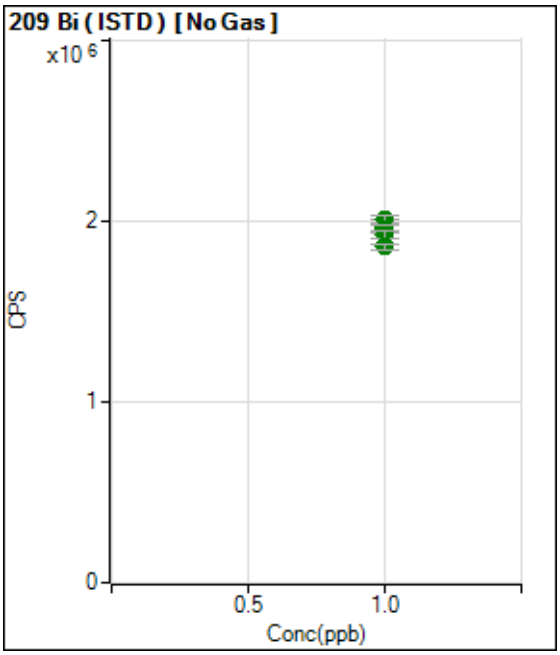


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		695601.19		P	1.1
2	☐	1.000		700979.65		P	1.0
3	☐	1.000		685462.36		P	1.3
4	☐	1.000		681341.11		P	0.8
5	☐	1.000		677376.08		P	1.9
6	☐	1.000		658437.48		P	1.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2579131.97		A	1.1
2	☐	1.000		2611940.82		A	0.4
3	☐	1.000		2548332.98		A	1.2
4	☐	1.000		2575869.25		A	1.4
5	☐	1.000		2491927.91		A	0.3
6	☐	1.000		2403824.33		A	0.9

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1971731.80		A	3.7
2	☐	1.000		2006185.54		A	2.3
3	☐	1.000		1923433.41		A	2.1
4	☐	1.000		1958550.96		A	2.0
5	☐	1.000		1921526.38		A	2.3
6	☐	1.000		1855903.67		A	1.3

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	014CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:15:43-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	63079	0.00
Be	9	1	No Gas	25	160.00
V	51	2	He	5823	0.02
Cr	52	2	He	15346	0.02
Fe	56	2	He	23120	0.00
Se	78	2	He	203	3.15
As	75	2	He	401	2.51
Ca	44	2	He	1107	0.62
Na	23	2	He	53586	0.00
Mg	24	2	He	517	2.91
K	39	2	He	156796	0.00
Mn	55	2	He	700	0.54
Co	59	2	He	140	5.10
Ni	60	2	He	190	15.42
Cu	63	2	He	1090	1.61
Zn	66	2	He	503	4.94
Al	27	2	He	1910	0.20
B	11	1	No Gas	13285	0.02
Al	27	1	No Gas	61238	0.00
Si	28	1	No Gas	559990	0.00
Ag	107	1	No Gas	113	70.21
Cd	111	1	No Gas	10	2006.93
Sr	88	1	No Gas	2064	0.11
Mo	95	1	No Gas	350	3.27
Sn	118	1	No Gas	2327	2.32
Sb	121	1	No Gas	227	7.87
Ba	137	1	No Gas	620	0.90
Tl	205	1	No Gas	510	1.54
Tl	203	1	No Gas	193	14.74
Pb	208	1	No Gas	823	1.54
U	238	1	No Gas	57	17.98
Ca	43	2	He	53	20.30
Sb	121	2	He	183	16.92
Ti	47	2	He	23	106.04
Cu	63	1	No Gas	2607	0.24

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	937353	0.41
Ge	72	2	He	695601	1.08
Ge	72	1	No Gas	2292755	0.41
In	115	1	No Gas	2579132	1.13

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	1971732	3.70

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	015CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:17:53-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	7559	0.02
V	51	2	He	16903	0.02
Cr	52	2	He	27581	0.01
Fe	56	2	He	1106478	0.00
Se	78	2	He	455	2.52
As	75	2	He	2398	0.16
Ca	44	2	He	10414	0.02
Na	23	2	He	246956	0.00
Mg	24	2	He	118833	0.00
K	39	2	He	346010	0.00
Mn	55	2	He	10868	0.05
Co	59	2	He	15723	0.01
Ni	60	2	He	4281	0.07
Cu	63	2	He	12776	0.03
Zn	66	2	He	4304	0.03
Al	27	2	He	3070	0.12
B	11	1	No Gas	31382	0.00
Al	27	1	No Gas	92711	0.00
Si	28	1	No Gas	642683	0.00
Ag	107	1	No Gas	28073	0.00
Cd	111	1	No Gas	5349	0.05
Sr	88	1	No Gas	61069	0.00
Mo	95	1	No Gas	10981	0.01
Sn	118	1	No Gas	18053	0.01
Sb	121	1	No Gas	23388	0.01
Ba	137	1	No Gas	9400	0.04
Tl	205	1	No Gas	42469	0.00
Tl	203	1	No Gas	18194	0.01
Pb	208	1	No Gas	58965	0.00
U	238	1	No Gas	54642	0.00
Ca	43	2	He	483	2.15
Sb	121	2	He	11946	0.03
Cu	63	1	No Gas	27962	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	943894	2.06	937353	100.70	70	120	
Ge	72	2	He	700980	0.95	695601	100.77	70	120	
Ge	72	1	No Gas	2310627	0.89	2292755	100.78	70	120	

Calibration Standard Report

In	115	1	No Gas	2611941	0.44	2579132	101.27	70	120	
Bi	209	1	No Gas	2006186	2.28	1971732	101.75	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	016CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:19:48-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	18302	0.01
V	51	2	He	32422	0.00
Cr	52	2	He	45740	0.00
Fe	56	2	He	2662305	0.00
Se	78	2	He	764	0.72
As	75	2	He	5243	0.07
Ca	44	2	He	22682	0.01
Na	23	2	He	523592	0.00
Mg	24	2	He	293995	0.00
K	39	2	He	623462	0.00
Mn	55	2	He	25634	0.01
Co	59	2	He	38221	0.01
Ni	60	2	He	9580	0.03
Cu	63	2	He	24476	0.01
Zn	66	2	He	5978	0.08
Al	27	2	He	3817	0.07
B	11	1	No Gas	59621	0.00
Al	27	1	No Gas	122771	0.00
Si	28	1	No Gas	762008	0.00
Ag	107	1	No Gas	67994	0.00
Cd	111	1	No Gas	13686	0.01
Sr	88	1	No Gas	145592	0.00
Mo	95	1	No Gas	26537	0.01
Sn	118	1	No Gas	41864	0.00
Sb	121	1	No Gas	56713	0.00
Ba	137	1	No Gas	23234	0.01
Tl	205	1	No Gas	104156	0.00
Tl	203	1	No Gas	43874	0.00
Pb	208	1	No Gas	141691	0.00
U	238	1	No Gas	133706	0.00
Ca	43	2	He	1317	0.83
Sb	121	2	He	29787	0.01
Cu	63	1	No Gas	55493	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	928015	1.51	937353	99.00	70	120	
Ge	72	2	He	685462	1.29	695601	98.54	70	120	
Ge	72	1	No Gas	2240533	0.48	2292755	97.72	70	120	

Calibration Standard Report

In	115	1	No Gas	2548333	1.15	2579132	98.81	70	120	
Bi	209	1	No Gas	1923433	2.06	1971732	97.55	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	017CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:21:46-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	36898	0.00
V	51	2	He	58048	0.00
Cr	52	2	He	73825	0.00
Fe	56	2	He	5164050	0.00
Se	78	2	He	1273	0.38
As	75	2	He	9812	0.04
Ca	44	2	He	43218	0.00
Na	23	2	He	948447	0.00
Mg	24	2	He	576693	0.00
K	39	2	He	1044351	0.00
Mn	55	2	He	49269	0.00
Co	59	2	He	76604	0.00
Ni	60	2	He	18743	0.01
Cu	63	2	He	47710	0.00
Zn	66	2	He	11215	0.02
Al	27	2	He	5905	0.04
B	11	1	No Gas	104154	0.00
Al	27	1	No Gas	188959	0.00
Si	28	1	No Gas	989848	0.00
Ag	107	1	No Gas	137513	0.00
Cd	111	1	No Gas	26701	0.01
Sr	88	1	No Gas	288545	0.00
Mo	95	1	No Gas	53491	0.00
Sn	118	1	No Gas	82387	0.00
Sb	121	1	No Gas	114059	0.00
Ba	137	1	No Gas	45758	0.00
Tl	205	1	No Gas	207140	0.00
Tl	203	1	No Gas	85938	0.00
Pb	208	1	No Gas	279708	0.00
U	238	1	No Gas	266449	0.00
Ca	43	2	He	2497	0.24
Sb	121	2	He	59672	0.00
Cu	63	1	No Gas	107674	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	918557	2.81	937353	97.99	70	120	
Ge	72	2	He	681341	0.82	695601	97.95	70	120	
Ge	72	1	No Gas	2224294	1.21	2292755	97.01	70	120	

Calibration Standard Report

In	115	1	No Gas	2575869	1.44	2579132	99.87	70	120	
Bi	209	1	No Gas	1958551	2.02	1971732	99.33	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	018CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:23:41-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	361802	0.00
V	51	2	He	520581	0.00
Cr	52	2	He	576064	0.00
Fe	56	2	He	49751764	0.00
Se	78	2	He	11109	0.01
As	75	2	He	96463	0.00
Ca	44	2	He	420362	0.00
Na	23	2	He	8557522	0.00
Mg	24	2	He	5234989	0.00
K	39	2	He	8640482	0.00
Mn	55	2	He	472519	0.00
Co	59	2	He	749239	0.00
Ni	60	2	He	184634	0.00
Cu	63	2	He	456378	0.00
Zn	66	2	He	104255	0.00
Al	27	2	He	43779	0.00
B	11	1	No Gas	894625	0.00
Al	27	1	No Gas	1424318	0.00
Si	28	1	No Gas	4196813	0.00
Ag	107	1	No Gas	1314444	0.00
Cd	111	1	No Gas	260874	0.00
Sr	88	1	No Gas	2796545	0.00
Mo	95	1	No Gas	531581	0.00
Sn	118	1	No Gas	803234	0.00
Sb	121	1	No Gas	1162486	0.00
Ba	137	1	No Gas	448213	0.00
Tl	205	1	No Gas	1959430	0.00
Tl	203	1	No Gas	821097	0.00
Pb	208	1	No Gas	2732027	0.00
U	238	1	No Gas	2659759	0.00
Ca	43	2	He	24759	0.02
Sb	121	2	He	593327	0.00
Cu	63	1	No Gas	1013918	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	862101	3.35	937353	91.97	70	120	
Ge	72	2	He	677376	1.86	695601	97.38	70	120	
Ge	72	1	No Gas	2183647	1.49	2292755	95.24	70	120	

Calibration Standard Report

In	115	1	No Gas	2491928	0.28	2579132	96.62	70	120	
Bi	209	1	No Gas	1921526	2.30	1971732	97.45	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	019CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:25:47-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	703647	0.00
V	51	2	He	1009352	0.00
Cr	52	2	He	1121353	0.00
Fe	56	2	He	97438322	0.00
Se	78	2	He	21800	0.00
As	75	2	He	185796	0.00
Ca	44	2	He	827946	0.00
Na	23	2	He	16593811	0.00
Mg	24	2	He	10040672	0.00
K	39	2	He	16628886	0.00
Mn	55	2	He	916014	0.00
Co	59	2	He	1476641	0.00
Ni	60	2	He	353107	0.00
Cu	63	2	He	872070	0.00
Zn	66	2	He	200893	0.00
Al	27	2	He	82467	0.00
B	11	1	No Gas	1745142	0.00
Al	27	1	No Gas	2651432	0.00
Si	28	1	No Gas	7507764	0.00
Ag	107	1	No Gas	2558623	0.00
Cd	111	1	No Gas	507940	0.00
Sr	88	1	No Gas	5383501	0.00
Mo	95	1	No Gas	1016982	0.00
Sn	118	1	No Gas	1579699	0.00
Sb	121	1	No Gas	2282055	0.00
Ba	137	1	No Gas	875973	0.00
Tl	205	1	No Gas	3746714	0.00
Tl	203	1	No Gas	1590657	0.00
Pb	208	1	No Gas	5363498	0.00
U	238	1	No Gas	5214869	0.00
Ca	43	2	He	48964	0.00
Sb	121	2	He	1227147	0.00
Cu	63	1	No Gas	1902099	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	834092	1.06	937353	88.98	70	120	
Ge	72	2	He	658437	1.43	695601	94.66	70	120	
Ge	72	1	No Gas	2126742	1.56	2292755	92.76	70	120	

Calibration Standard Report

In	115	1	No Gas	2403824	0.93	2579132	93.20	70	120	
Bi	209	1	No Gas	1855904	1.27	1971732	94.13	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	021_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:34:34-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	98.438	0.438	1232896	1.10	100	98.4	90	110	
Be	9	1	No Gas	97.446	0.714	367205	0.33	100	97.4	90	110	
V	51	2	He	100.861	0.794	527653	0.22	100	100.9	90	110	
Cr	52	2	He	99.824	1.277	583309	0.56	100	99.8	90	110	
Fe	56	2	He	10095.858	0.419	50680773	1.14	10000	101.0	90	110	
Se	78	2	He	101.726	2.184	11494	1.39	100	101.7	90	110	
As	75	2	He	102.471	0.618	98532	0.23	100	102.5	90	110	
Ca	44	2	He	10154.461	1.971	432917	1.37	10000	101.5	90	110	
Na	23	2	He	10235.753	0.403	8786849	1.05	10000	102.4	90	110	
Mg	24	2	He	10285.002	0.273	5343007	0.49	10000	102.9	90	110	
K	39	2	He	10133.790	0.395	8771100	0.69	10000	101.3	90	110	
Mn	55	2	He	101.832	0.322	481725	0.85	100	101.8	90	110	
Co	59	2	He	99.055	0.362	752474	1.03	100	99.1	90	110	
Ni	60	2	He	100.881	1.250	184432	1.33	100	100.9	90	110	
Cu	63	2	He	102.064	0.472	461138	0.46	100	102.1	90	110	
Zn	66	2	He	102.370	1.950	106465	1.20	100	102.4	90	110	
Al	27	2	He	99.665	1.169	43408	0.54	100	99.7	90	110	
B	11	1	No Gas	472.165	1.361	887603	1.61	500	94.4	90	110	
Al	27	1	No Gas	98.608	0.932	1394267	0.67	100	98.6	90	110	
Si	28	1	No Gas	502.816	1.997	4206363	1.48	500	100.6	90	110	
Ag	107	1	No Gas	99.757	2.533	1307391	0.86	100	99.8	90	110	
Cd	111	1	No Gas	99.916	2.790	259905	0.71	100	99.9	90	110	
Sr	88	1	No Gas	101.749	3.823	2811672	1.28	100	101.7	90	110	
Mo	95	1	No Gas	100.259	2.884	524081	0.18	100	100.3	90	110	
Sn	118	1	No Gas	99.169	2.048	801627	0.86	100	99.2	90	110	
Sb	121	1	No Gas	98.252	2.431	1162469	2.52	100	98.3	90	110	
Ba	137	1	No Gas	99.847	2.666	447819	0.71	100	99.8	90	110	
Tl	205	1	No Gas	102.941	5.177	1978737	2.49	100	102.9	90	110	
Tl	203	1	No Gas	102.411	3.378	833798	1.08	100	102.4	90	110	
Pb	208	1	No Gas	98.547	3.107	2698449	0.80	100	98.5	90	110	
U	238	1	No Gas	102.194	2.593	2721357	1.34	100	102.2	90	110	
Ca	43	2	He	9905.307	1.714	24953	0.95	10000	99.1	90	110	
Sb	121	2	He	97.555	1.157	610101	0.39	100	97.6	90	110	
Ti	47	2	He	103.395	2.111	23250	2.54	100	103.4	90	110	
Cu	63	1	No Gas	101.270	0.586	1009268	0.63	100	101.3	90	110	
Se	82	1	No Gas	97.857	0.216	19740	0.48	100	97.9	90	110	

QC ISTD Table

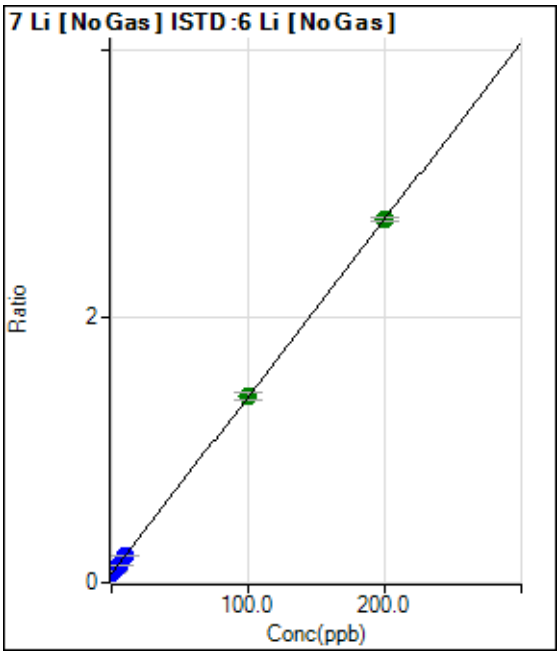
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	894284	0.92	937353	95.41	70	120	
Ge	72	2	He	679184	0.76	695601	97.64	70	120	
Ge	72	1	No Gas	2208659	0.27	2292755	96.33	70	120	
In	115	1	No Gas	2467737	2.77	2579132	95.68	70	120	
Bi	209	1	No Gas	1901528	2.73	1971732	96.44	70	120	

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071323A.b\
Analysis File: 071323A.batch.bin
DA Date-Time: 7/13/2023 8:18:40 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	014CALB.d	CAL BLK	7/13/2023 11:15:43 AM
2	015CALS.d	2/10/200	7/13/2023 11:17:53 AM
3	016CALS.d	5/25/500	7/13/2023 11:19:48 AM
4	017CALS.d	10/50/100	7/13/2023 11:21:46 AM
5	018CALS.d	100/500/10K	7/13/2023 11:23:41 AM
6	019CALS.d	200/1000/20K	7/13/2023 11:25:47 AM

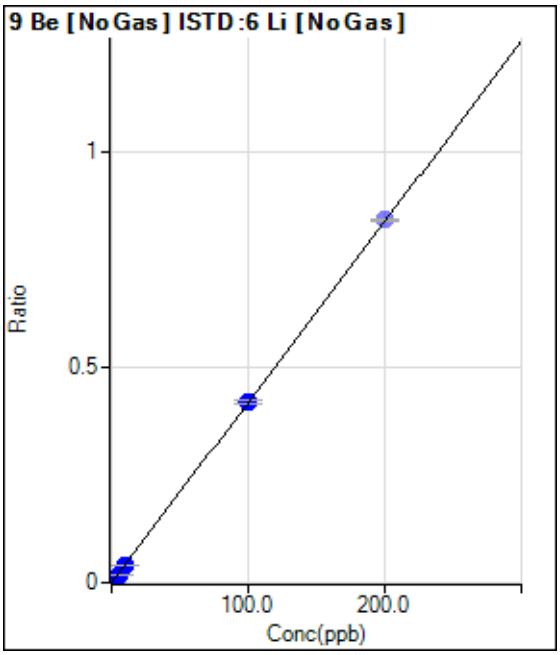
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63078.80	0.0673	P	0.2
2	☐	2.000	1.813	86268.82	0.0914	P	3.7
3	☐	5.000	4.744	121075.29	0.1305	P	1.9
4	☐	10.000	9.796	181607.49	0.1978	P	2.4
5	☐	100.000	100.429	1210546.21	1.4052	A	3.5
6	☐	200.000	199.804	2276068.77	2.7290	A	1.2

y = 0.0133 * x + 0.0673
R = 1.0000
DL = 0.03338
BEC = 5.052

Weight: <None>
Min Conc: <None>

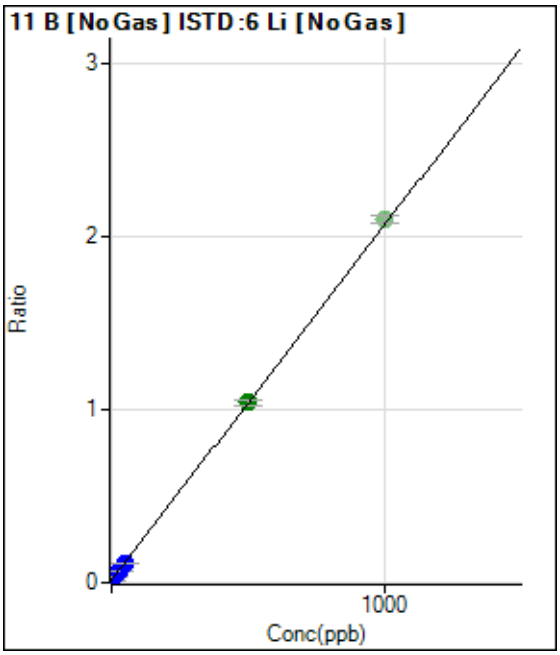


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	39.9
2	☐	2.000	1.903	7558.75	0.0080	P	3.8
3	☐	5.000	4.695	18301.98	0.0197	P	3.8
4	☐	10.000	9.570	36898.22	0.0402	P	2.0
5	☐	100.000	100.060	361802.22	0.4199	P	2.4
6	☑	200.000		703646.79	0.8436	P	0.6

y = 0.0042 * x + 2.6673E-005
R = 1.0000
DL = 0.007614
BEC = 0.006356

Weight: <None>
Min Conc: <None>

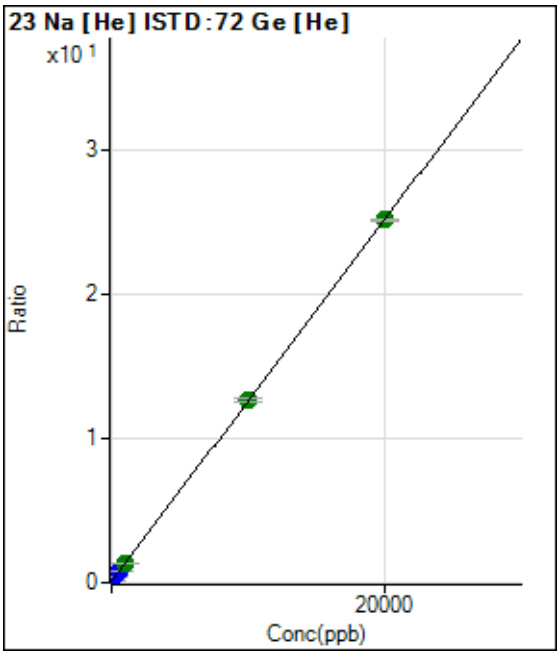
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13284.71	0.0142	P	2.7
2	☐	10.000	9.320	31381.71	0.0333	P	2.3
3	☐	25.000	24.458	59620.76	0.0643	P	1.4
4	☐	50.000	48.478	104154.16	0.1134	P	2.4
5	☐	500.000	500.193	894625.25	1.0384	A	3.0
6	☑	1000.000		1745142.21	2.0924	A	2.2

y = 0.0020 * x + 0.0142
R = 1.0000
DL = 0.5564
BEC = 6.922

Weight: <None>
Min Conc: <None>

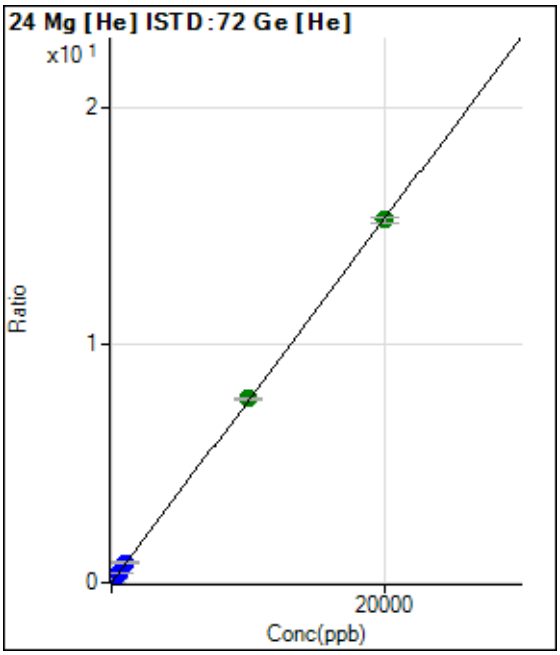


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53586.41	0.0770	P	1.3
2	☐	200.000	219.089	246955.73	0.3523	P	1.2
3	☐	500.000	546.710	523591.51	0.7639	P	1.4
4	☐	1000.000	1046.618	948446.63	1.3920	A	0.7
5	☐	10000.000	9996.304	8557522.37	12.6364	A	2.0
6	☐	20000.000	19998.158	16593810.59	25.2027	A	0.6

y = 0.0013 * x + 0.0770
R = 1.0000
DL = 2.33
BEC = 61.32

Weight: <None>
Min Conc: <None>

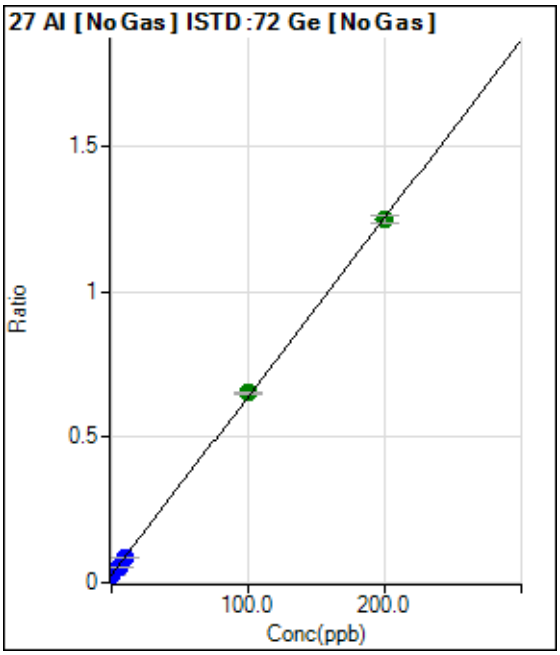
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	516.69	0.0007	P	15.2
2	☐	200.000	220.688	118833.40	0.1695	P	0.5
3	☐	500.000	559.887	293995.26	0.4290	P	1.7
4	☐	1000.000	1105.764	576692.93	0.8465	P	1.8
5	☐	10000.000	10105.389	5234989.09	7.7295	A	1.6
6	☐	20000.000	19940.313	10040672.35	15.2515	A	1.6

y = 7.6482E-004 * x + 7.4293E-004
R = 1.0000
DL = 0.4443
BEC = 0.9714

Weight: <None>
Min Conc: <None>

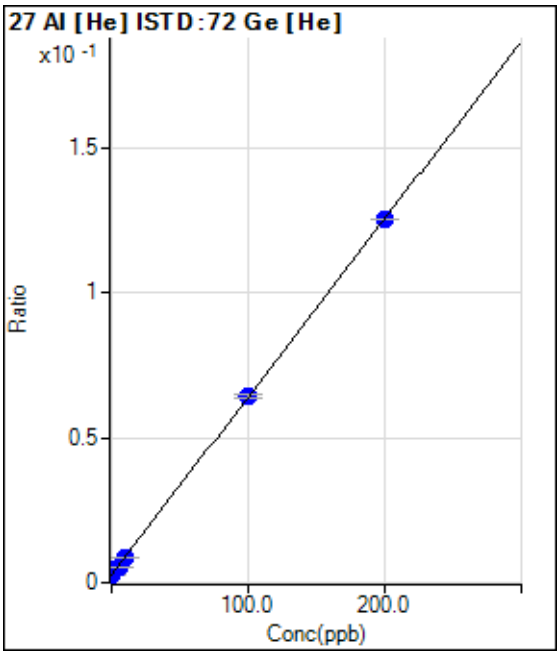


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61238.03	0.0267	P	1.3
2	☐	2.000	2.189	92711.35	0.0401	P	2.2
3	☐	5.000	4.581	122771.23	0.0548	P	0.5
4	☐	10.000	9.500	188959.39	0.0850	P	1.0
5	☐	100.000	102.042	1424318.26	0.6523	A	1.2
6	☐	200.000	199.012	2651431.68	1.2469	A	1.9

y = 0.0061 * x + 0.0267
R = 0.9999
DL = 0.1734
BEC = 4.356

Weight: <None>
Min Conc: <None>

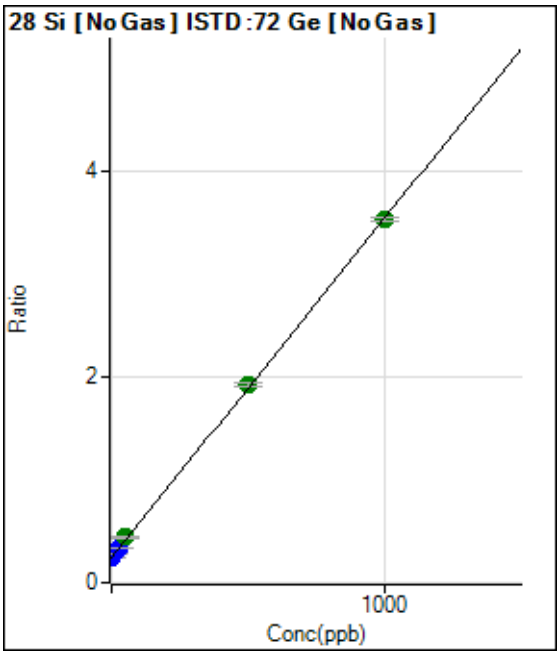
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1910.17	0.0027	P	3.0
2	☐	2.000	2.663	3070.39	0.0044	P	3.9
3	☐	5.000	4.599	3817.26	0.0056	P	1.6
4	☐	10.000	9.646	5904.69	0.0087	P	2.1
5	☐	100.000	100.850	43779.14	0.0646	P	2.0
6	☐	200.000	199.596	82466.89	0.1252	P	0.2

y = 6.1375E-004 * x + 0.0027
R = 1.0000
DL = 0.3983
BEC = 4.474

Weight: <None>
Min Conc: <None>

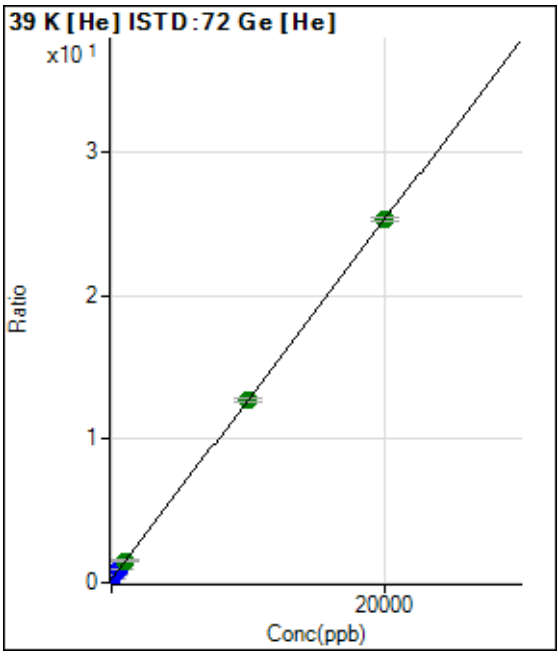


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	559990.16	0.2442	P	0.5
2	☐	10.000	10.270	642683.22	0.2782	P	0.6
3	☐	25.000	29.033	762007.51	0.3401	P	0.5
4	☐	50.000	60.832	989847.72	0.4451	A	2.8
5	☐	500.000	508.196	4196812.64	1.9223	A	2.2
6	☐	1000.000	995.257	7507763.84	3.5306	A	1.2

y = 0.0033 * x + 0.2442
R = 0.9999
DL = 1.057
BEC = 73.97

Weight: <None>
Min Conc: <None>

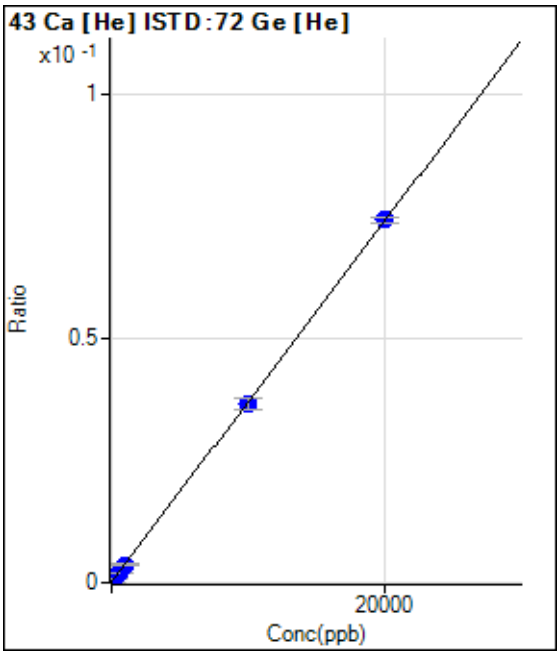
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156795.68	0.2254	P	0.3
2	☐	200.000	214.204	346010.01	0.4936	P	0.6
3	☐	500.000	546.408	623462.04	0.9096	P	0.5
4	☐	1000.000	1044.075	1044351.31	1.5327	A	1.2
5	☐	10000.000	10010.097	8640482.37	12.7594	A	2.4
6	☐	20000.000	19991.445	16628885.58	25.2574	A	1.1

y = 0.0013 * x + 0.2254
R = 1.0000
DL = 1.746
BEC = 180

Weight: <None>
Min Conc: <None>

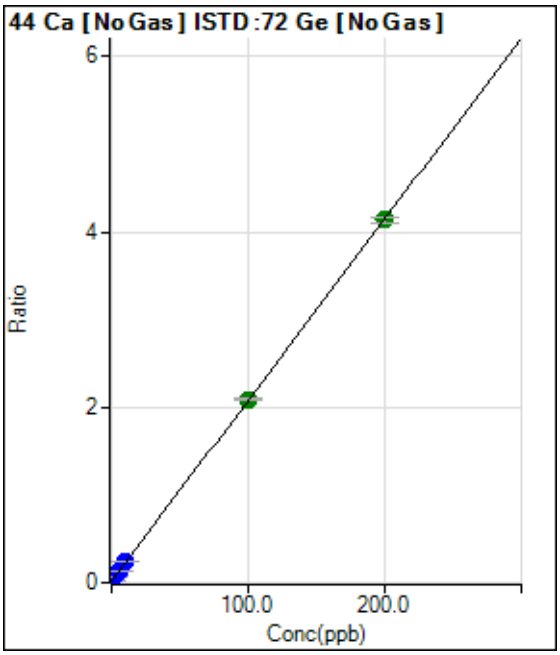


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	9.8
2	☐	200.000	165.570	483.35	0.0007	P	10.4
3	☐	500.000	498.090	1316.76	0.0019	P	10.3
4	☐	1000.000	969.102	2496.93	0.0037	P	5.3
5	☐	10000.000	9860.356	24759.22	0.0366	P	6.3
6	☐	20000.000	20071.759	48963.71	0.0744	P	1.7

y = 3.7017E-006 * x + 7.6623E-005
R = 1.0000
DL = 6.067
BEC = 20.7

Weight: <None>
Min Conc: <None>

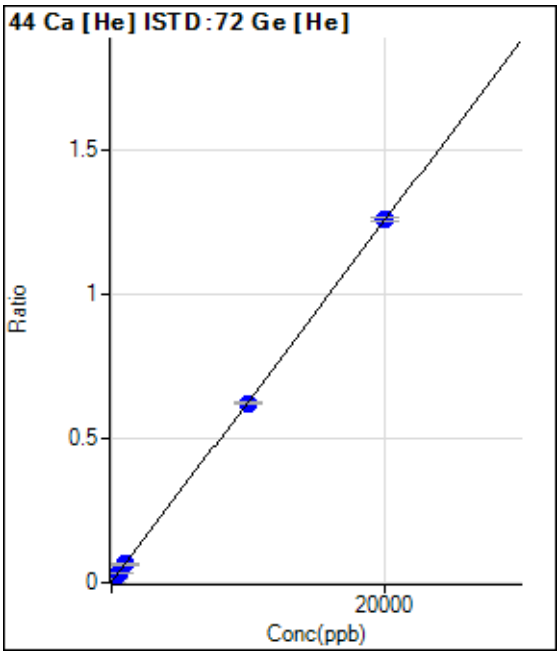
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35446.11	0.0155	P	1.6
2	☐	2.000	2.053	133619.87	0.0578	P	0.2
3	☐	5.000	5.242	276960.55	0.1236	P	0.9
4	☐	10.000	10.664	523790.45	0.2355	P	0.9
5	☐	100.000	100.581	4565369.83	2.0908	A	0.7
6	☐	200.000	199.670	8793813.20	4.1354	A	1.4

y = 0.0206 * x + 0.0155
R = 1.0000
DL = 0.03688
BEC = 0.7493

Weight: <None>
Min Conc: <None>

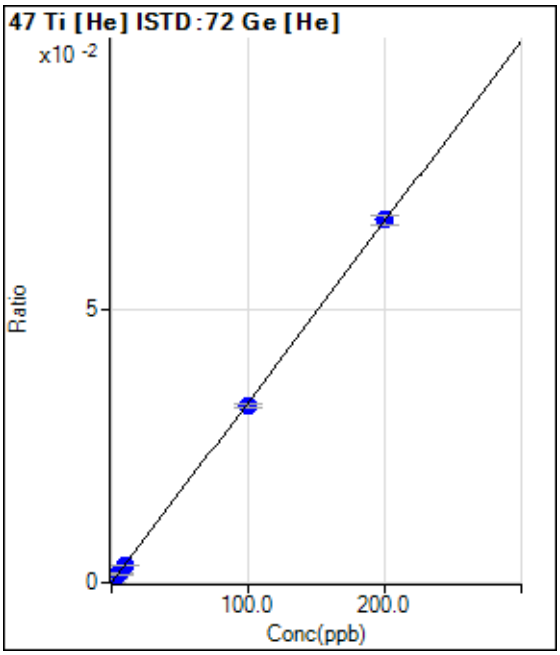


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1106.74	0.0016	P	7.8
2	☐	200.000	211.817	10414.09	0.0149	P	0.8
3	☐	500.000	503.068	22682.22	0.0331	P	2.3
4	☐	1000.000	987.580	43217.98	0.0634	P	1.2
5	☐	10000.000	9886.039	420361.89	0.6207	P	1.1
6	☐	20000.000	20057.406	827946.16	1.2576	P	1.2

y = 6.2620E-005 * x + 0.0016
R = 1.0000
DL = 5.918
BEC = 25.42

Weight: <None>
Min Conc: <None>

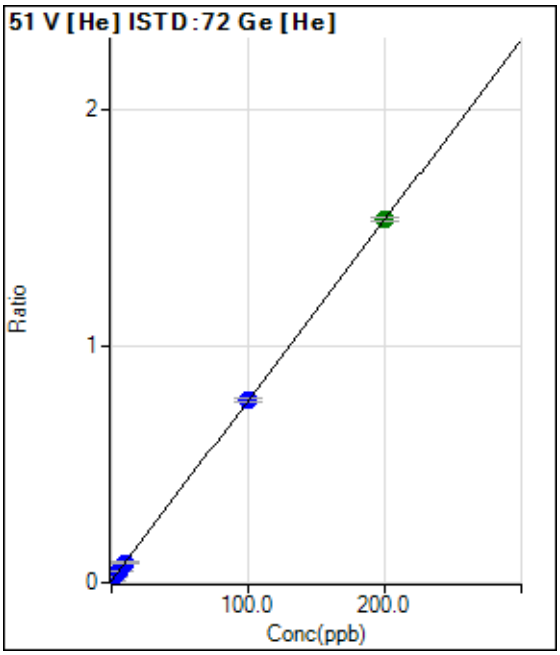
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	23.6
2	☐	2.000	1.914	466.69	0.0007	P	25.7
3	☐	5.000	4.961	1146.73	0.0017	P	10.7
4	☐	10.000	9.616	2190.21	0.0032	P	7.5
5	☐	100.000	98.131	22001.21	0.0325	P	2.8
6	☐	200.000	200.956	43773.09	0.0665	P	3.0

y = 3.3075E-004 * x + 3.3491E-005
R = 0.9999
DL = 0.0718
BEC = 0.1013

Weight: <None>
Min Conc: <None>

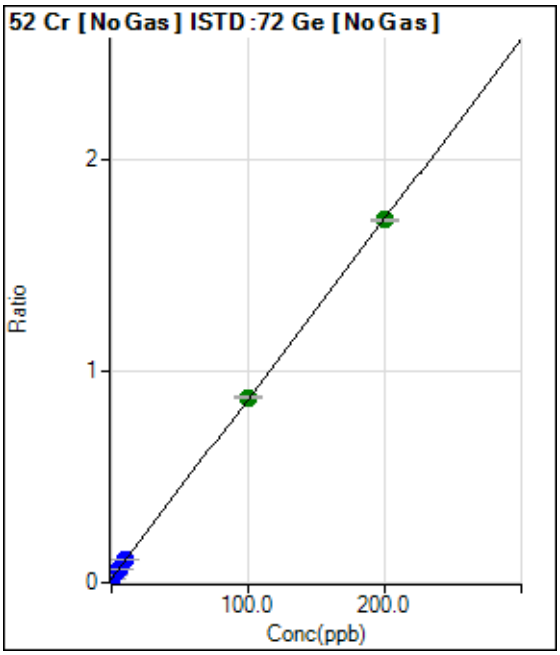


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5823.50	0.0084	P	2.2
2	☐	2.000	2.065	16902.67	0.0241	P	2.8
3	☐	5.000	5.109	32421.61	0.0473	P	1.6
4	☐	10.000	10.083	58047.68	0.0852	P	1.2
5	☐	100.000	99.786	520581.45	0.7687	P	2.2
6	☐	200.000	200.099	1009351.70	1.5331	A	1.1

y = 0.0076 * x + 0.0084
R = 1.0000
DL = 0.07295
BEC = 1.099

Weight: <None>
Min Conc: <None>

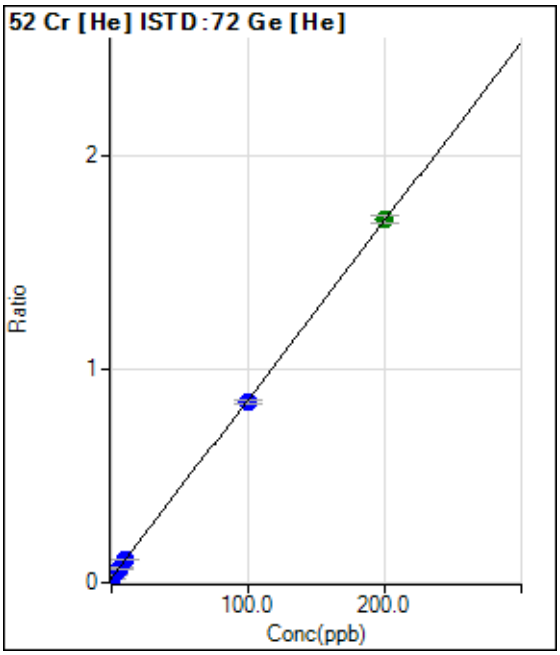
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42874.08	0.0187	P	0.7
2	☐	2.000	2.008	82557.56	0.0357	P	2.2
3	☐	5.000	5.224	141171.38	0.0630	P	1.2
4	☐	10.000	10.268	235308.96	0.1058	P	1.4
5	☐	100.000	100.844	1908588.93	0.8741	A	1.6
6	☐	200.000	199.559	3639957.86	1.7115	A	0.8

y = 0.0085 * x + 0.0187
R = 1.0000
DL = 0.04308
BEC = 2.204

Weight: <None>
Min Conc: <None>

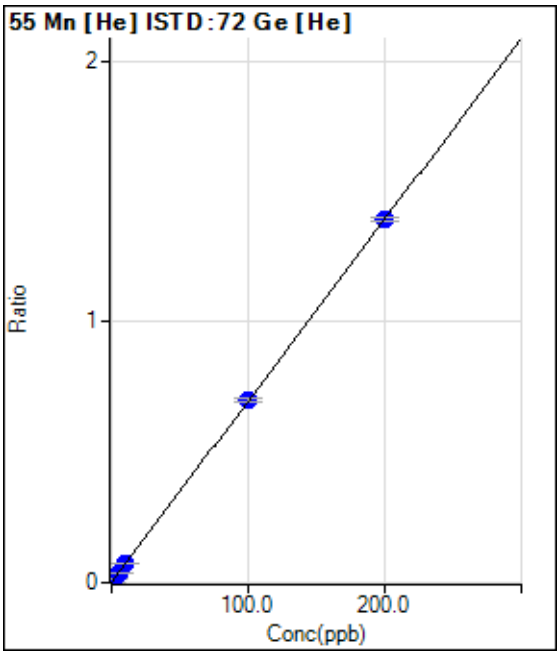


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15345.55	0.0221	P	2.1
2	☐	2.000	2.063	27581.35	0.0394	P	2.7
3	☐	5.000	5.331	45740.11	0.0667	P	3.0
4	☐	10.000	10.294	73825.10	0.1084	P	2.3
5	☐	100.000	98.837	576064.16	0.8506	P	1.7
6	☐	200.000	200.558	1121352.69	1.7033	A	2.3

y = 0.0084 * x + 0.0221
R = 1.0000
DL = 0.1645
BEC = 2.632

Weight: <None>
Min Conc: <None>

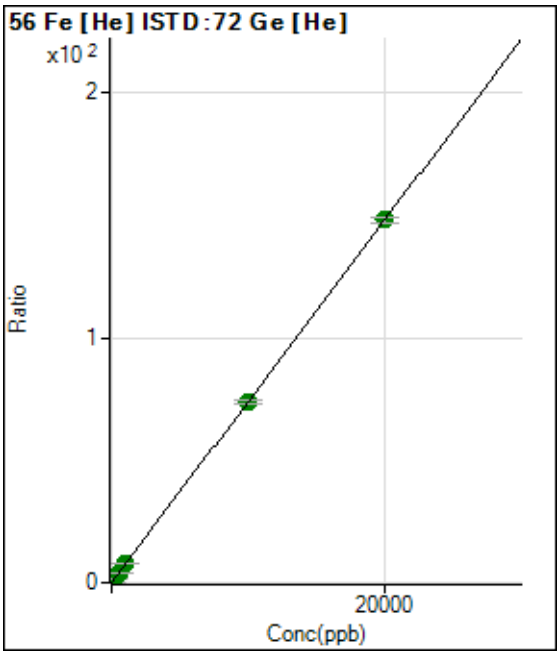
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	700.03	0.0010	P	4.8
2	☐	2.000	2.084	10867.82	0.0155	P	4.1
3	☐	5.000	5.232	25634.38	0.0374	P	1.0
4	☐	10.000	10.253	49269.03	0.0723	P	1.0
5	☐	100.000	100.175	472518.78	0.6977	P	2.0
6	☐	200.000	199.893	916014.08	1.3913	P	1.0

y = 0.0070 * x + 0.0010
R = 1.0000
DL = 0.02096
BEC = 0.1447

Weight: <None>
Min Conc: <None>

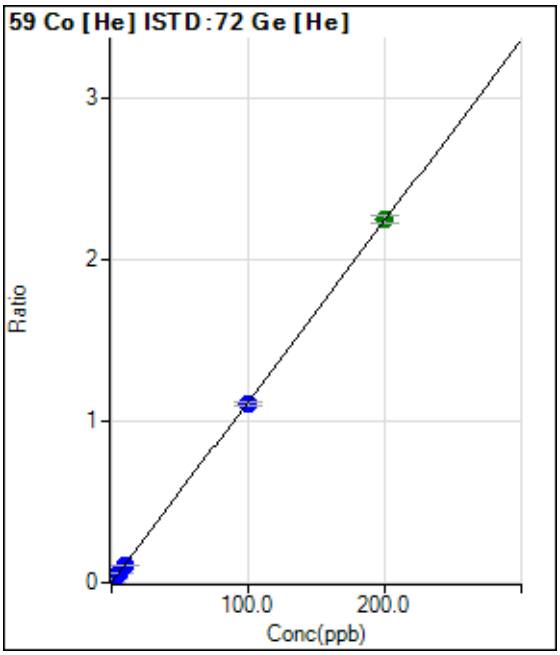


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23119.88	0.0332	P	0.4
2	☐	200.000	209.188	1106478.37	1.5787	A	2.2
3	☐	500.000	521.334	2662305.07	3.8847	A	2.3
4	☐	1000.000	1021.426	5164050.24	7.5793	A	1.4
5	☐	10000.000	9939.462	49751764.26	73.4634	A	1.9
6	☐	20000.000	20028.572	97438321.88	147.9991	A	1.7

y = 0.0074 * x + 0.0332
R = 1.0000
DL = 0.05498
BEC = 4.499

Weight: <None>
Min Conc: <None>

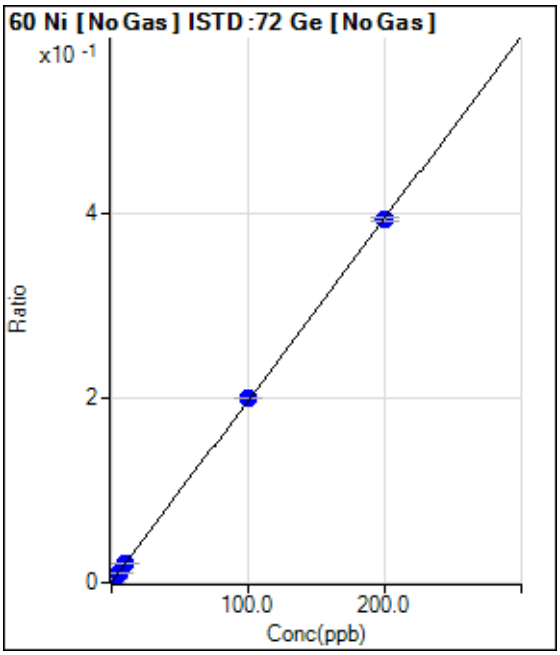
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0002	P	8.2
2	☐	2.000	1.988	15722.66	0.0224	P	0.8
3	☐	5.000	4.968	38220.71	0.0558	P	1.3
4	☐	10.000	10.036	76604.46	0.1124	P	0.6
5	☐	100.000	98.914	749238.56	1.1063	P	1.7
6	☐	200.000	200.542	1476640.81	2.2428	A	2.2

y = 0.0112 * x + 2.0138E-004
R = 1.0000
DL = 0.004429
BEC = 0.01801

Weight: <None>
Min Conc: <None>

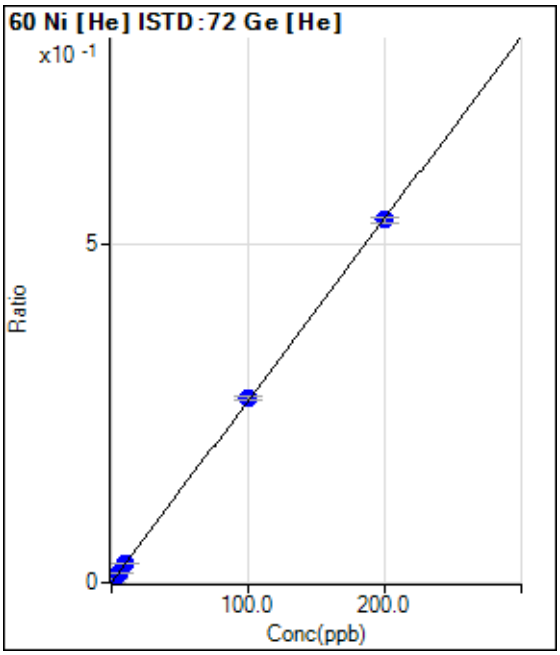


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	576.69	0.0003	P	13.0
2	☐	2.000	2.097	10113.90	0.0044	P	1.7
3	☐	5.000	5.227	23607.38	0.0105	P	1.5
4	☐	10.000	10.133	44914.23	0.0202	P	1.7
5	☐	100.000	101.421	436295.65	0.1998	P	0.6
6	☐	200.000	199.276	834352.30	0.3924	P	1.0

y = 0.0020 * x + 2.5161E-004
R = 1.0000
DL = 0.04968
BEC = 0.1279

Weight: <None>
Min Conc: <None>

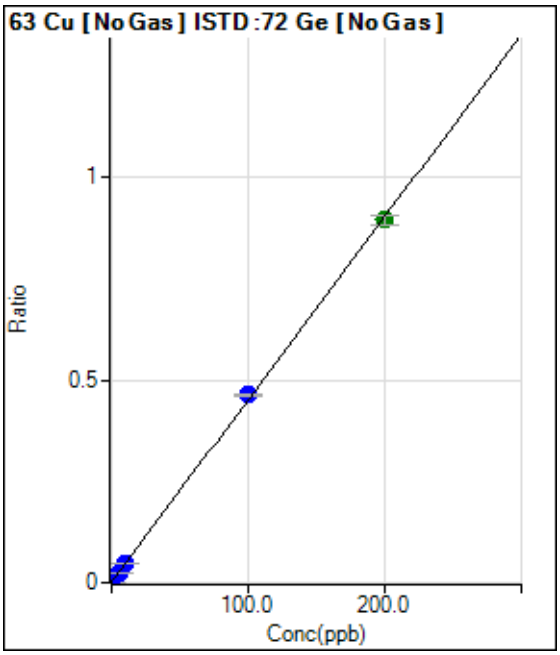
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190.00	0.0003	P	30.3
2	☐	2.000	2.169	4280.74	0.0061	P	3.1
3	☐	5.000	5.097	9580.20	0.0140	P	3.9
4	☐	10.000	10.129	18743.14	0.0275	P	2.9
5	☐	100.000	101.280	184633.98	0.2726	P	1.6
6	☐	200.000	199.350	353106.50	0.5363	P	1.6

y = 0.0027 * x + 2.7372E-004
R = 1.0000
DL = 0.09253
BEC = 0.1018

Weight: <None>
Min Conc: <None>

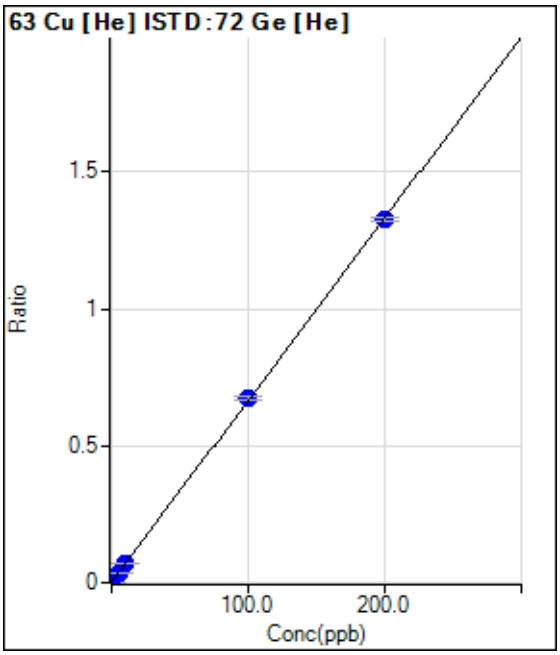


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2606.97	0.0011	P	6.4
2	☐	2.000	2.436	27962.37	0.0121	P	0.8
3	☐	5.000	5.250	55493.21	0.0248	P	1.9
4	☐	10.000	10.502	107673.70	0.0484	P	0.5
5	☐	100.000	102.916	1013918.40	0.4644	P	1.1
6	☐	200.000	198.506	1902099.40	0.8946	A	2.8

y = 0.0045 * x + 0.0011
R = 0.9999
DL = 0.04823
BEC = 0.2526

Weight: <None>
Min Conc: <None>

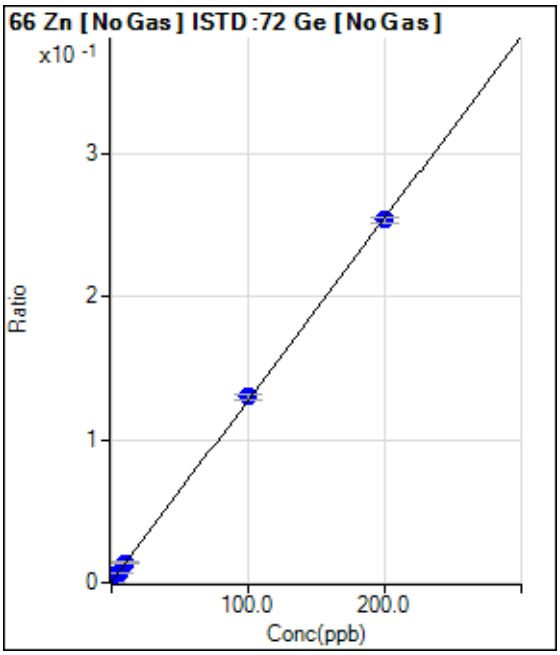
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1090.07	0.0016	P	18.4
2	☐	2.000	2.510	12776.20	0.0182	P	3.4
3	☐	5.000	5.145	24475.62	0.0357	P	2.8
4	☐	10.000	10.314	47710.44	0.0700	P	0.4
5	☐	100.000	101.296	456377.61	0.6739	P	1.7
6	☐	200.000	199.328	872070.15	1.3245	P	1.0

y = 0.0066 * x + 0.0016
R = 1.0000
DL = 0.1303
BEC = 0.2364

Weight: <None>
Min Conc: <None>

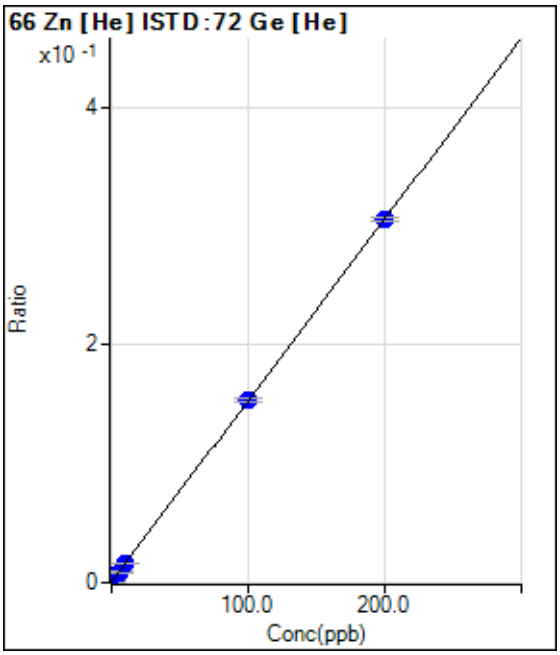


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1300.08	0.0006	P	10.2
2	☐	2.000	3.572	11801.99	0.0051	P	5.5
3	☐	5.000	5.192	16053.04	0.0072	P	3.7
4	☐	10.000	10.622	31283.12	0.0141	P	2.7
5	☐	100.000	101.642	283226.63	0.1297	P	2.2
6	☐	200.000	199.127	539281.08	0.2536	P	1.3

y = 0.0013 * x + 5.6720E-004
R = 0.9999
DL = 0.137
BEC = 0.4464

Weight: <None>
Min Conc: <None>

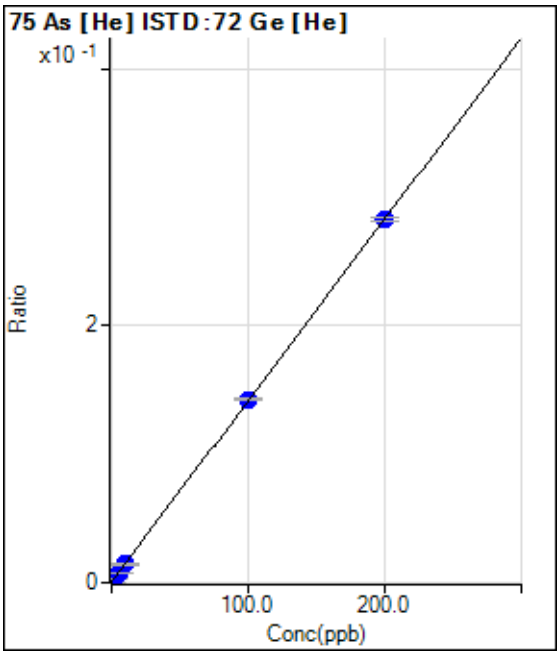
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	503.35	0.0007	P	25.7
2	☐	2.000	3.553	4304.08	0.0061	P	1.7
3	☐	5.000	5.245	5978.09	0.0087	P	4.3
4	☐	10.000	10.322	11214.79	0.0165	P	1.5
5	☐	100.000	100.517	104254.88	0.1539	P	1.9
6	☐	200.000	199.703	200893.04	0.3051	P	1.2

y = 0.0015 * x + 7.2493E-004
R = 1.0000
DL = 0.3669
BEC = 0.4756

Weight: <None>
Min Conc: <None>

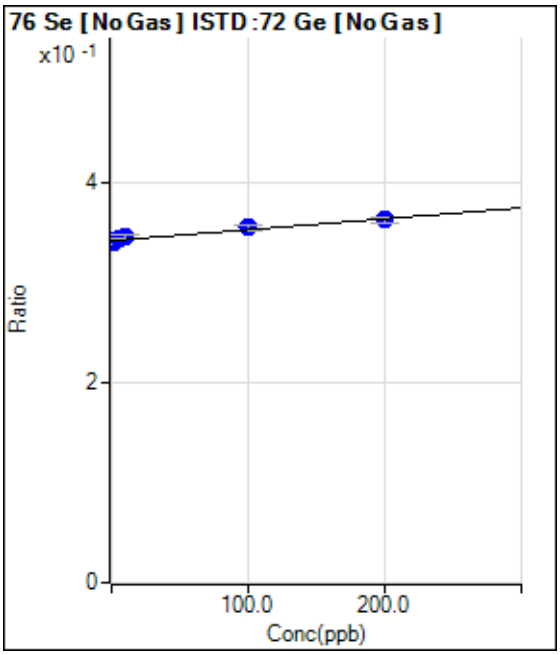


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	401.12	0.0006	P	9.1
2	☐	2.000	2.017	2398.00	0.0034	P	3.3
3	☐	5.000	5.016	5243.26	0.0076	P	3.5
4	☐	10.000	9.804	9812.49	0.0144	P	3.6
5	☐	100.000	100.594	96462.98	0.1424	P	1.5
6	☐	200.000	199.712	185796.08	0.2822	P	1.2

y = 0.0014 * x + 5.7635E-004
R = 1.0000
DL = 0.1117
BEC = 0.4087

Weight: <None>
Min Conc: <None>

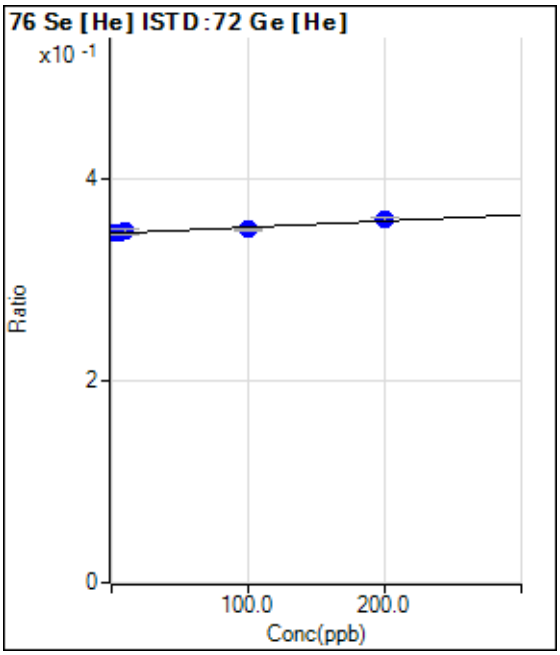
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	786163.95	0.3429	P	0.6
2	☐	2.000	-16.364	788104.05	0.3411	P	0.7
3	☐	5.000	20.715	773333.11	0.3452	P	0.5
4	☐	10.000	31.021	770192.72	0.3463	P	1.1
5	☐	100.000	119.078	777196.13	0.3560	P	1.5
6	☐	200.000	189.201	773308.82	0.3637	P	1.3

y = 1.0977E-004 * x + 0.3429
R = 0.9790
DL = 59.33
BEC = 3124

Weight: <None>
Min Conc: <None>

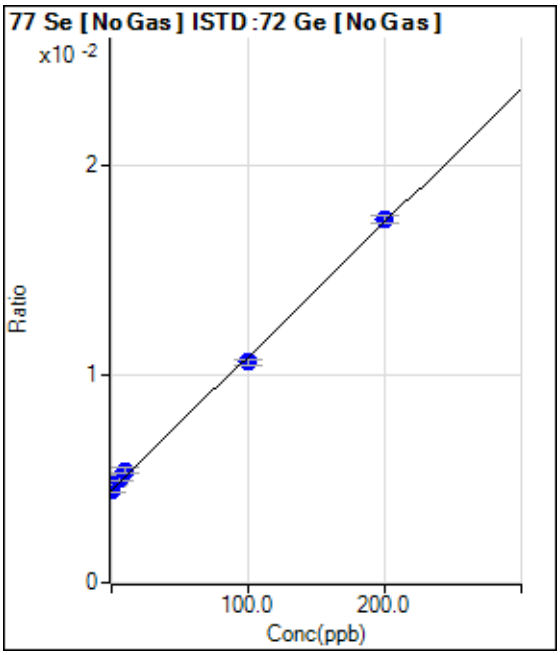


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	240572.72	0.3458	P	0.7
2	☐	2.000	17.684	243177.68	0.3469	P	0.7
3	☐	5.000	-2.951	236933.52	0.3457	P	0.3
4	☐	10.000	29.778	236860.92	0.3477	P	1.7
5	☐	100.000	64.183	236924.22	0.3498	P	0.4
6	☐	200.000	216.961	236480.30	0.3592	P	1.0

y = 6.1548E-005 * x + 0.3458
R = 0.9670
DL = 114.4
BEC = 5619

Weight: <None>
Min Conc: <None>

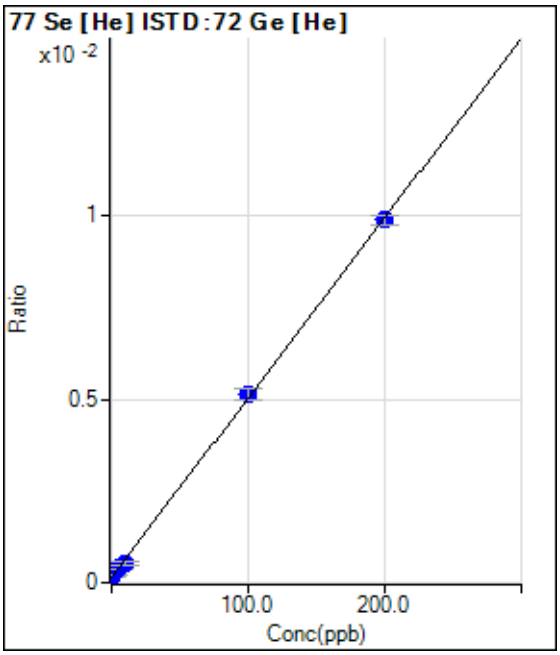
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10214.06	0.0045	P	7.4
2	☐	2.000	4.673	10984.65	0.0048	P	1.6
3	☐	5.000	8.528	11204.87	0.0050	P	4.9
4	☐	10.000	14.372	11962.19	0.0054	P	4.7
5	☐	100.000	95.417	23090.08	0.0106	P	2.0
6	☐	200.000	201.958	37004.51	0.0174	P	2.2

y = 6.4115E-005 * x + 0.0045
R = 0.9993
DL = 15.48
BEC = 69.48

Weight: <None>
Min Conc: <None>

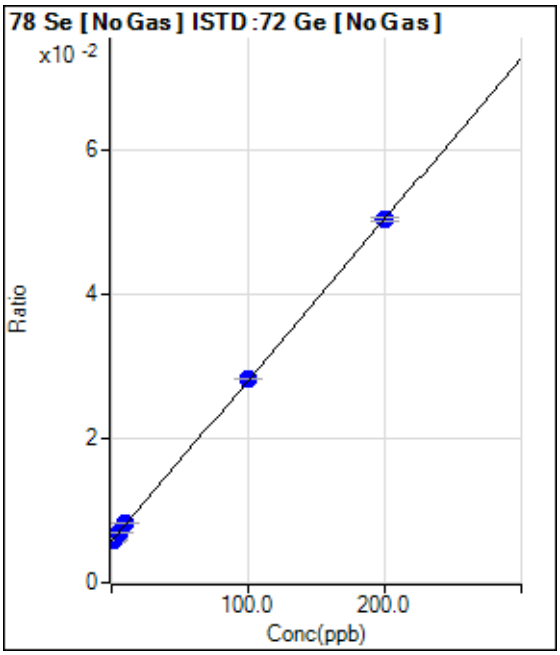


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	96.67	0.0001	P	7.0
2	☐	2.000	2.793	193.34	0.0003	P	30.8
3	☐	5.000	5.581	283.34	0.0004	P	28.8
4	☐	10.000	8.033	363.34	0.0005	P	17.5
5	☐	100.000	102.090	3483.85	0.0051	P	6.1
6	☐	200.000	199.031	6518.34	0.0099	P	2.8

y = 4.9054E-005 * x + 1.3903E-004
R = 0.9998
DL = 0.5912
BEC = 2.834

Weight: <None>
Min Conc: <None>

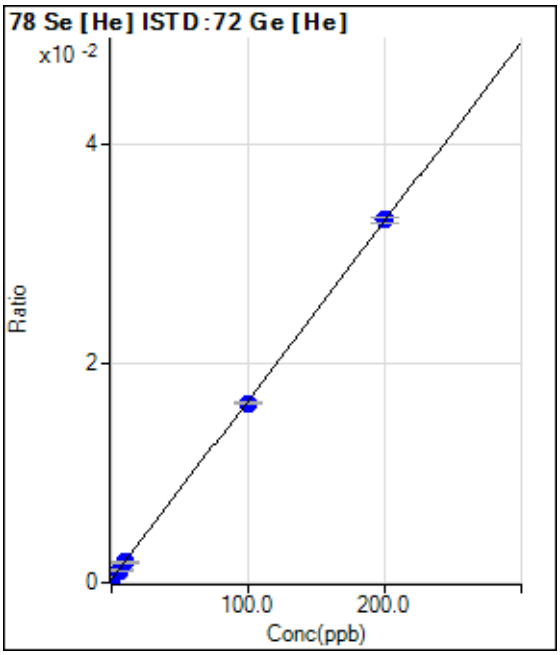
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13193.33	0.0058	P	6.7
2	☐	2.000	0.972	13797.26	0.0060	P	1.4
3	☐	5.000	5.324	15559.19	0.0069	P	1.0
4	☐	10.000	10.940	18239.24	0.0082	P	0.8
5	☐	100.000	100.858	61798.16	0.0283	P	0.6
6	☐	200.000	199.526	107089.85	0.0504	P	1.1

y = 2.2355E-004 * x + 0.0058
R = 1.0000
DL = 5.21
BEC = 25.74

Weight: <None>
Min Conc: <None>

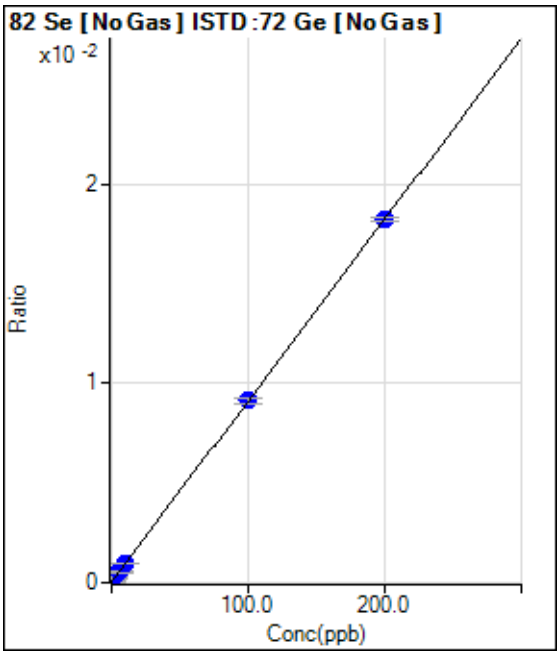


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	203.33	0.0003	P	5.8
2	☐	2.000	2.181	454.68	0.0006	P	11.8
3	☐	5.000	5.033	764.03	0.0011	P	6.4
4	☐	10.000	9.647	1273.40	0.0019	P	5.6
5	☐	100.000	98.532	11108.59	0.0164	P	1.6
6	☐	200.000	200.749	21800.27	0.0331	P	1.7

y = 1.6350E-004 * x + 2.9226E-004
R = 1.0000
DL = 0.3112
BEC = 1.788

Weight: <None>
Min Conc: <None>

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74.48	0.0000	P	121.9
2	☐	2.000	2.566	615.03	0.0003	P	21.3
3	☐	5.000	5.783	1251.67	0.0006	P	14.0
4	☐	10.000	10.027	2101.89	0.0009	P	0.7
5	☐	100.000	100.225	19986.98	0.0092	P	3.3
6	☐	200.000	199.861	38748.20	0.0182	P	1.1

y = 9.0999E-005 * x + 3.2541E-005

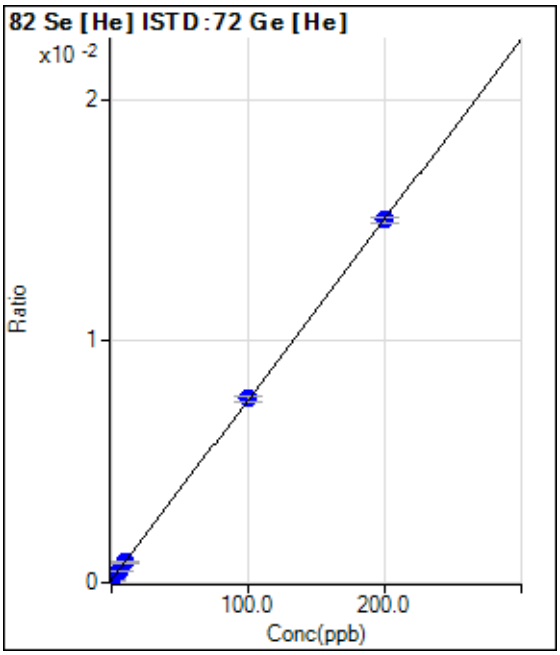
R = 1.0000

DL = 1.308

BEC = 0.3576

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0001	P	42.5
2	☐	2.000	2.406	203.34	0.0003	P	6.6
3	☐	5.000	4.972	330.01	0.0005	P	12.8
4	☐	10.000	10.124	590.02	0.0009	P	8.2
5	☐	100.000	100.498	5154.42	0.0076	P	3.8
6	☐	200.000	199.741	9883.80	0.0150	P	1.7

y = 7.4588E-005 * x + 1.1051E-004

R = 1.0000

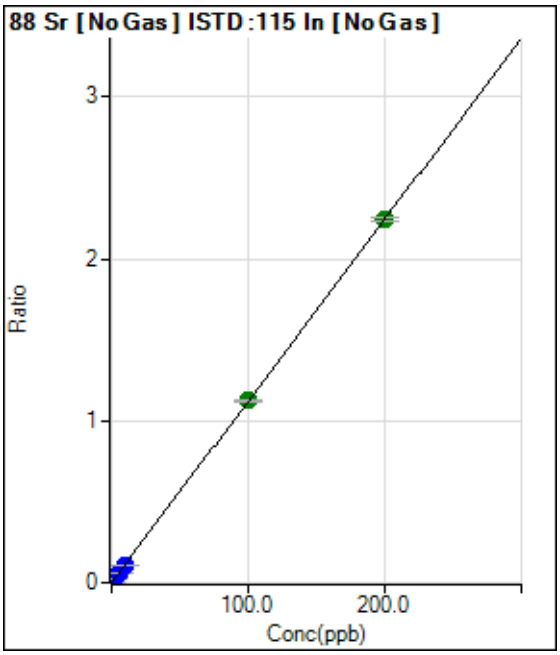
DL = 1.889

BEC = 1.482

Weight: <None>

Min Conc: <None>

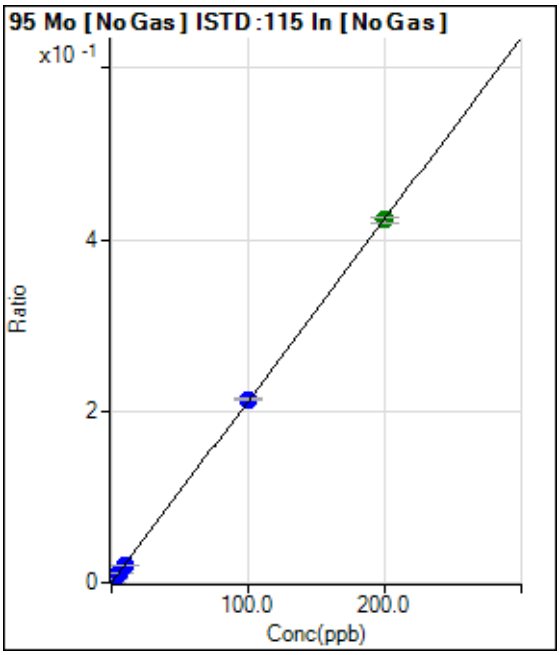
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2063.53	0.0008	P	1.5
2	☐	2.000	2.017	61069.08	0.0234	P	0.5
3	☐	5.000	5.031	145592.16	0.0571	P	1.2
4	☐	10.000	9.933	288544.70	0.1120	P	1.0
5	☐	100.000	100.148	2796544.75	1.1222	A	0.9
6	☐	200.000	199.929	5383500.96	2.2396	A	1.0

y = 0.0112 * x + 8.0004E-004
R = 1.0000
DL = 0.003112
BEC = 0.07145

Weight: <None>
Min Conc: <None>

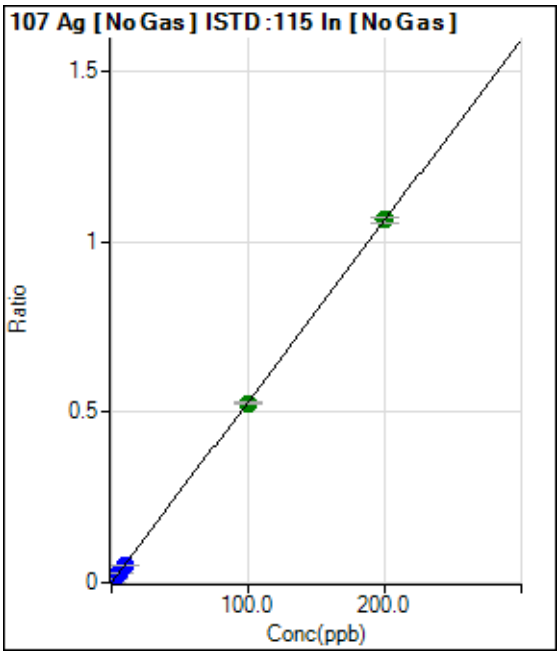


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	350.01	0.0001	P	12.5
2	☐	2.000	1.921	10981.33	0.0042	P	0.6
3	☐	5.000	4.853	26536.87	0.0104	P	2.7
4	☐	10.000	9.741	53490.85	0.0208	P	0.7
5	☐	100.000	100.653	531580.74	0.2133	P	1.2
6	☐	200.000	199.691	1016981.68	0.4231	A	1.4

y = 0.0021 * x + 1.3584E-004
R = 1.0000
DL = 0.02413
BEC = 0.06413

Weight: <None>
Min Conc: <None>

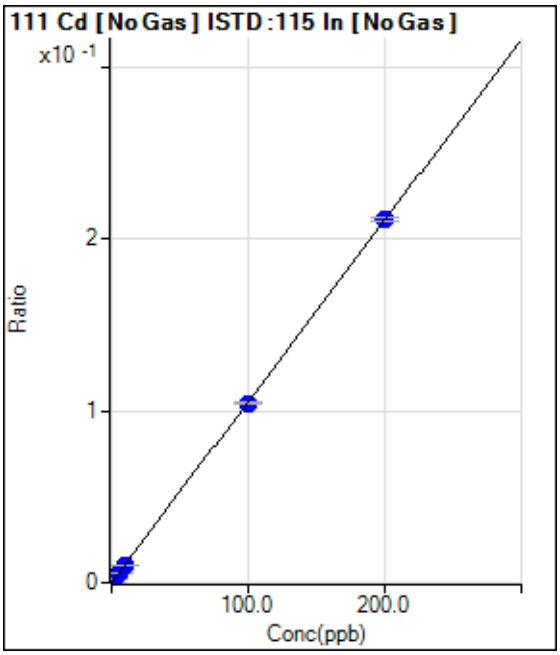
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.34	0.0000	P	79.0
2	☐	2.000	2.015	28073.41	0.0107	P	1.3
3	☐	5.000	5.015	67994.43	0.0267	P	1.6
4	☐	10.000	10.041	137513.47	0.0534	P	0.2
5	☐	100.000	99.279	1314444.15	0.5275	A	1.9
6	☐	200.000	200.358	2558622.93	1.0645	A	1.5

y = 0.0053 * x + 4.3686E-005
R = 1.0000
DL = 0.01948
BEC = 0.008223

Weight: <None>
Min Conc: <None>

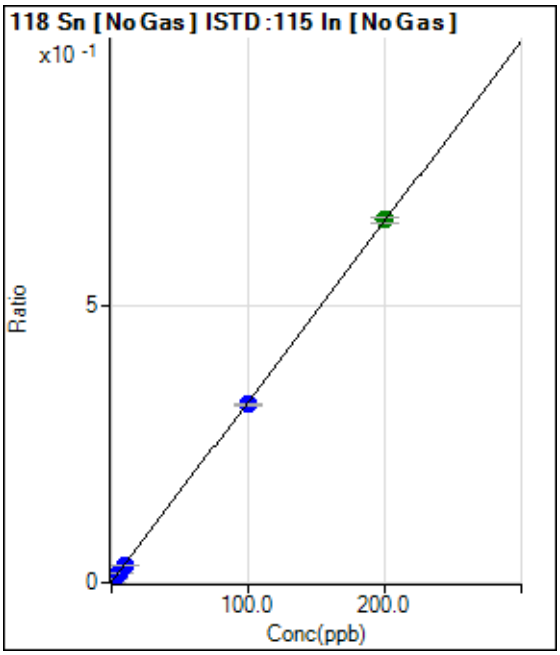


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9.51	0.0000	P	188.4
2	☐	2.000	1.938	5349.02	0.0020	P	2.2
3	☐	5.000	5.090	13686.15	0.0054	P	2.3
4	☐	10.000	9.828	26701.39	0.0104	P	3.6
5	☐	100.000	99.266	260874.07	0.1047	P	0.8
6	☐	200.000	200.374	507939.84	0.2113	P	1.1

y = 0.0011 * x + 3.7363E-006
R = 1.0000
DL = 0.02003
BEC = 0.003543

Weight: <None>
Min Conc: <None>

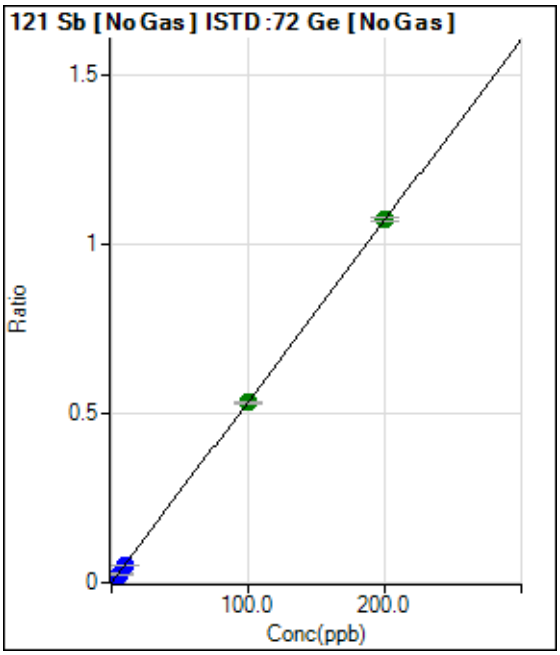
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2326.97	0.0009	P	54.2
2	☐	2.000	1.839	18052.72	0.0069	P	1.6
3	☐	5.000	4.751	41863.81	0.0164	P	0.4
4	☐	10.000	9.513	82387.37	0.0320	P	2.1
5	☐	100.000	98.367	803233.92	0.3223	P	1.3
6	☐	200.000	200.849	1579699.04	0.6572	A	1.7

y = 0.0033 * x + 9.0311E-004
R = 1.0000
DL = 0.449
BEC = 0.2764

Weight: <None>
Min Conc: <None>

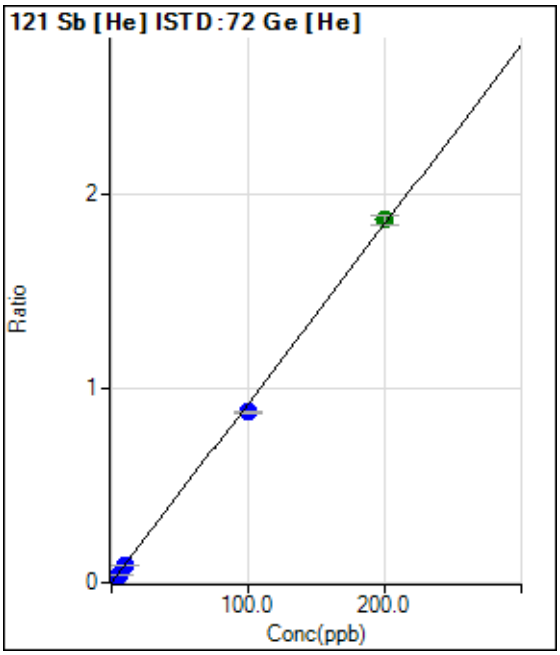


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	226.67	0.0001	P	17.9
2	☐	2.000	1.872	23387.84	0.0101	P	2.4
3	☐	5.000	4.708	56712.81	0.0253	P	2.7
4	☐	10.000	9.557	114059.28	0.0513	P	2.4
5	☐	100.000	99.382	1162485.89	0.5324	A	0.6
6	☐	200.000	200.340	2282055.33	1.0731	A	1.0

y = 0.0054 * x + 9.8878E-005
R = 1.0000
DL = 0.009916
BEC = 0.01846

Weight: <None>
Min Conc: <None>

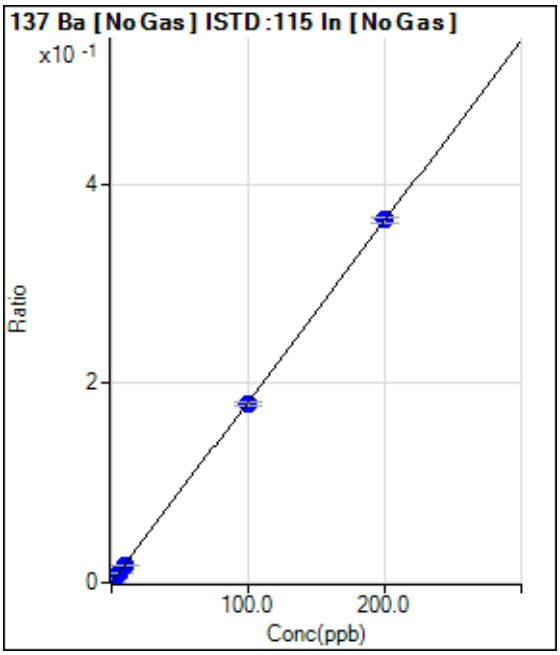
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	183.34	0.0003	P	30.6
2	☐	2.000	1.822	11945.62	0.0170	P	2.7
3	☐	5.000	4.692	29787.44	0.0435	P	1.7
4	☐	10.000	9.486	59672.32	0.0876	P	2.6
5	☐	100.000	95.132	593326.97	0.8760	P	1.1
6	☐	200.000	202.469	1227147.40	1.8642	A	2.5

y = 0.0092 * x + 2.6325E-004
R = 0.9996
DL = 0.02628
BEC = 0.0286

Weight: <None>
Min Conc: <None>

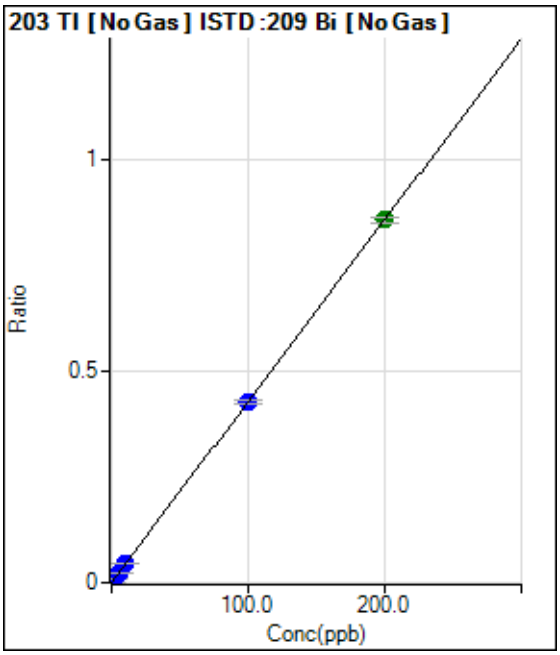


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	620.03	0.0002	P	4.7
2	☐	2.000	1.849	9400.24	0.0036	P	3.8
3	☐	5.000	4.888	23234.49	0.0091	P	1.0
4	☐	10.000	9.651	45757.50	0.0178	P	1.6
5	☐	100.000	98.919	448212.86	0.1799	P	2.0
6	☐	200.000	200.562	875973.45	0.3644	P	1.7

y = 0.0018 * x + 2.4034E-004
R = 1.0000
DL = 0.01874
BEC = 0.1323

Weight: <None>
Min Conc: <None>

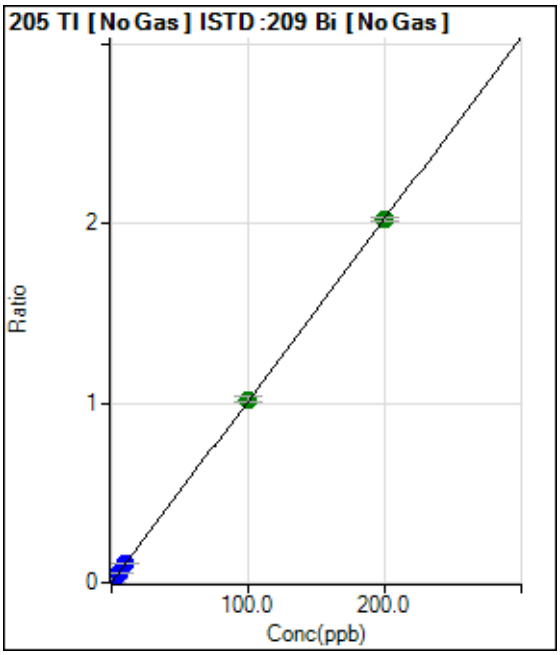
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	193.34	0.0001	P	31.1
2	☐	2.000	2.095	18193.55	0.0091	P	2.1
3	☐	5.000	5.303	43874.15	0.0228	P	1.3
4	☐	10.000	10.223	85938.17	0.0439	P	1.2
5	☐	100.000	99.773	821096.94	0.4274	P	2.4
6	☐	200.000	200.094	1590657.11	0.8571	A	1.3

y = 0.0043 * x + 9.8525E-005
R = 1.0000
DL = 0.02149
BEC = 0.023

Weight: <None>
Min Conc: <None>

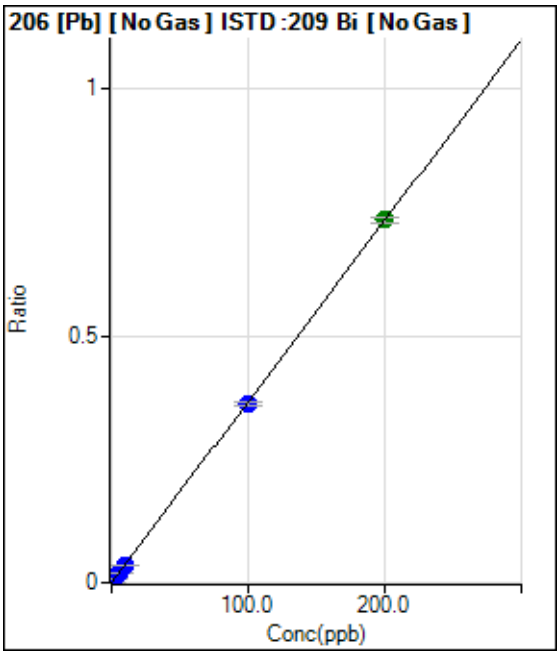


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	510.02	0.0003	P	6.9
2	☐	2.000	2.068	42469.49	0.0212	P	2.6
3	☐	5.000	5.330	104156.22	0.0542	P	3.1
4	☐	10.000	10.433	207139.90	0.1058	P	2.5
5	☐	100.000	100.810	1959430.13	1.0200	A	2.8
6	☐	200.000	199.564	3746714.11	2.0190	A	1.1

y = 0.0101 * x + 2.5865E-004
R = 1.0000
DL = 0.005264
BEC = 0.02557

Weight: <None>
Min Conc: <None>

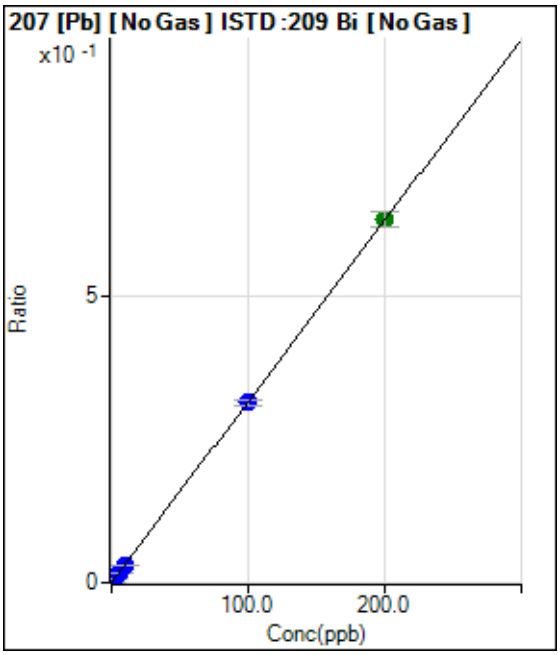
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	206.68	0.0001	P	16.1
2	☐	2.000	1.995	14879.13	0.0074	P	3.4
3	☐	5.000	5.052	35818.56	0.0186	P	2.4
4	☐	10.000	9.764	70311.56	0.0359	P	1.5
5	☐	100.000	98.952	697209.54	0.3629	P	2.5
6	☐	200.000	200.535	1364695.97	0.7354	A	1.3

y = 0.0037 * x + 1.0504E-004
R = 1.0000
DL = 0.01382
BEC = 0.02865

Weight: <None>
Min Conc: <None>

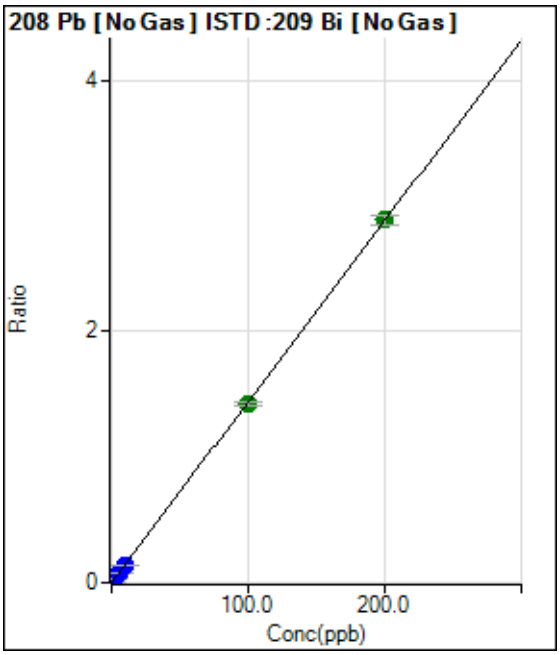


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	176.67	0.0001	P	43.5
2	☐	2.000	2.066	13290.64	0.0066	P	3.9
3	☐	5.000	4.975	30450.83	0.0158	P	1.3
4	☐	10.000	9.732	60486.96	0.0309	P	1.2
5	☐	100.000	99.290	603722.77	0.3143	P	3.2
6	☐	200.000	200.369	1176648.00	0.6342	A	4.1

y = 0.0032 * x + 8.8685E-005
R = 1.0000
DL = 0.03661
BEC = 0.02802

Weight: <None>
Min Conc: <None>

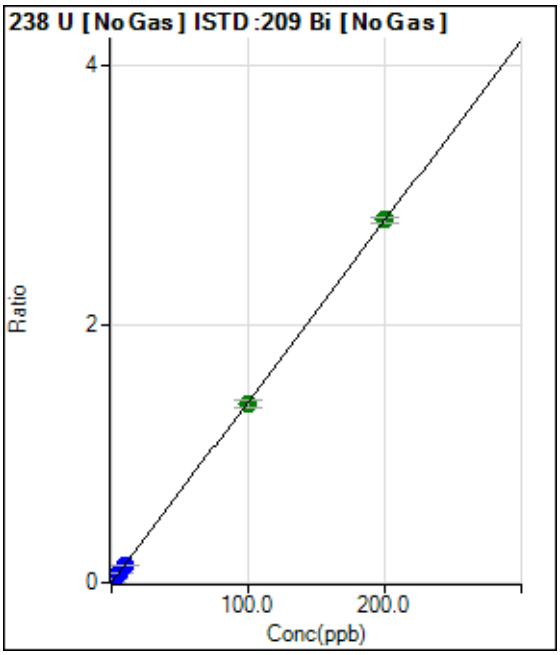
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	823.37	0.0004	P	9.0
2	☐	2.000	2.013	58965.01	0.0294	P	4.0
3	☐	5.000	5.087	141690.95	0.0737	P	2.5
4	☐	10.000	9.888	279708.48	0.1428	P	1.3
5	☐	100.000	98.708	2732027.08	1.4222	A	2.2
6	☐	200.000	200.649	5363498.30	2.8905	A	2.3

y = 0.0144 * x + 4.1672E-004
R = 1.0000
DL = 0.00783
BEC = 0.02893

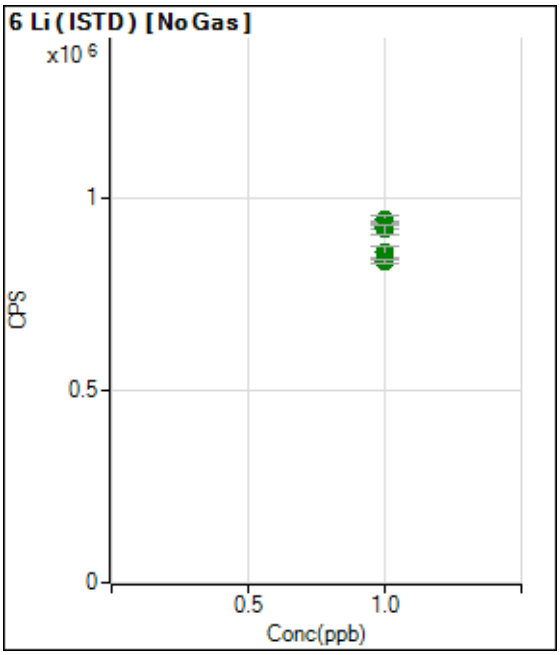
Weight: <None>
Min Conc: <None>



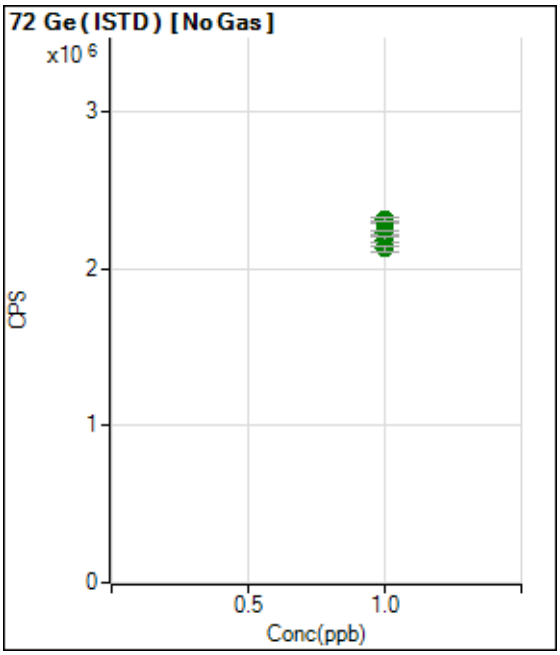
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0000	P	13.3
2	☐	2.000	1.943	54642.20	0.0273	P	3.7
3	☐	5.000	4.962	133706.43	0.0695	P	3.4
4	☐	10.000	9.712	266449.22	0.1361	P	3.0
5	☐	100.000	98.848	2659759.08	1.3849	A	3.4
6	☐	200.000	200.592	5214869.09	2.8102	A	1.6

y = 0.0140 * x + 2.8828E-005
R = 1.0000
DL = 0.0008215
BEC = 0.002058

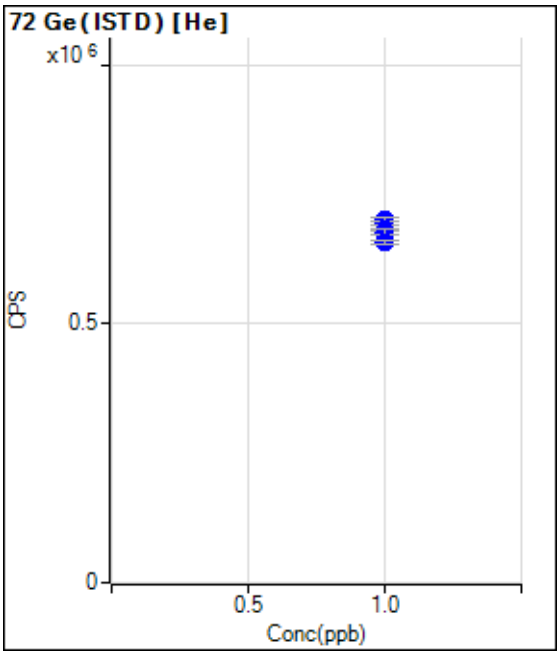
Weight: <None>
Min Conc: <None>



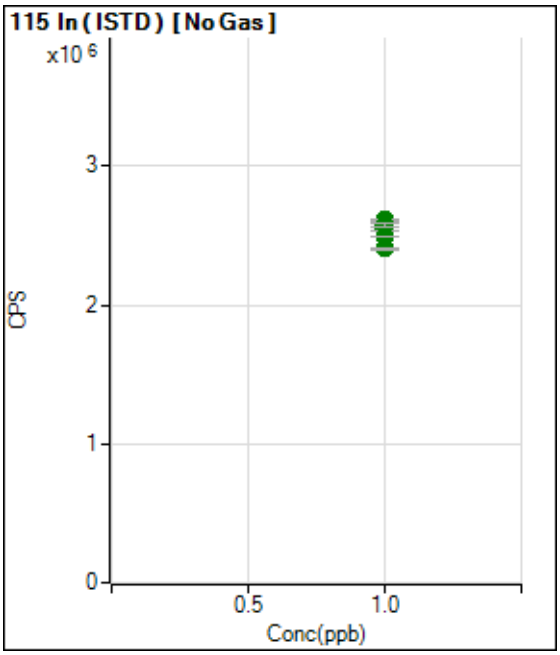
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		937352.59		A	0.4
2	☐	1.000		943893.75		A	2.1
3	☐	1.000		928015.29		A	1.5
4	☐	1.000		918557.10		A	2.8
5	☐	1.000		862100.76		A	3.3
6	☐	1.000		834092.42		A	1.1



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2292754.70		A	0.4
2	☐	1.000		2310627.36		A	0.9
3	☐	1.000		2240532.73		A	0.5
4	☐	1.000		2224293.88		A	1.2
5	☐	1.000		2183647.10		A	1.5
6	☐	1.000		2126741.59		A	1.6

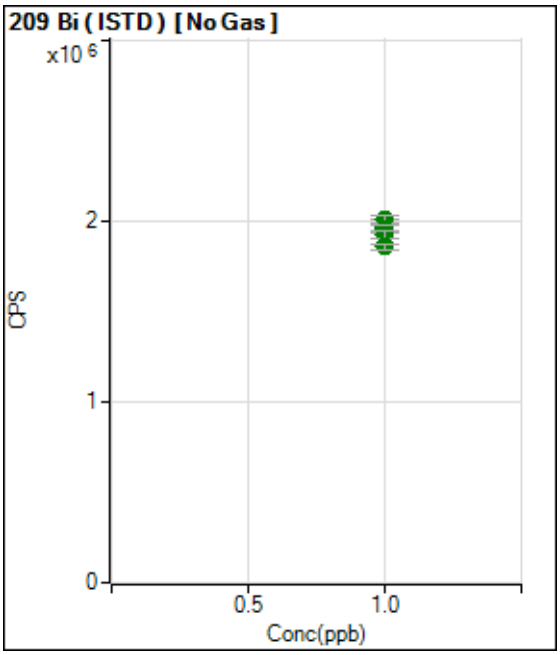


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		695601.19		P	1.1
2	☐	1.000		700979.65		P	1.0
3	☐	1.000		685462.36		P	1.3
4	☐	1.000		681341.11		P	0.8
5	☐	1.000		677376.08		P	1.9
6	☐	1.000		658437.48		P	1.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2579131.97		A	1.1
2	☐	1.000		2611940.82		A	0.4
3	☐	1.000		2548332.98		A	1.2
4	☐	1.000		2575869.25		A	1.4
5	☐	1.000		2491927.91		A	0.3
6	☐	1.000		2403824.33		A	0.9

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1971731.80		A	3.7
2	☐	1.000		2006185.54		A	2.3
3	☐	1.000		1923433.41		A	2.1
4	☐	1.000		1958550.96		A	2.0
5	☐	1.000		1921526.38		A	2.3
6	☐	1.000		1855903.67		A	1.3

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	023LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:38:35-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	014CALB.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	1.929	1.929	4.50	86513	0.00	2	
Be	9	1	No Gas	1.870	1.870	4.86	7355	0.03	2	
V	51	2	He	1.666	1.666	0.27	14425	0.01	2	
Cr	52	2	He	2.130	2.130	2.54	27334	0.01	2	
Fe	56	2	He	210.902	210.902	0.66	1089598	0.02	200	
Se	78	2	He	1.727	1.727	8.43	393	0.44	2	
As	75	2	He	1.878	1.878	3.19	2208	0.09	2	
Ca	44	2	He	191.719	191.719	4.38	9310	2.06	200	
Na	23	2	He	220.102	220.102	1.06	242092	0.09	200	
Mg	24	2	He	226.533	226.533	0.77	119139	0.19	200	
K	39	2	He	220.766	220.766	2.26	343602	0.06	200	
Mn	55	2	He	2.037	2.037	4.02	10394	0.02	2	
Co	59	2	He	2.011	2.011	2.19	15536	0.01	2	
Ni	60	2	He	2.182	2.182	6.92	4204	0.05	2	
Cu	63	2	He	2.396	2.396	1.23	11962	0.02	2	
Zn	66	2	He	3.526	3.526	8.56	4177	0.08	2	NewName Main CR1 Failed
Al	27	2	He	2.603	2.603	4.24	2974	0.09	2	NewName Main CR1 Failed
B	11	1	No Gas	13.466	13.466	1.91	39143	0.03	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.246	2.246	10.68	89990	0.00	2	
Si	28	1	No Gas	13.546	13.546	16.85	642582	0.00	10	NewName Main CR1 Failed
Ag	107	1	No Gas	2.019	2.019	4.44	27452	0.01	2	
Cd	111	1	No Gas	1.873	1.873	4.91	5053	0.04	2	
Sr	88	1	No Gas	1.980	1.980	5.49	58541	0.00	2	
Mo	95	1	No Gas	1.958	1.958	3.61	10921	0.02	2	
Sn	118	1	No Gas	1.887	1.887	5.50	18019	0.01	2	
Sb	121	1	No Gas	1.909	1.909	1.41	22964	0.01	2	
Ba	137	1	No Gas	1.965	1.965	2.25	9714	0.02	2	
Tl	205	1	No Gas	2.108	2.108	2.02	42145	0.01	2	
Tl	203	1	No Gas	2.120	2.120	2.24	17923	0.01	2	
Pb	208	1	No Gas	1.977	1.977	0.68	56421	0.00	2	
U	238	1	No Gas	1.954	1.954	2.13	53510	0.00	2	
Ca	43	2	He	200.140	200.140	10.11	560	35.74	200	
Sb	121	2	He	1.838	1.838	5.95	11772	0.02	2	
Ti	47	2	He	1.944	1.944	8.38	463	0.42	200	
Cu	63	1	No Gas	2.458	2.458	3.69	27124	0.01	2	
Se	82	1	No Gas	1.815	1.815	21.67	442	0.41	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	930387	1.31	937353	99.26	70	120	
Ge	72	2	He	684731	0.82	695601	98.44	70	120	
Ge	72	1	No Gas	2225046	3.50	2292755	97.05	70	120	
In	115	1	No Gas	2551781	4.11	2579132	98.94	70	120	
Bi	209	1	No Gas	1952335	0.33	1971732	99.02	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	024LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:40:45-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	014CALB.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	4.965	4.965	0.55	123183	0.00	5	
Be	9	1	No Gas	4.725	4.725	1.16	18327	0.03	5	
V	51	2	He	4.581	4.581	1.41	29684	0.02	5	
Cr	52	2	He	5.175	5.175	1.01	44890	0.01	5	
Fe	56	2	He	516.090	516.090	2.03	2637952	0.02	500	
Se	78	2	He	4.687	4.687	4.79	726	0.65	5	
As	75	2	He	4.921	4.921	1.23	5155	0.10	5	
Ca	44	2	He	515.802	515.802	0.34	23247	2.22	500	
Na	23	2	He	544.617	544.617	1.15	522159	0.10	500	
Mg	24	2	He	556.150	556.150	1.54	292244	0.19	500	
K	39	2	He	538.122	538.122	1.40	616755	0.09	500	
Mn	55	2	He	5.092	5.092	4.40	24987	0.02	5	
Co	59	2	He	5.048	5.048	1.50	38855	0.01	5	
Ni	60	2	He	5.180	5.180	3.57	9740	0.05	5	
Cu	63	2	He	5.098	5.098	2.65	24282	0.02	5	
Zn	66	2	He	5.341	5.341	3.96	6081	0.09	5	
Al	27	2	He	4.271	4.271	7.22	3681	0.12	5	
B	11	1	No Gas	26.877	26.877	1.06	63884	0.04	25	
Al	27	1	No Gas	4.681	4.681	4.32	122609	0.00	5	
Si	28	1	No Gas	31.717	31.717	6.32	772433	0.00	25	
Ag	107	1	No Gas	5.021	5.021	3.01	68062	0.01	5	
Cd	111	1	No Gas	4.795	4.795	0.92	12891	0.04	5	
Sr	88	1	No Gas	4.981	4.981	1.03	144133	0.00	5	
Mo	95	1	No Gas	4.877	4.877	1.28	26664	0.02	5	
Sn	118	1	No Gas	4.751	4.751	3.53	41840	0.01	5	
Sb	121	1	No Gas	4.748	4.748	3.39	56478	0.01	5	
Ba	137	1	No Gas	4.589	4.589	1.50	21842	0.02	5	
Tl	205	1	No Gas	5.155	5.155	2.46	102301	0.01	5	
Tl	203	1	No Gas	5.200	5.200	2.99	43653	0.01	5	
Pb	208	1	No Gas	4.947	4.947	2.60	139891	0.00	5	
U	238	1	No Gas	4.872	4.872	1.37	133304	0.00	5	
Ca	43	2	He	470.634	470.634	12.92	1247	37.75	500	
Sb	121	2	He	4.717	4.717	1.60	29965	0.02	5	
Ti	47	2	He	4.969	4.969	11.20	1150	0.43	5	
Cu	63	1	No Gas	5.158	5.158	0.72	53907	0.01	5	
Se	82	1	No Gas	5.226	5.226	10.60	1125	0.46	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	923155	1.21	937353	98.49	70	120	
Ge	72	2	He	685915	0.76	695601	98.61	70	120	
Ge	72	1	No Gas	2213521	2.63	2292755	96.54	70	120	

Sample Report

In	115	1	No Gas	2547785	1.87	2579132	98.78	70	120	
Bi	209	1	No Gas	1952798	3.55	1971732	99.04	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	025_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:42:53-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	-0.047	-72.6	62525	0.3	0.5	
Be	9	1	No Gas	0.008	91.4	58	51.7	0.5	
V	51	2	He	-0.306	-7.9	4125	2.8	2.5	
Cr	52	2	He	0.246	75.0	16464	5.5	2.5	
Fe	56	2	He	-0.712	-27.4	19104	4.8	100	
Se	78	2	He	-0.239	-120.6	173	17.7	1	
As	75	2	He	-0.048	-139.7	347	17.8	2.5	
Ca	44	2	He	-7.953	-27.1	747	12.1	100	
Na	23	2	He	-9.577	-4.4	44387	0.7	100	
Mg	24	2	He	0.177	65.3	600	10.9	100	
K	39	2	He	6.049	13.4	159094	1.3	100	
Mn	55	2	He	0.038	4.0	867	1.3	2.5	
Co	59	2	He	-0.001	-286.8	130	15.4	2.5	
Ni	60	2	He	0.236	20.3	620	13.8	2.5	
Cu	63	2	He	0.131	10.4	1667	4.0	1	
Zn	66	2	He	0.085	74.4	583	11.4	2.5	
Al	27	2	He	-2.468	-13.3	840	16.0	5	
B	11	1	No Gas	2.100	3.7	17326	1.4	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-2.348	-0.8	27140	1.3	5	
Si	28	1	No Gas	3.573	9.4	564473	1.2	10	
Ag	107	1	No Gas	0.008	27.5	223	14.4	2.5	
Cd	111	1	No Gas	0.001	836.6	13	205.4	1	
Sr	88	1	No Gas	-0.042	-7.5	847	10.3	2.5	
Mo	95	1	No Gas	0.007	203.2	383	19.9	2.5	
Sn	118	1	No Gas	-0.050	-26.9	1887	6.8	5	
Sb	121	1	No Gas	0.052	26.4	833	18.7	2.5	
Ba	137	1	No Gas	-0.037	-59.9	440	24.1	2.5	
Tl	205	1	No Gas	0.006	85.1	617	15.1	1	
Tl	203	1	No Gas	0.016	37.8	323	14.6	1	
Pb	208	1	No Gas	0.005	109.2	963	18.1	2.5	
U	238	1	No Gas	0.007	22.8	253	18.2	2.5	
Ca	43	2	He	-7.475	-82.7	33	45.8	100	
Sb	121	2	He	0.038	23.0	420	12.6	2.5	
Ti	47	2	He	0.017	406.8	27	57.3	2.5	
Se	82	1	No Gas	0.068	237.8	85	37.6	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	937864	0.68	937353	100.05	70	120	
Ge	72	2	He	682848	0.90	695601	98.17	70	120	
Ge	72	1	No Gas	2204599	0.87	2292755	96.16	70	120	
In	115	1	No Gas	2544857	0.98	2579132	98.67	70	120	
Bi	209	1	No Gas	1941304	0.90	1971732	98.46	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	027ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:47:32-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	-0.035	-39.3	55967	1.2	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.002	63.3	30	16.7	0	ICSA Main CR1 Failed
V	51	2	He	0.032	6.6	5554	1.2	0	ICSA Main CR1 Failed
Cr	52	2	He	1.935	7.1	24676	3.5	0	ICSA Main CR1 Failed
Fe	56	2	He	100543.361	0.5	478729193	0.6	0	
Se	78	2	He	0.028	734.1	191	11.6	0	ICSA Main CR1 Failed
As	75	2	He	0.222	9.7	573	2.5	0	ICSA Main CR1 Failed
Ca	44	2	He	94202.888	0.8	3802694	0.5	0	
Na	23	2	He	100528.132	1.1	81445509	0.4	0	
Mg	24	2	He	100367.618	1.5	49469018	0.5	0	
K	39	2	He	100690.159	1.6	81392764	0.6	0	
Mn	55	2	He	1.416	3.2	6999	3.5	0	ICSA Main CR1 Failed
Co	59	2	He	0.569	5.1	4231	4.1	0	ICSA Main CR1 Failed
Ni	60	2	He	1.078	11.0	2044	9.1	0	ICSA Main CR1 Failed
Cu	63	2	He	0.351	24.2	2510	14.1	0	ICSA Main CR1 Failed
Zn	66	2	He	2.588	7.5	3010	6.6	0	ICSA Main CR1 Failed
Al	27	2	He	95554.022	1.8	37794242	0.9	0	
B	11	1	No Gas	3.341	3.4	17598	1.5	0	
Al	27	1	No Gas	92073.881	0.7	1168439209	0.5	0	
Si	28	1	No Gas	27.122	4.1	690857	0.8	0	
Ag	107	1	No Gas	0.157	5.5	1984	4.2	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	0.444	13.3	1066	11.4	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	4.621	1.4	118793	0.9	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1969.267	1.1	9429339	1.2	0	
Sn	118	1	No Gas	-0.057	-25.6	1623	7.3	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.257	3.6	3054	3.8	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.569	13.1	2877	8.9	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.004	22.0	513	4.1	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.006	129.4	210	26.5	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.186	1.6	5247	0.3	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.008	18.2	250	13.9	0	ICSA Main CR1 Failed
Ca	43	2	He	97285.501	1.3	232124	0.5	0	
Sb	121	2	He	0.231	5.1	1540	5.5	0	ICSA Main CR1 Failed
Ti	47	2	He	2044.673	1.4	435829	0.4	0	
Se	82	1	No Gas	0.747	25.2	208	17.4	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	837389	0.92	937353	89.34	70	120	
Ge	72	2	He	644496	1.05	695601	92.65	70	120	
Ge	72	1	No Gas	2069747	0.47	2292755	90.27	70	120	
In	115	1	No Gas	2260918	1.99	2579132	87.66	70	120	
Bi	209	1	No Gas	1691835	1.12	1971732	85.80	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	028ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:49:32-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	94.910	2.226	1163780	0.08	100	94.9	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	94.120	2.904	345154	1.10	100	94.1	80	120	
V	51	2	He	101.414	1.624	514781	0.86	100	101.4	80	120	
Cr	52	2	He	100.698	0.963	570864	0.14	100	100.7	80	120	
Fe	56	2	He	108949.041	1.127	530466872	0.38	100	108949.0	80	120	
Se	78	2	He	104.391	1.235	11441	0.72	100	104.4	80	120	
As	75	2	He	102.517	1.374	95654	0.69	100	102.5	80	120	
Ca	44	2	He	102698.857	0.407	4239487	0.78	100	102698.9	80	120	
Na	23	2	He	110722.918	1.603	91727292	0.80	100	110722.9	80	120	
Mg	24	2	He	109183.706	1.631	55031951	0.86	100	109183.7	80	120	
K	39	2	He	108932.534	0.478	90043245	0.67	100	108932.5	80	120	
Mn	55	2	He	100.360	1.733	460665	0.91	100	100.4	80	120	
Co	59	2	He	98.446	0.982	725672	0.95	100	98.4	80	120	
Ni	60	2	He	97.586	1.319	173132	1.48	100	97.6	80	120	
Cu	63	2	He	98.673	1.236	432633	0.80	100	98.7	80	120	
Zn	66	2	He	101.931	1.362	102878	1.27	100	101.9	80	120	
Al	27	2	He	94973.732	1.525	38416250	0.91	100	94973.7	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	478.232	1.331	868311	1.21	100	478.2	80	120	
Al	27	1	No Gas	89918.836	3.028	1204871395	1.42	100	89918.8	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	506.556	2.821	4189396	0.65	100	506.6	80	120	
Ag	107	1	No Gas	96.539	2.679	1202359	1.81	100	96.5	80	120	
Cd	111	1	No Gas	99.501	3.432	245920	0.73	100	99.5	80	120	
Sr	88	1	No Gas	106.544	3.318	2797931	0.74	100	106.5	80	120	
Mo	95	1	No Gas	2082.416	2.345	10339055	1.00	100	2082.4	80	120	
Sn	118	1	No Gas	99.733	1.684	766137	1.23	100	99.7	80	120	
Sb	121	1	No Gas	95.551	1.905	1118747	0.67	100	95.6	80	120	
Ba	137	1	No Gas	101.352	1.665	432034	1.40	100	101.4	80	120	
Tl	205	1	No Gas	97.515	3.028	1705027	0.80	100	97.5	80	120	
Tl	203	1	No Gas	97.459	3.404	721444	0.75	100	97.5	80	120	
Pb	208	1	No Gas	100.543	3.729	2502907	1.22	100	100.5	80	120	
U	238	1	No Gas	106.582	3.334	2580087	0.64	100	106.6	80	120	
Ca	43	2	He	106325.444	2.094	259418	1.29	100	106325.4	80	120	
Sb	121	2	He	96.115	1.013	583302	0.29	100	96.1	80	120	
Ti	47	2	He	2144.670	0.903	467503	0.09	100	2144.7	80	120	
Cu	63	1	No Gas	97.473	3.135	961255	1.23	100	97.5	80	120	
Se	82	1	No Gas	97.529	2.209	19469	1.18	100	97.5	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	874199	2.02	937353	93.26	70	120	
Ge	72	2	He	659070	0.82	695601	94.75	70	120	
Ge	72	1	No Gas	2186172	1.86	2292755	95.35	70	120	
In	115	1	No Gas	2345028	2.82	2579132	90.92	70	120	
Bi	209	1	No Gas	1728941	2.74	1971732	87.69	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	031_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:57:06-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
n	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	99.747	2.509	1230150	2.04	100	99.7	90	110	
Be	9	1	No Gas	98.426	0.725	363966	0.31	100	98.4	90	110	
V	51	2	He	102.014	1.222	531949	0.49	100	102.0	90	110	
Cr	52	2	He	101.443	0.602	590704	0.22	100	101.4	90	110	
Fe	56	2	He	10267.140	1.259	51377594	1.11	10000	102.7	90	110	
Se	78	2	He	101.122	1.265	11391	0.48	100	101.1	90	110	
As	75	2	He	101.847	0.789	97630	0.13	100	101.8	90	110	
Ca	44	2	He	10086.273	0.401	428711	0.44	10000	100.9	90	110	
Na	23	2	He	10275.728	0.975	8793055	0.41	10000	102.8	90	110	
Mg	24	2	He	10276.340	1.549	5321587	0.80	10000	102.8	90	110	
K	39	2	He	10104.337	2.380	8718126	1.79	10000	101.0	90	110	
Mn	55	2	He	102.161	1.135	481749	0.47	100	102.2	90	110	
Co	59	2	He	100.847	0.868	763667	0.50	100	100.8	90	110	
Ni	60	2	He	103.441	1.811	188527	2.14	100	103.4	90	110	
Cu	63	2	He	103.167	0.980	464654	0.58	100	103.2	90	110	
Zn	66	2	He	102.871	1.088	106657	0.45	100	102.9	90	110	
Al	27	2	He	99.888	1.927	43365	1.35	100	99.9	90	110	
B	11	1	No Gas	497.730	3.041	910623	3.27	500	99.5	90	110	
Al	27	1	No Gas	100.441	1.777	1448863	1.27	100	100.4	90	110	
Si	28	1	No Gas	494.418	2.713	4231969	1.77	5000	9.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.753	1.964	1341586	0.32	100	98.8	90	110	
Cd	111	1	No Gas	98.975	1.043	266923	0.91	100	99.0	90	110	
Sr	88	1	No Gas	100.357	1.599	2875569	0.06	100	100.4	90	110	
Mo	95	1	No Gas	99.123	1.017	537216	0.78	100	99.1	90	110	
Sn	118	1	No Gas	98.316	1.537	823823	0.51	100	98.3	90	110	
Sb	121	1	No Gas	98.484	2.245	1189497	0.73	100	98.5	90	110	
Ba	137	1	No Gas	98.220	1.217	456717	1.09	100	98.2	90	110	
Tl	205	1	No Gas	102.706	1.084	2013137	0.68	100	102.7	90	110	
Tl	203	1	No Gas	101.228	2.160	840032	0.93	100	101.2	90	110	
Pb	208	1	No Gas	99.578	0.427	2779566	1.36	100	99.6	90	110	
U	238	1	No Gas	99.409	1.062	2697936	0.40	100	99.4	90	110	
Ca	43	2	He	10048.418	0.396	25237	1.15	10000	100.5	90	110	
Sb	121	2	He	97.615	1.041	608595	0.70	100	97.6	90	110	
Ti	47	2	He	100.948	0.316	22629	1.00	100	100.9	90	110	
Cu	63	1	No Gas	102.158	1.254	1039446	0.65	100	102.2	90	110	
Se	82	1	No Gas	96.003	5.920	19763	4.34	100	96.0	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	881202	0.43	937353	94.01	70	120	
Ge	72	2	He	677074	0.77	695601	97.34	70	120	
Ge	72	1	No Gas	2255237	1.59	2292755	98.36	70	120	
In	115	1	No Gas	2557460	1.66	2579132	99.16	70	120	
Bi	209	1	No Gas	1937352	1.28	1971732	98.26	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	032_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:58:58-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	0.149	61.1	64319	1.4	0.5	
Be	9	1	No Gas	0.095	6.4	393	3.9	0.5	
V	51	2	He	-0.238	-2.6	4494	0.5	2.5	
Cr	52	2	He	0.246	20.1	16527	1.5	2.5	
Fe	56	2	He	4.668	22.6	46396	11.5	100	
Se	78	2	He	-0.145	-118.6	184	10.4	2	
As	75	2	He	-0.004	-1084.8	391	10.5	2.5	
Ca	44	2	He	1.005	421.4	1133	15.8	100	
Na	23	2	He	-7.967	-13.6	45919	2.1	100	
Mg	24	2	He	6.271	14.8	3794	12.6	100	
K	39	2	He	16.223	28.5	168333	2.3	100	
Mn	55	2	He	0.106	29.7	1197	12.8	2.5	
Co	59	2	He	0.038	8.9	430	6.2	2.5	
Ni	60	2	He	0.193	23.9	543	15.7	2.5	
Cu	63	2	He	0.781	3.2	4628	2.3	2	
Zn	66	2	He	0.884	9.2	1420	6.1	2.5	
Al	27	2	He	-1.643	-2.1	1190	1.5	5	
B	11	1	No Gas	9.254	16.1	30719	7.2	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.547	-4.2	39122	1.3	5	
Si	28	1	No Gas	-0.020	-6590.3	554539	0.9	10	
Ag	107	1	No Gas	0.087	9.9	1337	9.4	2.5	
Cd	111	1	No Gas	0.088	16.5	255	16.2	1	
Sr	88	1	No Gas	0.054	3.9	3707	1.3	2.5	
Mo	95	1	No Gas	0.203	18.0	1490	13.4	2.5	
Sn	118	1	No Gas	0.365	113.0	5531	64.7	5	
Sb	121	1	No Gas	0.207	6.6	2737	6.0	2.5	
Ba	137	1	No Gas	-0.005	-181.7	607	7.8	2.5	
Tl	205	1	No Gas	0.492	27.9	10582	27.8	1	
Tl	203	1	No Gas	0.490	29.3	4444	29.2	1	
Pb	208	1	No Gas	0.093	4.2	3530	2.0	2.5	
U	238	1	No Gas	0.103	7.3	2980	7.6	2.5	
Ca	43	2	He	8.219	73.3	73	20.8	100	
Sb	121	2	He	0.113	2.7	890	1.9	2.5	
Ti	47	2	He	0.031	141.4	30	33.3	2.5	
Cu	63	1	No Gas	0.872	1.6	11495	1.2	2.5	
Se	82	1	No Gas	-0.188	-108.2	35	119.8	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	928600	2.09	937353	99.07	70	120	
Ge	72	2	He	685066	0.23	695601	98.49	70	120	
Ge	72	1	No Gas	2271377	1.11	2292755	99.07	70	120	
In	115	1	No Gas	2633711	0.36	2579132	102.12	70	120	
Bi	209	1	No Gas	2016416	1.28	1971732	102.27	70	120	

Sample Report

Sample Table

Sample Name	LCS-197423
Data File Name	033SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:01:24-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423TI
ISTD Ref FileName	014CALB.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	93.009	93.009	2.19	1242636	0.01	2000	
Be	9	1	No Gas	49.815	49.815	2.78	198858	0.03	2000	
V	51	2	He	51.114	51.114	1.13	282130	0.02	2000	
Cr	52	2	He	51.102	51.102	0.56	319430	0.02	2000	
Fe	56	2	He	5289.865	5289.865	0.26	27736688	0.02	200000	
Se	78	2	He	51.560	51.560	2.15	6185	0.83	2000	
As	75	2	He	52.395	52.395	0.84	52805	0.10	2000	
Ca	44	2	He	5281.189	5281.189	1.21	235641	2.24	200000	
Na	23	2	He	5258.772	5258.772	1.27	4739819	0.11	200000	
Mg	24	2	He	5433.274	5433.274	1.48	2947267	0.18	200000	
K	39	2	He	5333.555	5333.555	0.61	4895805	0.11	200000	
Mn	55	2	He	52.247	52.247	0.99	258410	0.02	2000	
Co	59	2	He	51.696	51.696	0.88	410088	0.01	2000	
Ni	60	2	He	52.647	52.647	1.63	100586	0.05	2000	
Cu	63	2	He	52.990	52.990	1.20	250512	0.02	2000	
Zn	66	2	He	54.296	54.296	2.10	59206	0.09	2000	
Al	27	2	He	95.477	95.477	0.44	43502	0.22	2000	
B	11	1	No Gas	461.325	461.325	2.30	912049	0.05	2000	
Al	27	1	No Gas	96.223	96.223	3.10	1460668	0.01	2000	
Si	28	1	No Gas	529.109	529.109	1.12	4717413	0.01	2000	
Ag	107	1	No Gas	51.683	51.683	0.65	722880	0.01	2000	
Cd	111	1	No Gas	52.069	52.069	0.11	144552	0.04	2000	
Sr	88	1	No Gas	96.414	96.414	1.18	2843937	0.00	2000	
Mo	95	1	No Gas	51.020	51.020	0.55	284803	0.02	2000	
Sn	118	1	No Gas	92.412	92.412	0.74	797236	0.01	2000	
Sb	121	1	No Gas	50.360	50.360	0.71	639154	0.01	2000	
Ba	137	1	No Gas	51.026	51.026	0.64	244549	0.02	2000	
Tl	205	1	No Gas	44.833	44.833	4.31	939263	0.00	2000	
Tl	203	1	No Gas	44.427	44.427	3.73	394143	0.01	2000	
Pb	208	1	No Gas	50.198	50.198	4.36	1497439	0.00	2000	
U	238	1	No Gas	89.929	89.929	3.43	2608361	0.00	2000	
Ca	43	2	He	5332.408	5332.408	5.31	14054	37.94	200000	
Sb	121	2	He	49.982	49.982	0.81	326471	0.02	2000	
Ti	47	2	He	134.428	134.428	1.28	31553	0.43	2000	
Cu	63	1	No Gas	53.192	53.192	2.28	569763	0.01	2000	
Zn	66	1	No Gas	53.244	53.244	1.18	161612	0.03	2000	
Se	82	1	No Gas	50.240	50.240	4.96	10902	0.46	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	951479	1.64	937353	101.51	70	120	
Ge	72	2	He	709140	0.44	695601	101.95	70	120	
Ge	72	1	No Gas	2369028	1.51	2292755	103.33	70	120	
In	115	1	No Gas	2632292	1.07	2579132	102.06	70	120	

Sample Report

Bi	209	1	No Gas	2071827	3.31	1971732	105.08	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05MS
Data File Name	034SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:03:17-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	109.920	109.920	4.83	1424275	0.01	2000	
Be	9	1	No Gas	49.187	49.187	2.63	192017	0.03	2000	
V	51	2	He	52.328	52.328	1.25	281612	0.02	2000	
Cr	52	2	He	238.823	238.823	1.25	1400245	0.02	2000	
Fe	56	2	He	85537.773	85537.773	1.12	437154833	0.02	200000	
Se	78	2	He	50.760	50.760	1.10	5943	0.85	2000	
As	75	2	He	52.092	52.092	1.24	51213	0.10	2000	
Ca	44	2	He	25667.772	25667.772	1.62	1112928	2.31	200000	
Na	23	2	He	81450.163	81450.163	1.31	70840707	0.11	200000	
Mg	24	2	He	16187.582	16187.582	1.33	8564556	0.19	200000	
K	39	2	He	8058.504	8058.504	1.84	7135675	0.11	200000	
Mn	55	2	He	971.811	971.811	1.74	4676114	0.02	2000	
Co	59	2	He	51.537	51.537	1.84	398791	0.01	2000	
Ni	60	2	He	82.925	82.925	2.07	154441	0.05	2000	
Cu	63	2	He	54.964	54.964	0.93	253431	0.02	2000	
Zn	66	2	He	57.819	57.819	2.16	61466	0.09	2000	
Al	27	2	He	126.325	126.325	1.36	55536	0.23	2000	
B	11	1	No Gas	494.392	494.392	3.99	954650	0.05	2000	
Al	27	1	No Gas	124.129	124.129	1.55	1831510	0.01	2000	
Si	28	1	No Gas	17199.216	17199.216	2.74	132533018	0.01	2000	>LDR
Ag	107	1	No Gas	49.867	49.867	1.77	674723	0.01	2000	
Cd	111	1	No Gas	51.344	51.344	0.62	137914	0.04	2000	
Sr	88	1	No Gas	485.136	485.136	2.07	13834576	0.00	2000	
Mo	95	1	No Gas	51.924	51.924	1.87	280385	0.02	2000	
Sn	118	1	No Gas	88.507	88.507	1.59	738787	0.01	2000	
Sb	121	1	No Gas	49.196	49.196	3.27	612385	0.01	2000	
Ba	137	1	No Gas	424.258	424.258	2.99	1962084	0.02	2000	
Tl	205	1	No Gas	45.130	45.130	1.45	871289	0.01	2000	
Tl	203	1	No Gas	44.512	44.512	0.38	363847	0.01	2000	
Pb	208	1	No Gas	50.230	50.230	0.80	1380864	0.00	2000	
U	238	1	No Gas	91.735	91.735	2.40	2451270	0.00	2000	
Ca	43	2	He	26181.954	26181.954	1.48	67093	39.02	200000	
Sb	121	2	He	49.663	49.663	0.64	316455	0.02	2000	
Ti	47	2	He	135.086	135.086	1.65	30928	0.44	2000	
Cu	63	1	No Gas	54.396	54.396	2.35	571592	0.01	2000	
Zn	66	1	No Gas	55.774	55.774	3.50	165975	0.03	2000	
Se	82	1	No Gas	51.303	51.303	2.83	10923	0.47	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	930595	2.42	937353	99.28	70	120	
Ge	72	2	He	691775	0.73	695601	99.45	70	120	
Ge	72	1	No Gas	2324737	2.81	2292755	101.39	70	120	
In	115	1	No Gas	2546978	2.01	2579132	98.75	70	120	

Sample Report

Bi	209	1	No Gas	1907412	0.58	1971732	96.74	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05MSD
Data File Name	035SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:05:27-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	110.511	110.511	0.88	1460719	0.01	2000	
Be	9	1	No Gas	48.644	48.644	0.88	193704	0.03	2000	
V	51	2	He	52.954	52.954	1.14	288361	0.02	2000	
Cr	52	2	He	235.593	235.593	0.75	1398194	0.02	2000	
Fe	56	2	He	85222.536	85222.536	0.20	440859767	0.02	200000	
Se	78	2	He	51.127	51.127	0.68	6057	0.84	2000	
As	75	2	He	52.823	52.823	0.96	52556	0.10	2000	
Ca	44	2	He	25968.813	25968.813	3.49	1139272	2.28	200000	
Na	23	2	He	80687.765	80687.765	2.06	71018647	0.11	200000	
Mg	24	2	He	16100.329	16100.329	1.74	8620899	0.19	200000	
K	39	2	He	8183.628	8183.628	2.35	7330783	0.11	200000	
Mn	55	2	He	974.713	974.713	2.06	4746423	0.02	2000	
Co	59	2	He	51.925	51.925	2.90	406570	0.01	2000	
Ni	60	2	He	83.281	83.281	2.24	156958	0.05	2000	
Cu	63	2	He	55.529	55.529	1.95	259091	0.02	2000	
Zn	66	2	He	57.535	57.535	2.04	61901	0.09	2000	
Al	27	2	He	128.321	128.321	3.06	57069	0.22	2000	
B	11	1	No Gas	495.400	495.400	0.67	975956	0.05	2000	
Al	27	1	No Gas	144.646	144.646	31.52	2147622	0.01	2000	
Si	28	1	No Gas	17143.627	17143.627	0.59	133953741	0.01	2000	>LDR
Ag	107	1	No Gas	49.994	49.994	0.91	681867	0.01	2000	
Cd	111	1	No Gas	50.757	50.757	0.76	137409	0.04	2000	
Sr	88	1	No Gas	493.830	493.830	1.80	14195044	0.00	2000	
Mo	95	1	No Gas	52.693	52.693	0.97	286829	0.02	2000	
Sn	118	1	No Gas	89.266	89.266	0.80	751063	0.01	2000	
Sb	121	1	No Gas	48.768	48.768	0.73	615620	0.01	2000	
Ba	137	1	No Gas	424.878	424.878	0.62	1981089	0.02	2000	
Tl	205	1	No Gas	46.137	46.137	1.54	868160	0.01	2000	
Tl	203	1	No Gas	45.419	45.419	1.66	361864	0.01	2000	
Pb	208	1	No Gas	50.950	50.950	1.28	1365190	0.00	2000	
U	238	1	No Gas	92.753	92.753	2.41	2415756	0.00	2000	
Ca	43	2	He	26185.781	26185.781	2.34	67904	38.56	200000	
Sb	121	2	He	49.545	49.545	2.70	319441	0.02	2000	
Ti	47	2	He	135.725	135.725	2.82	31446	0.43	2000	
Cu	63	1	No Gas	54.793	54.793	0.71	583758	0.01	2000	
Zn	66	1	No Gas	55.498	55.498	2.86	167467	0.03	2000	
Se	82	1	No Gas	51.997	51.997	1.05	11226	0.46	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	948868	0.41	937353	101.23	70	120	
Ge	72	2	He	700201	1.93	695601	100.66	70	120	
Ge	72	1	No Gas	2356215	1.18	2292755	102.77	70	120	
In	115	1	No Gas	2566984	1.18	2579132	99.53	70	120	

Sample Report

Bi	209	1	No Gas	1859362	1.14	1971732	94.30	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05SD
Data File Name	039SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:20:17-05:00
Sample Type	Sample
Dilution	25
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	1.317	32.914	16.00	83745	0.00	2000	
Be	9	1	No Gas	0.002	0.052	58.48	35	0.01	2000	
V	51	2	He	0.322	8.057	3.65	7942	0.00	2000	
Cr	52	2	He	9.266	231.656	1.05	73152	0.01	2000	
Fe	56	2	He	3902.554	97563.853	0.99	21170423	0.02	200000	
Se	78	2	He	-0.014	-0.343	-1167.49	213	-0.01	2000	
As	75	2	He	0.012	0.309	225.16	436	0.00	2000	
Ca	44	2	He	970.316	24257.902	1.82	45733	2.12	200000	
Na	23	2	He	3627.789	90694.729	1.18	3399449	0.11	200000	
Mg	24	2	He	565.037	14125.914	1.11	317498	0.18	200000	
K	39	2	He	144.963	3624.083	2.15	298446	0.05	200000	
Mn	55	2	He	46.599	1164.963	0.76	238450	0.02	2000	
Co	59	2	He	0.015	0.363	32.17	267	0.01	2000	
Ni	60	2	He	1.487	37.177	1.69	3134	0.05	2000	
Cu	63	2	He	0.011	0.272	257.83	1203	0.00	2000	
Zn	66	2	He	0.097	2.427	114.59	640	0.02	2000	
Al	27	2	He	-0.467	-11.677	-17.28	1803	-0.03	2000	
B	11	1	No Gas	4.868	121.711	15.09	23817	0.02	2000	
Al	27	1	No Gas	-0.449	-11.216	-18.60	57209	0.00	2000	
Si	28	1	No Gas	810.776	20269.394	2.03	6976353	0.01	2000	
Ag	107	1	No Gas	-0.001	-0.020	-180.70	107	0.00	2000	
Cd	111	1	No Gas	0.000	-0.006	-2780.79	10	0.00	2000	
Sr	88	1	No Gas	19.258	481.457	0.47	587278	0.00	2000	
Mo	95	1	No Gas	0.048	1.194	24.68	643	0.01	2000	
Sn	118	1	No Gas	-0.125	-3.121	-7.96	1343	-0.01	2000	
Sb	121	1	No Gas	0.031	0.771	17.84	630	0.00	2000	
Ba	137	1	No Gas	17.854	446.355	0.82	88621	0.02	2000	
Tl	205	1	No Gas	0.006	0.150	75.23	630	0.00	2000	
Tl	203	1	No Gas	0.009	0.225	95.84	270	0.00	2000	
Pb	208	1	No Gas	-0.006	-0.148	-32.93	653	0.00	2000	
U	238	1	No Gas	0.000	0.003	1222.87	60	0.00	2000	
Ca	43	2	He	977.579	24439.463	2.52	2710	36.07	200000	
Sb	121	2	He	0.014	0.359	36.21	290	0.00	2000	
Ti	47	2	He	0.091	2.275	68.64	47	0.20	2000	
Cu	63	1	No Gas	0.060	1.494	57.66	3357	0.00	2000	
Zn	66	1	No Gas	0.133	3.313	18.05	1757	0.01	2000	
Se	82	1	No Gas	-0.519	-12.972	-50.82	-36	1.45	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	987889	3.30	937353	105.39	70	120	
Ge	72	2	He	733439	0.33	695601	105.44	70	120	
Ge	72	1	No Gas	2388663	2.33	2292755	104.18	70	120	
In	115	1	No Gas	2713300	1.02	2579132	105.20	70	120	

Sample Report

Bi	209	1	No Gas	1971985	1.65	1971732	100.01	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05PDS
Data File Name	040SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:22:25-05:00
Sample Type	Sample
Dilution	5
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	5.442	27.211	2.60	134763	0.00	2000	
Be	9	1	No Gas	91.925	459.626	1.31	371888	0.02	2000	
V	51	2	He	99.545	497.723	0.86	549104	0.02	2000	
Cr	52	2	He	141.245	706.227	0.45	863605	0.02	2000	
Fe	56	2	He	28987.139	144935.694	1.05	153356374	0.02	200000	
Se	78	2	He	99.597	497.983	1.54	11869	0.84	2000	
As	75	2	He	99.573	497.867	1.17	100953	0.10	2000	
Ca	44	2	He	14878.020	74390.099	0.79	668228	2.23	200000	
Na	23	2	He	27611.290	138056.452	0.82	24894112	0.11	200000	
Mg	24	2	He	12678.270	63391.352	0.39	6943464	0.18	200000	
K	39	2	He	11002.109	55010.543	0.51	10025352	0.11	200000	
Mn	55	2	He	316.998	1584.990	1.76	1579335	0.02	2000	
Co	59	2	He	98.646	493.228	0.52	790001	0.01	2000	
Ni	60	2	He	107.262	536.310	1.75	206723	0.05	2000	
Cu	63	2	He	100.743	503.717	0.33	479884	0.02	2000	
Zn	66	2	He	99.897	499.486	1.14	109553	0.09	2000	
Al	27	2	He	100.888	504.438	1.30	46301	0.22	2000	
B	11	1	No Gas	12.020	60.102	2.76	37395	0.03	2000	
Al	27	1	No Gas	103.589	517.944	2.75	1576622	0.01	2000	
Si	28	1	No Gas	3958.512	19792.561	2.03	31723041	0.01	2000	>LDR
Ag	107	1	No Gas	99.704	498.522	2.13	1377208	0.01	2000	
Cd	111	1	No Gas	97.988	489.941	1.78	268674	0.04	2000	
Sr	88	1	No Gas	96.818	484.089	2.29	2820761	0.00	2000	
Mo	95	1	No Gas	100.423	502.117	0.27	553425	0.02	2000	
Sn	118	1	No Gas	-0.118	-0.591	-22.48	1343	-0.01	2000	
Sb	121	1	No Gas	91.775	458.874	4.47	1171036	0.01	2000	
Ba	137	1	No Gas	186.108	930.541	0.55	879358	0.02	2000	
Tl	205	1	No Gas	99.060	495.301	3.12	1933782	0.01	2000	
Tl	203	1	No Gas	100.332	501.660	3.51	829236	0.01	2000	
Pb	208	1	No Gas	94.913	474.564	1.89	2638685	0.00	2000	
U	238	1	No Gas	0.005	0.027	50.33	200	0.00	2000	
Ca	43	2	He	14907.249	74536.247	0.93	39567	37.68	200000	
Sb	121	2	He	92.474	462.372	0.91	609746	0.02	2000	
Ti	47	2	He	100.006	500.030	0.61	23707	0.42	2000	
Cu	63	1	No Gas	98.999	494.994	2.52	1064342	0.01	2000	
Zn	66	1	No Gas	98.760	493.800	2.23	300336	0.03	2000	
Se	82	1	No Gas	96.890	484.448	4.64	21078	0.46	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	964108	1.17	937353	102.85	70	120	
Ge	72	2	He	716024	0.34	695601	102.94	70	120	
Ge	72	1	No Gas	2383029	1.88	2292755	103.94	70	120	
In	115	1	No Gas	2600213	1.30	2579132	100.82	70	120	

Sample Report

Bi	209	1	No Gas	1929966	1.81	1971732	97.88	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	042_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:26:29-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
n	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	94.471	4.279	1264741	2.02	100	94.5	90	110	
Be	9	1	No Gas	93.057	2.614	372604	0.41	100	93.1	90	110	
V	51	2	He	103.092	0.545	561160	0.35	100	103.1	90	110	
Cr	52	2	He	102.192	0.844	621097	0.30	100	102.2	90	110	
Fe	56	2	He	10220.762	0.318	53394806	0.60	10000	102.2	90	110	
Se	78	2	He	102.120	0.511	12008	0.62	100	102.1	90	110	
As	75	2	He	102.709	1.100	102781	0.98	100	102.7	90	110	
Ca	44	2	He	10081.521	1.008	447331	0.38	10000	100.8	90	110	
Na	23	2	He	10197.110	1.420	9109485	0.62	10000	102.0	90	110	
Mg	24	2	He	10136.163	0.741	5479991	0.53	10000	101.4	90	110	
K	39	2	He	10230.742	1.564	9213313	0.68	10000	102.3	90	110	
Mn	55	2	He	102.906	0.696	506600	0.23	100	102.9	90	110	
Co	59	2	He	101.304	1.065	800835	0.58	100	101.3	90	110	
Ni	60	2	He	103.357	0.488	196655	1.19	100	103.4	90	110	
Cu	63	2	He	104.014	0.421	489062	0.58	100	104.0	90	110	
Zn	66	2	He	103.130	0.678	111626	0.49	100	103.1	90	110	
Al	27	2	He	98.880	3.883	44829	3.02	100	98.9	90	110	
B	11	1	No Gas	469.920	2.027	931704	0.41	500	94.0	90	110	
Al	27	1	No Gas	100.189	1.704	1514149	0.46	100	100.2	90	110	
Si	28	1	No Gas	495.208	2.626	4439275	0.47	5000	9.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	99.608	1.614	1399955	1.16	100	99.6	90	110	
Cd	111	1	No Gas	99.890	2.324	278636	0.86	100	99.9	90	110	
Sr	88	1	No Gas	99.728	1.781	2955978	0.42	100	99.7	90	110	
Mo	95	1	No Gas	101.135	1.920	566944	0.10	100	101.1	90	110	
Sn	118	1	No Gas	98.392	2.078	852837	1.02	100	98.4	90	110	
Sb	121	1	No Gas	98.237	3.732	1242761	1.83	100	98.2	90	110	
Ba	137	1	No Gas	98.667	1.930	474554	0.39	100	98.7	90	110	
Tl	205	1	No Gas	99.049	0.283	1981399	1.52	100	99.0	90	110	
Tl	203	1	No Gas	99.470	1.515	842379	0.26	100	99.5	90	110	
Pb	208	1	No Gas	96.711	1.660	2754405	0.29	100	96.7	90	110	
U	238	1	No Gas	97.200	1.633	2691894	1.02	100	97.2	90	110	
Ca	43	2	He	9968.369	2.067	26135	1.96	10000	99.7	90	110	
Sb	121	2	He	96.338	1.290	627020	0.49	100	96.3	90	110	
Ti	47	2	He	100.060	0.822	23417	1.58	100	100.1	90	110	
Cu	63	1	No Gas	101.395	0.452	1080969	1.69	100	101.4	90	110	
Se	82	1	No Gas	99.957	3.307	21560	1.68	100	100.0	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	954538	2.39	937353	101.83	70	120	
Ge	72	2	He	706839	0.87	695601	101.62	70	120	
Ge	72	1	No Gas	2362770	2.07	2292755	103.05	70	120	
In	115	1	No Gas	2645710	2.01	2579132	102.58	70	120	
Bi	209	1	No Gas	1977084	1.77	1971732	100.27	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	043_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:28:22-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	0.176	74.2	68301	0.6	0.5	
Be	9	1	No Gas	0.084	19.9	373	18.1	0.5	
V	51	2	He	-0.272	-1.8	4502	1.8	2.5	
Cr	52	2	He	0.282	18.7	17458	2.1	2.5	
Fe	56	2	He	3.956	22.3	44681	11.6	100	
Se	78	2	He	0.101	258.2	221	13.8	2	
As	75	2	He	-0.016	-180.2	396	5.4	2.5	
Ca	44	2	He	0.681	446.4	1167	10.0	100	
Na	23	2	He	-9.435	-9.2	46595	3.0	100	
Mg	24	2	He	4.977	20.9	3257	18.8	100	
K	39	2	He	13.509	8.9	173210	2.4	100	
Mn	55	2	He	0.121	9.0	1323	4.4	2.5	
Co	59	2	He	0.037	22.0	440	14.9	2.5	
Ni	60	2	He	0.178	28.5	537	17.3	2.5	
Cu	63	2	He	0.730	3.5	4584	2.6	2	
Zn	66	2	He	0.782	15.3	1370	9.7	2.5	
Al	27	2	He	-1.898	-1.8	1130	3.1	5	
B	11	1	No Gas	8.726	11.3	31407	4.3	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.592	-2.8	40081	2.1	5	
Si	28	1	No Gas	2.814	40.0	599534	0.3	10	
Ag	107	1	No Gas	0.093	10.2	1443	9.4	2.5	
Cd	111	1	No Gas	0.077	32.1	228	28.9	1	
Sr	88	1	No Gas	0.058	13.1	3901	6.2	2.5	
Mo	95	1	No Gas	0.166	15.4	1313	9.6	2.5	
Sn	118	1	No Gas	0.123	25.9	3517	7.1	5	
Sb	121	1	No Gas	0.255	7.0	3457	4.8	2.5	
Ba	137	1	No Gas	0.000	-2508.0	647	9.3	2.5	
Tl	205	1	No Gas	0.498	26.1	10618	25.2	1	
Tl	203	1	No Gas	0.507	25.0	4551	24.5	1	
Pb	208	1	No Gas	0.087	4.7	3354	3.1	2.5	
U	238	1	No Gas	0.094	7.9	2697	5.9	2.5	
Ca	43	2	He	9.649	122.8	80	37.5	100	
Sb	121	2	He	0.164	19.8	1270	17.8	2.5	
Ti	47	2	He	0.039	223.3	33	62.4	2.5	
Cu	63	1	No Gas	0.800	2.9	11201	2.2	2.5	
Se	82	1	No Gas	0.129	130.3	105	36.0	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	981098	2.26	937353	104.67	70	120	
Ge	72	2	He	714749	1.82	695601	102.75	70	120	
Ge	72	1	No Gas	2365127	1.72	2292755	103.16	70	120	
In	115	1	No Gas	2697479	1.79	2579132	104.59	70	120	
Bi	209	1	No Gas	2004268	1.99	1971732	101.65	70	120	

Sample Report

Sample Table

Sample Name	HS23061821-03
Data File Name	046SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:34:34-05:00
Sample Type	Sample
Dilution	20
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	0.999	19.985	2.74	79476	0.00	2000	
Be	9	1	No Gas	0.005	0.098	92.34	47	0.01	2000	
V	51	2	He	0.342	6.844	3.72	8046	0.00	2000	
Cr	52	2	He	22.773	455.460	0.49	156034	0.01	2000	
Fe	56	2	He	628.630	12572.599	0.13	3427079	0.02	200000	
Se	78	2	He	-0.246	-4.912	-57.46	185	-0.13	2000	
As	75	2	He	0.009	0.172	167.88	431	0.00	2000	
Ca	44	2	He	473.617	9472.341	0.45	22896	2.07	200000	
Na	23	2	He	2510.335	50206.694	1.22	2367476	0.11	200000	
Mg	24	2	He	288.538	5770.763	1.76	162233	0.18	200000	
K	39	2	He	18.097	361.945	11.99	181744	0.01	200000	
Mn	55	2	He	6.751	135.016	1.92	35142	0.02	2000	
Co	59	2	He	0.814	16.281	4.40	6818	0.01	2000	
Ni	60	2	He	66.171	1323.412	2.12	130561	0.05	2000	
Cu	63	2	He	0.585	11.696	5.63	3994	0.01	2000	
Zn	66	2	He	-0.022	-0.437	-267.01	507	0.00	2000	
Al	27	2	He	15.180	303.597	7.85	8836	0.17	2000	
B	11	1	No Gas	2.214	44.285	4.47	18444	0.01	2000	
Al	27	1	No Gas	15.426	308.517	9.21	289093	0.01	2000	
Si	28	1	No Gas	1433.936	28678.725	0.69	11869349	0.01	2000	
Ag	107	1	No Gas	0.005	0.093	58.11	187	0.00	2000	
Cd	111	1	No Gas	0.006	0.114	34.18	27	0.02	2000	
Sr	88	1	No Gas	7.723	154.467	1.56	238307	0.00	2000	
Mo	95	1	No Gas	0.041	0.814	8.14	607	0.01	2000	
Sn	118	1	No Gas	-0.157	-3.143	-7.95	1063	-0.01	2000	
Sb	121	1	No Gas	0.031	0.628	18.97	637	0.00	2000	
Ba	137	1	No Gas	9.831	196.613	1.86	49394	0.02	2000	
Tl	205	1	No Gas	-0.003	-0.070	-10.51	457	0.00	2000	
Tl	203	1	No Gas	-0.003	-0.063	-146.98	173	0.00	2000	
Pb	208	1	No Gas	-0.001	-0.026	-171.08	813	0.00	2000	
U	238	1	No Gas	0.005	0.103	18.15	207	0.00	2000	
Ca	43	2	He	516.289	10325.786	6.05	1457	35.44	200000	
Sb	121	2	He	0.022	0.446	29.52	343	0.01	2000	
Ti	47	2	He	0.243	4.856	39.65	83	0.29	2000	
Cu	63	1	No Gas	0.642	12.843	3.69	9600	0.01	2000	
Zn	66	1	No Gas	0.134	2.671	39.16	1757	0.01	2000	
Se	82	1	No Gas	-0.103	-2.060	-169.77	55	-0.19	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	985976	0.48	937353	105.19	70	120	
Ge	72	2	He	732685	0.85	695601	105.33	70	120	
Ge	72	1	No Gas	2383811	0.24	2292755	103.97	70	120	
In	115	1	No Gas	2730770	1.94	2579132	105.88	70	120	

Sample Report

Bi	209	1	No Gas	2045286	1.87	1971732	103.73	70	120	

Sample Report

Sample Table

Sample Name	HS23061821-08
Data File Name	047SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:36:44-05:00
Sample Type	Sample
Dilution	20
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	5.634	112.683	4.85	137701	0.00	2000	
Be	9	1	No Gas	0.027	0.547	9.06	137	0.02	2000	
V	51	2	He	0.178	3.567	23.83	7043	0.00	2000	
Cr	52	2	He	0.228	4.570	55.31	17348	0.00	2000	
Fe	56	2	He	6.689	133.779	2.88	59824	0.01	200000	
Se	78	2	He	-0.064	-1.285	-139.88	204	-0.03	2000	
As	75	2	He	0.021	0.422	58.99	439	0.00	2000	
Ca	44	2	He	2358.513	47170.266	0.32	108062	2.18	200000	
Na	23	2	He	33691.984	673839.679	0.73	30696725	0.11	200000	
Mg	24	2	He	2136.531	42730.625	3.49	1183016	0.18	200000	
K	39	2	He	25.144	502.874	17.69	185922	0.01	200000	
Mn	55	2	He	90.779	1815.588	0.56	457784	0.02	2000	
Co	59	2	He	0.352	7.033	4.72	2994	0.01	2000	
Ni	60	2	He	5.081	101.630	0.63	10091	0.05	2000	
Cu	63	2	He	-0.087	-1.745	-20.12	717	-0.01	2000	
Zn	66	2	He	2.291	45.829	1.82	3054	0.08	2000	
Al	27	2	He	2.984	59.689	22.39	3311	0.09	2000	
B	11	1	No Gas	1.595	31.906	21.41	16867	0.01	2000	
Al	27	1	No Gas	2.668	53.357	4.45	103848	0.00	2000	
Si	28	1	No Gas	1253.472	25069.445	1.02	10570025	0.01	2000	
Ag	107	1	No Gas	0.002	0.041	91.94	147	0.00	2000	
Cd	111	1	No Gas	0.014	0.277	46.86	49	0.03	2000	
Sr	88	1	No Gas	50.031	1000.620	2.49	1513097	0.00	2000	
Mo	95	1	No Gas	0.006	0.118	269.54	400	0.00	2000	
Sn	118	1	No Gas	-0.175	-3.507	-6.02	890	-0.02	2000	
Sb	121	1	No Gas	0.016	0.322	13.69	447	0.00	2000	
Ba	137	1	No Gas	1.687	33.734	4.41	8913	0.02	2000	
Tl	205	1	No Gas	-0.004	-0.089	-42.60	427	0.00	2000	
Tl	203	1	No Gas	-0.009	-0.173	-25.27	123	-0.01	2000	
Pb	208	1	No Gas	-0.005	-0.109	-19.16	677	0.00	2000	
U	238	1	No Gas	0.003	0.063	52.68	147	0.00	2000	
Ca	43	2	He	2417.203	48344.058	4.69	6532	37.01	200000	
Sb	121	2	He	0.003	0.059	184.28	210	0.00	2000	
Ti	47	2	He	0.079	1.578	130.77	43	0.18	2000	
Cu	63	1	No Gas	0.249	4.988	11.88	5448	0.00	2000	
Zn	66	1	No Gas	2.319	46.375	3.86	8473	0.03	2000	
Se	82	1	No Gas	0.059	1.173	392.70	91	0.06	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	967654	1.92	937353	103.23	70	120	
Ge	72	2	He	723898	1.51	695601	104.07	70	120	
Ge	72	1	No Gas	2411616	0.93	2292755	105.18	70	120	
In	115	1	No Gas	2697382	1.24	2579132	104.58	70	120	

Sample Report

Bi	209	1	No Gas	2000696	2.50	1971732	101.47	70	120	

Sample Report

Sample Table

Sample Name	HS23061821-09
Data File Name	048SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:38:40-05:00
Sample Type	Sample
Dilution	20
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	6.217	124.334	3.81	143479	0.00	2000	
Be	9	1	No Gas	0.034	0.680	43.17	162	0.02	2000	
V	51	2	He	0.220	4.400	9.34	7201	0.00	2000	
Cr	52	2	He	0.339	6.784	27.89	17842	0.00	2000	
Fe	56	2	He	7.951	159.024	3.19	65899	0.01	200000	
Se	78	2	He	-0.074	-1.481	-529.84	201	-0.04	2000	
As	75	2	He	-0.036	-0.717	-71.52	377	-0.01	2000	
Ca	44	2	He	2542.200	50843.990	0.09	115202	2.21	200000	
Na	23	2	He	36521.085	730421.695	0.89	32931712	0.11	200000	
Mg	24	2	He	2292.548	45850.968	1.42	1256898	0.18	200000	
K	39	2	He	27.988	559.761	2.95	186617	0.01	200000	
Mn	55	2	He	97.799	1955.977	0.53	488095	0.02	2000	
Co	59	2	He	0.383	7.670	4.76	3217	0.01	2000	
Ni	60	2	He	5.629	112.580	4.63	11041	0.05	2000	
Cu	63	2	He	-0.062	-1.237	-8.82	830	-0.01	2000	
Zn	66	2	He	2.390	47.802	6.75	3130	0.08	2000	
Al	27	2	He	4.171	83.428	16.93	3801	0.11	2000	
B	11	1	No Gas	1.482	29.634	9.23	16448	0.01	2000	
Al	27	1	No Gas	3.245	64.903	9.02	111365	0.00	2000	
Si	28	1	No Gas	1353.117	27062.331	1.01	11264091	0.01	2000	
Ag	107	1	No Gas	0.003	0.055	50.94	157	0.00	2000	
Cd	111	1	No Gas	0.016	0.319	72.65	55	0.03	2000	
Sr	88	1	No Gas	54.381	1087.623	1.86	1639542	0.00	2000	
Mo	95	1	No Gas	0.000	0.005	2149.49	367	0.00	2000	
Sn	118	1	No Gas	-0.142	-2.840	-9.21	1180	-0.01	2000	
Sb	121	1	No Gas	0.009	0.177	26.68	350	0.00	2000	
Ba	137	1	No Gas	1.678	33.563	1.51	8840	0.02	2000	
Tl	205	1	No Gas	-0.005	-0.099	-65.24	407	0.00	2000	
Tl	203	1	No Gas	-0.005	-0.094	-32.61	153	0.00	2000	
Pb	208	1	No Gas	-0.008	-0.170	-47.14	573	0.00	2000	
U	238	1	No Gas	0.002	0.049	53.73	123	0.00	2000	
Ca	43	2	He	2653.209	53064.171	3.28	7092	37.41	200000	
Sb	121	2	He	0.005	0.105	35.18	223	0.00	2000	
Ti	47	2	He	0.166	3.324	53.44	63	0.26	2000	
Cu	63	1	No Gas	0.267	5.342	4.68	5591	0.00	2000	
Zn	66	1	No Gas	2.373	47.461	5.22	8563	0.03	2000	
Se	82	1	No Gas	0.473	9.456	76.71	181	0.26	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	956072	1.83	937353	102.00	70	120	
Ge	72	2	He	716504	0.48	695601	103.00	70	120	
Ge	72	1	No Gas	2390644	1.83	2292755	104.27	70	120	
In	115	1	No Gas	2688893	0.73	2579132	104.26	70	120	

Sample Report

Bi	209	1	No Gas	1952514	2.27	1971732	99.03	70	120	

Sample Report

Sample Table

Sample Name	HS23061821-10
Data File Name	049SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:40:50-05:00
Sample Type	Sample
Dilution	20
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	2.597	51.942	5.31	99817	0.00	2000	
Be	9	1	No Gas	0.006	0.116	1.25	50	0.01	2000	
V	51	2	He	0.148	2.969	34.07	6877	0.00	2000	
Cr	52	2	He	31.326	626.524	1.35	205979	0.02	2000	
Fe	56	2	He	1143.172	22863.446	1.09	6135914	0.02	200000	
Se	78	2	He	0.000	-0.007	-29414.07	211	0.00	2000	
As	75	2	He	0.192	3.834	41.25	612	0.03	2000	
Ca	44	2	He	3913.542	78270.846	0.50	178485	2.19	200000	
Na	23	2	He	18054.942	361098.831	0.53	16470800	0.11	200000	
Mg	24	2	He	2696.819	53936.379	1.06	1493073	0.18	200000	
K	39	2	He	86.652	1733.044	4.06	241599	0.04	200000	
Mn	55	2	He	55.971	1119.411	0.31	282419	0.02	2000	
Co	59	2	He	0.848	16.961	5.14	7005	0.01	2000	
Ni	60	2	He	33.853	677.053	1.52	66073	0.05	2000	
Cu	63	2	He	0.943	18.855	4.87	5661	0.02	2000	
Zn	66	2	He	0.107	2.144	81.22	643	0.02	2000	
Al	27	2	He	-1.516	-30.321	-10.63	1313	-0.12	2000	
B	11	1	No Gas	2.813	56.263	4.40	19527	0.01	2000	
Al	27	1	No Gas	-1.338	-26.752	-1.39	44906	0.00	2000	
Si	28	1	No Gas	816.127	16322.542	1.70	7131102	0.01	2000	
Ag	107	1	No Gas	0.002	0.032	119.53	140	0.00	2000	
Cd	111	1	No Gas	-0.003	-0.055	-194.46	2	-0.13	2000	
Sr	88	1	No Gas	75.659	1513.185	2.57	2274989	0.00	2000	
Mo	95	1	No Gas	0.347	6.934	11.68	2334	0.01	2000	
Sn	118	1	No Gas	-0.163	-3.255	-10.49	997	-0.02	2000	
Sb	121	1	No Gas	0.012	0.247	33.54	400	0.00	2000	
Ba	137	1	No Gas	17.635	352.696	0.52	86567	0.02	2000	
Tl	205	1	No Gas	-0.007	-0.146	-22.16	370	0.00	2000	
Tl	203	1	No Gas	-0.004	-0.079	-38.08	163	0.00	2000	
Pb	208	1	No Gas	-0.006	-0.112	-56.61	673	0.00	2000	
U	238	1	No Gas	0.007	0.144	28.69	260	0.00	2000	
Ca	43	2	He	4085.931	81718.616	2.36	10998	37.15	200000	
Sb	121	2	He	0.001	0.029	130.29	200	0.00	2000	
Ti	47	2	He	0.094	1.885	103.59	47	0.20	2000	
Cu	63	1	No Gas	1.123	22.452	2.49	15018	0.01	2000	
Zn	66	1	No Gas	0.142	2.840	63.94	1813	0.01	2000	
Se	82	1	No Gas	-0.369	-7.383	-88.81	-2	15.38	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	979664	0.59	937353	104.51	70	120	
Ge	72	2	He	723627	1.33	695601	104.03	70	120	
Ge	72	1	No Gas	2426349	0.32	2292755	105.83	70	120	
In	115	1	No Gas	2683194	1.06	2579132	104.03	70	120	

Sample Report

Bi	209	1	No Gas	2003688	1.09	1971732	101.62	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	051_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:45:07-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
n	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	96.163	3.514	1261065	2.09	100	96.2	90	110	
Be	9	1	No Gas	95.225	0.830	373828	0.56	100	95.2	90	110	
V	51	2	He	101.494	1.079	555372	0.60	100	101.5	90	110	
Cr	52	2	He	100.786	0.565	615916	0.29	100	100.8	90	110	
Fe	56	2	He	10061.719	1.424	52831034	0.86	10000	100.6	90	110	
Se	78	2	He	99.745	1.700	11795	2.19	100	99.7	90	110	
As	75	2	He	101.384	1.265	101979	0.79	100	101.4	90	110	
Ca	44	2	He	9946.984	1.418	443633	0.85	10000	99.5	90	110	
Na	23	2	He	10086.877	0.789	9058232	0.69	10000	100.9	90	110	
Mg	24	2	He	10121.334	1.633	5499787	1.05	10000	101.2	90	110	
K	39	2	He	10058.464	1.042	9107598	0.39	10000	100.6	90	110	
Mn	55	2	He	101.457	0.860	502034	0.59	100	101.5	90	110	
Co	59	2	He	100.336	0.874	797256	0.27	100	100.3	90	110	
Ni	60	2	He	101.910	1.142	194885	0.61	100	101.9	90	110	
Cu	63	2	He	102.909	0.984	486357	0.99	100	102.9	90	110	
Zn	66	2	He	101.068	1.709	109960	1.12	100	101.1	90	110	
Al	27	2	He	98.732	3.454	45003	3.52	100	98.7	90	110	
B	11	1	No Gas	473.877	2.169	920879	1.01	500	94.8	90	110	
Al	27	1	No Gas	99.664	0.624	1503974	0.88	100	99.7	90	110	
Si	28	1	No Gas	493.448	1.122	4418292	0.86	5000	9.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.246	2.298	1406688	0.99	100	100.2	90	110	
Cd	111	1	No Gas	99.889	1.980	278230	0.69	100	99.9	90	110	
Sr	88	1	No Gas	101.944	1.630	3017192	0.61	100	101.9	90	110	
Mo	95	1	No Gas	101.717	1.346	569391	0.32	100	101.7	90	110	
Sn	118	1	No Gas	98.690	1.904	854134	0.50	100	98.7	90	110	
Sb	121	1	No Gas	96.368	2.274	1217312	1.98	100	96.4	90	110	
Ba	137	1	No Gas	98.649	1.815	473769	0.49	100	98.6	90	110	
Tl	205	1	No Gas	100.002	1.124	1978853	0.71	100	100.0	90	110	
Tl	203	1	No Gas	100.721	1.811	843815	0.18	100	100.7	90	110	
Pb	208	1	No Gas	99.209	1.257	2795421	0.61	100	99.2	90	110	
U	238	1	No Gas	99.149	2.282	2716277	1.19	100	99.1	90	110	
Ca	43	2	He	10056.716	5.174	26499	4.86	10000	100.6	90	110	
Sb	121	2	He	95.377	1.082	623960	0.51	100	95.4	90	110	
Ti	47	2	He	99.793	0.841	23474	1.45	100	99.8	90	110	
Cu	63	1	No Gas	101.054	1.464	1075275	1.16	100	101.1	90	110	
Se	82	1	No Gas	98.581	1.630	21232	1.79	100	98.6	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	935553	1.34	937353	99.81	70	120	
Ge	72	2	He	710454	0.66	695601	102.14	70	120	
Ge	72	1	No Gas	2358195	0.34	2292755	102.85	70	120	
In	115	1	No Gas	2641604	1.43	2579132	102.42	70	120	
Bi	209	1	No Gas	1955938	1.83	1971732	99.20	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	052_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:46:58-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	0.062	116.0	66717	0.9	0.5	
Be	9	1	No Gas	0.079	22.1	350	19.2	0.5	
V	51	2	He	-0.222	-14.1	4804	3.6	2.5	
Cr	52	2	He	0.394	12.3	18229	1.2	2.5	
Fe	56	2	He	3.782	22.0	43988	10.6	100	
Se	78	2	He	-0.030	-988.5	207	17.4	2	
As	75	2	He	-0.039	-58.1	374	5.7	2.5	
Ca	44	2	He	-1.569	-143.4	1073	9.2	100	
Na	23	2	He	-5.918	-20.2	50033	2.6	100	
Mg	24	2	He	4.974	24.6	3270	21.0	100	
K	39	2	He	12.070	6.8	172888	1.1	100	
Mn	55	2	He	0.131	22.3	1377	10.9	2.5	
Co	59	2	He	0.031	24.4	393	15.5	2.5	
Ni	60	2	He	0.165	21.2	517	13.6	2.5	
Cu	63	2	He	0.821	1.1	5044	1.2	2	
Zn	66	2	He	0.769	27.7	1363	16.9	2.5	
Al	27	2	He	-1.799	-21.3	1180	14.4	5	
B	11	1	No Gas	8.939	10.1	31808	5.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.648	-4.1	40329	1.9	5	
Si	28	1	No Gas	1.280	84.9	603578	1.0	10	
Ag	107	1	No Gas	0.092	7.7	1447	6.9	2.5	
Cd	111	1	No Gas	0.088	40.7	262	39.0	1	
Sr	88	1	No Gas	0.059	6.6	3967	2.8	2.5	
Mo	95	1	No Gas	0.164	7.6	1310	5.3	2.5	
Sn	118	1	No Gas	0.124	66.0	3551	20.7	5	
Sb	121	1	No Gas	0.198	7.8	2820	7.4	2.5	
Ba	137	1	No Gas	-0.004	-534.9	633	15.8	2.5	
Tl	205	1	No Gas	0.527	29.1	11282	27.6	1	
Tl	203	1	No Gas	0.532	20.5	4804	19.4	1	
Pb	208	1	No Gas	0.091	7.0	3477	5.4	2.5	
U	238	1	No Gas	0.108	5.1	3114	5.3	2.5	
Ca	43	2	He	3.100	183.8	63	24.1	100	
Sb	121	2	He	0.113	7.4	940	5.5	2.5	
Ti	47	2	He	0.010	1004.8	27	94.4	2.5	
Cu	63	1	No Gas	0.804	4.7	11555	3.7	2.5	
Se	82	1	No Gas	-0.458	-94.5	-23	-425.1	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	979524	1.42	937353	104.50	70	120	
Ge	72	2	He	718797	0.65	695601	103.33	70	120	
Ge	72	1	No Gas	2429360	0.80	2292755	105.96	70	120	
In	115	1	No Gas	2712079	0.23	2579132	105.15	70	120	
Bi	209	1	No Gas	2019904	0.36	1971732	102.44	70	120	

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	206CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:36:49-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	76302	0.00
Be	9	1	No Gas	23	322.52
V	51	2	He	3956	0.08
Cr	52	2	He	17318	0.01
Fe	56	2	He	25644	0.00
Se	78	2	He	174	3.43
As	75	2	He	332	2.01
Ca	44	2	He	1047	0.98
Na	23	2	He	56826	0.00
Mg	24	2	He	840	1.35
K	39	2	He	190313	0.00
Mn	55	2	He	630	2.91
Co	59	2	He	87	42.80
Ni	60	2	He	113	35.11
Cu	63	2	He	797	1.32
Zn	66	2	He	490	1.25
Al	27	2	He	1850	0.20
B	11	1	No Gas	8911	0.02
Al	27	1	No Gas	64161	0.00
Si	28	1	No Gas	535979	0.00
Ag	107	1	No Gas	143	20.27
Cd	111	1	No Gas	23	292.53
Sr	88	1	No Gas	2237	0.15
Mo	95	1	No Gas	333	6.81
Sn	118	1	No Gas	2375	1.57
Sb	121	1	No Gas	180	14.14
Ba	137	1	No Gas	703	0.58
Tl	205	1	No Gas	163	16.90
Tl	203	1	No Gas	107	22.12
Pb	208	1	No Gas	540	2.74
U	238	1	No Gas	23	280.57
Ca	43	2	He	80	27.06
Sb	121	2	He	107	10.15
Ti	47	2	He	23	106.04
Cu	63	1	No Gas	2790	0.14

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	1120139	1.15
Ge	72	2	He	689983	1.30
Ge	72	1	No Gas	2486364	1.14
In	115	1	No Gas	2731714	0.39

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	1939318	4.67

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	207CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:38:59-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	8046	0.03
V	51	2	He	14742	0.01
Cr	52	2	He	29566	0.00
Fe	56	2	He	1119897	0.00
Se	78	2	He	425	2.48
As	75	2	He	2351	0.22
Ca	44	2	He	10047	0.05
Na	23	2	He	263265	0.00
Mg	24	2	He	126409	0.00
K	39	2	He	381320	0.00
Mn	55	2	He	10698	0.02
Co	59	2	He	16413	0.01
Ni	60	2	He	4141	0.12
Cu	63	2	He	13200	0.01
Zn	66	2	He	4204	0.10
Al	27	2	He	2817	0.27
B	11	1	No Gas	29673	0.00
Al	27	1	No Gas	100119	0.00
Si	28	1	No Gas	625070	0.00
Ag	107	1	No Gas	29750	0.01
Cd	111	1	No Gas	5876	0.04
Sr	88	1	No Gas	65768	0.00
Mo	95	1	No Gas	11465	0.03
Sn	118	1	No Gas	19485	0.01
Sb	121	1	No Gas	24206	0.00
Ba	137	1	No Gas	10314	0.01
Tl	205	1	No Gas	41349	0.00
Tl	203	1	No Gas	16805	0.00
Pb	208	1	No Gas	57763	0.00
U	238	1	No Gas	50585	0.00
Ca	43	2	He	610	1.42
Sb	121	2	He	11328	0.02
Cu	63	1	No Gas	31821	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	1092175	1.89	1120139	97.50	70	120	
Ge	72	2	He	689735	0.70	689983	99.96	70	120	
Ge	72	1	No Gas	2499642	1.97	2486364	100.53	70	120	

Calibration Standard Report

In	115	1	No Gas	2703982	0.73	2731714	98.98	70	120	
Bi	209	1	No Gas	1947951	4.68	1939318	100.45	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	208CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:41:07-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	19851	0.01
V	51	2	He	31334	0.00
Cr	52	2	He	48031	0.00
Fe	56	2	He	2752909	0.00
Se	78	2	He	706	0.31
As	75	2	He	5339	0.03
Ca	44	2	He	23223	0.01
Na	23	2	He	574558	0.00
Mg	24	2	He	318027	0.00
K	39	2	He	665744	0.00
Mn	55	2	He	26710	0.02
Co	59	2	He	40571	0.01
Ni	60	2	He	10217	0.04
Cu	63	2	He	25822	0.01
Zn	66	2	He	5735	0.02
Al	27	2	He	3814	0.05
B	11	1	No Gas	61907	0.00
Al	27	1	No Gas	135232	0.00
Si	28	1	No Gas	790684	0.00
Ag	107	1	No Gas	72193	0.00
Cd	111	1	No Gas	14041	0.02
Sr	88	1	No Gas	158702	0.00
Mo	95	1	No Gas	28785	0.00
Sn	118	1	No Gas	43884	0.01
Sb	121	1	No Gas	60064	0.00
Ba	137	1	No Gas	24310	0.00
Tl	205	1	No Gas	104142	0.00
Tl	203	1	No Gas	43416	0.00
Pb	208	1	No Gas	141393	0.00
U	238	1	No Gas	129554	0.00
Ca	43	2	He	1340	0.50
Sb	121	2	He	28675	0.01
Cu	63	1	No Gas	61094	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	1087572	1.59	1120139	97.09	70	120	
Ge	72	2	He	693132	0.75	689983	100.46	70	120	
Ge	72	1	No Gas	2473353	0.77	2486364	99.48	70	120	

Calibration Standard Report

In	115	1	No Gas	2626148	3.27	2731714	96.14	70	120	
Bi	209	1	No Gas	1983806	3.79	1939318	102.29	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	209CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:43:17-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	39347	0.01
V	51	2	He	57433	0.00
Cr	52	2	He	78910	0.00
Fe	56	2	He	5212840	0.00
Se	78	2	He	1265	0.47
As	75	2	He	9920	0.01
Ca	44	2	He	43693	0.00
Na	23	2	He	1035183	0.00
Mg	24	2	He	616407	0.00
K	39	2	He	1119245	0.00
Mn	55	2	He	48647	0.00
Co	59	2	He	77979	0.00
Ni	60	2	He	19451	0.00
Cu	63	2	He	49403	0.00
Zn	66	2	He	11025	0.00
Al	27	2	He	6048	0.05
B	11	1	No Gas	113826	0.00
Al	27	1	No Gas	211958	0.00
Si	28	1	No Gas	1004805	0.00
Ag	107	1	No Gas	144898	0.00
Cd	111	1	No Gas	28363	0.00
Sr	88	1	No Gas	316268	0.00
Mo	95	1	No Gas	57588	0.00
Sn	118	1	No Gas	88917	0.00
Sb	121	1	No Gas	122448	0.00
Ba	137	1	No Gas	47373	0.00
Tl	205	1	No Gas	208329	0.00
Tl	203	1	No Gas	86831	0.00
Pb	208	1	No Gas	282227	0.00
U	238	1	No Gas	258942	0.00
Ca	43	2	He	2684	0.45
Sb	121	2	He	56562	0.00
Cu	63	1	No Gas	117464	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	1049993	1.47	1120139	93.74	70	120	
Ge	72	2	He	685234	1.74	689983	99.31	70	120	
Ge	72	1	No Gas	2452084	0.83	2486364	98.62	70	120	

Calibration Standard Report

In	115	1	No Gas	2672733	1.31	2731714	97.84	70	120	
Bi	209	1	No Gas	1970973	4.22	1939318	101.63	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	210CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:45:24-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	388150	0.00
V	51	2	He	532003	0.00
Cr	52	2	He	594514	0.00
Fe	56	2	He	51064894	0.00
Se	78	2	He	10810	0.02
As	75	2	He	94021	0.00
Ca	44	2	He	421082	0.00
Na	23	2	He	9145442	0.00
Mg	24	2	He	5482788	0.00
K	39	2	He	8848903	0.00
Mn	55	2	He	474283	0.00
Co	59	2	He	761399	0.00
Ni	60	2	He	186774	0.00
Cu	63	2	He	469361	0.00
Zn	66	2	He	105505	0.00
Al	27	2	He	43037	0.00
B	11	1	No Gas	1008581	0.00
Al	27	1	No Gas	1587381	0.00
Si	28	1	No Gas	4563837	0.00
Ag	107	1	No Gas	1414947	0.00
Cd	111	1	No Gas	279868	0.00
Sr	88	1	No Gas	3035804	0.00
Mo	95	1	No Gas	562564	0.00
Sn	118	1	No Gas	855914	0.00
Sb	121	1	No Gas	1232543	0.00
Ba	137	1	No Gas	467139	0.00
Tl	205	1	No Gas	1950034	0.00
Tl	203	1	No Gas	809333	0.00
Pb	208	1	No Gas	2751765	0.00
U	238	1	No Gas	2598039	0.00
Ca	43	2	He	24926	0.01
Sb	121	2	He	570973	0.00
Cu	63	1	No Gas	1120433	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	1055797	1.47	1120139	94.26	70	120	
Ge	72	2	He	673503	1.19	689983	97.61	70	120	
Ge	72	1	No Gas	2429983	0.96	2486364	97.73	70	120	

Calibration Standard Report

In	115	1	No Gas	2612504	0.55	2731714	95.64	70	120	
Bi	209	1	No Gas	1937362	3.10	1939318	99.90	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	211CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:47:27-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	751270	0.00
V	51	2	He	1035426	0.00
Cr	52	2	He	1184523	0.00
Fe	56	2	He	99819555	0.00
Se	78	2	He	21139	0.00
As	75	2	He	184789	0.00
Ca	44	2	He	823111	0.00
Na	23	2	He	17874661	0.00
Mg	24	2	He	10701128	0.00
K	39	2	He	17071491	0.00
Mn	55	2	He	931276	0.00
Co	59	2	He	1546412	0.00
Ni	60	2	He	365128	0.00
Cu	63	2	He	918108	0.00
Zn	66	2	He	204926	0.00
Al	27	2	He	83335	0.00
B	11	1	No Gas	1964389	0.00
Al	27	1	No Gas	2973289	0.00
Si	28	1	No Gas	8339376	0.00
Ag	107	1	No Gas	2744235	0.00
Cd	111	1	No Gas	547062	0.00
Sr	88	1	No Gas	5837141	0.00
Mo	95	1	No Gas	1106888	0.00
Sn	118	1	No Gas	1678979	0.00
Sb	121	1	No Gas	2447798	0.00
Ba	137	1	No Gas	921082	0.00
Tl	205	1	No Gas	3748695	0.00
Tl	203	1	No Gas	1595802	0.00
Pb	208	1	No Gas	5432981	0.00
U	238	1	No Gas	5162591	0.00
Ca	43	2	He	49155	0.00
Sb	121	2	He	1158038	0.00
Cu	63	1	No Gas	2147359	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	1002299	1.42	1120139	89.48	70	120	
Ge	72	2	He	660124	0.42	689983	95.67	70	120	
Ge	72	1	No Gas	2366701	0.19	2486364	95.19	70	120	

Calibration Standard Report

In	115	1	No Gas	2539910	1.48	2731714	92.98	70	120	
Bi	209	1	No Gas	1919799	3.53	1939318	98.99	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICCV
Data File Name	213_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:51:37-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	97.610	3.205	1331540	0.45	100	97.6	90	110	
Be	9	1	No Gas	97.960	3.063	388020	0.42	100	98.0	90	110	
V	51	2	He	100.810	0.891	540791	0.47	100	100.8	90	110	
Cr	52	2	He	97.727	1.377	602366	0.92	100	97.7	90	110	
Fe	56	2	He	9995.046	1.041	51508493	0.66	10000	100.0	90	110	
Se	78	2	He	98.262	1.614	10791	1.38	100	98.3	90	110	
As	75	2	He	101.240	0.781	96593	0.36	100	101.2	90	110	
Ca	44	2	He	10102.046	1.181	429608	0.76	10000	101.0	90	110	
Na	23	2	He	10163.595	1.864	9401266	1.62	10000	101.6	90	110	
Mg	24	2	He	10036.734	0.827	5547493	0.41	10000	100.4	90	110	
K	39	2	He	10092.979	1.382	8993034	1.22	10000	100.9	90	110	
Mn	55	2	He	99.642	1.576	478799	1.17	100	99.6	90	110	
Co	59	2	He	98.030	0.423	776630	0.64	100	98.0	90	110	
Ni	60	2	He	101.771	1.132	191870	0.74	100	101.8	90	110	
Cu	63	2	He	100.446	0.495	476301	0.15	100	100.4	90	110	
Zn	66	2	He	99.067	1.390	105128	1.81	100	99.1	90	110	
Al	27	2	He	101.038	1.789	44264	1.95	100	101.0	90	110	
B	11	1	No Gas	489.299	4.558	1015523	1.46	500	97.9	90	110	
Al	27	1	No Gas	102.595	1.653	1614775	0.63	100	102.6	90	110	
Si	28	1	No Gas	503.263	1.862	4610552	1.47	500	100.7	90	110	
Ag	107	1	No Gas	100.030	1.841	1409369	1.41	100	100.0	90	110	
Cd	111	1	No Gas	99.608	1.310	279340	1.07	100	99.6	90	110	
Sr	88	1	No Gas	102.494	1.970	3077880	0.92	100	102.5	90	110	
Mo	95	1	No Gas	100.200	1.144	567981	1.07	100	100.2	90	110	
Sn	118	1	No Gas	99.486	2.071	856419	0.48	100	99.5	90	110	
Sb	121	1	No Gas	96.315	1.434	1214920	1.34	100	96.3	90	110	
Ba	137	1	No Gas	99.556	2.370	469451	0.27	100	99.6	90	110	
Tl	205	1	No Gas	101.390	2.994	1939358	0.79	100	101.4	90	110	
Tl	203	1	No Gas	100.382	3.287	813008	0.20	100	100.4	90	110	
Pb	208	1	No Gas	100.958	4.144	2783628	1.02	100	101.0	90	110	
U	238	1	No Gas	99.896	3.921	2613195	1.29	100	99.9	90	110	
Ca	43	2	He	10083.484	2.065	25571	2.02	10000	100.8	90	110	
Sb	121	2	He	98.063	1.058	581869	0.83	100	98.1	90	110	
Ti	47	2	He	100.834	1.618	22659	1.20	100	100.8	90	110	
Cu	63	1	No Gas	99.125	0.452	1106049	1.02	100	99.1	90	110	
Se	82	1	No Gas	101.211	2.087	21969	2.79	100	101.2	90	110	

QC ISTD Table

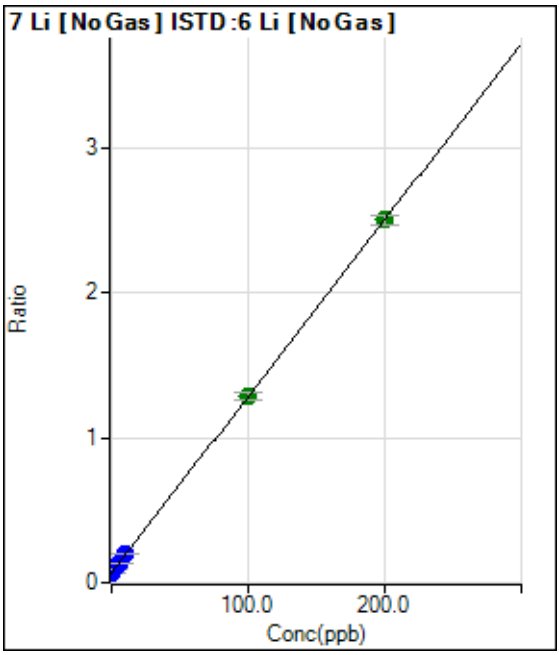
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1061528	3.42	1120139	94.77	70	120	
Ge	72	2	He	681093	0.42	689983	98.71	70	120	
Ge	72	1	No Gas	2448747	0.96	2486364	98.49	70	120	
In	115	1	No Gas	2606826	2.13	2731714	95.43	70	120	
Bi	209	1	No Gas	1946540	3.19	1939318	100.37	70	120	

Calibration for 213_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071323A.b\
Analysis File: 071323A.batch.bin
DA Date-Time: 7/14/2023 8:11:04 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	206CALB.d	CAL BLK	7/13/2023 8:36:49 PM
2	207CALS.d	2/10/200	7/13/2023 8:38:59 PM
3	208CALS.d	5/25/500	7/13/2023 8:41:07 PM
4	209CALS.d	10/50/100	7/13/2023 8:43:17 PM
5	210CALS.d	100/500/10K	7/13/2023 8:45:24 PM
6	211CALS.d	200/1000/20K	7/13/2023 8:47:27 PM

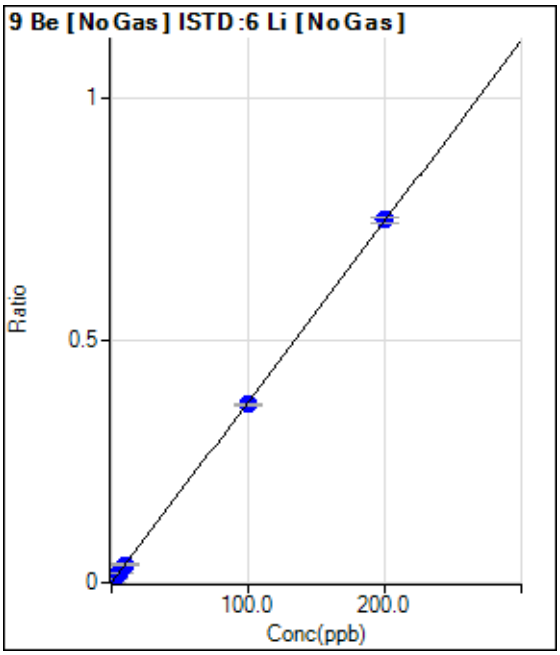
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76301.75	0.0681	P	1.6
2	☐	2.000	2.110	102403.87	0.0938	P	2.1
3	☐	5.000	5.165	142384.95	0.1309	P	1.1
4	☐	10.000	10.790	209294.88	0.1993	P	0.9
5	☐	100.000	99.712	1351784.20	1.2808	A	4.3
6	☐	200.000	200.100	2506917.10	2.5017	A	2.4

y = 0.0122 * x + 0.0681
R = 1.0000
DL = 0.2631
BEC = 5.602

Weight: <None>
Min Conc: <None>

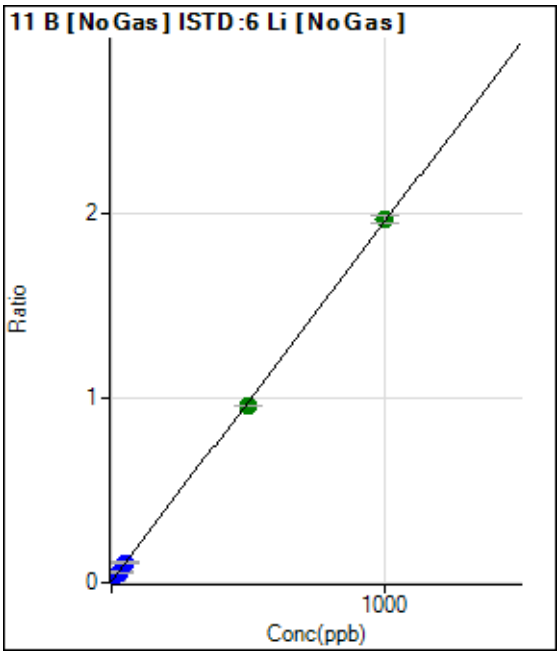


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	75.5
2	☐	2.000	1.968	8045.71	0.0074	P	3.7
3	☐	5.000	4.884	19850.74	0.0183	P	3.0
4	☐	10.000	10.032	39346.64	0.0375	P	2.9
5	☐	100.000	98.470	388150.12	0.3677	P	1.7
6	☐	200.000	200.766	751269.60	0.7496	P	1.6

y = 0.0037 * x + 2.0931E-005
R = 1.0000
DL = 0.01269
BEC = 0.005606

Weight: <None>
Min Conc: <None>

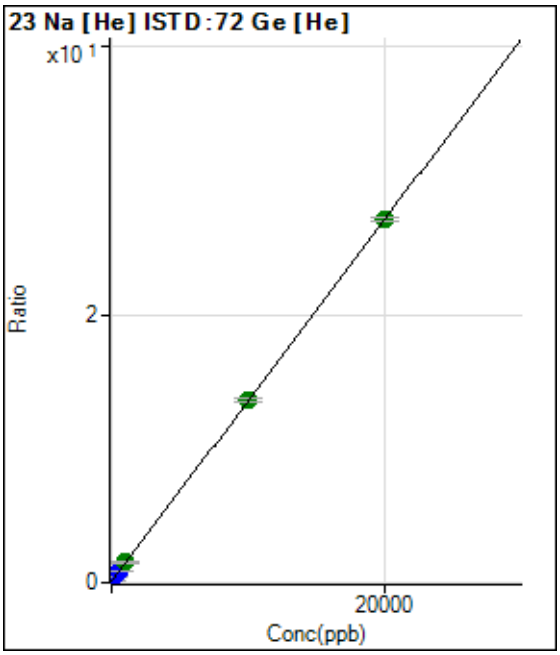
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8911.23	0.0080	P	1.6
2	☐	10.000	9.901	29673.02	0.0272	P	1.7
3	☐	25.000	25.233	61907.22	0.0569	P	1.3
4	☐	50.000	51.773	113826.48	0.1084	P	3.0
5	☐	500.000	488.089	1008580.79	0.9553	A	0.1
6	☐	1000.000	1005.862	1964389.29	1.9602	A	2.2

y = 0.0019 * x + 0.0080
R = 0.9999
DL = 0.1928
BEC = 4.099

Weight: <None>
Min Conc: <None>

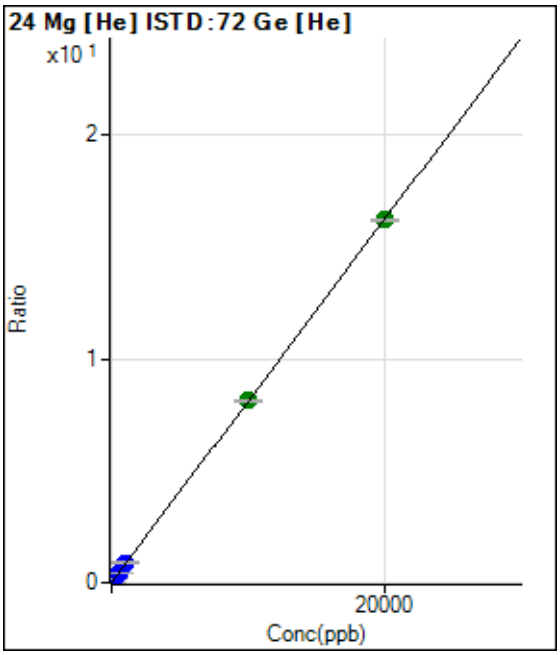


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56825.89	0.0824	P	0.8
2	☐	200.000	221.725	263264.68	0.3817	P	1.2
3	☐	500.000	553.025	574557.62	0.8290	P	1.0
4	☐	1000.000	1057.915	1035182.67	1.5106	A	1.3
5	☐	10000.000	9998.713	9145441.74	13.5811	A	2.0
6	☐	20000.000	19996.205	17874660.98	27.0781	A	1.0

y = 0.0014 * x + 0.0824
R = 1.0000
DL = 1.51
BEC = 61.01

Weight: <None>
Min Conc: <None>

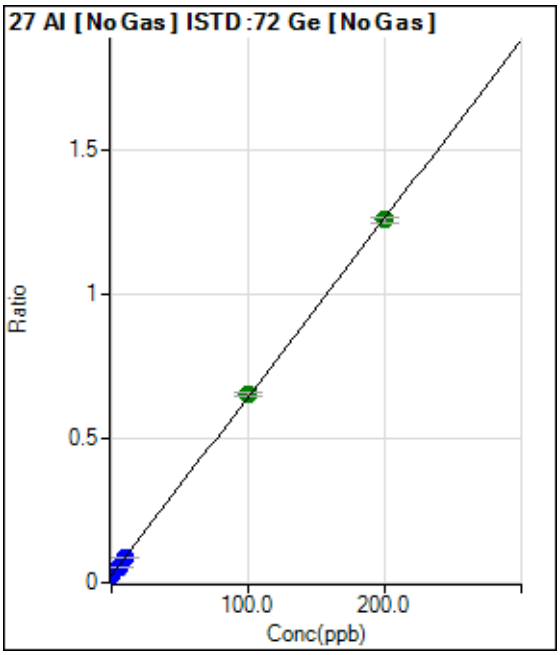
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	840.04	0.0012	P	10.0
2	☐	200.000	224.361	126408.94	0.1833	P	1.1
3	☐	500.000	563.970	318027.29	0.4588	P	0.2
4	☐	1000.000	1107.304	616407.05	0.8997	P	2.0
5	☐	10000.000	10032.099	5482787.84	8.1414	A	1.2
6	☐	20000.000	19976.743	10701127.76	16.2106	A	0.7

y = 8.1141E-004 * x + 0.0012
R = 1.0000
DL = 0.4503
BEC = 1.499

Weight: <None>
Min Conc: <None>

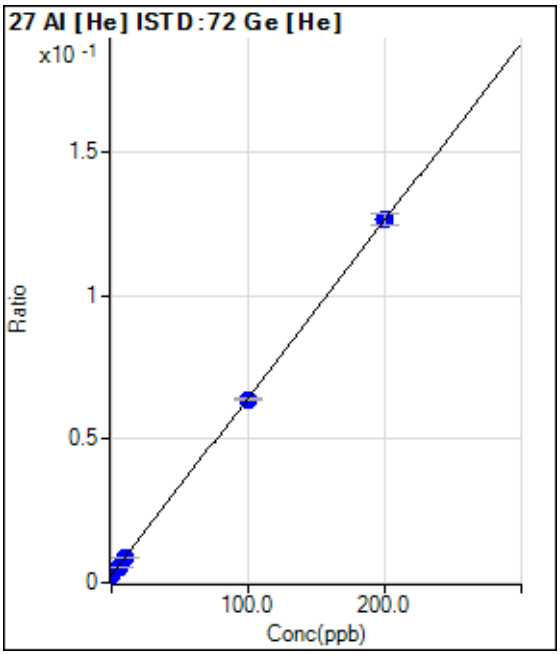


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	64161.30	0.0258	P	2.0
2	☐	2.000	2.308	100118.89	0.0401	P	1.6
3	☐	5.000	4.674	135231.53	0.0547	P	1.3
4	☐	10.000	9.817	211957.76	0.0864	P	0.8
5	☐	100.000	101.593	1587380.76	0.6533	A	1.5
6	☐	200.000	199.218	2973288.60	1.2563	A	1.3

y = 0.0062 * x + 0.0258
R = 1.0000
DL = 0.2501
BEC = 4.178

Weight: <None>
Min Conc: <None>

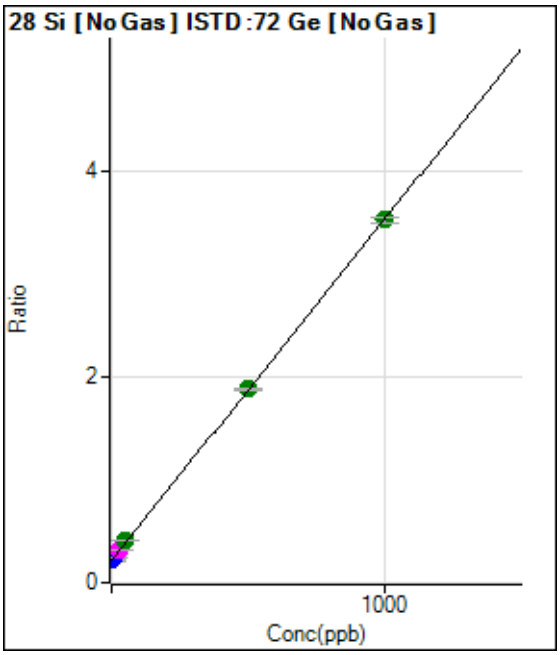
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1850.16	0.0027	P	3.7
2	☐	2.000	2.276	2817.00	0.0041	P	7.9
3	☐	5.000	4.576	3813.94	0.0055	P	2.6
4	☐	10.000	9.971	6048.07	0.0088	P	4.5
5	☐	100.000	99.271	43036.96	0.0639	P	0.9
6	☐	200.000	200.374	83335.43	0.1262	P	3.1

y = 6.1667E-004 * x + 0.0027
R = 1.0000
DL = 0.4806
BEC = 4.348

Weight: <None>
Min Conc: <None>

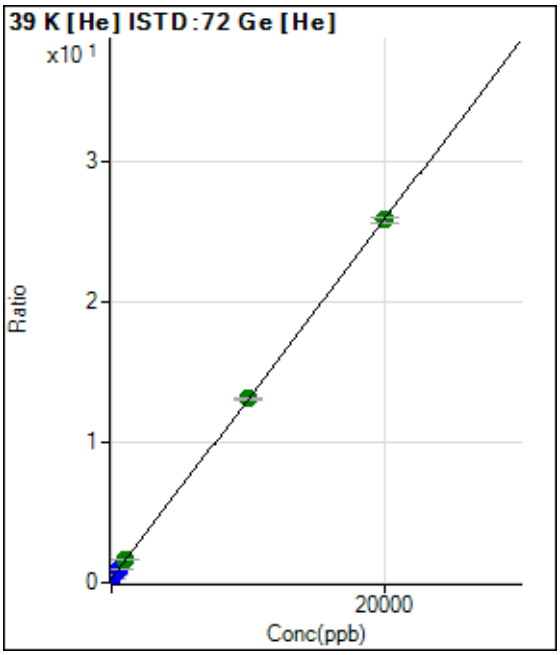


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	535979.17	0.2156	P	1.3
2	☐	10.000	10.419	625070.26	0.2501	P	1.5
3	☐	25.000	31.403	790683.79	0.3196	M	3.2
4	☐	50.000	58.617	1004805.35	0.4098	A	0.6
5	☐	500.000	501.851	4563836.91	1.8782	A	1.1
6	☐	1000.000	998.480	8339375.50	3.5236	A	1.3

y = 0.0033 * x + 0.2156
R = 1.0000
DL = 2.619
BEC = 65.07

Weight: <None>
Min Conc: <None>

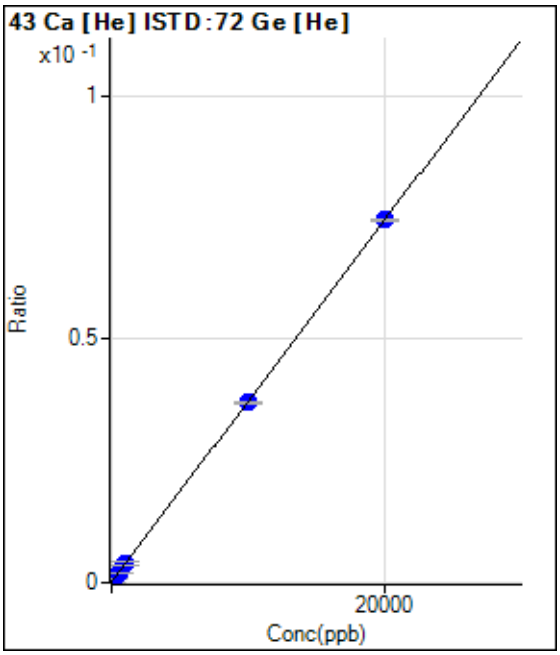
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190312.89	0.2758	P	1.1
2	☐	200.000	216.270	381319.93	0.5529	P	1.0
3	☐	500.000	534.512	665743.84	0.9605	P	0.9
4	☐	1000.000	1059.855	1119244.85	1.6334	A	3.4
5	☐	10000.000	10042.921	8848902.79	13.1399	A	1.3
6	☐	20000.000	19974.521	17071491.00	25.8614	A	1.4

y = 0.0013 * x + 0.2758
R = 1.0000
DL = 7.264
BEC = 215.4

Weight: <None>
Min Conc: <None>

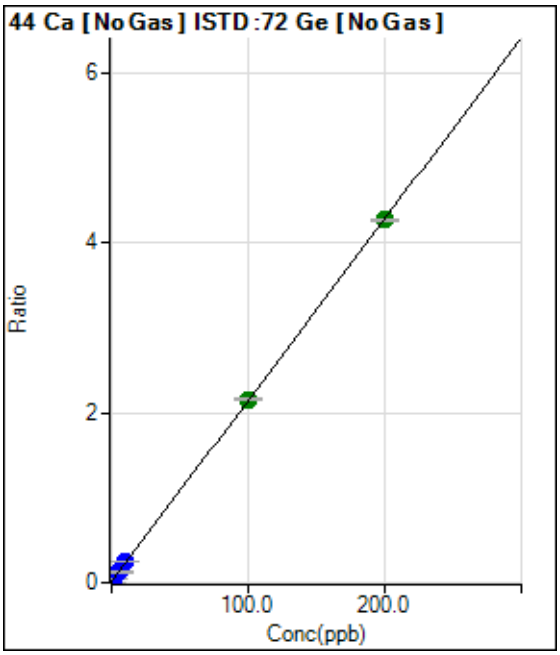


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	22.5
2	☐	200.000	207.073	610.03	0.0009	P	9.1
3	☐	500.000	489.639	1340.09	0.0019	P	6.8
4	☐	1000.000	1024.212	2683.65	0.0039	P	12.5
5	☐	10000.000	9938.863	24926.10	0.0370	P	1.1
6	☐	20000.000	20029.546	49154.61	0.0745	P	0.3

y = 3.7118E-006 * x + 1.1609E-004
R = 1.0000
DL = 21.12
BEC = 31.27

Weight: <None>
Min Conc: <None>

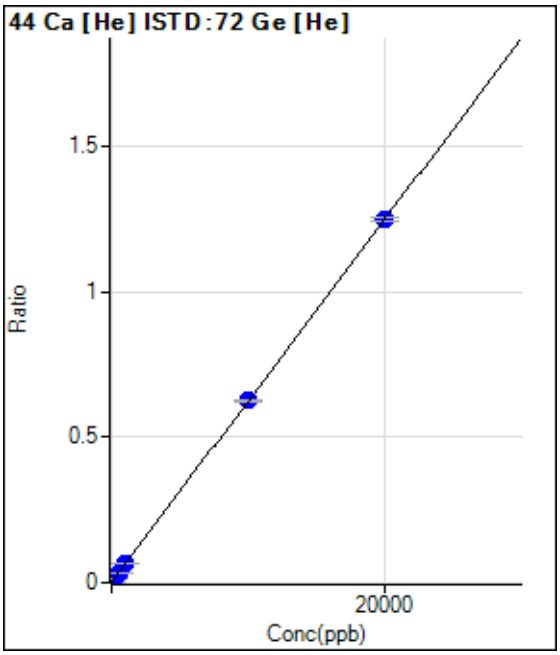
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27200.51	0.0109	P	3.0
2	☐	2.000	2.113	140126.82	0.0561	P	0.7
3	☐	5.000	5.324	308233.56	0.1246	P	0.8
4	☐	10.000	10.715	587894.44	0.2397	P	0.6
5	☐	100.000	100.614	5247175.23	2.1595	A	0.8
6	☐	200.000	199.648	10115830.89	4.2742	A	0.7

y = 0.0214 * x + 0.0109
R = 1.0000
DL = 0.04661
BEC = 0.5124

Weight: <None>
Min Conc: <None>

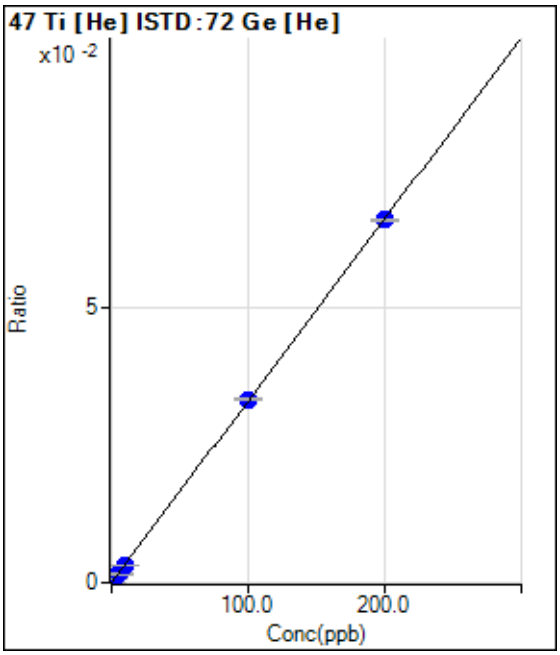


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1046.72	0.0015	P	10.0
2	☐	200.000	209.481	10047.15	0.0146	P	5.2
3	☐	500.000	513.533	23223.15	0.0335	P	3.5
4	☐	1000.000	999.370	43693.05	0.0638	P	0.7
5	☐	10000.000	10012.963	421081.75	0.6252	P	0.6
6	☐	20000.000	19993.117	823111.26	1.2469	P	0.9

y = 6.2291E-005 * x + 0.0015
R = 1.0000
DL = 7.296
BEC = 24.35

Weight: <None>
Min Conc: <None>

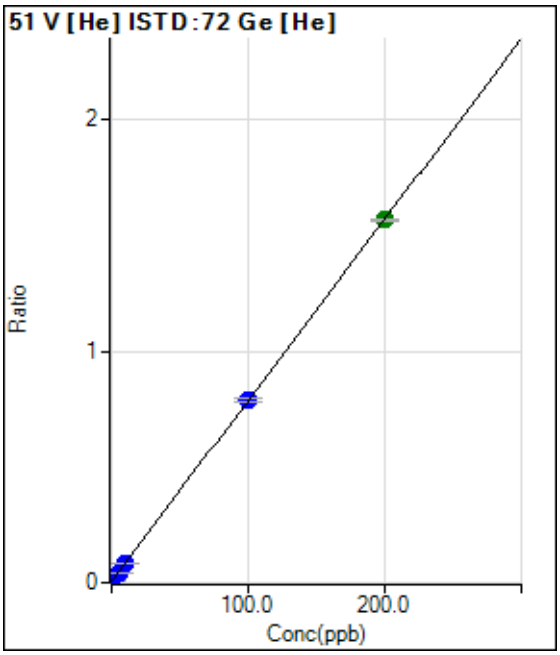
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	25.6
2	☐	2.000	1.879	450.01	0.0007	P	25.1
3	☐	5.000	4.842	1130.07	0.0016	P	8.6
4	☐	10.000	9.569	2183.55	0.0032	P	4.7
5	☐	100.000	100.756	22388.62	0.0332	P	1.5
6	☐	200.000	199.649	43462.30	0.0658	P	0.6

y = 3.2961E-004 * x + 3.3864E-005
R = 1.0000
DL = 0.07891
BEC = 0.1027

Weight: <None>
Min Conc: <None>

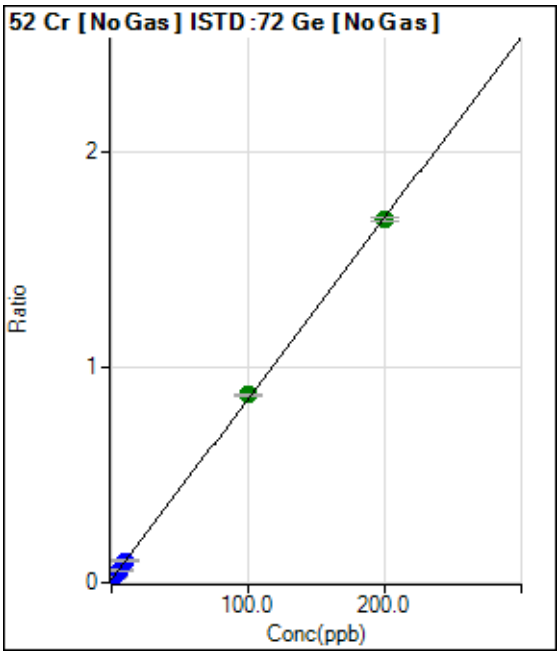


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3956.15	0.0057	P	3.0
2	☐	2.000	2.000	14742.42	0.0214	P	2.0
3	☐	5.000	5.048	31333.55	0.0452	P	0.8
4	☐	10.000	9.987	57432.96	0.0838	P	1.3
5	☐	100.000	100.291	532003.43	0.7900	P	1.2
6	☐	200.000	199.854	1035425.93	1.5685	A	0.8

y = 0.0078 * x + 0.0057
R = 1.0000
DL = 0.06655
BEC = 0.7332

Weight: <None>
Min Conc: <None>

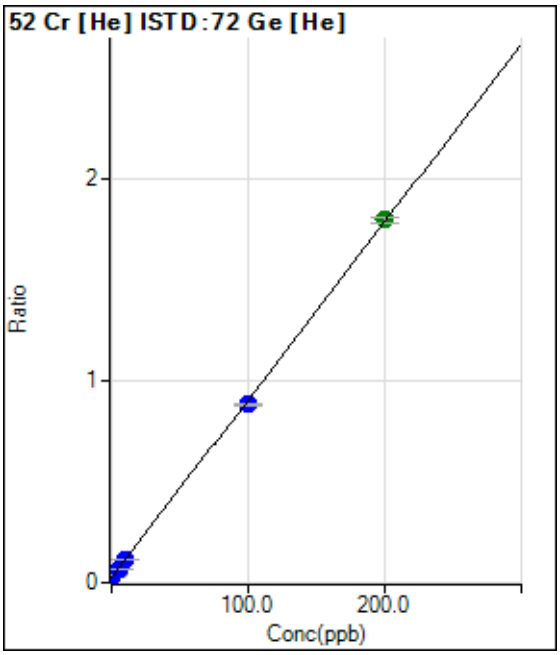
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35459.54	0.0143	P	2.0
2	☐	2.000	2.019	77991.36	0.0312	P	1.4
3	☐	5.000	5.198	143142.23	0.0579	P	1.2
4	☐	10.000	10.462	250232.75	0.1020	P	1.2
5	☐	100.000	102.146	2117229.19	0.8713	A	0.4
6	☐	200.000	198.899	3983471.19	1.6831	A	1.2

y = 0.0084 * x + 0.0143
R = 0.9999
DL = 0.104
BEC = 1.7

Weight: <None>
Min Conc: <None>

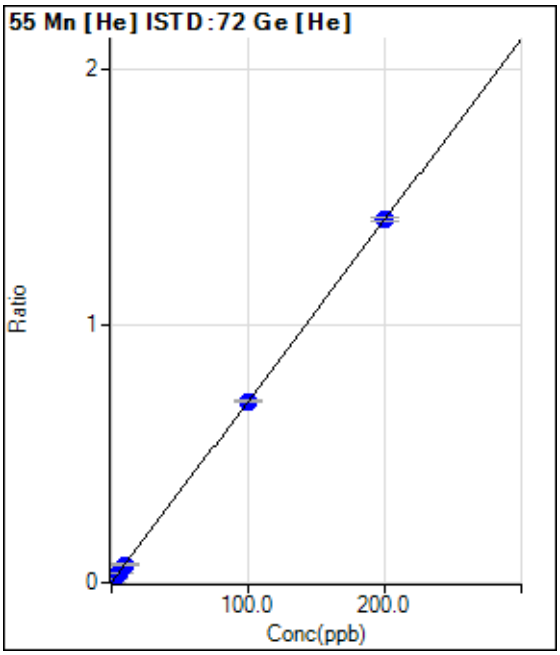


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17317.89	0.0251	P	3.1
2	☐	2.000	2.020	29565.62	0.0429	P	1.2
3	☐	5.000	5.026	48031.18	0.0693	P	0.7
4	☐	10.000	10.241	78909.82	0.1152	P	0.4
5	☐	100.000	97.540	594514.46	0.8828	P	1.1
6	☐	200.000	201.217	1184522.61	1.7945	A	1.8

y = 0.0088 * x + 0.0251
R = 0.9999
DL = 0.262
BEC = 2.855

Weight: <None>
Min Conc: <None>

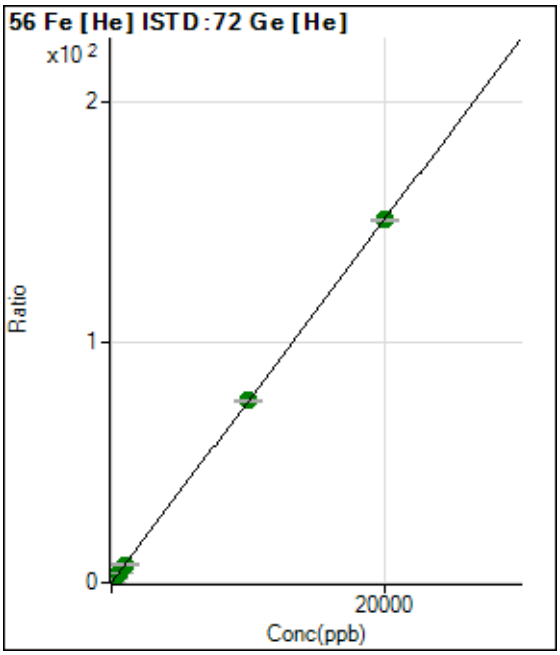
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	630.03	0.0009	P	19.4
2	☐	2.000	2.071	10697.70	0.0155	P	2.7
3	☐	5.000	5.339	26709.72	0.0385	P	4.5
4	☐	10.000	9.946	48646.75	0.0710	P	0.8
5	☐	100.000	99.818	474283.45	0.7043	P	0.9
6	☐	200.000	200.084	931275.82	1.4107	P	1.1

y = 0.0070 * x + 9.1456E-004
R = 1.0000
DL = 0.07563
BEC = 0.1298

Weight: <None>
Min Conc: <None>

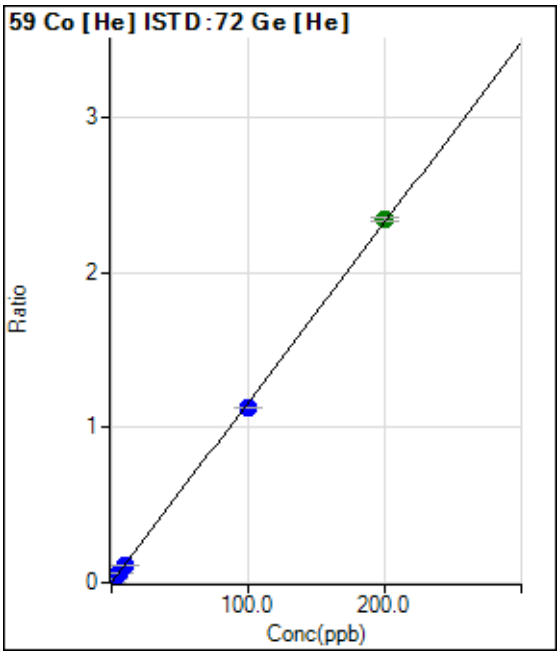


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25644.37	0.0372	P	0.7
2	☐	200.000	209.772	1119897.12	1.6236	A	1.8
3	☐	500.000	520.243	2752908.92	3.9717	A	0.8
4	☐	1000.000	1001.140	5212839.92	7.6087	A	1.7
5	☐	10000.000	10020.541	51064894.24	75.8211	A	0.6
6	☐	20000.000	19989.069	99819555.18	151.2117	A	0.6

y = 0.0076 * x + 0.0372
R = 1.0000
DL = 0.09783
BEC = 4.914

Weight: <None>
Min Conc: <None>

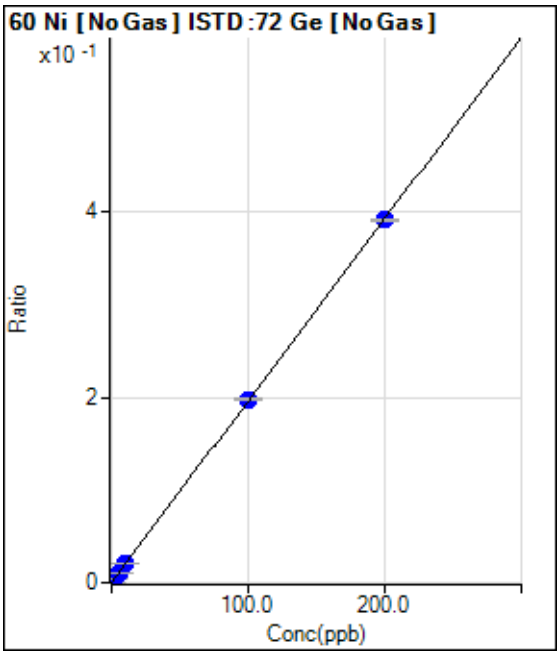
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0001	P	36.8
2	☐	2.000	2.035	16413.42	0.0238	P	1.3
3	☐	5.000	5.021	40570.60	0.0585	P	2.1
4	☐	10.000	9.774	77978.89	0.1138	P	1.2
5	☐	100.000	97.195	761399.39	1.1306	P	0.8
6	☐	200.000	201.413	1546412.17	2.3427	A	1.1

y = 0.0116 * x + 1.2544E-004
R = 0.9999
DL = 0.01191
BEC = 0.01079

Weight: <None>
Min Conc: <None>

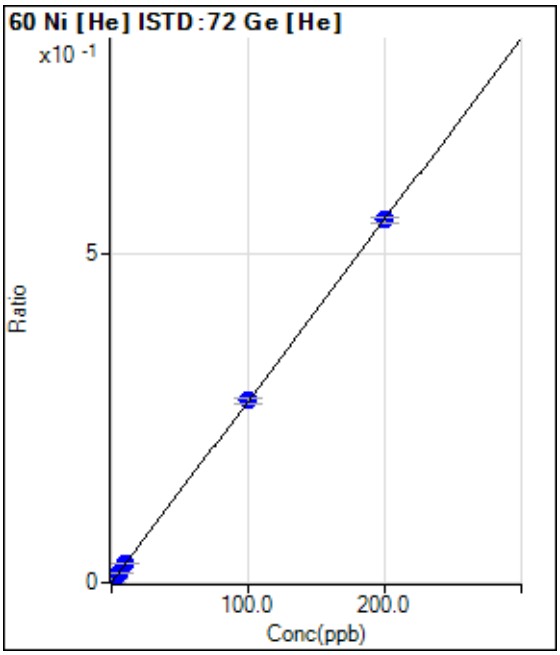


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	520.02	0.0002	P	6.6
2	☐	2.000	2.128	10937.87	0.0044	P	1.5
3	☐	5.000	5.118	25303.78	0.0102	P	0.9
4	☐	10.000	10.320	50065.52	0.0204	P	0.9
5	☐	100.000	100.778	479996.31	0.1975	P	1.1
6	☐	200.000	199.591	925443.76	0.3910	P	0.8

y = 0.0020 * x + 2.0905E-004
R = 1.0000
DL = 0.02117
BEC = 0.1068

Weight: <None>
Min Conc: <None>

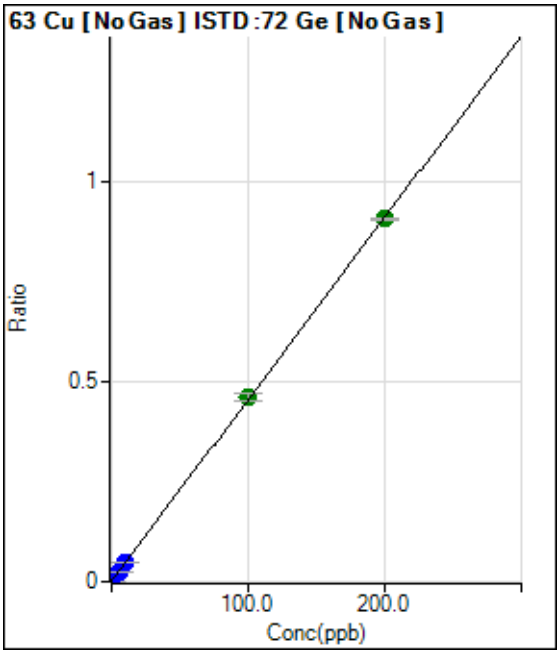
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0002	P	40.0
2	☐	2.000	2.110	4140.71	0.0060	P	4.4
3	☐	5.000	5.270	10217.32	0.0147	P	4.1
4	☐	10.000	10.203	19450.75	0.0284	P	1.3
5	☐	100.000	100.197	186773.95	0.2774	P	2.5
6	☐	200.000	199.884	365127.65	0.5531	P	1.8

y = 0.0028 * x + 1.6425E-004
R = 1.0000
DL = 0.07131
BEC = 0.05937

Weight: <None>
Min Conc: <None>

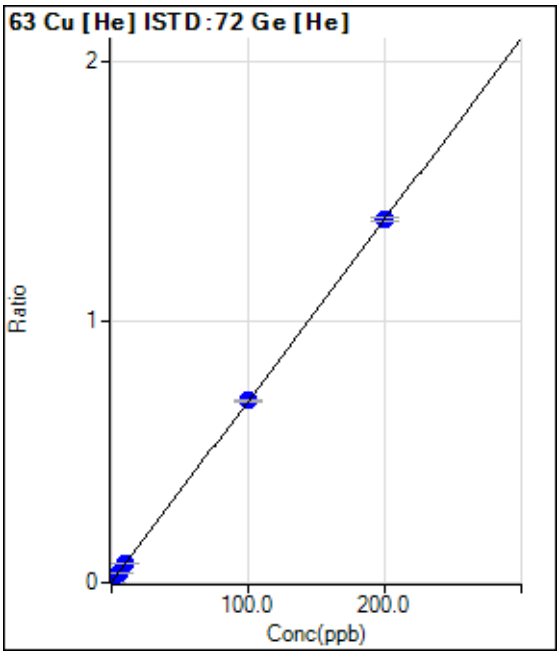


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2790.33	0.0011	P	4.4
2	☐	2.000	2.553	31820.92	0.0127	P	3.2
3	☐	5.000	5.188	61093.93	0.0247	P	1.2
4	☐	10.000	10.292	117464.14	0.0479	P	0.2
5	☐	100.000	101.218	1120432.98	0.4612	A	3.9
6	☐	200.000	199.366	2147359.08	0.9073	A	0.8

y = 0.0045 * x + 0.0011
R = 1.0000
DL = 0.0324
BEC = 0.2469

Weight: <None>
Min Conc: <None>

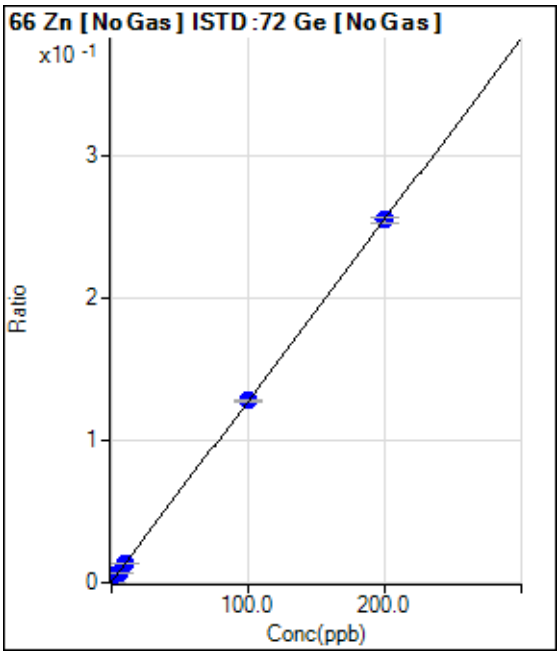
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	796.70	0.0012	P	11.7
2	☐	2.000	2.587	13199.93	0.0191	P	1.6
3	☐	5.000	5.194	25821.53	0.0373	P	2.2
4	☐	10.000	10.208	49403.29	0.0721	P	1.5
5	☐	100.000	100.095	469360.53	0.6969	P	0.7
6	☐	200.000	199.931	918107.77	1.3908	P	1.1

y = 0.0070 * x + 0.0012
R = 1.0000
DL = 0.05842
BEC = 0.1663

Weight: <None>
Min Conc: <None>

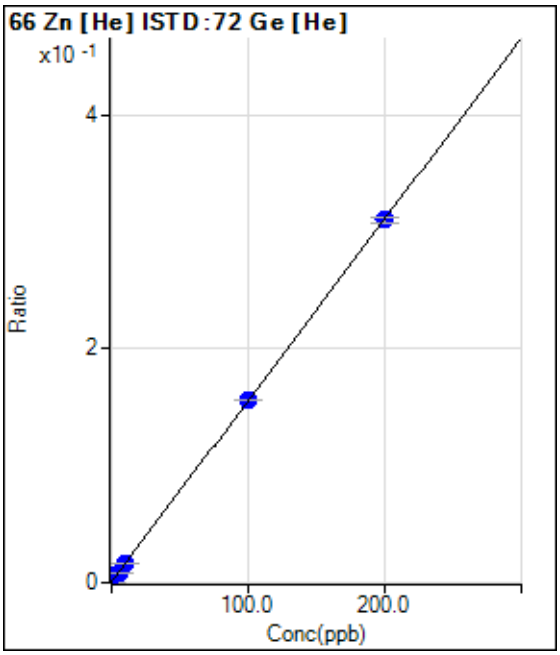


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1390.09	0.0006	P	14.0
2	☐	2.000	3.575	12786.27	0.0051	P	3.0
3	☐	5.000	5.049	17294.57	0.0070	P	1.9
4	☐	10.000	10.364	33755.64	0.0138	P	1.1
5	☐	100.000	100.121	311362.98	0.1281	P	1.2
6	☐	200.000	199.904	604218.65	0.2553	P	1.4

y = 0.0013 * x + 5.5961E-004
R = 1.0000
DL = 0.1839
BEC = 0.4392

Weight: <None>
Min Conc: <None>

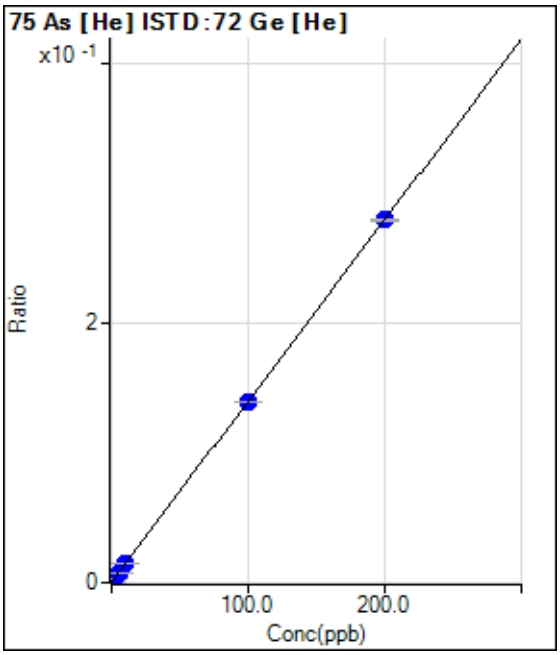
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	490.02	0.0007	P	7.3
2	☐	2.000	3.472	4204.08	0.0061	P	3.7
3	☐	5.000	4.877	5734.64	0.0083	P	1.7
4	☐	10.000	9.918	11024.67	0.0161	P	1.4
5	☐	100.000	100.556	105504.59	0.1567	P	0.5
6	☐	200.000	199.715	204926.01	0.3104	P	1.3

y = 0.0016 * x + 7.1061E-004
R = 1.0000
DL = 0.1003
BEC = 0.4582

Weight: <None>
Min Conc: <None>

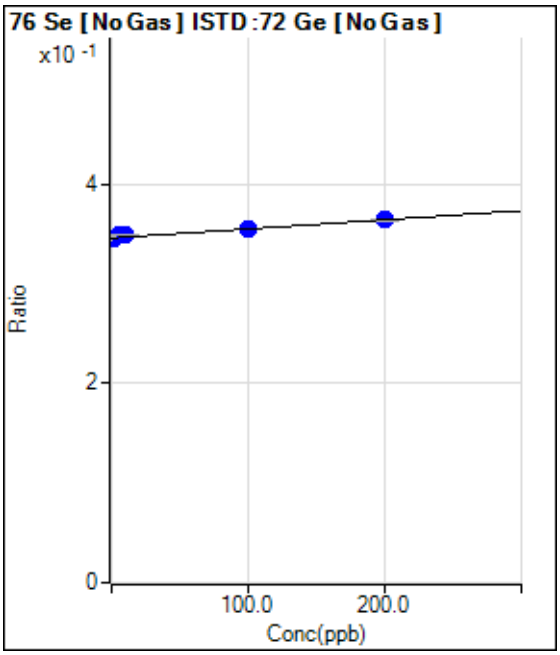


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	332.23	0.0005	P	7.6
2	☐	2.000	2.097	2351.33	0.0034	P	5.7
3	☐	5.000	5.173	5338.86	0.0077	P	2.1
4	☐	10.000	10.028	9920.36	0.0145	P	2.5
5	☐	100.000	99.653	94021.39	0.1396	P	0.8
6	☐	200.000	200.167	184789.33	0.2799	P	0.3

y = 0.0014 * x + 4.8174E-004
R = 1.0000
DL = 0.07837
BEC = 0.3451

Weight: <None>
Min Conc: <None>

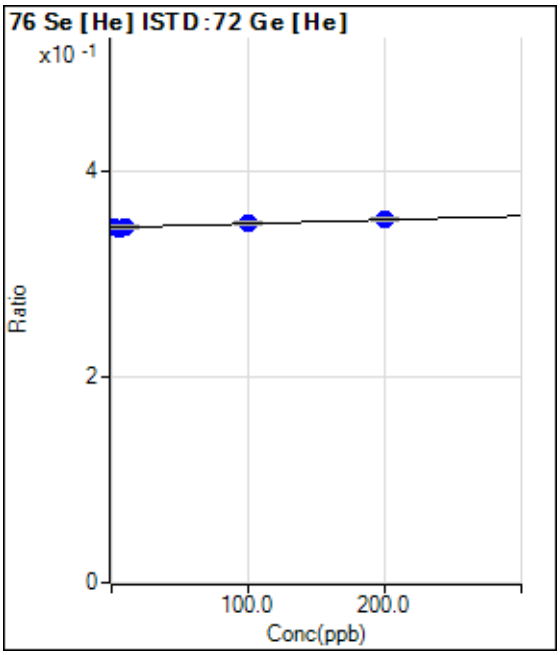
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	861054.34	0.3463	P	1.0
2	☐	2.000	-0.556	865445.79	0.3463	P	1.5
3	☐	5.000	30.570	863583.79	0.3491	P	0.4
4	☐	10.000	37.838	857804.39	0.3498	P	0.5
5	☐	100.000	100.451	864090.93	0.3556	P	0.3
6	☐	200.000	197.769	862813.66	0.3646	P	0.5

y = 9.2188E-005 * x + 0.3463
R = 0.9856
DL = 110
BEC = 3757

Weight: <None>
Min Conc: <None>

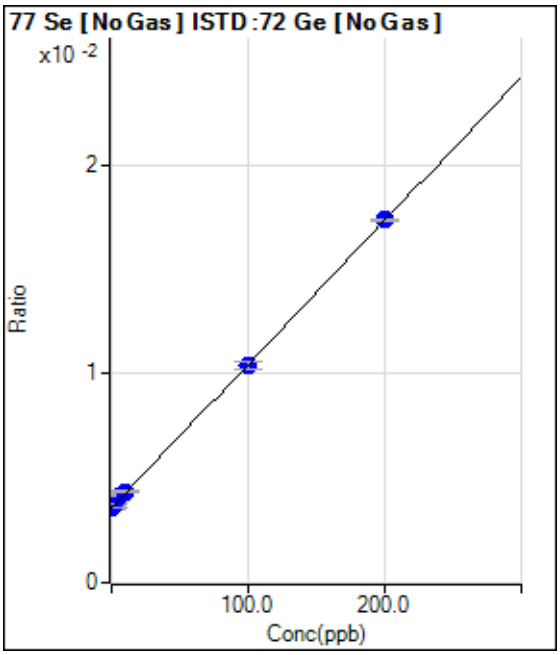


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	238564.49	0.3457	P	0.6
2	☐	2.000	-4.930	238337.92	0.3456	P	0.5
3	☐	5.000	-37.197	238684.19	0.3444	P	0.3
4	☐	10.000	16.957	237329.93	0.3464	P	0.8
5	☐	100.000	107.981	235580.32	0.3498	P	1.1
6	☐	200.000	196.786	233067.69	0.3531	P	1.0

y = 3.7276E-005 * x + 0.3457
R = 0.9793
DL = 162.3
BEC = 9275

Weight: <None>
Min Conc: <None>

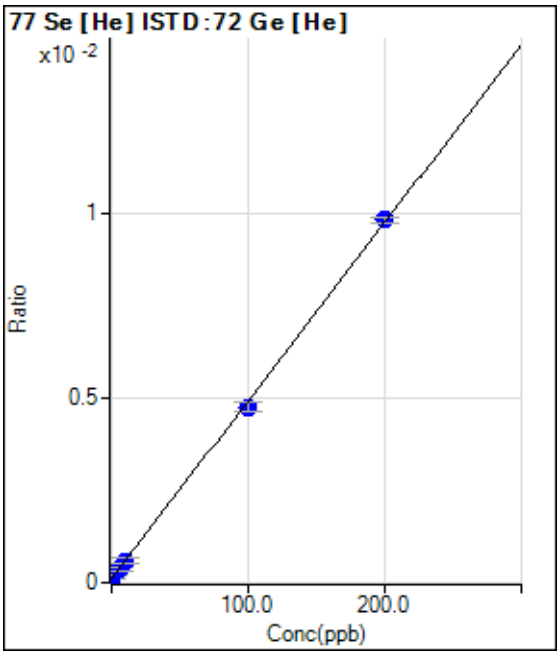
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8916.42	0.0036	P	5.5
2	☐	2.000	1.878	9280.03	0.0037	P	4.2
3	☐	5.000	8.570	10324.12	0.0042	P	1.5
4	☐	10.000	11.378	10707.78	0.0044	P	3.3
5	☐	100.000	98.850	25230.59	0.0104	P	3.3
6	☐	200.000	200.418	41109.65	0.0174	P	0.8

y = 6.8782E-005 * x + 0.0036
R = 0.9998
DL = 8.612
BEC = 52.12

Weight: <None>
Min Conc: <None>

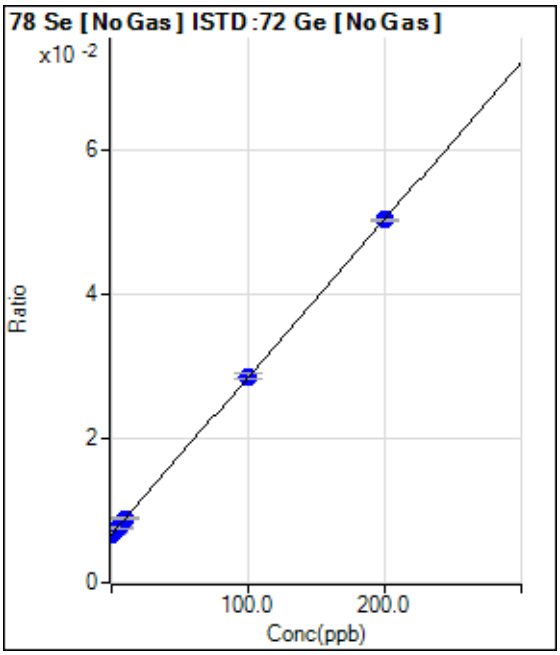


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0001	P	40.7
2	☐	2.000	2.927	170.00	0.0002	P	26.4
3	☐	5.000	5.486	256.68	0.0004	P	24.3
4	☐	10.000	10.215	410.02	0.0006	P	20.7
5	☐	100.000	96.601	3200.44	0.0048	P	4.8
6	☐	200.000	201.668	6475.00	0.0098	P	1.6

y = 4.8111E-005 * x + 1.0598E-004
R = 0.9998
DL = 2.691
BEC = 2.203

Weight: <None>
Min Conc: <None>

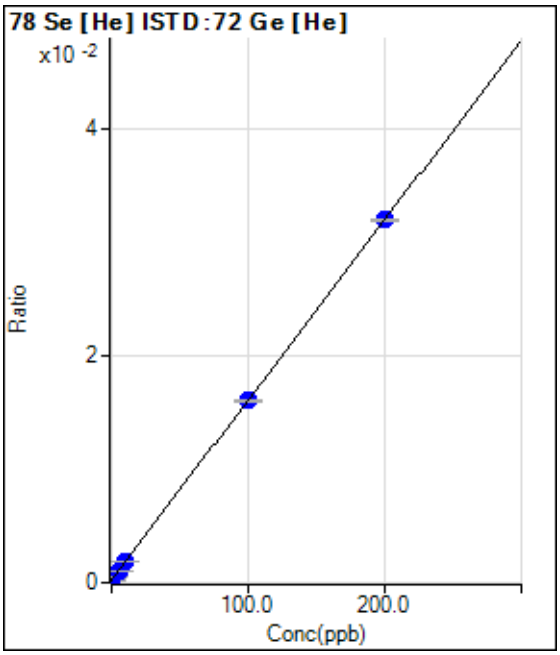
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16687.23	0.0067	P	2.9
2	☐	2.000	1.118	17384.81	0.0070	P	1.7
3	☐	5.000	4.382	18963.70	0.0077	P	3.4
4	☐	10.000	10.063	21841.33	0.0089	P	2.6
5	☐	100.000	100.427	69565.88	0.0286	P	2.4
6	☐	200.000	199.807	119092.94	0.0503	P	0.5

y = 2.1825E-004 * x + 0.0067
R = 1.0000
DL = 2.653
BEC = 30.76

Weight: <None>
Min Conc: <None>

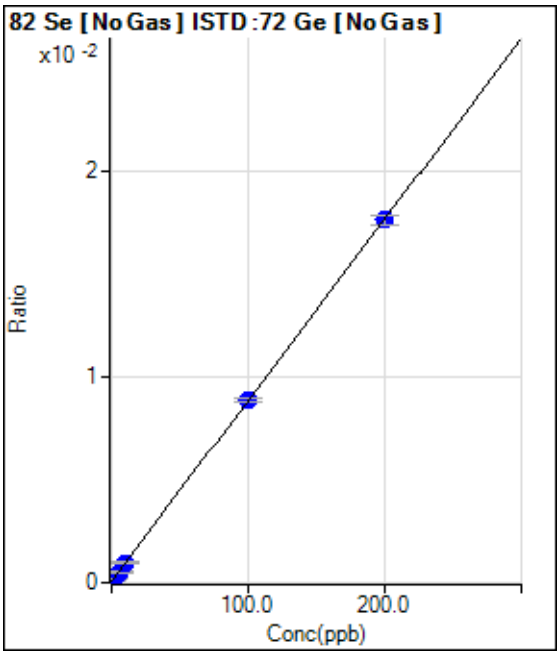


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	174.00	0.0003	P	6.8
2	☐	2.000	2.289	424.68	0.0006	P	10.1
3	☐	5.000	4.830	706.02	0.0010	P	2.8
4	☐	10.000	10.043	1264.73	0.0018	P	6.0
5	☐	100.000	99.566	10810.35	0.0161	P	1.8
6	☐	200.000	200.216	21138.53	0.0320	P	0.3

y = 1.5868E-004 * x + 2.5229E-004
R = 1.0000
DL = 0.3261
BEC = 1.59

Weight: <None>
Min Conc: <None>

Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	167.84	0.0001	P	45.7
2	☐	2.000	1.712	544.39	0.0002	P	12.9
3	☐	5.000	5.074	1271.25	0.0005	P	3.6
4	☐	10.000	10.365	2401.45	0.0010	P	2.1
5	☐	100.000	100.381	21619.22	0.0089	P	2.6
6	☐	200.000	199.792	41757.08	0.0176	P	2.8

y = 8.7969E-005 * x + 6.7539E-005

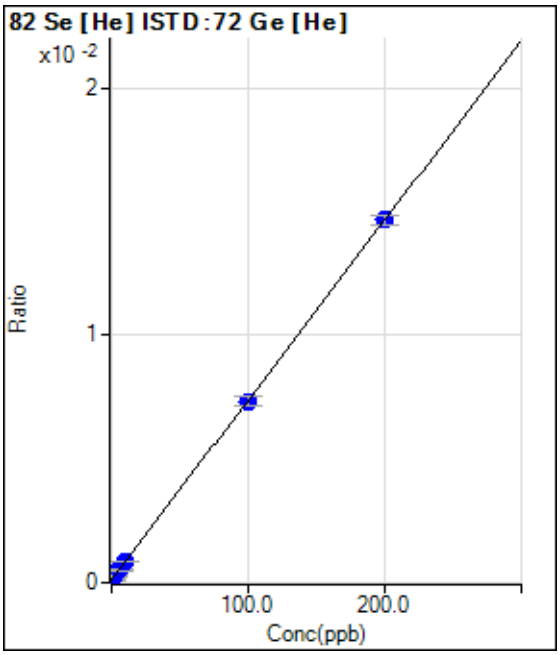
R = 1.0000

DL = 1.052

BEC = 0.7678

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	34.0
2	☐	2.000	1.921	176.67	0.0003	P	40.5
3	☐	5.000	5.415	353.35	0.0005	P	9.3
4	☐	10.000	9.979	576.69	0.0008	P	5.8
5	☐	100.000	99.389	4944.35	0.0073	P	4.8
6	☐	200.000	200.297	9687.03	0.0147	P	2.5

y = 7.2682E-005 * x + 1.1627E-004

R = 1.0000

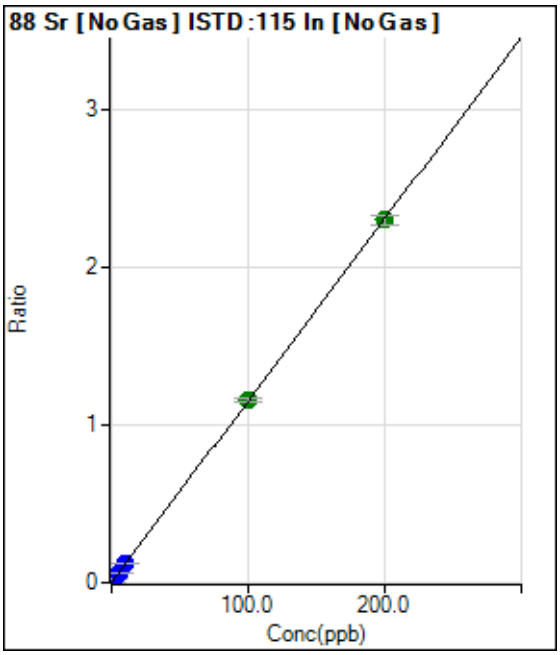
DL = 1.631

BEC = 1.6

Weight: <None>

Min Conc: <None>

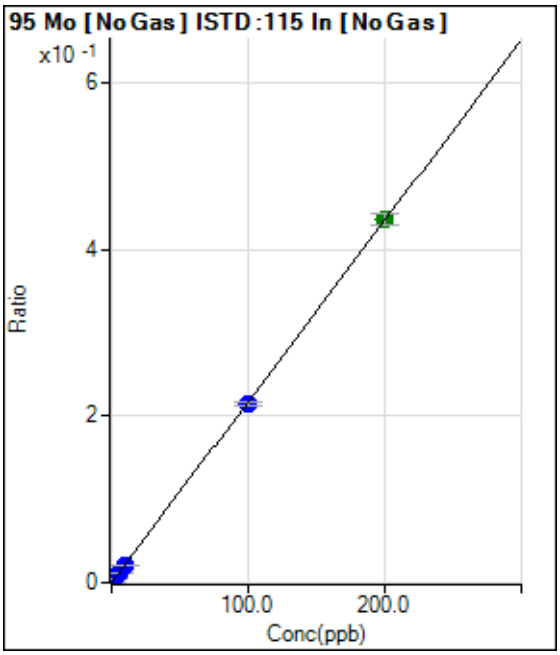
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2236.90	0.0008	P	3.2
2	☐	2.000	2.041	65768.39	0.0243	P	2.2
3	☐	5.000	5.179	158702.02	0.0605	P	2.3
4	☐	10.000	10.206	316267.59	0.1183	P	0.8
5	☐	100.000	100.849	3035804.22	1.1621	A	2.0
6	☐	200.000	199.560	5837140.54	2.2987	A	2.3

y = 0.0115 * x + 8.1883E-004
R = 1.0000
DL = 0.00684
BEC = 0.07111

Weight: <None>
Min Conc: <None>

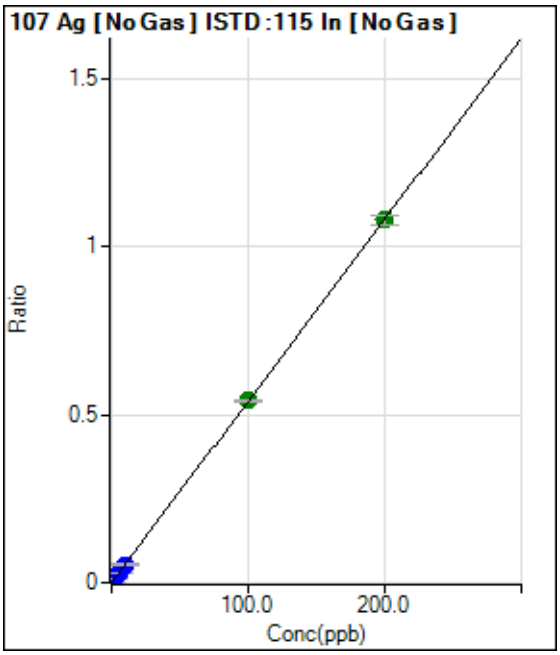


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	333.34	0.0001	P	22.8
2	☐	2.000	1.894	11465.14	0.0042	P	2.2
3	☐	5.000	4.989	28784.64	0.0110	P	2.7
4	☐	10.000	9.858	57587.77	0.0215	P	1.6
5	☐	100.000	99.017	562564.05	0.2153	P	1.7
6	☐	200.000	200.500	1106888.29	0.4359	A	3.1

y = 0.0022 * x + 1.2204E-004
R = 1.0000
DL = 0.03846
BEC = 0.05615

Weight: <None>
Min Conc: <None>

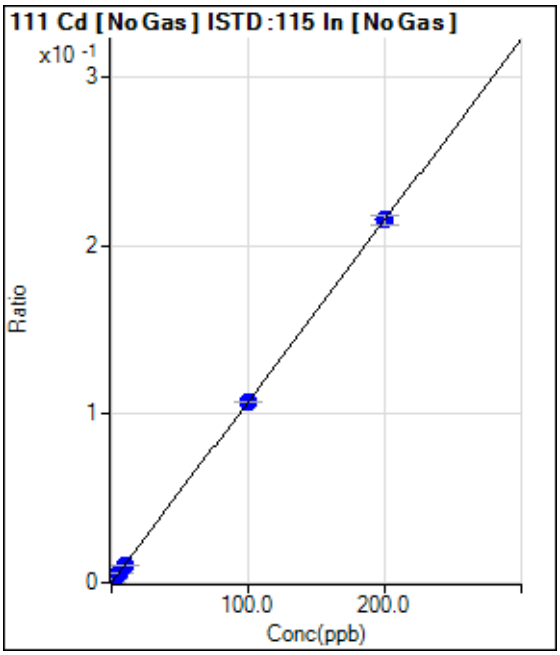
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	143.33	0.0001	P	28.7
2	☐	2.000	2.025	29750.42	0.0110	P	3.1
3	☐	5.000	5.081	72193.19	0.0275	P	4.2
4	☐	10.000	10.020	144897.57	0.0542	P	1.3
5	☐	100.000	100.186	1414946.75	0.5416	A	1.3
6	☐	200.000	199.904	2744235.37	1.0806	A	2.4

y = 0.0054 * x + 5.2435E-005
R = 1.0000
DL = 0.008338
BEC = 0.0097

Weight: <None>
Min Conc: <None>

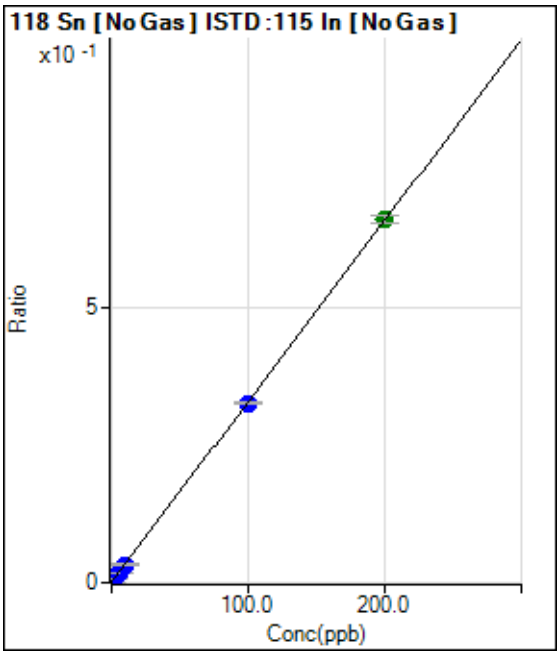


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.09	0.0000	P	67.2
2	☐	2.000	2.012	5875.75	0.0022	P	1.8
3	☐	5.000	4.963	14041.06	0.0053	P	1.5
4	☐	10.000	9.856	28363.06	0.0106	P	1.0
5	☐	100.000	99.564	279868.36	0.1071	P	0.3
6	☐	200.000	200.226	547062.41	0.2154	P	2.4

y = 0.0011 * x + 8.4398E-006
R = 1.0000
DL = 0.01581
BEC = 0.007845

Weight: <None>
Min Conc: <None>

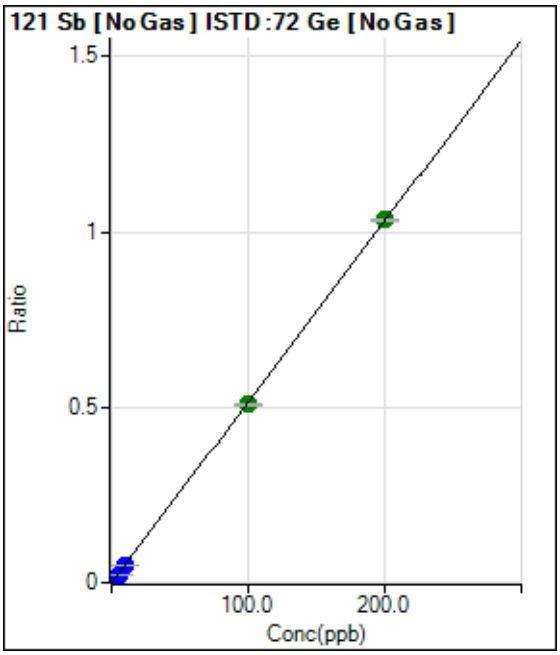
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2374.94	0.0009	P	37.5
2	☐	2.000	1.923	19485.44	0.0072	P	1.9
3	☐	5.000	4.812	43883.72	0.0167	P	4.0
4	☐	10.000	9.835	88916.94	0.0333	P	0.6
5	☐	100.000	99.182	855914.41	0.3276	P	0.8
6	☐	200.000	200.423	1678979.30	0.6612	A	2.1

y = 0.0033 * x + 8.6995E-004
R = 1.0000
DL = 0.2968
BEC = 0.2641

Weight: <None>
Min Conc: <None>

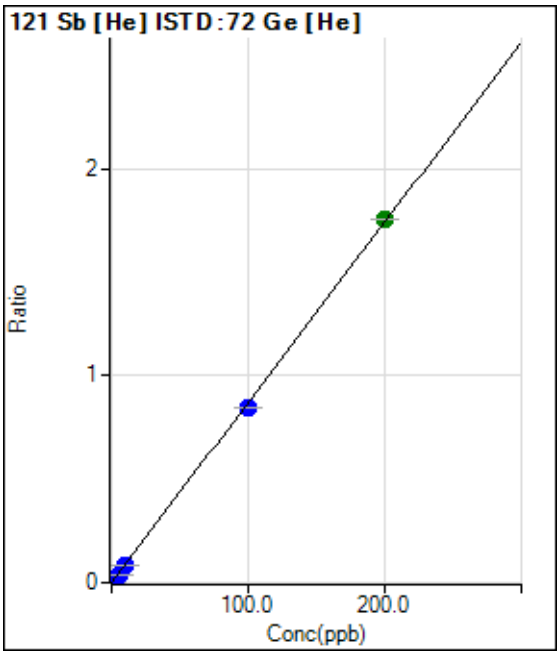


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	180.00	0.0001	P	25.6
2	☐	2.000	1.866	24206.05	0.0097	P	2.1
3	☐	5.000	4.701	60064.33	0.0243	P	2.5
4	☐	10.000	9.681	122448.08	0.0499	P	1.1
5	☐	100.000	98.474	1232542.74	0.5073	A	1.8
6	☐	200.000	200.788	2447798.19	1.0343	A	0.8

y = 0.0052 * x + 7.2396E-005
R = 1.0000
DL = 0.01078
BEC = 0.01406

Weight: <None>
Min Conc: <None>

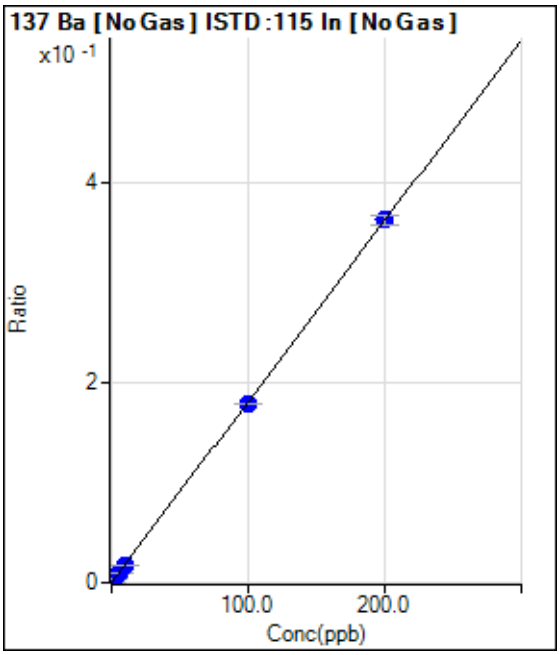
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0002	P	11.7
2	☐	2.000	1.868	11328.43	0.0164	P	1.3
3	☐	5.000	4.732	28675.17	0.0414	P	1.9
4	☐	10.000	9.459	56562.03	0.0825	P	0.9
5	☐	100.000	97.313	570973.27	0.8478	P	0.6
6	☐	200.000	201.379	1158038.42	1.7543	A	0.1

y = 0.0087 * x + 1.5470E-004
R = 0.9999
DL = 0.006219
BEC = 0.01776

Weight: <None>
Min Conc: <None>

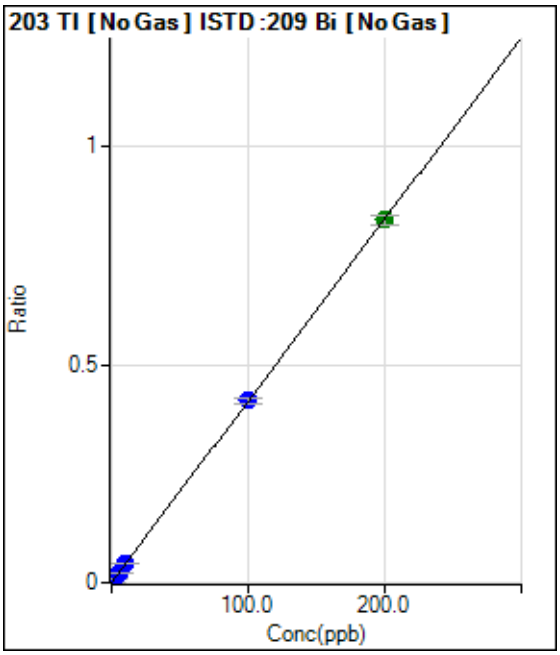


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.36	0.0003	P	4.5
2	☐	2.000	1.969	10314.25	0.0038	P	1.9
3	☐	5.000	4.984	24309.67	0.0093	P	3.2
4	☐	10.000	9.669	47373.37	0.0177	P	2.7
5	☐	100.000	98.815	467138.83	0.1788	P	0.8
6	☐	200.000	200.610	921082.23	0.3627	P	2.8

y = 0.0018 * x + 2.5751E-004
R = 1.0000
DL = 0.01914
BEC = 0.1425

Weight: <None>
Min Conc: <None>

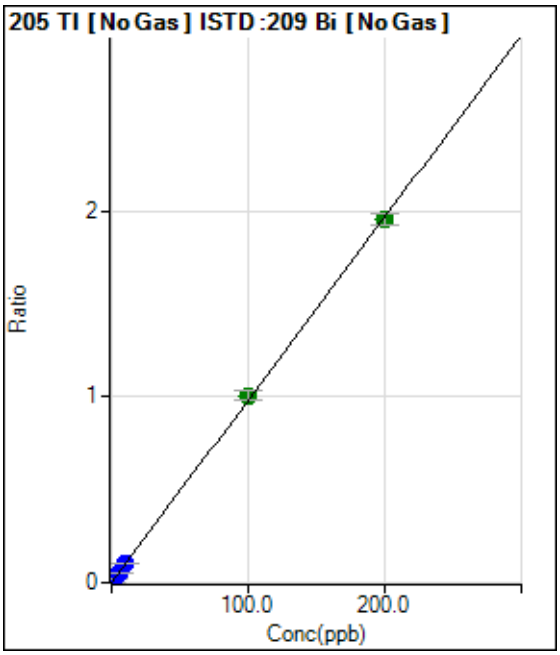
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0001	P	19.3
2	☐	2.000	2.062	16804.88	0.0086	P	5.0
3	☐	5.000	5.248	43415.84	0.0219	P	3.7
4	☐	10.000	10.578	86830.64	0.0441	P	3.2
5	☐	100.000	100.388	809332.54	0.4180	P	2.9
6	☐	200.000	199.770	1595801.80	0.8317	A	2.7

y = 0.0042 * x + 5.4675E-005
R = 1.0000
DL = 0.007585
BEC = 0.01313

Weight: <None>
Min Conc: <None>

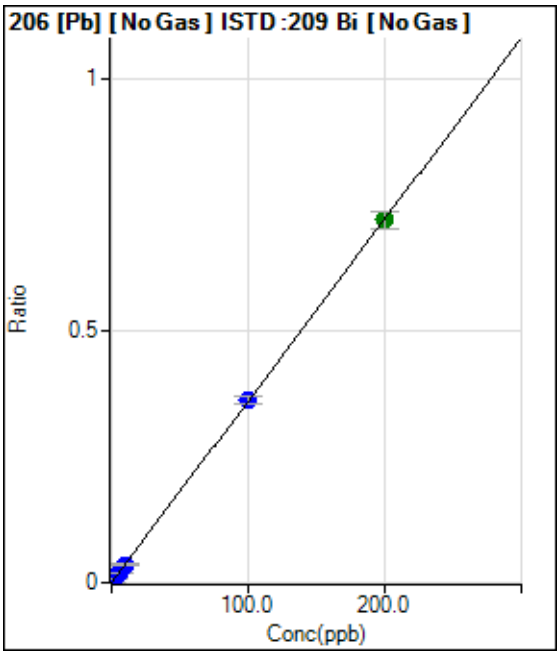


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0001	P	28.8
2	☐	2.000	2.154	41348.65	0.0213	P	4.9
3	☐	5.000	5.336	104142.33	0.0525	P	4.1
4	☐	10.000	10.754	208329.02	0.1058	P	4.0
5	☐	100.000	102.466	1950034.08	1.0075	A	5.1
6	☐	200.000	198.719	3748695.15	1.9538	A	3.3

y = 0.0098 * x + 8.4594E-005
R = 0.9999
DL = 0.007423
BEC = 0.008604

Weight: <None>
Min Conc: <None>

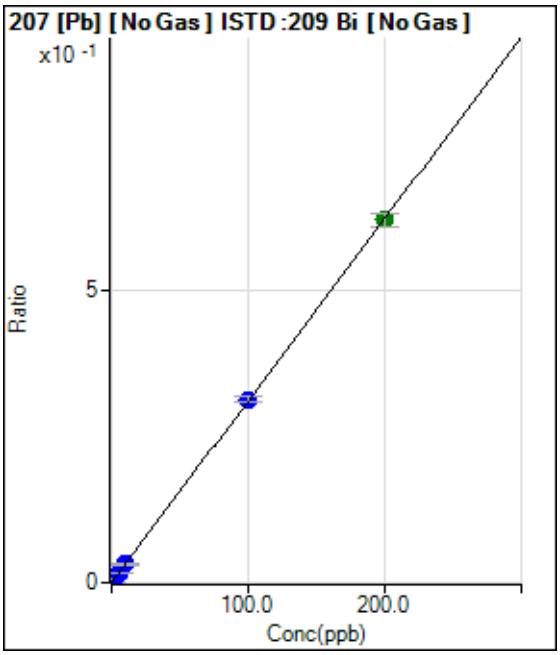
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.34	0.0001	P	43.6
2	☐	2.000	2.065	14612.06	0.0075	P	6.0
3	☐	5.000	5.018	36018.85	0.0182	P	3.4
4	☐	10.000	10.025	71354.05	0.0362	P	3.8
5	☐	100.000	100.419	701666.53	0.3625	P	3.7
6	☐	200.000	199.788	1382875.76	0.7211	A	4.5

y = 0.0036 * x + 6.3036E-005
R = 1.0000
DL = 0.02284
BEC = 0.01747

Weight: <None>
Min Conc: <None>

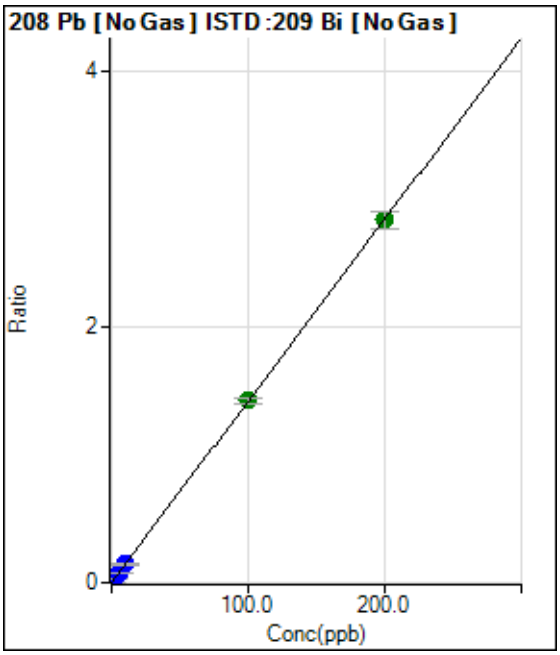


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0001	P	41.9
2	☐	2.000	2.037	12436.40	0.0064	P	3.9
3	☐	5.000	5.001	30871.93	0.0156	P	5.5
4	☐	10.000	10.074	61622.44	0.0313	P	5.5
5	☐	100.000	100.922	606109.55	0.3131	P	3.1
6	☐	200.000	199.535	1187120.69	0.6189	A	4.0

y = 0.0031 * x + 7.3072E-005
R = 1.0000
DL = 0.02965
BEC = 0.02356

Weight: <None>
Min Conc: <None>

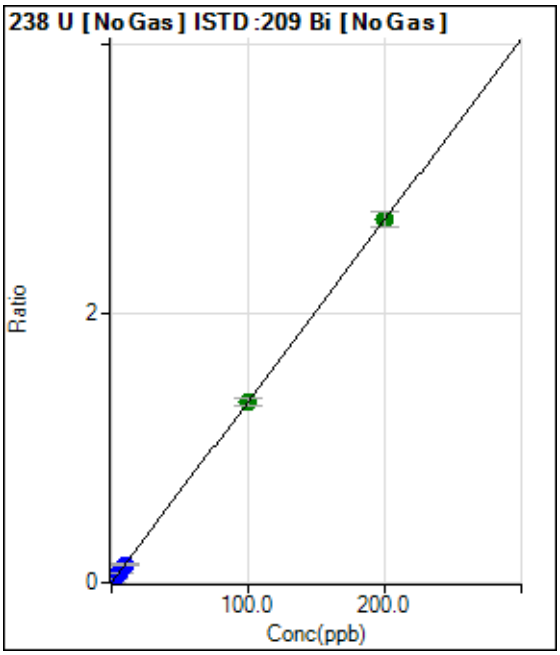
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	540.02	0.0003	P	13.4
2	☐	2.000	2.074	57763.33	0.0297	P	3.1
3	☐	5.000	5.015	141392.70	0.0714	P	4.7
4	☐	10.000	10.096	282227.36	0.1434	P	5.0
5	☐	100.000	100.264	2751765.48	1.4215	A	3.7
6	☐	200.000	199.862	5432980.88	2.8332	A	5.1

y = 0.0142 * x + 2.7835E-004
R = 1.0000
DL = 0.00788
BEC = 0.01964

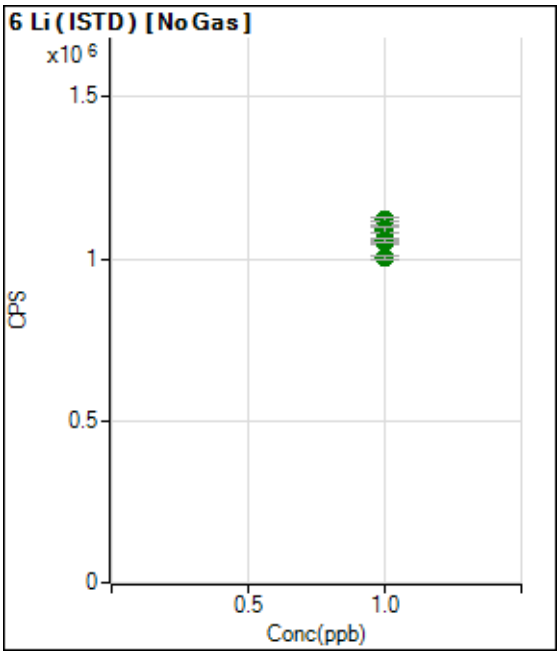
Weight: <None>
Min Conc: <None>



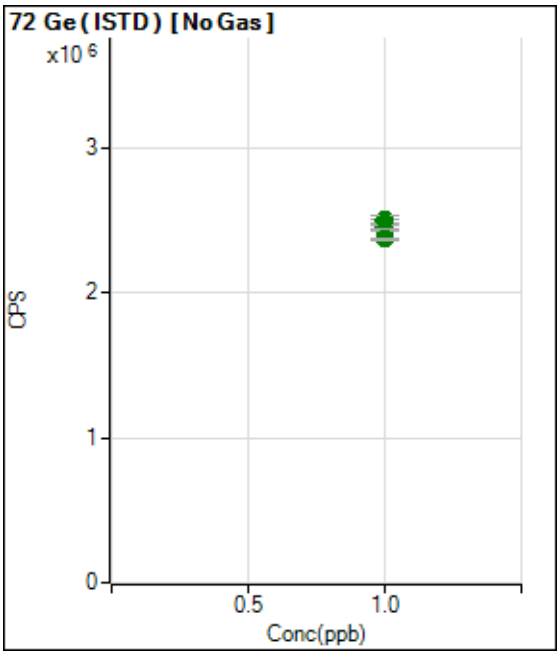
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	69.6
2	☐	2.000	1.933	50584.96	0.0260	P	4.7
3	☐	5.000	4.859	129553.71	0.0654	P	3.4
4	☐	10.000	9.784	258942.01	0.1316	P	6.0
5	☐	100.000	99.777	2598038.76	1.3419	A	3.7
6	☐	200.000	200.127	5162590.76	2.6916	A	4.3

y = 0.0134 * x + 1.2296E-005
R = 1.0000
DL = 0.001909
BEC = 0.0009143

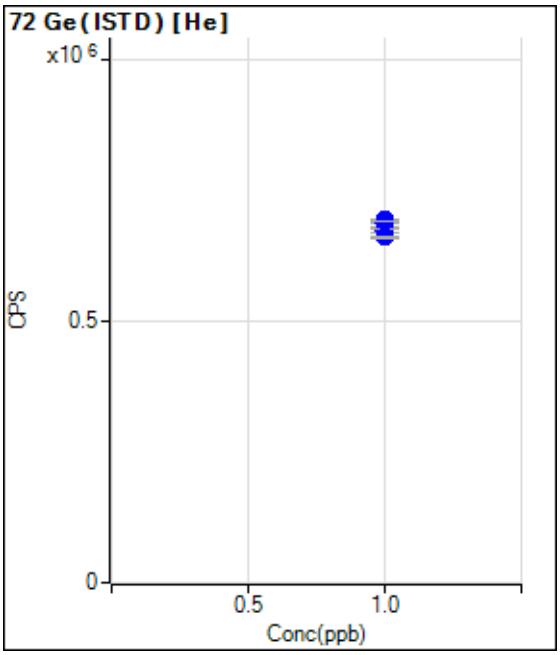
Weight: <None>
Min Conc: <None>



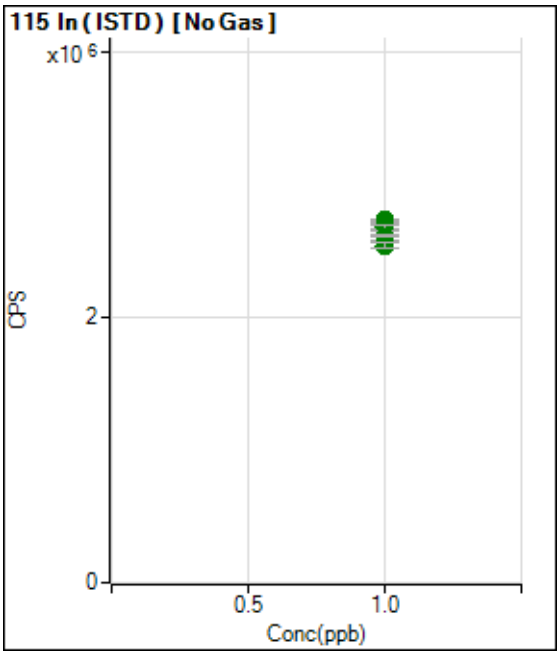
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1120139.33		A	1.2
2	☐	1.000		1092174.65		A	1.9
3	☐	1.000		1087572.34		A	1.6
4	☐	1.000		1049992.93		A	1.5
5	☐	1.000		1055797.43		A	1.5
6	☐	1.000		1002298.64		A	1.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2486363.97		A	1.1
2	☐	1.000		2499642.25		A	2.0
3	☐	1.000		2473353.03		A	0.8
4	☐	1.000		2452084.08		A	0.8
5	☐	1.000		2429983.30		A	1.0
6	☐	1.000		2366701.11		A	0.2

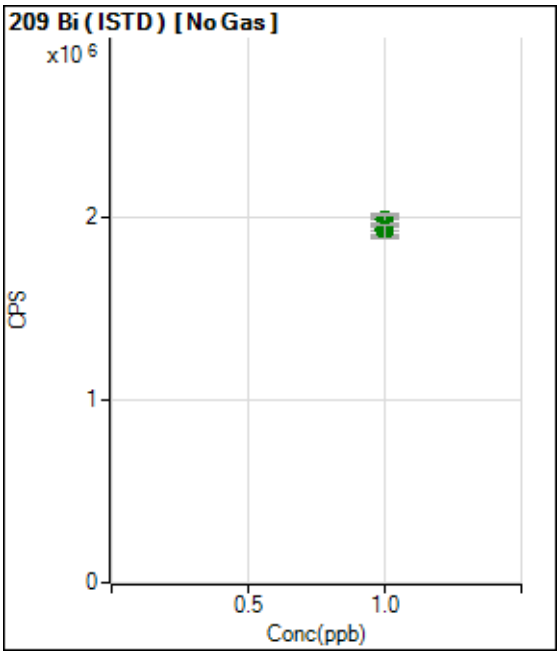


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		689982.65		P	1.3
2	☐	1.000		689735.09		P	0.7
3	☐	1.000		693131.99		P	0.7
4	☐	1.000		685233.74		P	1.7
5	☐	1.000		673502.65		P	1.2
6	☐	1.000		660124.50		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2731714.21		A	0.4
2	☐	1.000		2703981.64		A	0.7
3	☐	1.000		2626148.35		A	3.3
4	☐	1.000		2672733.04		A	1.3
5	☐	1.000		2612503.52		A	0.6
6	☐	1.000		2539910.09		A	1.5

Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1939317.89		A	4.7
2	☐	1.000		1947951.38		A	4.7
3	☐	1.000		1983806.48		A	3.8
4	☐	1.000		1970973.25		A	4.2
5	☐	1.000		1937362.42		A	3.1
6	☐	1.000		1919798.88		A	3.5

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	215LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:55:25-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	206CALB.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	1.980	1.980	8.75	100641	0.00	2	
Be	9	1	No Gas	1.915	1.915	1.97	7829	0.02	2	
V	51	2	He	1.899	1.899	0.67	14200	0.01	2	
Cr	52	2	He	1.928	1.928	7.22	29014	0.01	2	
Fe	56	2	He	205.609	205.609	1.13	1098471	0.02	200	
Se	78	2	He	2.363	2.363	10.35	433	0.55	2	
As	75	2	He	1.940	1.940	5.90	2201	0.09	2	
Ca	44	2	He	195.615	195.615	3.66	9453	2.07	200	
Na	23	2	He	212.925	212.925	0.46	255146	0.08	200	
Mg	24	2	He	220.206	220.206	0.96	124112	0.18	200	
K	39	2	He	200.947	200.947	3.03	367891	0.05	200	
Mn	55	2	He	1.988	1.988	1.98	10294	0.02	2	
Co	59	2	He	1.963	1.963	4.11	15833	0.01	2	
Ni	60	2	He	2.078	2.078	2.19	4081	0.05	2	
Cu	63	2	He	2.621	2.621	2.30	13367	0.02	2	NewName Main CR1 Failed
Zn	66	2	He	3.580	3.580	3.60	4321	0.08	2	NewName Main CR1 Failed
Al	27	2	He	2.360	2.360	24.57	2854	0.08	2	
B	11	1	No Gas	16.076	16.076	3.61	42738	0.04	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.172	2.172	4.05	98789	0.00	2	
Si	28	1	No Gas	9.139	9.139	10.58	619300	0.00	10	
Ag	107	1	No Gas	2.004	2.004	0.80	28959	0.01	2	
Cd	111	1	No Gas	2.013	2.013	2.73	5789	0.03	2	
Sr	88	1	No Gas	2.023	2.023	4.04	64127	0.00	2	
Mo	95	1	No Gas	1.969	1.969	4.93	11705	0.02	2	
Sn	118	1	No Gas	1.937	1.937	6.23	19285	0.01	2	
Sb	121	1	No Gas	1.839	1.839	2.06	24039	0.01	2	
Ba	137	1	No Gas	2.035	2.035	7.03	10458	0.02	2	
Tl	205	1	No Gas	2.209	2.209	2.02	43349	0.01	2	
Tl	203	1	No Gas	2.198	2.198	0.63	18304	0.01	2	
Pb	208	1	No Gas	2.030	2.030	2.46	57750	0.00	2	
U	238	1	No Gas	1.911	1.911	3.51	51117	0.00	2	
Ca	43	2	He	200.494	200.494	15.17	593	33.79	200	
Sb	121	2	He	1.898	1.898	0.97	11515	0.02	2	
Ti	47	2	He	2.272	2.272	3.40	540	0.42	200	
Cu	63	1	No Gas	2.494	2.494	1.16	31380	0.01	2	
Se	82	1	No Gas	1.886	1.886	28.85	588	0.32	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	1092000	2.76	1120139	97.49	70	120	
Ge	72	2	He	689931	0.36	689983	99.99	70	120	
Ge	72	1	No Gas	2518881	0.67	2486364	101.31	70	120	
In	115	1	No Gas	2661136	2.76	2731714	97.42	70	120	
Bi	209	1	No Gas	1988674	2.49	1939318	102.55	70	120	

Sample Report

Sample Table

Sample Name	LLCCV5
Data File Name	216LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:57:32-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	206CALB.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	5.104	5.104	5.10	139776	0.00	5	
Be	9	1	No Gas	4.727	4.727	2.86	18971	0.02	5	
V	51	2	He	4.825	4.825	1.27	30190	0.02	5	
Cr	52	2	He	4.839	4.839	2.35	46991	0.01	5	
Fe	56	2	He	514.271	514.271	1.19	2727315	0.02	500	
Se	78	2	He	4.943	4.943	7.43	720	0.69	5	
As	75	2	He	4.810	4.810	2.84	4999	0.10	5	
Ca	44	2	He	489.017	489.017	3.14	22212	2.20	500	
Na	23	2	He	536.136	536.136	0.14	559956	0.10	500	
Mg	24	2	He	547.853	547.853	0.93	309616	0.18	500	
K	39	2	He	509.794	509.794	0.34	645170	0.08	500	
Mn	55	2	He	5.102	5.102	0.74	25608	0.02	5	
Co	59	2	He	4.837	4.837	2.72	39167	0.01	5	
Ni	60	2	He	5.242	5.242	5.04	10187	0.05	5	
Cu	63	2	He	5.036	5.036	1.47	25114	0.02	5	
Zn	66	2	He	4.971	4.971	5.40	5848	0.08	5	
Al	27	2	He	3.855	3.855	14.21	3514	0.11	5	
B	11	1	No Gas	28.873	28.873	4.21	68680	0.04	25	
Al	27	1	No Gas	4.532	4.532	0.97	132651	0.00	5	
Si	28	1	No Gas	27.310	27.310	7.99	754614	0.00	25	
Ag	107	1	No Gas	5.020	5.020	1.46	72659	0.01	5	
Cd	111	1	No Gas	4.822	4.822	1.78	13893	0.03	5	
Sr	88	1	No Gas	5.092	5.092	2.31	158922	0.00	5	
Mo	95	1	No Gas	4.985	4.985	3.53	29286	0.02	5	
Sn	118	1	No Gas	4.767	4.767	0.89	44305	0.01	5	
Sb	121	1	No Gas	4.772	4.772	1.40	60781	0.01	5	
Ba	137	1	No Gas	4.814	4.814	3.59	23932	0.02	5	
Tl	205	1	No Gas	5.336	5.336	3.02	105141	0.01	5	
Tl	203	1	No Gas	5.258	5.258	1.16	43921	0.01	5	
Pb	208	1	No Gas	5.025	5.025	3.40	143078	0.00	5	
U	238	1	No Gas	4.811	4.811	3.04	129497	0.00	5	
Ca	43	2	He	489.824	489.824	8.79	1343	36.46	500	
Sb	121	2	He	4.641	4.641	2.15	28184	0.02	5	
Ti	47	2	He	5.095	5.095	7.42	1190	0.43	5	
Cu	63	1	No Gas	5.060	5.060	0.66	59473	0.01	5	
Se	82	1	No Gas	4.697	4.697	12.36	1185	0.40	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	1074189	3.60	1120139	95.90	70	120	
Ge	72	2	He	694591	0.09	689983	100.67	70	120	
Ge	72	1	No Gas	2465590	0.91	2486364	99.16	70	120	

Sample Report

In	115	1	No Gas	2673099	1.76	2731714	97.85	70	120	
Bi	209	1	No Gas	2001608	1.92	1939318	103.21	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICCB
Data File Name	217_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:59:30-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	-0.018	-482.9	73636	0.5	0.5	
Be	9	1	No Gas	0.005	40.6	42	18.3	0.5	
V	51	2	He	-0.008	-318.9	3877	2.6	2.5	
Cr	52	2	He	0.152	27.9	18096	2.4	2.5	
Fe	56	2	He	-0.805	-12.1	21267	1.8	100	
Se	78	2	He	0.044	684.4	177	18.0	1	
As	75	2	He	0.021	263.7	350	15.0	2.5	
Ca	44	2	He	-7.515	-39.5	717	16.6	100	
Na	23	2	He	-11.657	-13.8	45581	2.2	100	
Mg	24	2	He	-0.099	-203.7	777	13.4	100	
K	39	2	He	-11.672	-20.2	178526	0.6	100	
Mn	55	2	He	0.002	228.6	633	3.3	2.5	
Co	59	2	He	0.001	84.3	93	6.2	2.5	
Ni	60	2	He	0.275	6.8	633	6.4	2.5	
Cu	63	2	He	0.160	13.9	1550	6.2	1	
Zn	66	2	He	0.098	112.4	590	19.3	2.5	
Al	27	2	He	-2.690	-5.1	700	8.7	5	
B	11	1	No Gas	3.662	3.1	16335	1.1	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-2.522	-0.5	25427	1.4	5	
Si	28	1	No Gas	-0.049	-6146.9	535403	3.9	10	
Ag	107	1	No Gas	0.002	98.6	173	18.5	2.5	
Cd	111	1	No Gas	-0.007	-79.7	3	559.3	1	
Sr	88	1	No Gas	-0.041	-3.9	930	5.7	2.5	
Mo	95	1	No Gas	0.011	173.8	390	26.7	2.5	
Sn	118	1	No Gas	-0.014	-157.3	2217	8.0	5	
Sb	121	1	No Gas	0.063	13.7	980	10.8	2.5	
Ba	137	1	No Gas	-0.018	-99.2	607	14.9	2.5	
Tl	205	1	No Gas	0.019	39.1	533	26.3	1	
Tl	203	1	No Gas	0.017	34.4	247	19.2	1	
Pb	208	1	No Gas	0.004	50.1	673	8.2	2.5	
U	238	1	No Gas	0.006	61.6	180	53.0	2.5	
Ca	43	2	He	-18.170	-45.1	33	62.4	100	
Sb	121	2	He	0.043	44.3	360	30.9	2.5	
Ti	47	2	He	-0.073	-35.3	7	86.6	2.5	
Se	82	1	No Gas	-0.670	-34.5	21	237.2	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	1084553	1.56	1120139	96.82	70	120	
Ge	72	2	He	684328	1.13	689983	99.18	70	120	
Ge	72	1	No Gas	2485879	0.75	2486364	99.98	70	120	
In	115	1	No Gas	2692779	0.83	2731714	98.57	70	120	
Bi	209	1	No Gas	1973934	1.15	1939318	101.78	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	219_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:03:46-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
n	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	100.000	4.625	1330499	1.28	100	100.0	90	110	
Be	9	1	No Gas	98.578	4.368	381324	0.80	100	98.6	90	110	
V	51	2	He	99.316	1.864	535619	0.70	100	99.3	90	110	
Cr	52	2	He	96.424	1.324	597711	0.52	100	96.4	90	110	
Fe	56	2	He	9813.294	1.074	50840491	0.64	10000	98.1	90	110	
Se	78	2	He	97.814	2.315	10799	1.70	100	97.8	90	110	
As	75	2	He	98.394	1.596	94385	1.57	100	98.4	90	110	
Ca	44	2	He	9873.306	1.495	422113	0.24	10000	98.7	90	110	
Na	23	2	He	10050.804	1.185	9347889	1.94	10000	100.5	90	110	
Mg	24	2	He	9859.989	0.755	5479066	1.37	10000	98.6	90	110	
K	39	2	He	9887.603	1.440	8860235	0.54	10000	98.9	90	110	
Mn	55	2	He	98.219	1.067	474490	1.10	100	98.2	90	110	
Co	59	2	He	96.665	1.097	769849	0.40	100	96.7	90	110	
Ni	60	2	He	99.671	0.512	188916	0.91	100	99.7	90	110	
Cu	63	2	He	98.678	1.365	470390	0.07	100	98.7	90	110	
Zn	66	2	He	99.301	1.160	105931	1.33	100	99.3	90	110	
Al	27	2	He	97.252	3.533	42890	2.21	100	97.3	90	110	
B	11	1	No Gas	497.473	4.185	1008509	0.14	500	99.5	90	110	
Al	27	1	No Gas	98.332	2.513	1547691	0.55	100	98.3	90	110	
Si	28	1	No Gas	495.667	3.827	4540255	0.84	5000	9.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.387	2.627	1382747	1.73	100	98.4	90	110	
Cd	111	1	No Gas	97.751	1.641	273478	1.79	100	97.8	90	110	
Sr	88	1	No Gas	100.069	2.628	2997460	0.35	100	100.1	90	110	
Mo	95	1	No Gas	98.425	2.281	556479	0.26	100	98.4	90	110	
Sn	118	1	No Gas	96.125	1.747	825598	0.54	100	96.1	90	110	
Sb	121	1	No Gas	93.968	1.667	1183410	1.18	100	94.0	90	110	
Ba	137	1	No Gas	96.624	0.620	454661	1.64	100	96.6	90	110	
Tl	205	1	No Gas	99.044	2.507	1903774	1.89	100	99.0	90	110	
Tl	203	1	No Gas	97.108	3.267	790287	1.81	100	97.1	90	110	
Pb	208	1	No Gas	97.679	2.816	2706820	1.28	100	97.7	90	110	
U	238	1	No Gas	96.957	1.418	2549283	0.70	100	97.0	90	110	
Ca	43	2	He	9708.059	2.537	24749	1.58	10000	97.1	90	110	
Sb	121	2	He	95.377	1.368	568921	0.69	100	95.4	90	110	
Ti	47	2	He	99.395	3.136	22452	2.30	100	99.4	90	110	
Cu	63	1	No Gas	98.847	2.183	1101034	0.66	100	98.8	90	110	
Se	82	1	No Gas	98.419	2.649	21332	2.74	100	98.4	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	1037130	3.99	1120139	92.59	70	120	
Ge	72	2	He	684745	1.36	689983	99.24	70	120	
Ge	72	1	No Gas	2445460	2.78	2486364	98.35	70	120	
In	115	1	No Gas	2600563	2.25	2731714	95.20	70	120	
Bi	209	1	No Gas	1955211	1.58	1939318	100.82	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	220_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:05:37-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	0.008	849.8	74219	1.5	0.5	
Be	9	1	No Gas	0.022	21.9	112	17.0	0.5	
V	51	2	He	-0.058	-51.4	3696	4.5	2.5	
Cr	52	2	He	0.279	23.7	19301	2.0	2.5	
Fe	56	2	He	3.073	3.0	42309	0.9	100	
Se	78	2	He	0.006	2475.5	177	8.8	2	
As	75	2	He	-0.046	-47.2	292	7.4	2.5	
Ca	44	2	He	3.766	6.0	1227	0.5	100	
Na	23	2	He	-5.994	-24.4	52017	2.3	100	
Mg	24	2	He	1.392	14.9	1643	7.3	100	
K	39	2	He	-7.467	-22.2	186513	0.4	100	
Mn	55	2	He	0.269	16.0	1970	10.6	2.5	
Co	59	2	He	0.008	61.0	153	26.4	2.5	
Ni	60	2	He	0.297	12.4	690	10.0	2.5	
Cu	63	2	He	0.358	3.9	2554	2.8	2	
Zn	66	2	He	2.338	7.6	3037	6.4	2.5	
Al	27	2	He	-1.841	-13.4	1083	10.2	5	
B	11	1	No Gas	9.713	9.3	29154	5.7	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.578	-5.6	40162	3.3	5	
Si	28	1	No Gas	-1.952	-27.3	523015	0.5	10	
Ag	107	1	No Gas	0.015	12.8	360	7.4	2.5	
Cd	111	1	No Gas	-0.001	-539.8	19	107.2	1	
Sr	88	1	No Gas	-0.018	-32.2	1657	9.6	2.5	
Mo	95	1	No Gas	0.095	27.9	887	16.9	2.5	
Sn	118	1	No Gas	0.197	21.9	4087	8.0	5	
Sb	121	1	No Gas	0.164	20.4	2290	17.6	2.5	
Ba	137	1	No Gas	-0.053	-32.0	433	18.7	2.5	
Tl	205	1	No Gas	0.594	30.8	11750	31.8	1	
Tl	203	1	No Gas	0.611	27.2	5148	28.2	1	
Pb	208	1	No Gas	0.009	28.2	793	8.4	2.5	
U	238	1	No Gas	0.033	27.6	913	28.1	2.5	
Ca	43	2	He	11.006	125.1	110	32.8	100	
Sb	121	2	He	0.096	17.5	693	14.4	2.5	
Ti	47	2	He	0.028	568.3	30	120.2	2.5	
Cu	63	1	No Gas	0.332	8.9	6582	5.1	2.5	
Se	82	1	No Gas	-0.656	-45.7	24	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	1087959	0.81	1120139	97.13	70	120	
Ge	72	2	He	700444	0.39	689983	101.52	70	120	
Ge	72	1	No Gas	2501187	1.24	2486364	100.60	70	120	
In	115	1	No Gas	2692784	1.44	2731714	98.57	70	120	
Bi	209	1	No Gas	1975293	1.88	1939318	101.86	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	223_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:11:52-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
n	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	100.091	1.639	1338101	1.03	100	100.1	90	110	
Be	9	1	No Gas	99.066	1.997	385053	0.74	100	99.1	90	110	
V	51	2	He	100.065	0.474	539508	0.56	100	100.1	90	110	
Cr	52	2	He	96.958	0.589	600751	0.30	100	97.0	90	110	
Fe	56	2	He	9940.037	0.884	51482304	1.15	10000	99.4	90	110	
Se	78	2	He	99.974	1.635	11031	1.81	100	100.0	90	110	
As	75	2	He	100.387	0.967	96261	1.20	100	100.4	90	110	
Ca	44	2	He	10020.293	1.193	428268	1.01	10000	100.2	90	110	
Na	23	2	He	10030.986	0.610	9325842	0.71	10000	100.3	90	110	
Mg	24	2	He	9938.422	0.618	5520690	0.89	10000	99.4	90	110	
K	39	2	He	9910.088	0.151	8877600	0.32	10000	99.1	90	110	
Mn	55	2	He	99.273	0.589	479423	0.84	100	99.3	90	110	
Co	59	2	He	97.880	0.294	779304	0.53	100	97.9	90	110	
Ni	60	2	He	101.350	1.104	192037	1.36	100	101.4	90	110	
Cu	63	2	He	100.206	0.722	477537	0.81	100	100.2	90	110	
Zn	66	2	He	100.402	1.134	107063	0.97	100	100.4	90	110	
Al	27	2	He	97.140	2.175	42840	2.35	100	97.1	90	110	
B	11	1	No Gas	513.163	1.369	1045111	1.00	500	102.6	90	110	
Al	27	1	No Gas	100.720	1.555	1568000	0.43	100	100.7	90	110	
Si	28	1	No Gas	504.457	2.375	4565986	0.34	5000	10.1	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.187	0.548	1375787	1.48	100	98.2	90	110	
Cd	111	1	No Gas	98.301	1.239	274122	0.80	100	98.3	90	110	
Sr	88	1	No Gas	99.074	1.959	2958444	0.29	100	99.1	90	110	
Mo	95	1	No Gas	98.997	2.338	557914	0.42	100	99.0	90	110	
Sn	118	1	No Gas	97.267	1.146	832827	1.82	100	97.3	90	110	
Sb	121	1	No Gas	96.335	1.868	1201379	3.38	100	96.3	90	110	
Ba	137	1	No Gas	98.316	1.104	461097	1.24	100	98.3	90	110	
Tl	205	1	No Gas	99.353	3.911	1886588	1.45	100	99.4	90	110	
Tl	203	1	No Gas	99.429	3.463	799570	1.04	100	99.4	90	110	
Pb	208	1	No Gas	98.280	3.037	2691230	0.72	100	98.3	90	110	
U	238	1	No Gas	98.161	2.451	2550256	0.72	100	98.2	90	110	
Ca	43	2	He	10093.102	3.873	25721	3.60	10000	100.9	90	110	
Sb	121	2	He	96.044	0.849	572741	0.81	100	96.0	90	110	
Ti	47	2	He	102.399	2.579	23126	2.70	100	102.4	90	110	
Cu	63	1	No Gas	101.142	2.028	1115208	0.26	100	101.1	90	110	
Se	82	1	No Gas	99.437	4.294	21325	2.51	100	99.4	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	1041158	1.79	1120139	92.95	70	120	
Ge	72	2	He	684483	0.27	689983	99.20	70	120	
Ge	72	1	No Gas	2420478	1.77	2486364	97.35	70	120	
In	115	1	No Gas	2592132	2.02	2731714	94.89	70	120	
Bi	209	1	No Gas	1932463	2.50	1939318	99.65	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	224_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:13:44-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	-0.058	-102.0	73963	0.6	0.5	
Be	9	1	No Gas	0.026	16.7	130	13.9	0.5	
V	51	2	He	-0.060	-4.7	3661	0.7	2.5	
Cr	52	2	He	0.294	35.1	19260	3.6	2.5	
Fe	56	2	He	3.238	8.1	42881	3.5	100	
Se	78	2	He	0.023	863.3	178	12.4	2	
As	75	2	He	0.021	269.9	356	15.2	2.5	
Ca	44	2	He	4.349	34.4	1243	5.5	100	
Na	23	2	He	-4.977	-12.7	52606	1.0	100	
Mg	24	2	He	1.224	15.9	1537	7.5	100	
K	39	2	He	-2.252	-69.3	189838	0.3	100	
Mn	55	2	He	0.265	13.0	1934	8.3	2.5	
Co	59	2	He	0.015	20.4	207	12.2	2.5	
Ni	60	2	He	0.355	16.3	797	13.5	2.5	
Cu	63	2	He	0.375	6.6	2617	4.3	2	
Zn	66	2	He	2.188	7.5	2854	5.7	2.5	
Al	27	2	He	-1.527	-13.8	1210	7.2	5	
B	11	1	No Gas	13.228	7.8	36894	5.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.569	-3.7	40426	2.8	5	
Si	28	1	No Gas	-0.644	-75.6	535346	1.2	10	
Ag	107	1	No Gas	0.015	37.8	360	22.0	2.5	
Cd	111	1	No Gas	0.019	61.9	76	42.3	1	
Sr	88	1	No Gas	-0.016	-21.8	1693	8.7	2.5	
Mo	95	1	No Gas	0.121	25.2	1033	15.4	2.5	
Sn	118	1	No Gas	0.255	11.1	4598	3.5	5	
Sb	121	1	No Gas	0.164	19.1	2294	16.8	2.5	
Ba	137	1	No Gas	-0.058	-36.7	413	26.8	2.5	
Tl	205	1	No Gas	0.632	31.2	12467	33.3	1	
Tl	203	1	No Gas	0.588	33.0	4955	34.9	1	
Pb	208	1	No Gas	0.018	61.8	1053	28.2	2.5	
U	238	1	No Gas	0.035	13.2	960	15.4	2.5	
Ca	43	2	He	-8.043	-47.1	60	16.7	100	
Sb	121	2	He	0.132	1.4	907	1.7	2.5	
Ti	47	2	He	0.043	58.1	33	17.3	2.5	
Cu	63	1	No Gas	0.336	8.6	6648	5.9	2.5	
Se	82	1	No Gas	-0.657	-22.4	24	134.0	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	1097155	0.66	1120139	97.95	70	120	
Ge	72	2	He	695487	0.44	689983	100.80	70	120	
Ge	72	1	No Gas	2508029	1.17	2486364	100.87	70	120	
In	115	1	No Gas	2688969	2.09	2731714	98.44	70	120	
Bi	209	1	No Gas	1969983	2.53	1939318	101.58	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	230_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:25:50-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
n	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	94.376	1.226	1302720	1.97	100	94.4	90	110	
Be	9	1	No Gas	91.419	1.627	365675	0.15	100	91.4	90	110	
V	51	2	He	99.405	1.111	521116	0.56	100	99.4	90	110	
Cr	52	2	He	96.376	1.459	580681	0.61	100	96.4	90	110	
Fe	56	2	He	9963.948	0.925	50174696	0.14	10000	99.6	90	110	
Se	78	2	He	98.612	0.675	10581	0.33	100	98.6	90	110	
As	75	2	He	99.152	2.110	92438	1.33	100	99.2	90	110	
Ca	44	2	He	9910.961	2.001	411851	1.33	10000	99.1	90	110	
Na	23	2	He	10034.727	2.733	9070017	2.10	10000	100.3	90	110	
Mg	24	2	He	9825.638	0.140	5306955	0.85	10000	98.3	90	110	
K	39	2	He	10075.051	1.571	8771911	0.90	10000	100.8	90	110	
Mn	55	2	He	99.650	1.290	467894	0.77	100	99.7	90	110	
Co	59	2	He	97.358	1.596	753639	0.97	100	97.4	90	110	
Ni	60	2	He	99.743	1.718	183748	1.30	100	99.7	90	110	
Cu	63	2	He	99.399	1.129	460558	0.36	100	99.4	90	110	
Zn	66	2	He	99.495	2.269	103157	1.73	100	99.5	90	110	
Al	27	2	He	97.465	1.570	41783	0.92	100	97.5	90	110	
B	11	1	No Gas	464.608	2.372	974416	0.83	500	92.9	90	110	
Al	27	1	No Gas	101.402	5.340	1510467	2.09	100	101.4	90	110	
Si	28	1	No Gas	517.107	5.067	4467857	0.98	5000	10.3	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.023	1.803	1352059	1.84	100	98.0	90	110	
Cd	111	1	No Gas	97.659	0.835	268116	1.30	100	97.7	90	110	
Sr	88	1	No Gas	99.075	0.133	2913080	1.45	100	99.1	90	110	
Mo	95	1	No Gas	98.291	1.573	545387	0.49	100	98.3	90	110	
Sn	118	1	No Gas	96.856	1.879	816287	0.51	100	96.9	90	110	
Sb	121	1	No Gas	100.234	4.810	1196057	1.91	100	100.2	90	110	
Ba	137	1	No Gas	97.831	0.733	451696	0.86	100	97.8	90	110	
Tl	205	1	No Gas	103.363	1.632	1902810	1.04	100	103.4	90	110	
Tl	203	1	No Gas	102.396	1.237	798237	0.40	100	102.4	90	110	
Pb	208	1	No Gas	101.407	1.537	2691855	1.70	100	101.4	90	110	
U	238	1	No Gas	101.515	2.056	2556206	1.60	100	101.5	90	110	
Ca	43	2	He	9746.494	2.698	24158	3.51	10000	97.5	90	110	
Sb	121	2	He	96.062	0.595	556982	0.53	100	96.1	90	110	
Ti	47	2	He	98.115	1.125	21547	1.83	100	98.1	90	110	
Cu	63	1	No Gas	100.340	4.443	1059103	1.04	100	100.3	90	110	
Se	82	1	No Gas	102.193	3.692	20988	2.05	100	102.2	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	1071412	1.59	1120139	95.65	70	120	
Ge	72	2	He	665541	0.82	689983	96.46	70	120	
Ge	72	1	No Gas	2318935	3.62	2486364	93.27	70	120	
In	115	1	No Gas	2551677	1.41	2731714	93.41	70	120	
Bi	209	1	No Gas	1872448	1.22	1939318	96.55	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	231_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:27:55-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	1.158	13.1	92109	1.3	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.016	17.8	92	13.7	0.5	
V	51	2	He	-0.103	-13.0	3320	1.7	2.5	
Cr	52	2	He	0.295	18.7	18663	2.2	2.5	
Fe	56	2	He	6.158	1.2	56427	2.0	100	
Se	78	2	He	0.303	116.5	203	20.0	2	
As	75	2	He	0.027	116.6	350	9.1	2.5	
Ca	44	2	He	7.207	43.5	1323	8.8	100	
Na	23	2	He	50.749	2.6	101651	1.0	100	
Mg	24	2	He	3.350	5.2	2650	2.3	100	
K	39	2	He	-9.798	-15.7	177405	1.1	100	
Mn	55	2	He	0.350	19.0	2277	13.2	2.5	
Co	59	2	He	0.008	38.2	143	14.5	2.5	
Ni	60	2	He	0.286	7.9	643	5.5	2.5	
Cu	63	2	He	0.401	11.1	2657	9.1	2	
Zn	66	2	He	1.971	10.8	2537	7.5	2.5	
Al	27	2	He	-1.598	-27.2	1143	16.3	5	
B	11	1	No Gas	9.738	7.3	30096	5.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.641	-4.7	38250	1.9	5	
Si	28	1	No Gas	2.407	40.9	545719	0.4	10	
Ag	107	1	No Gas	0.010	32.7	280	15.6	2.5	
Cd	111	1	No Gas	-0.001	-903.2	20	99.4	1	
Sr	88	1	No Gas	0.048	20.2	3587	7.1	2.5	
Mo	95	1	No Gas	0.090	26.5	837	18.1	2.5	
Sn	118	1	No Gas	0.223	20.9	4211	8.6	5	
Sb	121	1	No Gas	0.193	9.1	2600	8.3	2.5	
Ba	137	1	No Gas	0.037	56.9	853	11.7	2.5	
Tl	205	1	No Gas	0.511	28.9	10098	30.7	1	
Tl	203	1	No Gas	0.477	29.2	4031	30.5	1	
Pb	208	1	No Gas	0.007	19.3	753	6.8	2.5	
U	238	1	No Gas	0.027	13.7	747	15.5	2.5	
Ca	43	2	He	11.434	104.1	107	27.1	100	
Sb	121	2	He	0.154	14.3	1007	14.1	2.5	
Ti	47	2	He	-0.013	-663.5	20	100.0	2.5	
Cu	63	1	No Gas	0.349	7.0	6608	2.9	2.5	
Se	82	1	No Gas	-0.891	-51.4	-26	-378.4	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	1120570	1.27	1120139	100.04	70	120	
Ge	72	2	He	673801	1.31	689983	97.65	70	120	
Ge	72	1	No Gas	2441301	1.24	2486364	98.19	70	120	
In	115	1	No Gas	2624158	1.68	2731714	96.06	70	120	
Bi	209	1	No Gas	1969751	2.63	1939318	101.57	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	238_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:42:11-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
n	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	99.806	1.984	1186781	1.94	100	99.8	90	110	
Be	9	1	No Gas	97.193	1.865	335959	1.18	100	97.2	90	110	
V	51	2	He	100.703	0.601	484406	0.50	100	100.7	90	110	
Cr	52	2	He	98.192	0.455	542637	0.17	100	98.2	90	110	
Fe	56	2	He	10062.501	0.623	46499194	0.88	10000	100.6	90	110	
Se	78	2	He	100.101	1.005	9854	0.78	100	100.1	90	110	
As	75	2	He	101.203	0.186	86581	0.23	100	101.2	90	110	
Ca	44	2	He	10026.124	1.363	382329	1.08	10000	100.3	90	110	
Na	23	2	He	10092.369	0.986	8371204	0.75	10000	100.9	90	110	
Mg	24	2	He	9895.310	1.279	4904168	1.02	10000	99.0	90	110	
K	39	2	He	9971.775	1.498	7968906	1.27	10000	99.7	90	110	
Mn	55	2	He	101.419	0.484	436989	0.72	100	101.4	90	110	
Co	59	2	He	98.932	0.386	702782	0.31	100	98.9	90	110	
Ni	60	2	He	101.695	0.174	171920	0.44	100	101.7	90	110	
Cu	63	2	He	101.193	1.208	430255	1.09	100	101.2	90	110	
Zn	66	2	He	103.241	2.166	98214	2.12	100	103.2	90	110	
Al	27	2	He	96.751	1.627	38076	1.83	100	96.8	90	110	
B	11	1	No Gas	483.428	2.057	875883	0.90	500	96.7	90	110	
Al	27	1	No Gas	95.055	1.128	1360980	2.20	100	95.1	90	110	
Si	28	1	No Gas	490.517	1.527	4086975	1.98	5000	9.8	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	97.726	1.719	1278922	2.40	100	97.7	90	110	
Cd	111	1	No Gas	97.405	0.594	253694	0.74	100	97.4	90	110	
Sr	88	1	No Gas	98.374	2.833	2743440	1.74	100	98.4	90	110	
Mo	95	1	No Gas	97.227	0.431	511879	1.45	100	97.2	90	110	
Sn	118	1	No Gas	97.429	0.350	779075	0.76	100	97.4	90	110	
Sb	121	1	No Gas	98.798	0.580	1130076	1.80	100	98.8	90	110	
Ba	137	1	No Gas	99.672	0.615	436568	0.60	100	99.7	90	110	
Tl	205	1	No Gas	101.997	2.919	1833138	1.31	100	102.0	90	110	
Tl	203	1	No Gas	100.460	1.866	764658	0.42	100	100.5	90	110	
Pb	208	1	No Gas	101.820	1.941	2638966	1.40	100	101.8	90	110	
U	238	1	No Gas	101.399	3.913	2492355	1.97	100	101.4	90	110	
Ca	43	2	He	10085.958	3.531	22933	3.24	10000	100.9	90	110	
Sb	121	2	He	98.912	1.004	526265	0.83	100	98.9	90	110	
Ti	47	2	He	98.926	1.045	19935	1.31	100	98.9	90	110	
Cu	63	1	No Gas	99.048	1.089	1002033	0.94	100	99.0	90	110	
Se	82	1	No Gas	100.872	1.452	19850	0.41	100	100.9	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	925872	1.82	1120139	82.66	70	120	
Ge	72	2	He	610713	0.28	689983	88.51	70	120	
Ge	72	1	No Gas	2220343	1.38	2486364	89.30	70	120	
In	115	1	No Gas	2420693	1.10	2731714	88.61	70	120	
Bi	209	1	No Gas	1828512	2.00	1939318	94.29	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	239_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:44:16-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	0.514	8.8	73852	1.1	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.019	41.0	92	31.5	0.5	
V	51	2	He	0.029	10.4	3741	0.8	2.5	
Cr	52	2	He	0.279	13.8	17291	2.0	2.5	
Fe	56	2	He	3.218	9.0	38588	3.8	100	
Se	78	2	He	0.279	43.6	186	5.7	2	
As	75	2	He	0.024	83.5	323	5.7	2.5	
Ca	44	2	He	1.835	12.9	1023	1.5	100	
Na	23	2	He	19.773	3.0	68417	0.2	100	
Mg	24	2	He	0.696	38.3	1117	11.3	100	
K	39	2	He	-4.129	-26.8	169744	0.6	100	
Mn	55	2	He	0.217	6.6	1533	5.0	2.5	
Co	59	2	He	0.005	136.9	113	41.7	2.5	
Ni	60	2	He	0.204	6.0	457	5.5	2.5	
Cu	63	2	He	0.306	2.3	2060	1.8	2	
Zn	66	2	He	1.714	4.9	2114	3.2	2.5	
Al	27	2	He	-2.298	-5.1	793	5.8	5	
B	11	1	No Gas	8.792	7.6	24837	4.4	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-2.099	-3.4	29230	1.7	5	
Si	28	1	No Gas	2.634	53.3	510575	0.8	10	
Ag	107	1	No Gas	0.004	6.9	190	0.0	2.5	
Cd	111	1	No Gas	0.007	97.4	40	44.1	1	
Sr	88	1	No Gas	-0.014	-48.0	1653	9.5	2.5	
Mo	95	1	No Gas	0.066	29.7	663	16.1	2.5	
Sn	118	1	No Gas	0.153	9.4	3441	4.5	5	
Sb	121	1	No Gas	0.132	22.4	1703	17.7	2.5	
Ba	137	1	No Gas	-0.062	-24.4	363	18.7	2.5	
Tl	205	1	No Gas	0.475	32.5	8867	34.0	1	
Tl	203	1	No Gas	0.446	31.9	3564	33.1	1	
Pb	208	1	No Gas	0.007	82.3	710	22.0	2.5	
U	238	1	No Gas	0.020	27.9	527	28.5	2.5	
Ca	43	2	He	-15.465	-106.2	37	103.3	100	
Sb	121	2	He	0.101	24.8	650	21.7	2.5	
Ti	47	2	He	0.041	417.9	30	120.2	2.5	
Cu	63	1	No Gas	0.329	5.4	5958	1.1	2.5	
Se	82	1	No Gas	-0.909	-42.2	-29	-265.7	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	993006	0.84	1120139	88.65	70	120	
Ge	72	2	He	627399	0.94	689983	90.93	70	120	
Ge	72	1	No Gas	2276892	2.46	2486364	91.58	70	120	
In	115	1	No Gas	2503922	2.14	2731714	91.66	70	120	
Bi	209	1	No Gas	1857476	2.60	1939318	95.78	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	246_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:58:52-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
n	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	101.419	1.041	1235872	2.19	100	101.4	90	110	
Be	9	1	No Gas	97.946	1.484	347211	0.40	100	97.9	90	110	
V	51	2	He	102.028	0.507	491285	0.56	100	102.0	90	110	
Cr	52	2	He	99.719	0.443	551471	0.95	100	99.7	90	110	
Fe	56	2	He	10123.579	1.221	46831226	0.45	10000	101.2	90	110	
Se	78	2	He	101.130	2.957	9964	1.97	100	101.1	90	110	
As	75	2	He	100.543	0.910	86113	0.21	100	100.5	90	110	
Ca	44	2	He	10164.894	1.031	388041	0.40	10000	101.6	90	110	
Na	23	2	He	10272.319	1.991	8528683	1.39	10000	102.7	90	110	
Mg	24	2	He	10104.418	0.829	5013402	0.18	10000	101.0	90	110	
K	39	2	He	9972.094	0.458	7978308	0.65	10000	99.7	90	110	
Mn	55	2	He	100.992	1.076	435619	0.19	100	101.0	90	110	
Co	59	2	He	98.658	0.113	701644	0.86	100	98.7	90	110	
Ni	60	2	He	102.823	1.614	174007	0.72	100	102.8	90	110	
Cu	63	2	He	101.852	0.799	433538	0.59	100	101.9	90	110	
Zn	66	2	He	103.453	0.863	98526	0.73	100	103.5	90	110	
Al	27	2	He	97.726	0.780	38487	1.43	100	97.7	90	110	
B	11	1	No Gas	487.543	2.439	905803	1.16	500	97.5	90	110	
Al	27	1	No Gas	99.332	1.732	1408311	1.35	100	99.3	90	110	
Si	28	1	No Gas	500.950	1.172	4130697	0.48	5000	10.0	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.263	1.882	1283888	1.36	100	100.3	90	110	
Cd	111	1	No Gas	99.519	1.701	253653	1.52	100	99.5	90	110	
Sr	88	1	No Gas	101.794	2.615	2778180	1.79	100	101.8	90	110	
Mo	95	1	No Gas	99.952	3.488	514847	2.66	100	100.0	90	110	
Sn	118	1	No Gas	99.173	2.135	775965	1.53	100	99.2	90	110	
Sb	121	1	No Gas	96.841	2.108	1098795	1.17	100	96.8	90	110	
Ba	137	1	No Gas	100.108	1.320	429081	0.43	100	100.1	90	110	
Tl	205	1	No Gas	100.613	0.170	1800924	0.90	100	100.6	90	110	
Tl	203	1	No Gas	99.111	2.135	751138	1.18	100	99.1	90	110	
Pb	208	1	No Gas	100.761	1.927	2600262	1.41	100	100.8	90	110	
U	238	1	No Gas	100.556	2.751	2461582	1.86	100	100.6	90	110	
Ca	43	2	He	9901.875	0.642	22542	0.46	10000	99.0	90	110	
Sb	121	2	He	98.732	1.157	525879	0.23	100	98.7	90	110	
Ti	47	2	He	101.257	6.294	20419	5.37	100	101.3	90	110	
Cu	63	1	No Gas	101.660	0.855	1020330	0.36	100	101.7	90	110	
Se	82	1	No Gas	98.164	0.896	19172	1.66	100	98.2	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	949478	1.38	1120139	84.76	70	120	
Ge	72	2	He	611416	0.97	689983	88.61	70	120	
Ge	72	1	No Gas	2202886	1.03	2486364	88.60	70	120	
In	115	1	No Gas	2368927	0.91	2731714	86.72	70	120	
Bi	209	1	No Gas	1820436	0.96	1939318	93.87	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	247_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T22:00:46-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	0.332	34.5	69109	0.9	0.5	
Be	9	1	No Gas	0.021	39.6	93	30.5	0.5	
V	51	2	He	0.077	24.6	3925	1.7	2.5	
Cr	52	2	He	0.294	27.6	17148	2.6	2.5	
Fe	56	2	He	2.930	6.8	36733	1.8	100	
Se	78	2	He	0.189	95.8	175	9.2	2	
As	75	2	He	0.097	4.1	382	1.8	2.5	
Ca	44	2	He	0.732	392.5	967	10.5	100	
Na	23	2	He	46.567	7.7	89918	2.8	100	
Mg	24	2	He	2.490	11.8	2004	6.6	100	
K	39	2	He	10.119	25.3	178847	1.8	100	
Mn	55	2	He	0.180	21.3	1350	12.5	2.5	
Co	59	2	He	0.011	78.9	153	38.2	2.5	
Ni	60	2	He	0.224	34.0	487	28.0	2.5	
Cu	63	2	He	0.260	10.7	1837	7.1	2	
Zn	66	2	He	1.639	2.9	2014	2.0	2.5	
Al	27	2	He	-2.077	-9.5	867	7.7	5	
B	11	1	No Gas	8.512	9.9	23423	4.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-2.076	-2.5	29231	0.9	5	
Si	28	1	No Gas	1.261	44.5	494891	0.8	10	
Ag	107	1	No Gas	0.007	43.6	223	18.6	2.5	
Cd	111	1	No Gas	0.003	136.3	29	38.6	1	
Sr	88	1	No Gas	0.007	49.0	2157	2.8	2.5	
Mo	95	1	No Gas	0.067	17.0	647	7.9	2.5	
Sn	118	1	No Gas	0.133	12.0	3154	2.0	5	
Sb	121	1	No Gas	0.134	15.9	1713	12.9	2.5	
Ba	137	1	No Gas	-0.056	-34.6	380	24.1	2.5	
Tl	205	1	No Gas	0.580	31.8	10555	31.9	1	
Tl	203	1	No Gas	0.572	39.2	4441	38.9	1	
Pb	208	1	No Gas	0.012	19.9	810	8.1	2.5	
U	238	1	No Gas	0.028	27.1	703	26.8	2.5	
Ca	43	2	He	-11.006	-43.4	47	24.7	100	
Sb	121	2	He	0.109	5.2	683	3.7	2.5	
Ti	47	2	He	-0.070	-40.2	7	86.6	2.5	
Cu	63	1	No Gas	0.224	14.4	4821	6.1	2.5	
Se	82	1	No Gas	-0.757	-56.7	2	5504.1	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	957948	2.74	1120139	85.52	70	120	
Ge	72	2	He	619246	1.09	689983	89.75	70	120	
Ge	72	1	No Gas	2252088	1.61	2486364	90.58	70	120	
In	115	1	No Gas	2411120	2.09	2731714	88.26	70	120	
Bi	209	1	No Gas	1821338	0.67	1939318	93.92	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	255_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T22:17:25-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
n	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	97.311	1.251	1190360	0.92	100	97.3	90	110	
Be	9	1	No Gas	95.294	2.294	338371	0.41	100	95.3	90	110	
V	51	2	He	96.177	0.544	473711	1.04	100	96.2	90	110	
Cr	52	2	He	93.321	0.439	528647	0.37	100	93.3	90	110	
Fe	56	2	He	9588.493	1.001	45351996	0.34	10000	95.9	90	110	
Se	78	2	He	95.056	2.501	9586	2.44	100	95.1	90	110	
As	75	2	He	95.515	1.236	83654	0.65	100	95.5	90	110	
Ca	44	2	He	9601.025	0.281	374798	0.61	10000	96.0	90	110	
Na	23	2	He	9730.643	1.517	8262864	0.82	10000	97.3	90	110	
Mg	24	2	He	9589.631	1.424	4864532	0.71	10000	95.9	90	110	
K	39	2	He	9653.028	1.862	7902009	2.21	10000	96.5	90	110	
Mn	55	2	He	95.956	2.261	423183	1.58	100	96.0	90	110	
Co	59	2	He	93.380	0.862	678964	0.37	100	93.4	90	110	
Ni	60	2	He	96.107	0.717	166306	0.65	100	96.1	90	110	
Cu	63	2	He	96.869	0.360	421621	1.07	100	96.9	90	110	
Zn	66	2	He	97.425	1.076	94897	1.79	100	97.4	90	110	
Al	27	2	He	93.071	2.211	37551	1.67	100	93.1	90	110	
B	11	1	No Gas	475.590	2.441	885312	0.55	500	95.1	90	110	
Al	27	1	No Gas	98.071	3.106	1398631	1.41	100	98.1	90	110	
Si	28	1	No Gas	484.316	4.594	4029812	1.29	5000	9.7	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	96.566	2.405	1260495	1.46	100	96.6	90	110	
Cd	111	1	No Gas	95.720	1.807	248690	0.49	100	95.7	90	110	
Sr	88	1	No Gas	98.371	2.684	2736708	0.64	100	98.4	90	110	
Mo	95	1	No Gas	95.252	1.526	500249	1.01	100	95.3	90	110	
Sn	118	1	No Gas	95.586	1.755	762491	0.51	100	95.6	90	110	
Sb	121	1	No Gas	95.317	2.184	1087521	1.06	100	95.3	90	110	
Ba	137	1	No Gas	96.792	1.768	422933	0.54	100	96.8	90	110	
Tl	205	1	No Gas	97.389	2.282	1753859	1.11	100	97.4	90	110	
Tl	203	1	No Gas	97.192	2.150	741200	1.04	100	97.2	90	110	
Pb	208	1	No Gas	98.608	0.720	2560780	0.53	100	98.6	90	110	
U	238	1	No Gas	98.920	2.709	2436687	1.81	100	98.9	90	110	
Ca	43	2	He	9455.383	4.441	22008	3.79	10000	94.6	90	110	
Sb	121	2	He	94.148	1.100	512716	0.55	100	94.1	90	110	
Ti	47	2	He	96.041	2.182	19808	1.47	100	96.0	90	110	
Cu	63	1	No Gas	98.086	2.743	989825	0.72	100	98.1	90	110	
Se	82	1	No Gas	98.989	2.114	19436	0.67	100	99.0	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	951215	1.94	1120139	84.92	70	120	
Ge	72	2	He	625112	0.72	689983	90.60	70	120	
Ge	72	1	No Gas	2215660	2.76	2486364	89.11	70	120	
In	115	1	No Gas	2415307	2.27	2731714	88.42	70	120	
Bi	209	1	No Gas	1831870	1.23	1939318	94.46	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	256_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T22:19:29-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	0.266	11.8	68639	1.5	0.5	
Be	9	1	No Gas	0.019	44.1	88	34.1	0.5	
V	51	2	He	-0.131	-8.3	2976	1.5	2.5	
Cr	52	2	He	-0.074	-120.0	15449	3.4	2.5	
Fe	56	2	He	2.428	7.5	35075	2.5	100	
Se	78	2	He	0.299	80.1	189	12.7	2	
As	75	2	He	0.003	533.9	307	4.3	2.5	
Ca	44	2	He	-1.051	-346.3	917	15.6	100	
Na	23	2	He	31.826	7.7	79157	2.4	100	
Mg	24	2	He	2.300	10.2	1947	5.9	100	
K	39	2	He	-3.106	-111.4	171720	1.5	100	
Mn	55	2	He	0.201	18.2	1473	10.9	2.5	
Co	59	2	He	0.003	82.7	100	17.3	2.5	
Ni	60	2	He	0.242	21.5	527	17.1	2.5	
Cu	63	2	He	0.209	5.7	1647	3.5	2	
Zn	66	2	He	1.509	5.2	1927	3.8	2.5	
Al	27	2	He	-2.285	-18.6	803	20.5	5	
B	11	1	No Gas	6.495	11.0	19769	6.2	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-2.009	-7.7	30235	3.4	5	
Si	28	1	No Gas	-0.360	-714.2	484152	0.9	10	
Ag	107	1	No Gas	0.006	34.0	210	12.6	2.5	
Cd	111	1	No Gas	-0.003	-140.9	13	91.6	1	
Sr	88	1	No Gas	0.009	37.5	2277	4.3	2.5	
Mo	95	1	No Gas	0.057	9.3	610	4.9	2.5	
Sn	118	1	No Gas	0.087	11.0	2854	3.2	5	
Sb	121	1	No Gas	0.118	22.1	1533	16.7	2.5	
Ba	137	1	No Gas	-0.018	-106.4	557	15.7	2.5	
Tl	205	1	No Gas	0.507	25.9	9307	28.9	1	
Tl	203	1	No Gas	0.472	27.3	3714	29.9	1	
Pb	208	1	No Gas	0.006	86.0	653	17.7	2.5	
U	238	1	No Gas	0.019	14.1	497	16.4	2.5	
Ca	43	2	He	-11.385	-77.4	47	44.6	100	
Sb	121	2	He	0.077	13.2	523	10.9	2.5	
Ti	47	2	He	-0.071	-39.2	7	86.6	2.5	
Cu	63	1	No Gas	0.195	9.9	4541	2.9	2.5	
Se	82	1	No Gas	-0.446	-101.4	61	138.2	2	

QC ISTD Table

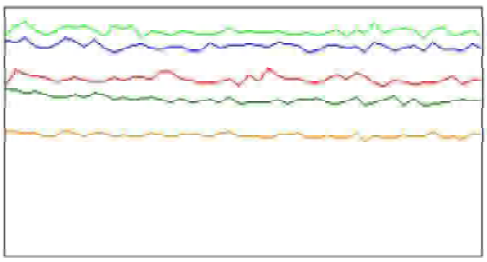
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	961837	1.52	1120139	85.87	70	120	
Ge	72	2	He	631636	0.29	689983	91.54	70	120	
Ge	72	1	No Gas	2260940	4.62	2486364	90.93	70	120	
In	115	1	No Gas	2470249	0.49	2731714	90.43	70	120	
Bi	209	1	No Gas	1827237	3.26	1939318	94.22	70	120	

Tune Check Report

Operator Name	ALSHS.NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq. Date-Time	7/13/2023 10:12:28 AM
Report Comment	---
Instrument Name	G8421A SG18523544

[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	3580	35803.33		
24	10000	9084	90844.96		
59	20000	16984	169842.05		
115	50000	24505	245054.98		
208	20000	12693	126926.57		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.207	5.000	
24	1.722	5.000	
59	1.695	5.000	
115	1.685	5.000	
208	2.571	5.000	

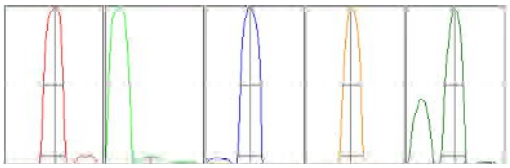
Mass	Background	Background (Required)	Background (Flag)
9	1.500		
24	2.400		
59	1.600		
115	2.200		
208	3.200		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.247 %
Doubly Charged	70 / 140 0.818 %

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	3548.83	9.05	8.90 - 9.10	
24	9308.95	23.90	23.90 - 24.10	
59	17462.95	58.90	58.90 - 59.10	
115	25110.23	114.90	114.90 - 115.10	
208	12495.29	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.61	0.774		
24	0.63	0.740		
59	0.60	0.734		
115	0.53	0.723		
208	0.57	0.738		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.55 L/min	Dilution Gas	0.52 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	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.7 V	Deflect	15.8 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-90 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	134	Axis Gain	1.0006	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.05		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-0.8 mm

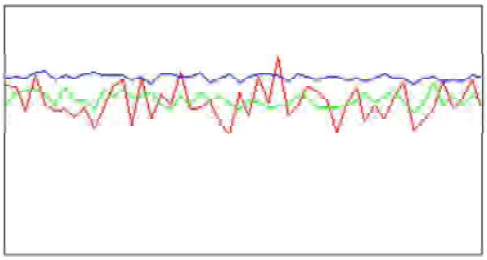
EM

Discriminator	4.5 mV	Analog HV	3004 V	Pulse HV	1633 V

[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	123	1231.25		
24	1000	625	6252.19		
59	10000	7162	71623.43		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

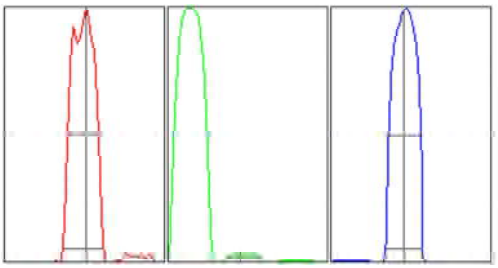
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	11.511	5.000	Fail
24	4.233	5.000	
59	1.693	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.000		
24	0.400		
59	0.100		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 2.747 %
Doubly Charged	70 / 140 0.759 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	123.76	9.05	8.90 - 9.10	
24	618.91	23.90	23.90 - 24.10	
59	7165.72	58.90	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.59	0.769		
24	0.63	0.739		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.60	0.694		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.55 L/min	Dilution Gas	0.52 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	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.4 V	Deflect	0.9 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-90 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	3.8 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	134	Axis Gain	1.0006	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.05		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-0.8 mm

EM

Discriminator	4.5 mV	Analog HV	3004 V	Pulse HV	1633 V

HS23061821-E2300615 Perchlorate IV

ALS WO# HS23061821

July 06, 2023 Service Request No:E2300615

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

Laboratory Results for: HS23061821

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2023
For your reference, these analyses have been assigned our service request number **E2300615.**

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

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

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

Certificate of Analysis

ALS Environmental - Houston 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	**Service Request No.:**	E2300615
Project:	HS23061821	**Date Received:**	06/27/23
Sample Matrix:	Ground Water		

CASE NARRATIVE

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

Sample Receipt

Ten samples were received for analysis at ALS Environmental in Houston on 06/27/23.

The samples were 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:

EQ2300320: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of MS/MSD for this extraction batch.

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

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

Client: ALS Environmental - US **Service Request:**E2300615
Project: HS23061821

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300615-001	MW12_062423	6/24/2023	0650
E2300615-002	1824DPTMW06_062423	6/24/2023	0730
E2300615-003	AWD4_062423	6/24/2023	0820
E2300615-004	18CPTMW19_062423	6/24/2023	0905
E2300615-005	18CPTMW19SW_062423	6/24/2023	0950
E2300615-006	18CPTMW23_062423	6/24/2023	1040
E2300615-007	18CPTMW23SW_062423	6/24/2023	1125
E2300615-008	18WW24_062423	6/24/2023	1220
E2300615-009	18WW24_062423_a	6/24/2023	1220
E2300615-010	17WW08_062423	6/24/2023	1305

Service Request Summary

Folder #: **E2300615**
Client Name: ALS Environmental - US
Project Name: HS23061821
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: 06/27/23
Internal Due Date: 7/12/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23061821
EDD: BASIC_WQC_CASNo_LOD

10 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300615-001	MW12_062423	Ground Water	06/24/23 0650	**IV**
E2300615-002	1824DPTMW06_062423	Ground Water	06/24/23 0730	**IV**
E2300615-003	AWD4_062423	Ground Water	06/24/23 0820	**IV**
E2300615-004	18CPTMW19_062423	Ground Water	06/24/23 0905	**IV**
E2300615-005	18CPTMW19SW_062423	Ground Water	06/24/23 0950	**IV**
E2300615-006	18CPTMW23_062423	Ground Water	06/24/23 1040	**IV**
E2300615-007	18CPTMW23SW_062423	Ground Water	06/24/23 1125	**IV**
E2300615-008	18WW24_062423	Ground Water	06/24/23 1220	**IV**
E2300615-009	18WW24_062423_a	Ground Water	06/24/23 1220	**IV**
E2300615-010	17WW08_062423	Ground Water	06/24/23 1305	**IV**

Service Request Summary

Folder #: **E2300615**
Client Name: ALS Environmental - US
Project Name: HS23061821
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: 06/27/23
Internal Due Date: 7/12/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23061821
EDD: BASIC_WQC_CASNo_LOD

10 120 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 >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

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

ALS Laboratory Group

Acronyms

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

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

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
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
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	7/31/2023
Michigan Depratment 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 Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	TN04016-2023	4/30/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

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

Subcontract Chain of Custody

SAMPLING STATE: Texas **COC ID:** 22171

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 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:	HS23061821
TSR:	Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23061821-01**	**MW12_062423**	**Groundwater**	**24 Jun 2023 06:50**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
2.	**HS23061821-02**	**1824DPTMW06_062423**	**Groundwater**	**24 Jun 2023 07:30**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
3.	**HS23061821-03**	**AWD4_062423**	**Groundwater**	**24 Jun 2023 08:20**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
4.	**HS23061821-04**	**18CPTMW19_062423**	**Groundwater**	**24 Jun 2023 09:05**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
5.	**HS23061821-05**	**18CPTMW19SW_062423**	**Groundwater**	**24 Jun 2023 09:50**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
6.	**HS23061821-06**	**18CPTMW23_062423**	**Groundwater**	**24 Jun 2023 10:40**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
7.	**HS23061821-07**	**18CPTMW23SW_062423**	**Groundwater**	**24 Jun 2023 11:25**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
8.	**HS23061821-08**	**18WW24_062423**	**Groundwater**	**24 Jun 2023 12:20**

Subcontract Chain of Custody

SAMPLING STATE: Texas **COC ID:** 22171

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
9.	**HS23061821-09**	**18WW24_062423_a**	**Groundwater**	**24 Jun 2023 12:20**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
10.	**HS23061821-10**	**17WW08_062423**	**Groundwater**	**24 Jun 2023 13:05**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 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: NR Date/Time:

Received By: CG Date/Time: 6-23-23 1800

Cooler ID(s): Temperature(s):

ALS Environmental

Cooler Receipt Form

Project Chemist JK

Client/Project ALS

Thermometer ID IR21

Date/Time Received: 6-22-23 Initials: CL

Date/Time Logged in: 6-22-23 Initials CL

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

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

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

Were they intact? ○ Yes ○ No ☒ N/A

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

If yes, how many and where?

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

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

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
—		6-22-23	☒ 1500	CL	5.2	☒
						☐
						☐
						☐

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

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

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

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

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

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 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 sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

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

Sample Integrity (mandatory):

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

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

Temperature Requirement (varies by sample matrix):

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

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

Preparation Information Benchsheets

ALS Environmental - Houston 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#: 422390 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 7/3/23 13:23

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300612-001	01MW4C06022305	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2300615-001	MW12_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2300615-002	1824DPTMW06_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
4	E2300615-003	AWD4_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2300615-004	18CPTMW19_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
6	E2300615-005	18CPTMW19SW_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300615-006	18CPTMW23_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300615-007	18CPTMW23SW_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300615-008	18WW24_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300615-009	18WW24_062423_a	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300615-010	17WW08_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2300618-001	ICT2_062723	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2300618-002	ICT4_062723	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2300618-003	ICT4_062723_a	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2300618-004	ICT7_062723	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2300618-005	ICT8_062723	.01	6850/ClO4 DOD			Ground Water	10mL	
17	E2300618-006	ICT11_062723	.01	6850/ClO4 DOD			Ground Water	10mL	
18	E2300618-007	ICT12A_062723	.01	6850/ClO4 DOD			Ground Water	10mL	
19	E2300618-008	ICT12B_062723	.01	6850/ClO4 DOD			Ground Water	10mL	
20	E2300618-009	ICT12C_062723	.01	6850/ClO4 DOD			Ground Water	10mL	
21	EQ2300320-01	MB		6850/ClO4 DOD			Liquid	10mL	
22	EQ2300320-02	LCS		6850/ClO4 DOD			Liquid	10mL	
23	EQ2300320-03	DLCS		6850/ClO4 DOD			Liquid	10mL	

Spiking Solutions

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

EQ2300320-02 1.00µL EQ2300320-03 1.00µL

Name: Perchlorate Internal Standard 1ug/mL Inventory ID 227244 Logbook Ref: Perchlorate Internal Standard Expires On: 07/31/2023

E2300612-001	100.00µL	E2300615-001	100.00µL	E2300615-002	100.00µL	E2300615-003	100.00µL	E2300615-004	100.00µL	E2300615-005	100.00µL
E2300615-006	100.00µL	E2300615-007	100.00µL	E2300615-008	100.00µL	E2300615-009	100.00µL	E2300615-010	100.00µL	E2300618-001	100.00µL
E2300618-002	100.00µL	E2300618-003	100.00µL	E2300618-004	100.00µL	E2300618-005	100.00µL	E2300618-006	100.00µL	E2300618-007	100.00µL
E2300618-008	100.00µL	E2300618-009	100.00µL	EQ2300320-01	100.00µL	EQ2300320-02	100.00µL	EQ2300320-03	100.00µL		

Preparation Information Benchsheet

Prep Run#: 422390
Team: Semivoa GCMS/XMI

Prep WorkFlow: GenExt28Day
Prep Method: Method

Status: Prepped
Prep Date/Time: 7/3/23 13:23

Preparation Steps

Step: Preparation
Started: 7/3/23 13:23
Finished: 7/5/23 10:23
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined
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	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	6/24/23 0650
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW12_062423	**Units:**	µg/L
Lab Code:	E2300615-001	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	7/ 3/23	7/6/23 09:34	422390	809710	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	6/24/23 0730
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	1824DPTMW06_062423	**Units:**	µg/L
Lab Code:	E2300615-002	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**9.56**		0.100	0.0500	0.0250	1	7/ 3/23	7/6/23 09:39	422390	809710	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	6/24/23 0820
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	AWD4_062423	**Units:**	µg/L
Lab Code:	E2300615-003	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**3930**		10.0	5.00	2.50	100	7/ 3/23	7/6/23 09:45	422390	809710	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	6/24/23 0905
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	18CPTMW19_062423	**Units:**	µg/L
Lab Code:	E2300615-004	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**1.33**		0.100	0.0500	0.0250	1	7/ 3/23	7/6/23 09:50	422390	809710	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	6/24/23 0950
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	18CPTMW19SW_062423	**Units:**	µg/L
Lab Code:	E2300615-005	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	7/ 3/23	7/6/23 09:56	422390	809710	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	6/24/23 1040
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	18CPTMW23_062423	**Units:**	µg/L
Lab Code:	E2300615-006	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**420**		1.00	0.500	0.250	10	7/ 3/23	7/6/23 10:01	422390	809710	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	6/24/23 1125
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	18CPTMW23SW_062423	**Units:**	µg/L
Lab Code:	E2300615-007	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	7/ 3/23	7/6/23 11:40	422390	809710	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	6/24/23 1220
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	18WW24_062423	**Units:**	µg/L
Lab Code:	E2300615-008	**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	**0.237**		0.100	0.0500	0.0250	1	7/ 3/23	7/6/23 10:18	422390	809710	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	6/24/23 1220
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	18WW24_062423_a	**Units:**	µg/L
Lab Code:	E2300615-009	**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	**0.286**		0.100	0.0500	0.0250	1	7/ 3/23	7/6/23 10:23	422390	809710	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	6/24/23 1305
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	17WW08_062423	**Units:**	µg/L
Lab Code:	E2300615-010	**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	7/ 3/23	7/6/23 10:29	422390	809710	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300320-01	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	7/ 3/23	7/6/23 09:12	422390	809710	

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	**Service Request:**	E2300615
Project:	HS23061821	**Date Analyzed:**	7/ 6/23
Sample Matrix:	Ground Water		

Lab Control Sample Summary

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

Analytical Method:	6850	**Units:**	µg/L
Prep Method:	Method	**Basis:**	NA
		Extraction Lot:	422390

	Lab Control Sample EQ2300320-02			Duplicate Lab Control Sample EQ2300320-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.107	0.100	107	0.103	0.100	103	84 - 119	4	15

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300320-02	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.107**		0.100	0.0500	0.0250	1	7/ 3/23	7/6/23 09:17	422390	809710	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300320-03	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.103**		0.100	0.0500	0.0250	1	7/ 3/23	7/6/23 09:23	422390	809710	

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

20230629-809329

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/29/2023
Cal. Std. xp: 06/29/2023
ICAL ID: EC2300011

Mobile Phases : A:20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	PERCHLORATE1		20230629-001	Perchlorate6850c.lcm	1x	227245	6/29/2023 12:59
2	PERCHLORATE2		20230629-002	Perchlorate6850c.lcm	1x	227246	6/29/2023 13:05
3	PERCHLORATE3		20230629-003	Perchlorate6850c.lcm	1x	227247	6/29/2023 13:10
4	PERCHLORATE4		20230629-004	Perchlorate6850c.lcm	1x	227248	6/29/2023 13:16
5	PERCHLORATE5		20230629-005	Perchlorate6850c.lcm	1x	227249	6/29/2023 13:21
6	PERCHLORATE6		20230629-006	Perchlorate6850c.lcm	1x	227250	6/29/2023 13:27
7	PERCHLORATE7		20230629-007	Perchlorate6850c.lcm	1x	227251	6/29/2023 13:32
8	PERCHLORATE8		20230629-008	Perchlorate6850c.lcm	1x	227252	6/29/2023 13:38
9	PERCHLORATE9		20230629-009	Perchlorate6850c.lcm	1x	227253	6/29/2023 13:43
10	PERCHLORATE10		20230629-010	Perchlorate6850c.lcm	1x	227254	6/29/2023 13:49
11	PERCHLORATEICV		20230629-011	Perchlorate6850c.lcm	1x	227256	6/29/2023 13:55
12	IB		20230629-012	Perchlorate6850c.lcm	1x		6/29/2023 14:00
13	LODV		20230629-013	Perchlorate6850c.lcm	1x	227501	6/29/2023 14:06
14	ICS		20230629-014	Perchlorate6850c.lcm	1x	32103024	6/29/2023 14:11
15	CCV		20230629-015	Perchlorate6850c.lcm	1x	227251	6/29/2023 14:17
16	EQ2300312-01		20230629-016	Perchlorate6850c.lcm	1x		6/29/2023 14:22
17	EQ2300312-02		20230629-017	Perchlorate6850c.lcm	1x	DNU-RR	6/29/2023 14:28
18	EQ2300312-03		20230629-018	Perchlorate6850c.lcm	1x		6/29/2023 14:33
19	E2300606-001		20230629-019	Perchlorate6850c.lcm	10x		6/29/2023 14:39
20	EQ2300312-04		20230629-020	Perchlorate6850c.lcm	1x		6/29/2023 14:44
21	EQ2300312-05		20230629-021	Perchlorate6850c.lcm	1x		6/29/2023 14:50
22	E2300606-002		20230629-022	Perchlorate6850c.lcm	5x		6/29/2023 14:55
23	E2300606-003		20230629-023	Perchlorate6850c.lcm	10x		6/29/2023 15:01
24	E2300606-004		20230629-024	Perchlorate6850c.lcm	10x		6/29/2023 15:06
25	E2300606-005		20230629-025	Perchlorate6850c.lcm	1x		6/29/2023 15:12
26	CCV		20230629-026	Perchlorate6850c.lcm	1x	227251	6/29/2023 15:17
27	E2300606-006		20230629-027	Perchlorate6850c.lcm	1x		6/29/2023 15:23
28	E2300606-007		20230629-028	Perchlorate6850c.lcm	500x		6/29/2023 15:28
29	E2300606-008		20230629-029	Perchlorate6850c.lcm	100x		6/29/2023 15:34
30	EQ2300312-06		20230629-030	Perchlorate6850c.lcm	100x		6/29/2023 15:40
31	EQ2300312-07		20230629-031	Perchlorate6850c.lcm	100x		6/29/2023 15:45
32	E2300606-009		20230629-032	Perchlorate6850c.lcm	1x		6/29/2023 15:53
33	E2300610-001		20230629-033	Perchlorate6850c.lcm	10000x		6/29/2023 15:58
34	E2300610-002		20230629-034	Perchlorate6850c.lcm	1x		6/29/2023 16:04
35	E2300610-003		20230629-035	Perchlorate6850c.lcm	1x		6/29/2023 16:09
36	E2300610-004		20230629-036	Perchlorate6850c.lcm	1x		6/29/2023 16:15
37	CCV		20230629-037	Perchlorate6850c.lcm	1x	227251	6/29/2023 16:21

20230629-809329

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/29/2023
Cal. Std. xp: 06/29/2023
ICAL ID: EC2300011

Mobile Phases : A:20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	E2300610-005		20230629-038	Perchlorate6850c.lcm	1x		6/29/2023 16:26
39	E2300610-006		20230629-039	Perchlorate6850c.lcm	1x		6/29/2023 16:32
40	E2300610-007		20230629-040	Perchlorate6850c.lcm	1x		6/29/2023 16:37
41	E2300610-008		20230629-041	Perchlorate6850c.lcm	1x	DNU-D	6/29/2023 16:43
42	EQ2300312-08		20230629-042	Perchlorate6850c.lcm	1x		6/29/2023 16:48
43	EQ2300312-09		20230629-043	Perchlorate6850c.lcm	1x		6/29/2023 16:54
44	E2300611-001		20230629-044	Perchlorate6850c.lcm	1x		6/29/2023 16:59
45	E2300611-002		20230629-045	Perchlorate6850c.lcm	1x		6/29/2023 17:05
46	E2300611-003		20230629-046	Perchlorate6850c.lcm	1x		6/29/2023 17:10
47	E2300611-004		20230629-047	Perchlorate6850c.lcm	1x	DNU-D	6/29/2023 17:16
48	CCV		20230629-048	Perchlorate6850c.lcm	1x	227251	6/29/2023 17:21
49	E2300611-005		20230629-049	Perchlorate6850c.lcm	1x		6/29/2023 17:27
50	E2300611-006		20230629-050	Perchlorate6850c.lcm	1x	DNU-D	6/29/2023 17:32
51	E2300611-007		20230629-051	Perchlorate6850c.lcm	1x	DNU-D	6/29/2023 17:38
52	E2300611-008		20230629-052	Perchlorate6850c.lcm	1x		6/29/2023 17:43
53	E2300611-009		20230629-053	Perchlorate6850c.lcm	1x		6/29/2023 17:49
54	E2300611-010		20230629-054	Perchlorate6850c.lcm	1x		6/29/2023 17:55
55	CCV		20230629-055	Perchlorate6850c.lcm	1x	227251	6/29/2023 18:06

Initial Calibration - Detailed Report

Calibration ID: EC2300011 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300011-01	PERCHLORATE1	20230629-001	06/29/2023 12:59
02	EC2300011-02	PERCHLORATE2	20230629-002	06/29/2023 13:05
03	EC2300011-03	PERCHLORATE3	20230629-003	06/29/2023 13:10
04	EC2300011-04	PERCHLORATE4	20230629-004	06/29/2023 13:16
05	EC2300011-05	PERCHLORATE5	20230629-005	06/29/2023 13:21
06	EC2300011-06	PERCHLORATE6	20230629-006	06/29/2023 13:27
07	EC2300011-07	PERCHLORATE7	20230629-007	06/29/2023 13:32
08	EC2300011-08	PERCHLORATE8	20230629-008	06/29/2023 13:38
09	EC2300011-09	PERCHLORATE9	20230629-009	06/29/2023 13:43
10	EC2300011-10	PERCHLORATE10	20230629-010	06/29/2023 13:49

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

Perchlorate **Average RF** **RSD = 2.809** **Average RF = 0.1625**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1678	02	0.5000	0.1574	03	0.7000	0.1599	04	1.0000	0.1567
05	2.0000	0.1596	06	5.0000	0.1641	07	10.0000	0.1704	08	20.0000	0.1667
09	30.0000	0.1608	10	50.0000	0.1619						

Analyte

Perchlorate RSE = 2.81

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.103	3.2	02	0.5000	0.484	-3.1	03	0.7000	0.689	-1.6
04	1.0000	0.964	-3.6	05	2.0000	1.96	-1.8	06	5.0000	5.05	1.0
07	10.0000	10.5	4.8	08	20.0000	20.5	2.6	09	30.0000	29.7	-1.1
10	50.0000	49.8	-0.4								

Initial Calibration Verification Summary Report

Calibration ID:	EC2300011	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230629-011	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300011-11	T	Average RF	10	9.913	ng/mL	-0.9	<= 15

Insight Report

Printed at 6/29/2023 2:17:05 PM

Method File: I:\LCMS01\DATA\20230628\06282023.lcm
Project File: I:\LCMS01\DATA\20230628\06282023.damlp

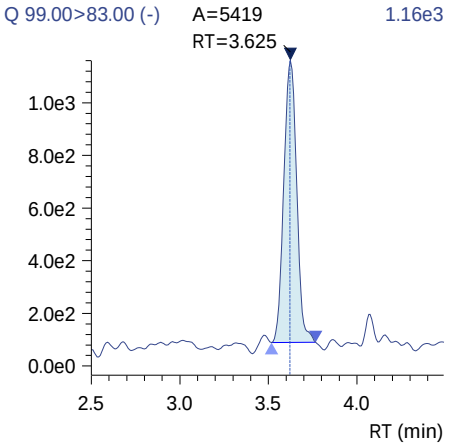
PERCHLORATE1

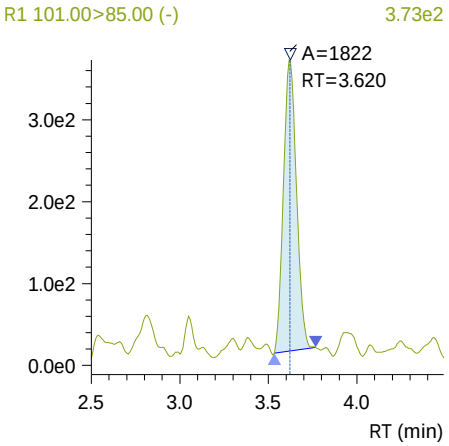
Sample ID: PERCHLORATE1
Date Acquired: 6/29/2023 12:59:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-001.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.625	5419	323018	0.1032	ng/mL	101.00 >85.00	33.63	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.617	323018	323018	1.0000	ng/mL	----	----	

Perchlorate

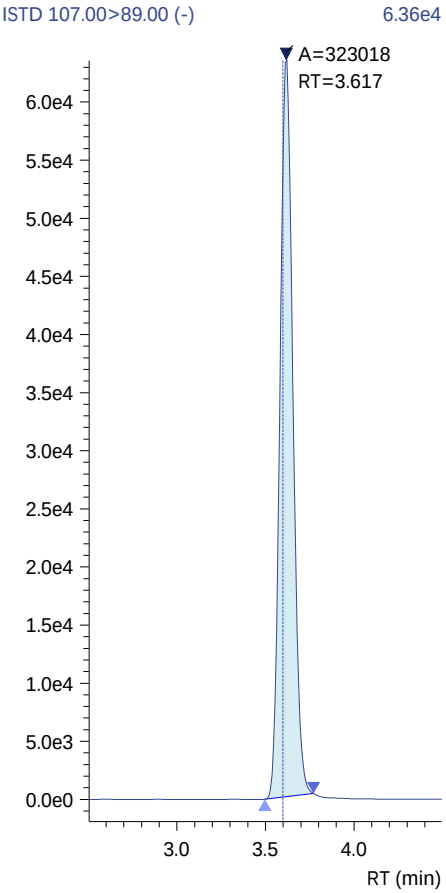
Conc 0.1032
R#1 33.63 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

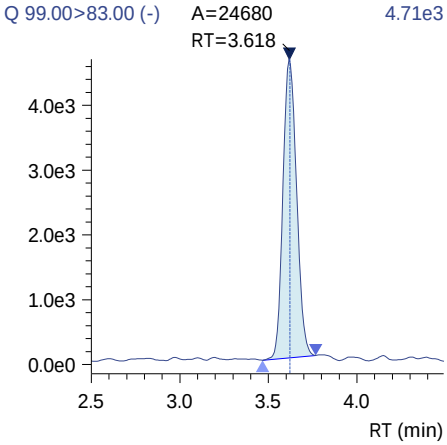
PERCHLORATE2

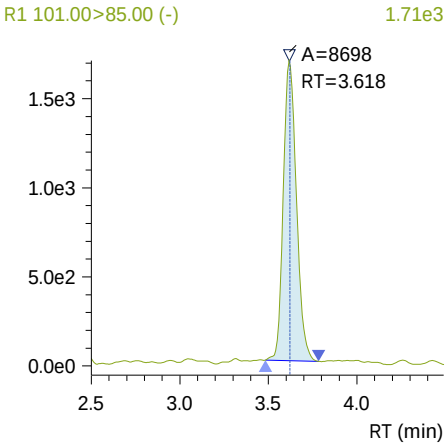
Sample ID: PERCHLORATE2
Date Acquired: 6/29/2023 1:05:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-002.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.618	24680	313519	0.4844	ng/mL	101.00 >85.00	35.24	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.618	313519	313519	1.0000	ng/mL	----	----	

Perchlorate

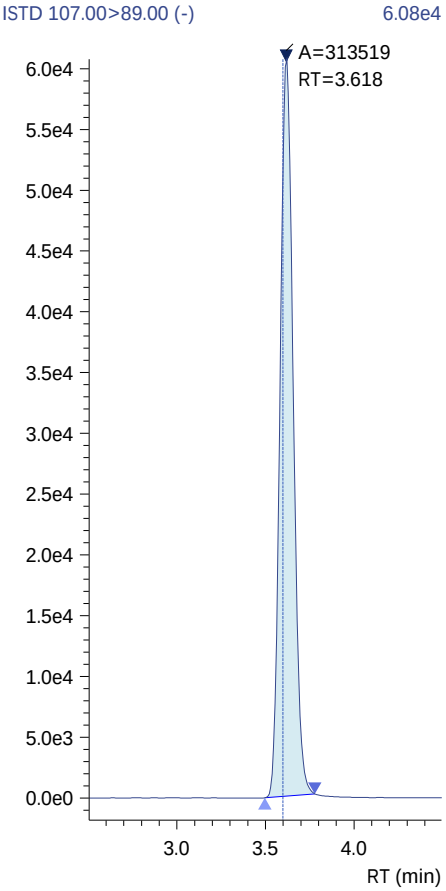
Conc 0.4844
R#1 35.24 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

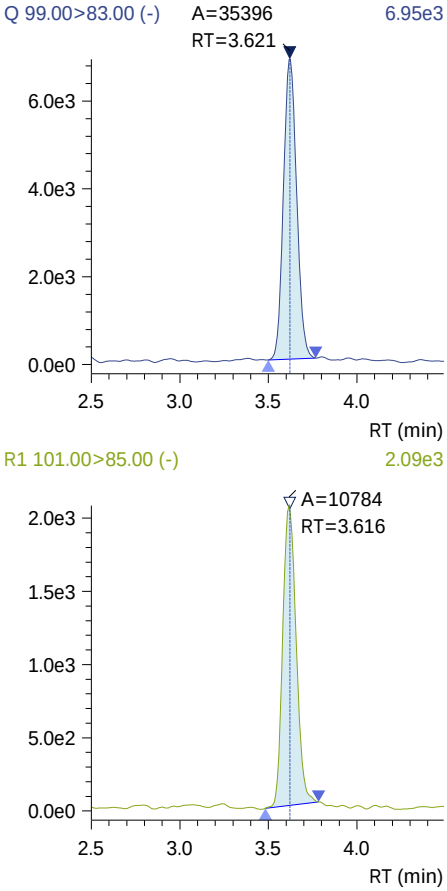
PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 6/29/2023 1:10:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-003.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.621	35396	316311	0.6886	ng/mL	101.00 >85.00	30.47	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.618	316311	316311	1.0000	ng/mL	----	----	

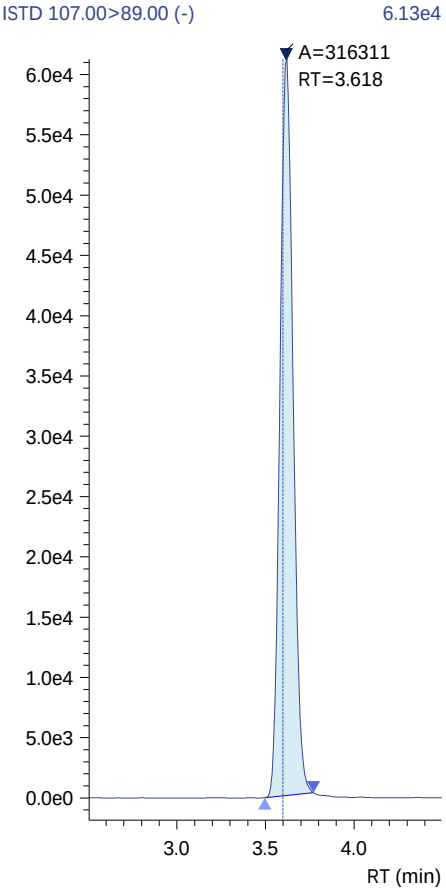
Perchlorate

Conc 0.6886
R#1 30.47 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

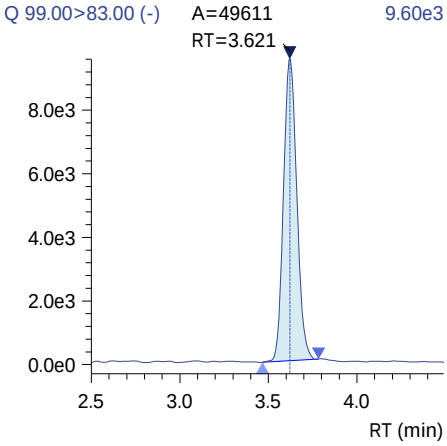
PERCHLORATE4

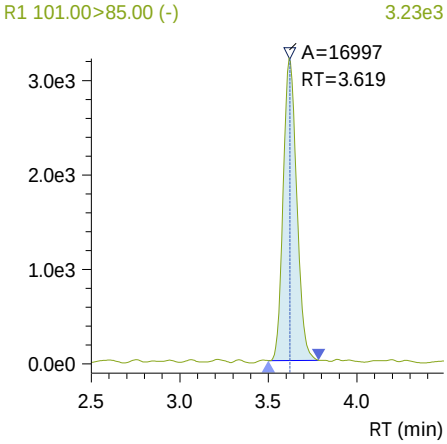
Sample ID: PERCHLORATE4
Date Acquired: 6/29/2023 1:16:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-004.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.621	49611	316580	0.9643	ng/mL	101.00 >85.00	34.26	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.618	316580	316580	1.0000	ng/mL	----	----	

Perchlorate

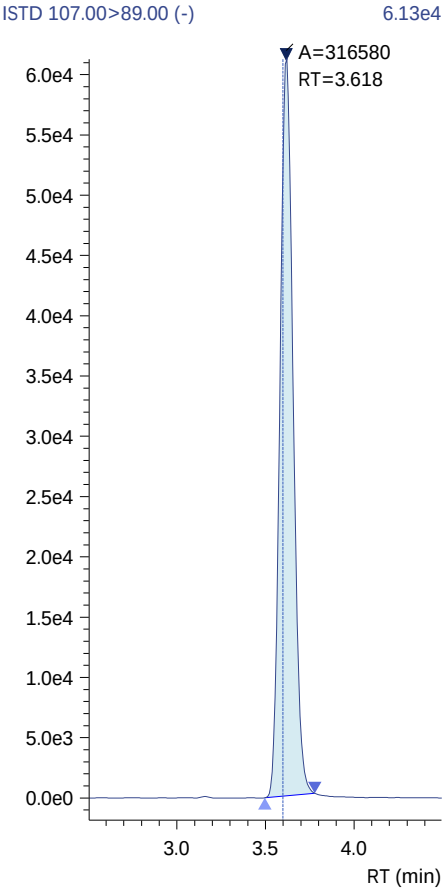
Conc 0.9643
R#1 34.26 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

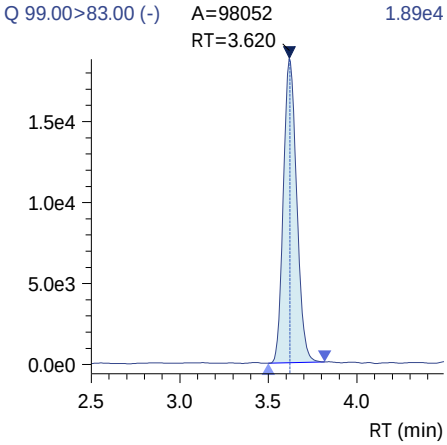
PERCHLORATE5

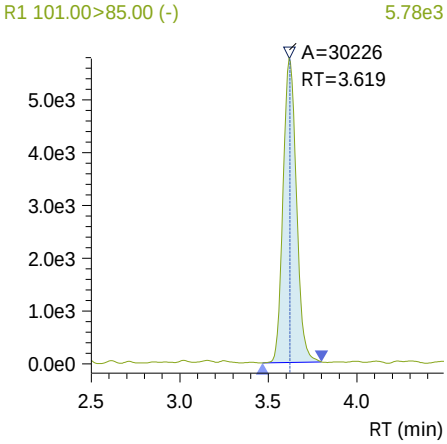
Sample ID: PERCHLORATE5
Date Acquired: 6/29/2023 1:21:50 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-005.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.620	98052	307162	1.9642	ng/mL	101.00 >85.00	30.83	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.617	307162	307162	1.0000	ng/mL	----	----	

Perchlorate

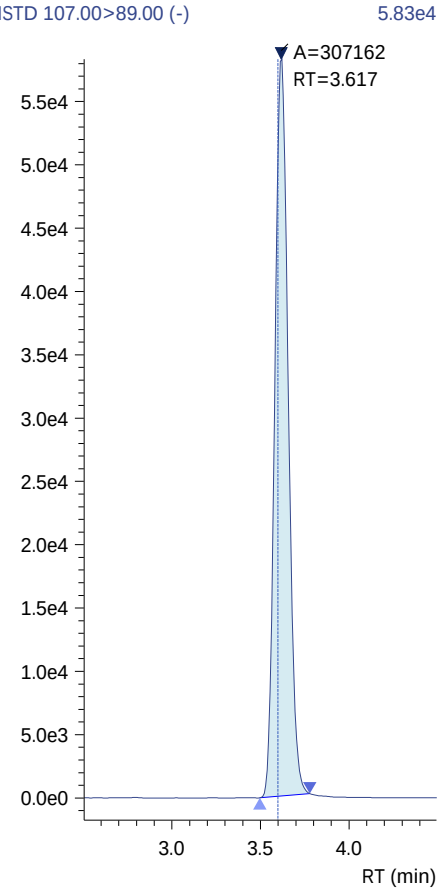
Conc 1.9642
R#1 30.83 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

PERCHLORATE6

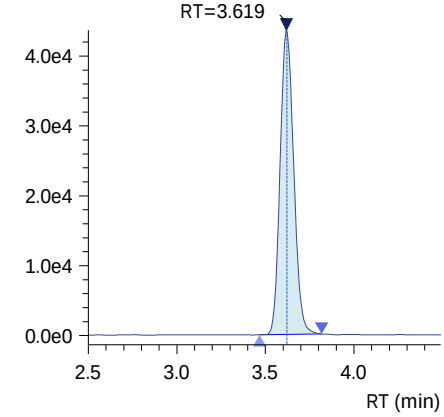
Sample ID: PERCHLORATE6
Date Acquired: 6/29/2023 1:27:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-006.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.619	232011	282827	5.0477	ng/mL	101.00 >85.00	31.17	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.617	282827	282827	1.0000	ng/mL	----	----	

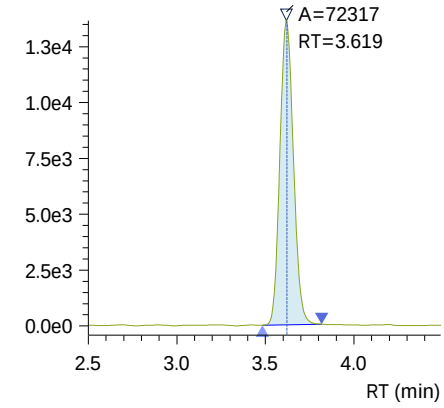
Perchlorate

Conc 5.0477
R#1 31.17 (32.02)

Q 99.00>83.00 (-) A=232011 RT=3.619 4.37e4



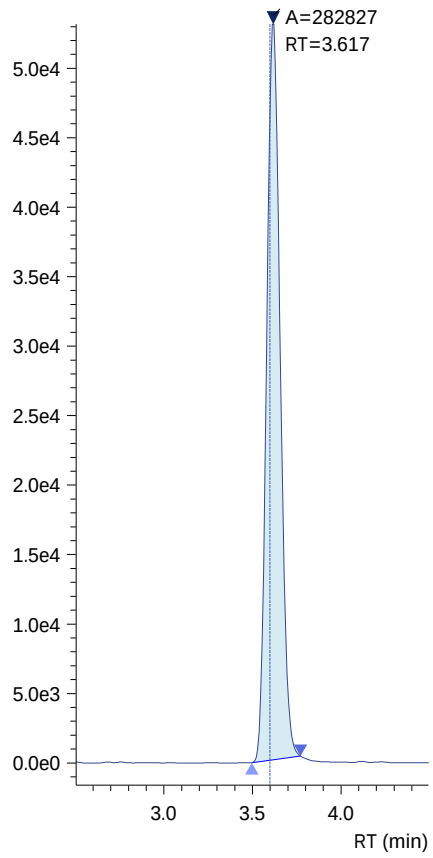
R1 101.00>85.00 (-) 1.37e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.32e4



Insight Report

Printed at 6/29/2023 2:17:05 PM

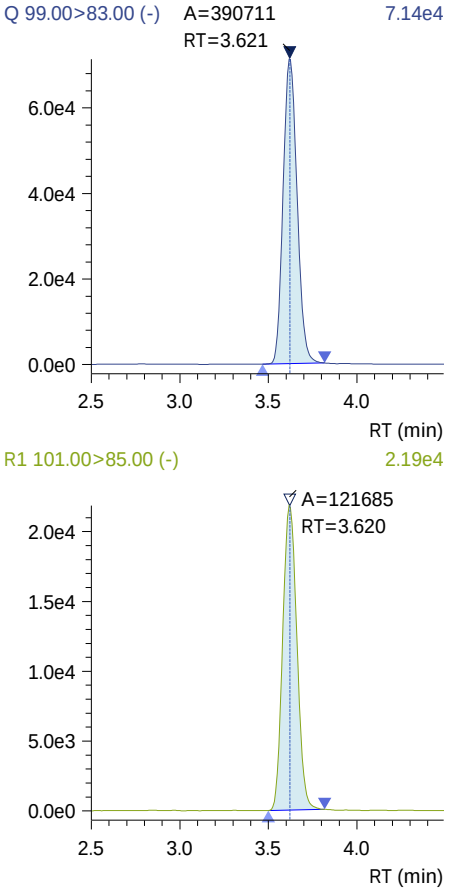
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 6/29/2023 1:32:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-007.lcd
Vial: 3 | 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	3.621	390711	229327	10.48 35	ng/mL	101.00 >85.00	31.14	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.616	229327	229327	1.0000	ng/mL	----	----	

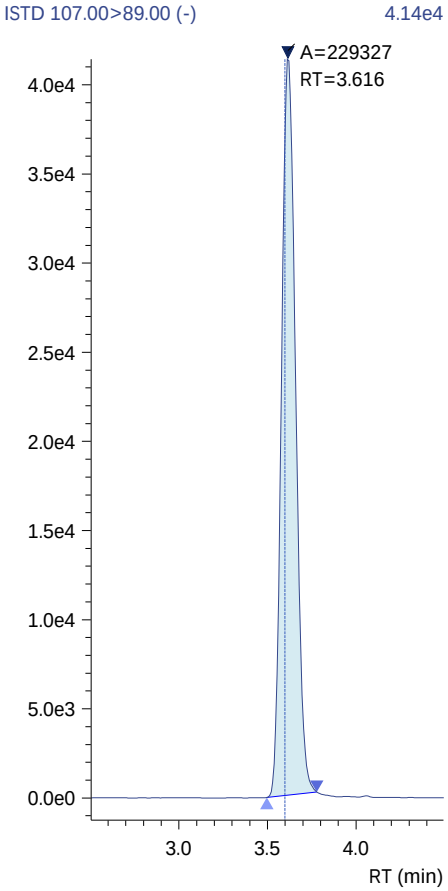
Perchlorate

Conc 10.4835
R#1 31.14 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

PERCHLORATE8

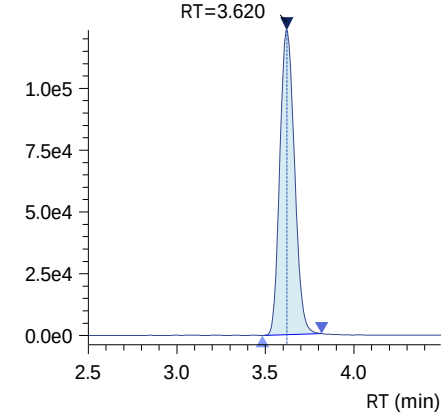
Sample ID: PERCHLORATE8
Date Acquired: 6/29/2023 1:38:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-008.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.620	710430	213093	20.5144	ng/mL	101.00 >85.00	31.25	22.41-41.62
Sodium Perchlorate-18O4_IS	Auto	3.615	213093	213093	1.0000	ng/mL	----	----	

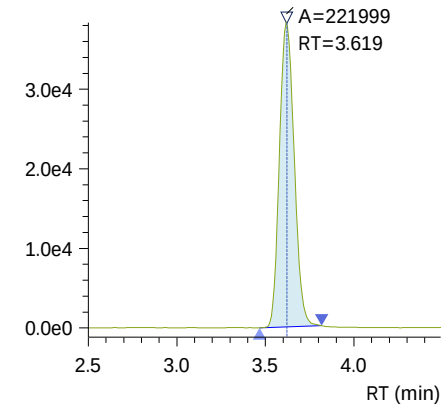
Perchlorate

Conc 20.5144
R#1 31.25 (32.02)

Q 99.00>83.00 (-) A=710430 RT=3.620 1.24e5



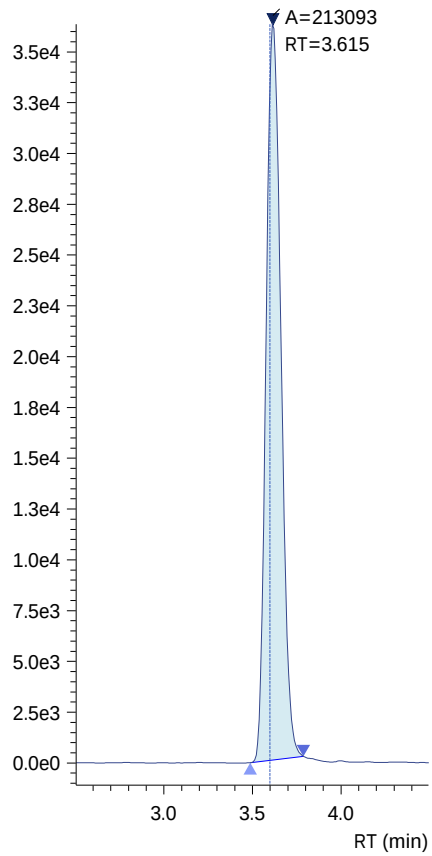
R1 101.00>85.00 (-) 3.84e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.64e4



Insight Report

Printed at 6/29/2023 2:17:05 PM

PERCHLORATE9

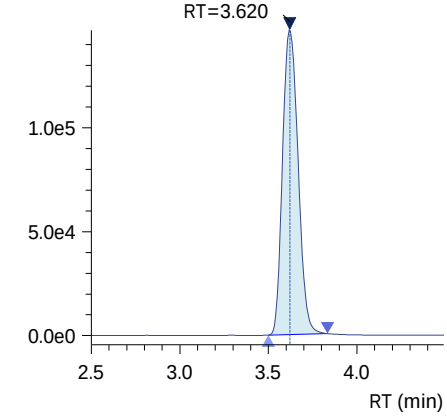
Sample ID: PERCHLORATE9
Date Acquired: 6/29/2023 1:43:53 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-009.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.620	896468	185851	29.6808	ng/mL	101.00 >85.00	31.06	22.41-41.62
Sodium Perchlorate-18O4_IS	Auto	3.614	185851	185851	1.0000	ng/mL	----	----	

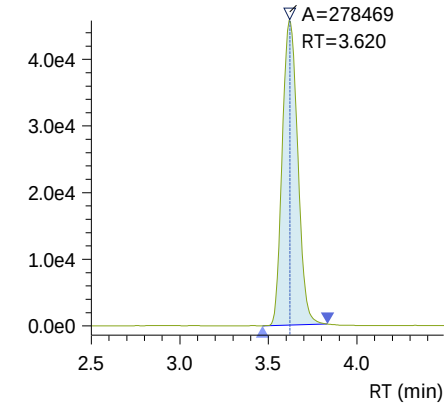
Perchlorate

Conc 29.6808
R#1 31.06 (32.02)

Q 99.00>83.00 (-) A=896468 1.47e5



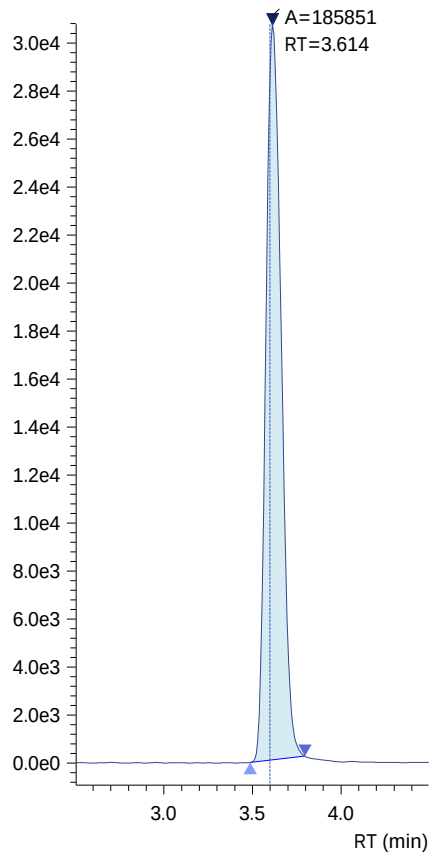
R1 101.00>85.00 (-) 4.58e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.08e4



Insight Report

Printed at 6/29/2023 2:17:05 PM

PERCHLORATE10

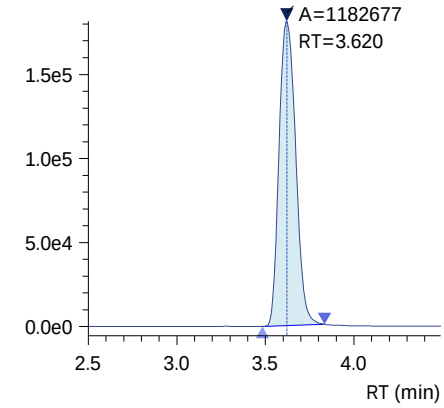
Sample ID: PERCHLORATE10
Date Acquired: 6/29/2023 1:49:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-010.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.620	1182677	146135	49.79 86	ng/mL	101.00 >85.00	30.89	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.614	146135	146135	1.0000	ng/mL	----	----	

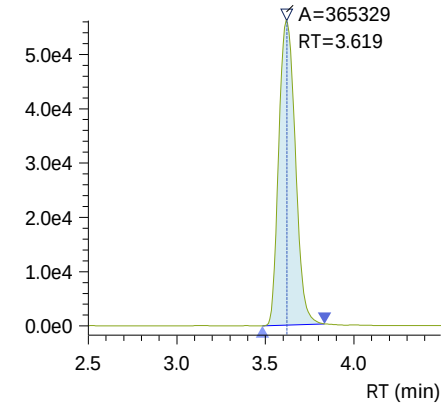
Perchlorate

Conc 49.7986
R#1 30.89 (32.02)

Q 99.00>83.00 (-) 1.82e5



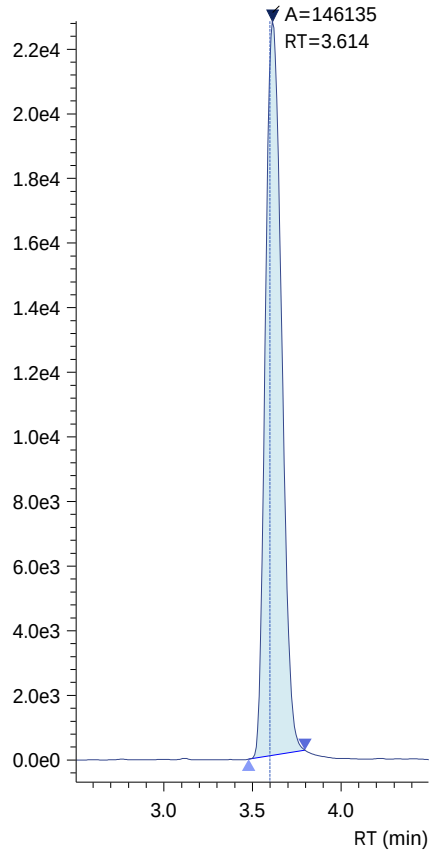
R1 101.00>85.00 (-) 5.62e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.29e4



Insight Report

Printed at 6/29/2023 2:17:05 PM

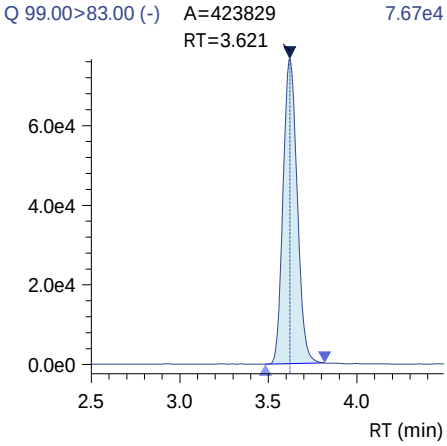
PERCHLORATEICV

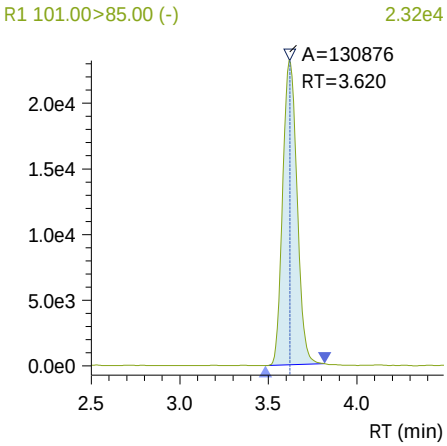
Sample ID: PERCHLORATEICV
Date Acquired: 6/29/2023 1:55:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-011.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.621	423829	263091	9.9127	ng/mL	101.00 >85.00	30.88	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.617	263091	263091	1.0000	ng/mL	----	----	

Perchlorate

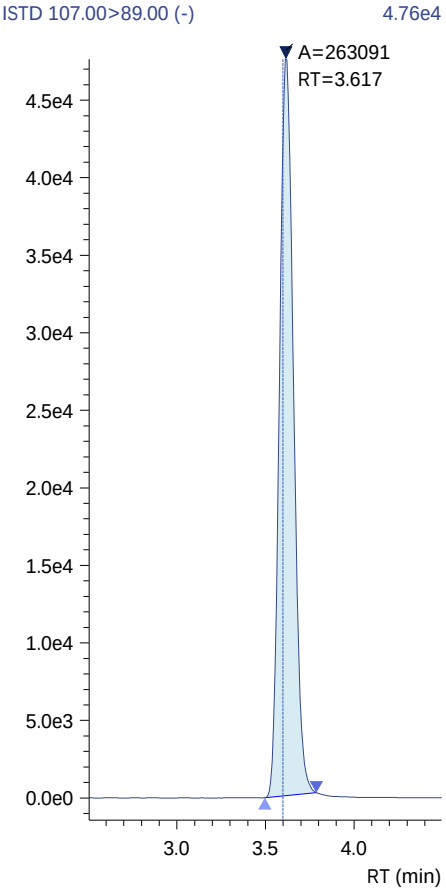
Conc 9.9127
R#1 30.88 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Chromatograms and Selected Ion Monitoring

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

20230706-809710

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/29/2023
Cal. Std. xp: 06/29/2023
ICAL ID: EC2300011

Mobile Phases : A:20mM ammonium acetate in water 32103047 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230706-001	Perchlorate6850c.lcm	1x		7/6/2023 8:42
2	IB		20230706-002	Perchlorate6850c.lcm	1x		7/6/2023 8:48
3	LODV		20230706-003	Perchlorate6850c.lcm	1x	227501	7/6/2023 8:53
4	ICS		20230706-004	Perchlorate6850c.lcm	1x	32103024	7/6/2023 8:59
5	CCV		20230706-005	Perchlorate6850c.lcm	1x	227251	7/6/2023 9:06
6	EQ2300320-01		20230706-006	Perchlorate6850c.lcm	1x		7/6/2023 9:12
7	EQ2300320-02		20230706-007	Perchlorate6850c.lcm	1x		7/6/2023 9:17
8	EQ2300320-03		20230706-008	Perchlorate6850c.lcm	1x		7/6/2023 9:23
9	E2300612-001		20230706-009	Perchlorate6850c.lcm	1x		7/6/2023 9:28
10	E2300615-001		20230706-010	Perchlorate6850c.lcm	1x		7/6/2023 9:34
11	E2300615-002		20230706-011	Perchlorate6850c.lcm	1x		7/6/2023 9:39
12	E2300615-003		20230706-012	Perchlorate6850c.lcm	100x		7/6/2023 9:45
13	E2300615-004		20230706-013	Perchlorate6850c.lcm	1x		7/6/2023 9:50
14	E2300615-005		20230706-014	Perchlorate6850c.lcm	1x		7/6/2023 9:56
15	E2300615-006		20230706-015	Perchlorate6850c.lcm	10x		7/6/2023 10:01
16	CCV		20230706-016	Perchlorate6850c.lcm	1x	227251	7/6/2023 10:07
17	E2300615-007		20230706-017	Perchlorate6850c.lcm	1x	dnu-confirm	7/6/2023 10:12
18	E2300615-008		20230706-018	Perchlorate6850c.lcm	1x		7/6/2023 10:18
19	E2300615-009		20230706-019	Perchlorate6850c.lcm	1x		7/6/2023 10:23
20	E2300615-010		20230706-020	Perchlorate6850c.lcm	1x		7/6/2023 10:29
21	E2300618-001		20230706-021	Perchlorate6850c.lcm	1x		7/6/2023 10:35
22	E2300618-002		20230706-022	Perchlorate6850c.lcm	500x		7/6/2023 10:40
23	E2300618-003		20230706-023	Perchlorate6850c.lcm	1x	dnu-rr	7/6/2023 10:46
24	E2300618-004		20230706-024	Perchlorate6850c.lcm	500x		7/6/2023 10:51
25	E2300618-005		20230706-025	Perchlorate6850c.lcm	1x		7/6/2023 10:57
26	E2300618-006		20230706-026	Perchlorate6850c.lcm	200x		7/6/2023 11:02
27	CCV		20230706-027	Perchlorate6850c.lcm	1x	227251	7/6/2023 11:13
28	E2300618-007		20230706-028	Perchlorate6850c.lcm	1000x		7/6/2023 11:18
29	E2300618-008		20230706-029	Perchlorate6850c.lcm	200x		7/6/2023 11:24
30	E2300618-009		20230706-030	Perchlorate6850c.lcm	50x		7/6/2023 11:29
31	E2300618-003		20230706-031	Perchlorate6850c.lcm	500x		7/6/2023 11:35
32	E2300615-007		20230706-032	Perchlorate6850c.lcm	1x		7/6/2023 11:40
33	EQ2300328-01		20230706-033	Perchlorate6850c.lcm	1x		7/6/2023 11:46
34	EQ2300328-02		20230706-034	Perchlorate6850c.lcm	1x		7/6/2023 11:51
35	EQ2300328-03		20230706-035	Perchlorate6850c.lcm	1x		7/6/2023 11:57
36	EQ2300328-04		20230706-036	Perchlorate6850c.lcm	1x		7/6/2023 12:02
37	EQ2300328-05		20230706-037	Perchlorate6850c.lcm	1x		7/6/2023 12:08

20230706-809710

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/29/2023
Cal. Std. xp: 06/29/2023
ICAL ID: EC2300011

Mobile Phases : **A:**20mM ammonium acetate in water 32103047 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	CCV		20230706-038	Perchlorate6850c.lcm	1x	227251	7/6/2023 12:13
39	E2300618-010		20230706-039	Perchlorate6850c.lcm	1x		7/6/2023 12:19
40	E2300618-011		20230706-040	Perchlorate6850c.lcm	500x		7/6/2023 12:25
41	E2300618-012		20230706-041	Perchlorate6850c.lcm	1x		7/6/2023 12:30
42	E2300618-013		20230706-042	Perchlorate6850c.lcm	100x		7/6/2023 12:36
43	E2300618-014		20230706-043	Perchlorate6850c.lcm	100x		7/6/2023 12:41
44	E2300618-015		20230706-044	Perchlorate6850c.lcm	2000x		7/6/2023 12:47
45	E2300618-016		20230706-045	Perchlorate6850c.lcm	1x		7/6/2023 12:52
46	E2300618-017		20230706-046	Perchlorate6850c.lcm	200x		7/6/2023 12:58
47	E2300618-018		20230706-047	Perchlorate6850c.lcm	1x		7/6/2023 13:03
48	E2300618-019		20230706-048	Perchlorate6850c.lcm	10x		7/6/2023 13:09
49	CCV		20230706-049	Perchlorate6850c.lcm	1x	227251	7/6/2023 13:14
50	E2300618-020		20230706-050	Perchlorate6850c.lcm	200x		7/6/2023 13:20
51	E2300618-021		20230706-051	Perchlorate6850c.lcm	50x		7/6/2023 13:25
52	E2300618-022		20230706-052	Perchlorate6850c.lcm	5x		7/6/2023 13:31
53	E2300618-023		20230706-053	Perchlorate6850c.lcm	200x		7/6/2023 13:36
54	E2300619-001		20230706-054	Perchlorate6850c.lcm	1x		7/6/2023 13:42
55	E2300619-002		20230706-055	Perchlorate6850c.lcm	1x		7/6/2023 13:47
56	E2300619-003		20230706-056	Perchlorate6850c.lcm	1x		7/6/2023 13:53
57	E2300619-004		20230706-057	Perchlorate6850c.lcm	1x		7/6/2023 13:59
58	R2305858-004		20230706-058	Perchlorate6850c.lcm	1x		7/6/2023 14:04
59	R2305858-009		20230706-059	Perchlorate6850c.lcm	1x		7/6/2023 14:10
60	CCV		20230706-060	Perchlorate6850c.lcm	1x	227251	7/6/2023 14:15

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061821

Service Request: E2300615
Date Analyzed: 7/6/23 09:06

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

File ID: I:\LCMS01\DATA\20230706\20230706-005
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300331-01
Analysis Lot: 809710
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300331-01	243,506	3.62
Method Blank	EQ2300320-01	341,467	3.62
Lab Control Sample	EQ2300320-02	338,691	3.62
Duplicate Lab Control Sample	EQ2300320-03	344,099	3.62
MW12_062423	E2300615-001	338,913	3.62
1824DPTMW06_062423	E2300615-002	247,572	3.62
AWD4_062423	E2300615-003	175,455	3.61
18CPTMW19_062423	E2300615-004	340,491	3.62
18CPTMW19SW_062423	E2300615-005	341,342	3.62
18CPTMW23_062423	E2300615-006	162,952	3.61

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Analyzed:**	7/6/23 10:07

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230706\20230706-016	**Lab Code:**	EQ2300331-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809710
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300331-02	241,230	3.62
18WW24_062423	E2300615-008	342,748	3.62
18WW24_062423_a	E2300615-009	352,248	3.62
17WW08_062423	E2300615-010	348,148	3.62

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Analyzed:**	7/6/23 11:13

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230706\20230706-027	**Lab Code:**	EQ2300331-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809710
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300331-03	244,863	3.62
18CPTMW23SW_062423	E2300615-007	328,291	3.62

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Analyzed:**	7/6/23 12:13

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230706\20230706-038	**Lab Code:**	EQ2300331-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809710
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300331-04	242,465	3.61

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Analyzed:**	7/6/23 13:14

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230706\20230706-049	**Lab Code:**	EQ2300331-05
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809710
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300331-05	234,036	3.61

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300615
Project:	HS23061821	**Date Analyzed:**	7/6/23 14:15

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230706\20230706-060	**Lab Code:**	EQ2300331-06
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809710
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300331-06	234,833	3.61

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: HS23061821

Service Request: E2300615
Date Analyzed: 7/ 6/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230706\20230706-005

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809710
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.4	0.1625	0.1697	4.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061821

Service Request: E2300615
Date Analyzed: 7/ 6/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230706\20230706-016

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809710
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.8	0.1625	0.1760	8.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061821

Service Request: E2300615
Date Analyzed: 7/ 6/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230706\20230706-027

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809710
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.8	0.1625	0.1754	7.9	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061821

Service Request: E2300615
Date Analyzed: 7/ 6/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230706\20230706-038

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809710
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.6	0.1625	0.1725	6.1	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061821

Service Request: E2300615
Date Analyzed: 7/ 6/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230706\20230706-049

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809710
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.7	0.1625	0.1738	7.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061821

Service Request: E2300615
Date Analyzed: 7/ 6/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230706\20230706-060

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809710
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.7	0.1625	0.1731	6.5	NA	± 15 %	Average RF

Insight Report

Printed at 7/6/2023 2:52:54 PM

Method File: I:\LCMS01\DATA\20230706\20230706.lcm
Project File: I:\LCMS01\DATA\20230706\20230706.damlp

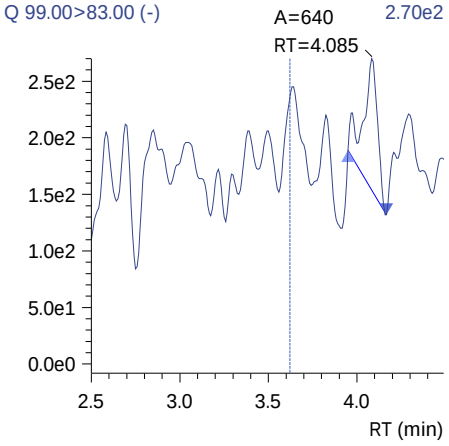
IB

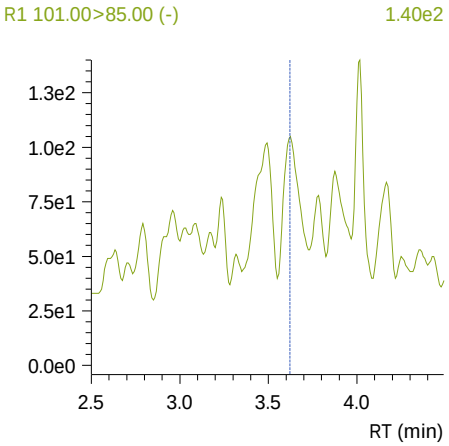
Sample ID: IB
Date Acquired: 7/6/2023 8:48:26 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-002.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	354656	----	ng/mL	101.00 >85.00	0.00	20.43-37.94
Sodium Perchlorate-18O4_IS	Auto	3.630	354656	354656	1.0000	ng/mL	----	----	

Perchlorate

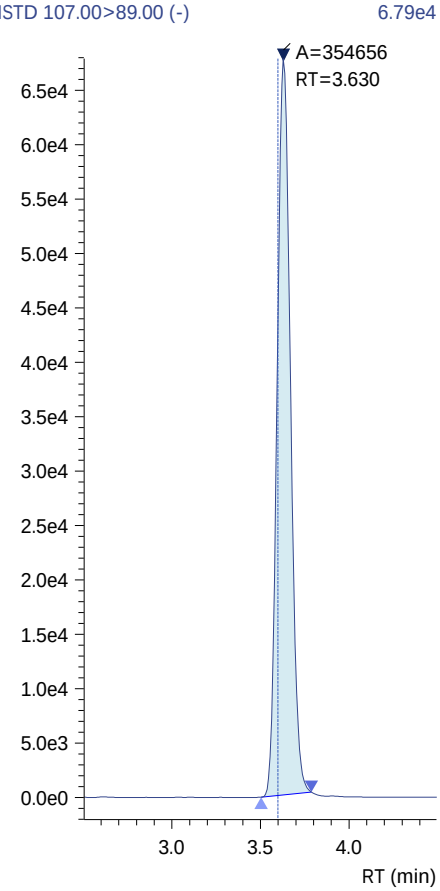
Conc ----
R#1 0.00 (29.19)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 7/6/2023 2:52:54 PM

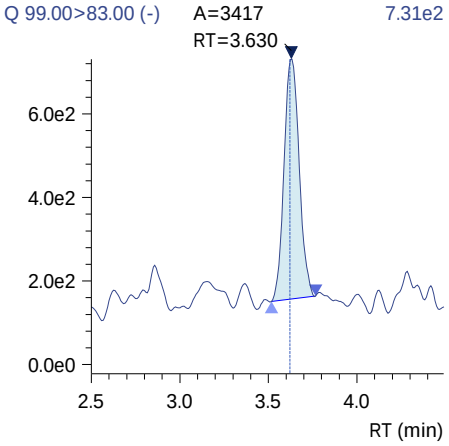
LODV

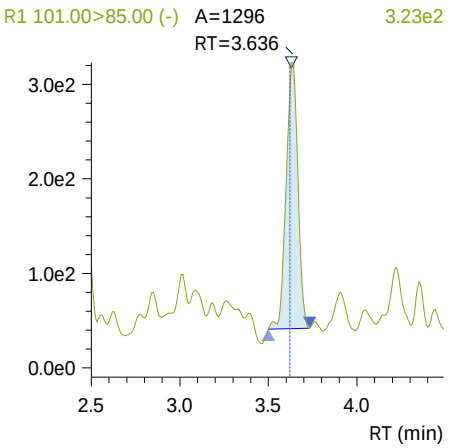
Sample ID: LODV
Date Acquired: 7/6/2023 8:53:56 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-003.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.630	3417	348244	0.0604	ng/mL	101.00 >85.00	37.94	20.43-37.94
Sodium Perchlorate-18O4 _IS	Auto	3.624	348244	348244	1.0000	ng/mL	----	----	

Perchlorate

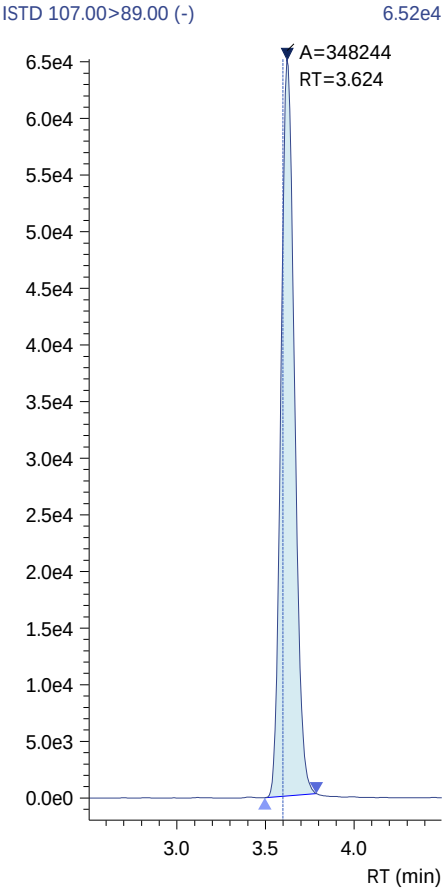
Conc 0.0604
R#1 37.94 (29.19)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 7/6/2023 2:52:54 PM

ICS

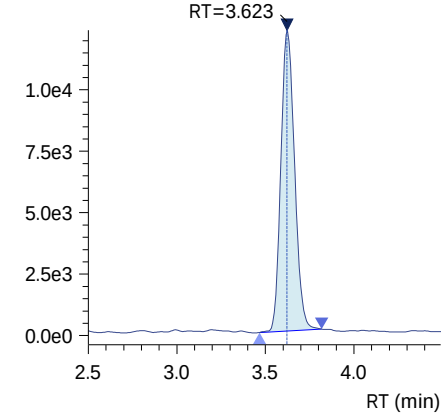
Sample ID: ICS
Date Acquired: 7/6/2023 8:59:29 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-004.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.623	65788	372461	1.0868	ng/mL	101.00 >85.00	30.44	20.43-37.94
Sodium Perchlorate-18O4 _IS	Auto	3.622	372461	372461	1.0000	ng/mL	----	----	

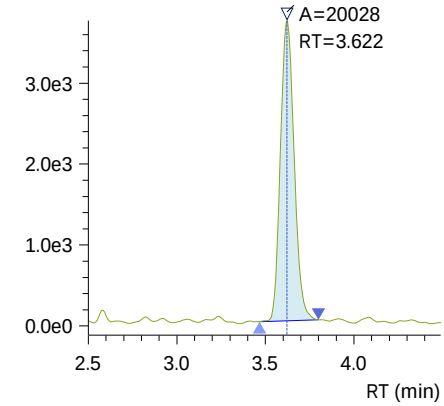
Perchlorate

Conc 1.0868
R#1 30.44 (29.19)

Q 99.00>83.00 (-) A=65788 1.24e4



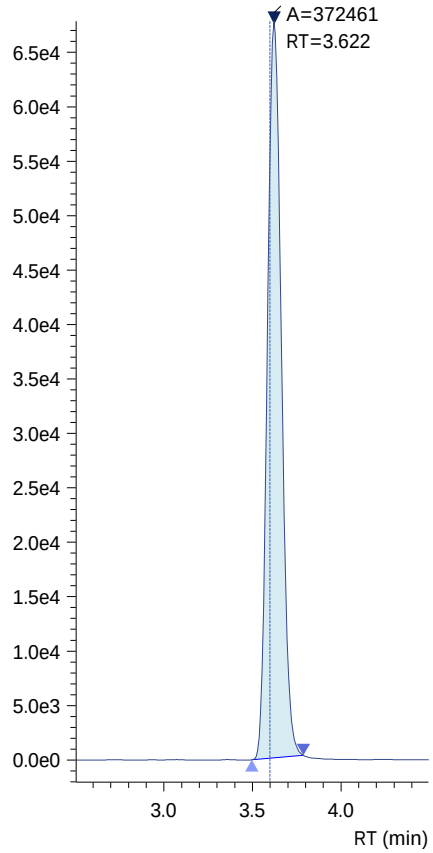
R1 101.00>85.00 (-) 3.77e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.79e4



Insight Report

CCV

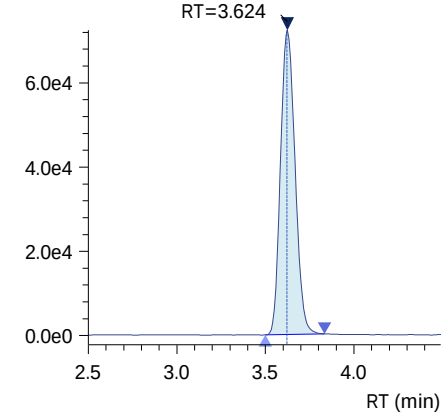
Sample ID: CCV
Date Acquired: 7/6/2023 9:06:41 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-005.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.624	413161	243506	10.4403	ng/mL	101.00 >85.00	31.74	20.43-37.94
Sodium Perchlorate-18O4_IS	Auto	3.621	243506	243506	1.0000	ng/mL	----	----	

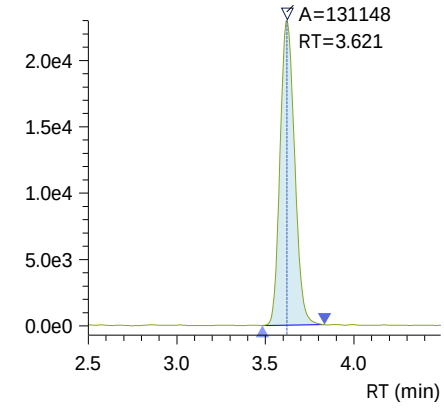
Perchlorate

Conc 10.4403
R#1 31.74 (29.19)

Q 99.00>83.00 (-) A=413161 RT=3.624 7.25e4



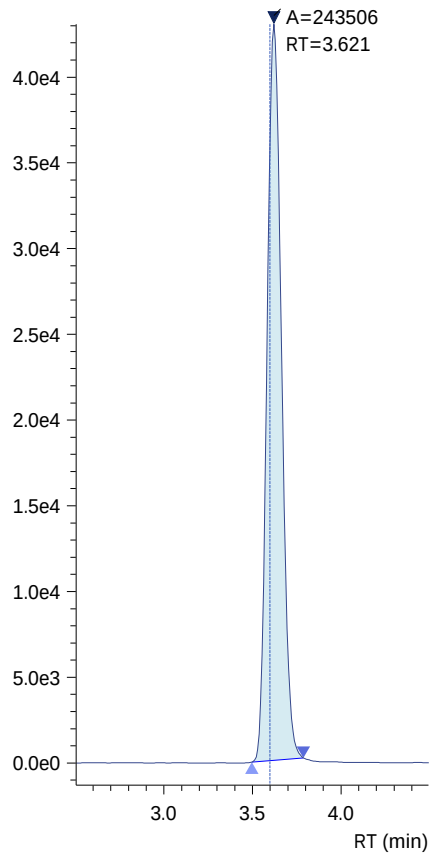
R1 101.00>85.00 (-) 2.30e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.31e4



Insight Report

Printed at 7/6/2023 2:52:54 PM

EQ2300320-01

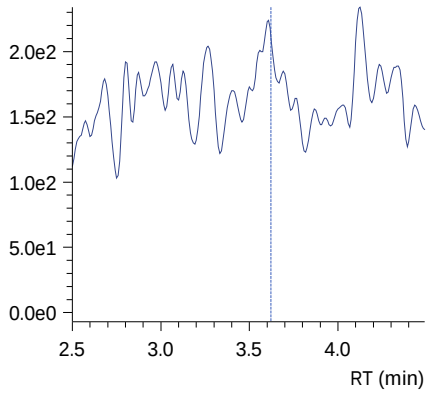
Sample ID: EQ2300320-01
Date Acquired: 7/6/2023 9:12:13 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-006.lcd
Vial: 46 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	341467	----	ng/mL	101.00 >85.00	0.00	20.43-37.94
Sodium Perchlorate-18O4_IS	Auto	3.618	341467	341467	1.0000	ng/mL	----	----	

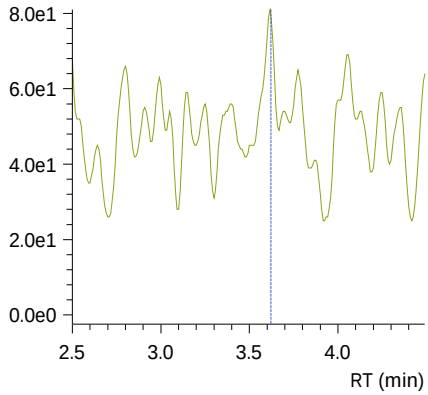
Perchlorate

Conc ----
R#1 0.00 (29.19)

Q 99.00>83.00 (-) 2.34e2



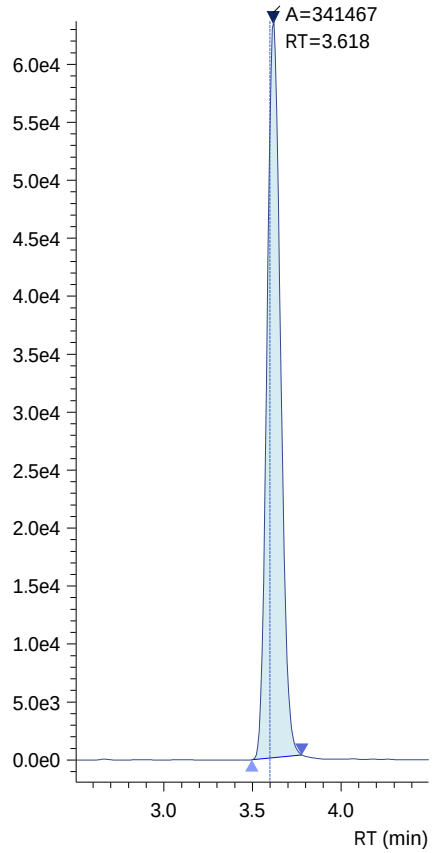
R1 101.00>85.00 (-) 8.10e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.37e4



Insight Report

Printed at 7/6/2023 2:52:54 PM

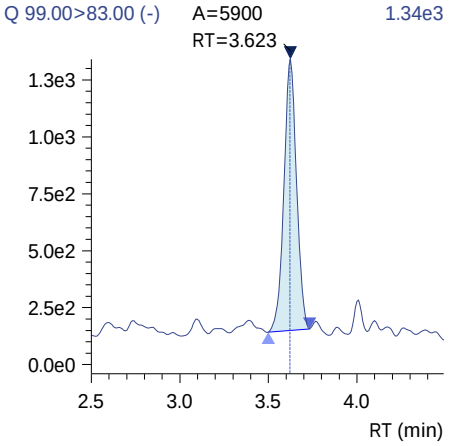
EQ2300320-02

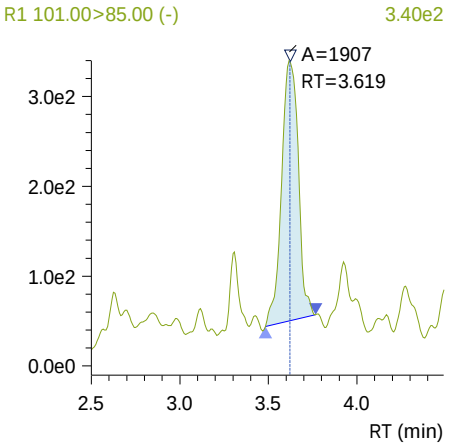
Sample ID: EQ2300320-02
Date Acquired: 7/6/2023 9:17:42 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-007.lcd
Vial: 47 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.623	5900	338691	0.1072	ng/mL	101.00 >85.00	32.32	20.43-37.94
Sodium Perchlorate-18O4 _IS	Auto	3.618	338691	338691	1.0000	ng/mL	----	----	

Perchlorate

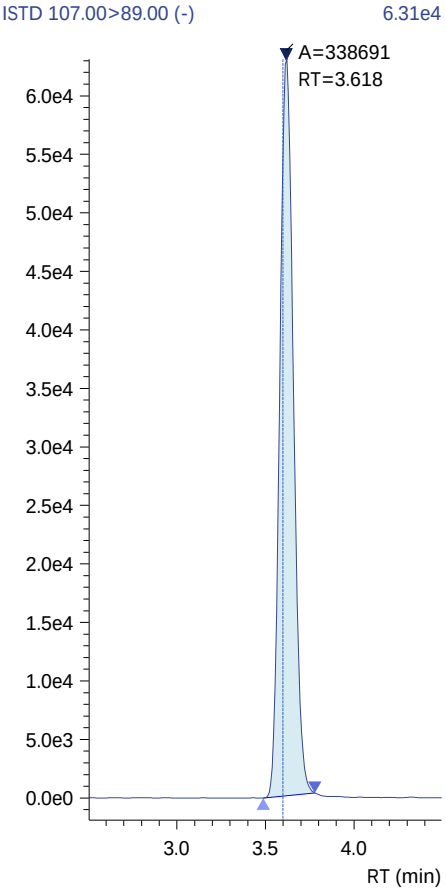
Conc 0.1072
R#1 32.32 (29.19)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 7/6/2023 2:52:54 PM

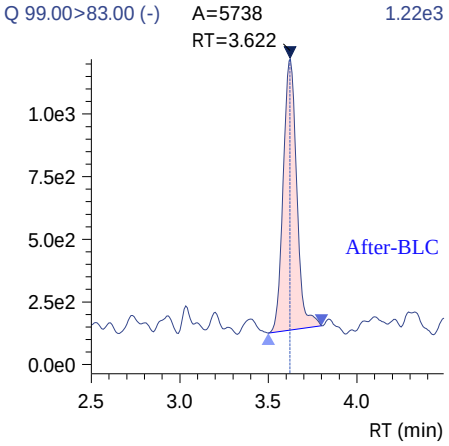
EQ2300320-03

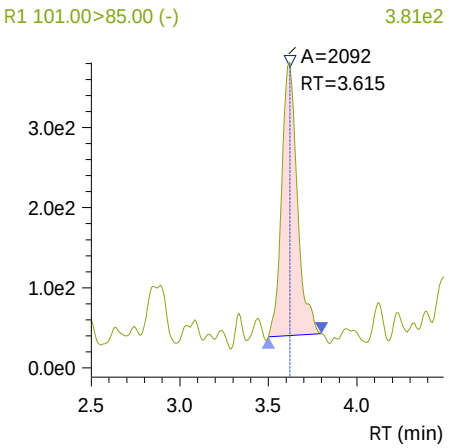
Sample ID: EQ2300320-03
Date Acquired: 7/6/2023 9:23:15 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-008.lcd
Vial: 48 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.622	5738	344099	0.1026	ng/mL	101.00 >85.00	36.46	20.43-37.94
Sodium Perchlorate-18O4 _IS	Auto	3.617	344099	344099	1.0000	ng/mL	----	----	

Perchlorate

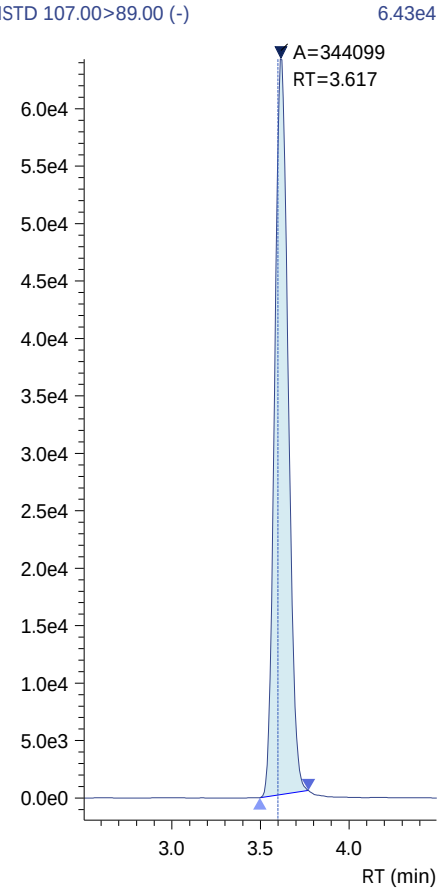
Conc 0.1026
R#1 36.46 (29.19)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 7/6/2023 2:54:27 PM

Method File: I:\LCMS01\DATA\20230706\20230706.lcm
Project File: I:\LCMS01\DATA\20230706\20230706.damlp

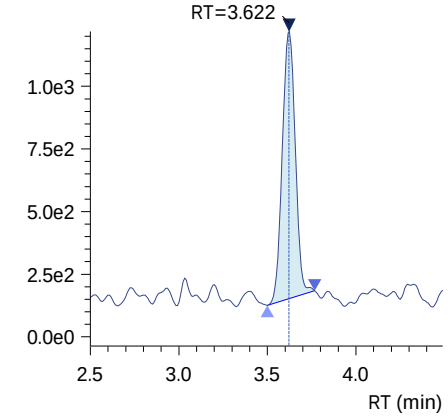
EQ2300320-03

Sample ID: EQ2300320-03
Date Acquired: 7/6/2023 9:23:15 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-008.lcd
Vial: 48 | Inj. Volume: 10.0000uL | Tray: 5

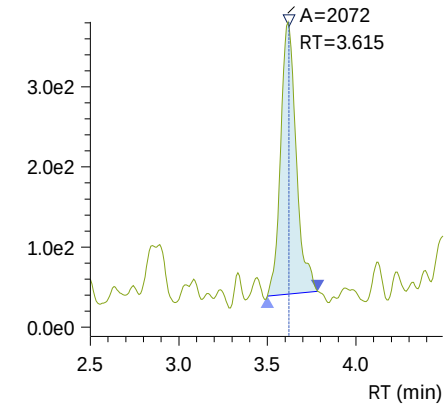
Perchlorate

Conc 0.0973
R#1 38.10 (29.19)

Q 99.00>83.00 (-) A=5439 1.22e3



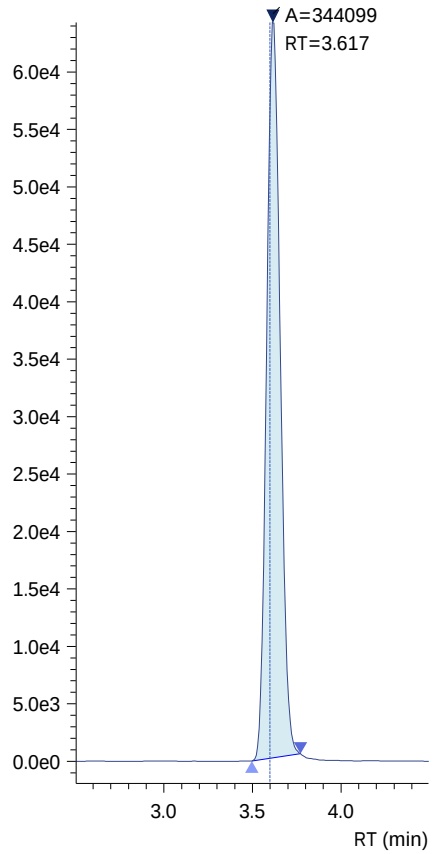
R1 101.00>85.00 (-) 3.81e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.43e4



Insight Report

Printed at 7/6/2023 2:52:54 PM

E2300615-001

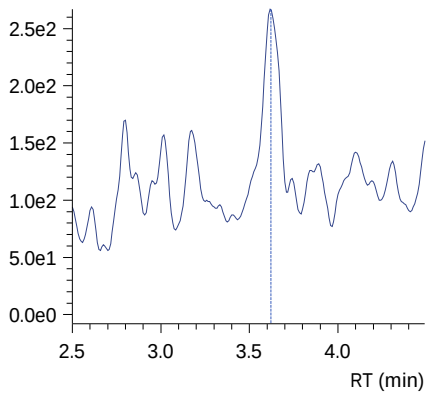
Sample ID: E2300615-001
Date Acquired: 7/6/2023 9:34:13 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-010.lcd
Vial: 50 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	338913	----	ng/mL	101.00 >85.00	0.00	20.43-37.94
Sodium Perchlorate-18O4_IS	Auto	3.616	338913	338913	1.0000	ng/mL	----	----	

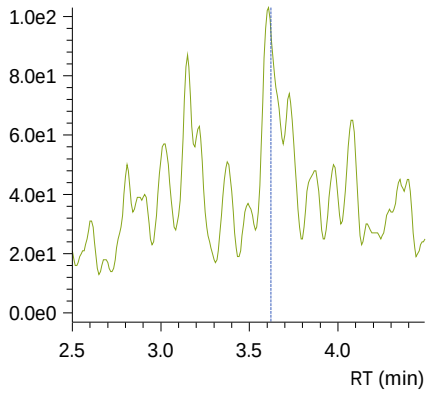
Perchlorate

Conc ----
R#1 0.00 (29.19)

Q 99.00>83.00 (-) 2.67e2



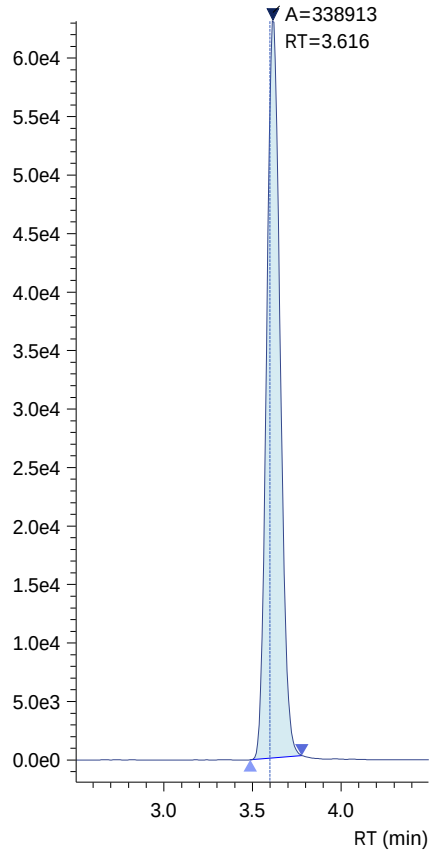
R1 101.00>85.00 (-) 1.03e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.32e4



Insight Report

Printed at 7/6/2023 2:52:54 PM

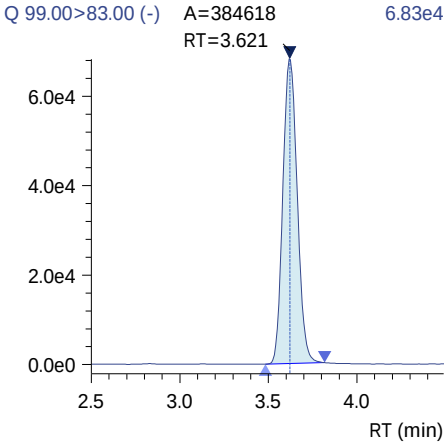
E2300615-002

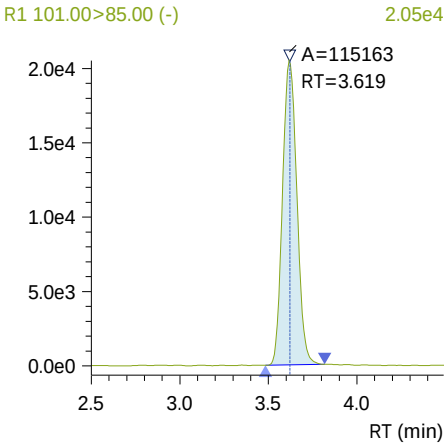
Sample ID: E2300615-002
Date Acquired: 7/6/2023 9:39:45 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-011.lcd
Vial: 51 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.621	384618	247572	9.5595	ng/mL	101.00 >85.00	29.94	20.43-37.94
Sodium Perchlorate-18O4 _IS	Auto	3.615	247572	247572	1.0000	ng/mL	----	----	

Perchlorate

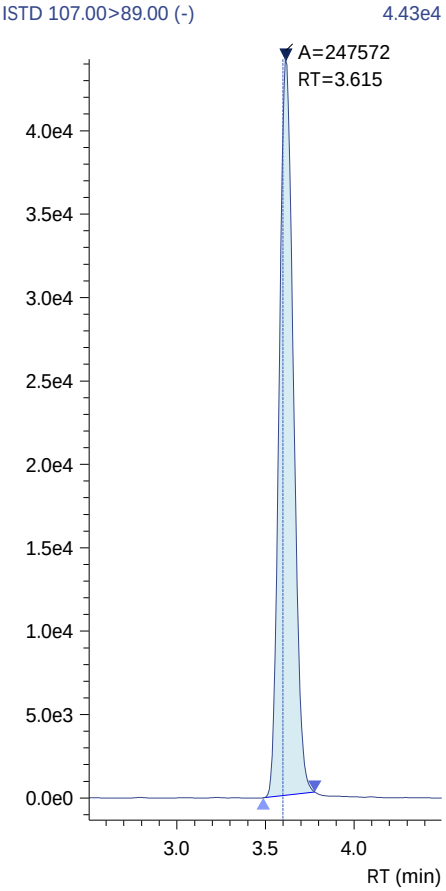
Conc 9.5595
R#1 29.94 (29.19)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 7/6/2023 2:52:54 PM

E2300615-003x100

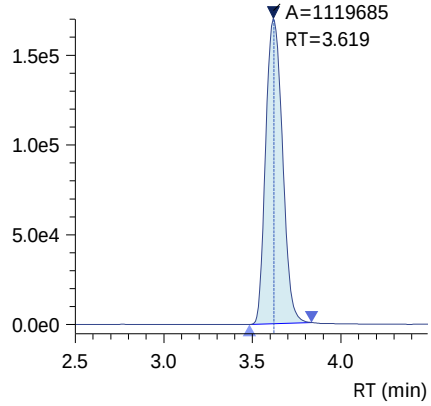
Sample ID: E2300615-003
Date Acquired: 7/6/2023 9:45:14 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-012.lcd
Vial: 52 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.619	1119685	175455	39.26 77	ng/mL	101.00 >85.00	29.42	20.43-37.94
Sodium Perchlorate-18O4_IS	Auto	3.612	175455	175455	1.0000	ng/mL	----	----	

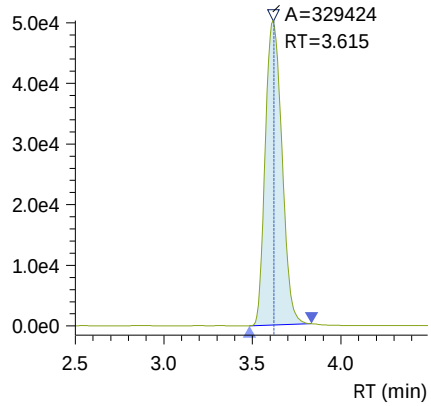
Perchlorate

Conc 39.2677
R#1 29.42 (29.19)

Q 99.00>83.00 (-) 1.70e5



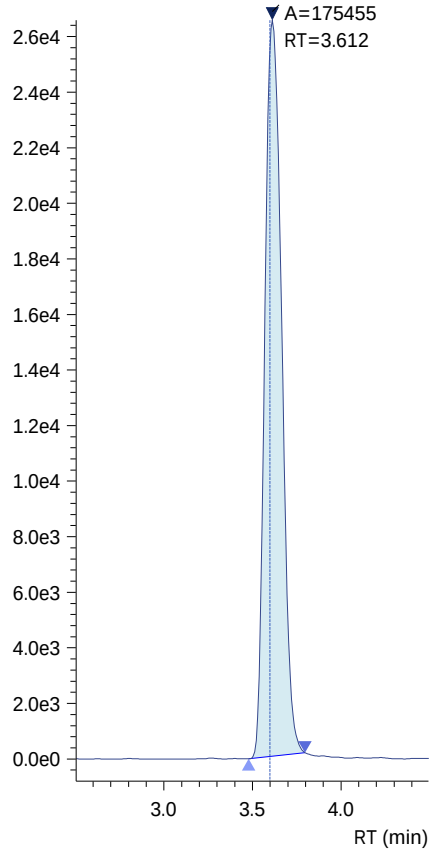
R1 101.00>85.00 (-) 5.04e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.66e4



Insight Report

Printed at 7/6/2023 2:52:54 PM

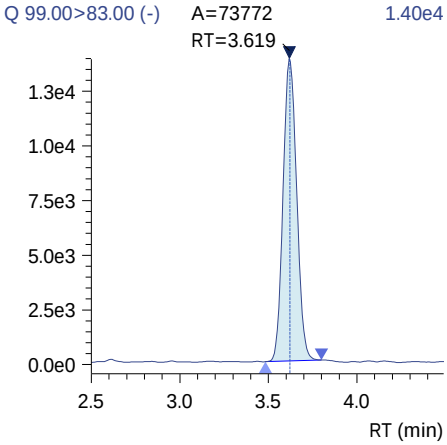
E2300615-004

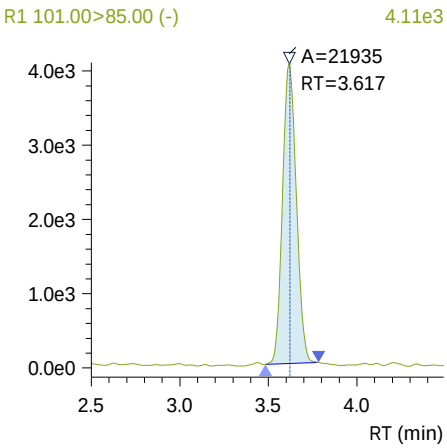
Sample ID: E2300615-004
Date Acquired: 7/6/2023 9:50:46 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-013.lcd
Vial: 53 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.619	73772	340491	1.3332	ng/mL	101.00 >85.00	29.73	20.43-37.94
Sodium Perchlorate-18O4 _IS	Auto	3.615	340491	340491	1.0000	ng/mL	----	----	

Perchlorate

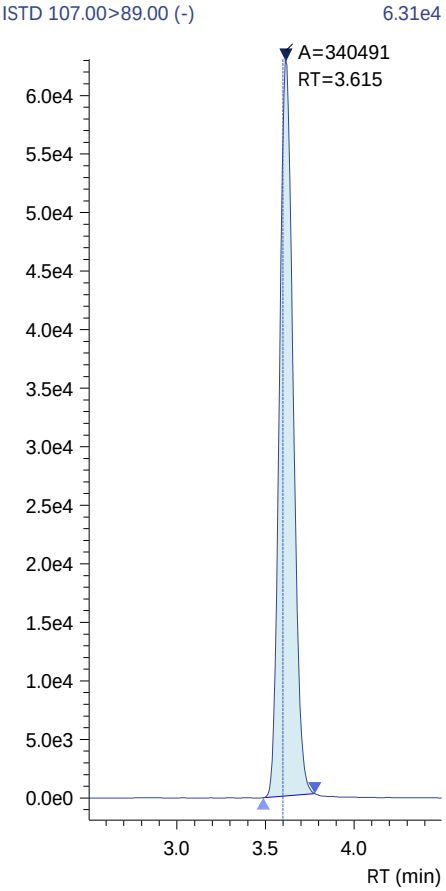
Conc 1.3332
R#1 29.73 (29.19)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 7/6/2023 2:52:54 PM

E2300615-005

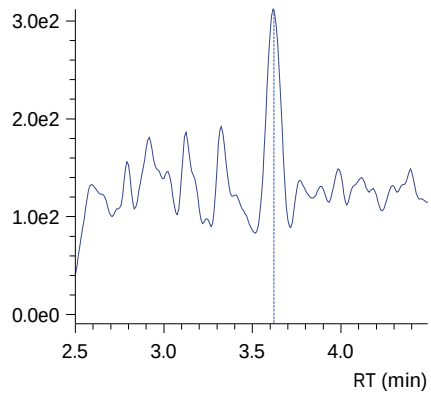
Sample ID: E2300615-005
Date Acquired: 7/6/2023 9:56:15 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-014.lcd
Vial: 54 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	341342	----	ng/mL	101.00 >85.00	0.00	20.43-37.94
Sodium Perchlorate-18O4_IS	Auto	3.615	341342	341342	1.0000	ng/mL	----	----	

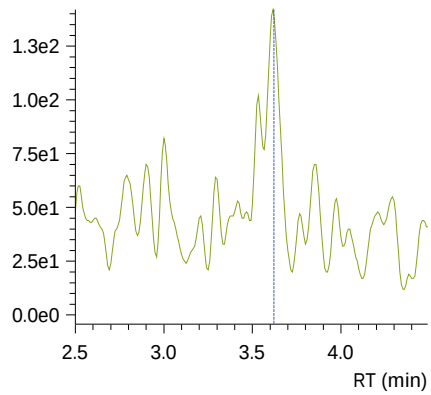
Perchlorate

Conc ----
R#1 0.00 (29.19)

Q 99.00>83.00 (-) 3.12e2



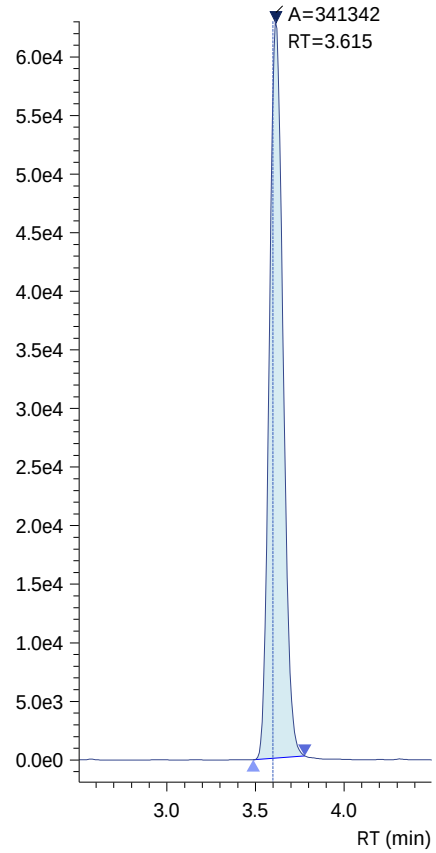
R1 101.00>85.00 (-) 1.42e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.31e4



Insight Report

Printed at 7/6/2023 2:52:54 PM

E2300615-006x10

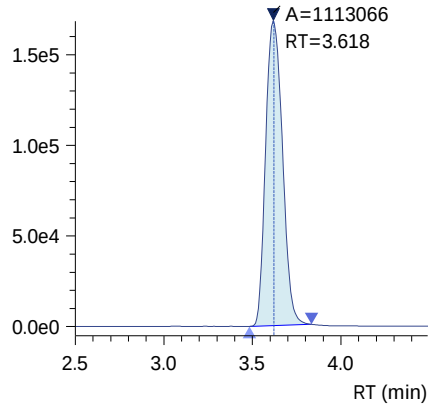
Sample ID: E2300615-006
Date Acquired: 7/6/2023 10:01:50 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-015.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 6

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.618	1113066	162952	42.0308	ng/mL	101.00 >85.00	30.03	20.43-37.94
Sodium Perchlorate-18O4_IS	Auto	3.612	162952	162952	1.0000	ng/mL	----	----	

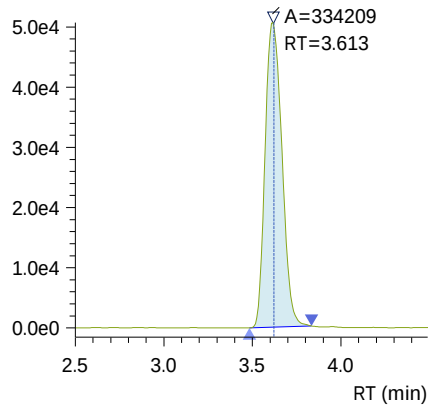
Perchlorate

Conc 42.0308
R#1 30.03 (29.19)

Q 99.00>83.00 (-) 1.69e5



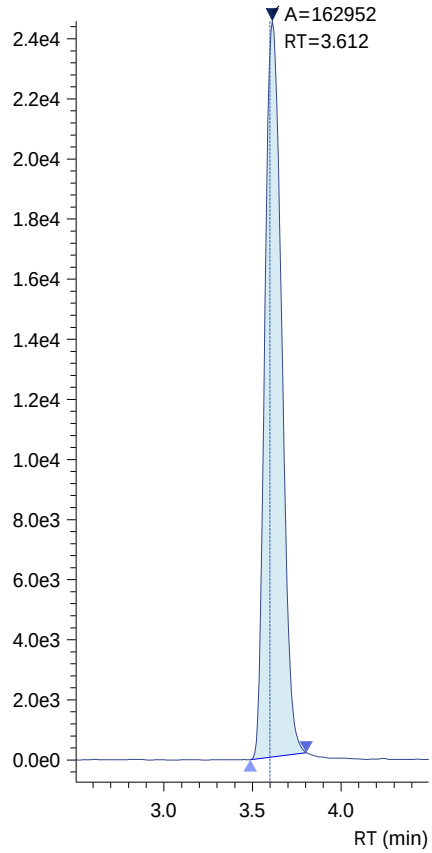
R1 101.00>85.00 (-) 5.07e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.46e4



Insight Report

Printed at 7/6/2023 2:52:54 PM

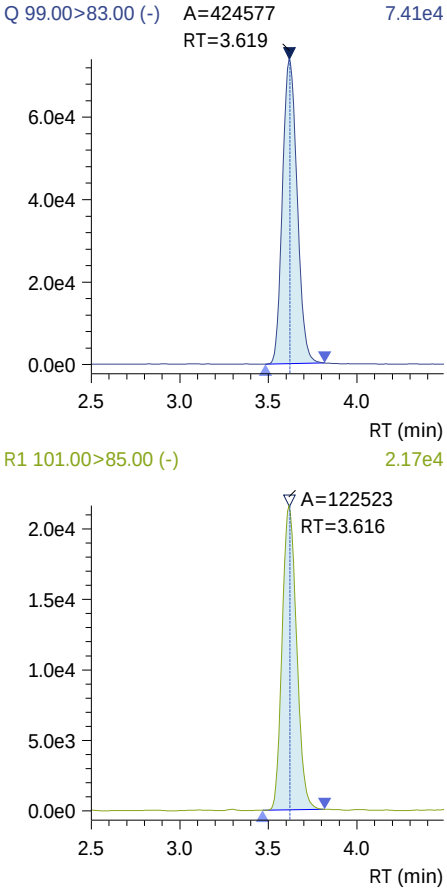
CCV

Sample ID: CCV
Date Acquired: 7/6/2023 10:07:20 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-016.lcd
Vial: 3 | 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	3.619	424577	241230	10.8300	ng/mL	101.00 >85.00	28.86	20.43-37.94
Sodium Perchlorate-18O4_IS	Auto	3.615	241230	241230	1.0000	ng/mL	----	----	

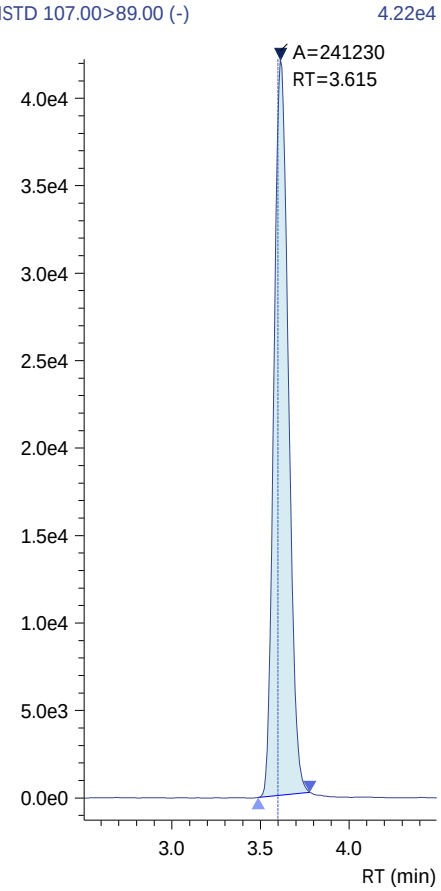
Perchlorate

Conc 10.8300
R#1 28.86 (29.19)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 7/6/2023 2:52:54 PM

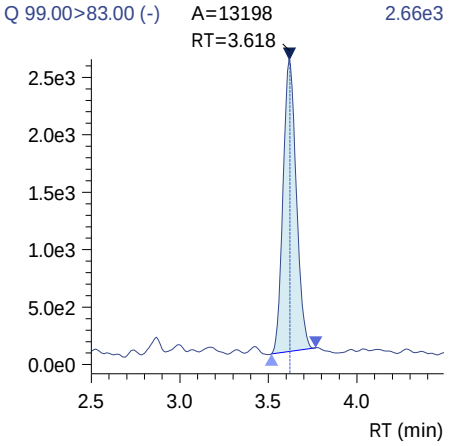
E2300615-008

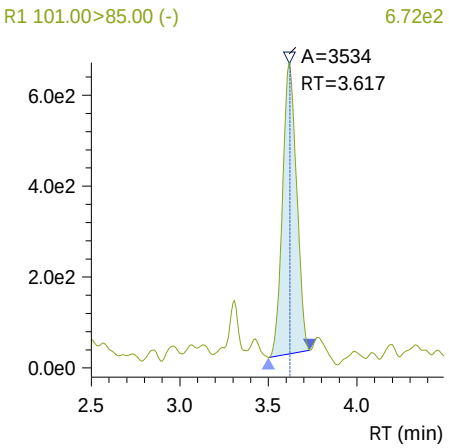
Sample ID: E2300615-008
Date Acquired: 7/6/2023 10:18:25 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-018.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 6

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.618	13198	342748	0.2369	ng/mL	101.00 >85.00	26.78	20.43-37.94
Sodium Perchlorate-18O4 _IS	Auto	3.616	342748	342748	1.0000	ng/mL	----	----	

Perchlorate

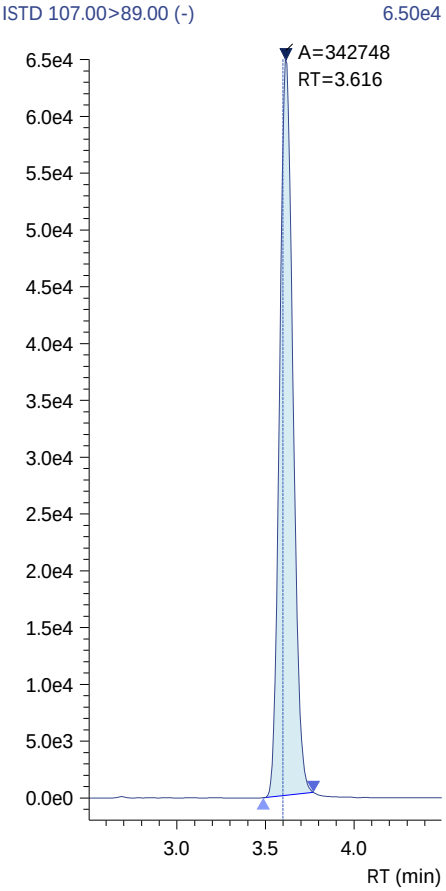
Conc 0.2369
R#1 26.78 (29.19)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 7/6/2023 2:52:54 PM

E2300615-009

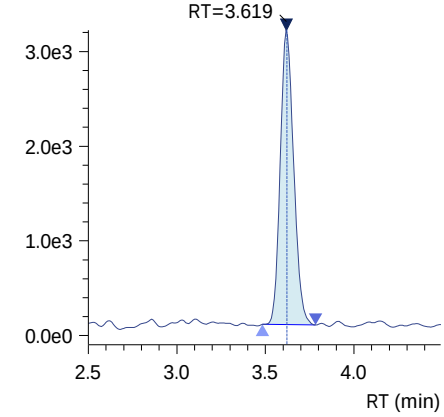
Sample ID: E2300615-009
Date Acquired: 7/6/2023 10:23:58 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-019.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 6

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.619	16378	352248	0.2861	ng/mL	101.00 >85.00	28.96	20.43-37.94
Sodium Perchlorate-18O4 _IS	Auto	3.615	352248	352248	1.0000	ng/mL	----	----	

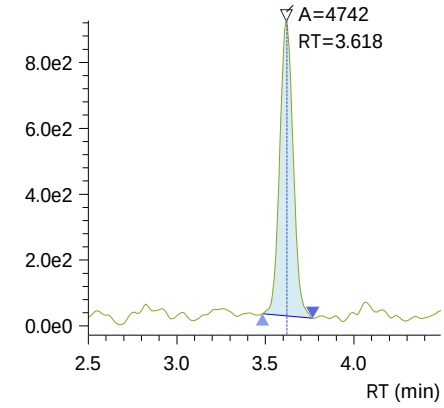
Perchlorate

Conc 0.2861
R#1 28.96 (29.19)

Q 99.00>83.00 (-) A=16378 RT=3.619 3.23e3



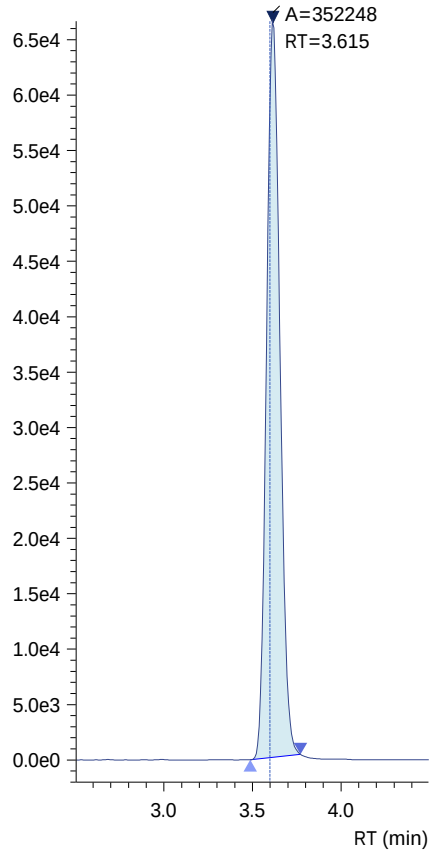
R1 101.00>85.00 (-) 9.27e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.67e4



Insight Report

Printed at 7/6/2023 2:52:54 PM

E2300615-010

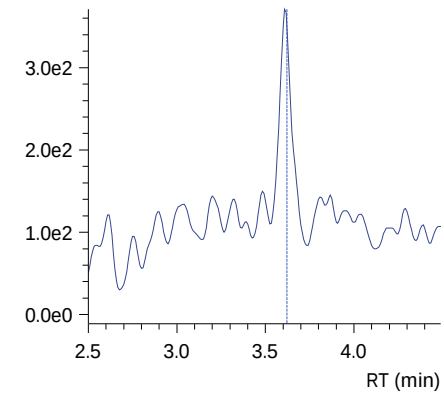
Sample ID: E2300615-010
Date Acquired: 7/6/2023 10:29:29 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-020.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 6

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	348148	----	ng/mL	101.00 >85.00	0.00	20.43-37.94
Sodium Perchlorate-18O4_IS	Auto	3.615	348148	348148	1.0000	ng/mL	----	----	

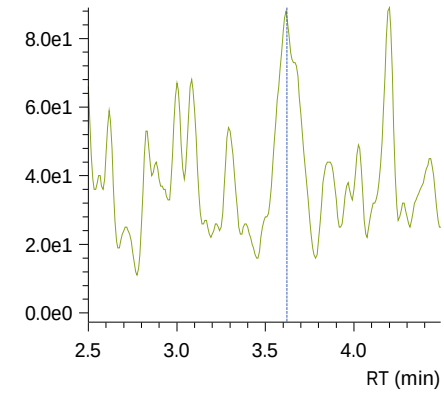
Perchlorate

Conc ----
R#1 0.00 (29.19)

Q 99.00>83.00 (-) 3.71e2



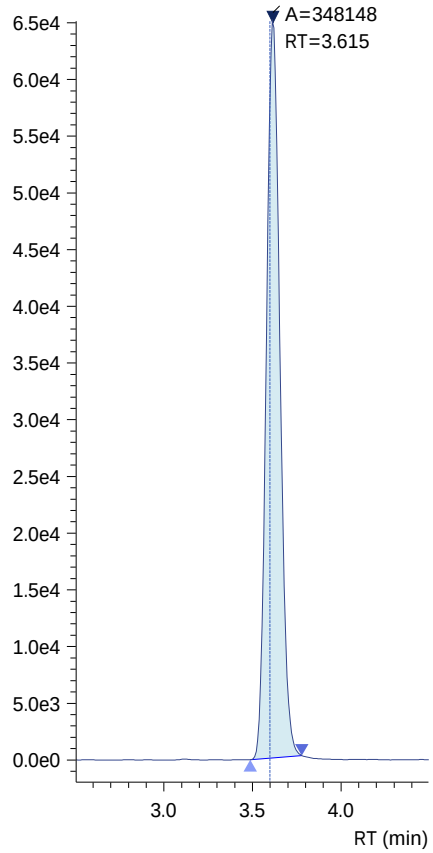
R1 101.00>85.00 (-) 8.90e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.51e4



Insight Report

CCV

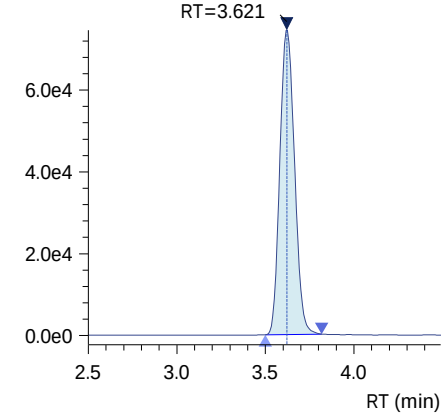
Sample ID: CCV
Date Acquired: 7/6/2023 11:13:12 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-027.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.621	429519	244863	10.79 36	ng/mL	101.00 >85.00	28.19	20.43-37.94
Sodium Perchlorate-18O4_IS	Auto	3.615	244863	244863	1.0000	ng/mL	----	----	

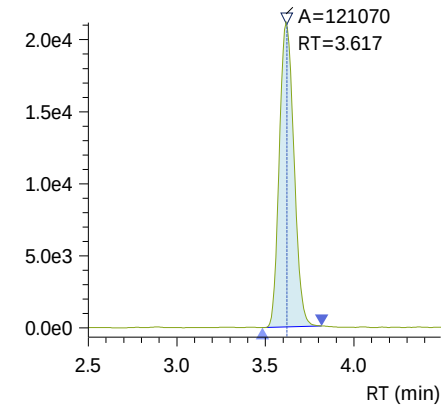
Perchlorate

Conc 10.7936
R#1 28.19 (29.19)

Q 99.00>83.00 (-) A=429519 RT=3.621 7.46e4



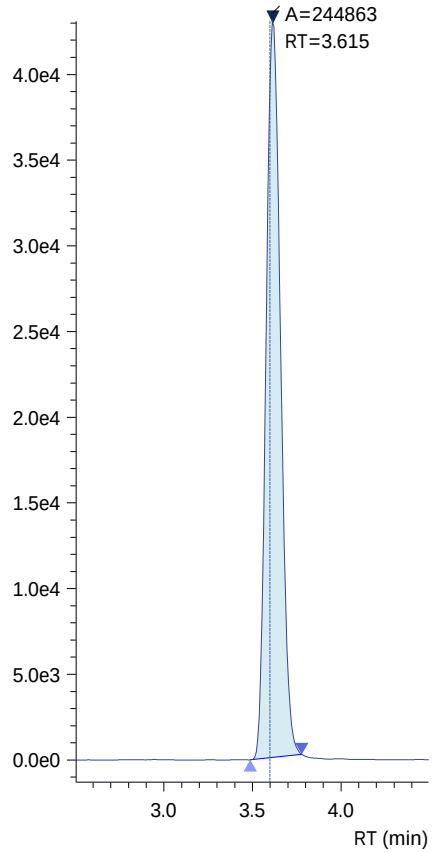
R1 101.00>85.00 (-) 2.12e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.31e4



Insight Report

Printed at 7/6/2023 2:52:54 PM

E2300615-007

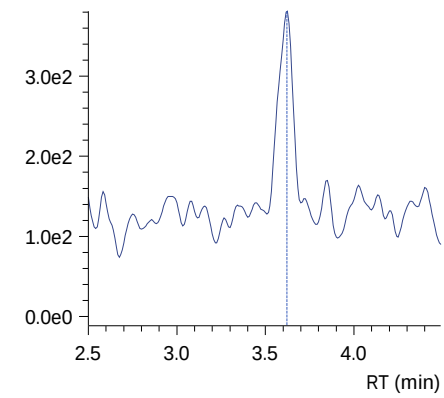
Sample ID: E2300615-007
Date Acquired: 7/6/2023 11:40:51 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-032.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 6

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	328291	----	ng/mL	101.00 >85.00	0.00	20.43-37.94
Sodium Perchlorate-18O4_IS	Auto	3.615	328291	328291	1.0000	ng/mL	----	----	

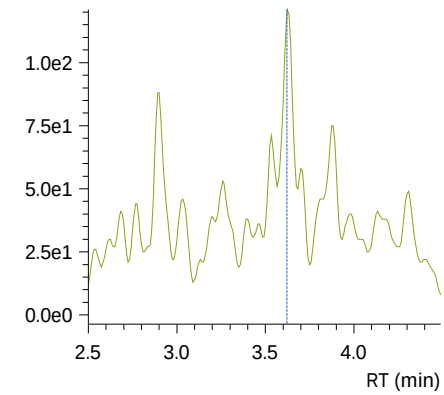
Perchlorate

Conc ----
R#1 0.00 (29.19)

Q 99.00>83.00 (-) 3.81e2



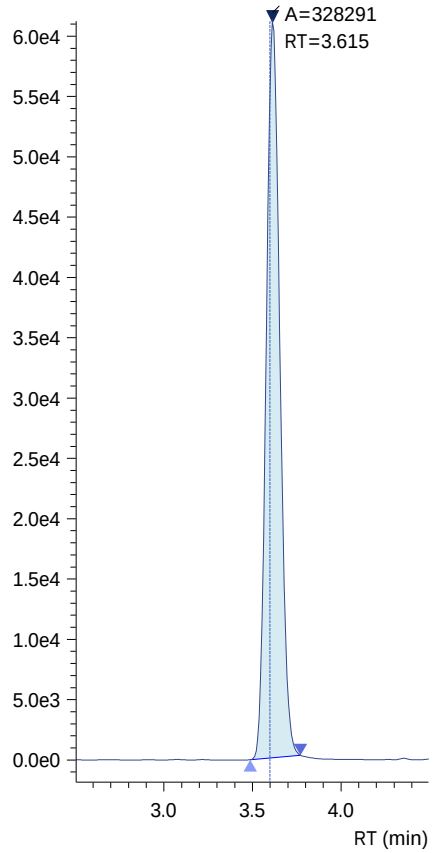
R1 101.00>85.00 (-) 1.21e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.12e4



Insight Report

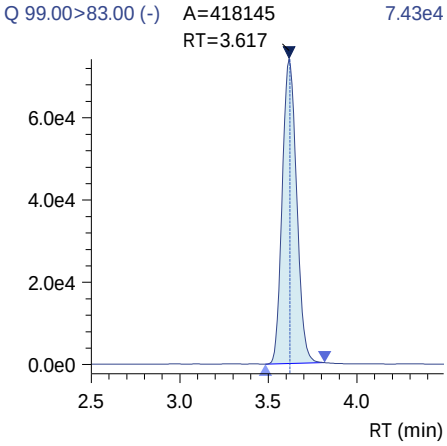
CCV

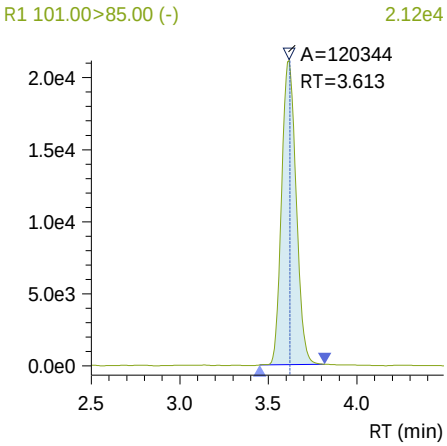
Sample ID: CCV
Date Acquired: 7/6/2023 12:13:57 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230706\20230706-038.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.617	418145	242465	10.61 17	ng/mL	101.00 >85.00	28.78	20.43-37.94
Sodium Perchlorate-18O4 _IS	Auto	3.612	242465	242465	1.0000	ng/mL	----	----	

Perchlorate

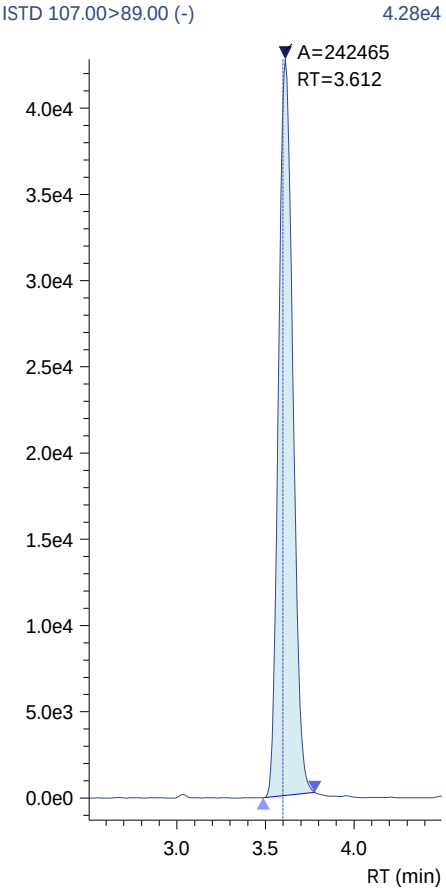
Conc 10.6117
R#1 28.78 (29.19)





Sodium Perchlorate-18O4_IS

Conc 1.0000



HS23061825 LHAAP 18 24 Cover Page

ALS WO# HS23061825

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

Table of Contents

HS23061825 LHAAP 18 24 Cover Page
- CoverPage
- HS23061825 LHAAP 18 24 Final
  - CoverLetter
  - Sample Summary
  - CaseNarrative
  - 125_062623
  - MW3_062623
  - MW23_062623
  - MW9_062623
  - MW13_062623
  - CO2_062623
  - 18WW10_062623
  - MW17_062623
  - MW16_062623
  - Trip Blank
  - Weight/Volume Log
  - Dates Report
  - QC
  - Acronyms
  - Certifications
  - SampleReceiptCheckList

Table of Contents (continued)

COC
HS23061825- E2300614 Perchlorate Report IV
HS23061825-MSVOA-SW8260
Form 1 - Sample Results
Form 2 - Surrogates
Form 3A - MS/MSD
Form 3B - LCS/LCSD
Form 4 - MB Assoc
Form 5 - Tune
Form 6 - ICAL
Form 6I - ICV
Form 7 - CCV
Form 8 - ISTD
Run Log
Raw Data VOA9 437296
Raw Data VOA9 440137
Raw Data VOA9 440247
HS23061825-MSSEMI-SW8270SIM
Form 1 - Sample Results
Form 2 - Surrogates
Form 3B - LCS/LCSD
Form 4 - MB Assoc
Form 5 - Tune
Form 6 - ICAL
Form 6I - ICV
Form 7 - CCV
Prep Log
Run Log
Raw Data SV 6 439923
Raw Data SV 6 440594
HS23061825 - ME - HG_W_DODICP_W_DOD
Form 11 - ICPMS06 Internal Standard Association
Form 13 - HG04_441015 Run Log
Form 13 - ICPMS06_441153 Run Log
Form 13 - ICPMS06_441200 Run Log

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

right solutions.
right partner.

WorkOrder: HS23061825

LHAAP 18 24

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

05-Jul-2023

HS23061825 LHAAP 18 24 Final

ALS WO# HS23061825

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

July 21, 2023

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

Work Order: **HS23061825**

Laboratory Results for: **LHAAP 18 24**

Dear Marcia Olive,

ALS Environmental received 10 sample(s) on Jun 27, 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: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Work Order: HS23061825

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23061825-01	125_062623	Groundwater		26-Jun-2023 07:05	27-Jun-2023 09:40	☐
HS23061825-02	MW3_062623	Groundwater		26-Jun-2023 07:50	27-Jun-2023 09:40	☐
HS23061825-03	MW23_062623	Groundwater		26-Jun-2023 08:35	27-Jun-2023 09:40	☐
HS23061825-04	MW9_062623	Groundwater		26-Jun-2023 09:20	27-Jun-2023 09:40	☐
HS23061825-05	MW13_062623	Groundwater		26-Jun-2023 10:05	27-Jun-2023 09:40	☐
HS23061825-06	CO2_062623	Groundwater		26-Jun-2023 10:50	27-Jun-2023 09:40	☐
HS23061825-07	18WW10_062623	Groundwater		26-Jun-2023 11:35	27-Jun-2023 09:40	☐
HS23061825-08	MW17_062623	Groundwater		26-Jun-2023 12:20	27-Jun-2023 09:40	☐
HS23061825-09	MW16_062623	Groundwater		26-Jun-2023 13:05	27-Jun-2023 09:40	☐
HS23061825-10	Trip Blank	Water		26-Jun-2023 00:00	27-Jun-2023 09:40	☐

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: LHAAP 18 24
Work Order: HS23061825

Work Order Comments

- The analysis for Perchlorate was subcontracted to our ALS Houston TX, High Resolution Lab. Final report attached.

GCMS Semivolatiles by Method SW8270SIM

Batch ID: 196987

Sample ID: MW16_062623 (HS23061825-09)

- The surrogate recovery could not be determined due to dilution below the calibration range.

GCMS Volatiles by Method SW8260

Batch ID: R440247

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

Batch ID: R440137

Sample ID: 125_062623 (HS23061825-01)

- Lowest practical dilution due to high concentration of non-target compound.

Sample ID: MW3_062623 (HS23061825-02)

- Lowest practical dilution due to high concentration of non-target compound.

Sample ID: VLCSW-230628

- Styrene exceeded QC limits for LCS. Samples are ND for this compound.

Metals by Method SW6020A

Batch ID: 197423

Sample ID: MW13_062623 (HS23061825-05MS)

- Antimony failed on the MS\MSD but passed on the PDS.

- The MS and/or MSD recovery was outside of the control; however, the result in the parent sample is greater than 4x the spike amount. Barium, Chromium, Iron, Manganese, Sodium.

Sample ID: MW13_062623 (HS23061825-05PDS)

- The PDS recovery was outside method control limits, however the result in the parent sample is greater than 4x the spike amount. Barium, Iron, Manganese, Sodium.

Metals by Method SW7470A

Batch ID: 197408

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: 125_062623
Collection Date: 26-Jun-2023 07:05

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-01
Matrix:Groundwater

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	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,1,1-Trichloroethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,1,2,2-Tetrachloroethane	2.5	U	2.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,1,2-Trichloroethane	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,1-Dichloroethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,1-Dichloroethene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,1-Dichloropropene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,2,3-Trichlorobenzene	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,2,3-Trichloropropane	2.5	U	2.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,2,4-Trichlorobenzene	2.5	U	2.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,2,4-Trimethylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,2-Dibromo-3-chloropropane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,2-Dibromoethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,2-Dichlorobenzene	2.5	U	2.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,2-Dichloroethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,2-Dichloropropane	2.5	U	2.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,3,5-Trimethylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,3-Dichlorobenzene	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,3-Dichloropropane	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
1,4-Dichlorobenzene	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
2,2-Dichloropropane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
2-Butanone	2.5	U	2.5	2.5	10	ug/L	5	28-Jun-2023 17:12
2-Chlorotoluene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
2-Hexanone	2.5	U	5.0	2.5	10	ug/L	5	28-Jun-2023 17:12
4-Chlorotoluene	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
4-Isopropyltoluene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
4-Methyl-2-pentanone	2.5	U	3.5	2.5	10	ug/L	5	28-Jun-2023 17:12
Acetone	2.5	U	2.0	2.5	10	ug/L	5	28-Jun-2023 17:12
Benzene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Bromobenzene	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Bromochloromethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Bromodichloromethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Bromoform	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Bromomethane	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Carbon disulfide	2.5	U	3.0	2.5	10	ug/L	5	28-Jun-2023 17:12
Carbon tetrachloride	2.5	U	2.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Chlorobenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Chloroethane	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Chloroform	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: 125_062623
Collection Date: 26-Jun-2023 07:05

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
cis-1,2-Dichloroethene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
cis-1,3-Dichloropropene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Dibromochloromethane	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Dibromomethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Dichlorodifluoromethane	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Ethylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Hexachlorobutadiene	2.5	U	5.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Isopropylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
m,p-Xylene	5.0	U	2.5	5.0	10	ug/L	5	28-Jun-2023 17:12
Methylene chloride	2.5	U	2.0	2.5	10	ug/L	5	28-Jun-2023 17:12
n-Butylbenzene	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
n-Propylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Naphthalene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
o-Xylene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
sec-Butylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Styrene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
tert-Butylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Tetrachloroethene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Toluene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
trans-1,2-Dichloroethene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
trans-1,3-Dichloropropene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Trichloroethene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Trichlorofluoromethane	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Vinyl chloride	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:12
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*5*	*28-Jun-2023 17:12*
Surr: 4-Bromofluorobenzene	*94.0*			**0**	*85-114*	*%REC*	*5*	*28-Jun-2023 17:12*
Surr: Dibromofluoromethane	*101*			**0**	*80-119*	*%REC*	*5*	*28-Jun-2023 17:12*
Surr: Toluene-d8	*109*			**0**	*89-112*	*%REC*	*5*	*28-Jun-2023 17:12*

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: 125_062623
Collection Date: 26-Jun-2023 07:05

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.166**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	12-Jul-2023 22:24
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	12-Jul-2023 22:24
Arsenic	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	12-Jul-2023 22:24
Barium	**0.0690**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:24
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:24
Cadmium	**0.000456**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	12-Jul-2023 22:24
Calcium	**1.35**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	12-Jul-2023 22:24
Chromium	**0.00206**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:24
Cobalt	**0.000549**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	12-Jul-2023 22:24
Copper	0.00250	U	0.00100	0.00250	0.00500	mg/L	1	12-Jul-2023 22:24
Iron	**0.205**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:24
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	12-Jul-2023 22:24
Magnesium	**1.08**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:24
Manganese	**0.0123**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:24
Nickel	**0.00234**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:24
Potassium	**0.478**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	12-Jul-2023 22:24
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	12-Jul-2023 22:24
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	12-Jul-2023 22:24
Sodium	**32.3**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:24
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:24
Vanadium	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	12-Jul-2023 22:24
Zinc	**0.00506**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:24
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 14:23
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	21-Jul-2023 12:25

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW3_062623
Collection Date: 26-Jun-2023 07:50

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-02
Matrix:Groundwater

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	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,1,1-Trichloroethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,1,2,2-Tetrachloroethane	2.5	U	2.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,1,2-Trichloroethane	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,1-Dichloroethane	**2.4**	J	**1.0**	**2.5**	**5.0**	**ug/L**	5	28-Jun-2023 17:35
1,1-Dichloroethene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,1-Dichloropropene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,2,3-Trichlorobenzene	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,2,3-Trichloropropane	2.5	U	2.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,2,4-Trichlorobenzene	2.5	U	2.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,2,4-Trimethylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,2-Dibromo-3-chloropropane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,2-Dibromoethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,2-Dichlorobenzene	2.5	U	2.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,2-Dichloroethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,2-Dichloropropane	2.5	U	2.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,3,5-Trimethylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,3-Dichlorobenzene	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,3-Dichloropropane	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
1,4-Dichlorobenzene	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
2,2-Dichloropropane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
2-Butanone	2.5	U	2.5	2.5	10	ug/L	5	28-Jun-2023 17:35
2-Chlorotoluene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
2-Hexanone	2.5	U	5.0	2.5	10	ug/L	5	28-Jun-2023 17:35
4-Chlorotoluene	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
4-Isopropyltoluene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
4-Methyl-2-pentanone	2.5	U	3.5	2.5	10	ug/L	5	28-Jun-2023 17:35
Acetone	2.5	U	2.0	2.5	10	ug/L	5	28-Jun-2023 17:35
Benzene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Bromobenzene	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Bromochloromethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Bromodichloromethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Bromoform	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Bromomethane	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Carbon disulfide	2.5	U	3.0	2.5	10	ug/L	5	28-Jun-2023 17:35
Carbon tetrachloride	2.5	U	2.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Chlorobenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Chloroethane	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Chloroform	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW3_062623
Collection Date: 26-Jun-2023 07:50

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
cis-1,2-Dichloroethene	**26**		**1.0**	**2.5**	**5.0**	**ug/L**	5	28-Jun-2023 17:35
cis-1,3-Dichloropropene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Dibromochloromethane	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Dibromomethane	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Dichlorodifluoromethane	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Ethylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Hexachlorobutadiene	2.5	U	5.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Isopropylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
m,p-Xylene	5.0	U	2.5	5.0	10	ug/L	5	28-Jun-2023 17:35
Methylene chloride	2.5	U	2.0	2.5	10	ug/L	5	28-Jun-2023 17:35
n-Butylbenzene	2.5	U	2.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
n-Propylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Naphthalene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
o-Xylene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
sec-Butylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Styrene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
tert-Butylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Tetrachloroethene	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Toluene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
trans-1,2-Dichloroethene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
trans-1,3-Dichloropropene	2.5	U	1.0	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Trichloroethene	**160**		**1.0**	**2.5**	**5.0**	**ug/L**	5	28-Jun-2023 17:35
Trichlorofluoromethane	2.5	U	1.5	2.5	5.0	ug/L	5	28-Jun-2023 17:35
Vinyl chloride	**5.2**		**1.0**	**2.5**	**5.0**	**ug/L**	5	28-Jun-2023 17:35
Surr: 1,2-Dichloroethane-d4	*107*			**0**	*81-118*	*%REC*	*5*	*28-Jun-2023 17:35*
Surr: 4-Bromofluorobenzene	*93.4*			**0**	*85-114*	*%REC*	*5*	*28-Jun-2023 17:35*
Surr: Dibromofluoromethane	*98.8*			**0**	*80-119*	*%REC*	*5*	*28-Jun-2023 17:35*
Surr: Toluene-d8	*112*			**0**	*89-112*	*%REC*	*5*	*28-Jun-2023 17:35*

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW3_062623
Collection Date: 26-Jun-2023 07:50

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.00601**	J	**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	12-Jul-2023 22:26
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	12-Jul-2023 22:26
Arsenic	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	12-Jul-2023 22:26
Barium	**0.176**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:26
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:26
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:26
Calcium	**16.0**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	12-Jul-2023 22:26
Chromium	**0.00300**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:26
Cobalt	**0.000399**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	12-Jul-2023 22:26
Copper	0.00250	U	0.00100	0.00250	0.00500	mg/L	1	12-Jul-2023 22:26
Iron	**0.167**	J	**0.0120**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:26
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	12-Jul-2023 22:26
Magnesium	**8.67**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:26
Manganese	**0.116**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:26
Nickel	**0.00175**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:26
Potassium	**1.17**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	12-Jul-2023 22:26
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	12-Jul-2023 22:26
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	12-Jul-2023 22:26
Sodium	**179**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:26
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:26
Vanadium	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	12-Jul-2023 22:26
Zinc	**0.00235**	J	**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:26
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 14:40
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	21-Jul-2023 12:25

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW23_062623
Collection Date: 26-Jun-2023 08:35

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-03
Matrix:Groundwater

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	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,1,1-Trichloroethane	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,1,2,2-Tetrachloroethane	5.0	U	5.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,1,2-Trichloroethane	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,1-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,1-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,1-Dichloropropene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,2,3-Trichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,2,3-Trichloropropane	5.0	U	5.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,2,4-Trichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,2,4-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,2-Dibromo-3-chloropropane	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,2-Dibromoethane	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,2-Dichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,2-Dichloroethane	**81**		**2.0**	**5.0**	**10**	**ug/L**	10	29-Jun-2023 14:48
1,2-Dichloropropane	5.0	U	5.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,3,5-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,3-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,3-Dichloropropane	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
1,4-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	29-Jun-2023 14:48
2,2-Dichloropropane	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
2-Butanone	5.0	U	5.0	5.0	20	ug/L	10	29-Jun-2023 14:48
2-Chlorotoluene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
2-Hexanone	5.0	U	10	5.0	20	ug/L	10	29-Jun-2023 14:48
4-Chlorotoluene	5.0	U	4.0	5.0	10	ug/L	10	29-Jun-2023 14:48
4-Isopropyltoluene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
4-Methyl-2-pentanone	5.0	U	7.0	5.0	20	ug/L	10	29-Jun-2023 14:48
Acetone	5.0	U	4.0	5.0	20	ug/L	10	29-Jun-2023 14:48
Benzene	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Bromobenzene	5.0	U	4.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Bromochloromethane	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Bromodichloromethane	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Bromoform	5.0	U	4.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Bromomethane	5.0	U	4.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Carbon disulfide	5.0	U	6.0	5.0	20	ug/L	10	29-Jun-2023 14:48
Carbon tetrachloride	5.0	U	5.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Chlorobenzene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Chloroethane	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Chloroform	**9.3**	J	**2.0**	**5.0**	**10**	**ug/L**	10	29-Jun-2023 14:48

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW23_062623
Collection Date: 26-Jun-2023 08:35

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C		**Method:SW8260**						Analyst: PC
Chloromethane	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
cis-1,2-Dichloroethene	**21**		**2.0**	**5.0**	**10**	**ug/L**	10	29-Jun-2023 14:48
cis-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Dibromochloromethane	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Dibromomethane	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Dichlorodifluoromethane	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Ethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Hexachlorobutadiene	5.0	U	10	5.0	10	ug/L	10	29-Jun-2023 14:48
Isopropylbenzene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
m,p-Xylene	10	U	5.0	10	20	ug/L	10	29-Jun-2023 14:48
Methylene chloride	5.0	U	4.0	5.0	20	ug/L	10	29-Jun-2023 14:48
n-Butylbenzene	5.0	U	4.0	5.0	10	ug/L	10	29-Jun-2023 14:48
n-Propylbenzene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Naphthalene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
o-Xylene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
sec-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Styrene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
tert-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Tetrachloroethene	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Toluene	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
trans-1,2-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
trans-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Trichloroethene	**2,600**		**10**	**25**	**50**	**ug/L**	50	29-Jun-2023 14:26
Trichlorofluoromethane	5.0	U	3.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Vinyl chloride	5.0	U	2.0	5.0	10	ug/L	10	29-Jun-2023 14:48
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*10*	*29-Jun-2023 14:48*
Surr: 1,2-Dichloroethane-d4	*107*			**0**	*81-118*	*%REC*	*50*	*29-Jun-2023 14:26*
Surr: 4-Bromofluorobenzene	*96.8*			**0**	*85-114*	*%REC*	*50*	*29-Jun-2023 14:26*
Surr: 4-Bromofluorobenzene	*94.4*			**0**	*85-114*	*%REC*	*10*	*29-Jun-2023 14:48*
Surr: Dibromofluoromethane	*101*			**0**	*80-119*	*%REC*	*10*	*29-Jun-2023 14:48*
Surr: Dibromofluoromethane	*101*			**0**	*80-119*	*%REC*	*50*	*29-Jun-2023 14:26*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*50*	*29-Jun-2023 14:26*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*10*	*29-Jun-2023 14:48*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	21-Jul-2023 12:25

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW9_062623
Collection Date: 26-Jun-2023 09:20

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-04
Matrix:Groundwater

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	28-Jun-2023 14:35
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,1-Dichloroethane	**0.46**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 14:35
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,2-Dichloroethane	**1.5**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 14:35
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:35
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 14:35
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 14:35
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:35
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 14:35
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 14:35
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 14:35
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Chloroform	**1.3**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 14:35

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW9_062623
Collection Date: 26-Jun-2023 09:20

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-04
Matrix:Groundwater

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	28-Jun-2023 14:35
cis-1,2-Dichloroethene	**58**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 14:35
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 14:35
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 14:35
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:35
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Trichloroethene	**930**		**5.0**	**12**	**25**	**ug/L**	25	29-Jun-2023 14:03
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:35
Vinyl chloride	**0.42**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 14:35
Surr: 1,2-Dichloroethane-d4	*105*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 14:35*
Surr: 1,2-Dichloroethane-d4	*102*			**0**	*81-118*	*%REC*	*25*	*29-Jun-2023 14:03*
Surr: 4-Bromofluorobenzene	*95.6*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 14:35*
Surr: 4-Bromofluorobenzene	*92.9*			**0**	*85-114*	*%REC*	*25*	*29-Jun-2023 14:03*
Surr: Dibromofluoromethane	*99.8*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 14:35*
Surr: Dibromofluoromethane	*97.3*			**0**	*80-119*	*%REC*	*25*	*29-Jun-2023 14:03*
Surr: Toluene-d8	*109*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 14:35*
Surr: Toluene-d8	*110*			**0**	*89-112*	*%REC*	*25*	*29-Jun-2023 14:03*
SEMIVOLATILES SIM		**Method:SW8270SIM**				Prep:SW3510 / 30-Jun-2023		Analyst: JL
1,4-Dioxane	**0.76**		**0.10**	**0.050**	**0.10**	**ug/L**	10	10-Jul-2023 16:08
Surr: 2-Fluorobiphenyl	*116*			**0**	*40-140*	*%REC*	*10*	*10-Jul-2023 16:08*
Surr: 4-Terphenyl-d14	*128*			**0**	*40-140*	*%REC*	*10*	*10-Jul-2023 16:08*
Surr: Nitrobenzene-d5	*104*			**0**	*40-140*	*%REC*	*10*	*10-Jul-2023 16:08*

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW9_062623
Collection Date: 26-Jun-2023 09:20

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.0211**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	12-Jul-2023 22:28
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	12-Jul-2023 22:28
Arsenic	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	12-Jul-2023 22:28
Barium	**0.137**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:28
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:28
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:28
Calcium	**14.8**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	12-Jul-2023 22:28
Chromium	**0.0946**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:28
Cobalt	**0.0100**		**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	12-Jul-2023 22:28
Copper	**0.00177**	J	**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:28
Iron	**1.32**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:28
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	12-Jul-2023 22:28
Magnesium	**6.22**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:28
Manganese	**0.217**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:28
Nickel	**0.298**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:28
Potassium	**0.399**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	12-Jul-2023 22:28
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	12-Jul-2023 22:28
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	12-Jul-2023 22:28
Sodium	**22.5**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:28
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:28
Vanadium	**0.000691**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:28
Zinc	**0.00715**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:28
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 14:42
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	21-Jul-2023 12:25

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW13_062623
Collection Date: 26-Jun-2023 10:05

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-05
Matrix:Groundwater

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	28-Jun-2023 13:51
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 13:51
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 13:51
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 13:51
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 13:51
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 13:51
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 13:51
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 13:51
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW13_062623
Collection Date: 26-Jun-2023 10:05

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-05
Matrix:Groundwater

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	28-Jun-2023 13:51
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 13:51
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 13:51
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 13:51
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 13:51
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 13:51*
Surr: 4-Bromofluorobenzene	*95.7*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 13:51*
Surr: Dibromofluoromethane	*100*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 13:51*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 13:51*

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW13_062623
Collection Date: 26-Jun-2023 10:05

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.0346**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	12-Jul-2023 21:31
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	12-Jul-2023 21:31
Arsenic	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	12-Jul-2023 21:31
Barium	**0.451**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 21:31
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 21:31
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 21:31
Calcium	**25.1**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	12-Jul-2023 21:31
Chromium	**0.227**		**0.00200**	**0.00625**	**0.0250**	**mg/L**	5	13-Jul-2023 12:18
Cobalt	**0.000449**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	12-Jul-2023 21:31
Copper	**0.00312**	J	**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 21:31
Iron	**93.3**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 21:31
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	12-Jul-2023 21:31
Magnesium	**12.5**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 21:31
Manganese	**1.07**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 21:31
Nickel	**0.0365**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 21:31
Potassium	**3.35**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	12-Jul-2023 21:31
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	12-Jul-2023 21:31
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	12-Jul-2023 21:31
Sodium	**87.4**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 21:31
Thallium	**0.000522**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	12-Jul-2023 21:31
Vanadium	**0.000753**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 21:31
Zinc	**0.00519**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 21:31
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 14:43
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	21-Jul-2023 12:25

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: CO2_062623
Collection Date: 26-Jun-2023 10:50

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-06
Matrix:Groundwater

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	28-Jun-2023 16:50
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:50
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 16:50
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 16:50
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:50
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 16:50
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 16:50
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 16:50
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: CO2_062623
Collection Date: 26-Jun-2023 10:50

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-06
Matrix:Groundwater

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	28-Jun-2023 16:50
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 16:50
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 16:50
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:50
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:50
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 16:50*
Surr: 4-Bromofluorobenzene	*92.9*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 16:50*
Surr: Dibromofluoromethane	*99.3*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 16:50*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 16:50*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	21-Jul-2023 12:25

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: 18WW10_062623
Collection Date: 26-Jun-2023 11:35

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-07
Matrix:Groundwater

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	28-Jun-2023 16:27
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:27
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 16:27
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 16:27
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:27
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 16:27
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 16:27
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 16:27
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: 18WW10_062623
Collection Date: 26-Jun-2023 11:35

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-07
Matrix:Groundwater

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	28-Jun-2023 16:27
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 16:27
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 16:27
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:27
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:27
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 16:27*
Surr: 4-Bromofluorobenzene	*93.5*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 16:27*
Surr: Dibromofluoromethane	*100*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 16:27*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 16:27*
SEMIVOLATILES SIM		**Method:SW8270SIM**				Prep:SW3510 / 30-Jun-2023		Analyst: JL
1,4-Dioxane	**0.054**		**0.010**	**0.0050**	**0.010**	**ug/L**	1	10-Jul-2023 14:27
Surr: 2-Fluorobiphenyl	*113*			**0**	*40-140*	*%REC*	*1*	*10-Jul-2023 14:27*
Surr: 4-Terphenyl-d14	*104*			**0**	*40-140*	*%REC*	*1*	*10-Jul-2023 14:27*
Surr: Nitrobenzene-d5	*110*			**0**	*40-140*	*%REC*	*1*	*10-Jul-2023 14:27*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	21-Jul-2023 12:25

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW17_062623
Collection Date: 26-Jun-2023 12:20

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-08
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
SEMIVOLATILES SIM	**Method:SW8270SIM**					Prep:SW3510 / 30-Jun-2023		Analyst: JL
1,4-Dioxane	**0.084**		**0.010**	**0.0050**	**0.010**	**ug/L**	1	10-Jul-2023 14:46
Surr: 2-Fluorobiphenyl	*113*			**0**	*40-140*	*%REC*	*1*	*10-Jul-2023 14:46*
Surr: 4-Terphenyl-d14	*104*			**0**	*40-140*	*%REC*	*1*	*10-Jul-2023 14:46*
Surr: Nitrobenzene-d5	*95.2*			**0**	*40-140*	*%REC*	*1*	*10-Jul-2023 14:46*
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)	**Method:NA**							Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	21-Jul-2023 12:25

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW16_062623
Collection Date: 26-Jun-2023 13:05

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-09
Matrix:Groundwater

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	28-Jun-2023 14:13
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,1-Dichloroethane	**1.2**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 14:13
1,1-Dichloroethene	**6.8**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 14:13
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,2-Dichloroethane	**40**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 14:13
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:13
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:13
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 14:13
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 14:13
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:13
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 14:13
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 14:13
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 14:13
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:13

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: MW16_062623
Collection Date: 26-Jun-2023 13:05

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-09
Matrix:Groundwater

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	28-Jun-2023 14:13
cis-1,2-Dichloroethene	**23**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 14:13
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 14:13
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 14:13
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 14:13
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Tetrachloroethene	**0.66**	J	**0.30**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 14:13
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:13
trans-1,2-Dichloroethene	**0.54**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 14:13
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Trichloroethene	**540**		**2.0**	**5.0**	**10**	**ug/L**	10	29-Jun-2023 15:55
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 14:13
Vinyl chloride	**0.87**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 14:13
Surr: 1,2-Dichloroethane-d4	*105*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 14:13*
Surr: 1,2-Dichloroethane-d4	*102*			**0**	*81-118*	*%REC*	*10*	*29-Jun-2023 15:55*
Surr: 4-Bromofluorobenzene	*96.5*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 14:13*
Surr: 4-Bromofluorobenzene	*96.9*			**0**	*85-114*	*%REC*	*10*	*29-Jun-2023 15:55*
Surr: Dibromofluoromethane	*100.0*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 14:13*
Surr: Dibromofluoromethane	*98.1*			**0**	*80-119*	*%REC*	*10*	*29-Jun-2023 15:55*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 14:13*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*10*	*29-Jun-2023 15:55*
SEMIVOLATILES SIM		**Method:SW8270SIM**				Prep:SW3510 / 30-Jun-2023		Analyst: JL
1,4-Dioxane	**5.1**		**1.0**	**0.50**	**1.0**	**ug/L**	100	10-Jul-2023 16:27
Surr: 2-Fluorobiphenyl	*0*	*S*		0	*40-140*	*%REC*	*100*	*10-Jul-2023 16:27*
Surr: 4-Terphenyl-d14	*0*	*S*		0	*40-140*	*%REC*	*100*	*10-Jul-2023 16:27*
Surr: Nitrobenzene-d5	*0*	*S*		0	*40-140*	*%REC*	*100*	*10-Jul-2023 16:27*

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

ALS Houston, US

Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.

ANALYTICAL REPORT

Project: LHAAP 18 24

WorkOrder:HS23061825

Sample ID: MW16_062623

Lab ID:HS23061825-09

Collection Date: 26-Jun-2023 13:05

Matrix:Groundwater

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	21-Jul-2023 12:25

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: Trip Blank
Collection Date: 26-Jun-2023 00:00

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-10
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	28-Jun-2023 16:05
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:05
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 16:05
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 16:05
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:05
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 16:05
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 16:05
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 16:05
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05

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

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
Sample ID: Trip Blank
Collection Date: 26-Jun-2023 00:00

ANALYTICAL REPORT
WorkOrder:HS23061825
Lab ID:HS23061825-10
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	28-Jun-2023 16:05
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 16:05
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 16:05
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 16:05
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 16:05
Surr: 1,2-Dichloroethane-d4	*101*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 16:05*
Surr: 4-Bromofluorobenzene	*95.2*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 16:05*
Surr: Dibromofluoromethane	*96.8*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 16:05*
Surr: Toluene-d8	*109*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 16:05*

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

Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Batch ID: 196987 **Start Date:** 30 Jun 2023 10:10 **End Date:** 30 Jun 2023 10:10
Method: SV AQ SEP FUN EXTRACT-LOWLEV - 3510C **Prep Code:** 3510_B_SIM

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23061825-04	1	1000 (mL)	1 (mL)	0.001	1-liter amber glass, Neat
HS23061825-07	1	1000 (mL)	1 (mL)	0.001	1-liter amber glass, Neat
HS23061825-08	1	1000 (mL)	1 (mL)	0.001	1-liter amber glass, Neat
HS23061825-09	1	1000 (mL)	1 (mL)	0.001	1-liter amber glass, Neat

Batch ID: 197408 **Start Date:** 11 Jul 2023 08:00 **End Date:** 11 Jul 2023 08:00
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23061825-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061825-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061825-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061825-05		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 197423 **Start Date:** 11 Jul 2023 14:00 **End Date:** 11 Jul 2023 14:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23061825-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061825-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061825-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061825-05		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 196987 (1)	**Test Name :** SEMIVOLATILES SIM				**Matrix:** Groundwater	
HS23061825-04	MW9_062623	26 Jun 2023 09:20		30 Jun 2023 10:10	10 Jul 2023 16:08	10
HS23061825-07	18WW10_062623	26 Jun 2023 11:35		30 Jun 2023 10:10	10 Jul 2023 14:27	1
HS23061825-08	MW17_062623	26 Jun 2023 12:20		30 Jun 2023 10:10	10 Jul 2023 14:46	1
HS23061825-09	MW16_062623	26 Jun 2023 13:05		30 Jun 2023 10:10	10 Jul 2023 16:27	100
Batch ID: 197408 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Groundwater	
HS23061825-01	125_062623	26 Jun 2023 07:05		11 Jul 2023 08:00	11 Jul 2023 14:23	1
HS23061825-02	MW3_062623	26 Jun 2023 07:50		11 Jul 2023 08:00	11 Jul 2023 14:40	1
HS23061825-04	MW9_062623	26 Jun 2023 09:20		11 Jul 2023 08:00	11 Jul 2023 14:42	1
HS23061825-05	MW13_062623	26 Jun 2023 10:05		11 Jul 2023 08:00	11 Jul 2023 14:43	1
Batch ID: 197423 (0)	**Test Name :** METALS BY ICPMS BY SW6020A				**Matrix:** Groundwater	
HS23061825-01	125_062623	26 Jun 2023 07:05		11 Jul 2023 14:00	12 Jul 2023 22:24	1
HS23061825-02	MW3_062623	26 Jun 2023 07:50		11 Jul 2023 14:00	12 Jul 2023 22:26	1
HS23061825-04	MW9_062623	26 Jun 2023 09:20		11 Jul 2023 14:00	12 Jul 2023 22:28	1
HS23061825-05	MW13_062623	26 Jun 2023 10:05		11 Jul 2023 14:00	13 Jul 2023 12:18	5
HS23061825-05	MW13_062623	26 Jun 2023 10:05		11 Jul 2023 14:00	12 Jul 2023 21:31	1
Batch ID: R440137 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS23061825-10	Trip Blank	26 Jun 2023 00:00			28 Jun 2023 16:05	1
Batch ID: R440137 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS23061825-01	125_062623	26 Jun 2023 07:05			28 Jun 2023 17:12	5
HS23061825-02	MW3_062623	26 Jun 2023 07:50			28 Jun 2023 17:35	5
HS23061825-04	MW9_062623	26 Jun 2023 09:20			28 Jun 2023 14:35	1
HS23061825-05	MW13_062623	26 Jun 2023 10:05			28 Jun 2023 13:51	1
HS23061825-06	CO2_062623	26 Jun 2023 10:50			28 Jun 2023 16:50	1
HS23061825-07	18WW10_062623	26 Jun 2023 11:35			28 Jun 2023 16:27	1
HS23061825-09	MW16_062623	26 Jun 2023 13:05			28 Jun 2023 14:13	1
Batch ID: R440247 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS23061825-03	MW23_062623	26 Jun 2023 08:35			29 Jun 2023 14:48	10
HS23061825-03	MW23_062623	26 Jun 2023 08:35			29 Jun 2023 14:26	50
HS23061825-04	MW9_062623	26 Jun 2023 09:20			29 Jun 2023 14:03	25
HS23061825-09	MW16_062623	26 Jun 2023 13:05			29 Jun 2023 15:55	10

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R441922 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Groundwater	
HS23061825-01	125_062623	26 Jun 2023 07:05			21 Jul 2023 12:25	1
HS23061825-02	MW3_062623	26 Jun 2023 07:50			21 Jul 2023 12:25	1
HS23061825-03	MW23_062623	26 Jun 2023 08:35			21 Jul 2023 12:25	1
HS23061825-04	MW9_062623	26 Jun 2023 09:20			21 Jul 2023 12:25	1
HS23061825-05	MW13_062623	26 Jun 2023 10:05			21 Jul 2023 12:25	1
HS23061825-06	CO2_062623	26 Jun 2023 10:50			21 Jul 2023 12:25	1
HS23061825-07	18WW10_062623	26 Jun 2023 11:35			21 Jul 2023 12:25	1
HS23061825-08	MW17_062623	26 Jun 2023 12:20			21 Jul 2023 12:25	1
HS23061825-09	MW16_062623	26 Jun 2023 13:05			21 Jul 2023 12:25	1

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: 197408 (0) **Instrument: HG04** **Method: MERCURY BY SW7470A**

MBLK Sample ID: **MBLK-197408** Units: **mg/L** Analysis Date: **11-Jul-2023 13:47**
Client ID: Run ID: **HG04_441015** SeqNo: **7419235** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.000100	0.000200								U

LCS Sample ID: **LCS-197408** Units: **mg/L** Analysis Date: **11-Jul-2023 13:49**
Client ID: Run ID: **HG04_441015** SeqNo: **7419236** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00560	0.000200	0.005	0	112	82 - 119				

MS Sample ID: **HS23061825-05MS** Units: **mg/L** Analysis Date: **11-Jul-2023 14:45**
Client ID: **MW13_062623** Run ID: **HG04_441015** SeqNo: **7419262** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00519	0.000200	0.005	0.00001000	104	82 - 119				

MS Sample ID: **HS23061712-08MS** Units: **mg/L** Analysis Date: **11-Jul-2023 13:59**
Client ID: Run ID: **HG04_441015** SeqNo: **7419242** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00506	0.000200	0.005	0.00001300	101	82 - 119				

MSD Sample ID: **HS23061825-05MSD** Units: **mg/L** Analysis Date: **11-Jul-2023 14:47**
Client ID: **MW13_062623** Run ID: **HG04_441015** SeqNo: **7419263** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00498	0.000200	0.005	0.00001000	99.4	82 - 119	0.005190	4.13	20	

MSD Sample ID: **HS23061712-08MSD** Units: **mg/L** Analysis Date: **11-Jul-2023 14:01**
Client ID: Run ID: **HG04_441015** SeqNo: **7419243** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00479	0.000200	0.005	0.00001300	95.5	82 - 119	0.005060	5.48	20	

The following samples were analyzed in this batch: HS23061825-01 HS23061825-02 HS23061825-04 HS23061825-05

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: 197423 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MBLK Sample ID: **MBLK-197423** Units: **mg/L** Analysis Date: **12-Jul-2023 21:27**
Client ID: Run ID: **ICPMS06_441153** SeqNo: **7423316** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.00500	0.0100								U
Antimony	0.00125	0.00500								U
Arsenic	0.00125	0.00500								U
Barium	0.00250	0.00500								U
Beryllium	0.000500	0.00200								U
Cadmium	0.000500	0.00200								U
Calcium	0.0500	0.500								U
Chromium	0.00125	0.00500								U
Cobalt	0.000500	0.00500								U
Copper	0.00250	0.00500								U
Iron	0.0500	0.200								U
Lead	0.00125	0.00500								U
Magnesium	0.0500	0.200								U
Manganese	0.00250	0.00500								U
Nickel	0.00125	0.00500								U
Potassium	1.00	0.200								U
Selenium	0.00250	0.00500								U
Silver	0.000500	0.00500								U
Sodium	0.0500	0.200								U
Thallium	0.000500	0.00200								U
Vanadium	0.00125	0.00500								U
Zinc	0.00250	0.00500								U

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: 197423 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

LCS Sample ID: **LCS-197423** Units: **mg/L** Analysis Date: **12-Jul-2023 21:29**
Client ID: Run ID: **ICPMS06_441153** SeqNo: **7423317** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09442	0.0100	0.1	0	94.4	84 - 117				
Antimony	0.04345	0.00500	0.05	0	86.9	85 - 117				
Arsenic	0.04574	0.00500	0.05	0	91.5	84 - 116				
Barium	0.04476	0.00500	0.05	0	89.5	86 - 114				
Beryllium	0.04593	0.00200	0.05	0	91.9	83 - 121				
Cadmium	0.04657	0.00200	0.05	0	93.1	87 - 115				
Calcium	4.729	0.500	5	0	94.6	87 - 118				
Chromium	0.04417	0.00500	0.05	0	88.3	85 - 116				
Cobalt	0.04393	0.00500	0.05	0	87.9	86 - 115				
Copper	0.04524	0.00500	0.05	0	90.5	85 - 118				
Iron	4.667	0.200	5	0	93.3	87 - 118				
Lead	0.04432	0.00500	0.05	0	88.6	88 - 115				
Magnesium	4.777	0.200	5	0	95.5	83 - 118				
Manganese	0.0444	0.00500	0.05	0	88.8	87 - 115				
Nickel	0.04546	0.00500	0.05	0	90.9	85 - 117				
Potassium	4.714	0.200	5	0	94.3	87 - 115				
Selenium	0.04589	0.00500	0.05	0	91.8	80 - 120				
Silver	0.04701	0.00500	0.05	0	94.0	85 - 116				
Sodium	4.681	0.200	5	0	93.6	85 - 117				
Vanadium	0.04437	0.00500	0.05	0	88.7	86 - 115				
Zinc	0.04763	0.00500	0.05	0	95.3	83 - 119				

LCS Sample ID: **LCS-197423** Units: **mg/L** Analysis Date: **13-Jul-2023 12:01**
Client ID: Run ID: **ICPMS06_441200** SeqNo: **7424663** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Thallium	0.04483	0.00200	0.05	0	89.7	82 - 116				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: 197423 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MS Sample ID: **HS23061825-05MS** Units: **mg/L** Analysis Date: **12-Jul-2023 21:35**
Client ID: **MW13_062623** Run ID: **ICPMS06_441153** SeqNo: **7423320** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1401	0.0100	0.1	0.03456	105	84 - 117				
Antimony	0.04229	0.00500	0.05	0.000131	84.3	85 - 117				S
Arsenic	0.04538	0.00500	0.05	0.000254	90.3	84 - 116				
Barium	0.4881	0.00500	0.05	0.4514	73.4	86 - 114				SO
Beryllium	0.04415	0.00200	0.05	0.000062	88.2	83 - 121				
Cadmium	0.04547	0.00200	0.05	0.000105	90.7	87 - 115				
Calcium	29.96	0.500	5	25.08	97.6	87 - 118				O
Chromium	0.2479	0.00500	0.05	0.2167	62.5	85 - 116				SO
Cobalt	0.04404	0.00500	0.05	0.000449	87.2	86 - 115				
Copper	0.04741	0.00500	0.05	0.003124	88.6	85 - 118				
Iron	95.74	0.200	5	93.27	49.3	87 - 118				SO
Lead	0.04436	0.00500	0.05	0.00011	88.5	88 - 115				
Magnesium	17	0.200	5	12.52	89.7	83 - 118				
Manganese	1.089	0.00500	0.05	1.071	34.9	87 - 115				SO
Nickel	0.08056	0.00500	0.05	0.03646	88.2	85 - 117				
Potassium	7.965	0.200	5	3.349	92.3	87 - 115				
Selenium	0.04459	0.00500	0.05	-0.000079	89.3	80 - 120				
Silver	0.04517	0.00500	0.05	0.000019	90.3	85 - 116				
Sodium	90.13	0.200	5	87.4	54.7	85 - 117				SO
Vanadium	0.04476	0.00500	0.05	0.000753	88.0	86 - 115				
Zinc	0.04994	0.00500	0.05	0.005191	89.5	83 - 119				

MS Sample ID: **HS23061825-05MS** Units: **mg/L** Analysis Date: **13-Jul-2023 12:03**
Client ID: **MW13_062623** Run ID: **ICPMS06_441200** SeqNo: **7424664** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Thallium	0.04513	0.00200	0.05	0.000522	89.2	82 - 116				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: 197423 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MSD Sample ID: **HS23061825-05MSD** Units: **mg/L** Analysis Date: **12-Jul-2023 21:38**
Client ID: **MW13_062623** Run ID: **ICPMS06_441153** SeqNo: **7423321** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1287	0.0100	0.1	0.03456	94.2	84 - 117	0.1401	8.42	20	
Antimony	0.04205	0.00500	0.05	0.000131	83.8	85 - 117	0.04229	0.567	20	S
Arsenic	0.04512	0.00500	0.05	0.000254	89.7	84 - 116	0.04538	0.594	20	
Barium	0.4909	0.00500	0.05	0.4514	78.9	86 - 114	0.4881	0.558	20	SO
Beryllium	0.04475	0.00200	0.05	0.000062	89.4	83 - 121	0.04415	1.35	20	
Cadmium	0.04584	0.00200	0.05	0.000105	91.5	87 - 115	0.04547	0.81	20	
Calcium	30.01	0.500	5	25.08	98.6	87 - 118	29.96	0.155	20	O
Chromium	0.2504	0.00500	0.05	0.2167	67.5	85 - 116	0.2479	1	20	SO
Cobalt	0.0436	0.00500	0.05	0.000449	86.3	86 - 115	0.04404	0.995	20	
Copper	0.04692	0.00500	0.05	0.003124	87.6	85 - 118	0.04741	1.03	20	
Iron	94.81	0.200	5	93.27	30.8	87 - 118	95.74	0.976	20	SO
Lead	0.04427	0.00500	0.05	0.00011	88.3	88 - 115	0.04436	0.214	20	
Magnesium	17.07	0.200	5	12.52	91.1	83 - 118	17	0.403	20	
Manganese	1.09	0.00500	0.05	1.071	37.2	87 - 115	1.089	0.104	20	SO
Nickel	0.0808	0.00500	0.05	0.03646	88.7	85 - 117	0.08056	0.307	20	
Potassium	7.885	0.200	5	3.349	90.7	87 - 115	7.965	1.01	20	
Selenium	0.04378	0.00500	0.05	-0.000079	87.7	80 - 120	0.04459	1.84	20	
Silver	0.04511	0.00500	0.05	0.000019	90.2	85 - 116	0.04517	0.14	20	
Sodium	90.52	0.200	5	87.4	62.6	85 - 117	90.13	0.435	20	SO
Vanadium	0.04492	0.00500	0.05	0.000753	88.3	86 - 115	0.04476	0.359	20	
Zinc	0.0503	0.00500	0.05	0.005191	90.2	83 - 119	0.04994	0.708	20	

MSD Sample ID: **HS23061825-05MSD** Units: **mg/L** Analysis Date: **13-Jul-2023 12:05**
Client ID: **MW13_062623** Run ID: **ICPMS06_441200** SeqNo: **7424665** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Thallium	0.04614	0.00200	0.05	0.000522	91.2	82 - 116	0.04513	2.21	20	

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: 197423 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

PDS Sample ID: **HS23061825-05PDS** Units: **mg/L** Analysis Date: **12-Jul-2023 21:40**
Client ID: **MW13_062623** Run ID: **ICPMS06_441153** SeqNo: **7423322** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.132	0.0100	0.1	0.03456	97.4	80 - 120				
Antimony	0.08272	0.00500	0.1	0.000131	82.6	80 - 120				
Arsenic	0.09004	0.00500	0.1	0.000254	89.8	80 - 120				
Barium	0.5298	0.00500	0.1	0.4514	78.4	80 - 120				SO
Beryllium	0.08669	0.00200	0.1	0.000062	86.6	80 - 120				
Cadmium	0.0896	0.00200	0.1	0.000105	89.5	80 - 120				
Calcium	33.95	0.500	10	25.08	88.7	80 - 120				
Cobalt	0.08559	0.00500	0.1	0.000449	85.1	80 - 120				
Copper	0.08965	0.00500	0.1	0.003124	86.5	80 - 120				
Iron	99.41	0.200	10	93.27	61.4	80 - 120				SO
Lead	0.08849	0.00500	0.1	0.00011	88.4	80 - 120				
Magnesium	21.54	0.200	10	12.52	90.2	80 - 120				
Manganese	1.121	0.00500	0.1	1.071	49.6	80 - 120				SO
Nickel	0.1222	0.00500	0.1	0.03646	85.8	80 - 120				
Potassium	12.55	0.200	10	3.349	92.0	80 - 120				
Selenium	0.08771	0.00500	0.1	-0.000079	87.8	80 - 120				
Silver	0.09166	0.00500	0.1	0.000019	91.6	80 - 120				
Sodium	93.92	0.200	10	87.4	65.3	80 - 120				SO
Vanadium	0.08868	0.00500	0.1	0.000753	87.9	80 - 120				
Zinc	0.0942	0.00500	0.1	0.005191	89.0	80 - 120				

PDS Sample ID: **HS23061825-05PDS** Units: **mg/L** Analysis Date: **13-Jul-2023 12:22**
Client ID: **MW13_062623** Run ID: **ICPMS06_441200** SeqNo: **7424735** PrepDate: **11-Jul-2023** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.7062	0.0250	0.5	0.2266	95.9	80 - 120				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: 197423 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

SD Sample ID: **HS23061825-05SD** Units: **mg/L** Analysis Date: **12-Jul-2023 21:33**
Client ID: **MW13_062623** Run ID: **ICPMS06_441153** SeqNo: **7423319** PrepDate: **11-Jul-2023** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Aluminum	0.02606	0.0500					0.03456	0	10	J
Antimony	0.00625	0.0250					0.000131	0	10	U
Arsenic	0.00625	0.0250					0.000254	0	10	U
Barium	0.4538	0.0250					0.4514	0.529	10	
Beryllium	0.00250	0.0100					0.000062	0	10	U
Cadmium	0.00250	0.0100					0.000105	0	10	U
Chromium	0.2197	0.0250					0.2167	1.4	10	
Cobalt	0.000517	0.0250					0.000449	0	10	J
Copper	0.0125	0.0250					0.003124	0	10	U
Iron	96.63	1.00					93.27	3.6	10	
Lead	0.00625	0.0250					0.00011	0	10	U
Magnesium	13.28	1.00					12.52	6.09	10	
Manganese	1.135	0.0250					1.071	5.99	10	
Nickel	0.03818	0.0250					0.03646	4.73	10	
Potassium	3.385	1.00					3.349	1.08	10	
Selenium	0.0125	0.0250					-0.000079	0	10	U
Silver	0.00250	0.0250					0.000019	0	10	U
Sodium	88.55	1.00					87.4	1.32	10	
Thallium	0.00250	0.0100					0.000522	0	10	U
Vanadium	0.00625	0.0250					0.000753	0	10	U
Zinc	0.0125	0.0250					0.005191	0	10	U

SD Sample ID: **HS23061825-05SD** Units: **mg/L** Analysis Date: **13-Jul-2023 12:20**
Client ID: **MW13_062623** Run ID: **ICPMS06_441200** SeqNo: **7424734** PrepDate: **11-Jul-2023** DF: **25**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Chromium	0.2317	0.125					0.2266	2.21	10	

The following samples were analyzed in this batch: HS23061825-01 HS23061825-02 HS23061825-04 HS23061825-05

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: 196987 (1) **Instrument: SV-6** **Method: SEMIVOLATILES SIM**

MBLK Sample ID: **MBLK-196987** Units: **ug/L** Analysis Date: **10-Jul-2023 11:26**
Client ID: Run ID: **SV-6_440594** SeqNo: **7417865** PrepDate: **30-Jun-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.0050	0.030								U
Surr: 2-Fluorobiphenyl	*0.078*	*0*	*0.08*	*0*	*97.5*	*40 - 140*				
Surr: 4-Terphenyl-d14	*0.08711*	*0*	*0.08*	*0*	*109*	*40 - 140*				
Surr: Nitrobenzene-d5	*0.08415*	*0*	*0.08*	*0*	*105*	*40 - 140*				

LCS Sample ID: **LCS1-196987** Units: **ug/L** Analysis Date: **10-Jul-2023 11:44**
Client ID: Run ID: **SV-6_440594** SeqNo: **7417866** PrepDate: **30-Jun-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.07952	0.030	0.08	0	99.4	40 - 140				
Surr: 2-Fluorobiphenyl	*0.08155*	*0*	*0.08*	*0*	*102*	*40 - 140*				
Surr: 4-Terphenyl-d14	*0.0876*	*0*	*0.08*	*0*	*109*	*40 - 140*				
Surr: Nitrobenzene-d5	*0.08926*	*0*	*0.08*	*0*	*112*	*40 - 140*				

LCSD Sample ID: **LCSD1-196987** Units: **ug/L** Analysis Date: **10-Jul-2023 12:02**
Client ID: Run ID: **SV-6_440594** SeqNo: **7417867** PrepDate: **30-Jun-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dioxane	0.07221	0.030	0.08	0	90.3	40 - 140	0.07952	9.63	20	
Surr: 2-Fluorobiphenyl	*0.07865*	*0*	*0.08*	*0*	*98.3*	*40 - 140*	*0.08155*	*3.63*	*20*	
Surr: 4-Terphenyl-d14	*0.0868*	*0*	*0.08*	*0*	*109*	*40 - 140*	*0.0876*	*0.911*	*20*	
Surr: Nitrobenzene-d5	*0.086*	*0*	*0.08*	*0*	*108*	*40 - 140*	*0.08926*	*3.71*	*20*	

The following samples were analyzed in this batch: HS23061825-04 HS23061825-07 HS23061825-08 HS23061825-09

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230628** Units: **ug/L** Analysis Date: **28-Jun-2023 13:28**
Client ID: Run ID: **VOA9_440137** SeqNo: **7391394** 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	0.50	2.0								U
4-Chlorotoluene	0.50	1.0								U
4-Isopropyltoluene	0.50	1.0								U
4-Methyl-2-pentanone	0.50	2.0								U
Acetone	0.50	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: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230628** Units: **ug/L** Analysis Date: **28-Jun-2023 13:28**
Client ID: Run ID: **VOA9_440137** SeqNo: **7391394** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	0.50	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	0.50	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	*53.18*	*1.0*	*50*	*0*	*106*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*46.93*	*1.0*	*50*	*0*	*93.9*	*85 - 114*				
Surr: Dibromofluoromethane	*49.81*	*1.0*	*50*	*0*	*99.6*	*80 - 119*				
Surr: Toluene-d8	*53.83*	*1.0*	*50*	*0*	*108*	*89 - 112*				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230628** Units: **ug/L** Analysis Date: **28-Jun-2023 12:44**
Client ID: Run ID: **VOA9_440137** SeqNo: **7391393** 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	23.53	1.0	20	0	118	78 - 124				
1,1,1-Trichloroethane	23.03	1.0	20	0	115	74 - 131				
1,1,2,2-Tetrachloroethane	19.96	1.0	20	0	99.8	71 - 121				
1,1,2-Trichloroethane	21.66	1.0	20	0	108	80 - 119				
1,1-Dichloroethane	21.78	1.0	20	0	109	77 - 125				
1,1-Dichloroethene	23.52	1.0	20	0	118	71 - 131				
1,1-Dichloropropene	24.09	1.0	20	0	120	78 - 125				
1,2,3-Trichlorobenzene	21.36	1.0	20	0	107	69 - 129				
1,2,3-Trichloropropane	20.55	1.0	20	0	103	73 - 122				
1,2,4-Trichlorobenzene	21.27	1.0	20	0	106	69 - 130				
1,2,4-Trimethylbenzene	24.59	1.0	20	0	123	76 - 124				
1,2-Dibromo-3-chloropropane	19.52	1.0	20	0	97.6	62 - 128				
1,2-Dibromoethane	21.83	1.0	20	0	109	77 - 121				
1,2-Dichlorobenzene	22.32	1.0	20	0	112	80 - 119				
1,2-Dichloroethane	23.52	1.0	20	0	118	73 - 128				
1,2-Dichloropropane	21.71	1.0	20	0	109	78 - 122				
1,3,5-Trimethylbenzene	24.59	1.0	20	0	123	75 - 124				
1,3-Dichlorobenzene	22.42	1.0	20	0	112	80 - 119				
1,3-Dichloropropane	21.93	1.0	20	0	110	80 - 119				
1,4-Dichlorobenzene	22.08	1.0	20	0	110	79 - 118				
2,2-Dichloropropane	25.25	1.0	20	0	126	60 - 139				
2-Butanone	39.98	2.0	40	0	100.0	56 - 143				
2-Chlorotoluene	22.92	1.0	20	0	115	79 - 122				
2-Hexanone	38.97	2.0	40	0	97.4	57 - 139				
4-Chlorotoluene	23.66	1.0	20	0	118	78 - 122				
4-Isopropyltoluene	25.32	1.0	20	0	127	77 - 127				
4-Methyl-2-pentanone	41.39	2.0	40	0	103	67 - 130				
Acetone	49.97	2.0	40	0	125	39 - 160				
Benzene	22.53	1.0	20	0	113	79 - 120				
Bromobenzene	22.22	1.0	20	0	111	80 - 120				
Bromochloromethane	21.51	1.0	20	0	108	78 - 123				
Bromodichloromethane	23.12	1.0	20	0	116	79 - 125				
Bromoform	22.08	1.0	20	0	110	66 - 130				
Bromomethane	22.88	1.0	20	0	114	53 - 141				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230628** Units: **ug/L** Analysis Date: **28-Jun-2023 12:44**
Client ID: Run ID: **VOA9_440137** SeqNo: **7391393** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	52.28	2.0	40	0	131	64 - 133				
Carbon tetrachloride	24.19	1.0	20	0	121	72 - 136				
Chlorobenzene	22.61	1.0	20	0	113	82 - 118				
Chloroethane	21.93	1.0	20	0	110	60 - 138				
Chloroform	21.68	1.0	20	0	108	79 - 124				
Chloromethane	19.11	1.0	20	0	95.5	50 - 139				
cis-1,2-Dichloroethene	22	1.0	20	0	110	78 - 123				
cis-1,3-Dichloropropene	21.4	1.0	20	0	107	75 - 124				
Dibromochloromethane	23.27	1.0	20	0	116	74 - 126				
Dibromomethane	22.31	1.0	20	0	112	79 - 123				
Dichlorodifluoromethane	22.86	1.0	20	0	114	32 - 152				
Ethylbenzene	23.65	1.0	20	0	118	79 - 121				
Hexachlorobutadiene	24.12	1.0	20	0	121	66 - 134				
Isopropylbenzene	25.22	1.0	20	0	126	72 - 131				
m,p-Xylene	48.4	2.0	40	0	121	80 - 121				
Methylene chloride	23.16	2.0	20	0	116	74 - 124				
Naphthalene	21.77	1.0	20	0	109	61 - 128				
n-Butylbenzene	24.63	1.0	20	0	123	75 - 128				
n-Propylbenzene	24.07	1.0	20	0	120	76 - 126				
o-Xylene	23.86	1.0	20	0	119	78 - 122				
sec-Butylbenzene	24.81	1.0	20	0	124	77 - 126				
Styrene	24.88	1.0	20	0	124	78 - 123				S
tert-Butylbenzene	24.15	1.0	20	0	121	78 - 124				
Tetrachloroethene	24.39	1.0	20	0	122	74 - 129				
Toluene	23.15	1.0	20	0	116	80 - 121				
trans-1,2-Dichloroethene	22.77	1.0	20	0	114	75 - 124				
trans-1,3-Dichloropropene	20.9	1.0	20	0	105	73 - 127				
Trichloroethene	22.1	1.0	20	0	111	79 - 123				
Trichlorofluoromethane	24.86	1.0	20	0	124	65 - 141				
Vinyl chloride	21.69	1.0	20	0	108	58 - 137				
Surr: 1,2-Dichloroethane-d4	*51.67*	*1.0*	*50*	*0*	*103*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*52.69*	*1.0*	*50*	*0*	*105*	*85 - 114*				
Surr: Dibromofluoromethane	*50.09*	*1.0*	*50*	*0*	*100*	*80 - 119*				
Surr: Toluene-d8	*50.69*	*1.0*	*50*	*0*	*101*	*89 - 112*				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061825-05MS** Units: **ug/L** Analysis Date: **28-Jun-2023 14:58**
Client ID: **MW13_062623** Run ID: **VOA9_440137** SeqNo: **7391398** 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	21.88	1.0	20	0	109	78 - 124				
1,1,1-Trichloroethane	21.98	1.0	20	0	110	74 - 131				
1,1,2,2-Tetrachloroethane	17.91	1.0	20	0	89.5	71 - 121				
1,1,2-Trichloroethane	19.47	1.0	20	0	97.4	80 - 119				
1,1-Dichloroethane	18.9	1.0	20	0	94.5	77 - 125				
1,1-Dichloroethene	21.03	1.0	20	0	105	71 - 131				
1,1-Dichloropropene	23.1	1.0	20	0	115	78 - 125				
1,2,3-Trichlorobenzene	18.05	1.0	20	0	90.3	69 - 129				
1,2,3-Trichloropropane	18.74	1.0	20	0	93.7	73 - 122				
1,2,4-Trichlorobenzene	18.85	1.0	20	0	94.2	69 - 130				
1,2,4-Trimethylbenzene	22.01	1.0	20	0	110	76 - 124				
1,2-Dibromo-3-chloropropane	16.44	1.0	20	0	82.2	62 - 128				
1,2-Dibromoethane	20.1	1.0	20	0	101	77 - 121				
1,2-Dichlorobenzene	20.16	1.0	20	0	101	80 - 119				
1,2-Dichloroethane	21.45	1.0	20	0	107	73 - 128				
1,2-Dichloropropane	20.27	1.0	20	0	101	78 - 122				
1,3,5-Trimethylbenzene	22.92	1.0	20	0	115	75 - 124				
1,3-Dichlorobenzene	20.87	1.0	20	0	104	80 - 119				
1,3-Dichloropropane	20.4	1.0	20	0	102	80 - 119				
1,4-Dichlorobenzene	19.83	1.0	20	0	99.2	79 - 118				
2,2-Dichloropropane	22.91	1.0	20	0	115	60 - 139				
2-Butanone	33.32	2.0	40	0	83.3	56 - 143				
2-Chlorotoluene	21.98	1.0	20	0	110	79 - 122				
2-Hexanone	34.37	2.0	40	0	85.9	57 - 139				
4-Chlorotoluene	22.26	1.0	20	0	111	78 - 122				
4-Isopropyltoluene	23.96	1.0	20	0	120	77 - 127				
4-Methyl-2-pentanone	36.2	2.0	40	0	90.5	67 - 130				
Acetone	32.94	2.0	40	0	82.4	39 - 160				
Benzene	20.89	1.0	20	0	104	79 - 120				
Bromobenzene	20.44	1.0	20	0	102	80 - 120				
Bromochloromethane	18.8	1.0	20	0	94.0	78 - 123				
Bromodichloromethane	21.3	1.0	20	0	107	79 - 125				
Bromoform	20.36	1.0	20	0	102	66 - 130				
Bromomethane	21.1	1.0	20	0	105	53 - 141				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061825-05MS** Units: **ug/L** Analysis Date: **28-Jun-2023 14:58**
Client ID: **MW13_062623** Run ID: **VOA9_440137** SeqNo: **7391398** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	42.38	2.0	40	0	106	64 - 133				
Carbon tetrachloride	24.82	1.0	20	0	124	72 - 136				
Chlorobenzene	21.33	1.0	20	0	107	82 - 118				
Chloroethane	19.38	1.0	20	0	96.9	60 - 138				
Chloroform	19.38	1.0	20	0	96.9	79 - 124				
Chloromethane	16.67	1.0	20	0	83.3	50 - 139				
cis-1,2-Dichloroethene	19.76	1.0	20	0	98.8	78 - 123				
cis-1,3-Dichloropropene	19.14	1.0	20	0	95.7	75 - 124				
Dibromochloromethane	21.3	1.0	20	0	107	74 - 126				
Dibromomethane	20.5	1.0	20	0	103	79 - 123				
Dichlorodifluoromethane	17.58	1.0	20	0	87.9	32 - 152				
Ethylbenzene	22.76	1.0	20	0	114	79 - 121				
Hexachlorobutadiene	22.72	1.0	20	0	114	66 - 134				
Isopropylbenzene	24.51	1.0	20	0	123	72 - 131				
m,p-Xylene	47.23	2.0	40	0	118	80 - 121				
Methylene chloride	19.17	2.0	20	0	95.8	74 - 124				
Naphthalene	17.09	1.0	20	0	85.4	61 - 128				
n-Butylbenzene	23.49	1.0	20	0	117	75 - 128				
n-Propylbenzene	23.65	1.0	20	0	118	76 - 126				
o-Xylene	22.57	1.0	20	0	113	78 - 122				
sec-Butylbenzene	23.62	1.0	20	0	118	77 - 126				
Styrene	23.1	1.0	20	0	115	78 - 123				
tert-Butylbenzene	23.19	1.0	20	0	116	78 - 124				
Tetrachloroethene	23.74	1.0	20	0	119	74 - 129				
Toluene	22.28	1.0	20	0	111	80 - 121				
trans-1,2-Dichloroethene	20.38	1.0	20	0	102	75 - 124				
trans-1,3-Dichloropropene	19.68	1.0	20	0	98.4	73 - 127				
Trichloroethene	23.9	1.0	20	0	120	79 - 123				
Trichlorofluoromethane	23.8	1.0	20	0	119	65 - 141				
Vinyl chloride	19.58	1.0	20	0	97.9	58 - 137				
Surr: 1,2-Dichloroethane-d4	*52.06*	*1.0*	*50*	*0*	*104*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.85*	*1.0*	*50*	*0*	*102*	*85 - 114*				
Surr: Dibromofluoromethane	*50.57*	*1.0*	*50*	*0*	*101*	*80 - 119*				
Surr: Toluene-d8	*54.6*	*1.0*	*50*	*0*	*109*	*89 - 112*				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061825-05MSD** Units: **ug/L** Analysis Date: **28-Jun-2023 15:20**
Client ID: **MW13_062623** Run ID: **VOA9_440137** SeqNo: **7391399** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.32	1.0	20	0	107	78 - 124	21.88	2.61	20	
1,1,1-Trichloroethane	20.93	1.0	20	0	105	74 - 131	21.98	4.89	20	
1,1,2,2-Tetrachloroethane	17.83	1.0	20	0	89.1	71 - 121	17.91	0.457	20	
1,1,2-Trichloroethane	19.24	1.0	20	0	96.2	80 - 119	19.47	1.19	20	
1,1-Dichloroethane	18.58	1.0	20	0	92.9	77 - 125	18.9	1.72	20	
1,1-Dichloroethene	20.12	1.0	20	0	101	71 - 131	21.03	4.45	20	
1,1-Dichloropropene	22.48	1.0	20	0	112	78 - 125	23.1	2.71	20	
1,2,3-Trichlorobenzene	17.8	1.0	20	0	89.0	69 - 129	18.05	1.41	20	
1,2,3-Trichloropropane	18.53	1.0	20	0	92.6	73 - 122	18.74	1.11	20	
1,2,4-Trichlorobenzene	18.32	1.0	20	0	91.6	69 - 130	18.85	2.8	20	
1,2,4-Trimethylbenzene	21.25	1.0	20	0	106	76 - 124	22.01	3.55	20	
1,2-Dibromo-3-chloropropane	16.2	1.0	20	0	81.0	62 - 128	16.44	1.5	20	
1,2-Dibromoethane	19.92	1.0	20	0	99.6	77 - 121	20.1	0.938	20	
1,2-Dichlorobenzene	19.4	1.0	20	0	97.0	80 - 119	20.16	3.86	20	
1,2-Dichloroethane	21.2	1.0	20	0	106	73 - 128	21.45	1.18	20	
1,2-Dichloropropane	19.63	1.0	20	0	98.2	78 - 122	20.27	3.18	20	
1,3,5-Trimethylbenzene	22.02	1.0	20	0	110	75 - 124	22.92	4.04	20	
1,3-Dichlorobenzene	19.94	1.0	20	0	99.7	80 - 119	20.87	4.55	20	
1,3-Dichloropropane	19.59	1.0	20	0	98.0	80 - 119	20.4	4.05	20	
1,4-Dichlorobenzene	19.52	1.0	20	0	97.6	79 - 118	19.83	1.61	20	
2,2-Dichloropropane	22.5	1.0	20	0	112	60 - 139	22.91	1.81	20	
2-Butanone	33.35	2.0	40	0	83.4	56 - 143	33.32	0.0976	20	
2-Chlorotoluene	20.75	1.0	20	0	104	79 - 122	21.98	5.73	20	
2-Hexanone	35.44	2.0	40	0	88.6	57 - 139	34.37	3.08	20	
4-Chlorotoluene	21.2	1.0	20	0	106	78 - 122	22.26	4.88	20	
4-Isopropyltoluene	22.63	1.0	20	0	113	77 - 127	23.96	5.71	20	
4-Methyl-2-pentanone	37.75	2.0	40	0	94.4	67 - 130	36.2	4.19	20	
Acetone	34.34	2.0	40	0	85.9	39 - 160	32.94	4.17	20	
Benzene	20.38	1.0	20	0	102	79 - 120	20.89	2.46	20	
Bromobenzene	19.93	1.0	20	0	99.6	80 - 120	20.44	2.53	20	
Bromochloromethane	17.85	1.0	20	0	89.3	78 - 123	18.8	5.16	20	
Bromodichloromethane	20.75	1.0	20	0	104	79 - 125	21.3	2.61	20	
Bromoform	20.36	1.0	20	0	102	66 - 130	20.36	0.00181	20	
Bromomethane	20.29	1.0	20	0	101	53 - 141	21.1	3.88	20	

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061825-05MSD** Units: **ug/L** Analysis Date: **28-Jun-2023 15:20**
Client ID: **MW13_062623** Run ID: **VOA9_440137** SeqNo: **7391399** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	40.65	2.0	40	0	102	64 - 133	42.38	4.17	20	
Carbon tetrachloride	23.91	1.0	20	0	120	72 - 136	24.82	3.71	20	
Chlorobenzene	20.77	1.0	20	0	104	82 - 118	21.33	2.63	20	
Chloroethane	18.55	1.0	20	0	92.7	60 - 138	19.38	4.38	20	
Chloroform	18.48	1.0	20	0	92.4	79 - 124	19.38	4.75	20	
Chloromethane	16.62	1.0	20	0	83.1	50 - 139	16.67	0.302	20	
cis-1,2-Dichloroethene	18.77	1.0	20	0	93.9	78 - 123	19.76	5.11	20	
cis-1,3-Dichloropropene	18.98	1.0	20	0	94.9	75 - 124	19.14	0.833	20	
Dibromochloromethane	21.16	1.0	20	0	106	74 - 126	21.3	0.675	20	
Dibromomethane	20.7	1.0	20	0	104	79 - 123	20.5	0.965	20	
Dichlorodifluoromethane	16.58	1.0	20	0	82.9	32 - 152	17.58	5.87	20	
Ethylbenzene	22.08	1.0	20	0	110	79 - 121	22.76	3.02	20	
Hexachlorobutadiene	21.22	1.0	20	0	106	66 - 134	22.72	6.79	20	
Isopropylbenzene	23.85	1.0	20	0	119	72 - 131	24.51	2.75	20	
m,p-Xylene	45.59	2.0	40	0	114	80 - 121	47.23	3.53	20	
Methylene chloride	18.53	2.0	20	0	92.7	74 - 124	19.17	3.38	20	
Naphthalene	18.13	1.0	20	0	90.6	61 - 128	17.09	5.89	20	
n-Butylbenzene	22.66	1.0	20	0	113	75 - 128	23.49	3.61	20	
n-Propylbenzene	22.68	1.0	20	0	113	76 - 126	23.65	4.17	20	
o-Xylene	22.21	1.0	20	0	111	78 - 122	22.57	1.58	20	
sec-Butylbenzene	22.51	1.0	20	0	113	77 - 126	23.62	4.81	20	
Styrene	23.07	1.0	20	0	115	78 - 123	23.1	0.134	20	
tert-Butylbenzene	22.41	1.0	20	0	112	78 - 124	23.19	3.41	20	
Tetrachloroethene	22.49	1.0	20	0	112	74 - 129	23.74	5.41	20	
Toluene	21.1	1.0	20	0	106	80 - 121	22.28	5.44	20	
trans-1,2-Dichloroethene	19.57	1.0	20	0	97.9	75 - 124	20.38	4.05	20	
trans-1,3-Dichloropropene	18.91	1.0	20	0	94.5	73 - 127	19.68	4.02	20	
Trichloroethene	22.16	1.0	20	0	111	79 - 123	23.9	7.56	20	
Trichlorofluoromethane	22.8	1.0	20	0	114	65 - 141	23.8	4.26	20	
Vinyl chloride	18.62	1.0	20	0	93.1	58 - 137	19.58	5.04	20	
Surr: 1,2-Dichloroethane-d4	*51.81*	*1.0*	*50*	*0*	*104*	*81 - 118*	*52.06*	*0.47*	*20*	
Surr: 4-Bromofluorobenzene	*51.63*	*1.0*	*50*	*0*	*103*	*85 - 114*	*50.85*	*1.52*	*20*	
Surr: Dibromofluoromethane	*49.91*	*1.0*	*50*	*0*	*99.8*	*80 - 119*	*50.57*	*1.3*	*20*	
Surr: Toluene-d8	*53.97*	*1.0*	*50*	*0*	*108*	*89 - 112*	*54.6*	*1.15*	*20*	

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440137 (0)	Instrument: VOA9	Method: VOLATILES ORGANICS BY METHOD 8260C

The following samples were analyzed in this batch:

HS23061825-01	HS23061825-02	HS23061825-04	HS23061825-05
HS23061825-06	HS23061825-07	HS23061825-09	HS23061825-10

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230629** Units: **ug/L** Analysis Date: **29-Jun-2023 12:39**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394054** 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	0.50	2.0								U
4-Chlorotoluene	0.50	1.0								U
4-Isopropyltoluene	0.50	1.0								U
4-Methyl-2-pentanone	0.50	2.0								U
Acetone	0.50	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: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230629** Units: **ug/L** Analysis Date: **29-Jun-2023 12:39**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394054** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	0.50	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	0.50	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	*51.09*	*1.0*	*50*	*0*	*102*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*47.17*	*1.0*	*50*	*0*	*94.3*	*85 - 114*				
Surr: Dibromofluoromethane	*48.53*	*1.0*	*50*	*0*	*97.1*	*80 - 119*				
Surr: Toluene-d8	*53.86*	*1.0*	*50*	*0*	*108*	*89 - 112*				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230629** Units: **ug/L** Analysis Date: **29-Jun-2023 11:54**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394053** 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	21.59	1.0	20	0	108	78 - 124				
1,1,1-Trichloroethane	22.86	1.0	20	0	114	74 - 131				
1,1,2,2-Tetrachloroethane	19.35	1.0	20	0	96.7	71 - 121				
1,1,2-Trichloroethane	20	1.0	20	0	100.0	80 - 119				
1,1-Dichloroethane	20.52	1.0	20	0	103	77 - 125				
1,1-Dichloroethene	21.67	1.0	20	0	108	71 - 131				
1,1-Dichloropropene	22.59	1.0	20	0	113	78 - 125				
1,2,3-Trichlorobenzene	19.49	1.0	20	0	97.5	69 - 129				
1,2,3-Trichloropropane	19.52	1.0	20	0	97.6	73 - 122				
1,2,4-Trichlorobenzene	19.84	1.0	20	0	99.2	69 - 130				
1,2,4-Trimethylbenzene	22.33	1.0	20	0	112	76 - 124				
1,2-Dibromo-3-chloropropane	17.04	1.0	20	0	85.2	62 - 128				
1,2-Dibromoethane	20.74	1.0	20	0	104	77 - 121				
1,2-Dichlorobenzene	20.88	1.0	20	0	104	80 - 119				
1,2-Dichloroethane	22.57	1.0	20	0	113	73 - 128				
1,2-Dichloropropane	20.74	1.0	20	0	104	78 - 122				
1,3,5-Trimethylbenzene	22.6	1.0	20	0	113	75 - 124				
1,3-Dichlorobenzene	21.22	1.0	20	0	106	80 - 119				
1,3-Dichloropropane	20.44	1.0	20	0	102	80 - 119				
1,4-Dichlorobenzene	20.89	1.0	20	0	104	79 - 118				
2,2-Dichloropropane	23.48	1.0	20	0	117	60 - 139				
2-Butanone	37.08	2.0	40	0	92.7	56 - 143				
2-Chlorotoluene	21.88	1.0	20	0	109	79 - 122				
2-Hexanone	36.36	2.0	40	0	90.9	57 - 139				
4-Chlorotoluene	22.27	1.0	20	0	111	78 - 122				
4-Isopropyltoluene	23.07	1.0	20	0	115	77 - 127				
4-Methyl-2-pentanone	37.75	2.0	40	0	94.4	67 - 130				
Acetone	42.4	2.0	40	0	106	39 - 160				
Benzene	21.21	1.0	20	0	106	79 - 120				
Bromobenzene	21.18	1.0	20	0	106	80 - 120				
Bromochloromethane	20.54	1.0	20	0	103	78 - 123				
Bromodichloromethane	21.72	1.0	20	0	109	79 - 125				
Bromoform	21.08	1.0	20	0	105	66 - 130				
Bromomethane	25.7	1.0	20	0	129	53 - 141				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230629** Units: **ug/L** Analysis Date: **29-Jun-2023 11:54**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394053** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	48.71	2.0	40	0	122	64 - 133				
Carbon tetrachloride	23.67	1.0	20	0	118	72 - 136				
Chlorobenzene	21.57	1.0	20	0	108	82 - 118				
Chloroethane	20.34	1.0	20	0	102	60 - 138				
Chloroform	21.4	1.0	20	0	107	79 - 124				
Chloromethane	17.48	1.0	20	0	87.4	50 - 139				
cis-1,2-Dichloroethene	21.04	1.0	20	0	105	78 - 123				
cis-1,3-Dichloropropene	20.56	1.0	20	0	103	75 - 124				
Dibromochloromethane	21.84	1.0	20	0	109	74 - 126				
Dibromomethane	21.48	1.0	20	0	107	79 - 123				
Dichlorodifluoromethane	20.59	1.0	20	0	103	32 - 152				
Ethylbenzene	22.09	1.0	20	0	110	79 - 121				
Hexachlorobutadiene	22.26	1.0	20	0	111	66 - 134				
Isopropylbenzene	23.27	1.0	20	0	116	72 - 131				
m,p-Xylene	45.97	2.0	40	0	115	80 - 121				
Methylene chloride	22.25	2.0	20	0	111	74 - 124				
Naphthalene	19.43	1.0	20	0	97.1	61 - 128				
n-Butylbenzene	22.71	1.0	20	0	114	75 - 128				
n-Propylbenzene	23.01	1.0	20	0	115	76 - 126				
o-Xylene	22.16	1.0	20	0	111	78 - 122				
sec-Butylbenzene	22.88	1.0	20	0	114	77 - 126				
Styrene	23.28	1.0	20	0	116	78 - 123				
tert-Butylbenzene	22.7	1.0	20	0	113	78 - 124				
Tetrachloroethene	22	1.0	20	0	110	74 - 129				
Toluene	21.55	1.0	20	0	108	80 - 121				
trans-1,2-Dichloroethene	21.91	1.0	20	0	110	75 - 124				
trans-1,3-Dichloropropene	19.62	1.0	20	0	98.1	73 - 127				
Trichloroethene	20.98	1.0	20	0	105	79 - 123				
Trichlorofluoromethane	24.07	1.0	20	0	120	65 - 141				
Vinyl chloride	20.84	1.0	20	0	104	58 - 137				
Surr: 1,2-Dichloroethane-d4	*51.69*	*1.0*	*50*	*0*	*103*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.6*	*1.0*	*50*	*0*	*103*	*85 - 114*				
Surr: Dibromofluoromethane	*50.54*	*1.0*	*50*	*0*	*101*	*80 - 119*				
Surr: Toluene-d8	*48.55*	*1.0*	*50*	*0*	*97.1*	*89 - 112*				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061825-03MS** Units: **ug/L** Analysis Date: **29-Jun-2023 15:10**
Client ID: **MW23_062623** Run ID: **VOA9_440247** SeqNo: **7394059** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1105	50	1000	0	110	78 - 124				
1,1,1-Trichloroethane	1081	50	1000	0	108	74 - 131				
1,1,2,2-Tetrachloroethane	901.2	50	1000	0	90.1	71 - 121				
1,1,2-Trichloroethane	973.3	50	1000	0	97.3	80 - 119				
1,1-Dichloroethane	956	50	1000	0	95.6	77 - 125				
1,1-Dichloroethene	1081	50	1000	0	108	71 - 131				
1,1-Dichloropropene	1153	50	1000	0	115	78 - 125				
1,2,3-Trichlorobenzene	868.2	50	1000	0	86.8	69 - 129				
1,2,3-Trichloropropane	902.8	50	1000	0	90.3	73 - 122				
1,2,4-Trichlorobenzene	905.1	50	1000	0	90.5	69 - 130				
1,2,4-Trimethylbenzene	1094	50	1000	0	109	76 - 124				
1,2-Dibromo-3-chloropropane	804.1	50	1000	0	80.4	62 - 128				
1,2-Dibromoethane	990.6	50	1000	0	99.1	77 - 121				
1,2-Dichlorobenzene	999.5	50	1000	0	100.0	80 - 119				
1,2-Dichloroethane	1151	50	1000	79.85	107	73 - 128				
1,2-Dichloropropane	1005	50	1000	0	101	78 - 122				
1,3,5-Trimethylbenzene	1141	50	1000	0	114	75 - 124				
1,3-Dichlorobenzene	1032	50	1000	0	103	80 - 119				
1,3-Dichloropropane	1004	50	1000	0	100	80 - 119				
1,4-Dichlorobenzene	1006	50	1000	0	101	79 - 118				
2,2-Dichloropropane	1121	50	1000	0	112	60 - 139				
2-Butanone	1574	100	2000	0	78.7	56 - 143				
2-Chlorotoluene	1086	50	1000	0	109	79 - 122				
2-Hexanone	1690	100	2000	0	84.5	57 - 139				
4-Chlorotoluene	1108	50	1000	0	111	78 - 122				
4-Isopropyltoluene	1177	50	1000	0	118	77 - 127				
4-Methyl-2-pentanone	1774	100	2000	0	88.7	67 - 130				
Acetone	1515	100	2000	0	75.7	39 - 160				
Benzene	1054	50	1000	0	105	79 - 120				
Bromobenzene	1003	50	1000	0	100	80 - 120				
Bromochloromethane	921.2	50	1000	0	92.1	78 - 123				
Bromodichloromethane	1063	50	1000	0	106	79 - 125				
Bromoform	1061	50	1000	0	106	66 - 130				
Bromomethane	1185	50	1000	0	118	53 - 141				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061825-03MS** Units: **ug/L** Analysis Date: **29-Jun-2023 15:10**
Client ID: **MW23_062623** Run ID: **VOA9_440247** SeqNo: **7394059** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	2138	100	2000	0	107	64 - 133				
Carbon tetrachloride	1245	50	1000	0	124	72 - 136				
Chlorobenzene	1083	50	1000	0	108	82 - 118				
Chloroethane	998.3	50	1000	0	99.8	60 - 138				
Chloroform	967.2	50	1000	0	96.7	79 - 124				
Chloromethane	779.4	50	1000	0	77.9	50 - 139				
cis-1,2-Dichloroethene	994	50	1000	0	99.4	78 - 123				
cis-1,3-Dichloropropene	959.1	50	1000	0	95.9	75 - 124				
Dibromochloromethane	1097	50	1000	0	110	74 - 126				
Dibromomethane	1047	50	1000	0	105	79 - 123				
Dichlorodifluoromethane	893.1	50	1000	0	89.3	32 - 152				
Ethylbenzene	1129	50	1000	0	113	79 - 121				
Hexachlorobutadiene	1075	50	1000	0	107	66 - 134				
Isopropylbenzene	1215	50	1000	0	122	72 - 131				
m,p-Xylene	2376	100	2000	0	119	80 - 121				
Methylene chloride	994.4	100	1000	0	99.4	74 - 124				
Naphthalene	811.7	50	1000	0	81.2	61 - 128				
n-Butylbenzene	1159	50	1000	0	116	75 - 128				
n-Propylbenzene	1139	50	1000	0	114	76 - 126				
o-Xylene	1142	50	1000	0	114	78 - 122				
sec-Butylbenzene	1171	50	1000	0	117	77 - 126				
Styrene	1161	50	1000	0	116	78 - 123				
tert-Butylbenzene	1150	50	1000	0	115	78 - 124				
Tetrachloroethene	1207	50	1000	0	121	74 - 129				
Toluene	1085	50	1000	0	109	80 - 121				
trans-1,2-Dichloroethene	1027	50	1000	0	103	75 - 124				
trans-1,3-Dichloropropene	947	50	1000	0	94.7	73 - 127				
Trichloroethene	3625	50	1000	2606	102	79 - 123				
Trichlorofluoromethane	1188	50	1000	0	119	65 - 141				
Vinyl chloride	990.6	50	1000	0	99.1	58 - 137				
Surr: 1,2-Dichloroethane-d4	*2589*	*50*	*2500*	*0*	*104*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*2564*	*50*	*2500*	*0*	*103*	*85 - 114*				
Surr: Dibromofluoromethane	*2493*	*50*	*2500*	*0*	*99.7*	*80 - 119*				
Surr: Toluene-d8	*2704*	*50*	*2500*	*0*	*108*	*89 - 112*				

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061825-03MSD** Units: **ug/L** Analysis Date: **29-Jun-2023 15:33**
Client ID: **MW23_062623** Run ID: **VOA9_440247** SeqNo: **7394060** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1098	50	1000	0	110	78 - 124	1105	0.62	20	
1,1,1-Trichloroethane	1069	50	1000	0	107	74 - 131	1081	1.1	20	
1,1,2,2-Tetrachloroethane	947.9	50	1000	0	94.8	71 - 121	901.2	5.05	20	
1,1,2-Trichloroethane	995.5	50	1000	0	99.5	80 - 119	973.3	2.25	20	
1,1-Dichloroethane	933.7	50	1000	0	93.4	77 - 125	956	2.36	20	
1,1-Dichloroethene	1058	50	1000	0	106	71 - 131	1081	2.15	20	
1,1-Dichloropropene	1153	50	1000	0	115	78 - 125	1153	0.0741	20	
1,2,3-Trichlorobenzene	937.2	50	1000	0	93.7	69 - 129	868.2	7.65	20	
1,2,3-Trichloropropane	937.5	50	1000	0	93.7	73 - 122	902.8	3.76	20	
1,2,4-Trichlorobenzene	956.4	50	1000	0	95.6	69 - 130	905.1	5.51	20	
1,2,4-Trimethylbenzene	1143	50	1000	0	114	76 - 124	1094	4.42	20	
1,2-Dibromo-3-chloropropane	843.7	50	1000	0	84.4	62 - 128	804.1	4.8	20	
1,2-Dibromoethane	1012	50	1000	0	101	77 - 121	990.6	2.15	20	
1,2-Dichlorobenzene	1040	50	1000	0	104	80 - 119	999.5	3.95	20	
1,2-Dichloroethane	1133	50	1000	79.85	105	73 - 128	1151	1.57	20	
1,2-Dichloropropane	1019	50	1000	0	102	78 - 122	1005	1.31	20	
1,3,5-Trimethylbenzene	1175	50	1000	0	118	75 - 124	1141	2.99	20	
1,3-Dichlorobenzene	1073	50	1000	0	107	80 - 119	1032	3.88	20	
1,3-Dichloropropane	1034	50	1000	0	103	80 - 119	1004	2.94	20	
1,4-Dichlorobenzene	1053	50	1000	0	105	79 - 118	1006	4.57	20	
2,2-Dichloropropane	1073	50	1000	0	107	60 - 139	1121	4.38	20	
2-Butanone	1649	100	2000	0	82.5	56 - 143	1574	4.7	20	
2-Chlorotoluene	1101	50	1000	0	110	79 - 122	1086	1.32	20	
2-Hexanone	1768	100	2000	0	88.4	57 - 139	1690	4.52	20	
4-Chlorotoluene	1127	50	1000	0	113	78 - 122	1108	1.64	20	
4-Isopropyltoluene	1222	50	1000	0	122	77 - 127	1177	3.78	20	
4-Methyl-2-pentanone	1856	100	2000	0	92.8	67 - 130	1774	4.55	20	
Acetone	1688	100	2000	0	84.4	39 - 160	1515	10.8	20	
Benzene	1048	50	1000	0	105	79 - 120	1054	0.589	20	
Bromobenzene	1049	50	1000	0	105	80 - 120	1003	4.48	20	
Bromochloromethane	923.9	50	1000	0	92.4	78 - 123	921.2	0.287	20	
Bromodichloromethane	1083	50	1000	0	108	79 - 125	1063	1.83	20	
Bromoform	1064	50	1000	0	106	66 - 130	1061	0.238	20	
Bromomethane	1113	50	1000	0	111	53 - 141	1185	6.24	20	

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061825-03MSD** Units: **ug/L** Analysis Date: **29-Jun-2023 15:33**
Client ID: **MW23_062623** Run ID: **VOA9_440247** SeqNo: **7394060** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	2097	100	2000	0	105	64 - 133	2138	1.93	20	
Carbon tetrachloride	1203	50	1000	0	120	72 - 136	1245	3.42	20	
Chlorobenzene	1084	50	1000	0	108	82 - 118	1083	0.0917	20	
Chloroethane	948.5	50	1000	0	94.9	60 - 138	998.3	5.11	20	
Chloroform	982.2	50	1000	0	98.2	79 - 124	967.2	1.53	20	
Chloromethane	792.8	50	1000	0	79.3	50 - 139	779.4	1.71	20	
cis-1,2-Dichloroethene	966.5	50	1000	0	96.6	78 - 123	994	2.81	20	
cis-1,3-Dichloropropene	966.1	50	1000	0	96.6	75 - 124	959.1	0.728	20	
Dibromochloromethane	1082	50	1000	0	108	74 - 126	1097	1.42	20	
Dibromomethane	1017	50	1000	0	102	79 - 123	1047	2.96	20	
Dichlorodifluoromethane	878.6	50	1000	0	87.9	32 - 152	893.1	1.63	20	
Ethylbenzene	1139	50	1000	0	114	79 - 121	1129	0.875	20	
Hexachlorobutadiene	1124	50	1000	0	112	66 - 134	1075	4.45	20	
Isopropylbenzene	1231	50	1000	0	123	72 - 131	1215	1.24	20	
m,p-Xylene	2372	100	2000	0	119	80 - 121	2376	0.163	20	
Methylene chloride	1005	100	1000	0	101	74 - 124	994.4	1.09	20	
Naphthalene	925.4	50	1000	0	92.5	61 - 128	811.7	13.1	20	
n-Butylbenzene	1203	50	1000	0	120	75 - 128	1159	3.7	20	
n-Propylbenzene	1192	50	1000	0	119	76 - 126	1139	4.58	20	
o-Xylene	1143	50	1000	0	114	78 - 122	1142	0.134	20	
sec-Butylbenzene	1217	50	1000	0	122	77 - 126	1171	3.83	20	
Styrene	1171	50	1000	0	117	78 - 123	1161	0.854	20	
tert-Butylbenzene	1200	50	1000	0	120	78 - 124	1150	4.23	20	
Tetrachloroethene	1199	50	1000	0	120	74 - 129	1207	0.625	20	
Toluene	1109	50	1000	0	111	80 - 121	1085	2.12	20	
trans-1,2-Dichloroethene	1033	50	1000	0	103	75 - 124	1027	0.615	20	
trans-1,3-Dichloropropene	971.1	50	1000	0	97.1	73 - 127	947	2.51	20	
Trichloroethene	3563	50	1000	2606	95.8	79 - 123	3625	1.72	20	
Trichlorofluoromethane	1167	50	1000	0	117	65 - 141	1188	1.81	20	
Vinyl chloride	966.4	50	1000	0	96.6	58 - 137	990.6	2.47	20	
Surr: 1,2-Dichloroethane-d4	*2532*	*50*	*2500*	*0*	*101*	*81 - 118*	*2589*	*2.23*	*20*	
Surr: 4-Bromofluorobenzene	*2523*	*50*	*2500*	*0*	*101*	*85 - 114*	*2564*	*1.59*	*20*	
Surr: Dibromofluoromethane	*2493*	*50*	*2500*	*0*	*99.7*	*80 - 119*	*2493*	*0.0188*	*20*	
Surr: Toluene-d8	*2723*	*50*	*2500*	*0*	*109*	*89 - 112*	*2704*	*0.711*	*20*	

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

QC BATCH REPORT

Batch ID:	R440247 (0)	Instrument:	VOA9	Method:	VOLATILES ORGANICS BY METHOD 8260C

The following samples were analyzed in this batch: HS23061825-03 HS23061825-04 HS23061825-09

ALS Houston, US Date: 21-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: **HS23061825**

QUALIFIERS, ACRONYMS, UNITS

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

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

Unit Reported	Description
mg/L	Milligrams per Liter

ALS Houston, US Date: 21-Jul-23

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; 2022-2023	31-Jul-2023
Louisiana	03087-2023	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	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 21-Jul-23

Sample Receipt Checklist

Work Order ID: HS23061825 **Date/Time Received:** 27-Jun-2023 09:40

Client Name: Bhate Environmental **Received by:** Malcolm Burleson

Completed By: /S/ Nilesh D. Ranchod (eSignature) 27-Jun-2023 12:43 (Date/Time) **Reviewed by:** (eSignature) (Date/Time)

Matrices: **Water** Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	2 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Samplers name present on COC?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☐	No ☑	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	2.6C/2.5C UC/C	IR 31
Cooler(s)/Kit(s):	Black	
Date/Time sample(s) sent to storage:	06/27/2023 13:35	

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

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

bhate Environmental Associates

1608 13th Avenue South, Suite 300
Birmingham Alabama 35205
Tel: 205-918-4000
Fax: 205-918-4050

Chain of Custody and Analytical Request

Page: of

Project/Phase No: JVPCIBH.0001

COC Number(1):

LIMS Number:

Facility/Base I.D.: LHAAP

Project/Site Name: LHAAP / Site 18/24

Client Name:

Collected by: Scott Beesinger

Sample Analysis Requested [3] | Quality Assurance Samples [4]

Field Sample ID (30 Character Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code [2]	Sample Number [3]	Sample Matrix [4]	Number of containers	VOC	PERCHLORATE	TOTAL METALS	1, 4 - DIOXANE	Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Comments
125_062623	26-Jun-2023	0105	-	N		WG	5	X	X	X					
mw3_062623	26-Jun-2023	0750	-	N		WG	5	X	X	X					
mw23_062623	26-Jun-2023	0835	-	N		WG	4	X	X						
mw23_062623_MS	26-Jun-2023	0835		MS		WG	4	X	X						
mw23_062623_MSD	26-Jun-2023	0835		SD		WG	4	X	X						
mw9_062623	26-Jun-2023	0920	-	N		WG	6	X	X	X	X				
mw13_062623	26-Jun-2023	1005	-	N		WG	5	X	X	X					
mw13_062623_MS	26-Jun-2023	1005	-	MS		WG	5	X	X	X					
mw13_062623_MSD	26-Jun-2023	1005	-	SD		WG	5	X	X	X					
FOZ_062623	26-Jun-2023	1050	-	N		WG	4	X	X						
18ww10_062623	26-Jun-2023	1155	-	N		WG	5	X	X		X				

COMMENTS: STANDARD TAT

Bhate Environmental Associates, Inc.
LHAAP 18 24
HS23061825

Custody Transfer Information Signed by Laboratory

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1. Scott Beesinger	6/26/23	1400	1.	06/27/2023	0945
2.			2.		
3.			3.		

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: Shipped No.:

Method of Shipment:

Fed Ex Airbill Number:

Analytical Lab: ALS 3650 Stranglit Rd., Suite 210 Houston, TX 77099 (281) 530-5656

ATTN: Dave Wassey Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date collected + custody number (e.g. 09-01-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-d) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-a)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Client should ensure sample number is entered on the sample label and the sample number associated with the sample (01, 02, etc.) (e.g. Equipment blank collected / rinsed after MW-1 on 10/10/99 will be designated 10 1099 01 in the Equipment Blank Lot Control

ALS

01205391

bhate

1608 13th Avenue South, Suite 300
Birmingham Alabama 35205
Tel: 205-918-4000
Fax: 205-918-4050

Chain of Custody and Analytical Request

Page: ____ of ____

Project/Phase No: JVPCBH.0001

COC Number(1): ____

LIMS Number: ____

Facility/Base I.D.: LHAAP

Project/Site Name: LHAAP / Site 18/24

Client Name:

Collected by: Scott Beesinger

Field Sample ID (30 Character Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (3)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOC	PERCHLORATE	TOTAL METALS	1,4 - DIOXANE							Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Duplicate
MW17_062623	26-Jun-2023	1220	-	N		WG	2		X		X										
MW16_062623	26-Jun-2023	1305	-	N		WG	5	X	X		X										
Trip Blank	26-Jun-2023		-	TB		W	2	X													
			-																		
			-																		
			-																		
			-																		
			-																		
			-																		
			-																		
			-																		

Sample Analysis Requested (5) | Quality Assurance Samples (6)

HS23061825

Bhate Environmental Associates, Inc.
LHAAP 18 24

COMMENTS: STANDARD TAT

Custody Transfer(s) Prior to Receipt by Laboratory

Relinquished By (Signed)	Date	Time	Received by (Signed)	Date	Time
1. Scott Beesinger	6/26/23	1900	1.	06272023	0940
2.			2.		
3.			3.		

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: ____ Shipped

Method of Shipment: ____

Fed Ex ____ Airbill Number: ____

Analytical Lab: ALS 10450 Stancliff Rd. Suite 210 Houston TX 77099 (281) 530-5656

ATTN: Dana Wanzley Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date collected + custody number (e.g. 09-01-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-t) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

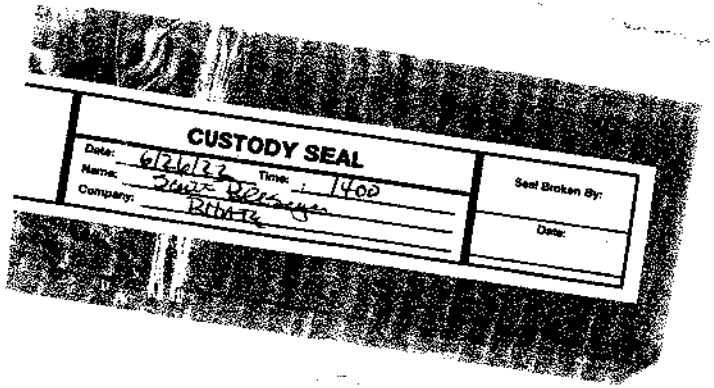
3.) Sample Number: Unique sample number collected from a particular location per day, (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

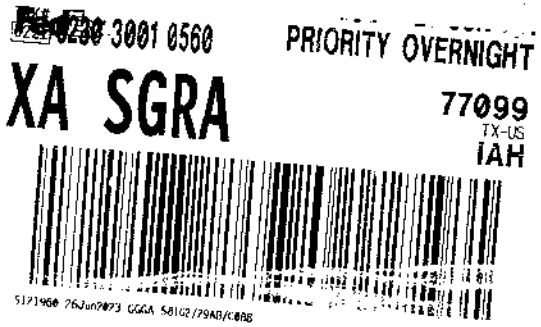
4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples: Ambient and the sample number associated with the sample (01, 02, etc) for FD, Equipment blank collected in association with MW-1 on 10/10/99 will be designated 101099 in the Equipment Blank Lot Control

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


CUSTODY SEAL
Date:
Time:
Name:
Company:
Seal Broken By:
Date:


3001 0560
PRIORITY OVERNIGHT
XA SGRA
77099
TX-US
IAH

June 30, 2023 Service Request No:E2300614

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

Laboratory Results for: HS23061825

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2023
For your reference, these analyses have been assigned our service request number **E2300614.**

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

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

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

Certificate of Analysis

ALS Environmental - Houston 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	**Service Request No.:**	E2300614
Project:	HS23061825	**Date Received:**	06/27/23
Sample Matrix:	Water		

CASE NARRATIVE

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

Sample Receipt

Nine samples were received for analysis at ALS Environmental in Houston on 06/27/23.

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:

EQ2300317: 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 **Service Request:**E2300614
Project: HS23061825

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300614-001	125_062623	6/26/2023	0705
E2300614-002	MW3_062623	6/26/2023	0750
E2300614-003	MW23_062623	6/26/2023	0835
E2300614-004	MW9_062623	6/26/2023	0920
E2300614-005	MW13_062623	6/26/2023	1005
E2300614-006	CO2_062623	6/26/2023	1050
E2300614-007	18WW10_062623	6/26/2023	1135
E2300614-008	MW17_062623	6/26/2023	1220
E2300614-009	MW16_062623	6/26/2023	1305

Service Request Summary

Folder #: **E2300614**
Client Name: ALS Environmental - US
Project Name: HS23061825
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: 06/27/23
Internal Due Date: 7/12/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23061825
EDD: BASIC_WQC_CASNo_LOD

13 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300614-001	125_062623	Ground Water	06/26/23 0705	**IV**
E2300614-002	MW3_062623	Ground Water	06/26/23 0750	**IV**
E2300614-003	MW23_062623	Ground Water	06/26/23 0835	**IV**
E2300614-004	MW9_062623	Ground Water	06/26/23 0920	**IV**
E2300614-005	MW13_062623	Ground Water	06/26/23 1005	**IV**
E2300614-006	CO2_062623	Ground Water	06/26/23 1050	**IV**
E2300614-007	18WW10_062623	Ground Water	06/26/23 1135	**IV**
E2300614-008	MW17_062623	Ground Water	06/26/23 1220	**IV**
E2300614-009	MW16_062623	Ground Water	06/26/23 1305	**IV**

Service Request Summary

Folder #:	**E2300614**
Client Name:	ALS Environmental - US
Project Name:	HS23061825
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:	06/27/23
Internal Due Date:	7/12/2023
QAP:	LAB QAP
Qualifier Set:	Lab Standard
Formset:	Lab Standard
Merged?:	Y
Report to MDL?:	Y
P.O. Number:	HS23061825
EDD:	BASIC_WQC_CASNo_LOD

13 120 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 >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

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

ALS Laboratory Group

Acronyms

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

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

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793_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
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Michigan Depratment 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 Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	TN04016-2023	4/30/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

ALS

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

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

Subcontract Chain of Custody

SAMPLING STATE: Texas **COC ID:** 22172

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 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:	HS23061825
TSR:	Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23061825-01**	**125_062623**	**Groundwater**	**26 Jun 2023 07:05**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
2.	**HS23061825-02**	**MW3_062623**	**Groundwater**	**26 Jun 2023 07:50**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
3.	**HS23061825-03**	**MW23_062623**	**Groundwater**	**26 Jun 2023 08:35**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
4.	**HS23061825-04**	**MW9_062623**	**Groundwater**	**26 Jun 2023 09:20**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
5.	**HS23061825-05**	**MW13_062623**	**Groundwater**	**26 Jun 2023 10:05**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
6.	**HS23061825-06**	**CO2_062623**	**Groundwater**	**26 Jun 2023 10:50**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
7.	**HS23061825-07**	**18WW10_062623**	**Groundwater**	**26 Jun 2023 11:35**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
8.	**HS23061825-08**	**MW17_062623**	**Groundwater**	**26 Jun 2023 12:20**

Subcontract Chain of Custody

SAMPLING STATE: **Texas** **COC ID:** **22172**

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
9.	**HS23061825-09**	**MW16_062623**	**Groundwater**	**26 Jun 2023 13:05**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 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: NIR Date/Time:

Received By: Date/Time: 6-27-23 1961

Cooler ID(s): Temperature(s):

ALS Environmental

Cooler Receipt Form

Project Chemist JL

Client/Project ALS

Thermometer ID IR31

Date/Time Received: 6.22.23 Initials: CG Date/Time Logged in: 6.22.23 Initials CG

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

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

3. Were custody seals on coolers? ○ Yes ☒ No
   Were they intact? ○ Yes ○ No ☒ N/A
   Were they signed and dated? ○ Yes ○ No ☒ N/A
   If yes, how many and where?

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

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

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
—		6.22.23	1500	CG	5.2	☒
						☐
						☐
						☐

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

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 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 sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

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

Sample Integrity (mandatory):

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

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

Temperature Requirement (varies by sample matrix):

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

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

Preparation Information Benchsheets

ALS Environmental - Houston 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#: 422284 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 6/28/23 11:04

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300614-001	125_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2300614-002	MW3_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2300614-003	MW23_062623	.02	6850/ClO4 DOD			Ground Water	10mL	
4	E2300614-004	MW9_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2300614-005	MW13_062623	.02	6850/ClO4 DOD			Ground Water	10mL	
6	E2300614-006	CO2_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300614-007	18WW10_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300614-008	MW17_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300614-009	MW16_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300616-001	MW22_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300616-002	18CPTMW06_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2300616-003	129_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2300616-004	MW6_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2300616-005	MW21_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2300616-006	109_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2300617-001	LH18/24-SP650_062723_AIX	.01	6850/ClO4 DOD			Water	10mL	
17	E2300617-002	LH18/24-SP650_062723_BIX	.01	6850/ClO4 DOD			Water	10mL	
18	EQ2300317-01	MB		6850/ClO4			Liquid	10mL	
19	EQ2300317-02	LCS		6850/ClO4			Liquid	10mL	
20	EQ2300317-03	DLCS		6850/ClO4			Liquid	10mL	
21	EQ2300317-04	MW23_062623 MS	.02	6850/ClO4 DOD			Liquid	10mL	
22	EQ2300317-05	MW23_062623 DMS	.02	6850/ClO4 DOD			Liquid	10mL	
23	EQ2300317-06	MW13_062623 MS	.02	6850/ClO4 DOD			Liquid	10mL	
24	EQ2300317-07	MW13_062623 DMS	.02	6850/ClO4 DOD			Liquid	10mL	
25	K2307221-001	LGAC-INF-062623	.01	6850/ClO4			Water	10mL	
26	K2307221-002	LGAC-INT1-062623	.01	6850/ClO4			Water	10mL	
27	K2307221-003	LGAC-INT2-062623	.01	6850/ClO4			Water	10mL	

Spiking Solutions

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

EQ2300317-02 1.00µL EQ2300317-02 1.00µL EQ2300317-03 1.00µL EQ2300317-03 1.00µL EQ2300317-04 1.00µL EQ2300317-05 1.00µL
EQ2300317-06 1.00µL EQ2300317-07 1.00µL

Preparation Information Benchsheet

Prep Run#: 422284 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 6/28/23 11:04

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	227244	Logbook Ref:	Perchlorate Internal Standard	Expires On:	07/31/2023

E2300614-001	100.00µL	E2300614-002	100.00µL	E2300614-003	100.00µL	E2300614-004	100.00µL	E2300614-005	100.00µL	E2300614-006	100.00µL
E2300614-007	100.00µL	E2300614-008	100.00µL	E2300614-009	100.00µL	E2300616-001	100.00µL	E2300616-002	100.00µL	E2300616-003	100.00µL
E2300616-004	100.00µL	E2300616-005	100.00µL	E2300616-006	100.00µL	E2300617-001	100.00µL	E2300617-002	100.00µL	EQ2300317-01	100.00µL
EQ2300317-01	100.00µL	EQ2300317-02	100.00µL	EQ2300317-02	100.00µL	EQ2300317-03	100.00µL	EQ2300317-03	100.00µL	EQ2300317-04	100.00µL
EQ2300317-05	100.00µL	EQ2300317-06	100.00µL	EQ2300317-07	100.00µL	K2307221-001	100.00µL	K2307221-002	100.00µL	K2307221-003	100.00µL

Preparation Steps

Step: Preparation
Started: 6/28/23 11:04
Finished: 6/28/23 12:02
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

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	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 0705
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	125_062623	**Units:**	µg/L
Lab Code:	E2300614-001	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**4680**		10.0	5.00	2.50	100	6/28/23	6/30/23 09:17	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 0750
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW3_062623	**Units:**	µg/L
Lab Code:	E2300614-002	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**2910**		10.0	5.00	2.50	100	6/28/23	6/30/23 09:23	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 0835
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW23_062623	**Units:**	µg/L
Lab Code:	E2300614-003	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**63500**		200	100	50.0	2000	6/28/23	6/30/23 11:19	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 0920
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW9_062623	**Units:**	µg/L
Lab Code:	E2300614-004	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**2490**		10.0	5.00	2.50	100	6/28/23	6/30/23 09:53	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1005
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW13_062623	**Units:**	µg/L
Lab Code:	E2300614-005	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0520**	J	0.100	0.0500	0.0250	1	6/28/23	6/30/23 11:24	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1050
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	CO2_062623	**Units:**	µg/L
Lab Code:	E2300614-006	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0962**	J	0.100	0.0500	0.0250	1	6/28/23	6/30/23 10:15	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1135
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	18WW10_062623	**Units:**	µg/L
Lab Code:	E2300614-007	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/28/23	6/30/23 10:20	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1220
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW17_062623	**Units:**	µg/L
Lab Code:	E2300614-008	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/28/23	6/30/23 10:26	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1305
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW16_062623	**Units:**	µg/L
Lab Code:	E2300614-009	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/28/23	6/30/23 10:31	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300317-01	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:19	422284	809096	

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	**Service Request:**	E2300614
Project:	HS23061825	**Date Analyzed:**	6/28/23
Sample Matrix:	Ground Water		

Lab Control Sample Summary

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

Analytical Method:	6850	**Units:**	µg/L
Prep Method:	Method	**Basis:**	NA
		Extraction Lot:	422284

	Lab Control Sample EQ2300317-02			Duplicate Lab Control Sample EQ2300317-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.110	0.100	110	0.104	0.100	104	84 - 119	5	15

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300317-02	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.110**		0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:24	422284	809096	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300317-03	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.104**		0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:30	422284	809096	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
		Date Analyzed:	6/30/23

Matrix Spike Summary

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

Sample Name:	MW23_062623	**Units:**	µg/L
Lab Code:	E2300614-003	**Basis:**	NA

Analytical Method: 6850
Prep Method: Method

		MW23_062623MS				MW23_062623DMS					
		Matrix Spike				**Duplicate Matrix Spike**					
		EQ2300317-04				EQ2300317-05					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	63500	66900	0.100	3417408#	66000	0.100	2558992#	84 - 119	1	15

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

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 0835
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW23_062623	**Units:**	µg/L
Lab Code:	EQ2300317-04	**Basis:**	NA
Run Type:	Matrix Spike		

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**66900**	E	0.100	0.0500	0.0250	1	6/28/23	6/30/23 09:34	422284	809342	*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 0835
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW23_062623	**Units:**	µg/L
Lab Code:	EQ2300317-05	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**66000**	E	0.100	0.0500	0.0250	1	6/28/23	6/30/23 09:39	422284	809342	*

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
		Date Analyzed:	6/30/23

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

Sample Name:	MW13_062623	**Units:**	µg/L
Lab Code:	E2300614-005	**Basis:**	NA

Analytical Method: 6850
Prep Method: Method

		MW13_062623MS				MW13_062623DMS					
		Matrix Spike				**Duplicate Matrix Spike**					
		EQ2300317-06				EQ2300317-07					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0520	0.153	0.100	101	0.168	0.100	116	84 - 119	9	15

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

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1005
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW13_062623	**Units:**	µg/L
Lab Code:	EQ2300317-06	**Basis:**	NA
Run Type:	Matrix Spike		

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.153**		0.100	0.0500	0.0250	1	6/28/23	6/30/23 10:04	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1005
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW13_062623	**Units:**	µg/L
Lab Code:	EQ2300317-07	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.168**		0.100	0.0500	0.0250	1	6/28/23	6/30/23 10:09	422284	809342	

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

20230629-809329

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/29/2023
Cal. Std. xp: 06/29/2023
ICAL ID: EC2300011

Mobile Phases : A:20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	PERCHLORATE1		20230629-001	Perchlorate6850c.lcm	1x	227245	6/29/2023 12:59
2	PERCHLORATE2		20230629-002	Perchlorate6850c.lcm	1x	227246	6/29/2023 13:05
3	PERCHLORATE3		20230629-003	Perchlorate6850c.lcm	1x	227247	6/29/2023 13:10
4	PERCHLORATE4		20230629-004	Perchlorate6850c.lcm	1x	227248	6/29/2023 13:16
5	PERCHLORATE5		20230629-005	Perchlorate6850c.lcm	1x	227249	6/29/2023 13:21
6	PERCHLORATE6		20230629-006	Perchlorate6850c.lcm	1x	227250	6/29/2023 13:27
7	PERCHLORATE7		20230629-007	Perchlorate6850c.lcm	1x	227251	6/29/2023 13:32
8	PERCHLORATE8		20230629-008	Perchlorate6850c.lcm	1x	227252	6/29/2023 13:38
9	PERCHLORATE9		20230629-009	Perchlorate6850c.lcm	1x	227253	6/29/2023 13:43
10	PERCHLORATE10		20230629-010	Perchlorate6850c.lcm	1x	227254	6/29/2023 13:49
11	PERCHLORATEICV		20230629-011	Perchlorate6850c.lcm	1x	227256	6/29/2023 13:55
12	IB		20230629-012	Perchlorate6850c.lcm	1x		6/29/2023 14:00
13	LODV		20230629-013	Perchlorate6850c.lcm	1x	227501	6/29/2023 14:06
14	ICS		20230629-014	Perchlorate6850c.lcm	1x	32103024	6/29/2023 14:11
15	CCV		20230629-015	Perchlorate6850c.lcm	1x	227251	6/29/2023 14:17
16	EQ2300312-01		20230629-016	Perchlorate6850c.lcm	1x		6/29/2023 14:22
17	EQ2300312-02		20230629-017	Perchlorate6850c.lcm	1x	DNU-RR	6/29/2023 14:28
18	EQ2300312-03		20230629-018	Perchlorate6850c.lcm	1x		6/29/2023 14:33
19	E2300606-001		20230629-019	Perchlorate6850c.lcm	10x		6/29/2023 14:39
20	EQ2300312-04		20230629-020	Perchlorate6850c.lcm	1x		6/29/2023 14:44
21	EQ2300312-05		20230629-021	Perchlorate6850c.lcm	1x		6/29/2023 14:50
22	E2300606-002		20230629-022	Perchlorate6850c.lcm	5x		6/29/2023 14:55
23	E2300606-003		20230629-023	Perchlorate6850c.lcm	10x		6/29/2023 15:01
24	E2300606-004		20230629-024	Perchlorate6850c.lcm	10x		6/29/2023 15:06
25	E2300606-005		20230629-025	Perchlorate6850c.lcm	1x		6/29/2023 15:12
26	CCV		20230629-026	Perchlorate6850c.lcm	1x	227251	6/29/2023 15:17
27	E2300606-006		20230629-027	Perchlorate6850c.lcm	1x		6/29/2023 15:23
28	E2300606-007		20230629-028	Perchlorate6850c.lcm	500x		6/29/2023 15:28
29	E2300606-008		20230629-029	Perchlorate6850c.lcm	100x		6/29/2023 15:34
30	EQ2300312-06		20230629-030	Perchlorate6850c.lcm	100x		6/29/2023 15:40
31	EQ2300312-07		20230629-031	Perchlorate6850c.lcm	100x		6/29/2023 15:45
32	E2300606-009		20230629-032	Perchlorate6850c.lcm	1x		6/29/2023 15:53
33	E2300610-001		20230629-033	Perchlorate6850c.lcm	10000x		6/29/2023 15:58
34	E2300610-002		20230629-034	Perchlorate6850c.lcm	1x		6/29/2023 16:04
35	E2300610-003		20230629-035	Perchlorate6850c.lcm	1x		6/29/2023 16:09
36	E2300610-004		20230629-036	Perchlorate6850c.lcm	1x		6/29/2023 16:15
37	CCV		20230629-037	Perchlorate6850c.lcm	1x	227251	6/29/2023 16:21

20230629-809329

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/29/2023
Cal. Std. xp: 06/29/2023
ICAL ID: EC2300011

Mobile Phases : A:20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	E2300610-005		20230629-038	Perchlorate6850c.lcm	1x		6/29/2023 16:26
39	E2300610-006		20230629-039	Perchlorate6850c.lcm	1x		6/29/2023 16:32
40	E2300610-007		20230629-040	Perchlorate6850c.lcm	1x		6/29/2023 16:37
41	E2300610-008		20230629-041	Perchlorate6850c.lcm	1x	DNU-D	6/29/2023 16:43
42	EQ2300312-08		20230629-042	Perchlorate6850c.lcm	1x		6/29/2023 16:48
43	EQ2300312-09		20230629-043	Perchlorate6850c.lcm	1x		6/29/2023 16:54
44	E2300611-001		20230629-044	Perchlorate6850c.lcm	1x		6/29/2023 16:59
45	E2300611-002		20230629-045	Perchlorate6850c.lcm	1x		6/29/2023 17:05
46	E2300611-003		20230629-046	Perchlorate6850c.lcm	1x		6/29/2023 17:10
47	E2300611-004		20230629-047	Perchlorate6850c.lcm	1x	DNU-D	6/29/2023 17:16
48	CCV		20230629-048	Perchlorate6850c.lcm	1x	227251	6/29/2023 17:21
49	E2300611-005		20230629-049	Perchlorate6850c.lcm	1x		6/29/2023 17:27
50	E2300611-006		20230629-050	Perchlorate6850c.lcm	1x	DNU-D	6/29/2023 17:32
51	E2300611-007		20230629-051	Perchlorate6850c.lcm	1x	DNU-D	6/29/2023 17:38
52	E2300611-008		20230629-052	Perchlorate6850c.lcm	1x		6/29/2023 17:43
53	E2300611-009		20230629-053	Perchlorate6850c.lcm	1x		6/29/2023 17:49
54	E2300611-010		20230629-054	Perchlorate6850c.lcm	1x		6/29/2023 17:55
55	CCV		20230629-055	Perchlorate6850c.lcm	1x	227251	6/29/2023 18:06

Initial Calibration - Detailed Report

Calibration ID: EC2300011 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300011-01	PERCHLORATE1	20230629-001	06/29/2023 12:59
02	EC2300011-02	PERCHLORATE2	20230629-002	06/29/2023 13:05
03	EC2300011-03	PERCHLORATE3	20230629-003	06/29/2023 13:10
04	EC2300011-04	PERCHLORATE4	20230629-004	06/29/2023 13:16
05	EC2300011-05	PERCHLORATE5	20230629-005	06/29/2023 13:21
06	EC2300011-06	PERCHLORATE6	20230629-006	06/29/2023 13:27
07	EC2300011-07	PERCHLORATE7	20230629-007	06/29/2023 13:32
08	EC2300011-08	PERCHLORATE8	20230629-008	06/29/2023 13:38
09	EC2300011-09	PERCHLORATE9	20230629-009	06/29/2023 13:43
10	EC2300011-10	PERCHLORATE10	20230629-010	06/29/2023 13:49

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

Perchlorate **Average RF** **RSD = 2.809** **Average RF = 0.1625**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1678	02	0.5000	0.1574	03	0.7000	0.1599	04	1.0000	0.1567
05	2.0000	0.1596	06	5.0000	0.1641	07	10.0000	0.1704	08	20.0000	0.1667
09	30.0000	0.1608	10	50.0000	0.1619						

Analyte

Perchlorate RSE = 2.81

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.103	3.2	02	0.5000	0.484	-3.1	03	0.7000	0.689	-1.6
04	1.0000	0.964	-3.6	05	2.0000	1.96	-1.8	06	5.0000	5.05	1.0
07	10.0000	10.5	4.8	08	20.0000	20.5	2.6	09	30.0000	29.7	-1.1
10	50.0000	49.8	-0.4								

Initial Calibration Verification Summary Report

Calibration ID:	EC2300011	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230629-011	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300011-11	T	Average RF	10	9.913	ng/mL	-0.9	<= 15

Insight Report

Printed at 6/29/2023 2:17:05 PM

Method File: I:\LCMS01\DATA\20230628\06282023.lcm
Project File: I:\LCMS01\DATA\20230628\06282023.damlp

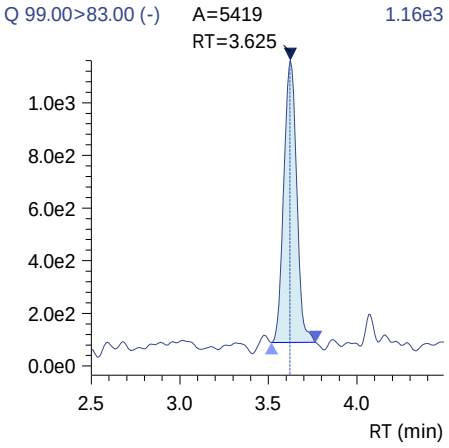
PERCHLORATE1

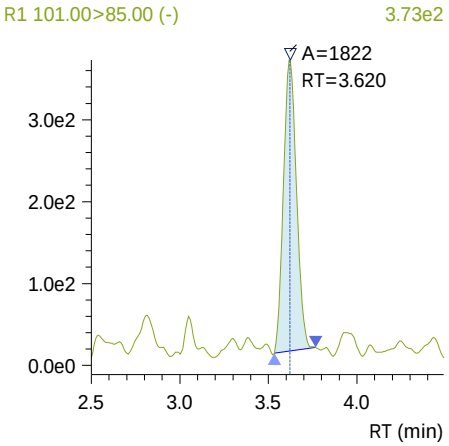
Sample ID: PERCHLORATE1
Date Acquired: 6/29/2023 12:59:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-001.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.625	5419	323018	0.1032	ng/mL	101.00 >85.00	33.63	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.617	323018	323018	1.0000	ng/mL	----	----	

Perchlorate

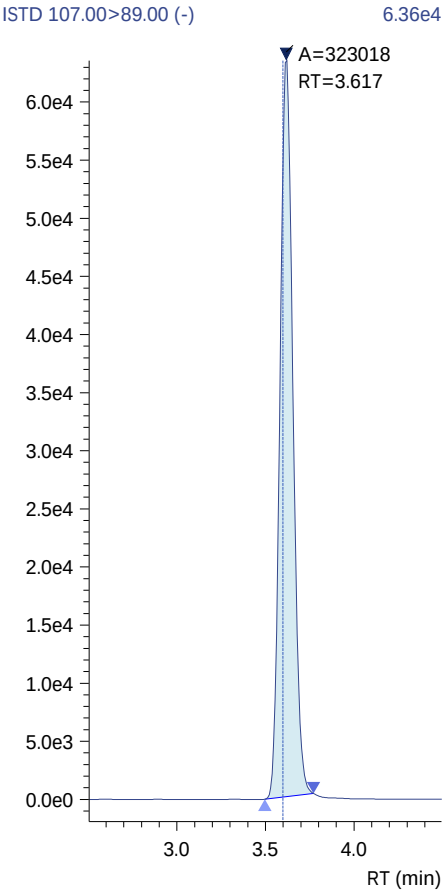
Conc 0.1032
R#1 33.63 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

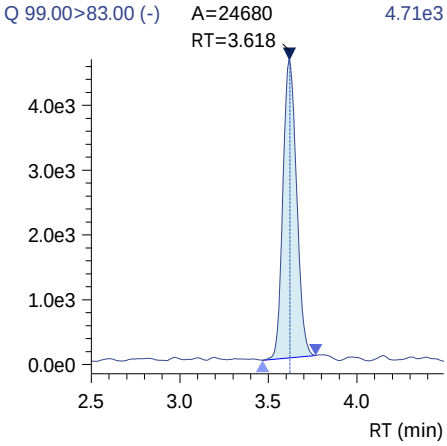
PERCHLORATE2

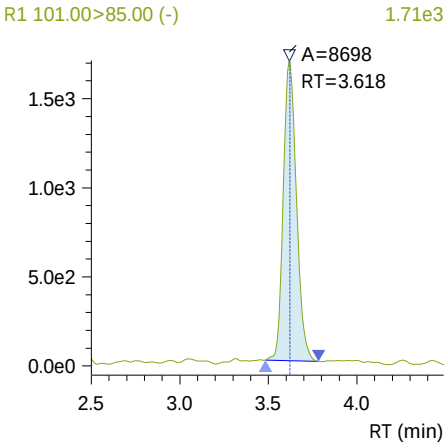
Sample ID: PERCHLORATE2
Date Acquired: 6/29/2023 1:05:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-002.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.618	24680	313519	0.4844	ng/mL	101.00 >85.00	35.24	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.618	313519	313519	1.0000	ng/mL	----	----	

Perchlorate

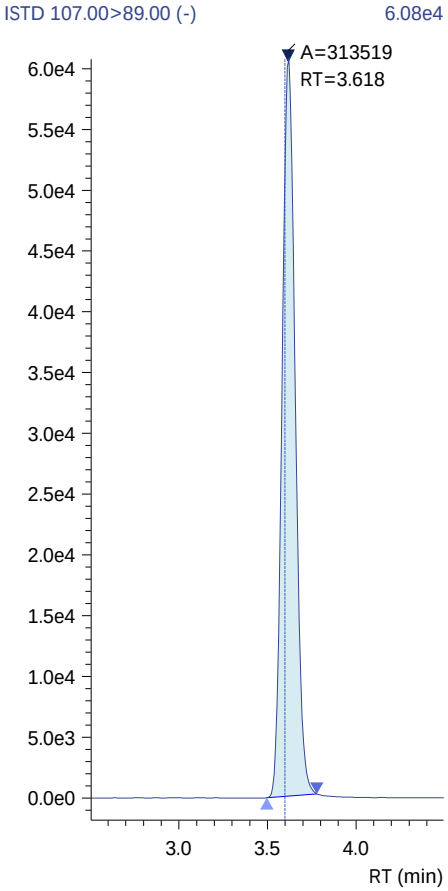
Conc 0.4844
R#1 35.24 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

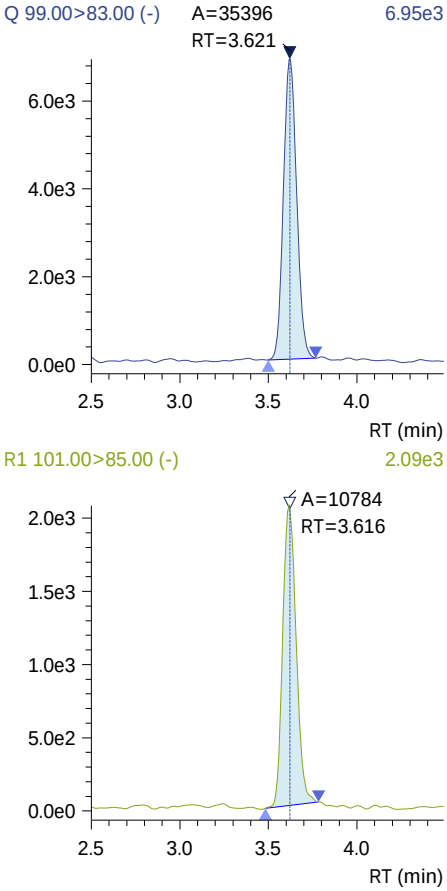
PERCHLORATE3

Sample ID: PERCHLORATE3
Date Acquired: 6/29/2023 1:10:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-003.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.621	35396	316311	0.6886	ng/mL	101.00 >85.00	30.47	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.618	316311	316311	1.0000	ng/mL	----	----	

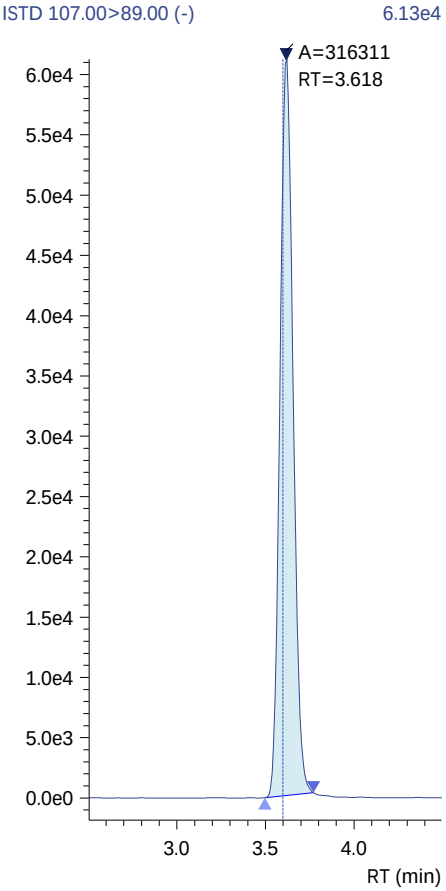
Perchlorate

Conc 0.6886
R#1 30.47 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

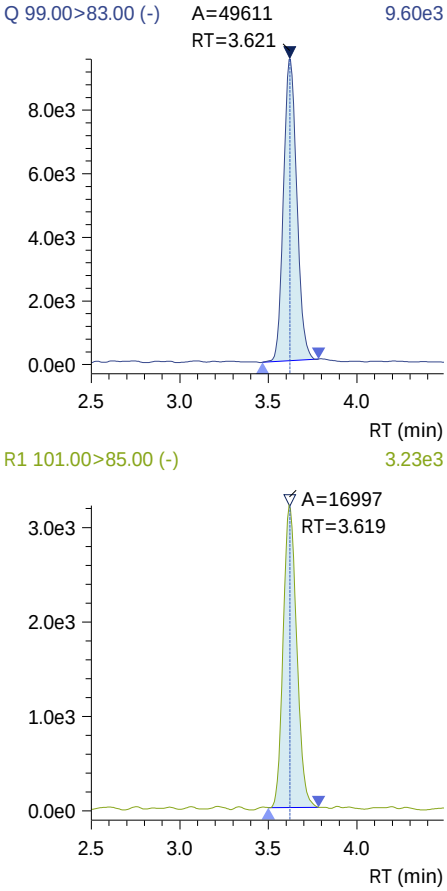
PERCHLORATE4

Sample ID: PERCHLORATE4
Date Acquired: 6/29/2023 1:16:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-004.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.621	49611	316580	0.9643	ng/mL	101.00 >85.00	34.26	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.618	316580	316580	1.0000	ng/mL	----	----	

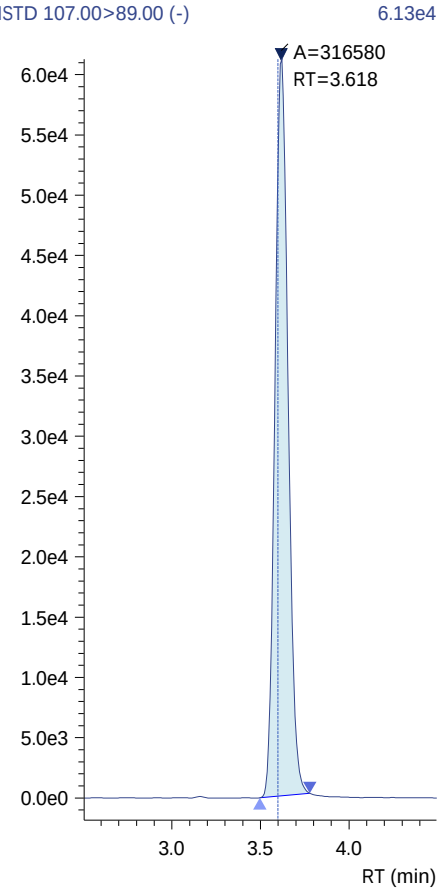
Perchlorate

Conc 0.9643
R#1 34.26 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

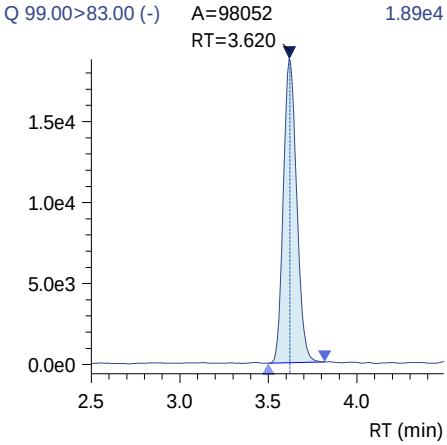
PERCHLORATE5

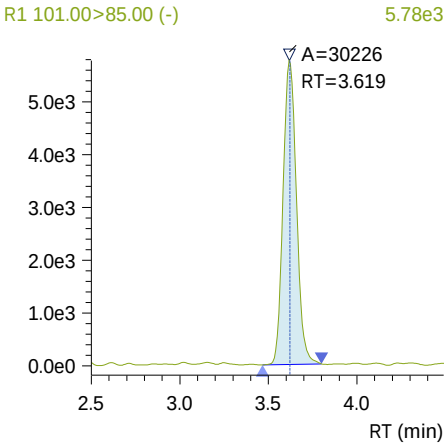
Sample ID: PERCHLORATE5
Date Acquired: 6/29/2023 1:21:50 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-005.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.620	98052	307162	1.9642	ng/mL	101.00 >85.00	30.83	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.617	307162	307162	1.0000	ng/mL	----	----	

Perchlorate

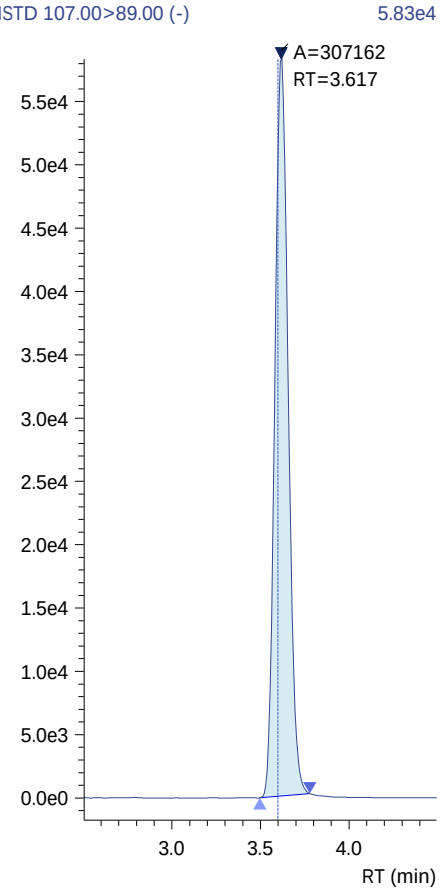
Conc 1.9642
R#1 30.83 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

PERCHLORATE6

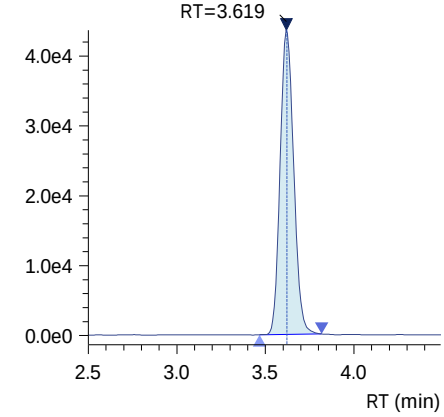
Sample ID: PERCHLORATE6
Date Acquired: 6/29/2023 1:27:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-006.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.619	232011	282827	5.0477	ng/mL	101.00 >85.00	31.17	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.617	282827	282827	1.0000	ng/mL	----	----	

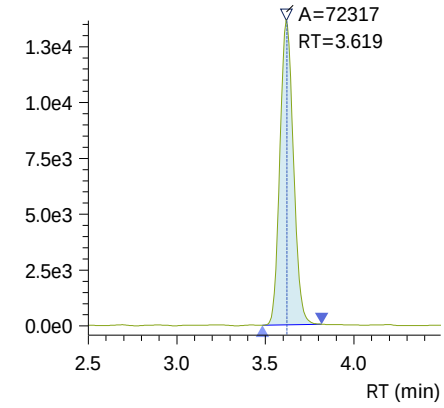
Perchlorate

Conc 5.0477
R#1 31.17 (32.02)

Q 99.00>83.00 (-) A=232011 RT=3.619 4.37e4



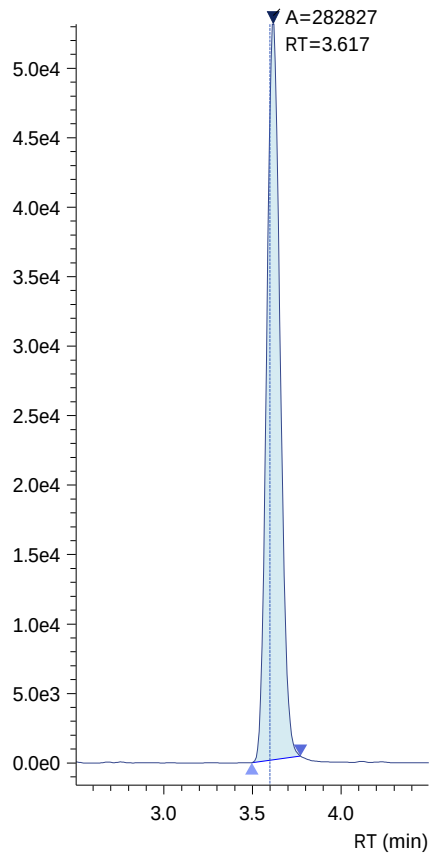
R1 101.00>85.00 (-) 1.37e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.32e4



Insight Report

Printed at 6/29/2023 2:17:05 PM

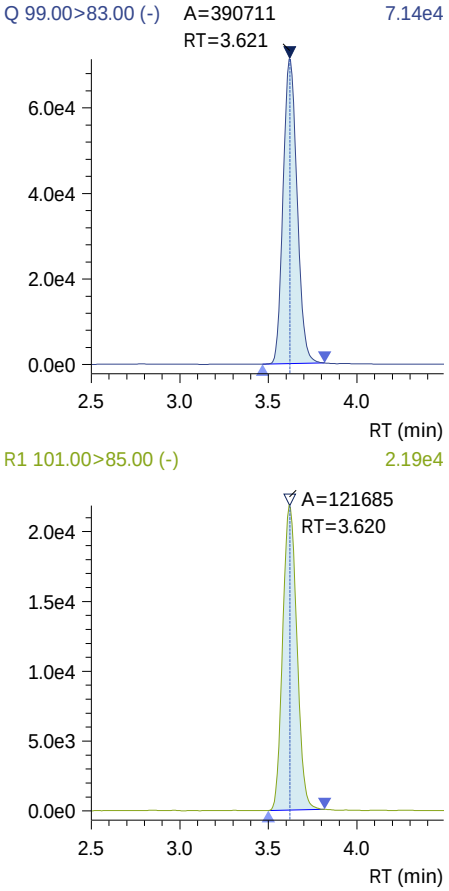
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 6/29/2023 1:32:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-007.lcd
Vial: 3 | 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	3.621	390711	229327	10.48 35	ng/mL	101.00 >85.00	31.14	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.616	229327	229327	1.0000	ng/mL	----	----	

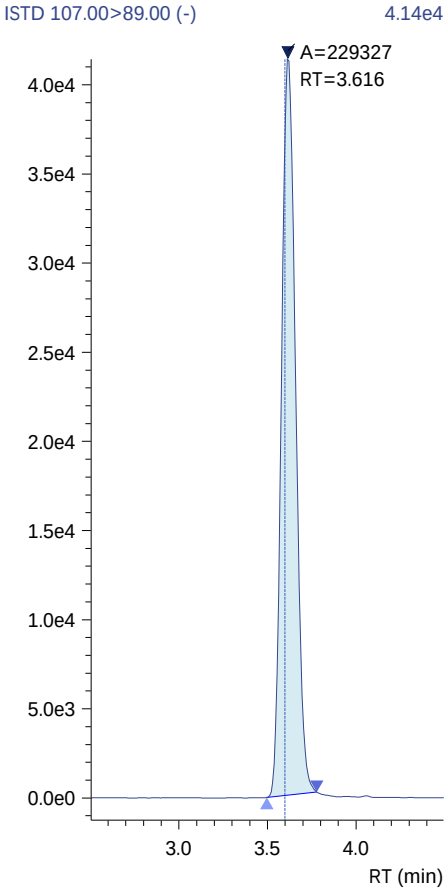
Perchlorate

Conc 10.4835
R#1 31.14 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

PERCHLORATE8

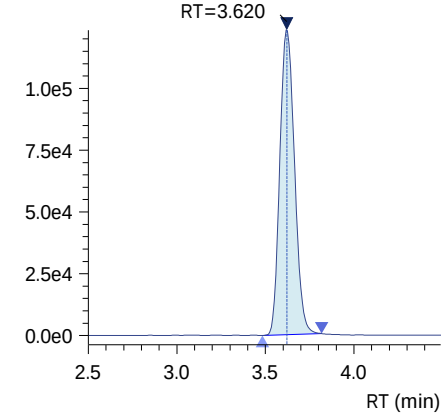
Sample ID: PERCHLORATE8
Date Acquired: 6/29/2023 1:38:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-008.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.620	710430	213093	20.5144	ng/mL	101.00 >85.00	31.25	22.41-41.62
Sodium Perchlorate-18O4_IS	Auto	3.615	213093	213093	1.0000	ng/mL	----	----	

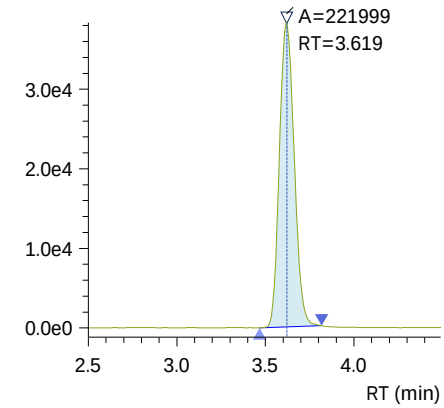
Perchlorate

Conc 20.5144
R#1 31.25 (32.02)

Q 99.00>83.00 (-) A=710430 RT=3.620 1.24e5



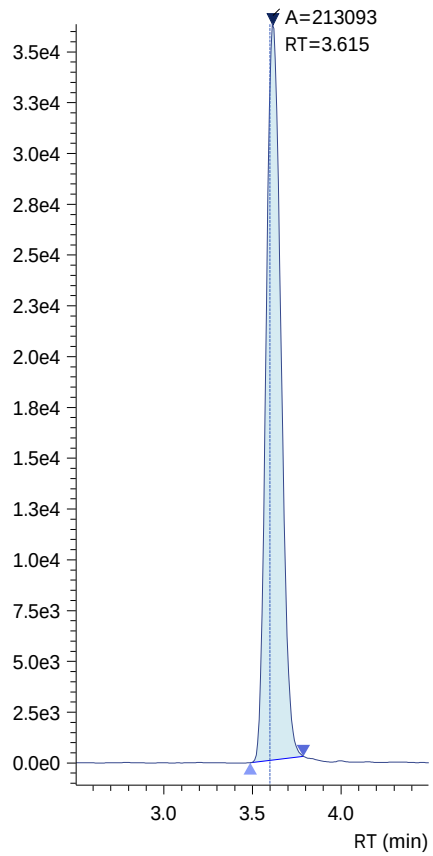
R1 101.00>85.00 (-) 3.84e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.64e4



Insight Report

Printed at 6/29/2023 2:17:05 PM

PERCHLORATE9

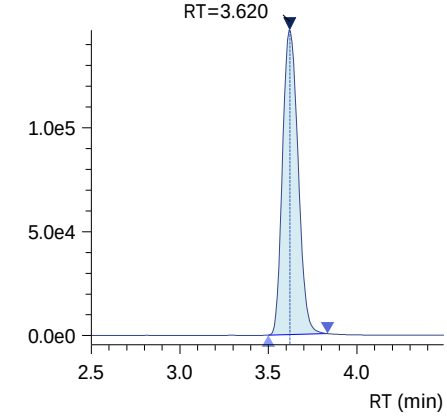
Sample ID: PERCHLORATE9
Date Acquired: 6/29/2023 1:43:53 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-009.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.620	896468	185851	29.6808	ng/mL	101.00 >85.00	31.06	22.41-41.62
Sodium Perchlorate-18O4_IS	Auto	3.614	185851	185851	1.0000	ng/mL	----	----	

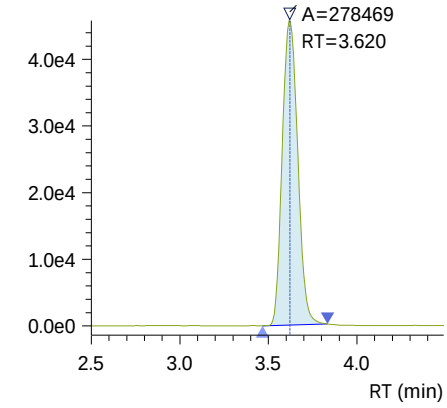
Perchlorate

Conc 29.6808
R#1 31.06 (32.02)

Q 99.00>83.00 (-) A=896468 1.47e5



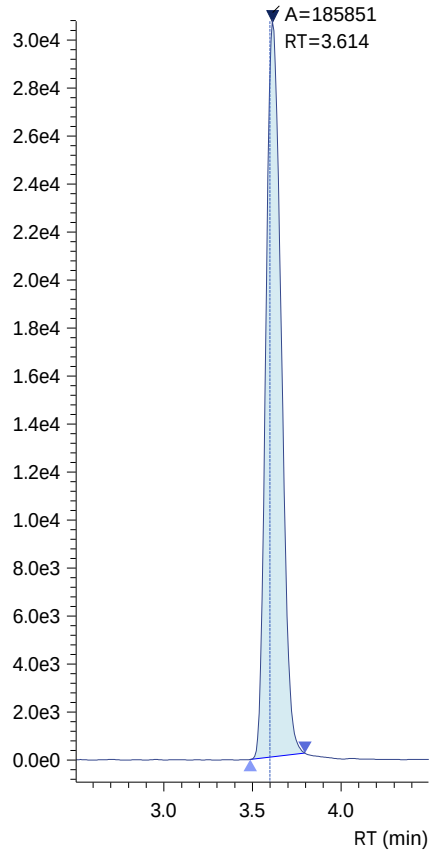
R1 101.00>85.00 (-) 4.58e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.08e4



Insight Report

Printed at 6/29/2023 2:17:05 PM

PERCHLORATE10

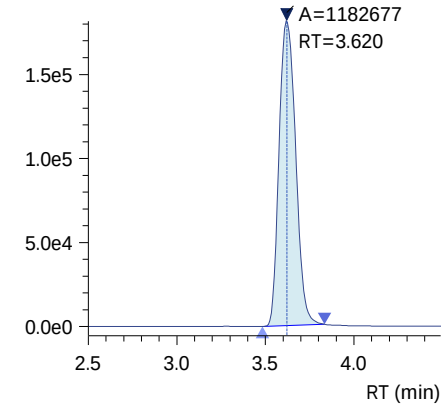
Sample ID: PERCHLORATE10
Date Acquired: 6/29/2023 1:49:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-010.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.620	1182677	146135	49.79 86	ng/mL	101.00 >85.00	30.89	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.614	146135	146135	1.0000	ng/mL	----	----	

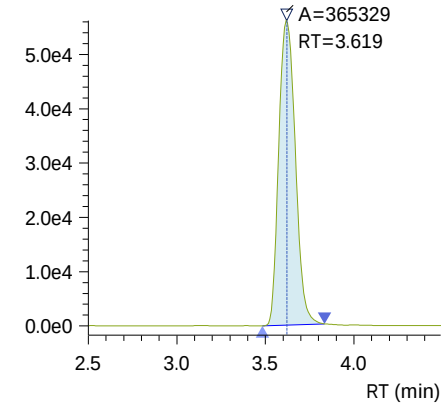
Perchlorate

Conc 49.7986
R#1 30.89 (32.02)

Q 99.00>83.00 (-) 1.82e5



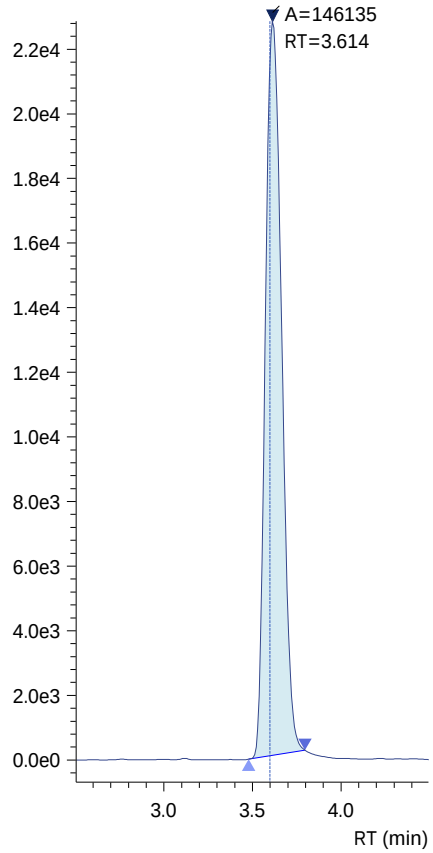
R1 101.00>85.00 (-) 5.62e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.29e4



Insight Report

Printed at 6/29/2023 2:17:05 PM

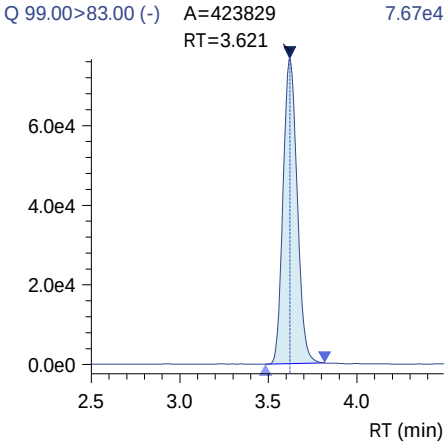
PERCHLORATEICV

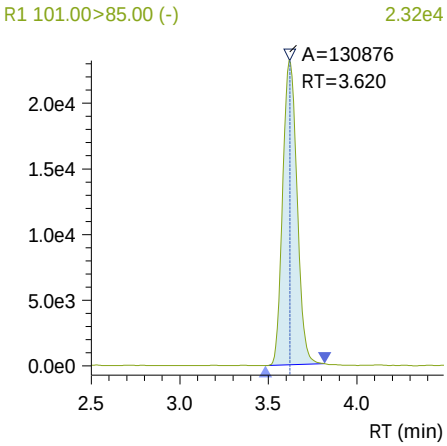
Sample ID: PERCHLORATEICV
Date Acquired: 6/29/2023 1:55:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-011.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.621	423829	263091	9.9127	ng/mL	101.00 >85.00	30.88	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.617	263091	263091	1.0000	ng/mL	----	----	

Perchlorate

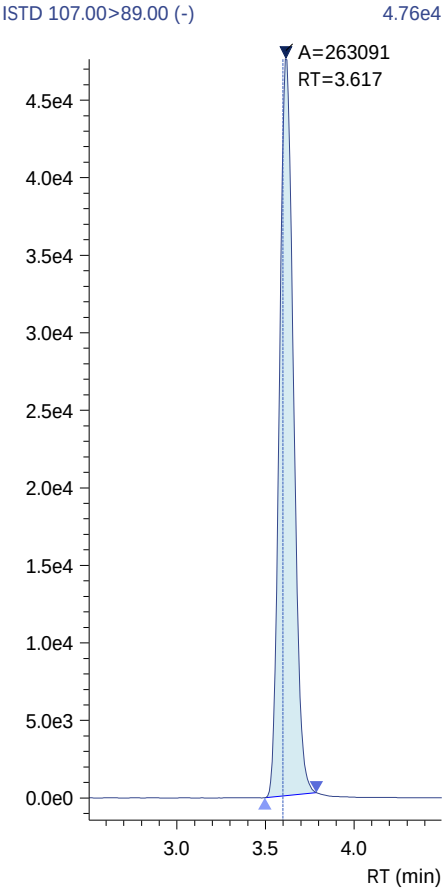
Conc 9.9127
R#1 30.88 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Chromatograms and Selected Ion Monitoring

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

20230628-809096

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/23/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300010

Mobile Phases : **A:**20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230628-001	Perchlorate6850c.lcm	1x		6/28/2023 11:41
2	LODV		20230628-002	Perchlorate6850c.lcm	1x	227501	6/28/2023 11:47
3	ICS		20230628-003	Perchlorate6850c.lcm	1x	32103024	6/28/2023 13:39
4	CCV		20230628-004	Perchlorate6850c.lcm	1x	227251	6/28/2023 13:45
5	EQ2300317-01		20230628-005	Perchlorate6850c.lcm	1x		6/28/2023 14:19
6	EQ2300317-02		20230628-006	Perchlorate6850c.lcm	1x		6/28/2023 14:24
7	EQ2300317-03		20230628-007	Perchlorate6850c.lcm	1x		6/28/2023 14:30
8	E2300617-001		20230628-008	Perchlorate6850c.lcm	1x		6/28/2023 14:36
9	E2300617-002		20230628-009	Perchlorate6850c.lcm	1x	DNU-D	6/28/2023 14:42
10	K2307221-001		20230628-010	Perchlorate6850c.lcm	1x		6/28/2023 14:47
11	K2307221-002		20230628-011	Perchlorate6850c.lcm	1x		6/28/2023 14:53
12	K2307221-003		20230628-012	Perchlorate6850c.lcm	1x		6/28/2023 15:04
13	E2300617-002X100		20230628-013	Perchlorate6850c.lcm	1x		6/28/2023 15:14
14	CCV		20230628-014	Perchlorate6850c.lcm	1x	227251	6/28/2023 15:20

20230630-809342

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/29/2023
Cal. Std. xp: 06/29/2023
ICAL ID: EC2300011

Mobile Phases : A:20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230630-001	Perchlorate6850c.lcm	1x		6/30/2023 8:18
2	LODV		20230630-002	Perchlorate6850c.lcm	1x	227501	6/30/2023 8:29
3	ICS		20230630-003	Perchlorate6850c.lcm	1x	32103024	6/30/2023 8:23
4	CCV		20230630-004	Perchlorate6850c.lcm	1x	227251	6/30/2023 8:34
5	E2300610-008		20230630-005	Perchlorate6850c.lcm	100x		6/30/2023 8:48
6	E2300611-004		20230630-006	Perchlorate6850c.lcm	1000x		6/30/2023 8:54
7	E2300611-006		20230630-007	Perchlorate6850c.lcm	2x		6/30/2023 8:59
8	E2300611-007		20230630-008	Perchlorate6850c.lcm	2x		6/30/2023 9:06
9	EQ2300312-02		20230630-009	Perchlorate6850c.lcm	1x		6/30/2023 9:12
10	E2300614-001		20230630-010	Perchlorate6850c.lcm	100x		6/30/2023 9:17
11	E2300614-002		20230630-011	Perchlorate6850c.lcm	100x		6/30/2023 9:23
12	E2300614-003		20230630-012	Perchlorate6850c.lcm	1000x	DNU-D	6/30/2023 9:28
13	EQ2300317-04		20230630-013	Perchlorate6850c.lcm	1x		6/30/2023 9:34
14	EQ2300317-05		20230630-014	Perchlorate6850c.lcm	1x		6/30/2023 9:39
15	CCV		20230630-015	Perchlorate6850c.lcm	1x	227251	6/30/2023 9:47
16	E2300614-004		20230630-016	Perchlorate6850c.lcm	100x		6/30/2023 9:53
17	E2300614-005		20230630-017	Perchlorate6850c.lcm	1x	DNU-RR	6/30/2023 9:58
18	EQ2300317-06		20230630-018	Perchlorate6850c.lcm	1x		6/30/2023 10:04
19	EQ2300317-07		20230630-019	Perchlorate6850c.lcm	1x		6/30/2023 10:09
20	E2300614-006		20230630-020	Perchlorate6850c.lcm	1x		6/30/2023 10:15
21	E2300614-007		20230630-021	Perchlorate6850c.lcm	1x		6/30/2023 10:20
22	E2300614-008		20230630-022	Perchlorate6850c.lcm	1x		6/30/2023 10:26
23	E2300614-009		20230630-023	Perchlorate6850c.lcm	1x		6/30/2023 10:31
24	E2300616-001		20230630-024	Perchlorate6850c.lcm	100x		6/30/2023 10:40
25	E2300616-002		20230630-025	Perchlorate6850c.lcm	1x		6/30/2023 10:46
26	CCV		20230630-026	Perchlorate6850c.lcm	1x	227251	6/30/2023 10:51
27	E2300616-003		20230630-027	Perchlorate6850c.lcm	100x		6/30/2023 10:57
28	E2300616-004		20230630-028	Perchlorate6850c.lcm	100x		6/30/2023 11:02
29	E2300616-005		20230630-029	Perchlorate6850c.lcm	100x		6/30/2023 11:08
30	E2300616-006		20230630-030	Perchlorate6850c.lcm	100x		6/30/2023 11:13
31	E2300614-003		20230630-031	Perchlorate6850c.lcm	2000x		6/30/2023 11:19
32	E2300614-005		20230630-032	Perchlorate6850c.lcm	1x		6/30/2023 11:24
33	CCV		20230630-033	Perchlorate6850c.lcm	1x	227251	6/30/2023 11:30

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061825

Service Request: E2300614
Date Analyzed: 6/28/23 13:45

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

File ID: I:\LCMS01\DATA\20230628\20230628-004
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300318-01
Analysis Lot: 809096
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	134,284	3.65
	Upper Limit ==>	201,426	5.65
	Lower Limit ==>	67,142	1.65
Associated Analyses			
Continuing Calibration Verification	EQ2300318-01	128,901	3.61
Method Blank	EQ2300317-01	189,749	3.60
Lab Control Sample	EQ2300317-02	188,582	3.61
Duplicate Lab Control Sample	EQ2300317-03	184,608	3.61

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Analyzed:**	6/28/23 15:20

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230628\20230628-014	**Lab Code:**	EQ2300318-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809096
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	134,284	3.65
	Upper Limit ==>	201,426	5.65
	Lower Limit ==>	67,142	1.65
Associated Analyses			
Continuing Calibration Verification	EQ2300318-02	148,210	3.62

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Analyzed:**	6/30/23 08:34

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230630\20230630-004	**Lab Code:**	EQ2300322-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809342
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300322-01	242,810	3.62
125_062623	E2300614-001	167,490	3.62
MW3_062623	E2300614-002	206,292	3.62
MW23_062623MS	EQ2300317-04	1,461*	3.60
MW23_062623DMS	EQ2300317-05	1,455*	3.60

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Analyzed:**	6/30/23 09:47

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230630\20230630-015	**Lab Code:**	EQ2300322-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809342
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300322-02	257,568	3.63
MW9_062623	E2300614-004	226,529	3.62
MW13_062623MS	EQ2300317-06	338,913	3.63
MW13_062623DMS	EQ2300317-07	337,461	3.62
CO2_062623	E2300614-006	329,139	3.63
18WW10_062623	E2300614-007	325,557	3.63
MW17_062623	E2300614-008	338,514	3.62
MW16_062623	E2300614-009	323,393	3.63

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Analyzed:**	6/30/23 10:51

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230630\20230630-026	**Lab Code:**	EQ2300322-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809342
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300322-03	239,697	3.62
MW23_062623	E2300614-003	195,413	3.62
MW13_062623	E2300614-005	323,461	3.62

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Analyzed:**	6/30/23 11:30

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230630\20230630-033	**Lab Code:**	EQ2300322-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809342
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300322-04	247,134	3.62

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: HS23061825

Service Request: E2300614
Date Analyzed: 6/28/23

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\20230628\20230628-004

Calibration Date: 6/23/23
Calibration ID: EC2300010
Analysis Lot: 809096
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.92	0.1579	0.1566	-0.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061825

Service Request: E2300614
Date Analyzed: 6/28/23

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\20230628\20230628-014

Calibration Date: 6/23/23
Calibration ID: EC2300010
Analysis Lot: 809096
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.5	0.1579	0.1665	5.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061825

Service Request: E2300614
Date Analyzed: 6/30/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230630\20230630-004

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809342
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.1	0.1625	0.1646	1.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061825

Service Request: E2300614
Date Analyzed: 6/30/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230630\20230630-015

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809342
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.5	0.1625	0.1707	5.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061825

Service Request: E2300614
Date Analyzed: 6/30/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230630\20230630-026

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809342
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.7	0.1625	0.1736	6.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061825

Service Request: E2300614
Date Analyzed: 6/30/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230630\20230630-033

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809342
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.6	0.1625	0.1715	5.5	NA	± 15 %	Average RF

Insight Report

Printed at 6/28/2023 4:13:03 PM

Method File: I:\LCMS01\DATA\20230628\06282023.lcm
Project File: I:\LCMS01\DATA\20230628\06282023.damlp

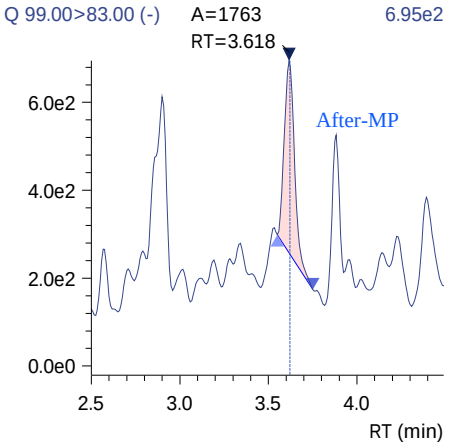
LODV

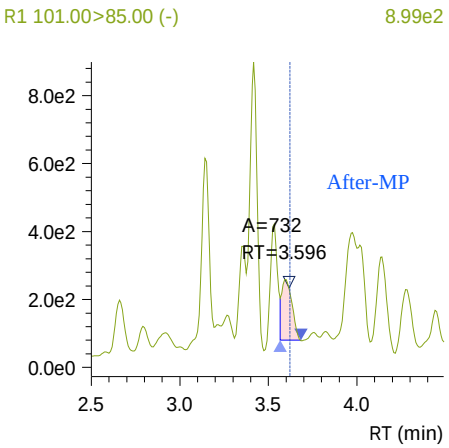
Sample ID: LODV
Date Acquired: 6/28/2023 11:47:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.618	1763	198982	0.0561	ng/mL	101.00 >85.00	41.50	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.608	198982	198982	1.0000	ng/mL	----	----	

Perchlorate

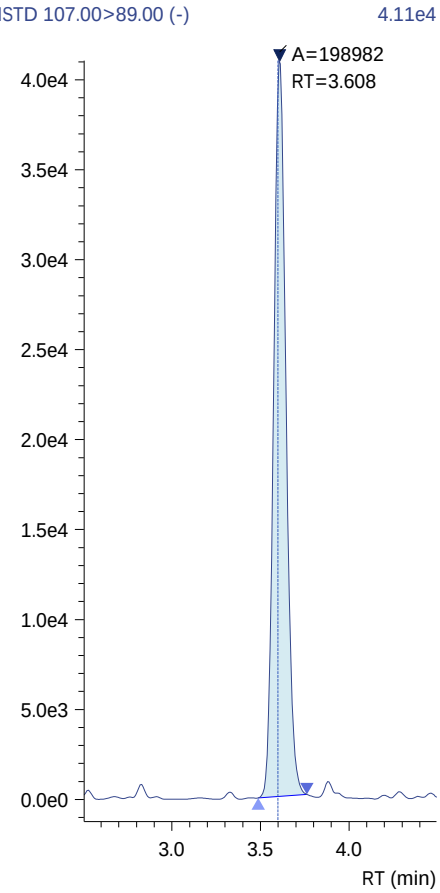
Conc 0.0561
R#1 41.50 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/28/2023 4:15:08 PM

Method File: I:\LCMS01\DATA\20230628\06282023.lcm
Project File: I:\LCMS01\DATA\20230628\06282023.damlp

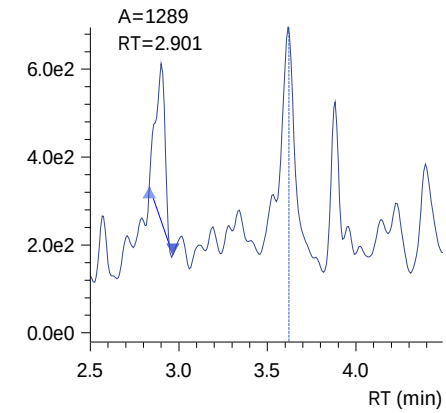
LODV

Sample ID: LODV
Date Acquired: 6/28/2023 11:47:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

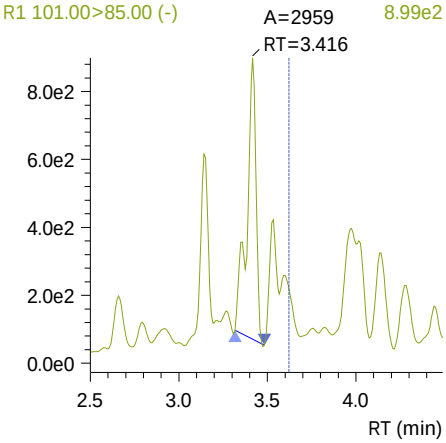
Perchlorate

Conc ----
R#1 0.00 (32.02)

Q 99.00>83.00 (-) 6.95e2



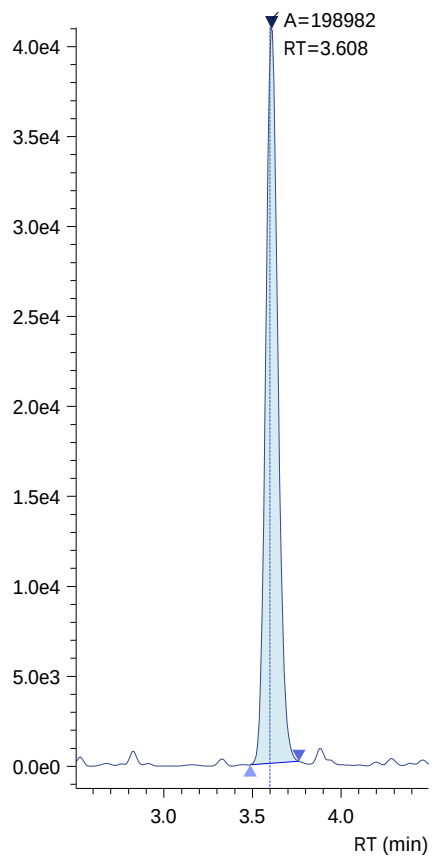
R1 101.00>85.00 (-) 8.99e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.11e4



Insight Report

Printed at 6/28/2023 4:13:03 PM

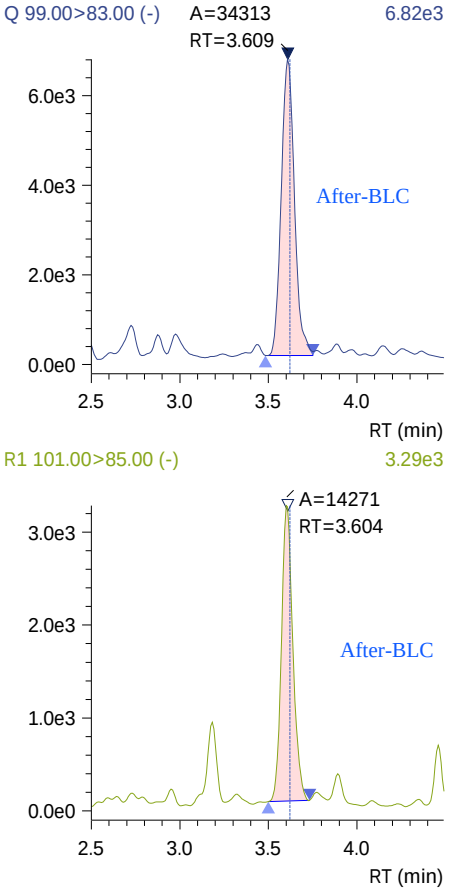
ICS

Sample ID: ICS
Date Acquired: 6/28/2023 1:39:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-003.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	M	3.609	34313	194688	1.1162	ng/mL	101.00 >85.00	41.59	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.606	194688	194688	1.0000	ng/mL	----	----	

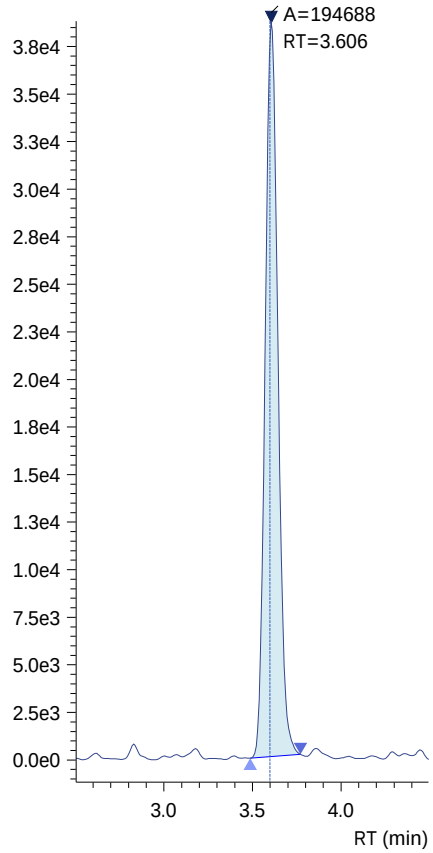
Perchlorate

Conc 1.1162
R#1 41.59 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

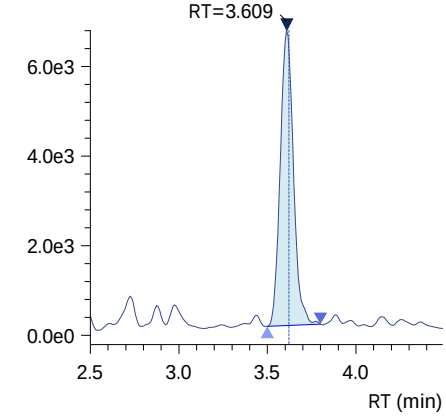
ICS

Sample ID: ICS
Date Acquired: 6/28/2023 1:39:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

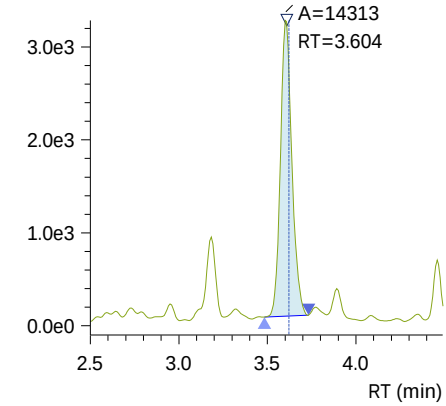
Perchlorate

Conc 1.1008
R#1 41.91 (32.02)

Q 99.00>83.00 (-) A=34151 6.82e3



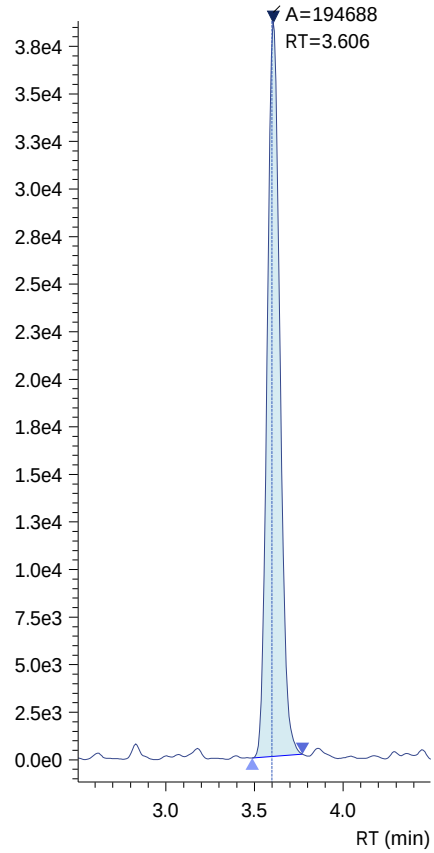
R1 101.00>85.00 (-) 3.29e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.88e4



Insight Report

Printed at 6/28/2023 4:13:03 PM

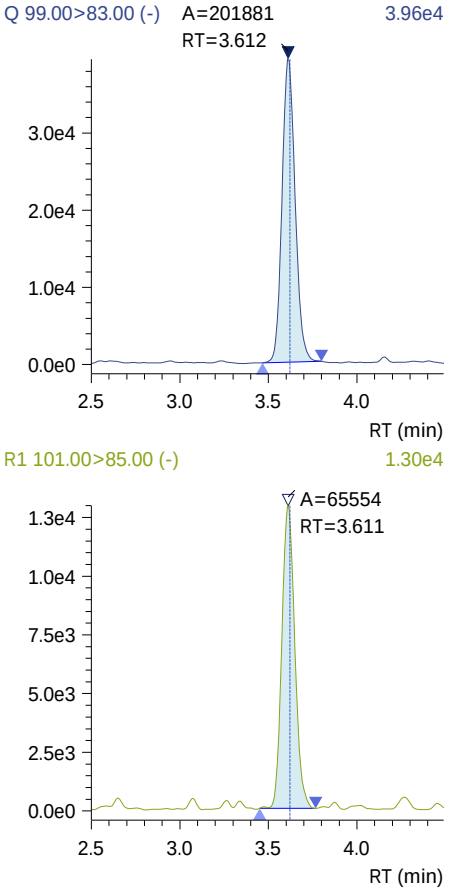
CCV

Sample ID: CCV
Date Acquired: 6/28/2023 1:45:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-004.lcd
Vial: 3 | 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	3.612	201881	128901	9.9186	ng/mL	101.00 >85.00	32.47	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.609	128901	128901	1.0000	ng/mL	----	----	

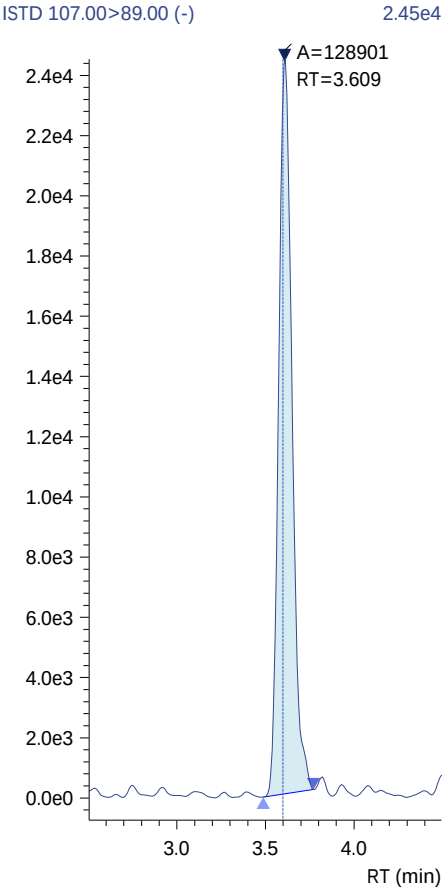
Perchlorate

Conc 9.9186
R#1 32.47 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/28/2023 4:13:03 PM

EQ2300317-01

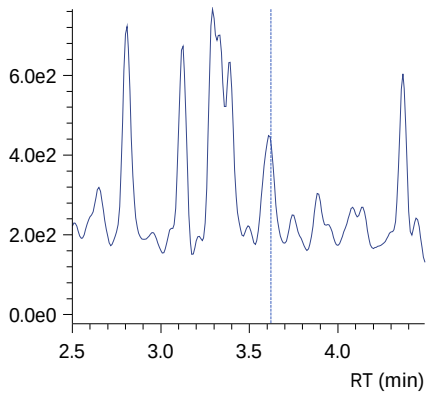
Sample ID: EQ2300317-01
Date Acquired: 6/28/2023 2:19:02 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-005.lcd
Vial: 22 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	189749	----	ng/mL	101.00 >85.00	0.00	22.41-41.62
Sodium Perchlorate-18O4_IS	Auto	3.595	189749	189749	1.0000	ng/mL	----	----	

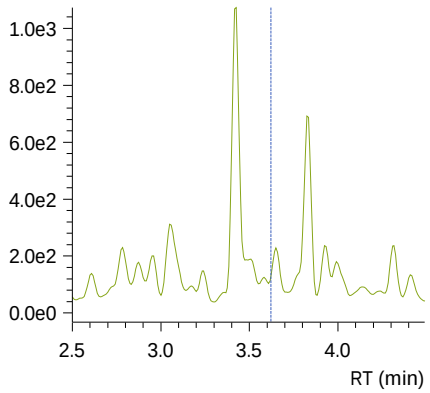
Perchlorate

Conc ----
R#1 0.00 (32.02)

Q 99.00>83.00 (-) 7.66e2



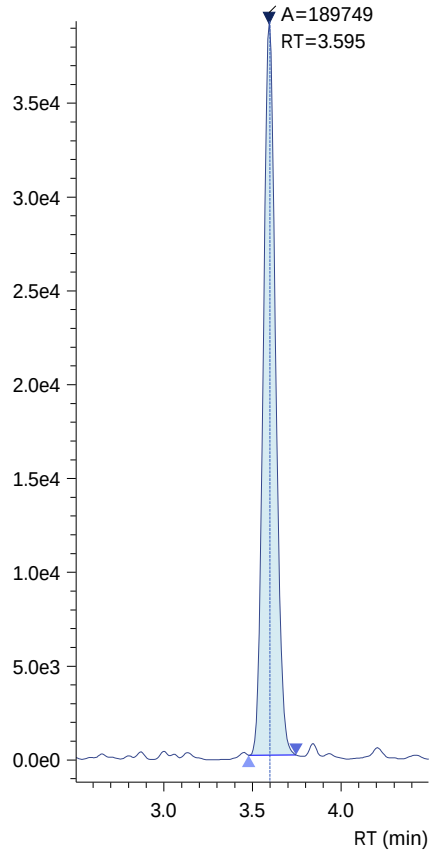
R1 101.00>85.00 (-) 1.07e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.94e4



Insight Report

Printed at 6/28/2023 4:13:03 PM

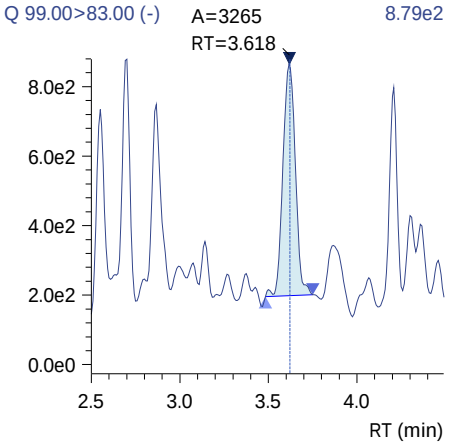
EQ2300317-02

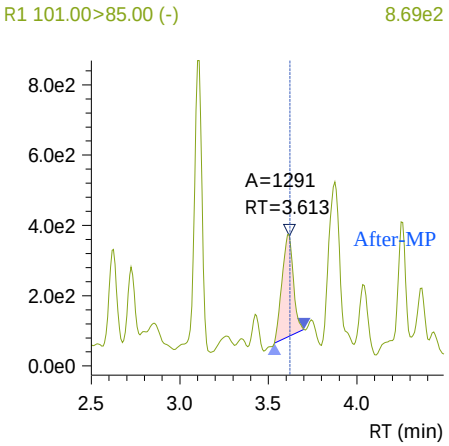
Sample ID: EQ2300317-02
Date Acquired: 6/28/2023 2:24:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-006.lcd
Vial: 23 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.618	3265	188582	0.1096	ng/mL	101.00 >85.00	39.54	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.612	188582	188582	1.0000	ng/mL	----	----	

Perchlorate

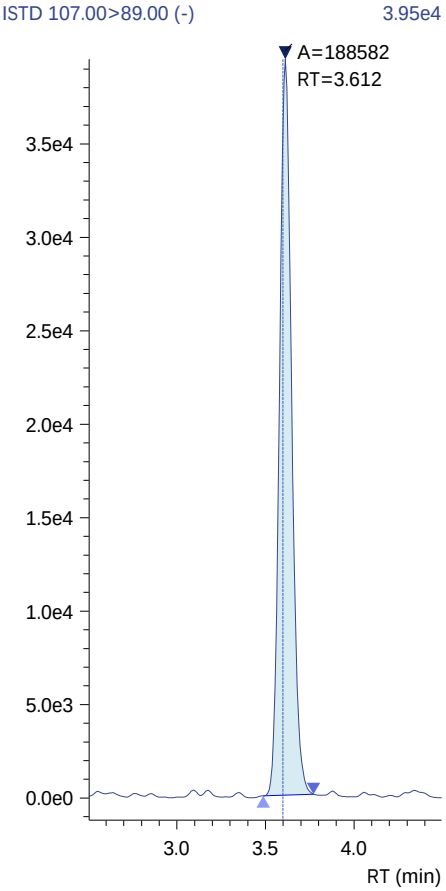
Conc 0.1096
R#1 39.54 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

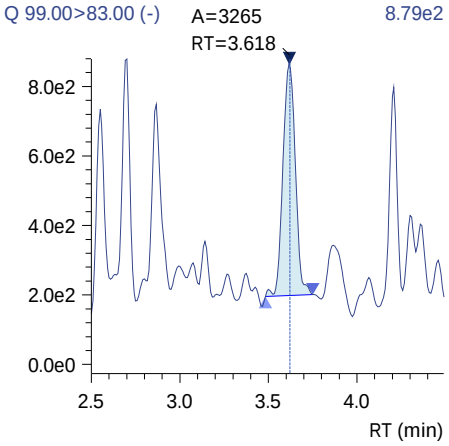
Printed at 6/28/2023 4:15:08 PM

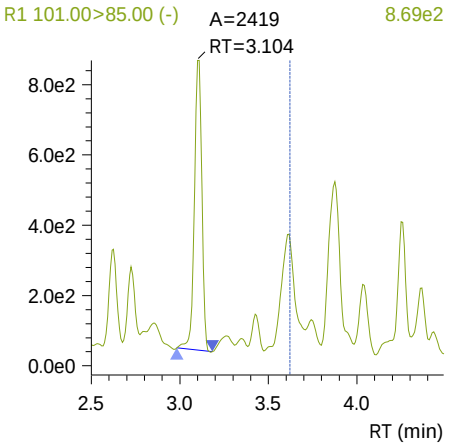
EQ2300317-02

Sample ID: EQ2300317-02
Date Acquired: 6/28/2023 2:24:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-006.lcd
Vial: 23 | Inj. Volume: 10.0000uL | Tray: 5

Perchlorate

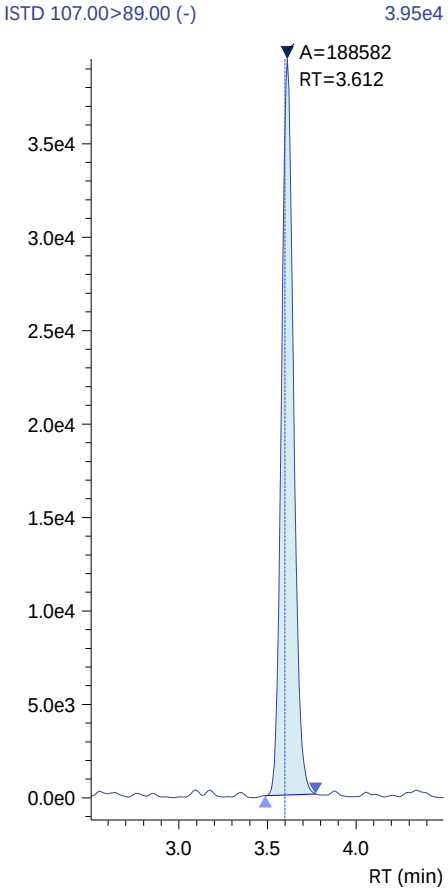
Conc 0.1086
R#1 0.00 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/28/2023 4:13:03 PM

EQ2300317-03

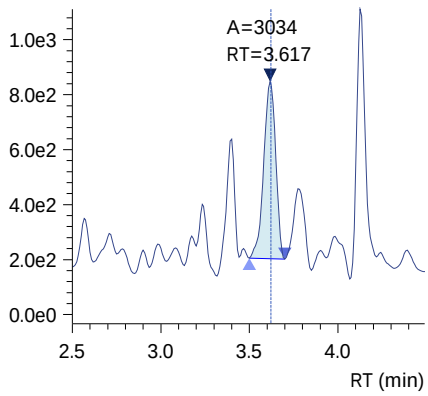
Sample ID: EQ2300317-03
Date Acquired: 6/28/2023 2:30:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-007.lcd
Vial: 24 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.617	3034	184608	0.1041	ng/mL	101.00 >85.00	33.99	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.614	184608	184608	1.0000	ng/mL	----	----	

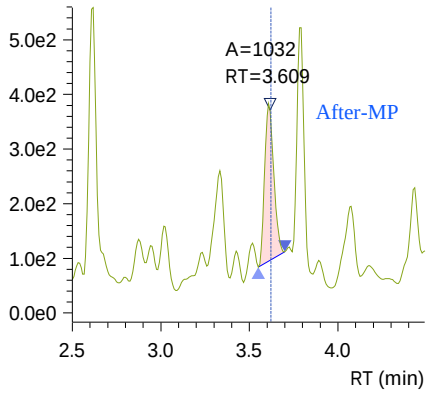
Perchlorate

Conc 0.1041
R#1 33.99 (32.02)

Q 99.00>83.00 (-) 1.11e3



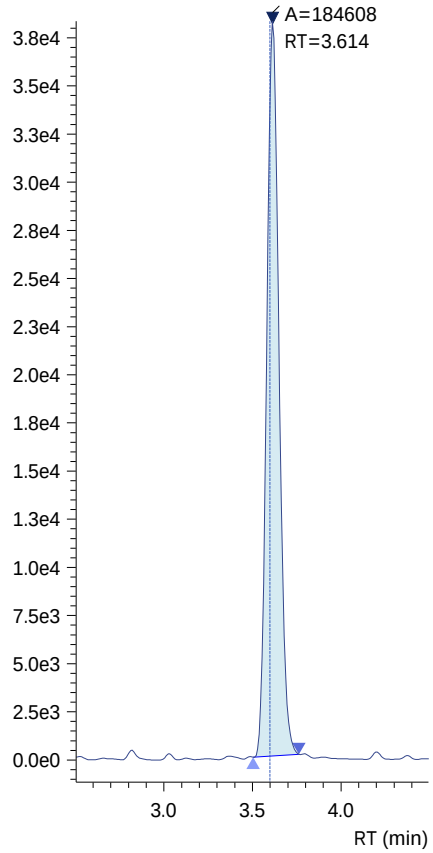
R1 101.00>85.00 (-) 5.59e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.84e4



Insight Report

Printed at 6/28/2023 4:15:08 PM

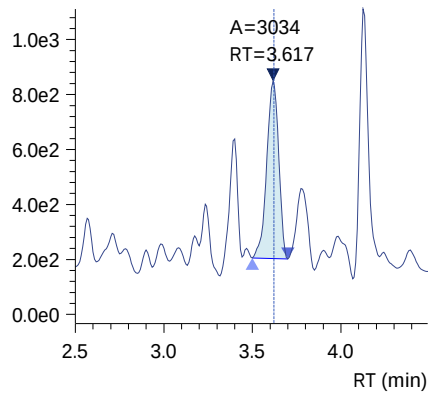
EQ2300317-03

Sample ID: EQ2300317-03
Date Acquired: 6/28/2023 2:30:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-007.lcd
Vial: 24 | Inj. Volume: 10.0000uL | Tray: 5

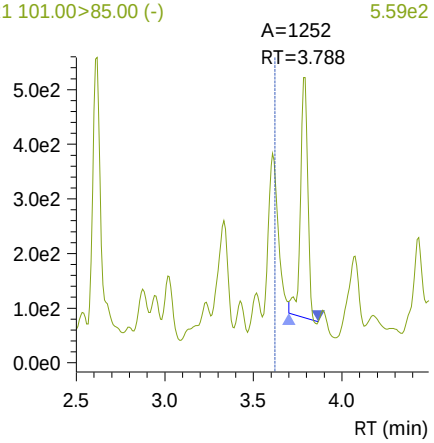
Perchlorate

Conc 0.1031
R#1 0.00 (32.02)

Q 99.00>83.00 (-) 1.11e3



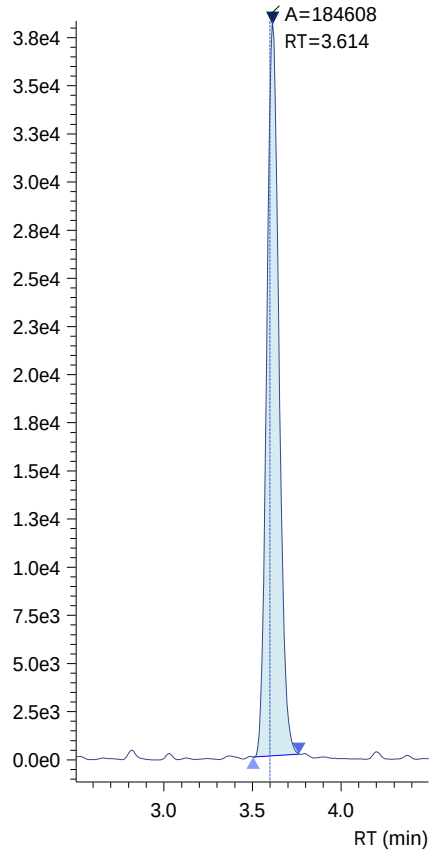
R1 101.00>85.00 (-) 5.59e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.84e4



Insight Report

Printed at 6/28/2023 4:13:03 PM

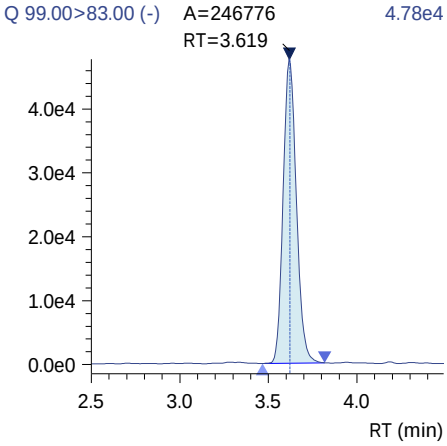
CCV

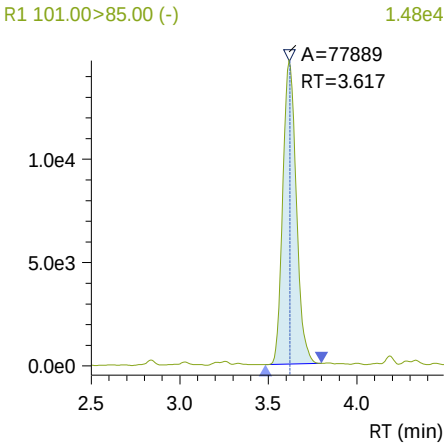
Sample ID: CCV
Date Acquired: 6/28/2023 3:20:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-014.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.619	246776	148210	10.5447	ng/mL	101.00 >85.00	31.56	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.615	148210	148210	1.0000	ng/mL	----	----	

Perchlorate

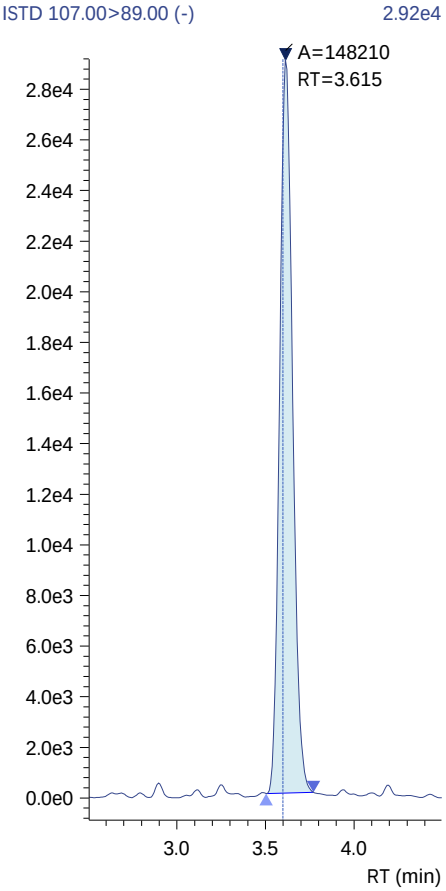
Conc 10.5447
R#1 31.56 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

Method File: I:\LCMS01\DATA\20230630\20230630.lcm
Project File: I:\LCMS01\DATA\20230630\20230630.damlp

IB

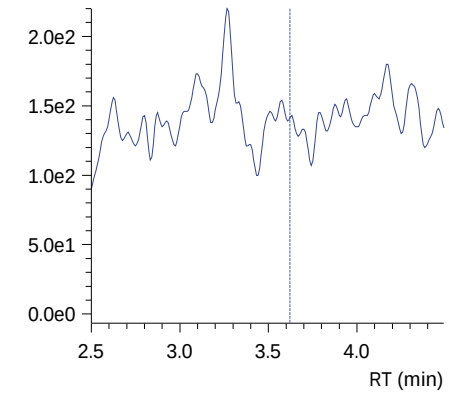
Sample ID: IB
Date Acquired: 6/30/2023 8:18:19 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-001.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	338673	----	ng/mL	101.00 >85.00	0.00	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.626	338673	338673	1.0000	ng/mL	----	----	

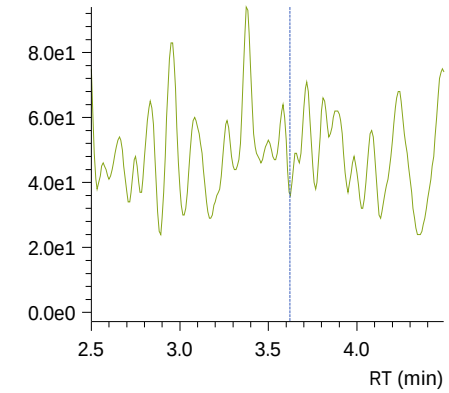
Perchlorate

Conc ----
R#1 0.00 (31.12)

Q 99.00>83.00 (-) 2.20e2



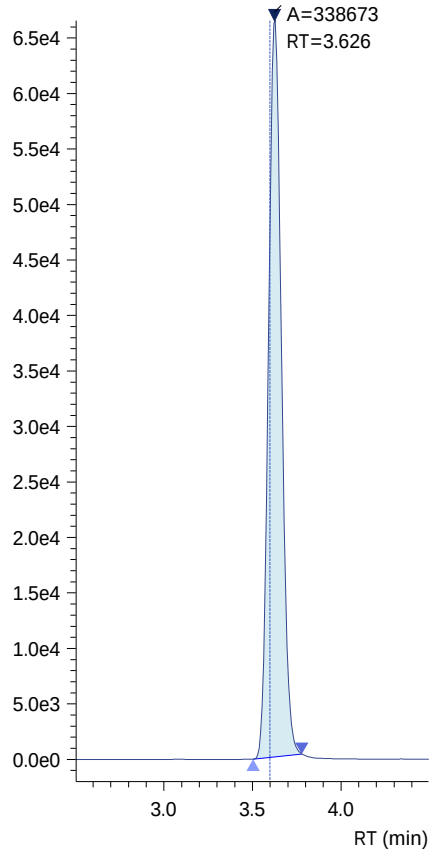
R1 101.00>85.00 (-) 9.40e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.66e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

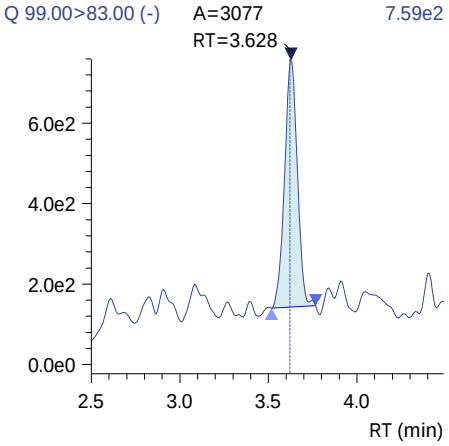
LODV

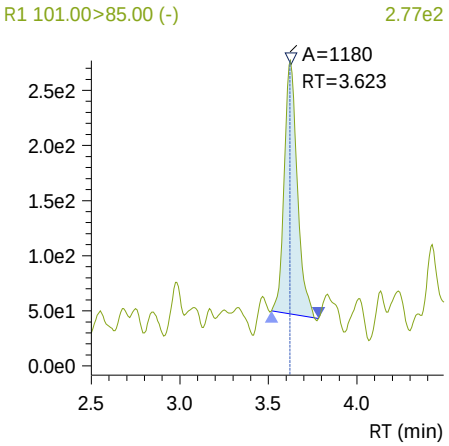
Sample ID: LODV
Date Acquired: 6/30/2023 8:29:21 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.628	3077	325731	0.0581	ng /mL	101.00 >85.00	38.34	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.621	325731	325731	1.0000	ng /mL	----	----	

Perchlorate

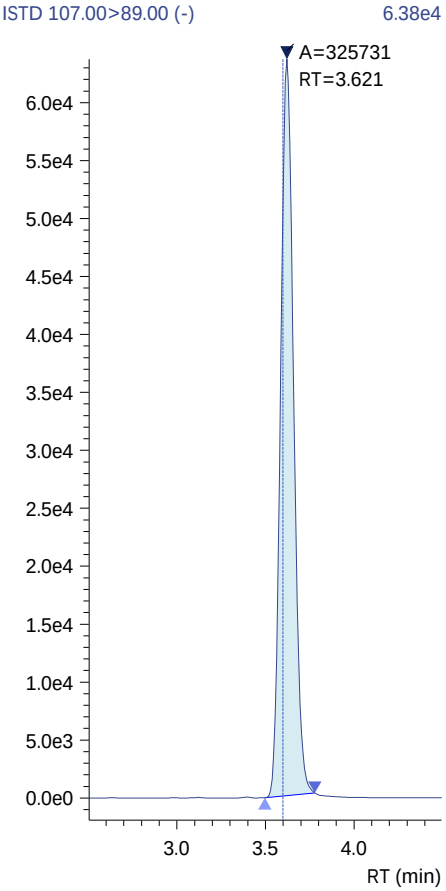
Conc 0.0581
R#1 38.34 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

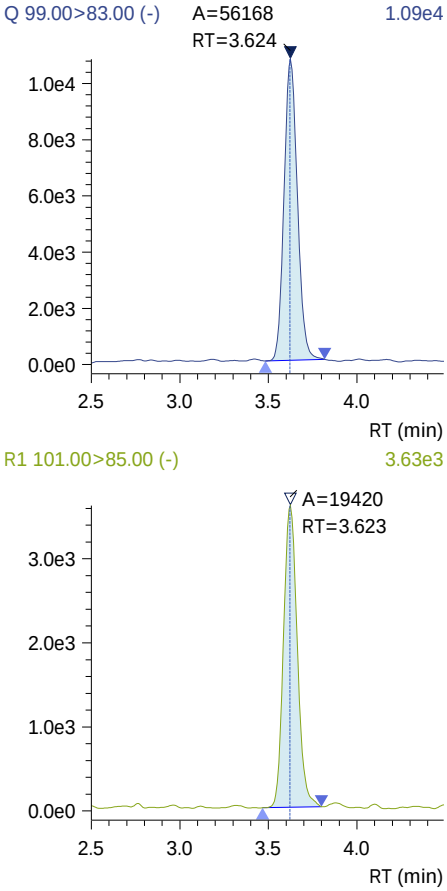
ICS

Sample ID: ICS
Date Acquired: 6/30/2023 8:23:50 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-003.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	3.624	56168	340515	1.0150	ng /mL	101.00 >85.00	34.57	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.621	340515	340515	1.0000	ng /mL	----	----	

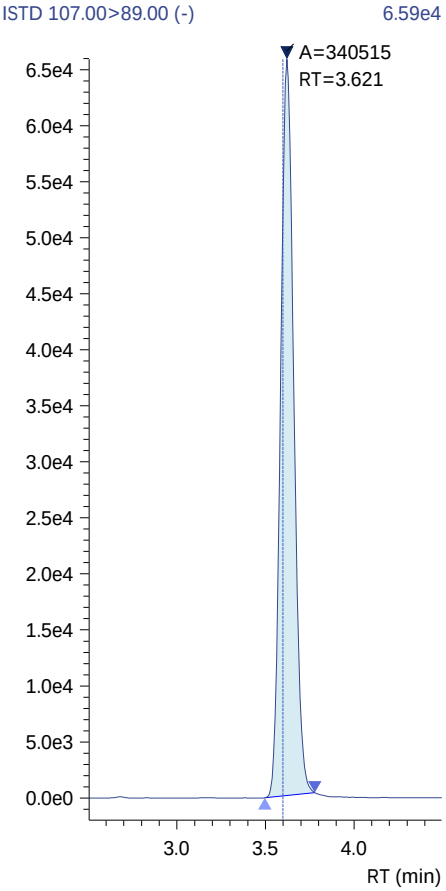
Perchlorate

Conc 1.0150
R#1 34.57 (31.12)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

CCV

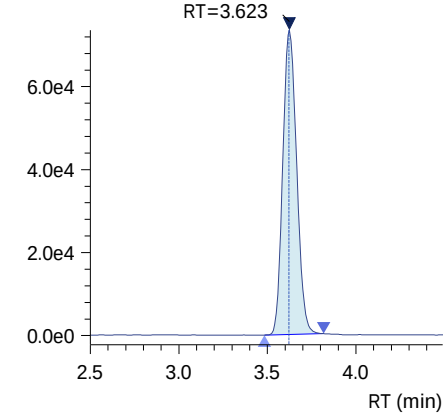
Sample ID: CCV
Date Acquired: 6/30/2023 8:34:53 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-004.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.623	399660	242810	10.1281	ng /mL	101.00 >85.00	33.95	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.621	242810	242810	1.0000	ng /mL	----	----	

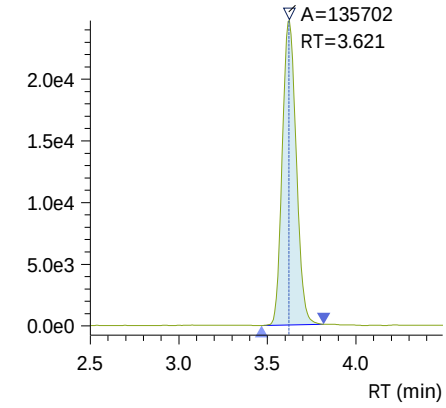
Perchlorate

Conc 10.1281
R#1 33.95 (31.12)

Q 99.00>83.00 (-) A=399660 RT=3.623 7.36e4



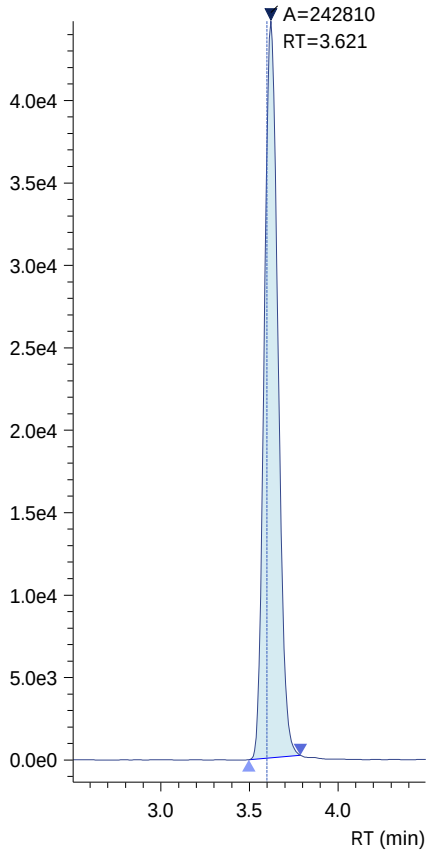
R1 101.00>85.00 (-) 2.48e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.48e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

E2300614-001x100

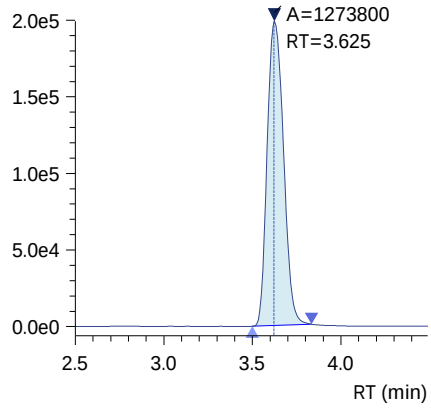
Sample ID: E2300614-001
Date Acquired: 6/30/2023 9:17:32 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-010.lcd
Vial: 29 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.625	1273800	167490	46.7970	ng /mL	101.00 >85.00	31.56	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.619	167490	167490	1.0000	ng /mL	----	----	

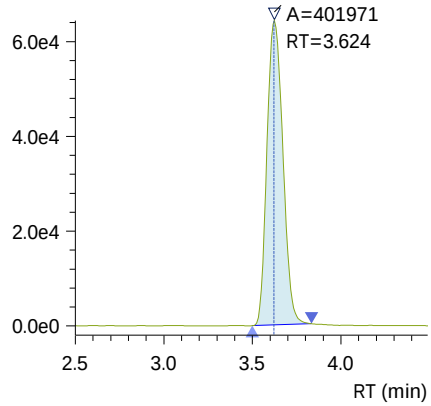
Perchlorate

Conc 46.7970
R#1 31.56 (31.12)

Q 99.00>83.00 (-) 1.99e5



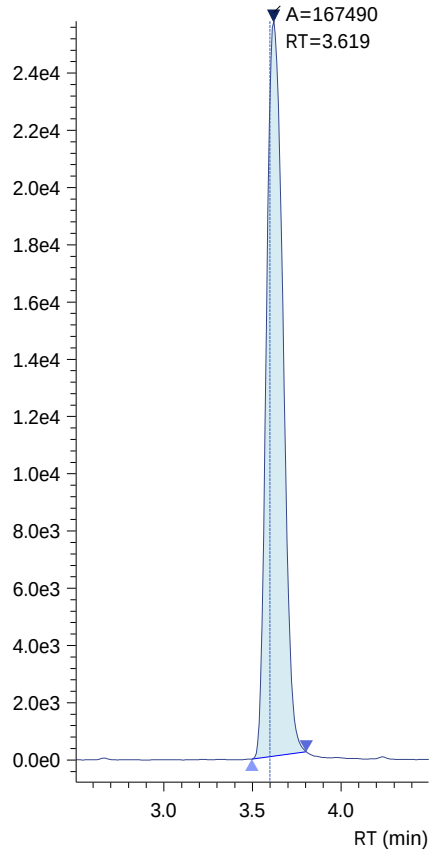
R1 101.00>85.00 (-) 6.44e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.58e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

E2300614-002x100

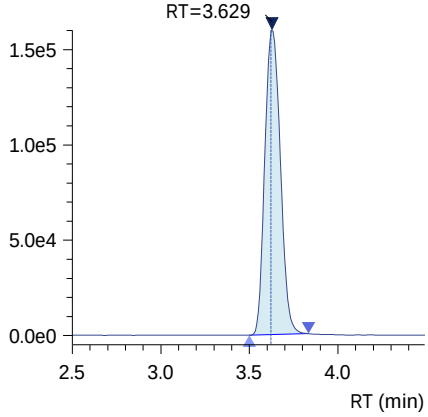
Sample ID: E2300614-002
Date Acquired: 6/30/2023 9:23:04 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-011.lcd
Vial: 30 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.629	976412	206292	29.1244	ng /mL	101.00 >85.00	31.67	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.622	206292	206292	1.0000	ng /mL	----	----	

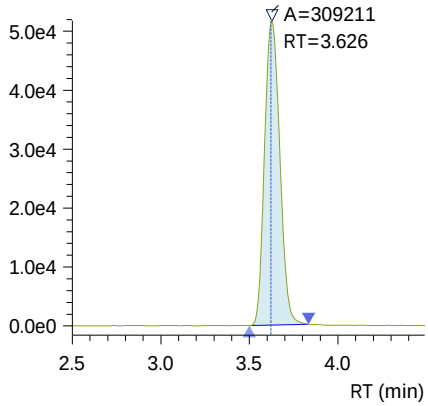
Perchlorate

Conc 29.1244
R#1 31.67 (31.12)

Q 99.00>83.00 (-) A=976412 1.60e5



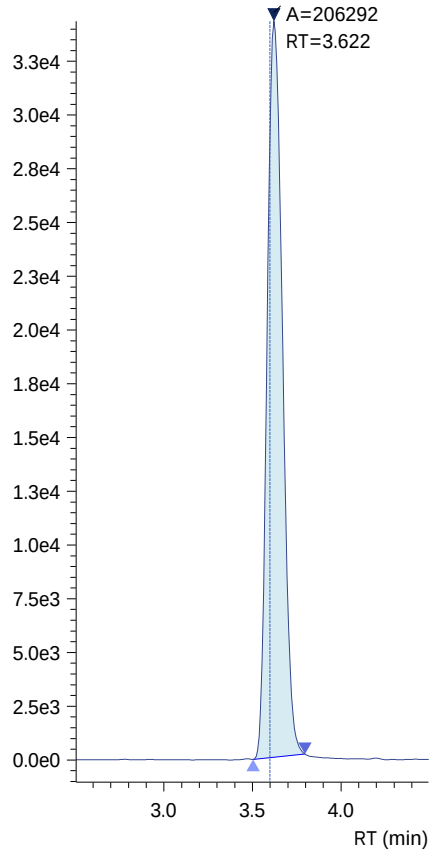
R1 101.00>85.00 (-) 5.18e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.44e4



Insight Report

Printed at 6/30/2023 2:28:51 PM

Method File: I:\LCMS01\DATA\20230630\20230630.lcm
Project File: I:\LCMS01\DATA\20230630\20230630.damlp

EQ2300317-04

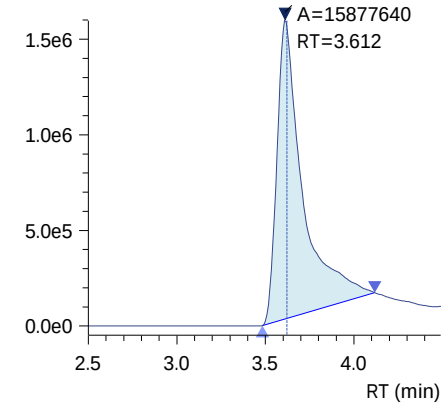
Sample ID: EQ2300317-04
Date Acquired: 6/30/2023 9:34:09 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-013.lcd
Vial: 25 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.612	15877640	1461	66894.4079	ng/mL	101.00 >85.00	29.94	21.78 -40.45
Sodium Perchlorate-18O4_IS	M	3.599	1461	1461	1.0000	ng/mL	----	----	

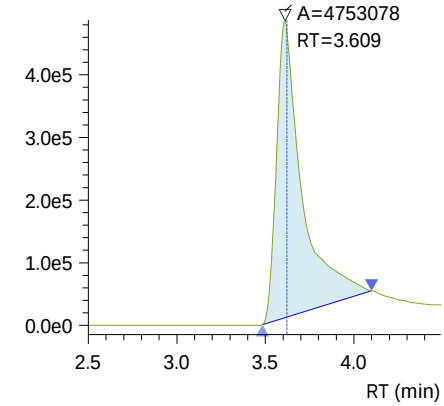
Perchlorate

Conc 66894.4079
R#1 29.94 (31.12)

Q 99.00>83.00 (-) 1.60e6



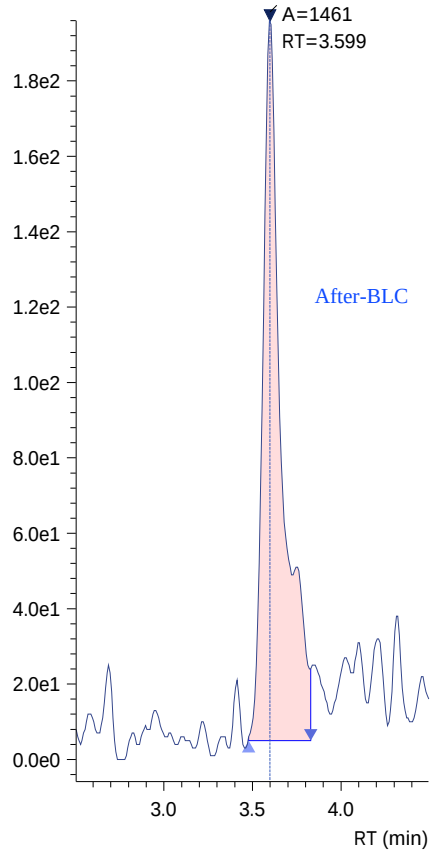
R1 101.00>85.00 (-) 4.87e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.96e2



Insight Report

Printed at 6/30/2023 2:29:35 PM

Method File: I:\LCMS01\DATA\20230630\20230630.lcm
Project File: I:\LCMS01\DATA\20230630\20230630.damlp

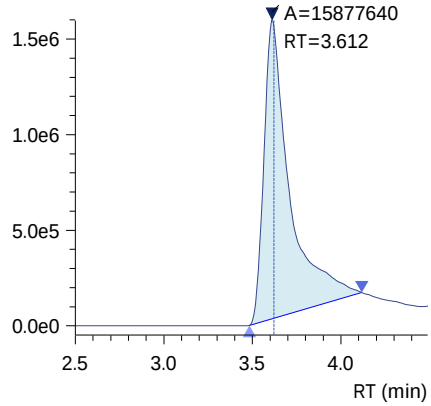
EQ2300317-04

Sample ID: EQ2300317-04
Date Acquired: 6/30/2023 9:34:09 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-013.lcd
Vial: 25 | Inj. Volume: 10.0000uL | Tray: 5

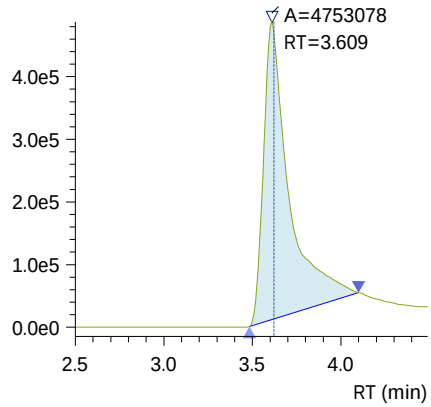
Perchlorate

Conc 110707.4026
R#1 29.94 (31.12)

Q 99.00>83.00 (-) 1.60e6



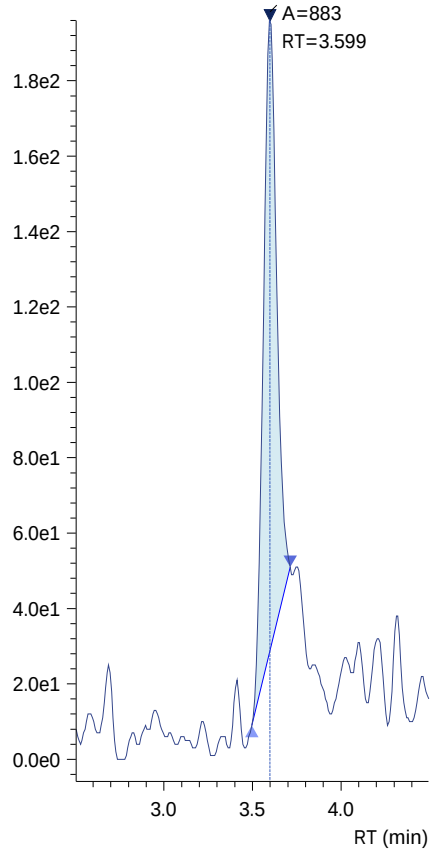
R1 101.00>85.00 (-) 4.87e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.96e2



Insight Report

Printed at 6/30/2023 2:28:51 PM

EQ2300317-05

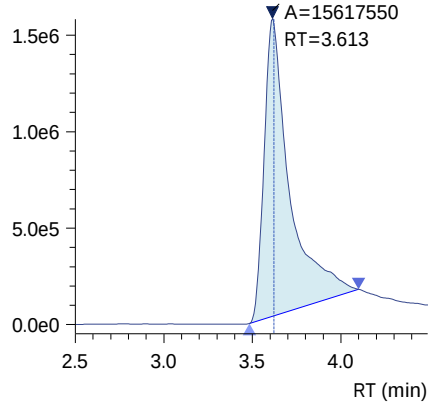
Sample ID: EQ2300317-05
Date Acquired: 6/30/2023 9:39:41 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-014.lcd
Vial: 26 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.613	15617550	1455	66035.9922	ng/mL	101.00 >85.00	32.01	21.78 -40.45
Sodium Perchlorate-18O4_IS	M	3.604	1455	1455	1.0000	ng/mL	----	----	

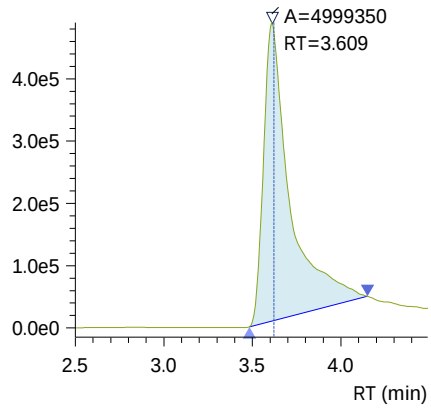
Perchlorate

Conc 66035.9922
R#1 32.01 (31.12)

Q 99.00>83.00 (-) 1.58e6



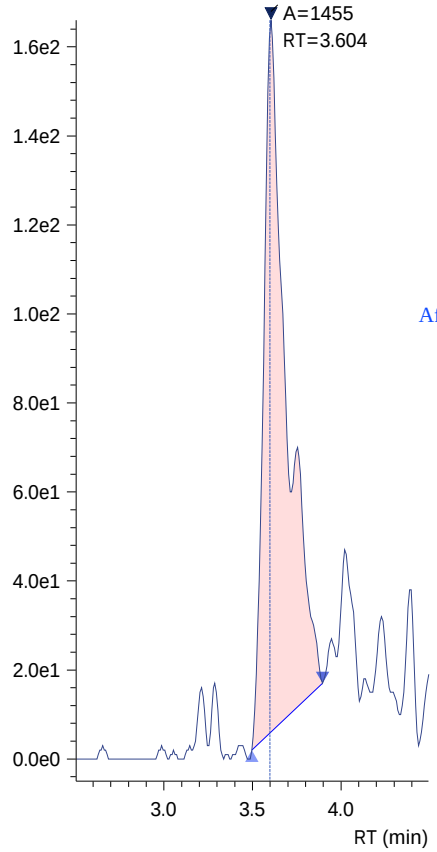
R1 101.00>85.00 (-) 4.90e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.66e2



After-BLC

Insight Report

Printed at 6/30/2023 2:29:35 PM

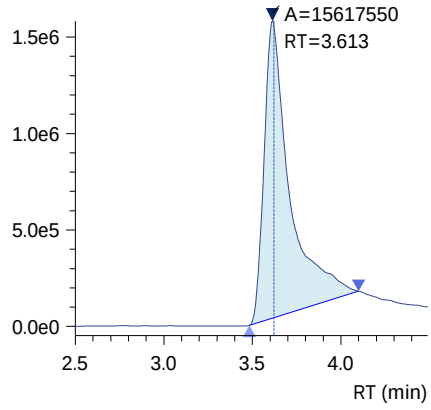
EQ2300317-05

Sample ID: EQ2300317-05
Date Acquired: 6/30/2023 9:39:41 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-014.lcd
Vial: 26 | Inj. Volume: 10.0000uL | Tray: 5

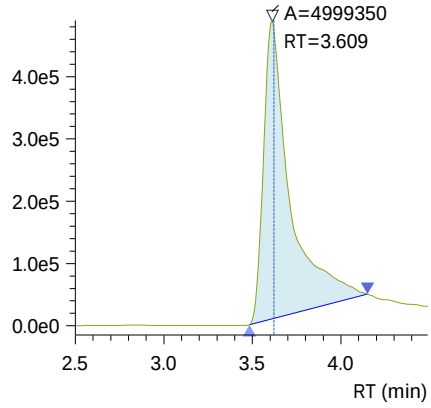
Perchlorate

Conc 120651.4472
R#1 32.01 (31.12)

Q 99.00>83.00 (-) 1.58e6



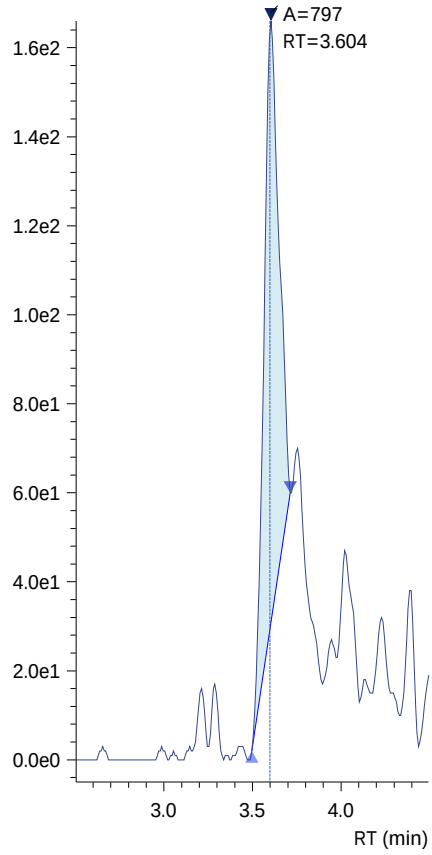
R1 101.00>85.00 (-) 4.90e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.66e2



Insight Report

Printed at 6/30/2023 1:10:51 PM

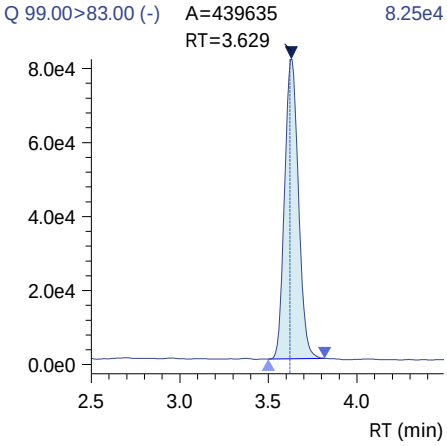
CCV

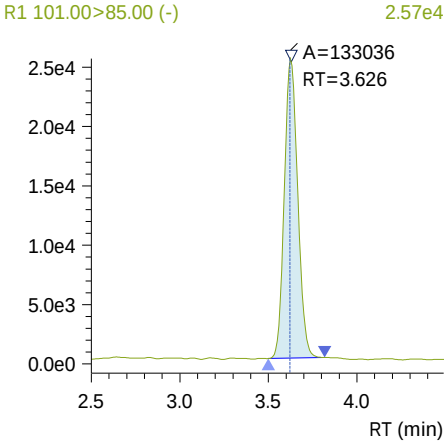
Sample ID: CCV
Date Acquired: 6/30/2023 9:47:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-015.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.629	439635	257568	10.5028	ng /mL	101.00 >85.00	30.26	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.625	257568	257568	1.0000	ng /mL	----	----	

Perchlorate

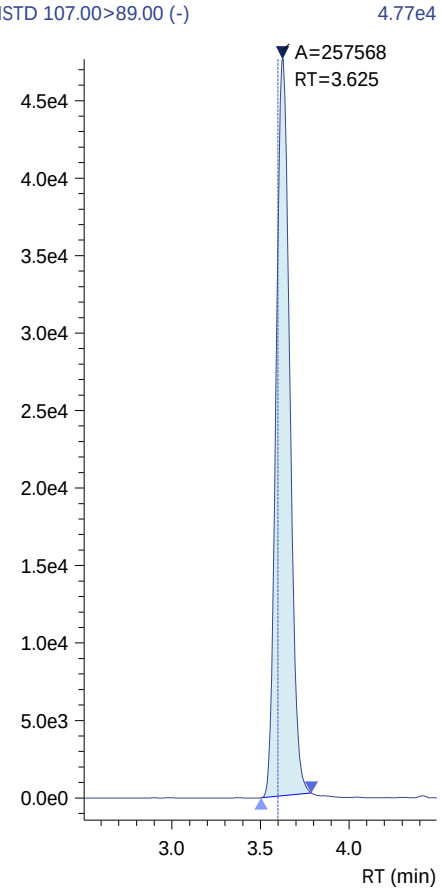
Conc 10.5028
R#1 30.26 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

E2300614-004x100

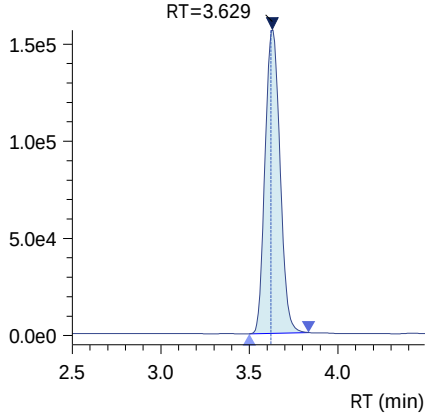
Sample ID: E2300614-004
Date Acquired: 6/30/2023 9:53:06 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-016.lcd
Vial: 32 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.629	917161	226529	24.9131	ng /mL	101.00 >85.00	30.57	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.622	226529	226529	1.0000	ng /mL	----	----	

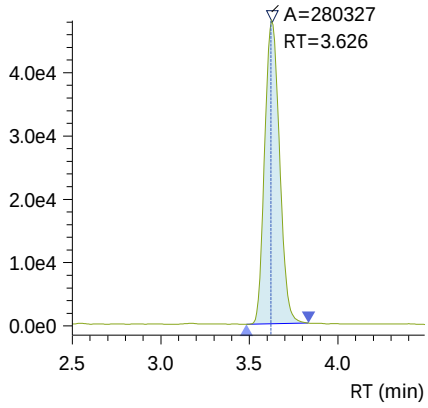
Perchlorate

Conc 24.9131
R#1 30.57 (31.12)

Q 99.00>83.00 (-) A=917161 RT=3.629 1.57e5



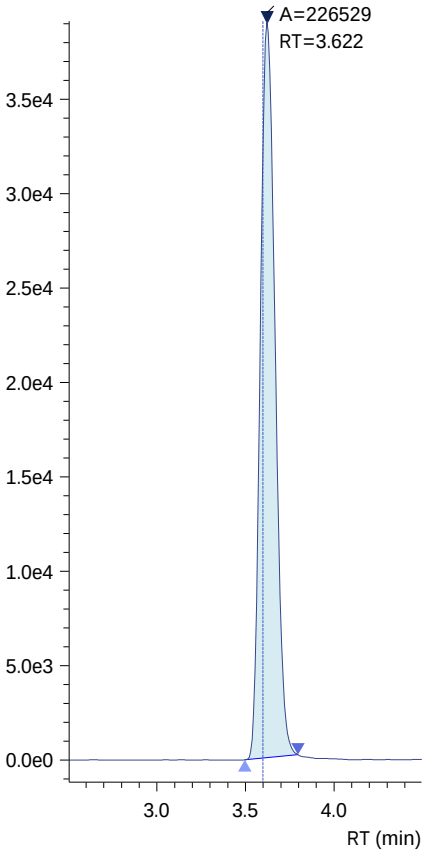
R1 101.00>85.00 (-) 4.82e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.91e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

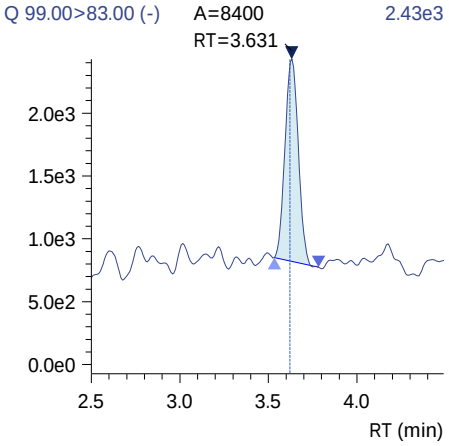
EQ2300317-06

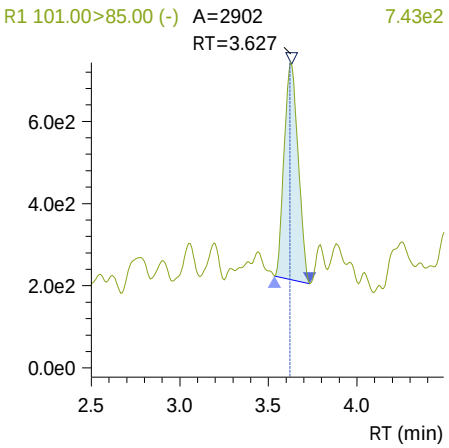
Sample ID: EQ2300317-06
Date Acquired: 6/30/2023 10:04:10 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-018.lcd
Vial: 27 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.631	8400	338913	0.1525	ng /mL	101.00 >85.00	34.55	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.625	338913	338913	1.0000	ng /mL	----	----	

Perchlorate

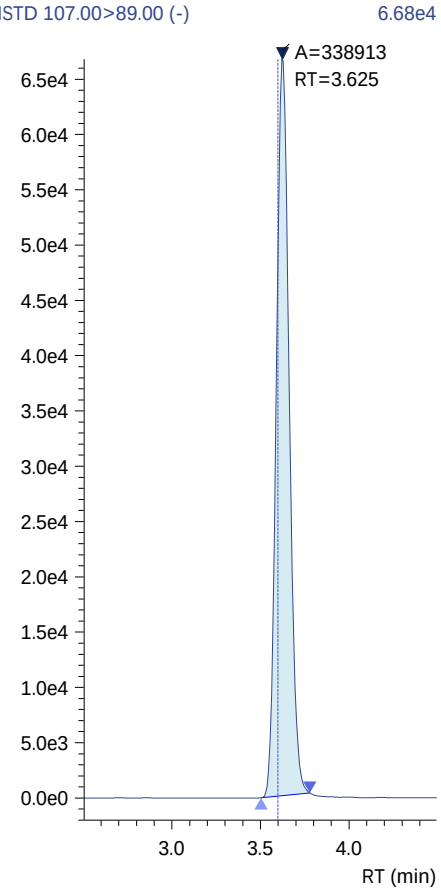
Conc 0.1525
R#1 34.55 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

EQ2300317-07

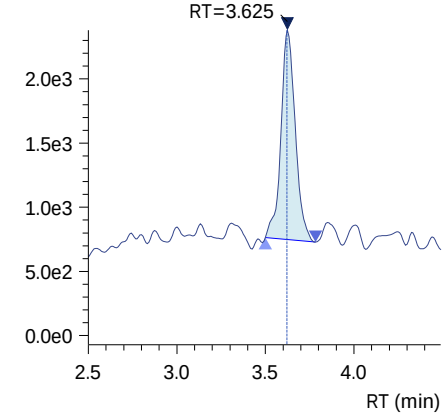
Sample ID: EQ2300317-07
Date Acquired: 6/30/2023 10:09:42 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-019.lcd
Vial: 28 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.625	9184	337461	0.1675	ng /mL	101.00 >85.00	26.99	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.624	337461	337461	1.0000	ng /mL	----	----	

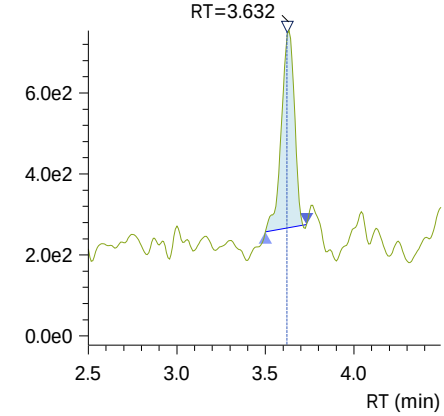
Perchlorate

Conc 0.1675
R#1 26.99 (31.12)

Q 99.00>83.00 (-) A=9184 2.38e3



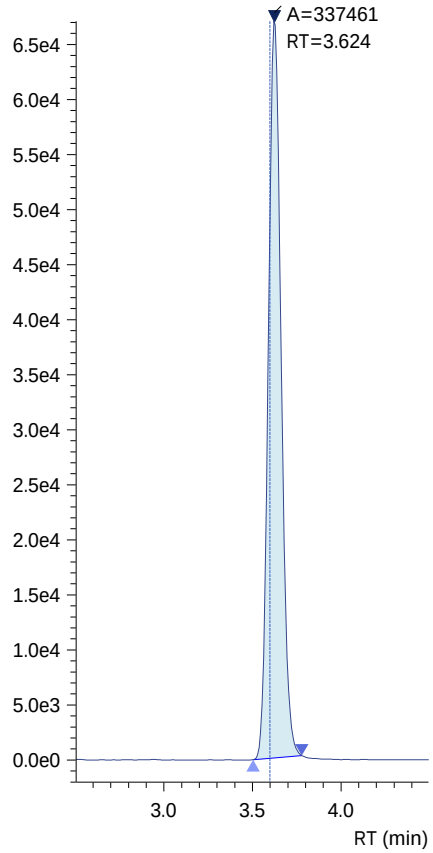
R1 101.00>85.00 (-) A=2479 7.54e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.71e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

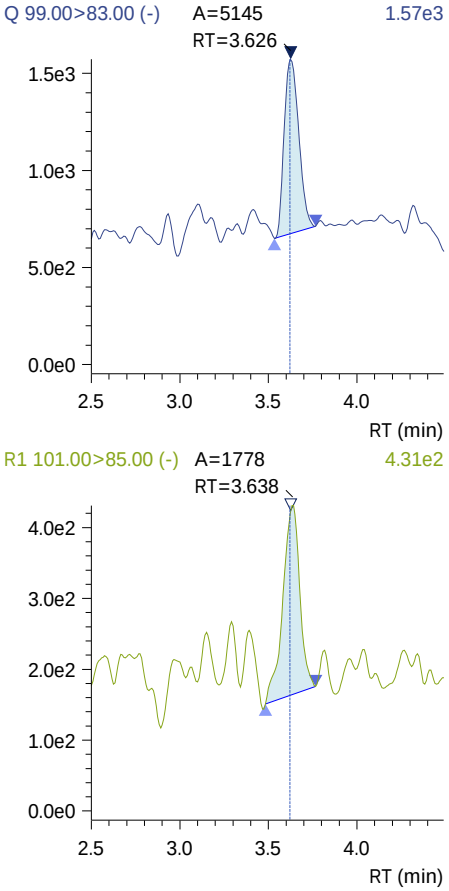
E2300614-006

Sample ID: E2300614-006
Date Acquired: 6/30/2023 10:15:14 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-020.lcd
Vial: 34 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.626	5145	329139	0.0962	ng /mL	101.00 >85.00	34.55	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.625	329139	329139	1.0000	ng /mL	----	----	

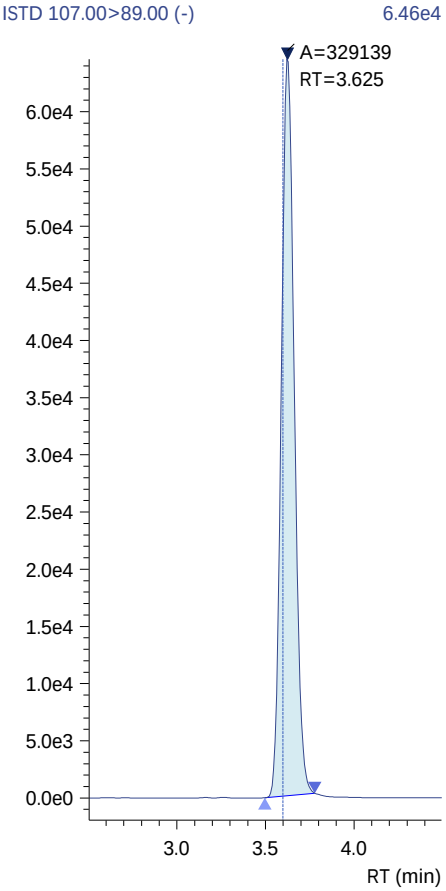
Perchlorate

Conc 0.0962
R#1 34.55 (31.12)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

E2300614-007

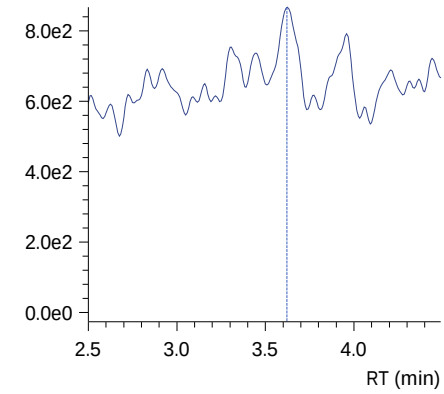
Sample ID: E2300614-007
Date Acquired: 6/30/2023 10:20:46 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-021.lcd
Vial: 35 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	325557	----	ng/mL	101.00 >85.00	0.00	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.625	325557	325557	1.0000	ng/mL	----	----	

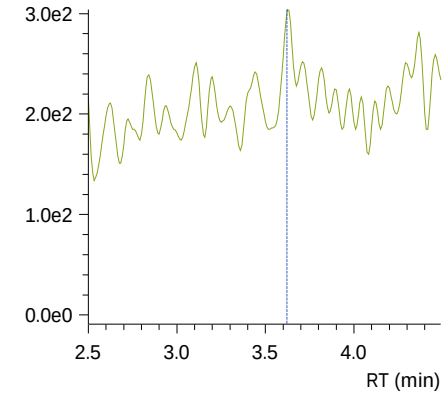
Perchlorate

Conc ----
R#1 0.00 (31.12)

Q 99.00>83.00 (-) 8.67e2



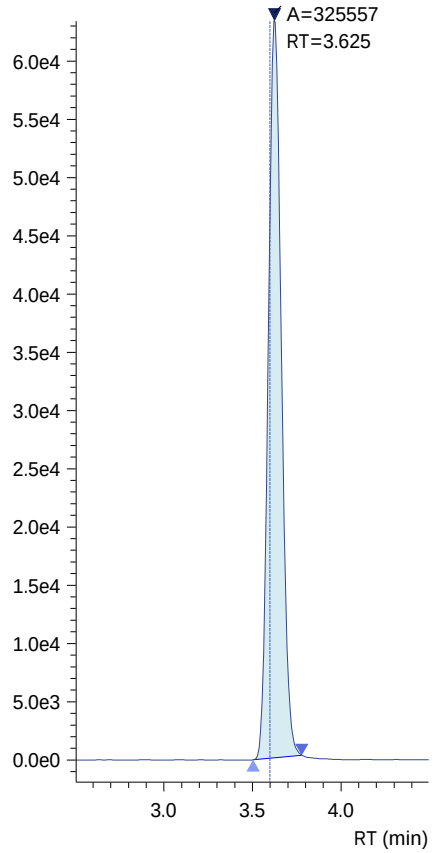
R1 101.00>85.00 (-) 3.04e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.34e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

E2300614-008

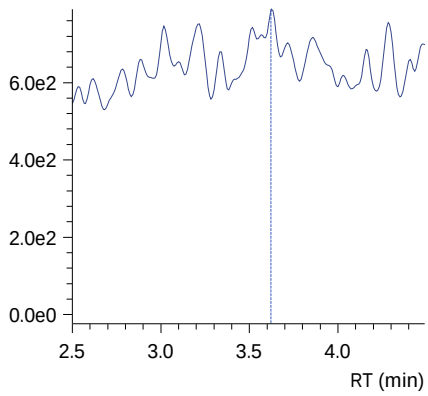
Sample ID: E2300614-008
Date Acquired: 6/30/2023 10:26:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-022.lcd
Vial: 36 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	338514	----	ng/mL	101.00 >85.00	0.00	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.623	338514	338514	1.0000	ng/mL	----	----	

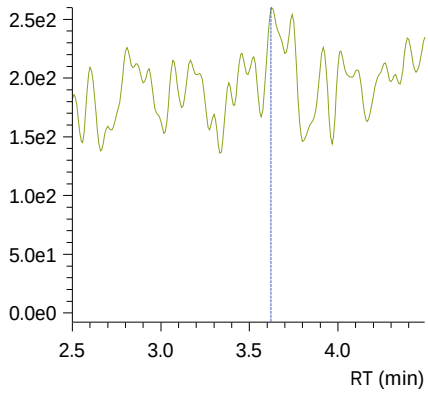
Perchlorate

Conc ----
R#1 0.00 (31.12)

Q 99.00>83.00 (-) 7.90e2



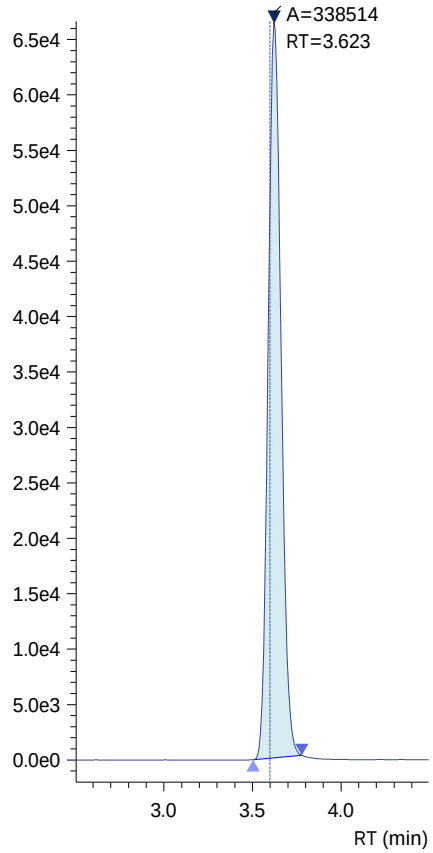
R1 101.00>85.00 (-) 2.60e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.67e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

E2300614-009

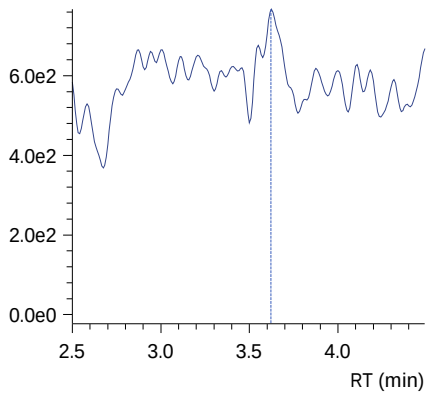
Sample ID: E2300614-009
Date Acquired: 6/30/2023 10:31:51 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-023.lcd
Vial: 37 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	323393	----	ng/mL	101.00 >85.00	0.00	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.627	323393	323393	1.0000	ng/mL	----	----	

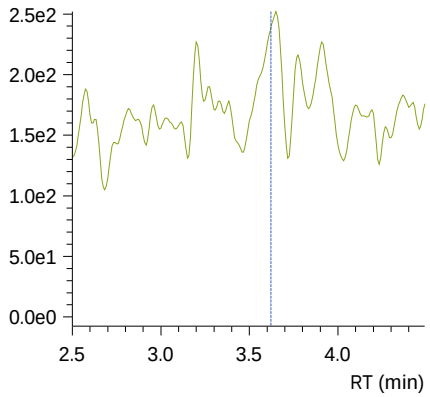
Perchlorate

Conc ----
R#1 0.00 (31.12)

Q 99.00>83.00 (-) 7.67e2



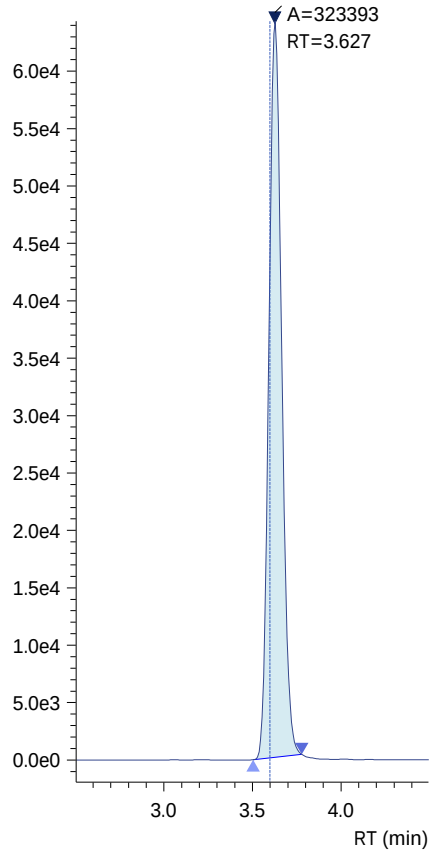
R1 101.00>85.00 (-) 2.52e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.44e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

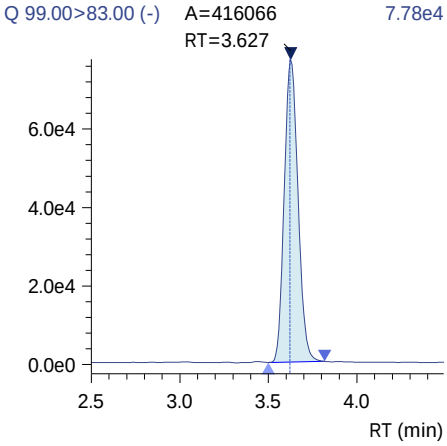
CCV

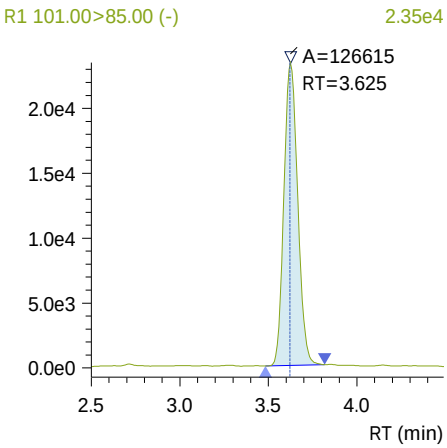
Sample ID: CCV
Date Acquired: 6/30/2023 10:51:41 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-026.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.627	416066	239697	10.6809	ng /mL	101.00 >85.00	30.43	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.623	239697	239697	1.0000	ng /mL	----	----	

Perchlorate

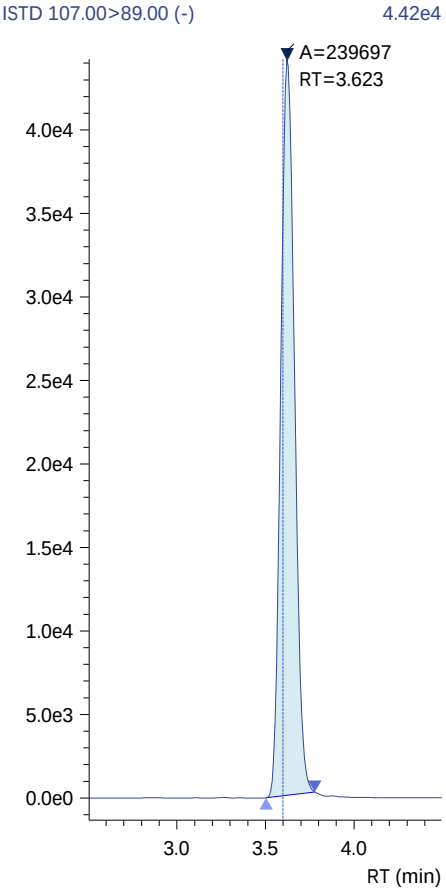
Conc 10.6809
R#1 30.43 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

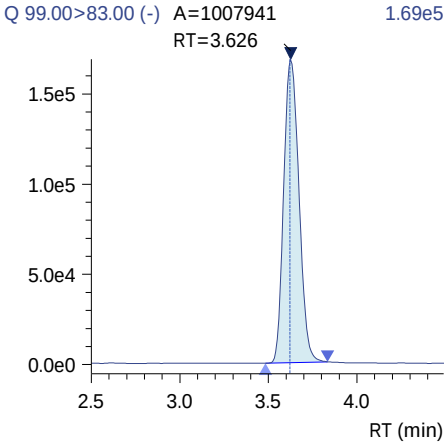
E2300614-003x2000

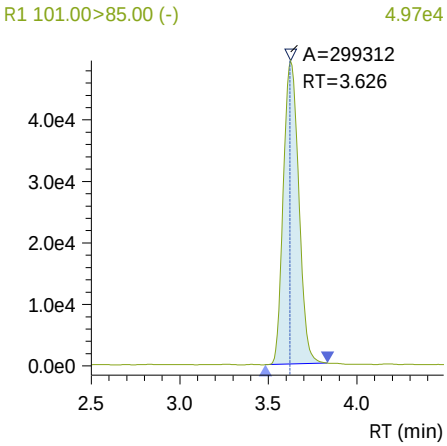
Sample ID: E2300614-003
Date Acquired: 6/30/2023 11:19:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-031.lcd
Vial: 31 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.626	1007941	195413	31.7385	ng /mL	101.00 >85.00	29.70	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.622	195413	195413	1.0000	ng /mL	----	----	

Perchlorate

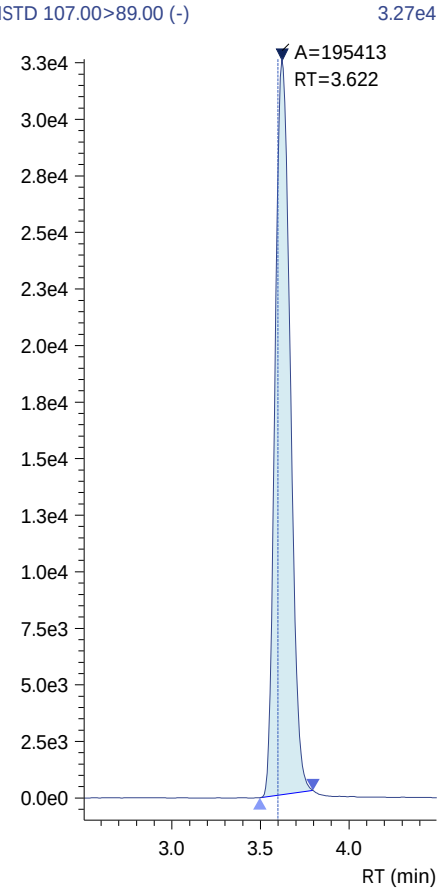
Conc 31.7385
R#1 29.70 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

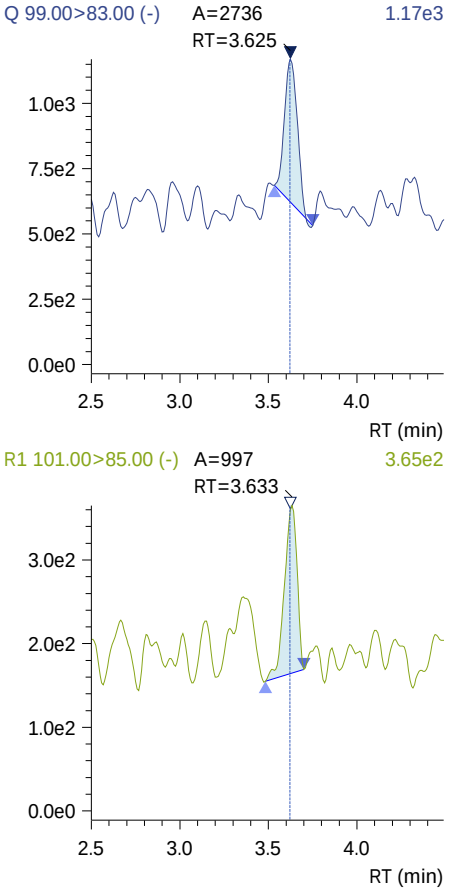
E2300614-005

Sample ID: E2300614-005
Date Acquired: 6/30/2023 11:24:49 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-032.lcd
Vial: 33 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.625	2736	323461	0.0520	ng /mL	101.00 >85.00	36.42	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.622	323461	323461	1.0000	ng /mL	----	----	

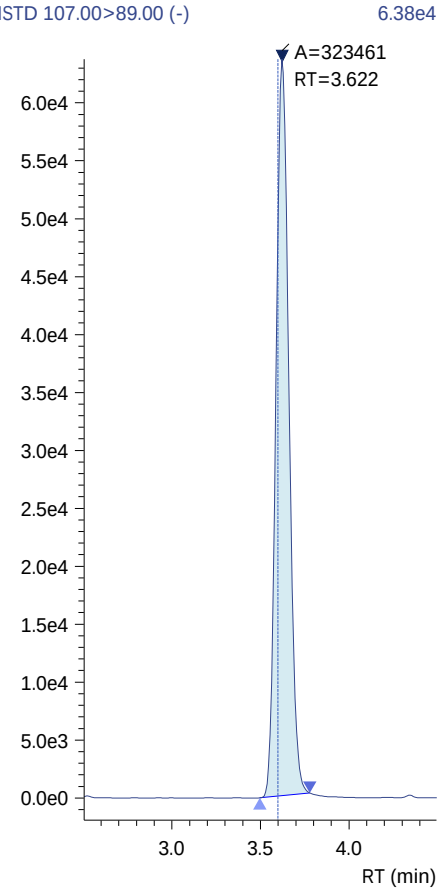
Perchlorate

Conc 0.0520
R#1 36.42 (31.12)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

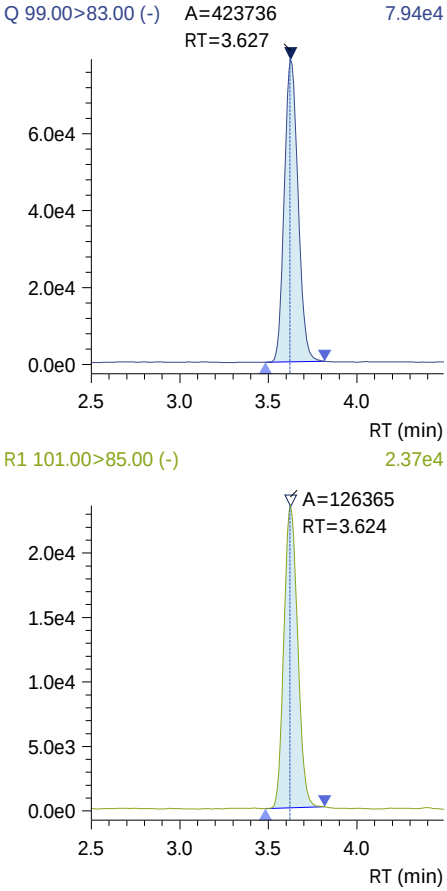
CCV

Sample ID: CCV
Date Acquired: 6/30/2023 11:30:22 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-033.lcd
Vial: 3 | 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	3.627	423736	247134	10.5504	ng /mL	101.00 >85.00	29.82	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.622	247134	247134	1.0000	ng /mL	----	----	

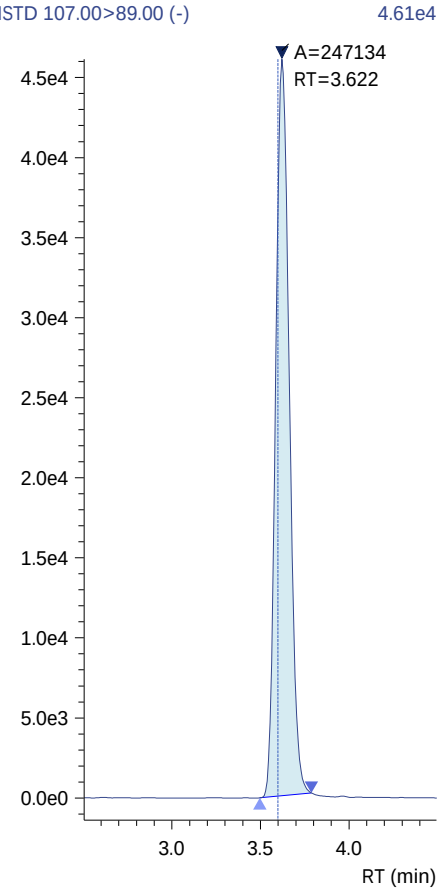
Perchlorate

Conc 10.5504
R#1 29.82 (31.12)



Sodium Perchlorate-18O4_IS

Conc 1.0000



HS23061825-MSVOA-SW8260

ALS WO# HS23061825

01205497

right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-01 | **125_062623**

Collected	Received	Matrix	Basis
06/26/23 07:05	06/27/23 09:40	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,1,1-Trichloroethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,1,2,2-Tetrachloroethane	ug/L	5.0	U	2.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,1,2-Trichloroethane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,1-Dichloroethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,1-Dichloroethene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,1-Dichloropropene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,2,3-Trichlorobenzene	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,2,3-Trichloropropane	ug/L	5.0	U	2.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,2,4-Trichlorobenzene	ug/L	5.0	U	2.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,2,4-Trimethylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,2-Dibromo-3-chloropropane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,2-Dibromoethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,2-Dichlorobenzene	ug/L	5.0	U	2.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,2-Dichloroethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,2-Dichloropropane	ug/L	5.0	U	2.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,3,5-Trimethylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,3-Dichlorobenzene	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,3-Dichloropropane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
1,4-Dichlorobenzene	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
2,2-Dichloropropane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
2-Butanone	ug/L	10	U	2.5	10	10	5	06/28/23 17:12	VOA9_440137	U062817.D
2-Chlorotoluene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
2-Hexanone	ug/L	10	U	5.0	10	10	5	06/28/23 17:12	VOA9_440137	U062817.D
4-Chlorotoluene	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
4-Isopropyltoluene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
4-Methyl-2-pentanone	ug/L	10	U	3.5	10	10	5	06/28/23 17:12	VOA9_440137	U062817.D
Acetone	ug/L	10	U	2.0	10	10	5	06/28/23 17:12	VOA9_440137	U062817.D
Benzene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Bromobenzene	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Bromochloromethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Bromodichloromethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Bromoform	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-01

125_062623

Collected	Received	Matrix	Basis
06/26/23 07:05	06/27/23 09:40	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Carbon disulfide	ug/L	10	U	3.0	10	10	5	06/28/23 17:12	VOA9_440137	U062817.D
Carbon tetrachloride	ug/L	5.0	U	2.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Chlorobenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Chloroethane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Chloroform	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Chloromethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
cis-1,2-Dichloroethene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
cis-1,3-Dichloropropene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Dibromochloromethane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Dibromomethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Dichlorodifluoromethane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Ethylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Hexachlorobutadiene	ug/L	5.0	U	5.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Isopropylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
m,p-Xylene	ug/L	10	U	2.5	10	10	5	06/28/23 17:12	VOA9_440137	U062817.D
Methylene chloride	ug/L	10	U	2.0	10	10	5	06/28/23 17:12	VOA9_440137	U062817.D
Naphthalene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
n-Butylbenzene	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
n-Propylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
o-Xylene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
sec-Butylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Styrene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
tert-Butylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Tetrachloroethene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Toluene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
trans-1,2-Dichloroethene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
trans-1,3-Dichloropropene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Trichloroethene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Trichlorofluoromethane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D
Vinyl chloride	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:12	VOA9_440137	U062817.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-02

MW3_062623

Collected	Received	Matrix	Basis
06/26/23 07:50	06/27/23 09:40	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,1,1-Trichloroethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,1,2,2-Tetrachloroethane	ug/L	5.0	U	2.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,1,2-Trichloroethane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,1-Dichloroethane	ug/L	2.4	J	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,1-Dichloroethene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,1-Dichloropropene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,2,3-Trichlorobenzene	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,2,3-Trichloropropane	ug/L	5.0	U	2.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,2,4-Trichlorobenzene	ug/L	5.0	U	2.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,2,4-Trimethylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,2-Dibromo-3-chloropropane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,2-Dibromoethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,2-Dichlorobenzene	ug/L	5.0	U	2.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,2-Dichloroethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,2-Dichloropropane	ug/L	5.0	U	2.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,3,5-Trimethylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,3-Dichlorobenzene	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,3-Dichloropropane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
1,4-Dichlorobenzene	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
2,2-Dichloropropane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
2-Butanone	ug/L	10	U	2.5	10	10	5	06/28/23 17:35	VOA9_440137	U062818.D
2-Chlorotoluene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
2-Hexanone	ug/L	10	U	5.0	10	10	5	06/28/23 17:35	VOA9_440137	U062818.D
4-Chlorotoluene	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
4-Isopropyltoluene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
4-Methyl-2-pentanone	ug/L	10	U	3.5	10	10	5	06/28/23 17:35	VOA9_440137	U062818.D
Acetone	ug/L	10	U	2.0	10	10	5	06/28/23 17:35	VOA9_440137	U062818.D
Benzene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Bromobenzene	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Bromochloromethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Bromodichloromethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Bromoform	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-02

MW3_062623

Collected	Received	Matrix	Basis
06/26/23 07:50	06/27/23 09:40	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Carbon disulfide	ug/L	10	U	3.0	10	10	5	06/28/23 17:35	VOA9_440137	U062818.D
Carbon tetrachloride	ug/L	5.0	U	2.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Chlorobenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Chloroethane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Chloroform	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Chloromethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
cis-1,2-Dichloroethene	ug/L	26		1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
cis-1,3-Dichloropropene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Dibromochloromethane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Dibromomethane	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Dichlorodifluoromethane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Ethylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Hexachlorobutadiene	ug/L	5.0	U	5.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Isopropylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
m,p-Xylene	ug/L	10	U	2.5	10	10	5	06/28/23 17:35	VOA9_440137	U062818.D
Methylene chloride	ug/L	10	U	2.0	10	10	5	06/28/23 17:35	VOA9_440137	U062818.D
Naphthalene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
n-Butylbenzene	ug/L	5.0	U	2.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
n-Propylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
o-Xylene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
sec-Butylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Styrene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
tert-Butylbenzene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Tetrachloroethene	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Toluene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
trans-1,2-Dichloroethene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
trans-1,3-Dichloropropene	ug/L	5.0	U	1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Trichloroethene	ug/L	160		1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Trichlorofluoromethane	ug/L	5.0	U	1.5	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D
Vinyl chloride	ug/L	5.2		1.0	5.0	5.0	5	06/28/23 17:35	VOA9_440137	U062818.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-03

MW23_062623

Collected	Received	Matrix	Basis
06/26/23 08:35	06/27/23 09:40	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
1,1,1,2-Tetrachloroethane	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,1,1-Trichloroethane	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,1,2,2-Tetrachloroethane	ug/L	10	U	5.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,1,2-Trichloroethane	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,1-Dichloroethane	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,1-Dichloroethene	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,1-Dichloropropene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,2,3-Trichlorobenzene	ug/L	10	U	4.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,2,3-Trichloropropane	ug/L	10	U	5.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,2,4-Trichlorobenzene	ug/L	10	U	5.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,2,4-Trimethylbenzene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,2-Dibromo-3-chloropropane	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,2-Dibromoethane	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,2-Dichlorobenzene	ug/L	10	U	5.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,2-Dichloroethane	ug/L	81		2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,2-Dichloropropane	ug/L	10	U	5.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,3,5-Trimethylbenzene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,3-Dichlorobenzene	ug/L	10	U	4.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,3-Dichloropropane	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
1,4-Dichlorobenzene	ug/L	10	U	4.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
2,2-Dichloropropane	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
2-Butanone	ug/L	20	U	5.0	20	20	10	06/29/23 14:48	VOA9_440247	U062912.D
2-Chlorotoluene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
2-Hexanone	ug/L	20	U	10	20	20	10	06/29/23 14:48	VOA9_440247	U062912.D
4-Chlorotoluene	ug/L	10	U	4.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
4-Isopropyltoluene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
4-Methyl-2-pentanone	ug/L	20	U	7.0	20	20	10	06/29/23 14:48	VOA9_440247	U062912.D
Acetone	ug/L	20	U	4.0	20	20	10	06/29/23 14:48	VOA9_440247	U062912.D
Benzene	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Bromobenzene	ug/L	10	U	4.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Bromochloromethane	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Bromodichloromethane	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Bromoform	ug/L	10	U	4.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-03

MW23_062623

Collected	Received	Matrix	Basis
06/26/23 08:35	06/27/23 09:40	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Bromomethane	ug/L	10	U	4.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Carbon disulfide	ug/L	20	U	6.0	20	20	10	06/29/23 14:48	VOA9_440247	U062912.D
Carbon tetrachloride	ug/L	10	U	5.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Chlorobenzene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Chloroethane	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Chloroform	ug/L	9.3	J	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Chloromethane	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
cis-1,2-Dichloroethene	ug/L	21		2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
cis-1,3-Dichloropropene	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Dibromochloromethane	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Dibromomethane	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Dichlorodifluoromethane	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Ethylbenzene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Hexachlorobutadiene	ug/L	10	U	10	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Isopropylbenzene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
m,p-Xylene	ug/L	20	U	5.0	20	20	10	06/29/23 14:48	VOA9_440247	U062912.D
Methylene chloride	ug/L	20	U	4.0	20	20	10	06/29/23 14:48	VOA9_440247	U062912.D
Naphthalene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
n-Butylbenzene	ug/L	10	U	4.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
n-Propylbenzene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
o-Xylene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
sec-Butylbenzene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Styrene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
tert-Butylbenzene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Tetrachloroethene	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Toluene	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
trans-1,2-Dichloroethene	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
trans-1,3-Dichloropropene	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Trichloroethene	ug/L	2,600		10	50	50	50	06/29/23 14:26	VOA9_440247	U062911.D
Trichlorofluoromethane	ug/L	10	U	3.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D
Vinyl chloride	ug/L	10	U	2.0	10	10	10	06/29/23 14:48	VOA9_440247	U062912.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-04

MW9_062623

Collected	Received	Matrix	Basis
06/26/23 09:20	06/27/23 09:40	Groundwater	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	06/28/23 14:35	VOA9_440137	U062810.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,1-Dichloroethane	ug/L	0.46	J	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,2-Dichloroethane	ug/L	1.5		0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 14:35	VOA9_440137	U062810.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/28/23 14:35	VOA9_440137	U062810.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-04

MW9_062623

Collected	Received	Matrix	Basis
06/26/23 09:20	06/27/23 09:40	Groundwater	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	06/28/23 14:35	VOA9_440137	U062810.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Chloroform	ug/L	1.3		0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
cis-1,2-Dichloroethene	ug/L	58		0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Trichloroethene	ug/L	930		5.0	25	25	25	06/29/23 14:03	VOA9_440247	U062910.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D
Vinyl chloride	ug/L	0.42	J	0.20	1.0	1.0	1	06/28/23 14:35	VOA9_440137	U062810.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-05

MW13_062623

Collected	Received	Matrix	Basis
06/26/23 10:05	06/27/23 09:40	Groundwater	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	06/28/23 13:51	VOA9_440137	U062808.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 13:51	VOA9_440137	U062808.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/28/23 13:51	VOA9_440137	U062808.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-05

MW13_062623

Collected	Received	Matrix	Basis
06/26/23 10:05	06/27/23 09:40	Groundwater	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	06/28/23 13:51	VOA9_440137	U062808.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:51	VOA9_440137	U062808.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-06

CO2_062623

Collected	Received	Matrix	Basis
06/26/23 10:50	06/27/23 09:40	Groundwater	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	06/28/23 16:50	VOA9_440137	U062816.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 16:50	VOA9_440137	U062816.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/28/23 16:50	VOA9_440137	U062816.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-06

CO2_062623

Collected	Received	Matrix	Basis
06/26/23 10:50	06/27/23 09:40	Groundwater	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	06/28/23 16:50	VOA9_440137	U062816.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:50	VOA9_440137	U062816.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-07

18WW10_062623

Collected	Received	Matrix	Basis
06/26/23 11:35	06/27/23 09:40	Groundwater	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	06/28/23 16:27	VOA9_440137	U062815.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 16:27	VOA9_440137	U062815.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/28/23 16:27	VOA9_440137	U062815.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-07

18WW10_062623

Collected	Received	Matrix	Basis
06/26/23 11:35	06/27/23 09:40	Groundwater	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	06/28/23 16:27	VOA9_440137	U062815.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:27	VOA9_440137	U062815.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-09

MW16_062623

Collected	Received	Matrix	Basis
06/26/23 13:05	06/27/23 09:40	Groundwater	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	06/28/23 14:13	VOA9_440137	U062809.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,1-Dichloroethane	ug/L	1.2		0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,1-Dichloroethene	ug/L	6.8		0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,2-Dichloroethane	ug/L	40		0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 14:13	VOA9_440137	U062809.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/28/23 14:13	VOA9_440137	U062809.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-09

MW16_062623

Collected	Received	Matrix	Basis
06/26/23 13:05	06/27/23 09:40	Groundwater	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	06/28/23 14:13	VOA9_440137	U062809.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
cis-1,2-Dichloroethene	ug/L	23		0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Tetrachloroethene	ug/L	0.66	J	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
trans-1,2-Dichloroethene	ug/L	0.54	J	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Trichloroethene	ug/L	540		2.0	10	10	10	06/29/23 15:55	VOA9_440247	U062915.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D
Vinyl chloride	ug/L	0.87	J	0.20	1.0	1.0	1	06/28/23 14:13	VOA9_440137	U062809.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-10

Trip Blank

Collected	Received	Matrix	Basis
06/26/23 00:00	06/27/23 09:40	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	06/28/23 16:05	VOA9_440137	U062814.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 16:05	VOA9_440137	U062814.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/28/23 16:05	VOA9_440137	U062814.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

HS23061825-10

Trip Blank

Collected	Received	Matrix	Basis
06/26/23 00:00	06/27/23 09:40	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	06/28/23 16:05	VOA9_440137	U062814.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 16:05	VOA9_440137	U062814.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

Volatiles by EPA 8260

VBLKW-230628

VBLKW-230628

Collected	Received	Matrix	Basis
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	06/28/23 13:28	VOA9_440137	U062807.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 13:28	VOA9_440137	U062807.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/28/23 13:28	VOA9_440137	U062807.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

VBLKW-230628	Collected	Received	Matrix	Basis
VBLKW-230628	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	06/28/23 13:28	VOA9_440137	U062807.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/28/23 13:28	VOA9_440137	U062807.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

VBLKW-230629

VBLKW-230629

Collected	Received	Matrix	Basis
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	06/29/23 12:39	VOA9_440247	U062907.D
1,1,1-Trichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,1,2,2-Tetrachloroethane	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,1,2-Trichloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,1-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,1-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,1-Dichloropropene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2,3-Trichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2,3-Trichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2,4-Trichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2,4-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2-Dibromo-3-chloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2-Dibromoethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2-Dichlorobenzene	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2-Dichloroethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,2-Dichloropropane	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,3,5-Trimethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,3-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,3-Dichloropropane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
1,4-Dichlorobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
2,2-Dichloropropane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
2-Butanone	ug/L	2.0	U	0.50	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
2-Chlorotoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
2-Hexanone	ug/L	2.0	U	1.0	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
4-Chlorotoluene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
4-Isopropyltoluene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
4-Methyl-2-pentanone	ug/L	2.0	U	0.70	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Acetone	ug/L	2.0	U	0.40	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Benzene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Bromobenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Bromochloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Bromodichloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Bromoform	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

VBLKW-230629

VBLKW-230629

Collected	Received	Matrix	Basis
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	06/29/23 12:39	VOA9_440247	U062907.D
Carbon disulfide	ug/L	2.0	U	0.60	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Carbon tetrachloride	ug/L	1.0	U	0.50	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Chlorobenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Chloroethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Chloroform	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Chloromethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
cis-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
cis-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Dibromochloromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Dibromomethane	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Dichlorodifluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Ethylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Hexachlorobutadiene	ug/L	1.0	U	1.0	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Isopropylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
m,p-Xylene	ug/L	2.0	U	0.50	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Methylene chloride	ug/L	2.0	U	0.40	2.0	2.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Naphthalene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
n-Butylbenzene	ug/L	1.0	U	0.40	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
n-Propylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
o-Xylene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
sec-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Styrene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
tert-Butylbenzene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Tetrachloroethene	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Toluene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
trans-1,2-Dichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
trans-1,3-Dichloropropene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Trichloroethene	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Trichlorofluoromethane	ug/L	1.0	U	0.30	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D
Vinyl chloride	ug/L	1.0	U	0.20	1.0	1.0	1	06/29/23 12:39	VOA9_440247	U062907.D

01205520

right solutions.
right partner.

Form 2

System Monitoring Compound Recovery

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

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.

Project: LHAAP 18 24

Workorder: HS23061825

Volatiles by EPA 8260

RunID: VOA9-440137

CCB-CCB	Analyzed	Conc Units	Dilution
CCB	06/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	50.63	50	101		80-120
4-Bromofluorobenzene	48.37	50	96.7		80-120
Dibromofluoromethane	48.54	50	97.1		80-120
Toluene-d8	54.77	50	110		80-120

CCV-CCV	Analyzed	Conc Units	Dilution
CCV	06/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	50.71	50	101		80-120
4-Bromofluorobenzene	53.7	50	107		80-120
Dibromofluoromethane	51.33	50	103		80-120
Toluene-d8	50.26	50	101		80-120

HS23061825-01	Analyzed	Conc Units	Dilution
125_062623	06/28/23	%REC	5

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	270	250	106		81-118
4-Bromofluorobenzene	240	250	94.0		85-114
Dibromofluoromethane	250	250	101		80-119
Toluene-d8	270	250	109		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder HS23061825

RunID VOA9-440137

Volatiles by EPA 8260

HS23061825-02	Analyzed	Conc Units	Dilution
MW3_062623	06/28/23	%REC	5

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	270	250	107		81-118
4-Bromofluorobenzene	230	250	93.4		85-114
Dibromofluoromethane	250	250	98.8		80-119
Toluene-d8	280	250	112		89-112

HS23061825-04	Analyzed	Conc Units	Dilution
MW9_062623	06/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	52	50	105		81-118
4-Bromofluorobenzene	48	50	95.6		85-114
Dibromofluoromethane	50	50	99.8		80-119
Toluene-d8	55	50	109		89-112

HS23061825-05	Analyzed	Conc Units	Dilution
MW13_062623	06/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	53	50	106		81-118
4-Bromofluorobenzene	48	50	95.7		85-114
Dibromofluoromethane	50	50	100		80-119
Toluene-d8	53	50	106		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder HS23061825

RunID VOA9-440137

Volatiles by EPA 8260

HS23061825-05MS	Analyzed	Conc Units	Dilution
MW13_062623	06/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	52.06	50	104		81-118
4-Bromofluorobenzene	50.85	50	102		85-114
Dibromofluoromethane	50.57	50	101		80-119
Toluene-d8	54.6	50	109		89-112

HS23061825-05MSD	Analyzed	Conc Units	Dilution
MW13_062623	06/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51.81	50	104		81-118
4-Bromofluorobenzene	51.63	50	103		85-114
Dibromofluoromethane	49.91	50	99.8		80-119
Toluene-d8	53.97	50	108		89-112

HS23061825-06	Analyzed	Conc Units	Dilution
CO2_062623	06/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	53	50	106		81-118
4-Bromofluorobenzene	46	50	92.9		85-114
Dibromofluoromethane	50	50	99.3		80-119
Toluene-d8	54	50	107		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder HS23061825

RunID VOA9-440137

Volatiles by EPA 8260

HS23061825-07	Analyzed	Conc Units	Dilution
18WW10_062623	06/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	53	50	106		81-118
4-Bromofluorobenzene	47	50	93.5		85-114
Dibromofluoromethane	50	50	100		80-119
Toluene-d8	54	50	108		89-112

HS23061825-09	Analyzed	Conc Units	Dilution
MW16_062623	06/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	53	50	105		81-118
4-Bromofluorobenzene	48	50	96.5		85-114
Dibromofluoromethane	50	50	100.0		80-119
Toluene-d8	54	50	107		89-112

HS23061825-10	Analyzed	Conc Units	Dilution
Trip Blank	06/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51	50	101		81-118
4-Bromofluorobenzene	48	50	95.2		85-114
Dibromofluoromethane	48	50	96.8		80-119
Toluene-d8	54	50	109		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder HS23061825

RunID VOA9-440137

Volatiles by EPA 8260

VBLKW-230628	Analyzed	Conc Units	Dilution
VBLKW-230628	06/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	53.18	50	106		81-118
4-Bromofluorobenzene	46.93	50	93.9		85-114
Dibromofluoromethane	49.81	50	99.6		80-119
Toluene-d8	53.83	50	108		89-112

VLCSW-230628	Analyzed	Conc Units	Dilution
VLCSW-230628	06/28/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51.67	50	103		81-118
4-Bromofluorobenzene	52.69	50	105		85-114
Dibromofluoromethane	50.09	50	100		80-119
Toluene-d8	50.69	50	101		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder HS23061825

RunID VOA9-440247

Volatiles by EPA 8260

CCB-CCB	Analyzed	Conc Units	Dilution
CCB	06/29/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	50.12	50	100		80-120
4-Bromofluorobenzene	48.15	50	96.3		80-120
Dibromofluoromethane	48.17	50	96.3		80-120
Toluene-d8	54.19	50	108		80-120

CCV-CCV	Analyzed	Conc Units	Dilution
CCV	06/29/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	48.83	50	97.7		80-120
4-Bromofluorobenzene	50.92	50	102		80-120
Dibromofluoromethane	48.75	50	97.5		80-120
Toluene-d8	47.68	50	95.4		80-120

HS23061825-03	Analyzed	Conc Units	Dilution
MW23_062623	06/29/23	%REC	50

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	2700	2500	107		81-118
4-Bromofluorobenzene	2400	2500	96.8		85-114
Dibromofluoromethane	2500	2500	101		80-119
Toluene-d8	2700	2500	106		89-112
1,2-Dichloroethane-d4	530	500	106		81-118
4-Bromofluorobenzene	470	500	94.4		85-114
Dibromofluoromethane	500	500	101		80-119
Toluene-d8	530	500	107		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder HS23061825

RunID VOA9-440247

Volatiles by EPA 8260

HS23061825-03MS	Analyzed	Conc Units	Dilution
MW23_062623	06/29/23	%REC	50

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	2589	2500	104		81-118
4-Bromofluorobenzene	2564	2500	103		85-114
Dibromofluoromethane	2493	2500	99.7		80-119
Toluene-d8	2704	2500	108		89-112

HS23061825-03MSD	Analyzed	Conc Units	Dilution
MW23_062623	06/29/23	%REC	50

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	2532	2500	101		81-118
4-Bromofluorobenzene	2523	2500	101		85-114
Dibromofluoromethane	2493	2500	99.7		80-119
Toluene-d8	2723	2500	109		89-112

HS23061825-04	Analyzed	Conc Units	Dilution
MW9_062623	06/29/23	%REC	25

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	1300	1250	102		81-118
4-Bromofluorobenzene	1200	1250	92.9		85-114
Dibromofluoromethane	1200	1250	97.3		80-119
Toluene-d8	1400	1250	110		89-112

Form 2 - System Monitoring Compound Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder HS23061825

RunID VOA9-440247

Volatiles by EPA 8260

HS23061825-09	Analyzed	Conc Units	Dilution
MW16_062623	06/29/23	%REC	10

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	510	500	102		81-118
4-Bromofluorobenzene	480	500	96.9		85-114
Dibromofluoromethane	490	500	98.1		80-119
Toluene-d8	530	500	107		89-112

VBLKW-230629	Analyzed	Conc Units	Dilution
VBLKW-230629	06/29/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51.09	50	102		81-118
4-Bromofluorobenzene	47.17	50	94.3		85-114
Dibromofluoromethane	48.53	50	97.1		80-119
Toluene-d8	53.86	50	108		89-112

VLCSW-230629	Analyzed	Conc Units	Dilution
VLCSW-230629	06/29/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
1,2-Dichloroethane-d4	51.69	50	103		81-118
4-Bromofluorobenzene	51.6	50	103		85-114
Dibromofluoromethane	50.54	50	101		80-119
Toluene-d8	48.55	50	97.1		89-112

01205529

right solutions.
right partner.

Form 3A

Matrix Spike/Spike Duplicate Recovery

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

RunID VOA9-440137

Volatiles by EPA 8260

MW13_062623 (HS23061825-05)				HS23061825-05MS				HS23061825-05MSD						
Sample Matrix: Aqueous			Run Date	06/28/23				06/28/23						
Result Units: ug/L			Run Time	14:58				15:20						
			Data File	U062811.D				U062812.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	21.88	20	109		21.32	20	107		20	2.61	
1,1,1-Trichloroethane	74-131	1	0	21.98	20	110		20.93	20	105		20	4.89	
1,1,2,2-Tetrachloroethane	71-121	1	0	17.91	20	90		17.83	20	89		20	0.457	
1,1,2-Trichloroethane	80-119	1	0	19.47	20	97		19.24	20	96		20	1.19	
1,1-Dichloroethane	77-125	1	0	18.9	20	94		18.58	20	93		20	1.72	
1,1-Dichloroethene	71-131	1	0	21.03	20	105		20.12	20	101		20	4.45	
1,1-Dichloropropene	78-125	1	0	23.1	20	115		22.48	20	112		20	2.71	
1,2,3-Trichlorobenzene	69-129	1	0	18.05	20	90		17.8	20	89		20	1.41	
1,2,3-Trichloropropane	73-122	1	0	18.74	20	94		18.53	20	93		20	1.11	
1,2,4-Trichlorobenzene	69-130	1	0	18.85	20	94		18.32	20	92		20	2.8	
1,2,4-Trimethylbenzene	76-124	1	0	22.01	20	110		21.25	20	106		20	3.55	
1,2-Dibromo-3-chloropropane	62-128	1	0	16.44	20	82		16.2	20	81		20	1.5	
1,2-Dibromoethane	77-121	1	0	20.1	20	101		19.92	20	100		20	0.938	
1,2-Dichlorobenzene	80-119	1	0	20.16	20	101		19.4	20	97		20	3.86	
1,2-Dichloroethane	73-128	1	0	21.45	20	107		21.2	20	106		20	1.18	
1,2-Dichloropropane	78-122	1	0	20.27	20	101		19.63	20	98		20	3.18	
1,3,5-Trimethylbenzene	75-124	1	0	22.92	20	115		22.02	20	110		20	4.04	
1,3-Dichlorobenzene	80-119	1	0	20.87	20	104		19.94	20	100		20	4.55	
1,3-Dichloropropane	80-119	1	0	20.4	20	102		19.59	20	98		20	4.05	
1,4-Dichlorobenzene	79-118	1	0	19.83	20	99		19.52	20	98		20	1.61	
2,2-Dichloropropane	60-139	1	0	22.91	20	115		22.5	20	112		20	1.81	
2-Butanone	56-143	1	0	33.32	40	83		33.35	40	83		20	0.0976	
2-Chlorotoluene	79-122	1	0	21.98	20	110		20.75	20	104		20	5.73	
2-Hexanone	57-139	1	0	34.37	40	86		35.44	40	89		20	3.08	
4-Chlorotoluene	78-122	1	0	22.26	20	111		21.2	20	106		20	4.88	
4-Isopropyltoluene	77-127	1	0	23.96	20	120		22.63	20	113		20	5.71	
4-Methyl-2-pentanone	67-130	1	0	36.2	40	90		37.75	40	94		20	4.19	
Acetone	39-160	1	0	32.94	40	82		34.34	40	86		20	4.17	
Benzene	79-120	1	0	20.89	20	104		20.38	20	102		20	2.46	
Bromobenzene	80-120	1	0	20.44	20	102		19.93	20	100		20	2.53	
Bromochloromethane	78-123	1	0	18.8	20	94		17.85	20	89		20	5.16	
Bromodichloromethane	79-125	1	0	21.3	20	107		20.75	20	104		20	2.61	
Bromoform	66-130	1	0	20.36	20	102		20.36	20	102		20	0.00181	
Bromomethane	53-141	1	0	21.1	20	105		20.29	20	101		20	3.88	

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.

Project LHAAP 18 24

Workorder **HS23061825**

RunID VOA9-440137

Volatiles by EPA 8260

MW13_062623 (HS23061825-05)				HS23061825-05MS				HS23061825-05MSD						
Sample Matrix: Aqueous			Run Date	06/28/23				06/28/23						
Result Units: ug/L			Run Time	14:58				15:20						
			Data File	U062811.D				U062812.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	42.38	40	106		40.65	40	102		20	4.17	
Carbon tetrachloride	72-136	1	0	24.82	20	124		23.91	20	120		20	3.71	
Chlorobenzene	82-118	1	0	21.33	20	107		20.77	20	104		20	2.63	
Chloroethane	60-138	1	0	19.38	20	97		18.55	20	93		20	4.38	
Chloroform	79-124	1	0	19.38	20	97		18.48	20	92		20	4.75	
Chloromethane	50-139	1	0	16.67	20	83		16.62	20	83		20	0.302	
cis-1,2-Dichloroethene	78-123	1	0	19.76	20	99		18.77	20	94		20	5.11	
cis-1,3-Dichloropropene	75-124	1	0	19.14	20	96		18.98	20	95		20	0.833	
Dibromochloromethane	74-126	1	0	21.3	20	107		21.16	20	106		20	0.675	
Dibromomethane	79-123	1	0	20.5	20	103		20.7	20	104		20	0.965	
Dichlorodifluoromethane	32-152	1	0	17.58	20	88		16.58	20	83		20	5.87	
Ethylbenzene	79-121	1	0	22.76	20	114		22.08	20	110		20	3.02	
Hexachlorobutadiene	66-134	1	0	22.72	20	114		21.22	20	106		20	6.79	
Isopropylbenzene	72-131	1	0	24.51	20	123		23.85	20	119		20	2.75	
m,p-Xylene	80-121	1	0	47.23	40	118		45.59	40	114		20	3.53	
Methylene chloride	74-124	1	0	19.17	20	96		18.53	20	93		20	3.38	
Naphthalene	61-128	1	0	17.09	20	85		18.13	20	91		20	5.89	
n-Butylbenzene	75-128	1	0	23.49	20	117		22.66	20	113		20	3.61	
n-Propylbenzene	76-126	1	0	23.65	20	118		22.68	20	113		20	4.17	
o-Xylene	78-122	1	0	22.57	20	113		22.21	20	111		20	1.58	
sec-Butylbenzene	77-126	1	0	23.62	20	118		22.51	20	113		20	4.81	
Styrene	78-123	1	0	23.1	20	115		23.07	20	115		20	0.134	
tert-Butylbenzene	78-124	1	0	23.19	20	116		22.41	20	112		20	3.41	
Tetrachloroethene	74-129	1	0	23.74	20	119		22.49	20	112		20	5.41	
Toluene	80-121	1	0	22.28	20	111		21.1	20	106		20	5.44	
trans-1,2-Dichloroethene	75-124	1	0	20.38	20	102		19.57	20	98		20	4.05	
trans-1,3-Dichloropropene	73-127	1	0	19.68	20	98		18.91	20	94		20	4.02	
Trichloroethene	79-123	1	0	23.9	20	120		22.16	20	111		20	7.56	
Trichlorofluoromethane	65-141	1	0	23.8	20	119		22.8	20	114		20	4.26	
Vinyl chloride	58-137	1	0	19.58	20	98		18.62	20	93		20	5.04	

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.

Project LHAAP 18 24

Workorder **HS23061825**

RunID VOA9-440247

Volatiles by EPA 8260

MW23_062623 (HS23061825-03)				HS23061825-03MS				HS23061825-03MSD						
Sample Matrix: Aqueous			Run Date	06/29/23				06/29/23						
Result Units: ug/L			Run Time	15:10				15:33						
			Data File	U062913.D				U062914.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	50	0	1105	1000	110		1098	1000	110		20	0.62	
1,1,1-Trichloroethane	74-131	50	0	1081	1000	108		1069	1000	107		20	1.1	
1,1,2,2-Tetrachloroethane	71-121	50	0	901.2	1000	90		947.9	1000	95		20	5.05	
1,1,2-Trichloroethane	80-119	50	0	973.3	1000	97		995.5	1000	100		20	2.25	
1,1-Dichloroethane	77-125	50	0	956	1000	96		933.7	1000	93		20	2.36	
1,1-Dichloroethene	71-131	50	0	1081	1000	108		1058	1000	106		20	2.15	
1,1-Dichloropropene	78-125	50	0	1153	1000	115		1153	1000	115		20	0.0741	
1,2,3-Trichlorobenzene	69-129	50	0	868.2	1000	87		937.2	1000	94		20	7.65	
1,2,3-Trichloropropane	73-122	50	0	902.8	1000	90		937.5	1000	94		20	3.76	
1,2,4-Trichlorobenzene	69-130	50	0	905.1	1000	90		956.4	1000	96		20	5.51	
1,2,4-Trimethylbenzene	76-124	50	0	1094	1000	109		1143	1000	114		20	4.42	
1,2-Dibromo-3-chloropropane	62-128	50	0	804.1	1000	80		843.7	1000	84		20	4.8	
1,2-Dibromoethane	77-121	50	0	990.6	1000	99		1012	1000	101		20	2.15	
1,2-Dichlorobenzene	80-119	50	0	999.5	1000	100		1040	1000	104		20	3.95	
1,2-Dichloroethane	73-128	50	79.85	1151	1000	107		1133	1000	105		20	1.57	
1,2-Dichloropropane	78-122	50	0	1005	1000	101		1019	1000	102		20	1.31	
1,3,5-Trimethylbenzene	75-124	50	0	1141	1000	114		1175	1000	118		20	2.99	
1,3-Dichlorobenzene	80-119	50	0	1032	1000	103		1073	1000	107		20	3.88	
1,3-Dichloropropane	80-119	50	0	1004	1000	100		1034	1000	103		20	2.94	
1,4-Dichlorobenzene	79-118	50	0	1006	1000	101		1053	1000	105		20	4.57	
2,2-Dichloropropane	60-139	50	0	1121	1000	112		1073	1000	107		20	4.38	
2-Butanone	56-143	50	0	1574	2000	79		1649	2000	82		20	4.7	
2-Chlorotoluene	79-122	50	0	1086	1000	109		1101	1000	110		20	1.32	
2-Hexanone	57-139	50	0	1690	2000	84		1768	2000	88		20	4.52	
4-Chlorotoluene	78-122	50	0	1108	1000	111		1127	1000	113		20	1.64	
4-Isopropyltoluene	77-127	50	0	1177	1000	118		1222	1000	122		20	3.78	
4-Methyl-2-pentanone	67-130	50	0	1774	2000	89		1856	2000	93		20	4.55	
Acetone	39-160	50	0	1515	2000	76		1688	2000	84		20	10.8	
Benzene	79-120	50	0	1054	1000	105		1048	1000	105		20	0.589	
Bromobenzene	80-120	50	0	1003	1000	100		1049	1000	105		20	4.48	
Bromochloromethane	78-123	50	0	921.2	1000	92		923.9	1000	92		20	0.287	
Bromodichloromethane	79-125	50	0	1063	1000	106		1083	1000	108		20	1.83	
Bromoform	66-130	50	0	1061	1000	106		1064	1000	106		20	0.238	
Bromomethane	53-141	50	0	1185	1000	118		1113	1000	111		20	6.24	

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.

Project LHAAP 18 24

Workorder **HS23061825**

RunID VOA9-440247

Volatiles by EPA 8260

MW23_062623 (HS23061825-03)				HS23061825-03MS				HS23061825-03MSD						
Sample Matrix Aqueous			**Run Date**	06/29/23				06/29/23						
Result Units ug/L			**Run Time**	15:10				15:33						
			Data File	U062913.D				U062914.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	50	0	2138	2000	107		2097	2000	105		20	1.93	
Carbon tetrachloride	72-136	50	0	1245	1000	124		1203	1000	120		20	3.42	
Chlorobenzene	82-118	50	0	1083	1000	108		1084	1000	108		20	0.0917	
Chloroethane	60-138	50	0	998.3	1000	100		948.5	1000	95		20	5.11	
Chloroform	79-124	50	0	967.2	1000	97		982.2	1000	98		20	1.53	
Chloromethane	50-139	50	0	779.4	1000	78		792.8	1000	79		20	1.71	
cis-1,2-Dichloroethene	78-123	50	0	994	1000	99		966.5	1000	97		20	2.81	
cis-1,3-Dichloropropene	75-124	50	0	959.1	1000	96		966.1	1000	97		20	0.728	
Dibromochloromethane	74-126	50	0	1097	1000	110		1082	1000	108		20	1.42	
Dibromomethane	79-123	50	0	1047	1000	105		1017	1000	102		20	2.96	
Dichlorodifluoromethane	32-152	50	0	893.1	1000	89		878.6	1000	88		20	1.63	
Ethylbenzene	79-121	50	0	1129	1000	113		1139	1000	114		20	0.875	
Hexachlorobutadiene	66-134	50	0	1075	1000	107		1124	1000	112		20	4.45	
Isopropylbenzene	72-131	50	0	1215	1000	122		1231	1000	123		20	1.24	
m,p-Xylene	80-121	50	0	2376	2000	119		2372	2000	119		20	0.163	
Methylene chloride	74-124	50	0	994.4	1000	99		1005	1000	101		20	1.09	
Naphthalene	61-128	50	0	811.7	1000	81		925.4	1000	92		20	13.1	
n-Butylbenzene	75-128	50	0	1159	1000	116		1203	1000	120		20	3.7	
n-Propylbenzene	76-126	50	0	1139	1000	114		1192	1000	119		20	4.58	
o-Xylene	78-122	50	0	1142	1000	114		1143	1000	114		20	0.134	
sec-Butylbenzene	77-126	50	0	1171	1000	117		1217	1000	122		20	3.83	
Styrene	78-123	50	0	1161	1000	116		1171	1000	117		20	0.854	
tert-Butylbenzene	78-124	50	0	1150	1000	115		1200	1000	120		20	4.23	
Tetrachloroethene	74-129	50	0	1207	1000	121		1199	1000	120		20	0.625	
Toluene	80-121	50	0	1085	1000	109		1109	1000	111		20	2.12	
trans-1,2-Dichloroethene	75-124	50	0	1027	1000	103		1033	1000	103		20	0.615	
trans-1,3-Dichloropropene	73-127	50	0	947	1000	95		971.1	1000	97		20	2.51	
Trichloroethene	79-123	50	2606	3625	1000	102		3563	1000	96		20	1.72	
Trichlorofluoromethane	65-141	50	0	1188	1000	119		1167	1000	117		20	1.81	
Vinyl chloride	58-137	50	0	990.6	1000	99		966.4	1000	97		20	2.47	

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

01205534

right solutions.
right partner.

Form 3B

Laboratory Control Sample Recovery

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

SAMPLENUM
VLCSW-230628

Volatiles by EPA 8260

VOA9_440137			VLCSW-230628		
Spike Matrix	Aqueous	**Run Date**	06/28/23		
Result Units	ug/L	**Run Time**	12:44		
		Data File	U062805.D		

Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q
1,1,1,2-Tetrachloroethane	78-124	20	23.53	118	
1,1,1-Trichloroethane	74-131	20	23.03	115	
1,1,2,2-Tetrachloroethane	71-121	20	19.96	100	
1,1,2-Trichloroethane	80-119	20	21.66	108	
1,1-Dichloroethane	77-125	20	21.78	109	
1,1-Dichloroethene	71-131	20	23.52	118	
1,1-Dichloropropene	78-125	20	24.09	120	
1,2,3-Trichlorobenzene	69-129	20	21.36	107	
1,2,3-Trichloropropane	73-122	20	20.55	103	
1,2,4-Trichlorobenzene	69-130	20	21.27	106	
1,2,4-Trimethylbenzene	76-124	20	24.59	123	
1,2-Dibromo-3-chloropropane	62-128	20	19.52	98	
1,2-Dibromoethane	77-121	20	21.83	109	
1,2-Dichlorobenzene	80-119	20	22.32	112	
1,2-Dichloroethane	73-128	20	23.52	118	
1,2-Dichloropropane	78-122	20	21.71	109	
1,3,5-Trimethylbenzene	75-124	20	24.59	123	
1,3-Dichlorobenzene	80-119	20	22.42	112	
1,3-Dichloropropane	80-119	20	21.93	110	
1,4-Dichlorobenzene	79-118	20	22.08	110	
2,2-Dichloropropane	60-139	20	25.25	126	
2-Butanone	56-143	40	39.98	100	
2-Chlorotoluene	79-122	20	22.92	115	
2-Hexanone	57-139	40	38.97	97	
4-Chlorotoluene	78-122	20	23.66	118	
4-Isopropyltoluene	77-127	20	25.32	127	
4-Methyl-2-pentanone	67-130	40	41.39	103	
Acetone	39-160	40	49.97	125	
Benzene	79-120	20	22.53	113	
Bromobenzene	80-120	20	22.22	111	
Bromochloromethane	78-123	20	21.51	108	
Bromodichloromethane	79-125	20	23.12	116	
Bromoform	66-130	20	22.08	110	
Bromomethane	53-141	20	22.88	114	

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.

Project LHAAP 18 24

Workorder
HS23061825

SAMPLENUM
VLCSW-230628

Volatiles by EPA 8260

VOA9_440137			VLCSW-230628			
Spike Matrix	Aqueous		**Run Date**	06/28/23		
Result Units	ug/L		**Run Time**	12:44		
			Data File	U062805.D		
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	
Carbon disulfide	64-133	40	52.28	131		
Carbon tetrachloride	72-136	20	24.19	121		
Chlorobenzene	82-118	20	22.61	113		
Chloroethane	60-138	20	21.93	110		
Chloroform	79-124	20	21.68	108		
Chloromethane	50-139	20	19.11	96		
cis-1,2-Dichloroethene	78-123	20	22	110		
cis-1,3-Dichloropropene	75-124	20	21.4	107		
Dibromochloromethane	74-126	20	23.27	116		
Dibromomethane	79-123	20	22.31	112		
Dichlorodifluoromethane	32-152	20	22.86	114		
Ethylbenzene	79-121	20	23.65	118		
Hexachlorobutadiene	66-134	20	24.12	121		
Isopropylbenzene	72-131	20	25.22	126		
m,p-Xylene	80-121	40	48.4	121		
Methylene chloride	74-124	20	23.16	116		
Naphthalene	61-128	20	21.77	109		
n-Butylbenzene	75-128	20	24.63	123		
n-Propylbenzene	76-126	20	24.07	120		
o-Xylene	78-122	20	23.86	119		
sec-Butylbenzene	77-126	20	24.81	124		
Styrene	78-123	20	24.88	124		
tert-Butylbenzene	78-124	20	24.15	121		
Tetrachloroethene	74-129	20	24.39	122		
Toluene	80-121	20	23.15	116		
trans-1,2-Dichloroethene	75-124	20	22.77	114		
trans-1,3-Dichloropropene	73-127	20	20.9	105		
Trichloroethene	79-123	20	22.1	111		
Trichlorofluoromethane	65-141	20	24.86	124		
Vinyl chloride	58-137	20	21.69	108		

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.

Project LHAAP 18 24

Workorder
HS23061825

SAMPLENUM
VLCSW-230629

Volatiles by EPA 8260

VOA9_440247			VLCSW-230629			
Spike Matrix	Aqueous		**Run Date**	06/29/23		
Result Units	ug/L		**Run Time**	11:54		
			Data File	U062905.D		
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	
1,1,1,2-Tetrachloroethane	78-124	20	21.59	108		
1,1,1-Trichloroethane	74-131	20	22.86	114		
1,1,2,2-Tetrachloroethane	71-121	20	19.35	97		
1,1,2-Trichloroethane	80-119	20	20	100		
1,1-Dichloroethane	77-125	20	20.52	103		
1,1-Dichloroethene	71-131	20	21.67	108		
1,1-Dichloropropene	78-125	20	22.59	113		
1,2,3-Trichlorobenzene	69-129	20	19.49	98		
1,2,3-Trichloropropane	73-122	20	19.52	98		
1,2,4-Trichlorobenzene	69-130	20	19.84	99		
1,2,4-Trimethylbenzene	76-124	20	22.33	112		
1,2-Dibromo-3-chloropropane	62-128	20	17.04	85		
1,2-Dibromoethane	77-121	20	20.74	104		
1,2-Dichlorobenzene	80-119	20	20.88	104		
1,2-Dichloroethane	73-128	20	22.57	113		
1,2-Dichloropropane	78-122	20	20.74	104		
1,3,5-Trimethylbenzene	75-124	20	22.6	113		
1,3-Dichlorobenzene	80-119	20	21.22	106		
1,3-Dichloropropane	80-119	20	20.44	102		
1,4-Dichlorobenzene	79-118	20	20.89	104		
2,2-Dichloropropane	60-139	20	23.48	117		
2-Butanone	56-143	40	37.08	93		
2-Chlorotoluene	79-122	20	21.88	109		
2-Hexanone	57-139	40	36.36	91		
4-Chlorotoluene	78-122	20	22.27	111		
4-Isopropyltoluene	77-127	20	23.07	115		
4-Methyl-2-pentanone	67-130	40	37.75	94		
Acetone	39-160	40	42.4	106		
Benzene	79-120	20	21.21	106		
Bromobenzene	80-120	20	21.18	106		
Bromochloromethane	78-123	20	20.54	103		
Bromodichloromethane	79-125	20	21.72	109		
Bromoform	66-130	20	21.08	105		
Bromomethane	53-141	20	25.7	129		

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.

Project LHAAP 18 24

Workorder
HS23061825

SAMPLENUM
VLCSW-230629

Volatiles by EPA 8260

VOA9_440247			VLCSW-230629			
Spike Matrix	Aqueous	**Run Date**	06/29/23			
Result Units	ug/L	**Run Time**	11:54			
		Data File	U062905.D			
Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q	
Carbon disulfide	64-133	40	48.71	122		
Carbon tetrachloride	72-136	20	23.67	118		
Chlorobenzene	82-118	20	21.57	108		
Chloroethane	60-138	20	20.34	102		
Chloroform	79-124	20	21.4	107		
Chloromethane	50-139	20	17.48	87		
cis-1,2-Dichloroethene	78-123	20	21.04	105		
cis-1,3-Dichloropropene	75-124	20	20.56	103		
Dibromochloromethane	74-126	20	21.84	109		
Dibromomethane	79-123	20	21.48	107		
Dichlorodifluoromethane	32-152	20	20.59	103		
Ethylbenzene	79-121	20	22.09	110		
Hexachlorobutadiene	66-134	20	22.26	111		
Isopropylbenzene	72-131	20	23.27	116		
m,p-Xylene	80-121	40	45.97	115		
Methylene chloride	74-124	20	22.25	111		
Naphthalene	61-128	20	19.43	97		
n-Butylbenzene	75-128	20	22.71	114		
n-Propylbenzene	76-126	20	23.01	115		
o-Xylene	78-122	20	22.16	111		
sec-Butylbenzene	77-126	20	22.88	114		
Styrene	78-123	20	23.28	116		
tert-Butylbenzene	78-124	20	22.7	113		
Tetrachloroethene	74-129	20	22	110		
Toluene	80-121	20	21.55	108		
trans-1,2-Dichloroethene	75-124	20	21.91	110		
trans-1,3-Dichloropropene	73-127	20	19.62	98		
Trichloroethene	79-123	20	20.98	105		
Trichlorofluoromethane	65-141	20	24.07	120		
Vinyl chloride	58-137	20	20.84	104		

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

01205539

right solutions.
right partner.

Form 4

Method Blank Summary

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

Volatiles by EPA 8260

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	VBLKW-230628	U062807.D	06/28/23 13:28	VOA9_440137
VLCSW-230628	LCS	VLCSW-230628	U062805.D	06/28/23 12:44	VOA9_440137
MW13_062623	SAMP	HS23061825-05	U062808.D	06/28/23 13:51	VOA9_440137
MW16_062623	SAMP	HS23061825-09	U062809.D	06/28/23 14:13	VOA9_440137
MW9_062623	SAMP	HS23061825-04	U062810.D	06/28/23 14:35	VOA9_440137
MW13_062623	MS	HS23061825-05MS	U062811.D	06/28/23 14:58	VOA9_440137
MW13_062623	MSD	HS23061825-05MSD	U062812.D	06/28/23 15:20	VOA9_440137
Trip Blank	SAMP	HS23061825-10	U062814.D	06/28/23 16:05	VOA9_440137
18WW10_062623	SAMP	HS23061825-07	U062815.D	06/28/23 16:27	VOA9_440137
CO2_062623	SAMP	HS23061825-06	U062816.D	06/28/23 16:50	VOA9_440137
125_062623	SAMP	HS23061825-01	U062817.D	06/28/23 17:12	VOA9_440137
MW3_062623	SAMP	HS23061825-02	U062818.D	06/28/23 17:35	VOA9_440137

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

Volatiles by EPA 8260

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	VBLKW-230629	U062907.D	06/29/23 12:39	VOA9_440247
VLCSW-230629	LCS	VLCSW-230629	U062905.D	06/29/23 11:54	VOA9_440247
MW9_062623	SAMP	HS23061825-04	U062910.D	06/29/23 14:03	VOA9_440247
MW23_062623	SAMP	HS23061825-03	U062911.D	06/29/23 14:26	VOA9_440247
MW23_062623	SAMP	HS23061825-03	U062912.D	06/29/23 14:48	VOA9_440247
MW23_062623	MS	HS23061825-03MS	U062913.D	06/29/23 15:10	VOA9_440247
MW23_062623	MSD	HS23061825-03MSD	U062914.D	06/29/23 15:33	VOA9_440247
MW16_062623	SAMP	HS23061825-09	U062915.D	06/29/23 15:55	VOA9_440247

01205542

right solutions.
right partner.

Form 5

Instrument Performance Check

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

RunID VOA9-437296

Volatiles by EPA 8260

Tune File U060601.D 06/06/23 6/6/2023

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	19 (19)
75	30.0 - 60.0% of mass 95	46.7 (46.7)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	6.9 (6.86)
173	Less than 2.0% of mass 174	0 (0) 1
174	50.0 - 120.0% of mass 95	92.1 (92.1)
175	4.0 - 9.0% of mass 174	8 (8.69) 1
176	93.0 - 101.0% of mass 174	89.4 (97) 1
177	5.0 - 9.0% of mass 176	6.1 (6.87) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	VSTD000.25	ICAL1	6/6/2023	U060602	VSTD000.25
2	VSTD000.5	ICAL2	6/6/2023	U060603	VSTD000.5
3	VSTD005	ICAL5	6/6/2023	U060606	VSTD005
4	VSTD001	ICAL3	6/6/2023	U060607	VSTD001
5	VSTD002	ICAL4	6/6/2023	U060608	VSTD002
6	VSTD020	ICAL6	6/6/2023	U060609	VSTD020
7	VSTD050	ICAL7	6/6/2023	U060610	VSTD050
8	VSTD100	ICAL8	6/6/2023	U060611	VSTD100
9	VSTD150	ICAL9	6/6/2023	U060612	VSTD150
10	VSTD200	ICAL	6/6/2023	U060613	VSTD200
11	CCV	ICV	6/6/2023	U060616	CCV

Form 5 - Instrument Performance Check

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP 18 24	**HS23061825**	

Volatiles by EPA 8260

RunID: VOA9-437296

Tune File	U060601.D	06/06/23 6/6/2023	**This check applies to the following analyses**

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

RunID VOA9-440137

Volatiles by EPA 8260

Tune File U062801.D 06/28/23 6/28/2023

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	18.5 (18.5)
75	30.0 - 60.0% of mass 95	49.3 (49.3)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	7.4 (7.42)
173	Less than 2.0% of mass 174	0 (0) 1
174	50.0 - 120.0% of mass 95	90 (90)
175	4.0 - 9.0% of mass 174	7.2 (8) 1
176	93.0 - 101.0% of mass 174	89.1 (98.9) 1
177	5.0 - 9.0% of mass 176	6.4 (7.16) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	CCV	6/28/2023	U062803	CCV
2	CCB	CCB	6/28/2023	U062804	CCB
3	VLCSW-	LCS	6/28/2023	U062805	VLCSW-230628
4	VBLKW-	MBLK	6/28/2023	U062807	VBLKW-230628
5	HS23061825-	SAMP	6/28/2023	U062808	MW13_062623
6	HS23061825-	SAMP	6/28/2023	U062809	MW16_062623
7	HS23061825-	SAMP	6/28/2023	U062810	MW9_062623
8	HS23061825-	MS	6/28/2023	U062811	HS23061825-05MS
9	HS23061825-	MSD	6/28/2023	U062812	HS23061825-05MSD
10	HS23061825-	SAMP	6/28/2023	U062814	Trip Blank
11	HS23061825-	SAMP	6/28/2023	U062815	18WW10_062623
12	HS23061825-	SAMP	6/28/2023	U062816	CO2_062623
13	HS23061825-	SAMP	6/28/2023	U062817	125_062623
14	HS23061825-	SAMP	6/28/2023	U062818	MW3_062623
15	CCV-END	CCV_EN	6/28/2023	U062830	CCV-END

Form 5 - Instrument Performance Check

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP 18 24	**HS23061825**	

Volatiles by EPA 8260

RunID: VOA9-440137

Tune File	U062801.D	06/28/23 6/28/2023	This check applies to the following analyses

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

RunID
VOA9-440247

Volatiles by EPA 8260

Tune File U062901.D 06/29/23 6/29/2023

m / e	Ion Abundance Criterion	%RA
50	15.0 - 40.0% of mass 95	19.1 (19.1)
75	30.0 - 60.0% of mass 95	48.6 (48.6)
95	Base peak, 100% RA	100 (100)
96	5.0 - 9.0% of mass 95	7.2 (7.2)
173	Less than 2.0% of mass 174	0 (0) 1
174	50.0 - 120.0% of mass 95	91.8 (91.8)
175	4.0 - 9.0% of mass 174	7.7 (8.41) 1
176	93.0 - 101.0% of mass 174	89.4 (97.3) 1
177	5.0 - 9.0% of mass 176	6.1 (6.85) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	CCV	CCV	6/29/2023	U062903	CCV
2	CCB	CCB	6/29/2023	U062904	CCB
3	VLCSW-	LCS	6/29/2023	U062905	VLCSW-230629
4	VBLKW-	MBLK	6/29/2023	U062907	VBLKW-230629
5	HS23061825-	SAMP	6/29/2023	U062910	MW9_062623
6	HS23061825-	SAMP	6/29/2023	U062911	MW23_062623
7	HS23061825-	SAMP	6/29/2023	U062912	MW23_062623
8	HS23061825-	MS	6/29/2023	U062913	HS23061825-03MS
9	HS23061825-	MSD	6/29/2023	U062914	HS23061825-03MSD
10	HS23061825-	SAMP	6/29/2023	U062915	MW16_062623
11	CCV-END	CCV_EN	6/29/2023	U062931	CCV-END

Form 5 - Instrument Performance Check

Client	Bhate Environmental Associates, Inc.	Workorder	
Project	LHAAP 18 24	**HS23061825**	

RunID

Volatiles by EPA 8260

VOA9-440247

Tune File	U062901.D	06/29/23 6/29/2023	**This check applies to the following analyses**

right solutions.
right partner.

Form 6

Initial Calibration Data

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Data

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

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 301782	3237 630744	5058 960667	8519 1327832	31172	134998	LINR	0.00160	0.46271		0.99983	
Chloromethane	NE 533277	6740 979734	13219 NE	24280 NE	62455	243997	LINR	-0.02699	0.73429		0.99792	
Propionitrile	NE 0.06910	0.08304 0.07191	0.07790 0.06959	0.06567 0.06755	0.07543	0.07008	AVRG		0.07225		7.66936	
Vinyl Chloride	NE 0.54961	0.53164 0.55242	0.43717 0.54597	0.48902 0.54834	0.55204	0.55364	AVRG		0.52887		7.56687	
Bromomethane	NE 189385	2378 362834	5133 572508	9237 739966	23995	85360	LINR	-0.03678	0.26230		0.99829	
Chloroethane	NE 0.34874	0.38400 0.34887	0.39288 0.34148	0.33413 0.33605	0.35705	0.36318	AVRG		0.35626		5.77503	
Trichlorofluoromethane	NE 0.60336	0.65250 0.63856	0.50831 0.62802	0.50964 0.62488	0.63485	0.66665	AVRG		0.60742		9.63343	
Acrolein	NE 0.02565	0.03356 0.02534	0.02950 0.02449	0.02511 0.02533	0.02566	0.02421	AVRG		0.02654		11.47974	
Acetone	NE 245967	8112 467276	12344 669020	18337 NE	31915	105410	LINR	-0.11414	0.16245		0.99760	
1,1-Dichloroethene	NE 0.37538	0.43475 0.38325	0.34844 0.38119	0.33936 0.38464	0.38705	0.38169	AVRG		0.37953		7.06417	

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 LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Summary Page 2 / 11

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 0.06592	0.06000 0.06937	0.06647 0.06652	0.06001 0.06907	0.06288	0.06445	AVRG		0.06496		5.32316	
Acetonitrile	NE 0.05262	0.06019 0.05598	0.05501 0.05486	0.05232 0.05223	0.05374	0.05025	AVRG		0.05413		5.29738	
Allyl Chloride	NE 1.23994	1.54447 1.31147	1.31408 1.28770	1.21739 1.22743	1.32627	1.21434	AVRG		1.29812		7.89105	
Iodomethane	NE 311144	1872 901104	3593 1654094	5244 2389174	10875	69713	QUAD	0.19719	3.17029	-0.25959	0.99395	*
Acrylonitrile	NE 0.17643	0.19222 0.19265	0.17779 0.18699	0.18194 0.18155	0.19969	0.17956	AVRG		0.18542		4.28504	
Methylene Chloride	NE 313459	6638 614571	9867 934598	14226 1286266	34262	133454	LINR	-0.02055	0.44680		0.99989	
Methyl tert-butyl ether	NE 1.11011	1.34489 1.18230	1.22763 1.16687	1.06262 1.13583	1.16892	1.07548	AVRG		1.16385		7.37549	
Carbon Disulfide	NE 1.05257	0.97637 1.06234	0.93978 1.05033	0.91298 1.04865	1.04258	1.04592	AVRG		1.01461		5.54329	
trans-1,2-Dichloroethene	NE 0.42568	0.43966 0.42424	0.36838 0.41068	0.38985 0.41906	0.41680	0.42038	AVRG		0.41275		5.16490	
Vinyl Acetate	NE 1.24787	1.16903 1.32894	1.28605 1.32075	1.14428 1.28290	1.31826	1.22557	AVRG		1.25818		5.33224	
1,1-Dichloroethane	NE 0.75452	0.91579 0.74633	0.85153 0.73811	0.77473 0.73300	0.79838	0.74713	AVRG		0.78439		7.88122	
Chloroprene	NE 0.15370	0.18753 0.16003	0.14913 0.16411	0.13564 0.16977	0.14899	0.16635	AVRG		0.15947		9.35578	

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 LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Summary Page 3 / 11

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 0.21032	0.26865 0.21900	0.27005 0.21311	0.22221 0.20708	0.22579	0.21550	AVRG		0.22797		10.59636	
Methacrylonitrile	NE 0.29063	0.32297 0.31155	0.29216 0.31218	0.25772 0.29964	0.27607	0.29576	AVRG		0.29541		6.71428	
2,2-Dichloropropane	NE 344673	3685 699035	6247 1080274	12294 1505657	33762	139835	LINR	0.00797	0.52278		0.99995	
cis-1,2-Dichloroethene	NE 0.48847	0.54176 0.48782	0.49058 0.48487	0.46721 0.48248	0.51503	0.48586	AVRG		0.49378		4.41592	
Chloroform	NE 0.81885	0.87650 0.81161	0.79076 0.79868	0.79799 0.79042	0.85300	0.80968	AVRG		0.81639		3.62615	
Bromochloromethane	NE 0.26708	0.31315 0.26410	0.30614 0.26302	0.26452 0.25295	0.28615	0.26876	AVRG		0.27621		7.56831	
1,1,1-Trichloroethane	NE 0.63238	0.65994 0.65446	0.57497 0.64619	0.52644 0.65564	0.61086	0.63915	AVRG		0.62223		7.20510	
1,1-Dichloropropene	NE 0.37173	0.32259 0.39025	0.38290 0.38140	0.31292 0.38981	0.36218	0.38416	AVRG		0.36644		7.93028	
1,2-Dichloroethane	NE 0.42081	0.46850 0.42485	0.42052 0.41425	0.45938 0.40606	0.45322	0.42725	AVRG		0.43276		5.06646	
Carbon Tetrachloride	NE 0.34607	0.35476 0.37126	0.28321 0.36664	0.26732 0.37542	0.31231	0.35238	AVRG		0.33660		11.75294	
Benzene	NE 1.23100	1.18679 1.22379	1.09401 1.20222	1.22033 1.18837	1.26301	1.23391	AVRG		1.20483		3.98055	
Trichloroethene	NE 0.34006	0.37553 0.34777	0.35201 0.34410	0.32048 0.34873	0.36729	0.34693	AVRG		0.34921		4.49432	

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 LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Summary Page 4 / 11

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 0.38236	0.38289 0.40428	0.33360 0.40608	0.32980 0.40603	0.37143	0.36599	AVRG		0.37583		7.72711	
Methyl Methacrylate	NE 0.43942	0.45886 0.46989	0.38280 0.46614	0.37522 0.45591	0.40434	0.41660	AVRG		0.42991		8.44989	
2-Chloroethylvinyl ether	NE 0.00884	0.00852 0.00999	0.00946 NE	0.00945 NE	0.00895	0.00842	AVRG		0.00909		6.25191	
1,2-Dichloropropane	NE 0.32122	NE 0.32222	0.32786 0.32000	0.31466 0.31897	0.32797	0.32063	AVRG		0.32169		1.38453	*
2-Nitropropane	NE 0.11432	0.20680 0.13484	50.26056 0.13886	40.89437 0.13916	0.11155	0.10087	AVRG		10.23348		197	*
Dibromomethane	NE 0.19996	0.21005 0.20667	0.21181 0.20373	0.20209 0.20258	0.21295	0.20004	AVRG		0.20554		2.43958	
4-Methyl-2-Pentanone	NE 0.35703	0.31052 0.36713	0.34114 0.37263	0.41679 0.36509	0.37151	0.37510	AVRG		0.36411		7.81829	
cis-1,3-Dichloropropene	NE 477156	4533 1015887	6985 1649908	12842 2272308	37734	176588	LINR	0.03823	0.52354		0.99932	
Ethyl Methacrylate	NE 0.43593	0.46860 0.47447	0.39717 0.47560	0.34291 0.47794	0.45495	0.41708	AVRG		0.43830		10.42832	
Toluene	NE 1.37452	1.46131 1.35611	1.30389 1.33752	1.24034 1.30792	1.38024	1.44328	AVRG		1.35612		5.10785	
trans-1,3-Dichloropropene	NE 395477	4073 857257	5962 1382903	12660 1913130	31811	143978	LINR	0.04043	0.44043		0.99920	
2-Hexanone	NE 0.23737	0.21896 0.24894	0.27173 0.24680	0.31735 0.24494	0.24794	0.24808	AVRG		0.25357		10.85593	

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 LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Summary Page 5 / 11

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 0.26145	0.27781 0.26759	0.33823 0.26884	0.29394 0.26174	0.29026	0.27967	AVRG		0.28217		8.50628	
1,3-Dichloropropane	NE 0.56388	0.60411 0.56350	0.57145 0.56462	0.58138 0.54844	0.60045	0.59066	AVRG		0.57650		3.26997	
Dibromochloromethane	NE 0.35269	0.33281 0.37245	0.26753 0.38159	0.28317 0.37861	0.30864	0.33570	AVRG		0.33480		12.37215	
Tetrachloroethene	NE 0.31218	0.33596 0.32329	0.35937 0.32063	0.31268 0.32848	0.33355	0.34752	AVRG		0.33041		4.74735	
1,2-Dibromoethane	NE 0.32995	0.39291 0.33734	0.36483 0.33751	0.35335 0.32947	0.34243	0.34494	AVRG		0.34808		5.80098	
1-Chlorohexane	NE 0.23045	0.28084 0.25935	0.24384 0.26305	0.24810 0.27442	0.24355	0.26710	AVRG		0.25674		6.39033	
Chlorobenzene	NE 0.93816	0.96090 0.94626	1.02474 0.94168	0.99652 0.92552	1.00286	0.97411	AVRG		0.96786		3.50306	
1,1,1,2-Tetrachloroethane	NE 0.33475	0.33813 0.34379	0.30312 0.35090	0.32230 0.35020	0.31656	0.33414	AVRG		0.33265		4.80000	
Ethylbenzene	NE 0.45349	0.44932 0.47695	0.42798 0.48030	0.38496 0.47946	0.43441	0.46740	AVRG		0.45047		6.92422	
m,p-Xylenes	NE 0.56107	0.49705 0.59332	0.47095 0.59550	0.46613 0.59257	0.47186	0.54822	AVRG		0.53296		10.58600	
o-Xylene	NE 0.54530	0.51375 0.57414	0.46105 0.58153	0.45548 0.57622	0.49419	0.53695	AVRG		0.52651		9.19888	
Styrene	NE 0.89449	0.81868 0.95766	0.66693 0.96825	0.74091 0.94500	0.69822	0.82991	AVRG		0.83556		13.68101	

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 LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Summary Page 6 / 11

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	0.19493	0.19245	0.20896	0.19978	0.21157						
	0.23260	0.26095	0.26822	0.26444			AVRG		0.22599		13.81919	
Isopropylbenzene	NE	1.14173	1.13317	1.09443	1.19733	1.34411						
	1.29966	1.39540	1.38723	1.38856			AVRG		1.26463		9.72168	
1,1,2,2-Tetrachloroethane	NE	0.94934	1.02444	1.13699	0.96171	0.90982						
	0.86517	0.88446	0.87983	0.85285			AVRG		0.94051		9.75227	
1,2,3-Trichloropropane	NE	0.89588	0.76851	0.91659	0.81959	0.76888						
	0.78271	0.82369	0.84037	0.83039			AVRG		0.82740		6.30706	
trans-1,4-Dichloro-2-butene	NE	0.05261	0.05796	0.05335	0.05527	0.04837						
	0.05433	0.06324	0.06690	0.06611			AVRG		0.05757		11.24480	*
n-Propylbenzene	NE	2.34893	2.29516	2.26496	2.35462	2.68484						
	2.66761	2.93371	2.98954	3.06453			AVRG		2.62266		12.16608	
Bromobenzene	NE	0.83256	0.87296	0.91857	0.83236	0.84108						
	0.80219	0.82248	0.83564	0.83486			AVRG		0.84363		3.98394	
1,3,5-Trimethylbenzene	NE	1.71333	1.73215	1.69625	1.68766	1.72132						
	1.72613	1.88842	1.96460	2.06354			AVRG		1.79927		7.64842	
2-Chlorotoluene	NE	1.65439	1.84359	1.86405	1.83620	1.93464						
	1.83116	1.87957	1.87542	1.87375			AVRG		1.84364		4.19843	
4-Chlorotoluene	NE	1.80601	1.92642	2.12066	2.01548	2.11322						
	2.03659	2.10132	2.11273	2.13399			AVRG		2.04071		5.42387	
tert-Butylbenzene	NE	1.66206	1.63607	1.58431	1.70142	1.87604						
	1.72651	1.87463	1.89391	1.94965			AVRG		1.76718		7.49680	
1,2,4-Trimethylbenzene	NE	1.87283	1.98426	2.00872	1.83192	1.77568						
	1.70257	1.83519	1.91537	2.01697			AVRG		1.88261		5.76159	

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 LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Summary Page 7 / 11

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 2.18438	2.00057 2.46235	2.11593 2.51457	1.90597 2.60373	2.05445	2.32792	AVRG		2.24110		11.00553	
p-Isopropyltoluene	NE 1.76859	1.74598 2.03397	1.77727 2.13513	1.70832 2.25284	1.70523	1.77034	AVRG		1.87752		10.99191	
1,3-Dichlorobenzene	NE 1.34174	1.44494 1.39069	1.46902 1.40351	1.55334 1.41569	1.44971	1.42715	AVRG		1.43286		4.09348	
1,4-Dichlorobenzene	NE 1.40239	1.54178 1.43640	1.71276 1.45286	1.69155 1.45678	1.56931	1.48576	AVRG		1.52773		7.29827	
Benzyl Chloride	NE 234906	1867 573982	5481 988530	11203 1346925	22092	85763	LINR	0.06934	0.32121		0.99572	
n-Butylbenzene	NE 1.46534	1.58034 1.66824	1.52199 1.76126	1.45737 1.86929	1.51798	1.62397	AVRG		1.60731		8.65865	
1,2-Dichlorobenzene	NE 1.34667	1.37505 1.37717	1.58056 1.39037	1.62196 1.39656	1.41014	1.43132	AVRG		1.43664		6.73798	
1,2-Dibromo-3-Chloropropane	NE 0.13055	0.12905 0.14193	0.13125 0.15019	0.15055 0.15436	0.12496	0.12235	AVRG		0.13724		8.84952	
1,2,4-Trichlorobenzene	NE 0.92607	0.99711 0.97797	1.02603 1.01256	1.05277 1.03962	0.91403	0.94731	AVRG		0.98816		5.06669	
Hexachlorobutadiene	NE 0.34400	0.41409 0.38848	0.47350 0.41057	0.36363 0.43096	0.36197	0.40436	AVRG		0.39906		9.99191	
Naphthalene	NE 2.32218	2.00604 2.38330	2.45479 2.41879	2.35836 2.39671	2.05295	2.26528	AVRG		2.29538		7.00317	
1,2,3-Trichlorobenzene	NE 0.91575	0.89610 0.95078	1.01723 0.97037	1.09261 0.98955	0.91438	0.94752	AVRG		0.96603		6.32619	

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 LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

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 0.40659	0.56275 0.43291	0.47646 0.42120	0.45270 0.40047	0.44438	0.42507	AVRG		0.44695		11.03167	
Methyl Acrylate	NE 0.51803	0.64029 0.55501	0.52884 0.53794	0.45224 0.52785	0.49568	0.50330	AVRG		0.52880		9.67195	
n-Butanol	NE 0.01307	0.01415 0.01509	2.08859 0.01514	4.21587 0.01494	0.01247	0.01208	AVRG		0.71127		208	*
Cyclohexanone	NE 0.02875	0.03990 0.02946	0.03613 0.02809	0.02961 0.02880	0.03016	0.02808	AVRG		0.03100		13.36896	
1,4-Dioxane	0.02235 0.00659	0.01166 0.00691	0.01127 0.00671	0.01101 0.00625	0.00960	0.00693	AVRG		0.00993		49.04531	*
n-Hexane	NE 256401	2983 595793	4787 933406	7179 1358253	28289	131033	QUAD	0.00210	2.46538	-0.18460	0.99921	
Freon TF	NE 0.32170	0.35587 0.35856	0.27604 0.35800	0.26719 0.36926	0.34986	0.36574	AVRG		0.33580		11.58349	
Methyl Acetate	NE 0.37668	0.50232 0.40100	0.47241 0.38762	0.46924 0.37810	0.40980	0.39186	AVRG		0.42100		11.22802	
Methylcyclohexane	NE 0.63877	0.71717 0.77007	0.66486 0.77041	0.57666 0.75903	0.69680	0.64861	AVRG		0.69360		9.68871	
Isopropyl alcohol	NE 0.02926	0.03524 0.03162	0.03413 0.03087	0.04209 0.02976	0.03152	0.02969	AVRG		0.03269		12.43532	
Amyl alcohol	NE 0.00986	0.01197 0.01105	1.92102 0.01113	3.42130 0.01101	0.00863	0.00951	AVRG		0.60172		205	*
Allyl alcohol	NE 256401	2691 595793	4787 933406	7179 1358253	27611	131033	QUAD	0.05728	49.27793	-3.68010	0.99921	

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 LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Summary Page 9 / 11

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
4-Methyl-2-pentanol	NE 0.06687	0.10161 0.07627	0.07347 0.07449	0.06147 0.07390	0.06954	0.07154	AVRG		0.07435		15.04325	
Tert-butyl alcohol	NE 592187	6757 1263261	16016 1948328	34487 2615413	66425	255911	LINR	-0.09917	0.04597		0.99942	
Diethyl ether	NE 0.32639	0.41853 0.34643	0.29113 0.34449	0.31214 0.33721	0.34912	0.31512	AVRG		0.33784		10.59316	
1,3-Butadiene	NE 0.48722	0.44026 0.50601	0.41436 0.49354	0.42154 0.49579	0.49134	0.51162	AVRG		0.47352		7.90782	
Cyclohexane	NE 384146	4345 872566	7781 1346053	8877 1948136	37840	190495	QUAD	0.00384	1.66261	-0.06851	0.99933	
Tetrahydrofuran	NE 124830	1846 246154	3378 364883	4068 488623	13490	48081	LINR	-0.04721	0.08627		0.99868	
alpha-Methylstyrene	NE 398013	3201 939505	6428 1521945	14955 2162870	33946	141914	LINR	0.07068	1.00922		0.99634	
Diisopropyl ether	NE 1.33854	1.62723 1.40873	1.35167 1.38423	1.35708 1.35239	1.43176	1.29604	AVRG		1.39419		6.88405	
Dichlorofluoromethane	NE 0.68369	1.14419 0.72055	154 0.71841	259 0.70435	0.74302	0.65918	AVRG		46.48926		203	*
Butyl acrylate	NE 0.56545	0.65141 0.62687	0.57943 0.64178	0.50180 0.63283	0.56456	0.55884	AVRG		0.59144		8.39860	
Dicyclopentadiene	NE 2.17722	2.29788 2.45924	3.10552 2.50496	2.30282 2.43925	2.47288	2.19129	AVRG		2.43901		11.40017	
1,2,3-Trimethylbenzene	NE 1.72212	2.16993 1.82789	2.16879 1.86297	1.86768 1.91009	2.05701	1.71103	AVRG		1.92195		9.02117	

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 LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Summary Page 10 / 11

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
Ethanol	NE 83818	929 175232	2663 261491	4910 342926	9968	33180	LINR	-0.45661	0.00610		0.99807	
tert-Butyl formate	NE 0.35469	NE 0.39711	70.88590 0.40728	111 0.40312	0.37084	0.36100	AVRG		23.05896		188	*
3,3-Dimethyl-1-butanol	NE 0.03321	0.12053 0.03570	15.41396 0.03539	18.45449 0.03515	0.03977	0.03772	AVRG		3.80066		197	*
tert-Amyl methyl ether	NE 1.27072	2.14082 1.66952	303 1.69353	515 1.68414	1.51794	1.20622	AVRG		92.03003		203	*
tert-Butyl ethyl ether	NE 1.16135	1.66370 1.24096	249 1.23931	427 1.22143	1.20218	1.12101	AVRG		76.03857		204	*
tert-Amyl alcohol	NE 0.03547	0.04913 0.03971	7.08859 0.04073	11.12917 0.04031	0.03708	0.03610	AVRG		2.05514		201	*
Epichlorohydrin	NE 17348	NE 42530	230 78090	854 120896	2028	5384	QUAD	0.19276	210	-620	0.99786	*
Isoprene	NE 0.12271	0.17622 0.12050	24.46517 0.11801	42.70055 0.13763	0.11208	0.12455	AVRG		7.56416		204	*
n-Amyl acetate	NE 0.55364	NE 0.58593	NE 0.59354	211 0.58358	0.63545	0.57662	AVRG		30.68893		260	*
Isopropyl acetate	NE 0.98722	1.34246 1.04945	418 1.03674	509 1.02205	1.01129	0.99086	AVRG		104		198	*
n-Butyl acetate	NE 0.55036	0.55703 0.58437	0.53651 0.60799	0.60175 0.59915	0.53866	0.54802	AVRG		0.56932		5.06190	
Acetaldehyde	NE 0.06756	NE 0.07481	NE 0.07268	NE 0.07068	0.05587	0.07216	AVRG		0.06896		9.93199	*

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 LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

ICAL Summary Page 11 / 11

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 Amyl Ketone	NE 0.66113	1.57193 0.70193	232 0.68889	332 0.68782	0.72364	0.69666	AVRG		63.26693		200	*
Dimethyl Disulfide	NE 275143	1341 843448	2841 1542342	4598 2303909	15263	75368	QUAD	0.09069	2.54687	-0.35667	0.99436	
2-Ethylhexyl Acrylate	NE 214955	2309 534360	4963 905239	8201 1300346	19373	70007	QUAD	0.03475	2.11188	-0.20750	0.99843	
94 1,2-Dichloroethylene (total)	NE 0.45707	0.49071 0.45603	0.42948 0.44777	0.42853 0.45077	0.46591	0.45312	AVRG		0.45327		4.12637	
95 Xylenes (total)	NE 0.53378	0.46723 0.57391	0.43600 0.57061	0.43592 0.57101	0.45257	0.49964	AVRG		0.50452		11.72066	
30 Dibromofluoromethane	NE 271537	3644 587291	5853 869167	10602 1189943	30229	119153	LINR	-0.00632	0.41704		0.99929	
35 1,2-Dichloroethane-d4	NE 303470	3795 630129	6027 944002	11855 1273587	34153	129564	LINR	-0.01366	0.44800		0.99930	
48 Toluene-d8	NE 1.07251	1.56295 1.11768	1.00002 1.06933	1.01159 1.04518	1.14526	1.16028	AVRG		1.13164		15.10726	
69 4-Bromofluorobenzene	NE 425877	5007 923899	8608 1355424	16728 1832443	49215	178335	LINR	-0.01813	0.43793		0.99886	

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

01205561

right solutions.
right partner.

Form 6I

Initial Calibration Verification (ICV)

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder
HS23061825

RunID
VOA9_437296

Volatiles by EPA 8260

Sample Matrix LIQUID
Lab Smp Id ICV
Level LOW
Fraction VOA
Client Smp ID ICV
Operator PC

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
1,1,1,2-Tetrachloroethane	50.00	49.07	98.15	80-120	
1,1,1-Trichloroethane	50.00	44.11	88.23	80-120	
1,1,2,2-Tetrachloroethane	50.00	44.15	88.32	80-120	
Freon TF	50.00	42.50	85.01	80-120	
Methyl Acetate	50.00	40.70	81.42	80-120	
Cyclohexane	50.00	42.07	84.15	80-120	
Methylcyclohexane	50.00	46.30	92.61	80-120	
Carbon Disulfide	100.00	93.13	93.14	80-120	
2-Hexanone	100.00	92.61	92.61	80-120	
1,1,2-Trichloroethane	50.00	45.65	91.32	80-120	
1,1-Dichloroethane	50.00	41.14	82.28	80-120	
1,1-Dichloroethene	50.00	43.45	86.92	80-120	
1,1-Dichloropropene	50.00	45.66	91.33	80-120	
1,2,3-Trichlorobenzene	50.00	47.31	94.63	80-120	
1,2,3-Trichloropropane	50.00	45.92	91.85	80-120	
1,2,4-Trichlorobenzene	50.00	47.57	95.14	80-120	
1,2,4-Trimethylbenzene	50.00	47.79	95.60	80-120	
1,2-Dibromo-3-Chloropropane	50.00	47.57	95.14	80-120	
1,2-Dibromoethane	50.00	45.60	91.22	80-120	
Acrolein	100.00	87.41	87.42	80-120	
Acrylonitrile	100.00	91.25	91.25	80-120	
1,2-Dichlorobenzene	50.00	45.26	90.54	80-120	
1,2-Dichloroethane	50.00	44.18	88.38	80-120	
1,2-Dichloropropane	50.00	45.23	90.47	80-120	
1,3,5-Trimethylbenzene	50.00	48.21	96.43	80-120	
1,3-Dichlorobenzene	50.00	46.22	92.45	80-120	
1,3-Dichloropropane	50.00	47.41	94.82	80-120	
1,4-Dichlorobenzene	50.00	44.52	89.05	80-120	
1-Chlorohexane	50.00	40.85	81.71	80-120	
2,2-Dichloropropane	50.00	45.93	91.87	80-120	
2-Butanone	100.00	87.11	87.11	80-120	
2-Chloroethylvinyl ether	100.00	82.24	82.24	80-120	
2-Chlorotoluene	50.00	46.75	93.51	80-120	
4-Chlorotoluene	50.00	48.40	96.80	80-120	

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

Sample Matrix LIQUID
Lab Smp Id ICV
Level LOW
Fraction VOA
Client Smp ID ICV
Operator PC

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
p-Isopropyltoluene	50.00	48.52	97.04	80-120	
4-Methyl-2-Pentanone	100.00	97.72	97.73	80-120	
Acetone	100.00	95.43	95.43	80-120	
Acetonitrile	500.00	437.35	87.47	80-120	
Allyl Chloride	50.00	43.46	86.94	80-120	
Benzene	50.00	46.31	92.63	80-120	
Bromobenzene	50.00	45.71	91.42	80-120	
Bromochloromethane	50.00	44.93	89.87	80-120	
Bromodichloromethane	50.00	47.72	95.44	80-120	
Bromoform	50.00	51.02	102.05	80-120	
Bromomethane	50.00	55.03	110.08	80-120	
Carbon Tetrachloride	50.00	44.38	88.77	80-120	
Chlorobenzene	50.00	45.99	91.98	80-120	
Chloroethane	50.00	43.12	86.25	80-120	
Chloroform	50.00	43.97	87.95	80-120	
Chloromethane	50.00	40.39	80.80	80-120	
Chloroprene	50.00	42.86	85.72	80-120	
cis-1,2-Dichloroethene	50.00	44.27	88.55	80-120	
cis-1,3-Dichloropropene	50.00	44.95	89.92	80-120	
Dibromochloromethane	50.00	51.79	103.58	80-120	
Dibromomethane	50.00	45.22	90.46	80-120	
Dichlorodifluoromethane	50.00	43.44	86.88	80-120	
Ethylbenzene	50.00	48.34	96.69	80-120	
Ethyl Methacrylate	50.00	48.75	97.51	80-120	
Iodomethane	100.00	85.89	85.90	80-120	
Isobutyl Alcohol	1000.00	1063.31	106.33	70-130	
Propionitrile	500.00	447.35	89.47	70-130	
Hexachlorobutadiene	50.00	42.50	85.02	80-120	
Isopropylbenzene	50.00	48.91	97.84	80-120	
m,p-Xylenes	100.00	101.18	101.18	80-120	
Methyl tert-butyl ether	50.00	45.15	90.31	80-120	
Methylene Chloride	50.00	45.61	91.23	80-120	
Methacrylonitrile	50.00	47.68	95.38	80-120	
Methyl Methacrylate	50.00	47.58	95.17	80-120	

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_437296

Volatiles by EPA 8260

Sample Matrix LIQUID
Lab Smp Id ICV
Level LOW
Fraction VOA
Client Smp ID ICV
Operator PC

Compound	Conc Added	Conc Recovered	% Recovered	Limits	Q
n-Butylbenzene	50.00	45.82	91.65	80-120	
n-Propylbenzene	50.00	49.51	99.02	80-120	
Naphthalene	50.00	51.00	102.01	80-120	
o-Xylene	50.00	50.13	100.28	80-120	
sec-Butylbenzene	50.00	46.73	93.47	80-120	
Styrene	50.00	52.92	105.84	80-120	
tert-Butylbenzene	50.00	46.65	93.31	80-120	
Tetrachloroethene	50.00	45.52	91.06	80-120	
Toluene	50.00	48.10	96.21	80-120	
trans-1,2-Dichloroethene	50.00	45.42	90.85	80-120	
trans-1,3-Dichloropropene	50.00	44.23	88.46	80-120	
trans-1,4-Dichloro-2-butene	50.00	54.24	108.49	80-120	
Trichloroethene	50.00	44.64	89.28	80-120	
Trichlorofluoromethane	50.00	43.95	87.91	80-120	
Vinyl Acetate	100.00	93.22	93.22	80-120	
Vinyl Chloride	50.00	44.59	89.20	80-120	
1,2-Dichloroethylene (total)	100.00	89.70	89.70	80-120	
Xylenes (total)	150.00	151.32	100.88	80-120	
1,4-Dioxane	1000.00	611.64	61.16	80-120	*
Dibromofluoromethane	50.00	48.55	97.12	71-125	
1,2-Dichloroethane-d4	50.00	47.70	95.40	70-125	
Toluene-d8	50.00	51.59	103.20	75-125	

01205565

right solutions.
right partner.

Form 7

Continuing Calibration Verification (CCV)

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_440137

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U062803.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date :19
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times :15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Dichlorodifluoromethane	50.0	50.17778	0.46362	0.100	-0.35556	20.0	Linear	
Chloromethane	50.0	43.04438	0.65195	0.100	13.91123	20.0	Linear	
Vinyl Chloride	0.52887	0.53044	0.53044	0.100	-0.29653	20.0	Averaged	
Bromomethane	50.0	54.98723	0.29811	0.100	-9.97447	20.0	Linear	
Chloroethane	0.35626	0.35161	0.35161	0.100	1.30706	20.0	Averaged	
Trichlorofluoromethane	0.60742	0.68560	0.68560	0.100	-12.87159	20.0	Averaged	
Acrolein	0.02654	0.02322	0.02322	0.010	12.52501	20.0	Averaged	
Acetone	100	105	0.17939	0.100	-4.71828	20.0	Linear	
1,1-Dichloroethene	0.37953	0.39166	0.39166	0.100	-3.19743	20.0	Averaged	
Iodomethane	100	135	0.42360	0.100	-34.83768	20.0	Quadratic	*
Acrylonitrile	0.18542	0.18478	0.18478	0.050	0.34634	20.0	Averaged	
Methylene Chloride	50.0	52.78025	0.48082	0.100	-5.56050	20.0	Linear	
Methyl tert-butyl ether	1.16385	1.23583	1.23583	0.100	-6.18462	20.0	Averaged	
Carbon Disulfide	1.01461	1.20773	1.20773	0.100	-19.03340	20.0	Averaged	
trans-1,2-Dichloroethene	0.41275	0.42878	0.42878	0.100	-3.88364	20.0	Averaged	
Vinyl Acetate	1.25818	1.34395	1.34395	0.010	-6.81647	20.0	Averaged	
1,1-Dichloroethane	0.78439	0.77393	0.77393	0.200	1.33403	20.0	Averaged	
2-Butanone	0.22797	0.21031	0.21031	0.100	7.74506	20.0	Averaged	
2,2-Dichloropropane	50.0	58.34841	0.60590	0.100	-16.69682	20.0	Linear	
cis-1,2-Dichloroethene	0.49378	0.50962	0.50962	0.100	-3.20606	20.0	Averaged	
Chloroform	0.81639	0.82290	0.82290	0.200	-0.79804	20.0	Averaged	
Bromochloromethane	0.27621	0.27773	0.27773	0.100	-0.55245	20.0	Averaged	
30 Dibromofluoromethane	50.0	51.32672	0.43075	0.100	-2.65344	20.0	Linear	
1,1,1-Trichloroethane	0.62223	0.67527	0.67527	0.100	-8.52442	20.0	Averaged	
1,1-Dichloropropene	0.36644	0.40009	0.40009	0.100	-9.18313	20.0	Averaged	
1,2-Dichloroethane	0.43276	0.46588	0.46588	0.100	-7.65389	20.0	Averaged	
Carbon Tetrachloride	0.33660	0.38982	0.38982	0.100	-15.81248	20.0	Averaged	
35 1,2-Dichloroethane-d4	50.0	50.70662	0.46045	0.100	-1.41324	20.0	Linear	
Benzene	1.20483	1.25937	1.25937	0.500	-4.52737	20.0	Averaged	
Trichloroethene	0.34921	0.35950	0.35950	0.200	-2.94582	20.0	Averaged	
Bromodichloromethane	0.37583	0.42383	0.42383	0.200	-12.77136	20.0	Averaged	
2-Chloroethylvinyl ether	0.00909	0.00388	0.00388	0.001	57.28902	20.0	Averaged	*
1,2-Dichloropropane	0.32169	0.33365	0.33365	0.100	-3.71759	20.0	Averaged	
Dibromomethane	0.20554	0.21938	0.21938	0.100	-6.73156	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_440137

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U062803.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date :19
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times :15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Methyl-2-Pentanone	0.36411	0.35707	0.35707	0.100	1.93264	20.0	Averaged	
cis-1,3-Dichloropropene	50.0	51.07880	0.51482	0.200	-2.15759	20.0	Linear	
48 Toluene-d8	1.13164	1.13763	1.13763	0.100	-0.52918	20.0	Averaged	
Toluene	1.35612	1.43082	1.43082	0.400	-5.50797	20.0	Averaged	
trans-1,3-Dichloropropene	50.0	51.30895	0.43416	0.100	-2.61789	20.0	Linear	
2-Hexanone	0.25357	0.23470	0.23470	0.100	7.43990	20.0	Averaged	
1,1,2-Trichloroethane	0.28217	0.27987	0.27987	0.100	0.81637	20.0	Averaged	
1,3-Dichloropropane	0.57650	0.58672	0.58672	0.100	-1.77327	20.0	Averaged	
Dibromochloromethane	0.33480	0.38143	0.38143	0.100	-13.92872	20.0	Averaged	
Tetrachloroethene	0.33041	0.34854	0.34854	0.200	-5.48794	20.0	Averaged	
1,2-Dibromoethane	0.34808	0.35646	0.35646	0.100	-2.40888	20.0	Averaged	
1-Chlorohexane	0.25674	0.28536	0.28536	0.100	-11.14708	20.0	Averaged	
Chlorobenzene	0.96786	1.00461	1.00461	0.500	-3.79747	20.0	Averaged	
1,1,1,2-Tetrachloroethane	0.33265	0.37368	0.37368	0.100	-12.33464	20.0	Averaged	
Ethylbenzene	0.45047	0.49185	0.49185	0.100	-9.18597	20.0	Averaged	
m,p-Xylenes	0.53296	0.61649	0.61649	0.100	-15.67277	20.0	Averaged	
o-Xylene	0.52651	0.59992	0.59992	0.300	-13.94147	20.0	Averaged	
Styrene	0.83556	0.98783	0.98783	0.300	-18.22316	20.0	Averaged	
Bromoform	0.22599	0.26452	0.26452	0.100	-17.05023	20.0	Averaged	
Isopropylbenzene	1.26463	1.46434	1.46434	0.100	-15.79271	20.0	Averaged	
1,1,2,2-Tetrachloroethane	0.94051	0.88385	0.88385	0.300	6.02431	20.0	Averaged	
1,2,3-Trichloropropane	0.82740	0.82407	0.82407	0.100	0.40225	20.0	Averaged	
n-Propylbenzene	2.62266	2.91390	2.91390	0.100	-11.10495	20.0	Averaged	
Bromobenzene	0.84363	0.85452	0.85452	0.100	-1.29016	20.0	Averaged	
1,3,5-Trimethylbenzene	1.79927	2.01630	2.01630	0.100	-12.06246	20.0	Averaged	
2-Chlorotoluene	1.84364	1.94284	1.94284	0.100	-5.38048	20.0	Averaged	
4-Chlorotoluene	2.04071	2.19729	2.19729	0.100	-7.67282	20.0	Averaged	
tert-Butylbenzene	1.76718	1.95193	1.95193	0.100	-10.45437	20.0	Averaged	
1,2,4-Trimethylbenzene	1.88261	2.05259	2.05259	0.100	-9.02871	20.0	Averaged	
sec-Butylbenzene	2.24110	2.53496	2.53496	0.100	-13.11248	20.0	Averaged	
p-Isopropyltoluene	1.87752	2.16677	2.16677	0.100	-15.40596	20.0	Averaged	
1,3-Dichlorobenzene	1.43286	1.45453	1.45453	0.600	-1.51227	20.0	Averaged	
1,4-Dichlorobenzene	1.52773	1.51618	1.51618	0.400	0.75604	20.0	Averaged	
n-Butylbenzene	1.60731	1.82489	1.82489	0.500	-13.53692	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_440137

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U062803.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date :19
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times :15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,2-Dichlorobenzene	1.43664	1.44349	1.44349	0.400	-0.47629	20.0	Averaged	
1,2-Dibromo-3-Chloropropane	0.13724	0.13119	0.13119	0.050	4.41032	20.0	Averaged	
1,2,4-Trichlorobenzene	0.98816	1.01056	1.01056	0.200	-2.26627	20.0	Averaged	
Hexachlorobutadiene	0.39906	0.44689	0.44689	0.100	-11.98372	20.0	Averaged	
Naphthalene	2.29538	2.39771	2.39771	0.200	-4.45788	20.0	Averaged	
1,2,3-Trichlorobenzene	0.96603	0.96075	0.96075	0.100	0.54687	20.0	Averaged	
94 1,2-Dichloroethylene (total	0.45327	0.46920	0.46920	0.200	-3.51456	20.0	Averaged	
95 Xylenes (total)	0.50452	0.59542	0.59542	0.100	-18.01666	20.0	Averaged	
1,4-Dioxane	0.00993	0.00639	0.00639	0.001	35.61000	20.0	Averaged	*
Cyclohexane	50.0	49.70430	0.61098	0.100	0.59140	20.0	Quadratic	
Freon TF	0.33580	0.37347	0.37347	0.100	-11.21750	20.0	Averaged	
1,3-Butadiene	0.47352	0.47357	0.47357	0.100	-0.01081	20.0	Averaged	
Methylcyclohexane	0.69360	0.73055	0.73055	0.100	-5.32805	20.0	Averaged	
Methyl Acetate	0.42100	0.38889	0.38889	0.100	7.62895	20.0	Averaged	
Tert-butyl alcohol	1000	1053	0.04863	0.005	-5.28181	20.0	Linear	
Isopropyl alcohol	0.03269	0.03153	0.03153	0.005	3.53026	20.0	Averaged	
trans-1,4-Dichloro-2-butene	0.05757	0.07366	0.07366	0.050	-27.94332	20.0	Averaged	*
Isobutyl Alcohol	0.06496	0.07662	0.07662	0.005	-17.93951	20.0	Averaged	
Acetonitrile	0.05413	0.05598	0.05598	0.005	-3.40645	20.0	Averaged	
Allyl Chloride	1.29812	1.25359	1.25359	0.100	3.43050	20.0	Averaged	
Methacrylonitrile	0.29541	0.30540	0.30540	0.100	-3.38312	20.0	Averaged	
Methyl Methacrylate	0.42991	0.44763	0.44763	0.100	-4.12172	20.0	Averaged	
Propionitrile	0.07225	0.06738	0.06738	0.010	6.74769	20.0	Averaged	
Butyl acrylate	0.59144	0.58519	0.58519	0.100	1.05745	20.0	Averaged	
2-Ethylhexyl Acrylate	50.0	52.61389	0.50707	0.100	-5.22777	20.0	Quadratic	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_440137

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U062830.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date :03
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times :15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Dichlorodifluoromethane	50.0	39.01619	0.36033	0.100	21.96762	50.0	Linear	
Chloromethane	50.0	42.41964	0.64278	0.100	15.16072	50.0	Linear	
Vinyl Chloride	0.52887	0.48560	0.48560	0.100	8.18167	50.0	Averaged	
Bromomethane	50.0	55.49503	0.30077	0.100	-10.99006	50.0	Linear	
Chloroethane	0.35626	0.34350	0.34350	0.100	3.58328	50.0	Averaged	
Trichlorofluoromethane	0.60742	0.67349	0.67349	0.100	-10.87679	50.0	Averaged	
Acrolein	0.02654	0.02684	0.02684	0.010	-1.13253	50.0	Averaged	
Acetone	100	103	0.17681	0.100	-3.13161	50.0	Linear	
1,1-Dichloroethene	0.37953	0.38142	0.38142	0.100	-0.49803	50.0	Averaged	
Iodomethane	100	102	0.30571	0.100	-1.92758	50.0	Quadratic	
Acrylonitrile	0.18542	0.19415	0.19415	0.050	-4.70472	50.0	Averaged	
Methylene Chloride	50.0	53.18059	0.48440	0.100	-6.36118	50.0	Linear	
Methyl tert-butyl ether	1.16385	1.25190	1.25190	0.100	-7.56524	50.0	Averaged	
Carbon Disulfide	1.01461	1.14742	1.14742	0.100	-13.08972	50.0	Averaged	
trans-1,2-Dichloroethene	0.41275	0.42544	0.42544	0.100	-3.07414	50.0	Averaged	
Vinyl Acetate	1.25818	1.28779	1.28779	0.010	-2.35331	50.0	Averaged	
1,1-Dichloroethane	0.78439	0.76729	0.76729	0.200	2.18060	50.0	Averaged	
2-Butanone	0.22797	0.20690	0.20690	0.100	9.24068	50.0	Averaged	
2,2-Dichloropropane	50.0	47.86532	0.49629	0.100	4.26937	50.0	Linear	
cis-1,2-Dichloroethene	0.49378	0.51192	0.51192	0.100	-3.67336	50.0	Averaged	
Chloroform	0.81639	0.83714	0.83714	0.200	-2.54186	50.0	Averaged	
Bromochloromethane	0.27621	0.27544	0.27544	0.100	0.27702	50.0	Averaged	
30 Dibromofluoromethane	50.0	52.73019	0.44245	0.100	-5.46038	50.0	Linear	
1,1,1-Trichloroethane	0.62223	0.67248	0.67248	0.100	-8.07703	50.0	Averaged	
1,1-Dichloropropene	0.36644	0.37168	0.37168	0.100	-1.43049	50.0	Averaged	
1,2-Dichloroethane	0.43276	0.45352	0.45352	0.100	-4.79707	50.0	Averaged	
Carbon Tetrachloride	0.33660	0.38172	0.38172	0.100	-13.40694	50.0	Averaged	
35 1,2-Dichloroethane-d4	50.0	53.63203	0.48666	0.100	-7.26405	50.0	Linear	
Benzene	1.20483	1.18896	1.18896	0.500	1.31675	50.0	Averaged	
Trichloroethene	0.34921	0.35673	0.35673	0.200	-2.15296	50.0	Averaged	
Bromodichloromethane	0.37583	0.40962	0.40962	0.200	-8.99176	50.0	Averaged	
2-Chloroethylvinyl ether	0.00909	0.00338	0.00338	0.001	62.80460	50.0	Averaged	*
1,2-Dichloropropane	0.32169	0.31611	0.31611	0.100	1.73388	50.0	Averaged	
Dibromomethane	0.20554	0.21808	0.21808	0.100	-6.10188	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_440137

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U062830.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date :03
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times :15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Methyl-2-Pentanone	0.36411	0.33262	0.33262	0.100	8.64748	50.0	Averaged	
cis-1,3-Dichloropropene	50.0	45.97041	0.46133	0.200	8.05918	50.0	Linear	
48 Toluene-d8	1.13164	1.10277	1.10277	0.100	2.55187	50.0	Averaged	
Toluene	1.35612	1.34169	1.34169	0.400	1.06417	50.0	Averaged	
trans-1,3-Dichloropropene	50.0	46.83873	0.39478	0.100	6.32254	50.0	Linear	
2-Hexanone	0.25357	0.21749	0.21749	0.100	14.22704	50.0	Averaged	
1,1,2-Trichloroethane	0.28217	0.26613	0.26613	0.100	5.68317	50.0	Averaged	
1,3-Dichloropropane	0.57650	0.55456	0.55456	0.100	3.80651	50.0	Averaged	
Dibromochloromethane	0.33480	0.36404	0.36404	0.100	-8.73439	50.0	Averaged	
Tetrachloroethene	0.33041	0.30973	0.30973	0.200	6.25808	50.0	Averaged	
1,2-Dibromoethane	0.34808	0.34393	0.34393	0.100	1.19232	50.0	Averaged	
1-Chlorohexane	0.25674	0.25200	0.25200	0.100	1.84783	50.0	Averaged	
Chlorobenzene	0.96786	0.94588	0.94588	0.500	2.27138	50.0	Averaged	
1,1,1,2-Tetrachloroethane	0.33265	0.34424	0.34424	0.100	-3.48166	50.0	Averaged	
Ethylbenzene	0.45047	0.44265	0.44265	0.100	1.73727	50.0	Averaged	
m,p-Xylenes	0.53296	0.55451	0.55451	0.100	-4.04297	50.0	Averaged	
o-Xylene	0.52651	0.54578	0.54578	0.300	-3.65976	50.0	Averaged	
Styrene	0.83556	0.89407	0.89407	0.300	-7.00188	50.0	Averaged	
Bromoform	0.22599	0.25117	0.25117	0.100	-11.14085	50.0	Averaged	
Isopropylbenzene	1.26463	1.28850	1.28850	0.100	-1.88756	50.0	Averaged	
1,1,2,2-Tetrachloroethane	0.94051	0.85105	0.85105	0.300	9.51258	50.0	Averaged	
1,2,3-Trichloropropane	0.82740	0.78676	0.78676	0.100	4.91215	50.0	Averaged	
n-Propylbenzene	2.62266	2.60897	2.60897	0.100	0.52175	50.0	Averaged	
Bromobenzene	0.84363	0.80703	0.80703	0.100	4.33858	50.0	Averaged	
1,3,5-Trimethylbenzene	1.79927	1.75571	1.75571	0.100	2.42099	50.0	Averaged	
2-Chlorotoluene	1.84364	1.75929	1.75929	0.100	4.57541	50.0	Averaged	
4-Chlorotoluene	2.04071	2.00492	2.00492	0.100	1.75409	50.0	Averaged	
tert-Butylbenzene	1.76718	1.72015	1.72015	0.100	2.66115	50.0	Averaged	
1,2,4-Trimethylbenzene	1.88261	1.75952	1.75952	0.100	6.53865	50.0	Averaged	
sec-Butylbenzene	2.24110	2.14753	2.14753	0.100	4.17477	50.0	Averaged	
p-Isopropyltoluene	1.87752	1.79470	1.79470	0.100	4.41110	50.0	Averaged	
1,3-Dichlorobenzene	1.43286	1.34240	1.34240	0.600	6.31369	50.0	Averaged	
1,4-Dichlorobenzene	1.52773	1.39768	1.39768	0.400	8.51267	50.0	Averaged	
n-Butylbenzene	1.60731	1.46862	1.46862	0.500	8.62864	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_440137

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U062830.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date :03
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times :15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,2-Dichlorobenzene	1.43664	1.34326	1.34326	0.400	6.50027	50.0	Averaged	
1,2-Dibromo-3-Chloropropane	0.13724	0.12171	0.12171	0.050	11.32007	50.0	Averaged	
1,2,4-Trichlorobenzene	0.98816	0.86264	0.86264	0.200	12.70236	50.0	Averaged	
Hexachlorobutadiene	0.39906	0.35577	0.35577	0.100	10.85006	50.0	Averaged	
Naphthalene	2.29538	2.01371	2.01371	0.200	12.27119	50.0	Averaged	
1,2,3-Trichlorobenzene	0.96603	0.84697	0.84697	0.100	12.32458	50.0	Averaged	
94 1,2-Dichloroethylene (total	0.45327	0.46868	0.46868	0.200	-3.40053	50.0	Averaged	
95 Xylenes (total)	0.50452	0.54673	0.54673	0.100	-8.36681	50.0	Averaged	
1,4-Dioxane	0.00993	0.00653	0.00653	0.001	34.18787	50.0	Averaged	
Cyclohexane	50.0	45.06268	0.55233	0.100	9.87464	50.0	Quadratic	
Freon TF	0.33580	0.35731	0.35731	0.100	-6.40574	50.0	Averaged	
1,3-Butadiene	0.47352	0.43133	0.43133	0.100	8.91071	50.0	Averaged	
Methylcyclohexane	0.69360	0.66950	0.66950	0.100	3.47415	50.0	Averaged	
Methyl Acetate	0.42100	0.41294	0.41294	0.100	1.91475	50.0	Averaged	
Tert-butyl alcohol	1000	1047	0.04837	0.005	-4.72494	50.0	Linear	
Isopropyl alcohol	0.03269	0.03156	0.03156	0.005	3.43845	50.0	Averaged	
trans-1,4-Dichloro-2-butene	0.05757	0.06417	0.06417	0.050	-11.46718	50.0	Averaged	
Isobutyl Alcohol	0.06496	0.07609	0.07609	0.005	-17.12614	50.0	Averaged	
Acetonitrile	0.05413	0.05489	0.05489	0.005	-1.40295	50.0	Averaged	
Allyl Chloride	1.29812	1.24881	1.24881	0.100	3.79899	50.0	Averaged	
Methacrylonitrile	0.29541	0.28451	0.28451	0.100	3.69114	50.0	Averaged	
Methyl Methacrylate	0.42991	0.43874	0.43874	0.100	-2.05453	50.0	Averaged	
Propionitrile	0.07225	0.07157	0.07157	0.010	0.94865	50.0	Averaged	
Butyl acrylate	0.59144	0.53106	0.53106	0.100	10.20979	50.0	Averaged	
2-Ethylhexyl Acrylate	50.0	46.86593	0.44701	0.100	6.26815	50.0	Quadratic	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_440247

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U062903.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date :09
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times :15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Dichlorodifluoromethane	50.0	47.43151	0.43820	0.100	5.13697	20.0	Linear	
Chloromethane	50.0	41.84390	0.63432	0.100	16.31220	20.0	Linear	
Vinyl Chloride	0.52887	0.50931	0.50931	0.100	3.69818	20.0	Averaged	
Bromomethane	50.0	56.32131	0.30511	0.100	-12.64261	20.0	Linear	
Chloroethane	0.35626	0.34365	0.34365	0.100	3.54130	20.0	Averaged	
Trichlorofluoromethane	0.60742	0.65934	0.65934	0.100	-8.54734	20.0	Averaged	
Acrolein	0.02654	0.02584	0.02584	0.010	2.64952	20.0	Averaged	
Acetone	100	103	0.17591	0.100	-2.57648	20.0	Linear	
1,1-Dichloroethene	0.37953	0.38426	0.38426	0.100	-1.24685	20.0	Averaged	
Iodomethane	100	132	0.41365	0.100	-32.11472	20.0	Quadratic	*
Acrylonitrile	0.18542	0.18239	0.18239	0.050	1.63795	20.0	Averaged	
Methylene Chloride	50.0	53.17212	0.48432	0.100	-6.34423	20.0	Linear	
Methyl tert-butyl ether	1.16385	1.22145	1.22145	0.100	-4.94944	20.0	Averaged	
Carbon Disulfide	1.01461	1.16039	1.16039	0.100	-14.36765	20.0	Averaged	
trans-1,2-Dichloroethene	0.41275	0.42646	0.42646	0.100	-3.32170	20.0	Averaged	
Vinyl Acetate	1.25818	1.34147	1.34147	0.010	-6.61946	20.0	Averaged	
1,1-Dichloroethane	0.78439	0.75108	0.75108	0.200	4.24663	20.0	Averaged	
2-Butanone	0.22797	0.21475	0.21475	0.100	5.79828	20.0	Averaged	
2,2-Dichloropropane	50.0	55.63364	0.57751	0.100	-11.26728	20.0	Linear	
cis-1,2-Dichloroethene	0.49378	0.49760	0.49760	0.100	-0.77325	20.0	Averaged	
Chloroform	0.81639	0.81939	0.81939	0.200	-0.36758	20.0	Averaged	
Bromochloromethane	0.27621	0.27582	0.27582	0.100	0.13959	20.0	Averaged	
30 Dibromofluoromethane	50.0	48.74765	0.40924	0.100	2.50471	20.0	Linear	
1,1,1-Trichloroethane	0.62223	0.64024	0.64024	0.100	-2.89468	20.0	Averaged	
1,1-Dichloropropene	0.36644	0.39071	0.39071	0.100	-6.62437	20.0	Averaged	
1,2-Dichloroethane	0.43276	0.46702	0.46702	0.100	-7.91699	20.0	Averaged	
Carbon Tetrachloride	0.33660	0.37989	0.37989	0.100	-12.86121	20.0	Averaged	
35 1,2-Dichloroethane-d4	50.0	48.83371	0.44367	0.100	2.33258	20.0	Linear	
Benzene	1.20483	1.25432	1.25432	0.500	-4.10802	20.0	Averaged	
Trichloroethene	0.34921	0.35424	0.35424	0.200	-1.44093	20.0	Averaged	
Bromodichloromethane	0.37583	0.42424	0.42424	0.200	-12.87998	20.0	Averaged	
2-Chloroethylvinyl ether	0.00909	0.00412	0.00412	0.001	54.70664	20.0	Averaged	*
1,2-Dichloropropane	0.32169	0.33527	0.33527	0.100	-4.22263	20.0	Averaged	
Dibromomethane	0.20554	0.22408	0.22408	0.100	-9.02047	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_440247

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U062903.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date :09
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times :15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Methyl-2-Pentanone	0.36411	0.36190	0.36190	0.100	0.60503	20.0	Averaged	
cis-1,3-Dichloropropene	50.0	51.46896	0.51890	0.200	-2.93792	20.0	Linear	
48 Toluene-d8	1.13164	1.07913	1.07913	0.100	4.64085	20.0	Averaged	
Toluene	1.35612	1.39671	1.39671	0.400	-2.99312	20.0	Averaged	
trans-1,3-Dichloropropene	50.0	51.75379	0.43807	0.100	-3.50758	20.0	Linear	
2-Hexanone	0.25357	0.23928	0.23928	0.100	5.63298	20.0	Averaged	
1,1,2-Trichloroethane	0.28217	0.27786	0.27786	0.100	1.52784	20.0	Averaged	
1,3-Dichloropropane	0.57650	0.58841	0.58841	0.100	-2.06542	20.0	Averaged	
Dibromochloromethane	0.33480	0.38492	0.38492	0.100	-14.97207	20.0	Averaged	
Tetrachloroethene	0.33041	0.33232	0.33232	0.200	-0.58072	20.0	Averaged	
1,2-Dibromoethane	0.34808	0.35969	0.35969	0.100	-3.33675	20.0	Averaged	
1-Chlorohexane	0.25674	0.26927	0.26927	0.100	-4.87822	20.0	Averaged	
Chlorobenzene	0.96786	0.97988	0.97988	0.500	-1.24196	20.0	Averaged	
1,1,1,2-Tetrachloroethane	0.33265	0.36321	0.36321	0.100	-9.18475	20.0	Averaged	
Ethylbenzene	0.45047	0.46729	0.46729	0.100	-3.73313	20.0	Averaged	
m,p-Xylenes	0.53296	0.57699	0.57699	0.100	-8.26007	20.0	Averaged	
o-Xylene	0.52651	0.56923	0.56923	0.300	-8.11408	20.0	Averaged	
Styrene	0.83556	0.96145	0.96145	0.300	-15.06603	20.0	Averaged	
Bromoform	0.22599	0.26011	0.26011	0.100	-15.09768	20.0	Averaged	
Isopropylbenzene	1.26463	1.35071	1.35071	0.100	-6.80701	20.0	Averaged	
1,1,2,2-Tetrachloroethane	0.94051	0.89819	0.89819	0.300	4.49976	20.0	Averaged	
1,2,3-Trichloropropane	0.82740	0.84328	0.84328	0.100	-1.91888	20.0	Averaged	
n-Propylbenzene	2.62266	2.77707	2.77707	0.100	-5.88749	20.0	Averaged	
Bromobenzene	0.84363	0.84807	0.84807	0.100	-0.52524	20.0	Averaged	
1,3,5-Trimethylbenzene	1.79927	1.85919	1.85919	0.100	-3.33034	20.0	Averaged	
2-Chlorotoluene	1.84364	1.84061	1.84061	0.100	0.16449	20.0	Averaged	
4-Chlorotoluene	2.04071	2.08711	2.08711	0.100	-2.27365	20.0	Averaged	
tert-Butylbenzene	1.76718	1.80392	1.80392	0.100	-2.07933	20.0	Averaged	
1,2,4-Trimethylbenzene	1.88261	1.92475	1.92475	0.100	-2.23836	20.0	Averaged	
sec-Butylbenzene	2.24110	2.29709	2.29709	0.100	-2.49834	20.0	Averaged	
p-Isopropyltoluene	1.87752	1.97009	1.97009	0.100	-4.93042	20.0	Averaged	
1,3-Dichlorobenzene	1.43286	1.41056	1.41056	0.600	1.55653	20.0	Averaged	
1,4-Dichlorobenzene	1.52773	1.46186	1.46186	0.400	4.31145	20.0	Averaged	
n-Butylbenzene	1.60731	1.63362	1.63362	0.500	-1.63725	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_440247

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U062903.D
Analysis Type WATER
Lab Sample ID CCV

Injection Date :09
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times :15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,2-Dichlorobenzene	1.43664	1.39356	1.39356	0.400	2.99907	20.0	Averaged	
1,2-Dibromo-3-Chloropropane	0.13724	0.13216	0.13216	0.050	3.70399	20.0	Averaged	
1,2,4-Trichlorobenzene	0.98816	0.95503	0.95503	0.200	3.35253	20.0	Averaged	
Hexachlorobutadiene	0.39906	0.40786	0.40786	0.100	-2.20512	20.0	Averaged	
Naphthalene	2.29538	2.33648	2.33648	0.200	-1.79044	20.0	Averaged	
1,2,3-Trichlorobenzene	0.96603	0.91230	0.91230	0.100	5.56263	20.0	Averaged	
94 1,2-Dichloroethylene (total	0.45327	0.46203	0.46203	0.200	-1.93357	20.0	Averaged	
95 Xylenes (total)	0.50452	0.56644	0.56644	0.100	-12.27256	20.0	Averaged	
1,4-Dioxane	0.00993	0.00666	0.00666	0.001	32.89864	20.0	Averaged	*
Cyclohexane	50.0	46.11382	0.56559	0.100	7.77236	20.0	Quadratic	
Freon TF	0.33580	0.36466	0.36466	0.100	-8.59436	20.0	Averaged	
1,3-Butadiene	0.47352	0.44186	0.44186	0.100	6.68652	20.0	Averaged	
Methylcyclohexane	0.69360	0.71987	0.71987	0.100	-3.78720	20.0	Averaged	
Methyl Acetate	0.42100	0.40036	0.40036	0.100	4.90443	20.0	Averaged	
Tert-butyl alcohol	1000	1071	0.04945	0.005	-7.06494	20.0	Linear	
Isopropyl alcohol	0.03269	0.03236	0.03236	0.005	1.00578	20.0	Averaged	
trans-1,4-Dichloro-2-butene	0.05757	0.07492	0.07492	0.050	-30.13962	20.0	Averaged	*
Isobutyl Alcohol	0.06496	0.06928	0.06928	0.005	-6.64910	20.0	Averaged	
Acetonitrile	0.05413	0.05409	0.05409	0.005	0.08825	20.0	Averaged	
Allyl Chloride	1.29812	1.24695	1.24695	0.100	3.94172	20.0	Averaged	
Methacrylonitrile	0.29541	0.29881	0.29881	0.100	-1.14990	20.0	Averaged	
Methyl Methacrylate	0.42991	0.45033	0.45033	0.100	-4.75041	20.0	Averaged	
Propionitrile	0.07225	0.06899	0.06899	0.010	4.52002	20.0	Averaged	
Methyl Acrylate	0.52880	0.55963	0.55963	0.100	-5.83051	20.0	Averaged	
Ethyl Methacrylate	0.43830	0.47128	0.47128	0.100	-7.52596	20.0	Averaged	
1,2,3-Trimethylbenzene	1.92195	1.90566	1.90566	0.100	0.84718	20.0	Averaged	
Diisopropyl ether	1.39419	1.42745	1.42745	0.100	-2.38586	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_440247

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U062931.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date :53
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times :15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
Dichlorodifluoromethane	50.0	34.66363	0.32005	0.100	30.67274	50.0	Linear	
Chloromethane	50.0	40.18030	0.60989	0.100	19.63940	50.0	Linear	
Vinyl Chloride	0.52887	0.45348	0.45348	0.100	14.25589	50.0	Averaged	
Bromomethane	50.0	55.93067	0.30306	0.100	-11.86134	50.0	Linear	
Chloroethane	0.35626	0.32606	0.32606	0.100	8.47820	50.0	Averaged	
Trichlorofluoromethane	0.60742	0.60622	0.60622	0.100	0.19675	50.0	Averaged	
Acrolein	0.02654	0.02681	0.02681	0.010	-1.02826	50.0	Averaged	
Acetone	100	96.65182	0.16628	0.100	3.34818	50.0	Linear	
1,1-Dichloroethene	0.37953	0.35746	0.35746	0.100	5.81406	50.0	Averaged	
Iodomethane	100	98.06657	0.29221	0.100	1.93343	50.0	Quadratic	
Acrylonitrile	0.18542	0.19748	0.19748	0.050	-6.49955	50.0	Averaged	
Methylene Chloride	50.0	51.21665	0.46685	0.100	-2.43330	50.0	Linear	
Methyl tert-butyl ether	1.16385	1.25295	1.25295	0.100	-7.65587	50.0	Averaged	
Carbon Disulfide	1.01461	1.07937	1.07937	0.100	-6.38227	50.0	Averaged	
trans-1,2-Dichloroethene	0.41275	0.40722	0.40722	0.100	1.33829	50.0	Averaged	
Vinyl Acetate	1.25818	1.22432	1.22432	0.010	2.69121	50.0	Averaged	
1,1-Dichloroethane	0.78439	0.73760	0.73760	0.200	5.96550	50.0	Averaged	
2-Butanone	0.22797	0.20905	0.20905	0.100	8.29872	50.0	Averaged	
2,2-Dichloropropane	50.0	44.53316	0.46145	0.100	10.93368	50.0	Linear	
cis-1,2-Dichloroethene	0.49378	0.48148	0.48148	0.100	2.49210	50.0	Averaged	
Chloroform	0.81639	0.79704	0.79704	0.200	2.36980	50.0	Averaged	
Bromochloromethane	0.27621	0.26206	0.26206	0.100	5.12382	50.0	Averaged	
30 Dibromofluoromethane	50.0	53.50075	0.44888	0.100	-7.00150	50.0	Linear	
1,1,1-Trichloroethane	0.62223	0.61606	0.61606	0.100	0.99095	50.0	Averaged	
1,1-Dichloropropene	0.36644	0.35105	0.35105	0.100	4.19800	50.0	Averaged	
1,2-Dichloroethane	0.43276	0.44997	0.44997	0.100	-3.97731	50.0	Averaged	
Carbon Tetrachloride	0.33660	0.34734	0.34734	0.100	-3.19290	50.0	Averaged	
35 1,2-Dichloroethane-d4	50.0	53.08374	0.48175	0.100	-6.16747	50.0	Linear	
Benzene	1.20483	1.16914	1.16914	0.500	2.96224	50.0	Averaged	
Trichloroethene	0.34921	0.33843	0.33843	0.200	3.08629	50.0	Averaged	
Bromodichloromethane	0.37583	0.39688	0.39688	0.200	-5.60168	50.0	Averaged	
2-Chloroethylvinyl ether	0.00909	0.00209	0.00209	0.001	77.04020	50.0	Averaged	*
1,2-Dichloropropane	0.32169	0.31271	0.31271	0.100	2.79162	50.0	Averaged	
Dibromomethane	0.20554	0.20800	0.20800	0.100	-1.19749	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_440247

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U062931.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date :53
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times :15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
4-Methyl-2-Pentanone	0.36411	0.33895	0.33895	0.100	6.90792	50.0	Averaged	
cis-1,3-Dichloropropene	50.0	45.56389	0.45707	0.200	8.87222	50.0	Linear	
48 Toluene-d8	1.13164	1.13698	1.13698	0.100	-0.47172	50.0	Averaged	
Toluene	1.35612	1.31711	1.31711	0.400	2.87670	50.0	Averaged	
trans-1,3-Dichloropropene	50.0	45.69877	0.38474	0.100	8.60246	50.0	Linear	
2-Hexanone	0.25357	0.21752	0.21752	0.100	14.21423	50.0	Averaged	
1,1,2-Trichloroethane	0.28217	0.26151	0.26151	0.100	7.32230	50.0	Averaged	
1,3-Dichloropropane	0.57650	0.55955	0.55955	0.100	2.94035	50.0	Averaged	
Dibromochloromethane	0.33480	0.35840	0.35840	0.100	-7.05079	50.0	Averaged	
Tetrachloroethene	0.33041	0.30436	0.30436	0.200	7.88365	50.0	Averaged	
1,2-Dibromoethane	0.34808	0.33948	0.33948	0.100	2.47108	50.0	Averaged	
1-Chlorohexane	0.25674	0.23921	0.23921	0.100	6.83053	50.0	Averaged	
Chlorobenzene	0.96786	0.93200	0.93200	0.500	3.70514	50.0	Averaged	
1,1,1,2-Tetrachloroethane	0.33265	0.34108	0.34108	0.100	-2.53370	50.0	Averaged	
Ethylbenzene	0.45047	0.43899	0.43899	0.100	2.55022	50.0	Averaged	
m,p-Xylenes	0.53296	0.55080	0.55080	0.100	-3.34722	50.0	Averaged	
o-Xylene	0.52651	0.54522	0.54522	0.300	-3.55322	50.0	Averaged	
Styrene	0.83556	0.89849	0.89849	0.300	-7.53165	50.0	Averaged	
Bromoform	0.22599	0.25053	0.25053	0.100	-10.85962	50.0	Averaged	
Isopropylbenzene	1.26463	1.27439	1.27439	0.100	-0.77210	50.0	Averaged	
1,1,2,2-Tetrachloroethane	0.94051	0.84396	0.84396	0.300	10.26556	50.0	Averaged	
1,2,3-Trichloropropane	0.82740	0.76963	0.76963	0.100	6.98264	50.0	Averaged	
n-Propylbenzene	2.62266	2.57780	2.57780	0.100	1.71033	50.0	Averaged	
Bromobenzene	0.84363	0.80774	0.80774	0.100	4.25510	50.0	Averaged	
1,3,5-Trimethylbenzene	1.79927	1.76244	1.76244	0.100	2.04693	50.0	Averaged	
2-Chlorotoluene	1.84364	1.76309	1.76309	0.100	4.36925	50.0	Averaged	
4-Chlorotoluene	2.04071	2.00979	2.00979	0.100	1.51532	50.0	Averaged	
tert-Butylbenzene	1.76718	1.69332	1.69332	0.100	4.17958	50.0	Averaged	
1,2,4-Trimethylbenzene	1.88261	1.76024	1.76024	0.100	6.49996	50.0	Averaged	
sec-Butylbenzene	2.24110	2.10548	2.10548	0.100	6.05146	50.0	Averaged	
p-Isopropyltoluene	1.87752	1.75940	1.75940	0.100	6.29108	50.0	Averaged	
1,3-Dichlorobenzene	1.43286	1.34632	1.34632	0.600	6.03997	50.0	Averaged	
1,4-Dichlorobenzene	1.52773	1.38436	1.38436	0.400	9.38463	50.0	Averaged	
n-Butylbenzene	1.60731	1.42684	1.42684	0.500	11.22812	50.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID VOA9_440247

Volatiles by EPA 8260

Instrument ID VOA9.I
Lab File ID U062931.D
Analysis Type WATER
Lab Sample ID CCV-END

Injection Date :53
ICAL Date(s) 06-JUN-2023 06-JUN-2023
ICAL Times :15 15:41
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF50 / Conc	CCV RRF50	Min RRF	%D / %Drift	Max %D / %Drift	Curve Type	Q
1,2-Dichlorobenzene	1.43664	1.34617	1.34617	0.400	6.29765	50.0	Averaged	
1,2-Dibromo-3-Chloropropane	0.13724	0.12577	0.12577	0.050	8.35860	50.0	Averaged	
1,2,4-Trichlorobenzene	0.98816	0.88125	0.88125	0.200	10.81985	50.0	Averaged	
Hexachlorobutadiene	0.39906	0.34034	0.34034	0.100	14.71573	50.0	Averaged	
Naphthalene	2.29538	2.07705	2.07705	0.200	9.51162	50.0	Averaged	
1,2,3-Trichlorobenzene	0.96603	0.85863	0.85863	0.100	11.11832	50.0	Averaged	
94 1,2-Dichloroethylene (total	0.45327	0.44435	0.44435	0.200	1.96677	50.0	Averaged	
95 Xylenes (total)	0.50452	0.54195	0.54195	0.100	-7.41935	50.0	Averaged	
1,4-Dioxane	0.00993	0.00641	0.00641	0.001	35.39525	50.0	Averaged	
Cyclohexane	50.0	40.13527	0.49040	0.100	19.72946	50.0	Quadratic	
Freon TF	0.33580	0.32733	0.32733	0.100	2.52238	50.0	Averaged	
1,3-Butadiene	0.47352	0.39962	0.39962	0.100	15.60555	50.0	Averaged	
Methylcyclohexane	0.69360	0.71234	0.71234	0.100	-2.70223	50.0	Averaged	
Methyl Acetate	0.42100	0.41449	0.41449	0.100	1.54683	50.0	Averaged	
Tert-butyl alcohol	1000	1041	0.04807	0.005	-4.07203	50.0	Linear	
Isopropyl alcohol	0.03269	0.03135	0.03135	0.005	4.09263	50.0	Averaged	
trans-1,4-Dichloro-2-butene	0.05757	0.06106	0.06106	0.050	-6.05795	50.0	Averaged	
Isobutyl Alcohol	0.06496	0.06867	0.06867	0.005	-5.70784	50.0	Averaged	
Acetonitrile	0.05413	0.05486	0.05486	0.005	-1.34811	50.0	Averaged	
Allyl Chloride	1.29812	1.27922	1.27922	0.100	1.45631	50.0	Averaged	
Methacrylonitrile	0.29541	0.29676	0.29676	0.100	-0.45758	50.0	Averaged	
Methyl Methacrylate	0.42991	0.44609	0.44609	0.100	-3.76292	50.0	Averaged	
Propionitrile	0.07225	0.07246	0.07246	0.010	-0.29458	50.0	Averaged	
Methyl Acrylate	0.52880	0.57838	0.57838	0.100	-9.37711	50.0	Averaged	
Ethyl Methacrylate	0.43830	0.45856	0.45856	0.100	-4.62415	50.0	Averaged	
1,2,3-Trimethylbenzene	1.92195	1.94044	1.94044	0.100	-0.96199	50.0	Averaged	
Diisopropyl ether	1.39419	1.48306	1.48306	0.100	-6.37463	50.0	Averaged	

01205578

right solutions.
right partner.

Form 8

Internal Standard Area and RT Summary

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

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.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

VOA9_440137		Pentafluorobenzene				1,4-Difluorobenzene				Chlorobenzene				1,4-Dichlorobenze			
Sample ID	File ID	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12-HOUR STD (CCV)	U062803.D	564266	#	4.82	#	811834	#	5.55	#	791172	#	8.19	#	423188	#	10.17	#
HS23061825-01	U062817.D	603688		4.82		817104		5.55		741646		8.19		371427		10.17	
HS23061825-02	U062818.D	636211		4.81		864818		5.55		745219		8.19		371030		10.17	
HS23061825-04	U062810.D	635780		4.82		857075		5.55		772761		8.19		392123		10.17	
HS23061825-05	U062808.D	606725		4.82		826773		5.56		773655		8.19		389478		10.17	
HS23061825-05MS	U062811.D	624968		4.82		847987		5.55		793841		8.19		427798		10.17	
HS23061825-05MSD	U062812.D	639964		4.82		868987		5.55		817148		8.19		445848		10.17	
HS23061825-06	U062816.D	617760		4.82		835329		5.55		768530		8.19		379772		10.17	
HS23061825-07	U062815.D	595470		4.82		818948		5.55		754311		8.19		369618		10.17	
HS23061825-09	U062809.D	626355		4.81		851670		5.55		784051		8.19		401614		10.17	
HS23061825-10	U062814.D	659245		4.82		876139		5.55		791968		8.19		392894		10.17	
VBLKW-230628	U062807.D	618517		4.82		832888		5.55		769689		8.19		382144		10.17	
VLCSW-230628	U062805.D	554737		4.82		803116		5.56		763175		8.19		405016		10.17	

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

Form 8 - Internal Standard Area and RT Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Volatiles by EPA 8260

VOA9_440247		Pentafluorobenzene				1,4-Difluorobenzene				Chlorobenzene				1,4-Dichlorobenze			
Sample ID	File ID	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12-HOUR STD (CCV)	U062903.D	567832	#	4.82	#	810480	#	5.55	#	799242	#	8.19	#	422195	#	10.17	#
HS23061825-03	U062912.D	606942		4.82		825718		5.56		767936		8.19		384248		10.17	
HS23061825-03	U062911.D	599346		4.82		817984		5.55		759323		8.19		383857		10.17	
HS23061825-03MS	U062913.D	636356		4.82		858718		5.55		820502		8.19		444652		10.17	
HS23061825-03MSD	U062914.D	638913		4.82		869876		5.55		811369		8.19		429013		10.17	
HS23061825-04	U062910.D	640887		4.81		853226		5.55		772721		8.19		381468		10.17	
HS23061825-09	U062915.D	636003		4.82		857604		5.55		795708		8.19		408788		10.17	
VBLKW-230629	U062907.D	641704		4.82		867792		5.55		788040		8.19		391345		10.17	
VLCSW-230629	U062905.D	545168		4.81		800867		5.55		776333		8.19		409506		10.17	

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

01205581

right solutions.
right partner.

Analysis Run Log

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

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

www.alsglobal.com

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

RunID
VOA9-437296

Volatiles by EPA 8260

Run ID VOA9_437296 **Start Date** 06/06/23 **EndDate** 06/06/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
10:53	BFB	TUNE	BFB	U060601.D	06/06/23	1
11:15	VSTD000.25	ICAL1	VSTD000.25	U060602.D	06/06/23	1
11:37	VSTD000.5	ICAL2	VSTD000.5	U060603.D	06/06/23	1
13:06	VSTD005	ICAL5	VSTD005	U060606.D	06/06/23	1
13:28	VSTD001	ICAL3	VSTD001	U060607.D	06/06/23	1
13:50	VSTD002	ICAL4	VSTD002	U060608.D	06/06/23	1
14:13	VSTD020	ICAL6	VSTD020	U060609.D	06/06/23	1
14:35	VSTD050	ICAL7	VSTD050	U060610.D	06/06/23	1
14:57	VSTD100	ICAL8	VSTD100	U060611.D	06/06/23	1
15:19	VSTD150	ICAL9	VSTD150	U060612.D	06/06/23	1
15:41	VSTD200	ICAL	VSTD200	U060613.D	06/06/23	1
16:48	CCV	ICV	CCV	U060616.D	06/06/23	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

RunID
VOA9-440137

Volatiles by EPA 8260

Run ID VOA9_440137 **Start Date** 06/28/23 **EndDate** 06/28/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
10:34	BFB	TUNE	BFB	U062801.D	06/28/23	1
11:19	CCV	CCV	CCV	U062803.D	06/28/23	1
12:21	CCB	CCB	CCB	U062804.D	06/28/23	1
12:44	VLCSW-230628	LCS	VLCSW-230628	U062805.D	06/28/23	1
13:28	VBLKW-230628	MBLK	VBLKW-230628	U062807.D	06/28/23	1
13:51	HS23061825-05	SAMP	MW13_062623	U062808.D	06/28/23	1
14:13	HS23061825-09	SAMP	MW16_062623	U062809.D	06/28/23	1
14:35	HS23061825-04	SAMP	MW9_062623	U062810.D	06/28/23	1
14:58	HS23061825-05MS	MS	HS23061825-05MS	U062811.D	06/28/23	1
15:20	HS23061825-05MSD	MSD	HS23061825-05MSD	U062812.D	06/28/23	1
15:43	HS23061557-03	SAMP	ZZZZZZZZZZ	U062813.D	06/28/23	50
16:05	HS23061825-10	SAMP	Trip Blank	U062814.D	06/28/23	1
16:27	HS23061825-07	SAMP	18WW10_062623	U062815.D	06/28/23	1
16:50	HS23061825-06	SAMP	CO2_062623	U062816.D	06/28/23	1
17:12	HS23061825-01	SAMP	125_062623	U062817.D	06/28/23	5
17:35	HS23061825-02	SAMP	MW3_062623	U062818.D	06/28/23	5
17:57	HS23061925-24	SAMP	ZZZZZZZZZZ	U062819.D	06/28/23	1
18:19	HS23061925-04	SAMP	ZZZZZZZZZZ	U062820.D	06/28/23	1
18:42	HS23061925-16	SAMP	ZZZZZZZZZZ	U062821.D	06/28/23	1
19:04	HS23061925-17	SAMP	ZZZZZZZZZZ	U062822.D	06/28/23	1
19:27	HS23061925-18	SAMP	ZZZZZZZZZZ	U062823.D	06/28/23	1
19:49	HS23061925-19	SAMP	ZZZZZZZZZZ	U062824.D	06/28/23	1
20:11	HS23061925-01	SAMP	ZZZZZZZZZZ	U062825.D	06/28/23	1
20:34	HS23061925-20	SAMP	ZZZZZZZZZZ	U062826.D	06/28/23	1
20:56	HS23061925-06	SAMP	ZZZZZZZZZZ	U062827.D	06/28/23	20
21:19	HS23061925-02	SAMP	ZZZZZZZZZZ	U062828.D	06/28/23	10
21:41	HS23061925-03	SAMP	ZZZZZZZZZZ	U062829.D	06/28/23	10
22:03	CCV-END	CCV_END	CCV-END	U062830.D	06/28/23	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

RunID
VOA9-440247

Volatiles by EPA 8260

Run ID VOA9_440247 **Start Date** 06/29/23 **EndDate** 06/29/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
10:25	BFB	TUNE	BFB	U062901.D	06/29/23	1
11:09	CCV	CCV	CCV	U062903.D	06/29/23	1
11:32	CCB	CCB	CCB	U062904.D	06/29/23	1
11:54	VLCSW-230629	LCS	VLCSW-230629	U062905.D	06/29/23	1
12:39	VBLKW-230629	MBLK	VBLKW-230629	U062907.D	06/29/23	1
13:01	HS23061900-02	SAMP	ZZZZZZZZZZ	U062908.D	06/29/23	1
14:03	HS23061825-04	SAMP	MW9_062623	U062910.D	06/29/23	25
14:26	HS23061825-03	SAMP	MW23_062623	U062911.D	06/29/23	50
14:48	HS23061825-03	SAMP	MW23_062623	U062912.D	06/29/23	10
15:10	HS23061825-03MS	MS	HS23061825-03MS	U062913.D	06/29/23	50
15:33	HS23061825-03MSD	MSD	HS23061825-03MSD	U062914.D	06/29/23	50
15:55	HS23061825-09	SAMP	MW16_062623	U062915.D	06/29/23	10
16:18	HS23061712-05	SAMP	ZZZZZZZZZZ	U062916.D	06/29/23	200
16:40	HS23061821-01	SAMP	ZZZZZZZZZZ	U062917.D	06/29/23	5
17:02	HS23061821-06	SAMP	ZZZZZZZZZZ	U062918.D	06/29/23	50
17:25	HS23061812-04	SAMP	ZZZZZZZZZZ	U062919.D	06/29/23	5
18:09	HS23061925-02	SAMP	ZZZZZZZZZZ	U062921.D	06/29/23	50
18:32	HS23061925-03	SAMP	ZZZZZZZZZZ	U062922.D	06/29/23	100
18:54	HS23061925-20	SAMP	ZZZZZZZZZZ	U062923.D	06/29/23	5
19:17	HS23061925-05	SAMP	ZZZZZZZZZZ	U062924.D	06/29/23	25
20:01	HS23061925-07	SAMP	ZZZZZZZZZZ	U062926.D	06/29/23	5
20:46	HS23061925-08	SAMP	ZZZZZZZZZZ	U062928.D	06/29/23	25
21:31	HS23061812-01	SAMP	ZZZZZZZZZZ	U062930.D	06/29/23	1
21:53	CCV-END	CCV_END	CCV-END	U062931.D	06/29/23	1

01205585

right solutions.
right partner.

Raw Data VOA9 437296

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

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\U230606.b\U060601.D Page 1
Report Date: 06-Jun-2023 11:16

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060601.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 06-JUN-2023 10:53
Operator : PC Inst ID: VOA9.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\bfb.m
Meth Date : 27-Jan-2023 08:08 apoluri Quant Type: ISTD
Cal Date : 30-MAR-2018 18:09 Cal File: U033003.d
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/l)		
RT	EXP RT	REL RT	MASS	RESPONSE			TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
9.197	9.180	(0.000)	95	136448			0.00- 100.00	100.00
9.197	9.180	(0.000)	50	25960			15.00- 40.00	19.03
9.197	9.180	(0.000)	75	63728			30.00- 60.00	46.70
9.197	9.180	(0.000)	96	9360			5.00- 9.00	6.86
9.197	9.180	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
9.197	9.180	(0.000)	174	125696			50.00- 0.00	92.12
9.197	9.180	(0.000)	175	10925			5.00- 9.00	8.69
9.197	9.180	(0.000)	176	121928			95.00- 101.00	97.00
9.197	9.180	(0.000)	177	8371			5.00- 9.00	6.87

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.03
75	30.00 - 60.00% of mass 95	46.70
96	5.00 - 9.00% of mass 95	6.86
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	92.12
175	5.00 - 9.00% of mass 174	8.01 (8.69)
176	95.00 - 101.00% of mass 174	89.36 (97.00)
177	5.00 - 9.00% of mass 176	6.13 (6.87)

Data File: U060601.D
Spectrum: Scan 2294 (9.19)
Location of Maximum: 95.00
Number of points: 183

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1606	78.90	3626	126.90	173	180.50	63
37.00	7004	79.90	1138	127.90	637	189.70	63
38.00	6056	80.90	3614	128.80	349	190.10	90
39.10	2292	81.90	1010	129.90	611	190.90	76
39.90	605	83.70	86	131.00	267	191.70	102
40.60	238	84.40	139	131.90	136	193.30	85
41.50	249	85.10	99	133.00	93	193.80	111
42.40	145	86.00	358	134.00	60	194.90	61
43.10	257	86.90	5506	134.90	188	195.70	59
43.90	1550	87.90	5724	135.50	114	199.00	61
45.00	1049	89.70	70	136.10	156	201.00	76
46.20	308	90.90	483	137.00	446	204.10	65
47.00	2170	92.00	3718	138.70	149	206.80	96
47.80	1172	93.00	5572	139.60	225	214.00	57
49.00	5597	94.00	17248	140.80	1519	215.30	57
50.00	25960	95.00	136448	141.80	216	217.30	81
51.00	8122	96.00	9360	142.90	1809	219.80	80
52.10	549	97.00	242	143.90	185	221.90	82
53.20	314	98.10	120	144.90	427	226.10	60
53.90	188	99.50	83	145.90	283	227.70	56
54.20	214	100.10	128	146.90	135	233.00	105
54.80	516	101.30	73	147.90	335	241.30	67
56.00	2033	102.80	171	148.90	169	243.30	72
57.00	3459	103.90	720	149.80	365	244.40	79
57.90	375	104.80	244	151.80	188	246.00	69
59.00	221	105.80	554	152.60	215	247.20	66
60.00	1229	107.10	182	153.80	221	253.10	56
61.00	6314	107.60	97	154.80	409	258.80	62
62.00	6603	108.20	76	155.90	107	264.10	94
63.00	5015	109.70	198	157.00	385	264.50	57
64.00	798	111.00	182	158.70	185	265.40	67
64.90	849	111.60	225	160.20	116	278.00	50
65.80	161	112.70	159	161.10	194	283.30	85
66.80	415	113.00	170	161.60	65	284.10	92
68.00	14015	114.80	234	166.70	55	286.60	57
69.00	13768	115.90	673	168.00	87	287.60	52
70.00	1246	116.90	876	169.10	89	295.90	52
70.80	262	117.80	546	169.60	59	300.90	71
71.30	260	118.80	825	170.30	103	302.50	52
72.10	826	119.90	99	171.00	262	320.40	86
73.00	6098	120.40	70	172.00	1169	328.50	66
74.00	20912	121.70	115	173.90	125696	330.30	64
75.00	63728	122.50	79	175.00	10925	339.30	78
76.00	6105	123.50	138	175.90	121928	346.10	69
76.90	843	124.80	115	176.90	8371	349.50	59

77.90	770	125.60	102	177.90	233		

Data File: \\nahstws005\target\chem\voa9.i\u230606.b\u060601.d Page 1

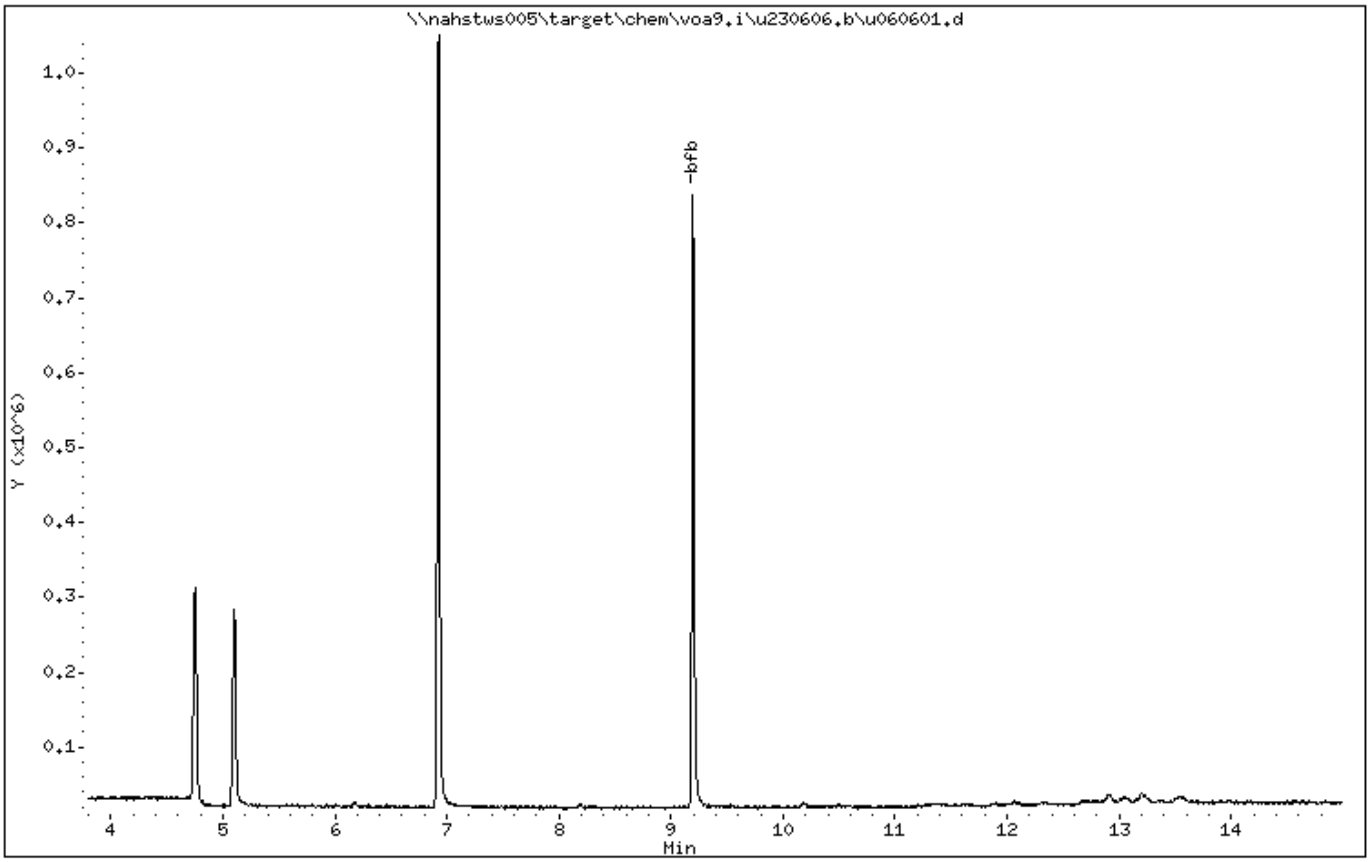
Date : 06-JUN-2023 10:53

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060601.d
Inj Date : 06-JUN-2023 10:53
InstruID : VOA9.i
LabSampID : BFB

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060602.D Page 1
Report Date: 13-Jun-2023 13:00

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060602.D
Lab Smp Id: VSTD000.25 Client Smp ID: VSTD000.25
Inj Date : 06-JUN-2023 11:15
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\U230606.b\8260C.m
Meth Date : 13-Jun-2023 13:00 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:50 Cal File: U060608.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

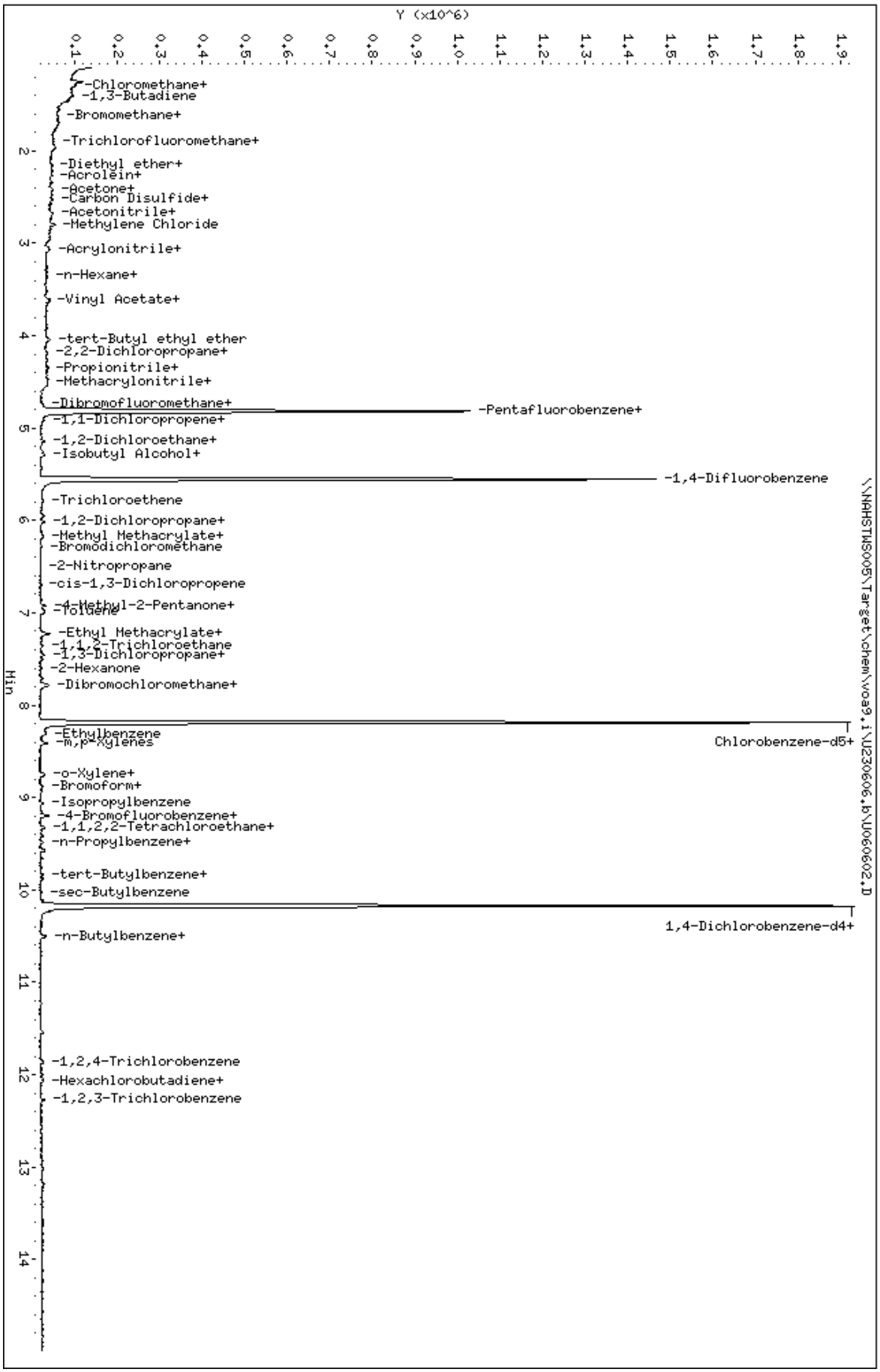
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

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)	758075	50.0000	
	15 Iodomethane	142	2.476	2.476	(0.514)	1709	0.50000	10.21(T)
	26 2,2-Dichloropropane	77	4.182	4.182	(0.868)	2648	0.25000	0.73(a)
$	30 Dibromofluoromethane	113	4.751	4.751	(0.987)	2358	0.25000	0.05(a)
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	2464	0.25000	(a)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1141877	50.0000	
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	2552	0.25000	2.12(a)
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1042568	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	9480	0.25000	0.40(a)
	51 trans-1,3-Dichloropropene	75	7.207	7.207	(1.298)	1508	0.25000	2.17(a)
	58 1-Chlorohexane	55	8.185	8.185	(1.474)	10231	0.25000	1.74(a)
$	69 4-Bromofluorobenzene	95	9.197	9.197	(1.124)	6043	0.25000	(a)
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	519246	50.0000	
M	94 1,2-Dichloroethylene (total)	96				4023	0.50000	(a)
	141 Cyclohexane	56	4.815	4.815	(1.000)	12882	0.25000	1.60(a)
	140 1,3-Butadiene	54	1.404	1.404	(0.292)	1956	0.25000	0.27(a)
	145 alpha-Methylstyrene	118	9.760	9.760	(0.959)	2265	0.25000	3.75(a)
	162 Butyl acrylate	55	8.736	8.736	(1.067)	4785	0.25000	0.38(a)
	203 2-Ethylhexyl Acrylate	55	12.046	12.046	(1.184)	2128	0.25000	2.17(a)

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230606.b\U060602.D
Date : 06-JUN-2023 11:15
Client ID: VSTD000.25
Sample Info: VSTD000.25;VSTD000.25;1;1;
Purge Volume: 5.0
Column phase: DB624

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

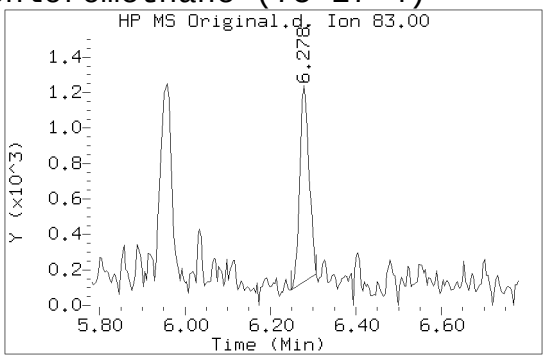
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060602.D
Inj Date : 06-JUN-2023 11:15
InstruID : VOA9.i
LabSampID : VSTD000.25

Bromodichloromethane (75-27-4)

Reason Code:

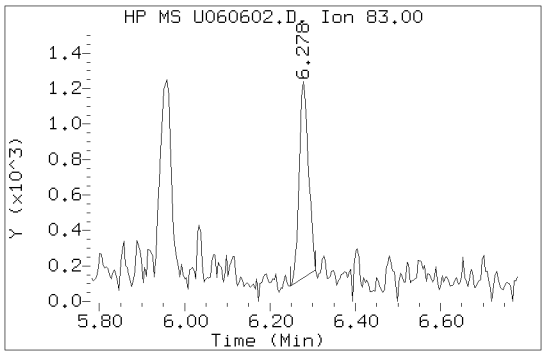
BEFORE

MASS
83
AREA
1696
HEIGHT
1106
08-Jun-2023
14:56
linh
pham



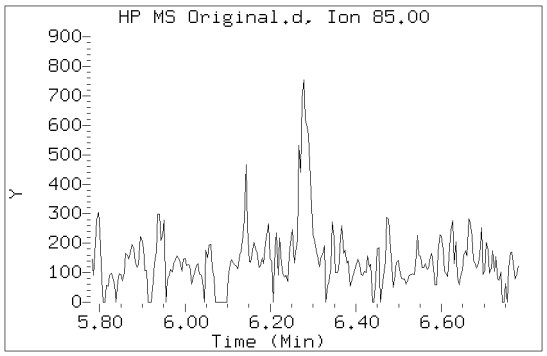
AFTER

MASS
83
AREA
1696
HEIGHT
1106
13-Jun-2023
13:00
linh
pham



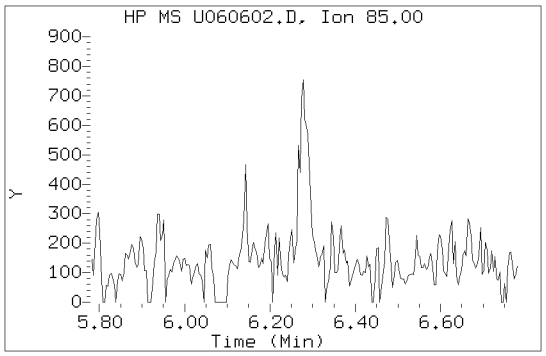
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



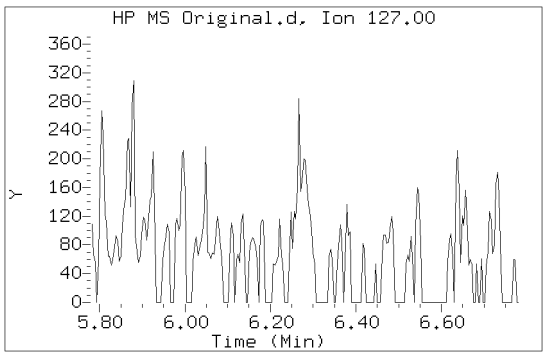
AFTER

MASS
85
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



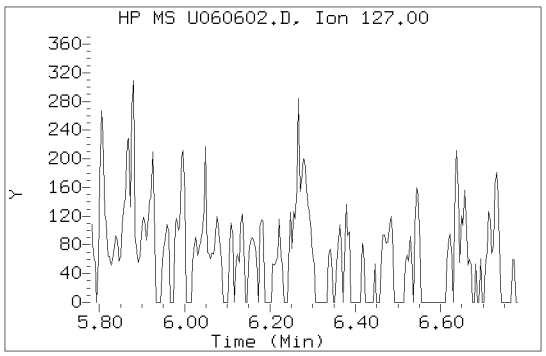
BEFORE

MASS
127
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
127
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

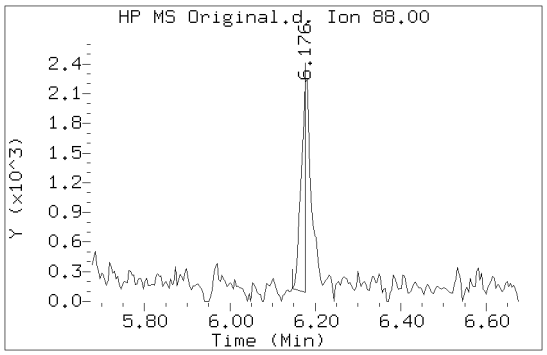


1,4-Dioxane ()

Reason Code:

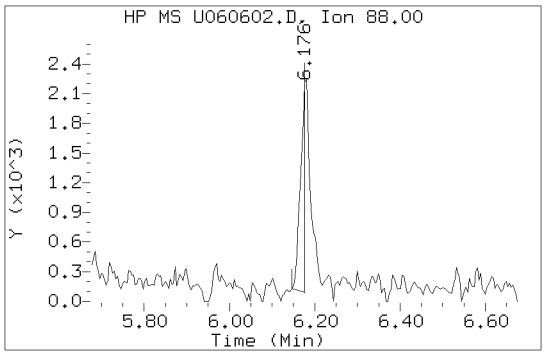
BEFORE

MASS
88
AREA
1694
HEIGHT
2126
08-Jun-2023
14:56
linh
pham



AFTER

MASS
88
AREA
1694
HEIGHT
2126
13-Jun-2023
13:00
linh
pham



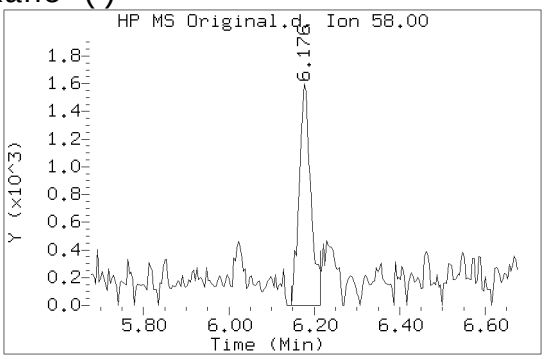
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060602.D
Inj Date : 06-JUN-2023 11:15
InstruID : VOA9.i
LabSampID : VSTD000.25

1,4-Dioxane ()

Reason Code:

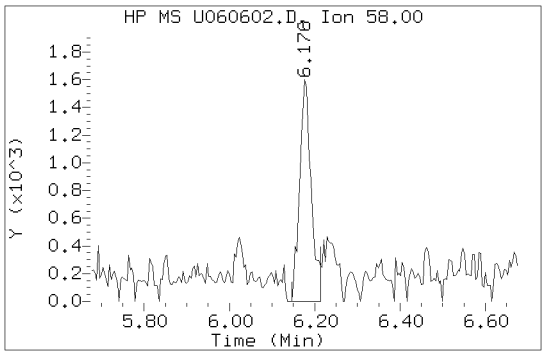
BEFORE

MASS
58
AREA
3075
HEIGHT
1600
08-Jun-2023
14:56
linh
pham



AFTER

MASS
58
AREA
3075
HEIGHT
1600
13-Jun-2023
13:00
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D Page 1
Report Date: 21-Jun-2023 13:47

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060603.D
Lab Smp Id: VSTD000.5 Client Smp ID: VSTD000.5
Inj Date : 06-JUN-2023 11:37
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\U230606.b\8260C.m
Meth Date : 21-Jun-2023 13:45 pcabasca Quant Type: ISTD
Cal Date : 06-JUN-2023 11:37 Cal File: U060603.D
Als bottle: 3 Calibration Sample, Level: 2
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

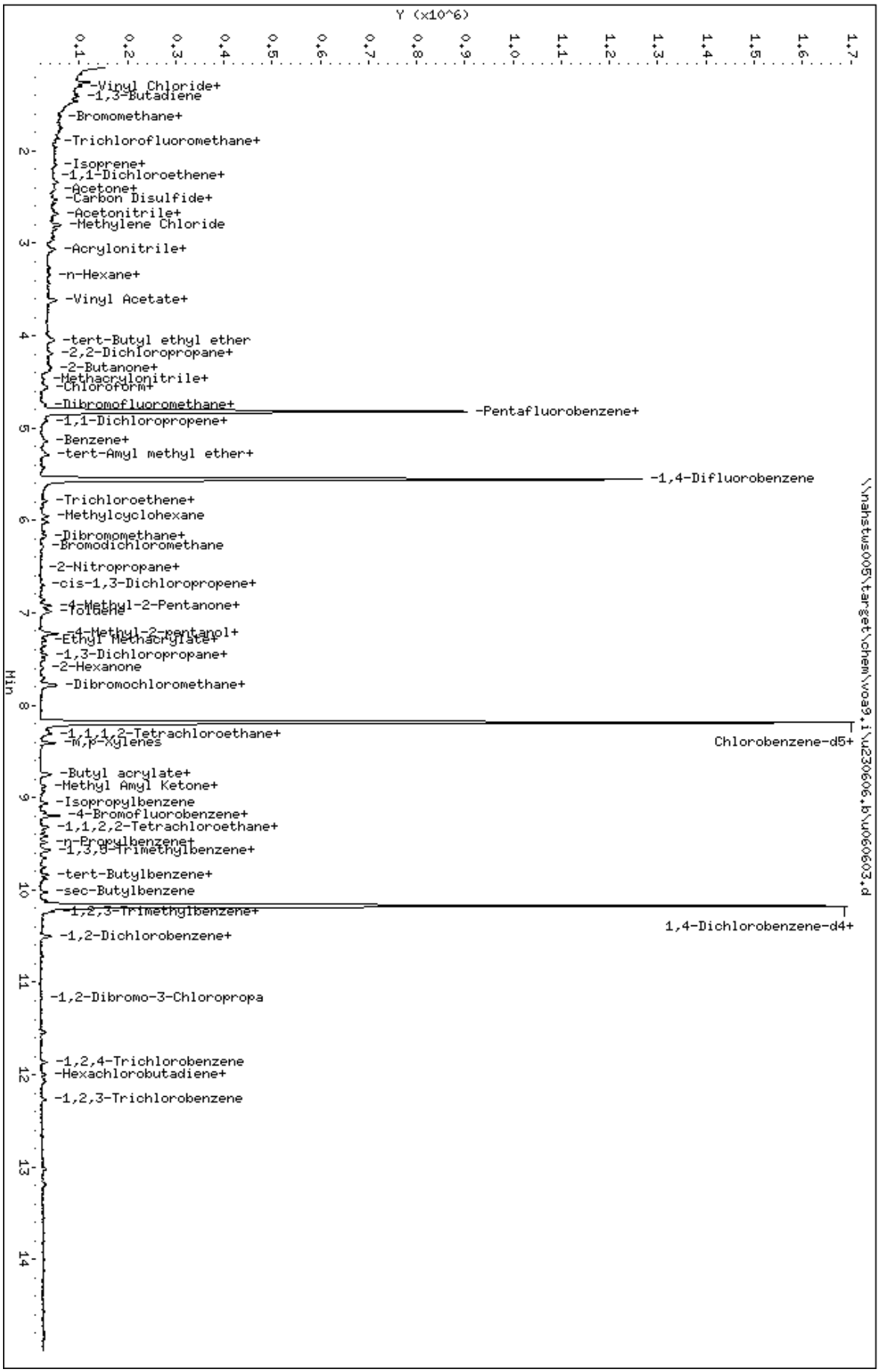
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.819	4.819	(1.000)	671879	50.0000	
	2 Dichlorodifluoromethane	85	1.168	1.168	(0.242)	3237	0.50000	0.60(a)
	5 Vinyl Chloride	62	1.381	1.381	(0.287)	3572	0.50000	0.50(a)
	7 Chloroethane	64	1.704	1.704	(0.354)	2580	0.50000	0.53(aM)
	15 Iodomethane	142	2.480	2.480	(0.515)	1872	1.00000	10.30(T)
	19 Carbon Disulfide	76	2.525	2.525	(0.524)	13120	1.00000	0.96(a)
	20 trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	2954	0.50000	0.53(a)
	22 1,1-Dichloroethane	63	3.518	3.518	(0.730)	6153	0.50000	0.58(a)
	24 2-Butanone	43	4.272	4.272	(0.886)	3610	1.00000	1.17(aM)
	26 2,2-Dichloropropane	77	4.193	4.193	(0.870)	3685	0.50000	0.92(a)
	29 Bromochloromethane	128	4.470	4.470	(0.928)	2104	0.50000	0.56(a)
$	30 Dibromofluoromethane	113	4.751	4.751	(0.986)	3644	0.50000	0.33(aM)
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	4434	0.50000	0.53(aM)
$	35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	3795	0.50000	(aM)
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	991670	50.0000	
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	4533	0.50000	2.34(aM)
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	921846	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	14408	0.50000	0.69(aM)
	50 Toluene	91	6.986	6.986	(0.853)	13471	0.50000	0.53(aM)
	51 trans-1,3-Dichloropropene	75	7.203	7.203	(1.297)	4073	0.50000	2.48(aM)
	54 1,3-Dichloropropane	76	7.503	7.503	(0.917)	5569	0.50000	0.52(a)

57 1,2-Dibromoethane	107	7.792	7.792 (0.952)	3622	0.50000	0.56(aM)
58 1-Chlorohexane	55	8.200	8.200 (1.477)	2785	0.50000	0.54(aM)

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
	59	Chlorobenzene	112	8.208	8.208	(1.003)	8858	0.50000	0.49(a)
	60	1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	3117	0.50000	0.50(a)
	62	m,p-Xylenes	106	8.410	8.410	(1.027)	9164	1.00000	0.93(aM)
	68	1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	4333	0.50000	0.50(aM)
$	69	4-Bromofluorobenzene	95	9.194	9.194	(1.123)	5007	0.50000	(aM)
*	70	1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	456421	50.0000	
	83	1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	6595	0.50000	0.50(a)
	93	1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	4090	0.50000	0.46(aM)
M	94	1,2-Dichloroethylene (total)	96				6594	1.00000	1.08(a)
	141	Cyclohexane	56	4.796	4.796	(0.995)	4345	0.50000	0.72(aM)
	138	Freon TF	101	2.341	2.341	(0.486)	2391	0.50000	0.52(aM)
	140	1,3-Butadiene	54	1.408	1.408	(0.292)	2958	0.50000	0.46(a)
	13	Acetonitrile	39	2.678	2.678	(0.556)	4044	5.00000	5.55(a)
	40	Methyl Methacrylate	41	6.165	6.165	(1.279)	3083	0.50000	0.53(aM)
	4	Propionitrile	54	4.347	4.347	(0.902)	5579	5.00000	5.74(aM)
	136	n-Hexane	57	3.353	3.353	(0.696)	2983	0.50000	0.65(a)
	200	Dimethyl Disulfide	94	6.746	6.746	(0.824)	1341	0.50000	4.71(aM)
	166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	9904	0.50000	0.56(a)
	145	alpha-Methylstyrene	118	9.756	9.756	(0.959)	3201	0.50000	3.88(a)
	156	Diisopropyl ether	45	3.627	3.627	(0.753)	10933	0.50000	0.58(a)
	151	4-Methyl-2-pentanol	45	7.226	7.226	(1.301)	20153	10.0000	13.66
	150	Allyl alcohol	57	3.353	3.353	(0.696)	2691	10.0000	12.72(M)
	86	Benzyl Chloride	91	10.315	10.315	(1.260)	1867	0.50000	3.78(aM)
	162	Butyl acrylate	55	8.740	8.740	(1.068)	6005	0.50000	0.55(a)
	139	Diethyl ether	59	2.150	2.150	(0.446)	2812	0.50000	0.61(aM)
	203	2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	2309	0.50000	2.27(a)
	130	Ethyl Acetate	43	4.272	4.272	(0.886)	3781	0.50000	0.62(aM)

QC Flag Legend

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



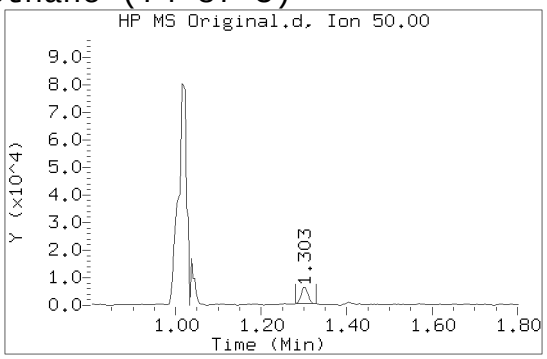
Data File: \\nahstus005\target\chem\voa9.i\u230606.b\u060603.d
Date : 06-JUN-2023 11:37
Client ID: VSTD000.5
Sample Info: VSTD000.5;VSTD000.5;1;2;
Purge Volume: 5.0
Column phase: DB624

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

Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

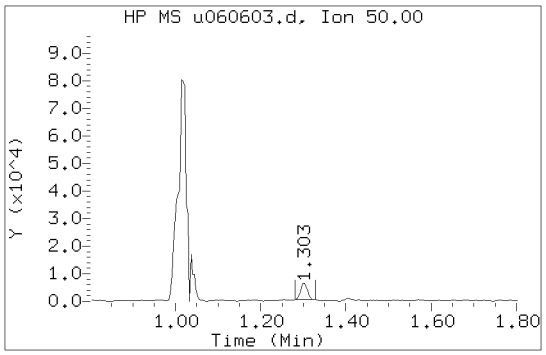
Chloromethane (74-87-3)

BEFORE
MASS
50
AREA
6740
HEIGHT
5876
08-Jun-2023
14:56
linh
pham

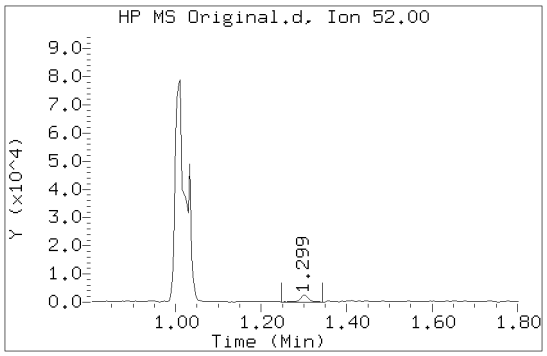


Reason Code:

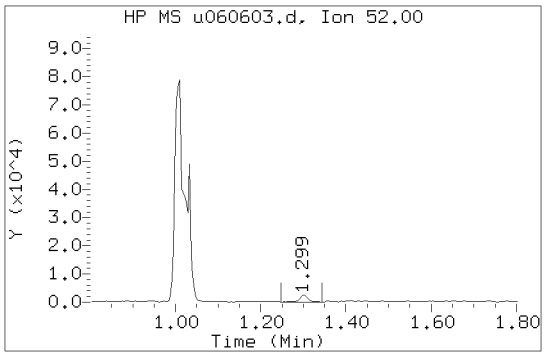
AFTER
MASS
50
AREA
6740
HEIGHT
5876
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
52
AREA
3856
HEIGHT
2605
08-Jun-2023
14:56
linh
pham

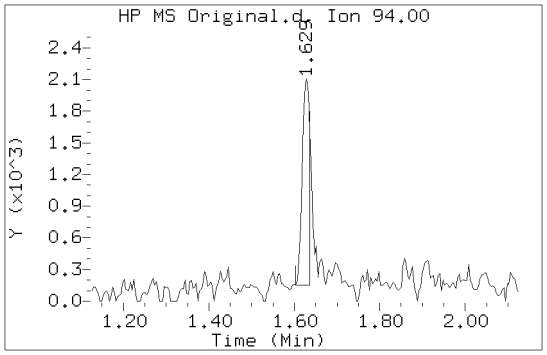


AFTER
MASS
52
AREA
3856
HEIGHT
2605
21-Jun-2023
13:47
linh
pha



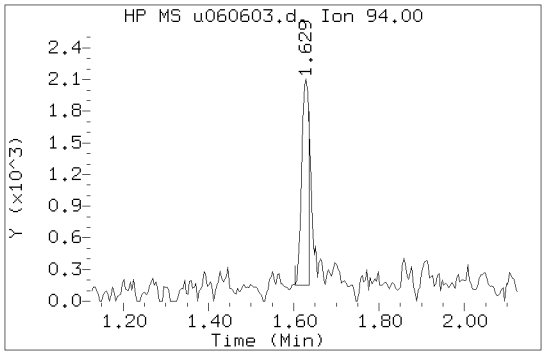
Bromomethane (74-83-9)

BEFORE
MASS
94
AREA
2378
HEIGHT
1953
08-Jun-2023
14:56
linh
pham

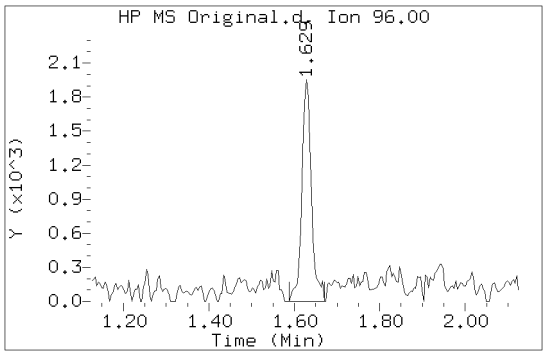


Reason Code:

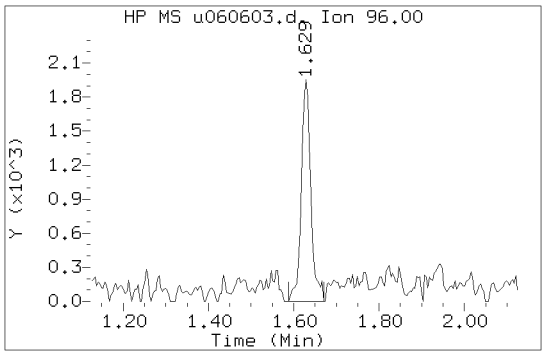
AFTER
MASS
94
AREA
2378
HEIGHT
1953
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
96
AREA
3081
HEIGHT
1953
08-Jun-2023
14:56
linh
pham



AFTER
MASS
96
AREA
3081
HEIGHT
1953
21-Jun-2023
13:47
linh
pha

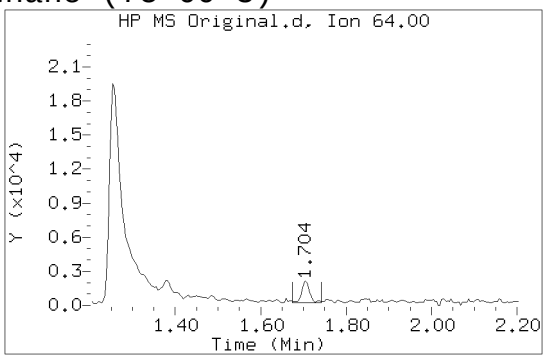


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

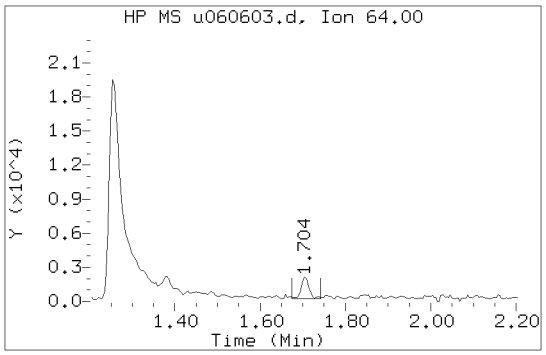
Chloroethane (75-00-3)

Reason Code:

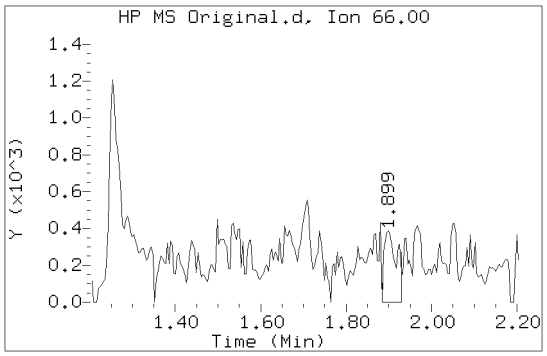
BEFORE
MASS
64
AREA
2580
HEIGHT
1940
08-Jun-2023
14:56
linh
pham



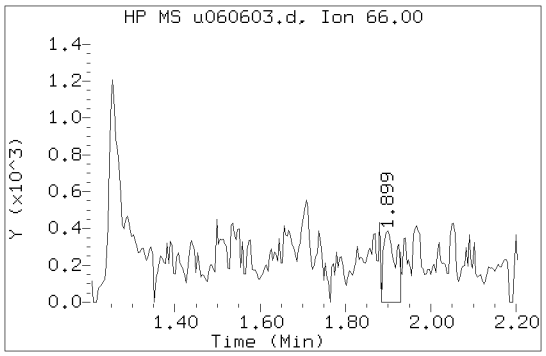
AFTER
MASS
64
AREA
2580
HEIGHT
1940
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
66
AREA
783
HEIGHT
389
08-Jun-2023
14:56
linh
pham



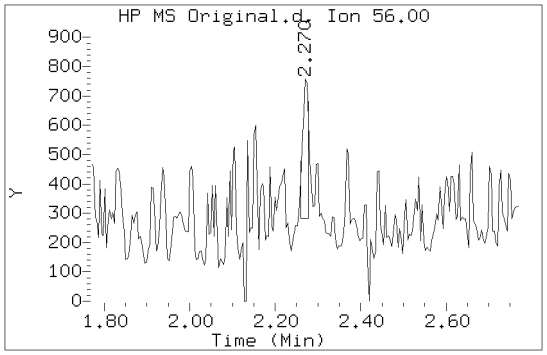
AFTER
MASS
66
AREA
783
HEIGHT
389
21-Jun-2023
13:47
linh
pha



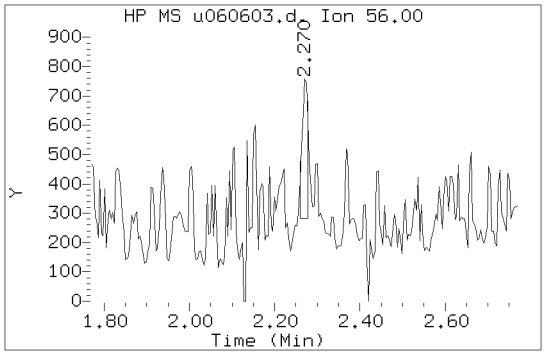
Acrolein (107-02-8)

Reason Code:

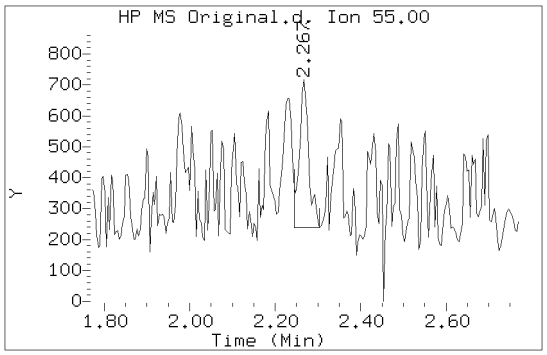
BEFORE
MASS
56
AREA
451
HEIGHT
476
08-Jun-2023
14:56
linh
pham



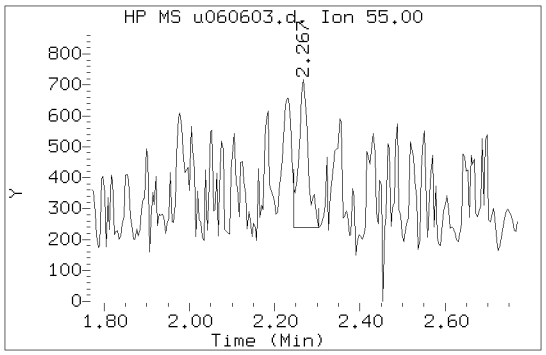
AFTER
MASS
56
AREA
451
HEIGHT
476
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
55
AREA
750
HEIGHT
478
08-Jun-2023
14:56
linh
pham



AFTER
MASS
55
AREA
750
HEIGHT
478
21-Jun-2023
13:47
linh
pha



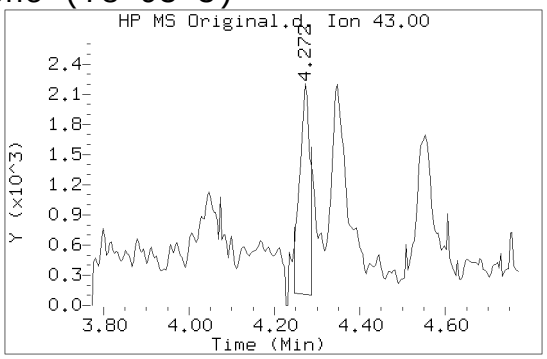
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

2-Butanone (78-93-3)

Reason Code:

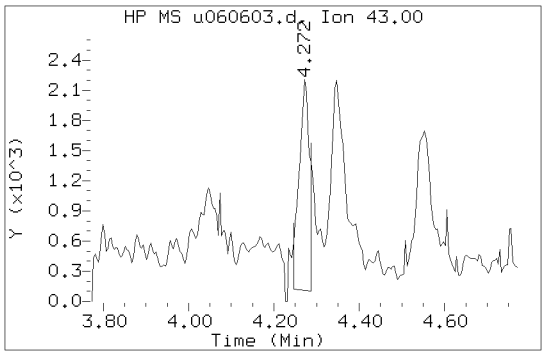
BEFORE

MASS
43
AREA
3610
HEIGHT
2093
08-Jun-2023
14:56
linh
pham



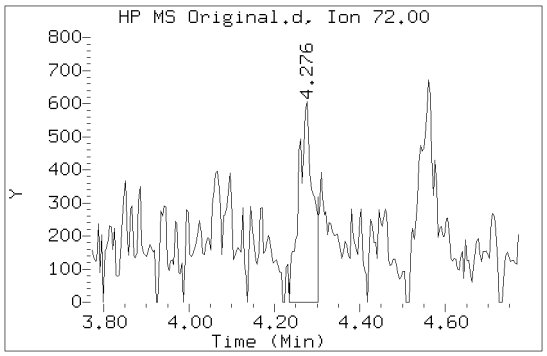
AFTER

MASS
43
AREA
3610
HEIGHT
2093
21-Jun-2023
13:47
linh
pha



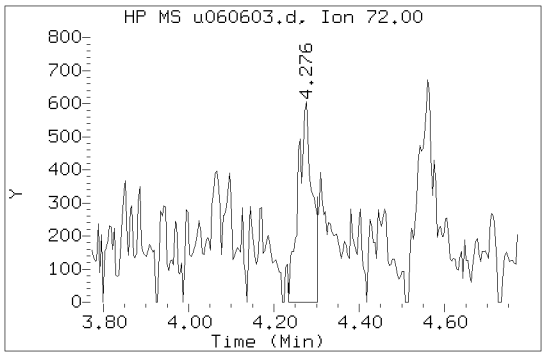
BEFORE

MASS
72
AREA
1400
HEIGHT
606
08-Jun-2023
14:56
linh
pham



AFTER

MASS
72
AREA
1400
HEIGHT
606
21-Jun-2023
13:47
linh
pha

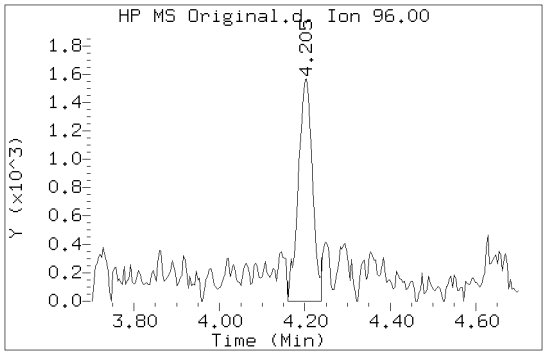


cis-1,2-Dichloroethene (156-59-2)

Reason Code:

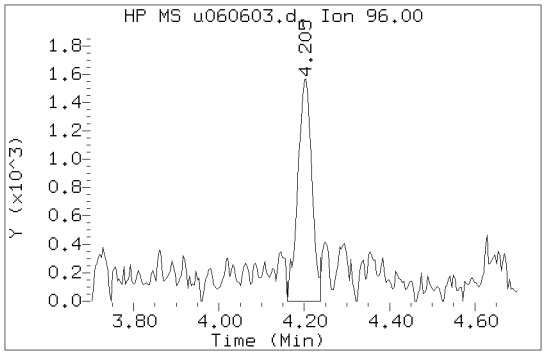
BEFORE

MASS
96
AREA
3640
HEIGHT
1571
08-Jun-2023
14:56
linh
pham



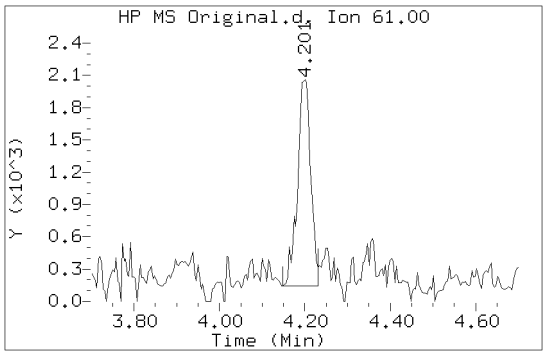
AFTER

MASS
96
AREA
3640
HEIGHT
1571
21-Jun-2023
13:47
linh
pha



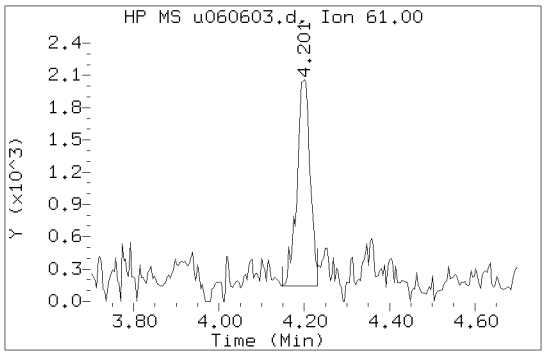
BEFORE

MASS
61
AREA
4196
HEIGHT
1915
08-Jun-2023
14:56
linh
pham



AFTER

MASS
61
AREA
4196
HEIGHT
1915
21-Jun-2023
13:47
linh
pha



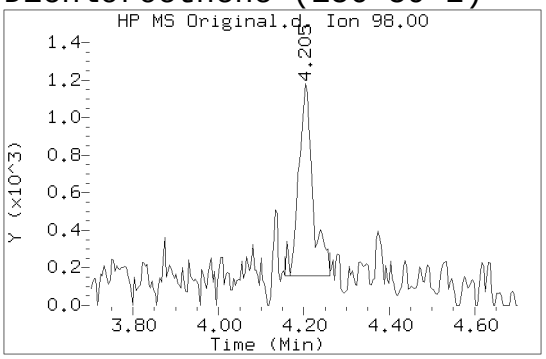
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

cis-1,2-Dichloroethene (156-59-2)

Reason Code:

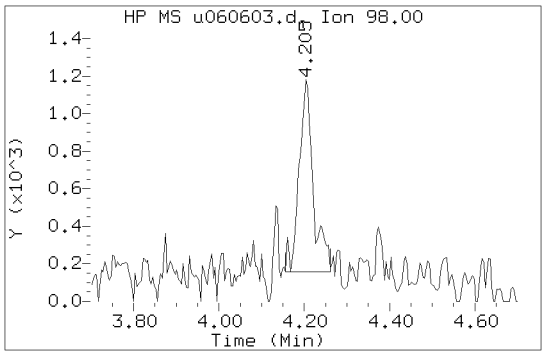
BEFORE

MASS
98
AREA
2375
HEIGHT
1023
08-Jun-2023
14:56
linh
pham



AFTER

MASS
98
AREA
2375
HEIGHT
1023
21-Jun-2023
13:47
linh
pha

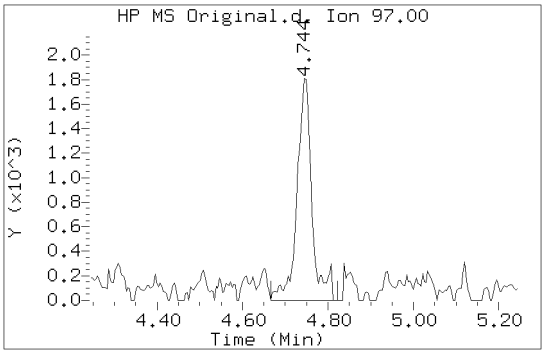


1,1,1-Trichloroethane (71-55-6)

Reason Code:

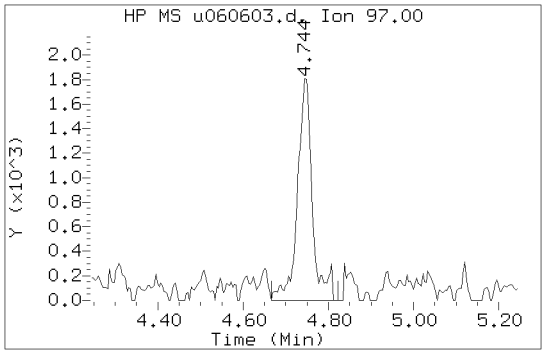
BEFORE

MASS
97
AREA
4434
HEIGHT
1807
08-Jun-2023
14:56
linh
pham



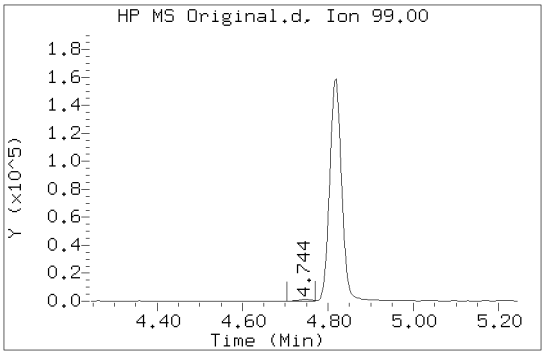
AFTER

MASS
97
AREA
4434
HEIGHT
1807
21-Jun-2023
13:47
linh
pha



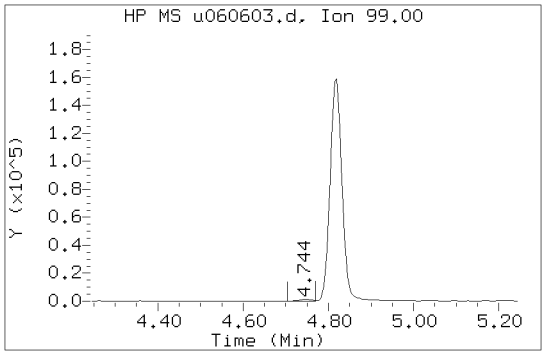
BEFORE

MASS
99
AREA
2413
HEIGHT
1165
08-Jun-2023
14:56
linh
pham



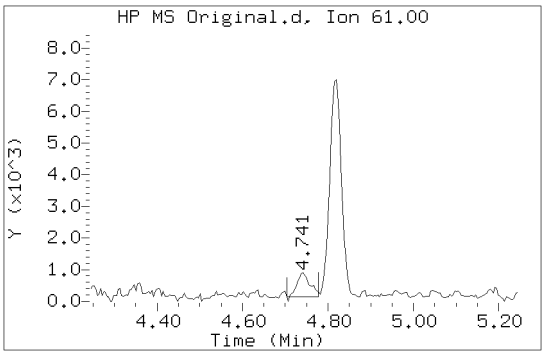
AFTER

MASS
99
AREA
2413
HEIGHT
1165
21-Jun-2023
13:47
linh
pha



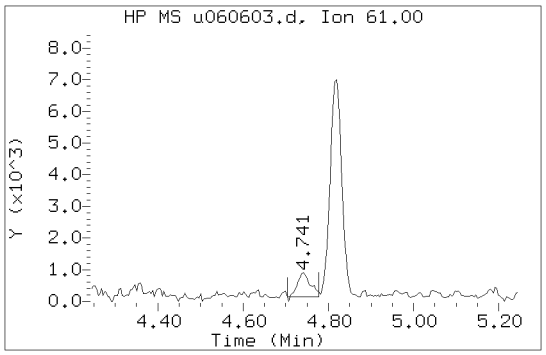
BEFORE

MASS
61
AREA
1649
HEIGHT
774
08-Jun-2023
14:56
linh
pham



AFTER

MASS
61
AREA
1649
HEIGHT
774
21-Jun-2023
13:47
linh
pha



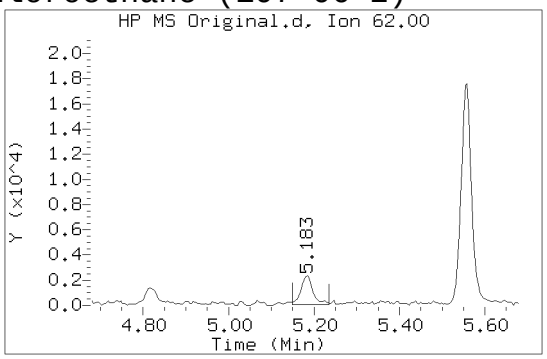
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

1,2-Dichloroethane (107-06-2)

Reason Code:

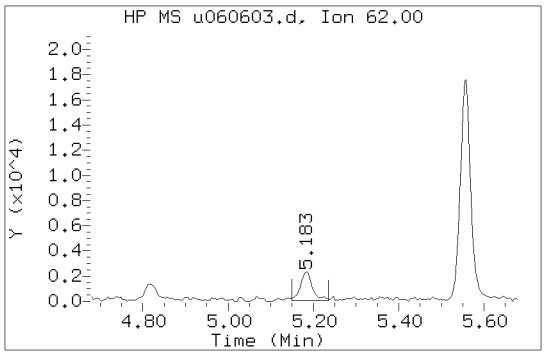
BEFORE

MASS
62
AREA
4646
HEIGHT
2294
08-Jun-2023
14:56
linh
pham



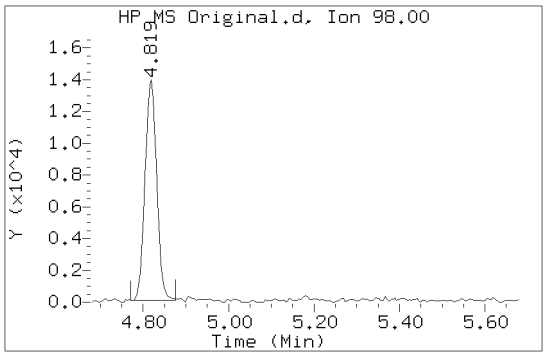
AFTER

MASS
62
AREA
4646
HEIGHT
2294
21-Jun-2023
13:47
linh
pha



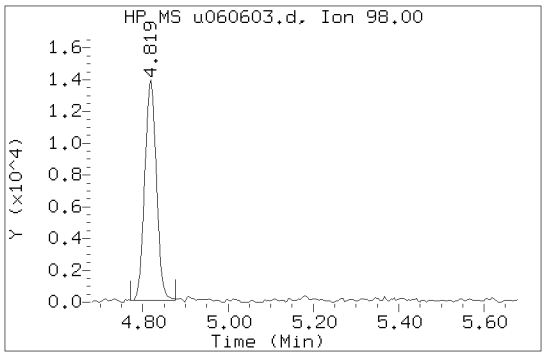
BEFORE

MASS
98
AREA
26343
HEIGHT
13869
08-Jun-2023
14:56
linh
pham



AFTER

MASS
98
AREA
26343
HEIGHT
13869
21-Jun-2023
13:47
linh
pha

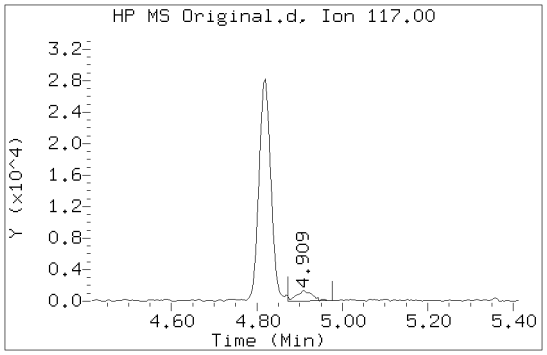


Carbon Tetrachloride (56-23-5)

Reason Code:

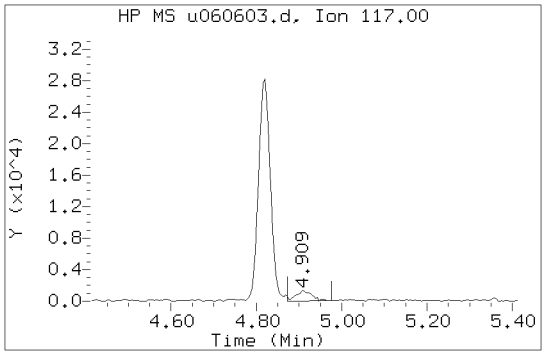
BEFORE

MASS
117
AREA
3518
HEIGHT
1311
08-Jun-2023
14:56
linh
pham



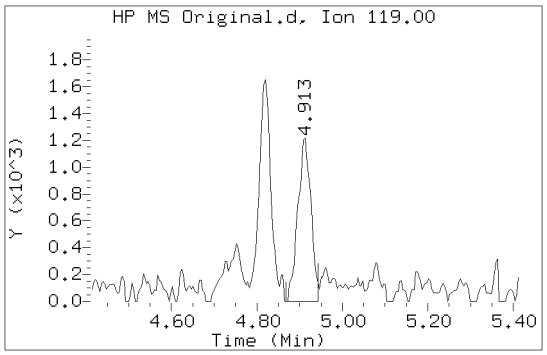
AFTER

MASS
117
AREA
3518
HEIGHT
1311
21-Jun-2023
13:47
linh
pha



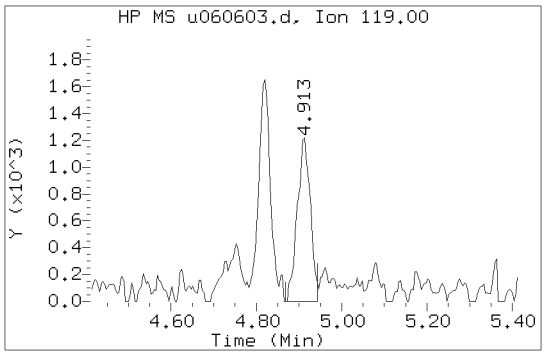
BEFORE

MASS
119
AREA
2642
HEIGHT
1217
08-Jun-2023
14:56
linh
pham



AFTER

MASS
119
AREA
2642
HEIGHT
1217
21-Jun-2023
13:47
linh
pha

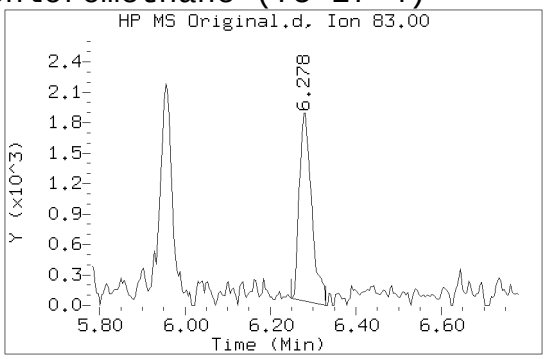


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

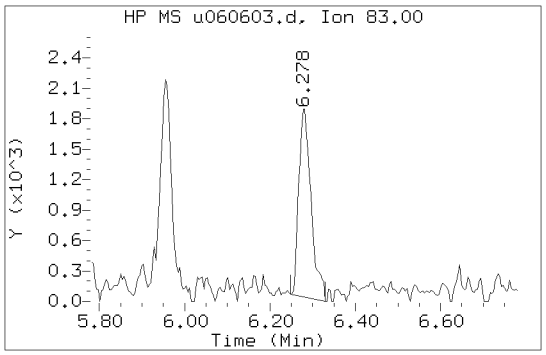
Bromodichloromethane (75-27-4)

Reason Code:

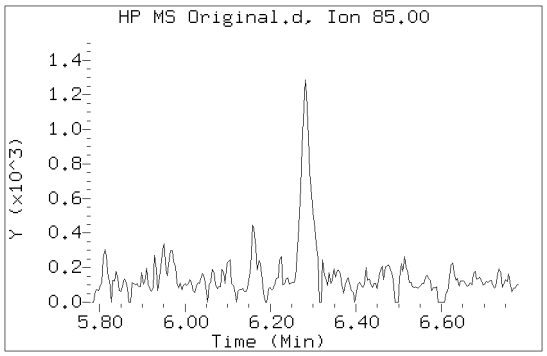
BEFORE
MASS
83
AREA
3797
HEIGHT
1853
08-Jun-2023
14:56
linh
pham



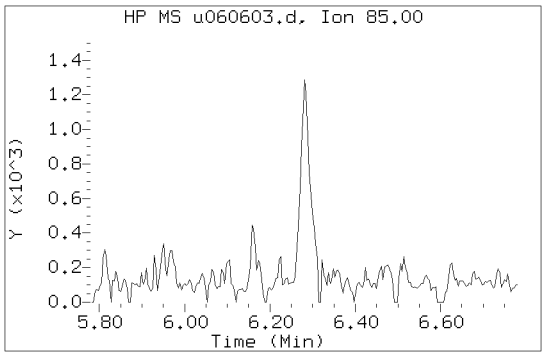
AFTER
MASS
83
AREA
3797
HEIGHT
1853
21-Jun-2023
13:47
linh
pha



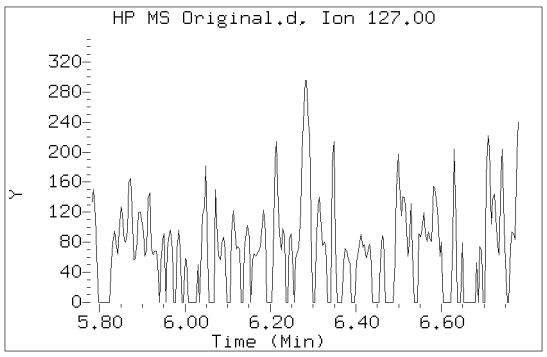
BEFORE
MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



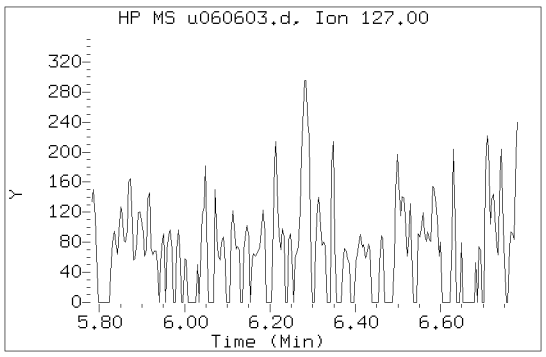
AFTER
MASS
85
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
127
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



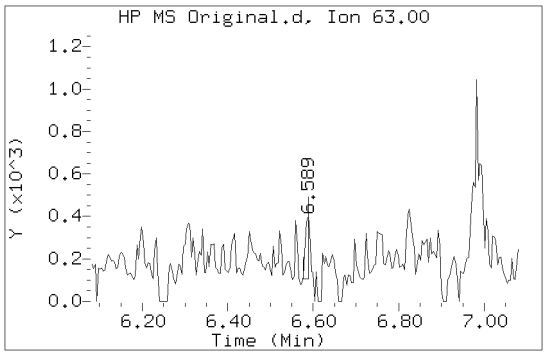
AFTER
MASS
127
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



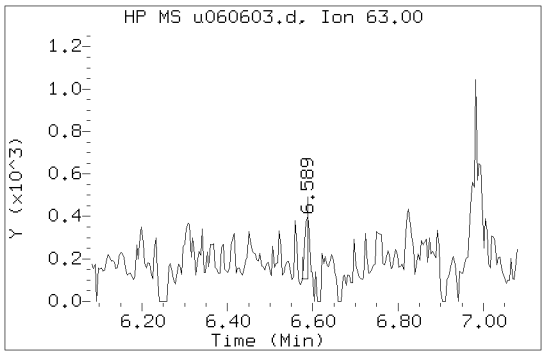
2-Chloroethylvinyl ether (110-75-8)

Reason Code:

BEFORE
MASS
63
AREA
169
HEIGHT
296
08-Jun-2023
14:56
linh
pham



AFTER
MASS
63
AREA
169
HEIGHT
296
21-Jun-2023
13:47
linh
pha

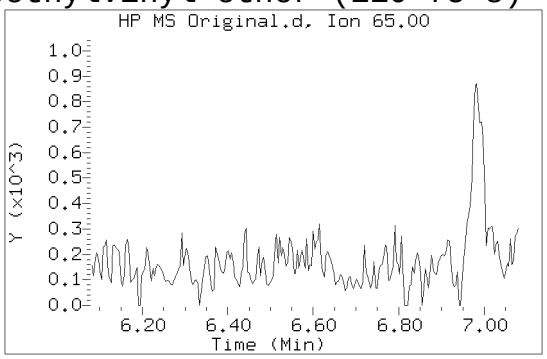


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

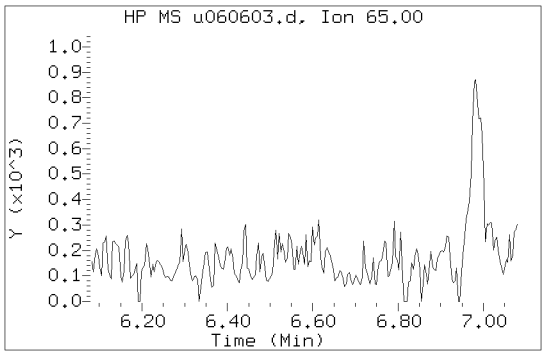
2-Chloroethylvinyl ether (110-75-8)

Reason Code:

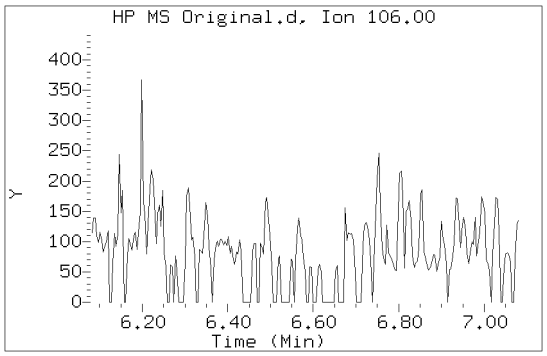
BEFORE
MASS
65
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



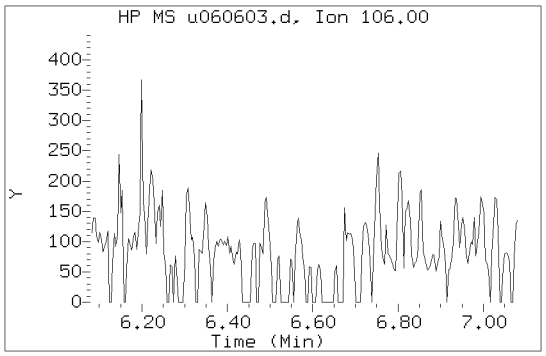
AFTER
MASS
65
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
106
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



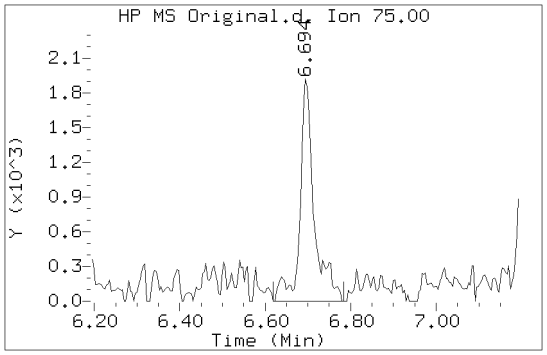
AFTER
MASS
106
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



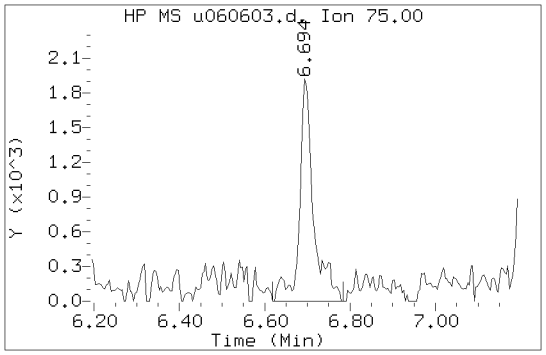
cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

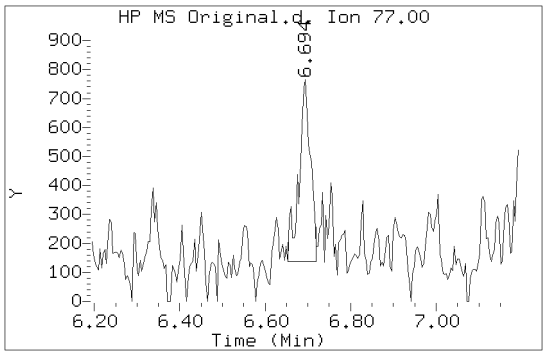
BEFORE
MASS
75
AREA
4533
HEIGHT
1923
08-Jun-2023
14:56
linh
pham



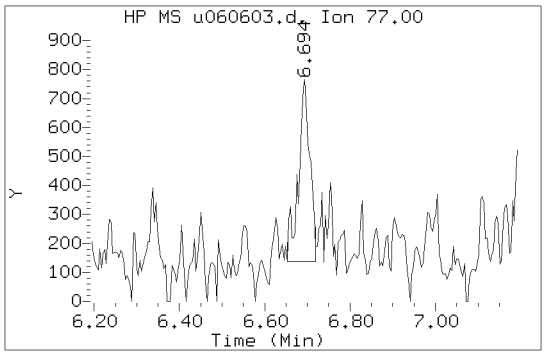
AFTER
MASS
75
AREA
4533
HEIGHT
1923
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
77
AREA
1180
HEIGHT
628
08-Jun-2023
14:56
linh
pham



AFTER
MASS
77
AREA
1180
HEIGHT
628
21-Jun-2023
13:47
linh
pha



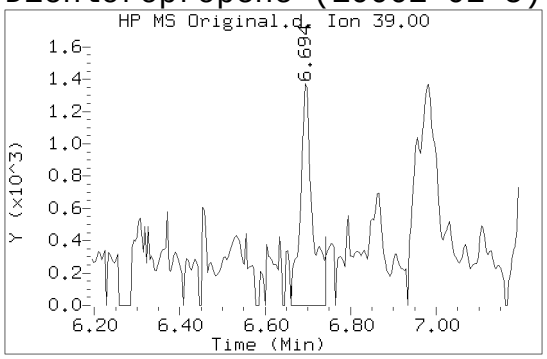
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

cis-1,3-Dichloropropene (10061-01-5)

Reason Code:

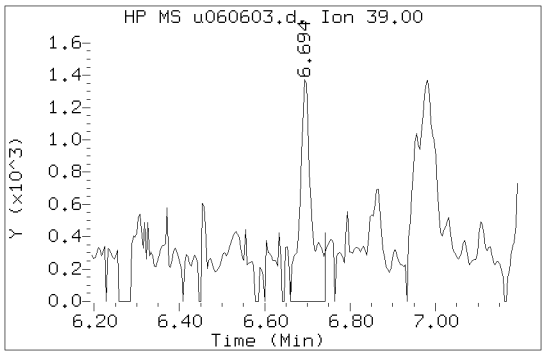
BEFORE

MASS
39
AREA
2809
HEIGHT
1372
08-Jun-2023
14:56
linh
pham



AFTER

MASS
39
AREA
2809
HEIGHT
1372
21-Jun-2023
13:47
linh
pha

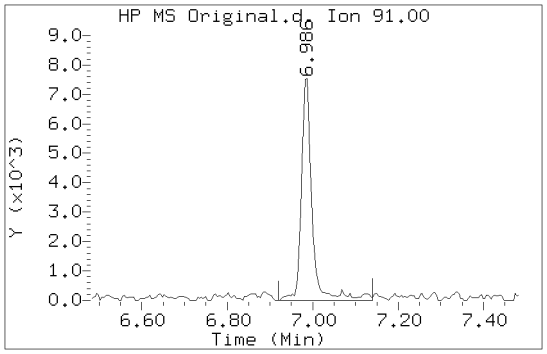


Toluene (108-88-3)

Reason Code:

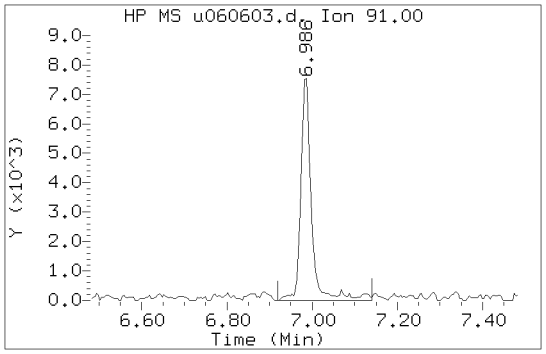
BEFORE

MASS
91
AREA
13471
HEIGHT
7534
08-Jun-2023
14:56
linh
pham



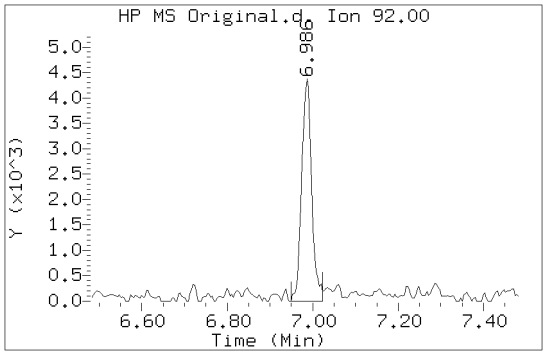
AFTER

MASS
91
AREA
13471
HEIGHT
7534
21-Jun-2023
13:47
linh
pha



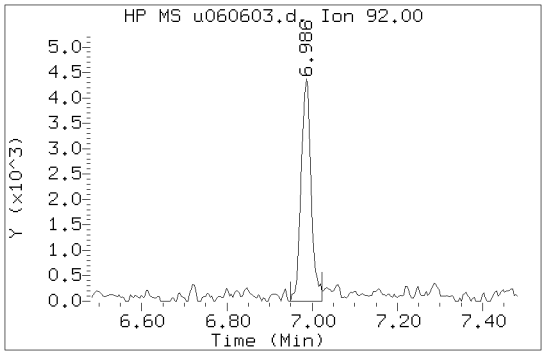
BEFORE

MASS
92
AREA
7328
HEIGHT
4373
08-Jun-2023
14:56
linh
pham



AFTER

MASS
92
AREA
7328
HEIGHT
4373
21-Jun-2023
13:47
linh
pha

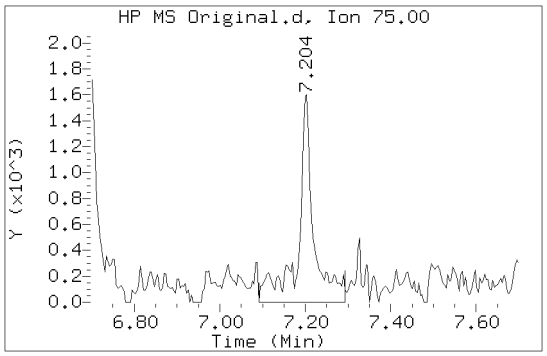


trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

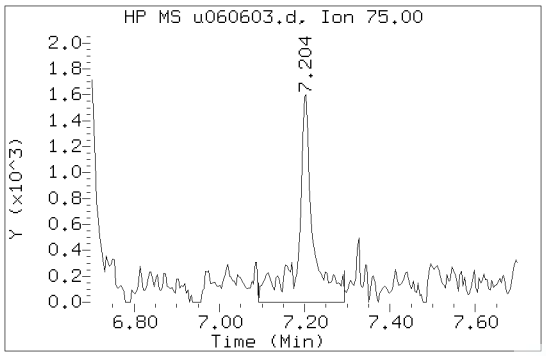
BEFORE

MASS
75
AREA
4073
HEIGHT
1603
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
4073
HEIGHT
1603
21-Jun-2023
13:47
linh
pha



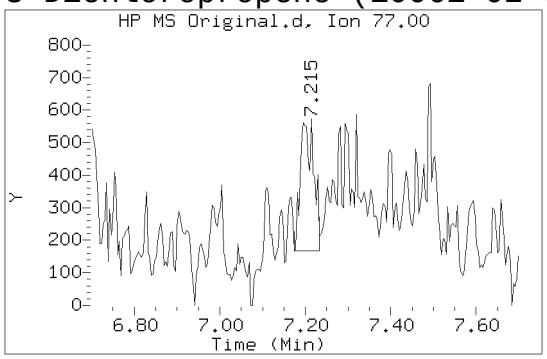
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

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

Reason Code:

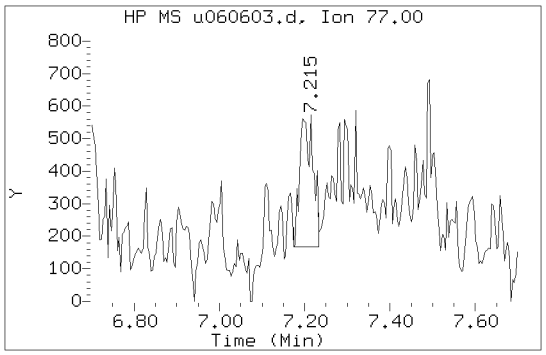
BEFORE

MASS
77
AREA
877
HEIGHT
407
08-Jun-2023
14:56
linh
pham



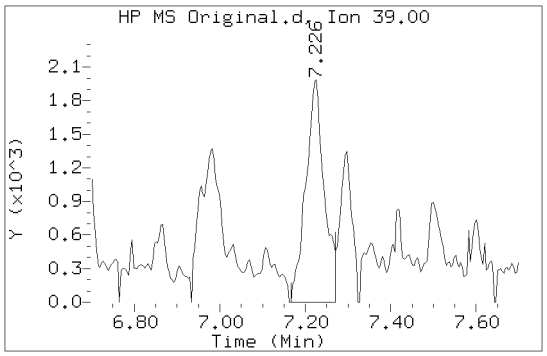
AFTER

MASS
77
AREA
877
HEIGHT
407
21-Jun-2023
13:47
linh
pha



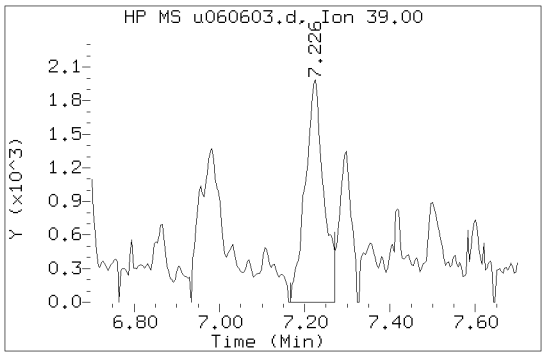
BEFORE

MASS
39
AREA
6017
HEIGHT
1985
08-Jun-2023
14:56
linh
pham



AFTER

MASS
39
AREA
6017
HEIGHT
1985
21-Jun-2023
13:47
linh
pha

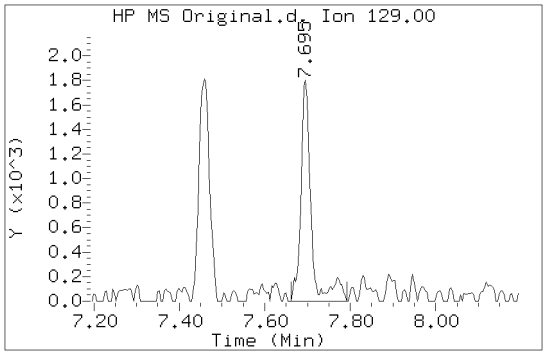


Dibromochloromethane (124-48-1)

Reason Code:

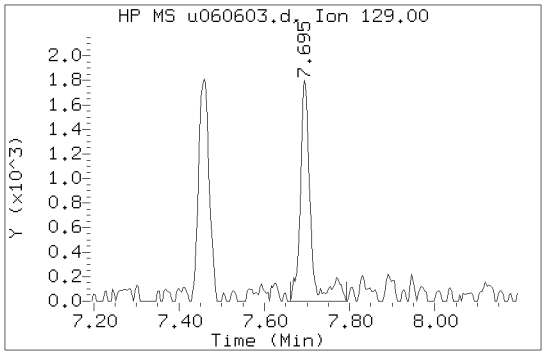
BEFORE

MASS
129
AREA
3068
HEIGHT
1800
08-Jun-2023
14:56
linh
pham



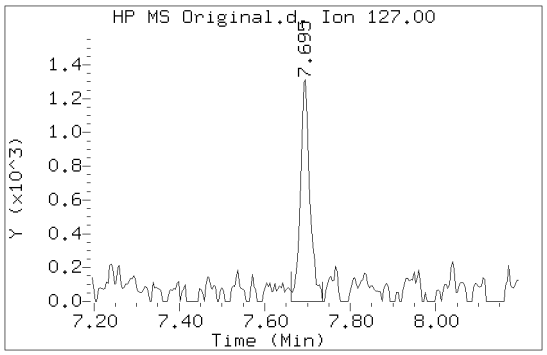
AFTER

MASS
129
AREA
3068
HEIGHT
1800
21-Jun-2023
13:47
linh
pha



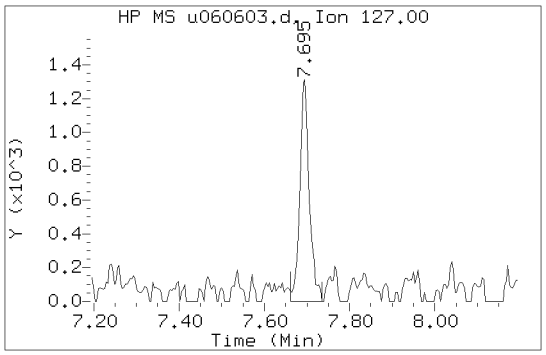
BEFORE

MASS
127
AREA
2055
HEIGHT
1312
08-Jun-2023
14:56
linh
pham



AFTER

MASS
127
AREA
2055
HEIGHT
1312
21-Jun-2023
13:47
linh
pha

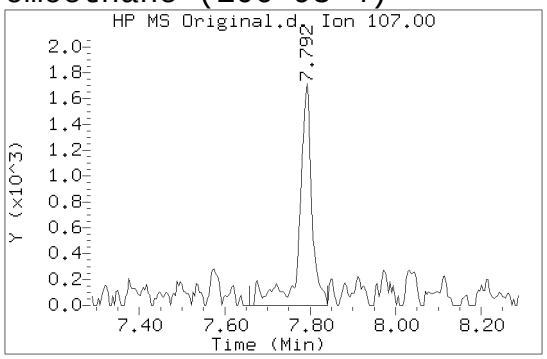


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

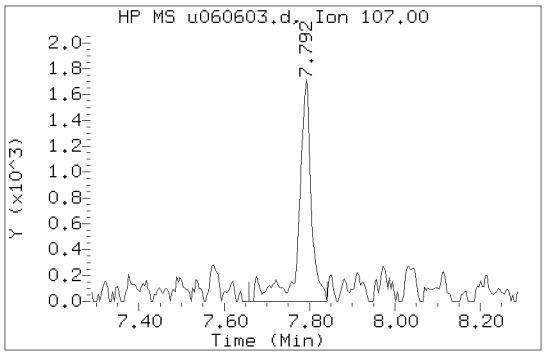
1,2-Dibromoethane (106-93-4)

Reason Code:

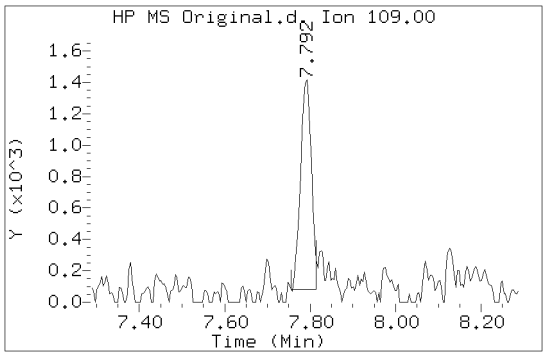
BEFORE
MASS
107
AREA
3622
HEIGHT
1715
08-Jun-2023
14:56
linh
pham



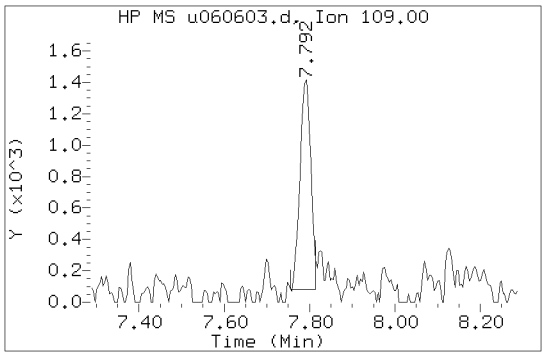
AFTER
MASS
107
AREA
3622
HEIGHT
1715
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
109
AREA
2422
HEIGHT
1334
08-Jun-2023
14:56
linh
pham



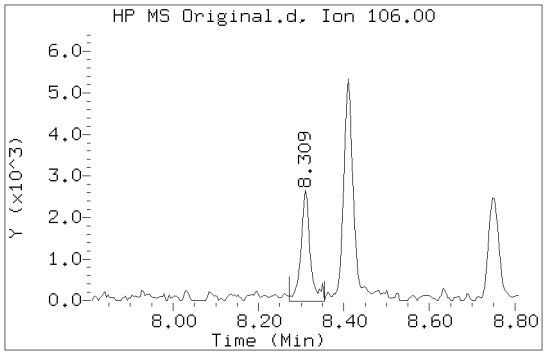
AFTER
MASS
109
AREA
2422
HEIGHT
1334
21-Jun-2023
13:47
linh
pha



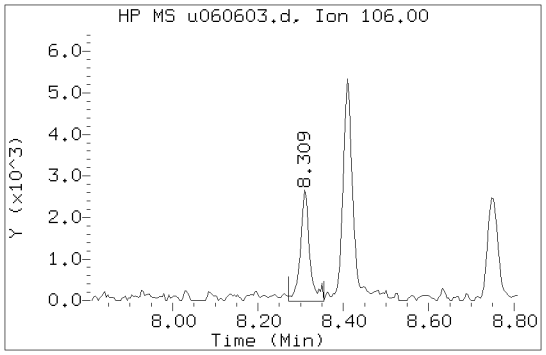
Ethylbenzene (100-41-4)

Reason Code:

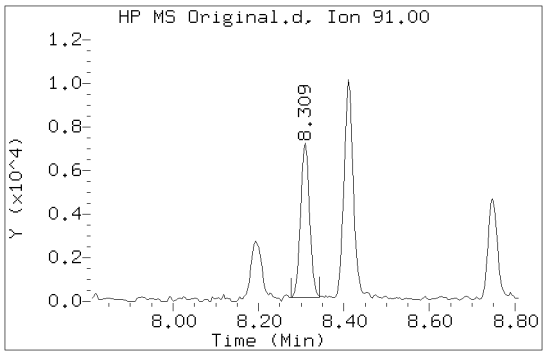
BEFORE
MASS
106
AREA
4142
HEIGHT
2674
08-Jun-2023
14:56
linh
pham



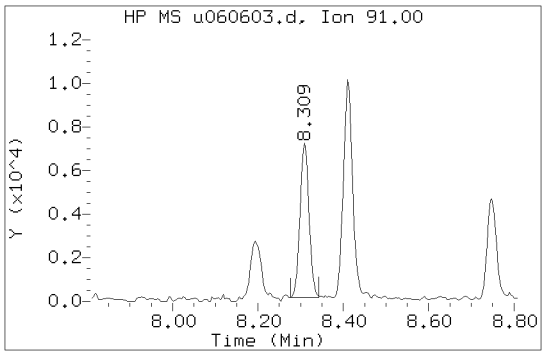
AFTER
MASS
106
AREA
4142
HEIGHT
2674
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
91
AREA
10611
HEIGHT
7101
08-Jun-2023
14:56
linh
pham



AFTER
MASS
91
AREA
10611
HEIGHT
7101
21-Jun-2023
13:47
linh
pha

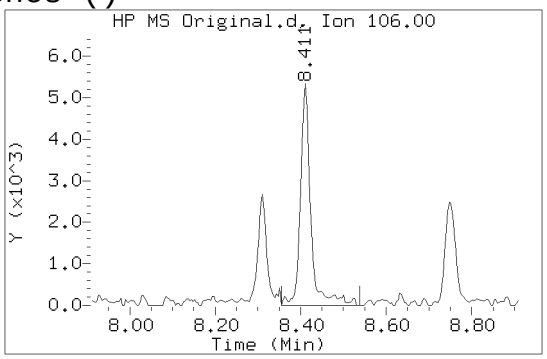


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

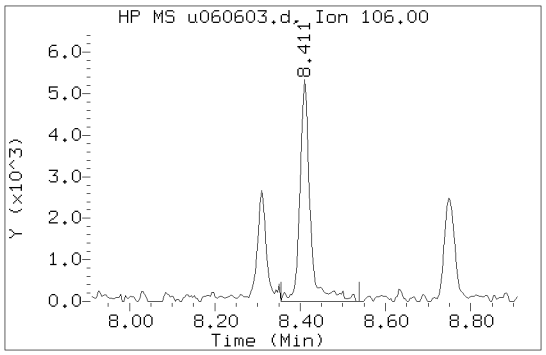
m,p-Xylenes ()

Reason Code:

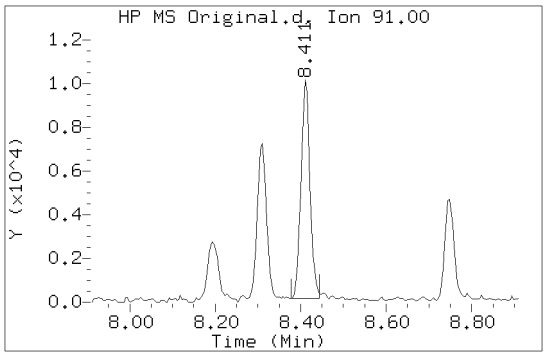
BEFORE
MASS
106
AREA
9164
HEIGHT
5338
08-Jun-2023
14:56
linh
pham



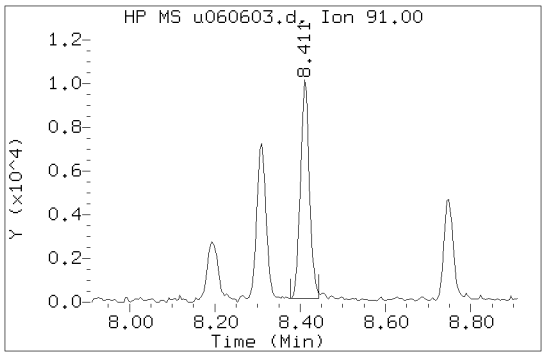
AFTER
MASS
106
AREA
9164
HEIGHT
5338
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
91
AREA
14815
HEIGHT
9979
08-Jun-2023
14:56
linh
pham



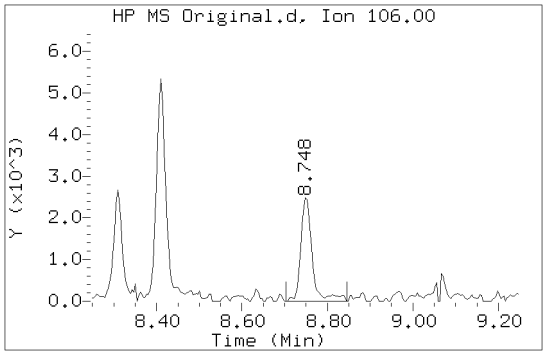
AFTER
MASS
91
AREA
14815
HEIGHT
9979
21-Jun-2023
13:47
linh
pha



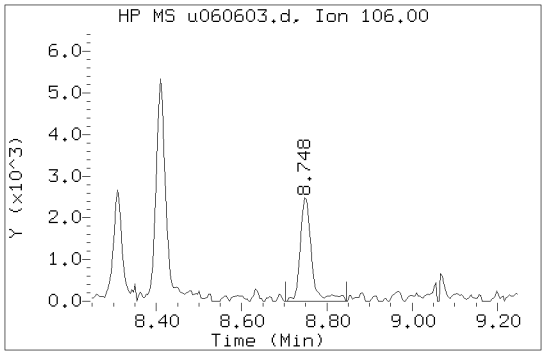
o-Xylene (95-47-6)

Reason Code:

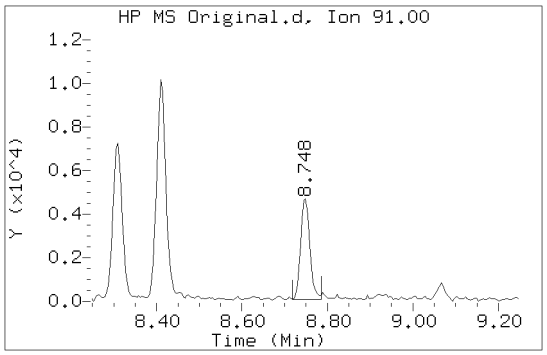
BEFORE
MASS
106
AREA
4736
HEIGHT
2481
08-Jun-2023
14:56
linh
pham



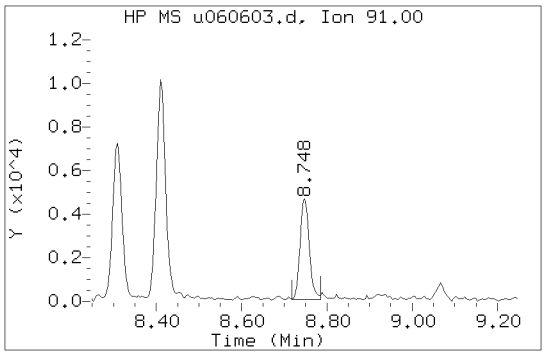
AFTER
MASS
106
AREA
4736
HEIGHT
2481
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
91
AREA
7145
HEIGHT
4614
08-Jun-2023
14:56
linh
pham



AFTER
MASS
91
AREA
7145
HEIGHT
4614
21-Jun-2023
13:47
linh
pha

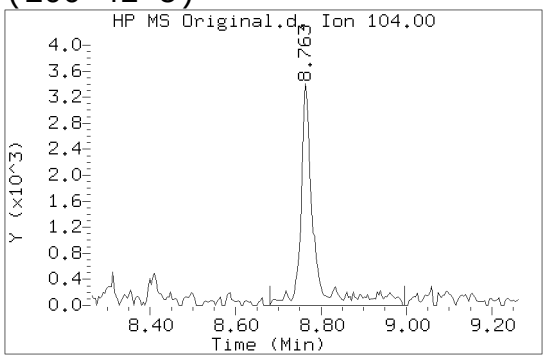


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

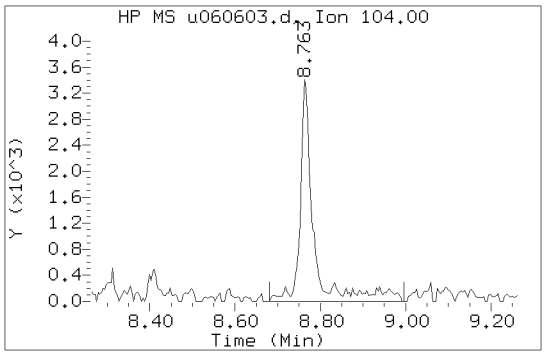
Styrene (100-42-5)

Reason Code:

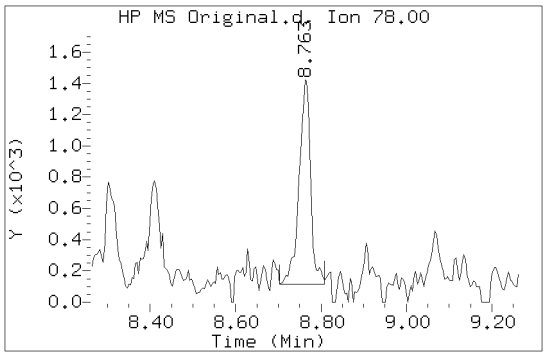
BEFORE
MASS
104
AREA
7547
HEIGHT
3407
08-Jun-2023
14:56
linh
pham



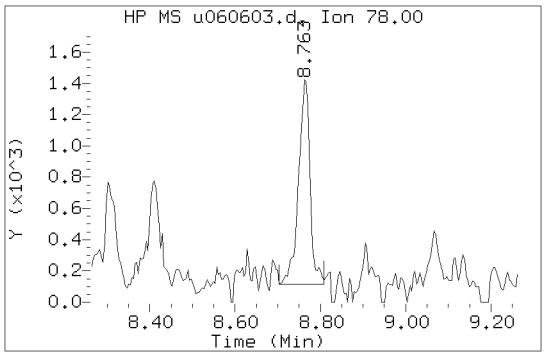
AFTER
MASS
104
AREA
7547
HEIGHT
3407
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
78
AREA
2506
HEIGHT
1307
08-Jun-2023
14:56
linh
pham



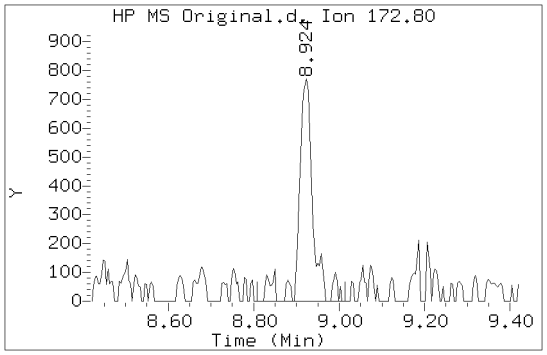
AFTER
MASS
78
AREA
2506
HEIGHT
1307
21-Jun-2023
13:47
linh
pha



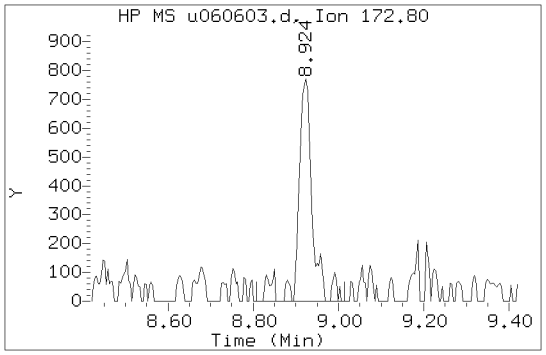
Bromoform (75-25-2)

Reason Code:

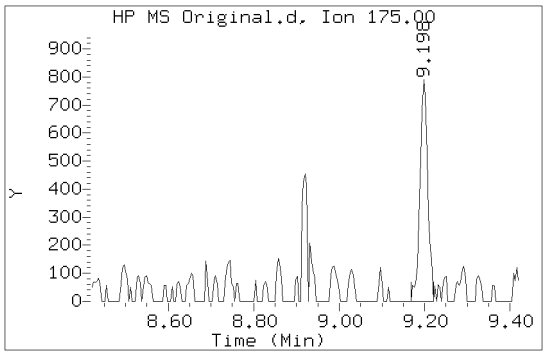
BEFORE
MASS
172.8
AREA
1797
HEIGHT
771
08-Jun-2023
14:56
linh
pham



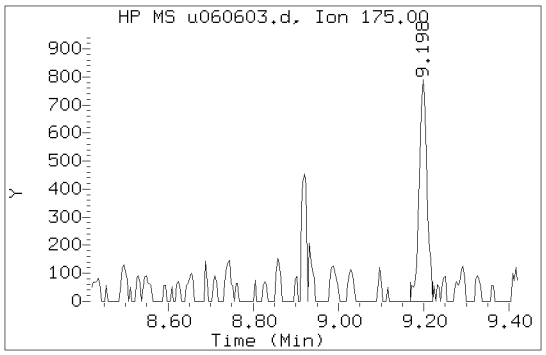
AFTER
MASS
172.8
AREA
1797
HEIGHT
771
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
175
AREA
1005
HEIGHT
790
08-Jun-2023
14:56
linh
pham



AFTER
MASS
175
AREA
1005
HEIGHT
790
21-Jun-2023
13:47
linh
pha



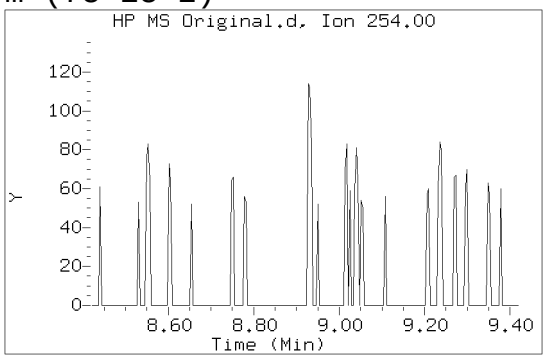
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Bromoform (75-25-2)

Reason Code:

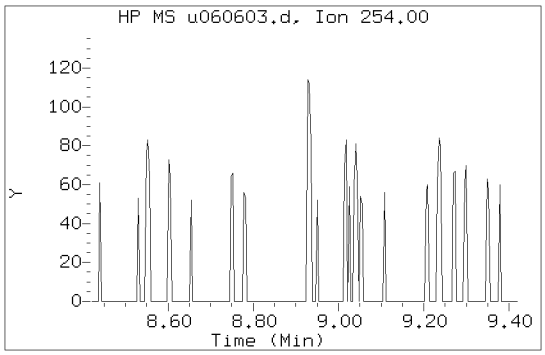
BEFORE

MASS
254
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
254
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

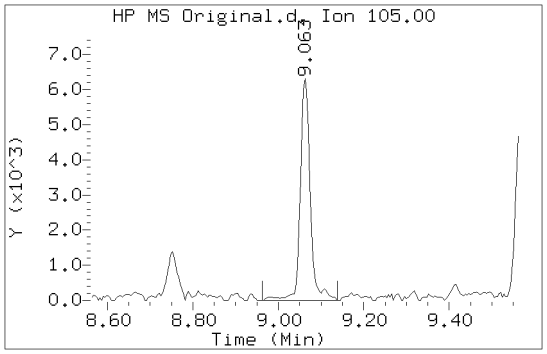


Isopropylbenzene (98-82-8)

Reason Code:

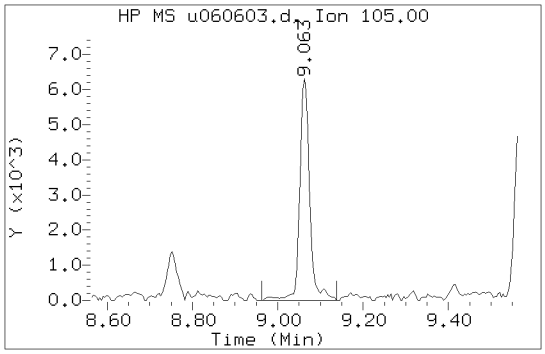
BEFORE

MASS
105
AREA
10525
HEIGHT
6310
08-Jun-2023
14:56
linh
pham



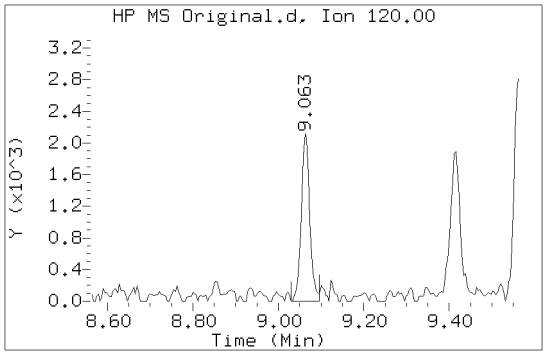
AFTER

MASS
105
AREA
10525
HEIGHT
6310
21-Jun-2023
13:47
linh
pha



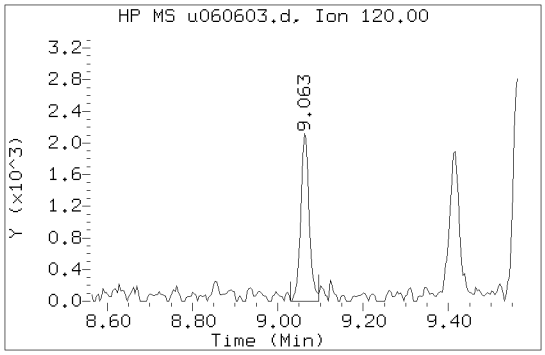
BEFORE

MASS
120
AREA
2979
HEIGHT
2122
08-Jun-2023
14:56
linh
pham



AFTER

MASS
120
AREA
2979
HEIGHT
2122
21-Jun-2023
13:47
linh
pha

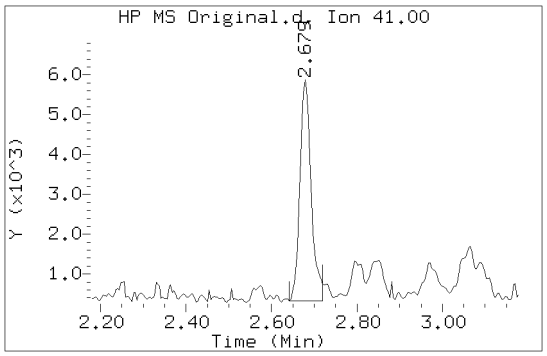


Allyl Chloride (107-05-1)

Reason Code:

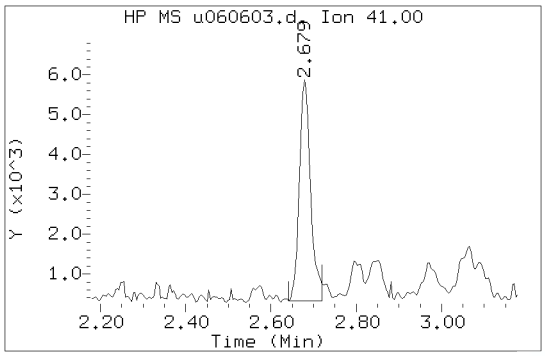
BEFORE

MASS
41
AREA
10377
HEIGHT
5545
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
10377
HEIGHT
5545
21-Jun-2023
13:47
linh
pha



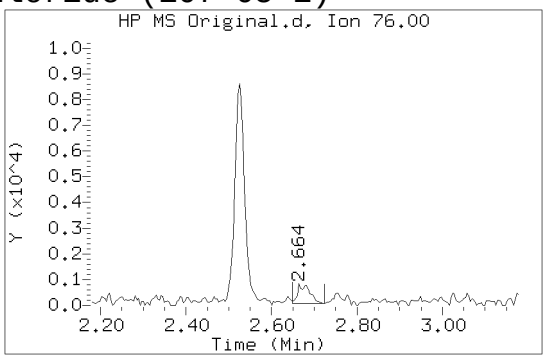
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Allyl Chloride (107-05-1)

Reason Code:

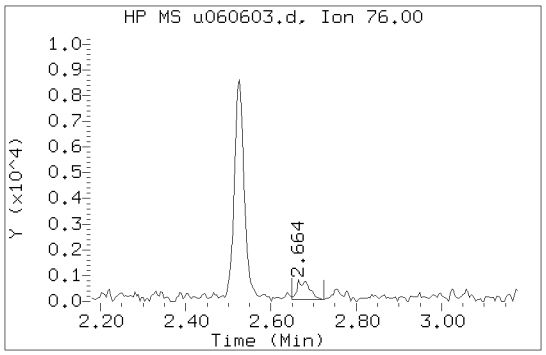
BEFORE

MASS
76
AREA
1452
HEIGHT
753
08-Jun-2023
14:56
linh
pham



AFTER

MASS
76
AREA
1452
HEIGHT
753
21-Jun-2023
13:47
linh
pha

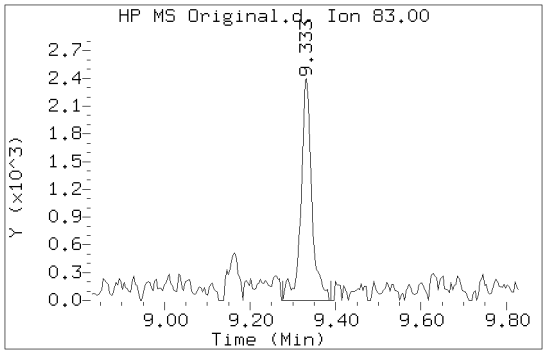


1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

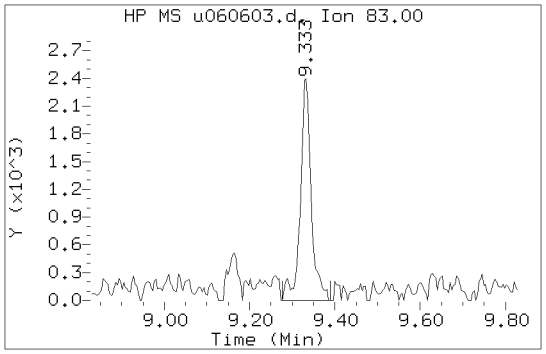
BEFORE

MASS
83
AREA
4333
HEIGHT
2397
08-Jun-2023
14:56
linh
pham



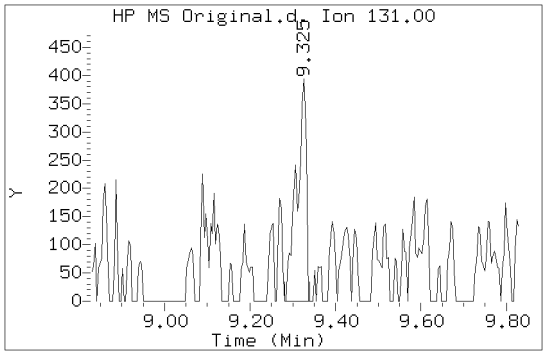
AFTER

MASS
83
AREA
4333
HEIGHT
2397
21-Jun-2023
13:47
linh
pha



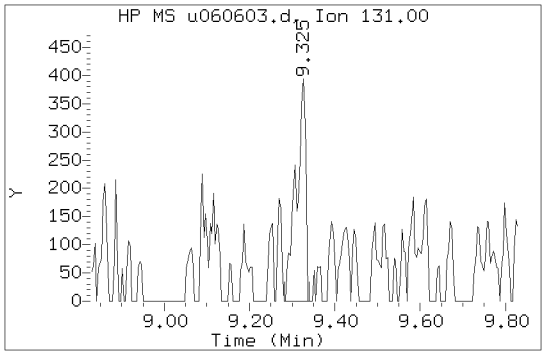
BEFORE

MASS
131
AREA
624
HEIGHT
394
08-Jun-2023
14:56
linh
pham



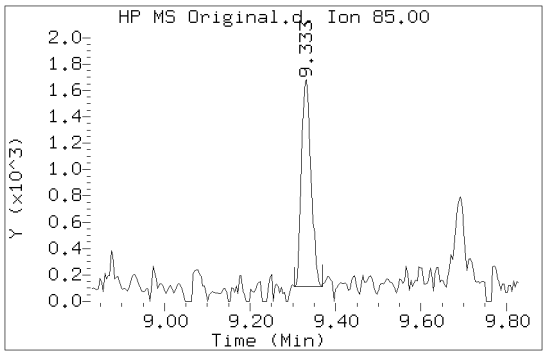
AFTER

MASS
131
AREA
624
HEIGHT
394
21-Jun-2023
13:47
linh
pha



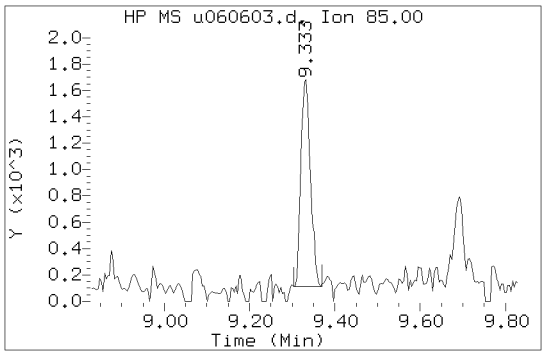
BEFORE

MASS
85
AREA
2508
HEIGHT
1568
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
2508
HEIGHT
1568
21-Jun-2023
13:47
linh
pha



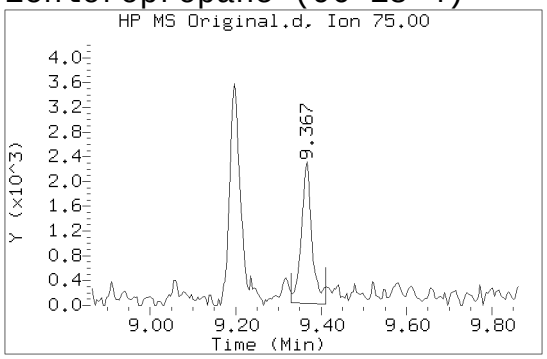
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

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

Reason Code:

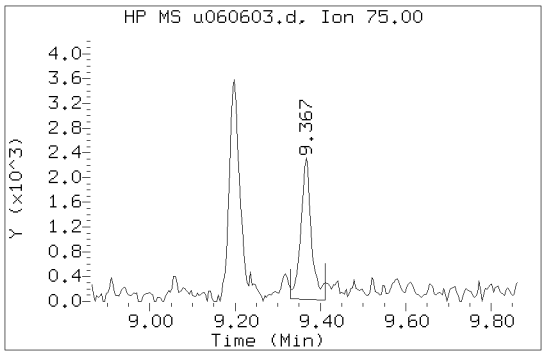
BEFORE

MASS
75
AREA
4089
HEIGHT
2289
08-Jun-2023
14:56
linh
pham



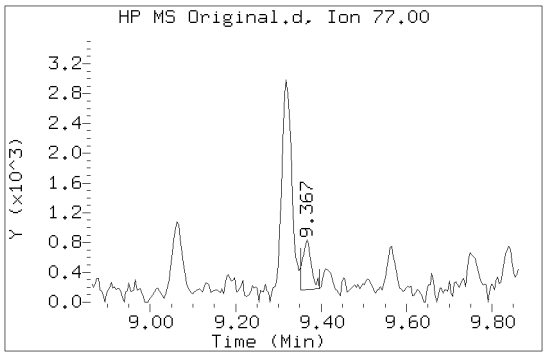
AFTER

MASS
75
AREA
4089
HEIGHT
2289
21-Jun-2023
13:47
linh
pha



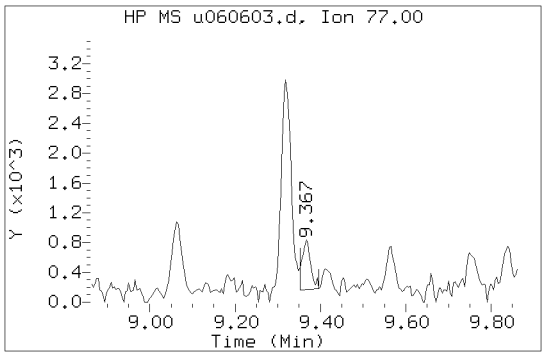
BEFORE

MASS
77
AREA
963
HEIGHT
669
08-Jun-2023
14:56
linh
pham



AFTER

MASS
77
AREA
963
HEIGHT
669
21-Jun-2023
13:47
linh
pha

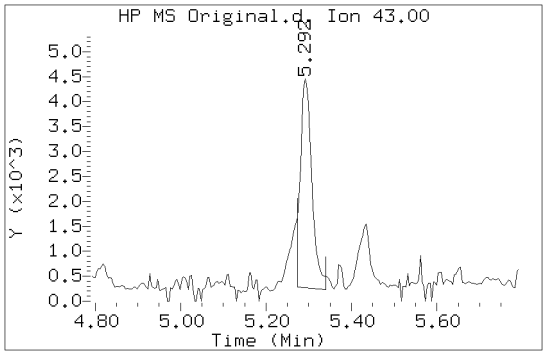


Isobutyl Alcohol (78-83-1)

Reason Code:

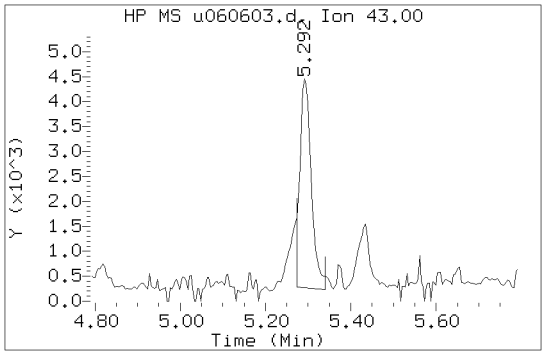
BEFORE

MASS
43
AREA
8062
HEIGHT
4185
08-Jun-2023
14:56
linh
pham



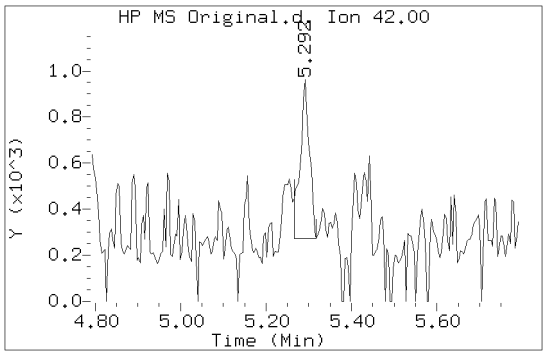
AFTER

MASS
43
AREA
8062
HEIGHT
4185
21-Jun-2023
13:47
linh
pha



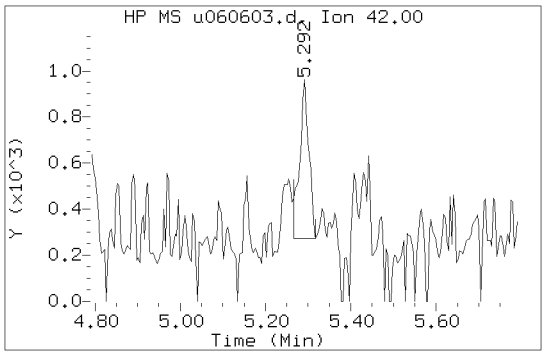
BEFORE

MASS
42
AREA
1073
HEIGHT
689
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
1073
HEIGHT
689
21-Jun-2023
13:47
linh
pha



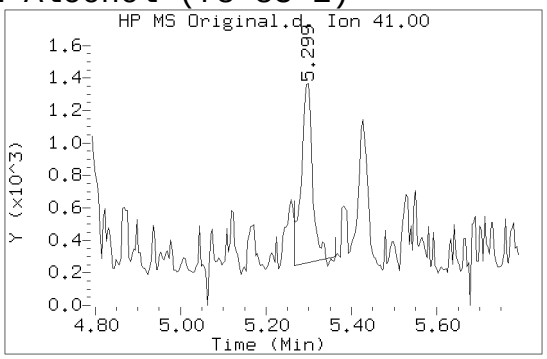
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Isobutyl Alcohol (78-83-1)

Reason Code:

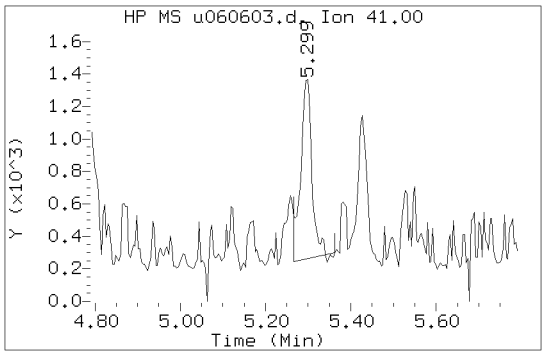
BEFORE

MASS
41
AREA
2043
HEIGHT
1100
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
2043
HEIGHT
1100
21-Jun-2023
13:47
linh
pha

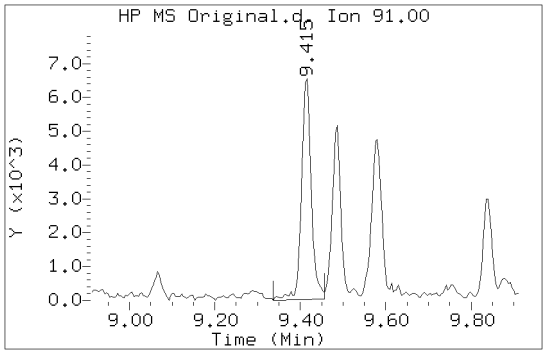


n-Propylbenzene (106-65-1)

Reason Code:

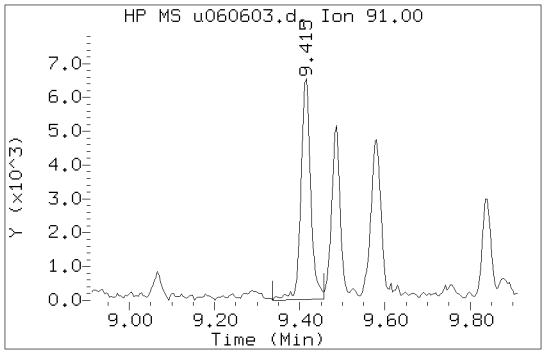
BEFORE

MASS
91
AREA
10721
HEIGHT
6532
08-Jun-2023
14:56
linh
pham



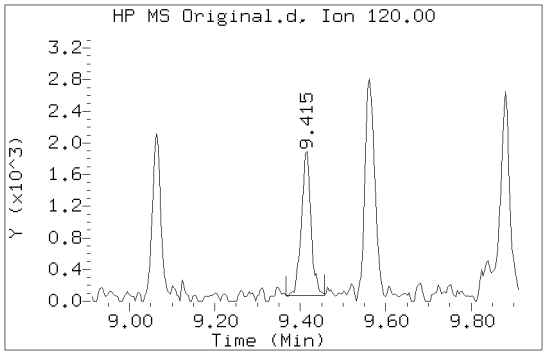
AFTER

MASS
91
AREA
10721
HEIGHT
6532
21-Jun-2023
13:47
linh
pha



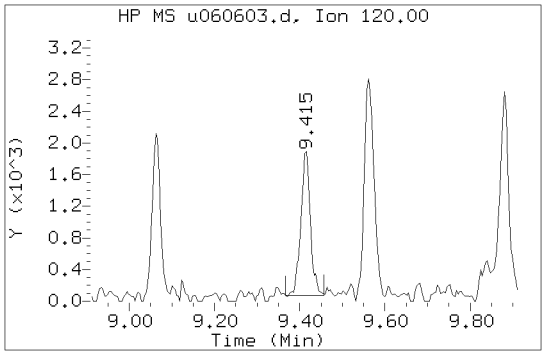
BEFORE

MASS
120
AREA
2911
HEIGHT
1823
08-Jun-2023
14:56
linh
pham



AFTER

MASS
120
AREA
2911
HEIGHT
1823
21-Jun-2023
13:47
linh
pha

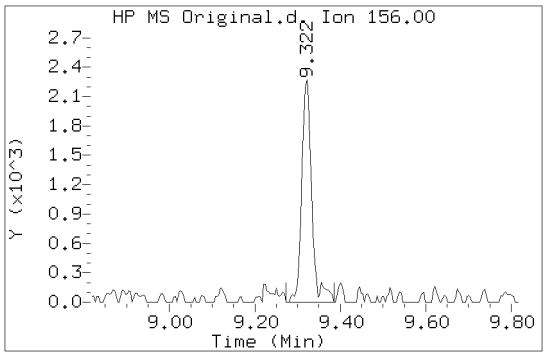


Bromobenzene (108-86-1)

Reason Code:

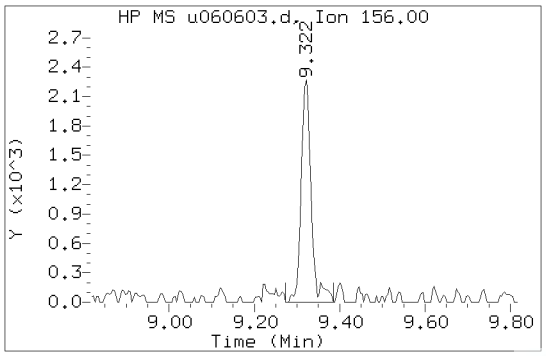
BEFORE

MASS
156
AREA
3800
HEIGHT
2270
08-Jun-2023
14:56
linh
pham



AFTER

MASS
156
AREA
3800
HEIGHT
2270
21-Jun-2023
13:47
linh
pha

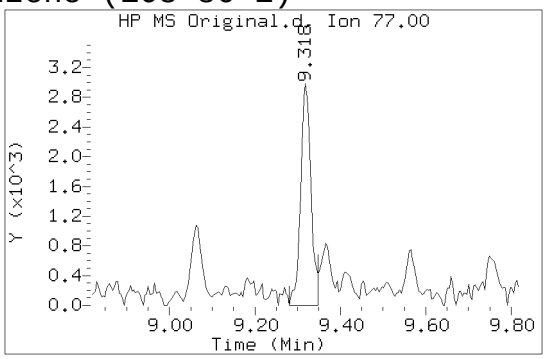


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

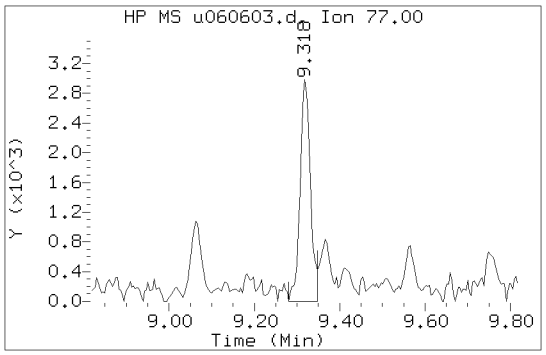
Bromobenzene (108-86-1)

Reason Code:

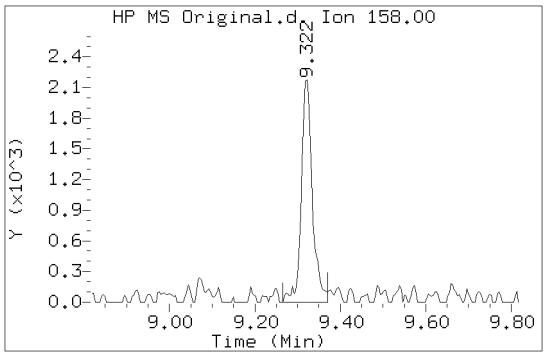
BEFORE
MASS
77
AREA
5137
HEIGHT
2983
08-Jun-2023
14:56
linh
pham



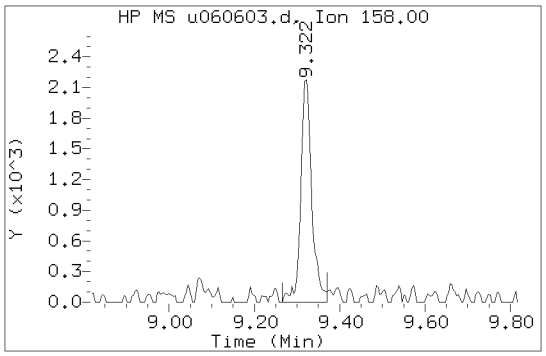
AFTER
MASS
77
AREA
5137
HEIGHT
2983
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
158
AREA
4021
HEIGHT
2175
08-Jun-2023
14:56
linh
pham



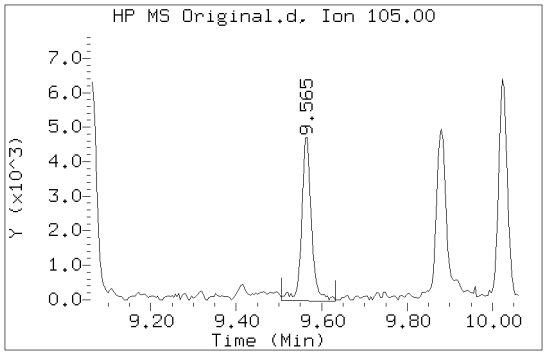
AFTER
MASS
158
AREA
4021
HEIGHT
2175
21-Jun-2023
13:47
linh
pha



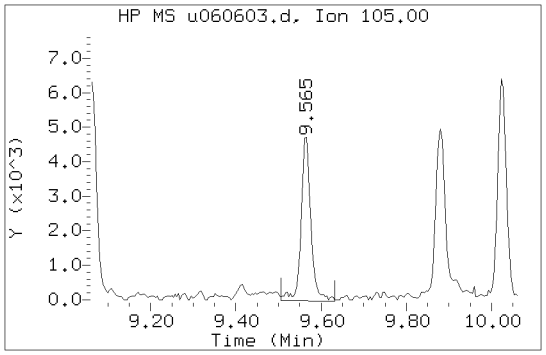
1,3,5-Trimethylbenzene (108-67-8)

Reason Code:

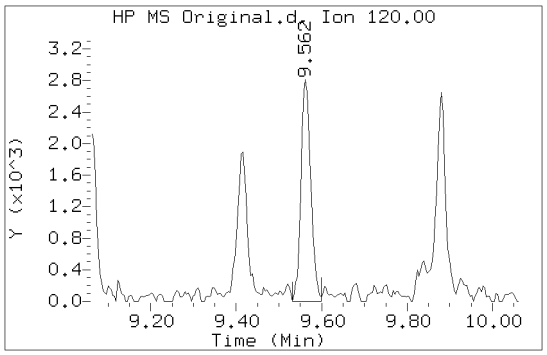
BEFORE
MASS
105
AREA
7820
HEIGHT
4732
08-Jun-2023
14:56
linh
pham



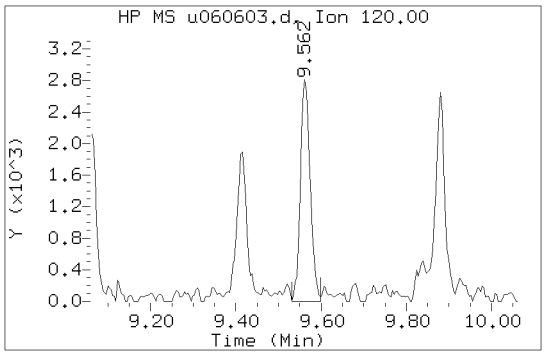
AFTER
MASS
105
AREA
7820
HEIGHT
4732
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
120
AREA
4592
HEIGHT
2810
08-Jun-2023
14:56
linh
pham



AFTER
MASS
120
AREA
4592
HEIGHT
2810
21-Jun-2023
13:47
linh
pha



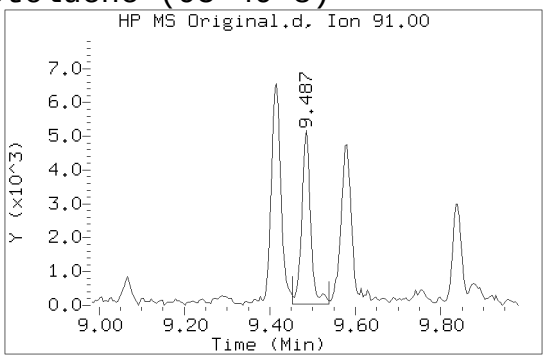
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

2-Chlorotoluene (95-49-8)

Reason Code:

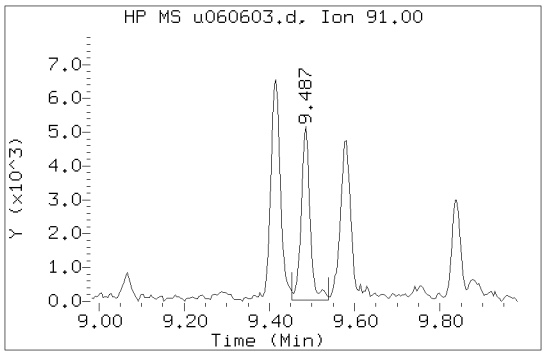
BEFORE

MASS
91
AREA
7551
HEIGHT
5138
08-Jun-2023
14:56
linh
pham



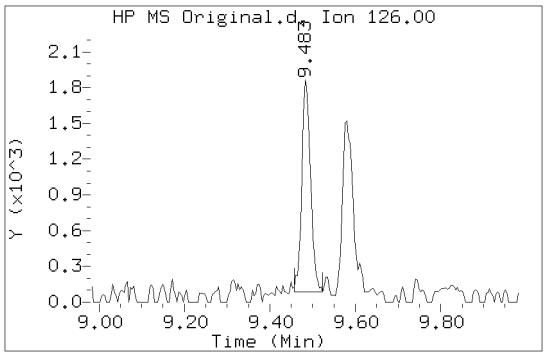
AFTER

MASS
91
AREA
7551
HEIGHT
5138
21-Jun-2023
13:47
linh
pha



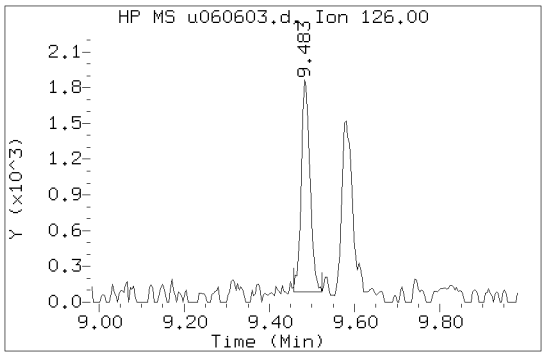
BEFORE

MASS
126
AREA
2589
HEIGHT
1779
08-Jun-2023
14:56
linh
pham



AFTER

MASS
126
AREA
2589
HEIGHT
1779
21-Jun-2023
13:47
linh
pha

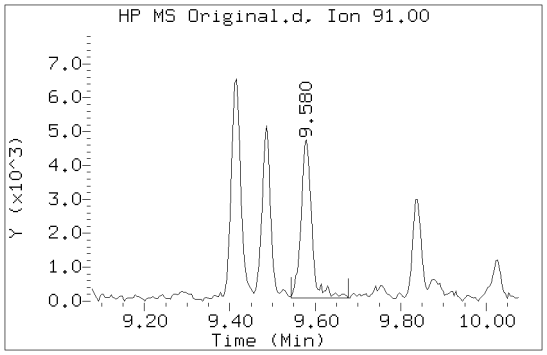


4-Chlorotoluene (106-43-4)

Reason Code:

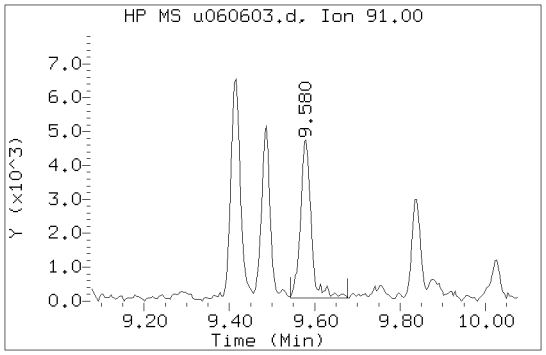
BEFORE

MASS
91
AREA
8243
HEIGHT
4662
08-Jun-2023
14:56
linh
pham



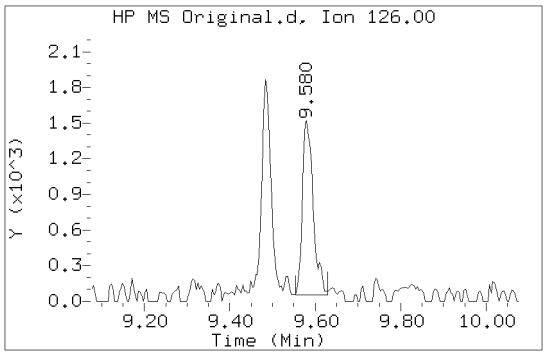
AFTER

MASS
91
AREA
8243
HEIGHT
4662
21-Jun-2023
13:47
linh
pha



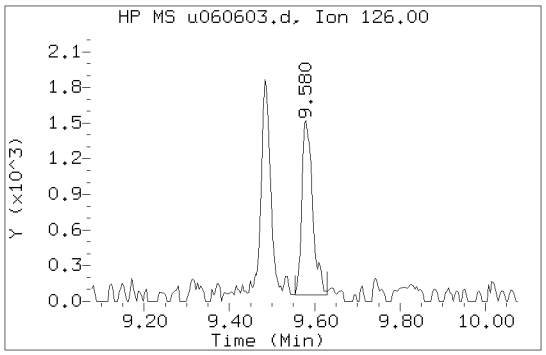
BEFORE

MASS
126
AREA
2606
HEIGHT
1467
08-Jun-2023
14:56
linh
pham



AFTER

MASS
126
AREA
2606
HEIGHT
1467
21-Jun-2023
13:47
linh
pha



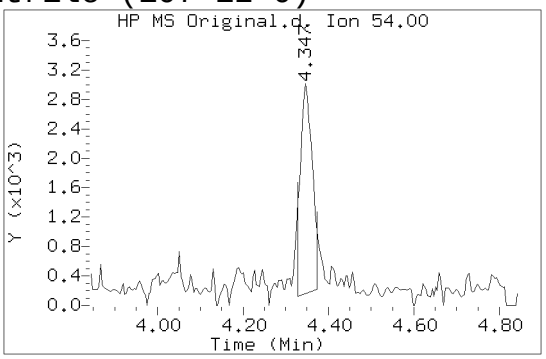
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Propionitrile (107-12-0)

Reason Code:

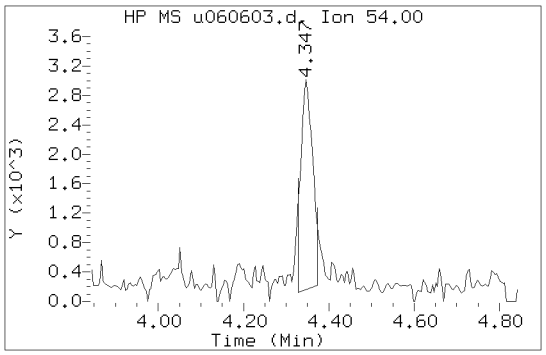
BEFORE

MASS
54
AREA
5579
HEIGHT
2848
08-Jun-2023
14:56
linh
pham



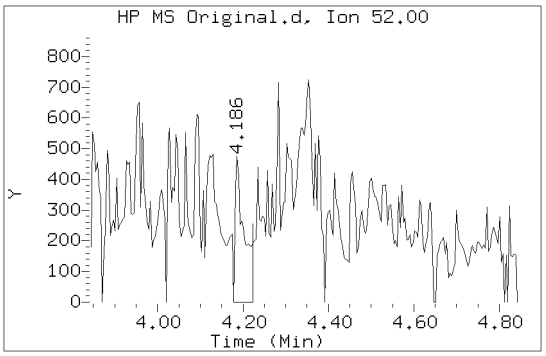
AFTER

MASS
54
AREA
5579
HEIGHT
2848
21-Jun-2023
13:47
linh
pha



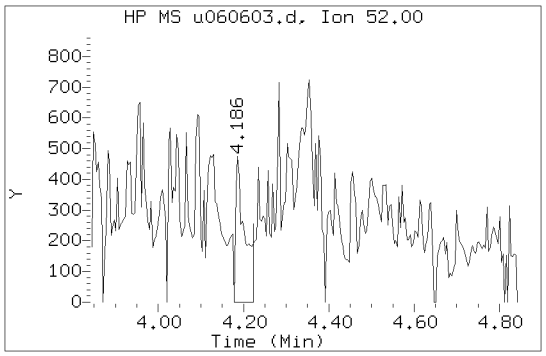
BEFORE

MASS
52
AREA
706
HEIGHT
475
08-Jun-2023
14:56
linh
pham



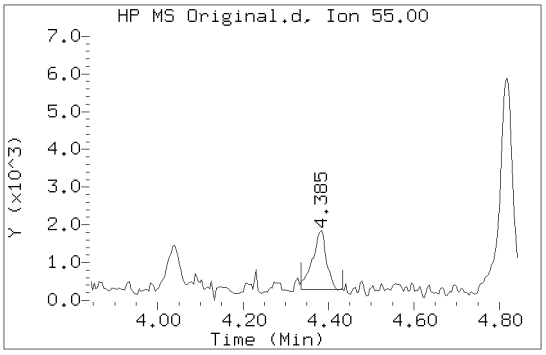
AFTER

MASS
52
AREA
706
HEIGHT
475
21-Jun-2023
13:47
linh
pha



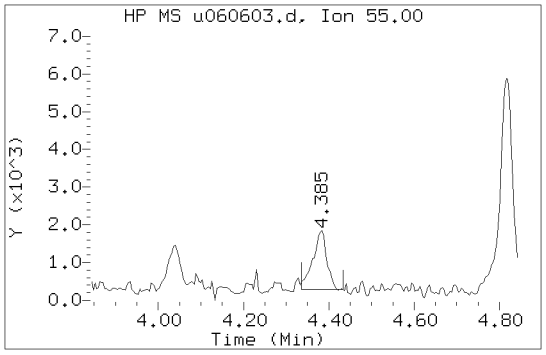
BEFORE

MASS
55
AREA
3548
HEIGHT
1559
08-Jun-2023
14:56
linh
pham



AFTER

MASS
55
AREA
3548
HEIGHT
1559
21-Jun-2023
13:47
linh
pha

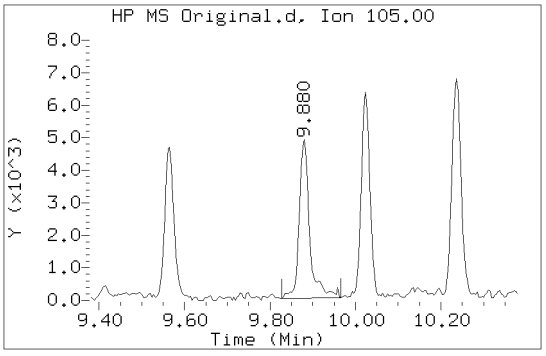


1,2,4-Trimethylbenzene (95-63-6)

Reason Code:

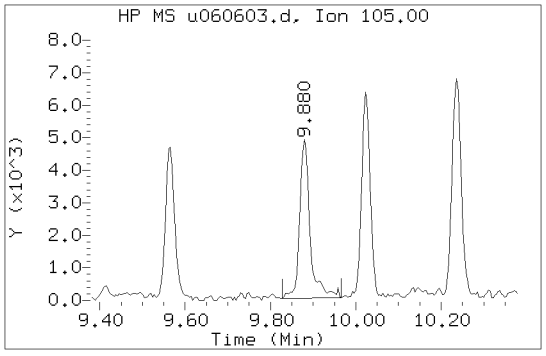
BEFORE

MASS
105
AREA
8548
HEIGHT
4875
08-Jun-2023
14:56
linh
pham



AFTER

MASS
105
AREA
8548
HEIGHT
4875
21-Jun-2023
13:47
linh
pha



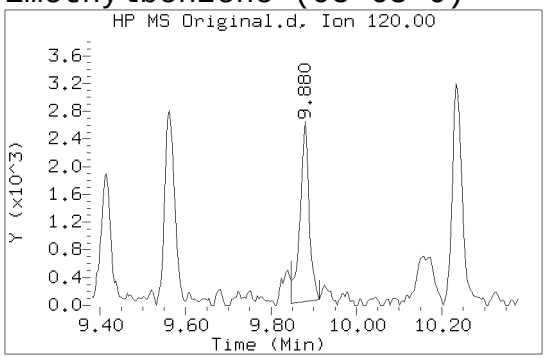
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

1,2,4-Trimethylbenzene (95-63-6)

Reason Code:

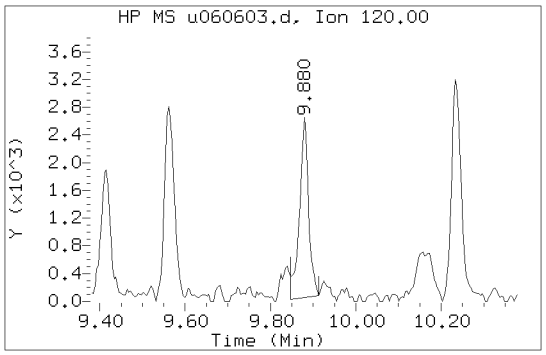
BEFORE

MASS
120
AREA
3975
HEIGHT
2592
08-Jun-2023
14:56
linh
pham



AFTER

MASS
120
AREA
3975
HEIGHT
2592
21-Jun-2023
13:47
linh
pha

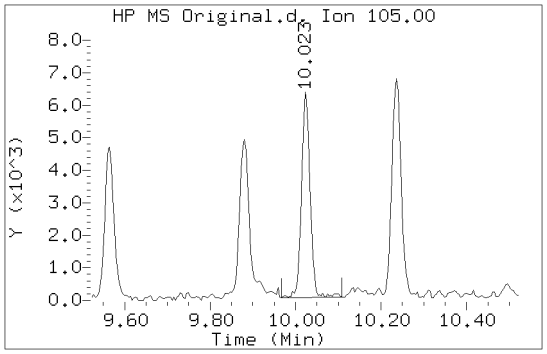


sec-Butylbenzene (135-98-8)

Reason Code:

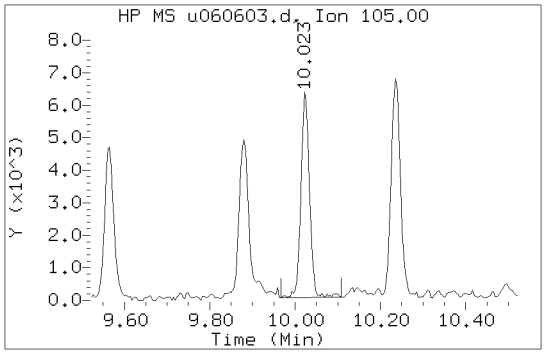
BEFORE

MASS
105
AREA
9131
HEIGHT
6310
08-Jun-2023
14:56
linh
pham



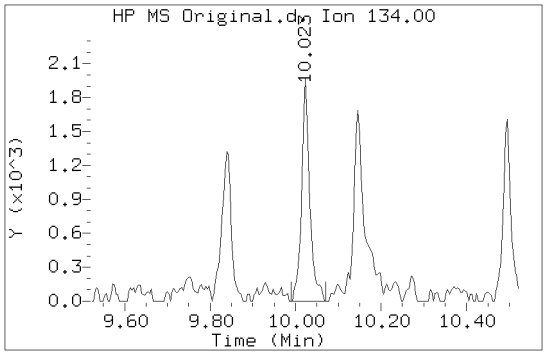
AFTER

MASS
105
AREA
9131
HEIGHT
6310
21-Jun-2023
13:47
linh
pha



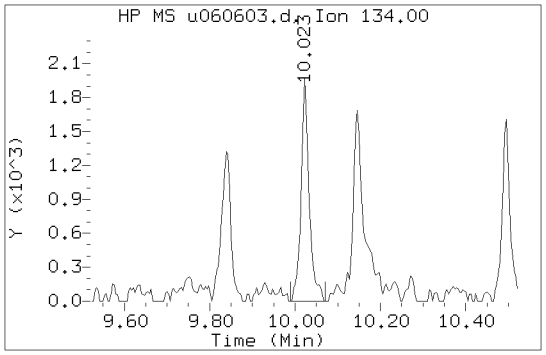
BEFORE

MASS
134
AREA
2687
HEIGHT
1965
08-Jun-2023
14:56
linh
pham



AFTER

MASS
134
AREA
2687
HEIGHT
1965
21-Jun-2023
13:47
linh
pha

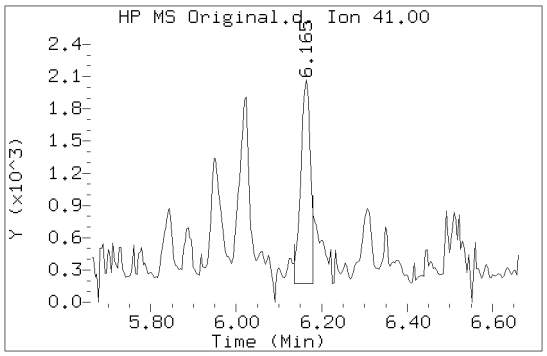


Methyl Methacrylate (80-62-6)

Reason Code:

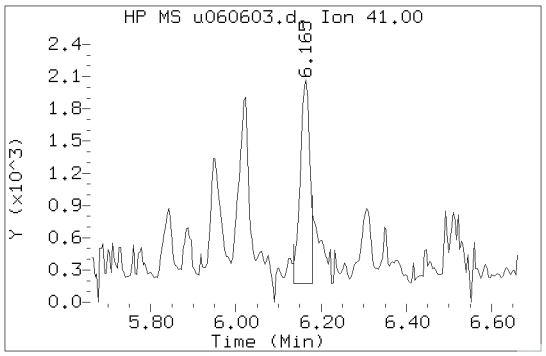
BEFORE

MASS
41
AREA
3083
HEIGHT
1894
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
3083
HEIGHT
1894
21-Jun-2023
13:47
linh
pha

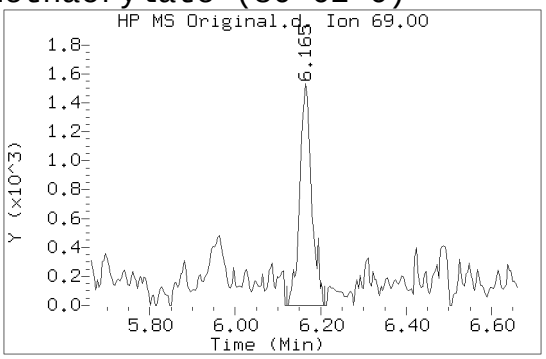


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Methyl Methacrylate (80-62-6)

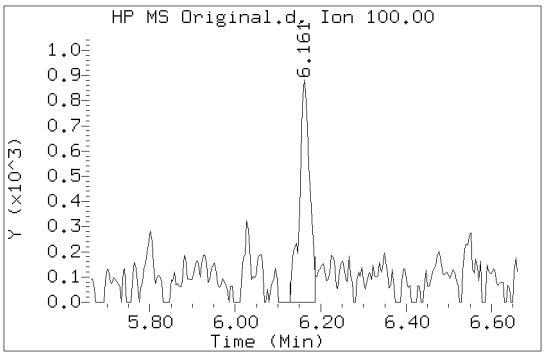
BEFORE

MASS
69
AREA
3017
HEIGHT
1532
08-Jun-2023
14:56
linh
pham



BEFORE

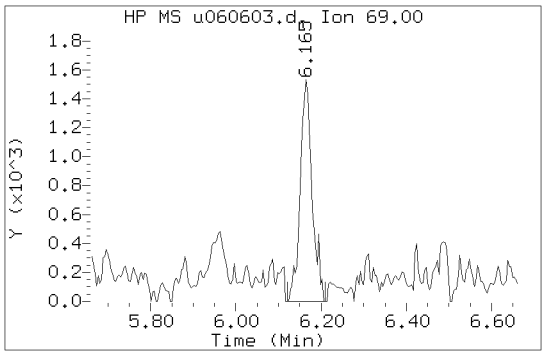
MASS
100
AREA
1506
HEIGHT
882
08-Jun-2023
14:56
linh
pham



Reason Code:

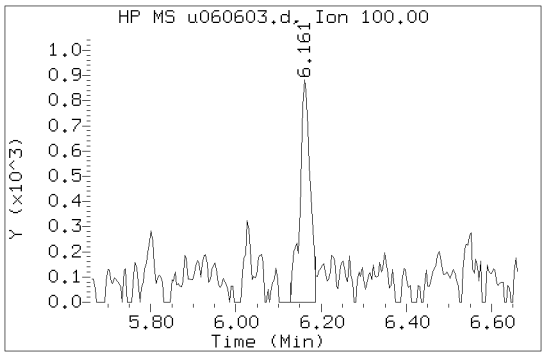
AFTER

MASS
69
AREA
3017
HEIGHT
1532
21-Jun-2023
13:47
linh
pha



AFTER

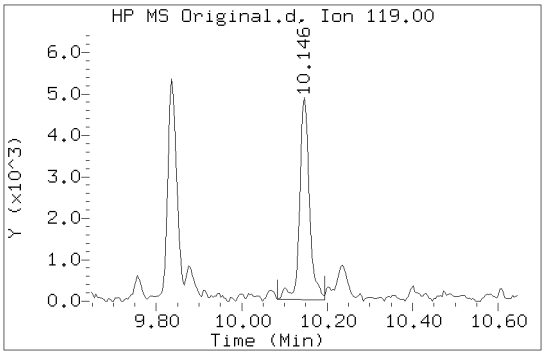
MASS
100
AREA
1506
HEIGHT
882
21-Jun-2023
13:47
linh
pha



p-Isopropyltoluene (99-87-6)

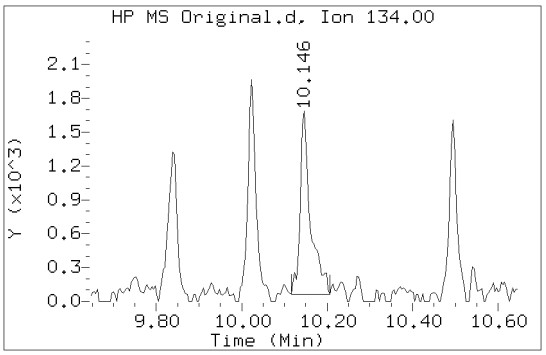
BEFORE

MASS
119
AREA
7969
HEIGHT
4880
08-Jun-2023
14:56
linh
pham



BEFORE

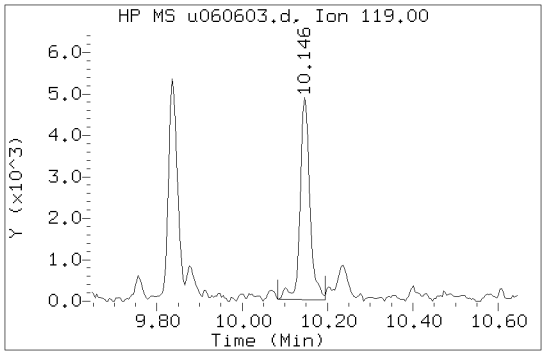
MASS
134
AREA
2795
HEIGHT
1627
08-Jun-2023
14:56
linh
pham



Reason Code:

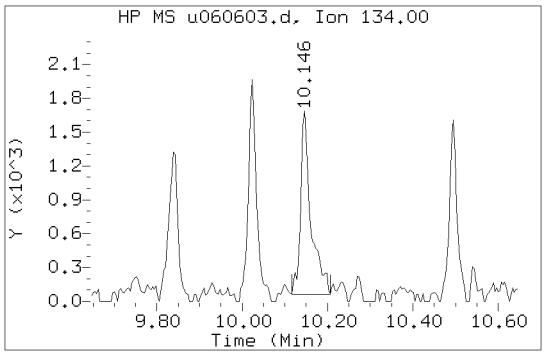
AFTER

MASS
119
AREA
7969
HEIGHT
4880
21-Jun-2023
13:47
linh
pha



AFTER

MASS
134
AREA
2795
HEIGHT
1627
21-Jun-2023
13:47
linh
pha



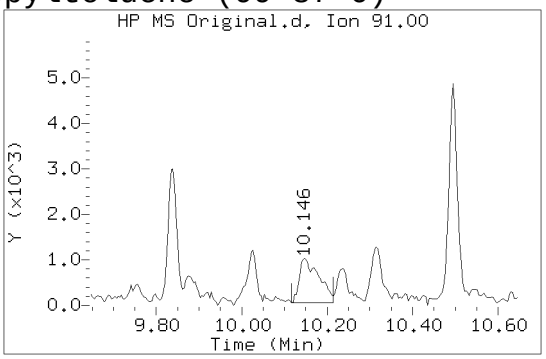
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

p-Isopropyltoluene (99-87-6)

Reason Code:

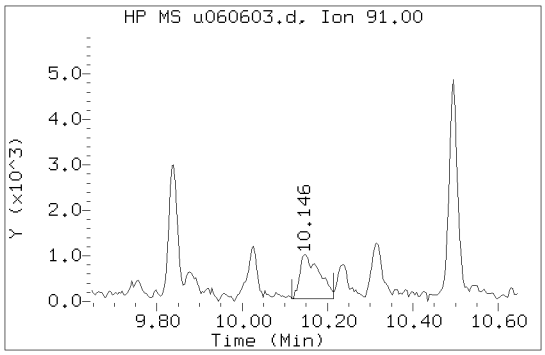
BEFORE

MASS
91
AREA
3125
HEIGHT
970
08-Jun-2023
14:56
linh
pham



AFTER

MASS
91
AREA
3125
HEIGHT
970
21-Jun-2023
13:47
linh
pha

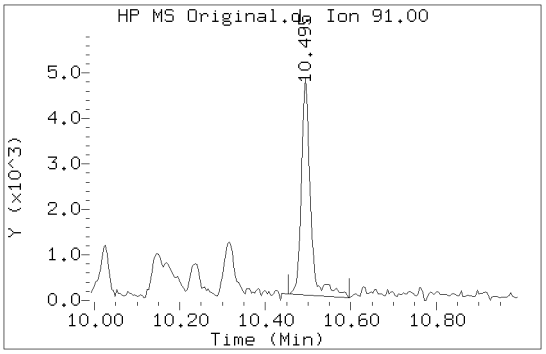


n-Butylbenzene (104-51-8)

Reason Code:

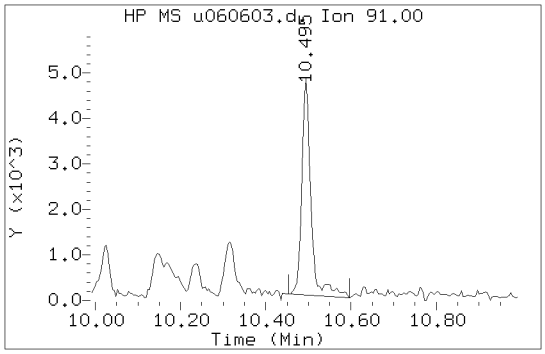
BEFORE

MASS
91
AREA
7213
HEIGHT
4758
08-Jun-2023
14:56
linh
pham



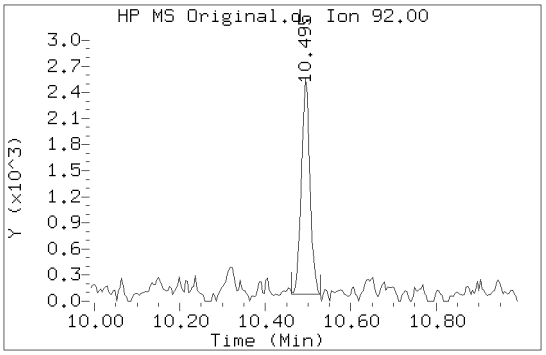
AFTER

MASS
91
AREA
7213
HEIGHT
4758
21-Jun-2023
13:47
linh
pha



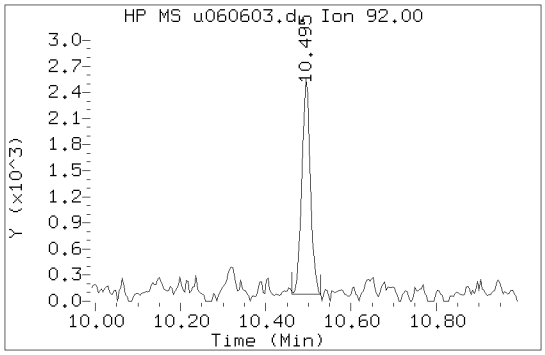
BEFORE

MASS
92
AREA
3472
HEIGHT
2472
08-Jun-2023
14:56
linh
pham



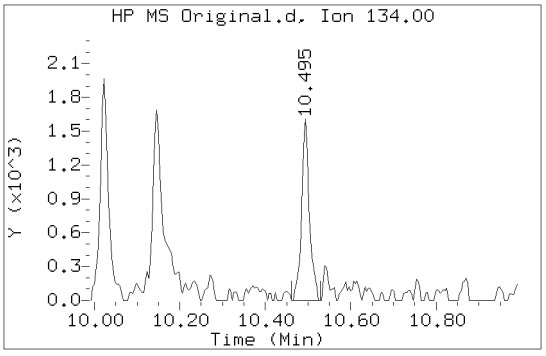
AFTER

MASS
92
AREA
3472
HEIGHT
2472
21-Jun-2023
13:47
linh
pha



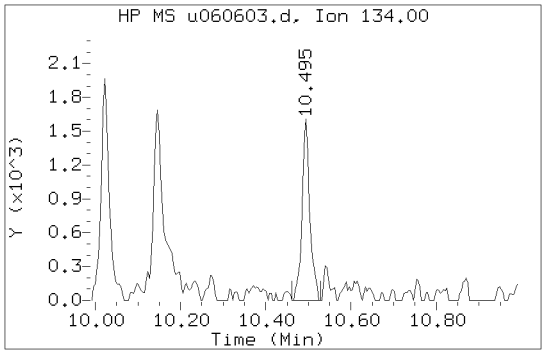
BEFORE

MASS
134
AREA
2070
HEIGHT
1610
08-Jun-2023
14:56
linh
pham



AFTER

MASS
134
AREA
2070
HEIGHT
1610
21-Jun-2023
13:47
linh
pha

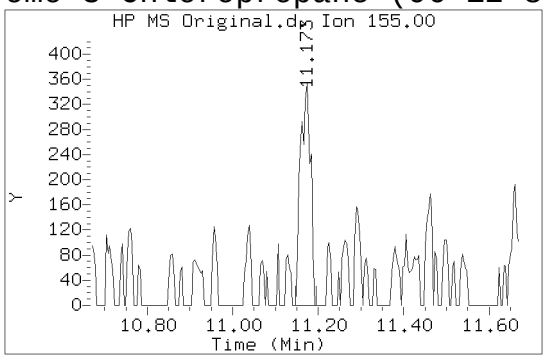


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

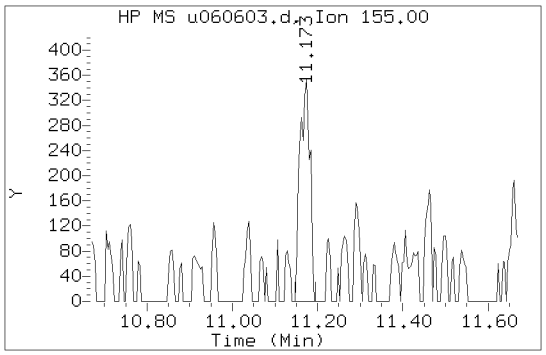
1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

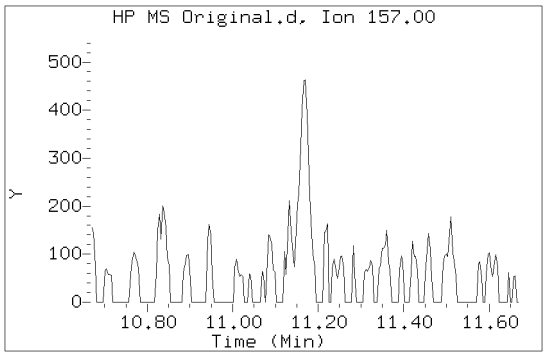
BEFORE
MASS
155
AREA
589
HEIGHT
353
08-Jun-2023
14:56
linh
pham



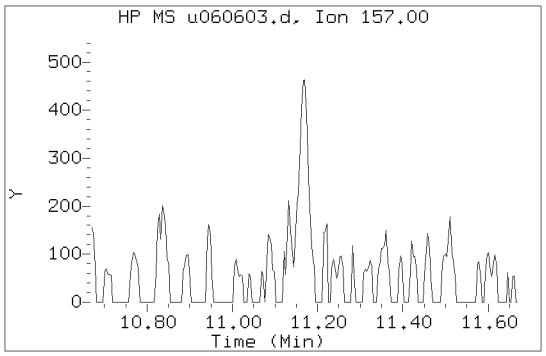
AFTER
MASS
155
AREA
589
HEIGHT
353
21-Jun-2023
13:47
linh
pha



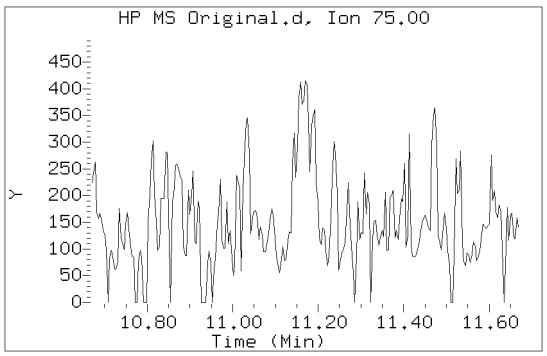
BEFORE
MASS
157
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



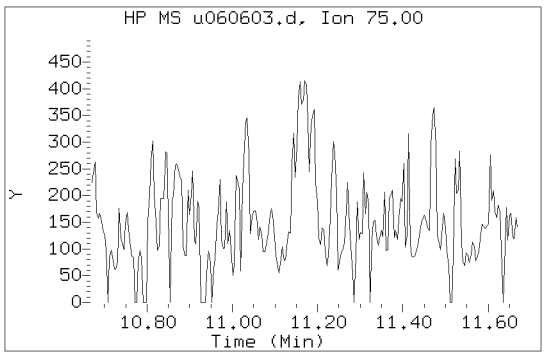
AFTER
MASS
157
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
75
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



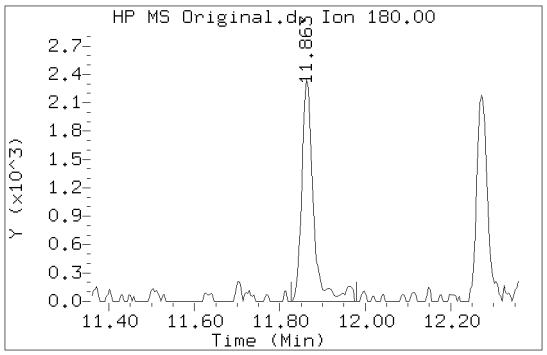
AFTER
MASS
75
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



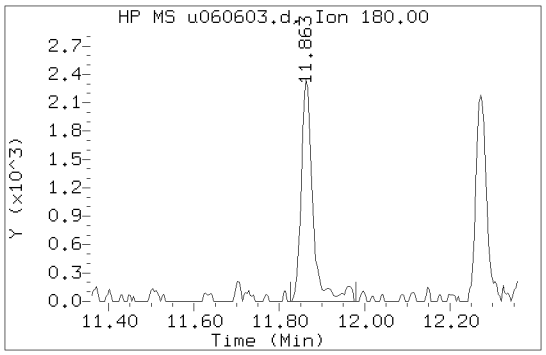
1,2,4-Trichlorobenzene (120-82-1)

Reason Code:

BEFORE
MASS
180
AREA
4551
HEIGHT
2344
08-Jun-2023
14:56
linh
pham



AFTER
MASS
180
AREA
4551
HEIGHT
2344
21-Jun-2023
13:47
linh
pha



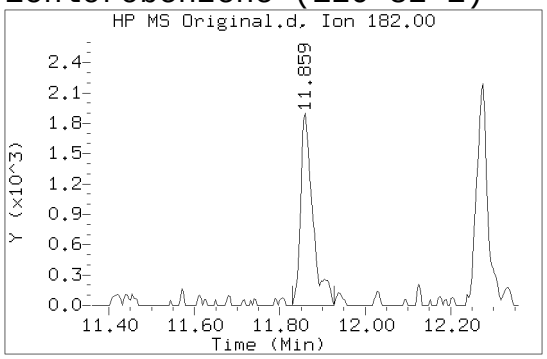
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

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

Reason Code:

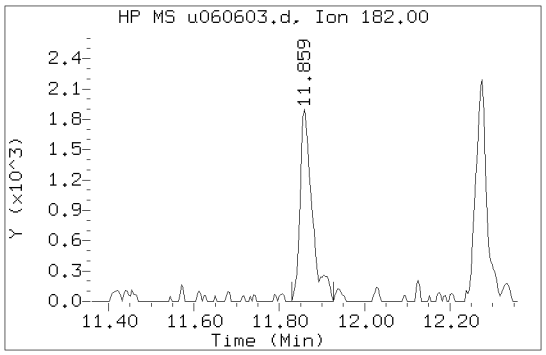
BEFORE

MASS
182
AREA
3811
HEIGHT
1898
08-Jun-2023
14:56
linh
pham



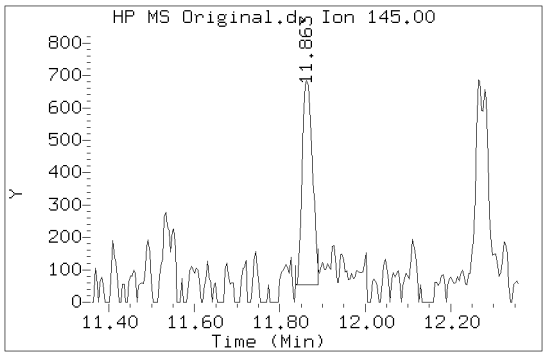
AFTER

MASS
182
AREA
3811
HEIGHT
1898
21-Jun-2023
13:47
linh
pha



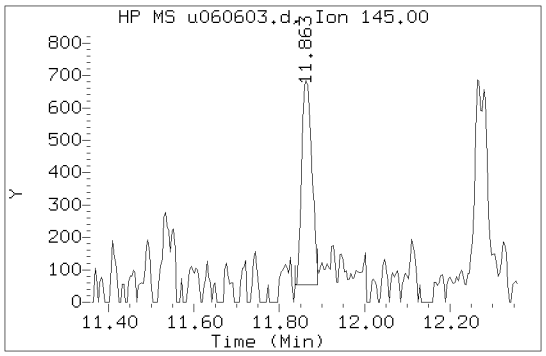
BEFORE

MASS
145
AREA
1065
HEIGHT
632
08-Jun-2023
14:56
linh
pham



AFTER

MASS
145
AREA
1065
HEIGHT
632
21-Jun-2023
13:47
linh
pha

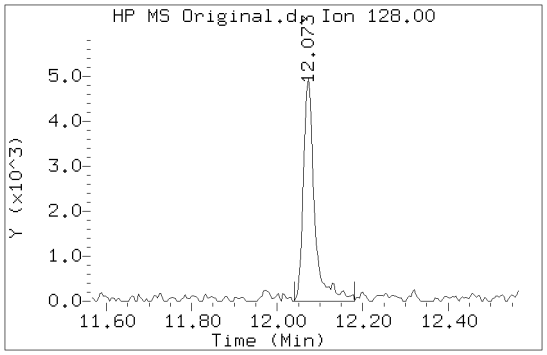


Naphthalene (91-20-3)

Reason Code:

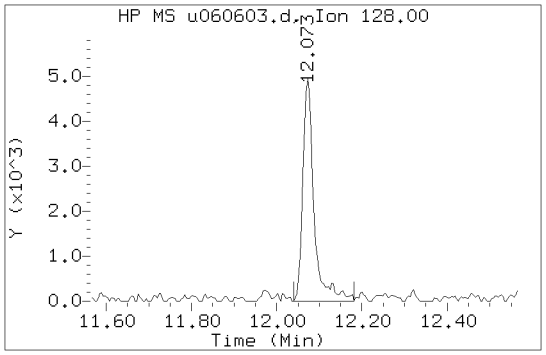
BEFORE

MASS
128
AREA
9156
HEIGHT
4939
08-Jun-2023
14:56
linh
pham



AFTER

MASS
128
AREA
9156
HEIGHT
4939
21-Jun-2023
13:47
linh
pha

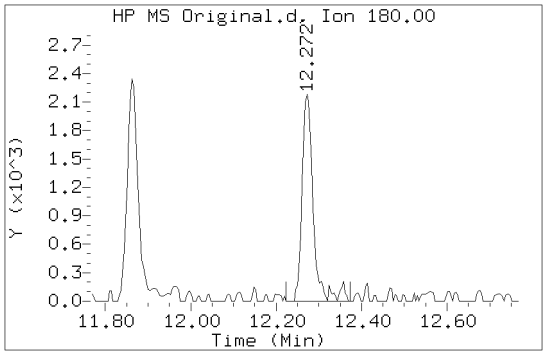


1,2,3-Trichlorobenzene (87-61-6)

Reason Code:

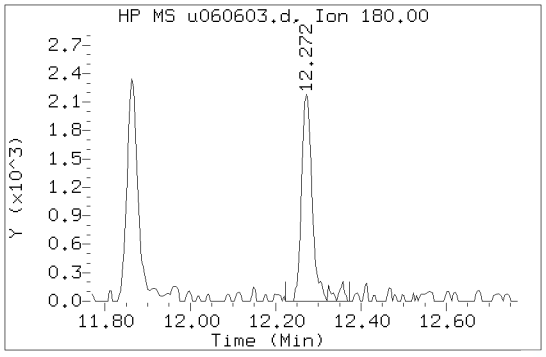
BEFORE

MASS
180
AREA
4090
HEIGHT
2185
08-Jun-2023
14:56
linh
pham



AFTER

MASS
180
AREA
4090
HEIGHT
2185
21-Jun-2023
13:47
linh
pha



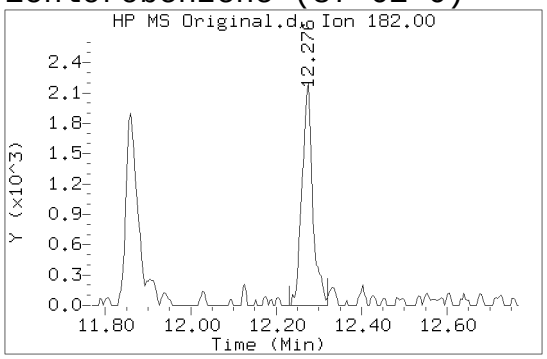
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

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

Reason Code:

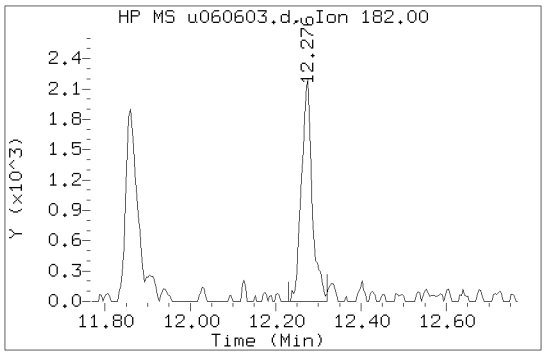
BEFORE

MASS
182
AREA
3923
HEIGHT
2191
08-Jun-2023
14:56
linh
pham



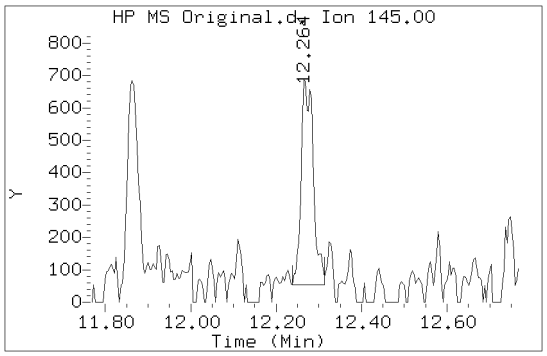
AFTER

MASS
182
AREA
3923
HEIGHT
2191
21-Jun-2023
13:47
linh
pha



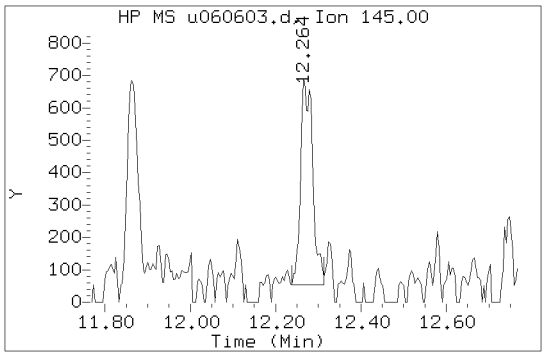
BEFORE

MASS
145
AREA
1275
HEIGHT
633
08-Jun-2023
14:56
linh
pham



AFTER

MASS
145
AREA
1275
HEIGHT
633
21-Jun-2023
13:47
linh
pha

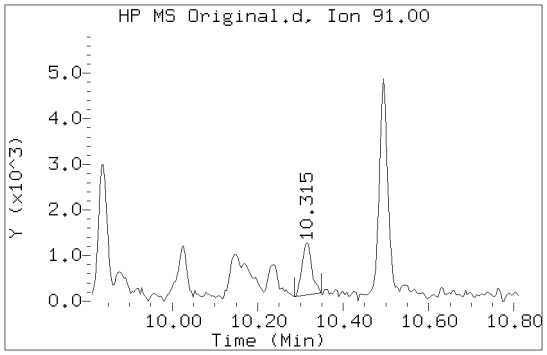


Benzyl Chloride (100-44-7)

Reason Code:

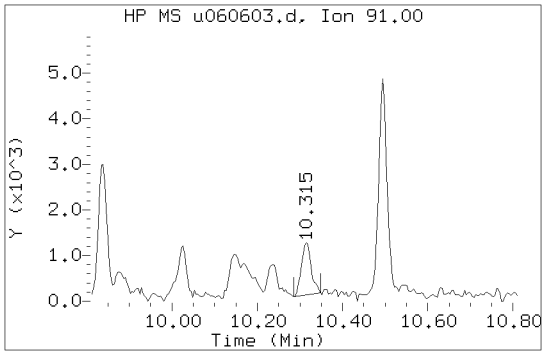
BEFORE

MASS
91
AREA
1867
HEIGHT
1136
08-Jun-2023
14:56
linh
pham



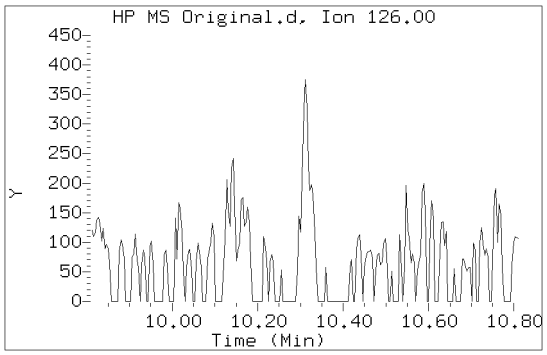
AFTER

MASS
91
AREA
1867
HEIGHT
1136
21-Jun-2023
13:47
linh
pha



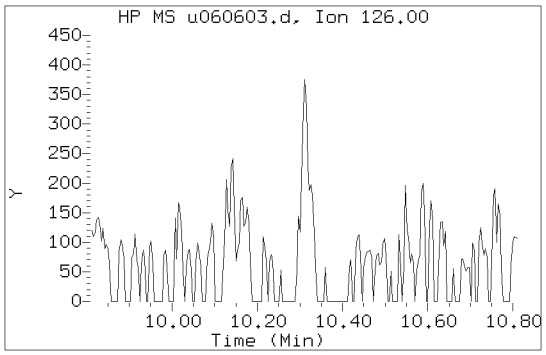
BEFORE

MASS
126
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
126
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



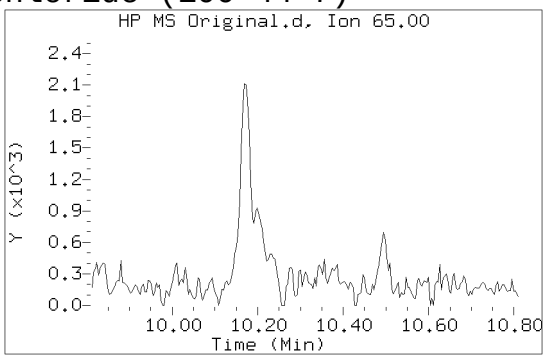
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Benzyl Chloride (100-44-7)

Reason Code:

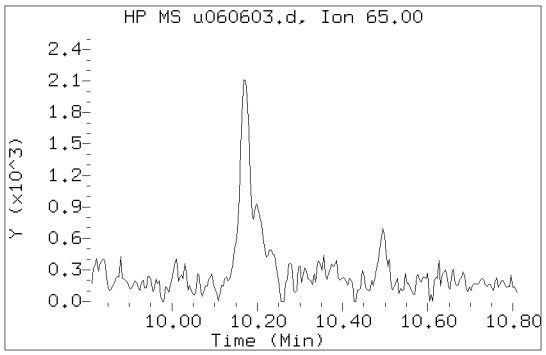
BEFORE

MASS
65
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
65
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

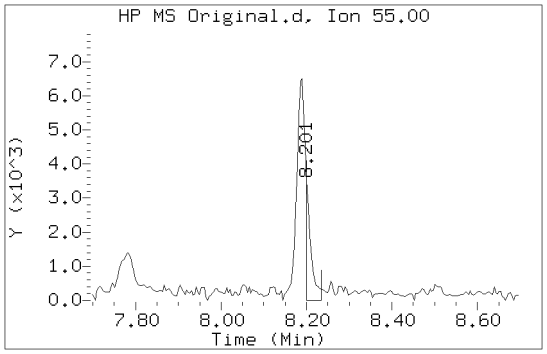


1-Chlorohexane (544-10-5)

Reason Code:

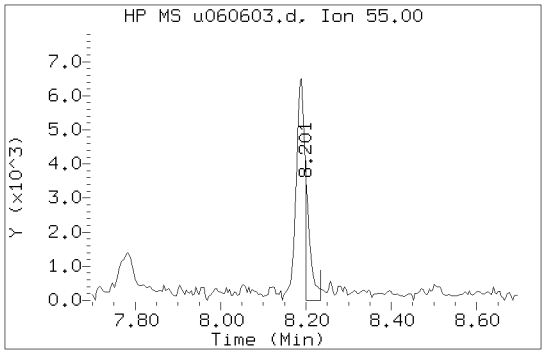
BEFORE

MASS
55
AREA
2785
HEIGHT
3524
08-Jun-2023
14:56
linh
pham



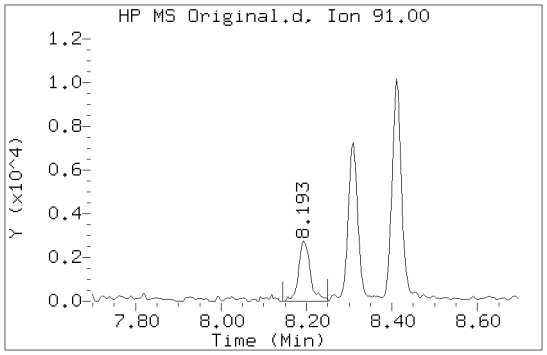
AFTER

MASS
55
AREA
2785
HEIGHT
3524
21-Jun-2023
13:47
linh
pha



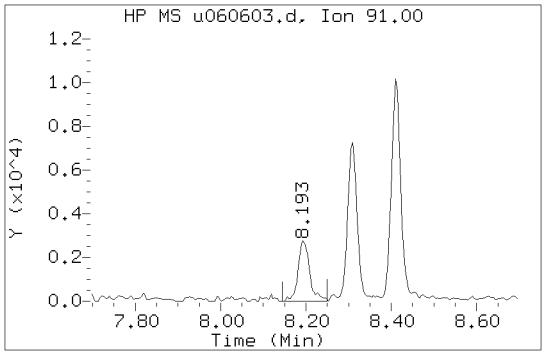
BEFORE

MASS
91
AREA
5394
HEIGHT
2762
08-Jun-2023
14:56
linh
pham



AFTER

MASS
91
AREA
5394
HEIGHT
2762
21-Jun-2023
13:47
linh
pha

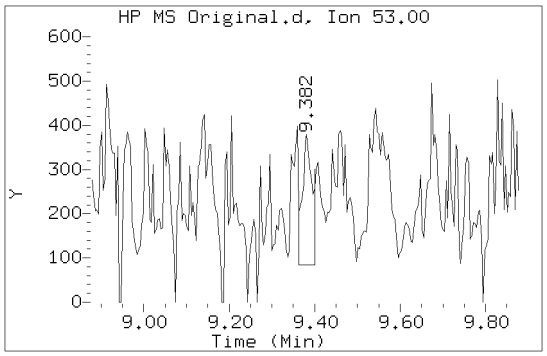


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

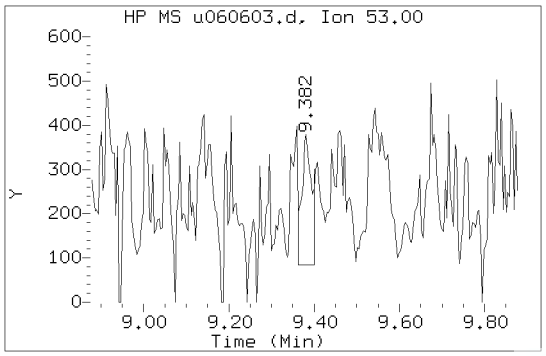
BEFORE

MASS
53
AREA
485
HEIGHT
296
08-Jun-2023
14:56
linh
pham



AFTER

MASS
53
AREA
485
HEIGHT
296
21-Jun-2023
13:47
linh
pha



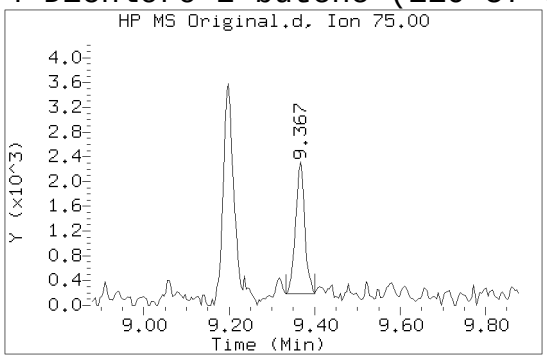
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

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

Reason Code:

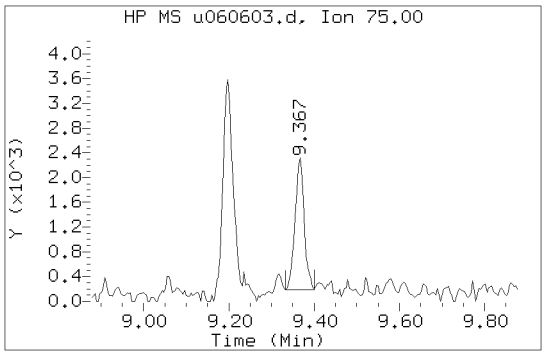
BEFORE

MASS
75
AREA
3241
HEIGHT
2140
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
3241
HEIGHT
2140
21-Jun-2023
13:47
linh
pha

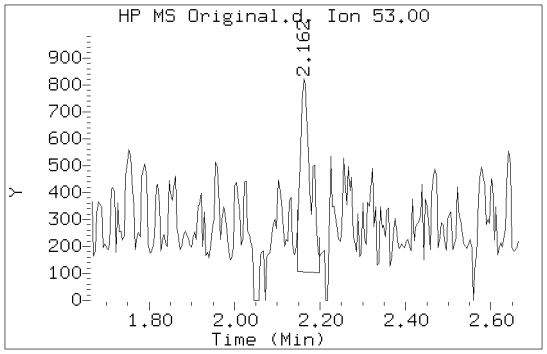


Chloroprene (126-99-8)

Reason Code:

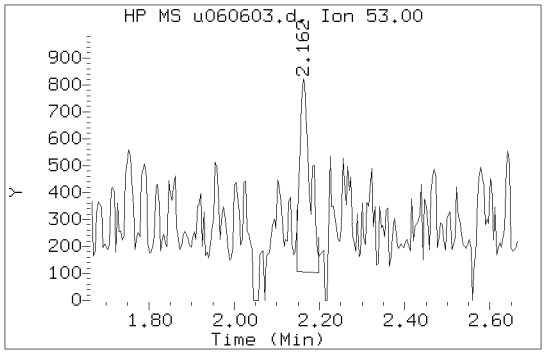
BEFORE

MASS
53
AREA
1260
HEIGHT
717
08-Jun-2023
14:56
linh
pham



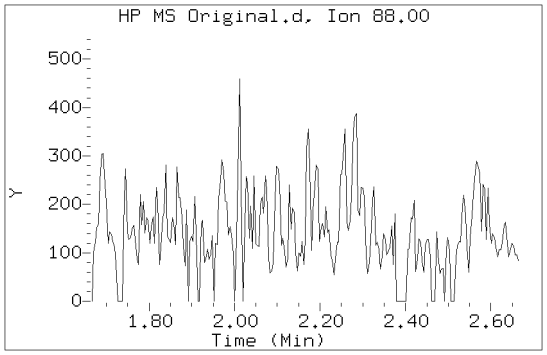
AFTER

MASS
53
AREA
1260
HEIGHT
717
21-Jun-2023
13:47
linh
pha



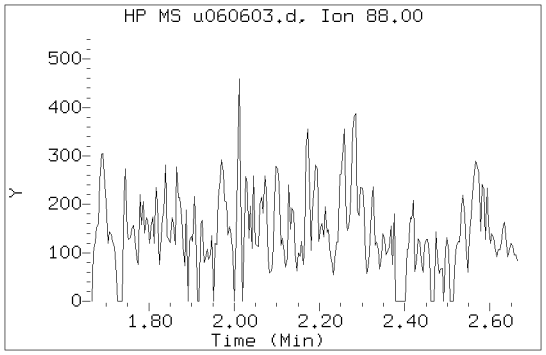
BEFORE

MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

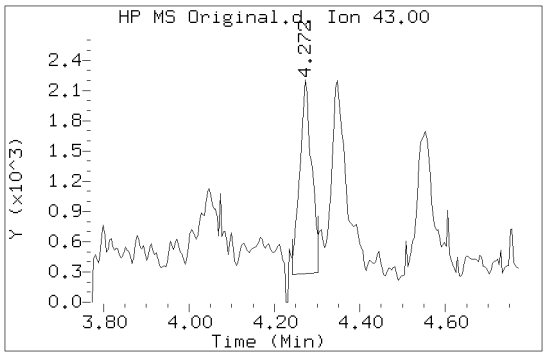


Ethyl Acetate (141-78-6)

Reason Code:

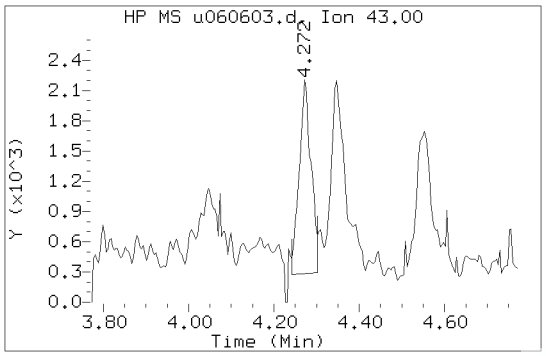
BEFORE

MASS
43
AREA
3781
HEIGHT
1922
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
3781
HEIGHT
1922
21-Jun-2023
13:47
linh
pha



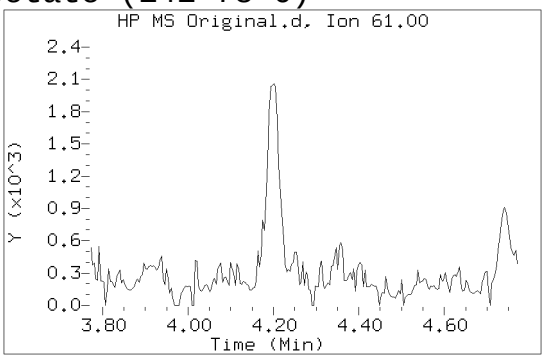
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Ethyl Acetate (141-78-6)

Reason Code:

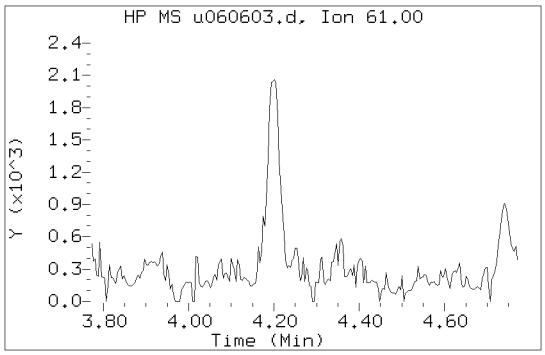
BEFORE

MASS
61
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



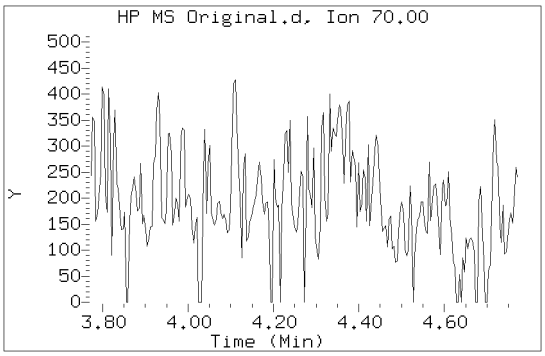
AFTER

MASS
61
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



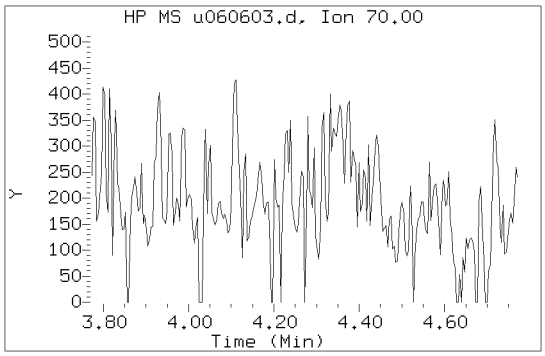
BEFORE

MASS
70
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

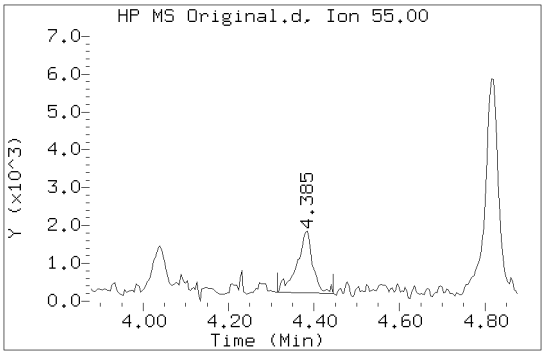


Methyl Acrylate (96-33-3)

Reason Code:

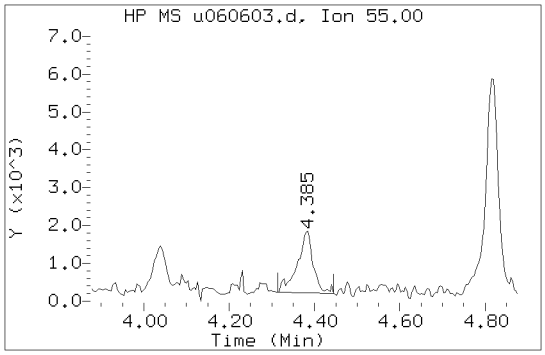
BEFORE

MASS
55
AREA
4302
HEIGHT
1632
08-Jun-2023
14:56
linh
pham



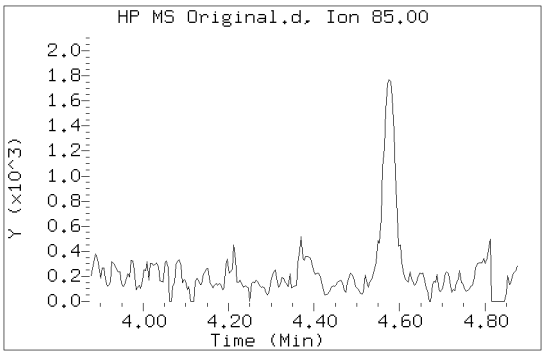
AFTER

MASS
55
AREA
4302
HEIGHT
1632
21-Jun-2023
13:47
linh
pha



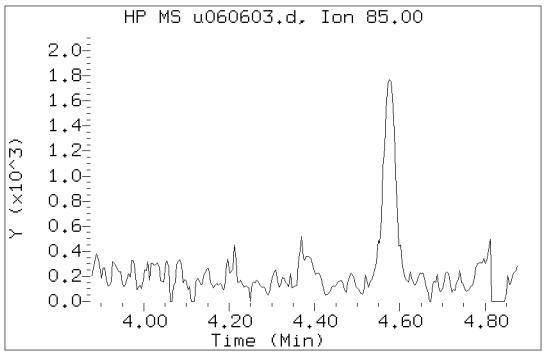
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

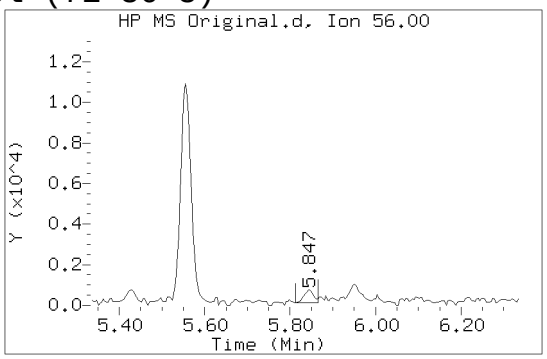


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

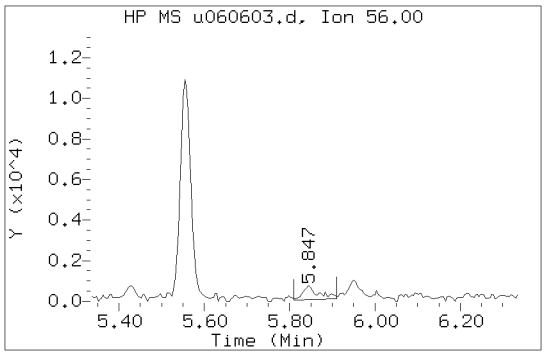
n-Butanol (71-36-3)

Reason Code:

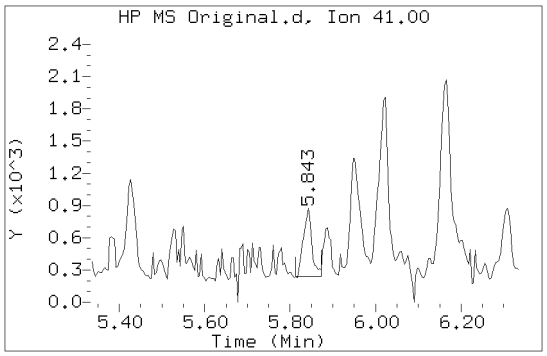
BEFORE
MASS
56
AREA
1032
HEIGHT
628
08-Jun-2023
14:56
linh
pham



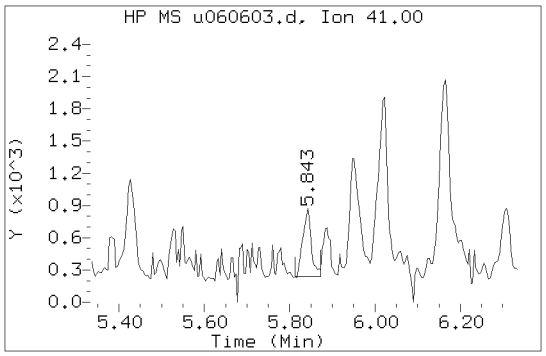
AFTER
MASS
56
AREA
1746
HEIGHT
662
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
41
AREA
903
HEIGHT
633
08-Jun-2023
14:56
linh
pham



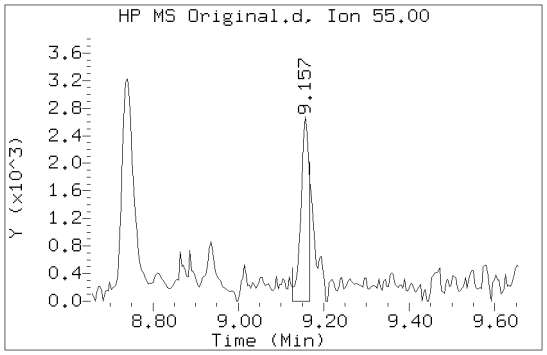
AFTER
MASS
41
AREA
903
HEIGHT
633
21-Jun-2023
13:47
linh
pha



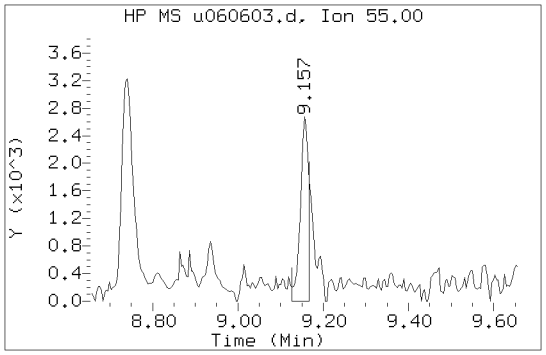
Cyclohexanone (108-94-1)

Reason Code:

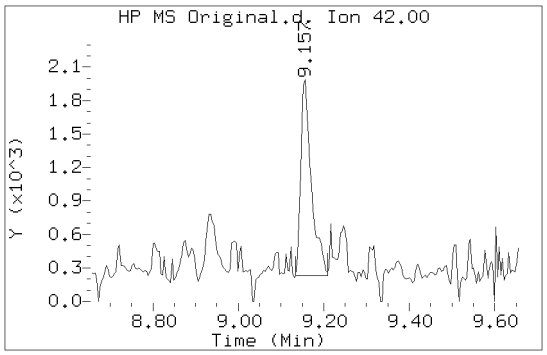
BEFORE
MASS
55
AREA
3642
HEIGHT
2680
08-Jun-2023
14:56
linh
pham



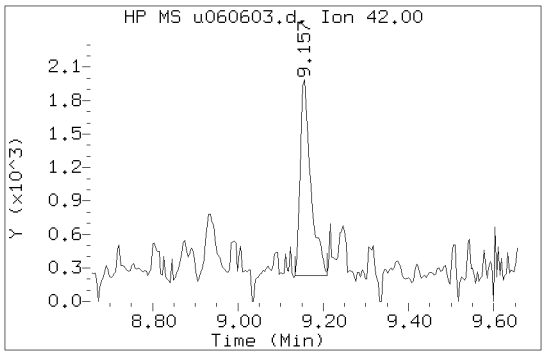
AFTER
MASS
55
AREA
3642
HEIGHT
2680
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
42
AREA
3088
HEIGHT
1757
08-Jun-2023
14:56
linh
pham



AFTER
MASS
42
AREA
3088
HEIGHT
1757
21-Jun-2023
13:47
linh
pha



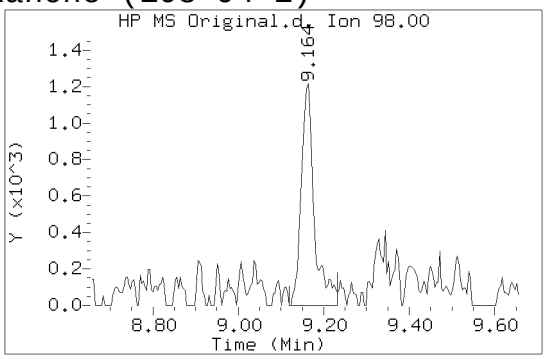
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Cyclohexanone (108-94-1)

Reason Code:

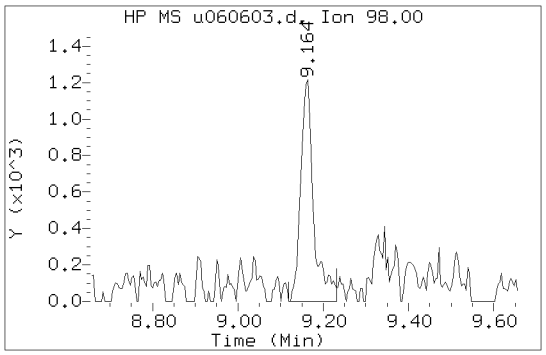
BEFORE

MASS
98
AREA
2606
HEIGHT
1216
08-Jun-2023
14:56
linh
pham



AFTER

MASS
98
AREA
2606
HEIGHT
1216
21-Jun-2023
13:47
linh
pha

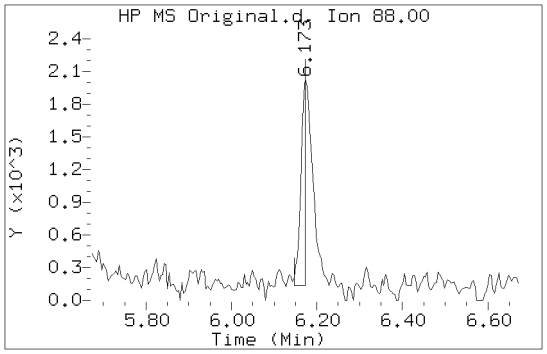


1,4-Dioxane ()

Reason Code:

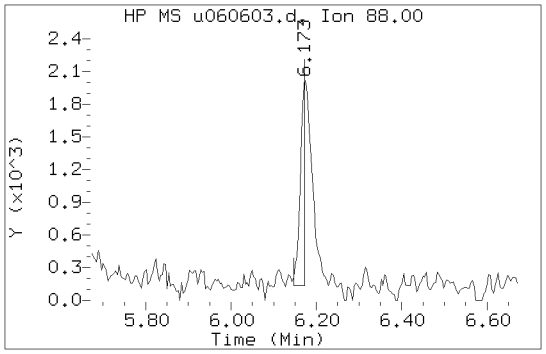
BEFORE

MASS
88
AREA
1567
HEIGHT
1901
08-Jun-2023
14:56
linh
pham



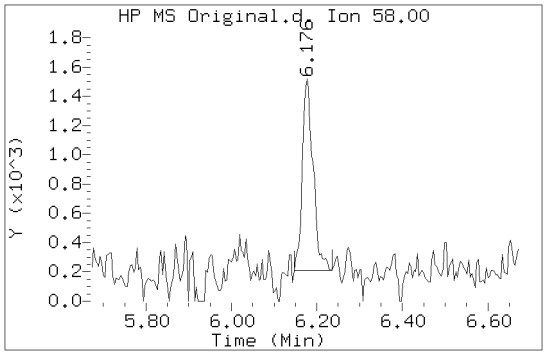
AFTER

MASS
88
AREA
1567
HEIGHT
1901
21-Jun-2023
13:47
linh
pha



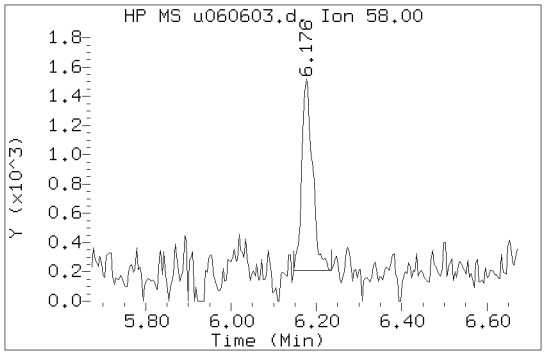
BEFORE

MASS
58
AREA
2344
HEIGHT
1308
08-Jun-2023
14:56
linh
pham



AFTER

MASS
58
AREA
2344
HEIGHT
1308
21-Jun-2023
13:47
linh
pha

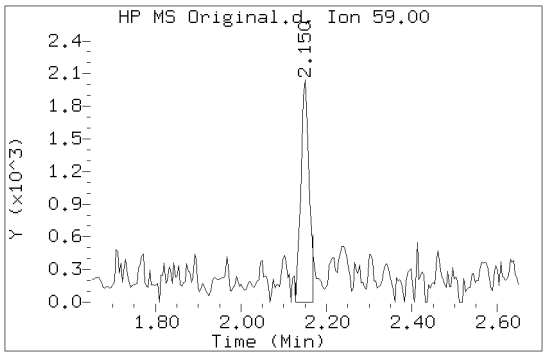


Diethyl ether (60-29-7)

Reason Code:

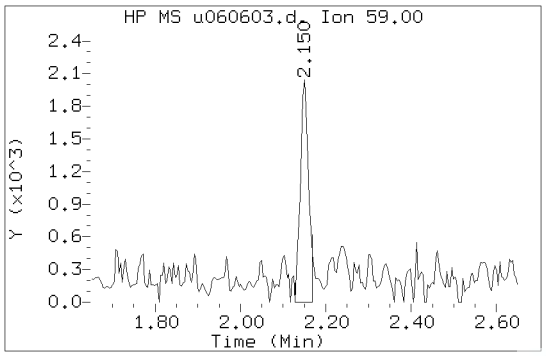
BEFORE

MASS
59
AREA
2812
HEIGHT
2042
08-Jun-2023
14:56
linh
pham



AFTER

MASS
59
AREA
2812
HEIGHT
2042
21-Jun-2023
13:47
linh
pha

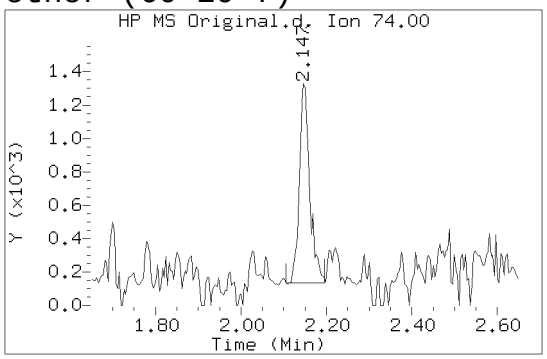


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

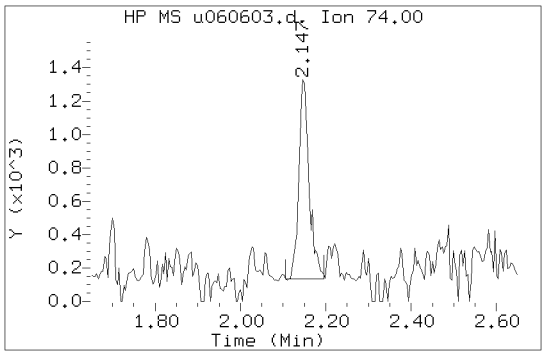
Diethyl ether (60-29-7)

Reason Code:

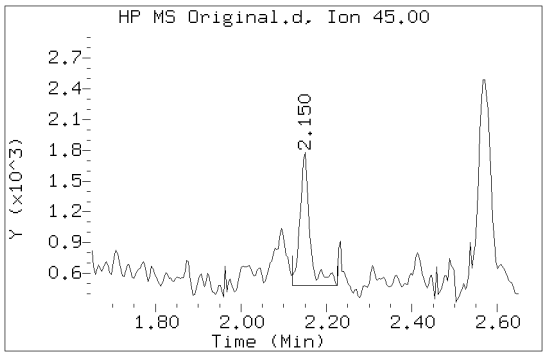
BEFORE
MASS
74
AREA
2051
HEIGHT
1194
08-Jun-2023
14:56
linh
pham



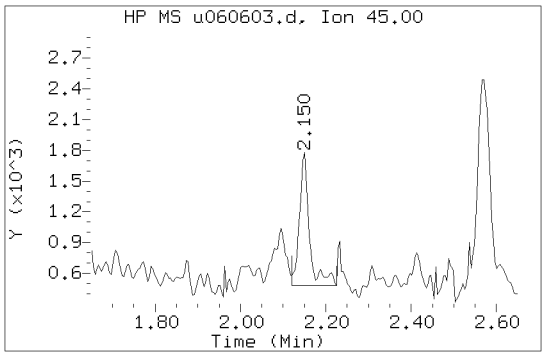
AFTER
MASS
74
AREA
2051
HEIGHT
1194
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
45
AREA
2149
HEIGHT
1297
08-Jun-2023
14:56
linh
pham



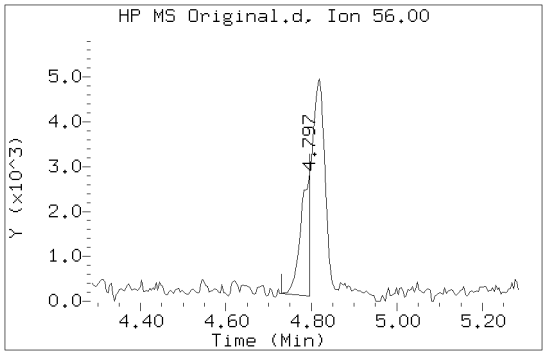
AFTER
MASS
45
AREA
2149
HEIGHT
1297
21-Jun-2023
13:47
linh
pha



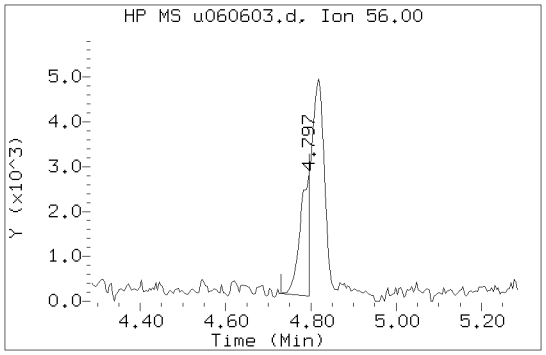
Cyclohexane (110-82-7)

Reason Code:

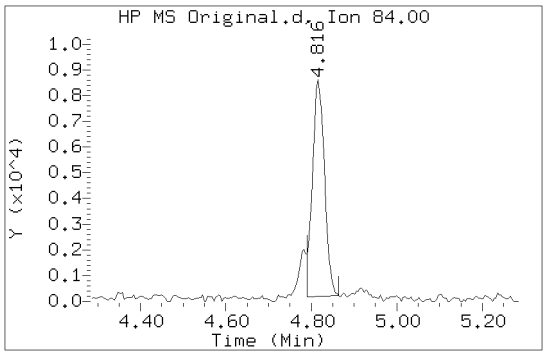
BEFORE
MASS
56
AREA
4345
HEIGHT
2735
08-Jun-2023
14:56
linh
pham



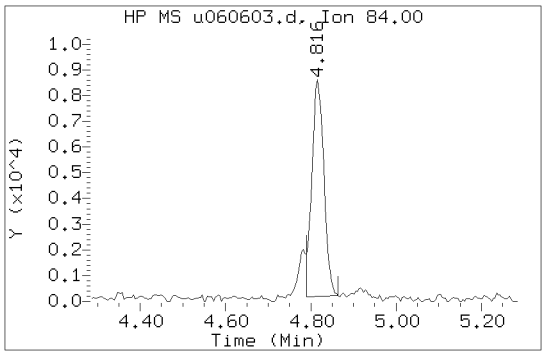
AFTER
MASS
56
AREA
4345
HEIGHT
2735
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
84
AREA
16696
HEIGHT
8414
08-Jun-2023
14:56
linh
pham

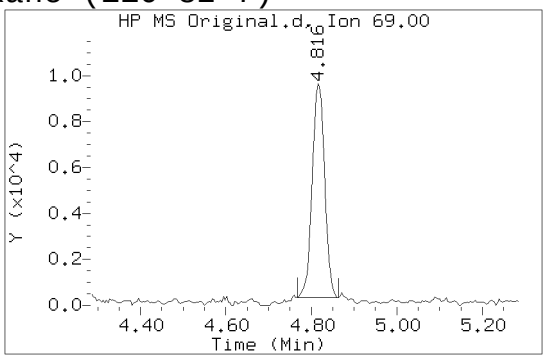


AFTER
MASS
84
AREA
16696
HEIGHT
8414
21-Jun-2023
13:47
linh
pha

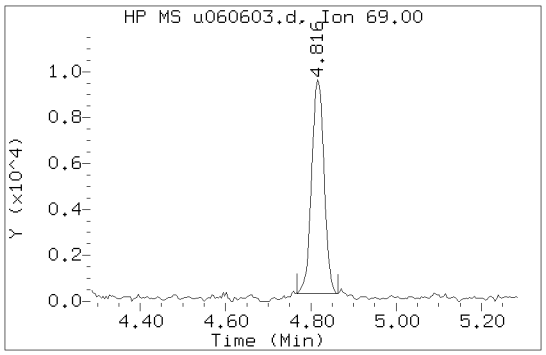


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Cyclohexane (110-82-7)



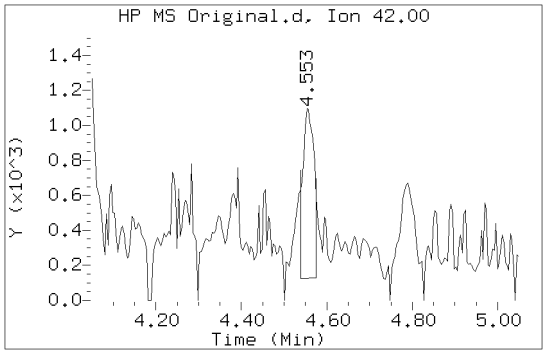
BEFORE
MASS
69
AREA
18963
HEIGHT
9317
08-Jun-2023
14:56
linh
pham



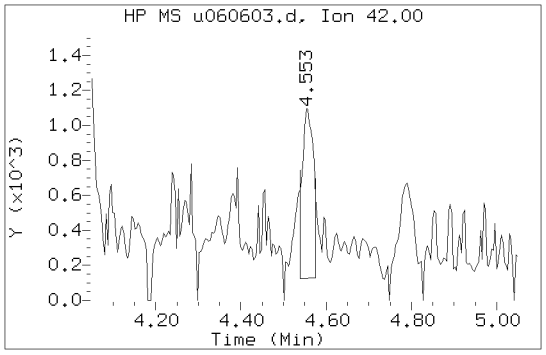
AFTER
MASS
69
AREA
18963
HEIGHT
9317
21-Jun-2023
13:47
linh
pha

Reason Code:

Tetrahydrofuran (109-99-9)

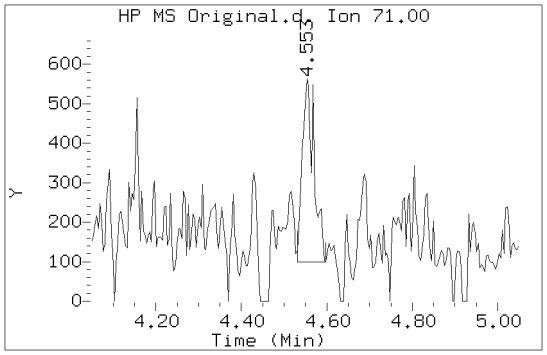


BEFORE
MASS
42
AREA
1846
HEIGHT
970
08-Jun-2023
14:56
linh
pham

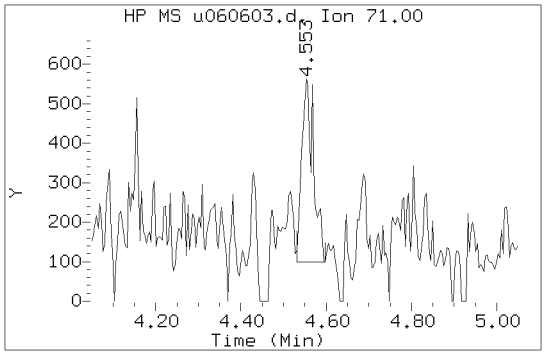


AFTER
MASS
42
AREA
1846
HEIGHT
970
21-Jun-2023
13:47
linh
pha

Reason Code:



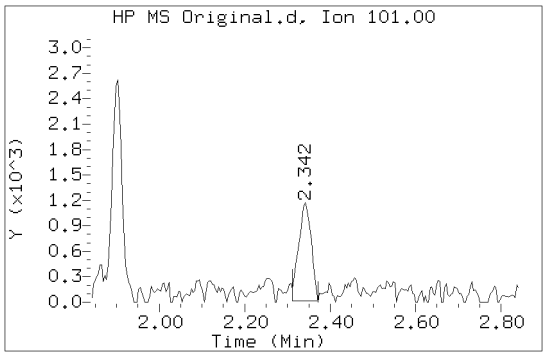
BEFORE
MASS
71
AREA
900
HEIGHT
464
08-Jun-2023
14:56
linh
pham



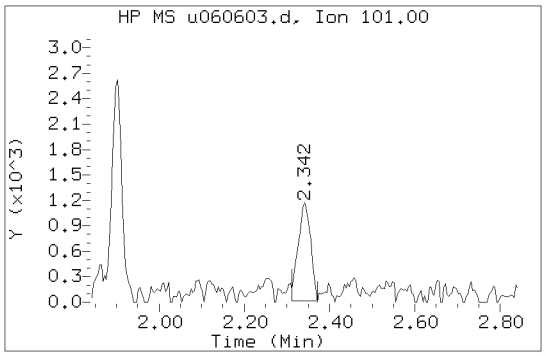
AFTER
MASS
71
AREA
900
HEIGHT
464
21-Jun-2023
13:47
linh
pha

Reason Code:

Freon TF (76-13-1)



BEFORE
MASS
101
AREA
2391
HEIGHT
1159
08-Jun-2023
14:56
linh
pham



AFTER
MASS
101
AREA
2391
HEIGHT
1159
21-Jun-2023
13:47
linh
pha

Reason Code:

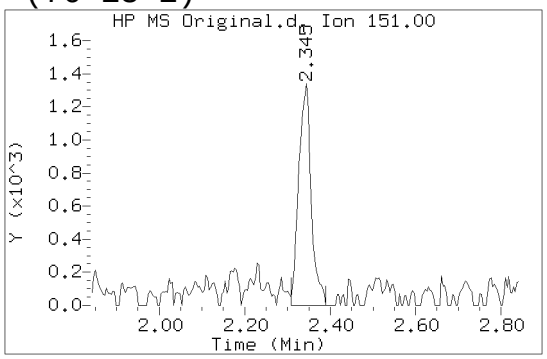
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Freon TF (76-13-1)

Reason Code:

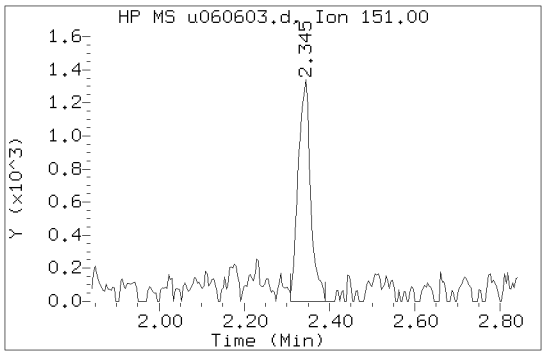
BEFORE

MASS
151
AREA
2754
HEIGHT
1340
08-Jun-2023
14:56
linh
pham



AFTER

MASS
151
AREA
2754
HEIGHT
1340
21-Jun-2023
13:47
linh
pha

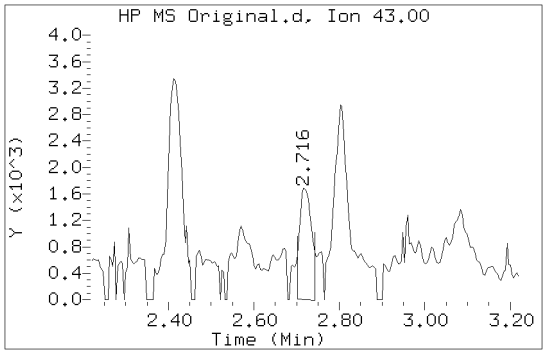


Methyl Acetate (79-20-9)

Reason Code:

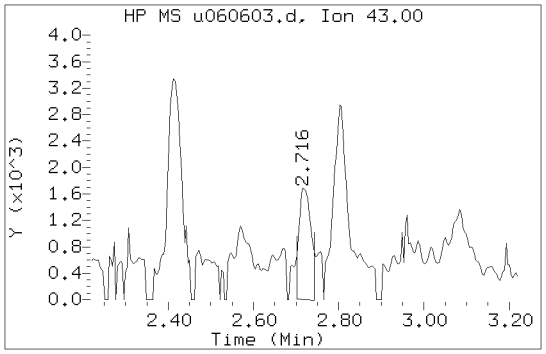
BEFORE

MASS
43
AREA
3375
HEIGHT
1684
08-Jun-2023
14:56
linh
pham



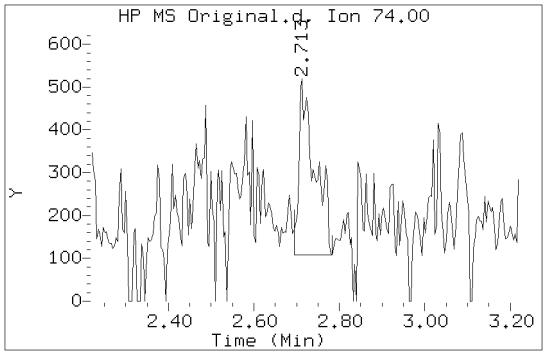
AFTER

MASS
43
AREA
3375
HEIGHT
1684
21-Jun-2023
13:47
linh
pha



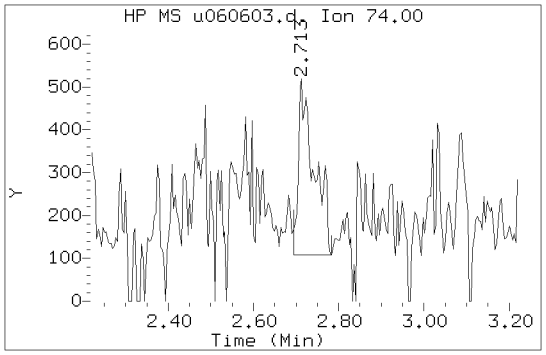
BEFORE

MASS
74
AREA
1069
HEIGHT
411
08-Jun-2023
14:56
linh
pham



AFTER

MASS
74
AREA
1069
HEIGHT
411
21-Jun-2023
13:47
linh
pha

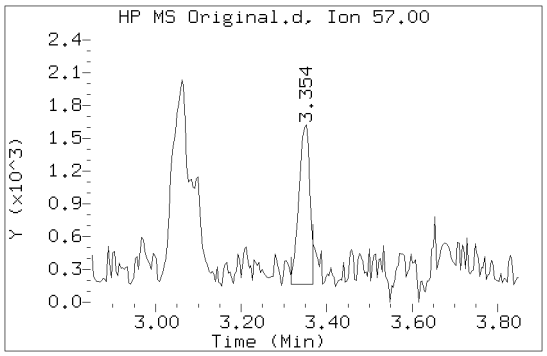


Allyl alcohol (107-18-6)

Reason Code:

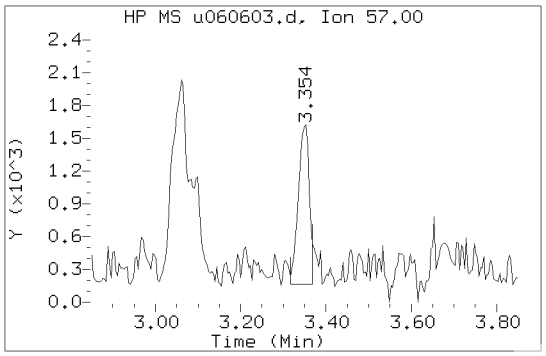
BEFORE

MASS
57
AREA
2691
HEIGHT
1461
08-Jun-2023
14:56
linh
pham



AFTER

MASS
57
AREA
2691
HEIGHT
1461
21-Jun-2023
13:47
linh
pha

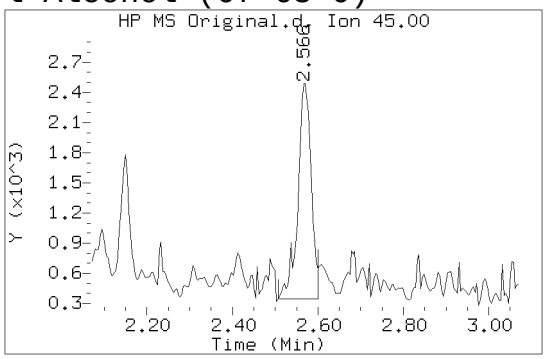


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

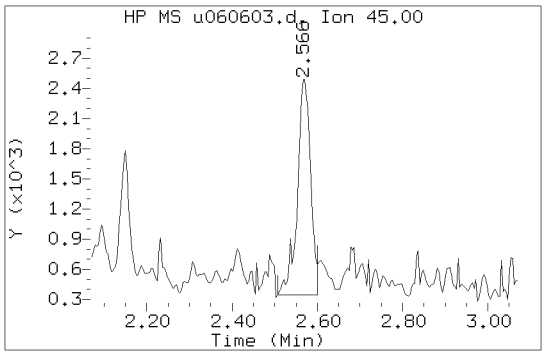
Isopropyl Alcohol (67-63-0)

Reason Code:

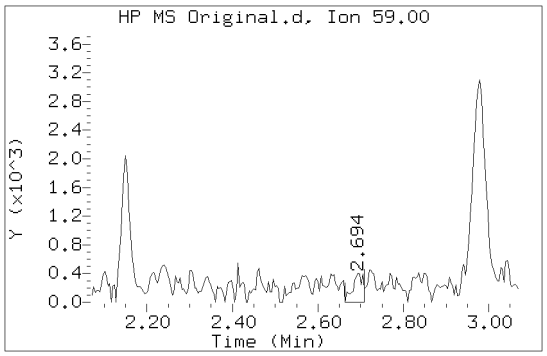
BEFORE
MASS
45
AREA
4735
HEIGHT
2141
08-Jun-2023
14:56
linh
pham



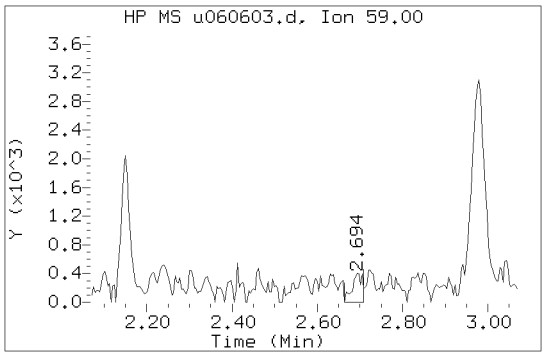
AFTER
MASS
45
AREA
4735
HEIGHT
2141
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
59
AREA
670
HEIGHT
403
08-Jun-2023
14:56
linh
pham



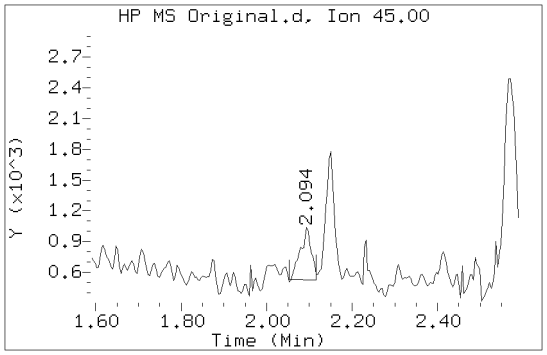
AFTER
MASS
59
AREA
670
HEIGHT
403
21-Jun-2023
13:47
linh
pha



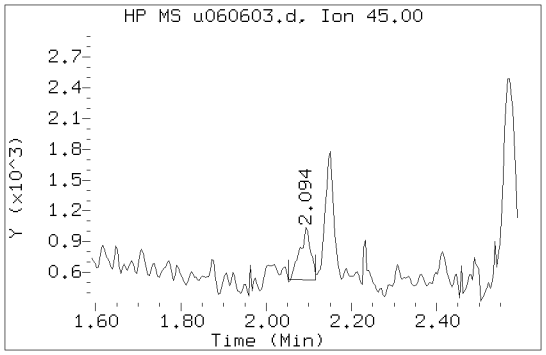
Ethanol (64-17-5)

Reason Code:

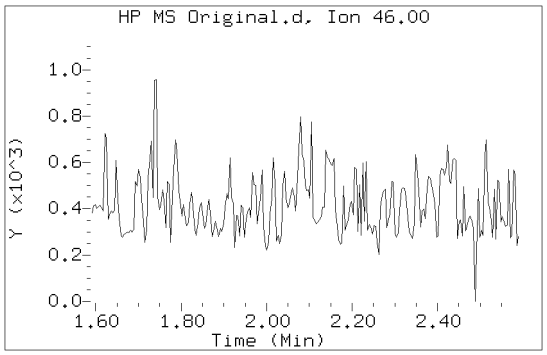
BEFORE
MASS
45
AREA
929
HEIGHT
515
08-Jun-2023
14:56
linh
pham



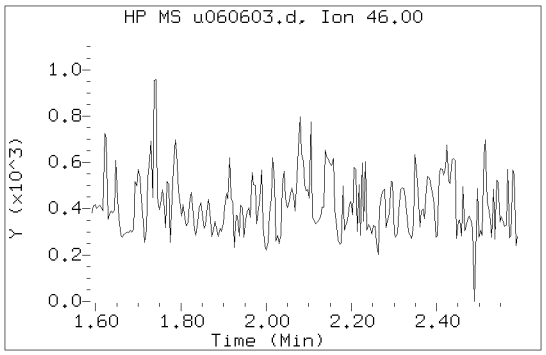
AFTER
MASS
45
AREA
929
HEIGHT
515
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
46
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER
MASS
46
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



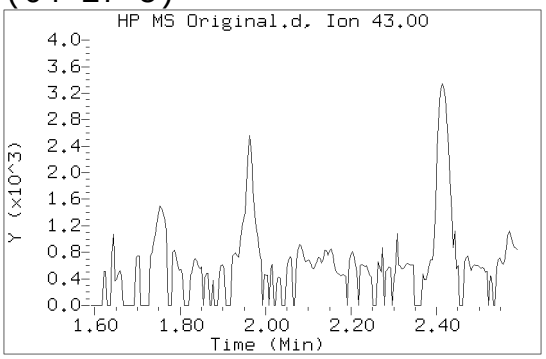
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Ethanol (64-17-5)

Reason Code:

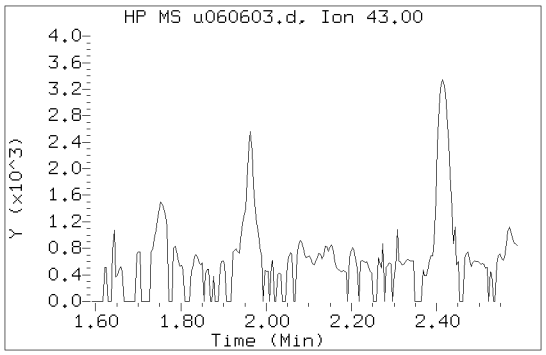
BEFORE

MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

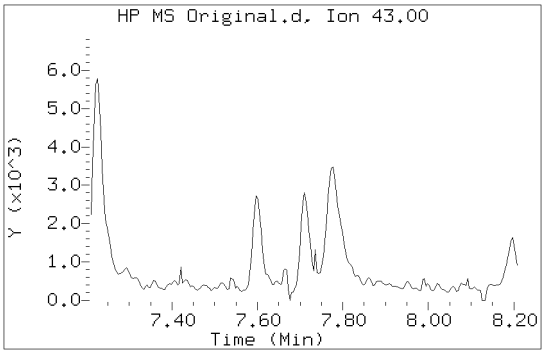


n-Butyl acetate (123-86-4)

Reason Code:

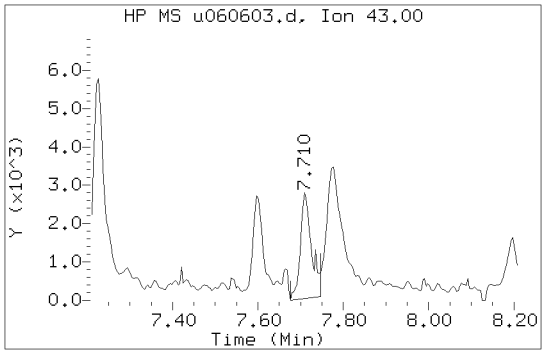
BEFORE

MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



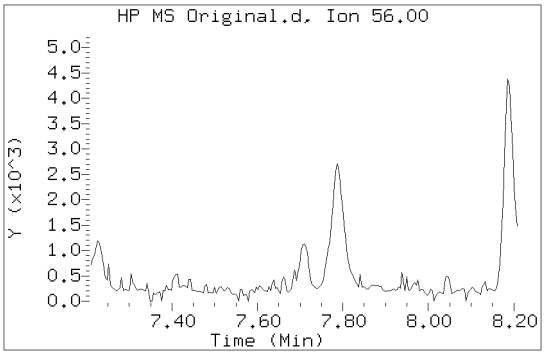
AFTER

MASS
43
AREA
5135
HEIGHT
2763
21-Jun-2023
13:47
linh
pha



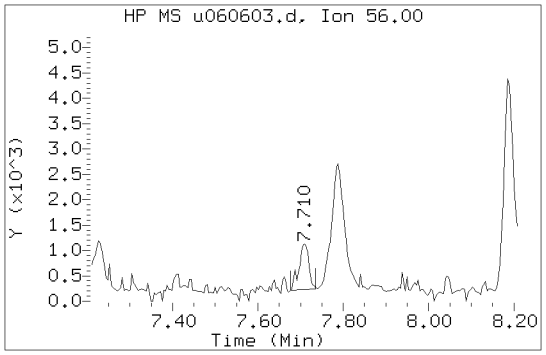
BEFORE

MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



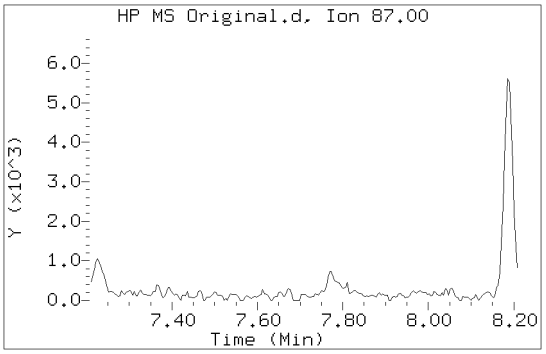
AFTER

MASS
56
AREA
1504
HEIGHT
896
21-Jun-2023
13:47
linh
pha



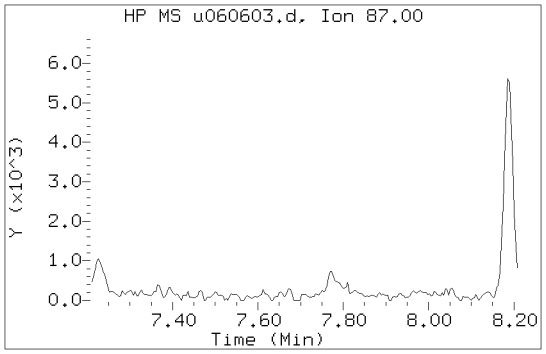
BEFORE

MASS
87
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
87
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



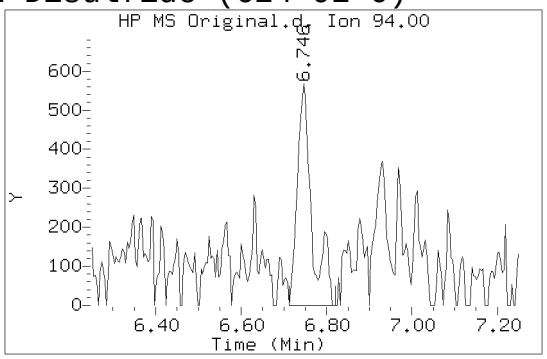
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Dimethyl Disulfide (624-92-0)

Reason Code:

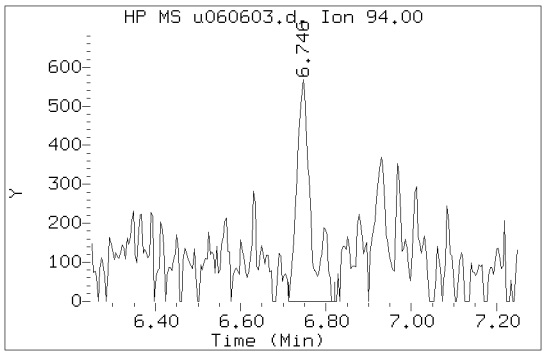
BEFORE

MASS
94
AREA
1341
HEIGHT
568
08-Jun-2023
14:56
linh
pham



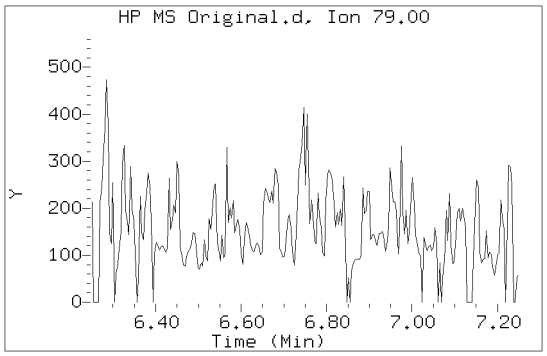
AFTER

MASS
94
AREA
1341
HEIGHT
568
21-Jun-2023
13:47
linh
pha



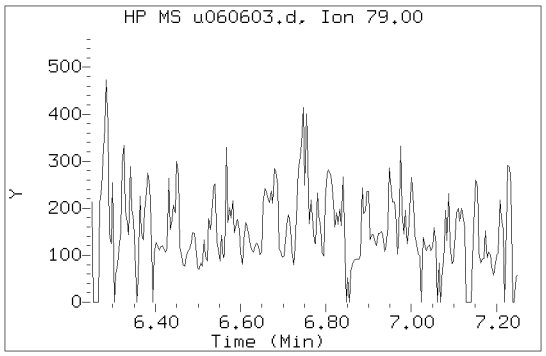
BEFORE

MASS
79
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



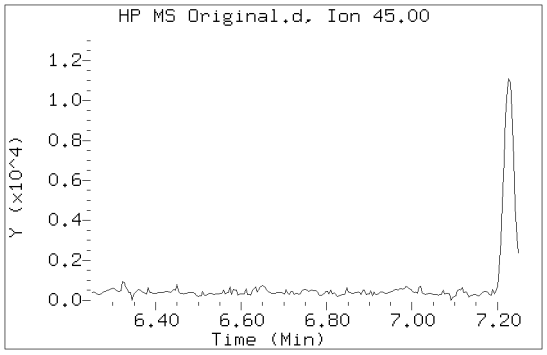
AFTER

MASS
79
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



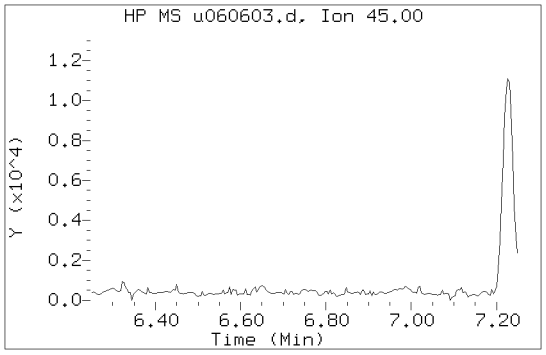
BEFORE

MASS
45
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
45
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

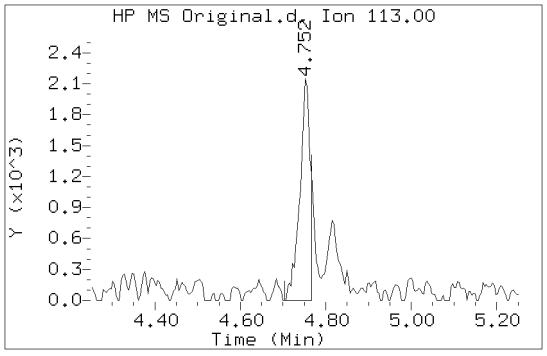


Dibromofluoromethane (1868-53-7)

Reason Code:

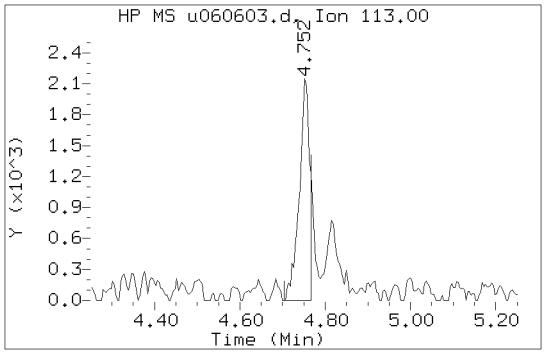
BEFORE

MASS
113
AREA
3644
HEIGHT
2149
08-Jun-2023
14:56
linh
pham



AFTER

MASS
113
AREA
3644
HEIGHT
2149
21-Jun-2023
13:47
linh
pha



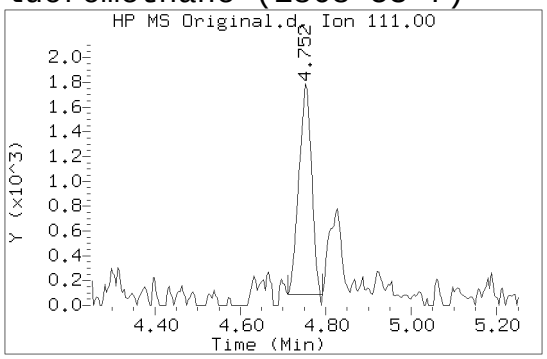
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

Dibromofluoromethane (1868-53-7)

Reason Code:

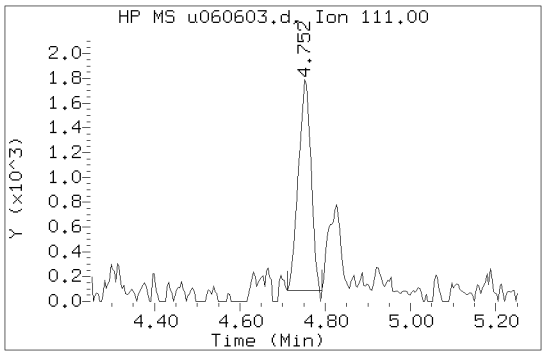
BEFORE

MASS
111
AREA
3541
HEIGHT
1703
08-Jun-2023
14:56
linh
pham



AFTER

MASS
111
AREA
3541
HEIGHT
1703
21-Jun-2023
13:47
linh
pha

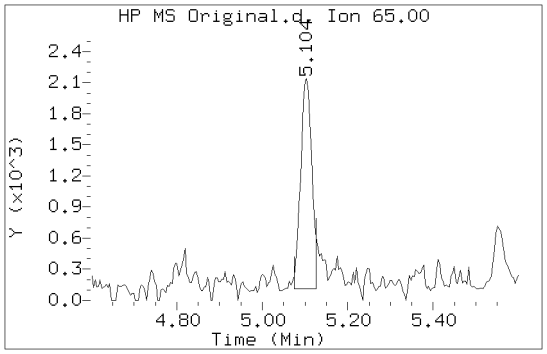


1,2-Dichloroethane-d4 (17060-07-0)

Reason Code:

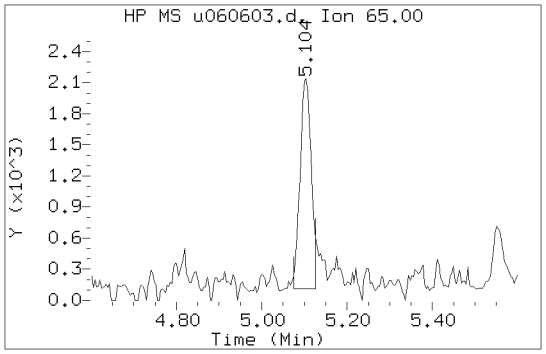
BEFORE

MASS
65
AREA
3795
HEIGHT
2029
08-Jun-2023
14:56
linh
pham



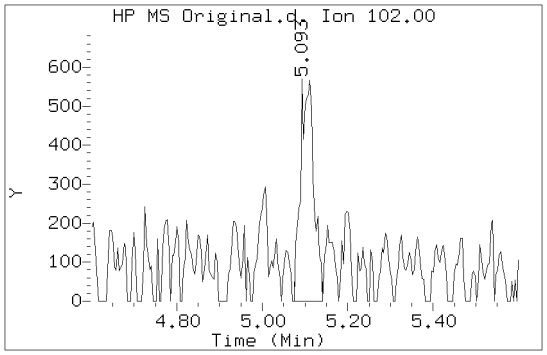
AFTER

MASS
65
AREA
3795
HEIGHT
2029
21-Jun-2023
13:47
linh
pha



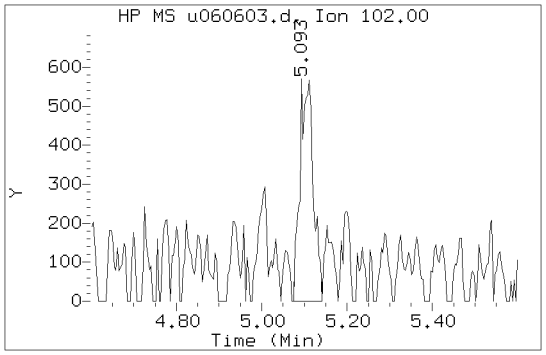
BEFORE

MASS
102
AREA
1254
HEIGHT
570
08-Jun-2023
14:56
linh
pham



AFTER

MASS
102
AREA
1254
HEIGHT
570
21-Jun-2023
13:47
linh
pha

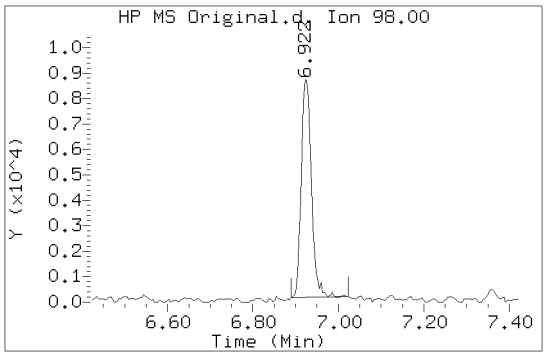


Toluene-d8 (2037-26-5)

Reason Code:

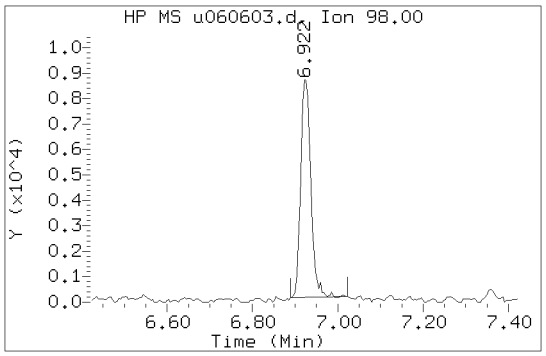
BEFORE

MASS
98
AREA
14408
HEIGHT
8549
08-Jun-2023
14:56
linh
pham



AFTER

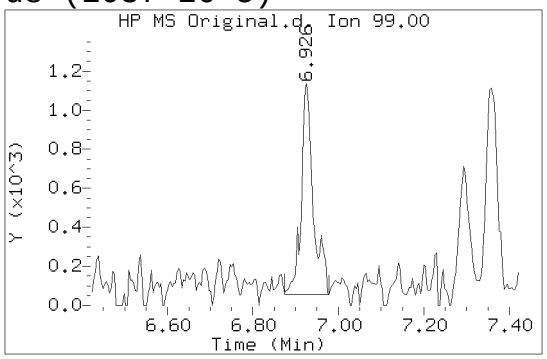
MASS
98
AREA
14408
HEIGHT
8549
21-Jun-2023
13:47
linh
pha



Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

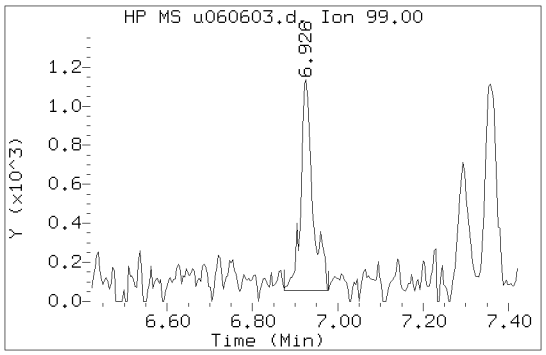
Toluene-d8 (2037-26-5)

BEFORE
MASS
99
AREA
2122
HEIGHT
1080
08-Jun-2023
14:56
linh
pham

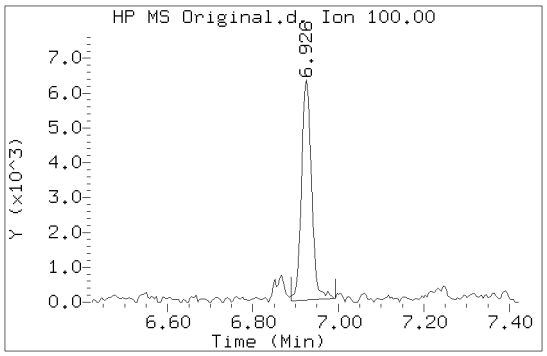


Reason Code:

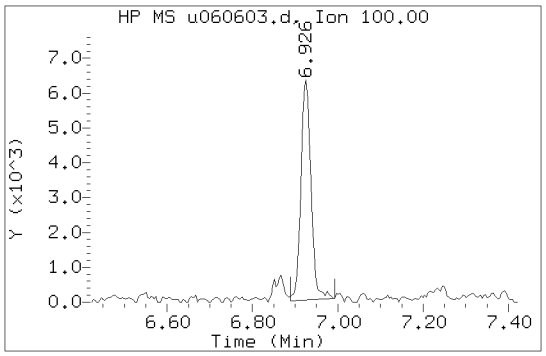
AFTER
MASS
99
AREA
2122
HEIGHT
1080
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
100
AREA
10558
HEIGHT
6311
08-Jun-2023
14:56
linh
pham

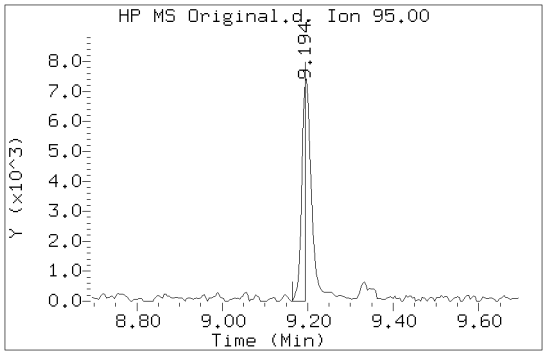


AFTER
MASS
100
AREA
10558
HEIGHT
6311
21-Jun-2023
13:47
linh
pha



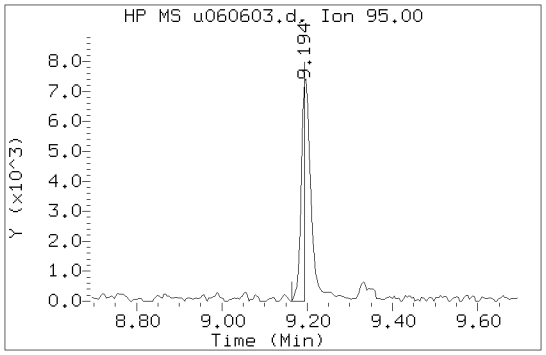
4-Bromofluorobenzene (460-00-4)

BEFORE
MASS
95
AREA
5007
HEIGHT
7327
08-Jun-2023
14:56
linh
pham

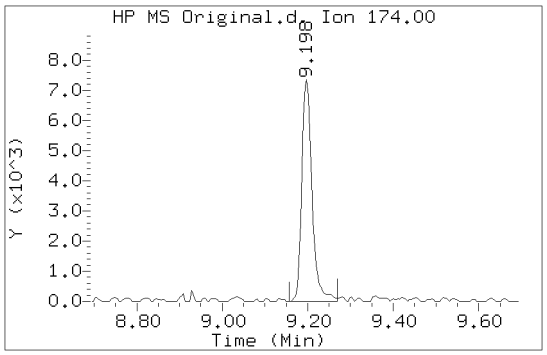


Reason Code:

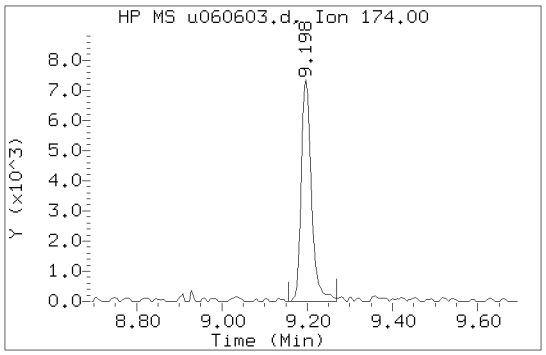
AFTER
MASS
95
AREA
5007
HEIGHT
7327
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
174
AREA
12552
HEIGHT
7353
08-Jun-2023
14:56
linh
pham



AFTER
MASS
174
AREA
12552
HEIGHT
7353
21-Jun-2023
13:47
linh
pha



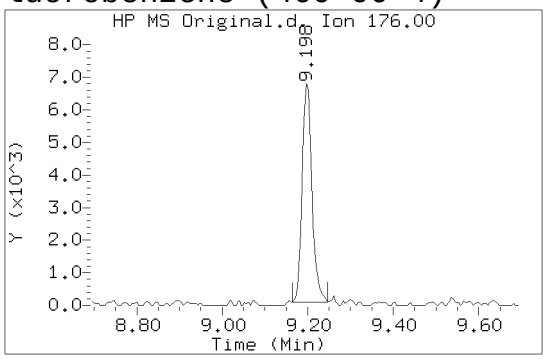
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060603.d
Inj Date : 06-JUN-2023 11:37
InstruID : VOA9.i
LabSampID : VSTD000.5

4-Bromofluorobenzene (460-00-4)

Reason Code:

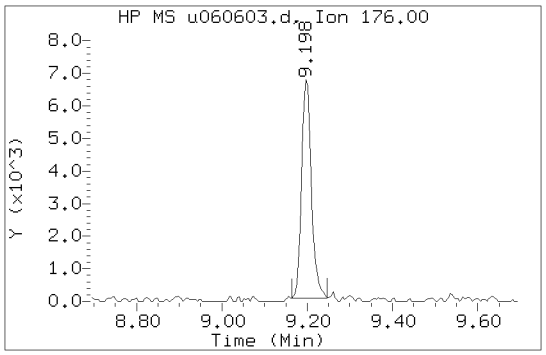
BEFORE

MASS
176
AREA
10910
HEIGHT
6707
08-Jun-2023
14:56
linh
pham



AFTER

MASS
176
AREA
10910
HEIGHT
6707
21-Jun-2023
13:47
linh
pha



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060606.D Page 1
Report Date: 21-Jun-2023 13:47

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060606.D
Lab Smp Id: VSTD005 Client Smp ID: VSTD005
Inj Date : 06-JUN-2023 13:06
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\U230606.b\8260C.m
Meth Date : 21-Jun-2023 13:45 pcabasca Quant Type: ISTD
Cal Date : 06-JUN-2023 13:06 Cal File: U060606.D
Als bottle: 7 Calibration Sample, Level: 5
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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.811	4.811	(1.000)	661055	50.0000	
2 Dichlorodifluoromethane	85	1.156	1.156	(0.240)	31172	5.00000	5.17
3 Chloromethane	50	1.287	1.287	(0.268)	62455	5.00000	5.08
5 Vinyl Chloride	62	1.370	1.370	(0.285)	36493	5.00000	5.21
6 Bromomethane	94	1.613	1.613	(0.335)	23995	5.00000	5.08
7 Chloroethane	64	1.692	1.692	(0.352)	23603	5.00000	5.01
8 Trichlorofluoromethane	101	1.887	1.887	(0.392)	41967	5.00000	5.22
9 Acrolein	56	2.258	2.258	(0.469)	3393	10.0000	9.67(aM)
10 Acetone	43	2.401	2.401	(0.499)	31915	10.0000	9.15
11 1,1-Dichloroethene	96	2.326	2.326	(0.483)	25586	5.00000	5.09
15 Iodomethane	142	2.461	2.461	(0.512)	10875	10.0000	12.46(M)
16 Acrylonitrile	53	3.060	3.060	(0.636)	26401	10.0000	10.76
17 Methylene Chloride	84	2.787	2.787	(0.579)	34262	5.00000	4.77(a)
18 Methyl tert-butyl ether	73	3.075	3.075	(0.639)	77272	5.00000	5.02
19 Carbon Disulfide	76	2.513	2.513	(0.522)	137840	10.0000	10.27
20 trans-1,2-Dichloroethene	96	3.049	3.049	(0.634)	27553	5.00000	5.04
21 Vinyl Acetate	43	3.604	3.604	(0.749)	174288	10.0000	10.47
22 1,1-Dichloroethane	63	3.507	3.507	(0.729)	52777	5.00000	5.08
24 2-Butanone	43	4.264	4.264	(0.886)	29852	10.0000	9.90
26 2,2-Dichloropropane	77	4.174	4.174	(0.868)	33762	5.00000	5.28
27 cis-1,2-Dichloroethene	96	4.189	4.189	(0.871)	34046	5.00000	5.21

28	Chloroform	83	4.567	4.567 (0.949)	56388	5.00000	5.22
29	Bromochloromethane	128	4.462	4.462 (0.928)	18916	5.00000	5.17

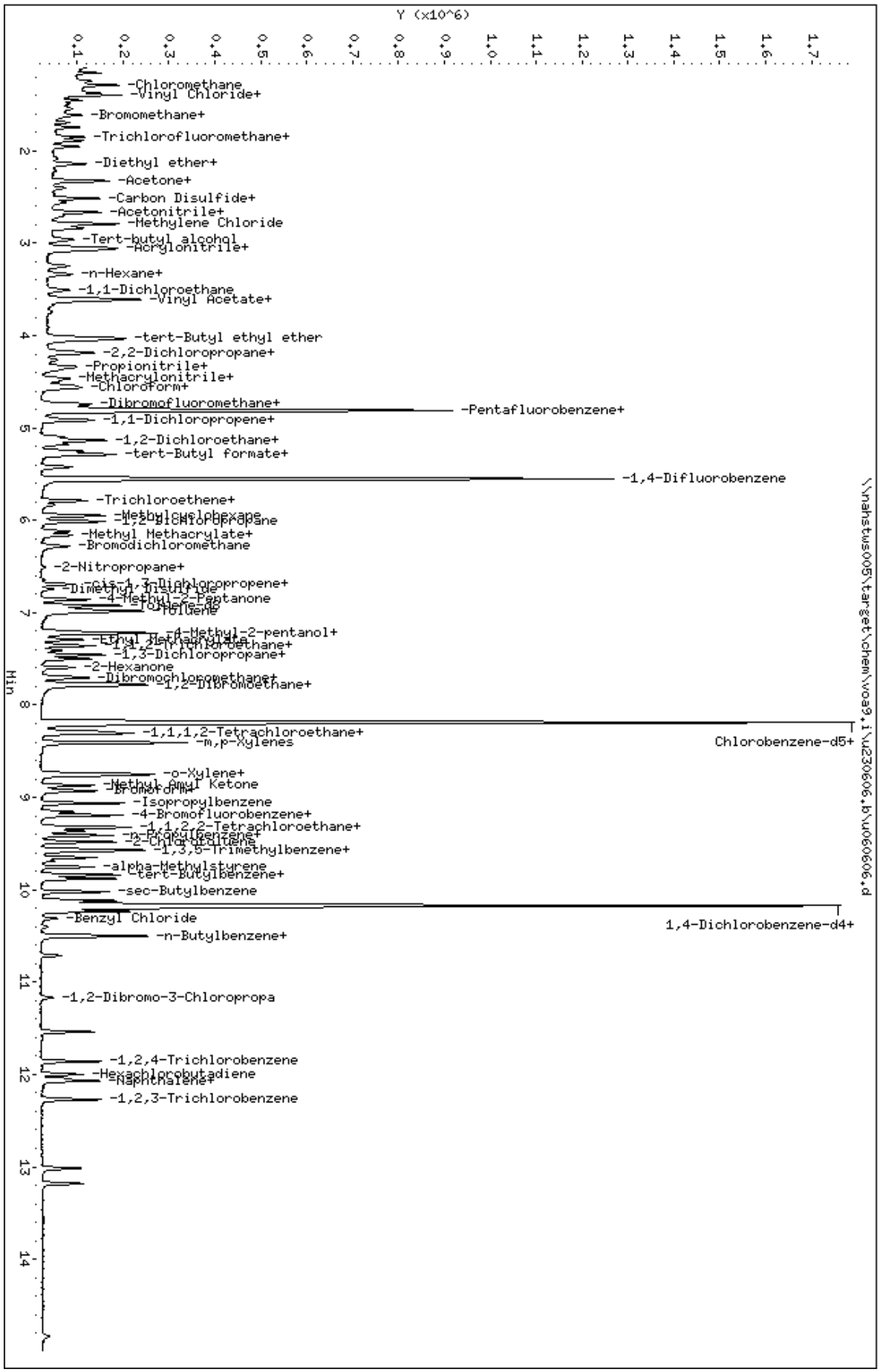
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
$	30 Dibromofluoromethane	113	4.744	4.744	(0.986)	30229	5.00000	5.16
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.985)	40381	5.00000	4.90(a)
	32 1,1-Dichloropropene	75	4.920	4.920	(0.887)	35687	5.00000	4.94(a)
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	44658	5.00000	5.23
	34 Carbon Tetrachloride	117	4.909	4.909	(0.885)	30773	5.00000	4.63(a)
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	34153	5.00000	5.08
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	985343	50.0000	
	37 Benzene	78	5.137	5.137	(0.926)	124450	5.00000	5.24
	38 Trichloroethene	130	5.786	5.786	(1.043)	36191	5.00000	5.25
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	36599	5.00000	4.94(a)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.083)	32316	5.00000	5.09
	44 Dibromomethane	93	6.119	6.119	(1.103)	20983	5.00000	5.18
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	69130	10.0000	10.20
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.206)	37734	5.00000	5.56
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	930383	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	106553	5.00000	5.06(M)
	50 Toluene	91	6.982	6.982	(0.853)	128415	5.00000	5.08
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.297)	31811	5.00000	5.68(M)
	52 2-Hexanone	43	7.593	7.593	(0.928)	46135	10.0000	9.77
	53 1,1,2-Trichloroethane	83	7.356	7.356	(0.899)	27005	5.00000	5.14
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	55865	5.00000	5.20
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	28715	5.00000	4.60(a)
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	31033	5.00000	5.04
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	31859	5.00000	4.91(a)
	58 1-Chlorohexane	55	8.196	8.196	(1.477)	23998	5.00000	4.74(aM)
	59 Chlorobenzene	112	8.211	8.211	(1.003)	93304	5.00000	5.18
	60 1,1,1,2-Tetrachloroethane	131	8.282	8.282	(1.012)	29452	5.00000	4.75(a)
	61 Ethylbenzene	106	8.305	8.305	(1.015)	40417	5.00000	4.82(a)
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	87802	10.0000	8.85(a)
	63 o-Xylene	106	8.747	8.747	(1.069)	45979	5.00000	4.69(a)
	64 Styrene	104	8.762	8.762	(1.071)	64961	5.00000	4.17(a)
	66 Bromoform	173	8.920	8.920	(1.090)	18587	5.00000	4.42(a)
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	111398	5.00000	4.73(a)
	68 1,1,2,2-Tetrachloroethane	83	9.328	9.328	(0.917)	44946	5.00000	5.11
$	69 4-Bromofluorobenzene	95	9.193	9.193	(1.123)	49215	5.00000	5.13
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	467357	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	38304	5.00000	4.95(a)
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	110045	5.00000	4.48(a)
	74 Bromobenzene	156	9.317	9.317	(0.916)	38901	5.00000	4.93(a)
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	78874	5.00000	4.68(a)
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	85816	5.00000	4.97(a)
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	94195	5.00000	4.93(a)
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	79517	5.00000	4.81(a)
	79 1,2,4-Trimethylbenzene	105	9.879	9.879	(0.971)	85616	5.00000	4.86(a)
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	96016	5.00000	4.58(a)
	82 p-Isopropyltoluene	119	10.145	10.145	(0.997)	79695	5.00000	4.54(a)
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	67753	5.00000	5.05
	84 1,4-Dichlorobenzene	146	10.190	10.190	(1.002)	73343	5.00000	5.13
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	70944	5.00000	4.72(a)
	88 1,2-Dichlorobenzene	146	10.505	10.505	(1.033)	65904	5.00000	4.90(a)
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	5840	5.00000	4.55(a)
	90 1,2,4-Trichlorobenzene	180	11.859	11.859	(1.166)	42718	5.00000	4.62(a)

92 Naphthalene	128	12.069	12.069 (1.186)	95946	5.00000	4.47(a)
93 1,2,3-Trichlorobenzene	180	12.271	12.271 (1.206)	42734	5.00000	4.73(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 94 1,2-Dichloroethylene (total)	96				61599	10.0000	10.26
M 95 Xylenes (total)	106				133781	15.0000	13.54(a)
135 1,4-Dioxane	88	6.172	6.172	(1.283)	12691	100.000	96.68(a)
141 Cyclohexane	56	4.777	4.777	(0.993)	37840	5.00000	4.93(aM)
138 Freon TF	101	2.326	2.326	(0.483)	23128	5.00000	5.20
140 1,3-Butadiene	54	1.396	1.396	(0.290)	32480	5.00000	5.18
147 Methylcyclohexane	55	5.947	5.947	(1.072)	68659	5.00000	5.02
146 Methyl Acetate	43	2.708	2.708	(0.563)	27090	5.00000	4.86(a)
148 Tert-Butyl alcohol	59	2.963	2.963	(0.616)	66425	100.000	104.33
149 Isopropyl Alcohol	45	2.558	2.558	(0.532)	41674	100.000	96.43
72 trans-1,4-Dichloro-2-butene	53	9.381	9.381	(1.146)	5142	5.00000	4.79(M)
12 Isobutyl Alcohol	43	5.287	5.287	(1.099)	83135	100.000	96.79(M)
13 Acetonitrile	39	2.663	2.663	(0.554)	35522	50.0000	49.63
14 Allyl Chloride	41	2.667	2.667	(0.554)	87674	5.00000	5.10
25 Methacrylonitrile	41	4.492	4.492	(0.934)	18250	5.00000	4.67
40 Methyl Methacrylate	41	6.157	6.157	(1.280)	26729	5.00000	4.70
4 Propionitrile	54	4.335	4.335	(0.901)	49866	50.0000	52.20(a)
136 n-Hexane	57	3.334	3.334	(0.693)	28289	5.00000	5.36
194 Acetaldehyde	44	1.452	1.452	(0.302)	14773	20.0000	16.20(M)
131 Methyl Acrylate	55	4.369	4.369	(0.908)	32767	5.00000	4.68(aM)
200 Dimethyl Disulfide	94	6.742	6.742	(0.824)	15263	5.00000	6.61(M)
23 Chloroprene	53	2.150	2.150	(0.447)	9849	5.00000	4.67(aM)
49 Ethyl Methacrylate	69	7.293	7.293	(1.314)	44828	5.00000	5.18
166 1,2,3-Trimethylbenzene	105	10.235	10.235	(1.006)	96136	5.00000	5.35
167 Ethanol	45	2.075	2.075	(0.431)	9968	100.000	100.77
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	115572	5.00000	5.06
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	33946	5.00000	7.13
142 Tetrahydrofuran	42	4.541	4.541	(0.944)	13490	10.0000	9.46
156 Diisopropyl ether	45	3.615	3.615	(0.751)	94647	5.00000	5.13
151 4-Methyl-2-pentanol	45	7.222	7.222	(1.301)	137040	100.000	93.52
150 Allyl alcohol	57	3.334	3.334	(0.693)	27611	100.000	105.45(M)
86 Benzyl Chloride	91	10.310	10.310	(1.260)	22092	5.00000	7.16
162 Butyl acrylate	55	8.736	8.736	(1.067)	52526	5.00000	4.77(a)
139 Diethyl ether	59	2.135	2.135	(0.444)	23079	5.00000	5.16
203 2-Ethylhexyl Acrylate	55	12.042	12.042	(1.184)	19373	5.00000	6.09
134 Cyclohexanone	55	9.156	9.156	(0.900)	28189	100.000	97.28(a)
130 Ethyl Acetate	43	4.264	4.264	(0.886)	29376	5.00000	4.97(aM)
189 n-Butyl acetate	43	7.709	7.709	(0.942)	50116	5.00000	4.73(aM)
182 Epichlorohydrin	57	6.629	6.629	(1.195)	2028	20.0000	31.12(M)
132 n-Butanol	56	5.831	5.831	(1.212)	16483	100.000	86.46(a)

QC Flag Legend

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



Data File: \\nahstws005\target\chem\voa9,i\u230606,b\u060606,d
Date : 06-JUN-2023 13:06
Client ID: VSTD005
Sample Info: VSTD005;VSTD005;1;5;
Purge Volume: 5.0
Column phase: DB624

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

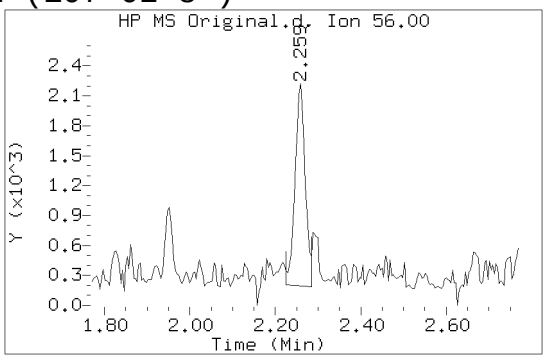
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060606.d
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Acrolein (107-02-8)

Reason Code:

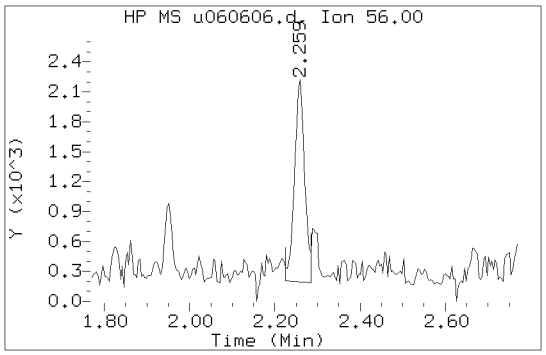
BEFORE

MASS
56
AREA
3393
HEIGHT
2027
08-Jun-2023
14:56
linh
pham



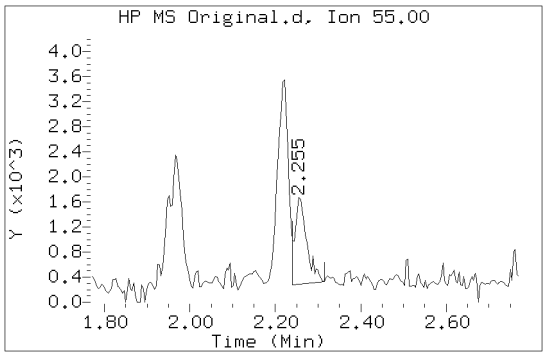
AFTER

MASS
56
AREA
3393
HEIGHT
2027
21-Jun-2023
13:47
linh
pha



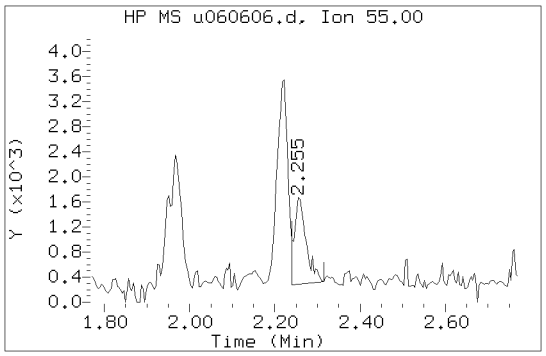
BEFORE

MASS
55
AREA
2699
HEIGHT
1383
08-Jun-2023
14:56
linh
pham



AFTER

MASS
55
AREA
2699
HEIGHT
1383
21-Jun-2023
13:47
linh
pha

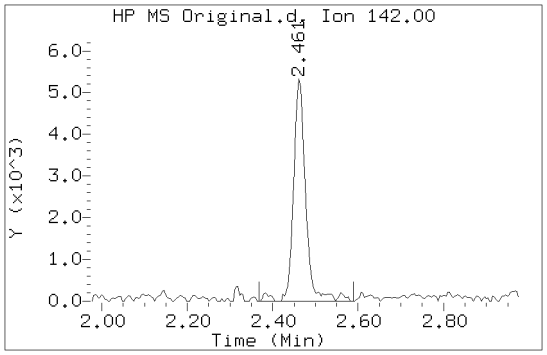


Iodomethane (74-88-4)

Reason Code:

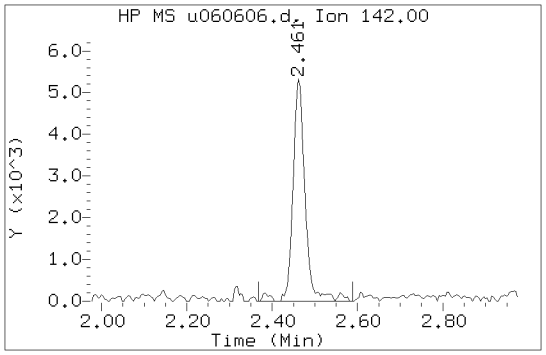
BEFORE

MASS
142
AREA
10875
HEIGHT
5328
08-Jun-2023
14:56
linh
pham



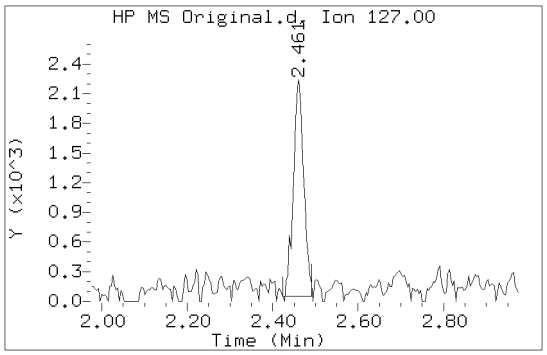
AFTER

MASS
142
AREA
10875
HEIGHT
5328
21-Jun-2023
13:47
linh
pha



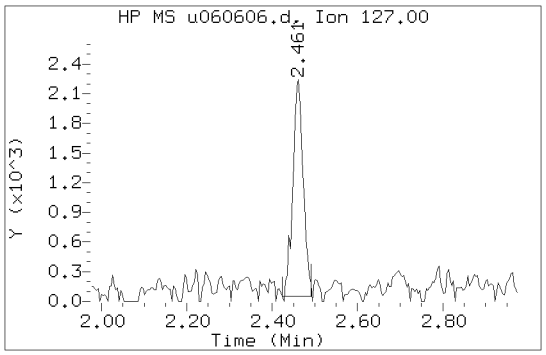
BEFORE

MASS
127
AREA
3748
HEIGHT
2188
08-Jun-2023
14:56
linh
pham



AFTER

MASS
127
AREA
3748
HEIGHT
2188
21-Jun-2023
13:47
linh
pha



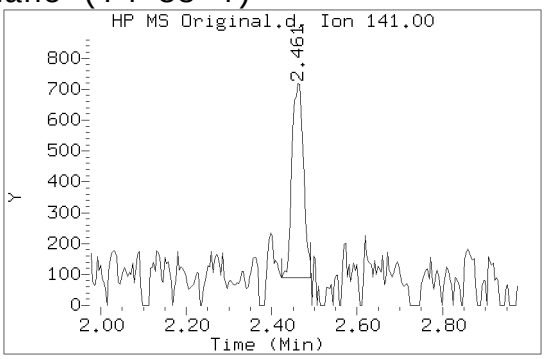
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060606.d
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Iodomethane (74-88-4)

Reason Code:

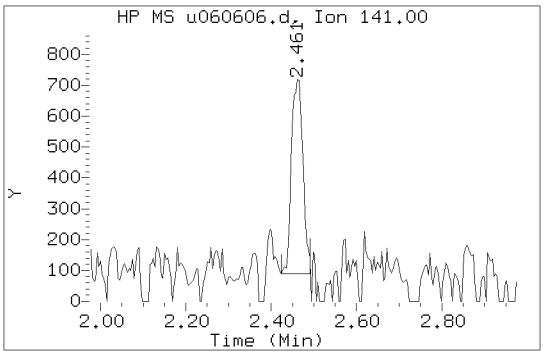
BEFORE

MASS
141
AREA
1206
HEIGHT
629
08-Jun-2023
14:56
linh
pham



AFTER

MASS
141
AREA
1206
HEIGHT
629
21-Jun-2023
13:47
linh
pha

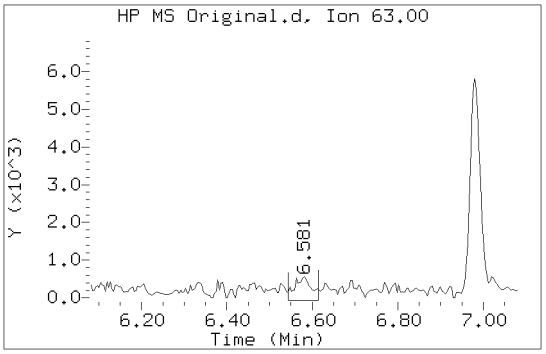


2-Chloroethylvinyl ether (110-75-8)

Reason Code:

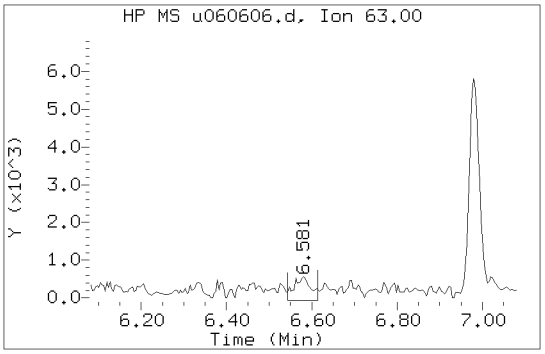
BEFORE

MASS
63
AREA
1764
HEIGHT
623
08-Jun-2023
14:56
linh
pham



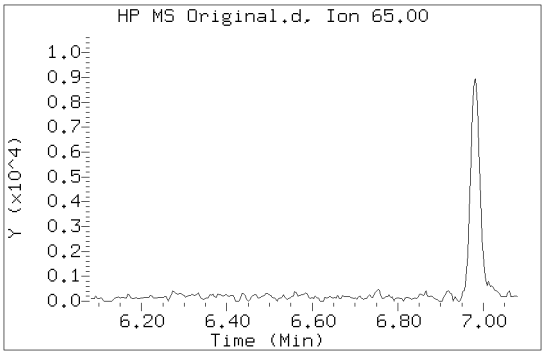
AFTER

MASS
63
AREA
1764
HEIGHT
623
21-Jun-2023
13:47
linh
pha



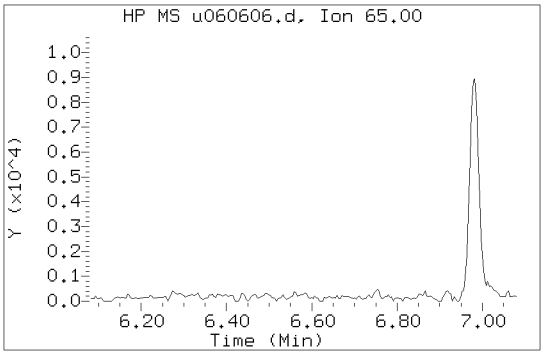
BEFORE

MASS
65
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



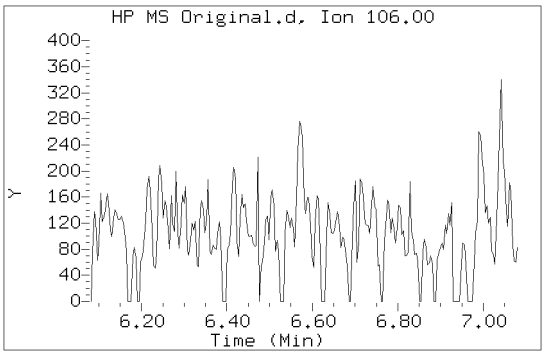
AFTER

MASS
65
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



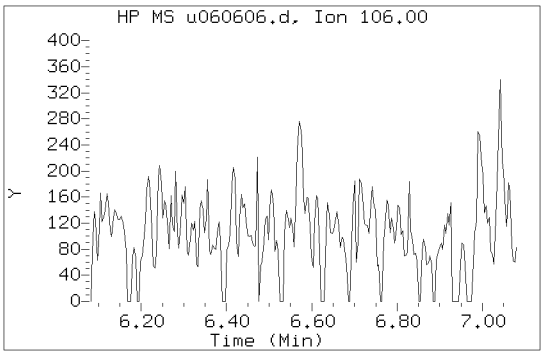
BEFORE

MASS
106
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

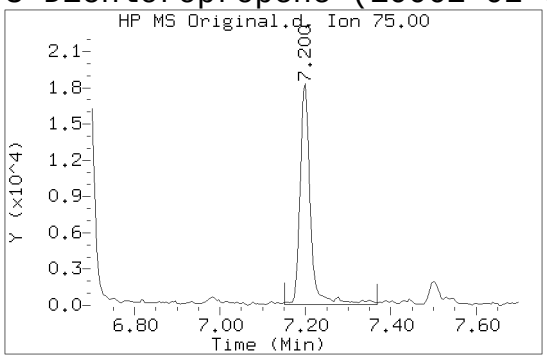


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060606.d
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

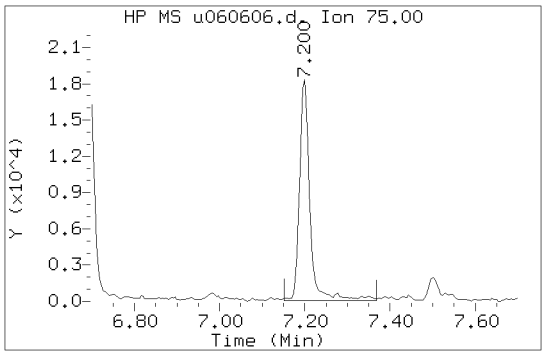
trans-1,3-Dichloropropene (10061-02-6)

Reason Code:

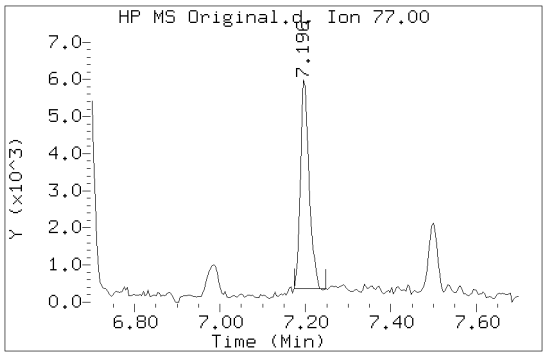
BEFORE
MASS
75
AREA
31811
HEIGHT
18277
08-Jun-2023
14:56
linh
pham



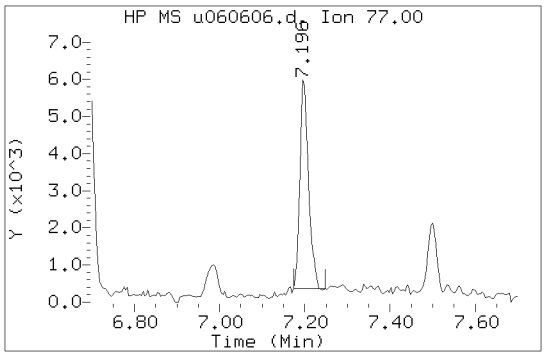
AFTER
MASS
75
AREA
31811
HEIGHT
18277
21-Jun-2023
13:47
linh
pha



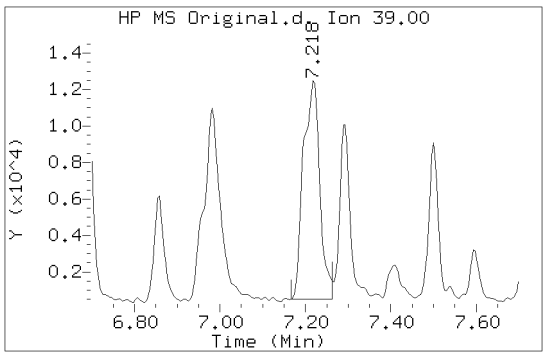
BEFORE
MASS
77
AREA
8164
HEIGHT
5630
08-Jun-2023
14:56
linh
pham



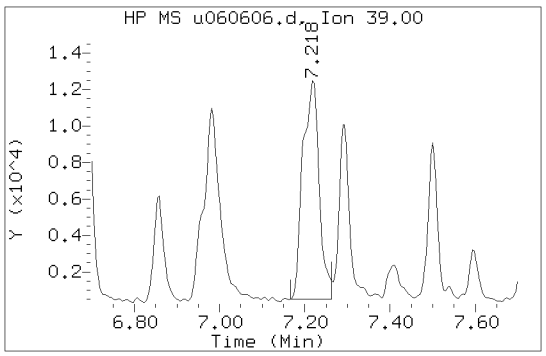
AFTER
MASS
77
AREA
8164
HEIGHT
5630
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
39
AREA
32255
HEIGHT
11964
08-Jun-2023
14:56
linh
pham



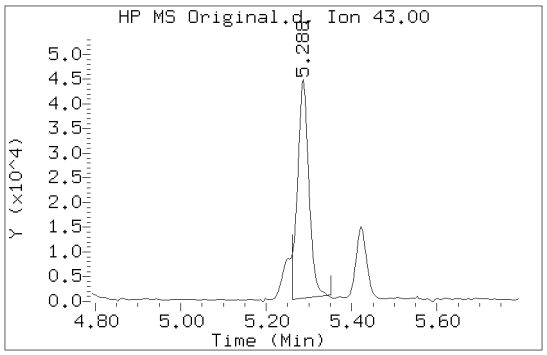
AFTER
MASS
39
AREA
32255
HEIGHT
11964
21-Jun-2023
13:47
linh
pha



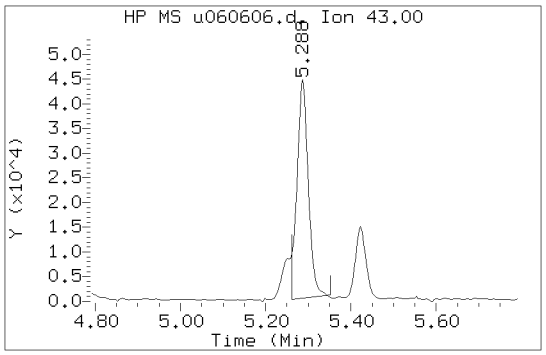
Isobutyl Alcohol (78-83-1)

Reason Code:

BEFORE
MASS
43
AREA
83135
HEIGHT
44258
08-Jun-2023
14:56
linh
pham



AFTER
MASS
43
AREA
83135
HEIGHT
44258
21-Jun-2023
13:47
linh
pha

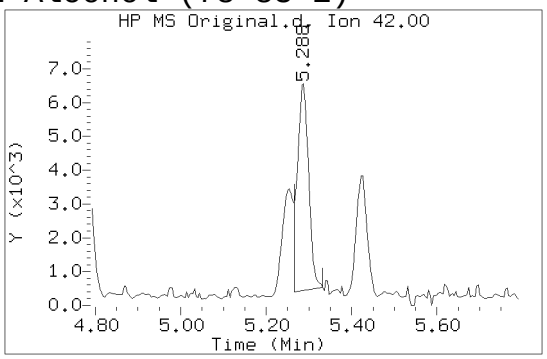


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060606.d
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Isobutyl Alcohol (78-83-1)

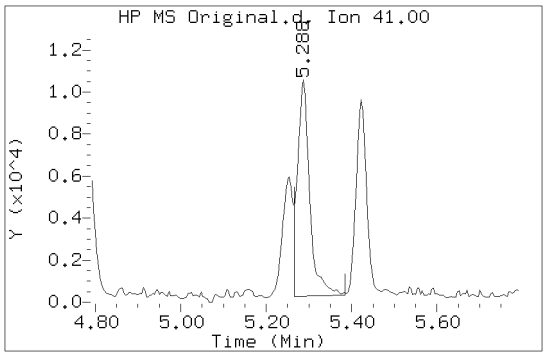
BEFORE

MASS
42
AREA
11630
HEIGHT
6123
08-Jun-2023
14:56
linh
pham



BEFORE

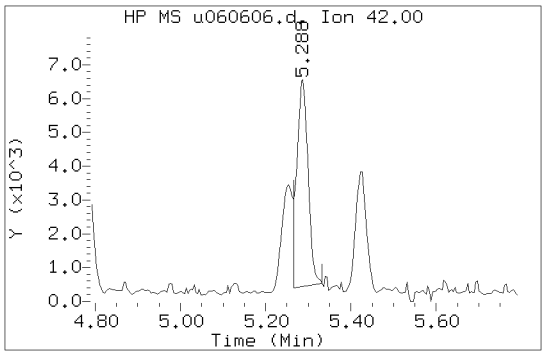
MASS
41
AREA
21244
HEIGHT
10293
08-Jun-2023
14:56
linh
pham



Reason Code:

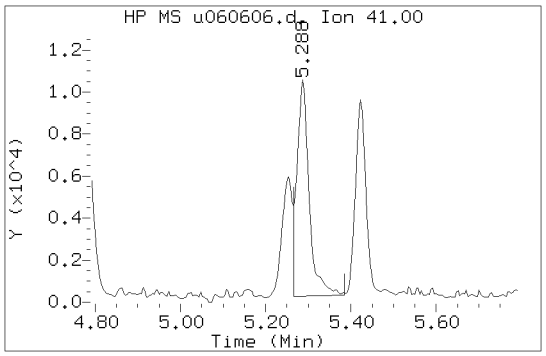
AFTER

MASS
42
AREA
11630
HEIGHT
6123
21-Jun-2023
13:47
linh
pha



AFTER

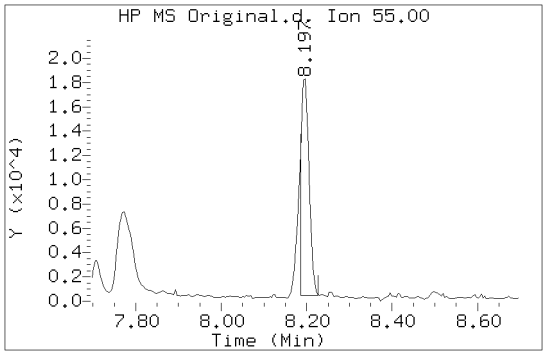
MASS
41
AREA
21244
HEIGHT
10293
21-Jun-2023
13:47
linh
pha



1-Chlorohexane (544-10-5)

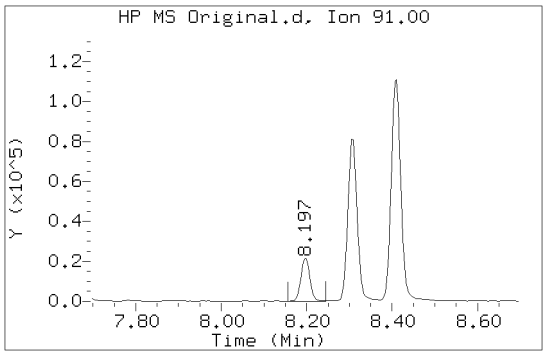
BEFORE

MASS
55
AREA
23998
HEIGHT
17834
08-Jun-2023
14:56
linh
pham



BEFORE

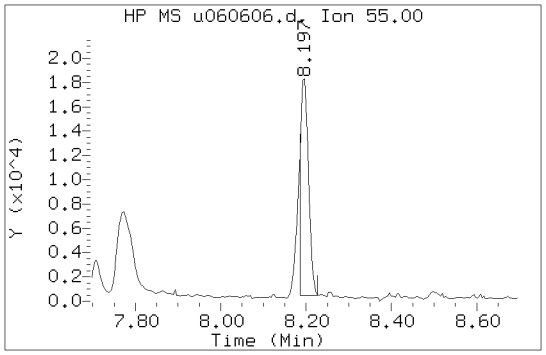
MASS
91
AREA
32110
HEIGHT
21527
08-Jun-2023
14:56
linh
pham



Reason Code:

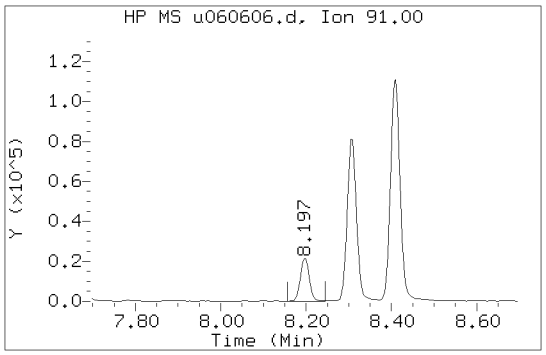
AFTER

MASS
55
AREA
23998
HEIGHT
17834
21-Jun-2023
13:47
linh
pha



AFTER

MASS
91
AREA
32110
HEIGHT
21527
21-Jun-2023
13:47
linh
pha



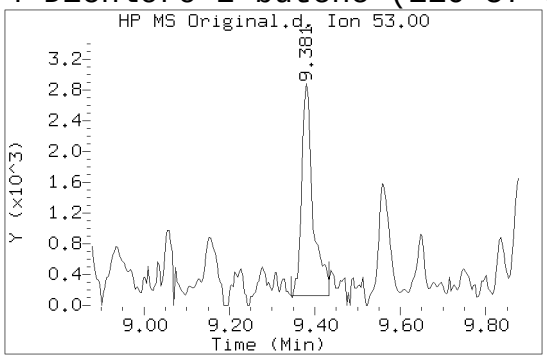
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060606.d
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

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

Reason Code:

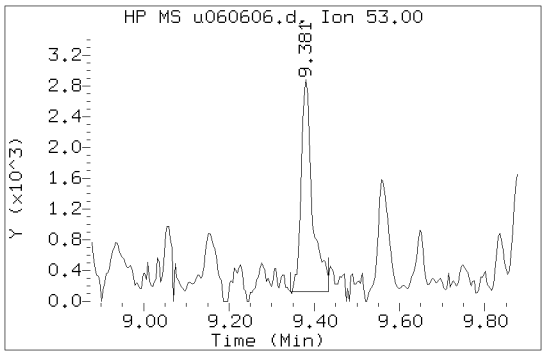
BEFORE

MASS
53
AREA
5142
HEIGHT
2759
08-Jun-2023
14:56
linh
pham



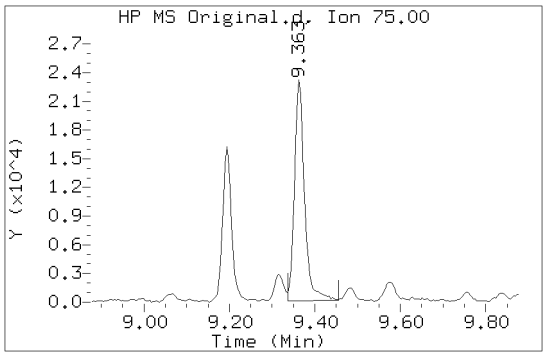
AFTER

MASS
53
AREA
5142
HEIGHT
2759
21-Jun-2023
13:47
linh
pha



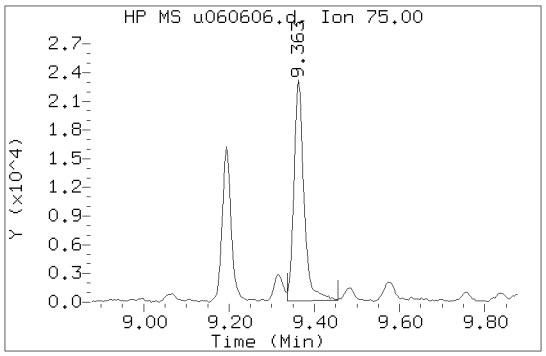
BEFORE

MASS
75
AREA
38567
HEIGHT
23094
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
38567
HEIGHT
23094
21-Jun-2023
13:47
linh
pha

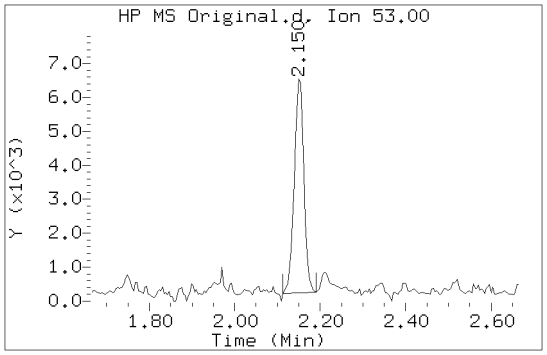


Chloroprene (126-99-8)

Reason Code:

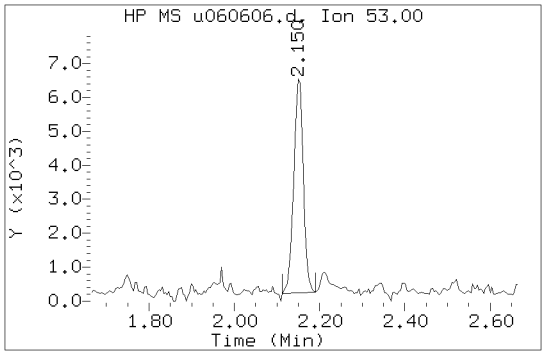
BEFORE

MASS
53
AREA
9849
HEIGHT
6297
08-Jun-2023
14:56
linh
pham



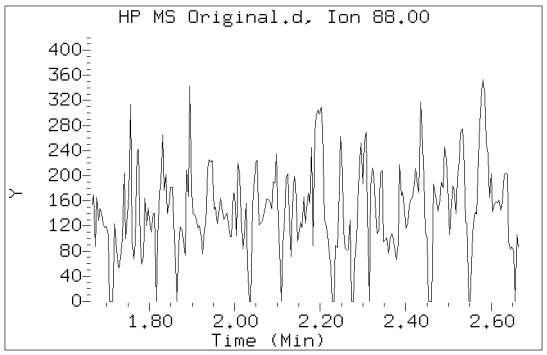
AFTER

MASS
53
AREA
9849
HEIGHT
6297
21-Jun-2023
13:47
linh
pha



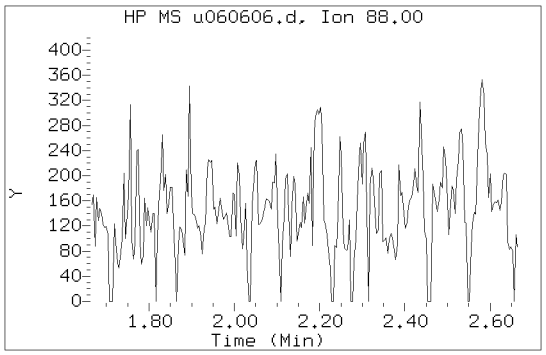
BEFORE

MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



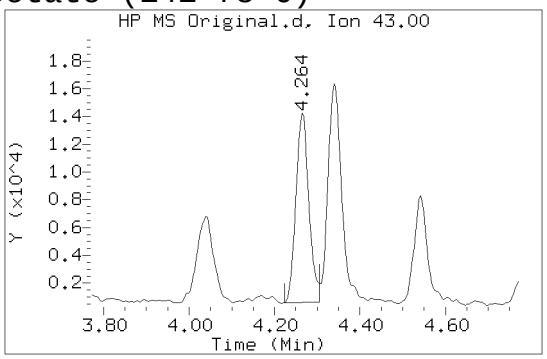
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060606.d
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Ethyl Acetate (141-78-6)

Reason Code:

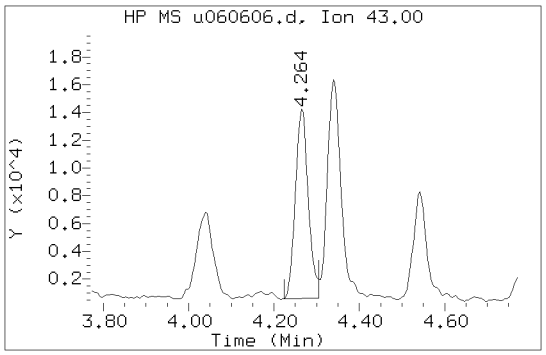
BEFORE

MASS
43
AREA
29376
HEIGHT
13625
08-Jun-2023
14:56
linh
pham



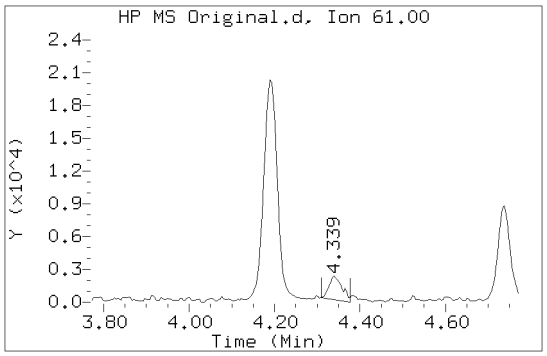
AFTER

MASS
43
AREA
29376
HEIGHT
13625
21-Jun-2023
13:47
linh
pha



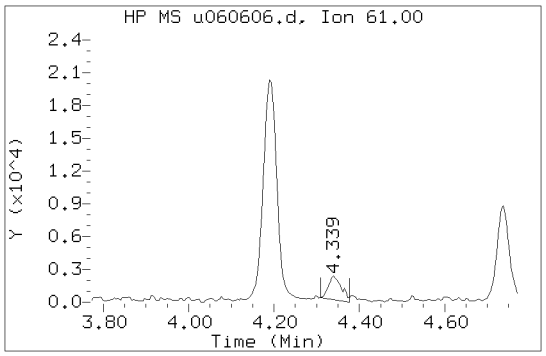
BEFORE

MASS
61
AREA
4693
HEIGHT
2196
08-Jun-2023
14:56
linh
pham



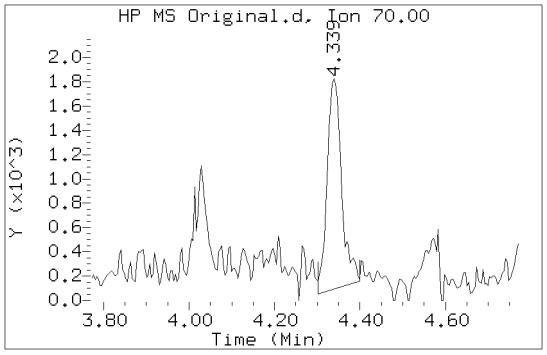
AFTER

MASS
61
AREA
4693
HEIGHT
2196
21-Jun-2023
13:47
linh
pha



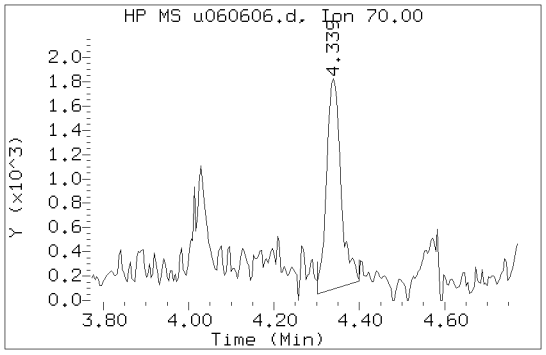
BEFORE

MASS
70
AREA
4078
HEIGHT
1731
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
4078
HEIGHT
1731
21-Jun-2023
13:47
linh
pha

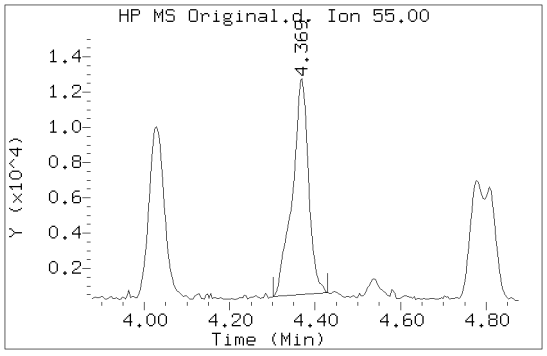


Methyl Acrylate (96-33-3)

Reason Code:

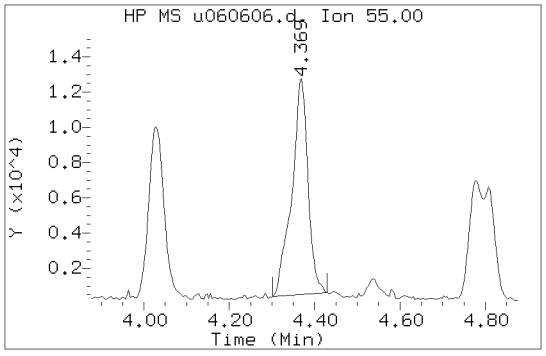
BEFORE

MASS
55
AREA
32767
HEIGHT
12241
08-Jun-2023
14:56
linh
pham



AFTER

MASS
55
AREA
32767
HEIGHT
12241
21-Jun-2023
13:47
linh
pha



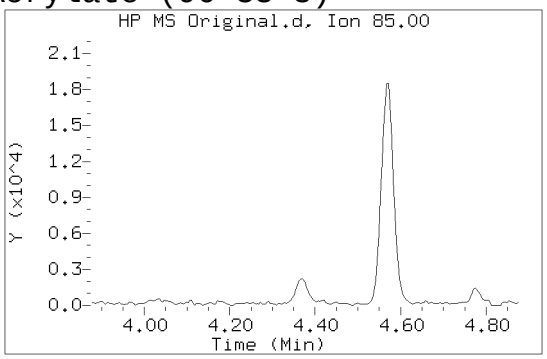
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060606.d
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Methyl Acrylate (96-33-3)

Reason Code:

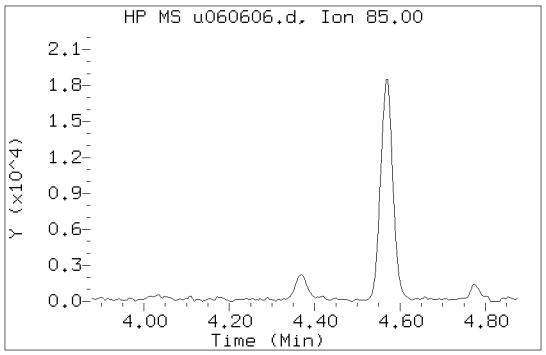
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

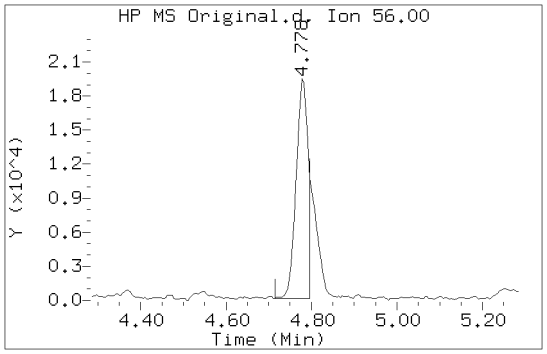


Cyclohexane (110-82-7)

Reason Code:

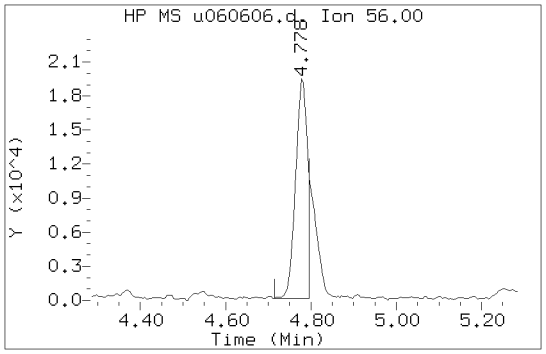
BEFORE

MASS
56
AREA
37840
HEIGHT
19339
08-Jun-2023
14:56
linh
pham



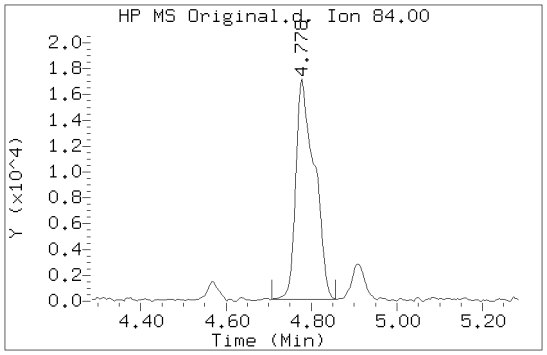
AFTER

MASS
56
AREA
37840
HEIGHT
19339
21-Jun-2023
13:47
linh
pha



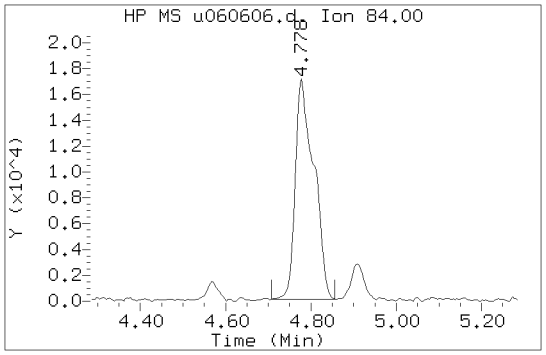
BEFORE

MASS
84
AREA
52176
HEIGHT
17059
08-Jun-2023
14:56
linh
pham



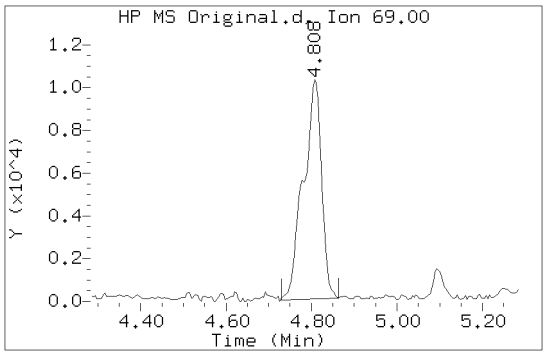
AFTER

MASS
84
AREA
52176
HEIGHT
17059
21-Jun-2023
13:47
linh
pha



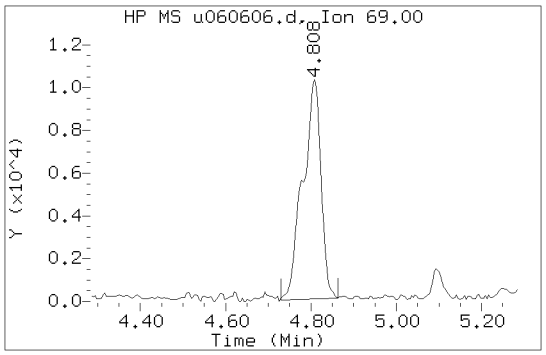
BEFORE

MASS
69
AREA
30602
HEIGHT
10254
08-Jun-2023
14:56
linh
pham



AFTER

MASS
69
AREA
30602
HEIGHT
10254
21-Jun-2023
13:47
linh
pha



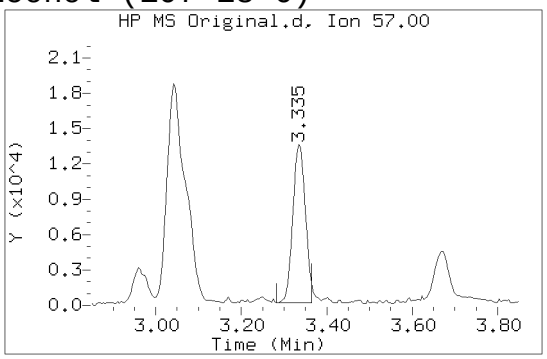
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060606.d
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Allyl alcohol (107-18-6)

Reason Code:

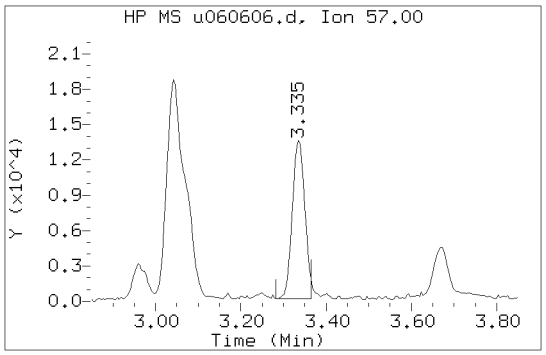
BEFORE

MASS
57
AREA
27611
HEIGHT
13437
08-Jun-2023
14:56
linh
pham



AFTER

MASS
57
AREA
27611
HEIGHT
13437
21-Jun-2023
13:47
linh
pha

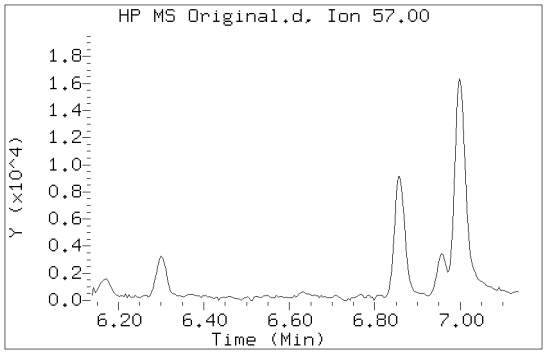


Epichlorohydrin (106-89-8)

Reason Code:

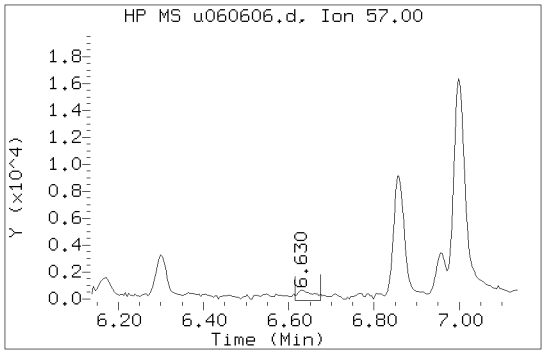
BEFORE

MASS
57
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



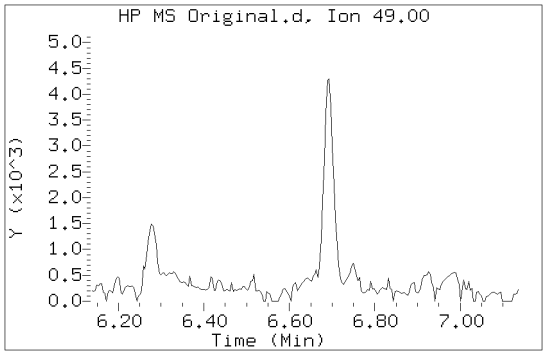
AFTER

MASS
57
AREA
2028
HEIGHT
746
21-Jun-2023
13:47
linh
pha



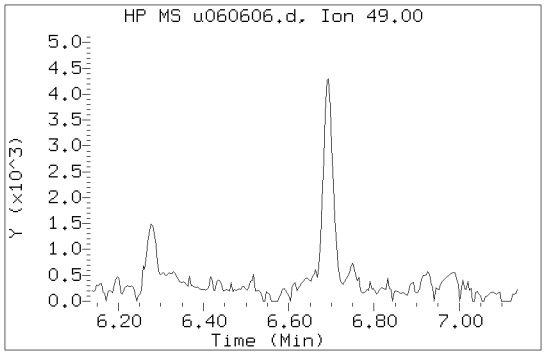
BEFORE

MASS
49
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
49
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

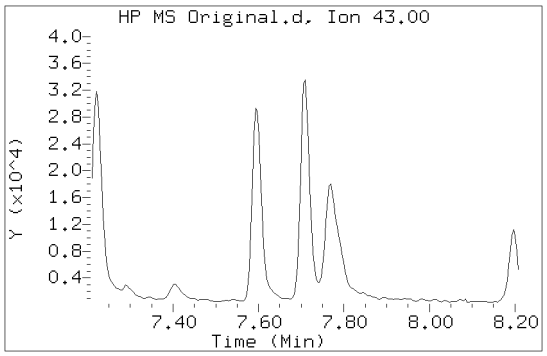


n-Butyl acetate (123-86-4)

Reason Code:

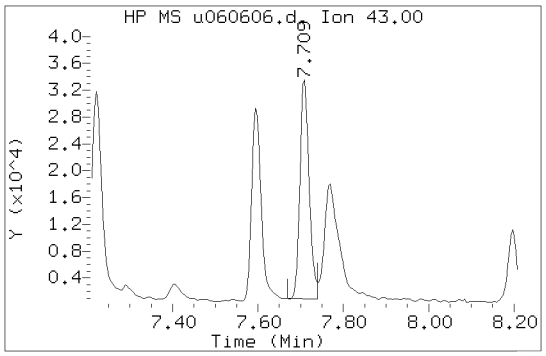
BEFORE

MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
50116
HEIGHT
32605
21-Jun-2023
13:47
linh
pha

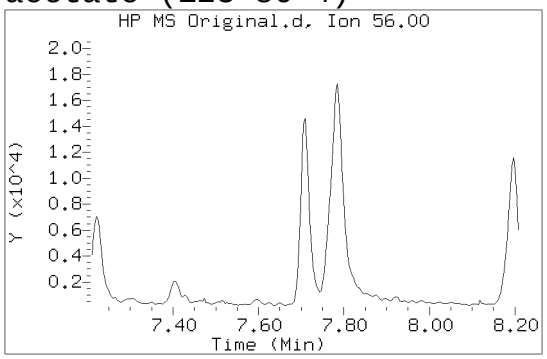


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060606.d
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

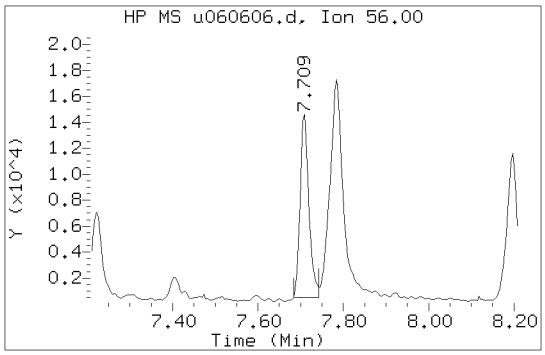
n-Butyl acetate (123-86-4)

Reason Code:

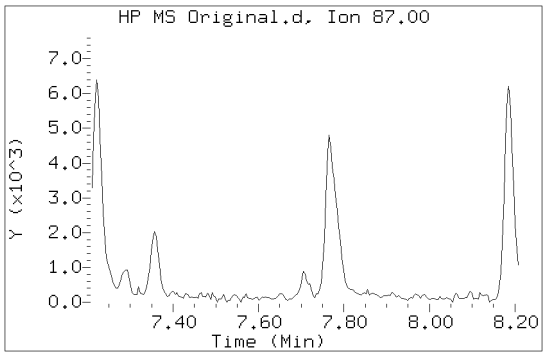
BEFORE
MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



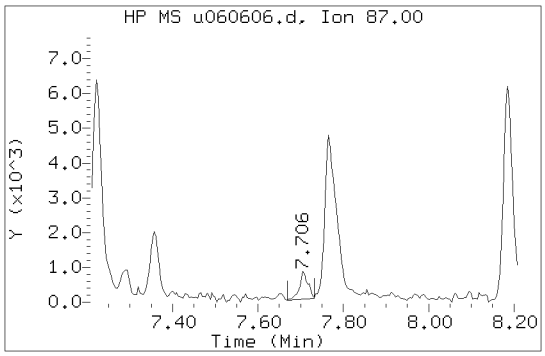
AFTER
MASS
56
AREA
20725
HEIGHT
14102
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
87
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



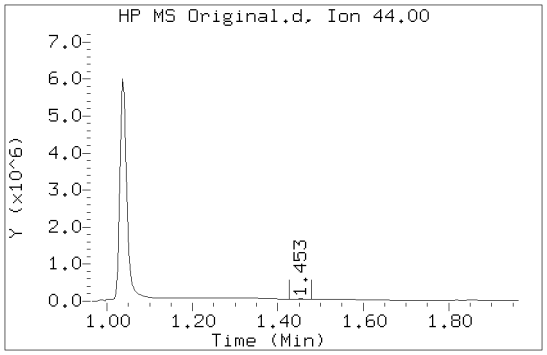
AFTER
MASS
87
AREA
1088
HEIGHT
786
21-Jun-2023
13:47
linh
pha



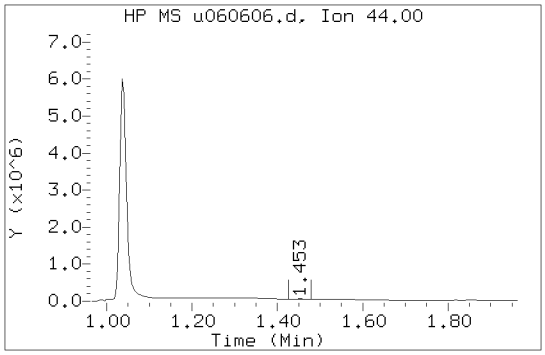
Acetaldehyde (75-07-0)

Reason Code:

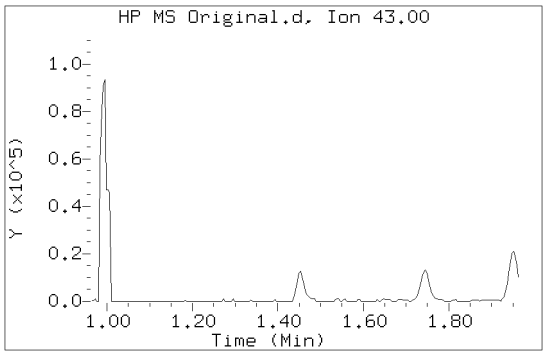
BEFORE
MASS
44
AREA
14773
HEIGHT
16936
08-Jun-2023
14:56
linh
pham



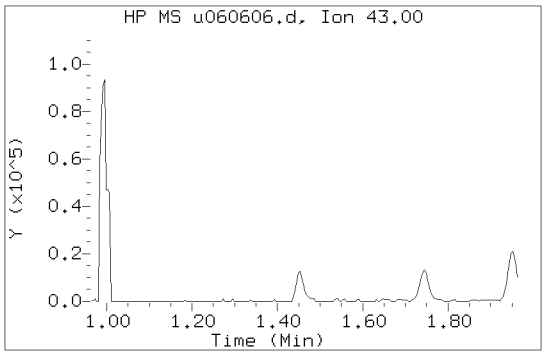
AFTER
MASS
44
AREA
14773
HEIGHT
16936
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER
MASS
43
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



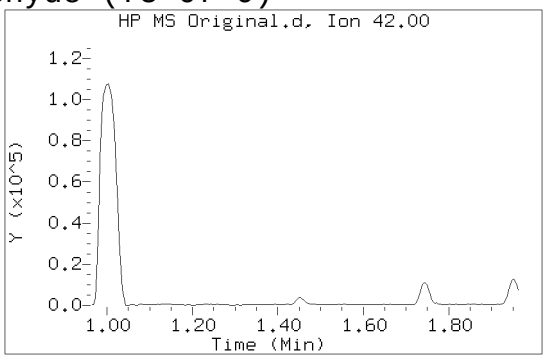
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060606.d
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

Acetaldehyde (75-07-0)

Reason Code:

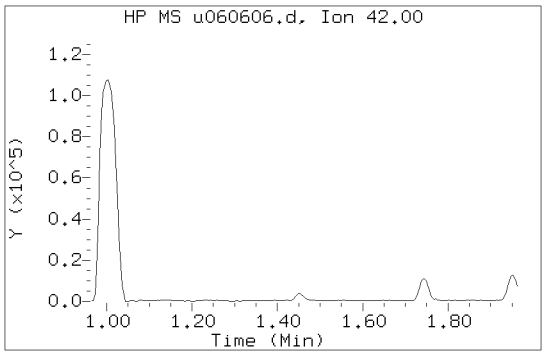
BEFORE

MASS
42
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

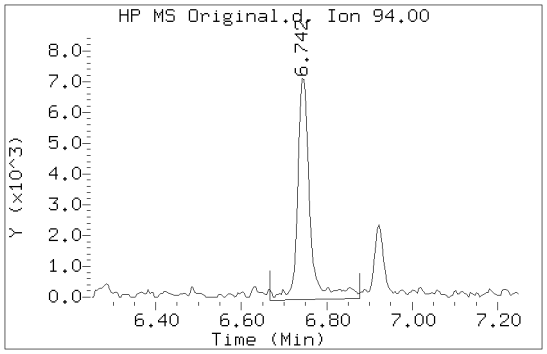


Dimethyl Disulfide (624-92-0)

Reason Code:

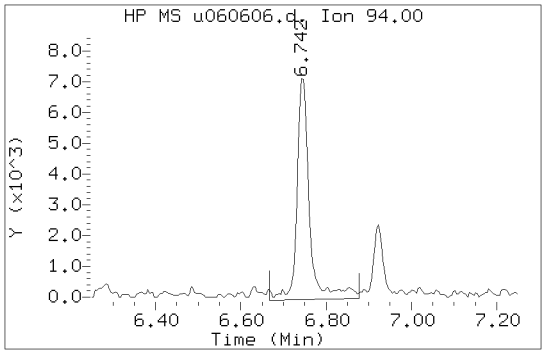
BEFORE

MASS
94
AREA
15263
HEIGHT
7177
08-Jun-2023
14:56
linh
pham



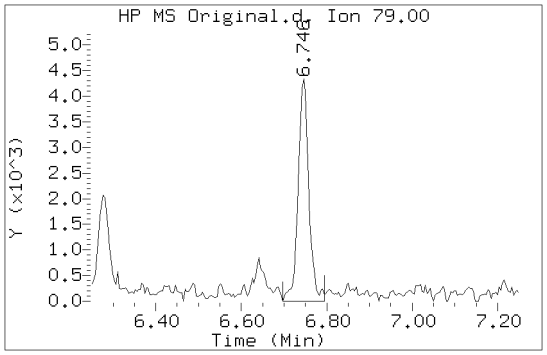
AFTER

MASS
94
AREA
15263
HEIGHT
7177
21-Jun-2023
13:47
linh
pha



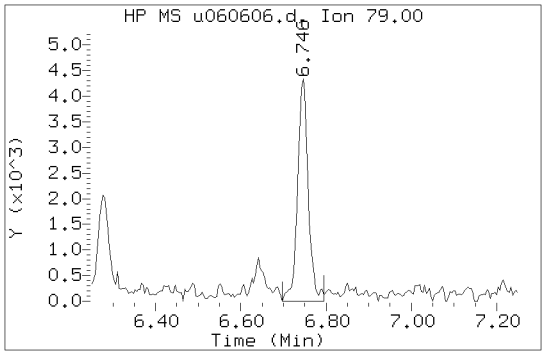
BEFORE

MASS
79
AREA
7740
HEIGHT
4338
08-Jun-2023
14:56
linh
pham



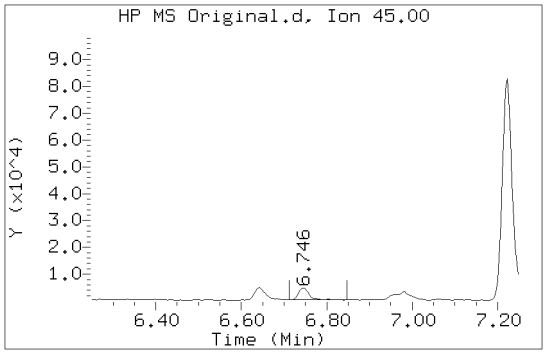
AFTER

MASS
79
AREA
7740
HEIGHT
4338
21-Jun-2023
13:47
linh
pha



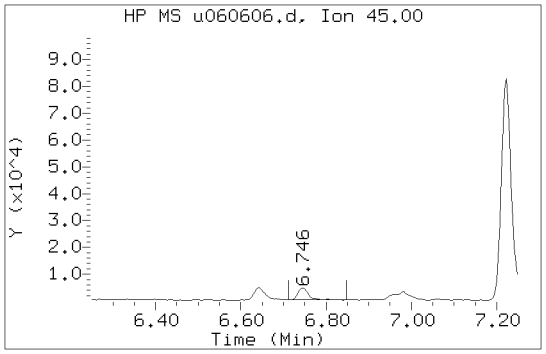
BEFORE

MASS
45
AREA
8050
HEIGHT
4392
08-Jun-2023
14:56
linh
pham



AFTER

MASS
45
AREA
8050
HEIGHT
4392
21-Jun-2023
13:47
linh
pha

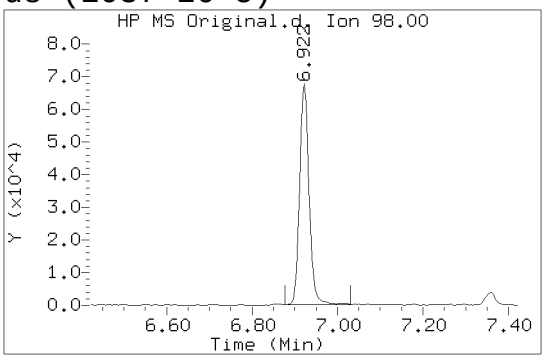


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060606.d
Inj Date : 06-JUN-2023 13:06
InstruID : VOA9.i
LabSampID : VSTD005

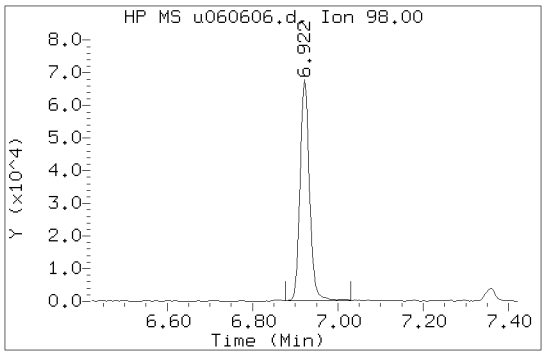
Toluene-d8 (2037-26-5)

Reason Code:

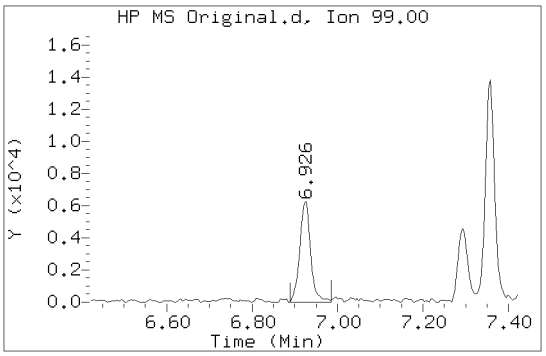
BEFORE
MASS
98
AREA
106553
HEIGHT
67651
08-Jun-2023
14:56
linh
pham



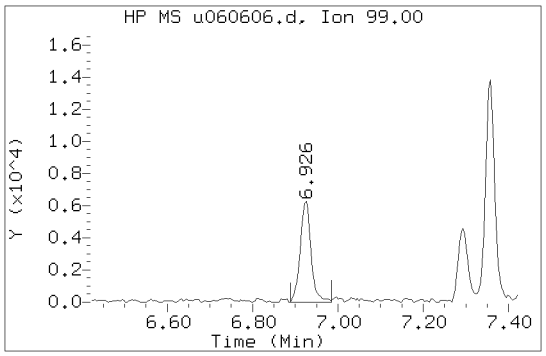
AFTER
MASS
98
AREA
106553
HEIGHT
67651
21-Jun-2023
13:47
linh
pha



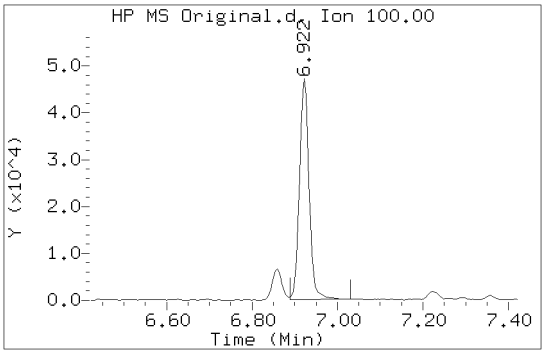
BEFORE
MASS
99
AREA
11406
HEIGHT
6274
08-Jun-2023
14:56
linh
pham



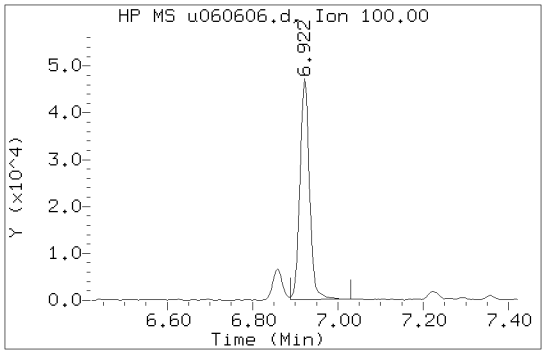
AFTER
MASS
99
AREA
11406
HEIGHT
6274
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
100
AREA
75525
HEIGHT
47179
08-Jun-2023
14:56
linh
pham



AFTER
MASS
100
AREA
75525
HEIGHT
47179
21-Jun-2023
13:47
linh
pha



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060607.D Page 1
Report Date: 21-Jun-2023 13:47

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060607.D
Lab Smp Id: VSTD001 Client Smp ID: VSTD001
Inj Date : 06-JUN-2023 13:28
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\U230606.b\8260C.m
Meth Date : 21-Jun-2023 13:45 pcabasca Quant Type: ISTD
Cal Date : 06-JUN-2023 13:28 Cal File: U060607.D
Als bottle: 8 Calibration Sample, Level: 3
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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
*	1 Pentafluorobenzene	168	4.815	4.815	(1.000)	679602	50.0000	
	2 Dichlorodifluoromethane	85	1.160	1.160	(0.241)	5058	1.00000	0.88(a)
	5 Vinyl Chloride	62	1.374	1.374	(0.285)	5942	1.00000	0.82(a)
	7 Chloroethane	64	1.696	1.696	(0.352)	5340	1.00000	1.10(a)
	8 Trichlorofluoromethane	101	1.891	1.891	(0.393)	6909	1.00000	0.83(a)
	11 1,1-Dichloroethene	96	2.330	2.330	(0.484)	4736	1.00000	0.91(a)
	15 Iodomethane	142	2.465	2.465	(0.512)	3593	2.00000	10.69(TM)
	18 Methyl tert-butyl ether	73	3.076	3.076	(0.639)	16686	1.00000	1.05(a)
	19 Carbon Disulfide	76	2.517	2.517	(0.523)	25547	2.00000	1.85(a)
	20 trans-1,2-Dichloroethene	96	3.053	3.053	(0.634)	5007	1.00000	0.89(a)
	22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	11574	1.00000	1.08(a)
	24 2-Butanone	43	4.272	4.272	(0.887)	7341	2.00000	2.36(aM)
	26 2,2-Dichloropropane	77	4.174	4.174	(0.867)	6247	1.00000	1.27(a)
	27 cis-1,2-Dichloroethene	96	4.189	4.189	(0.870)	6668	1.00000	0.99(a)
	28 Chloroform	83	4.571	4.571	(0.949)	10748	1.00000	0.96(a)
	29 Bromochloromethane	128	4.474	4.474	(0.929)	4161	1.00000	1.10(a)
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	5853	1.00000	0.71(a)
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	7815	1.00000	0.92(a)
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	7674	1.00000	1.04(a)
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	8428	1.00000	0.97(a)
	34 Carbon Tetrachloride	117	4.905	4.905	(0.883)	5676	1.00000	0.84(a)

$	35	1,2-Dichloroethane-d4	65	5.096	5.096 (1.058)	6027	1.00000	0.30(a)
*	36	1,4-Difluorobenzene	114	5.554	5.554 (1.000)	1002093	50.0000	

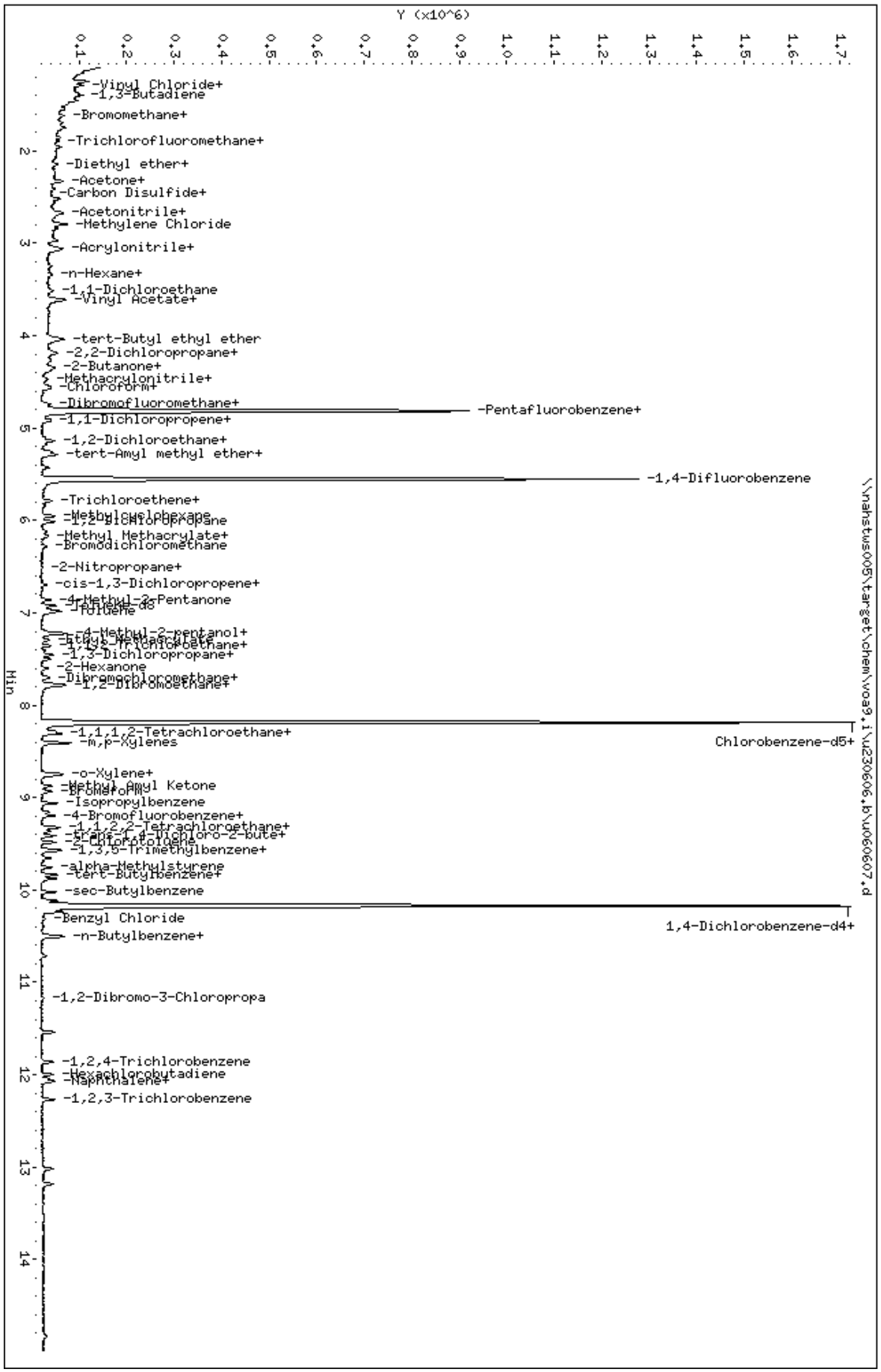
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	37 Benzene	78	5.137	5.137	(0.925)	21926	1.00000	0.90(a)
	38 Trichloroethene	130	5.790	5.790	(1.043)	7055	1.00000	1.00(a)
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	6686	1.00000	0.88(a)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	6571	1.00000	1.01(a)
	44 Dibromomethane	93	6.120	6.120	(1.102)	4245	1.00000	1.03(a)
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	12749	2.00000	1.87(a)
	46 cis-1,3-Dichloropropene	75	6.697	6.697	(1.206)	6985	1.00000	2.57(a)
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	934282	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	18686	1.00000	0.88(a)
	50 Toluene	91	6.982	6.982	(0.853)	24364	1.00000	0.96(a)
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	5962	1.00000	2.69(aM)
	52 2-Hexanone	43	7.597	7.597	(0.928)	10155	2.00000	2.14(a)
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	6320	1.00000	1.19(a)
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	10678	1.00000	0.99(a)
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	4999	1.00000	0.79(a)
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	6715	1.00000	1.08(a)
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	6817	1.00000	1.04(a)
	58 1-Chlorohexane	55	8.196	8.196	(1.476)	4887	1.00000	0.94(aM)
	59 Chlorobenzene	112	8.211	8.211	(1.003)	19148	1.00000	1.05(a)
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	5664	1.00000	0.91(a)
	61 Ethylbenzene	106	8.305	8.305	(1.015)	7997	1.00000	0.95(a)
	62 m,p-Xylenes	106	8.406	8.406	(1.027)	17600	2.00000	1.76(a)
	63 o-Xylene	106	8.747	8.747	(1.069)	8615	1.00000	0.87(a)
	64 Styrene	104	8.762	8.762	(1.071)	12462	1.00000	0.79(a)
	66 Bromoform	173	8.924	8.924	(1.090)	3596	1.00000	0.85(Ta)
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	21174	1.00000	0.89(a)
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	9671	1.00000	1.08(a)
$	69 4-Bromofluorobenzene	95	9.197	9.197	(1.124)	8608	1.00000	0.14(a)
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	472015	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	7255	1.00000	0.92(a)
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	21667	1.00000	0.87(a)
	74 Bromobenzene	156	9.321	9.321	(0.916)	8241	1.00000	1.03(a)
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	16352	1.00000	0.96(a)
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	17404	1.00000	0.99(a)
	77 4-Chlorotoluene	91	9.580	9.580	(0.942)	18186	1.00000	0.94(a)
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	15445	1.00000	0.92(a)
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	18732	1.00000	1.05(a)
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	19975	1.00000	0.94(a)
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	16778	1.00000	0.94(a)
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	13868	1.00000	1.02(a)
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	16169	1.00000	1.12(a)
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	14921	1.00000	1.10(a)
	89 1,2-Dibromo-3-Chloropropane	155	11.165	11.165	(1.098)	1239	1.00000	0.95(aM)
	90 1,2,4-Trichlorobenzene	180	11.859	11.859	(1.166)	9686	1.00000	1.03(a)
	93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	9603	1.00000	1.05(a)
M	94 1,2-Dichloroethylene (total)	96				11675	2.00000	1.88(a)
M	95 Xylenes (total)	106				26215	3.00000	2.64(a)
	141 Cyclohexane	56	4.796	4.796	(0.996)	7781	1.00000	1.14(aM)
	138 Freon TF	101	2.330	2.330	(0.484)	3752	1.00000	0.82(a)
	140 1,3-Butadiene	54	1.400	1.400	(0.291)	5632	1.00000	0.87(a)
	146 Methyl Acetate	43	2.712	2.712	(0.563)	6421	1.00000	1.12(aM)
	148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	16016	20.0000	20.67(aM)

72	trans-1,4-Dichloro-2-butene	53	9.381	9.381 (1.146)	1083	1.00000	1.00
12	Isobutyl Alcohol	43	5.291	5.291 (1.099)	18069	20.0000	20.46(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
13 Acetonitrile	39	2.667	2.667	(0.554)	7477	10.0000	10.16
40 Methyl Methacrylate	41	6.161	6.161	(1.279)	5203	1.00000	0.89(a)
4 Propionitrile	54	4.343	4.343	(0.902)	10588	10.0000	10.78(aM)
136 n-Hexane	57	3.338	3.338	(0.693)	4787	1.00000	0.97(a)
131 Methyl Acrylate	55	4.365	4.365	(0.907)	7188	1.00000	1.00(aM)
200 Dimethyl Disulfide	94	6.742	6.742	(0.824)	2841	1.00000	4.92(aM)
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	20474	1.00000	1.12(a)
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	29317	1.00000	1.27(a)
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	6428	1.00000	4.20(a)
156 Diisopropyl ether	45	3.623	3.623	(0.752)	18372	1.00000	0.96(a)
151 4-Methyl-2-pentanol	45	7.222	7.222	(1.300)	29449	20.0000	19.76
150 Allyl alcohol	57	3.338	3.338	(0.693)	4787	20.0000	20.21
86 Benzyl Chloride	91	10.311	10.311	(1.260)	5481	1.00000	4.38(a)
162 Butyl acrylate	55	8.736	8.736	(1.067)	10827	1.00000	0.97(a)
139 Diethyl ether	59	2.142	2.142	(0.445)	3957	1.00000	0.86(a)
203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	4963	1.00000	2.84(aM)
134 Cyclohexanone	55	9.156	9.156	(0.900)	6822	20.0000	23.31(a)
130 Ethyl Acetate	43	4.272	4.272	(0.887)	6476	1.00000	1.06(aMH)
189 n-Butyl acetate	43	7.713	7.713	(0.942)	10025	1.00000	0.94(aM)
182 Epichlorohydrin	57	6.656	6.656	(1.198)	230	4.00000	12.04(M)
132 n-Butanol	56	5.838	5.838	(1.213)	4225	20.0000	21.55(aM)

QC Flag Legend

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



Data File: \\nahstus005\target\chem\voa9.i\u230606.b\u060607.d
Date : 06-JUN-2023 13:28
Client ID: VSTD001
Sample Info: VSTD001;VSTD001;1;3;
Purge Volume: 5.0
Column phase: DB624

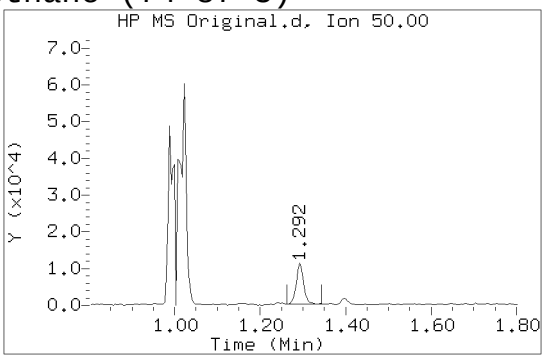
Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Chloromethane (74-87-3)

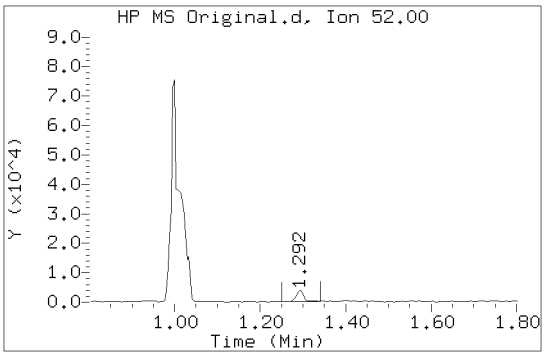
BEFORE

MASS
50
AREA
13219
HEIGHT
11073
08-Jun-2023
14:56
linh
pham



BEFORE

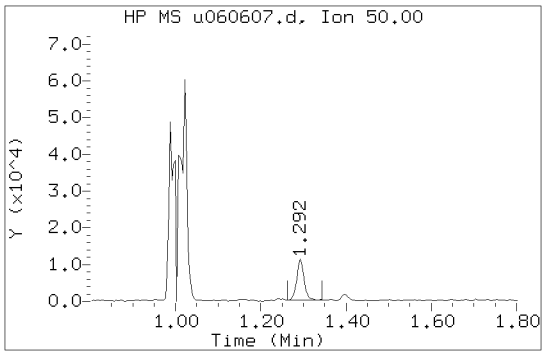
MASS
52
AREA
5081
HEIGHT
3855
08-Jun-2023
14:56
linh
pham



Reason Code:

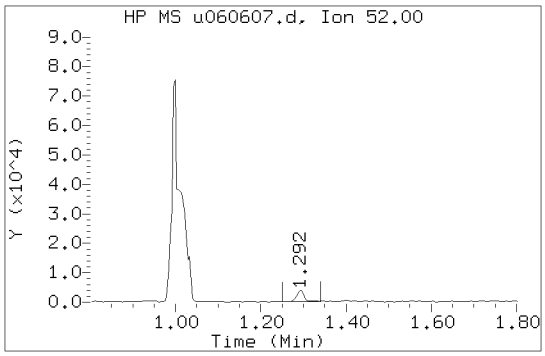
AFTER

MASS
50
AREA
13219
HEIGHT
11073
21-Jun-2023
13:47
linh
pha



AFTER

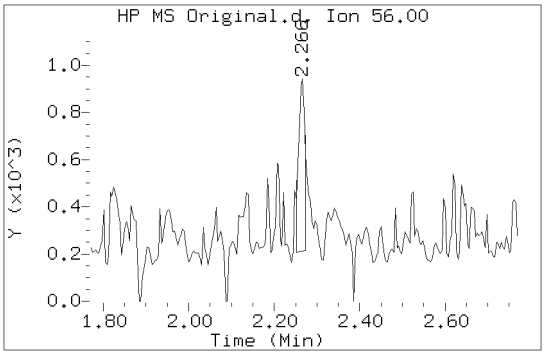
MASS
52
AREA
5081
HEIGHT
3855
21-Jun-2023
13:47
linh
pha



Acrolein (107-02-8)

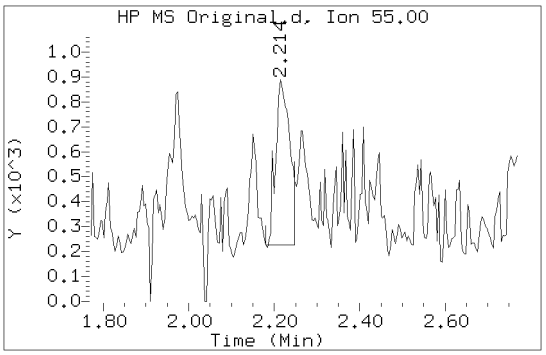
BEFORE

MASS
56
AREA
802
HEIGHT
729
08-Jun-2023
14:56
linh
pham



BEFORE

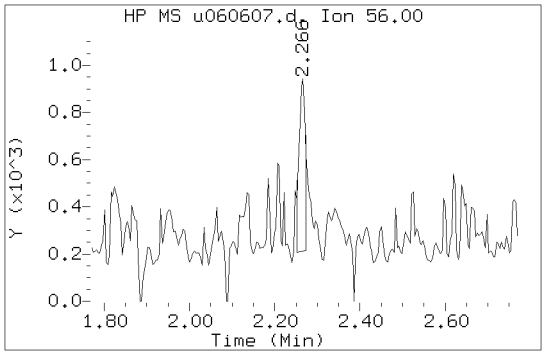
MASS
55
AREA
1527
HEIGHT
664
08-Jun-2023
14:56
linh
pham



Reason Code:

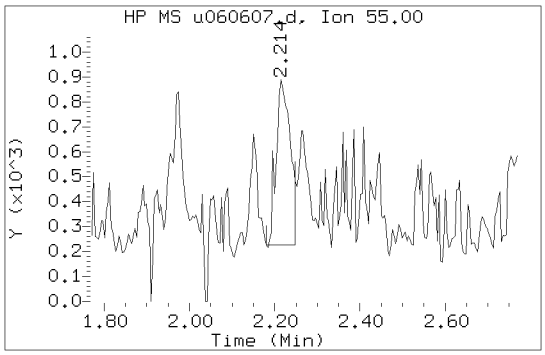
AFTER

MASS
56
AREA
802
HEIGHT
729
21-Jun-2023
13:47
linh
pha



AFTER

MASS
55
AREA
1527
HEIGHT
664
21-Jun-2023
13:47
linh
pha

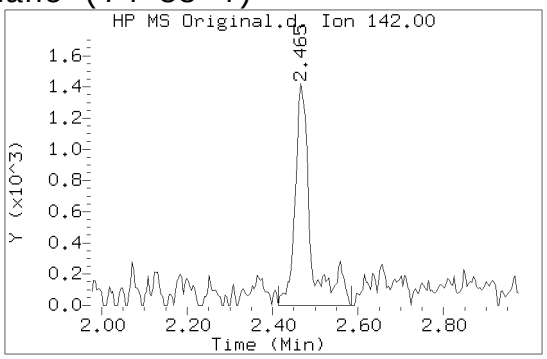


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

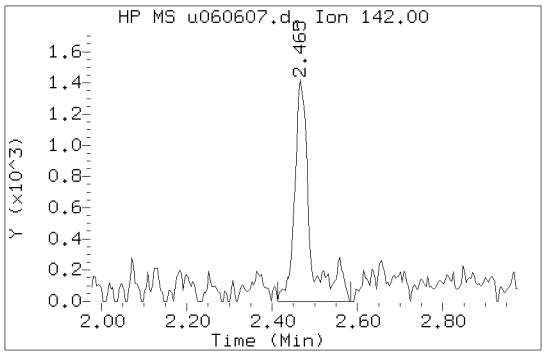
Iodomethane (74-88-4)

Reason Code:

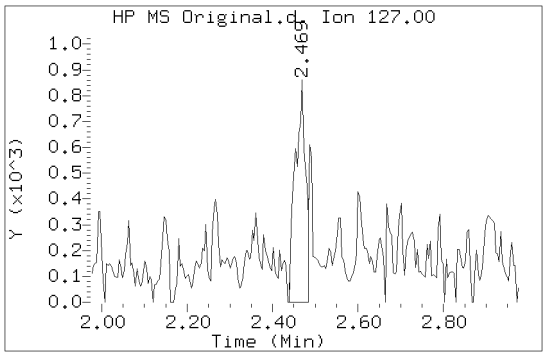
BEFORE
MASS
142
AREA
3593
HEIGHT
1421
08-Jun-2023
14:56
linh
pham



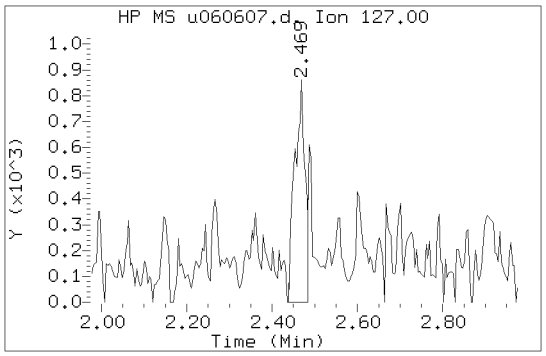
AFTER
MASS
142
AREA
3593
HEIGHT
1421
21-Jun-2023
13:47
linh
pha



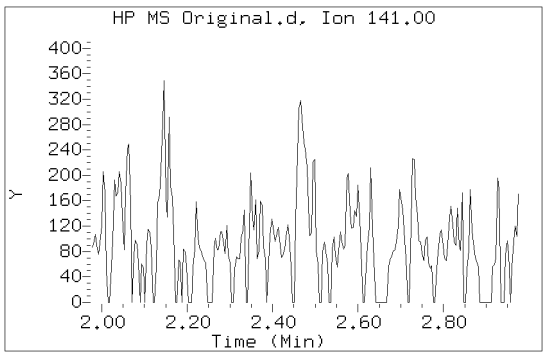
BEFORE
MASS
127
AREA
1453
HEIGHT
861
08-Jun-2023
14:56
linh
pham



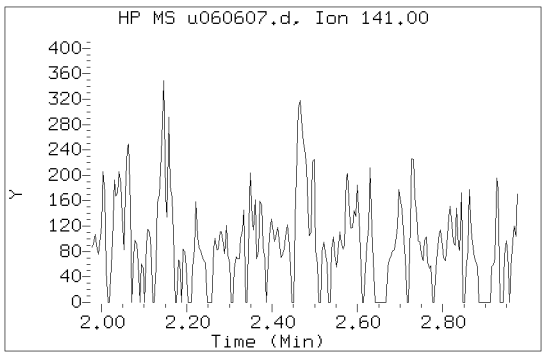
AFTER
MASS
127
AREA
1453
HEIGHT
861
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
141
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



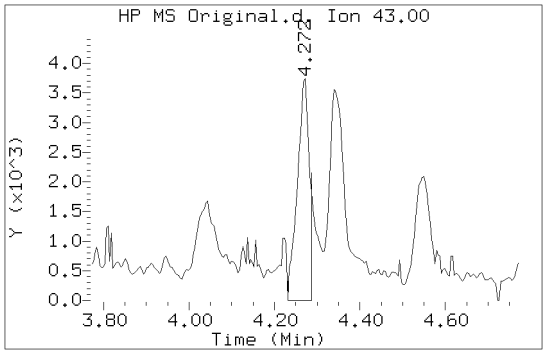
AFTER
MASS
141
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



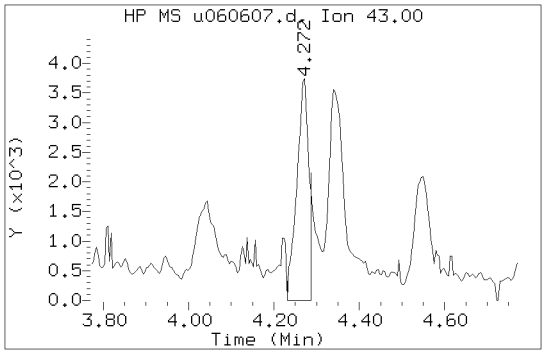
2-Butanone (78-93-3)

Reason Code:

BEFORE
MASS
43
AREA
7341
HEIGHT
3739
08-Jun-2023
14:56
linh
pham



AFTER
MASS
43
AREA
7341
HEIGHT
3739
21-Jun-2023
13:47
linh
pha



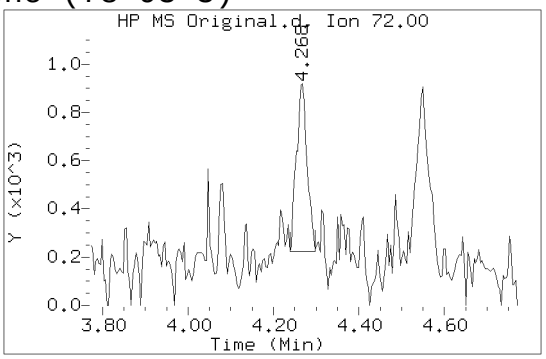
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

2-Butanone (78-93-3)

Reason Code:

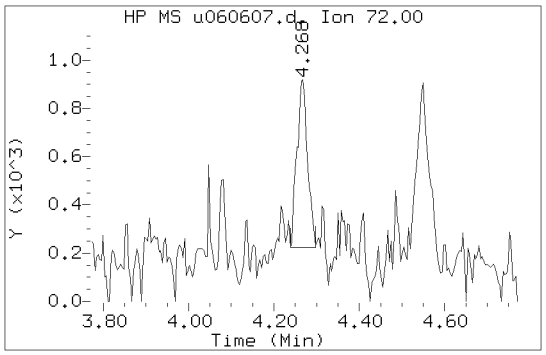
BEFORE

MASS
72
AREA
1240
HEIGHT
697
08-Jun-2023
14:56
linh
pham



AFTER

MASS
72
AREA
1240
HEIGHT
697
21-Jun-2023
13:47
linh
pha

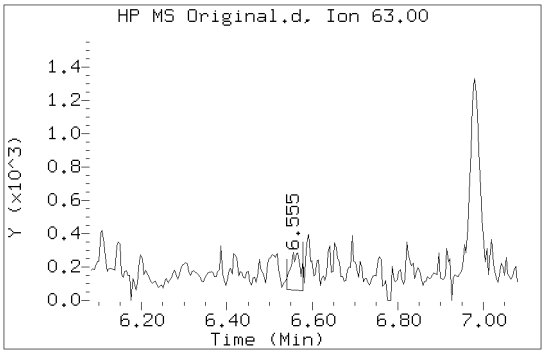


2-Chloroethylvinyl ether (110-75-8)

Reason Code:

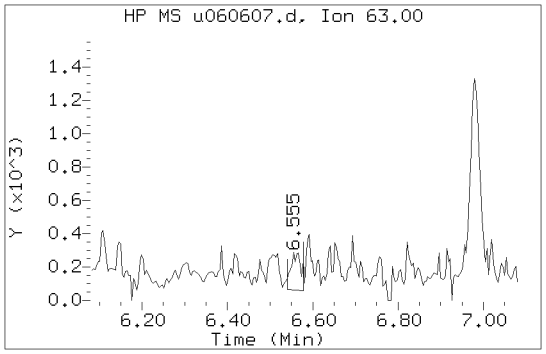
BEFORE

MASS
63
AREA
379
HEIGHT
225
08-Jun-2023
14:56
linh
pham



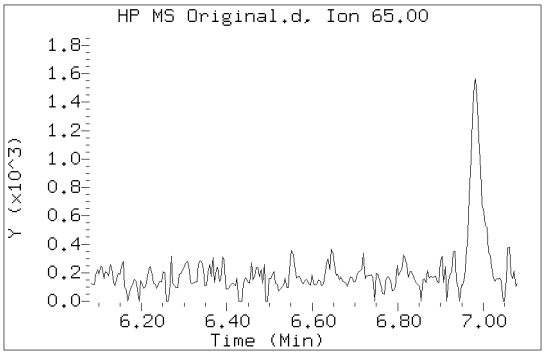
AFTER

MASS
63
AREA
379
HEIGHT
225
21-Jun-2023
13:47
linh
pha



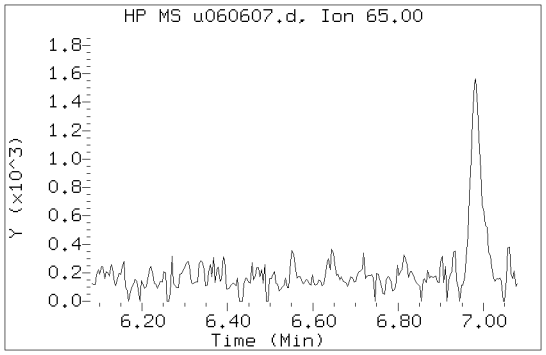
BEFORE

MASS
65
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



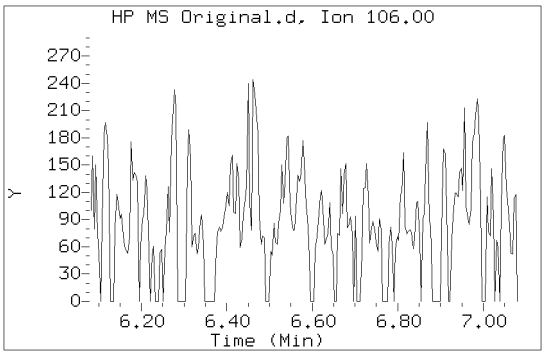
AFTER

MASS
65
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



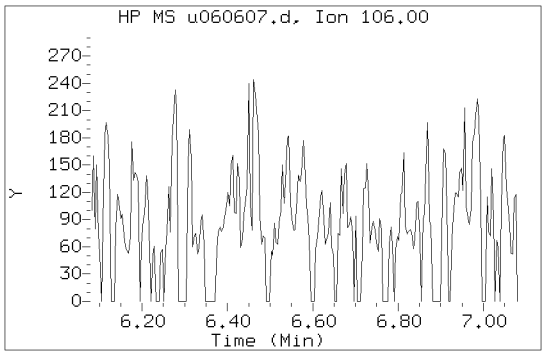
BEFORE

MASS
106
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



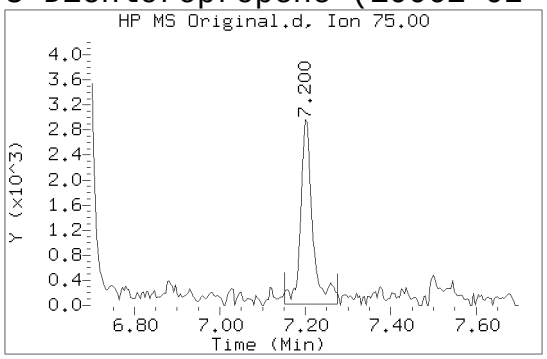
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

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

Reason Code:

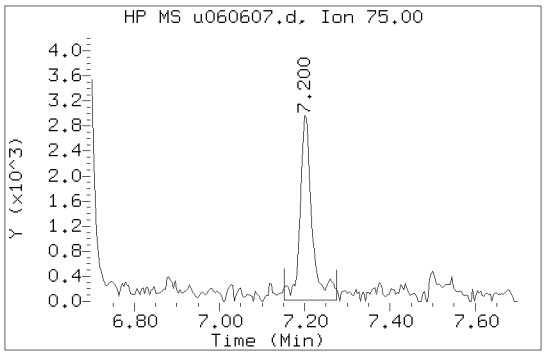
BEFORE

MASS
75
AREA
5962
HEIGHT
2945
08-Jun-2023
14:56
linh
pham



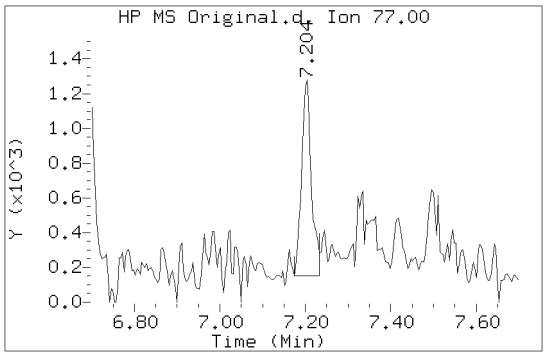
AFTER

MASS
75
AREA
5962
HEIGHT
2945
21-Jun-2023
13:47
linh
pha



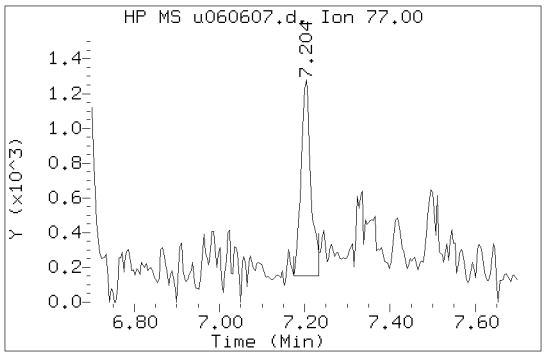
BEFORE

MASS
77
AREA
1844
HEIGHT
1128
08-Jun-2023
14:56
linh
pham



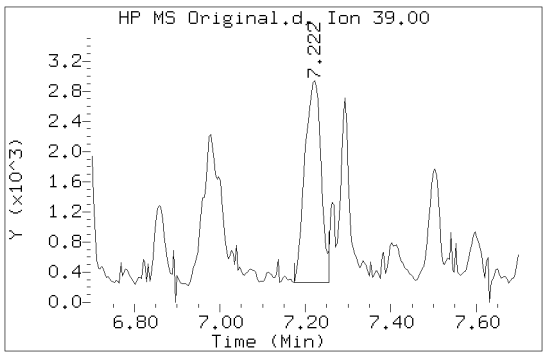
AFTER

MASS
77
AREA
1844
HEIGHT
1128
21-Jun-2023
13:47
linh
pha



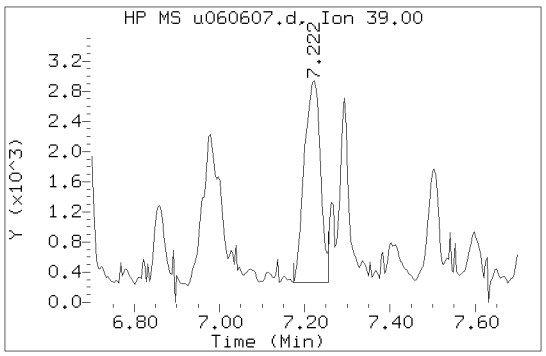
BEFORE

MASS
39
AREA
7143
HEIGHT
2676
08-Jun-2023
14:56
linh
pham



AFTER

MASS
39
AREA
7143
HEIGHT
2676
21-Jun-2023
13:47
linh
pha

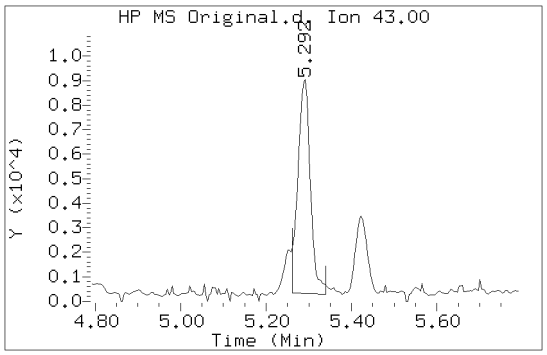


Isobutyl Alcohol (78-83-1)

Reason Code:

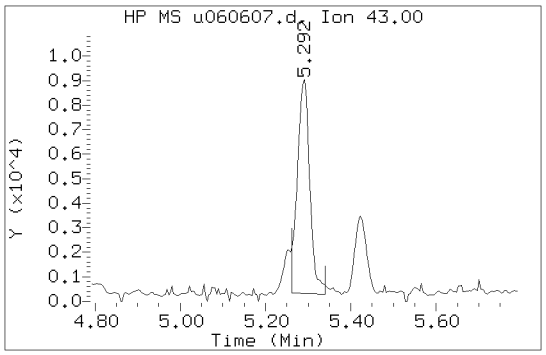
BEFORE

MASS
43
AREA
18069
HEIGHT
8714
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
18069
HEIGHT
8714
21-Jun-2023
13:47
linh
pha

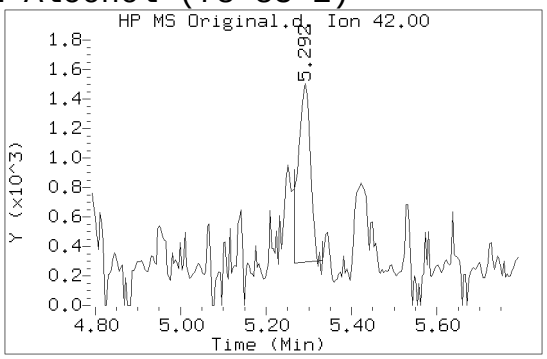


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Isobutyl Alcohol (78-83-1)

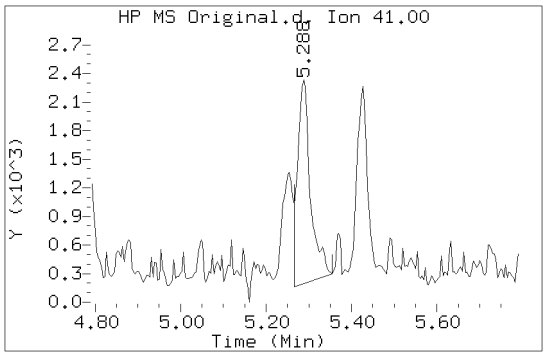
BEFORE

MASS
42
AREA
2425
HEIGHT
1210
08-Jun-2023
14:56
linh
pham



BEFORE

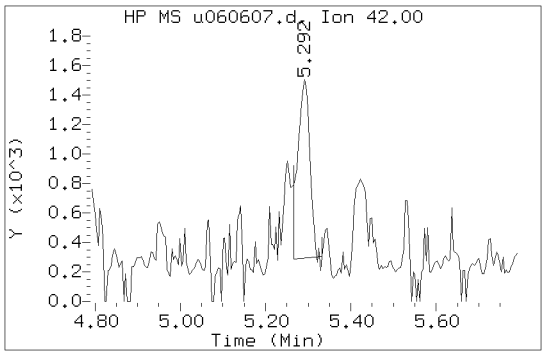
MASS
41
AREA
4613
HEIGHT
2138
08-Jun-2023
14:56
linh
pham



Reason Code:

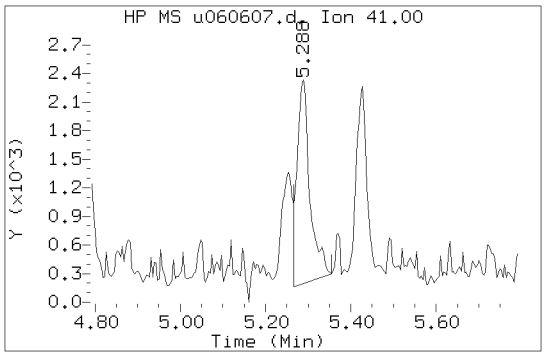
AFTER

MASS
42
AREA
2425
HEIGHT
1210
21-Jun-2023
13:47
linh
pha



AFTER

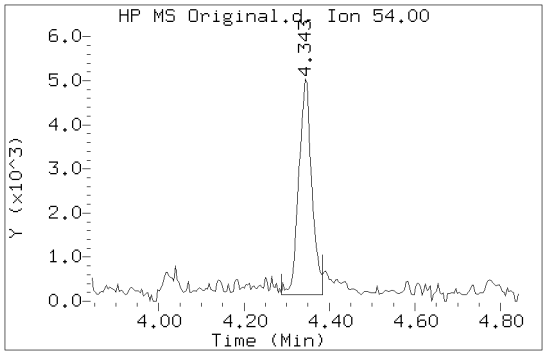
MASS
41
AREA
4613
HEIGHT
2138
21-Jun-2023
13:47
linh
pha



Propionitrile (107-12-0)

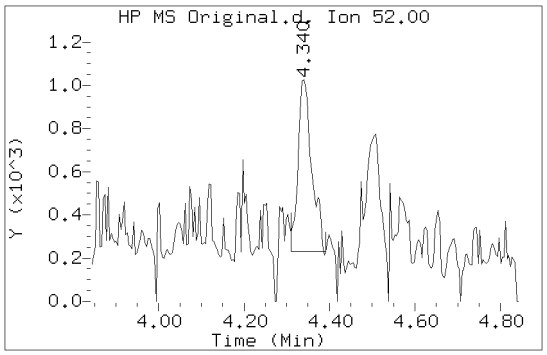
BEFORE

MASS
54
AREA
10588
HEIGHT
4897
08-Jun-2023
14:56
linh
pham



BEFORE

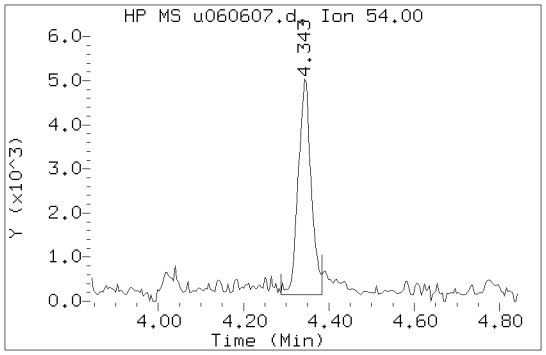
MASS
52
AREA
1789
HEIGHT
794
08-Jun-2023
14:56
linh
pham



Reason Code:

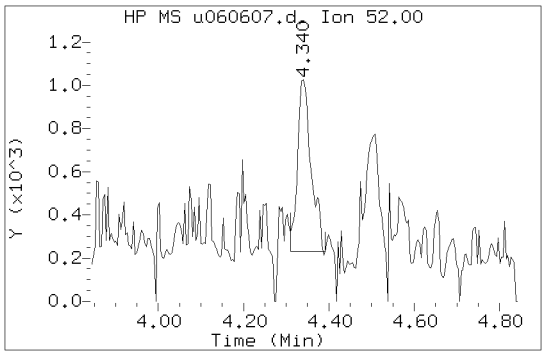
AFTER

MASS
54
AREA
10588
HEIGHT
4897
21-Jun-2023
13:47
linh
pha



AFTER

MASS
52
AREA
1789
HEIGHT
794
21-Jun-2023
13:47
linh
pha



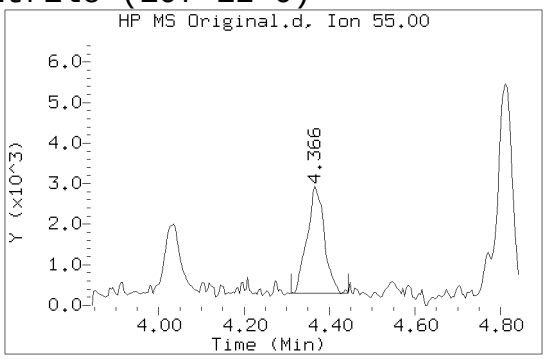
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Propionitrile (107-12-0)

Reason Code:

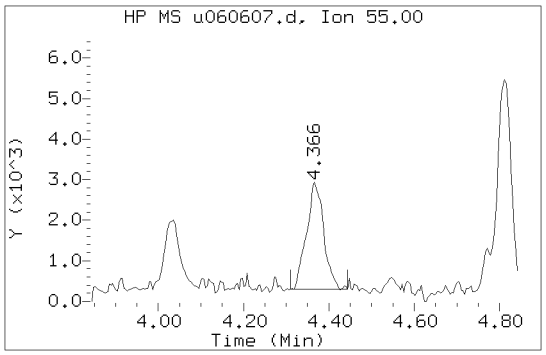
BEFORE

MASS
55
AREA
7500
HEIGHT
2642
08-Jun-2023
14:56
linh
pham



AFTER

MASS
55
AREA
7500
HEIGHT
2642
21-Jun-2023
13:47
linh
pha

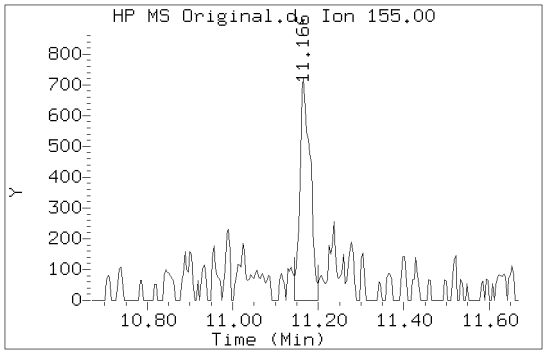


1,2-Dibromo-3-Chloropropane (96-12-8)

Reason Code:

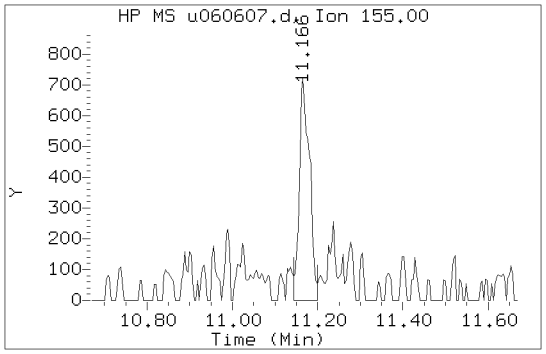
BEFORE

MASS
155
AREA
1239
HEIGHT
719
08-Jun-2023
14:56
linh
pham



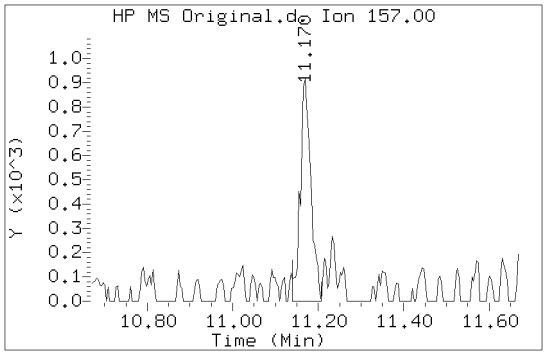
AFTER

MASS
155
AREA
1239
HEIGHT
719
21-Jun-2023
13:47
linh
pha



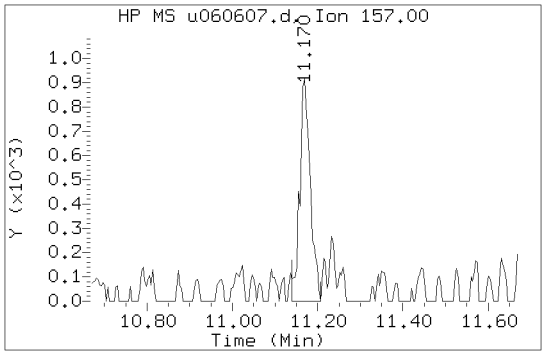
BEFORE

MASS
157
AREA
1601
HEIGHT
916
08-Jun-2023
14:56
linh
pham



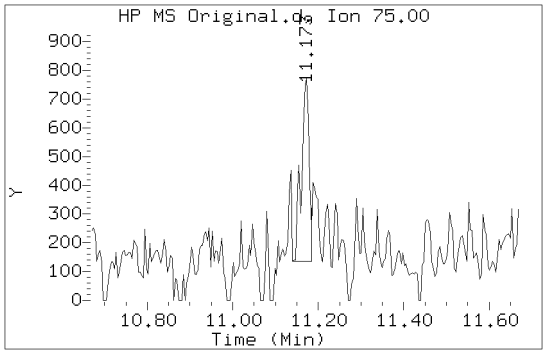
AFTER

MASS
157
AREA
1601
HEIGHT
916
21-Jun-2023
13:47
linh
pha



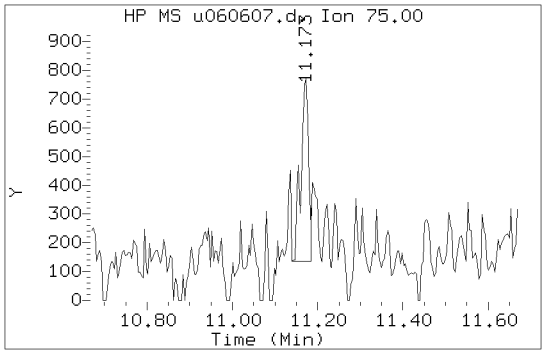
BEFORE

MASS
75
AREA
809
HEIGHT
634
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
809
HEIGHT
634
21-Jun-2023
13:47
linh
pha



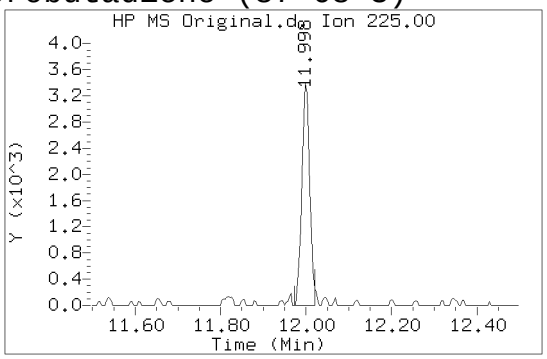
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Hexachlorobutadiene (87-68-3)

Reason Code:

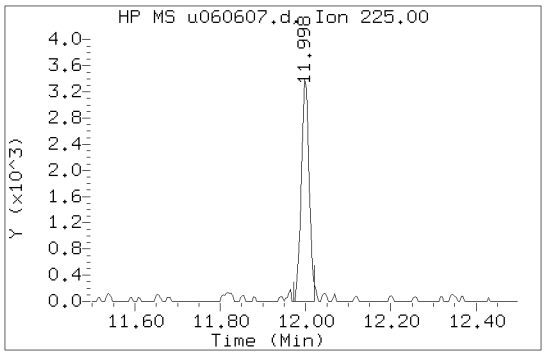
BEFORE

MASS
225
AREA
4470
HEIGHT
3386
08-Jun-2023
14:56
linh
pham



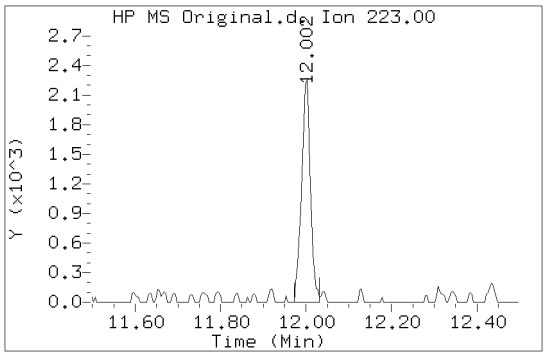
AFTER

MASS
225
AREA
4470
HEIGHT
3386
21-Jun-2023
13:47
linh
pha



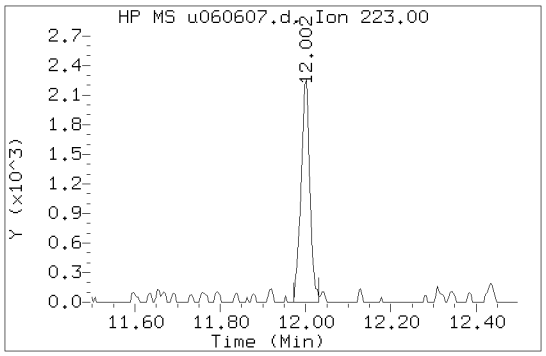
BEFORE

MASS
223
AREA
3352
HEIGHT
2254
08-Jun-2023
14:56
linh
pham



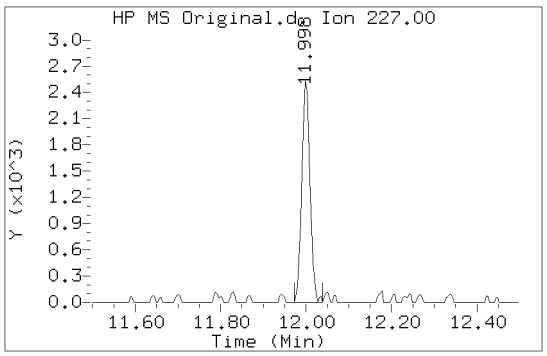
AFTER

MASS
223
AREA
3352
HEIGHT
2254
21-Jun-2023
13:47
linh
pha



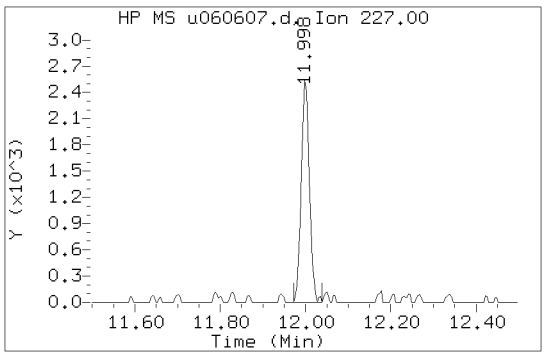
BEFORE

MASS
227
AREA
3477
HEIGHT
2534
08-Jun-2023
14:56
linh
pham



AFTER

MASS
227
AREA
3477
HEIGHT
2534
21-Jun-2023
13:47
linh
pha

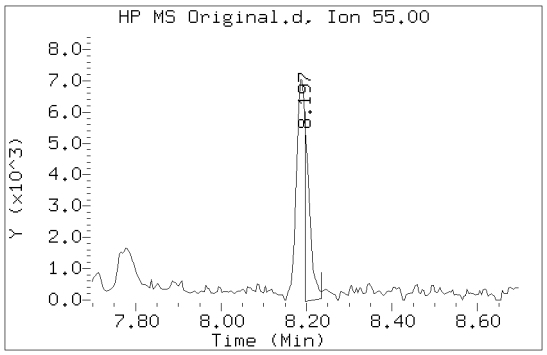


1-Chlorohexane (544-10-5)

Reason Code:

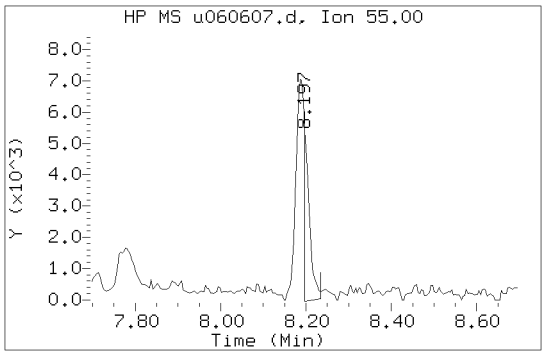
BEFORE

MASS
55
AREA
4887
HEIGHT
5444
08-Jun-2023
14:56
linh
pham



AFTER

MASS
55
AREA
4887
HEIGHT
5444
21-Jun-2023
13:47
linh
pha

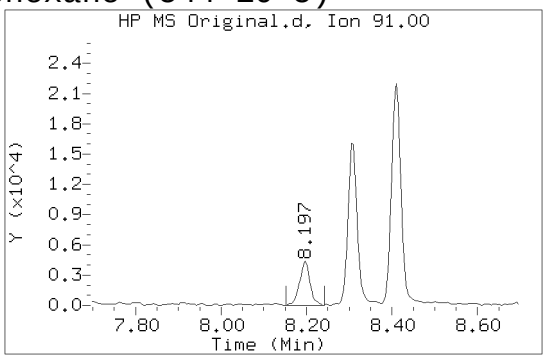


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

1-Chlorohexane (544-10-5)

BEFORE

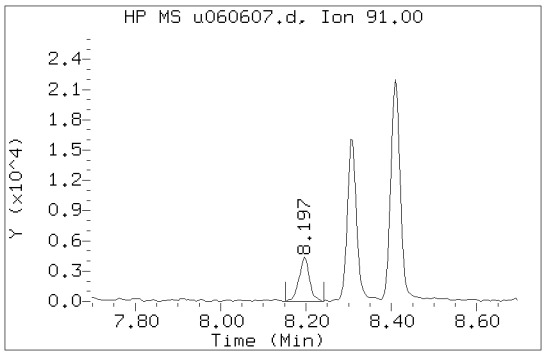
MASS
91
AREA
7655
HEIGHT
4415
08-Jun-2023
14:56
linh
pham



Reason Code:

AFTER

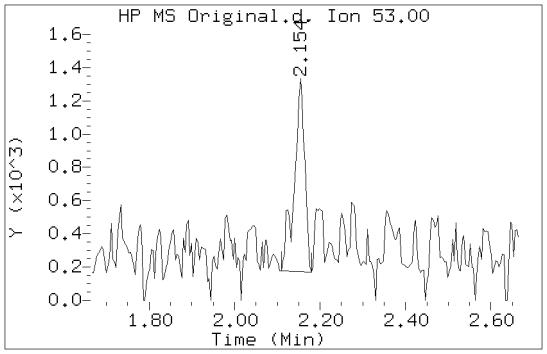
MASS
91
AREA
7655
HEIGHT
4415
21-Jun-2023
13:47
linh
pha



Chloroprene (126-99-8)

BEFORE

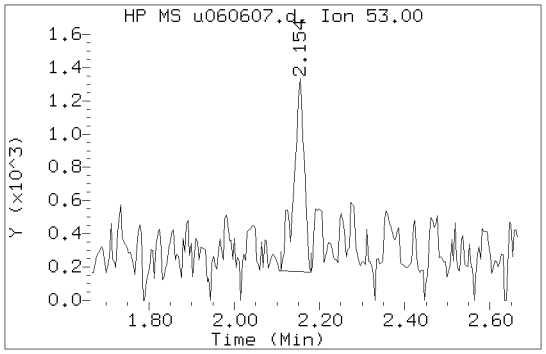
MASS
53
AREA
2027
HEIGHT
1160
08-Jun-2023
14:56
linh
pham



Reason Code:

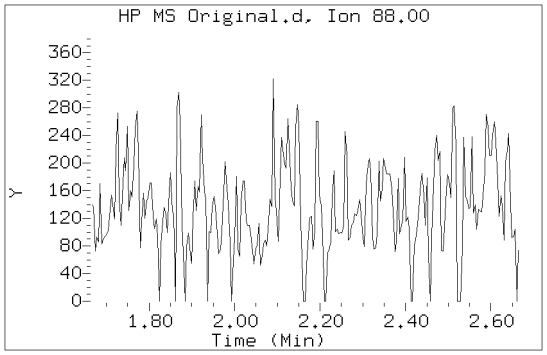
AFTER

MASS
53
AREA
2027
HEIGHT
1160
21-Jun-2023
13:47
linh
pha



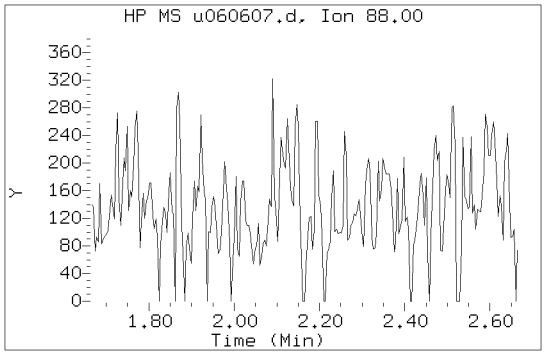
BEFORE

MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

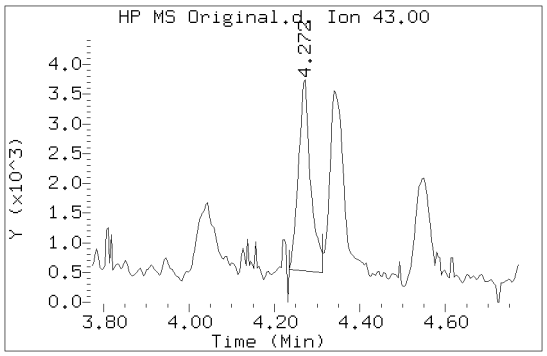
MASS
88
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



Ethyl Acetate (141-78-6)

BEFORE

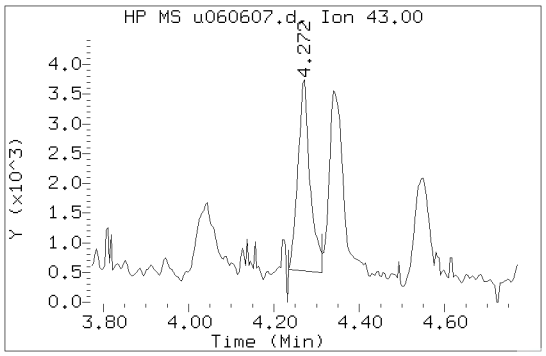
MASS
43
AREA
6476
HEIGHT
3212
08-Jun-2023
14:56
linh
pham



Reason Code:

AFTER

MASS
43
AREA
6476
HEIGHT
3212
21-Jun-2023
13:47
linh
pha



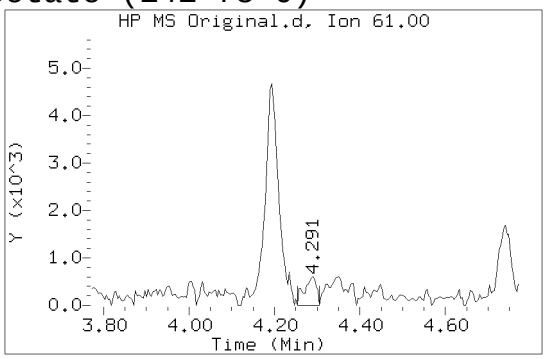
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Ethyl Acetate (141-78-6)

Reason Code:

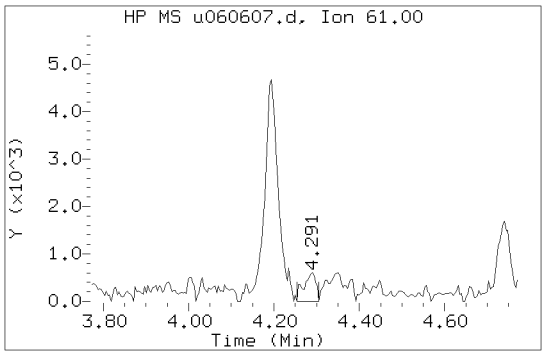
BEFORE

MASS
61
AREA
1204
HEIGHT
613
08-Jun-2023
14:56
linh
pham



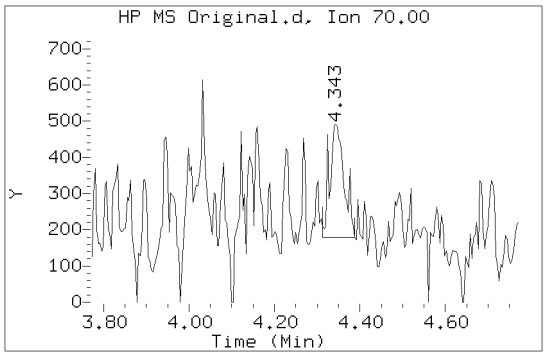
AFTER

MASS
61
AREA
1204
HEIGHT
613
21-Jun-2023
13:47
linh
pha



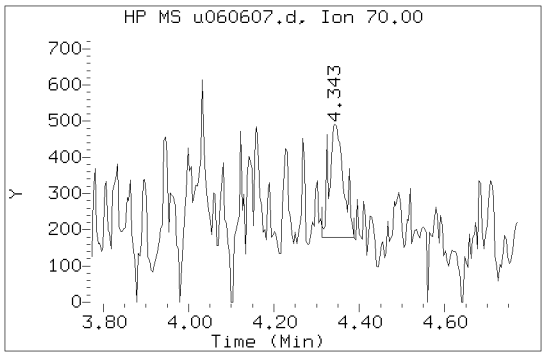
BEFORE

MASS
70
AREA
720
HEIGHT
311
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
720
HEIGHT
311
21-Jun-2023
13:47
linh
pha

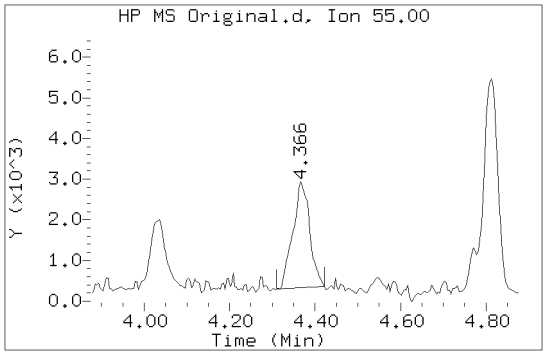


Methyl Acrylate (96-33-3)

Reason Code:

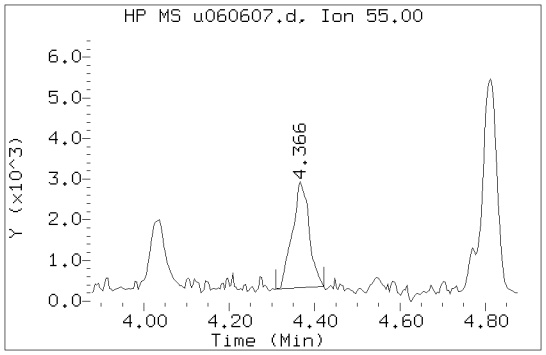
BEFORE

MASS
55
AREA
7188
HEIGHT
2604
08-Jun-2023
14:56
linh
pham



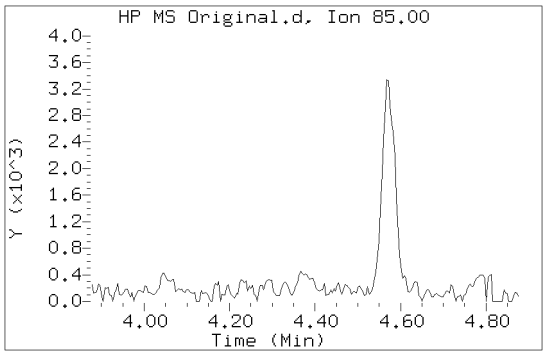
AFTER

MASS
55
AREA
7188
HEIGHT
2604
21-Jun-2023
13:47
linh
pha



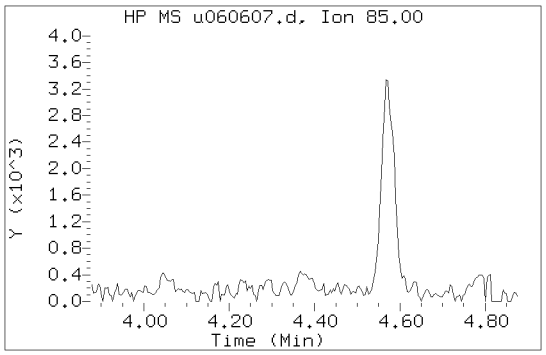
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha



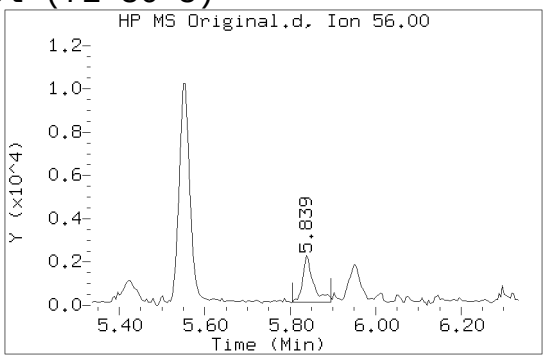
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

n-Butanol (71-36-3)

Reason Code:

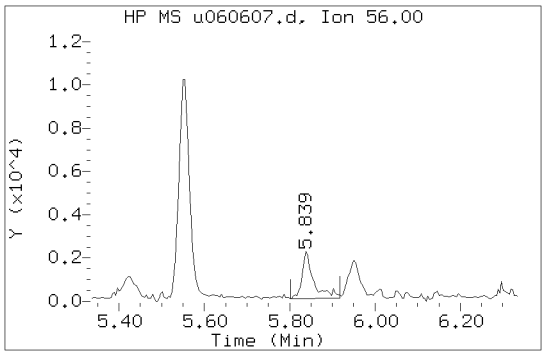
BEFORE

MASS
56
AREA
3831
HEIGHT
2179
08-Jun-2023
14:56
linh
pham



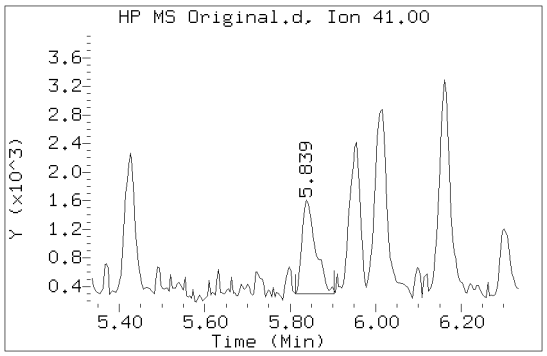
AFTER

MASS
56
AREA
4225
HEIGHT
2201
21-Jun-2023
13:47
linh
pha



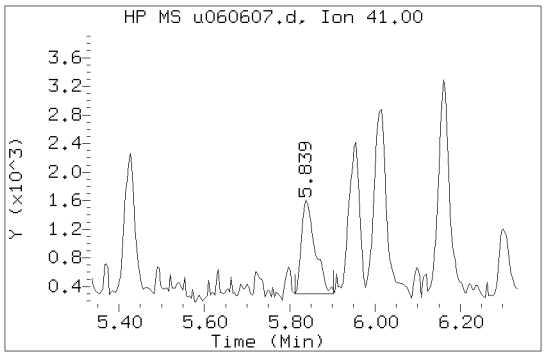
BEFORE

MASS
41
AREA
2978
HEIGHT
1310
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
2978
HEIGHT
1310
21-Jun-2023
13:47
linh
pha

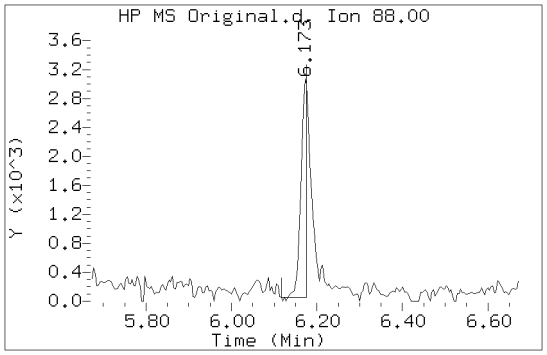


1,4-Dioxane ()

Reason Code:

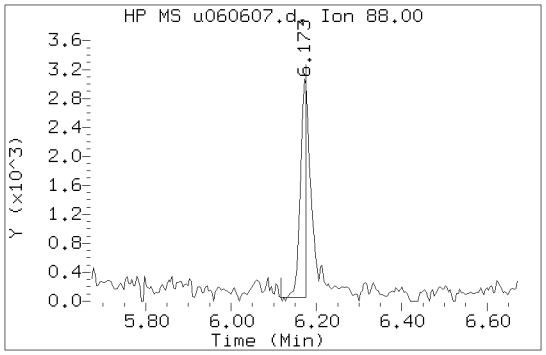
BEFORE

MASS
88
AREA
3065
HEIGHT
3017
08-Jun-2023
14:56
linh
pham



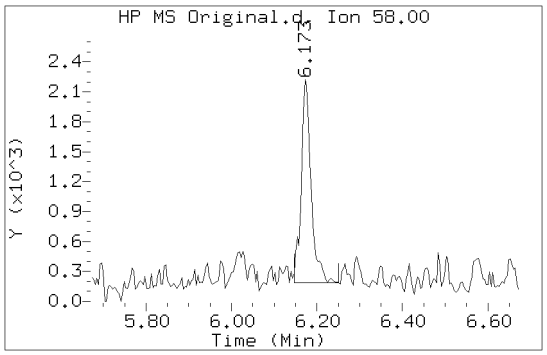
AFTER

MASS
88
AREA
3065
HEIGHT
3017
21-Jun-2023
13:47
linh
pha



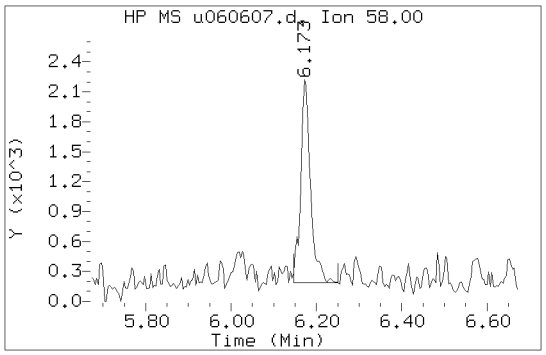
BEFORE

MASS
58
AREA
3335
HEIGHT
2036
08-Jun-2023
14:56
linh
pham



AFTER

MASS
58
AREA
3335
HEIGHT
2036
21-Jun-2023
13:47
linh
pha



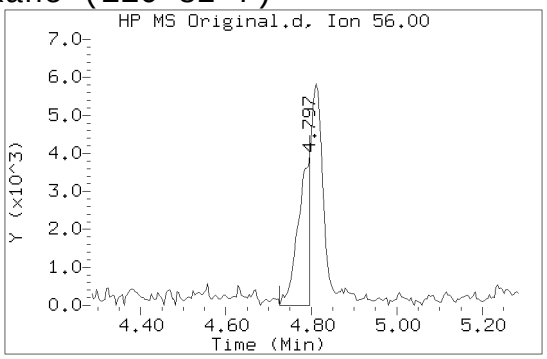
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Cyclohexane (110-82-7)

Reason Code:

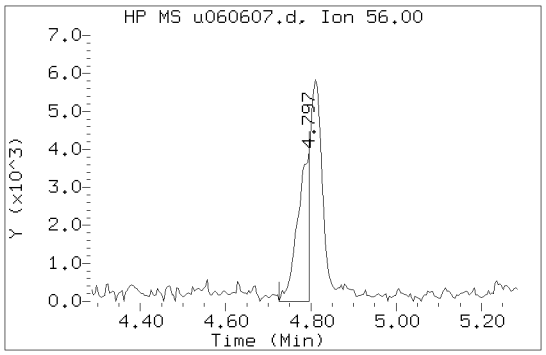
BEFORE

MASS
56
AREA
7781
HEIGHT
3965
08-Jun-2023
14:56
linh
pham



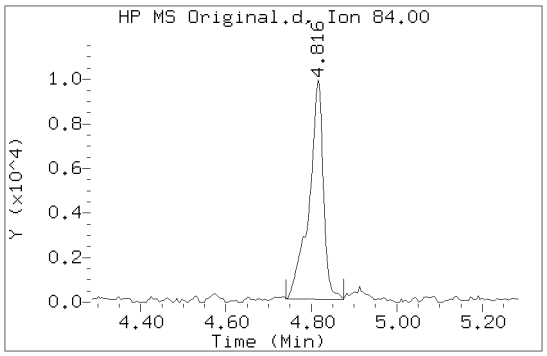
AFTER

MASS
56
AREA
7781
HEIGHT
3965
21-Jun-2023
13:47
linh
pha



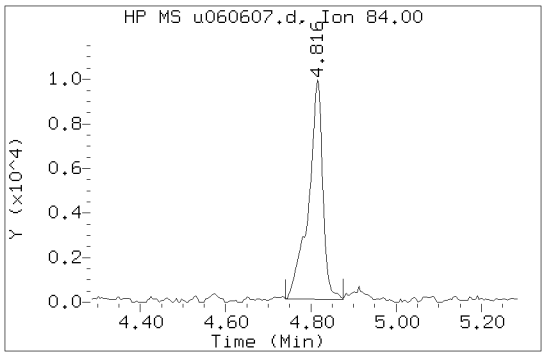
BEFORE

MASS
84
AREA
22992
HEIGHT
9843
08-Jun-2023
14:56
linh
pham



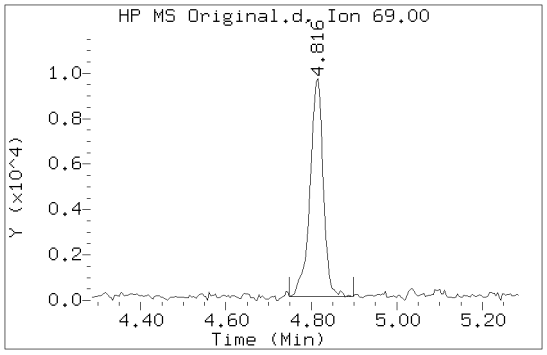
AFTER

MASS
84
AREA
22992
HEIGHT
9843
21-Jun-2023
13:47
linh
pha



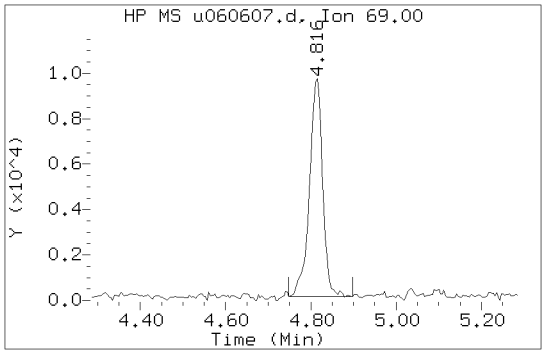
BEFORE

MASS
69
AREA
20740
HEIGHT
9600
08-Jun-2023
14:56
linh
pham



AFTER

MASS
69
AREA
20740
HEIGHT
9600
21-Jun-2023
13:47
linh
pha

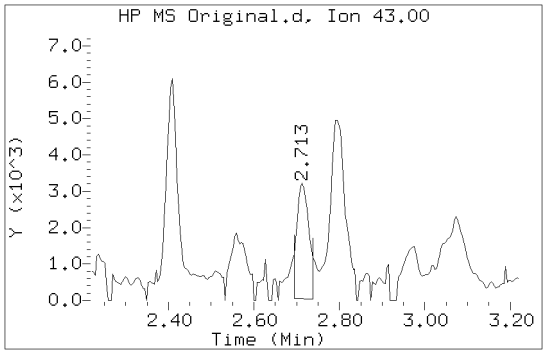


Methyl Acetate (79-20-9)

Reason Code:

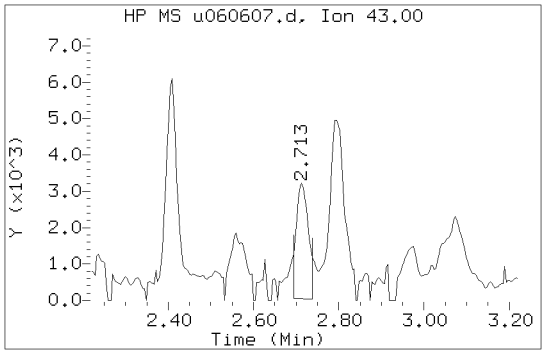
BEFORE

MASS
43
AREA
6421
HEIGHT
3170
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
6421
HEIGHT
3170
21-Jun-2023
13:47
linh
pha

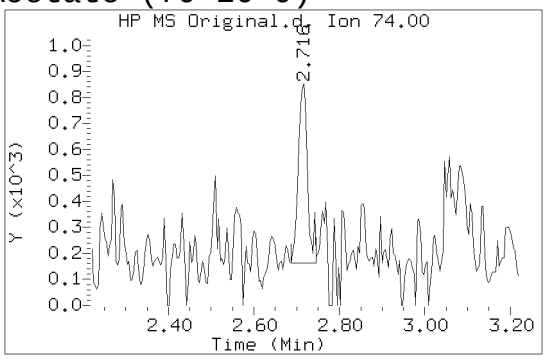


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Methyl Acetate (79-20-9)

BEFORE

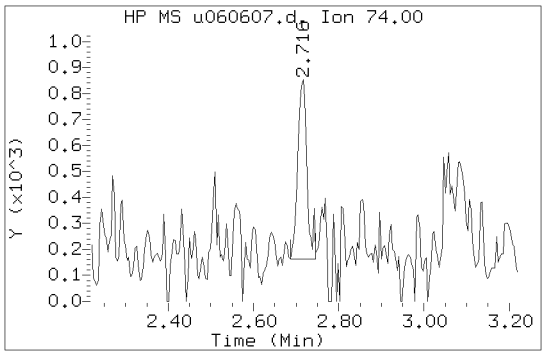
MASS
74
AREA
1042
HEIGHT
689
08-Jun-2023
14:56
linh
pham



AFTER

MASS
74
AREA
1042
HEIGHT
689
21-Jun-2023
13:47
linh
pha

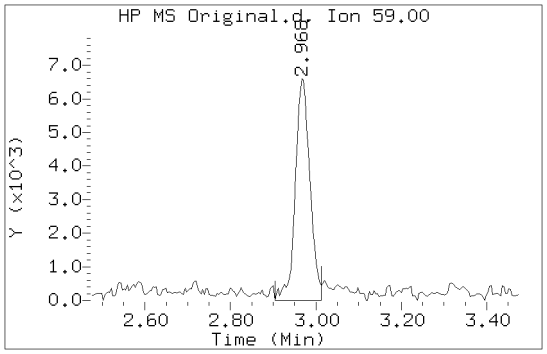
Reason Code:



Tert-Butyl alcohol (75-65-0)

BEFORE

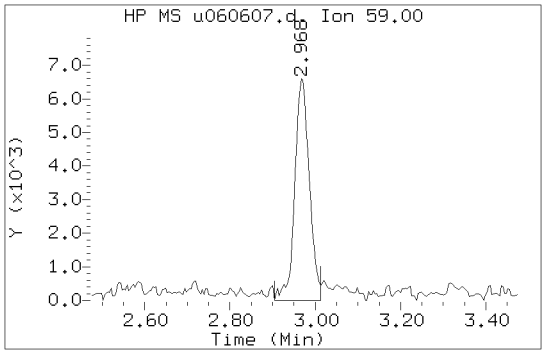
MASS
59
AREA
16016
HEIGHT
6600
08-Jun-2023
14:56
linh
pham



AFTER

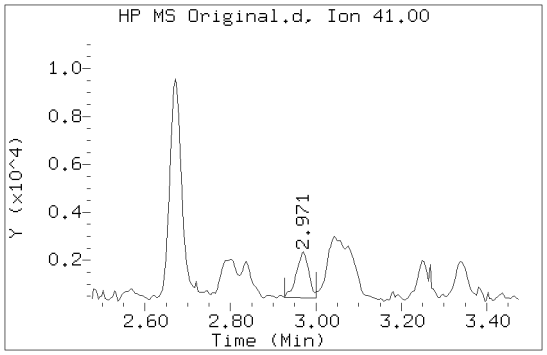
MASS
59
AREA
16016
HEIGHT
6600
21-Jun-2023
13:47
linh
pha

Reason Code:



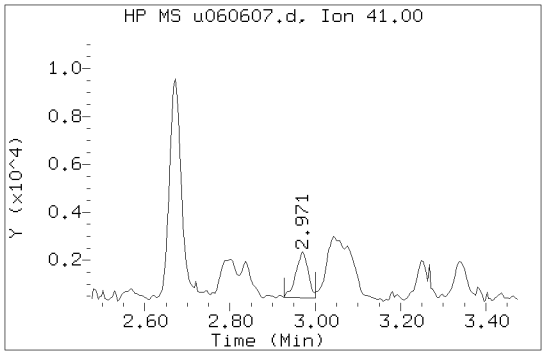
BEFORE

MASS
41
AREA
3907
HEIGHT
1899
08-Jun-2023
14:56
linh
pham



AFTER

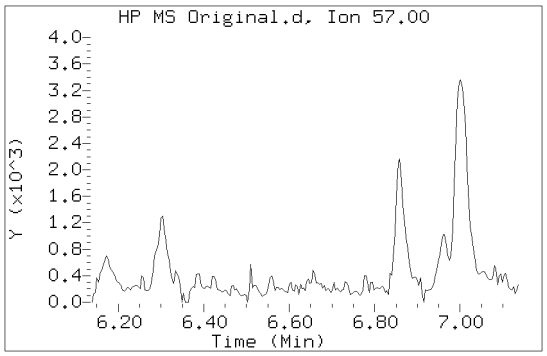
MASS
41
AREA
3907
HEIGHT
1899
21-Jun-2023
13:47
linh
pha



Epichlorohydrin (106-89-8)

BEFORE

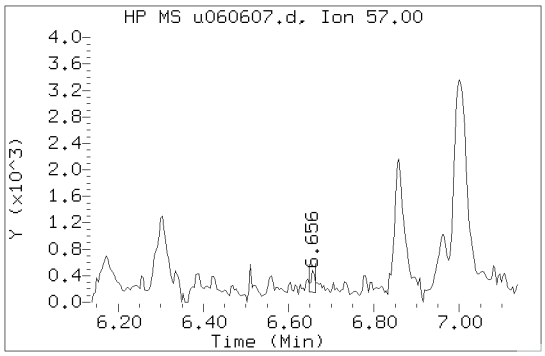
MASS
57
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
57
AREA
230
HEIGHT
333
21-Jun-2023
13:47
linh
pha

Reason Code:



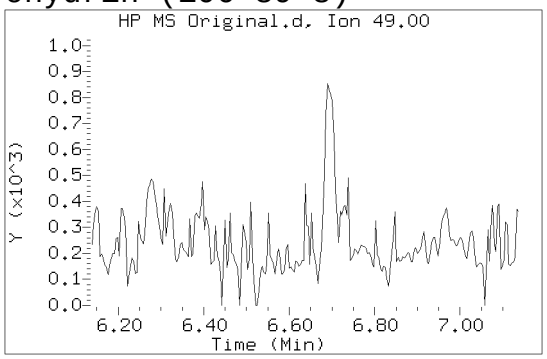
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

Epichlorohydrin (106-89-8)

Reason Code:

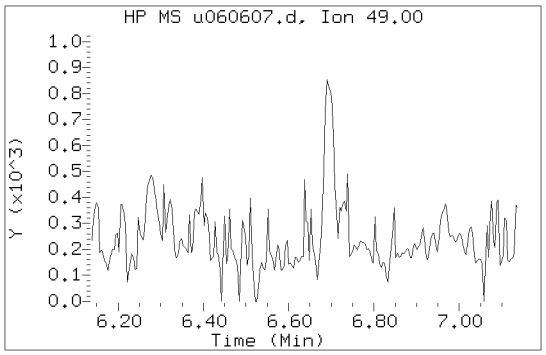
BEFORE

MASS
49
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
49
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

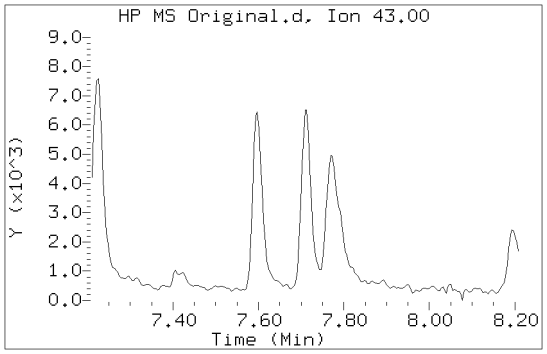


n-Butyl acetate (123-86-4)

Reason Code:

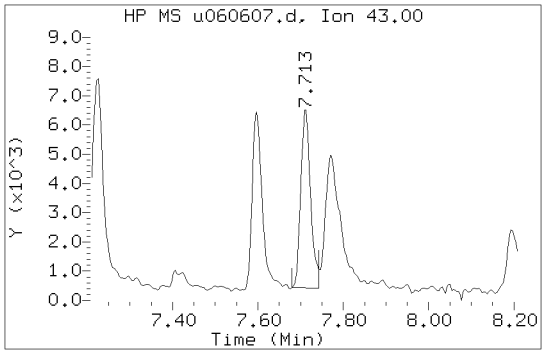
BEFORE

MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



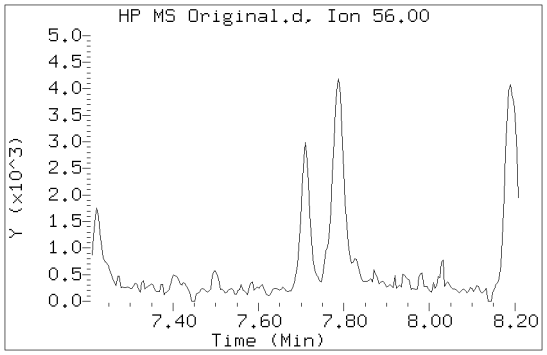
AFTER

MASS
43
AREA
10025
HEIGHT
6077
21-Jun-2023
13:47
linh
pha



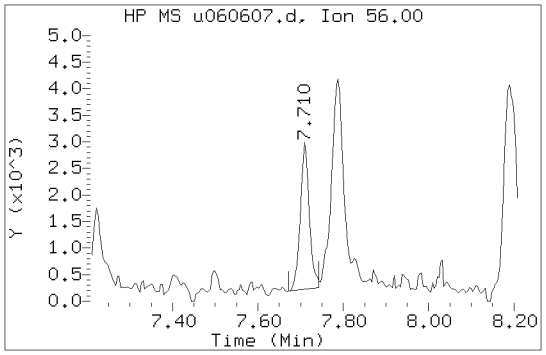
BEFORE

MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



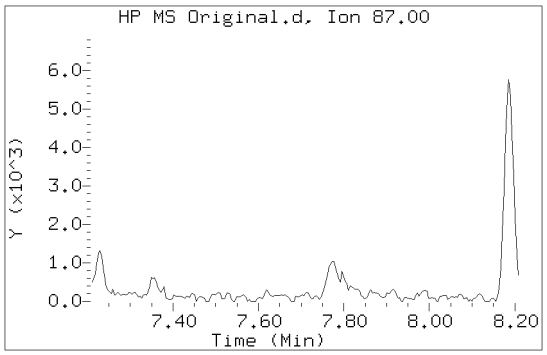
AFTER

MASS
56
AREA
4189
HEIGHT
2770
21-Jun-2023
13:47
linh
pha



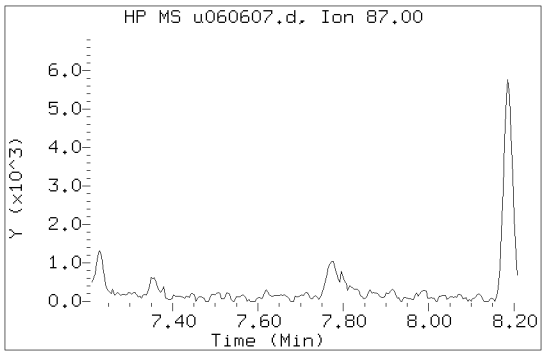
BEFORE

MASS
87
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
87
AREA
0
HEIGHT
0
21-Jun-2023
13:47
linh
pha

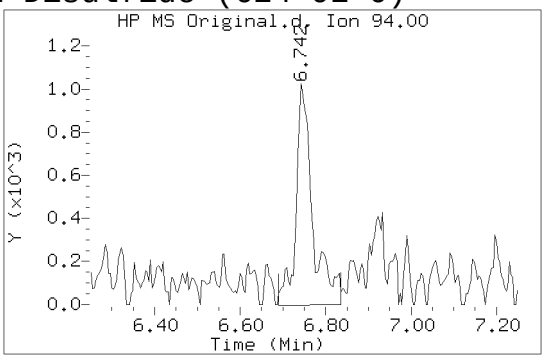


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

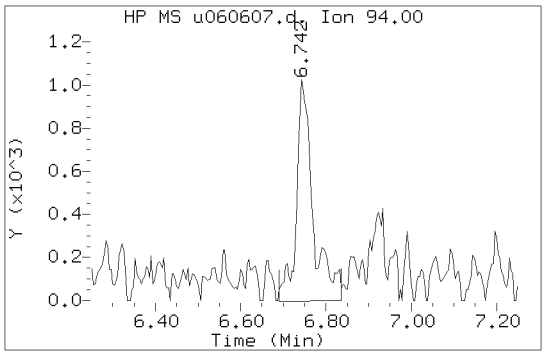
Dimethyl Disulfide (624-92-0)

Reason Code:

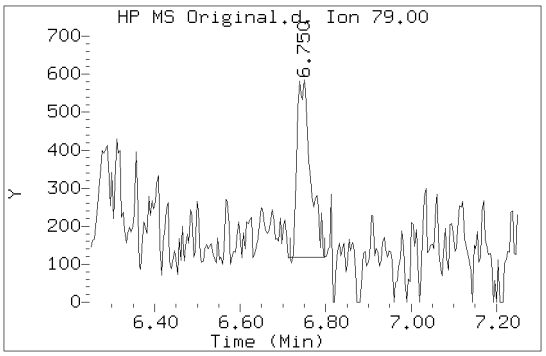
BEFORE
MASS
94
AREA
2841
HEIGHT
1027
08-Jun-2023
14:56
linh
pham



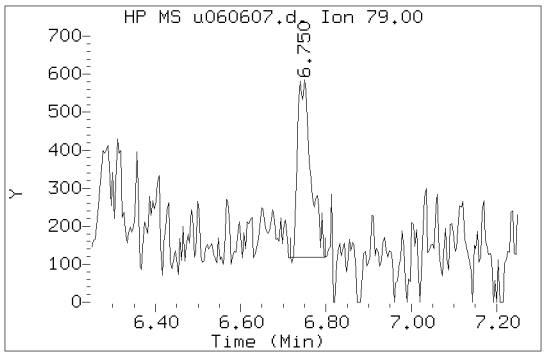
AFTER
MASS
94
AREA
2841
HEIGHT
1027
21-Jun-2023
13:47
linh
pha



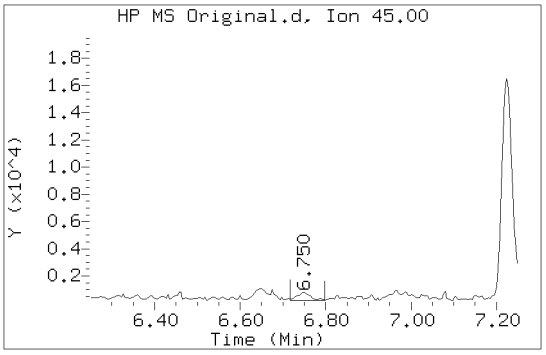
BEFORE
MASS
79
AREA
1040
HEIGHT
467
08-Jun-2023
14:56
linh
pham



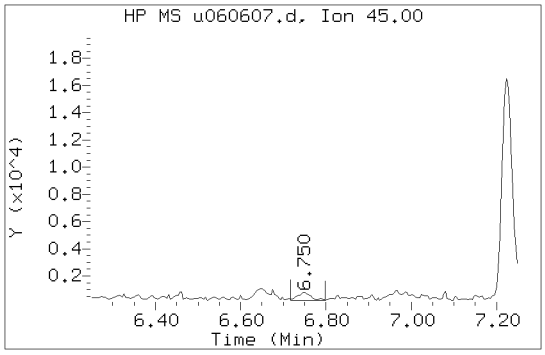
AFTER
MASS
79
AREA
1040
HEIGHT
467
21-Jun-2023
13:47
linh
pha



BEFORE
MASS
45
AREA
1197
HEIGHT
562
08-Jun-2023
14:56
linh
pham



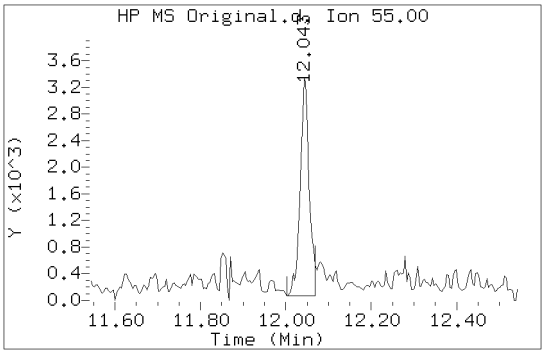
AFTER
MASS
45
AREA
1197
HEIGHT
562
21-Jun-2023
13:47
linh
pha



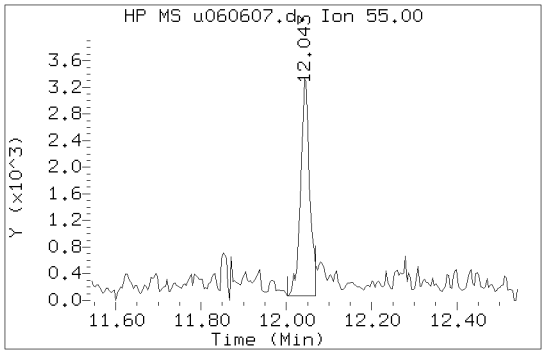
2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

BEFORE
MASS
55
AREA
4963
HEIGHT
3262
08-Jun-2023
14:56
linh
pham



AFTER
MASS
55
AREA
4963
HEIGHT
3262
21-Jun-2023
13:47
linh
pha



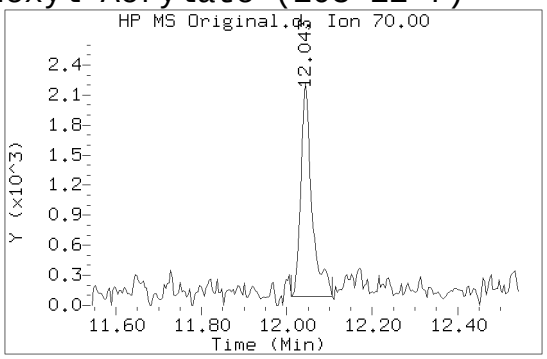
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060607.d
Inj Date : 06-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VSTD001

2-Ethylhexyl Acrylate (103-11-7)

Reason Code:

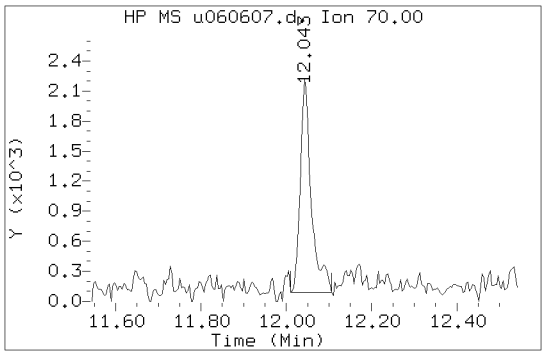
BEFORE

MASS
70
AREA
3909
HEIGHT
2125
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
3909
HEIGHT
2125
21-Jun-2023
13:47
linh
pha



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D Page 1
Report Date: 13-Jun-2023 13:01

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Lab Smp Id: VSTD002 Client Smp ID: VSTD002
Inj Date : 06-JUN-2023 13:50
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\U230606.b\8260C.m
Meth Date : 13-Jun-2023 13:01 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 13:28 Cal File: U060607.D
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	654680	50.0000	
2	Dichlorodifluoromethane	85	1.171	1.171	(0.243)	8519	2.00000	1.48(a)
3	Chloromethane	50	1.303	1.303	(0.270)	24280	2.00000	1.17(a)
5	Vinyl Chloride	62	1.385	1.385	(0.288)	12806	2.00000	1.84(a)
6	Bromomethane	94	1.629	1.629	(0.338)	9237	2.00000	0.85(a)
7	Chloroethane	64	1.708	1.708	(0.354)	8750	2.00000	1.87(a)
8	Trichlorofluoromethane	101	1.902	1.902	(0.395)	13346	2.00000	1.67(a)
10	Acetone	43	2.420	2.420	(0.502)	18337	4.00000	2.91(a)
11	1,1-Dichloroethene	96	2.341	2.341	(0.486)	8887	2.00000	1.78(a)
15	Iodomethane	142	2.480	2.480	(0.515)	5244	4.00000	11.12(M)
17	Methylene Chloride	84	2.802	2.802	(0.582)	14226	2.00000	1.40(a)
18	Methyl tert-butyl ether	73	3.087	3.087	(0.641)	27827	2.00000	1.82(a)
19	Carbon Disulfide	76	2.528	2.528	(0.525)	47817	4.00000	3.59(a)
20	trans-1,2-Dichloroethene	96	3.068	3.068	(0.637)	10209	2.00000	1.88(a)
21	Vinyl Acetate	43	3.616	3.616	(0.750)	59931	4.00000	3.63(a)
22	1,1-Dichloroethane	63	3.522	3.522	(0.731)	20288	2.00000	1.97(a)
24	2-Butanone	43	4.279	4.279	(0.888)	11638	4.00000	3.89(a)
26	2,2-Dichloropropane	77	4.182	4.182	(0.868)	12294	2.00000	2.19(a)
27	cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	12235	2.00000	1.89(a)
28	Chloroform	83	4.579	4.579	(0.950)	20897	2.00000	1.95(a)

	29 Bromochloromethane	128	4.474	4.474 (0.928)	6927	2.00000	1.91(a)
$	30 Dibromofluoromethane	113	4.755	4.755 (0.987)	10602	2.00000	1.62(a)

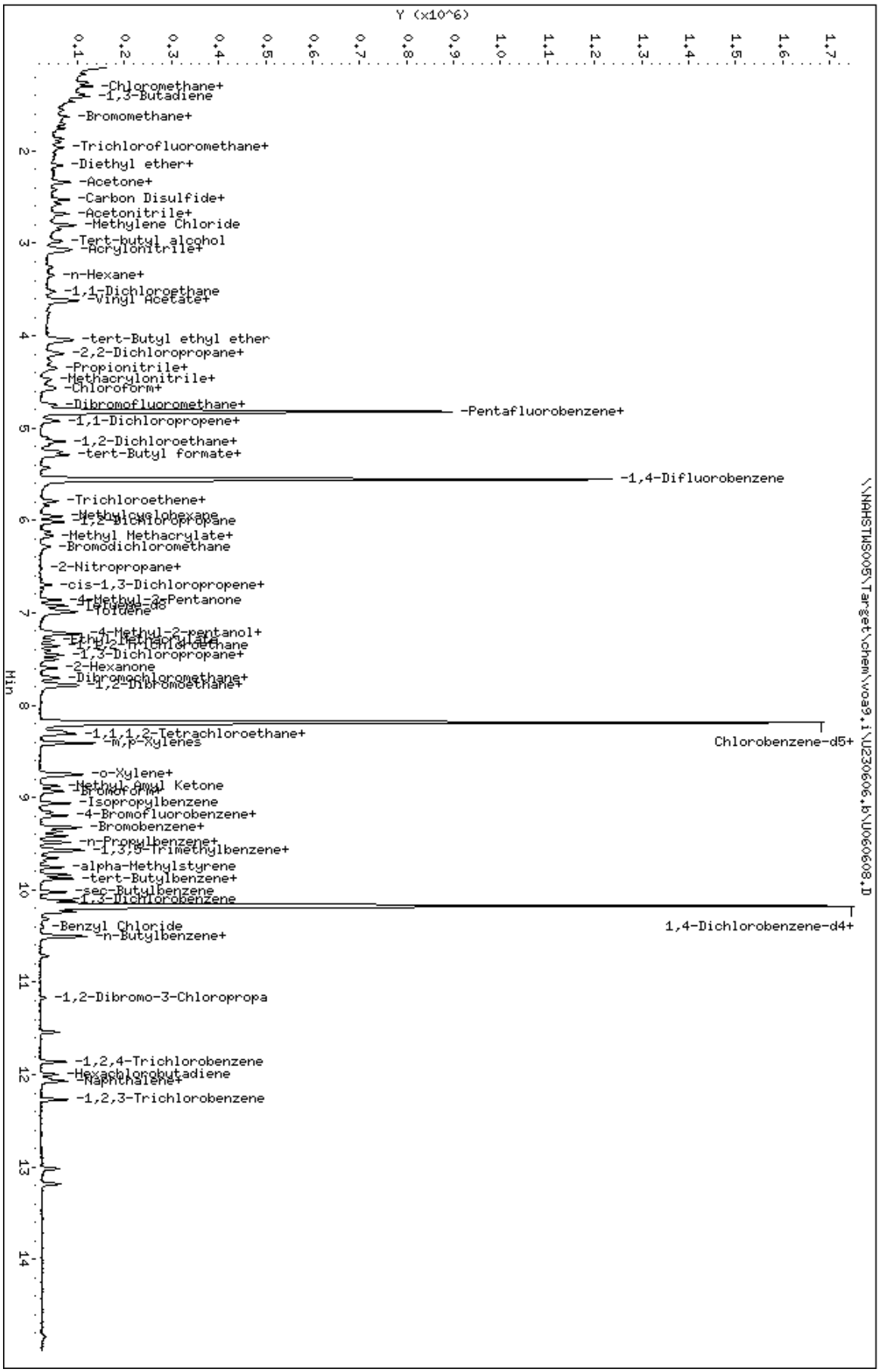
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	13786	2.00000	1.69(a)
	32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	12050	2.00000	1.70(a)
	33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	17690	2.00000	2.12(a)
	34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	10294	2.00000	1.58(a)
$	35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	11855	2.00000	1.33(a)
*	36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	962707	50.0000	
	37 Benzene	78	5.141	5.141	(0.925)	46993	2.00000	2.02(a)
	38 Trichloroethene	130	5.794	5.794	(1.042)	12341	2.00000	1.83(a)
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	12700	2.00000	1.75(a)
	42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	12117	2.00000	1.95(a)
	44 Dibromomethane	93	6.123	6.123	(1.102)	7782	2.00000	1.96(a)
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	30250	4.00000	4.57(a)
	46 cis-1,3-Dichloropropene	75	6.697	6.697	(1.205)	12842	2.00000	3.18(a)
*	47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	907233	50.0000	
$	48 Toluene-d8	98	6.926	6.926	(0.846)	36710	2.00000	1.78(a)
	50 Toluene	91	6.986	6.986	(0.853)	45011	2.00000	1.82(a)
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	12660	2.00000	3.51(aM)
	52 2-Hexanone	43	7.597	7.597	(0.928)	23033	4.00000	5.00
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.898)	10667	2.00000	2.08(a)
	54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	21098	2.00000	2.01(a)
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	10276	2.00000	1.69(a)
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	11347	2.00000	1.89(a)
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	12823	2.00000	2.03(a)
	58 1-Chlorohexane	55	8.189	8.189	(1.473)	9554	2.00000	1.93(aM)
	59 Chlorobenzene	112	8.211	8.211	(1.003)	36163	2.00000	2.05(a)
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	11696	2.00000	1.93(a)
	61 Ethylbenzene	106	8.309	8.309	(1.015)	13970	2.00000	1.70(a)
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	33831	4.00000	3.49(aM)
	63 o-Xylene	106	8.748	8.748	(1.068)	16529	2.00000	1.73(a)
	64 Styrene	104	8.766	8.766	(1.070)	26887	2.00000	1.77(a)
	66 Bromoform	173	8.920	8.920	(1.089)	7583	2.00000	1.84(a)
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	39716	2.00000	1.73(a)
	68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	21290	2.00000	2.41(aM)
$	69 4-Bromofluorobenzene	95	9.197	9.197	(1.123)	16728	2.00000	1.19(a)
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	468121	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	17163	2.00000	2.21(aM)
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	42411	2.00000	1.72(a)
	74 Bromobenzene	156	9.317	9.317	(0.916)	17200	2.00000	2.17(a)
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	31762	2.00000	1.88(a)
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	34904	2.00000	2.02(a)
	77 4-Chlorotoluene	91	9.580	9.580	(0.942)	39709	2.00000	2.07(a)
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	29666	2.00000	1.79(a)
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	37613	2.00000	2.13(a)
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	35689	2.00000	1.70(a)
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	31988	2.00000	1.81(a)
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	29086	2.00000	2.16(a)
	84 1,4-Dichlorobenzene	146	10.195	10.195	(1.002)	31674	2.00000	2.21(aM)
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	27289	2.00000	1.81(a)
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	30371	2.00000	2.25(a)
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	2819	2.00000	2.19(a)
	90 1,2,4-Trichlorobenzene	180	11.859	11.859	(1.166)	19713	2.00000	2.13(a)
	93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	20459	2.00000	2.26(a)

M	94	1,2-Dichloroethylene (total)	96			22444	4.00000	(a)
	135	1,4-Dioxane	88	6.176	6.176 (1.282)	5764	40.0000	44.34(aM)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
141 Cyclohexane	56	4.785	4.785	(0.993)	8877	2.00000	1.31(aMH)
138 Freon TF	101	2.341	2.341	(0.486)	6997	2.00000	1.59(aM)
140 1,3-Butadiene	54	1.408	1.408	(0.292)	11039	2.00000	1.78(a)
147 Methylcyclohexane	55	5.955	5.955	(1.071)	22206	2.00000	1.66(a)
146 Methyl Acetate	43	2.723	2.723	(0.565)	12288	2.00000	2.22(a)
148 Tert-Butyl alcohol	59	2.978	2.978	(0.618)	34487	40.0000	52.33
149 Isopropyl Alcohol	45	2.573	2.573	(0.534)	22047	40.0000	51.51(T)
72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.145)	1936	2.00000	1.85(M)
12 Isobutyl Alcohol	43	5.295	5.295	(1.099)	31429	40.0000	36.94(M)
13 Acetonitrile	39	2.678	2.678	(0.556)	13701	20.0000	19.32
40 Methyl Methacrylate	41	6.161	6.161	(1.278)	9826	2.00000	1.74
4 Propionitrile	54	4.350	4.350	(0.903)	17197	20.0000	18.17(a)
136 n-Hexane	57	3.346	3.346	(0.694)	7179	2.00000	1.45(a)
131 Methyl Acrylate	55	4.377	4.377	(0.908)	11843	2.00000	1.71(aM)
200 Dimethyl Disulfide	94	6.746	6.746	(0.824)	4598	2.00000	5.17(M)
49 Ethyl Methacrylate	69	7.297	7.297	(1.313)	13205	2.00000	1.56(a)
166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	34972	2.00000	1.94(a)
167 Ethanol	45	2.090	2.090	(0.434)	4910	40.0000	38.64
164 Dicyclopentadiene	66	10.202	10.202	(1.003)	43120	2.00000	1.88(a)
145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	14955	2.00000	5.11
156 Diisopropyl ether	45	3.627	3.627	(0.753)	35538	2.00000	1.94(Ta)
151 4-Methyl-2-pentanol	45	7.226	7.226	(1.300)	47340	40.0000	33.06
150 Allyl alcohol	57	3.346	3.346	(0.694)	7179	40.0000	29.86
86 Benzyl Chloride	91	10.315	10.315	(1.260)	11203	2.00000	5.38
162 Butyl acrylate	55	8.740	8.740	(1.067)	18210	2.00000	1.69(a)
139 Diethyl ether	59	2.154	2.154	(0.447)	8174	2.00000	1.84(a)
203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	8201	2.00000	3.58(a)
134 Cyclohexanone	55	9.156	9.156	(0.900)	11087	40.0000	38.20(a)
130 Ethyl Acetate	43	4.279	4.279	(0.888)	11855	2.00000	2.02(aM)
189 n-Butyl acetate	43	7.713	7.713	(0.942)	21837	2.00000	2.11(aM)
182 Epichlorohydrin	57	6.637	6.637	(1.194)	854	8.00000	18.93(M)

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Date : 06-JUN-2023 13:50
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

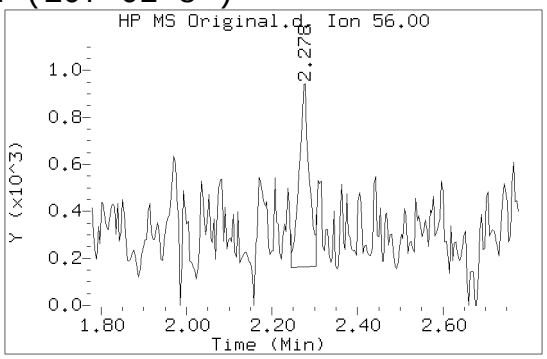
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

Acrolein (107-02-8)

Reason Code:

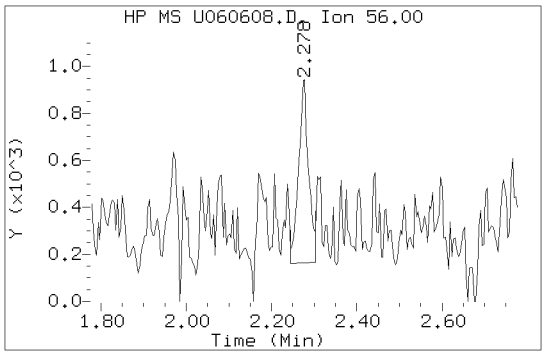
BEFORE

MASS
56
AREA
1315
HEIGHT
779
08-Jun-2023
14:56
linh
pham



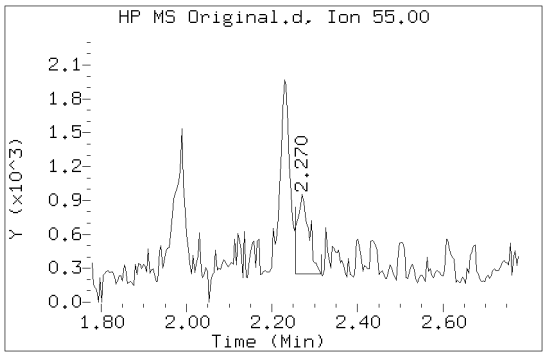
AFTER

MASS
56
AREA
1315
HEIGHT
779
13-Jun-2023
13:00
linh
pham



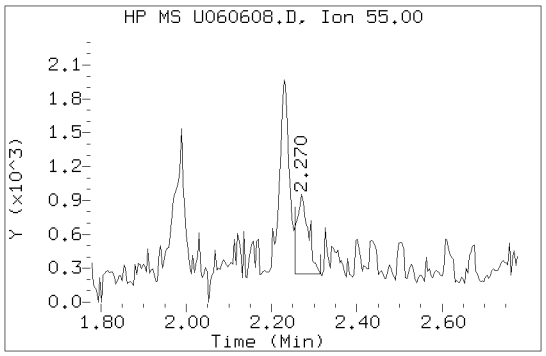
BEFORE

MASS
55
AREA
1335
HEIGHT
706
08-Jun-2023
14:56
linh
pham



AFTER

MASS
55
AREA
1335
HEIGHT
706
13-Jun-2023
13:00
linh
pham

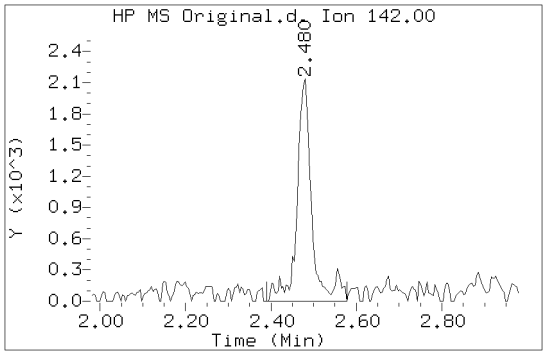


Iodomethane (74-88-4)

Reason Code:

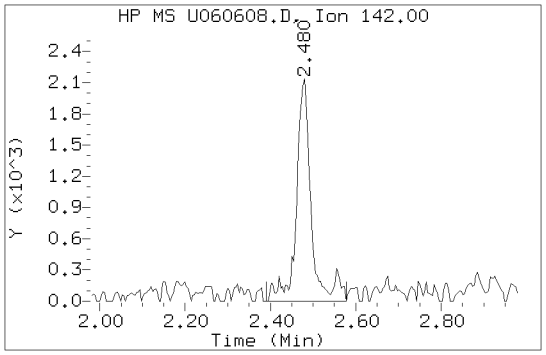
BEFORE

MASS
142
AREA
5244
HEIGHT
2136
08-Jun-2023
14:56
linh
pham



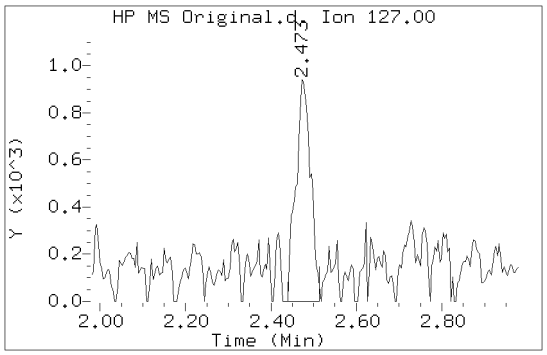
AFTER

MASS
142
AREA
5244
HEIGHT
2136
13-Jun-2023
13:00
linh
pham



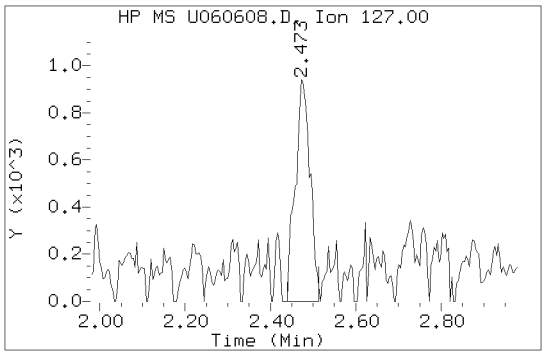
BEFORE

MASS
127
AREA
2301
HEIGHT
941
08-Jun-2023
14:56
linh
pham



AFTER

MASS
127
AREA
2301
HEIGHT
941
13-Jun-2023
13:00
linh
pham



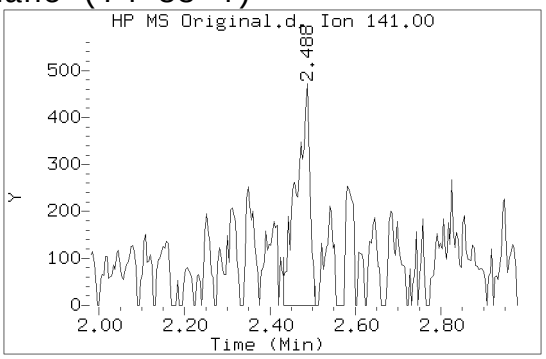
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

Iodomethane (74-88-4)

Reason Code:

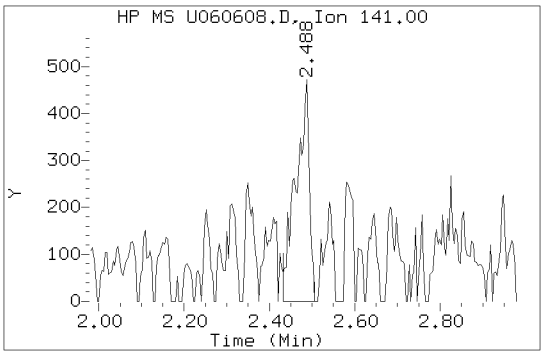
BEFORE

MASS
141
AREA
1044
HEIGHT
472
08-Jun-2023
14:56
linh
pham



AFTER

MASS
141
AREA
1044
HEIGHT
472
13-Jun-2023
13:00
linh
pham

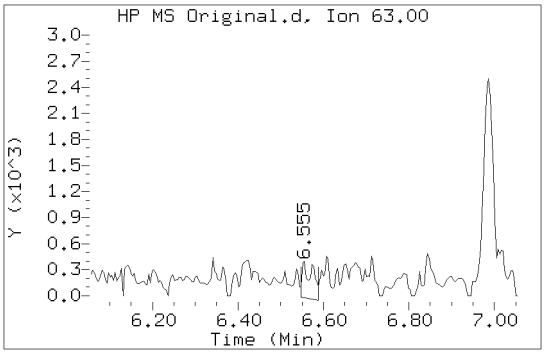


2-Chloroethylvinyl ether (110-75-8)

Reason Code:

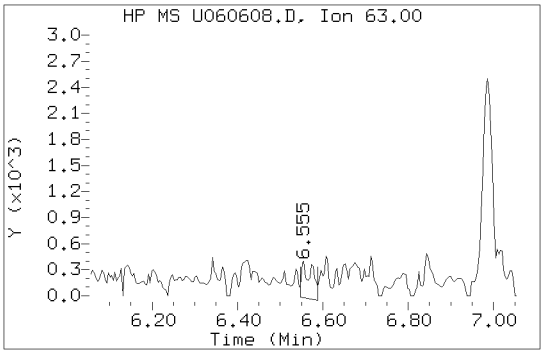
BEFORE

MASS
63
AREA
728
HEIGHT
422
08-Jun-2023
14:56
linh
pham



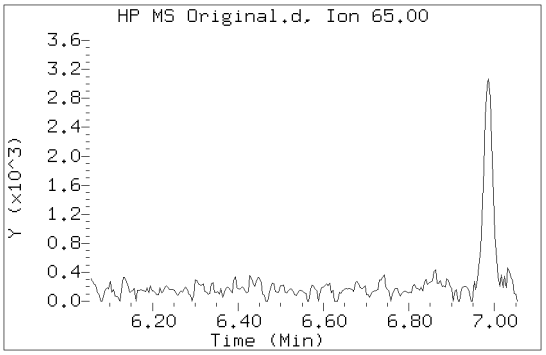
AFTER

MASS
63
AREA
728
HEIGHT
422
13-Jun-2023
13:00
linh
pham



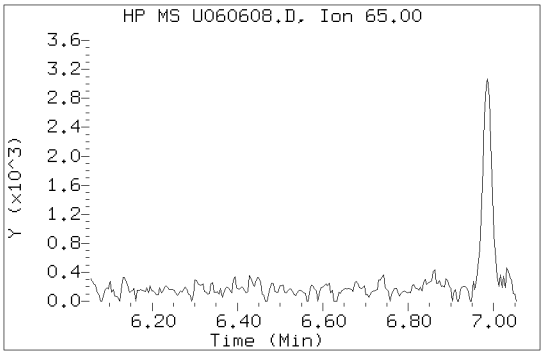
BEFORE

MASS
65
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



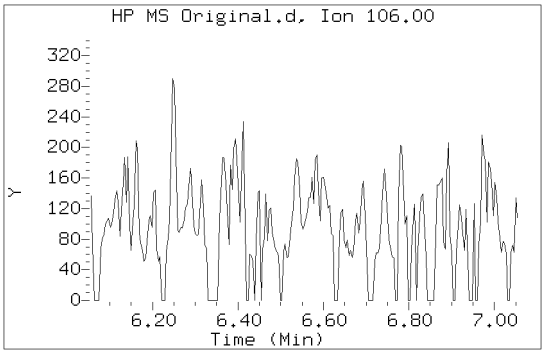
AFTER

MASS
65
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



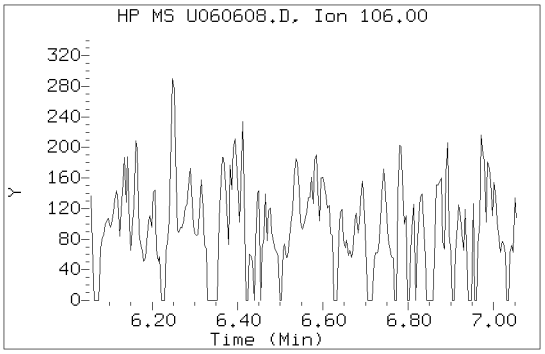
BEFORE

MASS
106
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



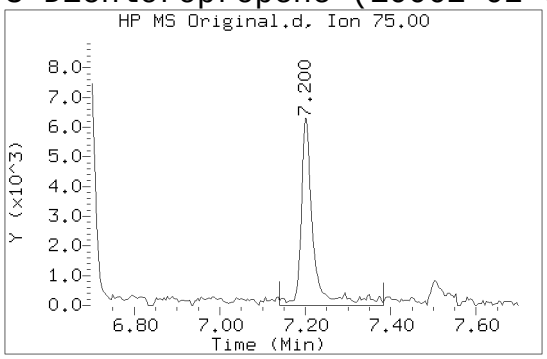
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

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

Reason Code:

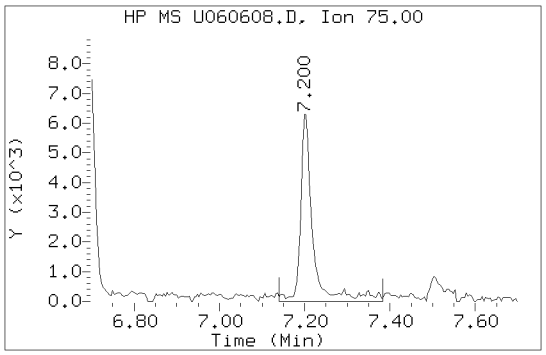
BEFORE

MASS
75
AREA
12660
HEIGHT
6296
08-Jun-2023
14:56
linh
pham



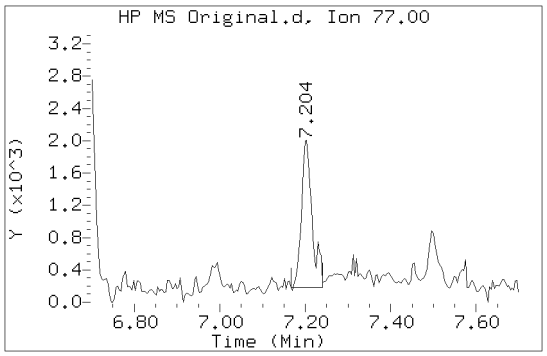
AFTER

MASS
75
AREA
12660
HEIGHT
6296
13-Jun-2023
13:00
linh
pham



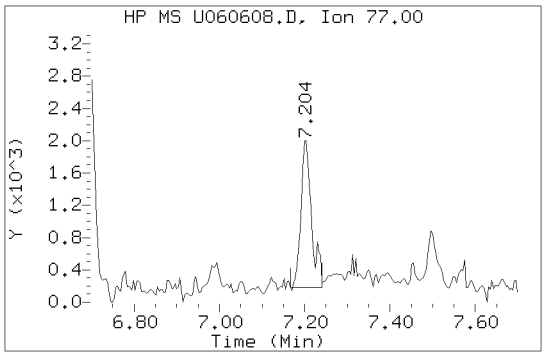
BEFORE

MASS
77
AREA
3204
HEIGHT
1827
08-Jun-2023
14:56
linh
pham



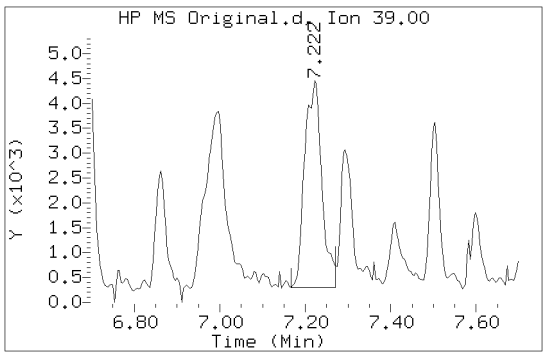
AFTER

MASS
77
AREA
3204
HEIGHT
1827
13-Jun-2023
13:00
linh
pham



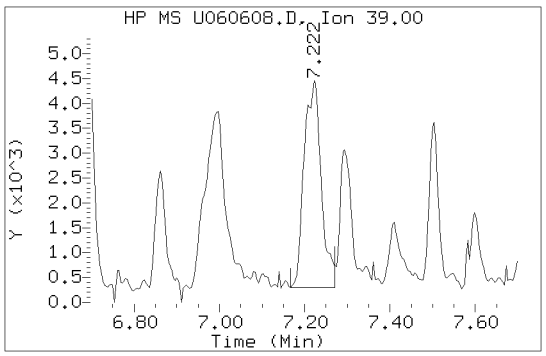
BEFORE

MASS
39
AREA
11661
HEIGHT
4160
08-Jun-2023
14:56
linh
pham



AFTER

MASS
39
AREA
11661
HEIGHT
4160
13-Jun-2023
13:00
linh
pham

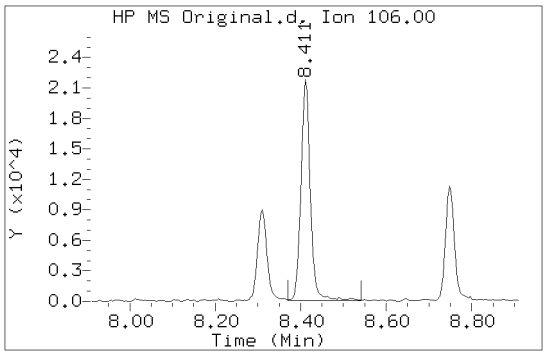


m,p-Xylenes ()

Reason Code:

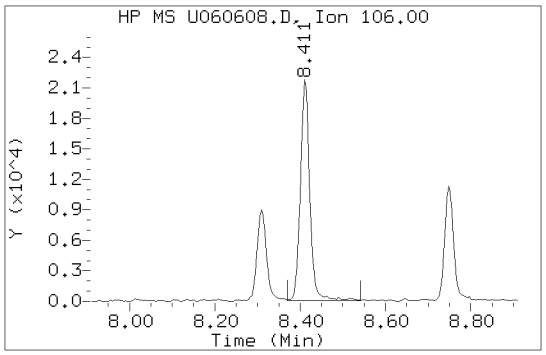
BEFORE

MASS
106
AREA
33831
HEIGHT
21724
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
33831
HEIGHT
21724
13-Jun-2023
13:00
linh
pham



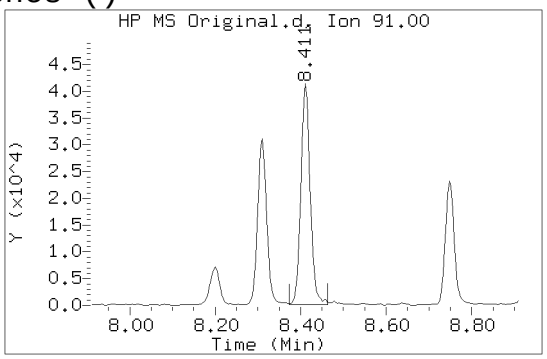
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

m,p-Xylenes ()

Reason Code:

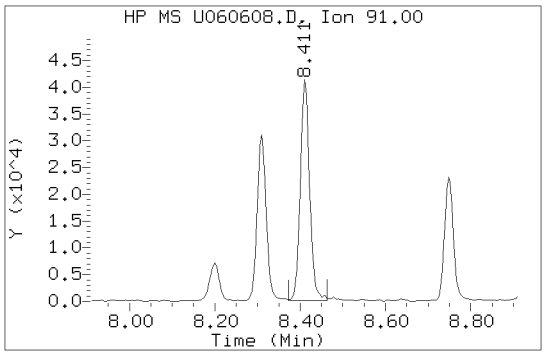
BEFORE

MASS
91
AREA
63741
HEIGHT
41264
08-Jun-2023
14:56
linh
pham



AFTER

MASS
91
AREA
63741
HEIGHT
41264
13-Jun-2023
13:00
linh
pham

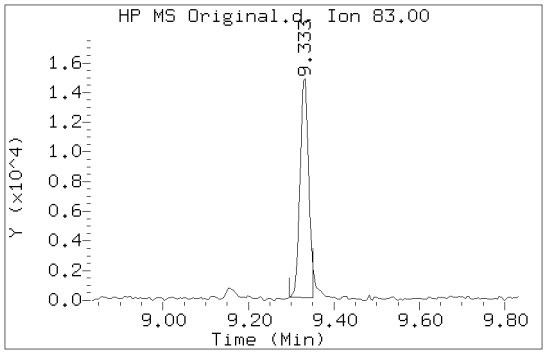


1,1,2,2-Tetrachloroethane (79-34-5)

Reason Code:

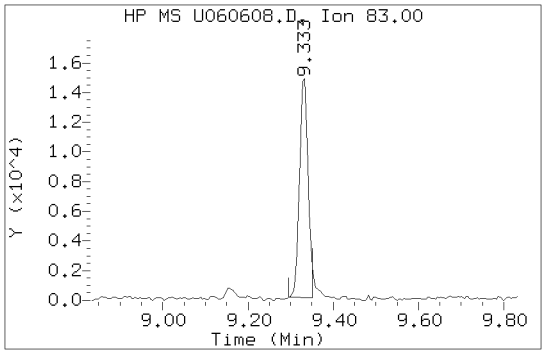
BEFORE

MASS
83
AREA
21290
HEIGHT
14748
08-Jun-2023
14:56
linh
pham



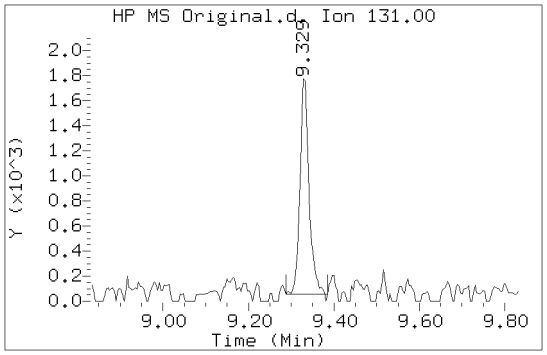
AFTER

MASS
83
AREA
21290
HEIGHT
14748
13-Jun-2023
13:00
linh
pham



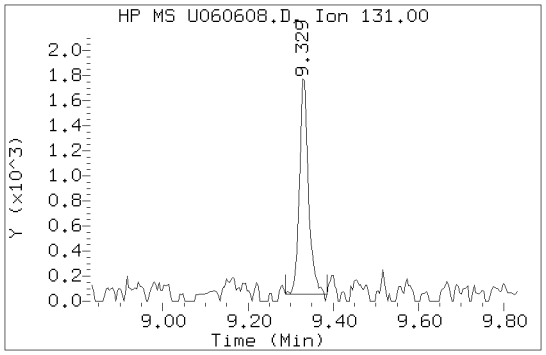
BEFORE

MASS
131
AREA
2587
HEIGHT
1718
08-Jun-2023
14:56
linh
pham



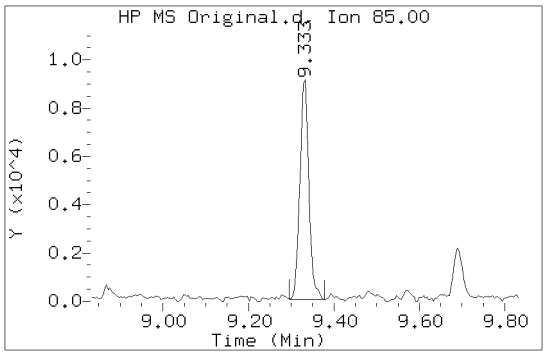
AFTER

MASS
131
AREA
2587
HEIGHT
1718
13-Jun-2023
13:00
linh
pham



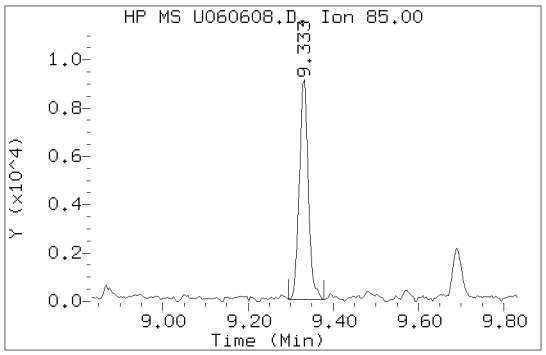
BEFORE

MASS
85
AREA
13620
HEIGHT
9094
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
13620
HEIGHT
9094
13-Jun-2023
13:00
linh
pham



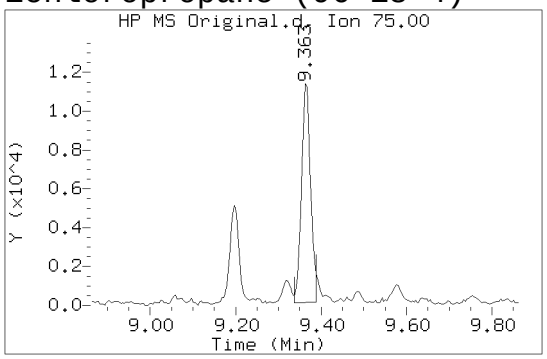
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

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

Reason Code:

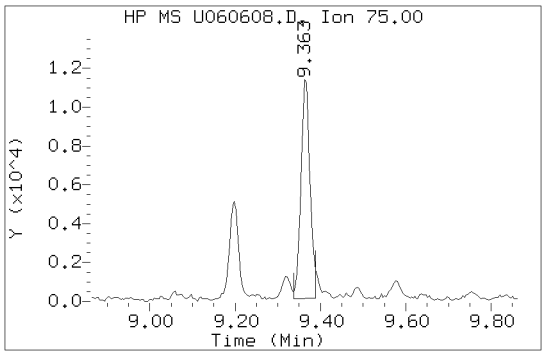
BEFORE

MASS
75
AREA
17163
HEIGHT
11263
08-Jun-2023
14:56
linh
pham



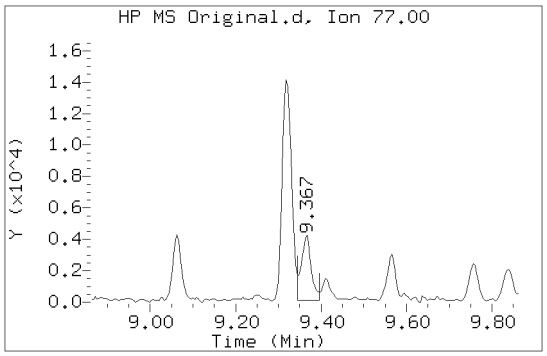
AFTER

MASS
75
AREA
17163
HEIGHT
11263
13-Jun-2023
13:00
linh
pham



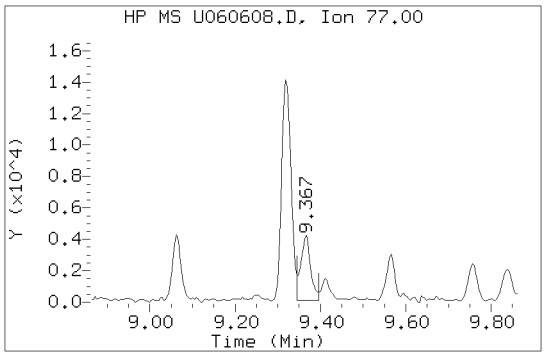
BEFORE

MASS
77
AREA
7018
HEIGHT
4115
08-Jun-2023
14:56
linh
pham



AFTER

MASS
77
AREA
7018
HEIGHT
4115
13-Jun-2023
13:00
linh
pham

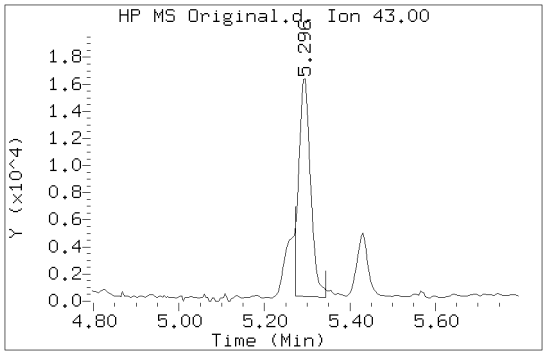


Isobutyl Alcohol (78-83-1)

Reason Code:

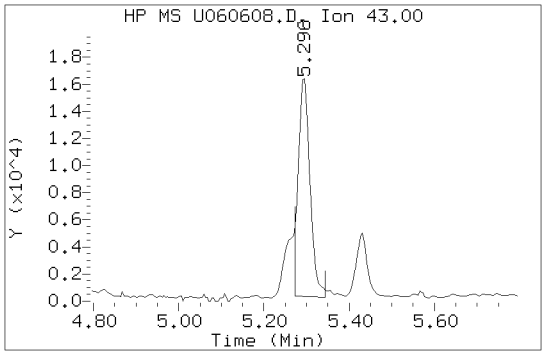
BEFORE

MASS
43
AREA
31429
HEIGHT
16036
08-Jun-2023
14:56
linh
pham



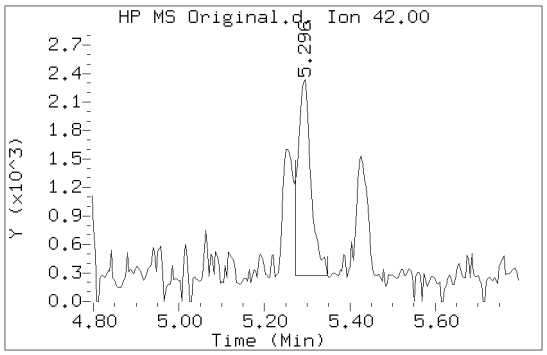
AFTER

MASS
43
AREA
31429
HEIGHT
16036
13-Jun-2023
13:00
linh
pham



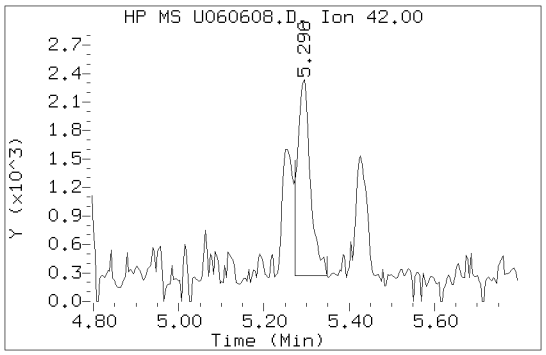
BEFORE

MASS
42
AREA
4414
HEIGHT
2065
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
4414
HEIGHT
2065
13-Jun-2023
13:00
linh
pham



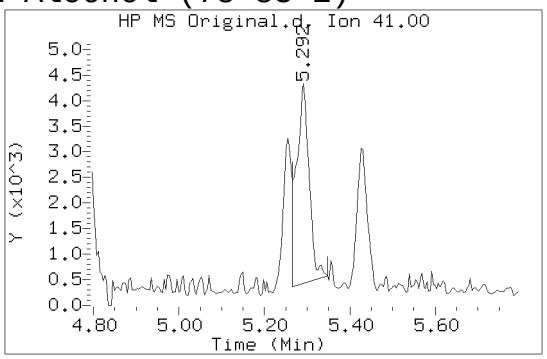
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

Isobutyl Alcohol (78-83-1)

Reason Code:

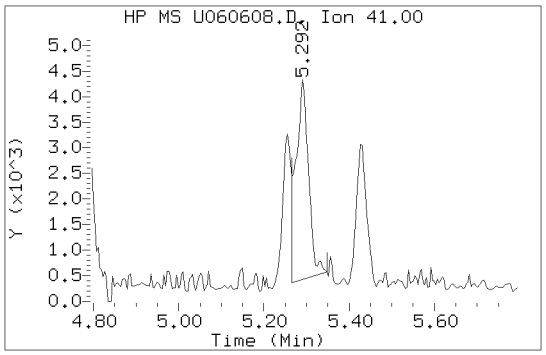
BEFORE

MASS
41
AREA
8253
HEIGHT
3899
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
8253
HEIGHT
3899
13-Jun-2023
13:00
linh
pham

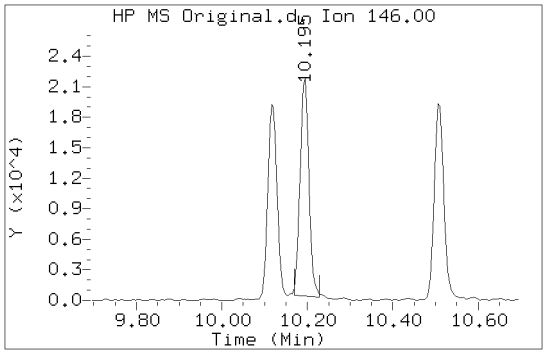


1,4-Dichlorobenzene (106-46-7)

Reason Code:

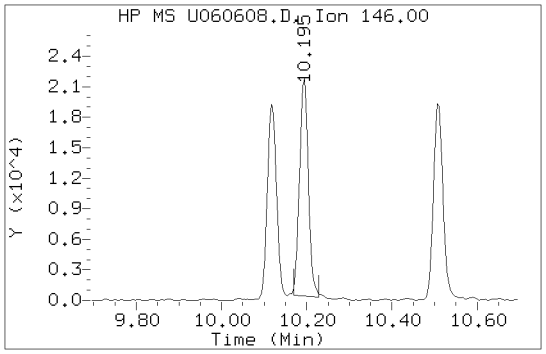
BEFORE

MASS
146
AREA
31674
HEIGHT
21370
08-Jun-2023
14:56
linh
pham



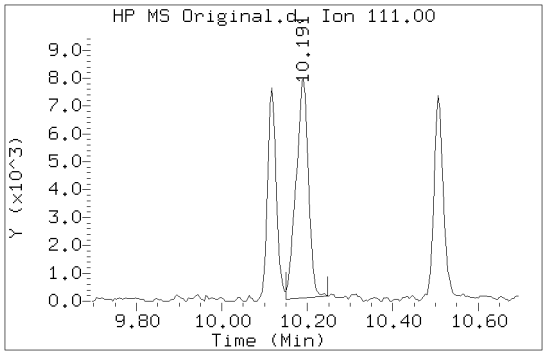
AFTER

MASS
146
AREA
31674
HEIGHT
21370
13-Jun-2023
13:00
linh
pham



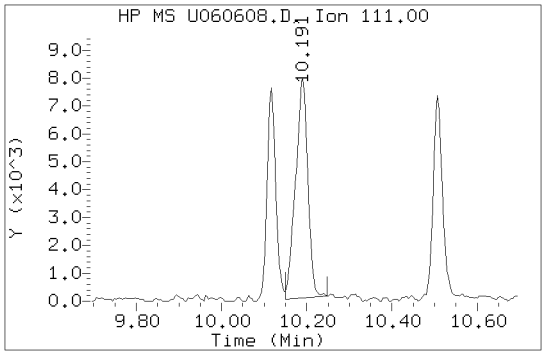
BEFORE

MASS
111
AREA
16075
HEIGHT
7847
08-Jun-2023
14:56
linh
pham



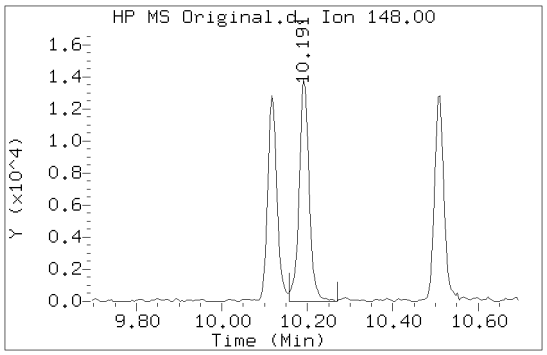
AFTER

MASS
111
AREA
16075
HEIGHT
7847
13-Jun-2023
13:00
linh
pham



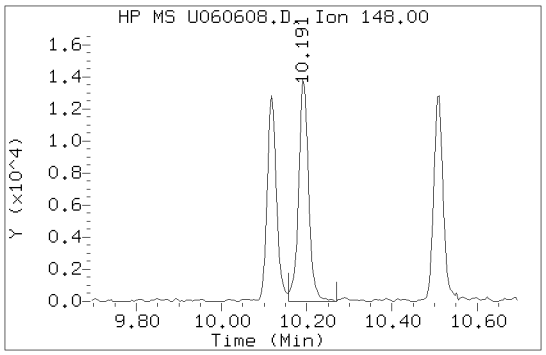
BEFORE

MASS
148
AREA
23144
HEIGHT
13826
08-Jun-2023
14:56
linh
pham



AFTER

MASS
148
AREA
23144
HEIGHT
13826
13-Jun-2023
13:00
linh
pham



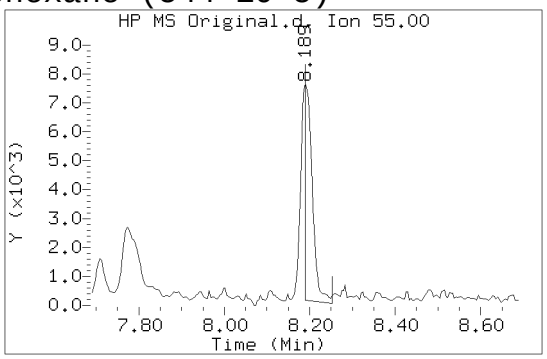
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

1-Chlorohexane (544-10-5)

Reason Code:

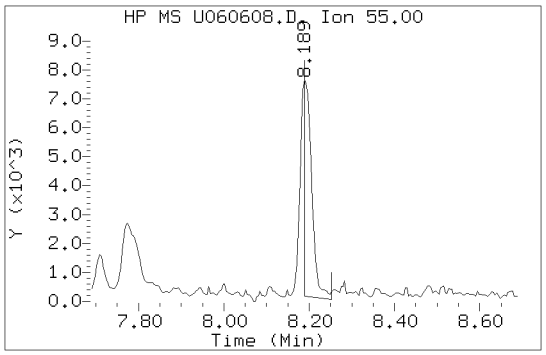
BEFORE

MASS
55
AREA
9554
HEIGHT
7479
08-Jun-2023
14:56
linh
pham



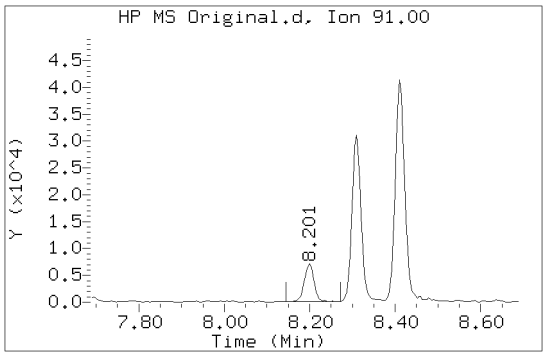
AFTER

MASS
55
AREA
9554
HEIGHT
7479
13-Jun-2023
13:00
linh
pham



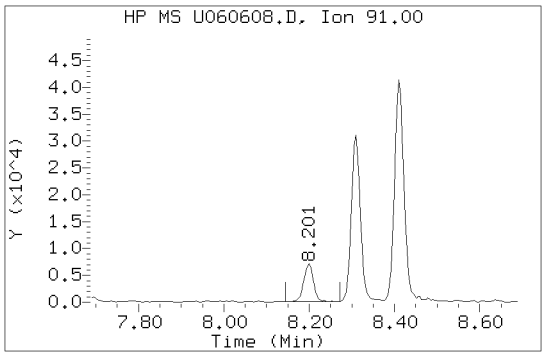
BEFORE

MASS
91
AREA
11373
HEIGHT
7051
08-Jun-2023
14:56
linh
pham



AFTER

MASS
91
AREA
11373
HEIGHT
7051
13-Jun-2023
13:00
linh
pham

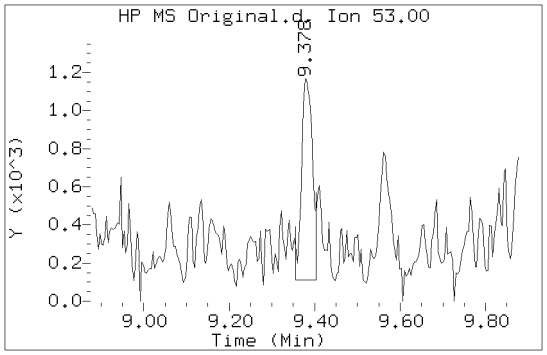


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

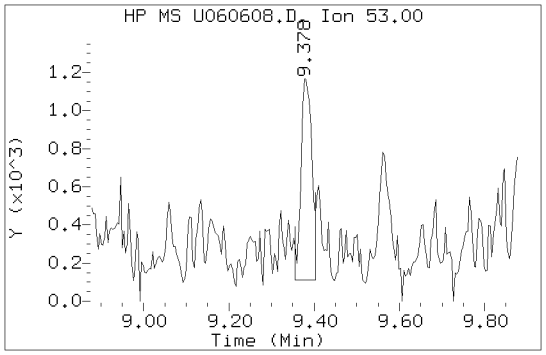
BEFORE

MASS
53
AREA
1936
HEIGHT
1056
08-Jun-2023
14:56
linh
pham



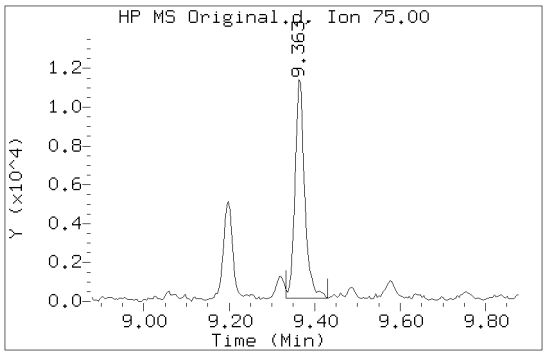
AFTER

MASS
53
AREA
1936
HEIGHT
1056
13-Jun-2023
13:00
linh
pham



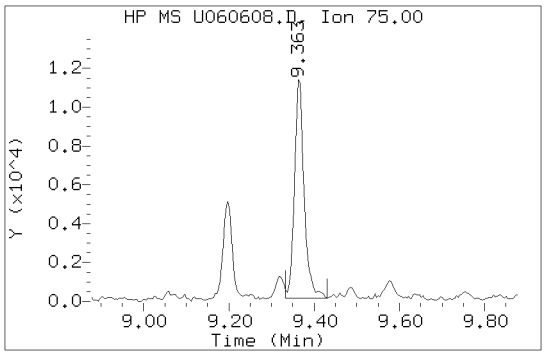
BEFORE

MASS
75
AREA
18151
HEIGHT
11253
08-Jun-2023
14:56
linh
pham



AFTER

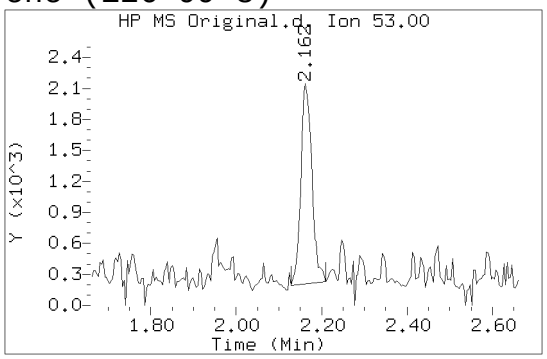
MASS
75
AREA
18151
HEIGHT
11253
13-Jun-2023
13:00
linh
pham



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

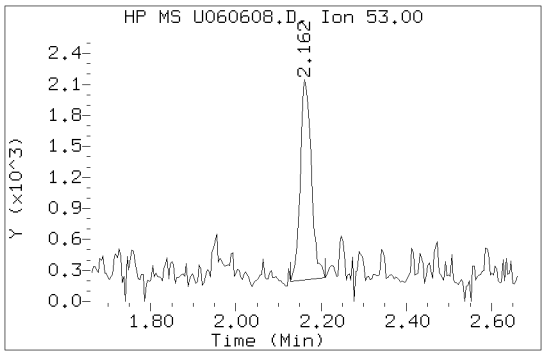
Chloroprene (126-99-8)

BEFORE
MASS
53
AREA
3552
HEIGHT
1939
08-Jun-2023
14:56
linh
pham

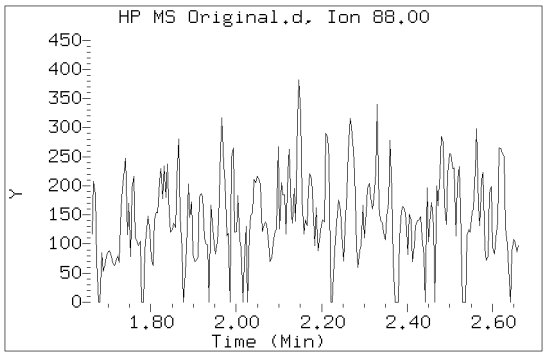


Reason Code:

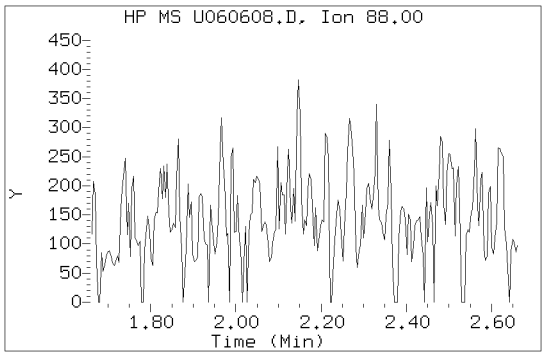
AFTER
MASS
53
AREA
3552
HEIGHT
1939
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham

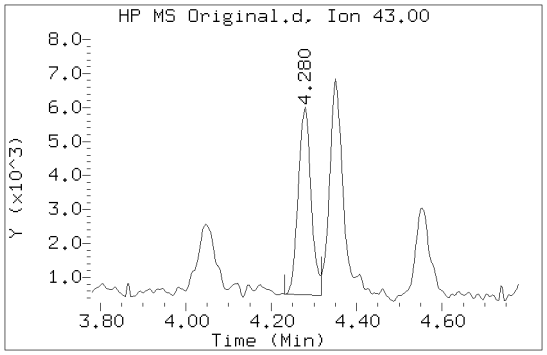


AFTER
MASS
88
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



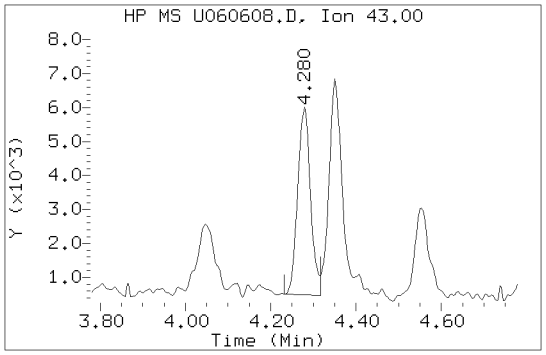
Ethyl Acetate (141-78-6)

BEFORE
MASS
43
AREA
11855
HEIGHT
5517
08-Jun-2023
14:56
linh
pham

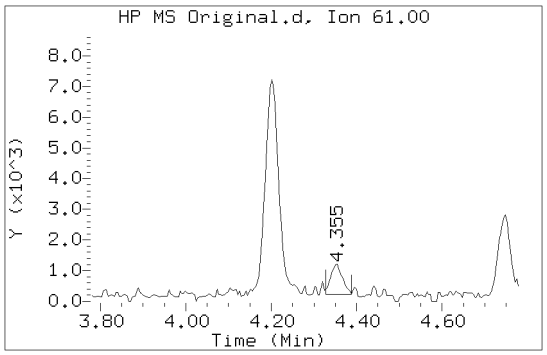


Reason Code:

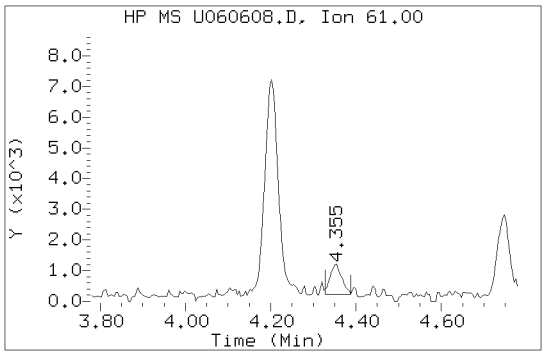
AFTER
MASS
43
AREA
11855
HEIGHT
5517
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
61
AREA
1871
HEIGHT
977
08-Jun-2023
14:56
linh
pham



AFTER
MASS
61
AREA
1871
HEIGHT
977
13-Jun-2023
13:00
linh
pham



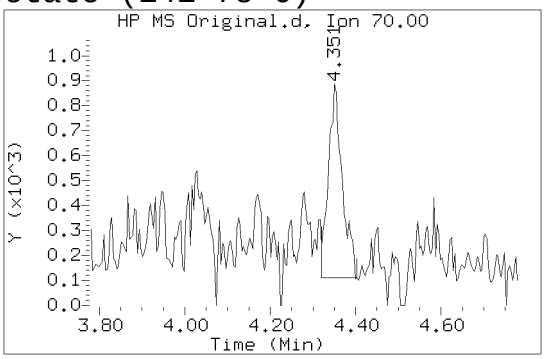
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

Ethyl Acetate (141-78-6)

Reason Code:

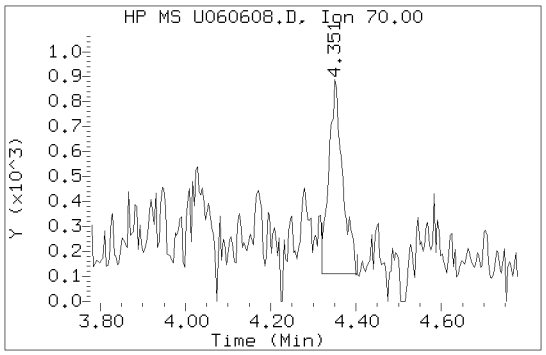
BEFORE

MASS
70
AREA
1750
HEIGHT
777
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
1750
HEIGHT
777
13-Jun-2023
13:00
linh
pham

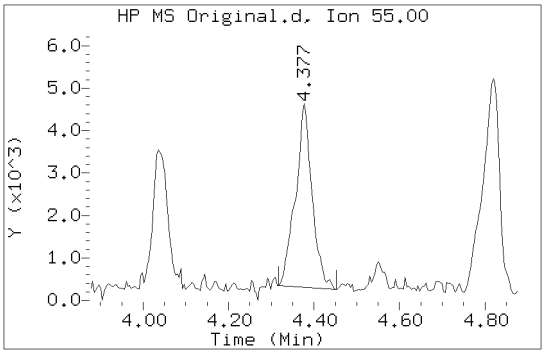


Methyl Acrylate (96-33-3)

Reason Code:

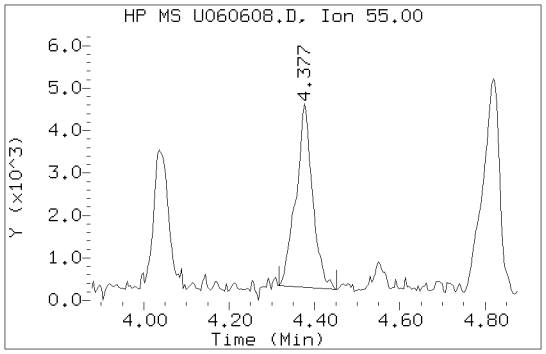
BEFORE

MASS
55
AREA
11843
HEIGHT
4323
08-Jun-2023
14:56
linh
pham



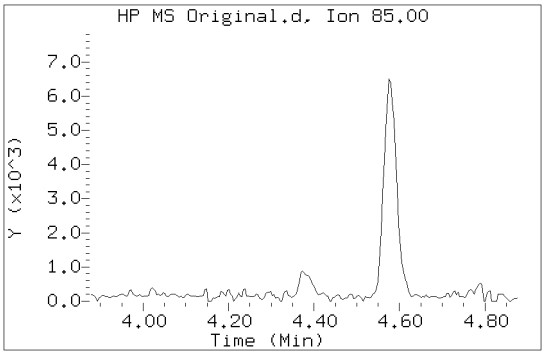
AFTER

MASS
55
AREA
11843
HEIGHT
4323
13-Jun-2023
13:00
linh
pham



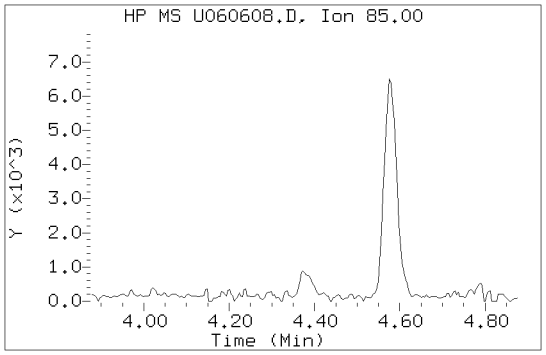
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

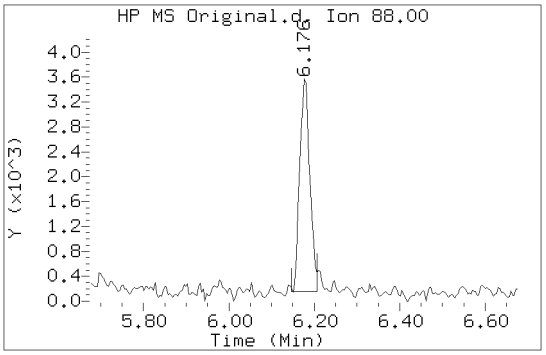


1,4-Dioxane ()

Reason Code:

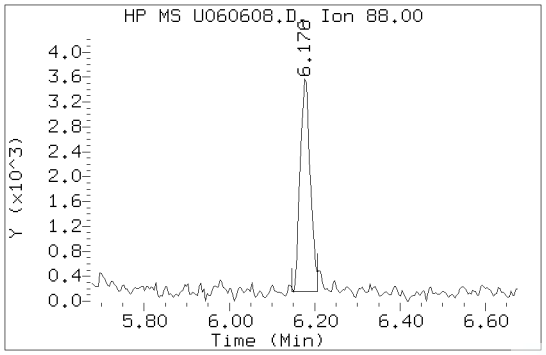
BEFORE

MASS
88
AREA
5764
HEIGHT
3411
08-Jun-2023
14:56
linh
pham



AFTER

MASS
88
AREA
5764
HEIGHT
3411
13-Jun-2023
13:00
linh
pham



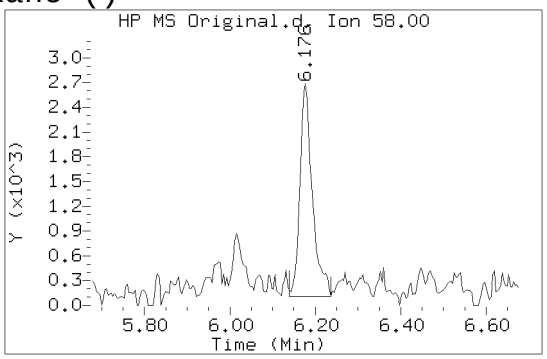
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

1,4-Dioxane ()

Reason Code:

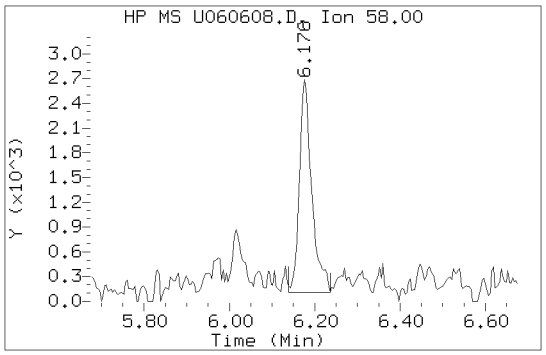
BEFORE

MASS
58
AREA
5271
HEIGHT
2575
08-Jun-2023
14:56
linh
pham



AFTER

MASS
58
AREA
5271
HEIGHT
2575
13-Jun-2023
13:00
linh
pham

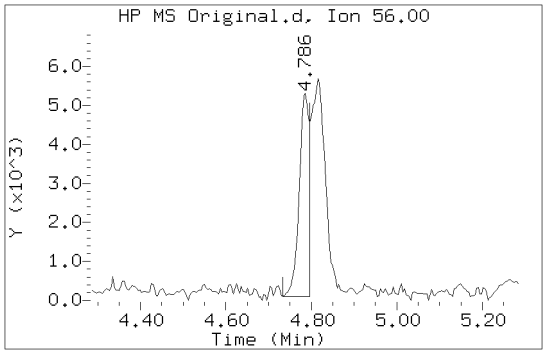


Cyclohexane (110-82-7)

Reason Code:

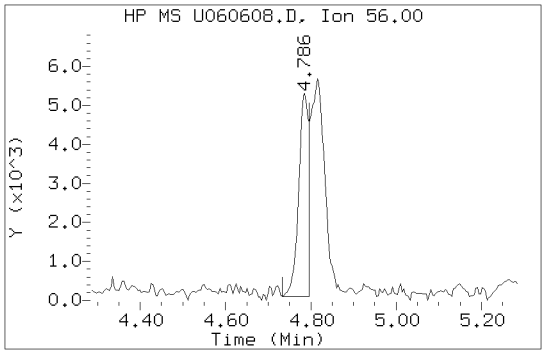
BEFORE

MASS
56
AREA
8877
HEIGHT
5201
08-Jun-2023
14:56
linh
pham



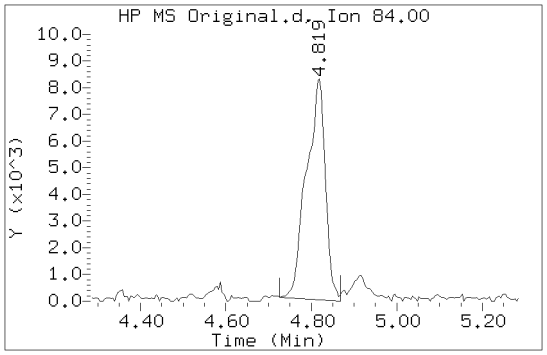
AFTER

MASS
56
AREA
8877
HEIGHT
5201
13-Jun-2023
13:00
linh
pham



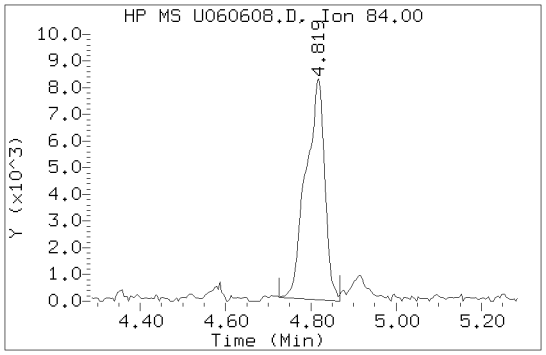
BEFORE

MASS
84
AREA
25654
HEIGHT
8278
08-Jun-2023
14:56
linh
pham



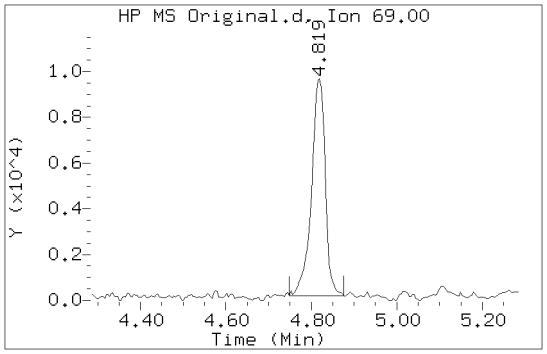
AFTER

MASS
84
AREA
25654
HEIGHT
8278
13-Jun-2023
13:00
linh
pham



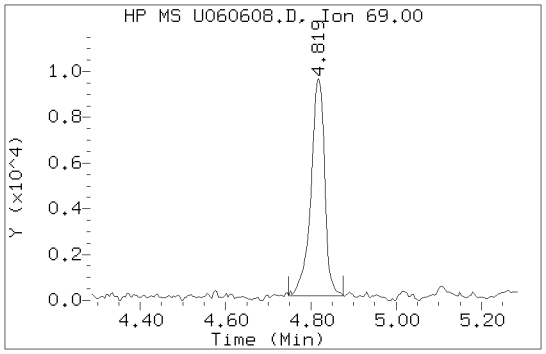
BEFORE

MASS
69
AREA
21405
HEIGHT
9491
08-Jun-2023
14:56
linh
pham



AFTER

MASS
69
AREA
21405
HEIGHT
9491
13-Jun-2023
13:00
linh
pham

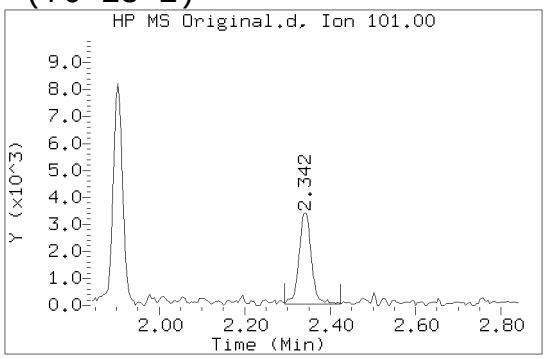


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

Freon TF (76-13-1)

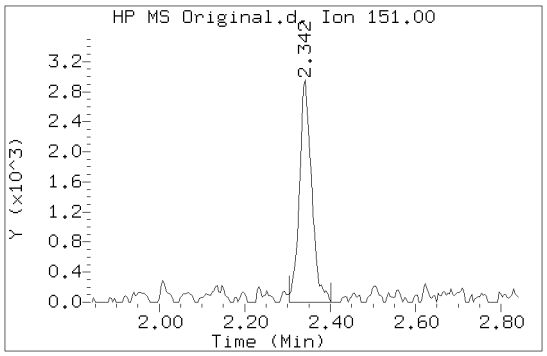
BEFORE

MASS
101
AREA
6997
HEIGHT
3366
08-Jun-2023
14:56
linh
pham



BEFORE

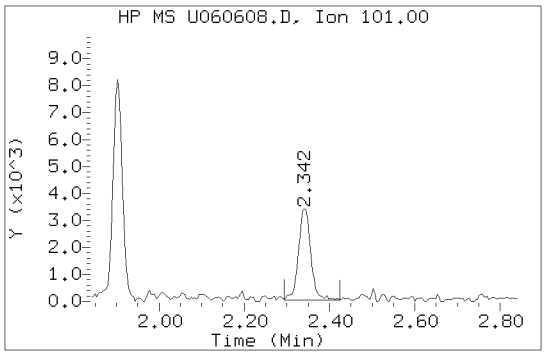
MASS
151
AREA
5971
HEIGHT
2957
08-Jun-2023
14:56
linh
pham



Reason Code:

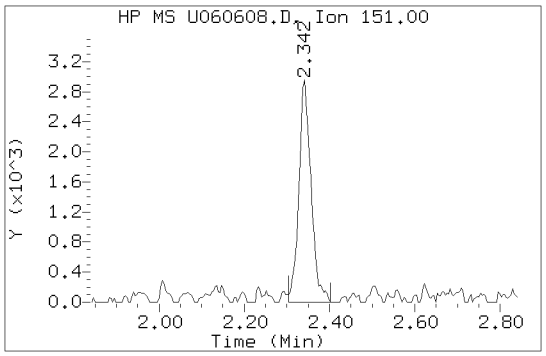
AFTER

MASS
101
AREA
6997
HEIGHT
3366
13-Jun-2023
13:00
linh
pham



AFTER

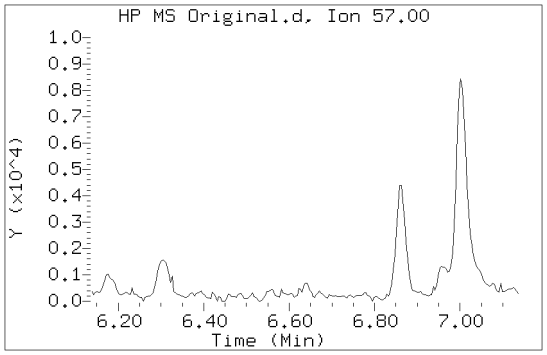
MASS
151
AREA
5971
HEIGHT
2957
13-Jun-2023
13:00
linh
pham



Epichlorohydrin (106-89-8)

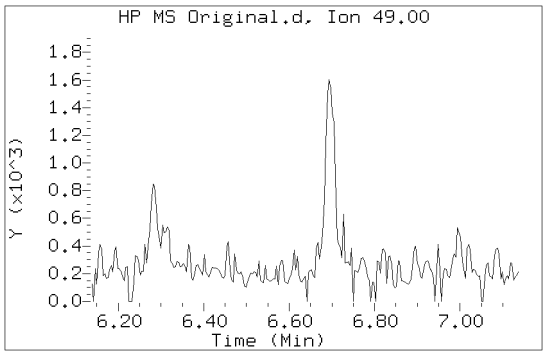
BEFORE

MASS
57
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



BEFORE

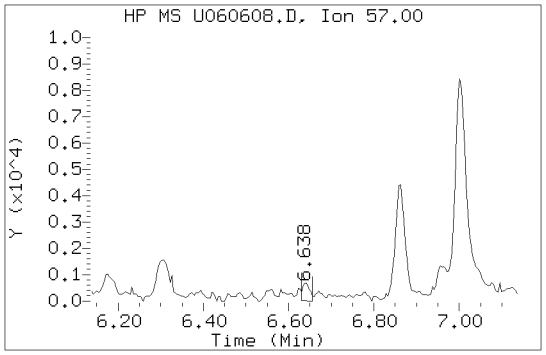
MASS
49
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



Reason Code:

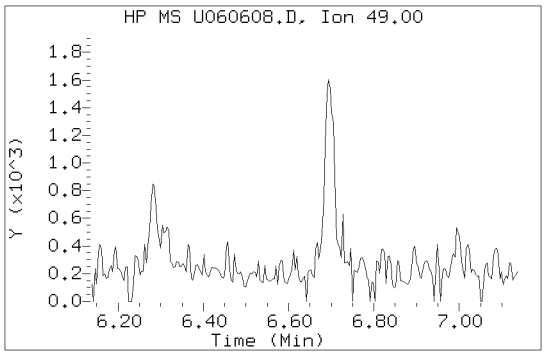
AFTER

MASS
57
AREA
854
HEIGHT
671
13-Jun-2023
13:00
linh
pham



AFTER

MASS
49
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham

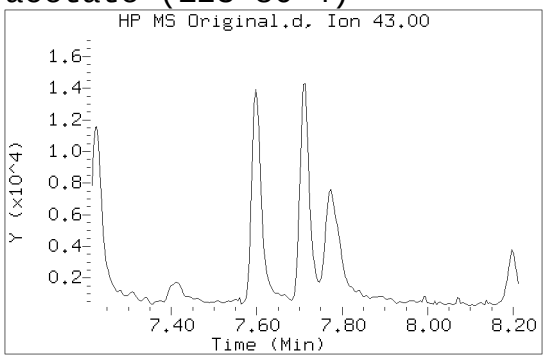


Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

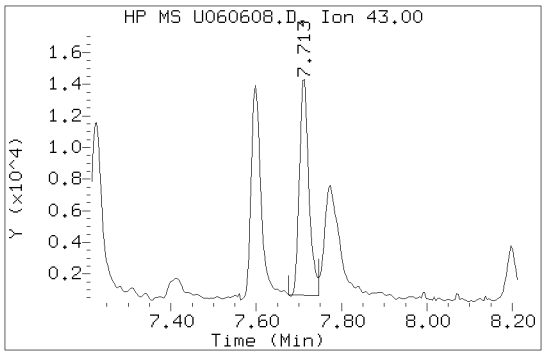
n-Butyl acetate (123-86-4)

Reason Code:

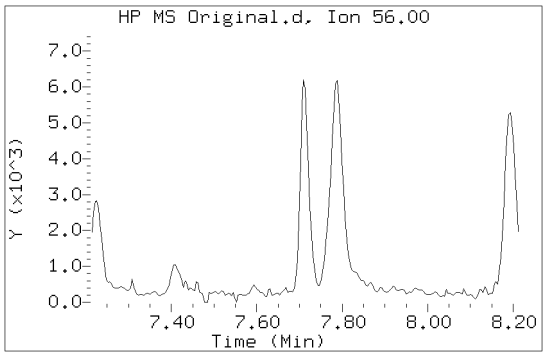
BEFORE
MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



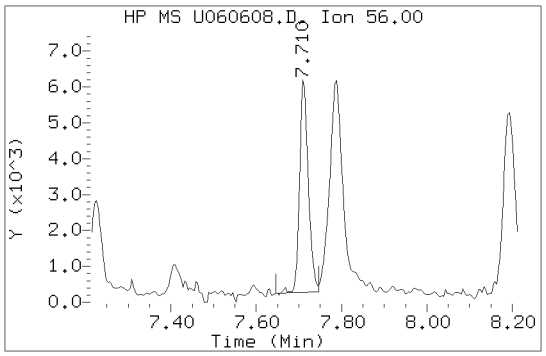
AFTER
MASS
43
AREA
21837
HEIGHT
13643
13-Jun-2023
13:00
linh
pham



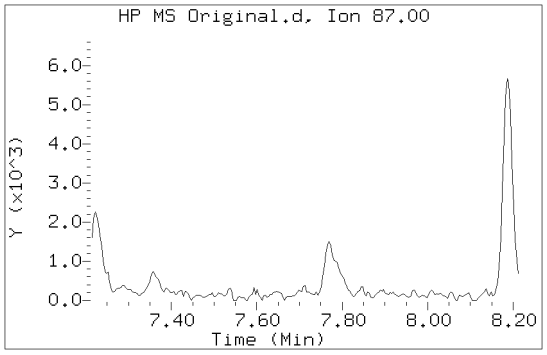
BEFORE
MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



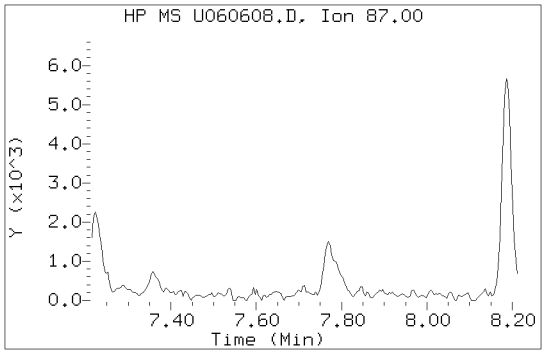
AFTER
MASS
56
AREA
8685
HEIGHT
5924
13-Jun-2023
13:00
linh
pham



BEFORE
MASS
87
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



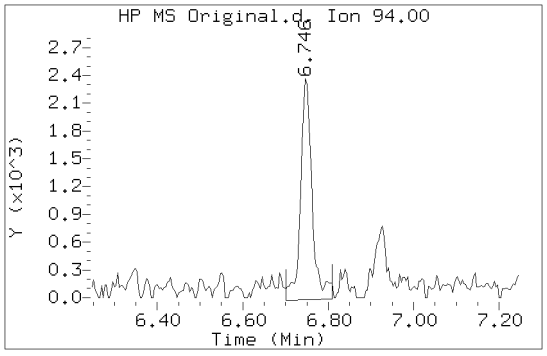
AFTER
MASS
87
AREA
0
HEIGHT
0
13-Jun-2023
13:00
linh
pham



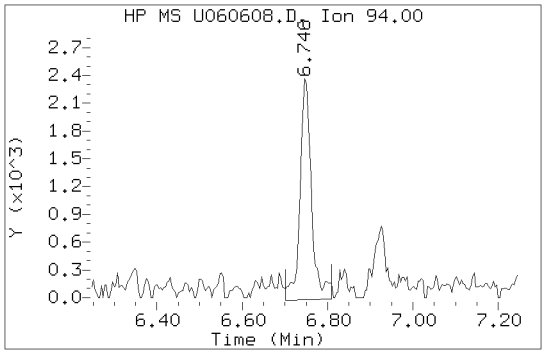
Dimethyl Disulfide (624-92-0)

Reason Code:

BEFORE
MASS
94
AREA
4598
HEIGHT
2385
08-Jun-2023
14:56
linh
pham



AFTER
MASS
94
AREA
4598
HEIGHT
2385
13-Jun-2023
13:00
linh
pham



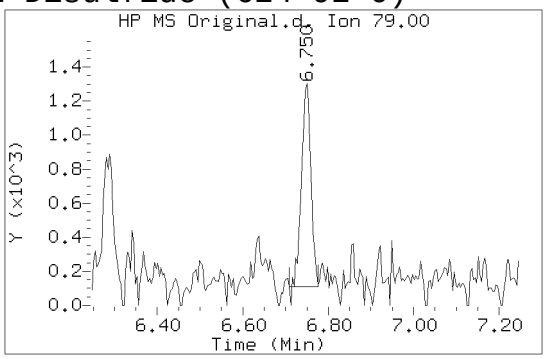
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060608.D
Inj Date : 06-JUN-2023 13:50
InstruID : VOA9.i
LabSampID : VSTD002

Dimethyl Disulfide (624-92-0)

Reason Code:

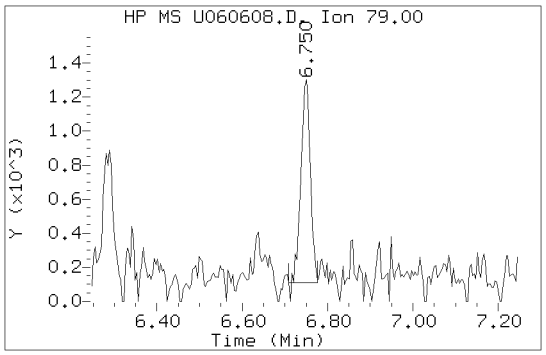
BEFORE

MASS
79
AREA
1852
HEIGHT
1191
08-Jun-2023
14:56
linh
pham



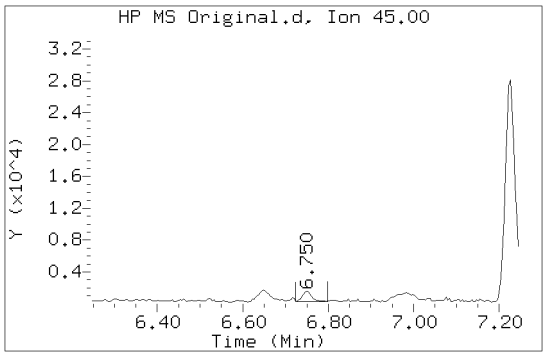
AFTER

MASS
79
AREA
1852
HEIGHT
1191
13-Jun-2023
13:00
linh
pham



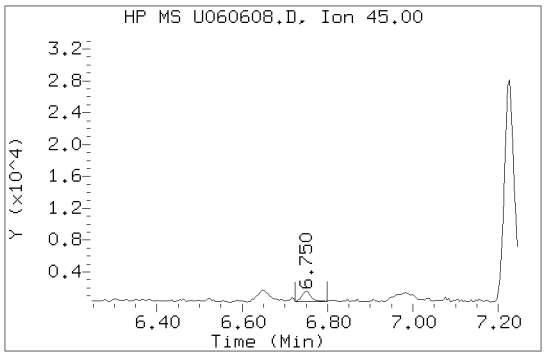
BEFORE

MASS
45
AREA
1888
HEIGHT
1245
08-Jun-2023
14:56
linh
pham



AFTER

MASS
45
AREA
1888
HEIGHT
1245
13-Jun-2023
13:00
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060609.D Page 1
Report Date: 21-Jun-2023 13:48

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060609.D
Lab Smp Id: VSTD020 Client Smp ID: VSTD020
Inj Date : 06-JUN-2023 14:13
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\U230606.b\8260C.m
Meth Date : 21-Jun-2023 13:45 pcabasca Quant Type: ISTD
Cal Date : 06-JUN-2023 14:13 Cal File: U060609.D
Als bottle: 10 Calibration Sample, Level: 6
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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.811	4.811	(1.000)	699800	50.0000	
2	Dichlorodifluoromethane	85	1.156	1.156	(0.240)	134998	20.0000	20.92
3	Chloromethane	50	1.291	1.291	(0.268)	243997	20.0000	22.39
5	Vinyl Chloride	62	1.370	1.370	(0.285)	154975	20.0000	20.93
6	Bromomethane	94	1.614	1.614	(0.335)	85360	20.0000	21.41
7	Chloroethane	64	1.693	1.693	(0.352)	101661	20.0000	20.38
8	Trichlorofluoromethane	101	1.891	1.891	(0.393)	186610	20.0000	21.95
9	Acrolein	56	2.259	2.259	(0.469)	13555	40.0000	36.49
10	Acetone	43	2.405	2.405	(0.500)	105410	40.0000	40.65
11	1,1-Dichloroethene	96	2.326	2.326	(0.483)	106844	20.0000	20.11
15	Iodomethane	142	2.465	2.465	(0.512)	69713	40.0000	25.52
16	Acrylonitrile	53	3.061	3.061	(0.636)	100523	40.0000	38.73
17	Methylene Chloride	84	2.791	2.791	(0.580)	133454	20.0000	20.31
18	Methyl tert-butyl ether	73	3.076	3.076	(0.639)	301047	20.0000	18.48
19	Carbon Disulfide	76	2.514	2.514	(0.522)	585546	40.0000	41.23
20	trans-1,2-Dichloroethene	96	3.053	3.053	(0.635)	117673	20.0000	20.36
21	Vinyl Acetate	43	3.604	3.604	(0.749)	686124	40.0000	38.96
22	1,1-Dichloroethane	63	3.511	3.511	(0.730)	209138	20.0000	19.05
24	2-Butanone	43	4.264	4.264	(0.886)	120643	40.0000	37.81
26	2,2-Dichloropropane	77	4.178	4.178	(0.868)	139835	20.0000	19.51
27	cis-1,2-Dichloroethene	96	4.193	4.193	(0.871)	136001	20.0000	19.67

28	Chloroform	83	4.568	4.568 (0.949)	226645	20.0000	19.83
29	Bromochloromethane	128	4.467	4.467 (0.928)	75232	20.0000	19.46

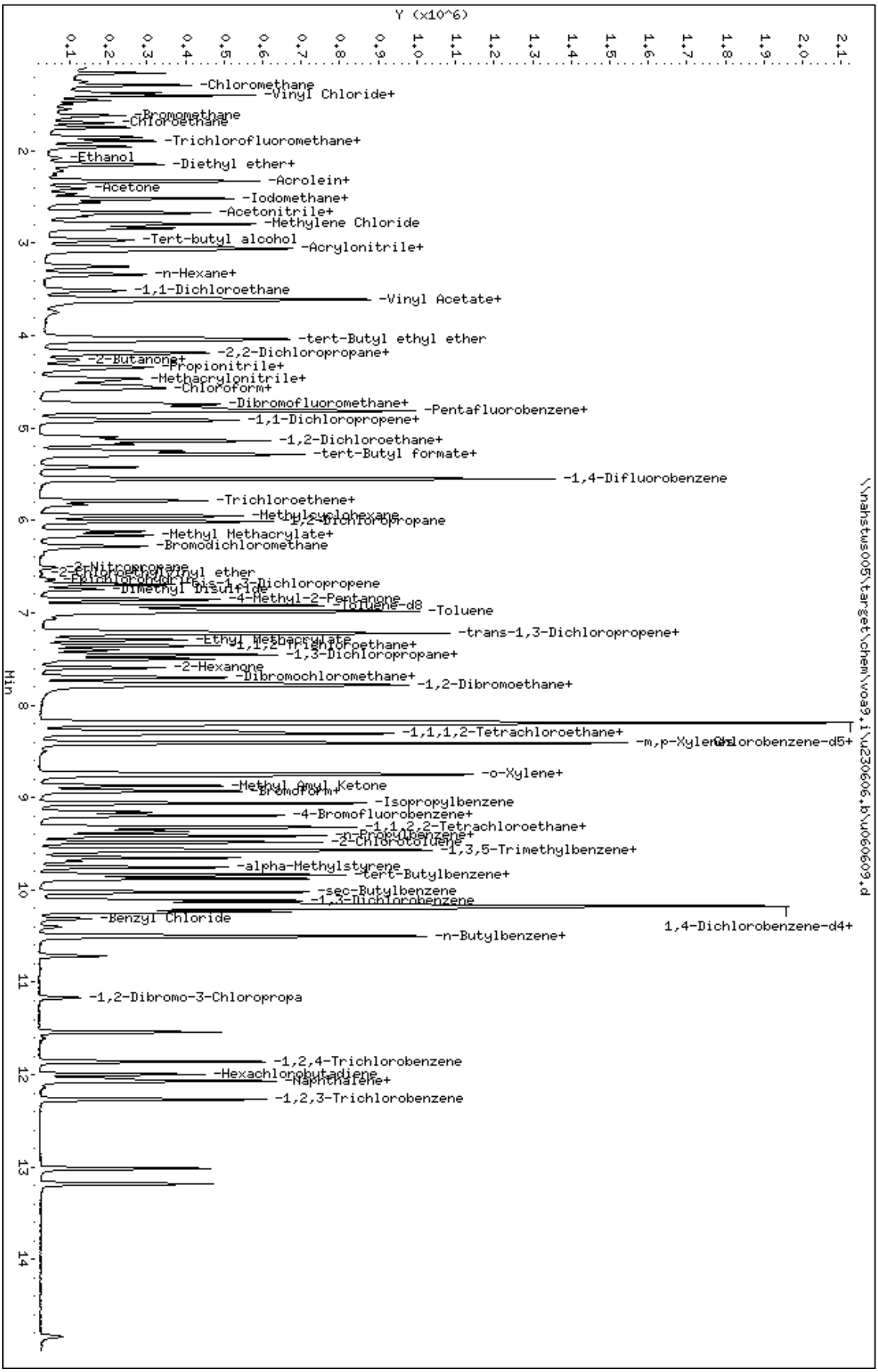
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
$	30 Dibromofluoromethane	113	4.744	4.744	(0.986)	119153	20.0000	20.09
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.985)	178912	20.0000	20.54
	32 1,1-Dichloropropene	75	4.916	4.916	(0.886)	160757	20.0000	20.96
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	178788	20.0000	19.74
	34 Carbon Tetrachloride	117	4.909	4.909	(0.885)	147458	20.0000	20.93
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	129564	20.0000	19.98
*	36 1,4-Difluorobenzene	114	5.550	5.550	(1.000)	1046146	50.0000	
	37 Benzene	78	5.138	5.138	(0.926)	516341	20.0000	20.48
	38 Trichloroethene	130	5.786	5.786	(1.043)	145174	20.0000	19.86
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	153153	20.0000	19.47
	41 2-Chloroethylvinyl ether	63	6.573	6.573	(1.184)	7046	40.0000	37.04(M)
	42 1,2-Dichloropropane	63	6.011	6.011	(1.083)	134169	20.0000	19.93
	44 Dibromomethane	93	6.120	6.120	(1.103)	83709	20.0000	19.46
	45 4-Methyl-2-Pentanone	43	6.854	6.854	(0.837)	288078	40.0000	41.20
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.206)	176588	20.0000	18.03
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	960016	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	445555	20.0000	20.50
	50 Toluene	91	6.982	6.982	(0.853)	554230	20.0000	21.28
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.297)	143978	20.0000	17.64
	52 2-Hexanone	43	7.593	7.593	(0.928)	190529	40.0000	39.13
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	107394	20.0000	19.82
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	226819	20.0000	20.49
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	128911	20.0000	20.05
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	133448	20.0000	21.03
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	132458	20.0000	19.81
	58 1-Chlorohexane	55	8.197	8.197	(1.477)	111769	20.0000	20.80
	59 Chlorobenzene	112	8.208	8.208	(1.003)	374064	20.0000	20.12
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	128313	20.0000	20.08
	61 Ethylbenzene	106	8.305	8.305	(1.015)	179483	20.0000	20.75
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	421040	40.0000	41.14
	63 o-Xylene	106	8.748	8.748	(1.069)	206194	20.0000	20.39
	64 Styrene	104	8.763	8.763	(1.071)	318690	20.0000	19.86
	66 Bromoform	173	8.920	8.920	(1.090)	81243	20.0000	18.72
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	516146	20.0000	21.25
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	178916	20.0000	19.34
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	178335	20.0000	20.30
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	491623	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	151200	20.0000	18.58
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	527972	20.0000	20.47
	74 Bromobenzene	156	9.317	9.317	(0.916)	165398	20.0000	19.93
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	338496	20.0000	19.13
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	380446	20.0000	20.98
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	415563	20.0000	20.71
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	368922	20.0000	21.23
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	349187	20.0000	18.86
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	457784	20.0000	20.77
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	348135	20.0000	18.85
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	280647	20.0000	19.92
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	292174	20.0000	19.45
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	319352	20.0000	20.20
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	281467	20.0000	19.92
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	24061	20.0000	17.83

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	186288	20.0000	19.17
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	79518	20.0000	20.26

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
92	Naphthalene	128	12.069	12.069	(1.186)	445465	20.0000	19.73
93	1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	186329	20.0000	19.61
M 94	1,2-Dichloroethylene (total)	96				253674	40.0000	40.04
M 95	Xylenes (total)	106				627234	60.0000	61.54
135	1,4-Dioxane	88	6.168	6.168	(1.282)	38808	400.000	279.28(M)
141	Cyclohexane	56	4.778	4.778	(0.993)	190495	20.0000	22.56
138	Freon TF	101	2.330	2.330	(0.484)	102379	20.0000	21.78
140	1,3-Butadiene	54	1.396	1.396	(0.290)	143212	20.0000	21.60
147	Methylcyclohexane	55	5.947	5.947	(1.072)	271418	20.0000	18.70
146	Methyl Acetate	43	2.708	2.708	(0.563)	109689	20.0000	18.61
148	Tert-Butyl alcohol	59	2.963	2.963	(0.616)	255911	400.000	392.79
149	Isopropyl Alcohol	45	2.558	2.558	(0.532)	166234	400.000	363.36
72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	18573	20.0000	16.80(M)
12	Isobutyl Alcohol	43	5.288	5.288	(1.099)	360790	400.000	396.80(M)
13	Acetonitrile	39	2.667	2.667	(0.554)	140672	200.000	185.67
14	Allyl Chloride	41	2.667	2.667	(0.554)	339917	20.0000	18.70
25	Methacrylonitrile	41	4.493	4.493	(0.934)	82790	20.0000	20.02
40	Methyl Methacrylate	41	6.157	6.157	(1.280)	116616	20.0000	19.38
4	Propionitrile	54	4.335	4.335	(0.901)	196157	200.000	193.97(a)
136	n-Hexane	57	3.338	3.338	(0.694)	131033	20.0000	22.86
194	Acetaldehyde	44	1.453	1.453	(0.302)	80793	80.0000	83.70(M)
131	Methyl Acrylate	55	4.365	4.365	(0.907)	140883	20.0000	19.03(M)
200	Dimethyl Disulfide	94	6.746	6.746	(0.824)	75368	20.0000	14.42(M)
23	Chloroprene	53	2.150	2.150	(0.447)	46564	20.0000	20.86(M)
49	Ethyl Methacrylate	69	7.293	7.293	(1.314)	174530	20.0000	19.03
166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	336473	20.0000	17.80
167	Ethanol	45	2.075	2.075	(0.431)	33180	400.000	365.81
164	Dicyclopentadiene	66	10.202	10.202	(1.003)	430916	20.0000	17.96
145	alpha-Methylstyrene	118	9.756	9.756	(0.959)	141914	20.0000	17.83
142	Tetrahydrofuran	42	4.542	4.542	(0.944)	48081	40.0000	37.45
156	Diisopropyl ether	45	3.619	3.619	(0.752)	362787	20.0000	18.59
151	4-Methyl-2-pentanol	45	7.222	7.222	(1.301)	598756	400.000	384.89
150	Allyl alcohol	57	3.338	3.338	(0.694)	131033	400.000	457.76
86	Benzyl Chloride	91	10.311	10.311	(1.260)	85763	20.0000	17.37
162	Butyl acrylate	55	8.733	8.733	(1.067)	214597	20.0000	18.89
139	Diethyl ether	59	2.139	2.139	(0.445)	88209	20.0000	18.65
203	2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	70007	20.0000	16.56
134	Cyclohexanone	55	9.156	9.156	(0.900)	110447	400.000	362.37(a)
130	Ethyl Acetate	43	4.264	4.264	(0.886)	118985	20.0000	19.02(M)
189	n-Butyl acetate	43	7.705	7.705	(0.941)	210444	20.0000	19.25(M)
182	Epichlorohydrin	57	6.637	6.637	(1.196)	5384	80.0000	62.88
132	n-Butanol	56	5.831	5.831	(1.212)	67633	400.000	339.53(a)

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\voa9.i\u230606.b\u060609.d
Date : 06-JUN-2023 14:13
Client ID: VSTD020
Sample Info: VSTD020;VSTD020;1;6;
Purge Volume: 5.0
Column phase: DB624

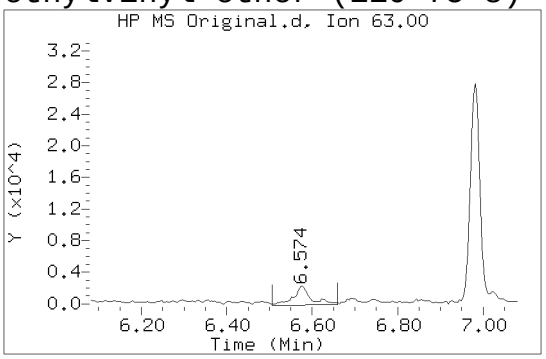
Instrument: VOA9.i
Operator: PC
Column diameter: 0.18

Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060609.d
Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

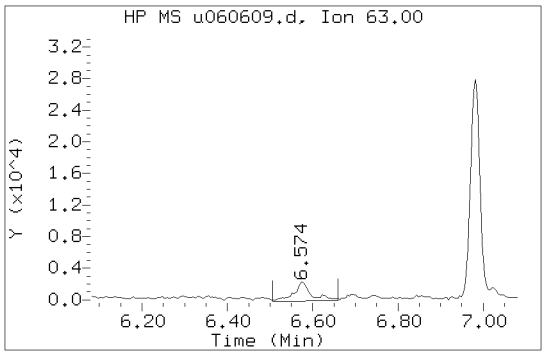
2-Chloroethylvinyl ether (110-75-8)

Reason Code:

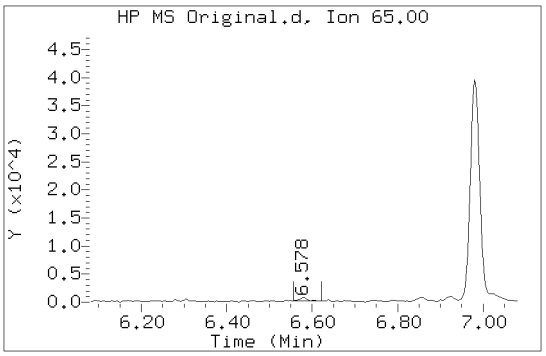
BEFORE
MASS
63
AREA
7046
HEIGHT
2399
08-Jun-2023
14:56
linh
pham



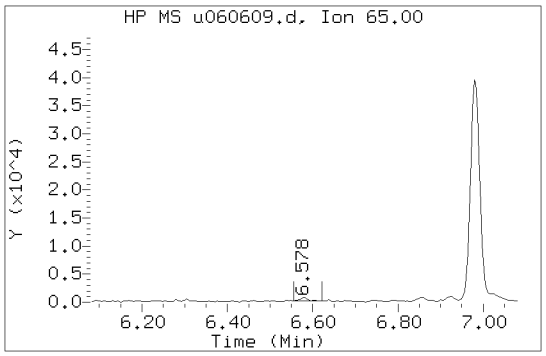
AFTER
MASS
63
AREA
7046
HEIGHT
2399
21-Jun-2023
13:48
linh
pha



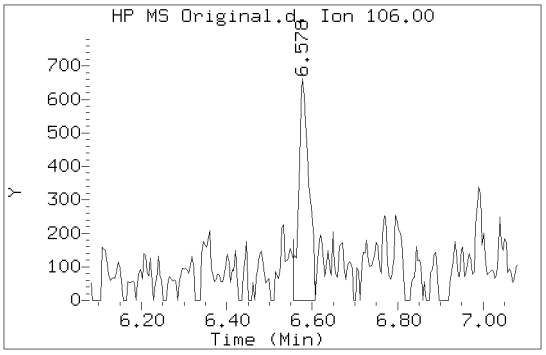
BEFORE
MASS
65
AREA
981
HEIGHT
578
08-Jun-2023
14:56
linh
pham



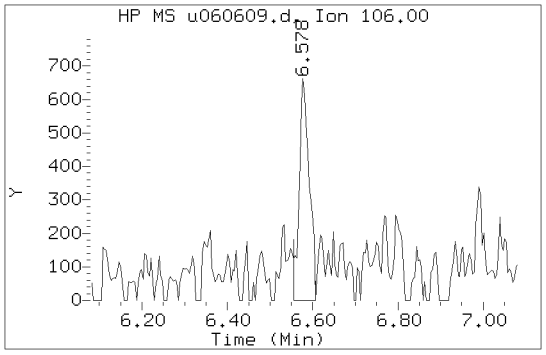
AFTER
MASS
65
AREA
981
HEIGHT
578
21-Jun-2023
13:48
linh
pha



BEFORE
MASS
106
AREA
1114
HEIGHT
662
08-Jun-2023
14:56
linh
pham



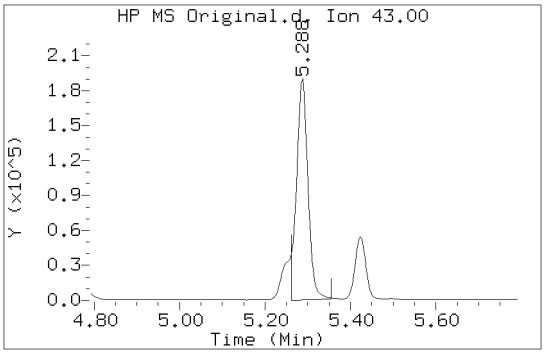
AFTER
MASS
106
AREA
1114
HEIGHT
662
21-Jun-2023
13:48
linh
pha



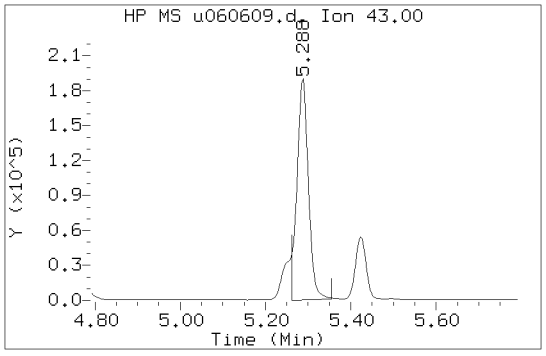
Isobutyl Alcohol (78-83-1)

Reason Code:

BEFORE
MASS
43
AREA
360790
HEIGHT
189910
08-Jun-2023
14:56
linh
pham



AFTER
MASS
43
AREA
360790
HEIGHT
189910
21-Jun-2023
13:48
linh
pha



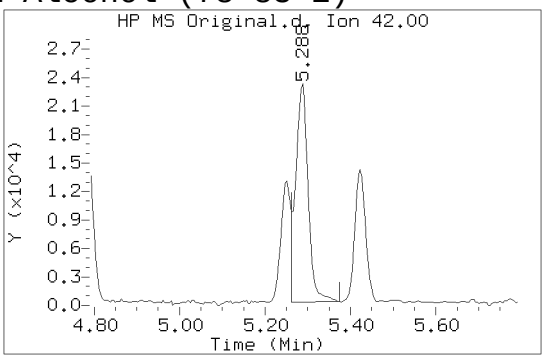
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060609.d
Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

Isobutyl Alcohol (78-83-1)

Reason Code:

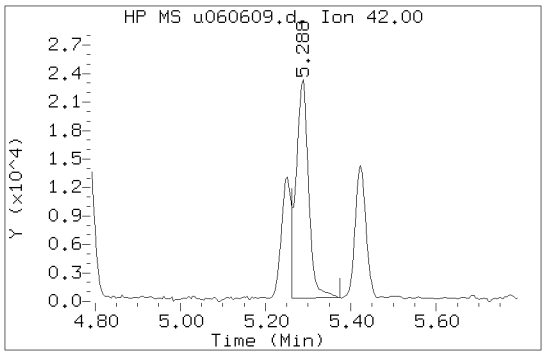
BEFORE

MASS
42
AREA
48295
HEIGHT
22999
08-Jun-2023
14:56
linh
pham



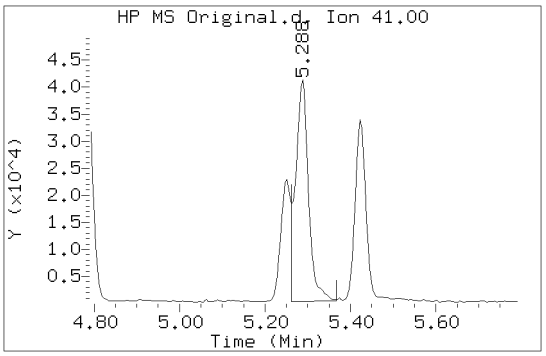
AFTER

MASS
42
AREA
48295
HEIGHT
22999
21-Jun-2023
13:48
linh
pha



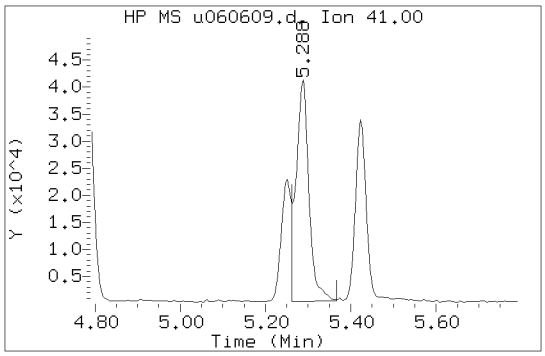
BEFORE

MASS
41
AREA
88268
HEIGHT
40909
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
88268
HEIGHT
40909
21-Jun-2023
13:48
linh
pha

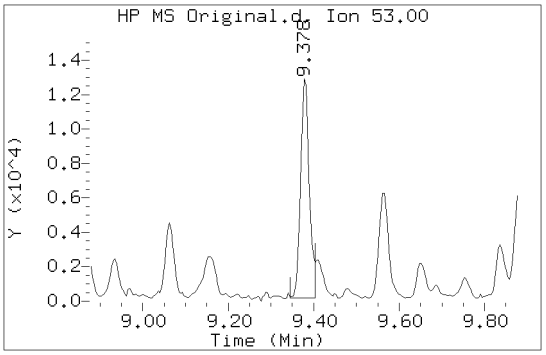


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

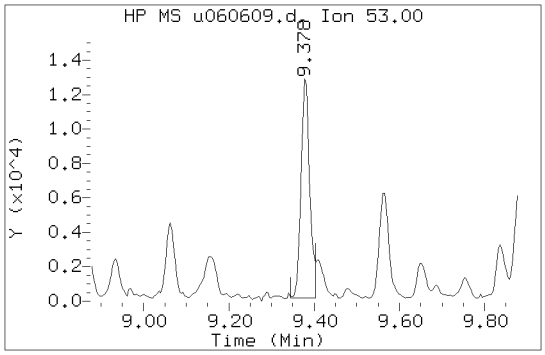
BEFORE

MASS
53
AREA
18573
HEIGHT
12721
08-Jun-2023
14:56
linh
pham



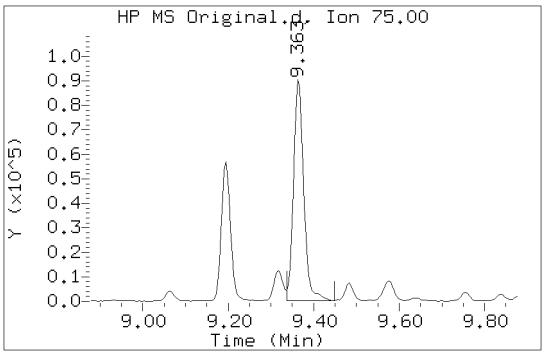
AFTER

MASS
53
AREA
18573
HEIGHT
12721
21-Jun-2023
13:48
linh
pha



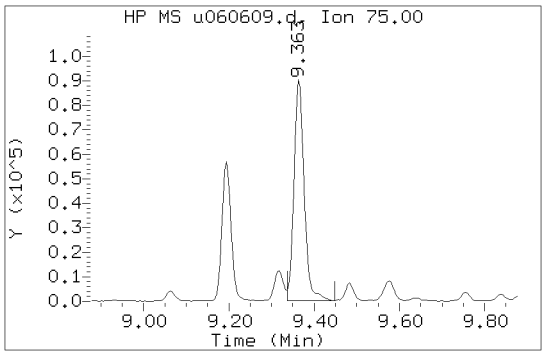
BEFORE

MASS
75
AREA
151200
HEIGHT
90329
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
151200
HEIGHT
90329
21-Jun-2023
13:48
linh
pha

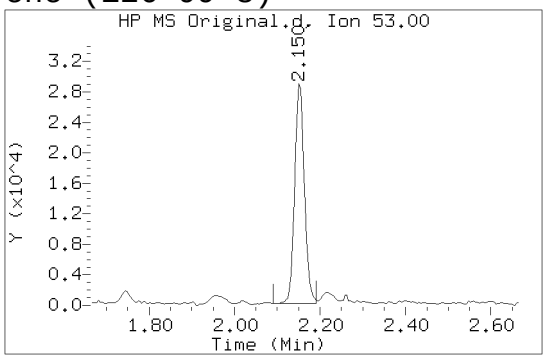


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060609.d
Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

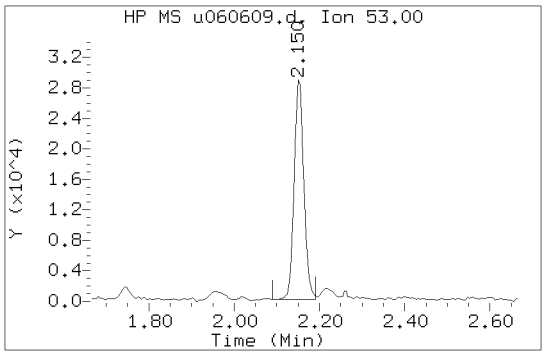
Chloroprene (126-99-8)

Reason Code:

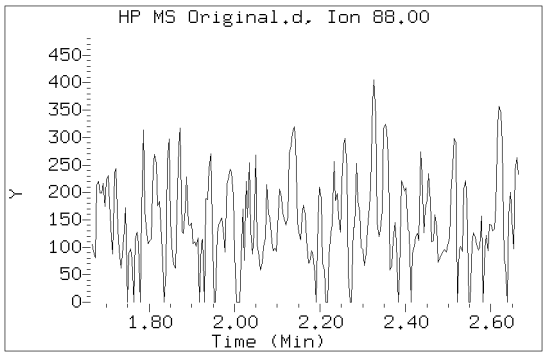
BEFORE
MASS
53
AREA
46564
HEIGHT
28813
08-Jun-2023
14:56
linh
pham



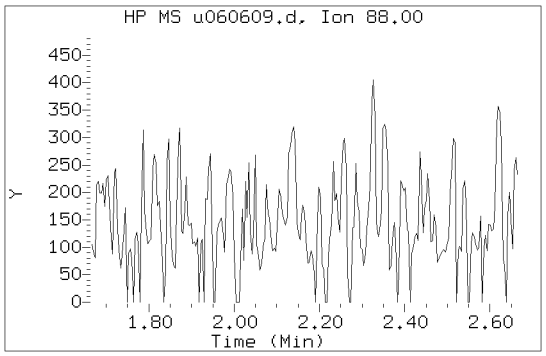
AFTER
MASS
53
AREA
46564
HEIGHT
28813
21-Jun-2023
13:48
linh
pha



BEFORE
MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



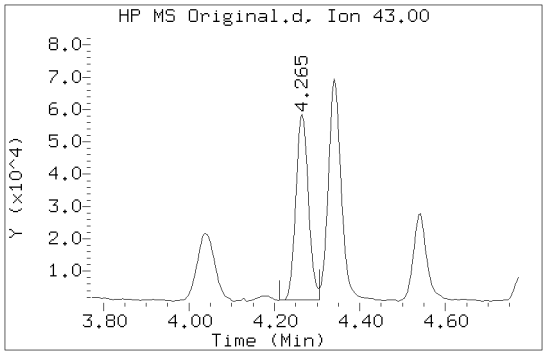
AFTER
MASS
88
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha



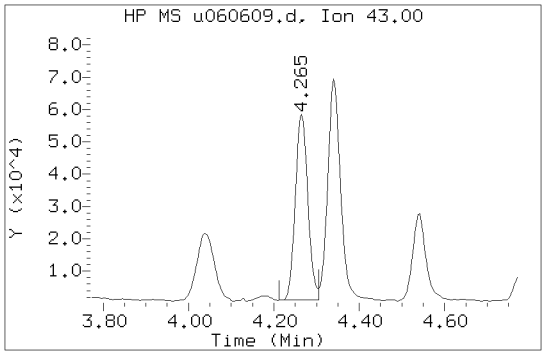
Ethyl Acetate (141-78-6)

Reason Code:

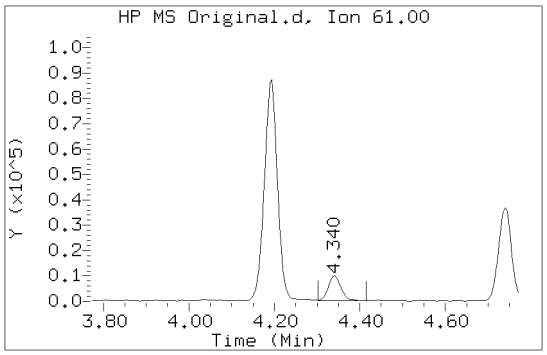
BEFORE
MASS
43
AREA
118985
HEIGHT
57477
08-Jun-2023
14:56
linh
pham



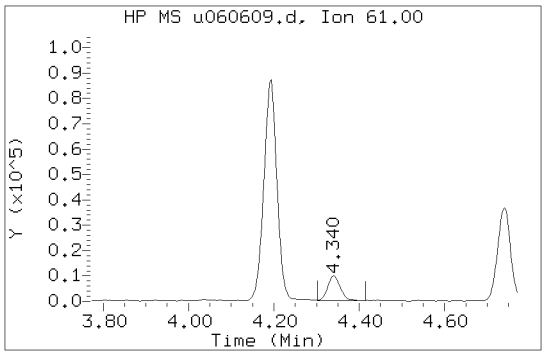
AFTER
MASS
43
AREA
118985
HEIGHT
57477
21-Jun-2023
13:48
linh
pha



BEFORE
MASS
61
AREA
20257
HEIGHT
9732
08-Jun-2023
14:56
linh
pham



AFTER
MASS
61
AREA
20257
HEIGHT
9732
21-Jun-2023
13:48
linh
pha



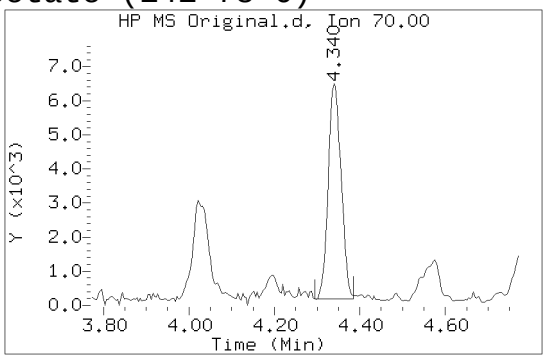
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060609.d
Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

Ethyl Acetate (141-78-6)

Reason Code:

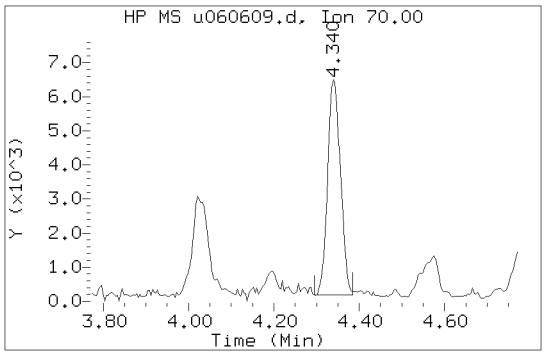
BEFORE

MASS
70
AREA
13212
HEIGHT
6309
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
13212
HEIGHT
6309
21-Jun-2023
13:48
linh
pha

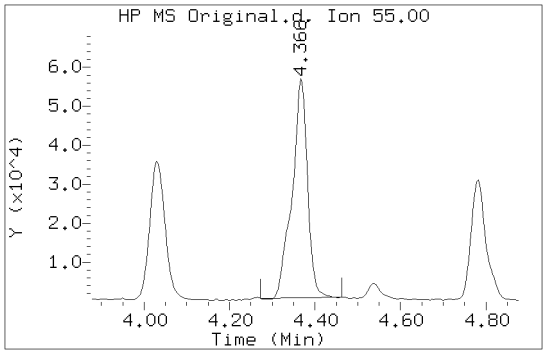


Methyl Acrylate (96-33-3)

Reason Code:

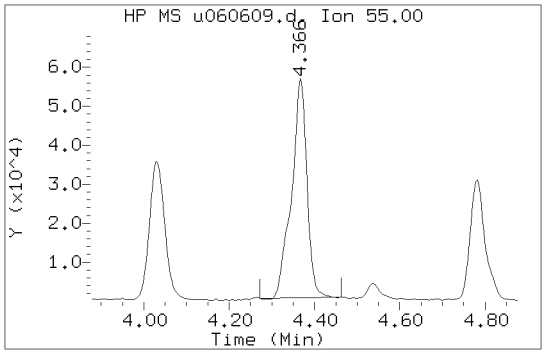
BEFORE

MASS
55
AREA
140883
HEIGHT
56149
08-Jun-2023
14:56
linh
pham



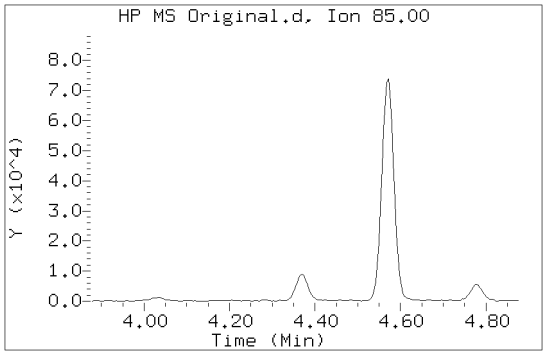
AFTER

MASS
55
AREA
140883
HEIGHT
56149
21-Jun-2023
13:48
linh
pha



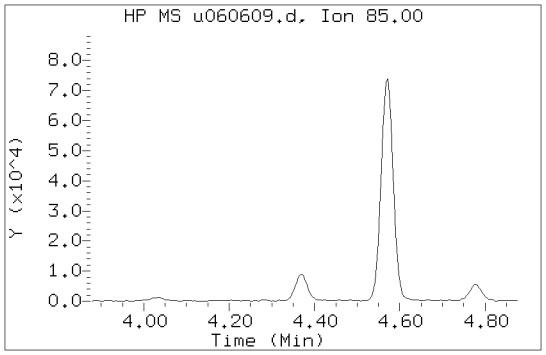
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha

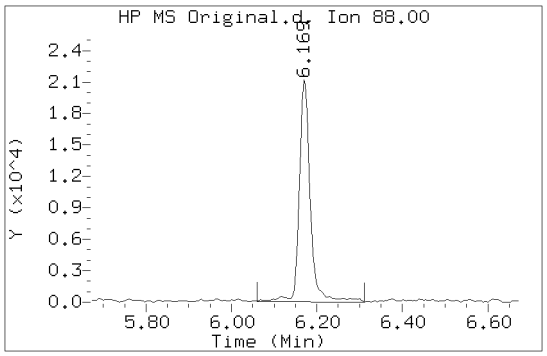


1,4-Dioxane ()

Reason Code:

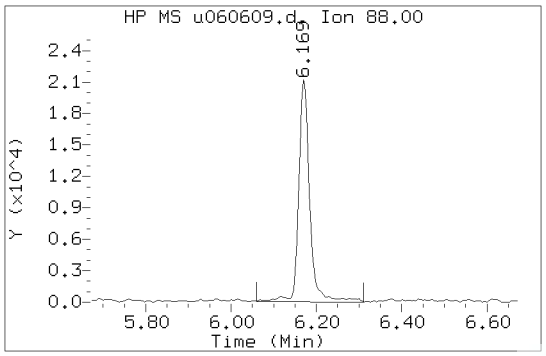
BEFORE

MASS
88
AREA
38808
HEIGHT
21163
08-Jun-2023
14:56
linh
pham



AFTER

MASS
88
AREA
38808
HEIGHT
21163
21-Jun-2023
13:48
linh
pha



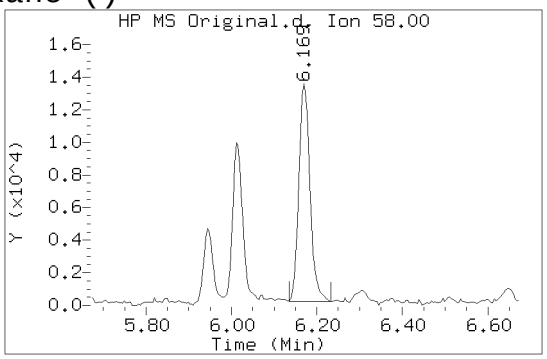
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060609.d
Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

1,4-Dioxane ()

Reason Code:

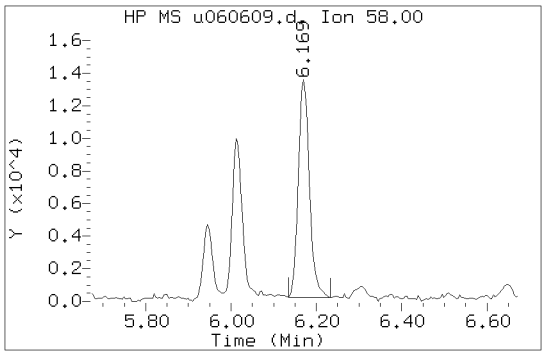
BEFORE

MASS
58
AREA
24573
HEIGHT
13347
08-Jun-2023
14:56
linh
pham



AFTER

MASS
58
AREA
24573
HEIGHT
13347
21-Jun-2023
13:48
linh
pha

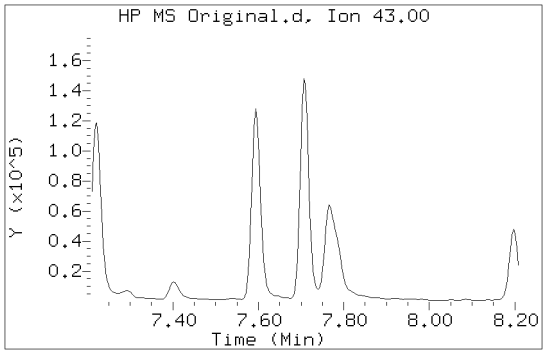


n-Butyl acetate (123-86-4)

Reason Code:

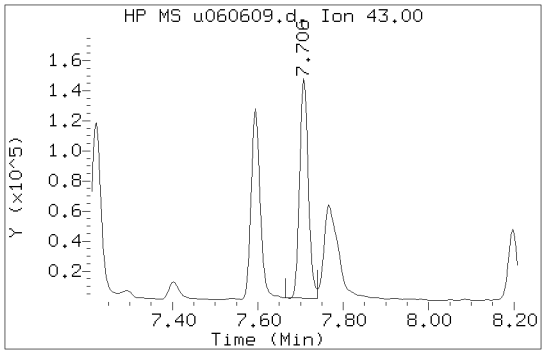
BEFORE

MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



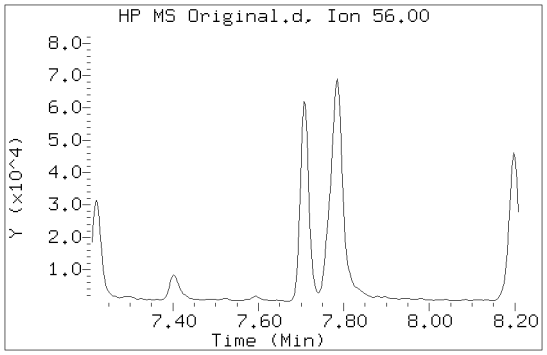
AFTER

MASS
43
AREA
210444
HEIGHT
145880
21-Jun-2023
13:48
linh
pha



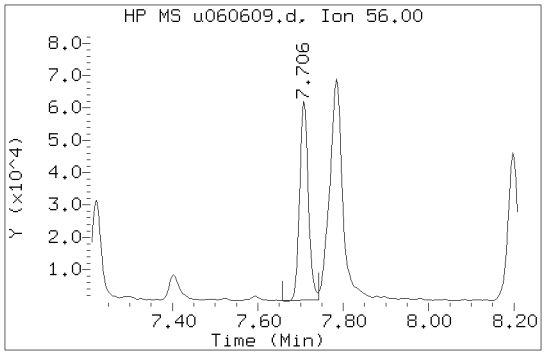
BEFORE

MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



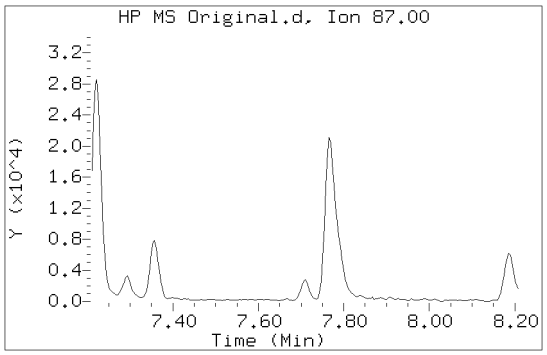
AFTER

MASS
56
AREA
89395
HEIGHT
61609
21-Jun-2023
13:48
linh
pha



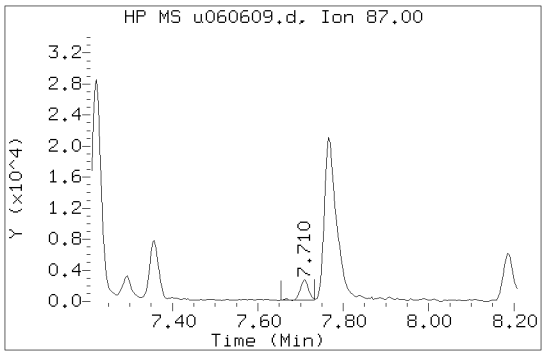
BEFORE

MASS
87
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
87
AREA
3612
HEIGHT
2635
21-Jun-2023
13:48
linh
pha



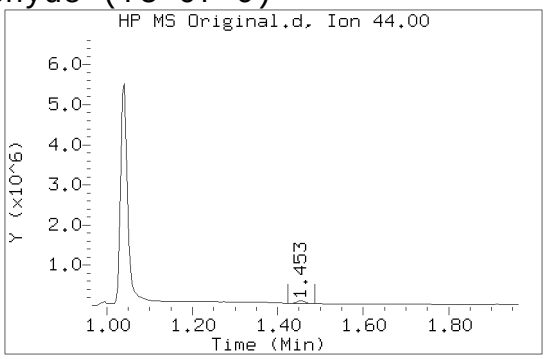
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060609.d
Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

Acetaldehyde (75-07-0)

Reason Code:

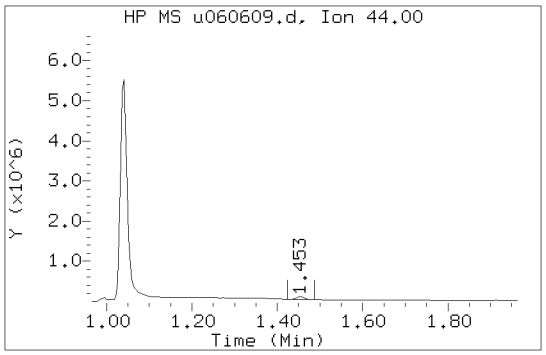
BEFORE

MASS
44
AREA
80793
HEIGHT
67878
08-Jun-2023
14:56
linh
pham



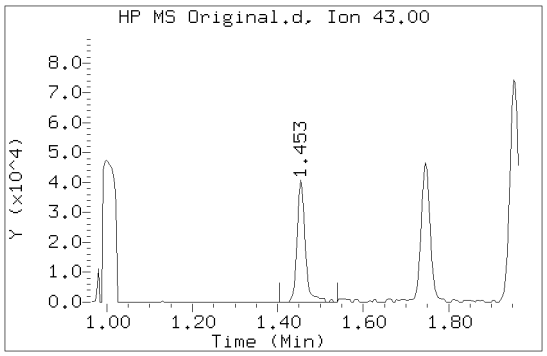
AFTER

MASS
44
AREA
80793
HEIGHT
67878
21-Jun-2023
13:48
linh
pha



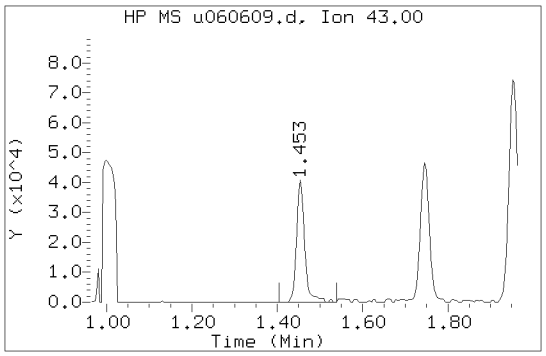
BEFORE

MASS
43
AREA
54539
HEIGHT
40760
08-Jun-2023
14:56
linh
pham



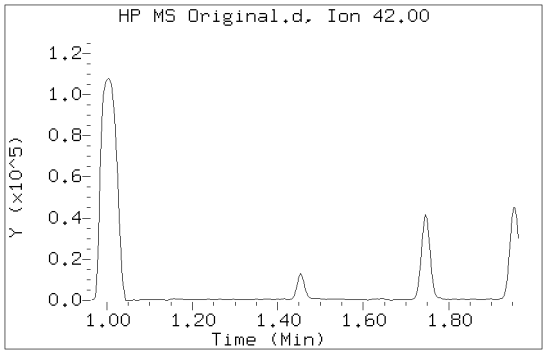
AFTER

MASS
43
AREA
54539
HEIGHT
40760
21-Jun-2023
13:48
linh
pha



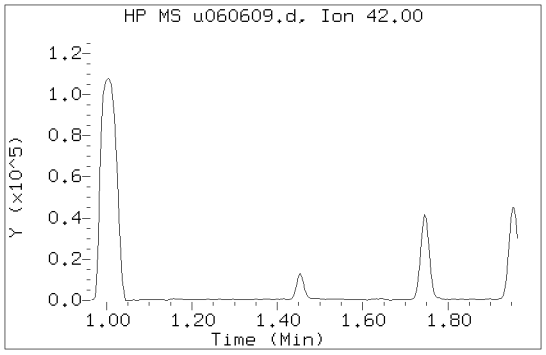
BEFORE

MASS
42
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha

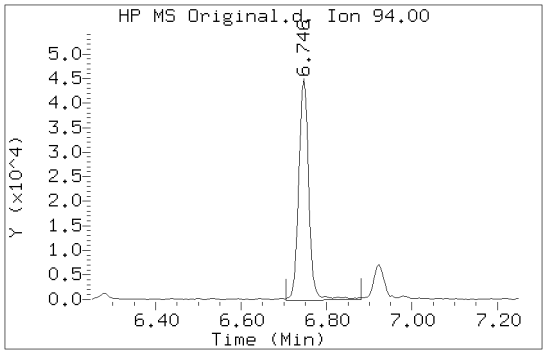


Dimethyl Disulfide (624-92-0)

Reason Code:

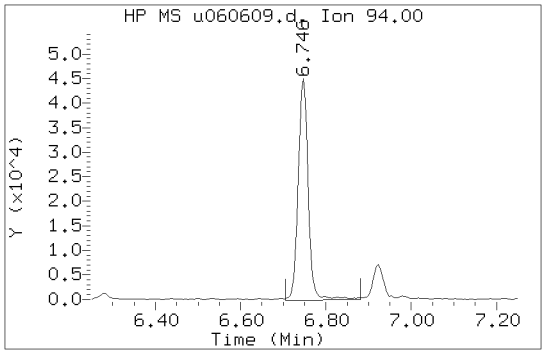
BEFORE

MASS
94
AREA
75368
HEIGHT
45120
08-Jun-2023
14:56
linh
pham



AFTER

MASS
94
AREA
75368
HEIGHT
45120
21-Jun-2023
13:48
linh
pha



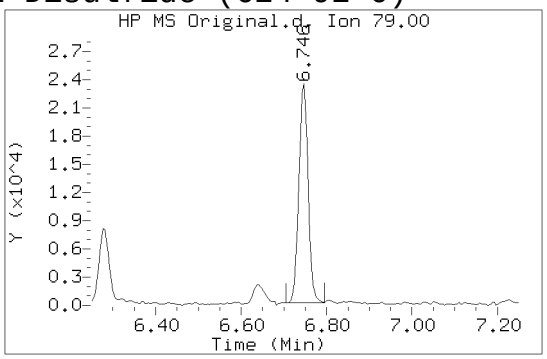
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060609.d
Inj Date : 06-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : VSTD020

Dimethyl Disulfide (624-92-0)

Reason Code:

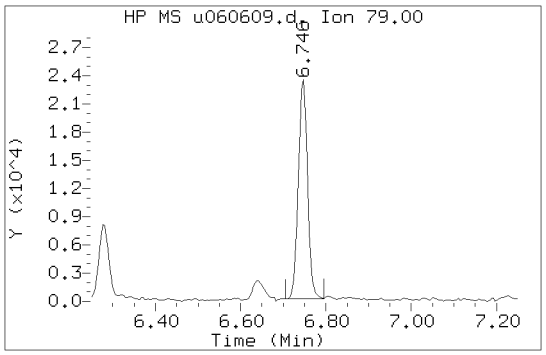
BEFORE

MASS
79
AREA
35599
HEIGHT
23323
08-Jun-2023
14:56
linh
pham



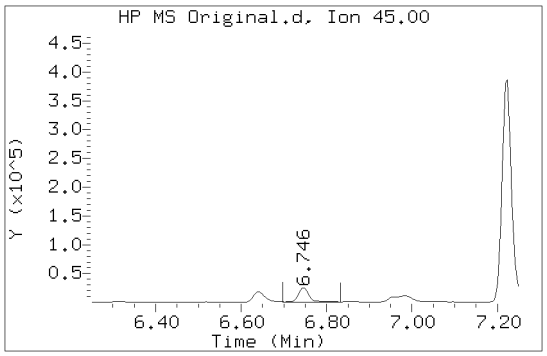
AFTER

MASS
79
AREA
35599
HEIGHT
23323
21-Jun-2023
13:48
linh
pha



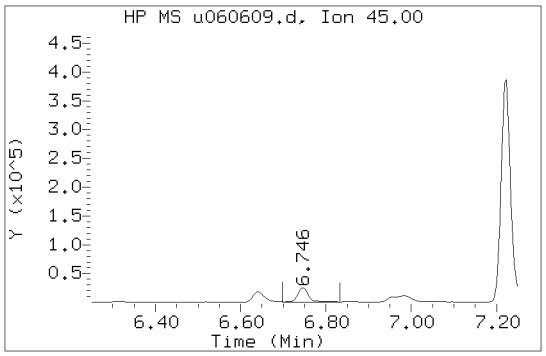
BEFORE

MASS
45
AREA
45369
HEIGHT
24788
08-Jun-2023
14:56
linh
pham



AFTER

MASS
45
AREA
45369
HEIGHT
24788
21-Jun-2023
13:48
linh
pha



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060610.D Page 1
Report Date: 21-Jun-2023 13:49

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060610.D
Lab Smp Id: VSTD050 Client Smp ID: VSTD050
Inj Date : 06-JUN-2023 14:35
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\U230606.b\8260C.m
Meth Date : 21-Jun-2023 13:49 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 15:41 Cal File: U060613.D
Als bottle: 11 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	676524	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	301782	50.0000	48.28
3	Chloromethane	50	1.303	1.303	(0.270)	533277	50.0000	52.32
5	Vinyl Chloride	62	1.381	1.381	(0.287)	371826	50.0000	51.96
6	Bromomethane	94	1.625	1.625	(0.337)	189385	50.0000	51.52
7	Chloroethane	64	1.704	1.704	(0.354)	235929	50.0000	48.94
8	Trichlorofluoromethane	101	1.903	1.903	(0.395)	408187	50.0000	49.66
9	Acrolein	56	2.270	2.270	(0.471)	34711	100.000	96.66
10	Acetone	43	2.416	2.416	(0.501)	245967	100.000	106.19
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	253953	50.0000	49.45
15	Iodomethane	142	2.476	2.476	(0.514)	311144	100.000	80.01
16	Acrylonitrile	53	3.072	3.072	(0.638)	238722	100.000	95.15
17	Methylene Chloride	84	2.798	2.798	(0.581)	313459	50.0000	50.82
18	Methyl tert-butyl ether	73	3.087	3.087	(0.641)	751017	50.0000	47.69
19	Carbon Disulfide	76	2.525	2.525	(0.524)	1424175	100.000	103.74
20	trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	287983	50.0000	51.56
21	Vinyl Acetate	43	3.612	3.612	(0.750)	1688425	100.000	99.18
22	1,1-Dichloroethane	63	3.522	3.522	(0.731)	510453	50.0000	48.09
24	2-Butanone	43	4.272	4.272	(0.886)	284571	100.000	92.25
26	2,2-Dichloropropane	77	4.185	4.185	(0.869)	344673	50.0000	49.12

27 cis-1,2-Dichloroethene	96	4.200	4.200 (0.872)	330459	50.0000	49.46
28 Chloroform	83	4.579	4.579 (0.950)	553969	50.0000	50.15

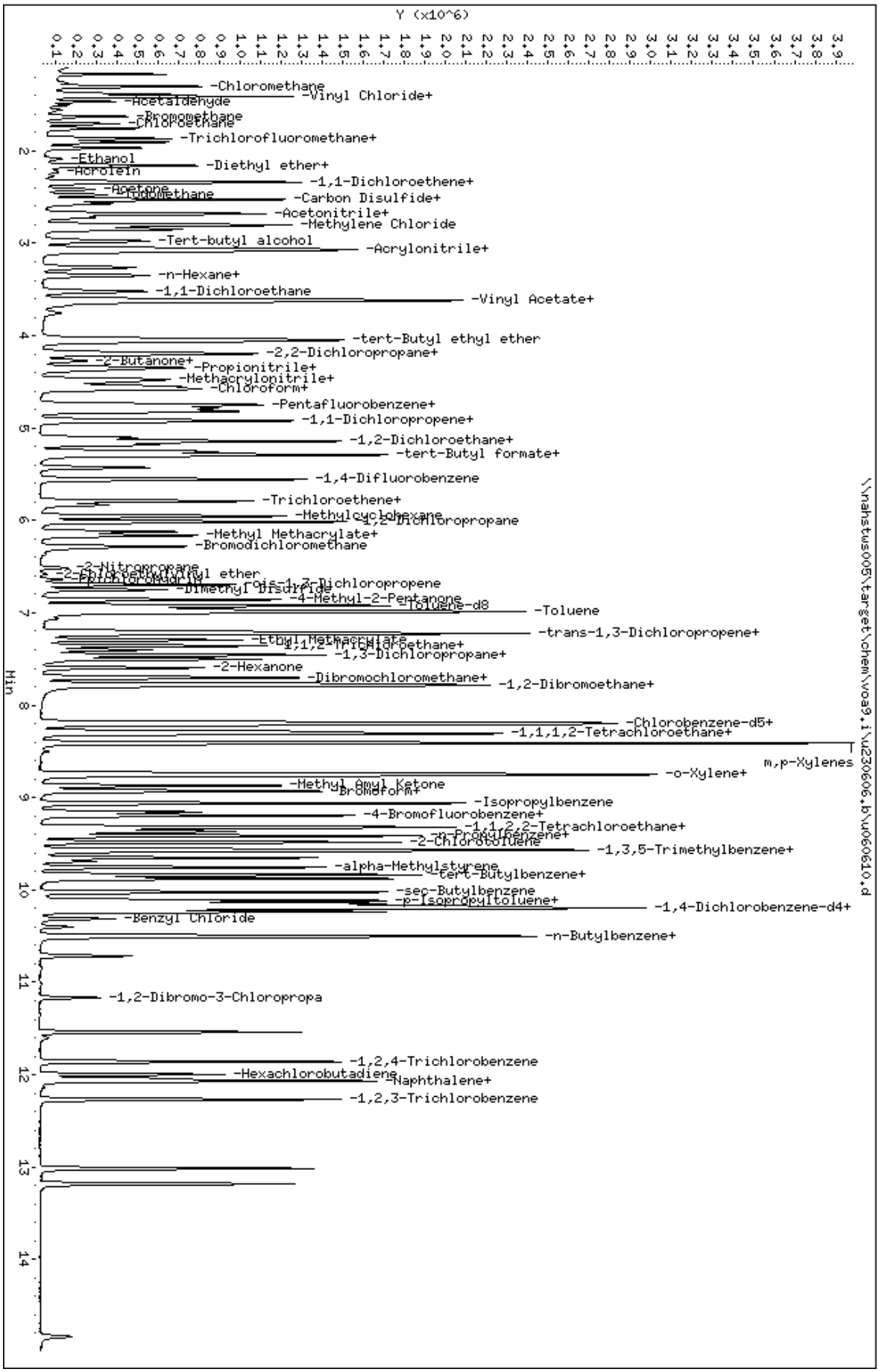
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.474	4.474	(0.928)	180688	50.0000	48.34
$	30 Dibromofluoromethane	113	4.752	4.752	(0.986)	271537	50.0000	47.80
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	427820	50.0000	50.81
	32 1,1-Dichloropropene	75	4.924	4.924	(0.886)	378122	50.0000	50.72
	33 1,2-Dichloroethane	62	5.179	5.179	(0.932)	428044	50.0000	48.61
	34 Carbon Tetrachloride	117	4.913	4.913	(0.884)	352021	50.0000	51.40
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	303470	50.0000	49.38
*	36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1017200	50.0000	
	37 Benzene	78	5.141	5.141	(0.925)	1252175	50.0000	51.08
	38 Trichloroethene	130	5.790	5.790	(1.042)	345905	50.0000	48.68
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	388938	50.0000	50.86
	41 2-Chloroethylvinyl ether	63	6.581	6.581	(1.184)	17983	100.000	97.24(M)
	42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	326747	50.0000	49.92
	44 Dibromomethane	93	6.124	6.124	(1.102)	203401	50.0000	48.64
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	697558	100.000	98.05
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	477156	50.0000	46.71
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	976881	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	1047714	50.0000	47.38(M)
	50 Toluene	91	6.982	6.982	(0.853)	1342745	50.0000	50.67
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	395477	50.0000	46.15
	52 2-Hexanone	43	7.593	7.593	(0.928)	463757	100.000	93.61
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	255402	50.0000	46.32
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	550839	50.0000	48.90
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	344538	50.0000	52.67
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	304966	50.0000	47.24
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	322319	50.0000	47.39
	58 1-Chlorohexane	55	8.197	8.197	(1.475)	234412	50.0000	44.87
	59 Chlorobenzene	112	8.212	8.212	(1.003)	916475	50.0000	48.46
	60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	327010	50.0000	50.31
	61 Ethylbenzene	106	8.309	8.309	(1.015)	443008	50.0000	50.33
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	1096202	100.000	105.27
	63 o-Xylene	106	8.748	8.748	(1.069)	532694	50.0000	51.78
	64 Styrene	104	8.763	8.763	(1.071)	873807	50.0000	53.52
	66 Bromoform	173	8.920	8.920	(1.090)	227224	50.0000	51.46
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	1269616	50.0000	51.38
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	438008	50.0000	45.99
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	425877	50.0000	48.86
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	506267	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	396260	50.0000	47.29
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	1350525	50.0000	50.85
	74 Bromobenzene	156	9.317	9.317	(0.916)	406120	50.0000	47.54
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	873885	50.0000	47.96
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	927058	50.0000	49.66
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1031057	50.0000	49.89
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	874077	50.0000	48.84
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	861955	50.0000	45.21
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	1105877	50.0000	48.73
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	895378	50.0000	47.09
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	679277	50.0000	46.82
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	709983	50.0000	45.89
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	741855	50.0000	45.58
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	681773	50.0000	46.86

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	66094	50.0000	47.56
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	468840	50.0000	46.85

	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)	174158	50.0000	43.10
	92 Naphthalene	128	12.065	12.065	(1.186)	1175644	50.0000	50.58
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	463613	50.0000	47.39
M	94 1,2-Dichloroethylene (total)	96				618442	100.000	(a)
	135 1,4-Dioxane	88	6.172	6.172	(1.281)	89225	1000.00	664.21
	141 Cyclohexane	56	4.785	4.785	(0.993)	384146	50.0000	46.29
	138 Freon TF	101	2.341	2.341	(0.486)	217639	50.0000	47.90
	140 1,3-Butadiene	54	1.408	1.408	(0.292)	329617	50.0000	51.44
	147 Methylcyclohexane	55	5.951	5.951	(1.071)	649753	50.0000	46.04
	146 Methyl Acetate	43	2.720	2.720	(0.564)	254836	50.0000	44.73
	148 Tert-Butyl alcohol	59	2.975	2.975	(0.617)	592187	1000.00	947.12
	149 Isopropyl Alcohol	45	2.570	2.570	(0.533)	395875	1000.00	895.11
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	53071	50.0000	47.18(M)
	12 Isobutyl Alcohol	43	5.291	5.291	(1.098)	891975	1000.00	1014.77(M)
	13 Acetonitrile	39	2.678	2.678	(0.556)	355989	500.000	486.02
	14 Allyl Chloride	41	2.678	2.678	(0.556)	838850	50.0000	47.75
	25 Methacrylonitrile	41	4.500	4.500	(0.934)	196618	50.0000	49.19
	40 Methyl Methacrylate	41	6.161	6.161	(1.278)	297279	50.0000	51.10
	4 Propionitrile	54	4.343	4.343	(0.901)	467472	500.000	478.18
	136 n-Hexane	57	3.350	3.350	(0.695)	256401	50.0000	45.49
	194 Acetaldehyde	44	1.464	1.464	(0.304)	182837	200.000	195.95(M)
	131 Methyl Acrylate	55	4.377	4.377	(0.908)	350463	50.0000	48.98(M)
	200 Dimethyl Disulfide	94	6.750	6.750	(0.825)	275143	50.0000	38.98
	23 Chloroprene	53	2.165	2.165	(0.449)	103984	50.0000	48.19(M)
	49 Ethyl Methacrylate	69	7.293	7.293	(1.312)	443431	50.0000	49.73
	166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	871855	50.0000	44.80
	167 Ethanol	45	2.090	2.090	(0.434)	83818	1000.00	992.72
	164 Dicyclopentadiene	66	10.202	10.202	(1.003)	1102255	50.0000	44.63
	145 alpha-Methylstyrene	118	9.756	9.756	(0.959)	398013	50.0000	42.48
	142 Tetrahydrofuran	42	4.549	4.549	(0.944)	124830	100.000	104.57
	156 Diisopropyl ether	45	3.627	3.627	(0.753)	905553	50.0000	48.00
	151 4-Methyl-2-pentanol	45	7.222	7.222	(1.299)	1360403	1000.00	899.38
	150 Allyl alcohol	57	3.350	3.350	(0.695)	256401	1000.00	910.24
	86 Benzyl Chloride	91	10.311	10.311	(1.260)	234906	50.0000	40.89
	162 Butyl acrylate	55	8.733	8.733	(1.067)	552381	50.0000	47.80
	139 Diethyl ether	59	2.150	2.150	(0.446)	220811	50.0000	48.30
	203 2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	214955	50.0000	44.70
	134 Cyclohexanone	55	9.156	9.156	(0.900)	291143	1000.00	927.60
	130 Ethyl Acetate	43	4.272	4.272	(0.886)	275065	50.0000	45.48(M)
	189 n-Butyl acetate	43	7.709	7.709	(0.942)	537633	50.0000	48.33(M)
	182 Epichlorohydrin	57	6.637	6.637	(1.194)	17348	200.000	179.78
	132 n-Butanol	56	5.835	5.835	(1.211)	176825	1000.00	918.25

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\voa9,i\u230606,b\u060610,d
Date : 06-JUN-2023 14:35
Client ID: VSTD050
Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624

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

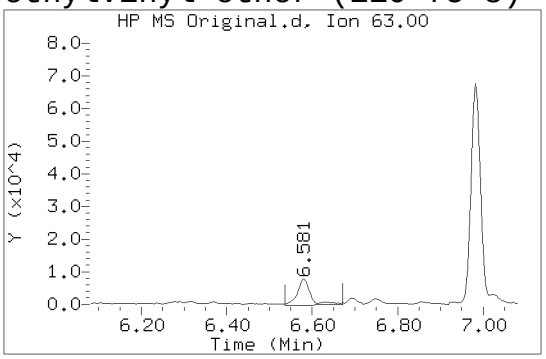
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060610.d
Inj Date : 06-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : VSTD050

2-Chloroethylvinyl ether (110-75-8)

Reason Code:

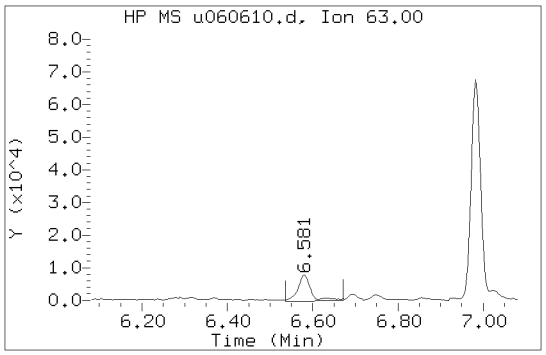
BEFORE

MASS
63
AREA
17983
HEIGHT
8031
08-Jun-2023
14:56
linh
pham



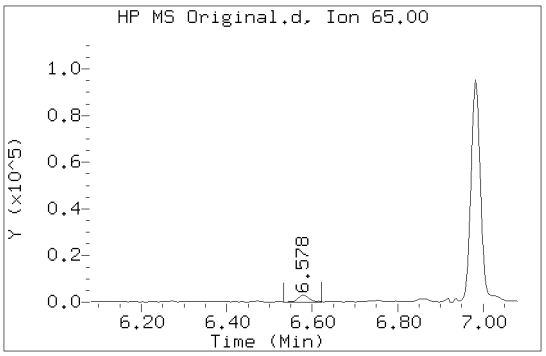
AFTER

MASS
63
AREA
17983
HEIGHT
8031
21-Jun-2023
13:49
linh
pha



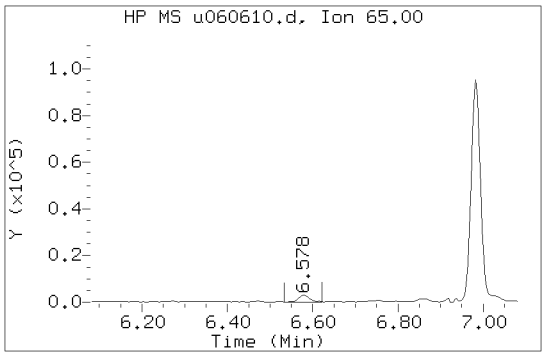
BEFORE

MASS
65
AREA
5137
HEIGHT
2882
08-Jun-2023
14:56
linh
pham



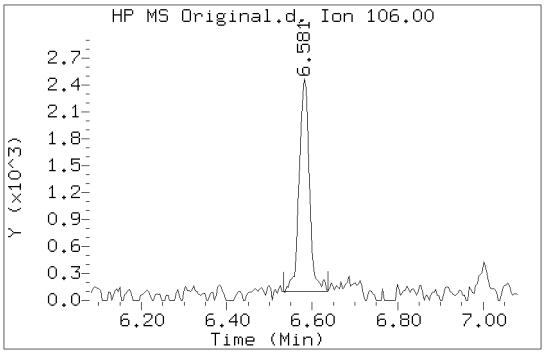
AFTER

MASS
65
AREA
5137
HEIGHT
2882
21-Jun-2023
13:49
linh
pha



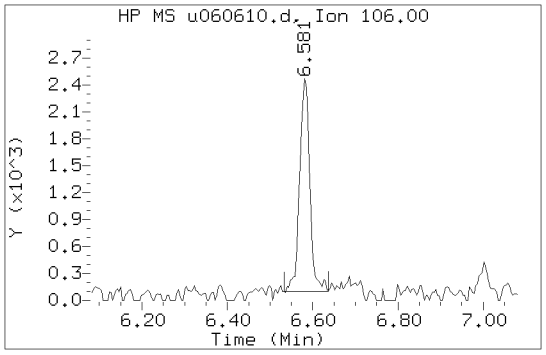
BEFORE

MASS
106
AREA
4026
HEIGHT
2370
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
4026
HEIGHT
2370
21-Jun-2023
13:49
linh
pha

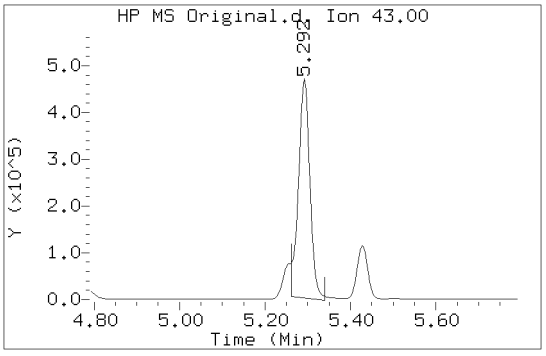


Isobutyl Alcohol (78-83-1)

Reason Code:

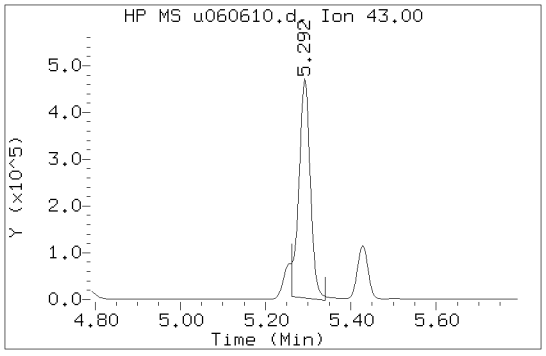
BEFORE

MASS
43
AREA
891975
HEIGHT
468494
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
891975
HEIGHT
468494
21-Jun-2023
13:49
linh
pha

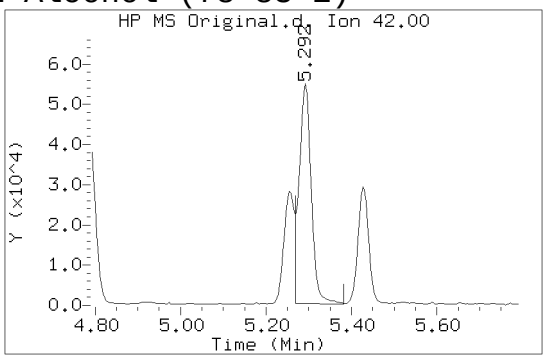


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060610.d
Inj Date : 06-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : VSTD050

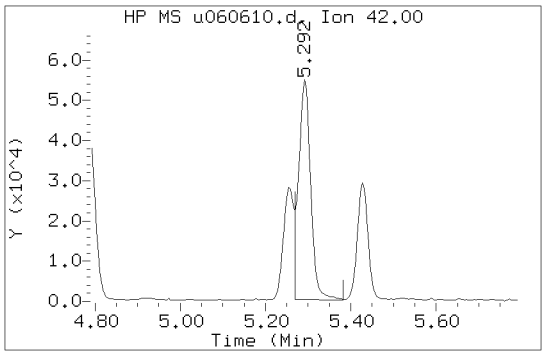
Isobutyl Alcohol (78-83-1)

Reason Code:

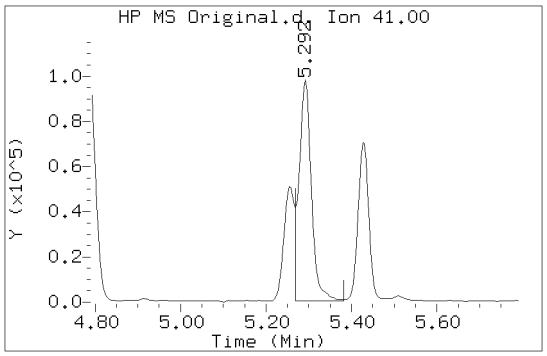
BEFORE
MASS
42
AREA
109693
HEIGHT
54695
08-Jun-2023
14:56
linh
pham



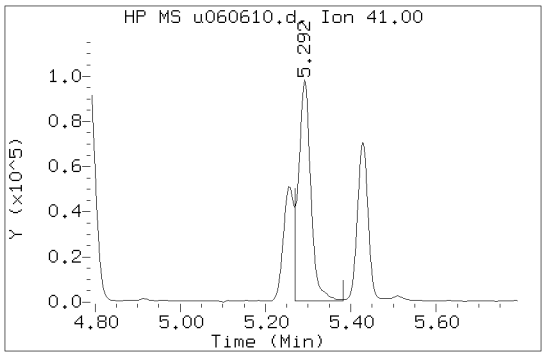
AFTER
MASS
42
AREA
109693
HEIGHT
54695
21-Jun-2023
13:49
linh
pha



BEFORE
MASS
41
AREA
200117
HEIGHT
97881
08-Jun-2023
14:56
linh
pham



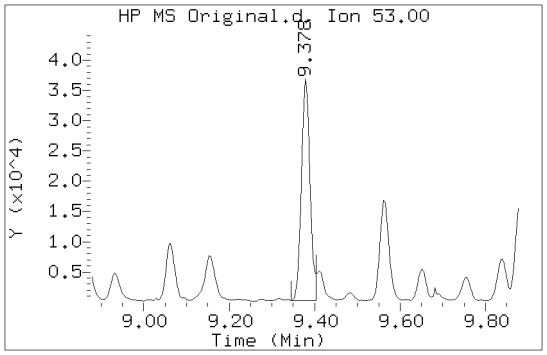
AFTER
MASS
41
AREA
200117
HEIGHT
97881
21-Jun-2023
13:49
linh
pha



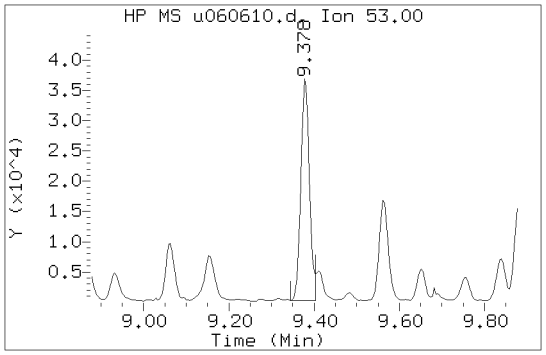
trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

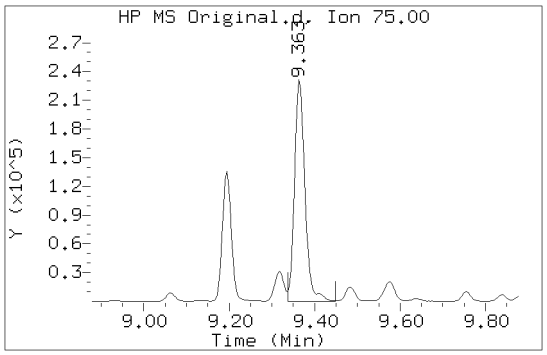
BEFORE
MASS
53
AREA
53071
HEIGHT
36577
08-Jun-2023
14:56
linh
pham



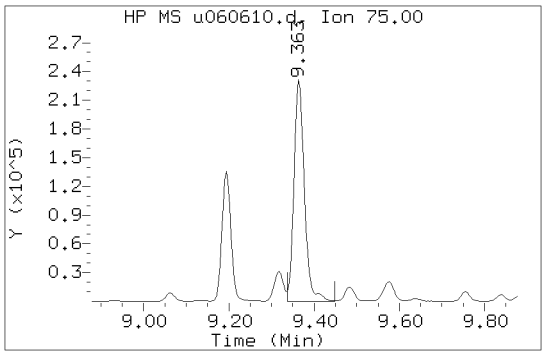
AFTER
MASS
53
AREA
53071
HEIGHT
36577
21-Jun-2023
13:49
linh
pha



BEFORE
MASS
75
AREA
396260
HEIGHT
231235
08-Jun-2023
14:56
linh
pham



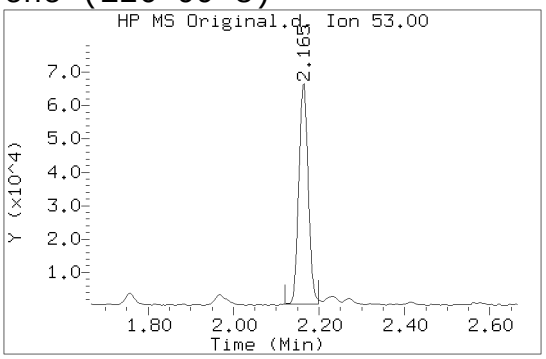
AFTER
MASS
75
AREA
396260
HEIGHT
231235
21-Jun-2023
13:49
linh
pha



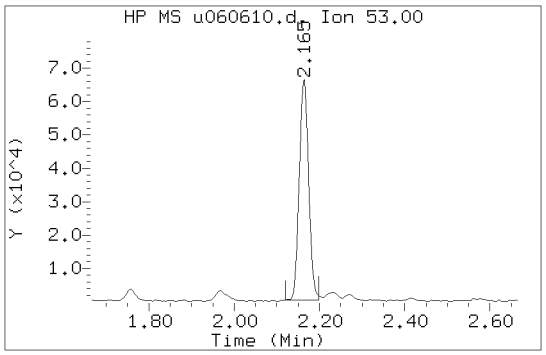
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060610.d
Inj Date : 06-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : VSTD050

Chloroprene (126-99-8)

BEFORE
MASS
53
AREA
103984
HEIGHT
65956
08-Jun-2023
14:56
linh
pham

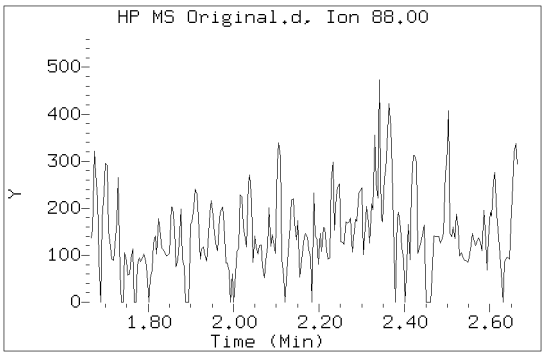


AFTER
MASS
53
AREA
103984
HEIGHT
65956
21-Jun-2023
13:49
linh
pha

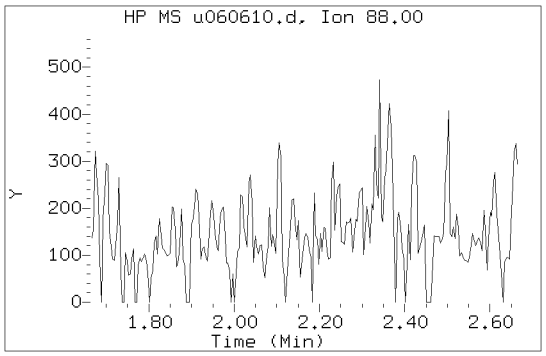


Reason Code:

BEFORE
MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham

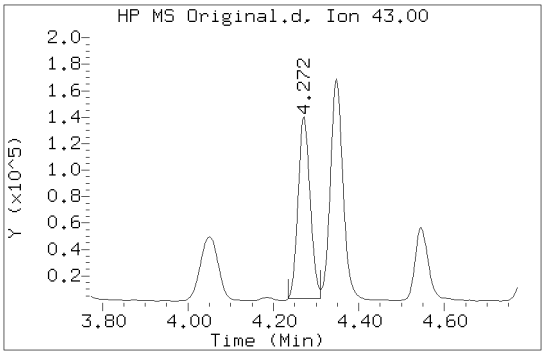


AFTER
MASS
88
AREA
0
HEIGHT
0
21-Jun-2023
13:49
linh
pha

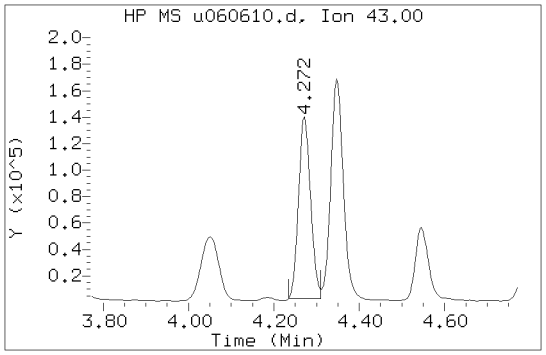


Ethyl Acetate (141-78-6)

BEFORE
MASS
43
AREA
275065
HEIGHT
137464
08-Jun-2023
14:56
linh
pham

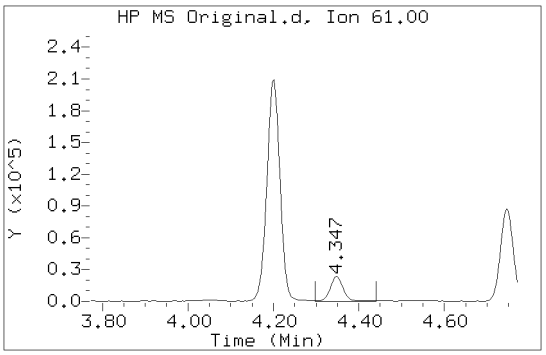


AFTER
MASS
43
AREA
275065
HEIGHT
137464
21-Jun-2023
13:49
linh
pha

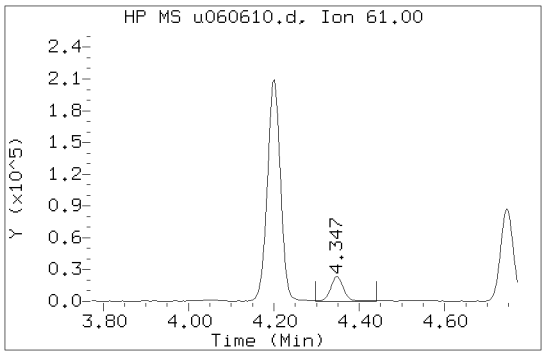


Reason Code:

BEFORE
MASS
61
AREA
48522
HEIGHT
23550
08-Jun-2023
14:56
linh
pham



AFTER
MASS
61
AREA
48522
HEIGHT
23550
21-Jun-2023
13:49
linh
pha



Reason Code:

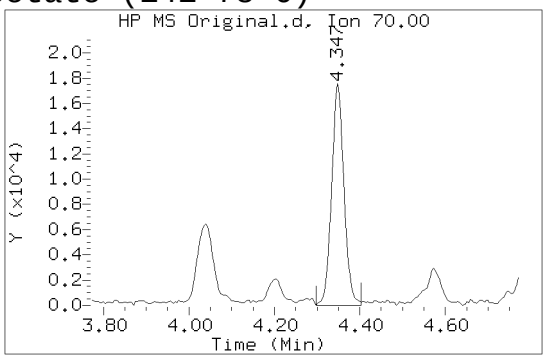
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060610.d
Inj Date : 06-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : VSTD050

Ethyl Acetate (141-78-6)

Reason Code:

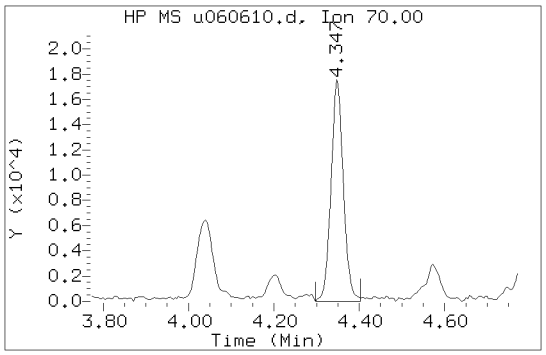
BEFORE

MASS
70
AREA
35210
HEIGHT
17560
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
35210
HEIGHT
17560
21-Jun-2023
13:49
linh
pha

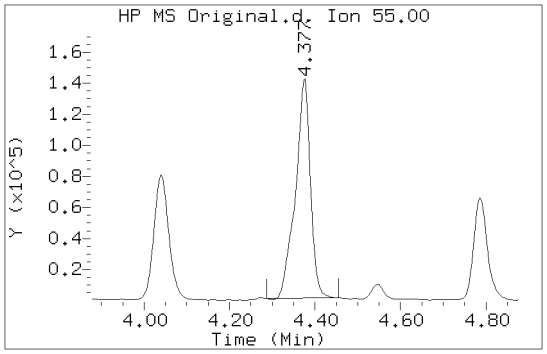


Methyl Acrylate (96-33-3)

Reason Code:

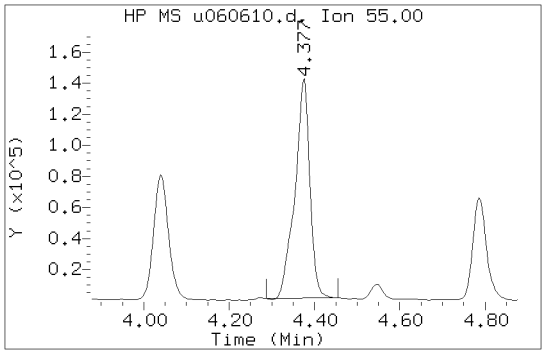
BEFORE

MASS
55
AREA
350463
HEIGHT
141367
08-Jun-2023
14:56
linh
pham



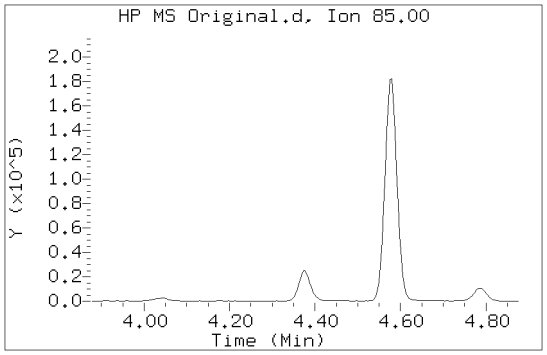
AFTER

MASS
55
AREA
350463
HEIGHT
141367
21-Jun-2023
13:49
linh
pha



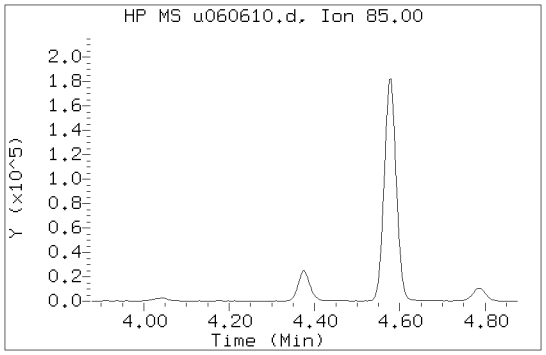
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
21-Jun-2023
13:49
linh
pha

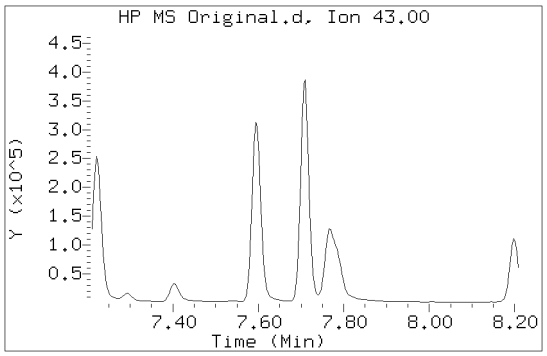


n-Butyl acetate (123-86-4)

Reason Code:

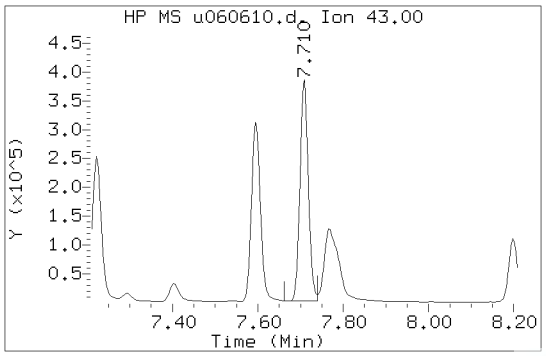
BEFORE

MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
537633
HEIGHT
383148
21-Jun-2023
13:49
linh
pha

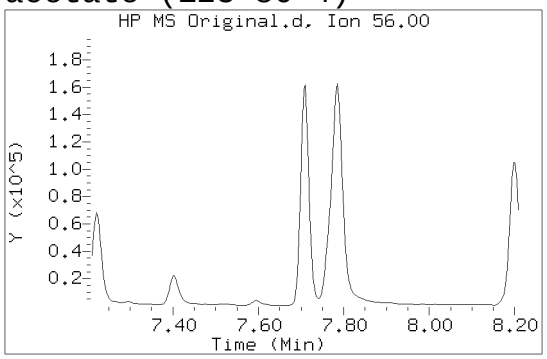


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060610.d
Inj Date : 06-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : VSTD050

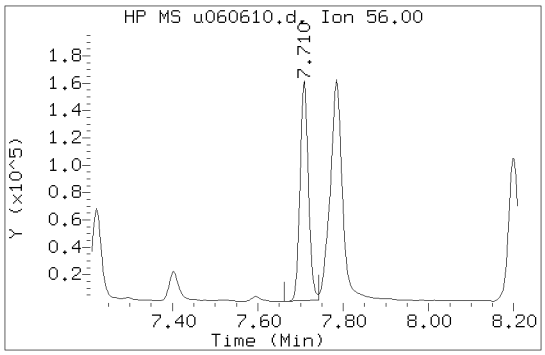
n-Butyl acetate (123-86-4)

Reason Code:

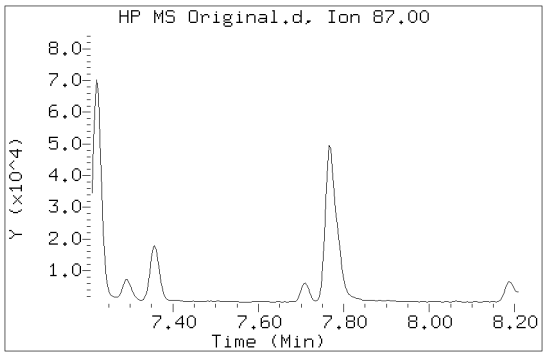
BEFORE
MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



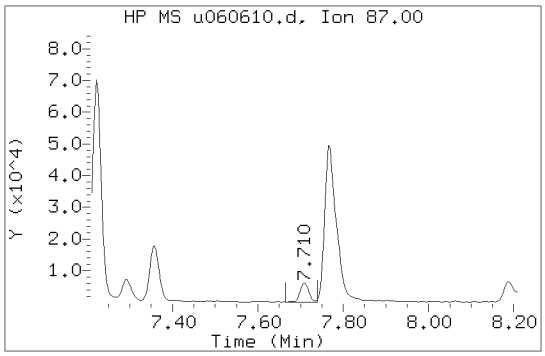
AFTER
MASS
56
AREA
225501
HEIGHT
160546
21-Jun-2023
13:49
linh
pha



BEFORE
MASS
87
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



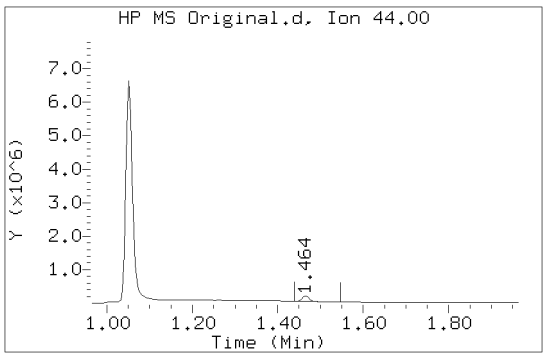
AFTER
MASS
87
AREA
8948
HEIGHT
6014
21-Jun-2023
13:49
linh
pha



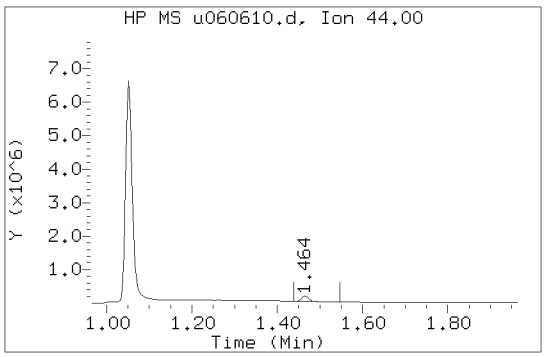
Acetaldehyde (75-07-0)

Reason Code:

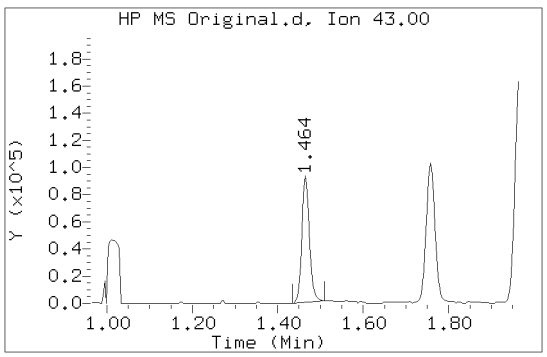
BEFORE
MASS
44
AREA
182837
HEIGHT
160861
08-Jun-2023
14:56
linh
pham



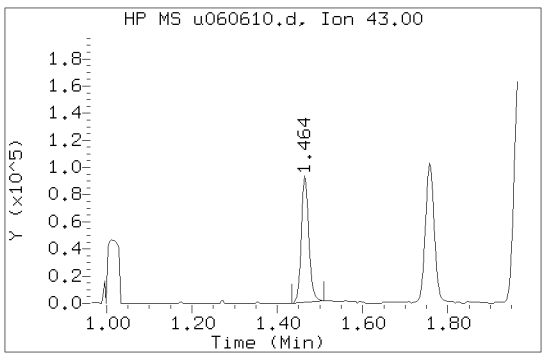
AFTER
MASS
44
AREA
182837
HEIGHT
160861
21-Jun-2023
13:49
linh
pha



BEFORE
MASS
43
AREA
115916
HEIGHT
93282
08-Jun-2023
14:56
linh
pham



AFTER
MASS
43
AREA
115916
HEIGHT
93282
21-Jun-2023
13:49
linh
pha



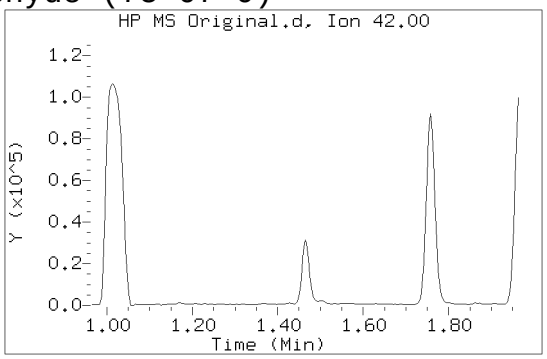
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060610.d
Inj Date : 06-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : VSTD050

Acetaldehyde (75-07-0)

Reason Code:

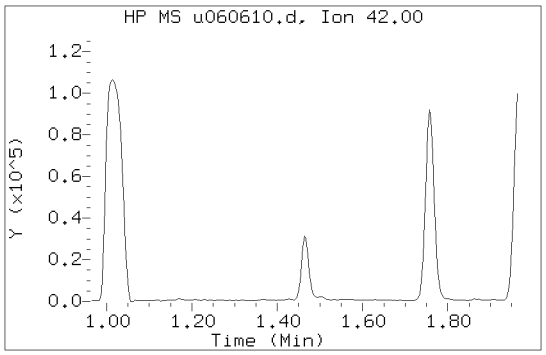
BEFORE

MASS
42
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
21-Jun-2023
13:49
linh
pha

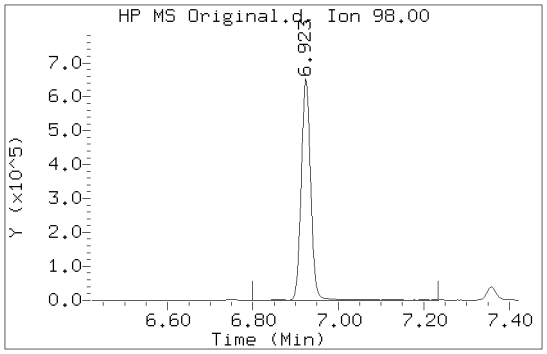


Toluene-d8 (2037-26-5)

Reason Code:

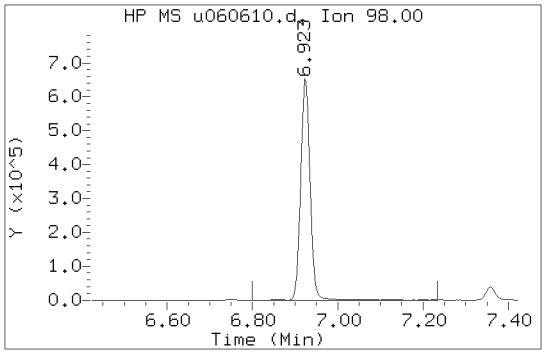
BEFORE

MASS
98
AREA
1047714
HEIGHT
653990
08-Jun-2023
14:56
linh
pham



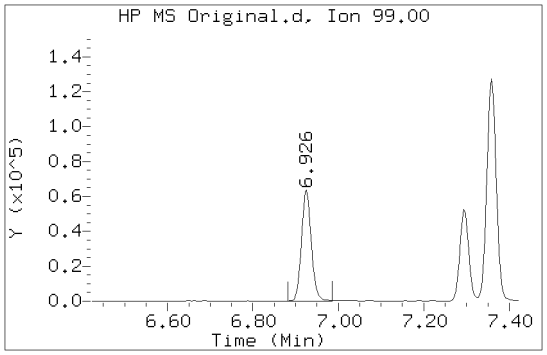
AFTER

MASS
98
AREA
1047714
HEIGHT
653990
21-Jun-2023
13:49
linh
pha



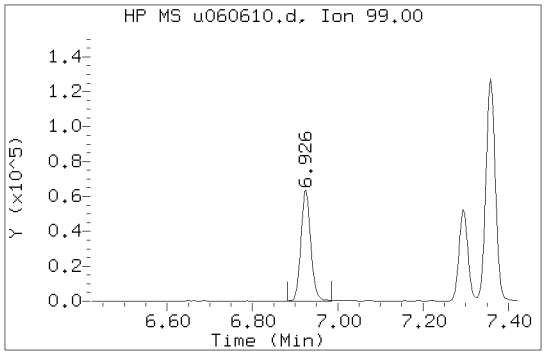
BEFORE

MASS
99
AREA
104983
HEIGHT
63672
08-Jun-2023
14:56
linh
pham



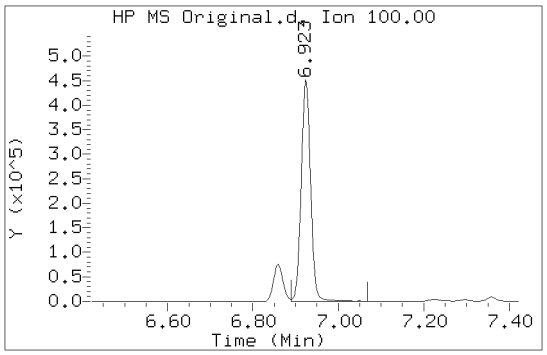
AFTER

MASS
99
AREA
104983
HEIGHT
63672
21-Jun-2023
13:49
linh
pha



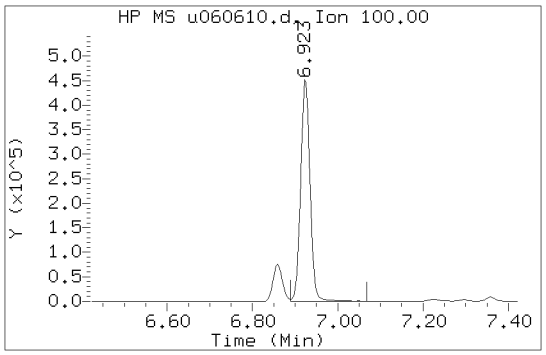
BEFORE

MASS
100
AREA
706605
HEIGHT
451766
08-Jun-2023
14:56
linh
pham



AFTER

MASS
100
AREA
706605
HEIGHT
451766
21-Jun-2023
13:49
linh
pha



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060611.D Page 1
Report Date: 21-Jun-2023 13:48

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060611.D
Lab Smp Id: VSTD100 Client Smp ID: VSTD100
Inj Date : 06-JUN-2023 14:57
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\U230606.b\8260C.m
Meth Date : 21-Jun-2023 13:45 pcabasca Quant Type: ISTD
Cal Date : 06-JUN-2023 14:57 Cal File: U060611.D
Als bottle: 12 Calibration Sample, Level: 8
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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	670070	50.0000	
2	Dichlorodifluoromethane	85	1.171	1.171	(0.243)	630744	100.000	101.79
3	Chloromethane	50	1.303	1.303	(0.270)	979734	100.000	98.21
5	Vinyl Chloride	62	1.385	1.385	(0.288)	740321	100.000	104.45
6	Bromomethane	94	1.621	1.621	(0.337)	362834	100.000	101.38
7	Chloroethane	64	1.704	1.704	(0.354)	467539	100.000	97.92
8	Trichlorofluoromethane	101	1.902	1.902	(0.395)	855761	100.000	105.12
9	Acrolein	56	2.274	2.274	(0.472)	67908	200.000	190.93
10	Acetone	43	2.416	2.416	(0.501)	467276	200.000	208.92
11	1,1-Dichloroethene	96	2.341	2.341	(0.486)	513614	100.000	100.98
15	Iodomethane	142	2.476	2.476	(0.514)	901104	200.000	199.55
16	Acrylonitrile	53	3.072	3.072	(0.638)	516348	200.000	207.79
17	Methylene Chloride	84	2.802	2.802	(0.582)	614571	100.000	101.61
18	Methyl tert-butyl ether	73	3.087	3.087	(0.641)	1584444	100.000	101.58
19	Carbon Disulfide	76	2.528	2.528	(0.525)	2847374	200.000	209.40
20	trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	568535	100.000	102.78
21	Vinyl Acetate	43	3.616	3.616	(0.750)	3561924	200.000	211.24
22	1,1-Dichloroethane	63	3.522	3.522	(0.731)	1000189	100.000	95.14
24	2-Butanone	43	4.272	4.272	(0.886)	586975	200.000	192.13
26	2,2-Dichloropropane	77	4.189	4.189	(0.869)	699035	100.000	100.17
27	cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	653745	100.000	98.79

28	Chloroform	83	4.579	4.579 (0.950)	1087668	100.000	99.41
29	Bromochloromethane	128	4.474	4.474 (0.928)	353937	100.000	95.61

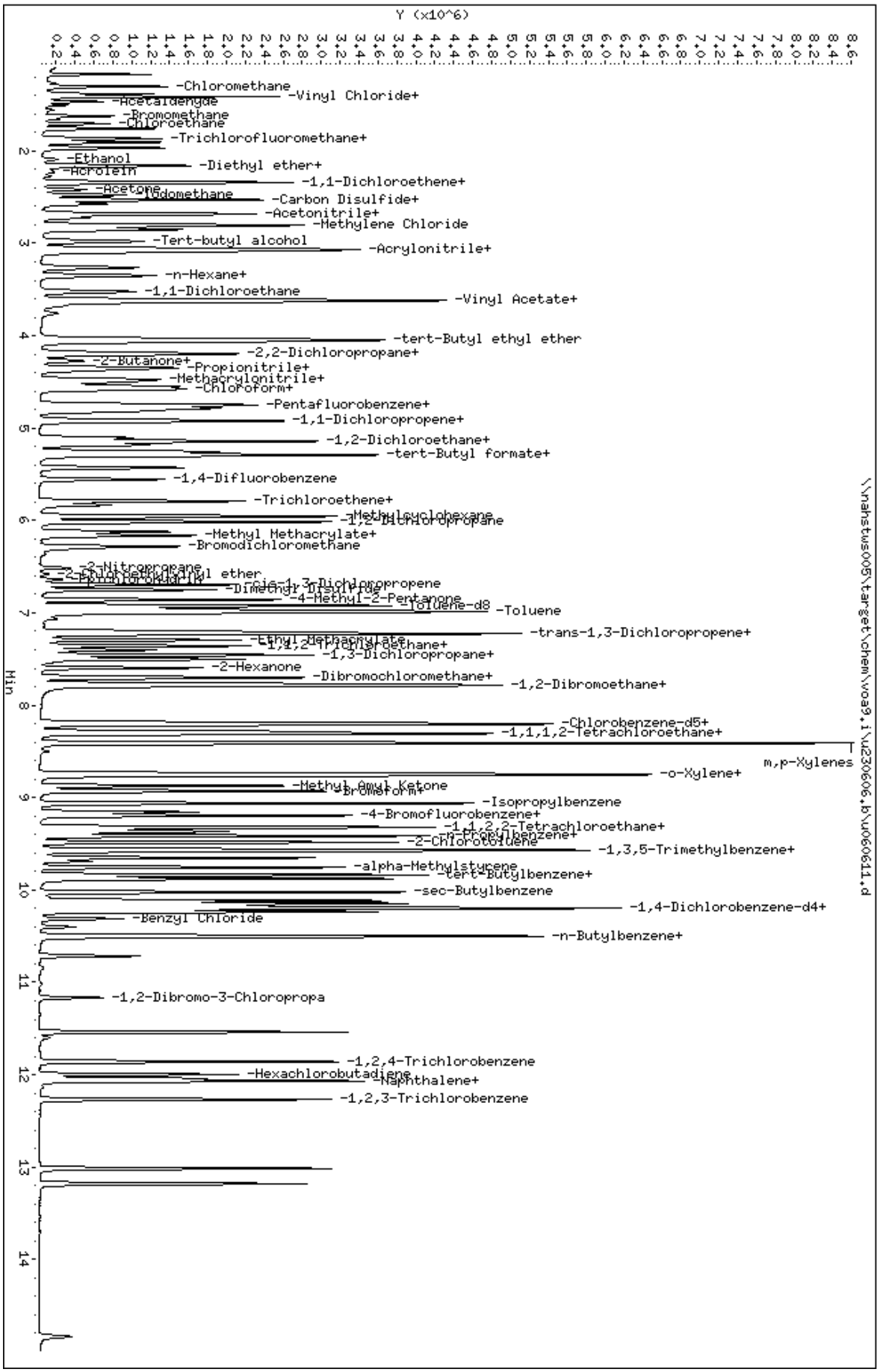
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
$	30 Dibromofluoromethane	113	4.755	4.755	(0.987)	587291	100.000	104.76
	31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	877070	100.000	105.18
	32 1,1-Dichloropropene	75	4.924	4.924	(0.886)	789905	100.000	106.49
	33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	859937	100.000	98.17
	34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	751459	100.000	110.29
$	35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	630129	100.000	104.27
*	36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1012041	50.0000	
	37 Benzene	78	5.141	5.141	(0.925)	2477058	100.000	101.57
	38 Trichloroethene	130	5.790	5.790	(1.042)	703907	100.000	99.58
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	818290	100.000	107.56
	41 2-Chloroethylvinyl ether	63	6.581	6.581	(1.184)	40457	200.000	219.88
	42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	652200	100.000	100.16
	44 Dibromomethane	93	6.123	6.123	(1.102)	418327	100.000	100.55
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	1453246	200.000	201.66
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	1015887	100.000	97.77
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	989593	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	2212089	100.000	98.76
	50 Toluene	91	6.982	6.982	(0.853)	2683985	100.000	99.99
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	857257	100.000	98.18
	52 2-Hexanone	43	7.593	7.593	(0.928)	985396	200.000	196.34
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	529613	100.000	94.83
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	1115267	100.000	97.74
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	737148	100.000	111.24
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	639857	100.000	97.84
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	667663	100.000	96.91
	58 1-Chlorohexane	55	8.196	8.196	(1.475)	524953	100.000	101.01
	59 Chlorobenzene	112	8.211	8.211	(1.003)	1872827	100.000	97.76
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	680431	100.000	103.34
	61 Ethylbenzene	106	8.309	8.309	(1.015)	943978	100.000	105.87
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	2348572	200.000	222.64
	63 o-Xylene	106	8.748	8.748	(1.069)	1136322	100.000	109.04
	64 Styrene	104	8.763	8.763	(1.071)	1895390	100.000	114.61
	66 Bromoform	173	8.920	8.920	(1.090)	516461	100.000	115.46
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	2761754	100.000	110.34
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	908699	100.000	94.04
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	923899	100.000	105.68
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	513703	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	846266	100.000	99.55
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	3014111	100.000	111.86
	74 Bromobenzene	156	9.317	9.317	(0.916)	845025	100.000	97.49
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	1940177	100.000	104.95
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	1931083	100.000	101.94
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	2158910	100.000	102.96
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	1926006	100.000	106.08
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	1885486	100.000	97.48
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	2529836	100.000	109.87
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	2089715	100.000	108.33
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	1428807	100.000	97.05
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	1475761	100.000	94.02
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	1713959	100.000	103.79
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	1414908	100.000	95.85
	89 1,2-Dibromo-3-Chloropropane	155	11.165	11.165	(1.098)	145818	100.000	103.41

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	1004776	100.000	98.96
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	399123	100.000	97.34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
92	Naphthalene	128	12.065	12.065	(1.186)	2448621	100.000	103.83
93	1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	976842	100.000	98.42
M 94	1,2-Dichloroethylene (total)	96				1222280	200.000	201.57
M 95	Xylenes (total)	106				3484894	300.000	331.69
135	1,4-Dioxane	88	6.172	6.172	(1.281)	185267	2000.00	1392.45
141	Cyclohexane	56	4.785	4.785	(0.993)	872566	100.000	102.63
138	Freon TF	101	2.345	2.345	(0.487)	480519	100.000	106.77
140	1,3-Butadiene	54	1.411	1.411	(0.293)	678126	100.000	106.86
147	Methylcyclohexane	55	5.951	5.951	(1.071)	1558687	100.000	111.02(A)
146	Methyl Acetate	43	2.720	2.720	(0.564)	537399	100.000	95.24
148	Tert-Butyl alcohol	59	2.978	2.978	(0.618)	1263261	2000.00	2045.59
149	Isopropyl Alcohol	45	2.573	2.573	(0.534)	847444	2000.00	1934.60
72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	125171	100.000	109.85(M)
12	Isobutyl Alcohol	43	5.291	5.291	(1.098)	1859195	2000.00	2135.51(M)
13	Acetonitrile	39	2.678	2.678	(0.556)	750162	1000.00	1034.05
14	Allyl Chloride	41	2.678	2.678	(0.556)	1757558	100.000	101.02
25	Methacrylonitrile	41	4.500	4.500	(0.934)	417519	100.000	105.46
40	Methyl Methacrylate	41	6.161	6.161	(1.278)	629718	100.000	109.29
4	Propionitrile	54	4.347	4.347	(0.902)	963710	1000.00	995.29
136	n-Hexane	57	3.349	3.349	(0.695)	595793	100.000	102.41
194	Acetaldehyde	44	1.468	1.468	(0.305)	401024	400.000	433.93(M)
131	Methyl Acrylate	55	4.377	4.377	(0.908)	743794	100.000	104.95(M)
200	Dimethyl Disulfide	94	6.749	6.749	(0.825)	843448	100.000	100.11
23	Chloroprene	53	2.165	2.165	(0.449)	214456	100.000	100.34(M)
49	Ethyl Methacrylate	69	7.293	7.293	(1.312)	960371	100.000	108.25
166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	1877988	100.000	95.10
167	Ethanol	45	2.094	2.094	(0.435)	175232	2000.00	2120.76
164	Dicyclopentadiene	66	10.202	10.202	(1.003)	2526635	100.000	100.82
145	alpha-Methylstyrene	118	9.756	9.756	(0.959)	939505	100.000	94.14
142	Tetrahydrofuran	42	4.549	4.549	(0.944)	246154	200.000	210.54
156	Diisopropyl ether	45	3.631	3.631	(0.753)	1887901	100.000	101.04
151	4-Methyl-2-pentanol	45	7.222	7.222	(1.299)	3087346	2000.00	2051.50
150	Allyl alcohol	57	3.349	3.349	(0.695)	595793	2000.00	2048.16
86	Benzyl Chloride	91	10.311	10.311	(1.260)	573982	100.000	93.75
162	Butyl acrylate	55	8.733	8.733	(1.067)	1240696	100.000	105.99
139	Diethyl ether	59	2.154	2.154	(0.447)	464259	100.000	102.54
203	2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	534360	100.000	100.35
134	Cyclohexanone	55	9.156	9.156	(0.900)	605439	2000.00	1901.05
130	Ethyl Acetate	43	4.272	4.272	(0.886)	580165	100.000	96.86(M)
189	n-Butyl acetate	43	7.709	7.709	(0.942)	1156578	100.000	102.64(M)
182	Epichlorohydrin	57	6.633	6.633	(1.194)	42530	400.000	396.34
132	n-Butanol	56	5.835	5.835	(1.211)	404429	2000.00	2120.43

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstus005\target\chem\voa9.i\u230606.b\u060611.d
Date : 06-JUN-2023 14:57
Client ID: VSTD100
Sample Info: VSTD100;VSTD100;1;8;
Purge Volume: 5.0
Column phase: DB624

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

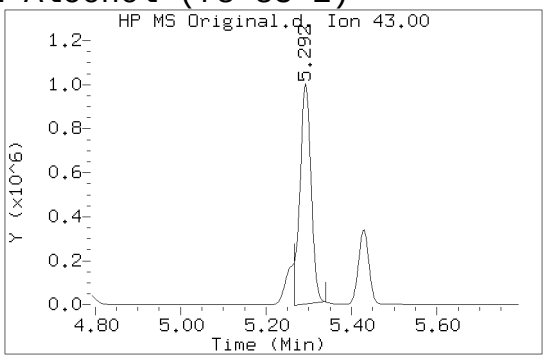
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060611.d
Inj Date : 06-JUN-2023 14:57
InstruID : VOA9.i
LabSampID : VSTD100

Isobutyl Alcohol (78-83-1)

Reason Code:

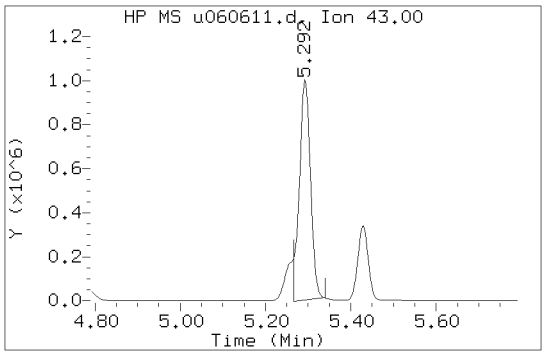
BEFORE

MASS
43
AREA
1859195
HEIGHT
1000873
08-Jun-2023
14:56
linh
pham



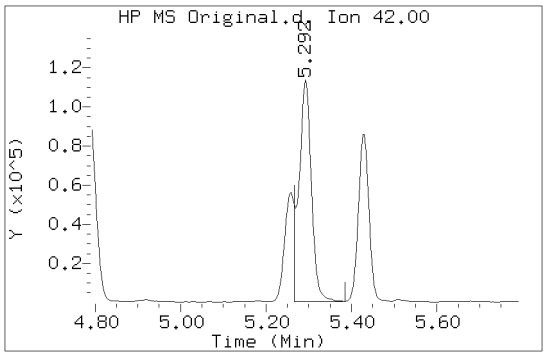
AFTER

MASS
43
AREA
1859195
HEIGHT
1000873
21-Jun-2023
13:48
linh
pha



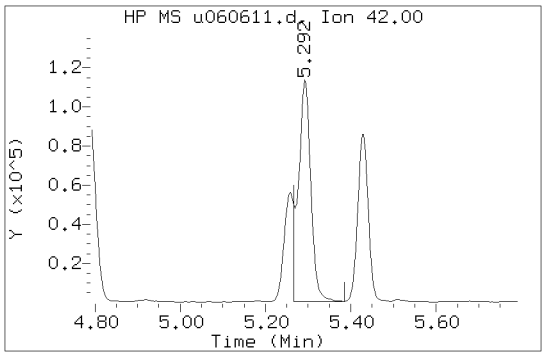
BEFORE

MASS
42
AREA
238215
HEIGHT
113359
08-Jun-2023
14:56
linh
pham



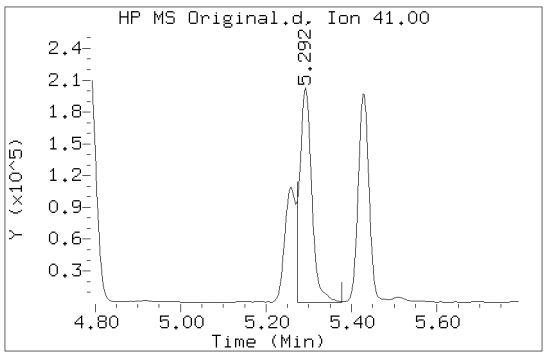
AFTER

MASS
42
AREA
238215
HEIGHT
113359
21-Jun-2023
13:48
linh
pha



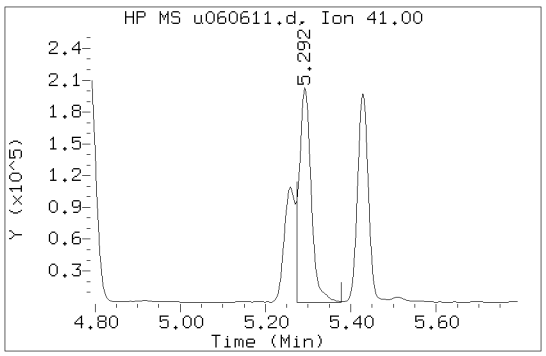
BEFORE

MASS
41
AREA
402273
HEIGHT
202160
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
402273
HEIGHT
202160
21-Jun-2023
13:48
linh
pha

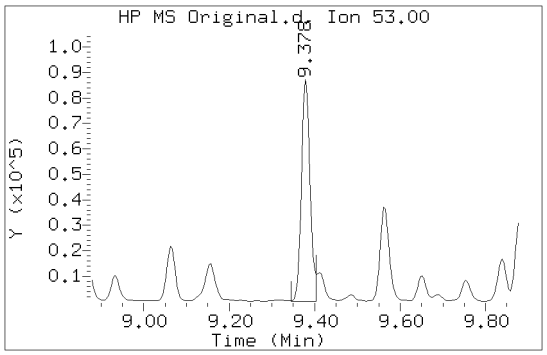


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

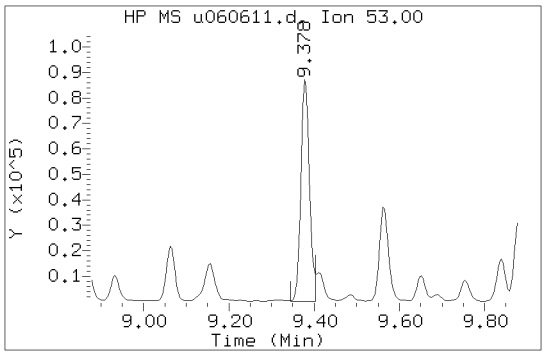
BEFORE

MASS
53
AREA
125171
HEIGHT
86900
08-Jun-2023
14:56
linh
pham



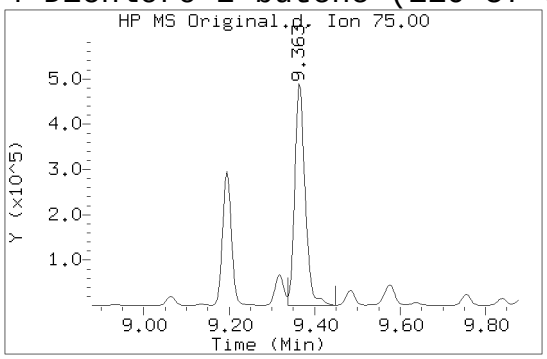
AFTER

MASS
53
AREA
125171
HEIGHT
86900
21-Jun-2023
13:48
linh
pha

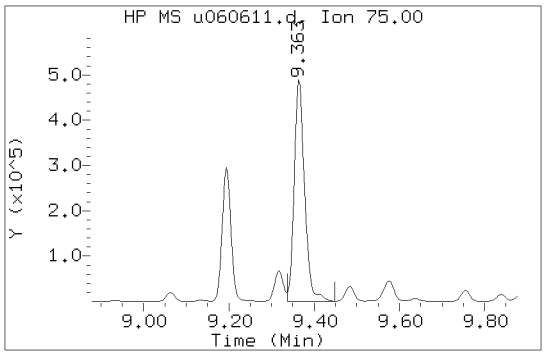


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060611.d
Inj Date : 06-JUN-2023 14:57
InstruID : VOA9.i
LabSampID : VSTD100

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



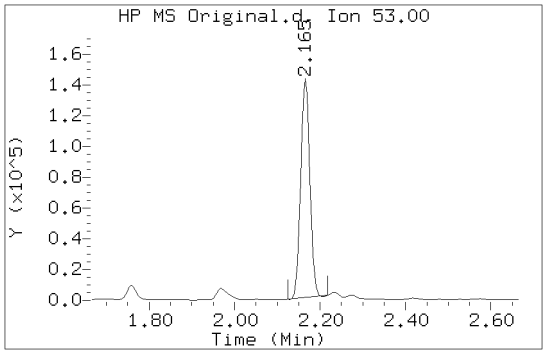
BEFORE
MASS
75
AREA
846266
HEIGHT
489169
08-Jun-2023
14:56
linh
pham



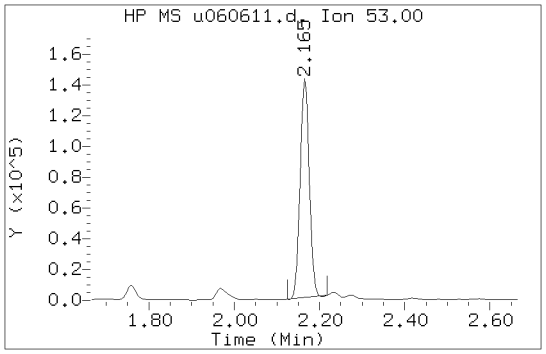
AFTER
MASS
75
AREA
846266
HEIGHT
489169
21-Jun-2023
13:48
linh
pha

Reason Code:

Chloroprene (126-99-8)

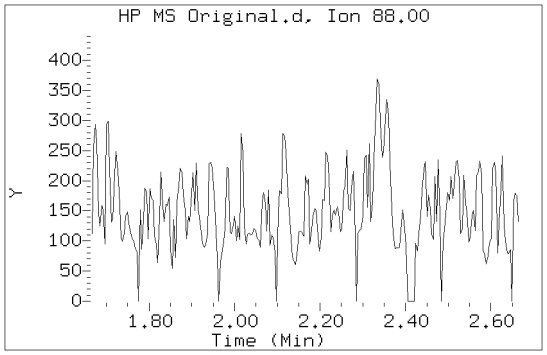


BEFORE
MASS
53
AREA
214456
HEIGHT
141961
08-Jun-2023
14:56
linh
pham

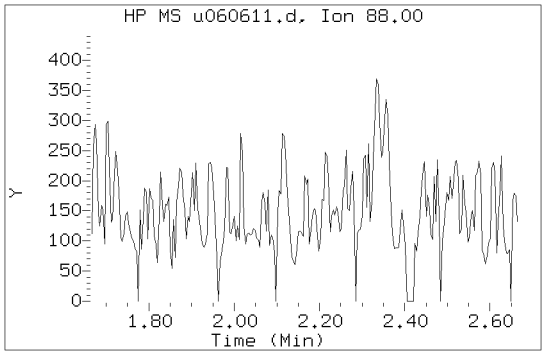


AFTER
MASS
53
AREA
214456
HEIGHT
141961
21-Jun-2023
13:48
linh
pha

Reason Code:



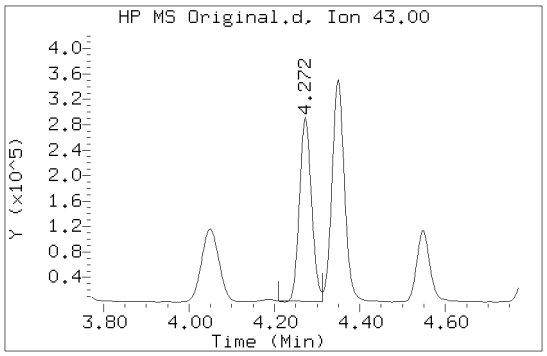
BEFORE
MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



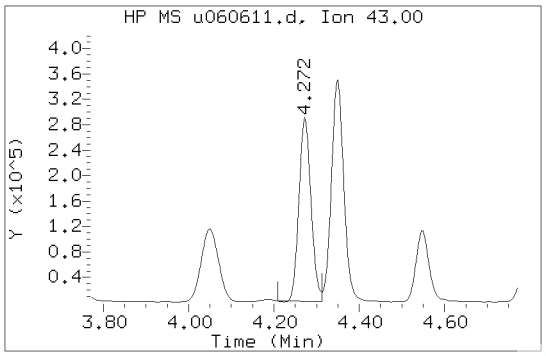
AFTER
MASS
88
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha

Reason Code:

Ethyl Acetate (141-78-6)



BEFORE
MASS
43
AREA
580165
HEIGHT
290116
08-Jun-2023
14:56
linh
pham



AFTER
MASS
43
AREA
580165
HEIGHT
290116
21-Jun-2023
13:48
linh
pha

Reason Code:

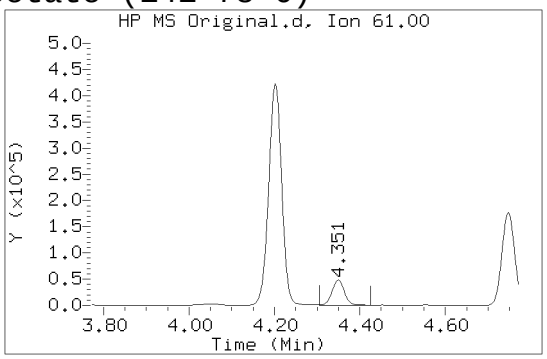
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060611.d
Inj Date : 06-JUN-2023 14:57
InstruID : VOA9.i
LabSampID : VSTD100

Ethyl Acetate (141-78-6)

Reason Code:

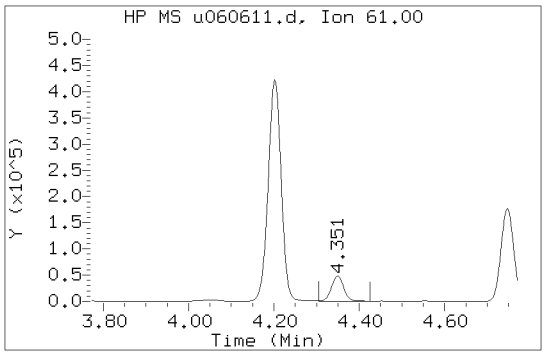
BEFORE

MASS
61
AREA
96411
HEIGHT
48556
08-Jun-2023
14:56
linh
pham



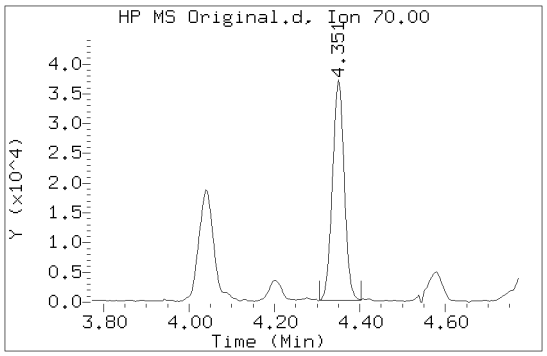
AFTER

MASS
61
AREA
96411
HEIGHT
48556
21-Jun-2023
13:48
linh
pha



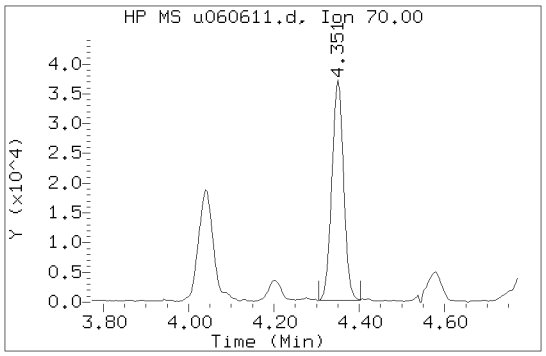
BEFORE

MASS
70
AREA
70651
HEIGHT
37034
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
70651
HEIGHT
37034
21-Jun-2023
13:48
linh
pha

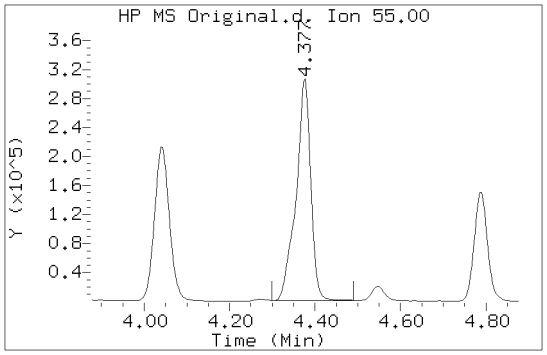


Methyl Acrylate (96-33-3)

Reason Code:

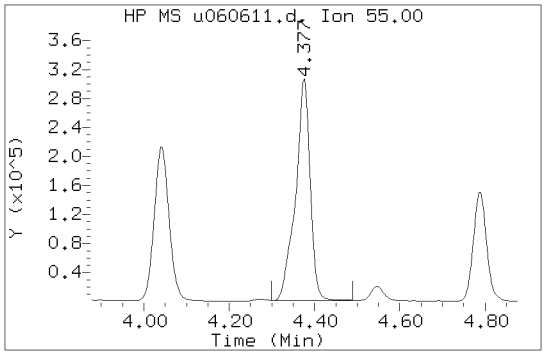
BEFORE

MASS
55
AREA
743794
HEIGHT
305715
08-Jun-2023
14:56
linh
pham



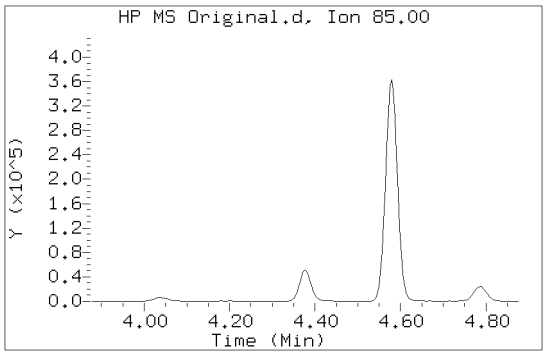
AFTER

MASS
55
AREA
743794
HEIGHT
305715
21-Jun-2023
13:48
linh
pha



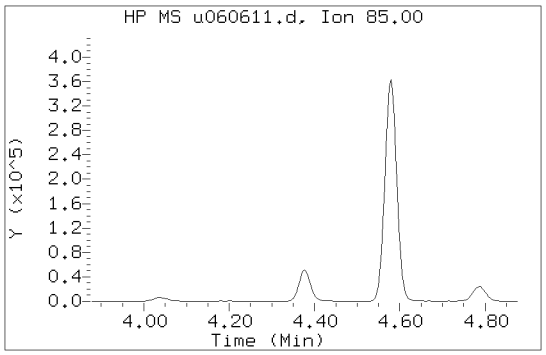
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha

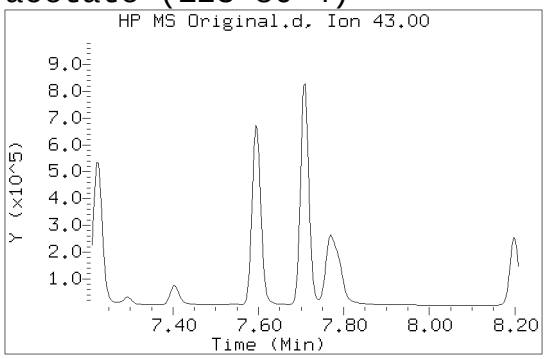


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060611.d
Inj Date : 06-JUN-2023 14:57
InstruID : VOA9.i
LabSampID : VSTD100

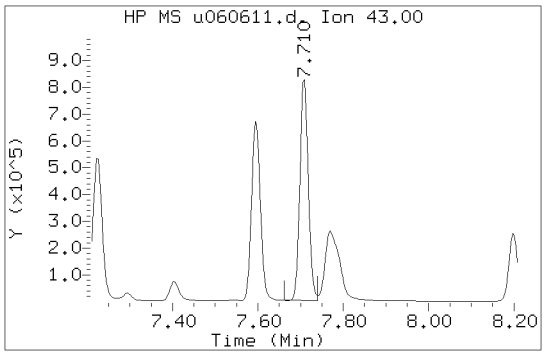
n-Butyl acetate (123-86-4)

Reason Code:

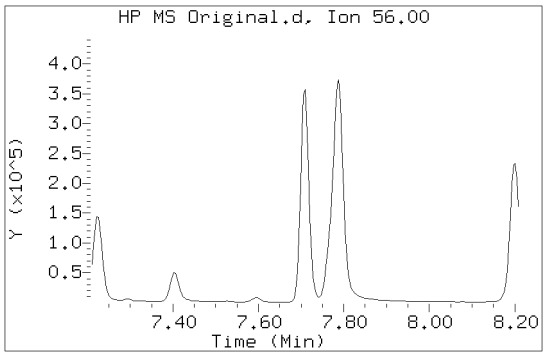
BEFORE
MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



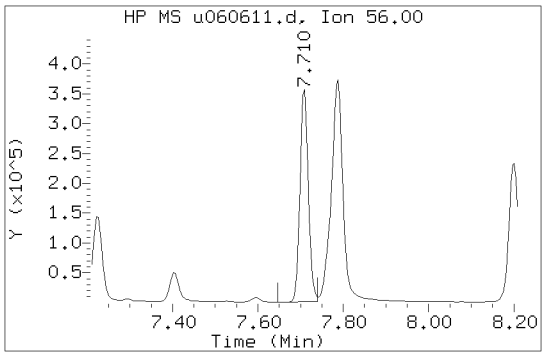
AFTER
MASS
43
AREA
1156578
HEIGHT
823392
21-Jun-2023
13:48
linh
pha



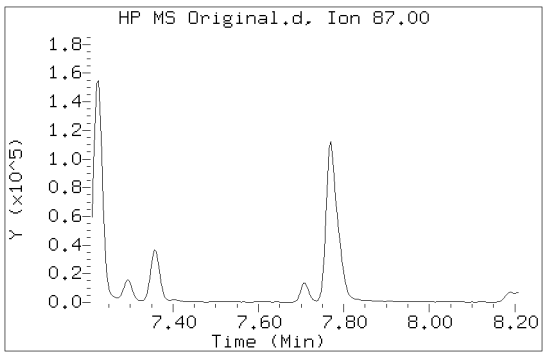
BEFORE
MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



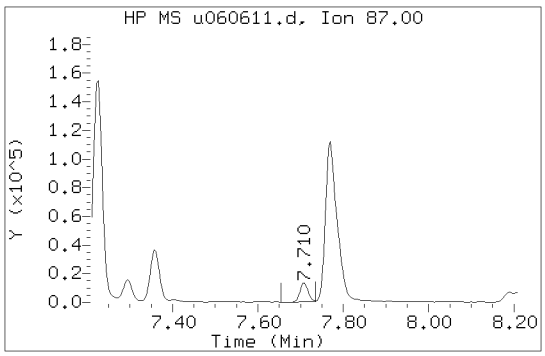
AFTER
MASS
56
AREA
496978
HEIGHT
356084
21-Jun-2023
13:48
linh
pha



BEFORE
MASS
87
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



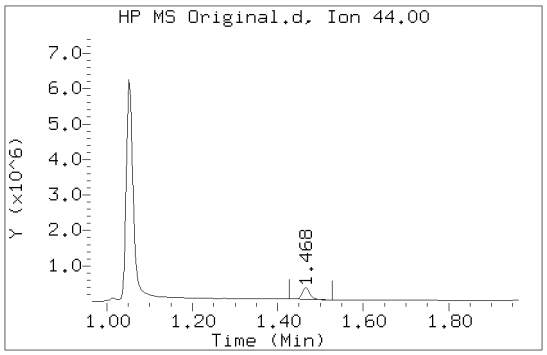
AFTER
MASS
87
AREA
18396
HEIGHT
13363
21-Jun-2023
13:48
linh
pha



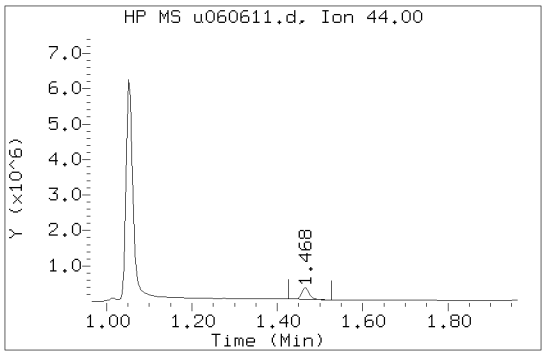
Acetaldehyde (75-07-0)

Reason Code:

BEFORE
MASS
44
AREA
401024
HEIGHT
318277
08-Jun-2023
14:56
linh
pham



AFTER
MASS
44
AREA
401024
HEIGHT
318277
21-Jun-2023
13:48
linh
pha



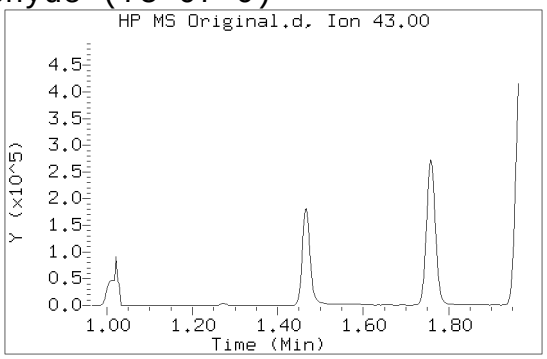
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060611.d
Inj Date : 06-JUN-2023 14:57
InstruID : VOA9.i
LabSampID : VSTD100

Acetaldehyde (75-07-0)

Reason Code:

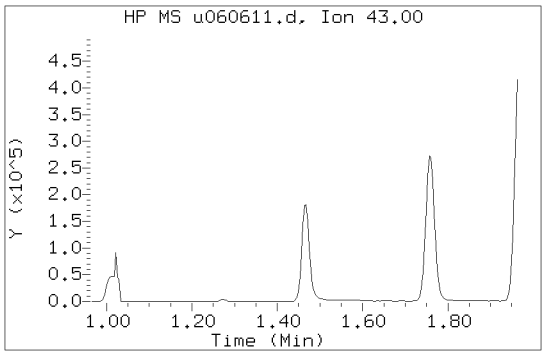
BEFORE

MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



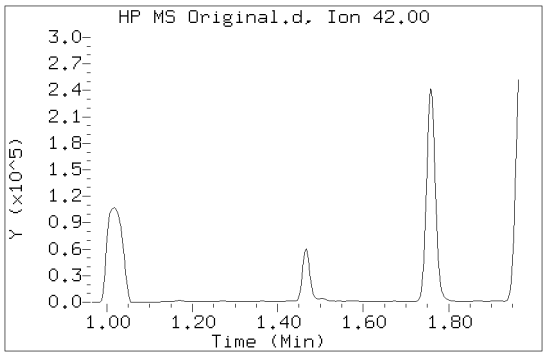
AFTER

MASS
43
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha



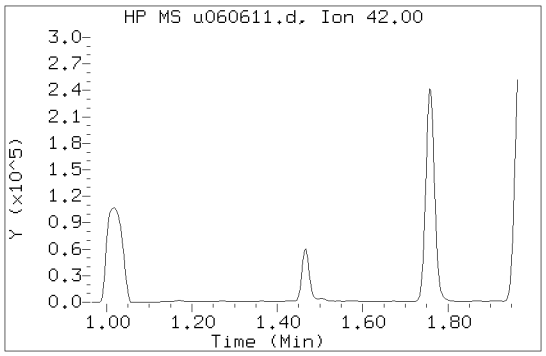
BEFORE

MASS
42
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060612.D Page 1
Report Date: 21-Jun-2023 13:48

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060612.D
Lab Smp Id: VSTD150 Client Smp ID: VSTD150
Inj Date : 06-JUN-2023 15:19
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\U230606.b\8260C.m
Meth Date : 21-Jun-2023 13:45 pcabasca Quant Type: ISTD
Cal Date : 06-JUN-2023 15:19 Cal File: U060612.D
Als bottle: 13 Calibration Sample, Level: 9
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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	693393	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	960667	150.000	149.79
3	Chloromethane	50	1.299	1.299	(0.270)	1383207	150.000	134.48
5	Vinyl Chloride	62	1.378	1.378	(0.286)	1135719	150.000	154.84
6	Bromomethane	94	1.614	1.614	(0.335)	572508	150.000	155.55
7	Chloroethane	64	1.700	1.700	(0.353)	710334	150.000	143.77
8	Trichlorofluoromethane	101	1.899	1.899	(0.394)	1306396	150.000	155.08
9	Acrolein	56	2.270	2.270	(0.471)	101869	300.000	276.78
10	Acetone	43	2.412	2.412	(0.501)	669020	300.000	291.26
11	1,1-Dichloroethene	96	2.337	2.337	(0.485)	792951	150.000	150.65
15	Iodomethane	142	2.472	2.472	(0.513)	1654094	300.000	314.13
16	Acrylonitrile	53	3.068	3.068	(0.637)	777948	300.000	302.53
17	Methylene Chloride	84	2.799	2.799	(0.581)	934598	150.000	149.80
18	Methyl tert-butyl ether	73	3.087	3.087	(0.641)	2427294	150.000	150.38
19	Carbon Disulfide	76	2.525	2.525	(0.524)	4369759	300.000	310.56
20	trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	854280	150.000	149.24
21	Vinyl Acetate	43	3.612	3.612	(0.750)	5494788	300.000	314.91
22	1,1-Dichloroethane	63	3.518	3.518	(0.730)	1535399	150.000	141.14
24	2-Butanone	43	4.272	4.272	(0.886)	886610	300.000	280.44
26	2,2-Dichloropropane	77	4.186	4.186	(0.869)	1080274	150.000	149.40
27	cis-1,2-Dichloroethene	96	4.201	4.201	(0.872)	1008606	150.000	147.29

28	Chloroform	83	4.575	4.575 (0.949)	1661391	150.000	146.74
29	Bromochloromethane	128	4.474	4.474 (0.928)	547129	150.000	142.83

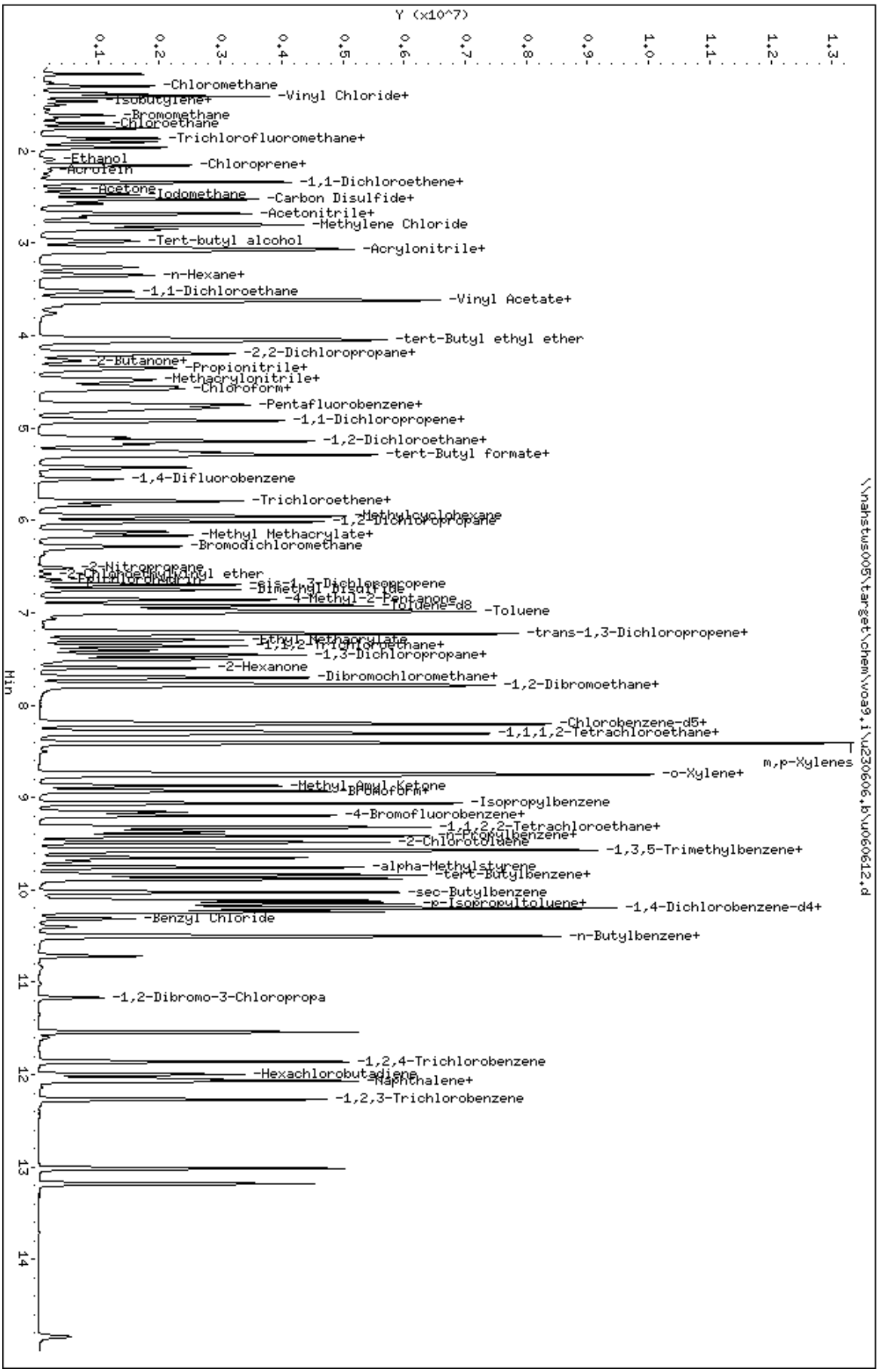
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
$	30 Dibromofluoromethane	113	4.752	4.752	(0.986)	869167	150.000	149.96
	31 1,1,1-Trichloroethane	97	4.744	4.744	(0.984)	1344181	150.000	155.77
	32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	1205862	150.000	156.12
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	1309746	150.000	143.58
	34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	1159204	150.000	163.38
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.058)	944002	150.000	151.26
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1053901	50.0000	
	37 Benzene	78	5.141	5.141	(0.926)	3801057	150.000	149.67
	38 Trichloroethene	130	5.790	5.790	(1.043)	1087941	150.000	147.80
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	1283901	150.000	162.07
	41 2-Chloroethylvinyl ether	63	6.581	6.581	(1.185)	81461	300.000	425.14(A)
	42 1,2-Dichloropropane	63	6.015	6.015	(1.083)	1011740	150.000	149.21
	44 Dibromomethane	93	6.124	6.124	(1.103)	644143	150.000	148.67
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	2275634	300.000	307.02
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	1649908	150.000	151.42
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	1017824	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	3265170	150.000	141.74
	50 Toluene	91	6.982	6.982	(0.853)	4084070	150.000	147.94
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	1382903	150.000	150.98
	52 2-Hexanone	43	7.597	7.597	(0.928)	1507185	300.000	291.99
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	820894	150.000	142.91
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	1724053	150.000	146.90
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	1165162	150.000	170.96
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	979028	150.000	145.56
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	1030570	150.000	145.44
	58 1-Chlorohexane	55	8.200	8.200	(1.476)	831688	150.000	153.68
	59 Chlorobenzene	112	8.212	8.212	(1.003)	2875380	150.000	145.94
	60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	1071450	150.000	158.22
	61 Ethylbenzene	106	8.309	8.309	(1.015)	1466582	150.000	159.93
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	3636671	300.000	335.20
	63 o-Xylene	106	8.748	8.748	(1.069)	1775674	150.000	165.67
	64 Styrene	104	8.763	8.763	(1.071)	2956532	150.000	173.82
	66 Bromoform	173	8.920	8.920	(1.090)	819014	150.000	178.03
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	4235878	150.000	164.54
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	1374039	150.000	140.32
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1355424	150.000	151.13
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	520569	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	1312413	150.000	152.35
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	4668789	150.000	170.98
	74 Bromobenzene	156	9.317	9.317	(0.916)	1305028	150.000	148.57
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	3068129	150.000	163.78
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	2928853	150.000	152.58
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	3299464	150.000	155.29
	78 tert-Butylbenzene	119	9.839	9.839	(0.967)	2957735	150.000	160.75
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	2991253	150.000	152.61
	81 sec-Butylbenzene	105	10.026	10.026	(0.986)	3927022	150.000	168.30
	82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	3334448	150.000	170.58
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	2191876	150.000	146.92
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	2268941	150.000	142.64
	87 n-Butylbenzene	91	10.495	10.495	(1.032)	2750567	150.000	164.36
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	2171343	150.000	145.16
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	234556	150.000	164.15

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	1581317	150.000	153.70
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	641183	150.000	154.32

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
92	Naphthalene	128	12.069	12.069	(1.186)	3777446	150.000	158.06
93	1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	1515436	150.000	150.67
M 94	1,2-Dichloroethylene (total)	96				1862886	300.000	296.53
M 95	Xylenes (total)	106				5412345	450.000	500.87
135	1,4-Dioxane	88	6.172	6.172	(1.281)	279013	3000.00	2026.50
141	Cyclohexane	56	4.785	4.785	(0.993)	1346053	150.000	148.66
138	Freon TF	101	2.337	2.337	(0.485)	744713	150.000	159.91
140	1,3-Butadiene	54	1.408	1.408	(0.292)	1026660	150.000	156.34
147	Methylcyclohexane	55	5.951	5.951	(1.072)	2435816	150.000	166.61(A)
146	Methyl Acetate	43	2.720	2.720	(0.564)	806323	150.000	138.10
148	Tert-Butyl alcohol	59	2.975	2.975	(0.617)	1948328	3000.00	3051.23
149	Isopropyl Alcohol	45	2.574	2.574	(0.534)	1284183	3000.00	2833.01
72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	204272	150.000	174.30(M)
12	Isobutyl Alcohol	43	5.291	5.291	(1.098)	2767410	3000.00	3071.79(M)
13	Acetonitrile	39	2.675	2.675	(0.555)	1141243	1500.00	1520.22
14	Allyl Chloride	41	2.679	2.679	(0.556)	2678647	150.000	148.79
25	Methacrylonitrile	41	4.500	4.500	(0.934)	649391	150.000	158.51
40	Methyl Methacrylate	41	6.161	6.161	(1.278)	969658	150.000	162.64
4	Propionitrile	54	4.347	4.347	(0.902)	1447622	1500.00	1444.77
136	n-Hexane	57	3.346	3.346	(0.694)	933406	150.000	149.31
194	Acetaldehyde	44	1.460	1.460	(0.303)	604743	600.000	632.36(M)
131	Methyl Acrylate	55	4.373	4.373	(0.907)	1119010	150.000	152.59(M)
200	Dimethyl Disulfide	94	6.750	6.750	(0.825)	1542342	150.000	156.55
23	Chloroprene	53	2.161	2.161	(0.449)	341381	150.000	154.36
49	Ethyl Methacrylate	69	7.293	7.293	(1.313)	1503706	150.000	162.76
166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	2909415	150.000	145.39
167	Ethanol	45	2.090	2.090	(0.434)	261491	3000.00	3068.37
164	Dicyclopentadiene	66	10.202	10.202	(1.003)	3912009	150.000	154.05
145	alpha-Methylstyrene	118	9.756	9.756	(0.959)	1521945	150.000	148.37
142	Tetrahydrofuran	42	4.549	4.549	(0.944)	364883	300.000	302.61
156	Diisopropyl ether	45	3.627	3.627	(0.753)	2879455	150.000	148.92
151	4-Methyl-2-pentanol	45	7.226	7.226	(1.301)	4710347	3000.00	3005.64
150	Allyl alcohol	57	3.346	3.346	(0.694)	933406	3000.00	2986.18
86	Benzyl Chloride	91	10.311	10.311	(1.260)	988530	150.000	154.64
162	Butyl acrylate	55	8.733	8.733	(1.067)	1959643	150.000	162.76
139	Diethyl ether	59	2.150	2.150	(0.446)	716609	150.000	152.95
203	2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	905239	150.000	153.98
134	Cyclohexanone	55	9.156	9.156	(0.900)	877279	3000.00	2718.28
130	Ethyl Acetate	43	4.272	4.272	(0.886)	876170	150.000	141.35(M)
189	n-Butyl acetate	43	7.709	7.709	(0.942)	1856486	150.000	160.19(M)
182	Epichlorohydrin	57	6.633	6.633	(1.194)	78090	600.000	617.79
132	n-Butanol	56	5.835	5.835	(1.211)	629851	3000.00	3191.24

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws005\target\chem\voa9,i\u230606,b\u060612,d
Date : 06-JUN-2023 15:19
Client ID: VSTD150
Sample Info: VSTD150;VSTD150;1;9;
Purge Volume: 5.0
Column phase: DB624

\\nahstws005\target\chem\voa9,i\u230606,b\u060612,d

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

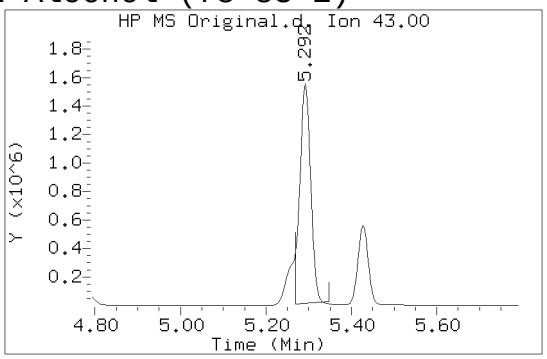
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060612.d
Inj Date : 06-JUN-2023 15:19
InstruID : VOA9.i
LabSampID : VSTD150

Isobutyl Alcohol (78-83-1)

Reason Code:

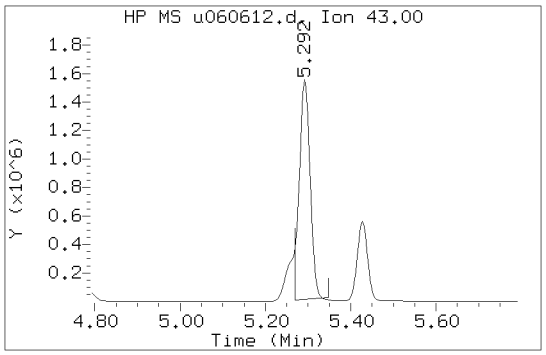
BEFORE

MASS
43
AREA
2767410
HEIGHT
1544511
08-Jun-2023
14:56
linh
pham



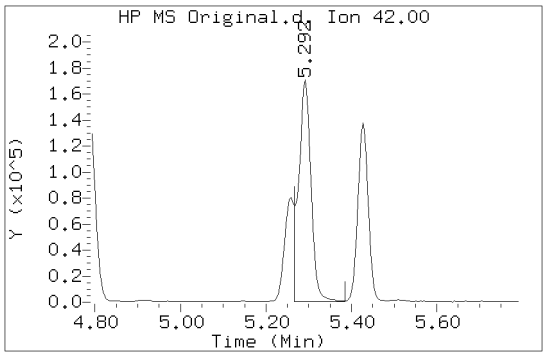
AFTER

MASS
43
AREA
2767410
HEIGHT
1544511
21-Jun-2023
13:48
linh
pha



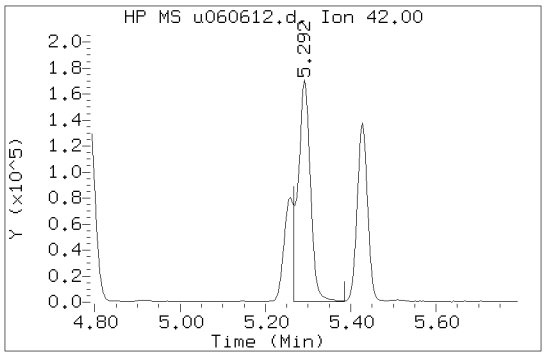
BEFORE

MASS
42
AREA
354202
HEIGHT
170366
08-Jun-2023
14:56
linh
pham



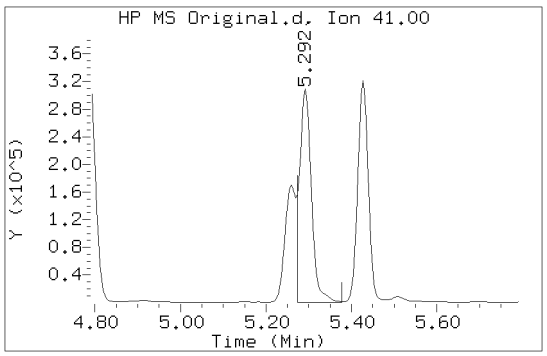
AFTER

MASS
42
AREA
354202
HEIGHT
170366
21-Jun-2023
13:48
linh
pha



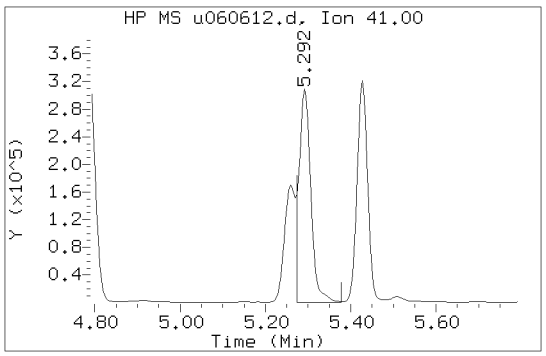
BEFORE

MASS
41
AREA
604952
HEIGHT
308323
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
604952
HEIGHT
308323
21-Jun-2023
13:48
linh
pha

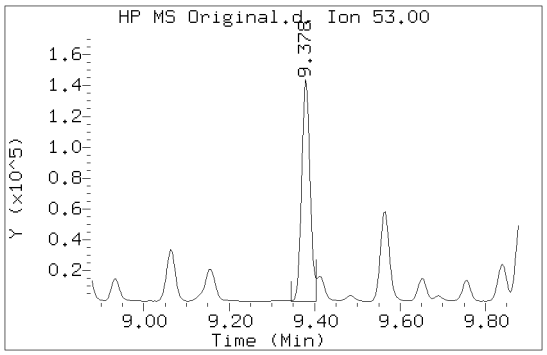


trans-1,4-Dichloro-2-butene (110-57-6)

Reason Code:

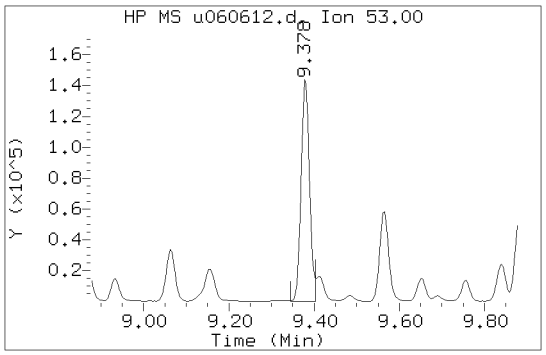
BEFORE

MASS
53
AREA
204272
HEIGHT
143427
08-Jun-2023
14:56
linh
pham



AFTER

MASS
53
AREA
204272
HEIGHT
143427
21-Jun-2023
13:48
linh
pha



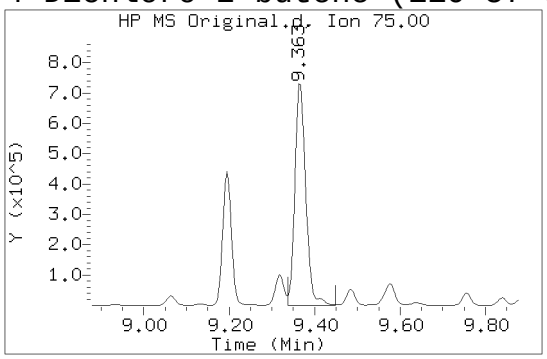
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060612.d
Inj Date : 06-JUN-2023 15:19
InstruID : VOA9.i
LabSampID : VSTD150

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

Reason Code:

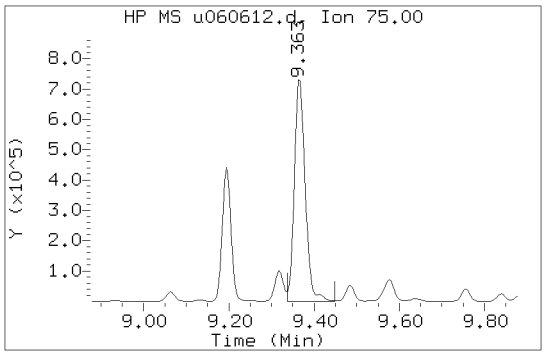
BEFORE

MASS
75
AREA
1312413
HEIGHT
730773
08-Jun-2023
14:56
linh
pham



AFTER

MASS
75
AREA
1312413
HEIGHT
730773
21-Jun-2023
13:48
linh
pha

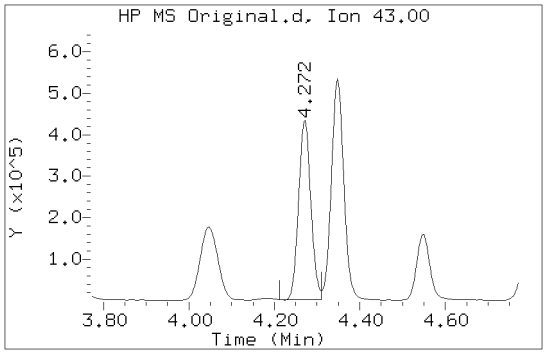


Ethyl Acetate (141-78-6)

Reason Code:

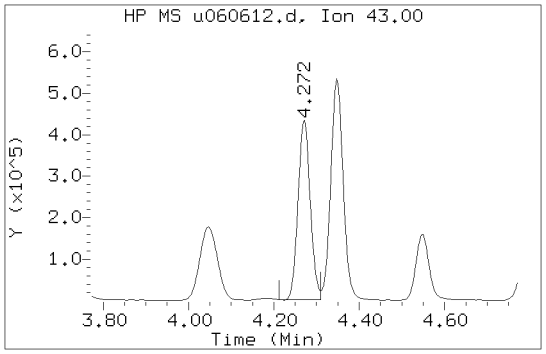
BEFORE

MASS
43
AREA
876170
HEIGHT
431666
08-Jun-2023
14:56
linh
pham



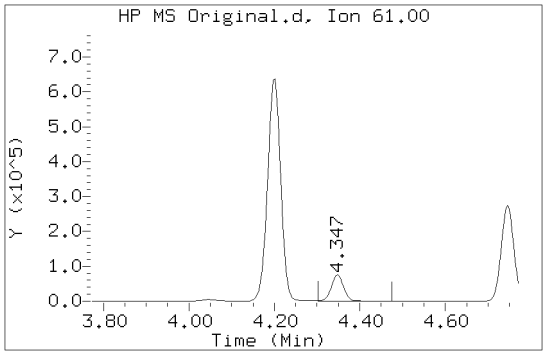
AFTER

MASS
43
AREA
876170
HEIGHT
431666
21-Jun-2023
13:48
linh
pha



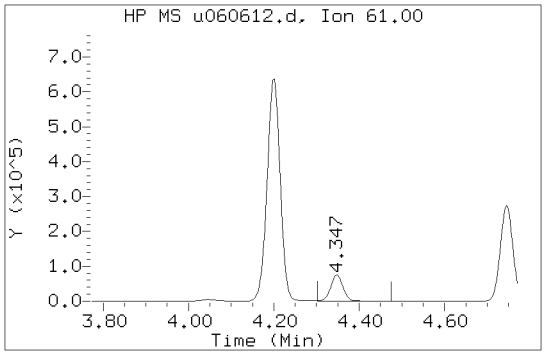
BEFORE

MASS
61
AREA
150537
HEIGHT
75621
08-Jun-2023
14:56
linh
pham



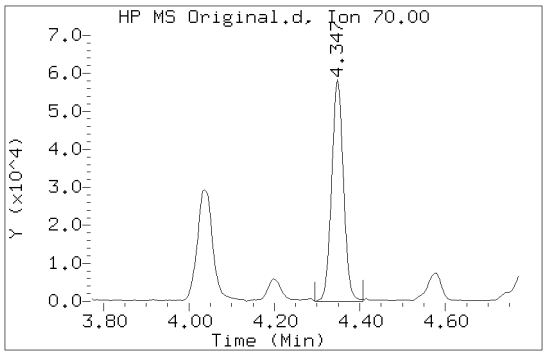
AFTER

MASS
61
AREA
150537
HEIGHT
75621
21-Jun-2023
13:48
linh
pha



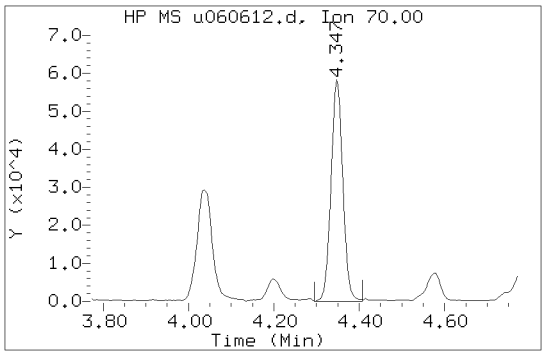
BEFORE

MASS
70
AREA
111972
HEIGHT
58320
08-Jun-2023
14:56
linh
pham



AFTER

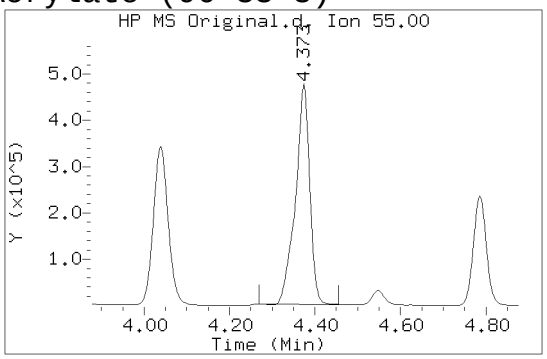
MASS
70
AREA
111972
HEIGHT
58320
21-Jun-2023
13:48
linh
pha



Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060612.d
Inj Date : 06-JUN-2023 15:19
InstruID : VOA9.i
LabSampID : VSTD150

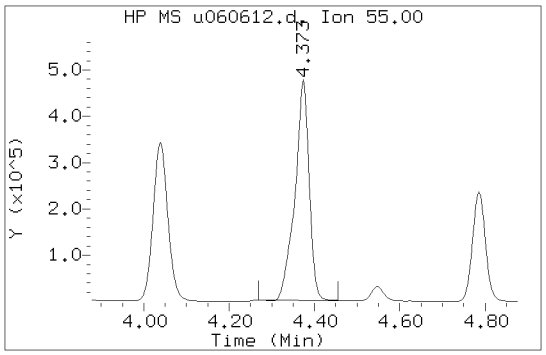
Methyl Acrylate (96-33-3)

BEFORE
MASS
55
AREA
1119010
HEIGHT
476146
08-Jun-2023
14:56
linh
pham

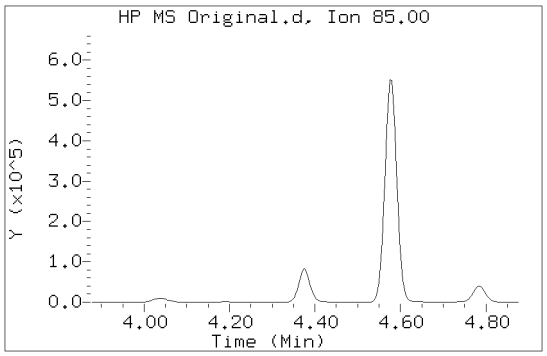


AFTER
MASS
55
AREA
1119010
HEIGHT
476146
21-Jun-2023
13:48
linh
pha

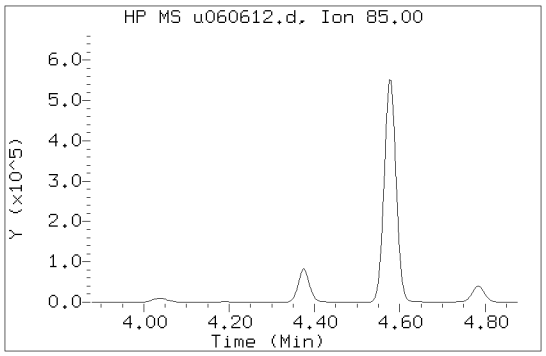
Reason Code:



BEFORE
MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham

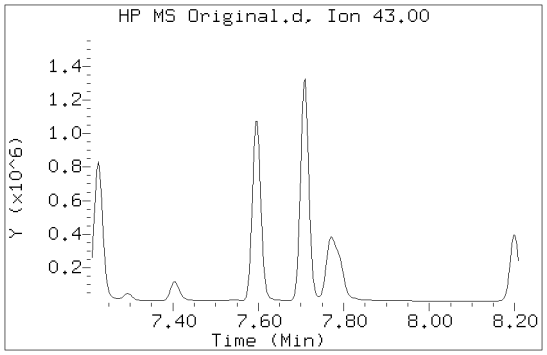


AFTER
MASS
85
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha



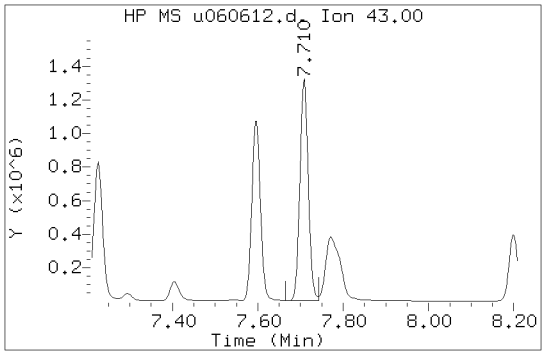
n-Butyl acetate (123-86-4)

BEFORE
MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham

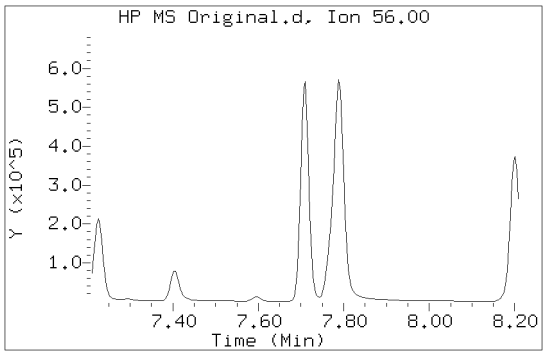


AFTER
MASS
43
AREA
1856486
HEIGHT
1319647
21-Jun-2023
13:48
linh
pha

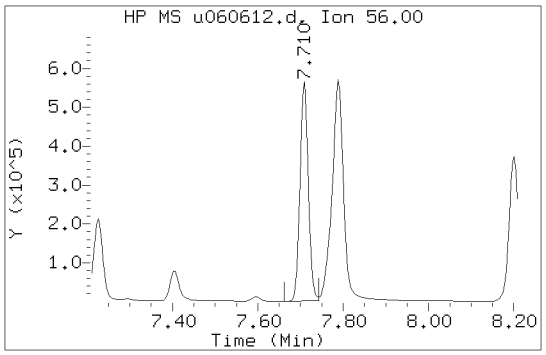
Reason Code:



BEFORE
MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER
MASS
56
AREA
786040
HEIGHT
563695
21-Jun-2023
13:48
linh
pha



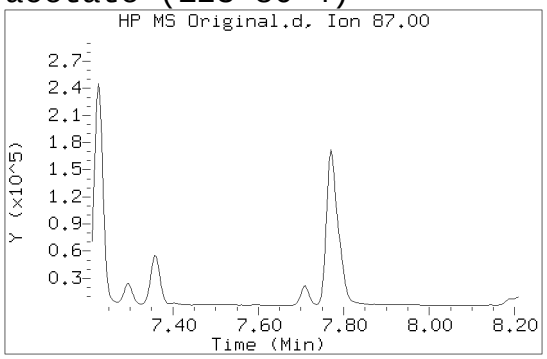
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060612.d
Inj Date : 06-JUN-2023 15:19
InstruID : VOA9.i
LabSampID : VSTD150

n-Butyl acetate (123-86-4)

Reason Code:

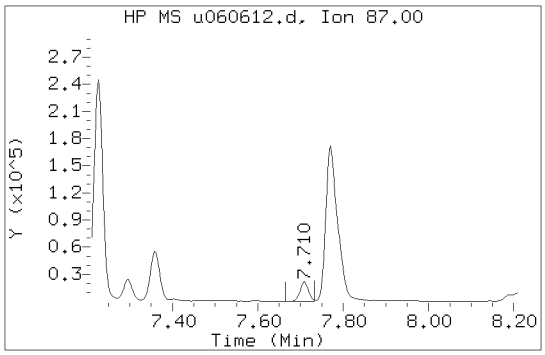
BEFORE

MASS
87
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
87
AREA
29771
HEIGHT
21756
21-Jun-2023
13:48
linh
pha

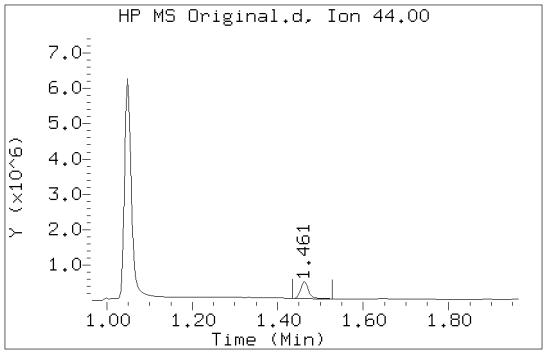


Acetaldehyde (75-07-0)

Reason Code:

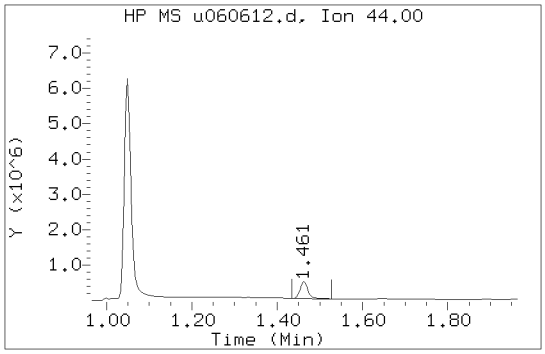
BEFORE

MASS
44
AREA
604743
HEIGHT
469447
08-Jun-2023
14:56
linh
pham



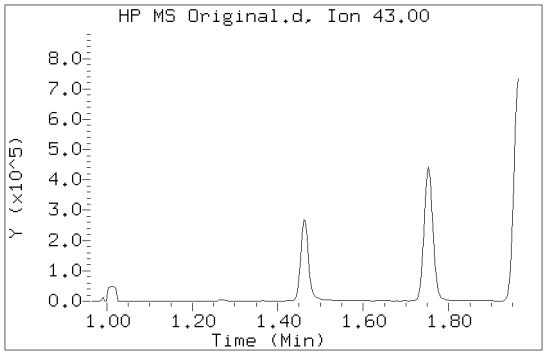
AFTER

MASS
44
AREA
604743
HEIGHT
469447
21-Jun-2023
13:48
linh
pha



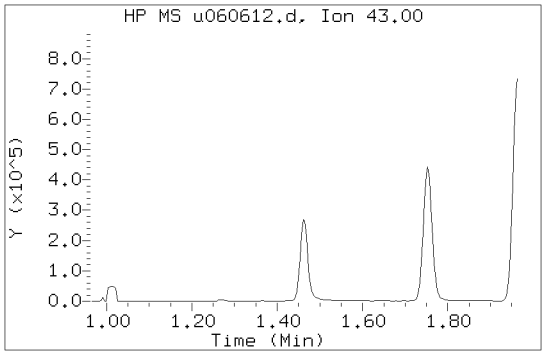
BEFORE

MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



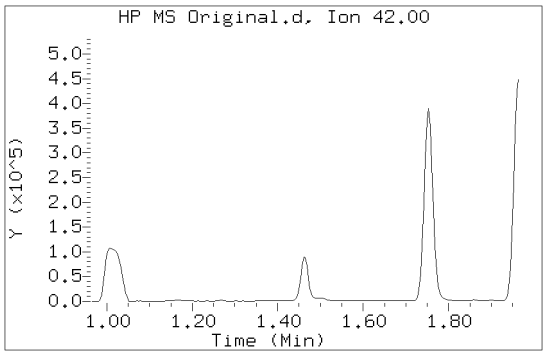
AFTER

MASS
43
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha



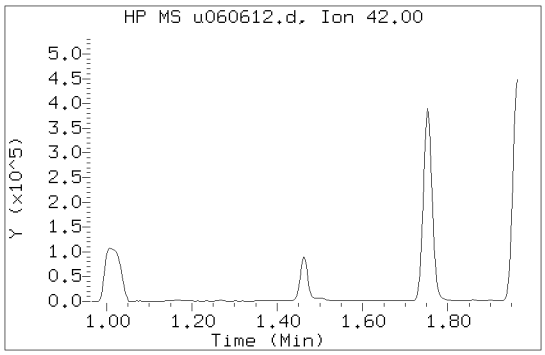
BEFORE

MASS
42
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060613.D Page 1
Report Date: 21-Jun-2023 13:48

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060613.D
Lab Smp Id: VSTD200 Client Smp ID: VSTD200
Inj Date : 06-JUN-2023 15:41
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\U230606.b\8260C.m
Meth Date : 21-Jun-2023 13:45 pcabasca Quant Type: ISTD
Cal Date : 06-JUN-2023 15:41 Cal File: U060613.D
Als bottle: 14 Calibration Sample, Level: 10
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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.819	(1.000)	719289	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.168	(0.242)	1327832	200.000	199.55
3	Chloromethane	50	1.303	1.303	(0.270)	1811207	200.000	170.11
5	Vinyl Chloride	62	1.382	1.382	(0.287)	1577666	200.000	207.36(A)
6	Bromomethane	94	1.614	1.614	(0.335)	739966	200.000	194.26
7	Chloroethane	64	1.700	1.700	(0.353)	966868	200.000	188.65
8	Trichlorofluoromethane	101	1.903	1.903	(0.395)	1797881	200.000	205.74(A)
9	Acrolein	56	2.270	2.270	(0.471)	145745	400.000	381.74
10	Acetone	43	2.416	2.416	(0.501)	921553	400.000	388.62
11	1,1-Dichloroethene	96	2.341	2.341	(0.486)	1106671	200.000	202.69(A)
15	Iodomethane	142	2.472	2.472	(0.513)	2389174	400.000	393.17
16	Acrylonitrile	53	3.072	3.072	(0.638)	1044690	400.000	391.64
17	Methylene Chloride	84	2.799	2.799	(0.581)	1286266	200.000	199.09
18	Methyl tert-butyl ether	73	3.087	3.087	(0.641)	3267974	200.000	195.18
19	Carbon Disulfide	76	2.525	2.525	(0.524)	6034238	400.000	413.41(A)
20	trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	1205698	200.000	203.05(A)
21	Vinyl Acetate	43	3.616	3.616	(0.750)	7382189	400.000	407.85(A)
22	1,1-Dichloroethane	63	3.522	3.522	(0.731)	2108962	200.000	186.89
24	2-Butanone	43	4.272	4.272	(0.886)	1191616	400.000	363.35
26	2,2-Dichloropropane	77	4.189	4.189	(0.869)	1505657	200.000	200.60(A)
27	cis-1,2-Dichloroethene	96	4.204	4.204	(0.872)	1388156	200.000	195.41

28	Chloroform	83	4.579	4.579 (0.950)	2274175	200.000	193.63
29	Bromochloromethane	128	4.474	4.474 (0.928)	727780	200.000	183.15

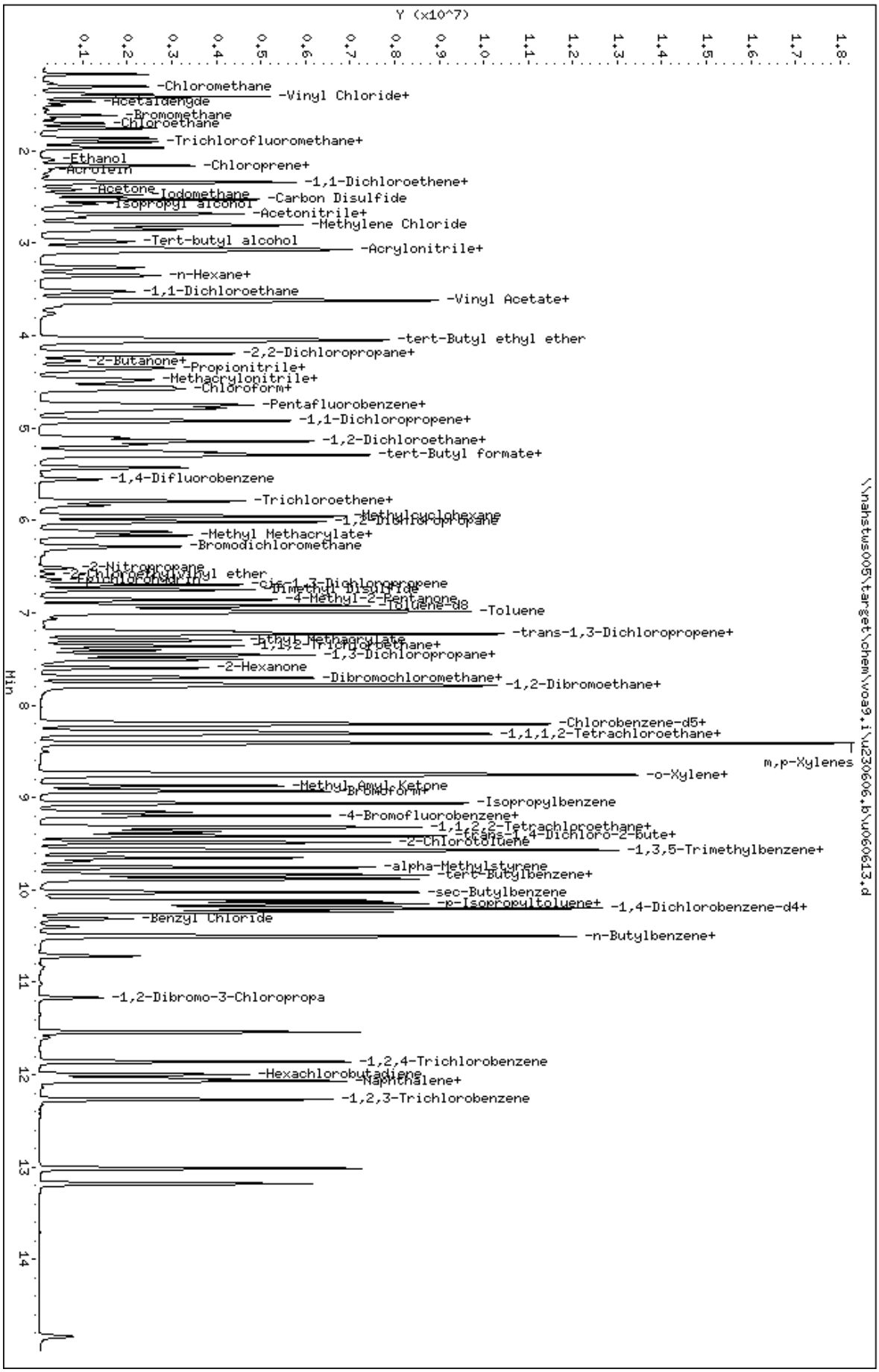
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
$	30 Dibromofluoromethane	113	4.755	4.755	(0.987)	1189943	200.000	198.02
	31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	1886386	200.000	210.74(A)
	32 1,1-Dichloropropene	75	4.924	4.924	(0.886)	1700729	200.000	212.75(A)
	33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	1771626	200.000	187.66
	34 Carbon Tetrachloride	117	4.917	4.917	(0.885)	1637950	200.000	223.06(A)
$	35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	1273587	200.000	196.93
*	36 1,4-Difluorobenzene	114	5.558	5.558	(1.000)	1090740	50.0000	
	37 Benzene	78	5.141	5.141	(0.925)	5184803	200.000	197.26
	38 Trichloroethene	130	5.790	5.790	(1.042)	1521502	200.000	199.72
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	1771493	200.000	216.07(A)
	41 2-Chloroethylvinyl ether	63	6.581	6.581	(1.184)	132164	400.000	666.47(A)
	42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	1391632	200.000	198.30
	44 Dibromomethane	93	6.124	6.124	(1.102)	883833	200.000	197.11
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	3098336	400.000	401.08(A)
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	2272308	200.000	200.87(A)
*	47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1060812	50.0000	
$	48 Toluene-d8	98	6.926	6.926	(0.846)	4434953	200.000	184.71
	50 Toluene	91	6.982	6.982	(0.853)	5549820	200.000	192.89
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	1913130	200.000	201.14(A)
	52 2-Hexanone	43	7.597	7.597	(0.928)	2078685	400.000	386.39
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.898)	1110628	200.000	185.51
	54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	2327172	200.000	190.26
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	1606540	200.000	226.17(A)
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	1393824	200.000	198.83
	57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	1398022	200.000	189.30
	58 1-Chlorohexane	55	8.200	8.200	(1.475)	1197273	200.000	213.76(A)
	59 Chlorobenzene	112	8.212	8.212	(1.003)	3927200	200.000	191.25
	60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	1485967	200.000	210.54(A)
	61 Ethylbenzene	106	8.309	8.309	(1.015)	2034447	200.000	212.86(A)
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	5028837	400.000	444.73(A)
	63 o-Xylene	106	8.748	8.748	(1.068)	2445057	200.000	218.88(A)
	64 Styrene	104	8.763	8.763	(1.070)	4009853	200.000	226.19(A)
	66 Bromoform	173	8.920	8.920	(1.089)	1122084	200.000	234.02(A)
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	5892020	200.000	219.60(A)
	68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	1811573	200.000	181.35
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1832443	200.000	196.31
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	531037	50.0000	
	71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	1763864	200.000	200.72(A)
	73 n-Propylbenzene	91	9.415	9.415	(0.926)	6509511	200.000	233.69(A)
	74 Bromobenzene	156	9.321	9.321	(0.916)	1773376	200.000	197.92
	75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	4383254	200.000	229.37(A)
	76 2-Chlorotoluene	91	9.486	9.486	(0.933)	3980132	200.000	203.26(A)
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	4532900	200.000	209.14(A)
	78 tert-Butylbenzene	119	9.839	9.839	(0.967)	4141351	200.000	220.65(A)
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	4284336	200.000	214.27(A)
	81 sec-Butylbenzene	105	10.026	10.026	(0.986)	5530698	200.000	232.36(A)
	82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	4785361	200.000	239.98(A)
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	3007133	200.000	197.60
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	3094412	200.000	190.71
	87 n-Butylbenzene	91	10.495	10.495	(1.032)	3970657	200.000	232.59(A)
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	2966505	200.000	194.42
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	327879	200.000	224.94(A)

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	2208303	200.000	210.41(A)
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	915431	200.000	215.98(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
92	Naphthalene	128	12.069	12.069	(1.186)	5090967	200.000	208.82(A)
93	1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	2101950	200.000	204.86(A)
M 94	1,2-Dichloroethylene (total)	96				2593854	400.000	398.47
M 95	Xylenes (total)	106				7473894	600.000	663.61
135	1,4-Dioxane	88	6.172	6.172	(1.281)	359619	4000.00	2517.91
141	Cyclohexane	56	4.785	4.785	(0.993)	1948136	200.000	200.21(A)
138	Freon TF	101	2.341	2.341	(0.486)	1062416	200.000	219.92(A)
140	1,3-Butadiene	54	1.412	1.412	(0.293)	1426460	200.000	209.40(A)
147	Methylcyclohexane	55	5.951	5.951	(1.071)	3311608	200.000	218.86(A)
146	Methyl Acetate	43	2.720	2.720	(0.564)	1087855	200.000	179.61
148	Tert-Butyl alcohol	59	2.978	2.978	(0.618)	2615413	4000.00	3949.93
149	Isopropyl Alcohol	45	2.577	2.577	(0.535)	1712648	4000.00	3642.22
72	trans-1,4-Dichloro-2-butene	53	9.381	9.381	(1.146)	280535	200.000	229.67(A)
12	Isobutyl Alcohol	43	5.291	5.291	(1.098)	3974379	4000.00	4252.69(AM)
13	Acetonitrile	39	2.679	2.679	(0.556)	1502696	2000.00	1929.63
14	Allyl Chloride	41	2.679	2.679	(0.556)	3531503	200.000	189.10
25	Methacrylonitrile	41	4.500	4.500	(0.934)	862110	200.000	202.86(A)
40	Methyl Methacrylate	41	6.161	6.161	(1.278)	1311723	200.000	212.09(A)
4	Propionitrile	54	4.350	4.350	(0.903)	1943419	2000.00	1869.76
136	n-Hexane	57	3.350	3.350	(0.695)	1358253	200.000	199.96
194	Acetaldehyde	44	1.464	1.464	(0.304)	813402	800.000	819.92(AM)
131	Methyl Acrylate	55	4.377	4.377	(0.908)	1518708	200.000	199.64(M)
200	Dimethyl Disulfide	94	6.750	6.750	(0.824)	2303909	200.000	196.98
23	Chloroprene	53	2.165	2.165	(0.449)	488469	200.000	212.92(A)
49	Ethyl Methacrylate	69	7.297	7.297	(1.313)	2085234	200.000	218.09(A)
166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	4057323	200.000	198.76
167	Ethanol	45	2.098	2.098	(0.435)	342926	4000.00	3885.10
164	Dicyclopentadiene	66	10.202	10.202	(1.003)	5181324	200.000	200.01(A)
145	alpha-Methylstyrene	118	9.756	9.756	(0.959)	2162870	200.000	205.31(A)
142	Tetrahydrofuran	42	4.549	4.549	(0.944)	488623	400.000	391.34
156	Diisopropyl ether	45	3.631	3.631	(0.753)	3891038	200.000	194.00
151	4-Methyl-2-pentanol	45	7.226	7.226	(1.300)	6448455	4000.00	3975.75
150	Allyl alcohol	57	3.350	3.350	(0.695)	1358253	4000.00	3999.38
86	Benzyl Chloride	91	10.311	10.311	(1.259)	1346925	200.000	201.11(A)
162	Butyl acrylate	55	8.733	8.733	(1.066)	2685275	200.000	213.99(A)
139	Diethyl ether	59	2.154	2.154	(0.447)	970215	200.000	199.62
203	2-Ethylhexyl Acrylate	55	12.039	12.039	(1.184)	1300346	200.000	198.09
134	Cyclohexanone	55	9.156	9.156	(0.900)	1223605	4000.00	3716.65
130	Ethyl Acetate	43	4.272	4.272	(0.886)	1152217	200.000	179.20(M)
189	n-Butyl acetate	43	7.709	7.709	(0.941)	2542322	200.000	210.47(AM)
182	Epichlorohydrin	57	6.633	6.633	(1.194)	120896	800.000	793.08
132	n-Butanol	56	5.835	5.835	(1.211)	859488	4000.00	4197.96(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstus005\target\chem\voa9.i\u230606.b\u060613.d
Date : 06-JUN-2023 15:41
Client ID: VSTD200
Sample Info: VSTD200;VSTD200;1;10;
Purge Volume: 5.0
Column phase: DB624

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

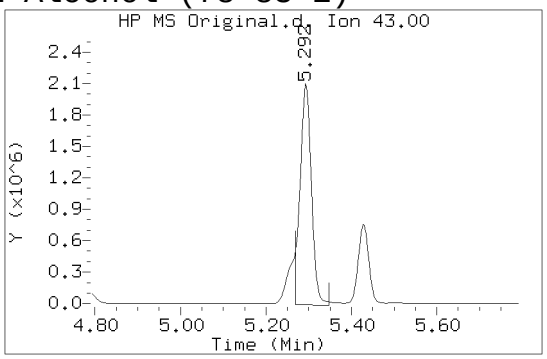
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060613.d
Inj Date : 06-JUN-2023 15:41
InstruID : VOA9.i
LabSampID : VSTD200

Isobutyl Alcohol (78-83-1)

Reason Code:

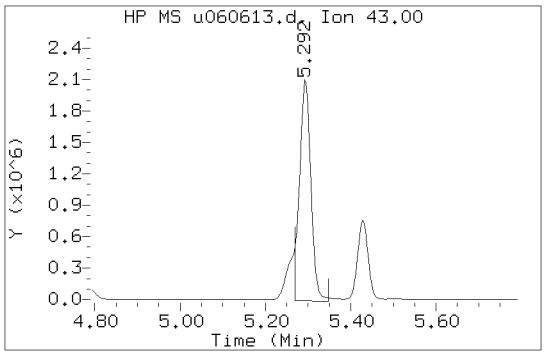
BEFORE

MASS
43
AREA
3974379
HEIGHT
2109402
08-Jun-2023
14:56
linh
pham



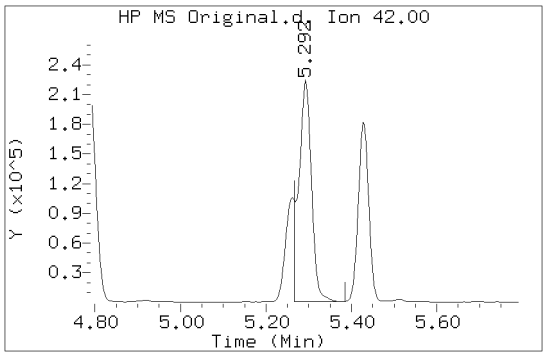
AFTER

MASS
43
AREA
3974379
HEIGHT
2109402
21-Jun-2023
13:48
linh
pha



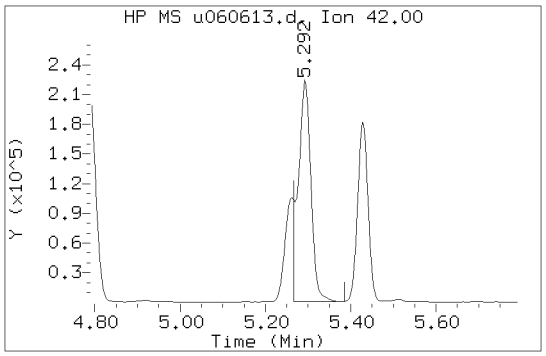
BEFORE

MASS
42
AREA
479426
HEIGHT
223986
08-Jun-2023
14:56
linh
pham



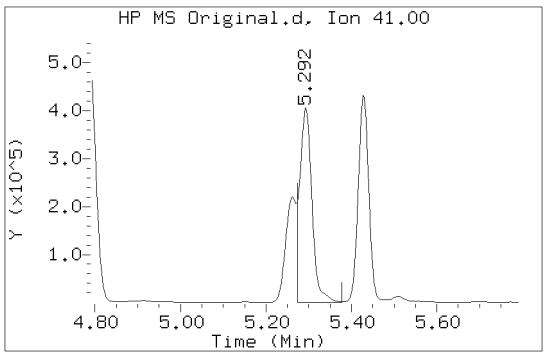
AFTER

MASS
42
AREA
479426
HEIGHT
223986
21-Jun-2023
13:48
linh
pha



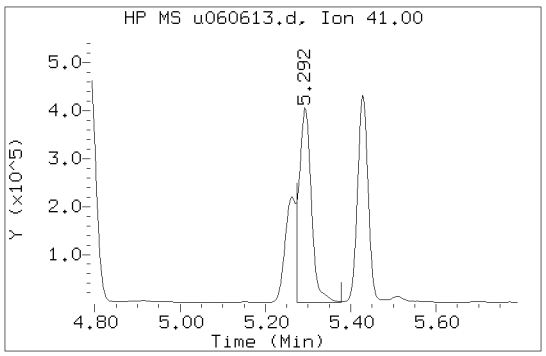
BEFORE

MASS
41
AREA
826091
HEIGHT
405295
08-Jun-2023
14:56
linh
pham



AFTER

MASS
41
AREA
826091
HEIGHT
405295
21-Jun-2023
13:48
linh
pha

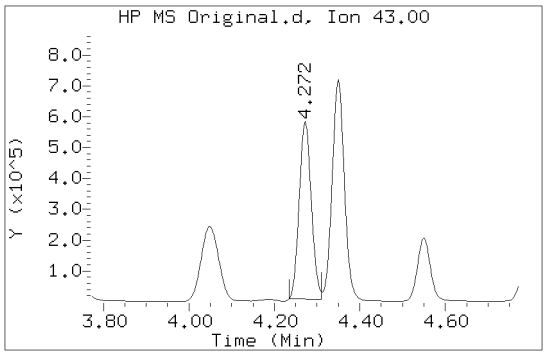


Ethyl Acetate (141-78-6)

Reason Code:

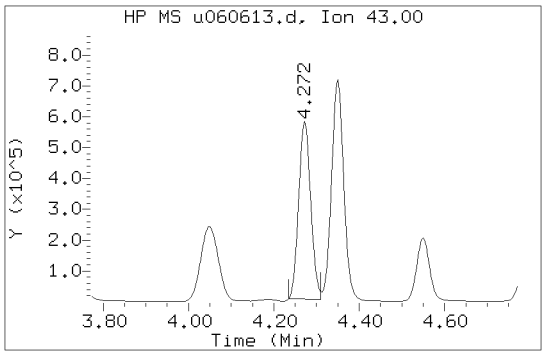
BEFORE

MASS
43
AREA
1152217
HEIGHT
575568
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
1152217
HEIGHT
575568
21-Jun-2023
13:48
linh
pha



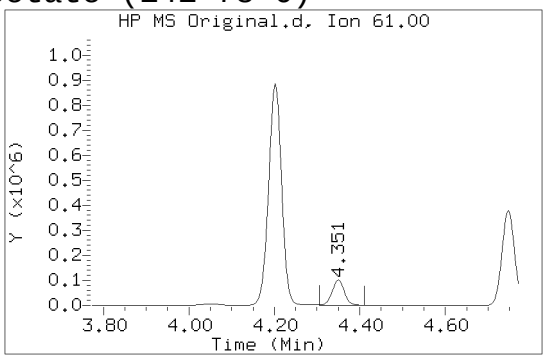
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060613.d
Inj Date : 06-JUN-2023 15:41
InstruID : VOA9.i
LabSampID : VSTD200

Ethyl Acetate (141-78-6)

Reason Code:

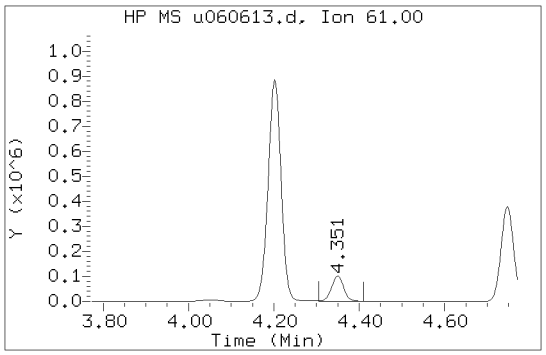
BEFORE

MASS
61
AREA
198877
HEIGHT
100974
08-Jun-2023
14:56
linh
pham



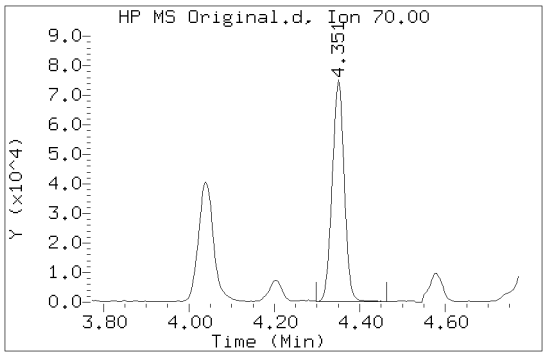
AFTER

MASS
61
AREA
198877
HEIGHT
100974
21-Jun-2023
13:48
linh
pha



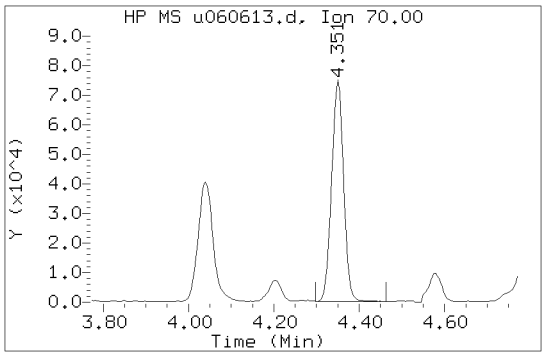
BEFORE

MASS
70
AREA
146444
HEIGHT
74996
08-Jun-2023
14:56
linh
pham



AFTER

MASS
70
AREA
146444
HEIGHT
74996
21-Jun-2023
13:48
linh
pha

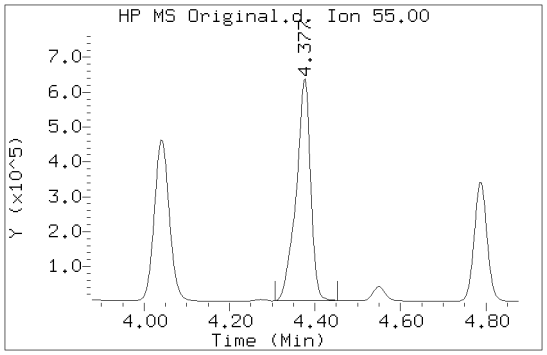


Methyl Acrylate (96-33-3)

Reason Code:

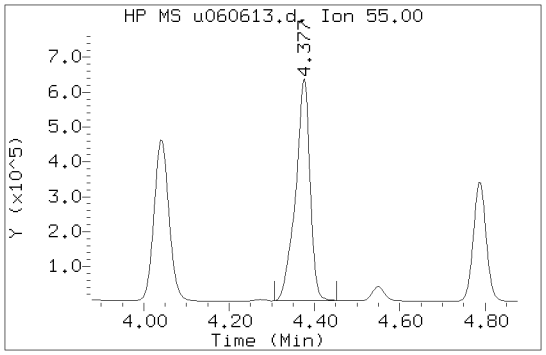
BEFORE

MASS
55
AREA
1518708
HEIGHT
635347
08-Jun-2023
14:56
linh
pham



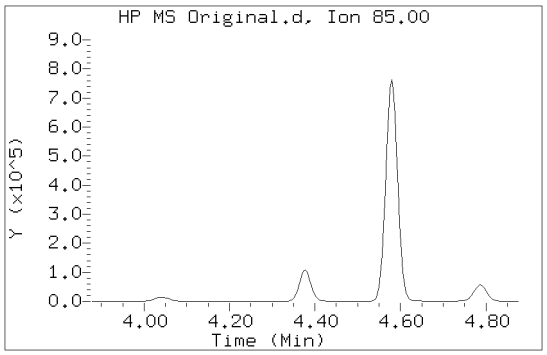
AFTER

MASS
55
AREA
1518708
HEIGHT
635347
21-Jun-2023
13:48
linh
pha



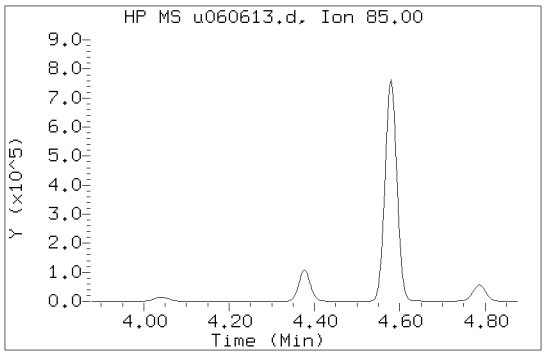
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha

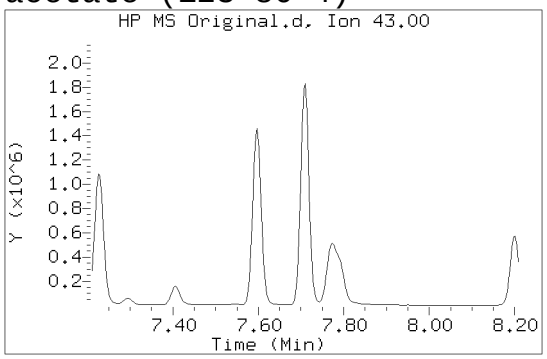


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060613.d
Inj Date : 06-JUN-2023 15:41
InstruID : VOA9.i
LabSampID : VSTD200

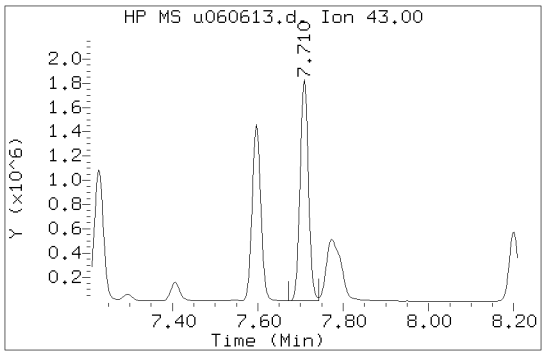
n-Butyl acetate (123-86-4)

Reason Code:

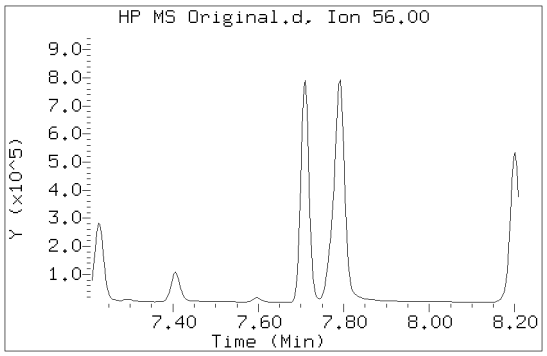
BEFORE
MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



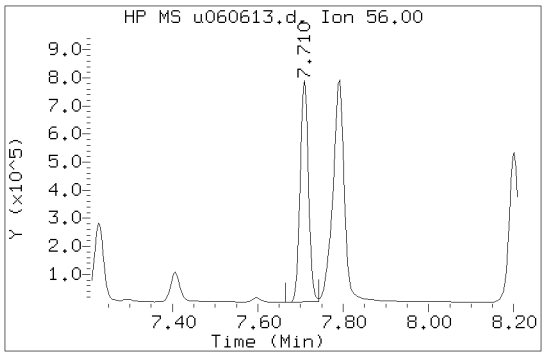
AFTER
MASS
43
AREA
2542322
HEIGHT
1823538
21-Jun-2023
13:48
linh
pha



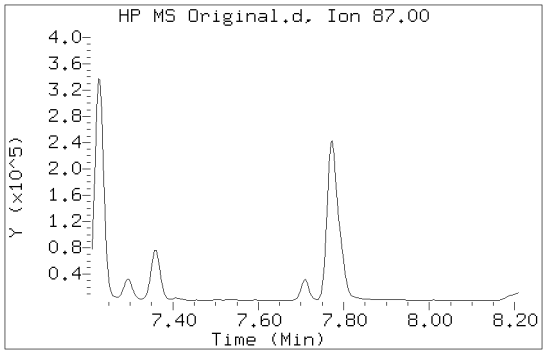
BEFORE
MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



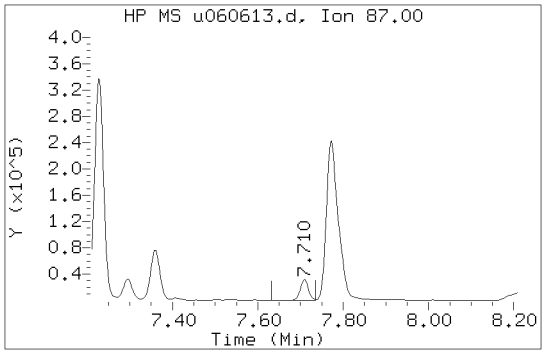
AFTER
MASS
56
AREA
1092382
HEIGHT
789863
21-Jun-2023
13:48
linh
pha



BEFORE
MASS
87
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



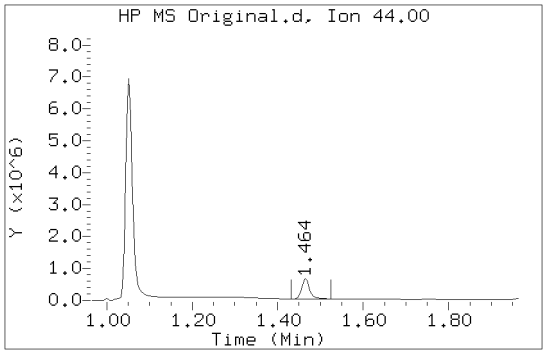
AFTER
MASS
87
AREA
41411
HEIGHT
31427
21-Jun-2023
13:48
linh
pha



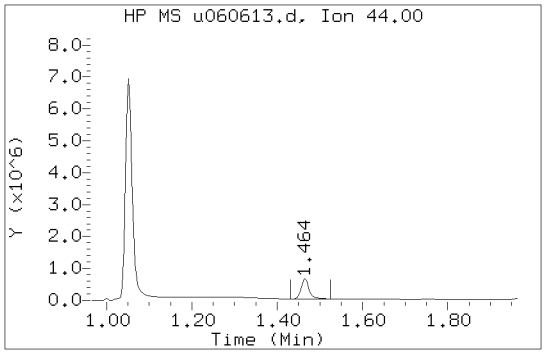
Acetaldehyde (75-07-0)

Reason Code:

BEFORE
MASS
44
AREA
813402
HEIGHT
630783
08-Jun-2023
14:56
linh
pham



AFTER
MASS
44
AREA
813402
HEIGHT
630783
21-Jun-2023
13:48
linh
pha



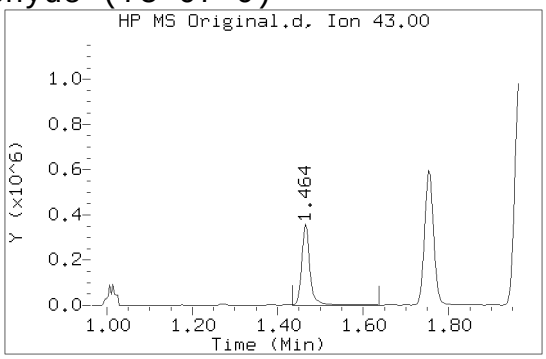
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060613.d
Inj Date : 06-JUN-2023 15:41
InstruID : VOA9.i
LabSampID : VSTD200

Acetaldehyde (75-07-0)

Reason Code:

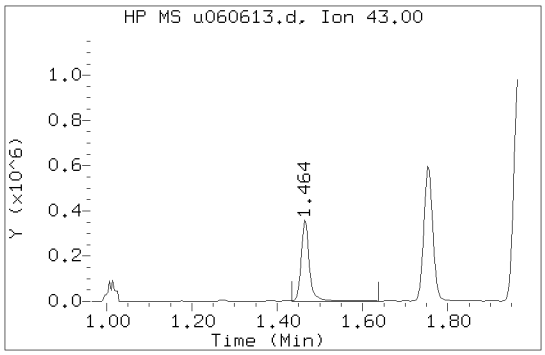
BEFORE

MASS
43
AREA
501173
HEIGHT
359936
08-Jun-2023
14:56
linh
pham



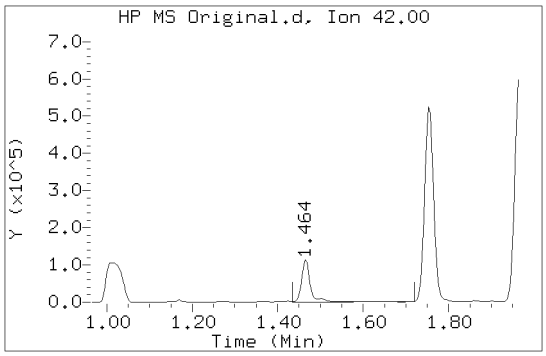
AFTER

MASS
43
AREA
501173
HEIGHT
359936
21-Jun-2023
13:48
linh
pha



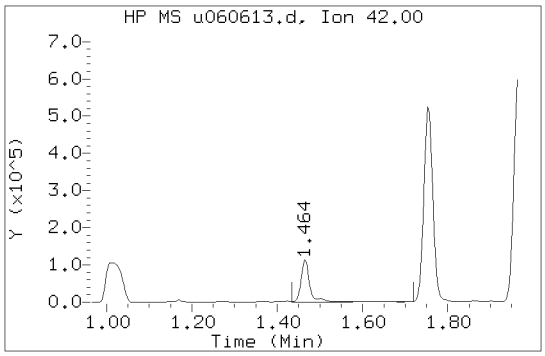
BEFORE

MASS
42
AREA
161560
HEIGHT
113645
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
161560
HEIGHT
113645
21-Jun-2023
13:48
linh
pha



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060616.D Page 1
Report Date: 21-Jun-2023 13:48

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230606.b\U060616.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 06-JUN-2023 16:48
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\U230606.b\8260C.m
Meth Date : 21-Jun-2023 13:45 pcabasca Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 17 QC Sample: METHSPIKE
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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.815	4.819	(1.000)	780826	50.0000	
2	Dichlorodifluoromethane	85	1.160	1.168	(0.241)	313326	43.4411	43.44
3	Chloromethane	50	1.295	1.303	(0.269)	478723	40.3986	40.39
5	Vinyl Chloride	62	1.374	1.382	(0.285)	368340	44.5978	44.59
6	Bromomethane	94	1.618	1.614	(0.336)	232986	55.0399	55.03
7	Chloroethane	64	1.696	1.700	(0.352)	239922	43.1235	43.12
8	Trichlorofluoromethane	101	1.895	1.903	(0.394)	416947	43.9550	43.95
9	Acrolein	56	2.263	2.270	(0.470)	36231	87.4197	87.41
10	Acetone	43	2.409	2.416	(0.500)	256579	95.4315	95.43
11	1,1-Dichloroethene	96	2.334	2.341	(0.485)	257583	43.4598	43.45
15	Iodomethane	142	2.469	2.472	(0.513)	390544	85.8965	85.89
16	Acrylonitrile	53	3.065	3.072	(0.636)	264231	91.2502	91.25
17	Methylene Chloride	84	2.795	2.799	(0.580)	325441	45.6146	45.61
18	Methyl tert-butyl ether	73	3.080	3.087	(0.640)	820662	45.1527	45.15
19	Carbon Disulfide	76	2.521	2.525	(0.524)	1475776	93.1400	93.13
20	trans-1,2-Dichloroethene	96	3.057	3.065	(0.635)	292795	45.4251	45.42
21	Vinyl Acetate	43	3.605	3.616	(0.749)	1831639	93.2206	93.22
22	1,1-Dichloroethane	63	3.515	3.522	(0.730)	503967	41.1420	41.14
24	2-Butanone	43	4.264	4.272	(0.886)	310116	87.1102	87.11
26	2,2-Dichloropropane	77	4.182	4.189	(0.868)	371756	45.9347	45.93
27	cis-1,2-Dichloroethene	96	4.197	4.204	(0.872)	341415	44.2752	44.27

28	Chloroform	83	4.572	4.579 (0.949)	560655	43.9760	43.97
29	Bromochloromethane	128	4.470	4.474 (0.928)	193817	44.9336	44.93

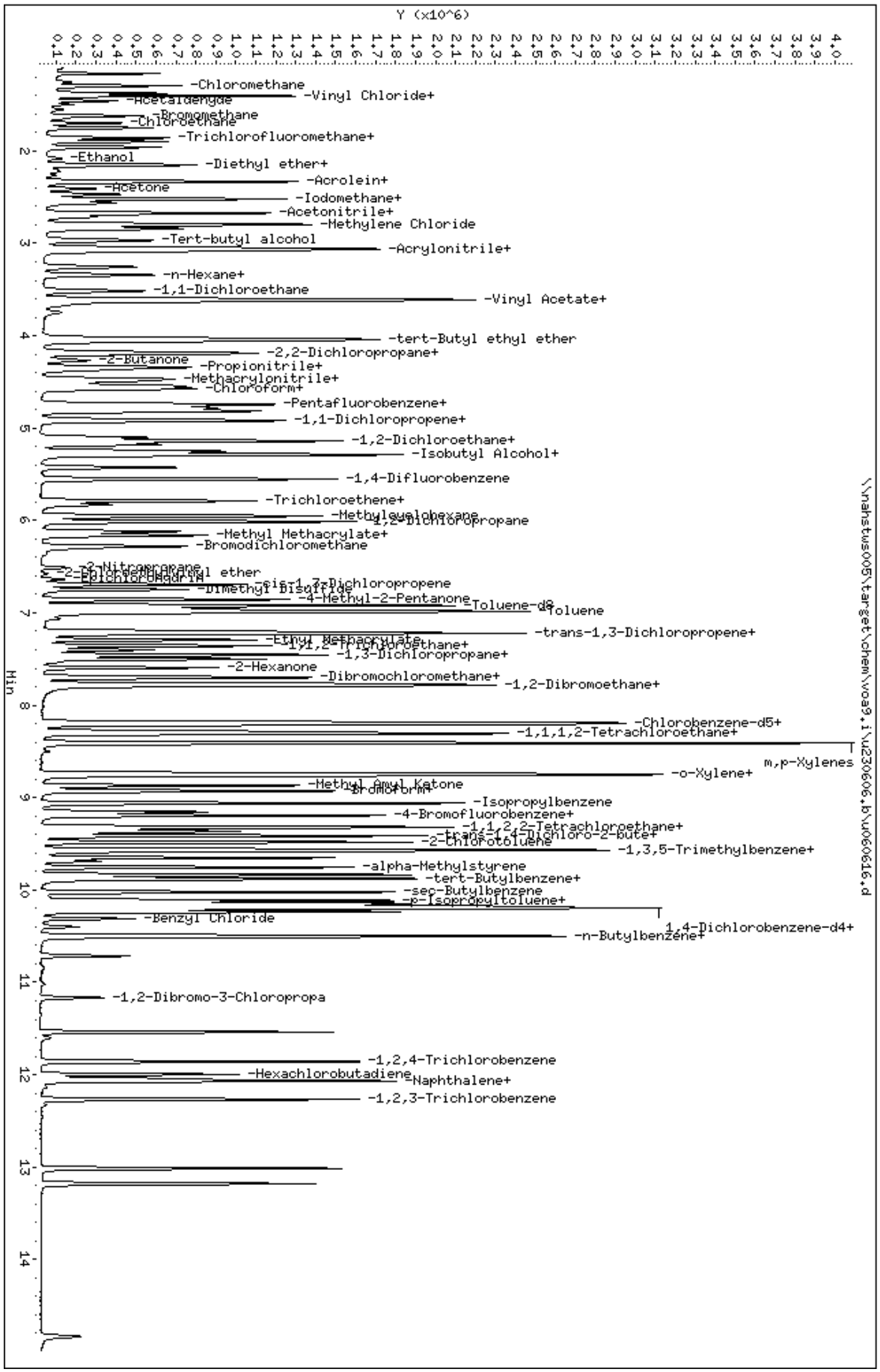
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
$	30 Dibromofluoromethane	113	4.748	4.755	(0.986)	318316	48.5594	48.55
	31 1,1,1-Trichloroethane	97	4.740	4.748	(0.984)	428686	44.1171	44.11
	32 1,1-Dichloropropene	75	4.920	4.924	(0.886)	386704	45.6635	45.66
	33 1,2-Dichloroethane	62	5.175	5.183	(0.932)	441937	44.1878	44.18
	34 Carbon Tetrachloride	117	4.909	4.917	(0.884)	345264	44.3847	44.38
$	35 1,2-Dichloroethane-d4	65	5.100	5.104	(1.059)	338506	47.7012	47.70
*	36 1,4-Difluorobenzene	114	5.554	5.558	(1.000)	1155525	50.0000	
	37 Benzene	78	5.138	5.141	(0.925)	1289605	46.3151	46.31
	38 Trichloroethene	130	5.790	5.790	(1.043)	360272	44.6411	44.64
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	414478	47.7201	47.72
	41 2-Chloroethylvinyl ether	63	6.577	6.581	(1.184)	17278	82.2441	82.24(M)
	42 1,2-Dichloropropane	63	6.011	6.015	(1.082)	336299	45.2354	45.23
	44 Dibromomethane	93	6.120	6.124	(1.102)	214846	45.2290	45.22
	45 4-Methyl-2-Pentanone	43	6.855	6.858	(0.837)	752796	97.7283	97.72
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	520852	44.9600	44.95
*	47 Chlorobenzene-d5	117	8.185	8.189	(1.000)	1057791	50.0000	
$	48 Toluene-d8	98	6.922	6.926	(0.846)	1235345	51.5999	51.59
	50 Toluene	91	6.982	6.982	(0.853)	1380191	48.1072	48.10
	51 trans-1,3-Dichloropropene	75	7.200	7.199	(1.296)	429650	44.2325	44.23
	52 2-Hexanone	43	7.593	7.597	(0.928)	496806	92.6111	92.61
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	272556	45.6579	45.65
	54 1,3-Dichloropropane	76	7.499	7.503	(0.916)	578247	47.4115	47.41
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	366836	51.7915	51.79
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	318249	45.5291	45.52
	57 1,2-Dibromoethane	107	7.784	7.788	(0.951)	335864	45.6094	45.60
	58 1-Chlorohexane	55	8.197	8.200	(1.476)	242405	40.8537	40.85
	59 Chlorobenzene	112	8.208	8.212	(1.003)	941715	45.9914	45.99
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.287	(1.012)	345385	49.0774	49.07
	61 Ethylbenzene	106	8.305	8.309	(1.015)	460758	48.3475	48.34
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	1140862	101.183	101.18
	63 o-Xylene	106	8.748	8.748	(1.069)	558477	50.1380	50.13
	64 Styrene	104	8.763	8.763	(1.071)	935490	52.9214	52.92
	66 Bromoform	173	8.920	8.920	(1.090)	243942	51.0235	51.02
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	1308769	48.9183	48.91
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.332	(0.917)	454457	44.1598	44.15
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	483743	51.3065	51.30
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	547105	50.0000	
	71 1,2,3-Trichloropropane	75	9.363	9.366	(0.920)	415776	45.9243	45.92
	73 n-Propylbenzene	91	9.411	9.415	(0.925)	1420825	49.5106	49.51
	74 Bromobenzene	156	9.318	9.321	(0.916)	421969	45.7115	45.71
	75 1,3,5-Trimethylbenzene	105	9.561	9.565	(0.940)	949218	48.2136	48.21
	76 2-Chlorotoluene	91	9.482	9.486	(0.932)	943175	46.7536	46.75
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	1080779	48.4010	48.40
	78 tert-Butylbenzene	119	9.839	9.839	(0.967)	902133	46.6540	46.65
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	984625	47.7979	47.79
	81 sec-Butylbenzene	105	10.022	10.026	(0.985)	1146037	46.7345	46.73
	82 p-Isopropyltoluene	119	10.146	10.150	(0.997)	996804	48.5205	48.52
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	724727	46.2241	46.22
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	744273	44.5230	44.52
	87 n-Butylbenzene	91	10.491	10.495	(1.031)	805977	45.8271	45.82
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	711620	45.2687	45.26
	89 1,2-Dibromo-3-Chloropropane	155	11.166	11.169	(1.098)	71438	47.5707	47.57

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	514361	47.5706	47.57
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	185622	42.5095	42.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	92 Naphthalene	128	12.065	12.069	(1.186)	1281110	51.0072	51.00
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	500164	47.3173	47.31
M	94 1,2-Dichloroethylene (total)	96				634210	89.7003	89.70
M	95 Xylenes (total)	106				1699339	151.321	151.32
	135 1,4-Dioxane	88	6.169	6.172	(1.281)	94832	611.650	611.64(R)
	141 Cyclohexane	56	4.782	4.785	(0.993)	401902	42.0727	42.07
	138 Freon TF	101	2.334	2.341	(0.485)	222912	42.5073	42.50
	140 1,3-Butadiene	54	1.404	1.412	(0.292)	342878	46.3679	46.36
	147 Methylcyclohexane	55	5.947	5.951	(1.071)	742238	46.3048	46.30
	146 Methyl Acetate	43	2.712	2.720	(0.563)	267638	40.7078	40.70
	148 Tert-Butyl alcohol	59	2.967	2.978	(0.616)	653389	905.196	905.19
	149 Isopropyl Alcohol	45	2.562	2.577	(0.532)	432312	846.925	846.92
	72 trans-1,4-Dichloro-2-butene	53	9.378	9.381	(1.146)	66066	54.2434	54.24
	12 Isobutyl Alcohol	43	5.288	5.291	(1.098)	1078739	1063.31	1063.31
	13 Acetonitrile	39	2.671	2.679	(0.555)	369725	437.354	437.35
	14 Allyl Chloride	41	2.671	2.679	(0.555)	881221	43.4696	43.46
	25 Methacrylonitrile	41	4.497	4.500	(0.934)	220001	47.6887	47.68
	40 Methyl Methacrylate	41	6.157	6.161	(1.279)	319473	47.5853	47.58
	4 Propionitrile	54	4.339	4.350	(0.901)	504761	447.359	447.35
	136 n-Hexane	57	3.342	3.350	(0.694)	279959	43.1157	43.11
	194 Acetaldehyde	44	1.457	1.464	(0.303)	213458	198.213	198.21(M)
	131 Methyl Acrylate	55	4.369	4.377	(0.907)	376406	45.5808	45.58(M)
	200 Dimethyl Disulfide	94	6.746	6.750	(0.824)	342782	43.9278	43.92
	23 Chloroprene	53	2.158	2.165	(0.448)	106743	42.8616	42.86(M)
	49 Ethyl Methacrylate	69	7.293	7.297	(1.313)	493833	48.7533	48.75
	166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	946548	45.0091	45.00
	167 Ethanol	45	2.083	2.098	(0.433)	87414	894.820	894.81
	164 Dicyclopentadiene	66	10.198	10.202	(1.003)	1170894	43.8737	43.87
	145 alpha-Methylstyrene	118	9.752	9.756	(0.959)	456404	44.8638	44.86
	142 Tetrahydrofuran	42	4.545	4.549	(0.944)	124728	90.2172	90.21
	156 Diisopropyl ether	45	3.623	3.631	(0.752)	968924	44.5026	44.50
	151 4-Methyl-2-pentanol	45	7.222	7.226	(1.300)	1465561	852.923	852.92
	150 Allyl alcohol	57	3.342	3.350	(0.694)	279959	862.620	862.62
	86 Benzyl Chloride	91	10.311	10.311	(1.260)	308230	48.8252	48.82
	162 Butyl acrylate	55	8.733	8.733	(1.067)	606576	48.4779	48.47
	139 Diethyl ether	59	2.143	2.154	(0.445)	236202	44.7701	44.77
	203 2-Ethylhexyl Acrylate	55	12.043	12.039	(1.184)	256043	48.8830	48.88
	134 Cyclohexanone	55	9.153	9.156	(0.900)	315426	929.955	929.95
	130 Ethyl Acetate	43	4.343	4.272	(0.902)	367738	52.6863	52.68
	189 n-Butyl acetate	43	7.706	7.709	(0.941)	585580	48.6187	48.61(M)
	182 Epichlorohydrin	57	6.633	6.633	(1.194)	19670	179.479	179.47
	132 n-Butanol	56	5.831	5.835	(1.211)	194822	876.568	876.56

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.



Data File: \\nahstws005\target\chem\voa9.i\u230606.b\u060616.d
Date : 06-JUN-2023 16:48
Client ID: ICV
Sample Info: CCV;CCV;2;;;ICV
Purge Volume: 5.0
Column phase: DB624

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

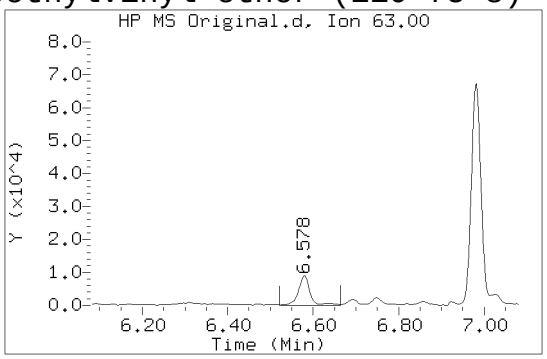
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060616.d
Inj Date : 06-JUN-2023 16:48
InstruID : VOA9.i
LabSampID : ICV

2-Chloroethylvinyl ether (110-75-8)

Reason Code:

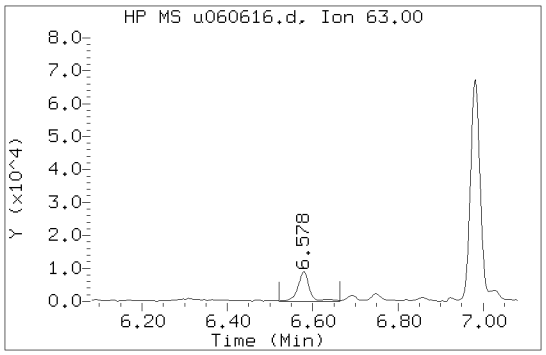
BEFORE

MASS
63
AREA
17278
HEIGHT
8945
08-Jun-2023
14:56
linh
pham



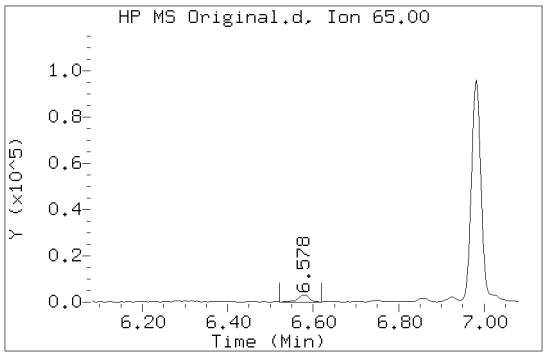
AFTER

MASS
63
AREA
17278
HEIGHT
8945
21-Jun-2023
13:48
linh
pha



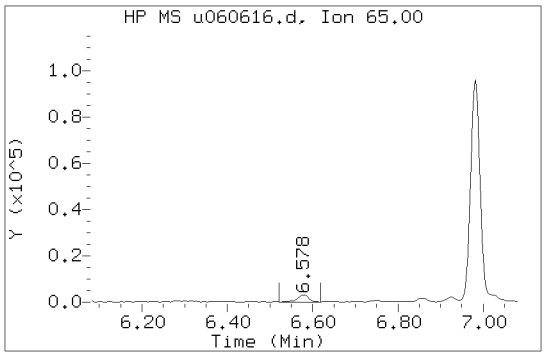
BEFORE

MASS
65
AREA
5481
HEIGHT
3011
08-Jun-2023
14:56
linh
pham



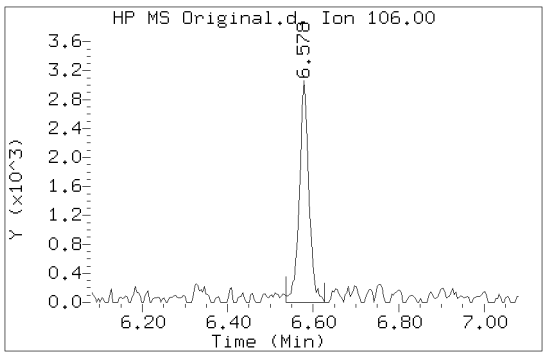
AFTER

MASS
65
AREA
5481
HEIGHT
3011
21-Jun-2023
13:48
linh
pha



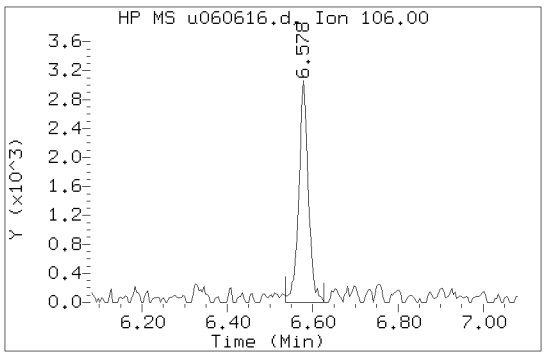
BEFORE

MASS
106
AREA
4846
HEIGHT
3061
08-Jun-2023
14:56
linh
pham



AFTER

MASS
106
AREA
4846
HEIGHT
3061
21-Jun-2023
13:48
linh
pha

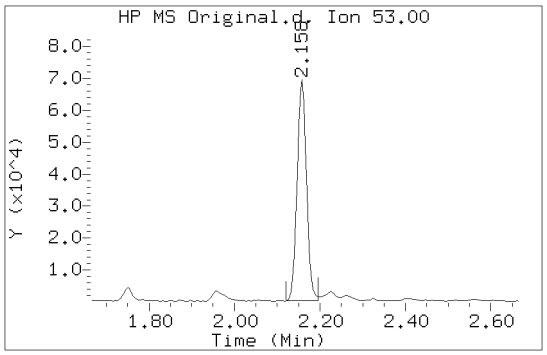


Chloroprene (126-99-8)

Reason Code:

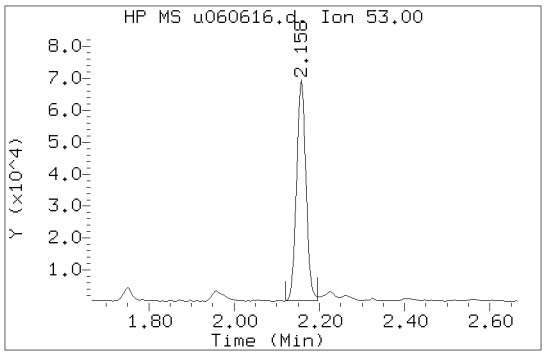
BEFORE

MASS
53
AREA
106743
HEIGHT
69224
08-Jun-2023
14:56
linh
pham



AFTER

MASS
53
AREA
106743
HEIGHT
69224
21-Jun-2023
13:48
linh
pha



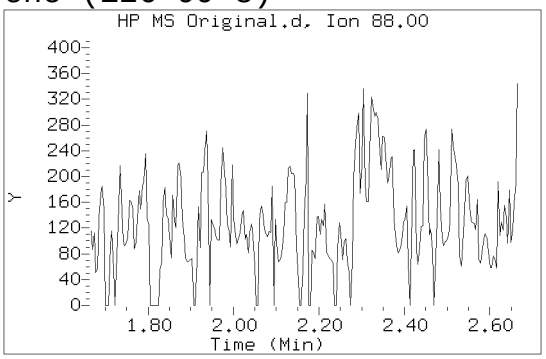
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060616.d
Inj Date : 06-JUN-2023 16:48
InstruID : VOA9.i
LabSampID : ICV

Chloroprene (126-99-8)

Reason Code:

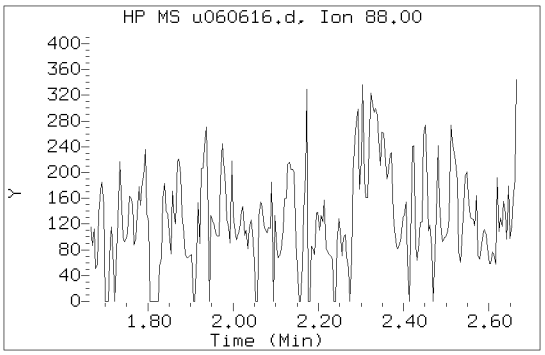
BEFORE

MASS
88
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
88
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha

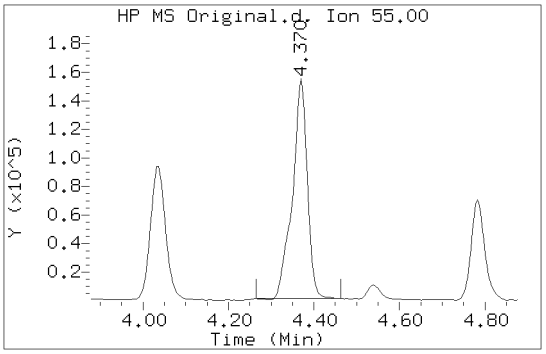


Methyl Acrylate (96-33-3)

Reason Code:

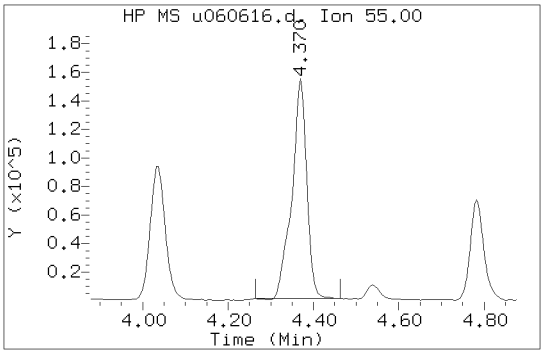
BEFORE

MASS
55
AREA
376406
HEIGHT
153880
08-Jun-2023
14:56
linh
pham



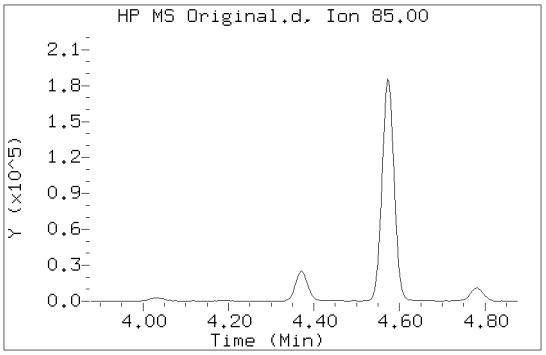
AFTER

MASS
55
AREA
376406
HEIGHT
153880
21-Jun-2023
13:48
linh
pha



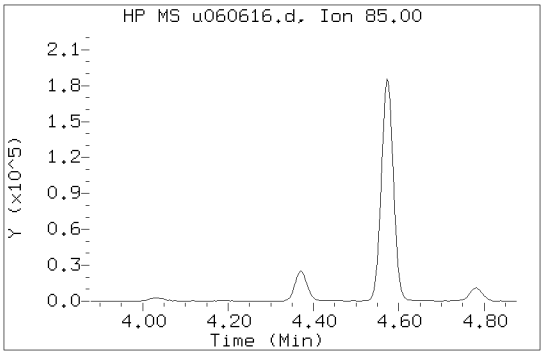
BEFORE

MASS
85
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
85
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha

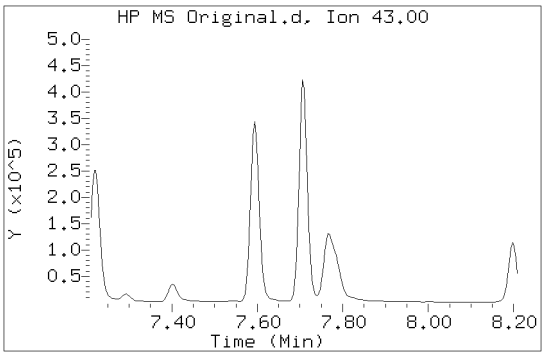


n-Butyl acetate (123-86-4)

Reason Code:

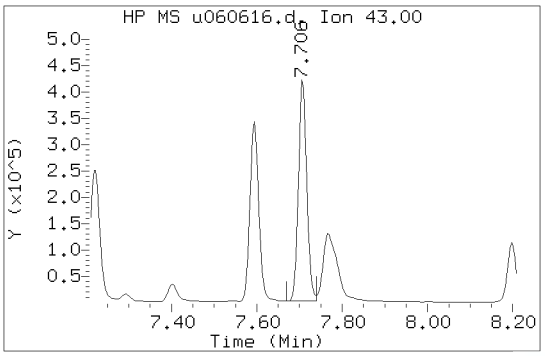
BEFORE

MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
43
AREA
585580
HEIGHT
419610
21-Jun-2023
13:48
linh
pha

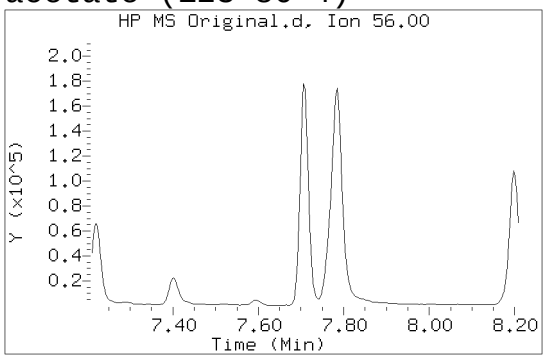


Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060616.d
Inj Date : 06-JUN-2023 16:48
InstruID : VOA9.i
LabSampID : ICV

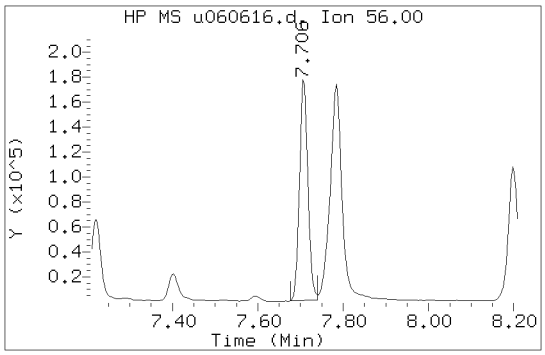
n-Butyl acetate (123-86-4)

Reason Code:

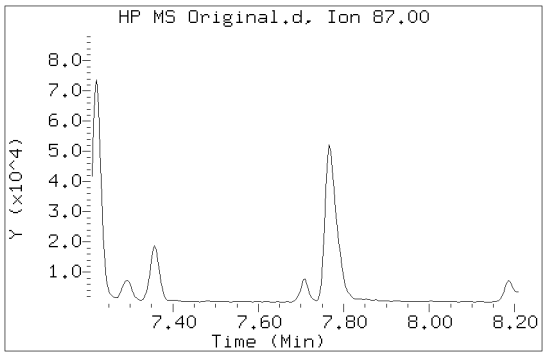
BEFORE
MASS
56
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



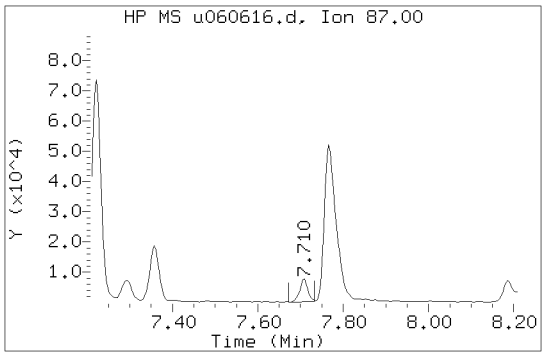
AFTER
MASS
56
AREA
248715
HEIGHT
176750
21-Jun-2023
13:48
linh
pha



BEFORE
MASS
87
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



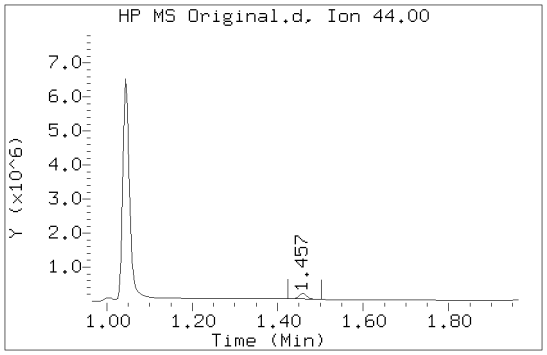
AFTER
MASS
87
AREA
10116
HEIGHT
7486
21-Jun-2023
13:48
linh
pha



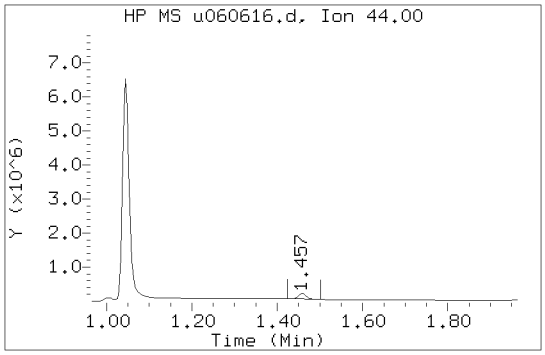
Acetaldehyde (75-07-0)

Reason Code:

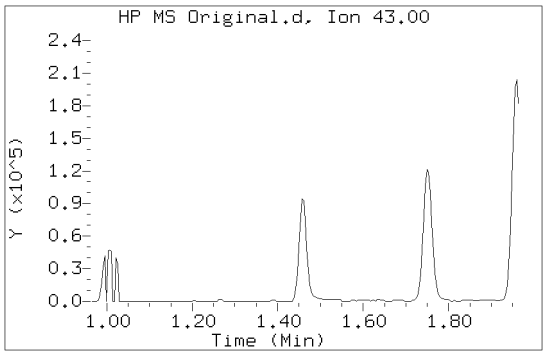
BEFORE
MASS
44
AREA
213458
HEIGHT
168169
08-Jun-2023
14:56
linh
pham



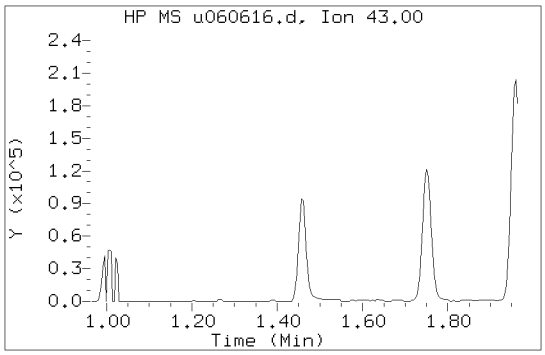
AFTER
MASS
44
AREA
213458
HEIGHT
168169
21-Jun-2023
13:48
linh
pha



BEFORE
MASS
43
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER
MASS
43
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha



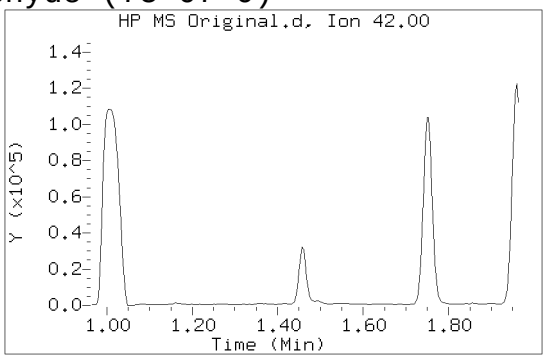
Data File : \\nahstws005\target\chem\voa9.i\u230606.b\u060616.d
Inj Date : 06-JUN-2023 16:48
InstruID : VOA9.i
LabSampID : ICV

Acetaldehyde (75-07-0)

Reason Code:

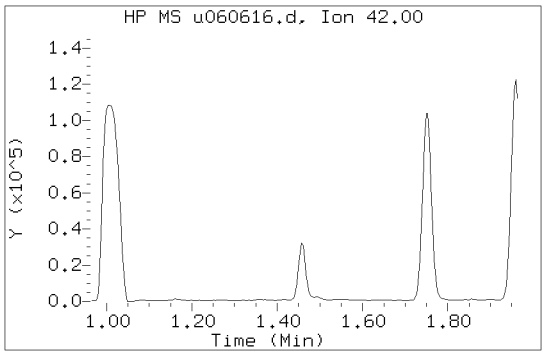
BEFORE

MASS
42
AREA
0
HEIGHT
0
08-Jun-2023
14:56
linh
pham



AFTER

MASS
42
AREA
0
HEIGHT
0
21-Jun-2023
13:48
linh
pha



01205764

right solutions.
right partner.

Raw Data VOA9 440137

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

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\U230628.b\U062801.D Page 1
Report Date: 28-Jun-2023 10:54

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062801.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 28-JUN-2023 10:34
Operator : PC Inst ID: VOA9.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\bfb.m
Meth Date : 27-Jan-2023 08:08 apoluri Quant Type: ISTD
Cal Date : 30-MAR-2018 18:09 Cal File: U033003.d
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)		
RT	EXP RT	REL RT	MASS	RESPONSE			TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
9.194	9.180	(0.000)	95	65872			0.00- 100.00	100.00
9.194	9.180	(0.000)	50	12212			15.00- 40.00	18.54
9.194	9.180	(0.000)	75	32472			30.00- 60.00	49.30
9.194	9.180	(0.000)	96	4890			5.00- 9.00	7.42
9.194	9.180	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
9.194	9.180	(0.000)	174	59304			50.00- 0.00	90.03
9.194	9.180	(0.000)	175	4746			5.00- 9.00	8.00
9.194	9.180	(0.000)	176	58672			95.00- 101.00	98.93
9.194	9.180	(0.000)	177	4203			5.00- 9.00	7.16

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.54
75	30.00 - 60.00% of mass 95	49.30
96	5.00 - 9.00% of mass 95	7.42
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	90.03
175	5.00 - 9.00% of mass 174	7.20 (8.00)
176	95.00 - 101.00% of mass 174	89.07 (98.93)
177	5.00 - 9.00% of mass 176	6.38 (7.16)

Data File: U062801.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.00
Number of points: 166

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1068	78.90	2234	118.90	409	168.90	131
37.00	3904	80.00	881	119.60	73	169.60	130
38.00	3689	80.90	2140	120.20	59	170.90	860
39.00	3995	81.90	492	122.10	91	171.90	360
39.90	1323	83.10	764	123.10	151	173.90	59304
41.00	3392	83.80	102	123.90	157	175.00	4746
42.00	4327	84.10	107	124.50	90	175.90	58672
43.00	5223	85.10	168	125.10	72	176.90	4203
43.90	2062	86.10	222	125.80	150	177.70	161
45.00	3196	87.00	2593	126.90	1698	179.00	55
46.00	278	87.90	2476	127.90	601	181.30	58
46.90	1022	88.60	125	128.70	211	183.00	52
48.00	728	89.10	111	129.70	327	183.90	61
49.00	2814	91.00	311	130.70	144	185.00	227
50.00	12212	92.00	1682	133.10	65	185.90	1493
51.00	4014	92.90	2659	135.00	137	187.10	97
51.90	444	94.00	9205	136.10	103	187.70	100
53.00	438	95.00	65872	136.90	209	188.70	53
53.90	587	96.00	4890	137.70	100	190.90	54
55.00	5247	96.90	466	138.70	189	193.50	58
56.00	1931	98.00	2530	139.70	205	195.00	66
57.00	2264	98.90	163	140.80	1419	197.70	66
58.00	1678	99.10	166	141.90	1596	204.50	59
59.00	6485	100.90	76	142.90	809	206.90	89
60.00	974	102.70	154	143.90	105	207.80	121
61.00	3034	103.90	449	145.00	120	211.40	81
62.00	3058	104.90	277	145.70	144	213.60	58
62.90	2560	105.70	315	146.60	86	214.70	74
63.90	425	105.90	318	147.80	204	218.20	56
65.00	420	107.00	235	148.60	60	226.90	53
66.00	185	108.90	321	149.80	97	227.80	57
68.00	7656	110.00	328	151.10	51	230.80	56
69.00	8029	110.80	239	152.10	59	234.90	53
70.00	1522	111.50	125	152.90	158	238.30	55
71.00	307	112.10	57	153.70	126	242.70	56
72.00	534	112.70	103	154.90	209	246.70	75
73.00	3142	113.50	54	157.00	184	270.00	55
74.00	11379	114.00	58	158.60	172	315.40	60
75.00	32472	114.90	129	160.80	162	322.20	79
76.00	3065	115.90	276	162.00	80	330.80	58
76.90	550	116.80	633	165.50	61		
77.90	448	117.70	309	167.70	137		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062801.D Page 1

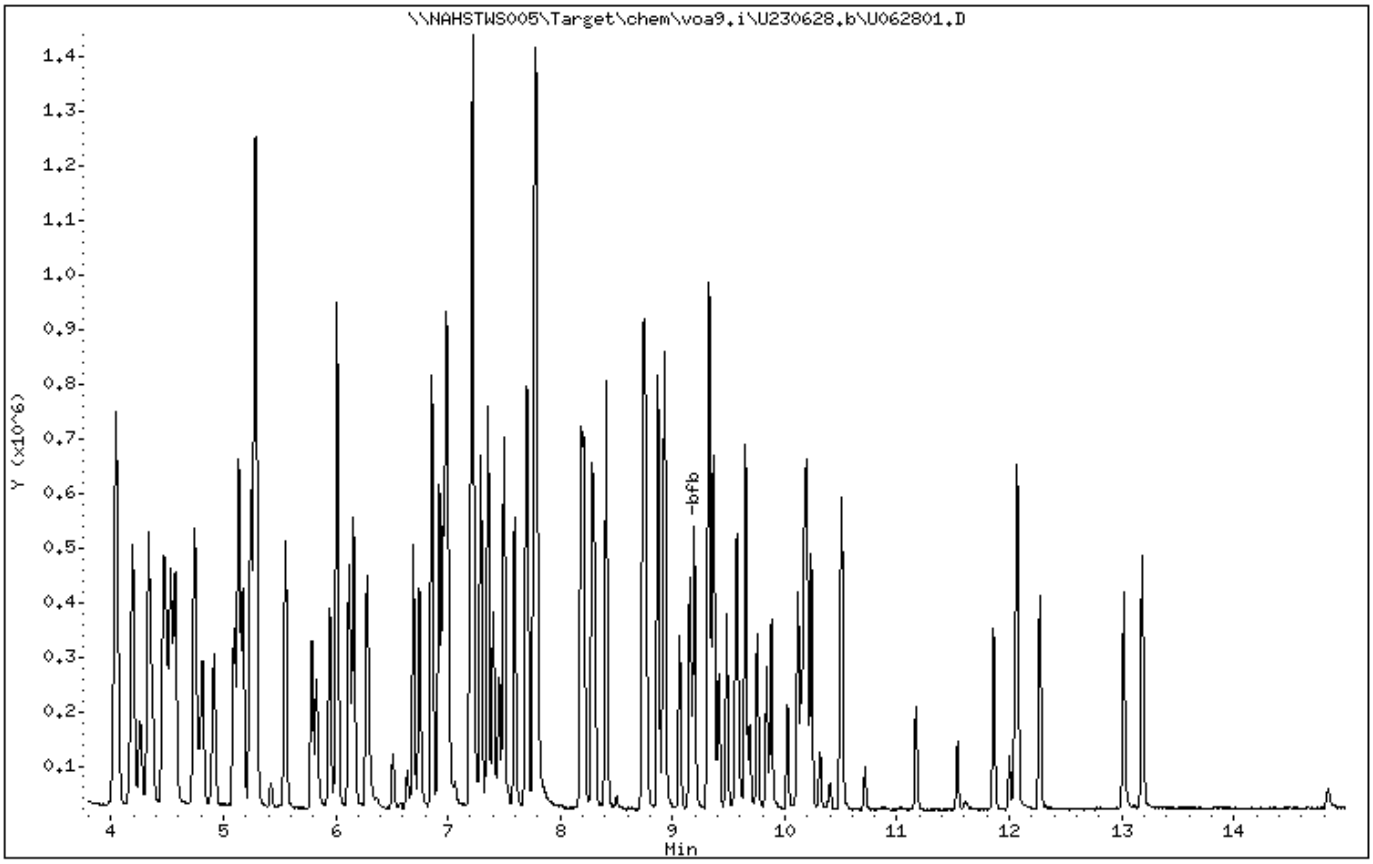
Date : 28-JUN-2023 10:34

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062801.D Page 2

Date : 28-JUN-2023 10:34

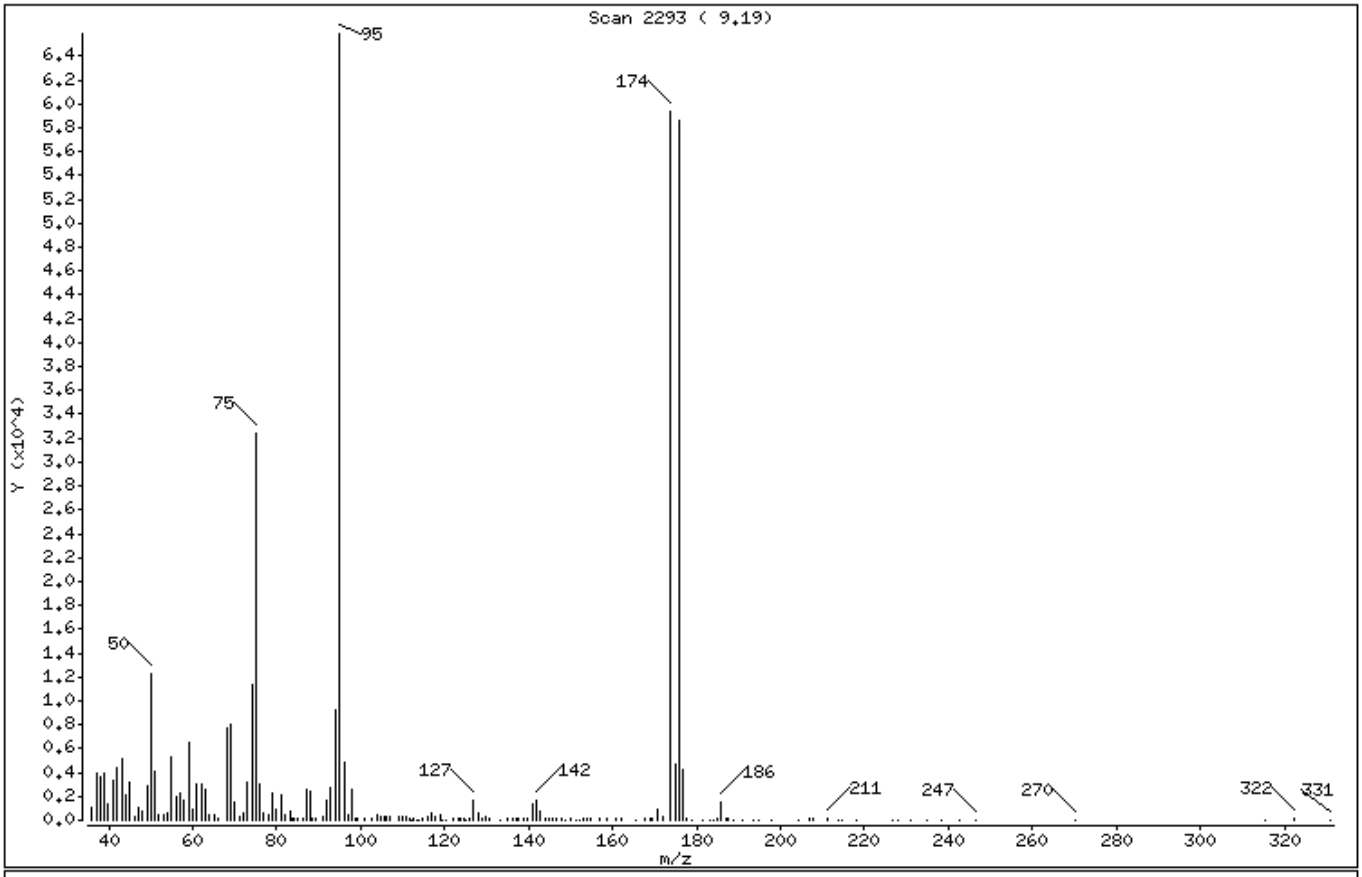
Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.54
75	30.00 - 60.00% of mass 95	49.30
96	5.00 - 9.00% of mass 95	7.42
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	90.03
175	5.00 - 9.00% of mass 174	7.20 (8.00)
176	95.00 - 101.00% of mass 174	89.07 (98.93)
177	5.00 - 9.00% of mass 176	6.38 (7.16)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062801.D

Date : 28-JUN-2023 10:34

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: U062801.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.00
Number of points: 166

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1068	78.90	2234	118.90	409	168.90	131
37.00	3904	80.00	881	119.60	73	169.60	130
38.00	3689	80.90	2140	120.20	59	170.90	860
39.00	3995	81.90	492	122.10	91	171.90	360
39.90	1323	83.10	764	123.10	151	173.90	59304
41.00	3392	83.80	102	123.90	157	175.00	4746
42.00	4327	84.10	107	124.50	90	175.90	58672
43.00	5223	85.10	168	125.10	72	176.90	4203
43.90	2062	86.10	222	125.80	150	177.70	161
45.00	3196	87.00	2593	126.90	1698	179.00	55
46.00	278	87.90	2476	127.90	601	181.30	58
46.90	1022	88.60	125	128.70	211	183.00	52
48.00	728	89.10	111	129.70	327	183.90	61
49.00	2814	91.00	311	130.70	144	185.00	227
50.00	12212	92.00	1682	133.10	65	185.90	1493
51.00	4014	92.90	2659	135.00	137	187.10	97
51.90	444	94.00	9205	136.10	103	187.70	100
53.00	438	95.00	65872	136.90	209	188.70	53
53.90	587	96.00	4890	137.70	100	190.90	54
55.00	5247	96.90	466	138.70	189	193.50	58
56.00	1931	98.00	2530	139.70	205	195.00	66
57.00	2264	98.90	163	140.80	1419	197.70	66
58.00	1678	99.10	166	141.90	1596	204.50	59
59.00	6485	100.90	76	142.90	809	206.90	89
60.00	974	102.70	154	143.90	105	207.80	121
61.00	3034	103.90	449	145.00	120	211.40	81
62.00	3058	104.90	277	145.70	144	213.60	58
62.90	2560	105.70	315	146.60	86	214.70	74
63.90	425	105.90	318	147.80	204	218.20	56
65.00	420	107.00	235	148.60	60	226.90	53
66.00	185	108.90	321	149.80	97	227.80	57
68.00	7656	110.00	328	151.10	51	230.80	56
69.00	8029	110.80	239	152.10	59	234.90	53
70.00	1522	111.50	125	152.90	158	238.30	55
71.00	307	112.10	57	153.70	126	242.70	56

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062801.D

Date : 28-JUN-2023 10:34

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: U062801.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.00
Number of points: 166

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	534	112.70	103	154.90	209	246.70	75
73.00	3142	113.50	54	157.00	184	270.00	55
74.00	11379	114.00	58	158.60	172	315.40	60
75.00	32472	114.90	129	160.80	162	322.20	79
76.00	3065	115.90	276	162.00	80	330.80	58
76.90	550	116.80	633	165.50	61		
77.90	448	117.70	309	167.70	137		

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062803.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 28-JUN-2023 11:19
Operator : PC Inst ID: VOA9.i
Smp Info : CCV;CCV;2;;;
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	564266	50.0000	
2 Dichlorodifluoromethane	85	1.160	1.160	(0.241)	261604	50.0000	50.17
3 Chloromethane	50	1.295	1.295	(0.269)	367875	50.0000	43.04
5 Vinyl Chloride	62	1.374	1.374	(0.285)	299310	50.0000	50.14
6 Bromomethane	94	1.617	1.617	(0.336)	168212	50.0000	54.98
7 Chloroethane	64	1.696	1.696	(0.352)	198400	50.0000	49.34
8 Trichlorofluoromethane	101	1.895	1.895	(0.394)	386863	50.0000	56.43
9 Acrolein	56	2.262	2.262	(0.470)	26199	100.000	87.47
10 Acetone	43	2.405	2.405	(0.499)	202443	100.000	104.71
11 1,1-Dichloroethene	96	2.330	2.330	(0.484)	221003	50.0000	51.59
15 Iodomethane	142	2.465	2.465	(0.512)	478048	100.000	134.83
16 Acrylonitrile	53	3.064	3.064	(0.636)	208532	100.000	99.65
17 Methylene Chloride	84	2.791	2.791	(0.580)	271312	50.0000	52.78
18 Methyl tert-butyl ether	73	3.079	3.079	(0.640)	697336	50.0000	53.09
19 Carbon Disulfide	76	2.517	2.517	(0.523)	1362959	100.000	119.03
20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	241944	50.0000	51.94
21 Vinyl Acetate	43	3.604	3.604	(0.749)	1516686	100.000	106.81
22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	436701	50.0000	49.33
24 2-Butanone	43	4.264	4.264	(0.886)	237342	100.000	92.25
26 2,2-Dichloropropane	77	4.181	4.181	(0.868)	341888	50.0000	58.34

27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	287559	50.0000	51.60
28 Chloroform	83	4.571	4.571 (0.949)	464335	50.0000	50.39

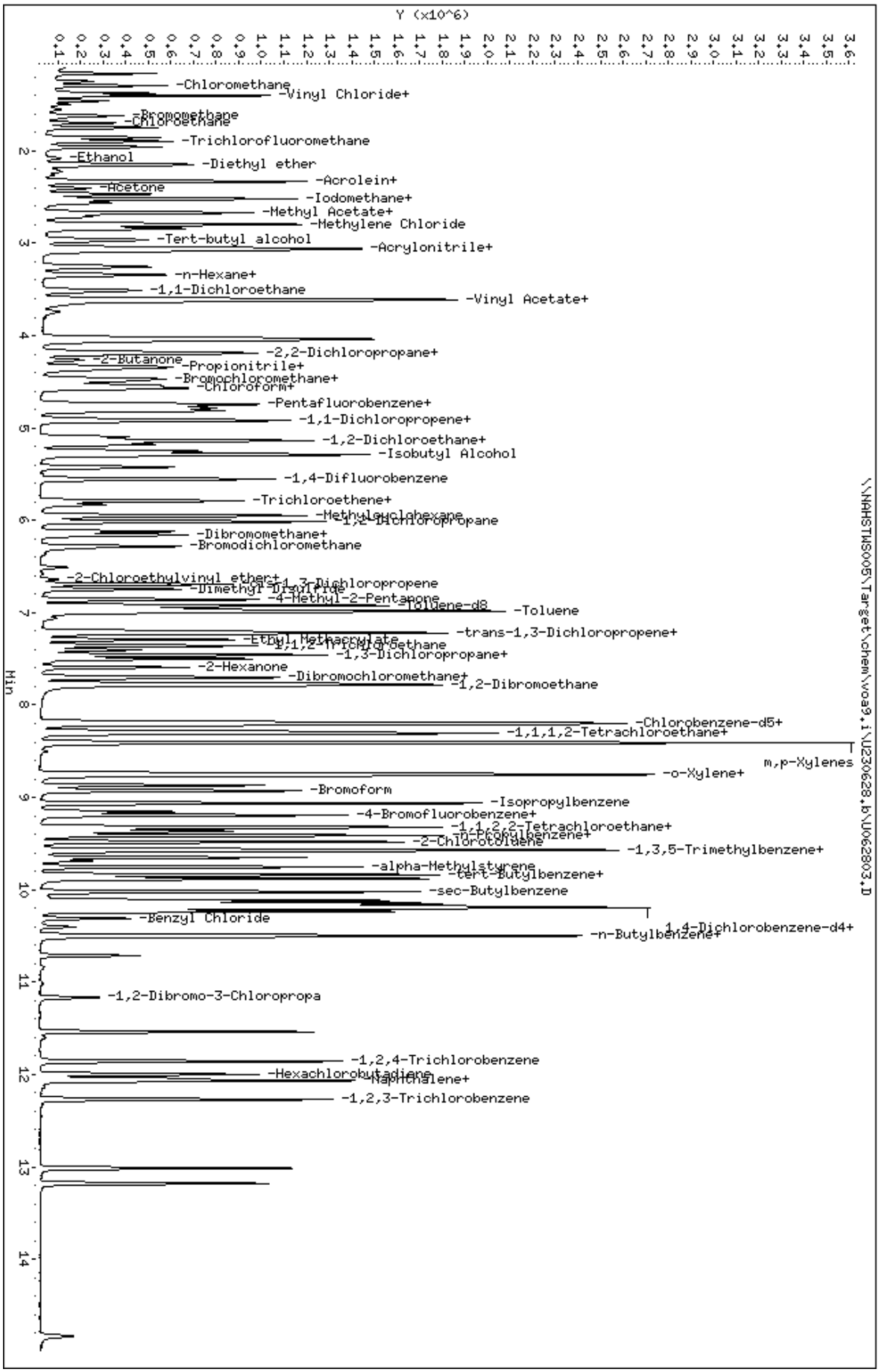
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.470	4.470	(0.928)	156716	50.0000	50.27
$	30 Dibromofluoromethane	113	4.747	4.747	(0.986)	243056	50.0000	51.32
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	381030	50.0000	54.26
	32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	324805	50.0000	54.59
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	378221	50.0000	53.82
	34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	316469	50.0000	57.90
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	259817	50.0000	50.70
*	36 1,4-Difluorobenzene	114	5.553	5.553	(1.000)	811834	50.0000	
	37 Benzene	78	5.137	5.137	(0.925)	1022402	50.0000	52.26
	38 Trichloroethene	130	5.790	5.790	(1.043)	291852	50.0000	51.47
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	344078	50.0000	56.38
	41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.184)	6304	100.000	42.71
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	270868	50.0000	51.85
	44 Dibromomethane	93	6.119	6.119	(1.102)	178099	50.0000	53.36
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	565005	100.000	98.06
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	417947	50.0000	51.07
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	791172	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	900063	50.0000	50.26
	50 Toluene	91	6.982	6.982	(0.853)	1132024	50.0000	52.75
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	352463	50.0000	51.30
	52 2-Hexanone	43	7.593	7.593	(0.928)	371380	100.000	92.56
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	221422	50.0000	49.59
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	464199	50.0000	50.88
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	301778	50.0000	56.96
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	275754	50.0000	52.74
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	282025	50.0000	51.20
	58 1-Chlorohexane	55	8.196	8.196	(1.476)	231668	50.0000	55.57
	59 Chlorobenzene	112	8.211	8.211	(1.003)	794823	50.0000	51.89
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	295649	50.0000	56.16
	61 Ethylbenzene	106	8.305	8.305	(1.015)	389141	50.0000	54.59
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	975503	100.000	115.67
	63 o-Xylene	106	8.747	8.747	(1.069)	474637	50.0000	56.97
	64 Styrene	104	8.762	8.762	(1.071)	781540	50.0000	59.11
	66 Bromoform	173	8.920	8.920	(1.090)	209281	50.0000	58.52
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	1158548	50.0000	57.89
	68 1,1,2,2-Tetrachloroethane	83	9.328	9.328	(0.917)	374036	50.0000	46.98
$	69 4-Bromofluorobenzene	95	9.193	9.193	(1.123)	378401	50.0000	53.70
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	423188	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	348738	50.0000	49.79
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	1233128	50.0000	55.55
	74 Bromobenzene	156	9.317	9.317	(0.916)	361622	50.0000	50.64
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	853275	50.0000	56.03
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	822186	50.0000	52.69
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	929868	50.0000	53.83
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	826032	50.0000	55.22
	79 1,2,4-Trimethylbenzene	105	9.879	9.879	(0.971)	868631	50.0000	54.51
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	1072764	50.0000	56.55
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	916950	50.0000	57.70
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	615541	50.0000	50.75
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	641630	50.0000	49.62
	87 n-Butylbenzene	91	10.490	10.490	(1.031)	772271	50.0000	56.76
	88 1,2-Dichlorobenzene	146	10.505	10.505	(1.033)	610866	50.0000	50.23

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	55518	50.0000	47.79
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	427656	50.0000	51.13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
91	Hexachlorobutadiene	225	11.997	11.997	(1.179)	189117	50.0000	55.99
92	Naphthalene	128	12.069	12.069	(1.186)	1014680	50.0000	52.22
93	1,2,3-Trichlorobenzene	180	12.267	12.267	(1.206)	406578	50.0000	49.72
M 94	1,2-Dichloroethylene (total)	96				529503	100.000	(a)
135	1,4-Dioxane	88	6.168	6.168	(1.281)	72144	1000.00	643.89
141	Cyclohexane	56	4.781	4.781	(0.993)	344756	50.0000	49.70
138	Freon TF	101	2.333	2.333	(0.485)	210738	50.0000	55.60
140	1,3-Butadiene	54	1.400	1.400	(0.291)	267220	50.0000	50.00
147	Methylcyclohexane	55	5.947	5.947	(1.071)	593088	50.0000	52.66
146	Methyl Acetate	43	2.712	2.712	(0.563)	219435	50.0000	46.18
148	Tert-Butyl alcohol	59	2.967	2.967	(0.616)	548757	1000.00	1052.81
149	Isopropyl Alcohol	45	2.558	2.558	(0.531)	355855	1000.00	964.69
72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	58276	50.0000	63.97
12	Isobutyl Alcohol	43	5.287	5.287	(1.098)	864659	1000.00	1179.39
13	Acetonitrile	39	2.671	2.671	(0.555)	315859	500.000	517.03
14	Allyl Chloride	41	2.671	2.671	(0.555)	707358	50.0000	48.28
25	Methacrylonitrile	41	4.493	4.493	(0.933)	172329	50.0000	51.69
40	Methyl Methacrylate	41	6.157	6.157	(1.279)	252582	50.0000	52.06
4	Propionitrile	54	4.339	4.339	(0.901)	380180	500.000	466.26
162	Butyl acrylate	55	8.732	8.732	(1.067)	462984	50.0000	49.47
203	2-Ethylhexyl Acrylate	55	12.042	12.042	(1.184)	214587	50.0000	52.61

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230628.b\U062803.D
Date : 28-JUN-2023 11:19
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

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

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062803.D
Inj Date : 28-JUN-2023 11:19
InstruID : VOA9.i
LabSampID : CCV

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062804.D Page 1
Report Date: 03-Jul-2023 12:56

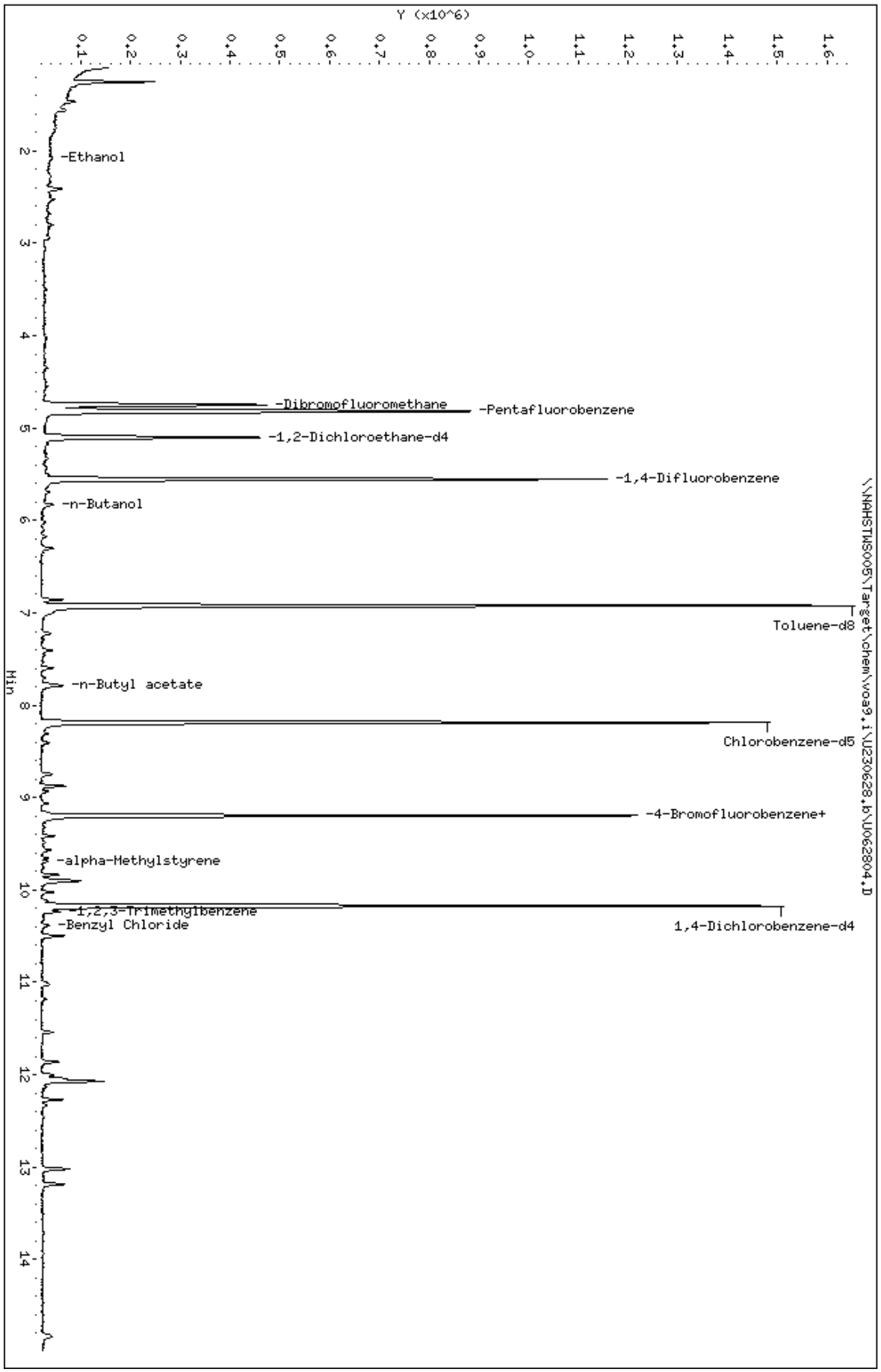
ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062804.D
Lab Smp Id: CCB Client Smp ID: CCB
Inj Date : 28-JUN-2023 12:21
Operator : PC Inst ID: VOA9.i
Smp Info : CCB;CCB;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.815	(1.000)	650565	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.747	(0.985)	265100	48.5386	48.53
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	299089	50.6269	50.62
* 36 1,4-Difluorobenzene	114	5.554	5.553	(1.000)	874711	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	795898	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	986570	54.7685	54.76
$ 69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	343494	48.3683	48.36
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	397840	50.0000	



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062804.D
Date : 28-JUN-2023 12:21
Client ID: CCB
Sample Info: CCB;CCB;;;
Purge Volume: 5.0
Column phase: DB624

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

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062804.D
Inj Date : 28-JUN-2023 12:21
InstruID : VOA9.i
LabSampID : CCB

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062805.D
Lab Smp Id: VLCSW-230628 Client Smp ID: VLCSW-230628
Inj Date : 28-JUN-2023 12:44
Operator : PC Inst ID: VOA9.i
Smp Info : VLCSW-230628;VLCSW-230628;3;;LCS
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.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: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.815	(1.000)	554737	50.0000	
2	Dichlorodifluoromethane	85	1.171	1.160	(0.243)	116958	22.8625	22.86
3	Chloromethane	50	1.303	1.295	(0.270)	166665	19.1086	19.10
5	Vinyl Chloride	62	1.381	1.374	(0.287)	127251	21.6867	21.68
6	Bromomethane	94	1.625	1.617	(0.337)	71938	22.8808	22.88
7	Chloroethane	64	1.708	1.696	(0.354)	86676	21.9286	21.92
8	Trichlorofluoromethane	101	1.902	1.895	(0.395)	167503	24.8552	24.85
9	Acrolein	56	2.270	2.262	(0.471)	12217	41.4916	41.49
10	Acetone	43	2.412	2.405	(0.501)	100355	49.9734	49.97
11	1,1-Dichloroethene	96	2.337	2.330	(0.485)	99029	23.5180	23.51
15	Iodomethane	142	2.476	2.465	(0.514)	185646	61.4539	61.45
16	Acrylonitrile	53	3.068	3.064	(0.637)	83541	40.6085	40.60
17	Methylene Chloride	84	2.802	2.791	(0.582)	119923	23.1647	23.16
18	Methyl tert-butyl ether	73	3.083	3.079	(0.640)	286701	22.2032	22.20
19	Carbon Disulfide	76	2.529	2.517	(0.525)	588516	52.2807	52.28
20	trans-1,2-Dichloroethene	96	3.065	3.057	(0.636)	104272	22.7702	22.77
21	Vinyl Acetate	43	3.612	3.604	(0.750)	622443	44.5901	44.59
22	1,1-Dichloroethane	63	3.522	3.514	(0.731)	189525	21.7779	21.77
24	2-Butanone	43	4.268	4.264	(0.886)	101130	39.9845	39.98
26	2,2-Dichloropropane	77	4.189	4.181	(0.869)	144153	25.2522	25.25

27	cis-1,2-Dichloroethene	96	4.200	4.193 (0.872)	120512	21.9976	21.99
28	Chloroform	83	4.575	4.571 (0.949)	196360	21.6791	21.67

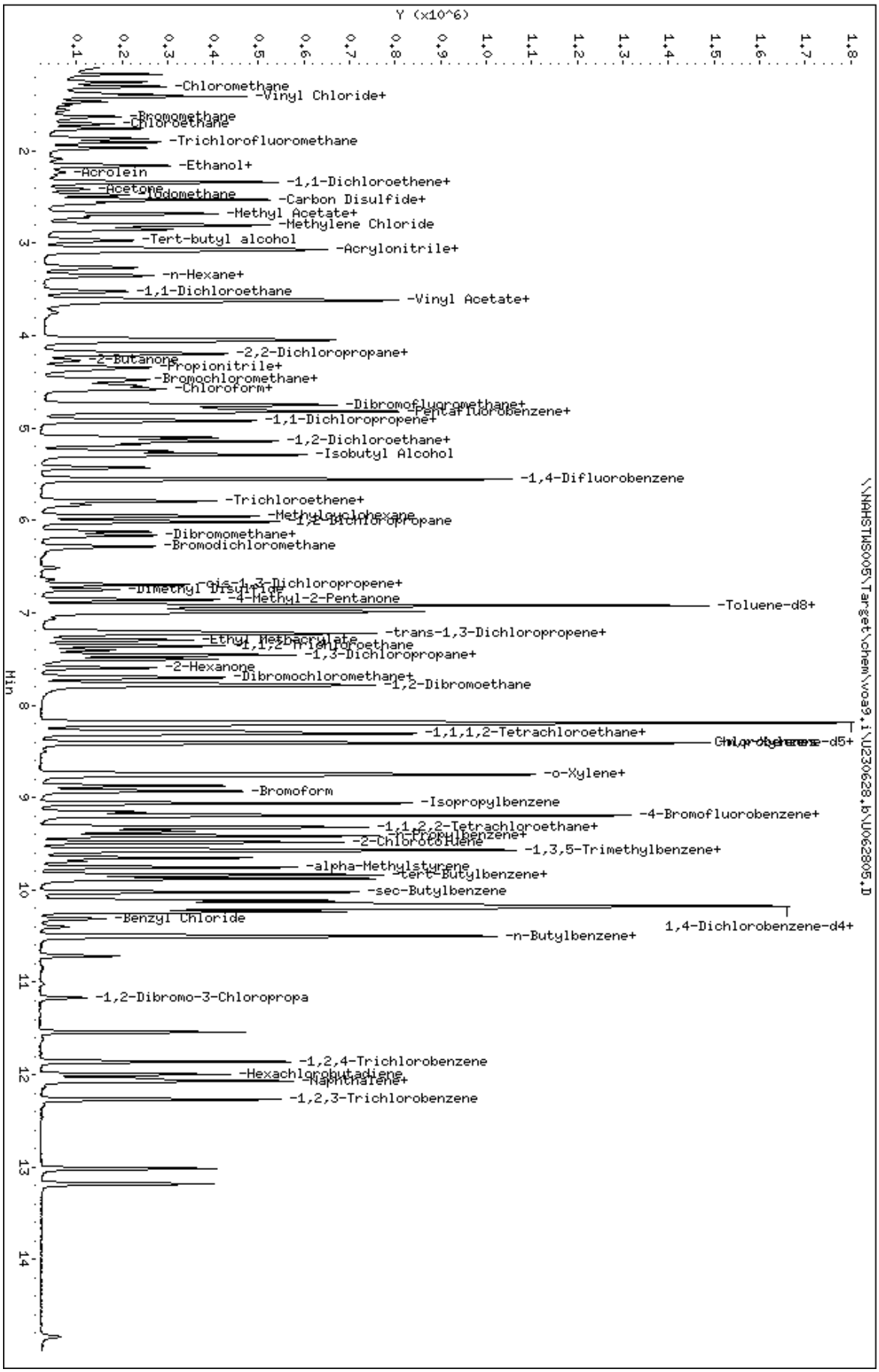
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	29 Bromochloromethane	128	4.470	4.470	(0.928)	65922	21.5118	21.51
$	30 Dibromofluoromethane	113	4.751	4.747	(0.986)	233238	50.0919	50.09
	31 1,1,1-Trichloroethane	97	4.748	4.740	(0.985)	158994	23.0312	23.03
	32 1,1-Dichloropropene	75	4.924	4.920	(0.886)	141814	24.0941	24.09
	33 1,2-Dichloroethane	62	5.179	5.175	(0.932)	163503	23.5217	23.52
	34 Carbon Tetrachloride	117	4.913	4.909	(0.884)	130800	24.1931	24.19
$	35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	260211	51.6686	51.66
*	36 1,4-Difluorobenzene	114	5.557	5.553	(1.000)	803116	50.0000	
	37 Benzene	78	5.141	5.137	(0.925)	435983	22.5287	22.52
	38 Trichloroethene	130	5.790	5.790	(1.042)	123965	22.1006	22.10
	39 Bromodichloromethane	83	6.281	6.281	(1.130)	139545	23.1161	23.11
	42 1,2-Dichloropropane	63	6.015	6.011	(1.082)	112169	21.7083	21.70
	44 Dibromomethane	93	6.124	6.119	(1.102)	73661	22.3115	22.31
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	230022	41.3893	41.38
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	163890	21.4009	21.40
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	763175	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	875595	50.6920	50.69
	50 Toluene	91	6.982	6.982	(0.853)	479135	23.1475	23.14
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	133570	20.9022	20.90
	52 2-Hexanone	43	7.593	7.593	(0.928)	150825	38.9696	38.96
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	93297	21.6623	21.66
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	192990	21.9321	21.93
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	118922	23.2715	23.27
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	122990	24.3875	24.38
	57 1,2-Dibromoethane	107	7.788	7.784	(0.951)	115960	21.8260	21.82
	58 1-Chlorohexane	55	8.197	8.196	(1.475)	103230	25.0321	25.03
	59 Chlorobenzene	112	8.212	8.211	(1.003)	334067	22.6134	22.61
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	119468	23.5291	23.52
	61 Ethylbenzene	106	8.309	8.305	(1.015)	162602	23.6484	23.64
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	393728	48.4000	48.40(M)
	63 o-Xylene	106	8.748	8.747	(1.069)	191729	23.8575	23.85
	64 Styrene	104	8.763	8.762	(1.071)	317258	24.8760	24.87
	66 Bromoform	173	8.920	8.920	(1.090)	76160	22.0793	22.07
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	486806	25.2197	25.21
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.328	(0.917)	152067	19.9604	19.96
$	69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	358233	52.6861	52.68
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	405016	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	137716	20.5478	20.54
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	511295	24.0673	24.06
	74 Bromobenzene	156	9.317	9.317	(0.916)	151814	22.2155	22.21
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	358435	24.5931	24.59
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	342279	22.9193	22.91
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	391028	23.6550	23.65
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	345677	24.1484	24.14
	79 1,2,4-Trimethylbenzene	105	9.880	9.879	(0.971)	375046	24.5936	24.59(M)
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	450303	24.8052	24.80
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	385007	25.3153	25.31
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	260173	22.4158	22.41
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	273261	22.0815	22.08
	87 n-Butylbenzene	91	10.494	10.490	(1.032)	320732	24.6343	24.63
	88 1,2-Dichlorobenzene	146	10.506	10.505	(1.033)	259800	22.3248	22.32
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	21696	19.5159	19.51

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	170271	21.2721	21.27
91 Hexachlorobutadiene	225	11.998	11.997 (1.179)	77981	24.1237	24.12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	92 Naphthalene	128	12.069	12.069	(1.186)	404716	21.7668	21.76
	93 1,2,3-Trichlorobenzene	180	12.271	12.267	(1.206)	167168	21.3628	21.36
M	94 1,2-Dichloroethylene (total)	96				224784	44.7678	44.76
M	95 Xylenes (total)	106				585457	72.2575	72.25
	135 1,4-Dioxane	88	6.172	6.168	(1.281)	29215	265.229	265.22
	141 Cyclohexane	56	4.785	4.781	(0.993)	161020	24.0330	24.03
	138 Freon TF	101	2.341	2.333	(0.486)	93469	25.0879	25.08
	140 1,3-Butadiene	54	1.408	1.400	(0.292)	112039	21.3262	21.32
	147 Methylcyclohexane	55	5.951	5.947	(1.071)	233982	21.0023	21.00
	146 Methyl Acetate	43	2.720	2.712	(0.564)	92106	19.7190	19.71
	148 Tert-Butyl alcohol	59	2.967	2.967	(0.616)	230165	446.326	446.32
	149 Isopropyl Alcohol	45	2.566	2.558	(0.533)	144690	398.982	398.98
	72 trans-1,4-Dichloro-2-butene	53	9.381	9.377	(1.146)	21213	24.1405	24.14
	12 Isobutyl Alcohol	43	5.291	5.287	(1.098)	308017	427.352	427.35
	13 Acetonitrile	39	2.678	2.671	(0.556)	127772	212.744	212.74
	14 Allyl Chloride	41	2.678	2.671	(0.556)	290289	20.1557	20.15
	25 Methacrylonitrile	41	4.500	4.493	(0.934)	72996	22.2719	22.27
	40 Methyl Methacrylate	41	6.161	6.157	(1.278)	98942	20.7437	20.74
	4 Propionitrile	54	4.343	4.339	(0.901)	158101	197.229	197.22(a)
	162 Butyl acrylate	55	8.736	8.732	(1.067)	177627	19.6763	19.67
	203 2-Ethylhexyl Acrylate	55	12.043	12.042	(1.184)	87496	24.0651	24.06

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9,i\U230628,b\U062805,D
Date : 28-JUN-2023 12:44
Client ID: VLCSW-230628
Sample Info: VLCSW-230628;VLCSW-230628;3;LCS
Purge Volume: 5.0
Column phase: DB624

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

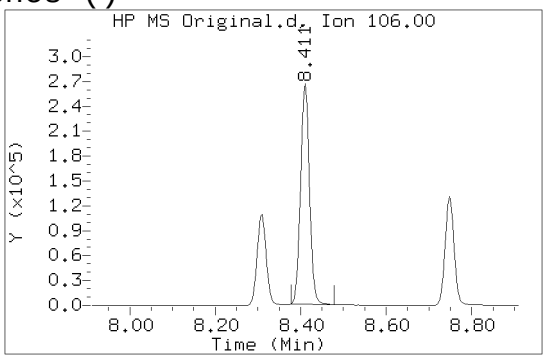
Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062805.D
Inj Date : 28-JUN-2023 12:44
InstruID : VOA9.i
LabSampID : VLCSW-230628

m,p-Xylenes ()

Reason Code:

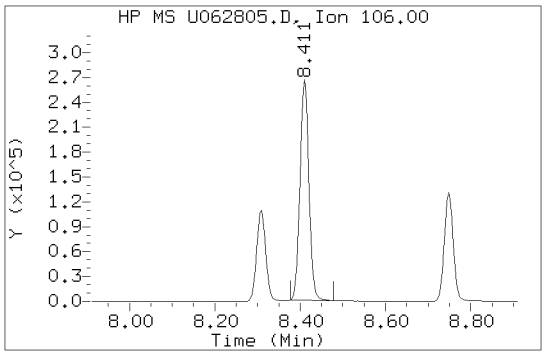
BEFORE

MASS
106
AREA
393728
HEIGHT
266150
29-Jun-2023
16:59
linh
pham



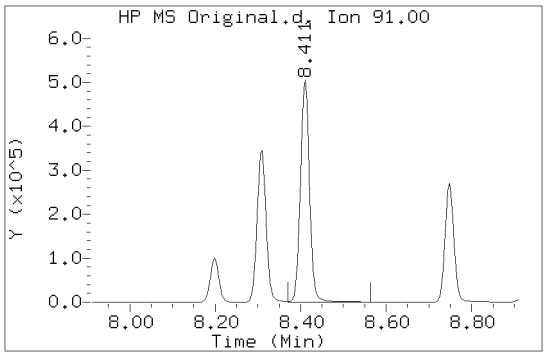
AFTER

MASS
106
AREA
393728
HEIGHT
266150
03-Jul-2023
12:55
linh
pham



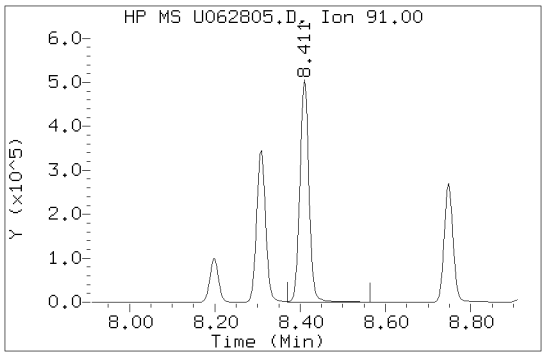
BEFORE

MASS
91
AREA
763118
HEIGHT
505306
29-Jun-2023
16:59
linh
pham



AFTER

MASS
91
AREA
763118
HEIGHT
505306
03-Jul-2023
12:55
linh
pham

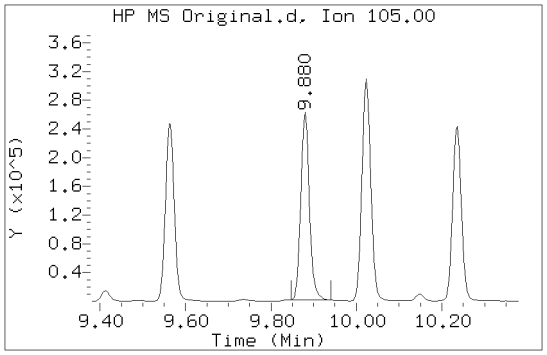


1,2,4-Trimethylbenzene (95-63-6)

Reason Code:

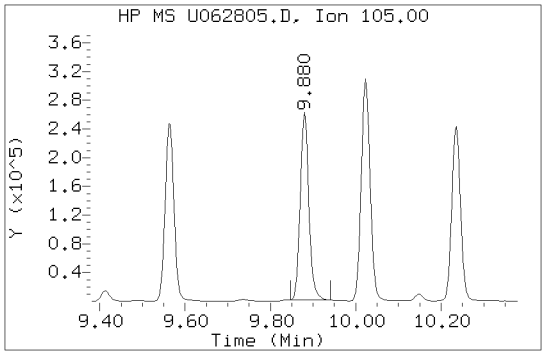
BEFORE

MASS
105
AREA
375046
HEIGHT
261739
29-Jun-2023
16:59
linh
pham



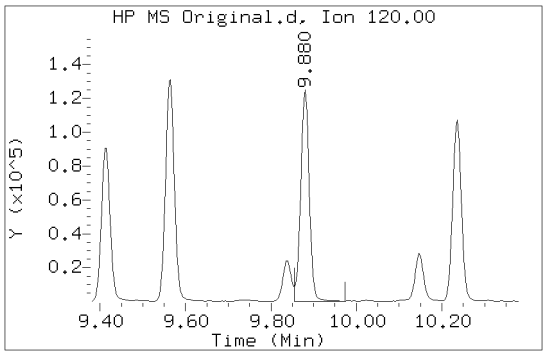
AFTER

MASS
105
AREA
375046
HEIGHT
261739
03-Jul-2023
12:55
linh
pham



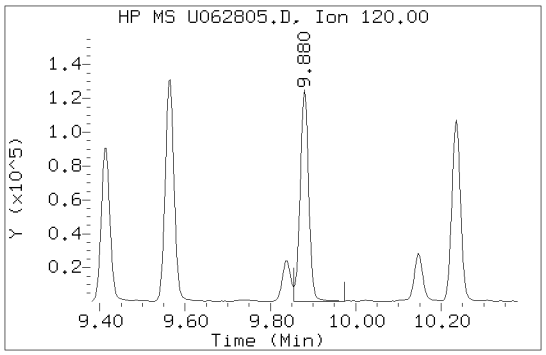
BEFORE

MASS
120
AREA
178151
HEIGHT
124958
29-Jun-2023
16:59
linh
pham



AFTER

MASS
120
AREA
178151
HEIGHT
124958
03-Jul-2023
12:55
linh
pham



ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062807.D
Lab Smp Id: VBLKW-230628 Client Smp ID: VBLKW-230628
Inj Date : 28-JUN-2023 13:28
Operator : PC Inst ID: VOA9.i
Smp Info : VBLKW-230628;VBLKW-230628;3;;BLANK
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.815	(1.000)	618517	50.0000	
$ 30 Dibromofluoromethane	113	4.752	4.747	(0.986)	258580	49.8062	49.80
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	298518	53.1825	53.18
* 36 1,4-Difluorobenzene	114	5.554	5.553	(1.000)	832888	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	769689	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	937790	53.8332	53.83
$ 69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	322455	46.9254	46.92
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	382144	50.0000	

01205790

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062807.D

Date : 28-JUN-2023 13:28

Client ID: VBLKW-230628

Instrument: VOA9.i

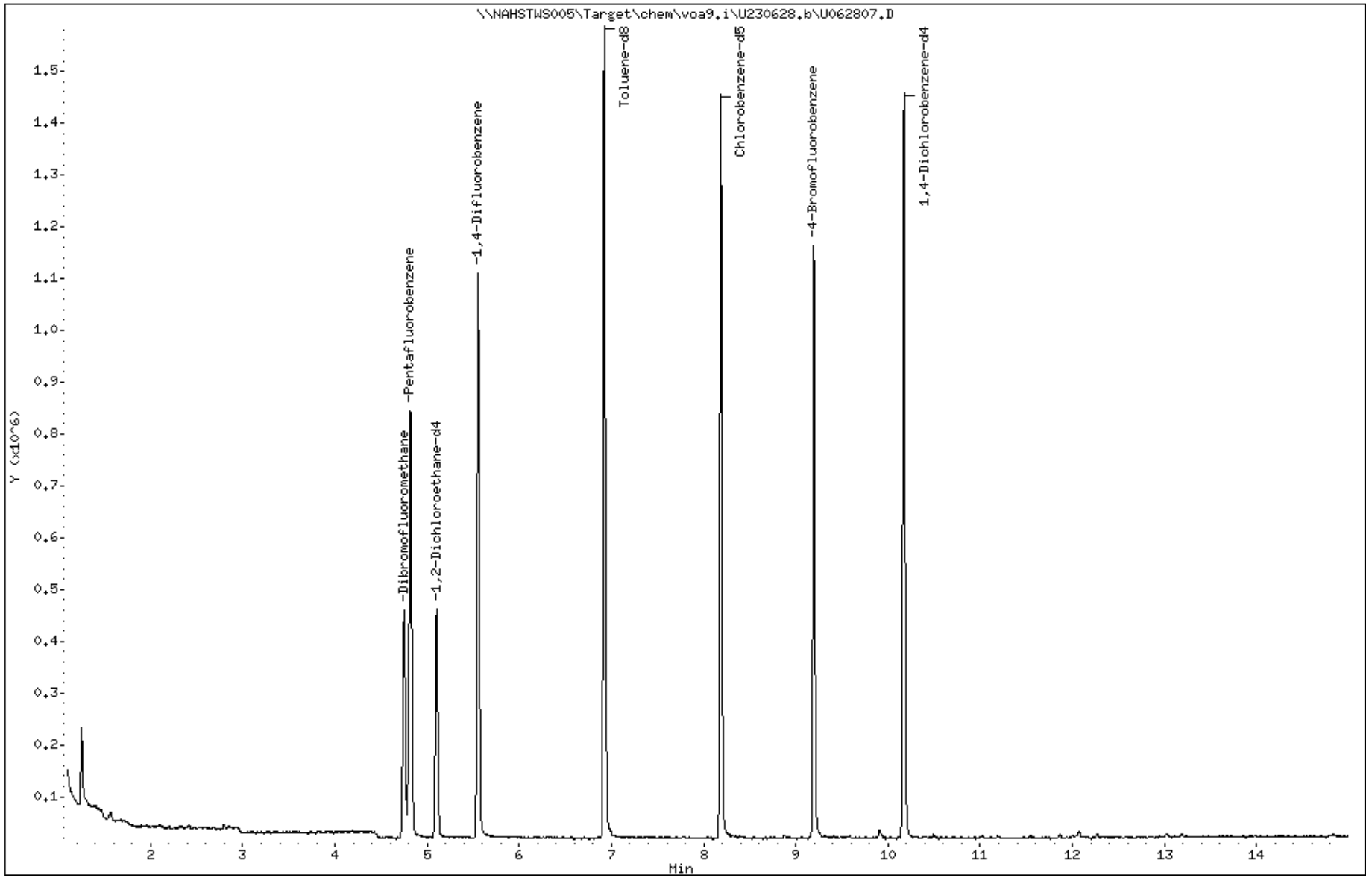
Sample Info: VBLKW-230628;VBLKW-230628;3;;BLANK

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062807.D
Inj Date : 28-JUN-2023 13:28
InstruID : VOA9.i
LabSampID : VBLKW-230628

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062808.D Page 1
Report Date: 03-Jul-2023 12:56

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062808.D
Lab Smp Id: HS23061825-05 Client Smp ID: HS23061825-05
Inj Date : 28-JUN-2023 13:51
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-05;HS23061825-05;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.815	(1.000)	606725	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.747	(0.986)	255110	50.0946	50.09
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	291994	53.0293	53.02
* 36 1,4-Difluorobenzene	114	5.557	5.553	(1.000)	826773	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	773655	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	930792	53.1576	53.15
$ 69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	330440	47.8586	47.85
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	389478	50.0000	

01205793

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062808.D

Date : 28-JUN-2023 13:51

Client ID: HS23061825-05

Instrument: VOA9.i

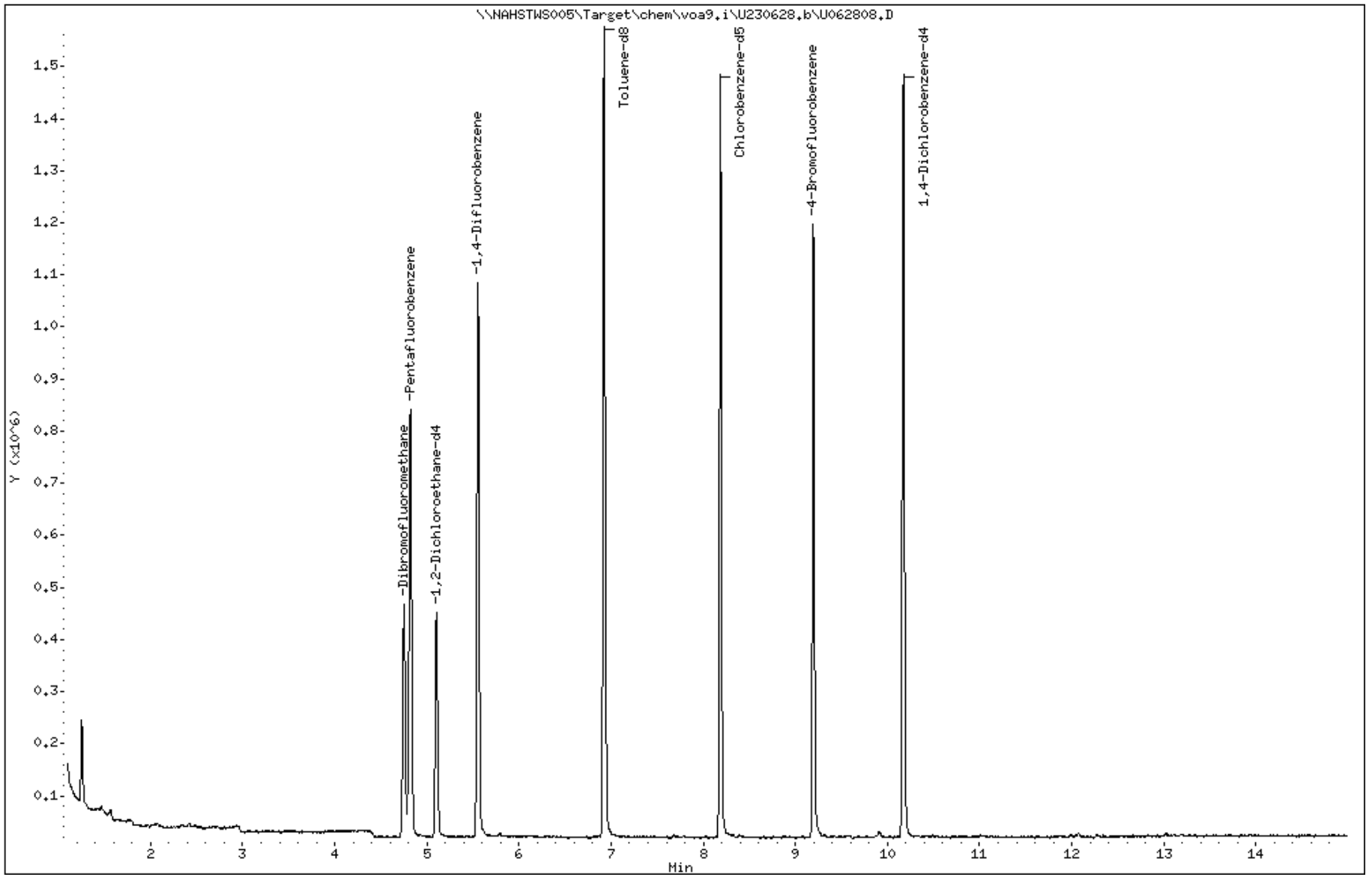
Sample Info: HS23061825-05;HS23061825-05;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062808.D
Inj Date : 28-JUN-2023 13:51
InstruID : VOA9.i
LabSampID : HS23061825-05

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062809.D Page 1
Report Date: 03-Jul-2023 12:56

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062809.D
Lab Smp Id: HS23061825-09 Client Smp ID: HS23061825-09
Inj Date : 28-JUN-2023 14:13
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-09;HS23061825-09;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.811	4.815	(1.000)	626355	50.0000	
	5 Vinyl Chloride	62	1.366	1.374	(0.284)	5774	0.87151	0.87(a)
	11 1,1-Dichloroethene	96	2.322	2.330	(0.483)	32225	6.77793	6.77
	20 trans-1,2-Dichloroethene	96	3.053	3.057	(0.635)	2781	0.53786	0.53(a)
	22 1,1-Dichloroethane	63	3.511	3.514	(0.730)	12154	1.23690	1.23(a)
	27 cis-1,2-Dichloroethene	96	4.189	4.193	(0.871)	142721	23.0728	23.07
$	30 Dibromofluoromethane	113	4.744	4.747	(0.986)	262740	49.9752	49.97
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	298288	40.4656	40.46
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	299574	52.6966	52.69
*	36 1,4-Difluorobenzene	114	5.550	5.553	(1.000)	851670	50.0000	
	38 Trichloroethene	130	5.786	5.790	(1.043)	3628351	609.988	609.98(A)
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	784051	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	949654	53.5157	53.51
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	3406	0.65739	0.65(a)
$	69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	337732	48.2738	48.27
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	401614	50.0000	
M	94 1,2-Dichloroethylene (total)	96				145502	23.6106	23.61

QC Flag Legend

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

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

01205798

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062809.D

Date : 28-JUN-2023 14:13

Client ID: HS23061825-09

Instrument: VOA9.i

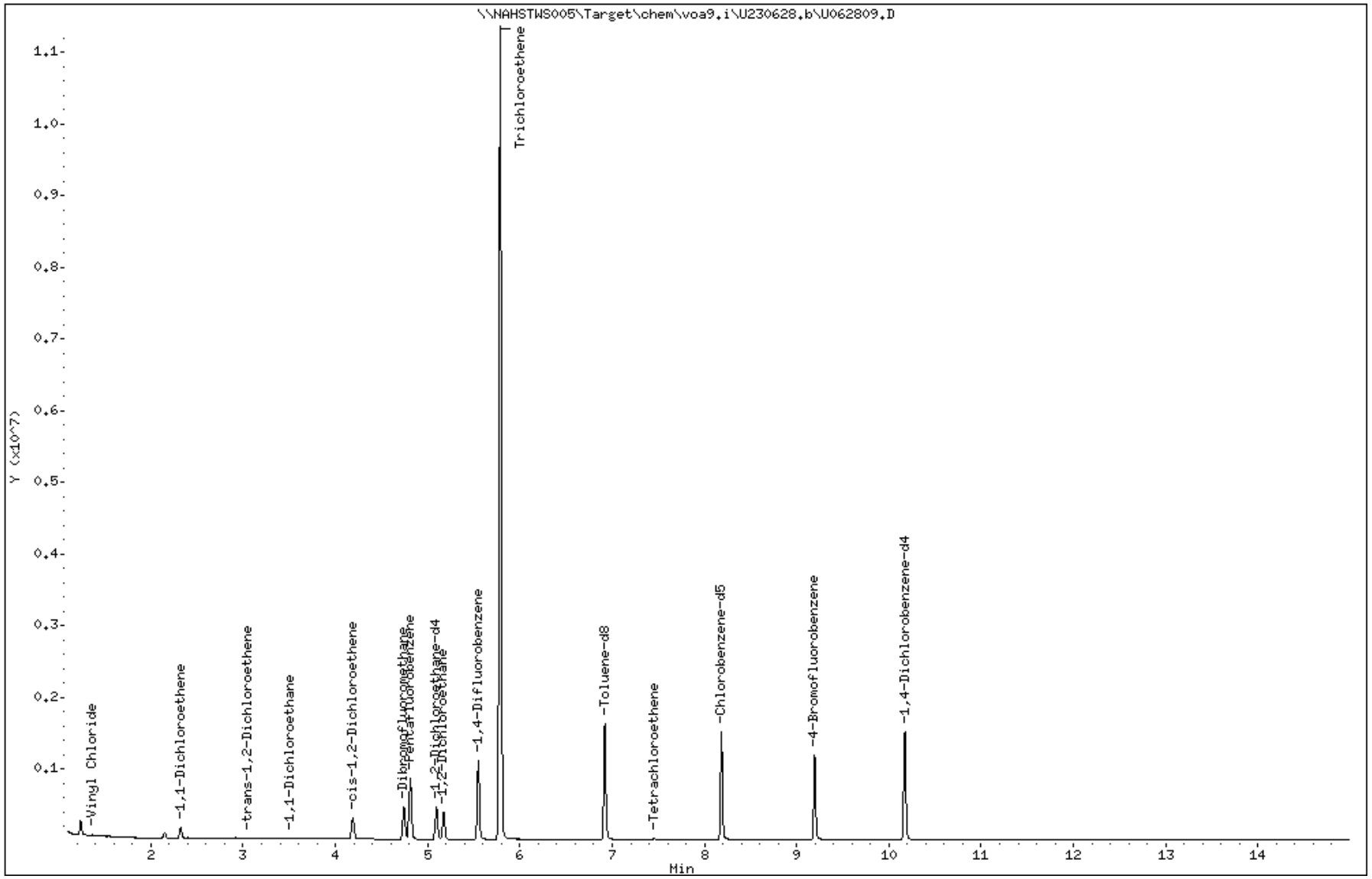
Sample Info: HS23061825-09;HS23061825-09;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062809.D

Date : 28-JUN-2023 14:13

Client ID: HS23061825-09

Instrument: VOA9.i

Sample Info: HS23061825-09;HS23061825-09;;;

Purge Volume: 5.0

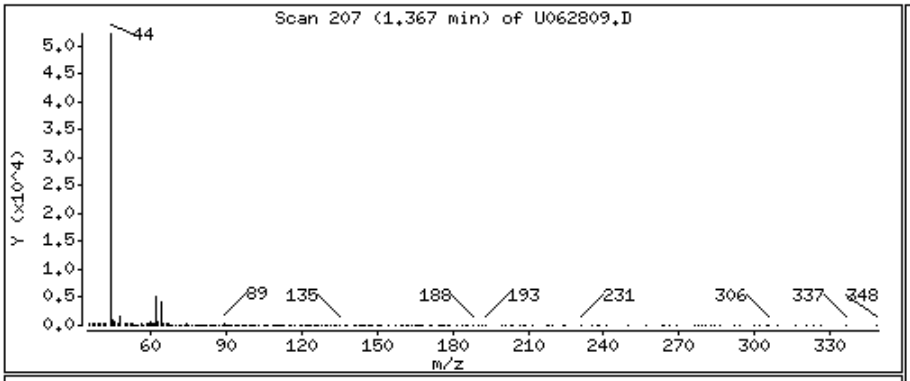
Operator: PC

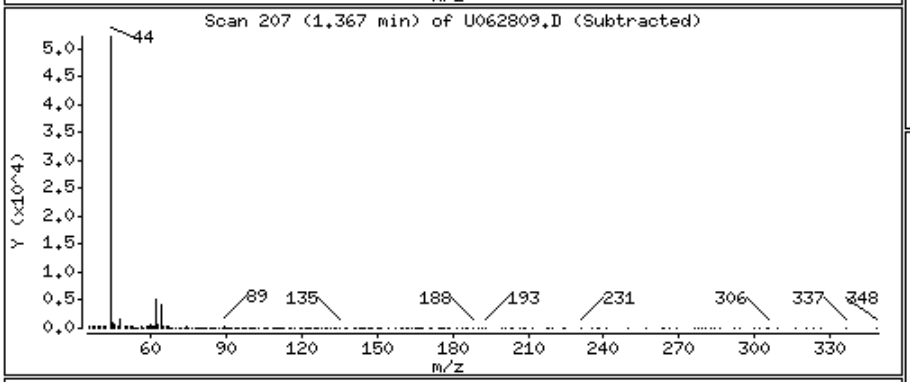
Column phase: DB624

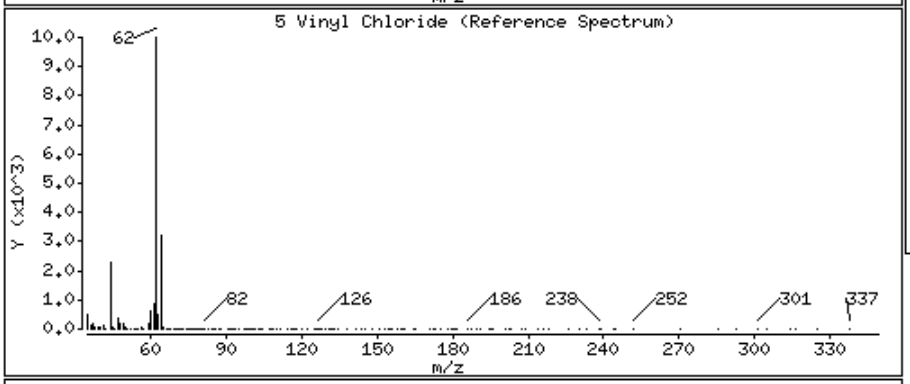
Column diameter: 0.18

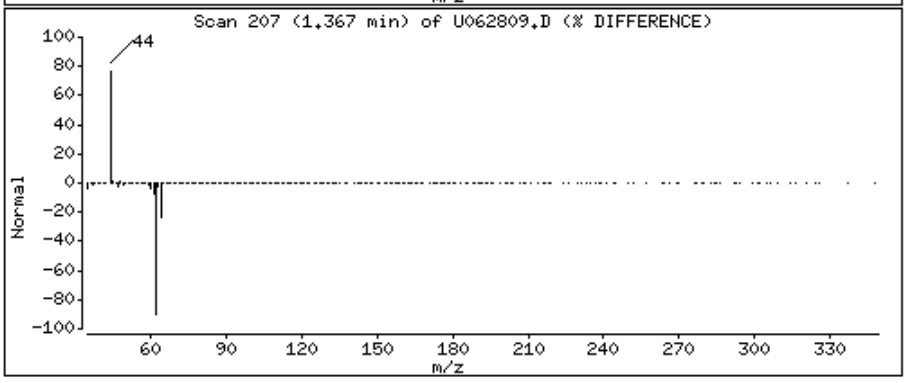
5 Vinyl Chloride

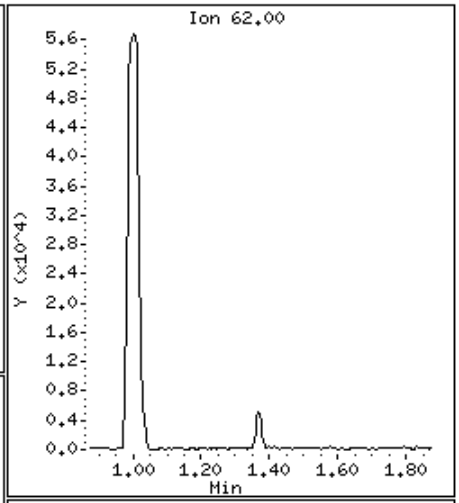
Concentration: 0.87 ug/l

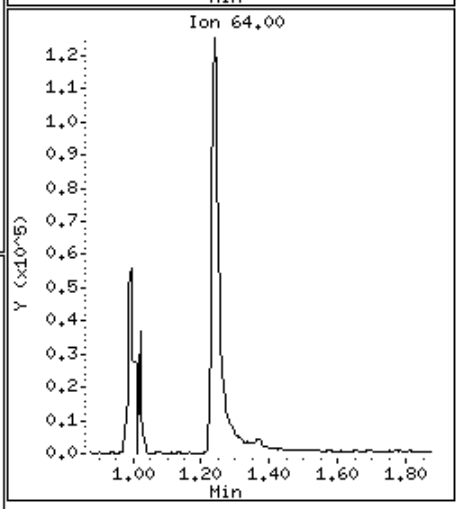












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062809.D Page 3

Date : 28-JUN-2023 14:13

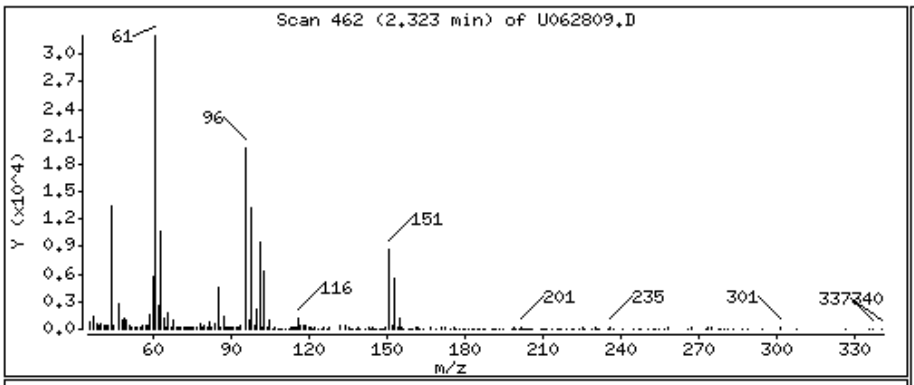
Client ID: HS23061825-09 Instrument: VOA9.i

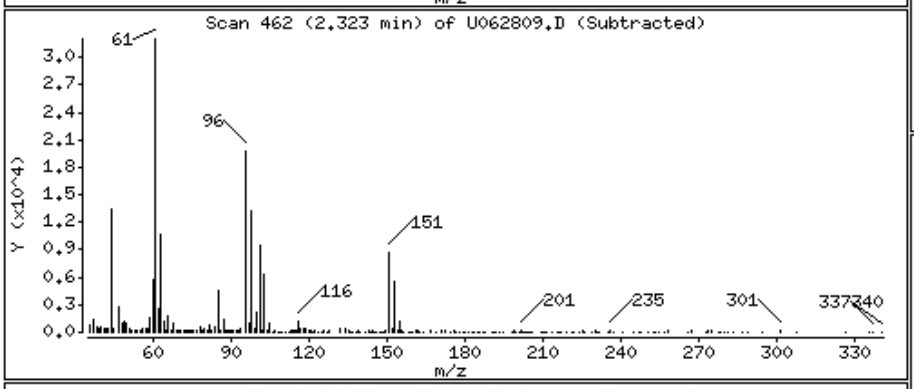
Sample Info: HS23061825-09;HS23061825-09;;;

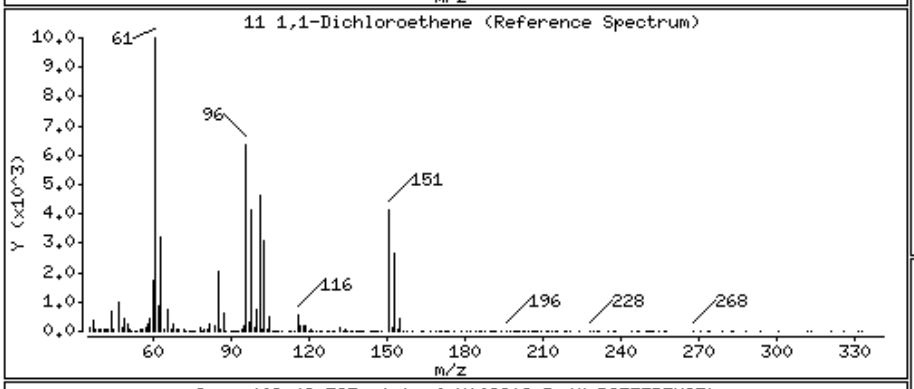
Purge Volume: 5.0 Operator: PC

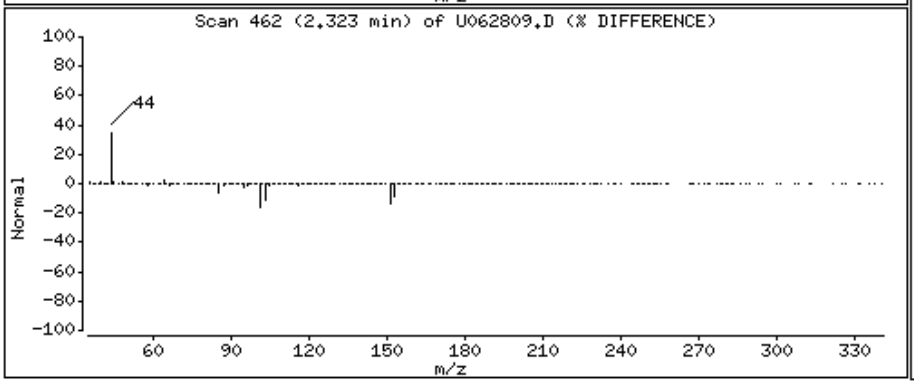
Column phase: DB624 Column diameter: 0.18

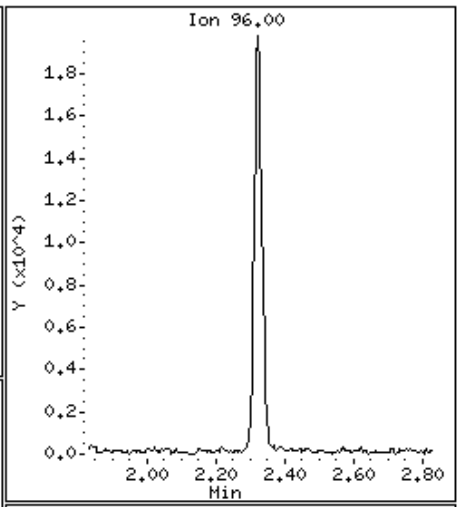
11 1,1-Dichloroethene Concentration: 6.77 ug/l

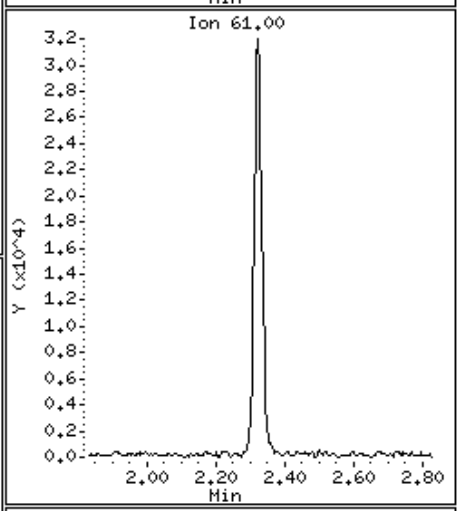


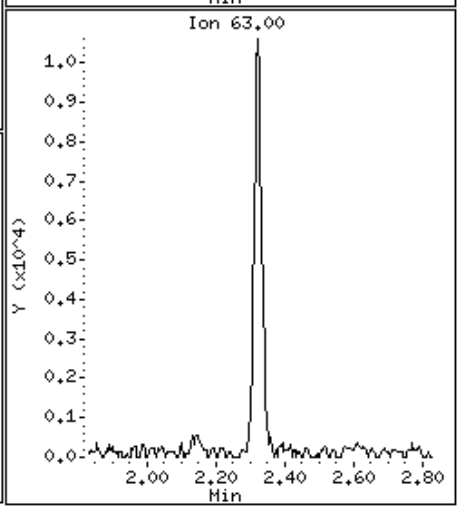












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062809.D Page 4

Date : 28-JUN-2023 14:13

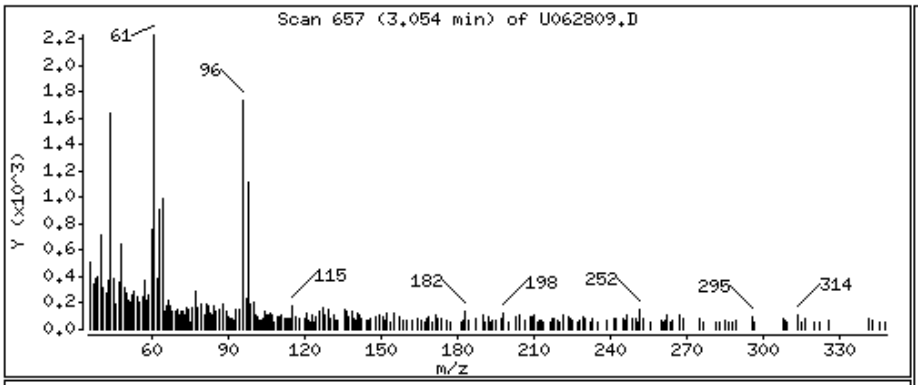
Client ID: HS23061825-09 Instrument: VOA9.i

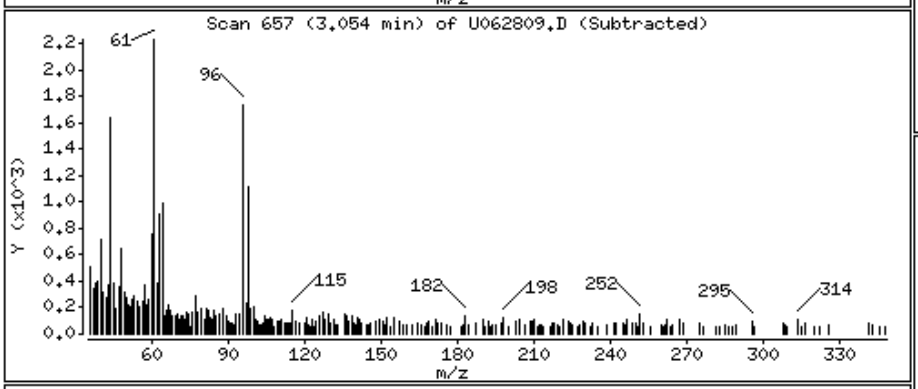
Sample Info: HS23061825-09;HS23061825-09;;;

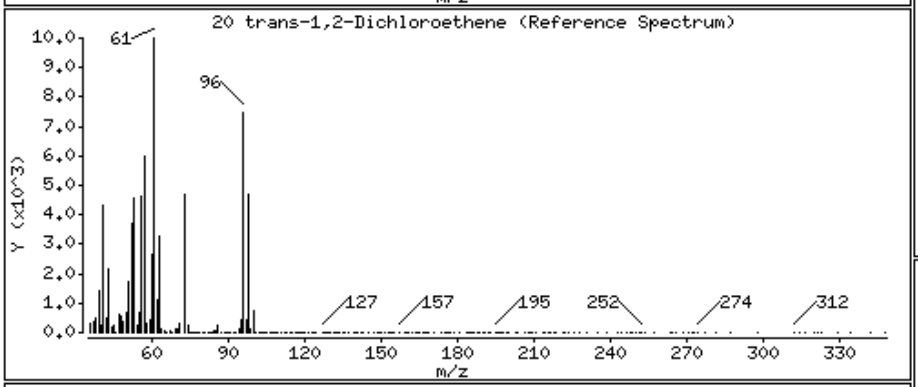
Purge Volume: 5.0 Operator: PC

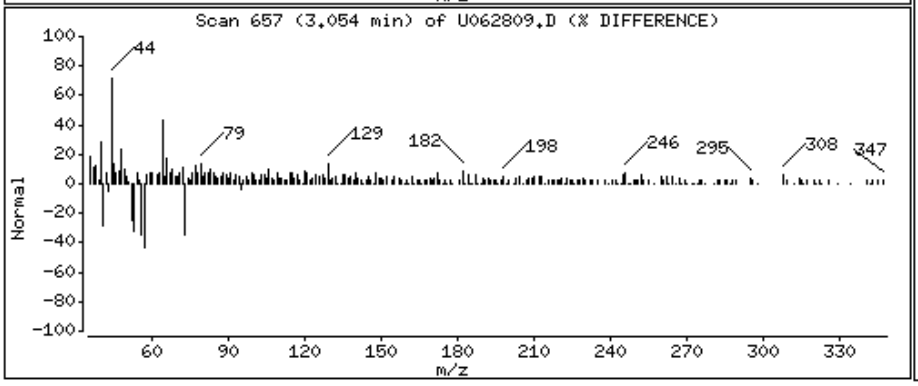
Column phase: DB624 Column diameter: 0.18

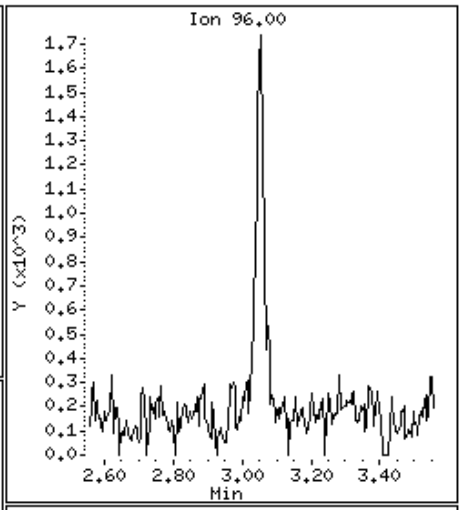
20 trans-1,2-Dichloroethene Concentration: 0.53 ug/l

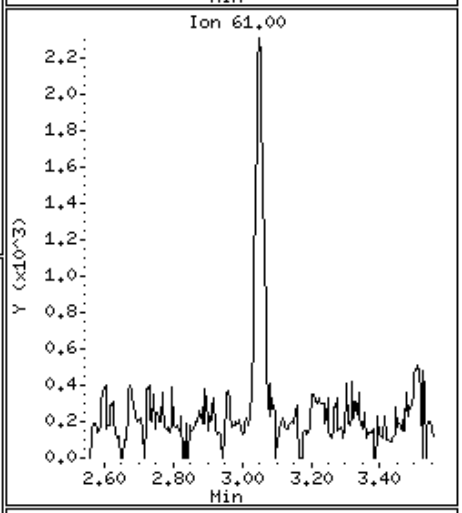


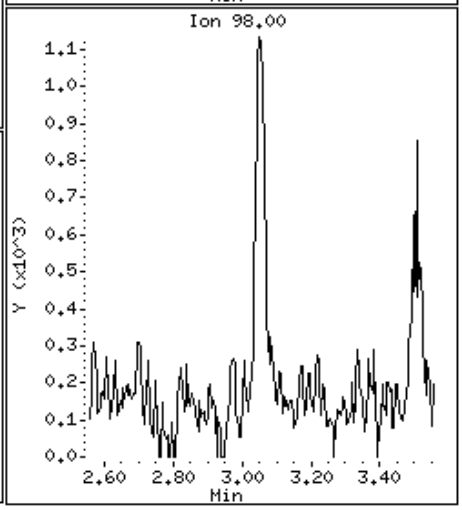












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062809.D Page 5

Date : 28-JUN-2023 14:13

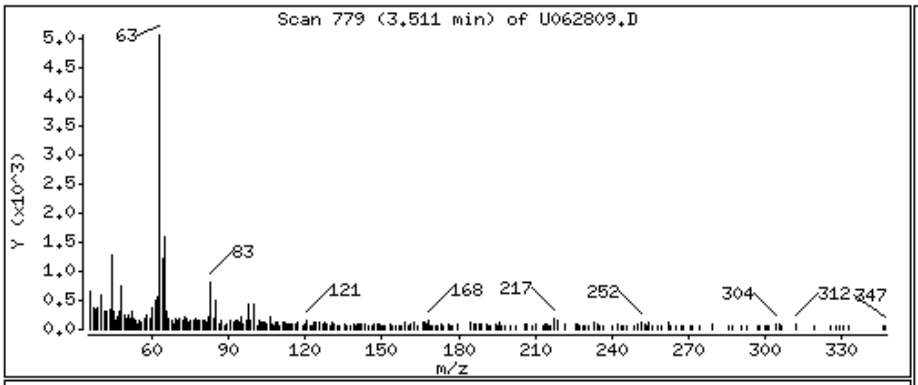
Client ID: HS23061825-09 Instrument: VOA9.i

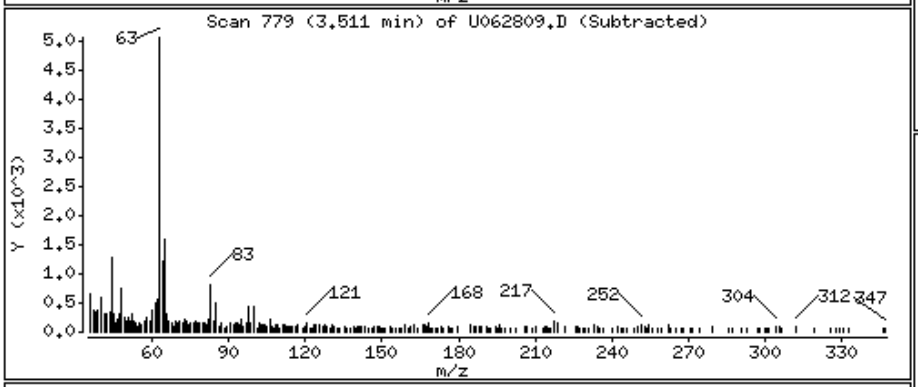
Sample Info: HS23061825-09;HS23061825-09;;;

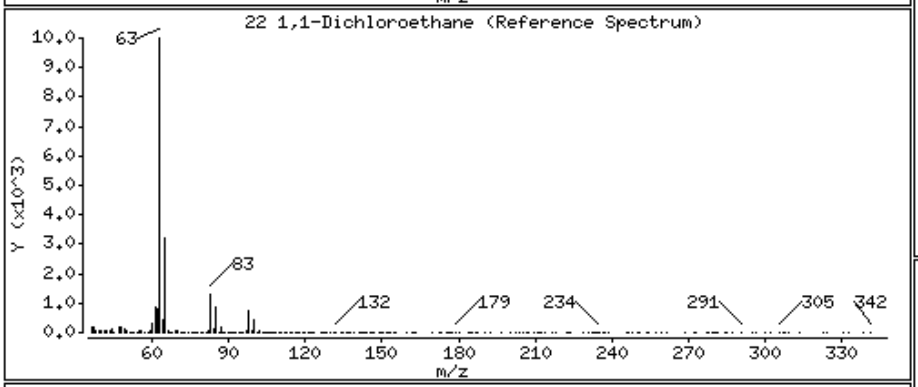
Purge Volume: 5.0 Operator: PC

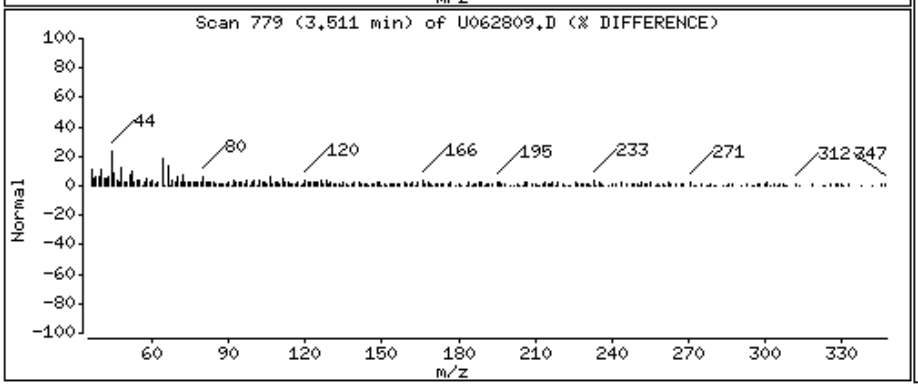
Column phase: DB624 Column diameter: 0.18

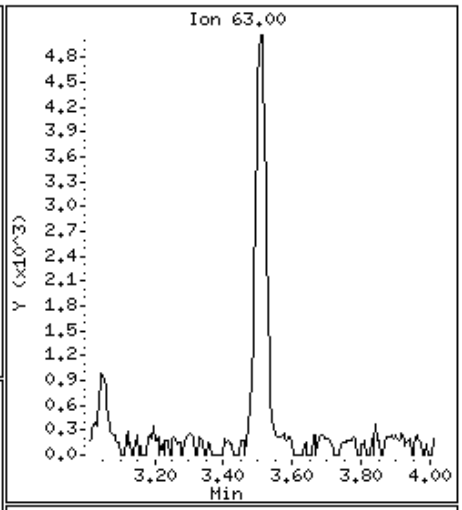
22 1,1-Dichloroethane Concentration: 1.23 ug/l

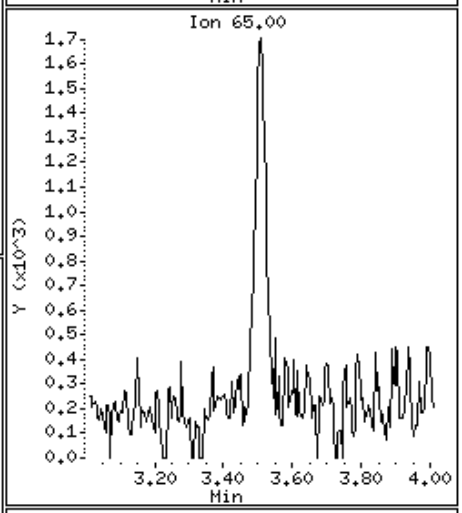


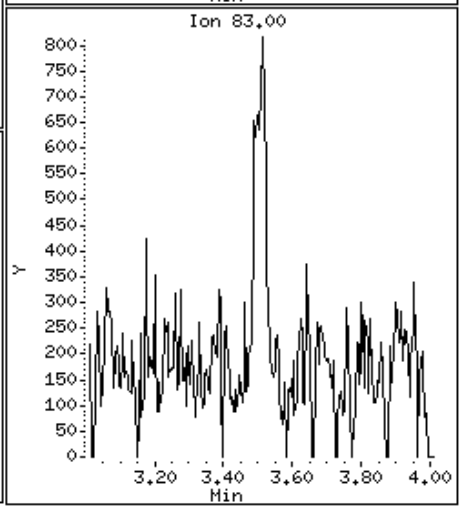












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062809.D

Date : 28-JUN-2023 14:13

Client ID: HS23061825-09

Instrument: VOA9.i

Sample Info: HS23061825-09;HS23061825-09;;;

Purge Volume: 5.0

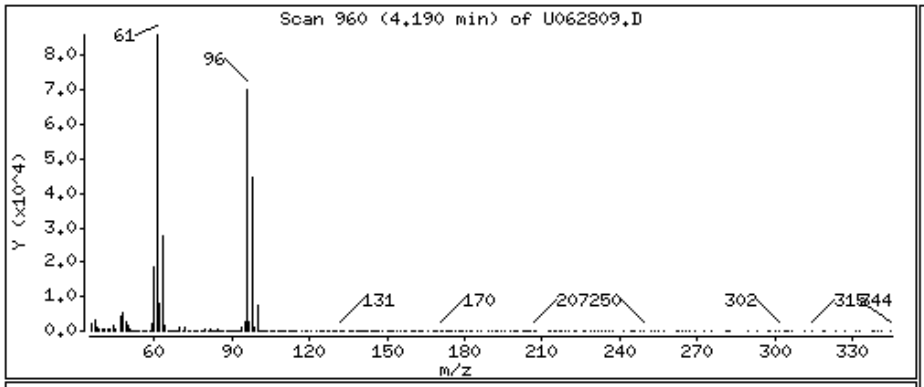
Operator: PC

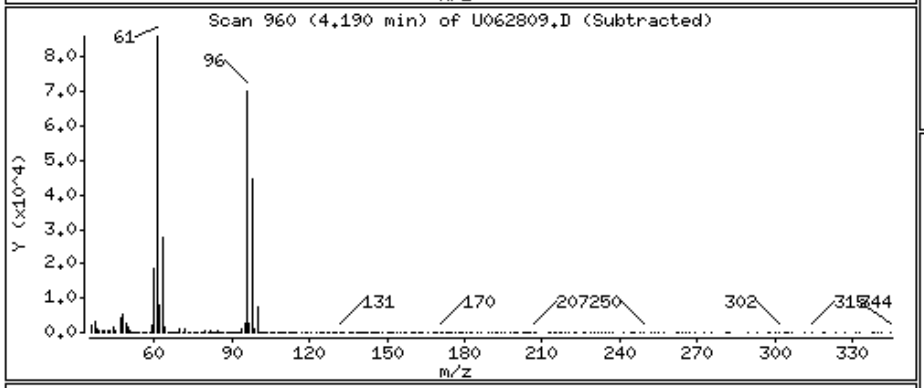
Column phase: DB624

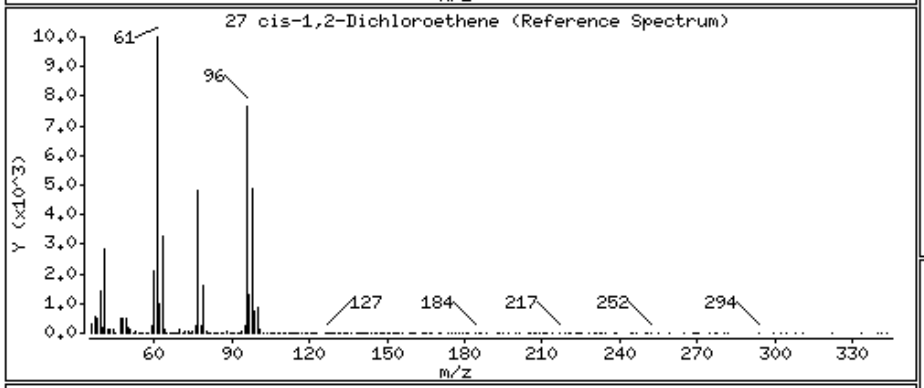
Column diameter: 0.18

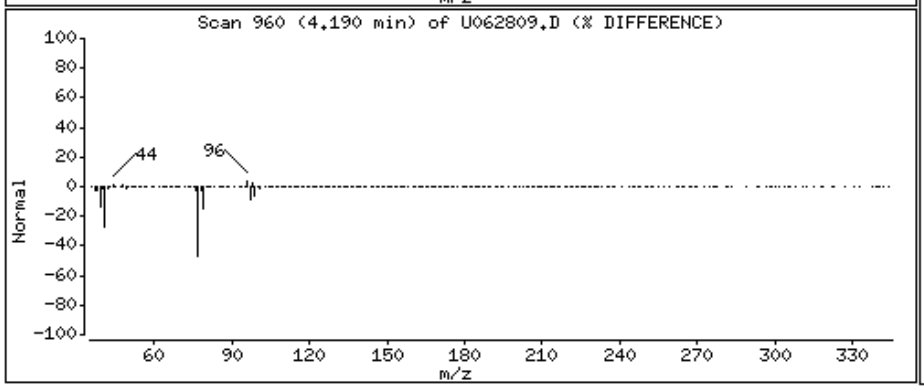
27 cis-1,2-Dichloroethene

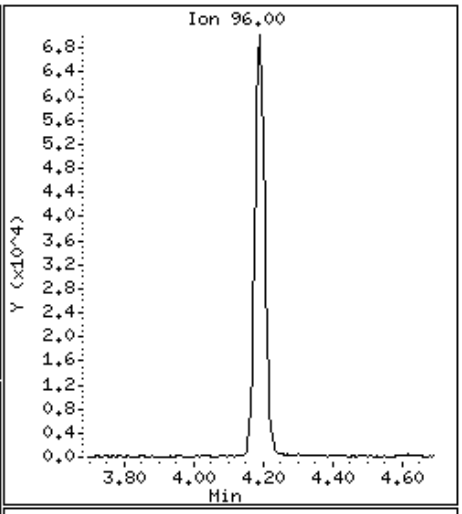
Concentration: 23.07 ug/l

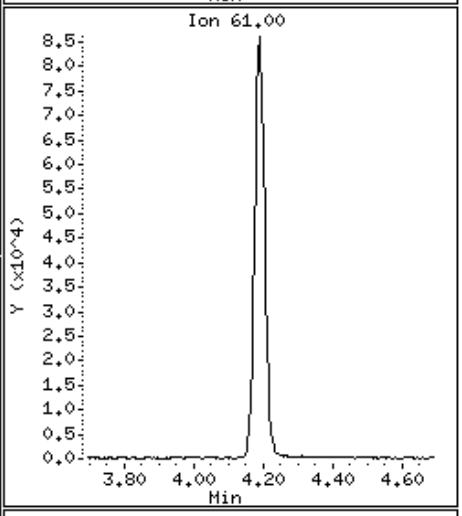


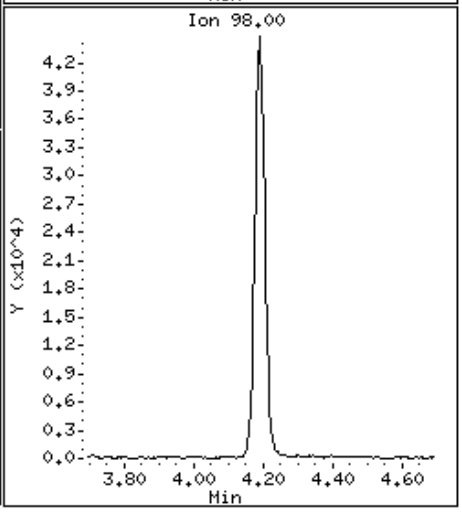












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062809.D Page 7

Date : 28-JUN-2023 14:13

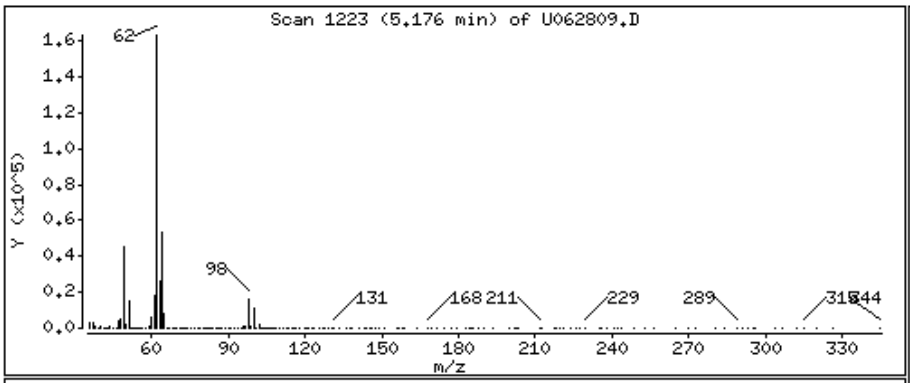
Client ID: HS23061825-09 Instrument: VOA9.i

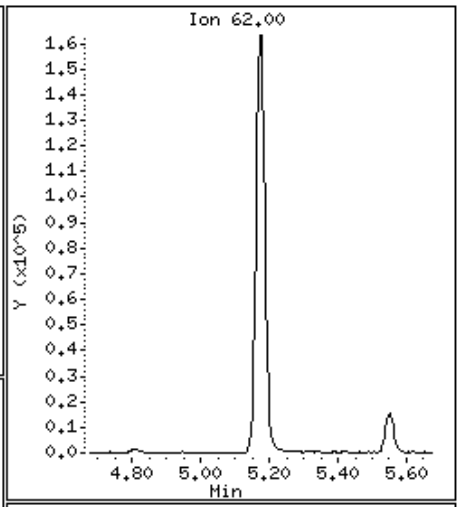
Sample Info: HS23061825-09;HS23061825-09;;;

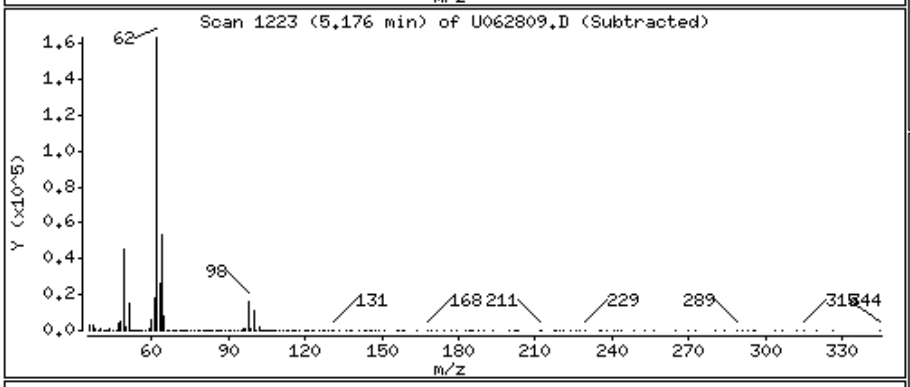
Purge Volume: 5.0 Operator: PC

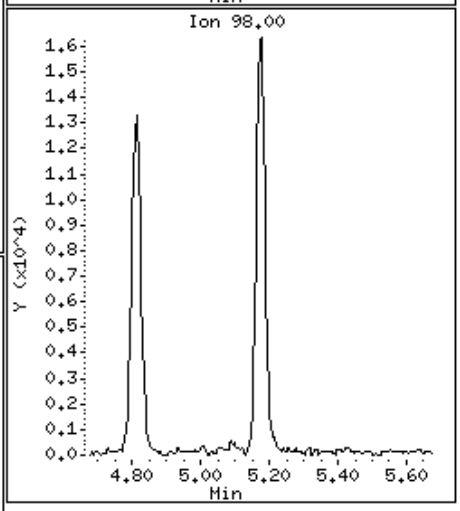
Column phase: DB624 Column diameter: 0.18

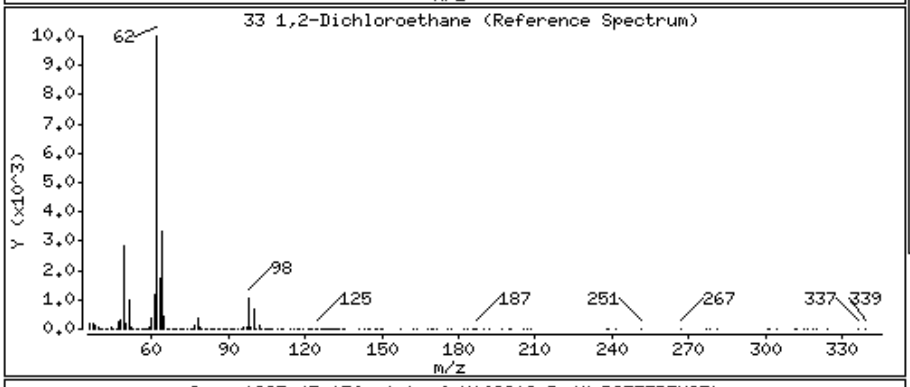
33 1,2-Dichloroethane Concentration: 40.46 ug/l

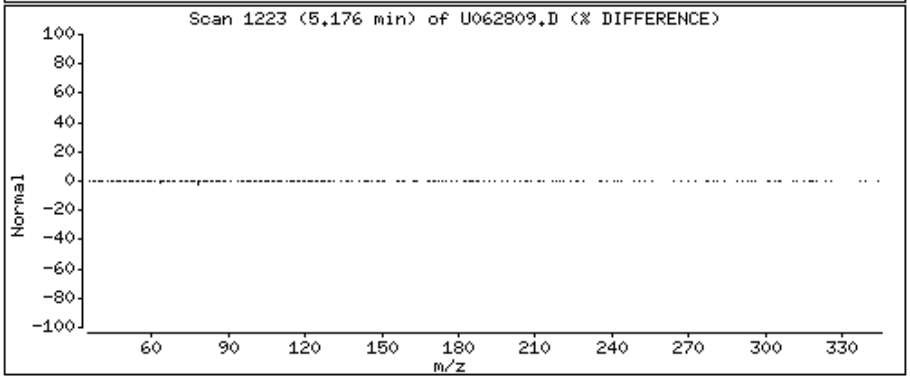












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062809.D Page 8

Date : 28-JUN-2023 14:13

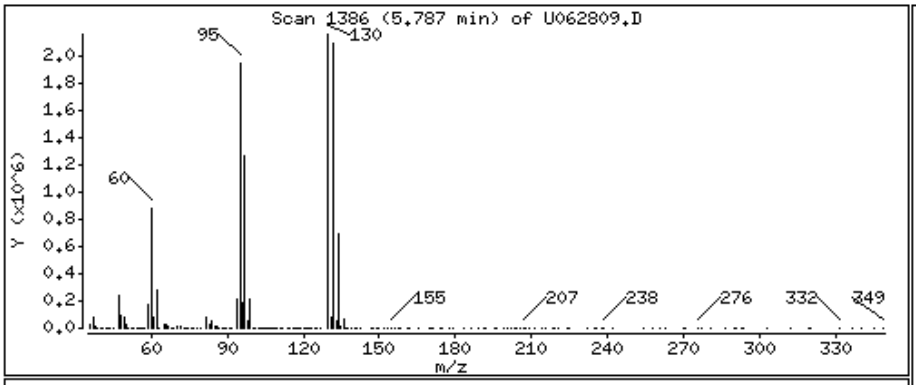
Client ID: HS23061825-09 Instrument: VOA9.i

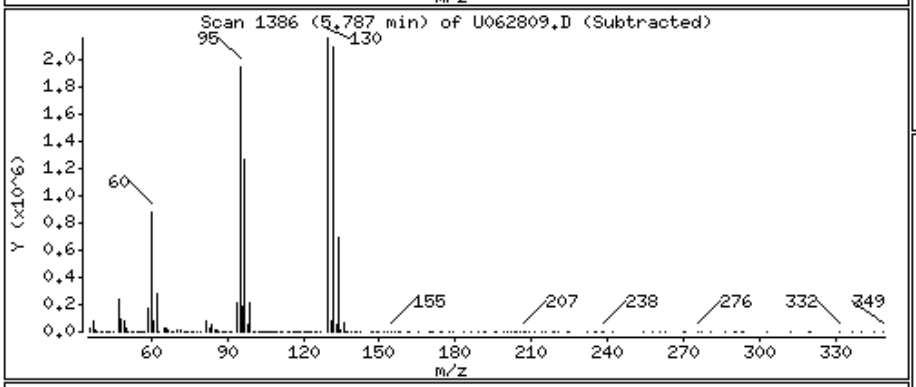
Sample Info: HS23061825-09;HS23061825-09;;;

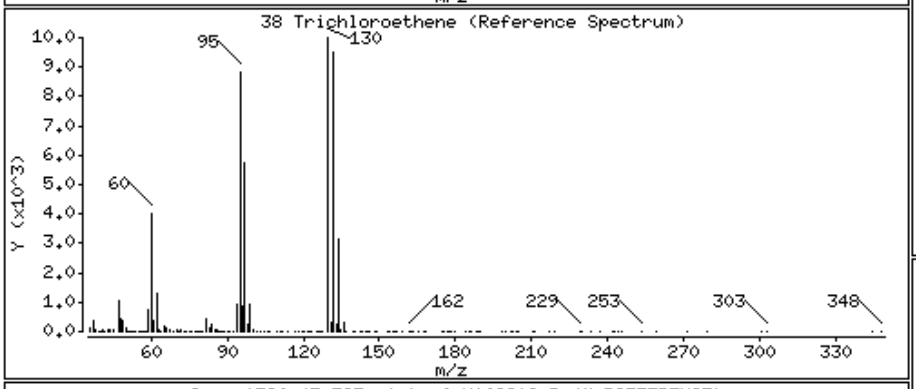
Purge Volume: 5.0 Operator: PC

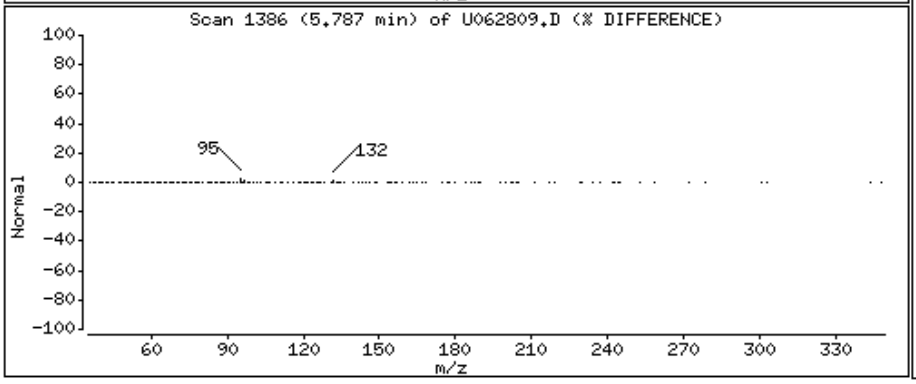
Column phase: DB624 Column diameter: 0.18

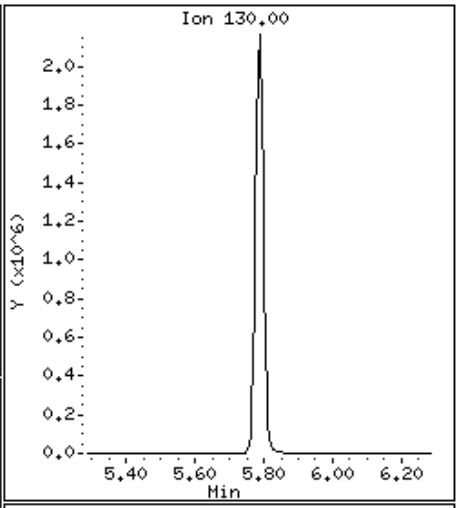
38 Trichloroethene Concentration: 609.98 ug/l

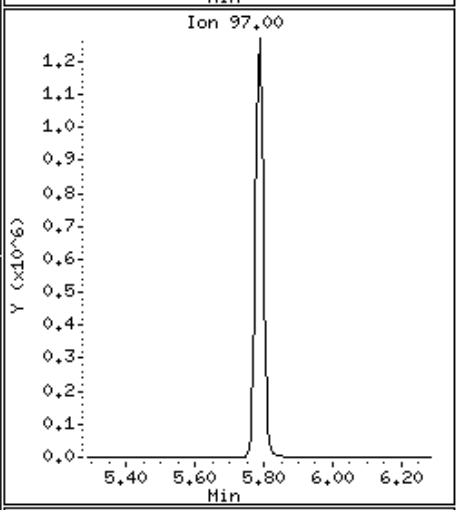


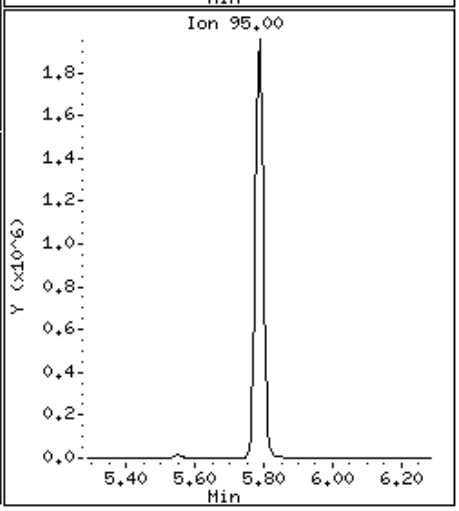












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062809.D Page 9

Date : 28-JUN-2023 14:13

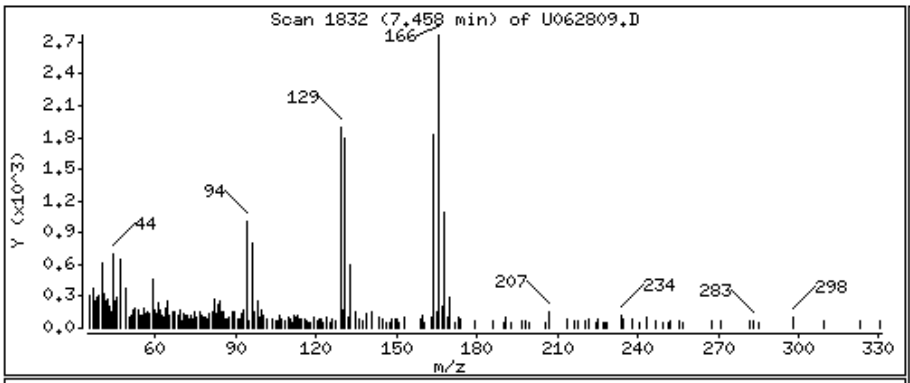
Client ID: HS23061825-09 Instrument: VOA9.i

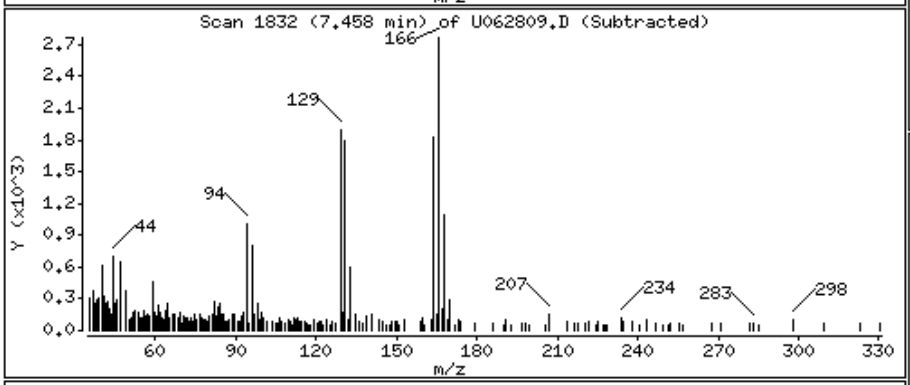
Sample Info: HS23061825-09;HS23061825-09;;;

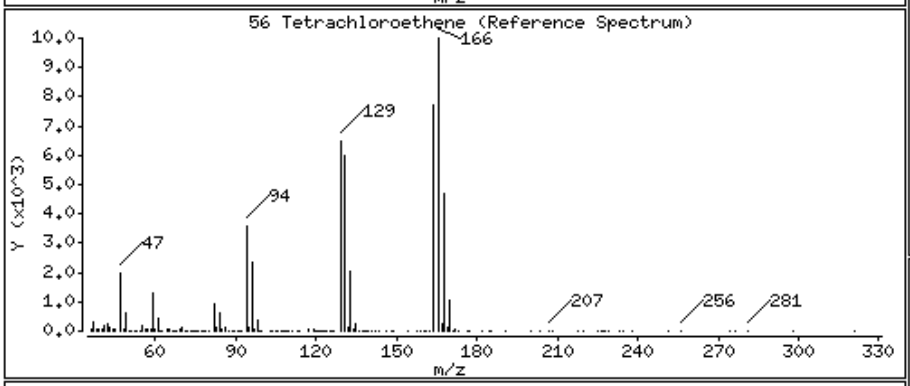
Purge Volume: 5.0 Operator: PC

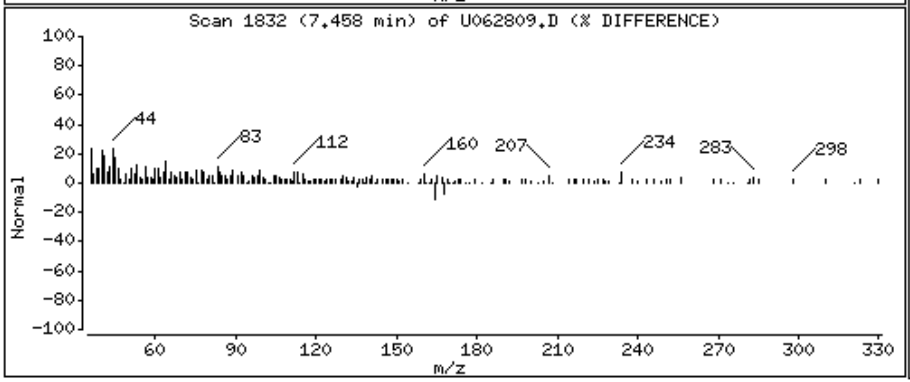
Column phase: DB624 Column diameter: 0.18

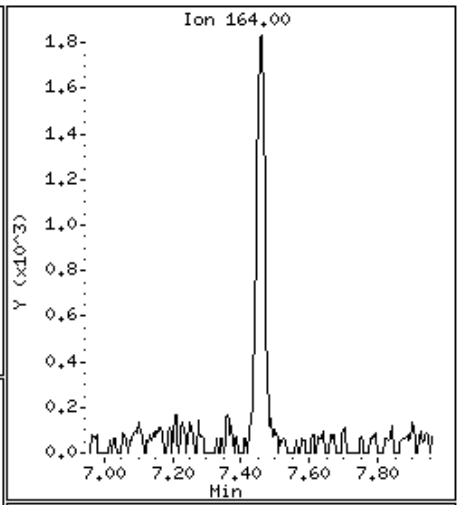
56 Tetrachloroethene Concentration: 0.65 ug/l

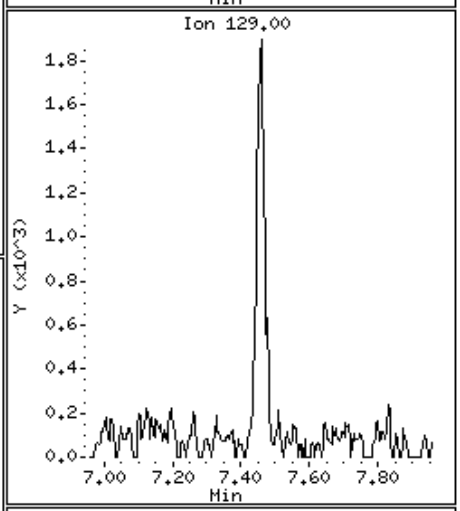


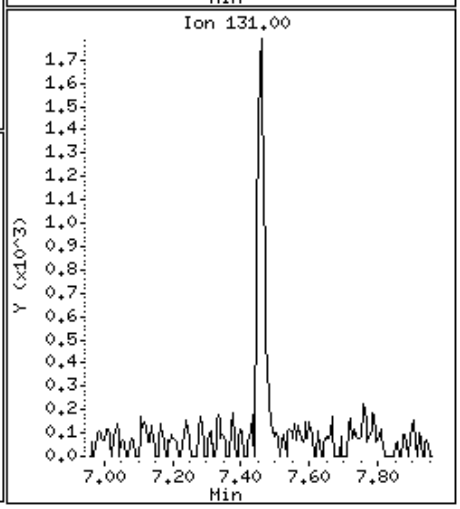












Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062809.D
Inj Date : 28-JUN-2023 14:13
InstruID : VOA9.i
LabSampID : HS23061825-09

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062810.D Page 1
Report Date: 03-Jul-2023 12:56

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062810.D
Lab Smp Id: HS23061825-04 Client Smp ID: HS23061825-04
Inj Date : 28-JUN-2023 14:35
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-04;HS23061825-04;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

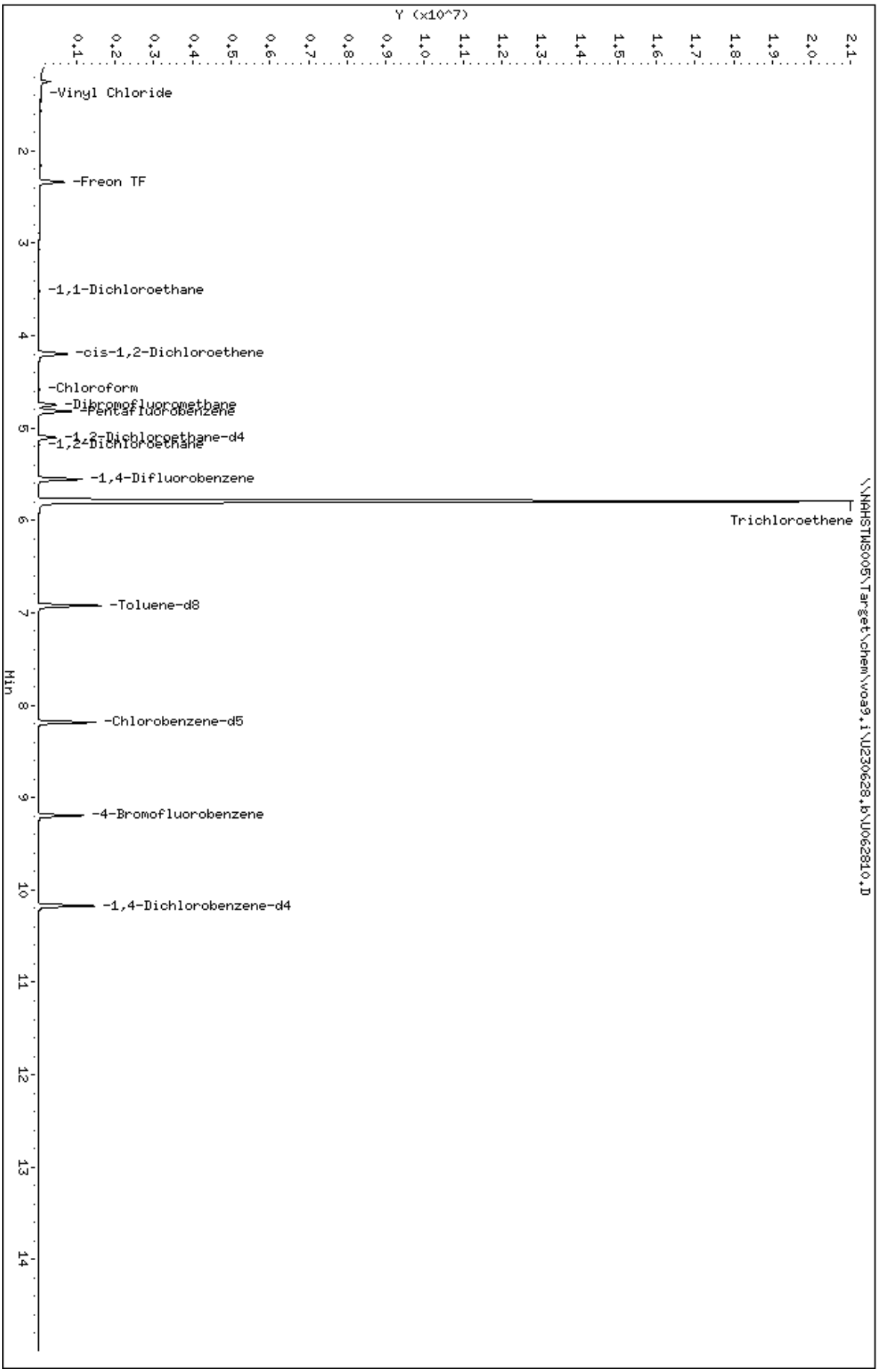
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1	Pentafluorobenzene	168	4.819	4.815	(1.000)	635780	50.0000	
	5	Vinyl Chloride	62	1.381	1.374	(0.287)	2820	0.41933	0.41(a)
	22	1,1-Dichloroethane	63	3.514	3.514	(0.729)	4616	0.46280	0.46(a)
	27	cis-1,2-Dichloroethene	96	4.197	4.193	(0.871)	362994	57.8129	57.81
	28	Chloroform	83	4.575	4.571	(0.949)	13101	1.26204	1.26(a)
$	30	Dibromofluoromethane	113	4.751	4.747	(0.986)	266177	49.8778	49.87
	33	1,2-Dichloroethane	62	5.179	5.175	(0.933)	11249	1.51641	1.51(a)
$	35	1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	302304	52.3845	52.38
*	36	1,4-Difluorobenzene	114	5.554	5.553	(1.000)	857075	50.0000	
	38	Trichloroethene	130	5.790	5.790	(1.043)	6723885	1123.27	1123.27(A)
*	47	Chlorobenzene-d5	117	8.185	8.185	(1.000)	772761	50.0000	
$	48	Toluene-d8	98	6.922	6.922	(0.846)	957308	54.7352	54.73
$	69	4-Bromofluorobenzene	95	9.194	9.193	(1.123)	329764	47.8151	47.81
*	70	1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	392123	50.0000	
M	94	1,2-Dichloroethylene (total)	96				362994	57.8129	57.81
	138	Freon TF	101	2.337	2.333	(0.485)	249933	58.5330	58.53

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\U230628.b\U062810.D
Date : 28-JUN-2023 14:35
Client ID: HS230618Z5-04
Sample Info: HS230618Z5-04;HS230618Z5-04;;;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062810.D

Date : 28-JUN-2023 14:35

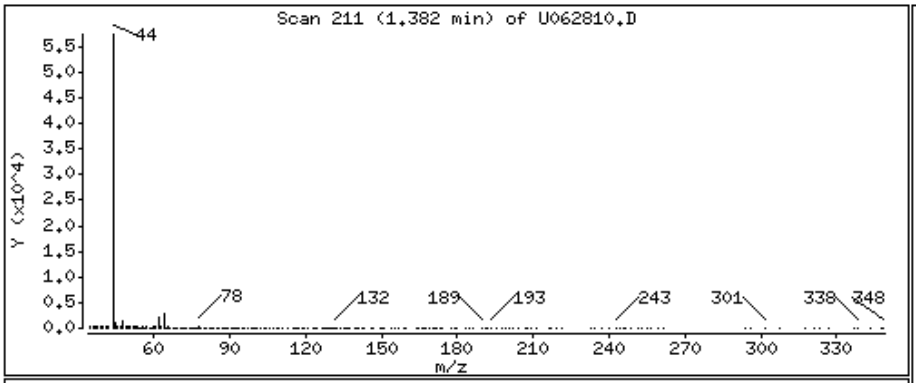
Client ID: HS23061825-04 Instrument: VOA9.i

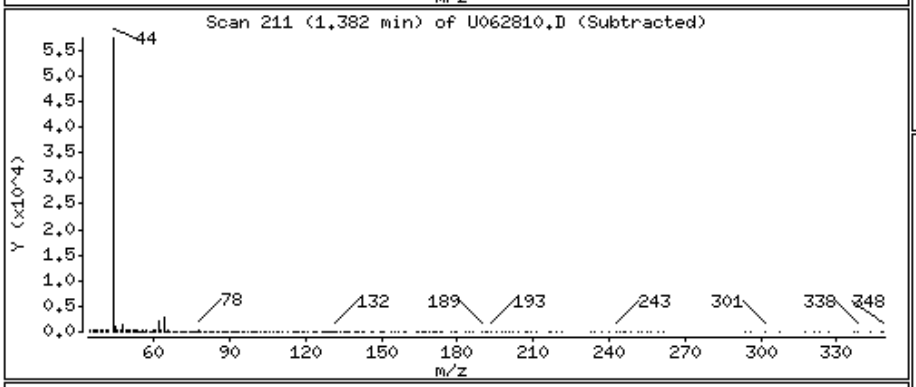
Sample Info: HS23061825-04;HS23061825-04;;;

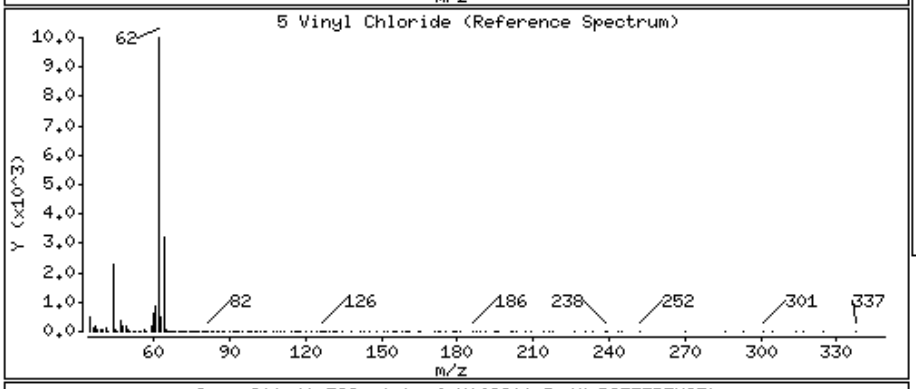
Purge Volume: 5.0 Operator: PC

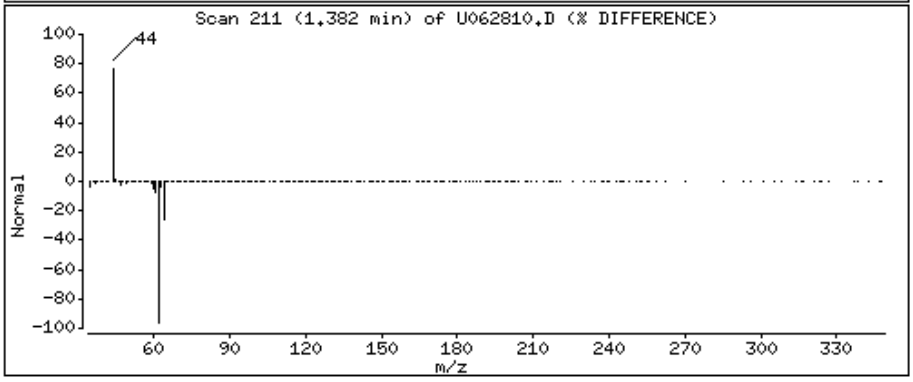
Column phase: DB624 Column diameter: 0.18

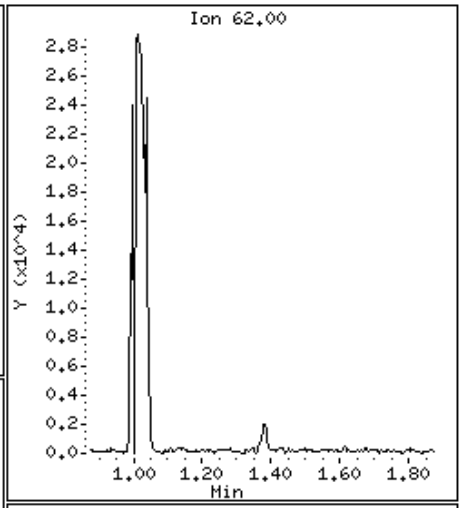
5 Vinyl Chloride Concentration: 0.41 ug/l

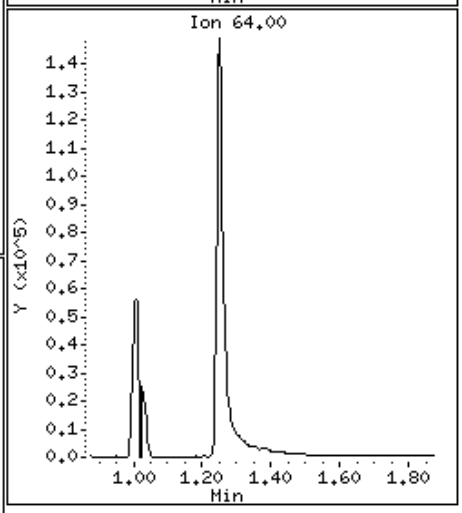












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062810.D

Date : 28-JUN-2023 14:35

Client ID: HS23061825-04

Instrument: VOA9.i

Sample Info: HS23061825-04;HS23061825-04;;;

Purge Volume: 5.0

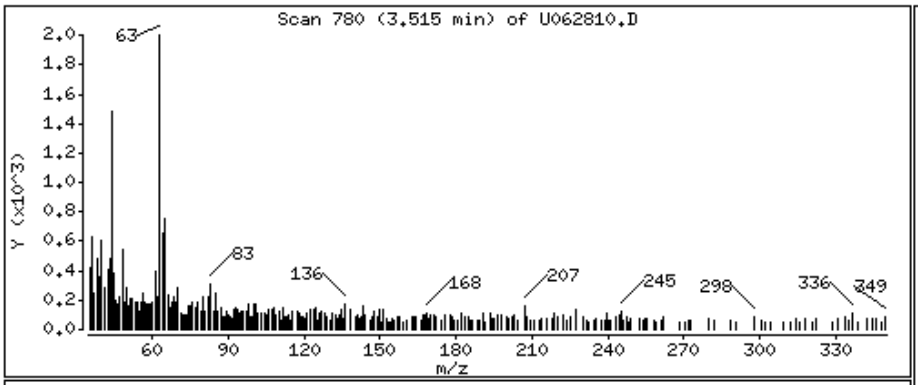
Operator: PC

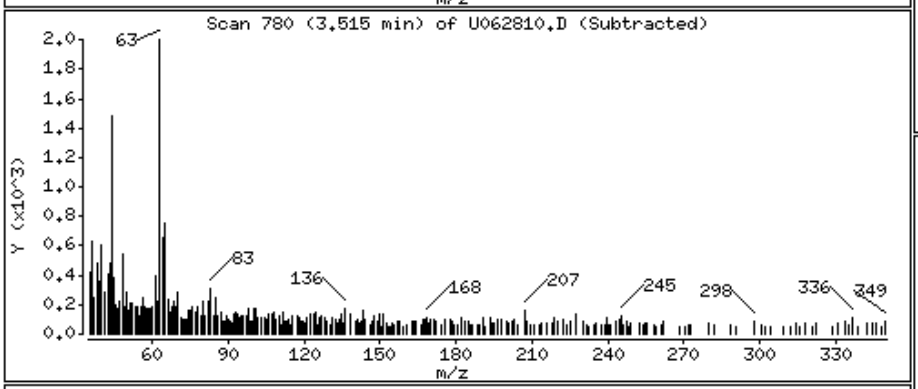
Column phase: DB624

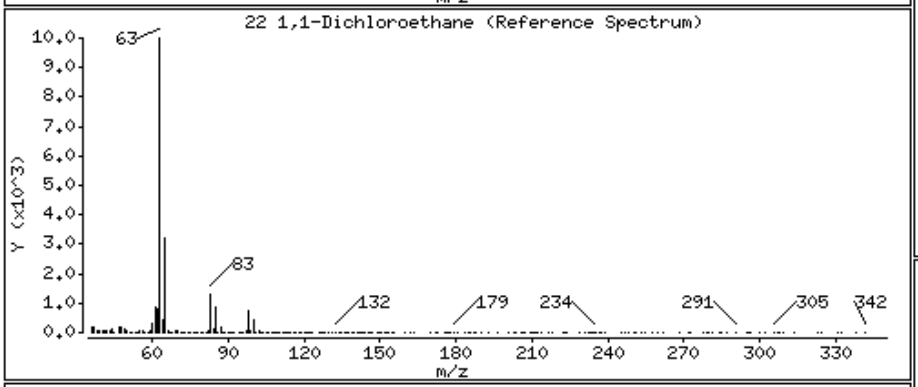
Column diameter: 0.18

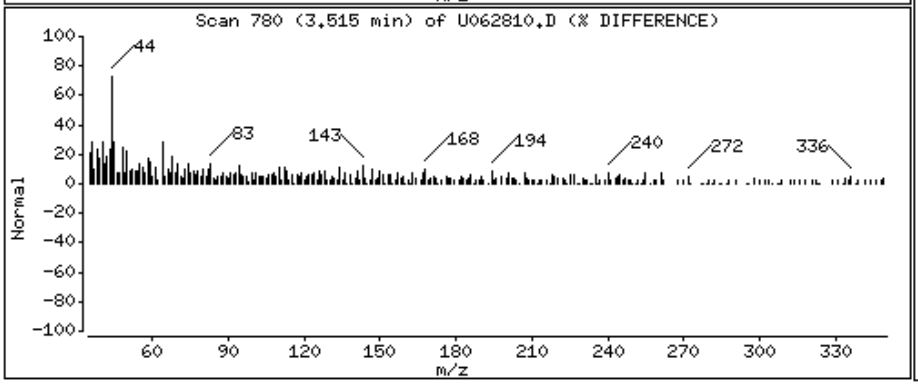
22 1,1-Dichloroethane

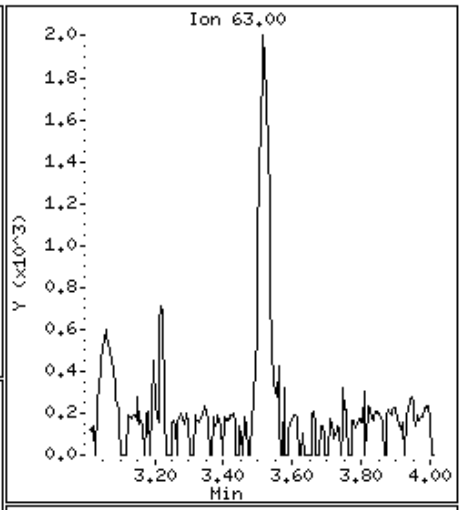
Concentration: 0.46 ug/l

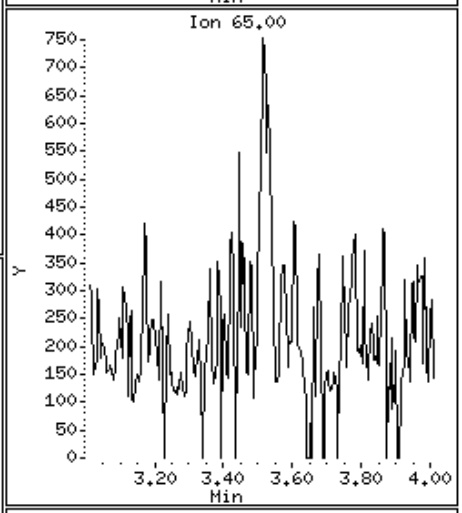


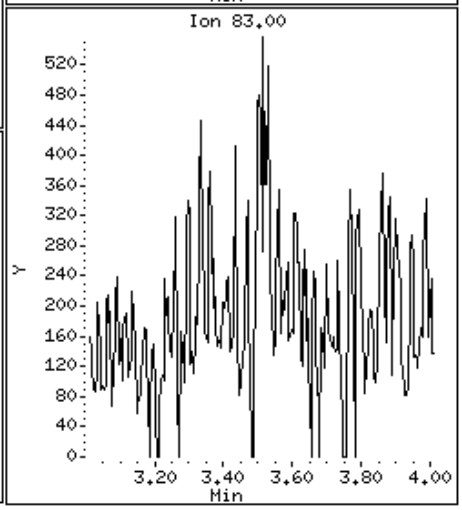












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062810.D Page 4

Date : 28-JUN-2023 14:35

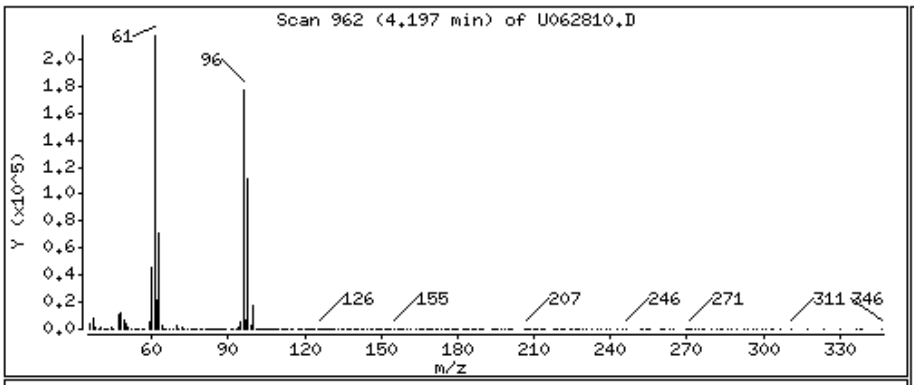
Client ID: HS23061825-04 Instrument: VOA9.i

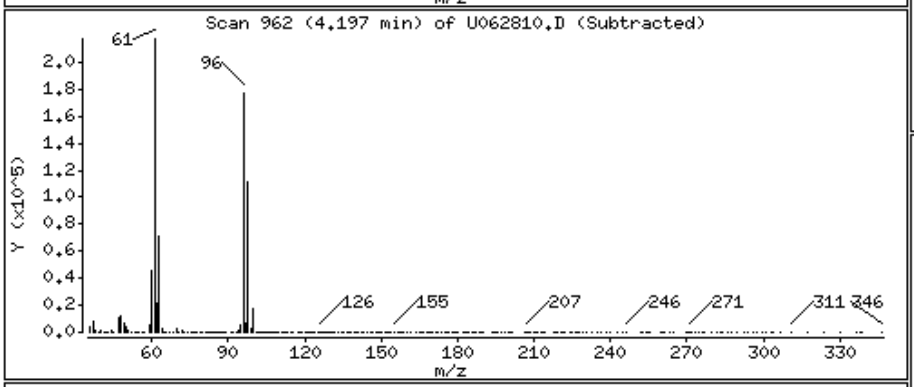
Sample Info: HS23061825-04;HS23061825-04;;;

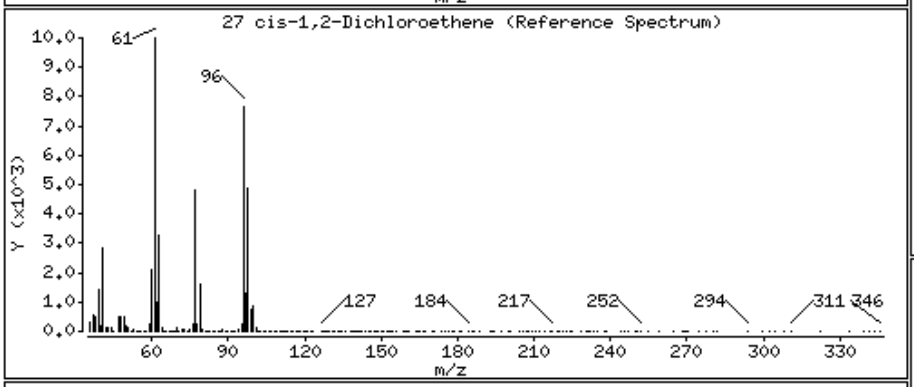
Purge Volume: 5.0 Operator: PC

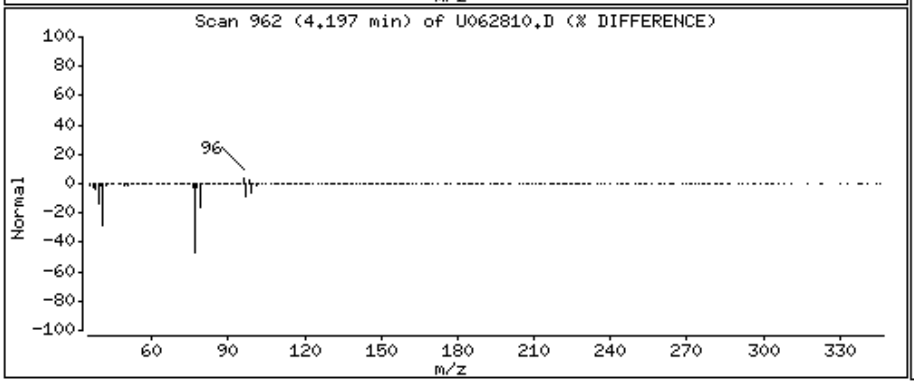
Column phase: DB624 Column diameter: 0.18

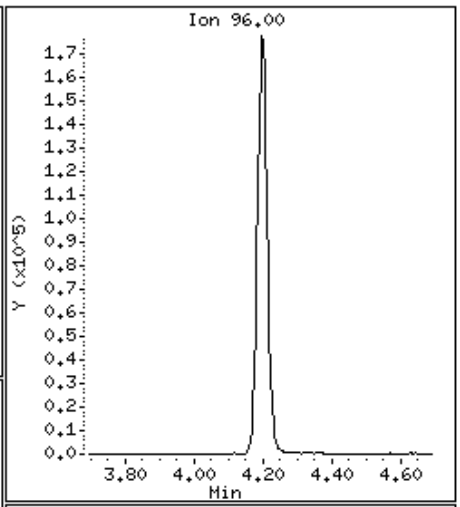
27 cis-1,2-Dichloroethene Concentration: 57.81 ug/l

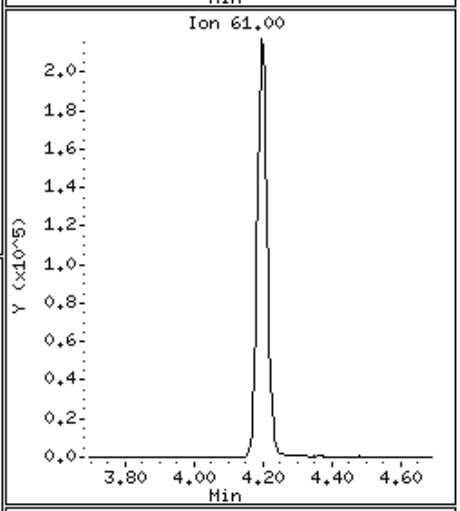


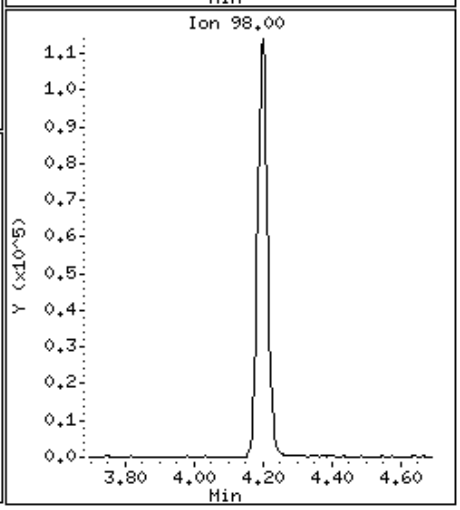












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062810.D Page 5

Date : 28-JUN-2023 14:35

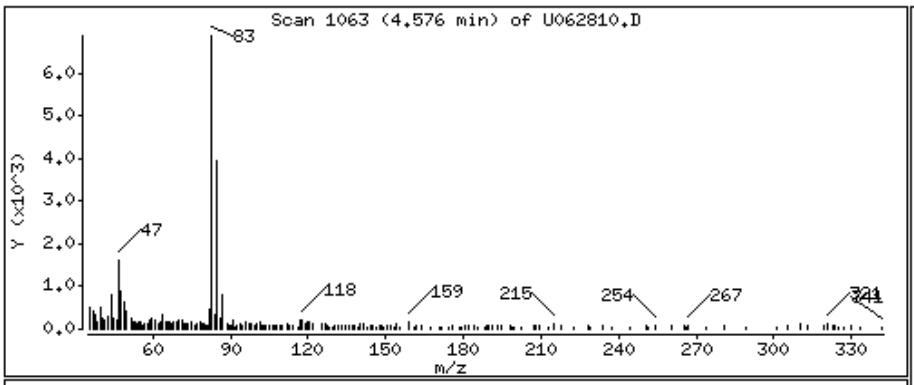
Client ID: HS23061825-04 Instrument: VOA9.i

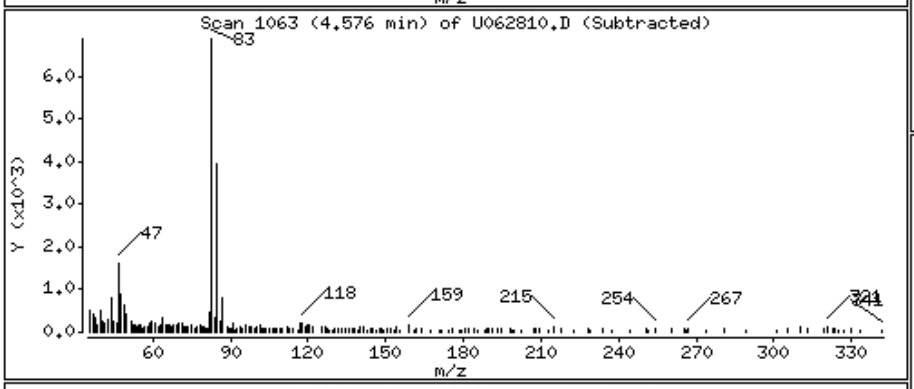
Sample Info: HS23061825-04;HS23061825-04;;;

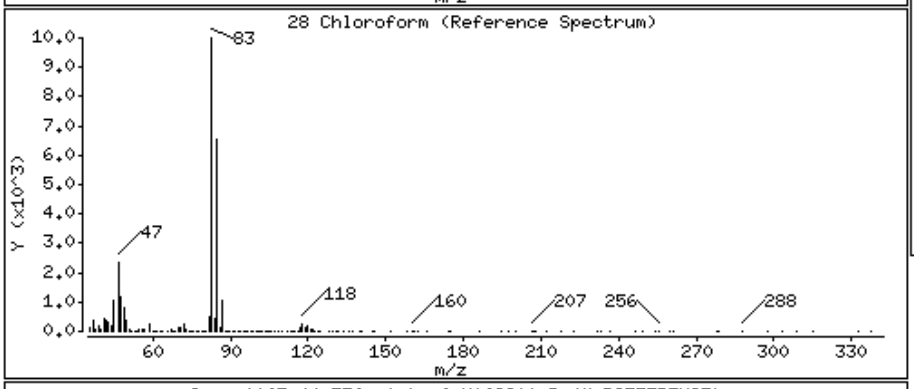
Purge Volume: 5.0 Operator: PC

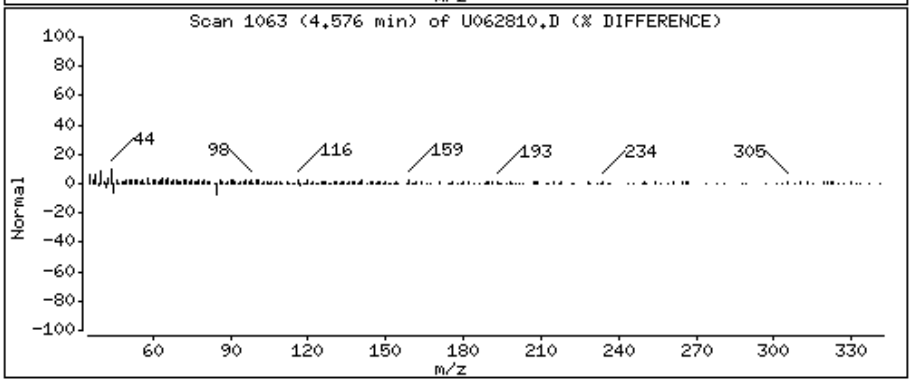
Column phase: DB624 Column diameter: 0.18

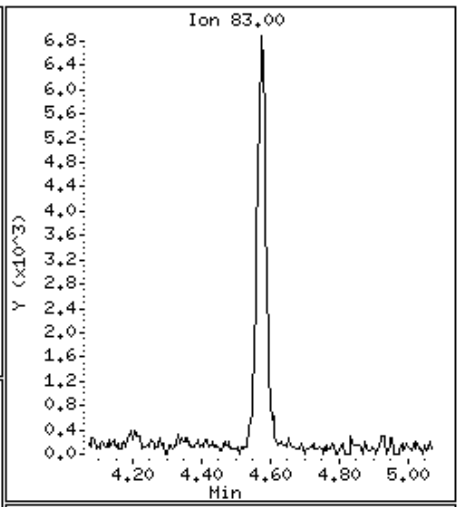
28 Chloroform Concentration: 1.26 ug/l

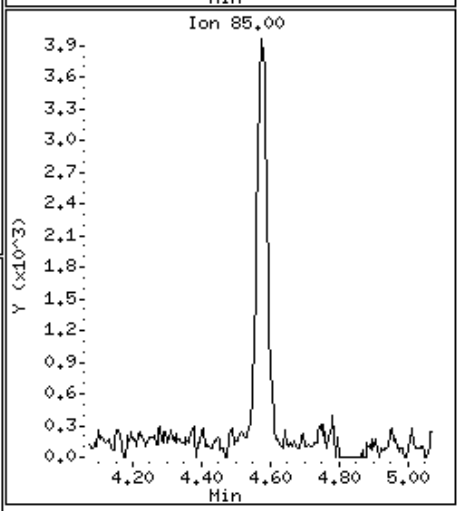












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062810.D Page 6

Date : 28-JUN-2023 14:35

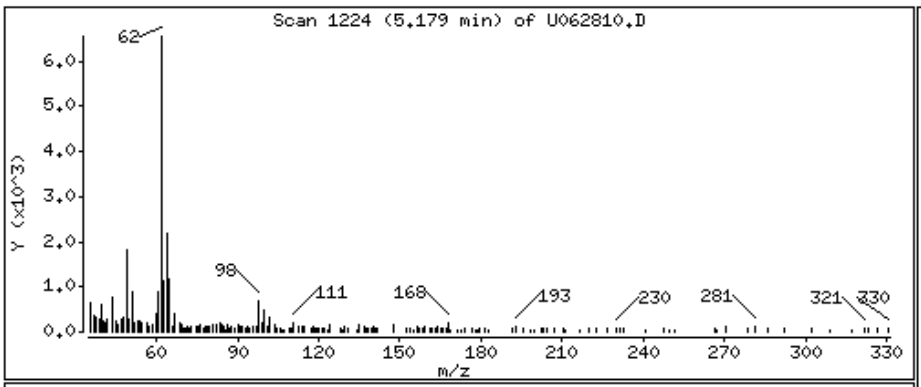
Client ID: HS23061825-04 Instrument: VOA9.i

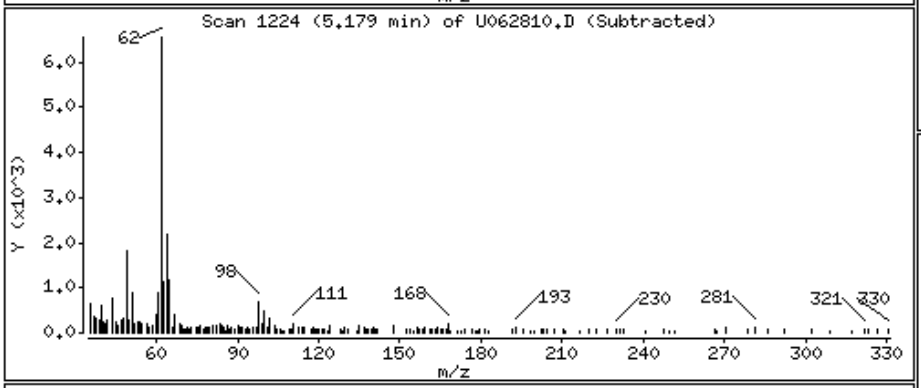
Sample Info: HS23061825-04;HS23061825-04;;;

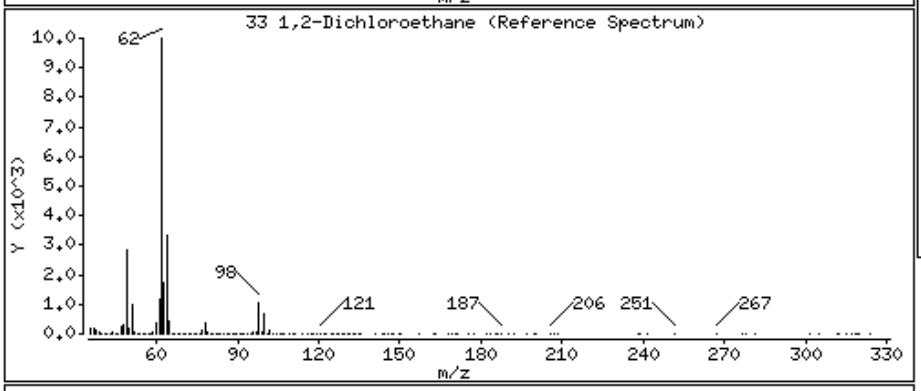
Purge Volume: 5.0 Operator: PC

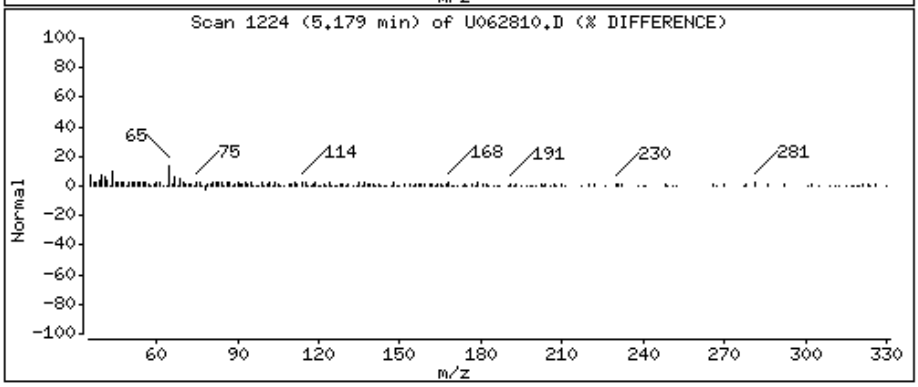
Column phase: DB624 Column diameter: 0.18

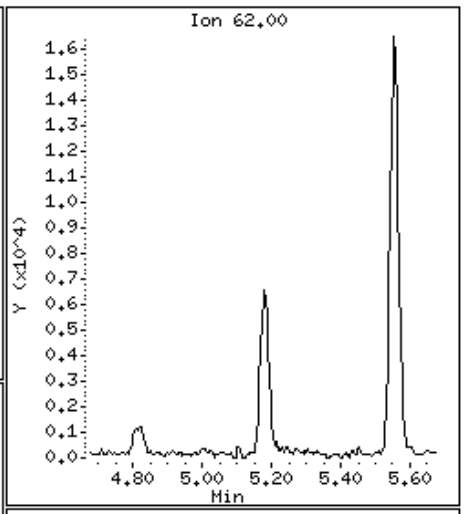
33 1,2-Dichloroethane Concentration: 1.51 ug/l

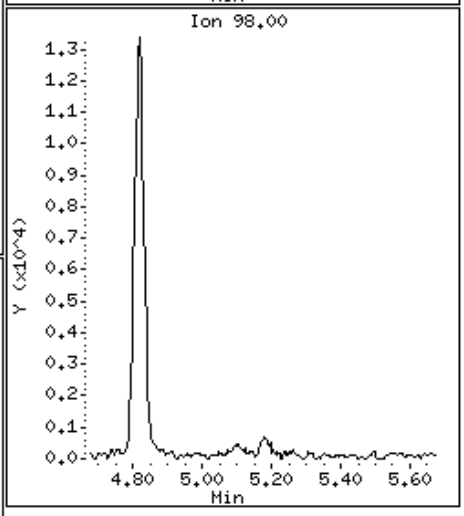












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062810.D

Date : 28-JUN-2023 14:35

Client ID: HS23061825-04

Instrument: VOA9.i

Sample Info: HS23061825-04;HS23061825-04;;;

Purge Volume: 5.0

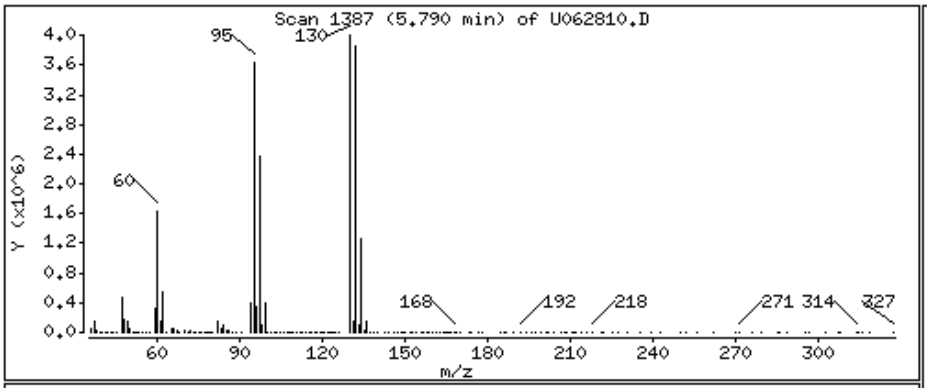
Operator: PC

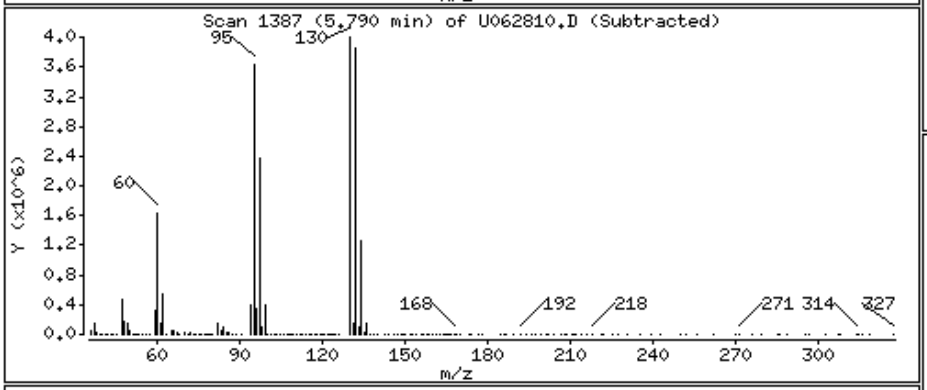
Column phase: DB624

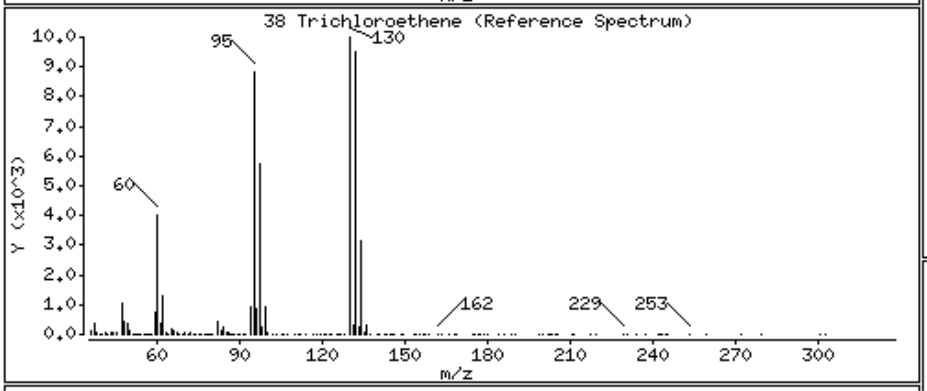
Column diameter: 0.18

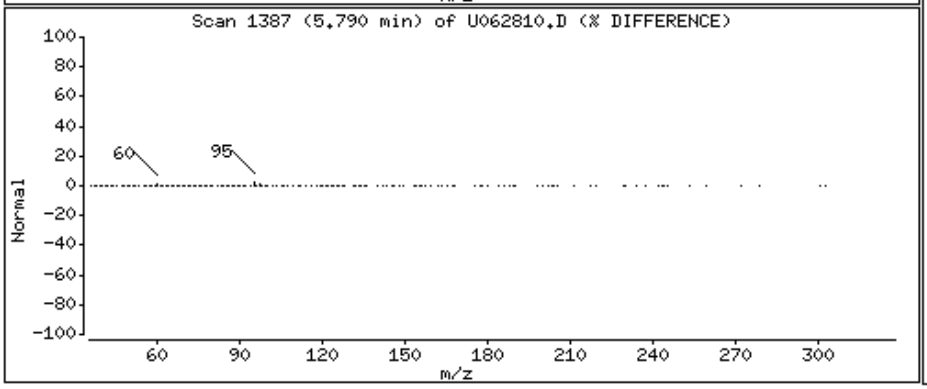
38 Trichloroethene

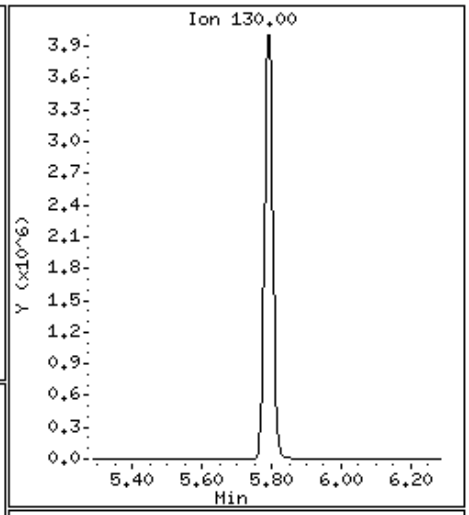
Concentration: 1123.27 ug/l

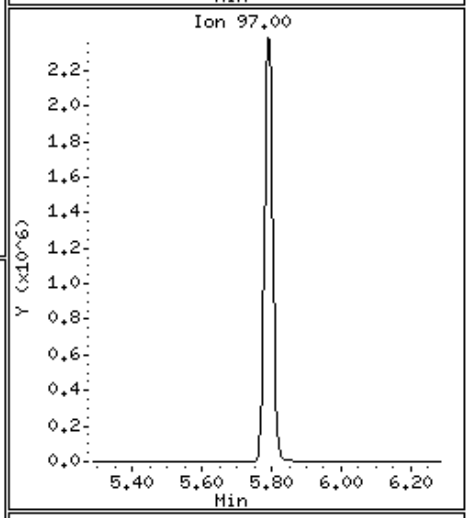


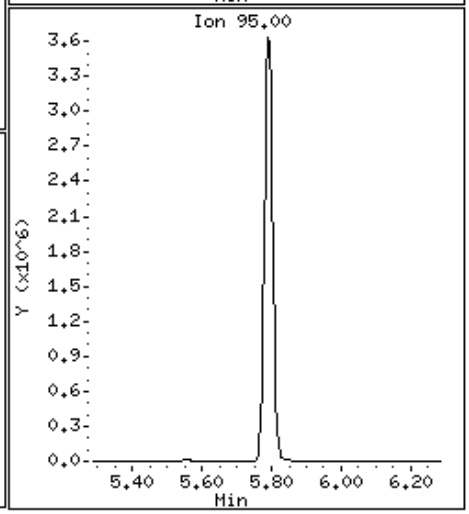












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062810.D Page 8

Date : 28-JUN-2023 14:35

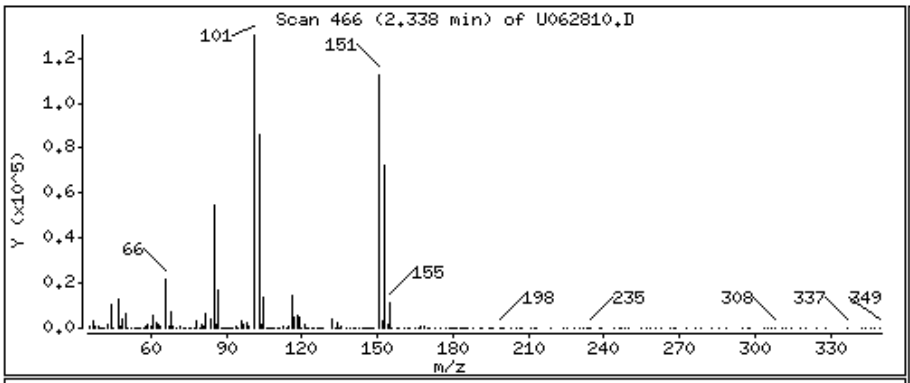
Client ID: HS23061825-04 Instrument: VOA9.i

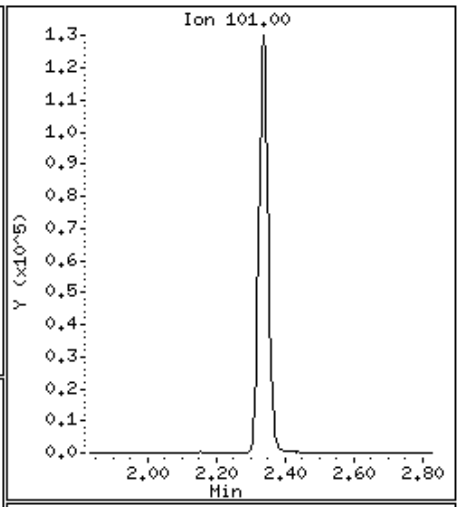
Sample Info: HS23061825-04;HS23061825-04;;;

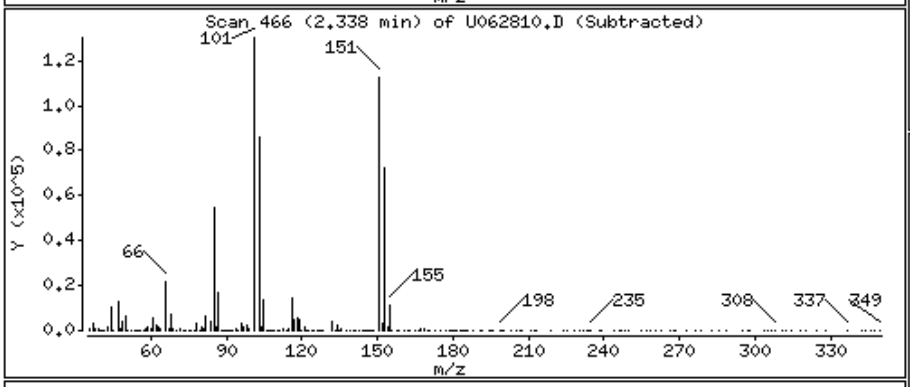
Purge Volume: 5.0 Operator: PC

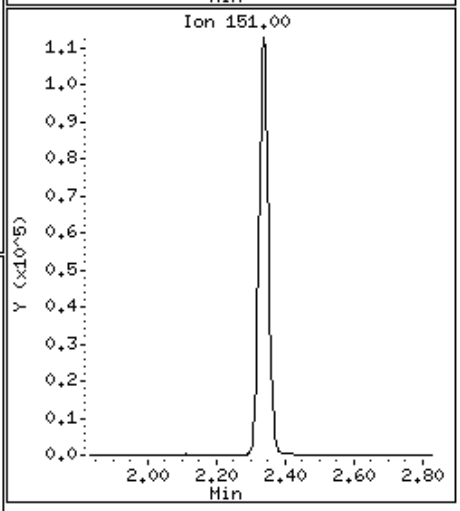
Column phase: DB624 Column diameter: 0.18

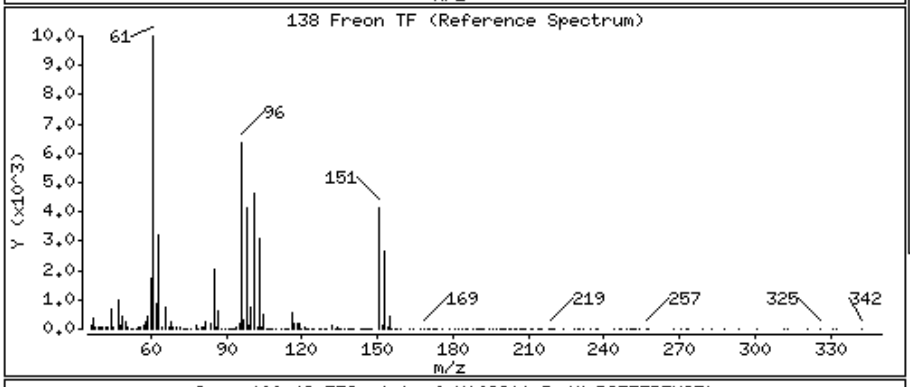
138 Freon TF Concentration: 58.53 ug/l

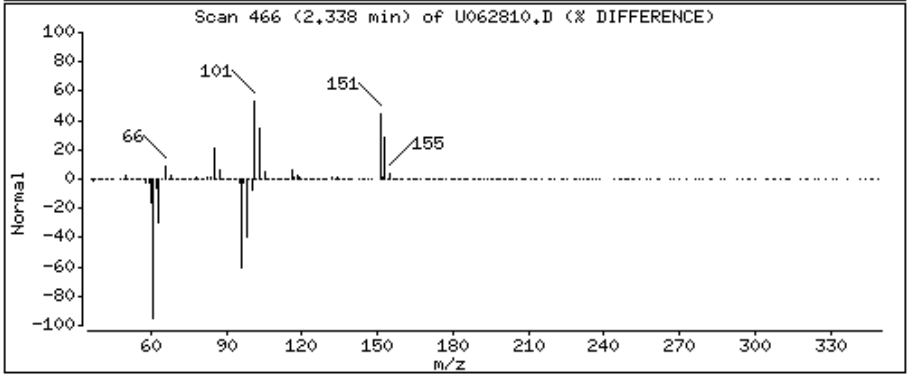












Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062810.D
Inj Date : 28-JUN-2023 14:35
InstruID : VOA9.i
LabSampID : HS23061825-04

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062811.D Page 1
Report Date: 03-Jul-2023 12:56

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062811.D
Lab Smp Id: HS23061825-05MS Client Smp ID: HS23061825-05MS
Inj Date : 28-JUN-2023 14:58
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-05MS;HS23061825-05MS;3;;MS
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 11 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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.819	4.815	(1.000)	624968	50.0000	
2	Dichlorodifluoromethane	85	1.168	1.160	(0.242)	101216	17.5805	17.58
3	Chloromethane	50	1.303	1.295	(0.270)	165372	16.6688	16.66
5	Vinyl Chloride	62	1.381	1.374	(0.287)	129438	19.5804	19.58
6	Bromomethane	94	1.625	1.617	(0.337)	75199	21.0976	21.09
7	Chloroethane	64	1.704	1.696	(0.354)	86283	19.3761	19.37
8	Trichlorofluoromethane	101	1.902	1.895	(0.395)	180664	23.7955	23.79
9	Acrolein	56	2.270	2.262	(0.471)	9596	28.9278	28.92
10	Acetone	43	2.416	2.405	(0.501)	78475	32.9407	32.94
11	1,1-Dichloroethene	96	2.337	2.330	(0.485)	99774	21.0322	21.03
15	Iodomethane	142	2.472	2.465	(0.513)	128787	41.9736	41.97
16	Acrylonitrile	53	3.072	3.064	(0.638)	87066	37.5660	37.56
17	Methylene Chloride	84	2.798	2.791	(0.581)	112788	19.1685	19.16
18	Methyl tert-butyl ether	73	3.087	3.079	(0.641)	289831	19.9233	19.92
19	Carbon Disulfide	76	2.525	2.517	(0.524)	537421	42.3767	42.37
20	trans-1,2-Dichloroethene	96	3.065	3.057	(0.636)	105148	20.3812	20.38
21	Vinyl Acetate	43	3.612	3.604	(0.750)	589449	37.4813	37.48
22	1,1-Dichloroethane	63	3.518	3.514	(0.730)	185293	18.8990	18.89
24	2-Butanone	43	4.272	4.264	(0.886)	94939	33.3185	33.31
26	2,2-Dichloropropane	77	4.185	4.181	(0.869)	147086	22.9081	22.90

27 cis-1,2-Dichloroethene	96	4.200	4.193 (0.872)	121937	19.7565	19.75
28 Chloroform	83	4.575	4.571 (0.949)	197717	19.3759	19.37

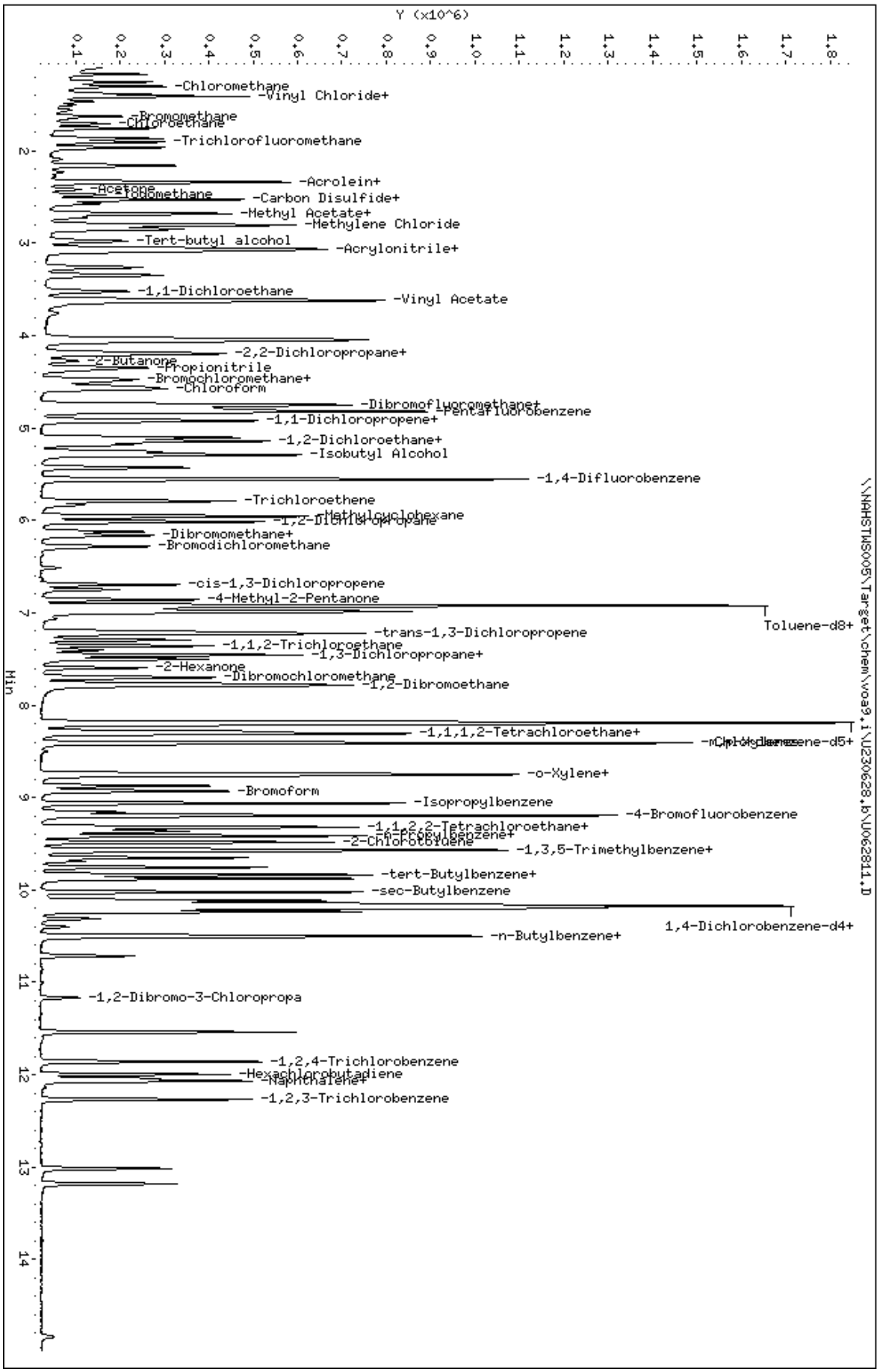
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	29 Bromochloromethane	128	4.474	4.470	(0.928)	64895	18.7969	18.79
$	30 Dibromofluoromethane	113	4.751	4.747	(0.986)	265246	50.5676	50.56
	31 1,1,1-Trichloroethane	97	4.744	4.740	(0.984)	170968	21.9826	21.98
	32 1,1-Dichloropropene	75	4.924	4.920	(0.887)	143553	23.0990	23.09
	33 1,2-Dichloroethane	62	5.179	5.175	(0.933)	157437	21.4506	21.45
	34 Carbon Tetrachloride	117	4.913	4.909	(0.885)	141678	24.8184	24.81
$	35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	295318	52.0550	52.05
*	36 1,4-Difluorobenzene	114	5.554	5.553	(1.000)	847987	50.0000	
	37 Benzene	78	5.141	5.137	(0.926)	426771	20.8858	20.88
	38 Trichloroethene	130	5.790	5.790	(1.043)	141557	23.9015	23.90
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	135781	21.3024	21.30
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	110582	20.2688	20.26
	44 Dibromomethane	93	6.123	6.119	(1.103)	71468	20.5018	20.50
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	209256	36.1982	36.19
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	152929	19.1352	19.13
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	793841	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	980954	54.5978	54.59
	50 Toluene	91	6.982	6.982	(0.853)	479706	22.2798	22.27
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	131917	19.6818	19.68
	52 2-Hexanone	43	7.593	7.593	(0.928)	138363	34.3687	34.36
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	87234	19.4721	19.47
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	186757	20.4039	20.40
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	113229	21.3015	21.30
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	124528	23.7386	23.73
	57 1,2-Dibromoethane	107	7.788	7.784	(0.951)	111096	20.1028	20.10
	58 1-Chlorohexane	55	8.197	8.196	(1.476)	108569	24.9337	24.93
	59 Chlorobenzene	112	8.212	8.211	(1.003)	327736	21.3279	21.32
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	115563	21.8808	21.88
	61 Ethylbenzene	106	8.309	8.305	(1.015)	162791	22.7613	22.76
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	399619	47.2265	47.22
	63 o-Xylene	106	8.748	8.747	(1.069)	188660	22.5687	22.56
	64 Styrene	104	8.763	8.762	(1.071)	306398	23.0964	23.09
	66 Bromoform	173	8.920	8.920	(1.090)	73047	20.3588	20.35
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	492183	24.5133	24.51
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.328	(0.917)	144113	17.9089	17.90
$	69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	359860	50.8498	50.84
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	427798	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	132631	18.7353	18.73
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	530593	23.6457	23.64
	74 Bromobenzene	156	9.317	9.317	(0.916)	147532	20.4392	20.43
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	352888	22.9231	22.92
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	346640	21.9752	21.97
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	388584	22.2553	22.25
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	350607	23.1884	23.18
	79 1,2,4-Trimethylbenzene	105	9.880	9.879	(0.971)	354603	22.0147	22.01
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	452884	23.6188	23.61
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	384911	23.9611	23.96
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	255886	20.8724	20.87
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	259239	19.8328	19.83
	87 n-Butylbenzene	91	10.491	10.490	(1.031)	323101	23.4947	23.49
	88 1,2-Dichlorobenzene	146	10.506	10.505	(1.033)	247834	20.1624	20.16
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	19307	16.4421	16.44

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	159330	18.8452	18.84
91 Hexachlorobutadiene	225	11.998	11.997 (1.179)	77565	22.7172	22.71

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	92 Naphthalene	128	12.069	12.069	(1.186)	335624	17.0895	17.08
	93 1,2,3-Trichlorobenzene	180	12.268	12.267	(1.206)	149212	18.0527	18.05
M	94 1,2-Dichloroethylene (total)	96				227085	40.1377	40.13
M	95 Xylenes (total)	106				588279	69.7953	69.79
	135 1,4-Dioxane	88	6.172	6.168	(1.281)	27052	217.994	217.99
	141 Cyclohexane	56	4.785	4.781	(0.993)	170136	22.5687	22.56
	138 Freon TF	101	2.341	2.333	(0.486)	105170	25.0564	25.05
	140 1,3-Butadiene	54	1.408	1.400	(0.292)	113892	19.2428	19.24
	147 Methylcyclohexane	55	5.951	5.947	(1.072)	267152	22.7107	22.71
	146 Methyl Acetate	43	2.720	2.712	(0.564)	92892	17.6524	17.65
	148 Tert-Butyl alcohol	59	2.975	2.967	(0.617)	209219	359.159	359.15
	149 Isopropyl Alcohol	45	2.570	2.558	(0.533)	135358	331.305	331.30
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	20688	22.6336	22.63
	12 Isobutyl Alcohol	43	5.291	5.287	(1.098)	339925	418.624	418.62
	13 Acetonitrile	39	2.678	2.671	(0.556)	143862	212.616	212.61
	14 Allyl Chloride	41	2.678	2.671	(0.556)	315190	19.4254	19.42
	25 Methacrylonitrile	41	4.500	4.493	(0.934)	66207	17.9305	17.93
	40 Methyl Methacrylate	41	6.161	6.157	(1.278)	97717	18.1847	18.18
	4 Propionitrile	54	4.347	4.339	(0.902)	160239	177.433	177.43(a)
	162 Butyl acrylate	55	8.736	8.732	(1.067)	181575	19.3366	19.33
	203 2-Ethylhexyl Acrylate	55	12.043	12.042	(1.184)	89742	23.4323	23.43

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230628.b\U062811.D
Date : 28-JUN-2023 14:58
Client ID: HS23061825-05MS
Sample Info: HS23061825-05MS;HS23061825-05MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

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

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062811.D
Inj Date : 28-JUN-2023 14:58
InstruID : VOA9.i
LabSampID : HS23061825-05MS

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062812.D Page 1
Report Date: 03-Jul-2023 12:56

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062812.D
Lab Smp Id: HS23061825-05MSD Client Smp ID: HS23061825-05MSD
Inj Date : 28-JUN-2023 15:20
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-05MSD;HS23061825-05MSD;3;;MSD
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 11 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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.815	4.815	(1.000)	639964	50.0000	
	2 Dichlorodifluoromethane	85	1.164	1.160	(0.242)	97709	16.5782	16.57
	3 Chloromethane	50	1.295	1.295	(0.269)	168868	16.6185	16.61
	5 Vinyl Chloride	62	1.378	1.374	(0.286)	126024	18.6173	18.61
	6 Bromomethane	94	1.617	1.617	(0.336)	74308	20.2947	20.29
	7 Chloroethane	64	1.700	1.696	(0.353)	84566	18.5455	18.54
	8 Trichlorofluoromethane	101	1.895	1.895	(0.394)	177274	22.8019	22.80
	9 Acrolein	56	2.266	2.262	(0.471)	10937	32.1978	32.19
	10 Acetone	43	2.408	2.405	(0.500)	83277	34.3446	34.34
	11 1,1-Dichloroethene	96	2.333	2.330	(0.485)	97717	20.1159	20.11
	15 Iodomethane	142	2.468	2.465	(0.513)	138499	43.5570	43.55
	16 Acrylonitrile	53	3.068	3.064	(0.637)	93511	39.4014	39.40
	17 Methylene Chloride	84	2.795	2.791	(0.580)	111854	18.5320	18.53
	18 Methyl tert-butyl ether	73	3.083	3.079	(0.640)	294869	19.7946	19.79
	19 Carbon Disulfide	76	2.521	2.517	(0.524)	527850	40.6467	40.64
	20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	103395	19.5718	19.57
	21 Vinyl Acetate	43	3.608	3.604	(0.749)	606185	37.6423	37.64
	22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	186502	18.5765	18.57
	24 2-Butanone	43	4.268	4.264	(0.886)	97312	33.3511	33.35
	26 2,2-Dichloropropane	77	4.182	4.181	(0.868)	147863	22.4968	22.49

27 cis-1,2-Dichloroethene	96	4.197	4.193 (0.872)	118646	18.7728	18.77
28 Chloroform	83	4.571	4.571 (0.949)	193062	18.4763	18.47

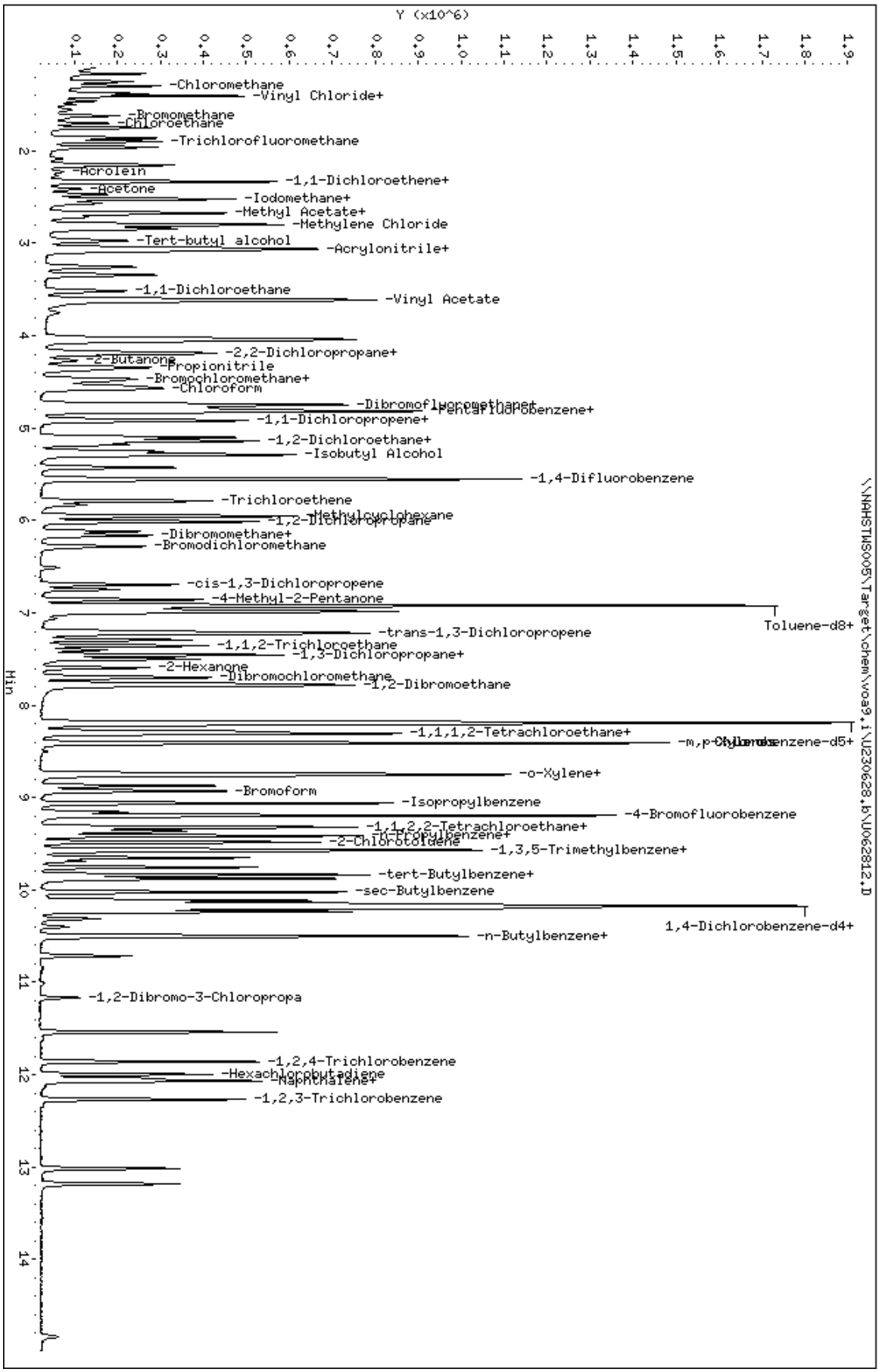
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	29 Bromochloromethane	128	4.470	4.470	(0.928)	63108	17.8510	17.85
$	30 Dibromofluoromethane	113	4.748	4.747	(0.986)	268126	49.9148	49.91
	31 1,1,1-Trichloroethane	97	4.744	4.740	(0.985)	166715	20.9335	20.93
	32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	143179	22.4821	22.48
	33 1,2-Dichloroethane	62	5.179	5.175	(0.933)	159440	21.1985	21.19
	34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	139901	23.9149	23.91
$	35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.059)	301005	51.8110	51.81
*	36 1,4-Difluorobenzene	114	5.554	5.553	(1.000)	868987	50.0000	
	37 Benzene	78	5.138	5.137	(0.925)	426700	20.3777	20.37
	38 Trichloroethene	130	5.790	5.790	(1.043)	134489	22.1593	22.15
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	135562	20.7541	20.75
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	109771	19.6339	19.63
	44 Dibromomethane	93	6.120	6.119	(1.102)	73948	20.7005	20.70
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	224617	37.7472	37.74
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	155272	18.9765	18.97
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	817148	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	998169	53.9714	53.97
	50 Toluene	91	6.982	6.982	(0.853)	467662	21.1009	21.10
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	129243	18.9057	18.90
	52 2-Hexanone	43	7.593	7.593	(0.928)	146885	35.4448	35.44
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	88736	19.2424	19.24
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	184616	19.5947	19.59
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	115769	21.1582	21.15
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	121430	22.4878	22.48
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	113290	19.9151	19.91
	58 1-Chlorohexane	55	8.196	8.196	(1.476)	105646	23.6760	23.67
	59 Chlorobenzene	112	8.211	8.211	(1.003)	328598	20.7741	20.77
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.286	(1.012)	115886	21.3161	21.31
	61 Ethylbenzene	106	8.305	8.305	(1.015)	162590	22.0848	22.08
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	397089	45.5891	45.58
	63 o-Xylene	106	8.747	8.747	(1.069)	191153	22.2148	22.21
	64 Styrene	104	8.762	8.762	(1.071)	314973	23.0656	23.06
	66 Bromoform	173	8.920	8.920	(1.090)	75193	20.3592	20.35
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	492867	23.8472	23.84
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.328	(0.917)	149508	17.8272	17.82
$	69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	375995	51.6280	51.62
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	445848	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	136700	18.5283	18.52
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	530417	22.6808	22.68
	74 Bromobenzene	156	9.317	9.317	(0.916)	149912	19.9281	19.92
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	353216	22.0155	22.01
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	341139	20.7510	20.75
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	385688	21.1952	21.19
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	353140	22.4104	22.41
	79 1,2,4-Trimethylbenzene	105	9.880	9.879	(0.971)	356661	21.2460	21.24
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	449845	22.5105	22.51
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	378869	22.6302	22.63
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	254810	19.9432	19.94
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	265855	19.5155	19.51
	87 n-Butylbenzene	91	10.491	10.490	(1.031)	324786	22.6611	22.66
	88 1,2-Dichlorobenzene	146	10.506	10.505	(1.033)	248508	19.3988	19.39
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	19823	16.1981	16.19

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	161468	18.3249	18.32
91 Hexachlorobutadiene	225	11.998	11.997 (1.179)	75527	21.2248	21.22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	92 Naphthalene	128	12.069	12.069	(1.186)	371020	18.1270	18.12
	93 1,2,3-Trichlorobenzene	180	12.268	12.267	(1.206)	153323	17.7991	17.79
M	94 1,2-Dichloroethylene (total)	96				222041	38.3446	38.34
M	95 Xylenes (total)	106				588242	67.8038	67.80
	135 1,4-Dioxane	88	6.172	6.168	(1.282)	29805	234.550	234.55
	141 Cyclohexane	56	4.781	4.781	(0.993)	168225	21.8073	21.80
	138 Freon TF	101	2.333	2.333	(0.485)	102633	23.8790	23.87
	140 1,3-Butadiene	54	1.404	1.400	(0.292)	115237	19.0138	19.01
	147 Methylcyclohexane	55	5.951	5.947	(1.072)	266630	22.1186	22.11
	146 Methyl Acetate	43	2.712	2.712	(0.563)	95472	17.7176	17.71
	148 Tert-Butyl alcohol	59	2.971	2.967	(0.617)	221259	371.089	371.08
	149 Isopropyl Alcohol	45	2.566	2.558	(0.533)	142493	340.596	340.59
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	21636	22.9956	22.99
	12 Isobutyl Alcohol	43	5.287	5.287	(1.098)	345959	416.071	416.07
	13 Acetonitrile	39	2.671	2.671	(0.555)	144353	208.343	208.34
	14 Allyl Chloride	41	2.671	2.671	(0.555)	319971	19.2579	19.25
	25 Methacrylonitrile	41	4.496	4.493	(0.934)	73915	19.5489	19.54
	40 Methyl Methacrylate	41	6.157	6.157	(1.279)	100204	18.2105	18.21
	4 Propionitrile	54	4.339	4.339	(0.901)	172163	186.169	186.16(a)
	162 Butyl acrylate	55	8.732	8.732	(1.067)	187247	19.3719	19.37
	203 2-Ethylhexyl Acrylate	55	12.043	12.042	(1.184)	95052	23.7781	23.77

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9,i\U230628,b\U062812.D
Date : 28-JUN-2023 15:20
Client ID: HS230618Z5-05HSD
Sample Info: HS230618Z5-05HSD;HS230618Z5-05HSD;3;;HSD
Purge Volume: 5.0
Column phase: DB624

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

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062812.D
Inj Date : 28-JUN-2023 15:20
InstruID : VOA9.i
LabSampID : HS23061825-05MSD

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062814.D Page 1
Report Date: 03-Jul-2023 12:56

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062814.D
Lab Smp Id: HS23061825-10 Client Smp ID: HS23061825-10
Inj Date : 28-JUN-2023 16:05
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-10;HS23061825-10;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	659245	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.747	(0.986)	267851	48.3957	48.39
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	303117	50.6333	50.63
* 36 1,4-Difluorobenzene	114	5.554	5.553	(1.000)	876139	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	791968	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	974300	54.3557	54.35
$ 69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	336625	47.6226	47.62
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	392894	50.0000	
203 2-Ethylhexyl Acrylate	55	12.046	12.042	(1.184)	1435	2.12322	2.12(a)

QC Flag Legend

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

01205834

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062814.D

Date : 28-JUN-2023 16:05

Client ID: HS23061825-10

Instrument: VOA9.i

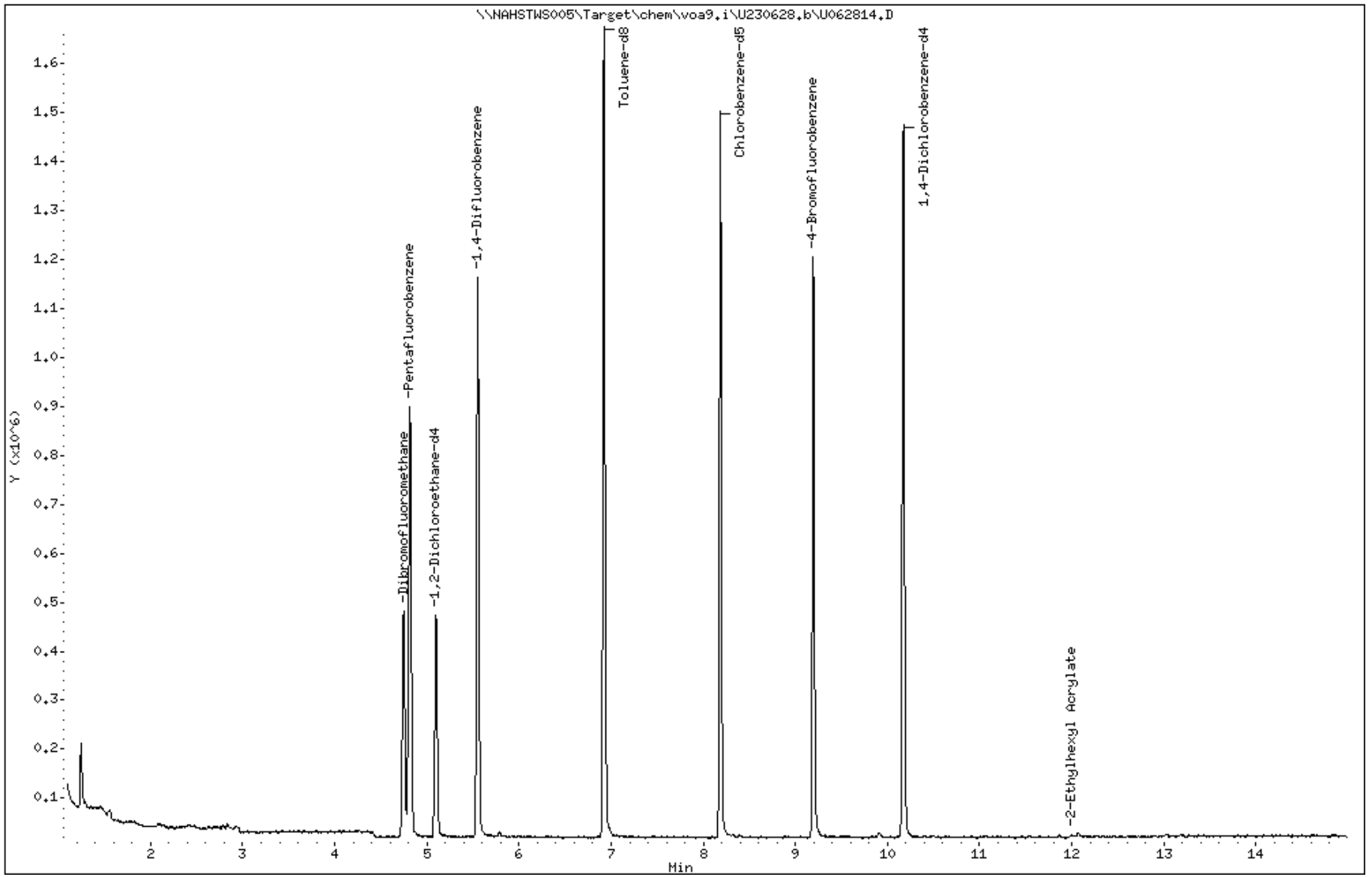
Sample Info: HS23061825-10;HS23061825-10;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062814.D

Date : 28-JUN-2023 16:05

Client ID: HS23061825-10

Instrument: VOA9.i

Sample Info: HS23061825-10;HS23061825-10;;;

Purge Volume: 5.0

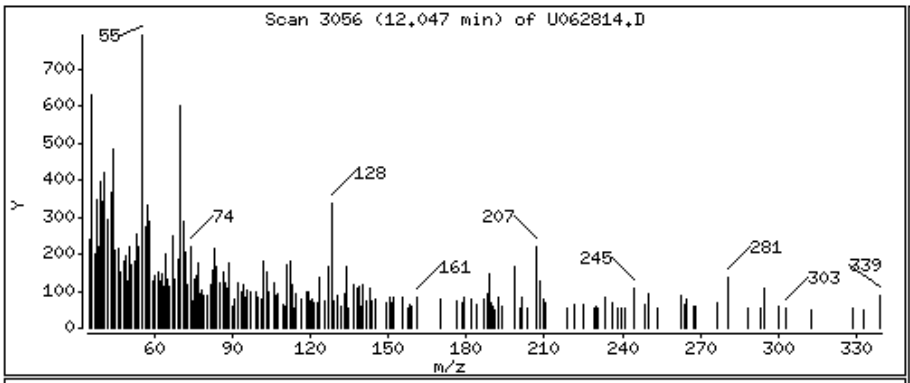
Operator: PC

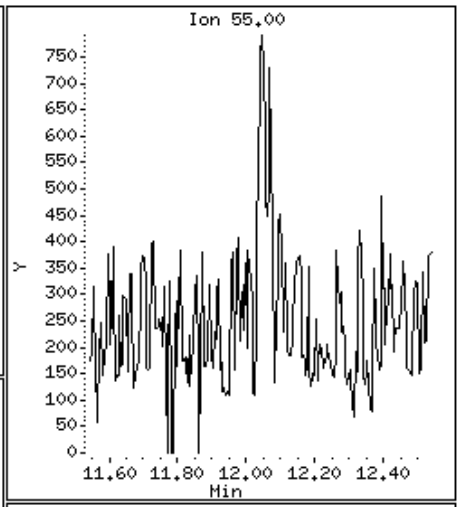
Column phase: DB624

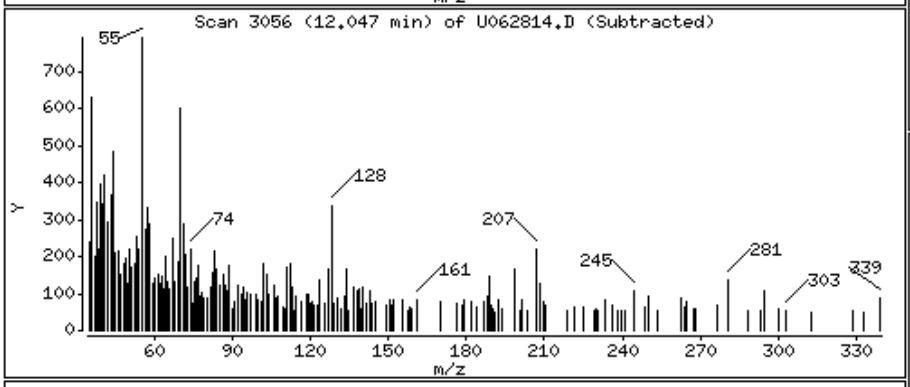
Column diameter: 0.18

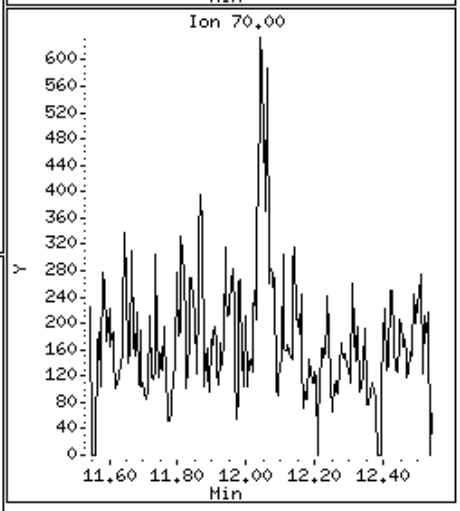
203 2-Ethylhexyl Acrylate

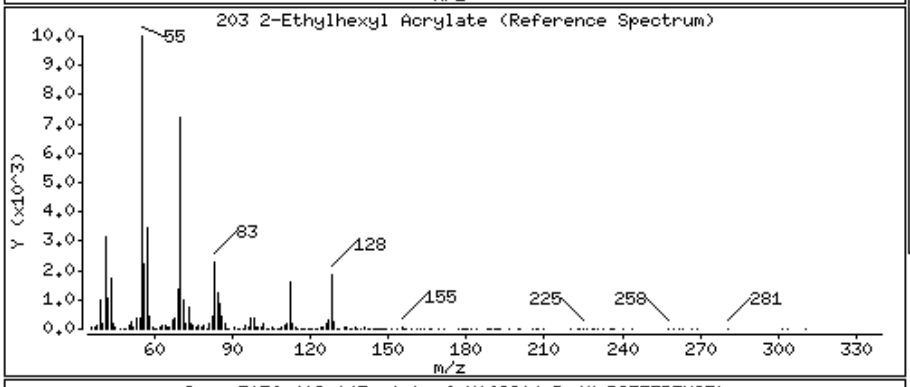
Concentration: 2.12 ug/l

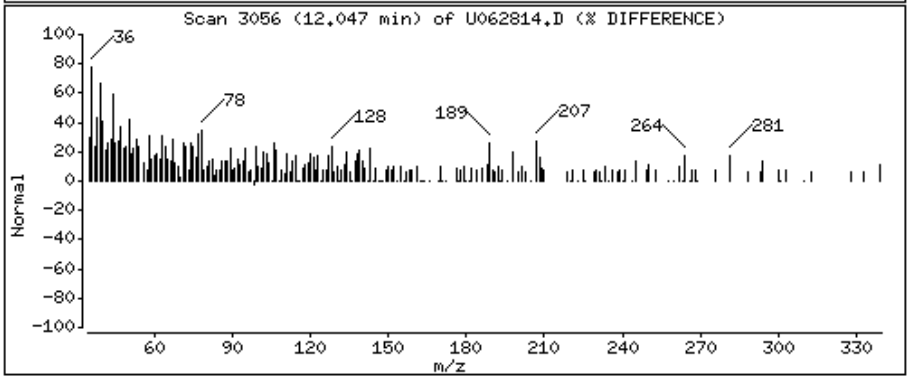












Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062814.D
Inj Date : 28-JUN-2023 16:05
InstruID : VOA9.i
LabSampID : HS23061825-10

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062815.D
Lab Smp Id: HS23061825-07 Client Smp ID: HS23061825-07
Inj Date : 28-JUN-2023 16:27
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-07;HS23061825-07;;;
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.815	(1.000)	595470	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.747	(0.985)	250467	50.1126	50.11
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	287706	53.2408	53.24
* 36 1,4-Difluorobenzene	114	5.554	5.553	(1.000)	818948	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	754311	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	922678	54.0455	54.04
$ 69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	314810	46.7434	46.74
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	369618	50.0000	

01205838

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062815.D

Date : 28-JUN-2023 16:27

Client ID: HS23061825-07

Instrument: VOA9.i

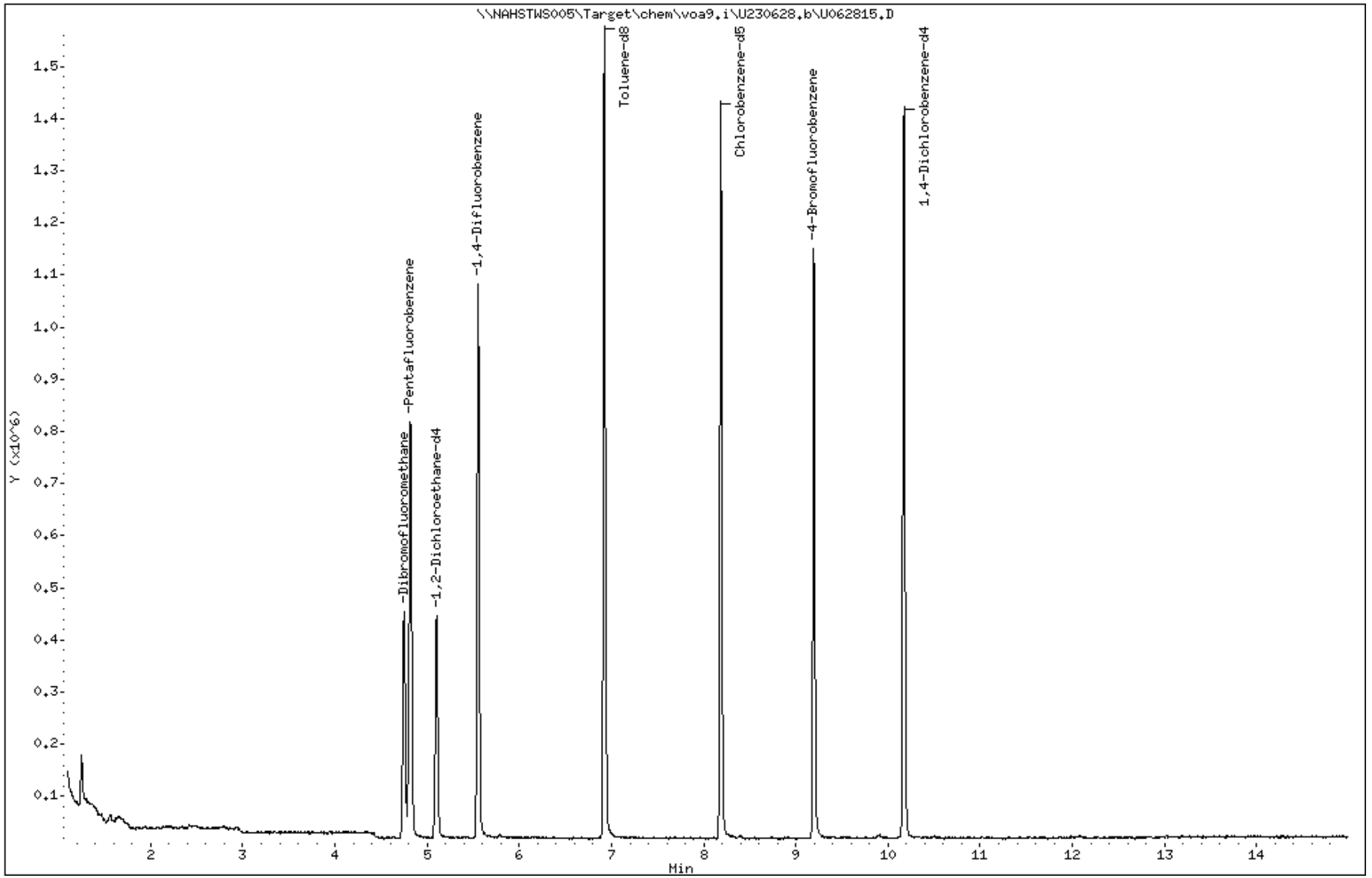
Sample Info: HS23061825-07;HS23061825-07;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062815.D
Inj Date : 28-JUN-2023 16:27
InstruID : VOA9.i
LabSampID : HS23061825-07

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062816.D Page 1
Report Date: 03-Jul-2023 12:56

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062816.D
Lab Smp Id: HS23061825-06 Client Smp ID: HS23061825-06
Inj Date : 28-JUN-2023 16:50
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-06;HS23061825-06;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	617760	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.747	(0.986)	257581	49.6737	49.67
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	297526	53.0693	53.06
* 36 1,4-Difluorobenzene	114	5.554	5.553	(1.000)	835329	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	768530	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	931175	53.5341	53.53
$ 69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	318612	46.4266	46.42
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	379772	50.0000	

01205841

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062816.D

Date : 28-JUN-2023 16:50

Client ID: HS23061825-06

Instrument: VOA9.i

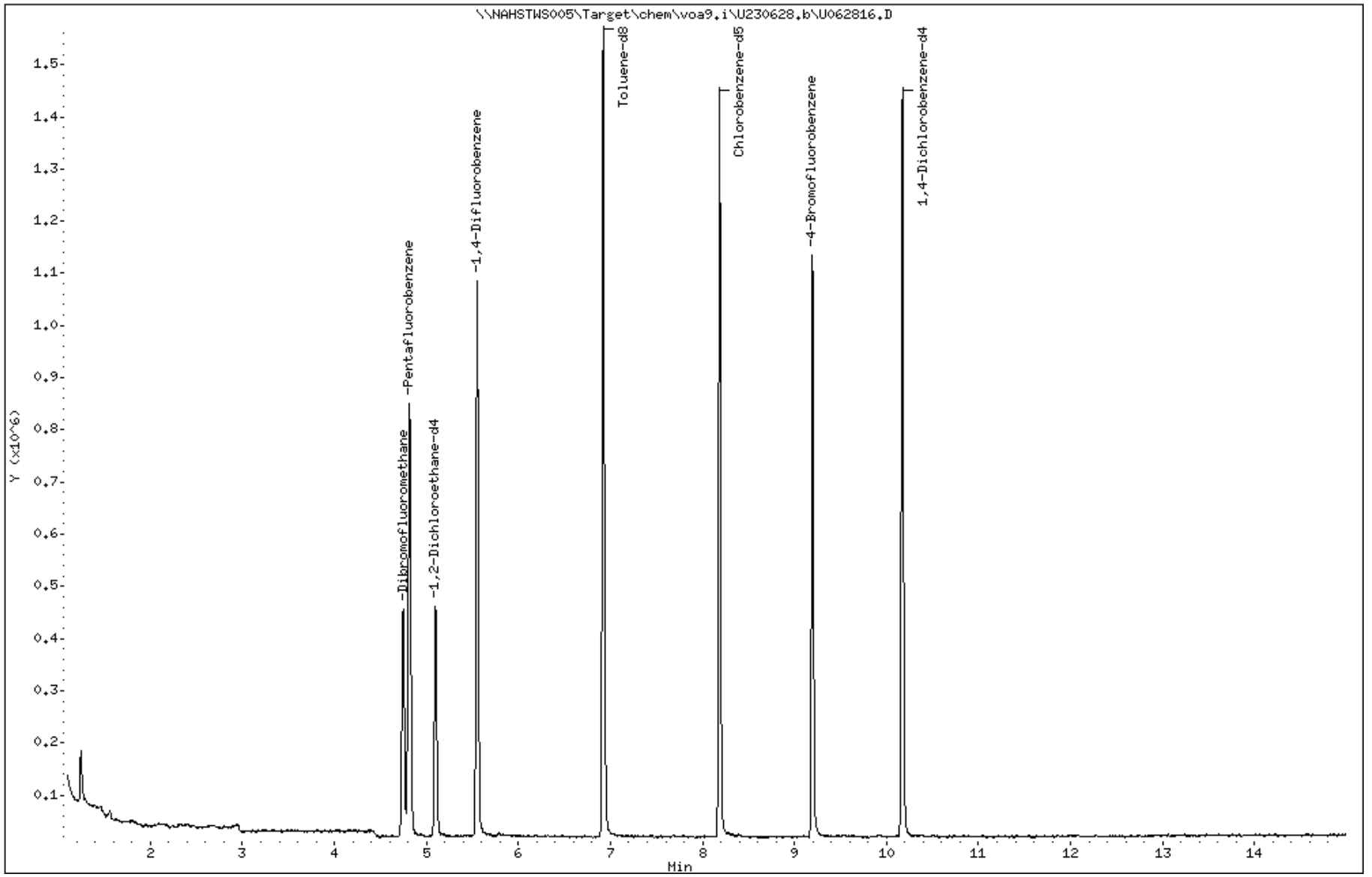
Sample Info: HS23061825-06;HS23061825-06;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062816.D
Inj Date : 28-JUN-2023 16:50
InstruID : VOA9.i
LabSampID : HS23061825-06

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062817.D Page 1
Report Date: 03-Jul-2023 12:56

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062817.D
Lab Smp Id: HS23061825-01 Client Smp ID: HS23061825-01
Inj Date : 28-JUN-2023 17:12
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-01;HS23061825-01;;;
Misc Info : V9;WATER;0;5;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 16
Dil Factor: 5.00000
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	5.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	603688	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.747	(0.986)	254862	50.2990	50.29
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.059)	290878	53.0932	53.09
* 36 1,4-Difluorobenzene	114	5.554	5.553	(1.000)	817104	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	741646	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	913128	54.3995	54.39
$ 69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	311266	47.0115	47.01
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	371427	50.0000	
138 Freon TF	101	2.337	2.333	(0.485)	2399725	591.879	2959.39(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

01205844

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062817.D

Page 1

Date : 28-JUN-2023 17:12

Client ID: HS23061825-01

Instrument: VOA9.i

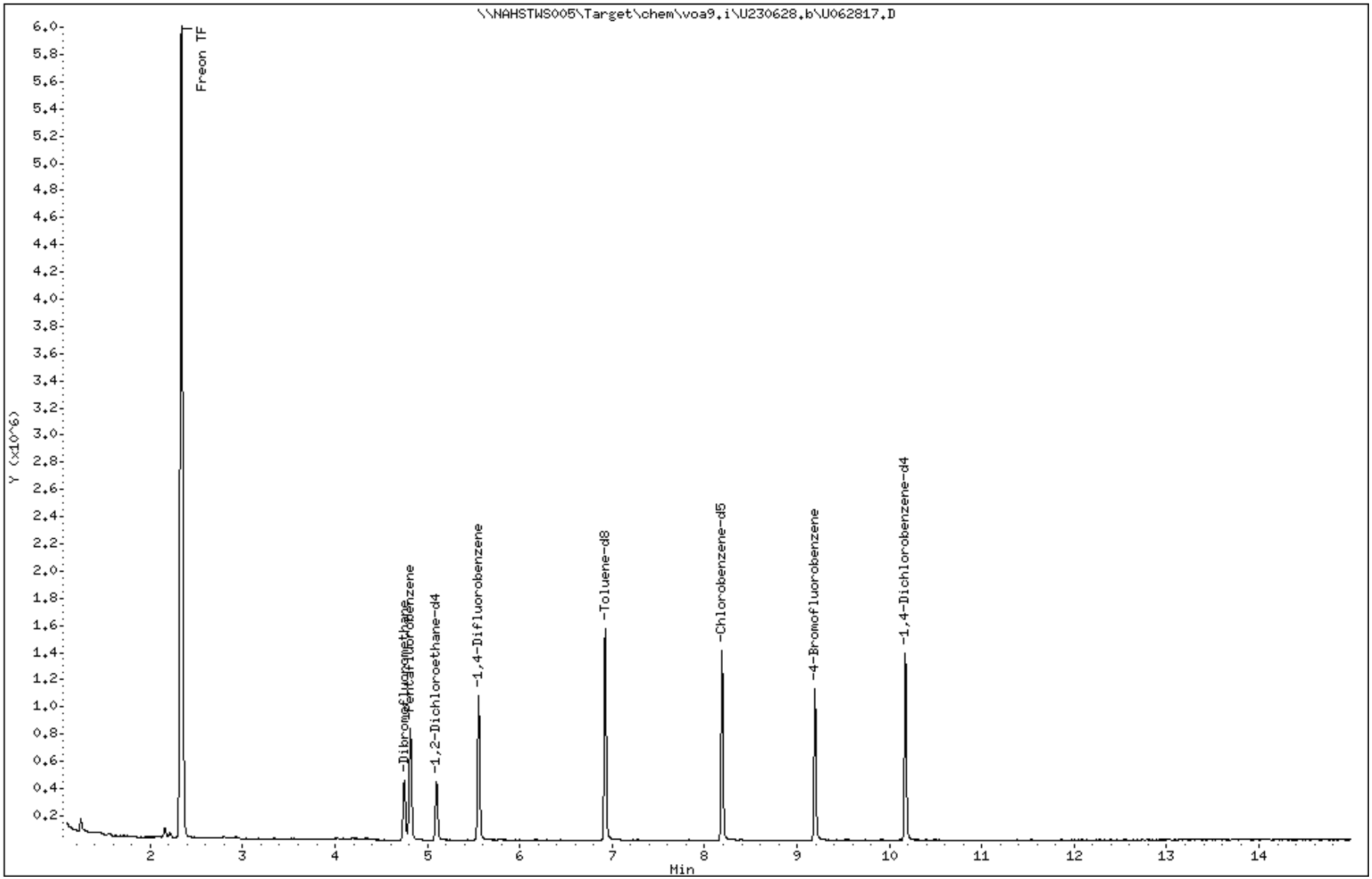
Sample Info: HS23061825-01;HS23061825-01;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062817.D

Date : 28-JUN-2023 17:12

Client ID: HS23061825-01

Instrument: VOA9.i

Sample Info: HS23061825-01;HS23061825-01;;;

Purge Volume: 5.0

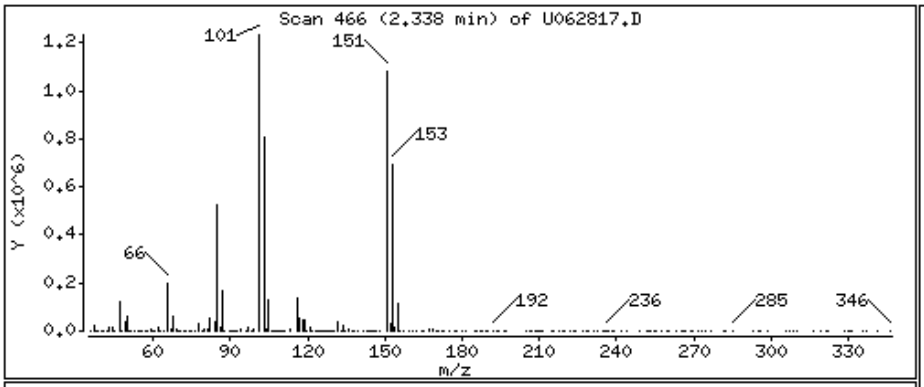
Operator: PC

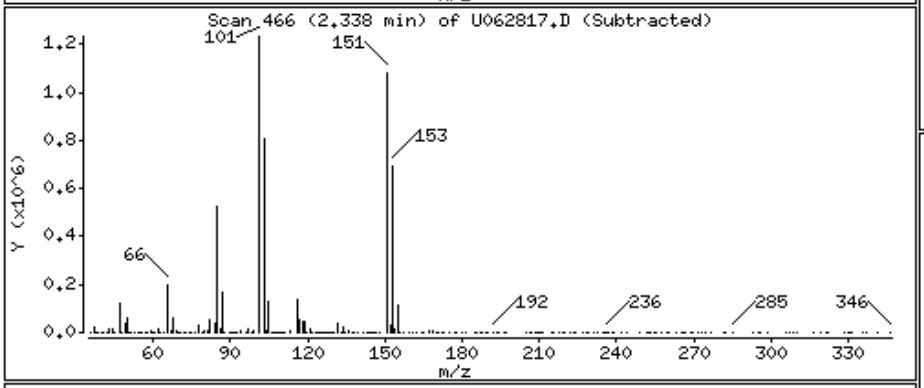
Column phase: DB624

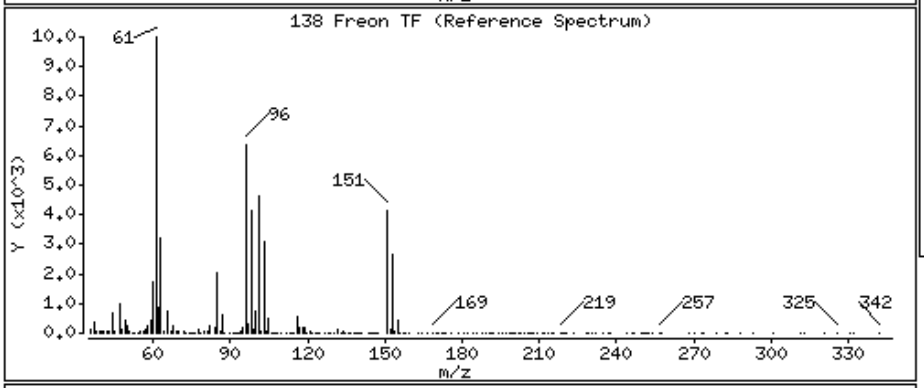
Column diameter: 0.18

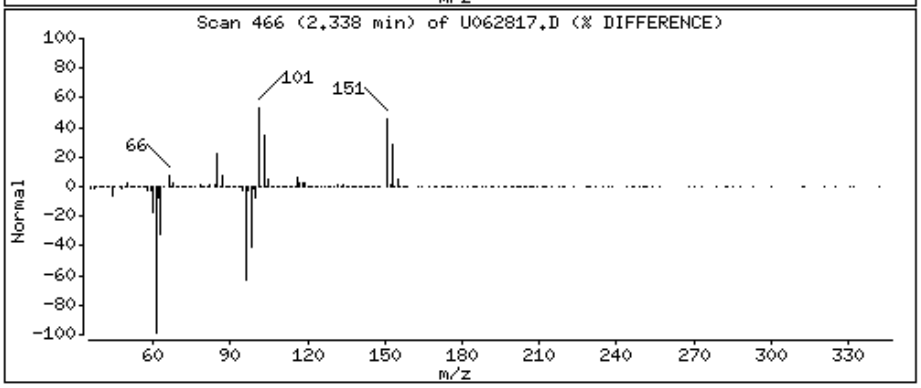
138 Freon TF

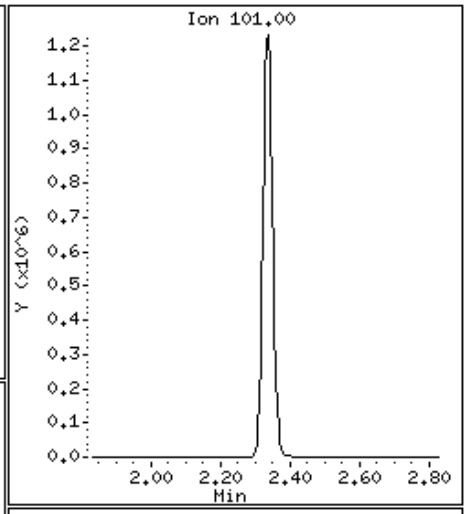
Concentration: 2959.39 ug/l

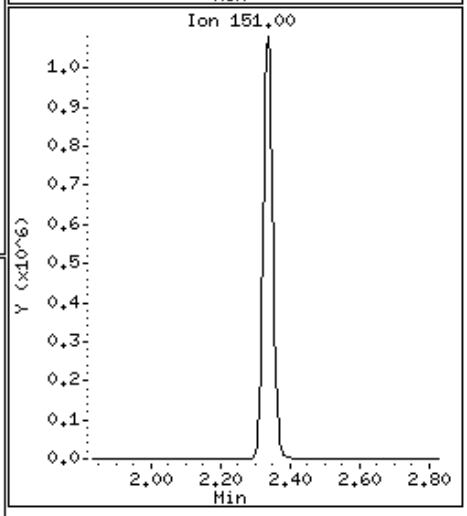












Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062817.D
Inj Date : 28-JUN-2023 17:12
InstruID : VOA9.i
LabSampID : HS23061825-01

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062818.D
Lab Smp Id: HS23061825-02 Client Smp ID: HS23061825-02
Inj Date : 28-JUN-2023 17:35
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-02;HS23061825-02;;;
Misc Info : V9;WATER;0;5;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 17
Dil Factor: 5.00000
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	5.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.811	4.815	(1.000)	636211	50.0000	
	5 Vinyl Chloride	62	1.370	1.374	(0.285)	7022	1.04347	5.21(a)
	22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	4752	0.47612	2.38(a)
	27 cis-1,2-Dichloroethene	96	4.193	4.193	(0.871)	32477	5.16900	25.84
$	30 Dibromofluoromethane	113	4.744	4.747	(0.986)	263828	49.4012	49.40
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	309490	53.6092	53.60
*	36 1,4-Difluorobenzene	114	5.550	5.553	(1.000)	864818	50.0000	
	38 Trichloroethene	130	5.786	5.790	(1.043)	188966	31.2854	156.42
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	745219	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	943381	55.9324	55.93
$	69 4-Bromofluorobenzene	95	9.194	9.193	(1.123)	310730	46.6996	46.69
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	371030	50.0000	
M	94 1,2-Dichloroethylene (total)	96				32477	5.16900	25.84(a)
	138 Freon TF	101	2.330	2.333	(0.484)	330141	77.2649	386.32

QC Flag Legend

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

01205848

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062818.D

Date : 28-JUN-2023 17:35

Client ID: HS23061825-02

Instrument: VOA9.i

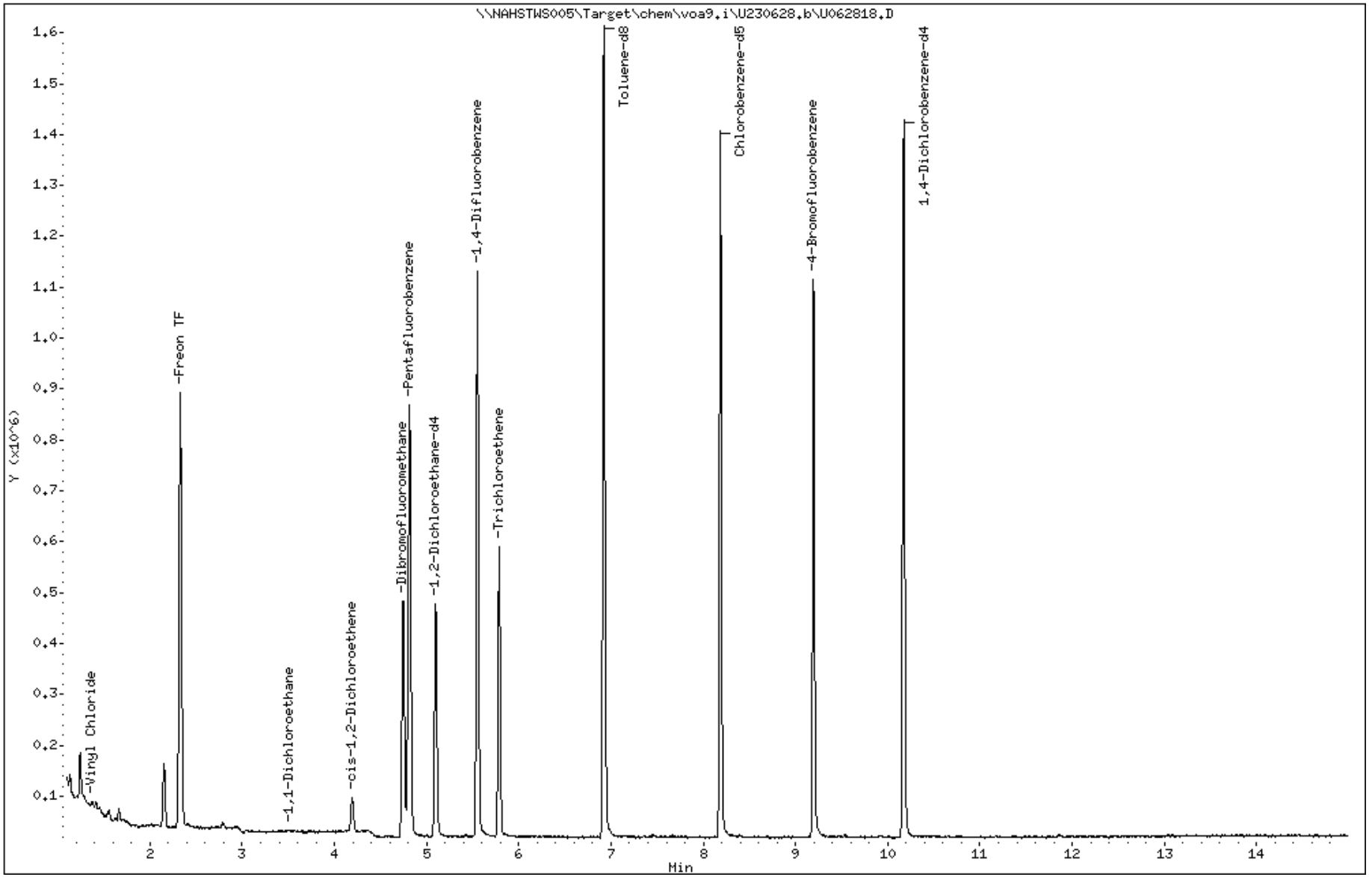
Sample Info: HS23061825-02;HS23061825-02;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062818.D

Date : 28-JUN-2023 17:35

Client ID: HS23061825-02

Instrument: VOA9.i

Sample Info: HS23061825-02;HS23061825-02;;;

Purge Volume: 5.0

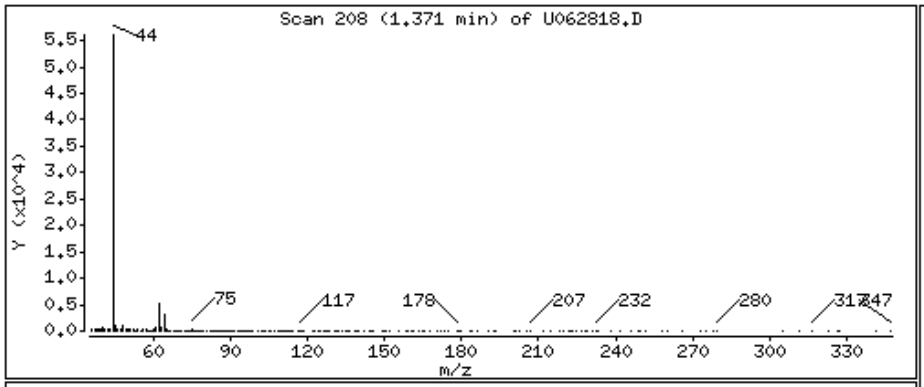
Operator: PC

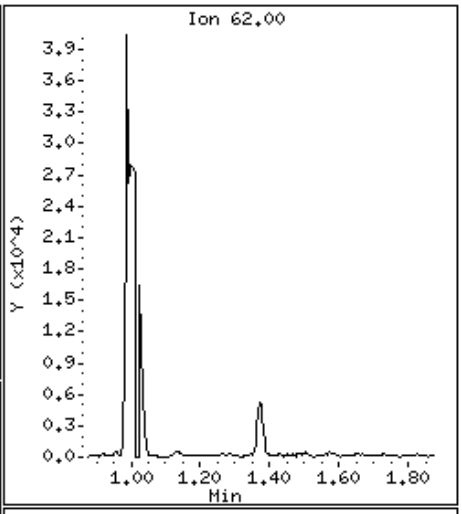
Column phase: DB624

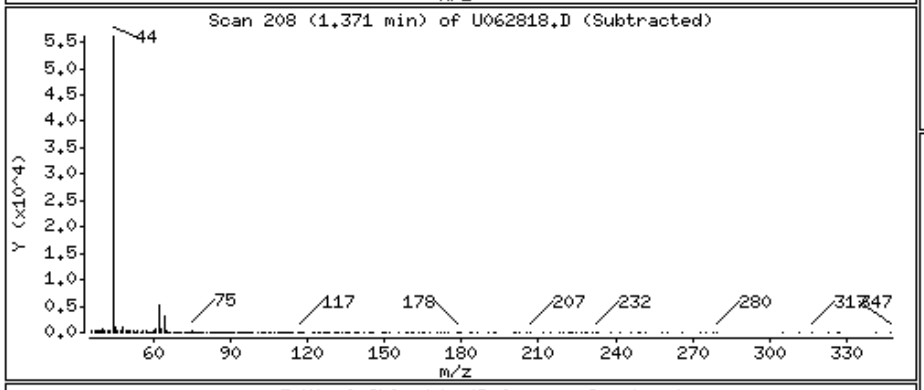
Column diameter: 0.18

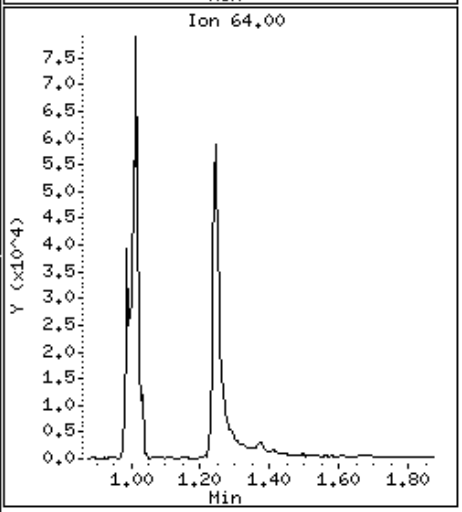
5 Vinyl Chloride

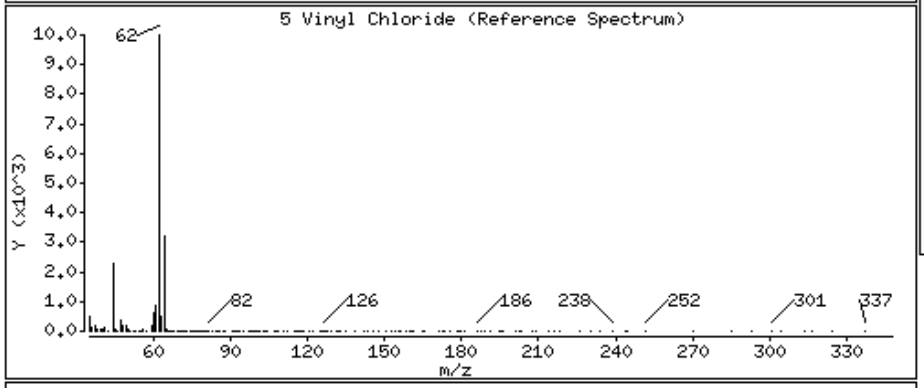
Concentration: 5.21 ug/l

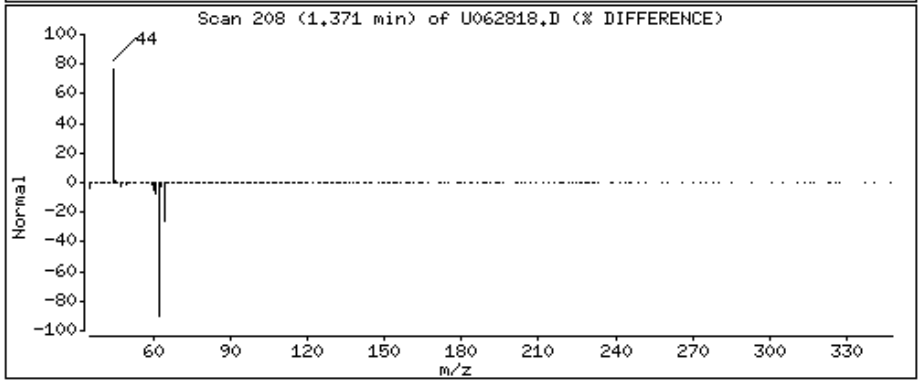












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062818.D Page 3

Date : 28-JUN-2023 17:35

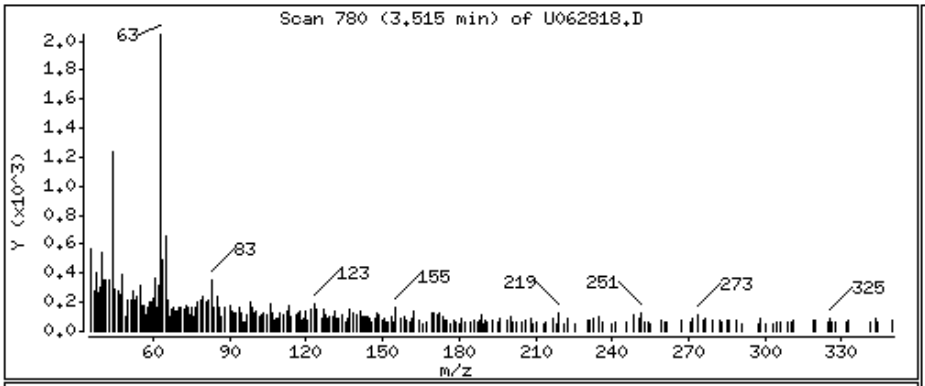
Client ID: HS23061825-02 Instrument: VOA9.i

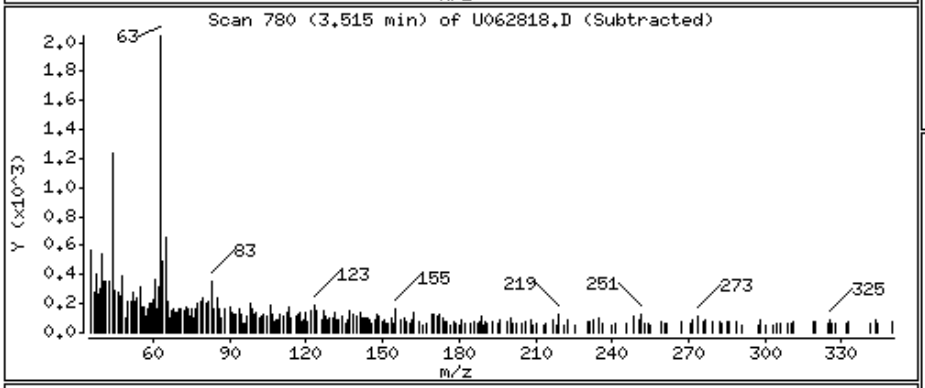
Sample Info: HS23061825-02;HS23061825-02;;;

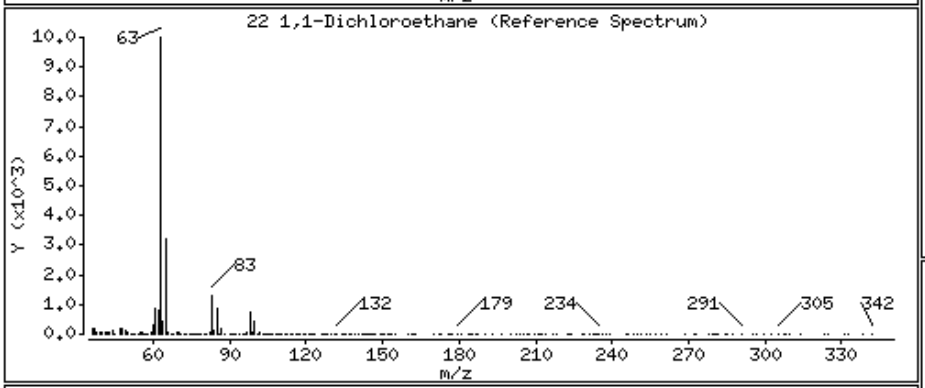
Purge Volume: 5.0 Operator: PC

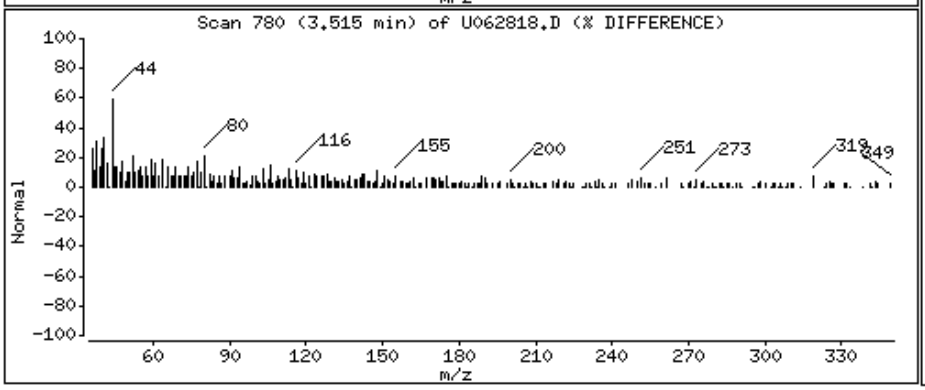
Column phase: DB624 Column diameter: 0.18

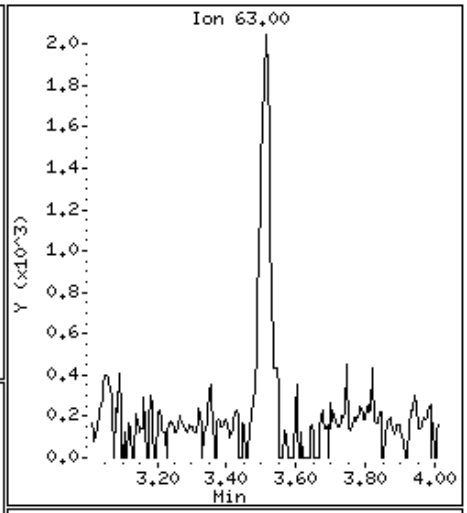
22 1,1-Dichloroethane Concentration: 2.38 ug/l

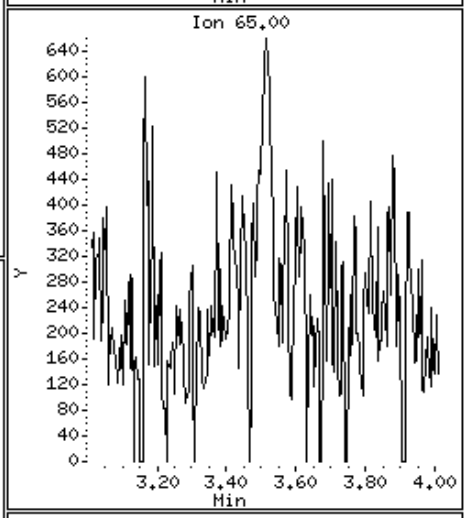


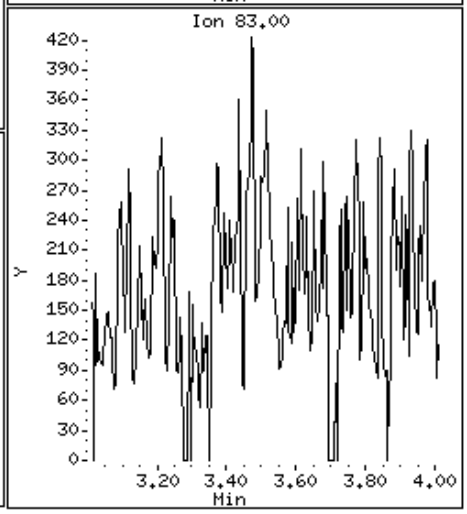












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062818.D Page 4

Date : 28-JUN-2023 17:35

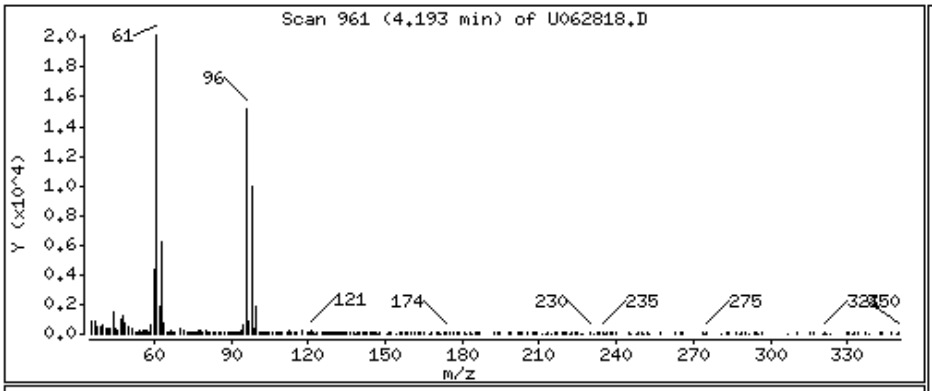
Client ID: HS23061825-02 Instrument: VOA9.i

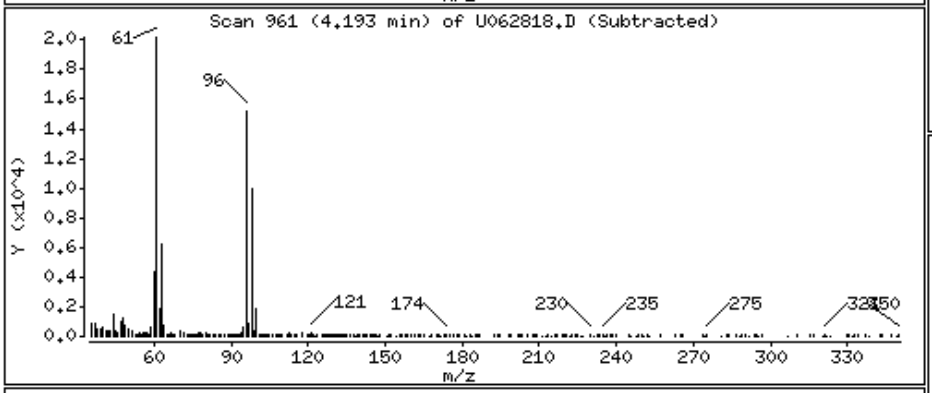
Sample Info: HS23061825-02;HS23061825-02;;;

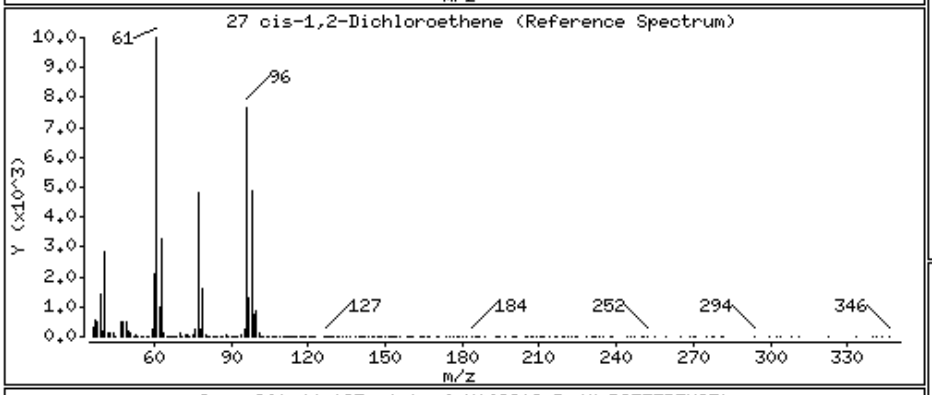
Purge Volume: 5.0 Operator: PC

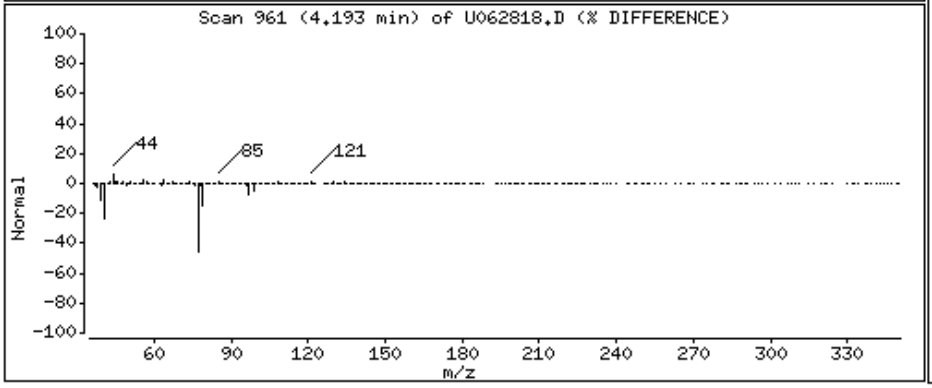
Column phase: DB624 Column diameter: 0.18

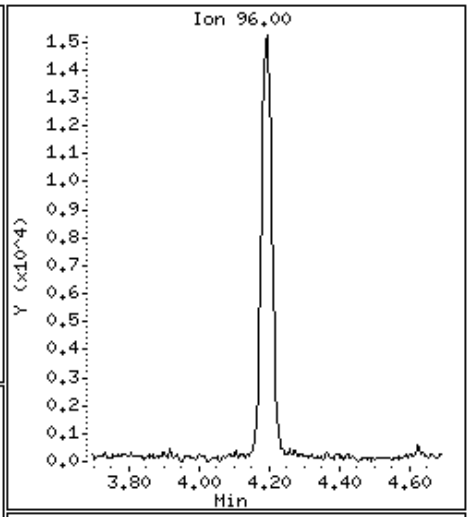
27 cis-1,2-Dichloroethene Concentration: 25.84 ug/l

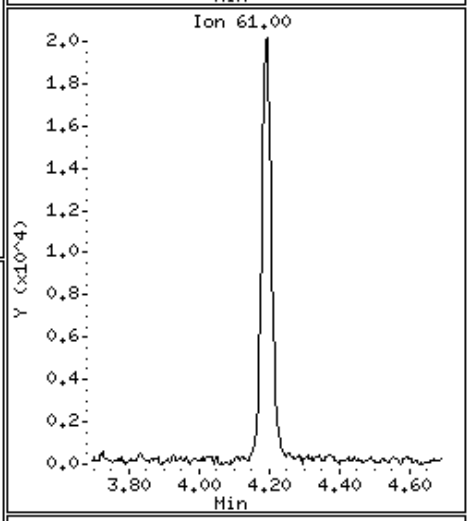


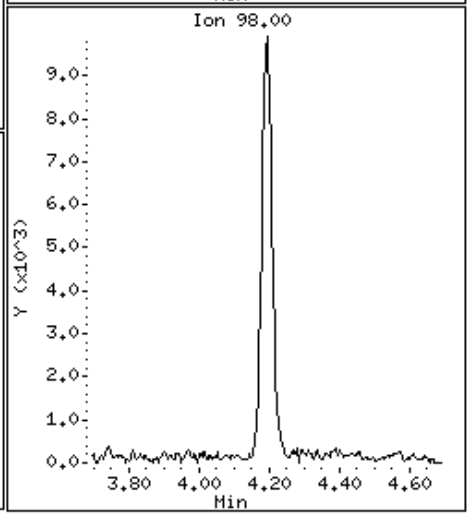












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062818.D Page 5

Date : 28-JUN-2023 17:35

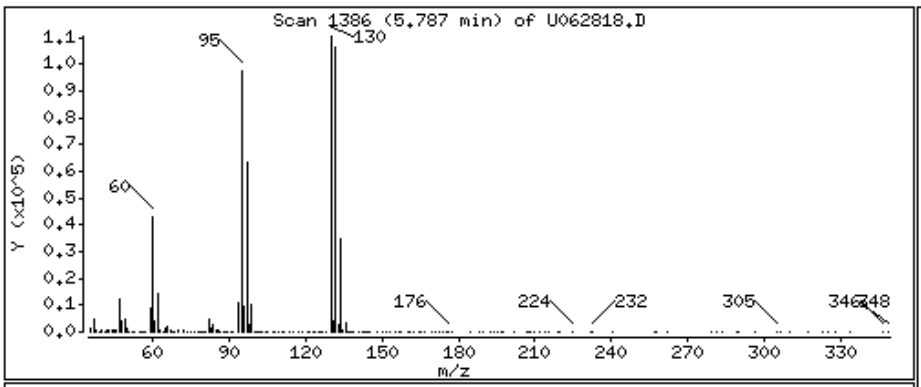
Client ID: HS23061825-02 Instrument: VOA9.i

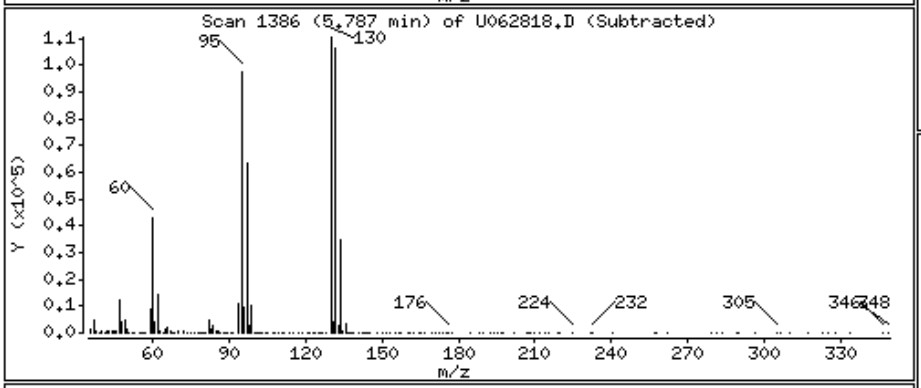
Sample Info: HS23061825-02;HS23061825-02;;;

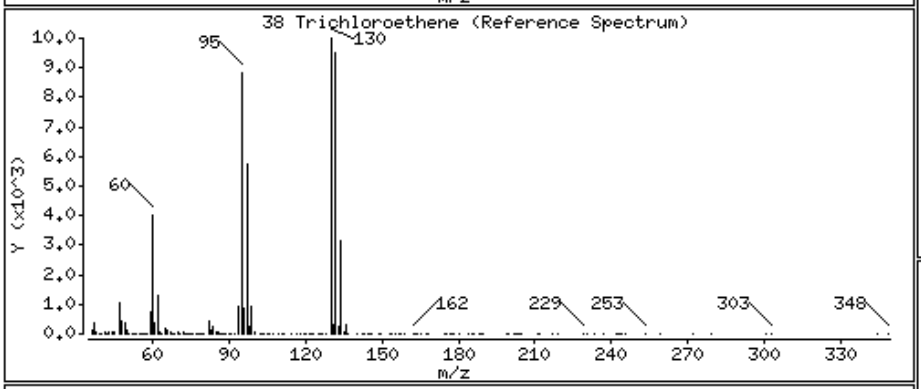
Purge Volume: 5.0 Operator: PC

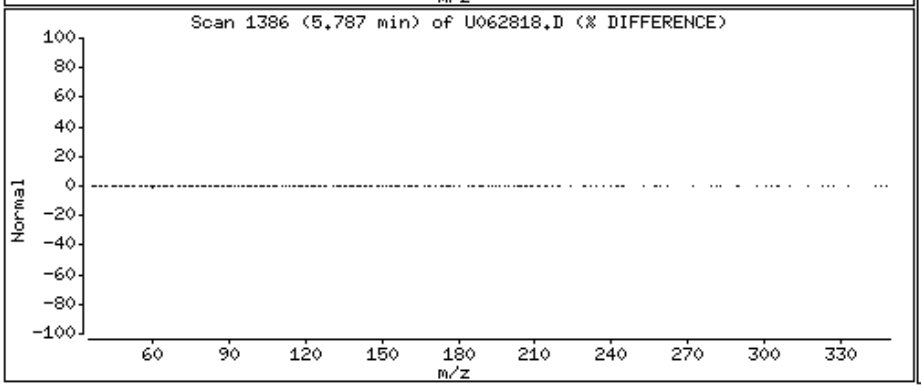
Column phase: DB624 Column diameter: 0.18

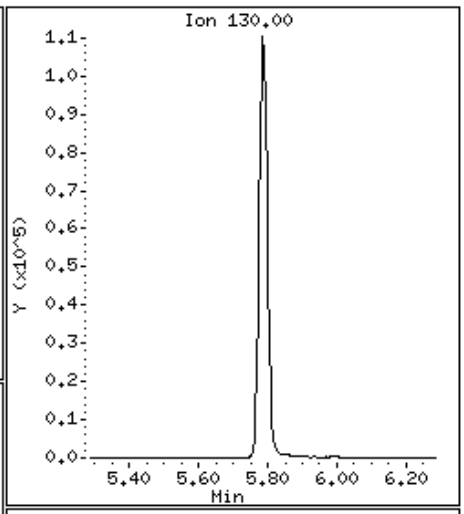
38 Trichloroethene Concentration: 156.42 ug/l

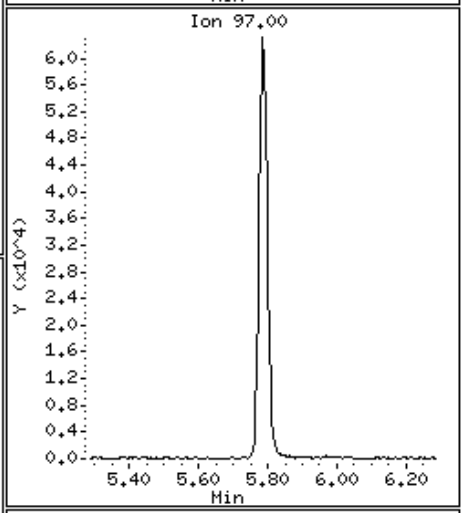


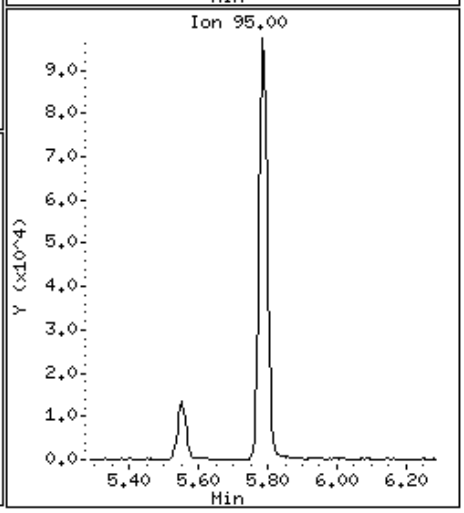












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062818.D

Date : 28-JUN-2023 17:35

Client ID: HS23061825-02

Instrument: VOA9.i

Sample Info: HS23061825-02;HS23061825-02;;;

Purge Volume: 5.0

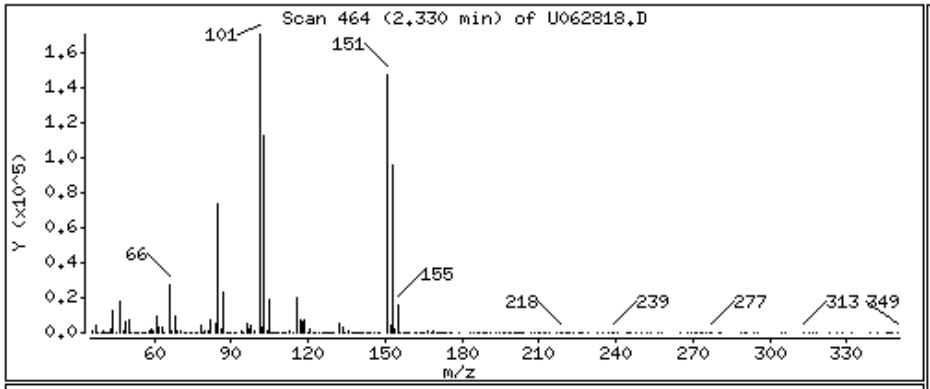
Operator: PC

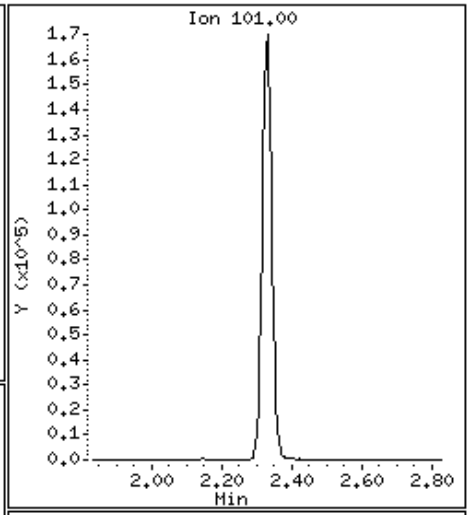
Column phase: DB624

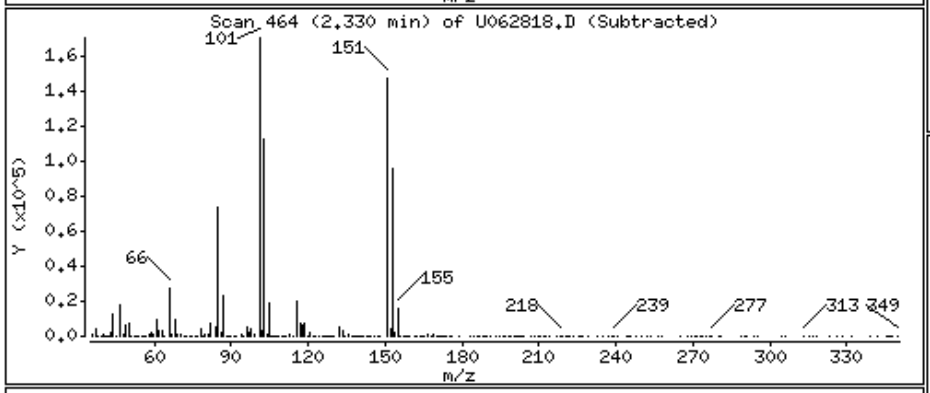
Column diameter: 0.18

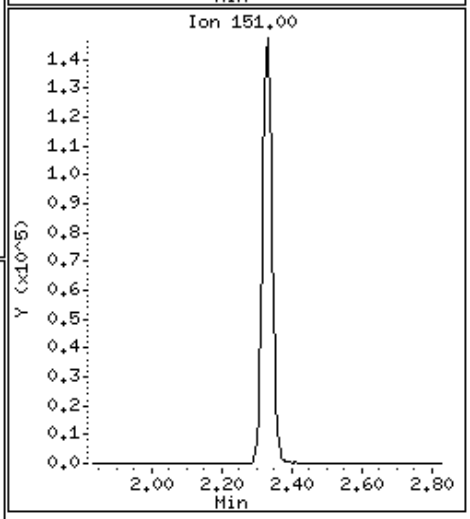
138 Freon TF

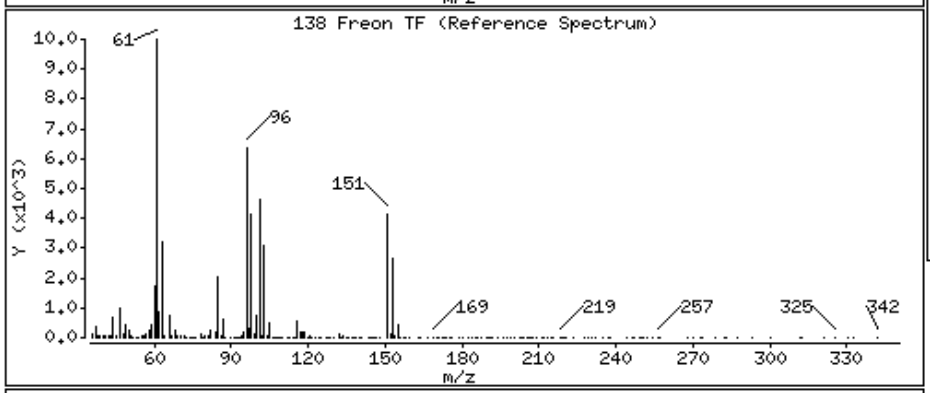
Concentration: 386.32 ug/l

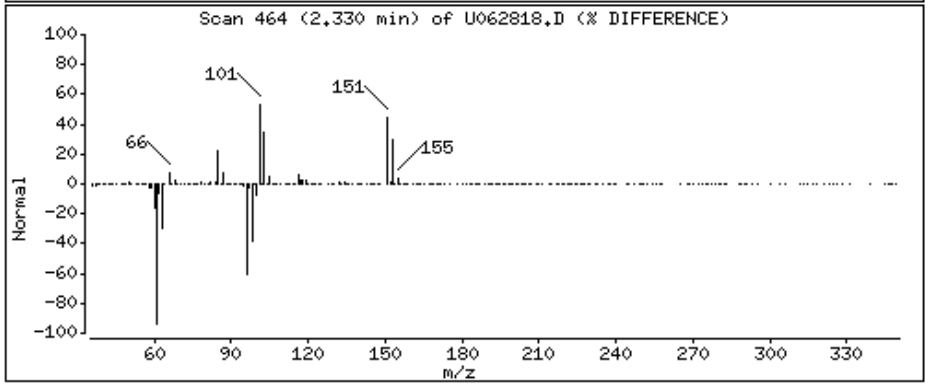












Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062818.D
Inj Date : 28-JUN-2023 17:35
InstruID : VOA9.i
LabSampID : HS23061825-02

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062830.D Page 1
Report Date: 03-Jul-2023 12:56

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062830.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 28-JUN-2023 22:03
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\U230628.b\8260C.m
Meth Date : 03-Jul-2023 12:56 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 29 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	515747	50.0000	
2 Dichlorodifluoromethane	85	1.164	1.164	(0.242)	185837	50.0000	39.01
3 Chloromethane	50	1.295	1.295	(0.269)	331511	50.0000	42.41
5 Vinyl Chloride	62	1.378	1.378	(0.286)	250448	50.0000	45.90
6 Bromomethane	94	1.618	1.618	(0.336)	155122	50.0000	55.49
7 Chloroethane	64	1.700	1.700	(0.353)	177158	50.0000	48.20
8 Trichlorofluoromethane	101	1.895	1.895	(0.394)	347349	50.0000	55.43
9 Acrolein	56	2.262	2.262	(0.470)	27685	100.000	101.13
10 Acetone	43	2.408	2.408	(0.500)	182377	100.000	103.13
11 1,1-Dichloroethene	96	2.334	2.334	(0.485)	196716	50.0000	50.24
15 Iodomethane	142	2.468	2.468	(0.513)	315342	100.000	101.92
16 Acrylonitrile	53	3.065	3.065	(0.636)	200262	100.000	104.70
17 Methylene Chloride	84	2.795	2.795	(0.580)	249828	50.0000	53.18
18 Methyl tert-butyl ether	73	3.080	3.080	(0.640)	645662	50.0000	53.78
19 Carbon Disulfide	76	2.521	2.521	(0.524)	1183559	100.000	113.08
20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	219417	50.0000	51.53
21 Vinyl Acetate	43	3.608	3.608	(0.749)	1328349	100.000	102.35
22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	395726	50.0000	48.90
24 2-Butanone	43	4.268	4.268	(0.886)	213417	100.000	90.75
26 2,2-Dichloropropane	77	4.182	4.182	(0.868)	255961	50.0000	47.86

27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	264023	50.0000	51.83
28 Chloroform	83	4.571	4.571 (0.949)	431751	50.0000	51.27

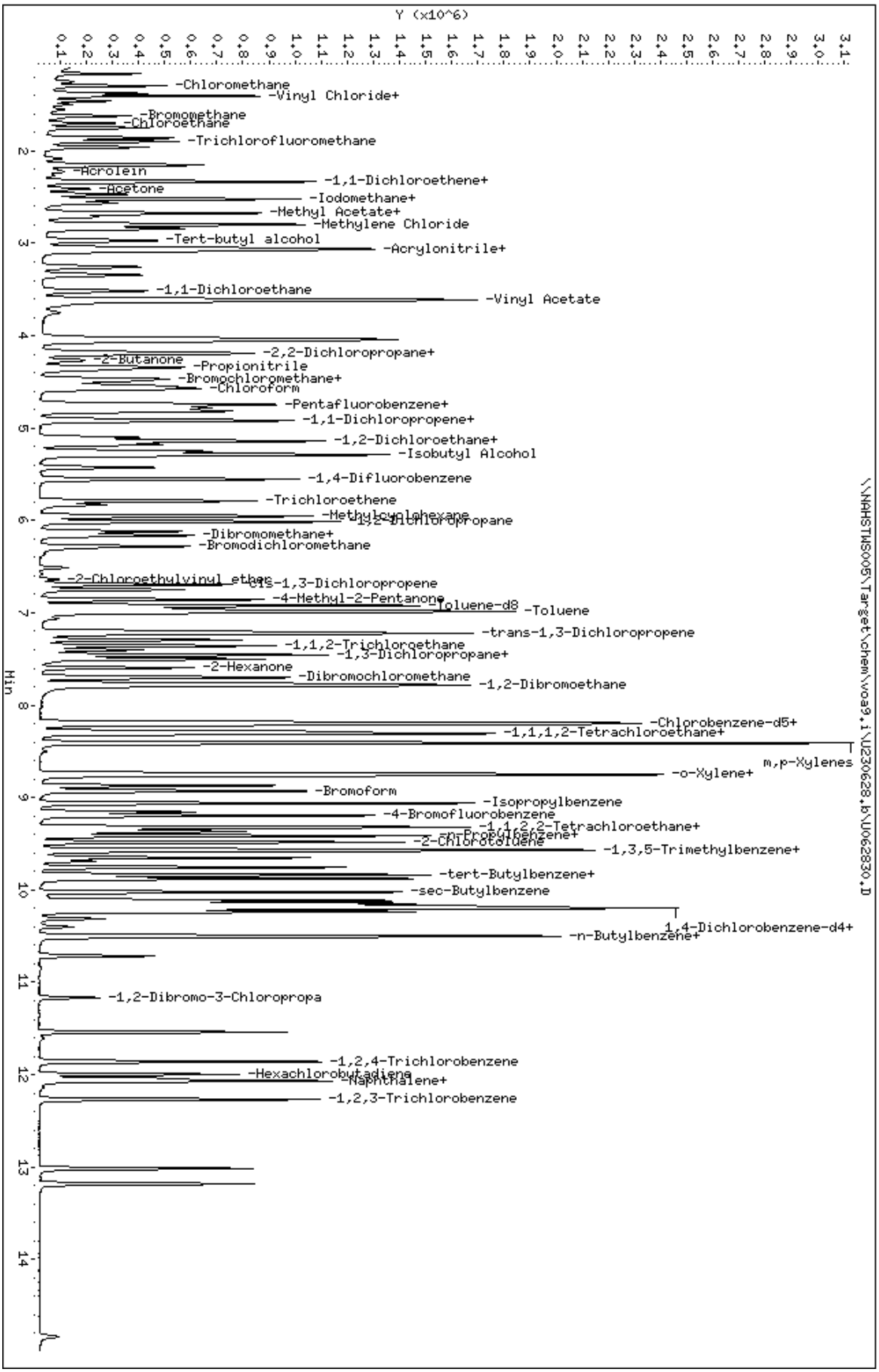
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.470	4.470	(0.928)	142059	50.0000	49.86
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	228194	50.0000	52.73
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	346831	50.0000	54.03
	32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	286137	50.0000	50.71
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	349143	50.0000	52.39
	34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	293869	50.0000	56.70
$	35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	250995	50.0000	53.63
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	769849	50.0000	
	37 Benzene	78	5.138	5.138	(0.925)	915321	50.0000	49.34
	38 Trichloroethene	130	5.790	5.790	(1.043)	274627	50.0000	51.07
	39 Bromodichloromethane	83	6.281	6.281	(1.131)	315348	50.0000	54.49
	41 2-Chloroethylvinyl ether	63	6.581	6.581	(1.185)	5206	100.000	37.19
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	243359	50.0000	49.13
	44 Dibromomethane	93	6.120	6.120	(1.102)	167892	50.0000	53.05
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	507613	100.000	91.35
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	355154	50.0000	45.97
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	763054	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	841470	50.0000	48.72
	50 Toluene	91	6.982	6.982	(0.853)	1023784	50.0000	49.46
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	303921	50.0000	46.83
	52 2-Hexanone	43	7.593	7.593	(0.928)	331917	100.000	85.77
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	203074	50.0000	47.15
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	423156	50.0000	48.09
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	277783	50.0000	54.36
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	236340	50.0000	46.87
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	262437	50.0000	49.40
	58 1-Chlorohexane	55	8.196	8.196	(1.476)	194002	50.0000	49.07
	59 Chlorobenzene	112	8.211	8.211	(1.003)	721755	50.0000	48.86
	60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	262670	50.0000	51.74
	61 Ethylbenzene	106	8.309	8.309	(1.015)	337764	50.0000	49.13
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	846242	100.000	104.04
	63 o-Xylene	106	8.748	8.748	(1.069)	416461	50.0000	51.82
	64 Styrene	104	8.763	8.763	(1.071)	682220	50.0000	53.50
	66 Bromoform	173	8.920	8.920	(1.090)	191653	50.0000	55.57
	67 Isopropylbenzene	105	9.062	9.062	(1.107)	983192	50.0000	50.94
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	343413	50.0000	45.24
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	354198	50.0000	52.09
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	403519	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	317472	50.0000	47.54
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	1052770	50.0000	49.73
	74 Bromobenzene	156	9.317	9.317	(0.916)	325653	50.0000	47.83
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	708461	50.0000	48.78
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	709906	50.0000	47.71
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	809022	50.0000	49.12
	78 tert-Butylbenzene	119	9.838	9.838	(0.967)	694114	50.0000	48.66
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	709998	50.0000	46.73
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	866571	50.0000	47.91
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	724195	50.0000	47.79
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	541683	50.0000	46.84
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	563991	50.0000	45.74
	87 n-Butylbenzene	91	10.494	10.494	(1.032)	592616	50.0000	45.68
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	542030	50.0000	46.74

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	49111	50.0000	44.33
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	348093	50.0000	43.64

	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)	143558	50.0000	44.57
92	Naphthalene	128	12.069	12.069	(1.186)	812570	50.0000	43.86
93	1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	341770	50.0000	43.83
M 94	1,2-Dichloroethylene (total)	96				483440	100.000	(a)
135	1,4-Dioxane	88	6.168	6.168	(1.281)	67397	1000.00	658.12
141	Cyclohexane	56	4.781	4.781	(0.993)	284865	50.0000	45.06
138	Freon TF	101	2.334	2.334	(0.485)	184284	50.0000	53.20
140	1,3-Butadiene	54	1.404	1.404	(0.292)	222455	50.0000	45.54
147	Methylcyclohexane	55	5.947	5.947	(1.071)	515415	50.0000	48.26
146	Methyl Acetate	43	2.712	2.712	(0.563)	212974	50.0000	49.04
148	Tert-Butyl alcohol	59	2.971	2.971	(0.617)	498931	1000.00	1047.24
149	Isopropyl Alcohol	45	2.562	2.562	(0.532)	325566	1000.00	965.61
72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	48967	50.0000	55.73
12	Isobutyl Alcohol	43	5.287	5.287	(1.098)	784860	1000.00	1171.26
13	Acetonitrile	39	2.671	2.671	(0.555)	283106	500.000	507.01
14	Allyl Chloride	41	2.671	2.671	(0.555)	644068	50.0000	48.10
25	Methacrylonitrile	41	4.497	4.497	(0.934)	146733	50.0000	48.15
40	Methyl Methacrylate	41	6.157	6.157	(1.279)	226280	50.0000	51.02
4	Propionitrile	54	4.339	4.339	(0.901)	369099	500.000	495.25
162	Butyl acrylate	55	8.733	8.733	(1.067)	405225	50.0000	44.89
203	2-Ethylhexyl Acrylate	55	12.043	12.043	(1.184)	180376	50.0000	46.86

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9,i\U230628,b\U062830.D
Date : 28-JUN-2023 22:03
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

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230628.b\U062830.D
Inj Date : 28-JUN-2023 22:03
InstruID : VOA9.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS

01205862

right solutions.
right partner.

Raw Data VOA9 440247

Volatiles by EPA 8260

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/07/2023

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\U230629.b\U062901.D Page 1
Report Date: 29-Jun-2023 11:14

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062901.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 29-JUN-2023 10:25
Operator : PC Inst ID: VOA9.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\bfb.m
Meth Date : 27-Jan-2023 08:08 apoluri Quant Type: ISTD
Cal Date : 30-MAR-2018 18:09 Cal File: U033003.d
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)		
RT	EXP RT	REL RT	MASS	RESPONSE			TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
9.193	9.180	(0.000)	95	137408			0.00- 100.00	100.00
9.193	9.180	(0.000)	50	26296			15.00- 40.00	19.14
9.193	9.180	(0.000)	75	66800			30.00- 60.00	48.61
9.193	9.180	(0.000)	96	9899			5.00- 9.00	7.20
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	126192			50.00- 0.00	91.84
9.193	9.180	(0.000)	175	10615			5.00- 9.00	8.41
9.193	9.180	(0.000)	176	122792			95.00- 101.00	97.31
9.193	9.180	(0.000)	177	8415			5.00- 9.00	6.85

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.14
75	30.00 - 60.00% of mass 95	48.61
96	5.00 - 9.00% of mass 95	7.20
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	91.84
175	5.00 - 9.00% of mass 174	7.73 (8.41)
176	95.00 - 101.00% of mass 174	89.36 (97.31)
177	5.00 - 9.00% of mass 176	6.12 (6.85)

Data File: U062901.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.00
Number of points: 176

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.10	252	79.90	1665	124.80	61	170.80	874
36.00	1546	80.90	4141	125.80	118	171.90	843
37.00	7371	81.80	969	126.80	1403	173.90	126192
38.00	6957	83.00	567	127.90	738	175.00	10615
39.00	4817	84.10	264	128.90	281	175.90	122792
39.90	1246	84.80	175	129.90	545	176.90	8415
41.00	3515	86.10	263	130.80	213	177.90	210
42.00	4906	86.90	5179	131.40	69	178.60	55
43.00	4642	87.90	5591	132.30	65	180.50	60
44.00	2110	89.90	116	133.10	62	181.80	74
45.00	3367	90.90	751	134.90	277	182.90	57
46.10	375	92.00	4065	135.60	101	183.30	67
47.00	2085	93.00	6359	136.20	103	184.70	126
48.00	1081	94.00	16776	136.80	262	185.10	138
49.00	5281	95.00	137408	137.80	84	185.90	1127
50.00	26296	96.00	9899	138.60	115	191.00	65
51.00	8560	97.00	491	139.90	228	192.00	133
52.00	635	98.00	2525	140.80	1717	197.30	57
53.10	480	99.10	328	141.90	1502	206.80	130
54.00	852	99.70	121	142.90	1498	208.10	64
55.00	5512	101.20	83	143.90	219	209.70	68
55.90	2893	102.00	89	145.00	202	216.90	55
57.00	4420	102.80	151	145.90	185	217.40	86
58.00	1604	103.90	570	146.90	124	233.90	111
59.00	5551	104.90	321	147.90	521	234.40	78
60.00	1485	105.80	626	148.90	250	234.80	55
61.00	6331	107.00	462	149.80	154	237.00	72
62.00	6243	108.00	88	152.00	92	237.90	75
63.00	5141	109.00	188	153.00	250	245.40	100
64.00	723	109.90	163	154.00	183	255.00	78
64.90	549	110.90	230	154.90	513	259.70	92
65.80	168	111.70	113	155.60	133	261.00	57
67.00	589	112.90	276	156.00	86	262.70	63
68.00	13898	113.50	55	156.80	310	278.70	83
69.00	14912	114.50	77	158.40	85	287.80	76
70.00	2302	115.00	164	159.00	150	301.50	51
71.10	302	115.90	587	159.70	85	311.90	72
71.90	711	116.90	774	160.90	294	312.80	55
73.00	6584	117.90	482	161.80	105	329.10	61
74.00	23440	118.90	811	165.10	51	331.30	56
75.00	66800	119.80	149	165.70	97	340.70	58
76.00	6044	122.00	115	167.00	66		
77.00	1228	122.60	81	167.70	105		
77.90	790	123.30	120	168.10	83		
78.90	3911	123.70	113	169.60	237		

+--------------------+--------------------+--------------------+--------------------+

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062901.D

Date : 29-JUN-2023 10:25

Client ID: BFB

Instrument: VOA9.i

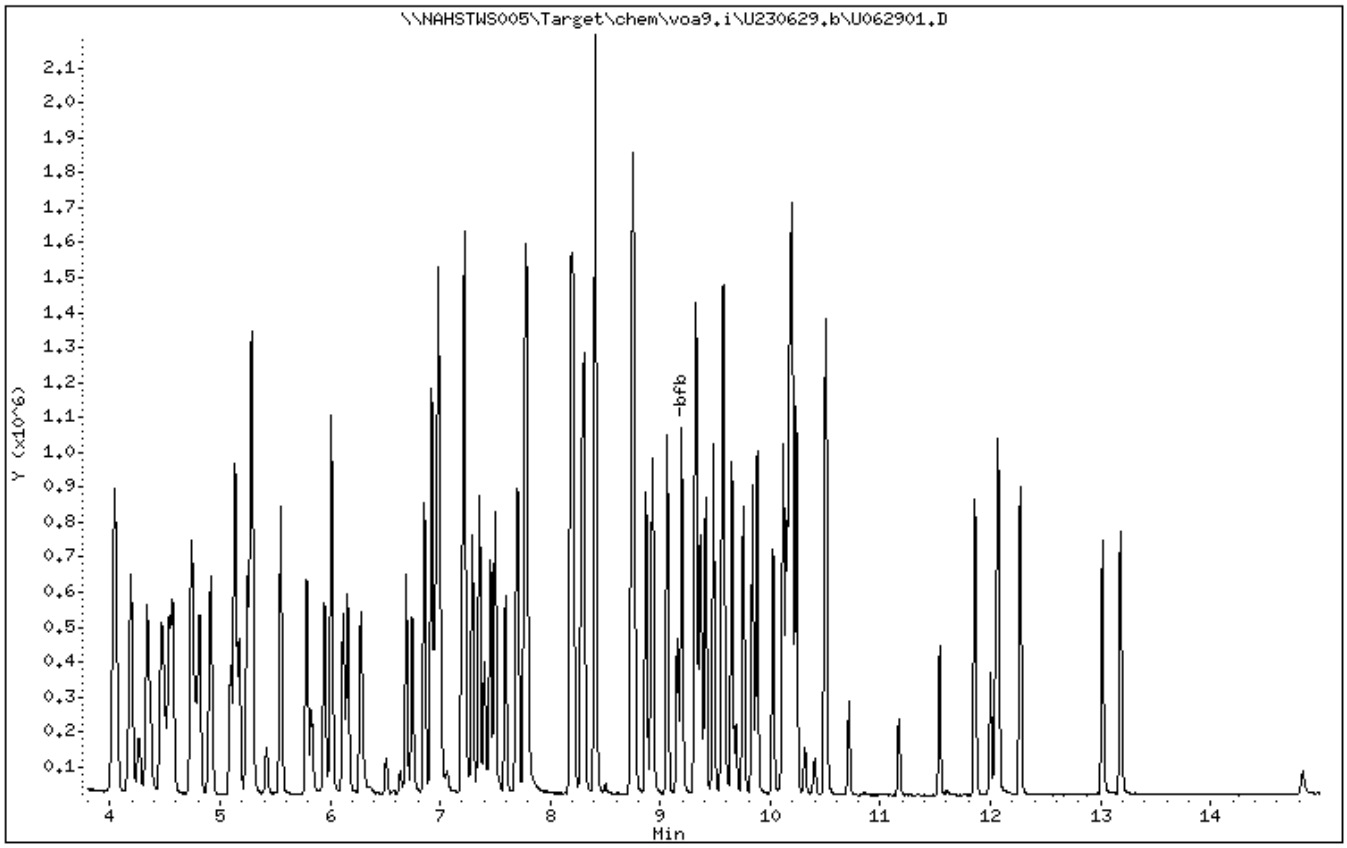
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062901.D

Date : 29-JUN-2023 10:25

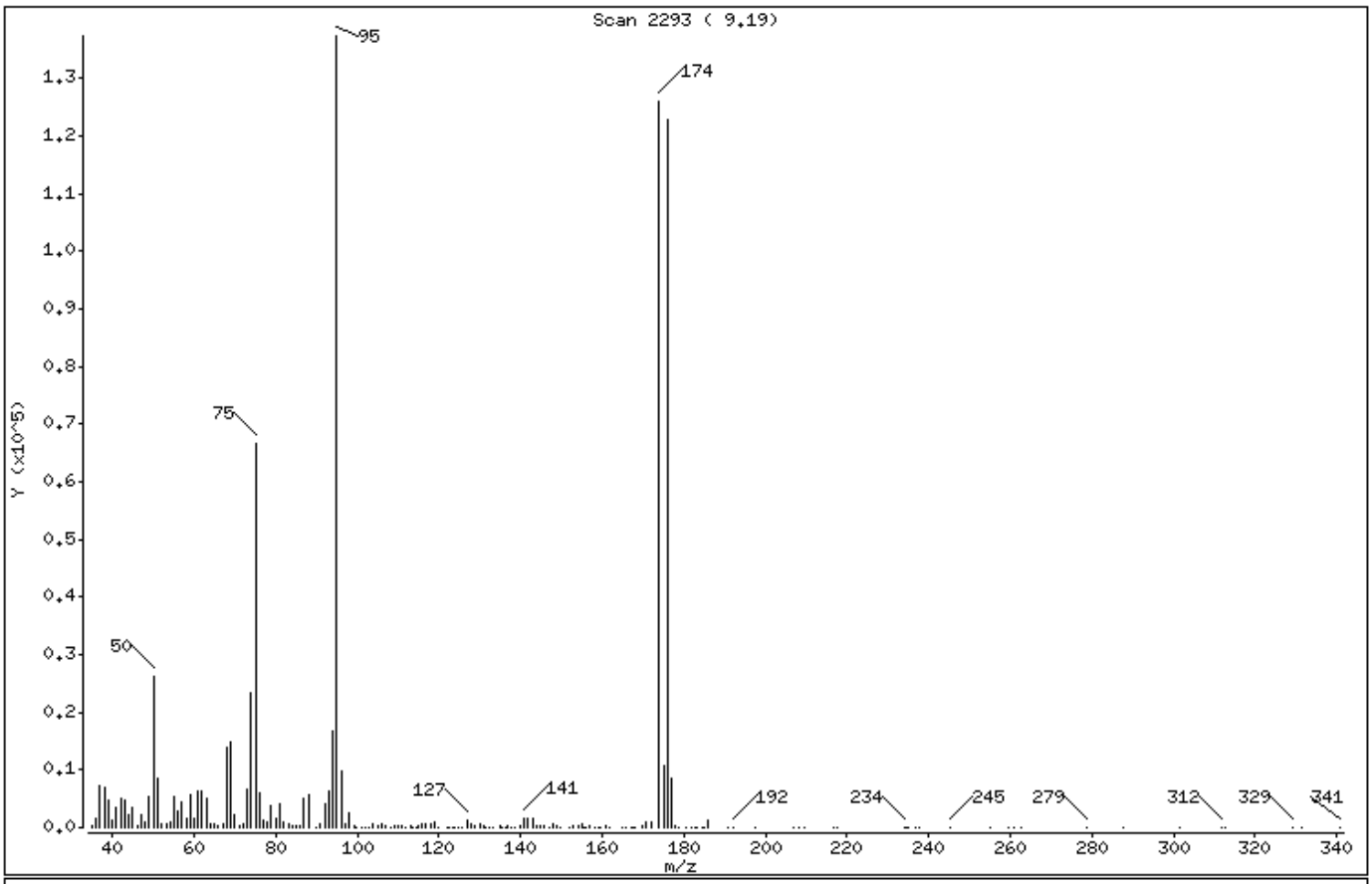
Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.14
75	30.00 - 60.00% of mass 95	48.61
96	5.00 - 9.00% of mass 95	7.20
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	91.84
175	5.00 - 9.00% of mass 174	7.73 (8.41)
176	95.00 - 101.00% of mass 174	89.36 (97.31)
177	5.00 - 9.00% of mass 176	6.12 (6.85)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062901.D Page 3

Date : 29-JUN-2023 10:25

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: U062901.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.00
Number of points: 176

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.10	252	79.90	1665	124.80	61	170.80	874
36.00	1546	80.90	4141	125.80	118	171.90	843
37.00	7371	81.80	969	126.80	1403	173.90	126192
38.00	6957	83.00	567	127.90	738	175.00	10615
39.00	4817	84.10	264	128.90	281	175.90	122792
39.90	1246	84.80	175	129.90	545	176.90	8415
41.00	3515	86.10	263	130.80	213	177.90	210
42.00	4906	86.90	5179	131.40	69	178.60	55
43.00	4642	87.90	5591	132.30	65	180.50	60
44.00	2110	89.90	116	133.10	62	181.80	74
45.00	3367	90.90	751	134.90	277	182.90	57
46.10	375	92.00	4065	135.60	101	183.30	67
47.00	2085	93.00	6359	136.20	103	184.70	126
48.00	1081	94.00	16776	136.80	262	185.10	138
49.00	5281	95.00	137408	137.80	84	185.90	1127
50.00	26296	96.00	9899	138.60	115	191.00	65
51.00	8560	97.00	491	139.90	228	192.00	133
52.00	635	98.00	2525	140.80	1717	197.30	57
53.10	480	99.10	328	141.90	1502	206.80	130
54.00	852	99.70	121	142.90	1498	208.10	64
55.00	5512	101.20	83	143.90	219	209.70	68
55.90	2893	102.00	89	145.00	202	216.90	55
57.00	4420	102.80	151	145.90	185	217.40	86
58.00	1604	103.90	570	146.90	124	233.90	111
59.00	5551	104.90	321	147.90	521	234.40	78
60.00	1485	105.80	626	148.90	250	234.80	55
61.00	6331	107.00	462	149.80	154	237.00	72
62.00	6243	108.00	88	152.00	92	237.90	75
63.00	5141	109.00	188	153.00	250	245.40	100
64.00	723	109.90	163	154.00	183	255.00	78
64.90	549	110.90	230	154.90	513	259.70	92
65.80	168	111.70	113	155.60	133	261.00	57
67.00	589	112.90	276	156.00	86	262.70	63
68.00	13898	113.50	55	156.80	310	278.70	83
69.00	14912	114.50	77	158.40	85	287.80	76

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062901.D

Date : 29-JUN-2023 10:25

Client ID: BFB Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: PC

Column phase: DB624 Column diameter: 0.25

Data File: U062901.D
Spectrum: Scan 2293 (9.19)
Location of Maximum: 95.00
Number of points: 176

m/z	Y	m/z	Y	m/z	Y	m/z	Y
70.00	2302	115.00	164	159.00	150	301.50	51
71.10	302	115.90	587	159.70	85	311.90	72
71.90	711	116.90	774	160.90	294	312.80	55
73.00	6584	117.90	482	161.80	105	329.10	61
74.00	23440	118.90	811	165.10	51	331.30	56
75.00	66800	119.80	149	165.70	97	340.70	58
76.00	6044	122.00	115	167.00	66		
77.00	1228	122.60	81	167.70	105		
77.90	790	123.30	120	168.10	83		
78.90	3911	123.70	113	169.60	237		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062903.D Page 1
Report Date: 03-Jul-2023 13:02

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062903.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 29-JUN-2023 11:09
Operator : PC Inst ID: VOA9.i
Smp Info : CCV;CCV;2;;;
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\8260C.m
Meth Date : 03-Jul-2023 13:02 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1	Pentafluorobenzene	168	4.815	4.815	(1.000)	567832	50.0000	
2	Dichlorodifluoromethane	85	1.160	1.160	(0.241)	248826	50.0000	47.43
3	Chloromethane	50	1.291	1.291	(0.268)	360189	50.0000	41.84
5	Vinyl Chloride	62	1.370	1.370	(0.285)	289205	50.0000	48.15
6	Bromomethane	94	1.614	1.614	(0.335)	173249	50.0000	56.32
7	Chloroethane	64	1.696	1.696	(0.352)	195134	50.0000	48.22
8	Trichlorofluoromethane	101	1.891	1.891	(0.393)	374393	50.0000	54.27
9	Acrolein	56	2.259	2.259	(0.469)	29341	100.000	97.35
10	Acetone	43	2.405	2.405	(0.499)	199771	100.000	102.57
11	1,1-Dichloroethene	96	2.326	2.326	(0.483)	218196	50.0000	50.62
15	Iodomethane	142	2.465	2.465	(0.512)	469765	100.000	132.11
16	Acrylonitrile	53	3.061	3.061	(0.636)	207130	100.000	98.36
17	Methylene Chloride	84	2.791	2.791	(0.580)	275015	50.0000	53.17
18	Methyl tert-butyl ether	73	3.076	3.076	(0.639)	693580	50.0000	52.47
19	Carbon Disulfide	76	2.517	2.517	(0.523)	1317811	100.000	114.36
20	trans-1,2-Dichloroethene	96	3.053	3.053	(0.634)	242156	50.0000	51.66
21	Vinyl Acetate	43	3.604	3.604	(0.749)	1523456	100.000	106.61
22	1,1-Dichloroethane	63	3.511	3.511	(0.729)	426488	50.0000	47.87
24	2-Butanone	43	4.264	4.264	(0.886)	243882	100.000	94.20
26	2,2-Dichloropropane	77	4.178	4.178	(0.868)	327931	50.0000	55.63

27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	282555	50.0000	50.38
28 Chloroform	83	4.572	4.572 (0.949)	465274	50.0000	50.18

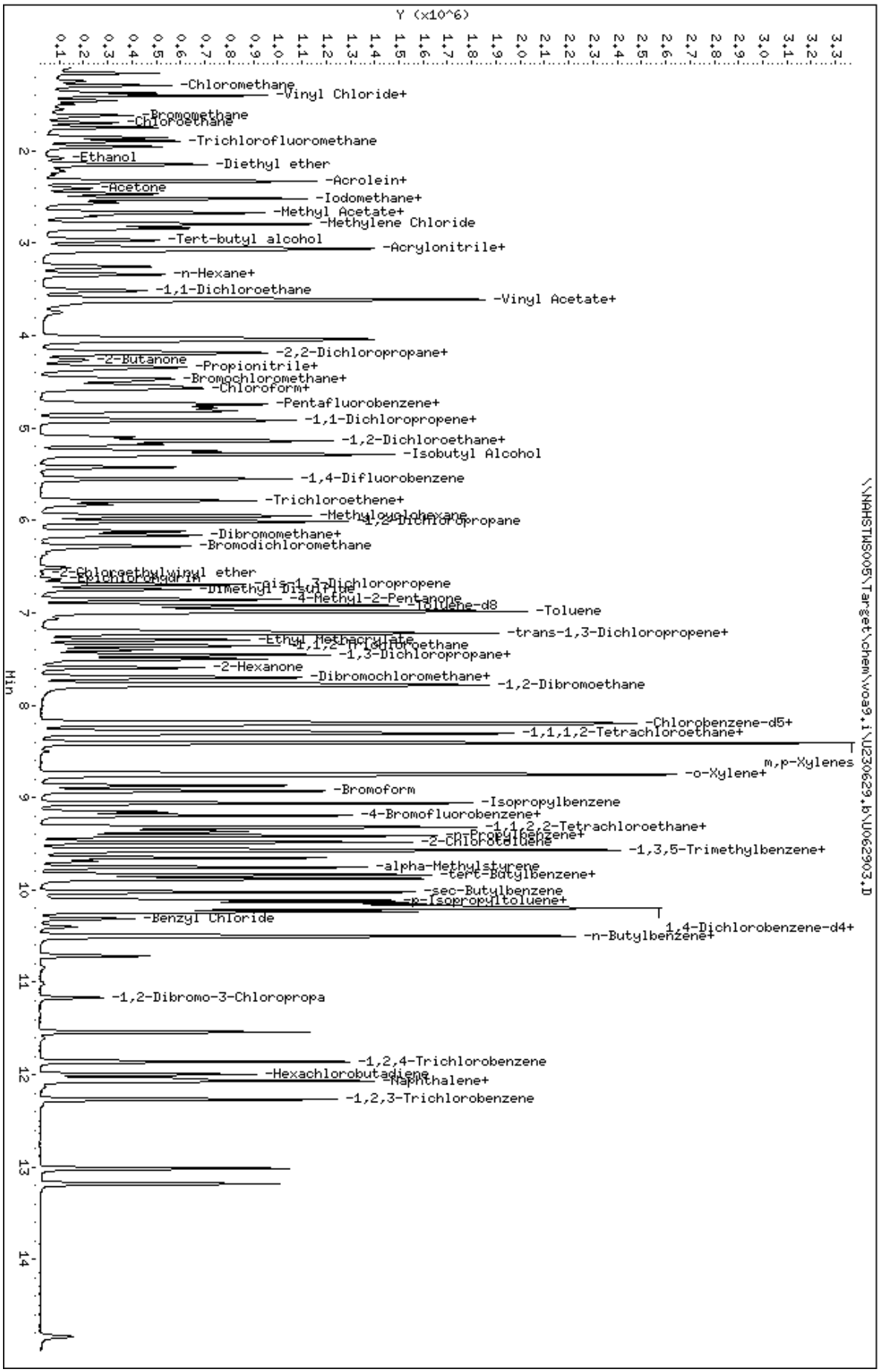
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.467	4.467	(0.928)	156621	50.0000	49.93
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	232377	50.0000	48.74
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	363547	50.0000	51.44
	32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	316664	50.0000	53.31
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	378513	50.0000	53.95
	34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	307890	50.0000	56.43
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	251930	50.0000	48.83
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	810480	50.0000	
	37 Benzene	78	5.138	5.138	(0.925)	1016602	50.0000	52.05
	38 Trichloroethene	130	5.786	5.786	(1.042)	287106	50.0000	50.72
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	343835	50.0000	56.43
	41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.184)	6674	100.000	45.29
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	271733	50.0000	52.11
	44 Dibromomethane	93	6.120	6.120	(1.102)	181615	50.0000	54.51
	45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	578495	100.000	99.39
	46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	420561	50.0000	51.46
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	799242	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	862483	50.0000	47.67
	50 Toluene	91	6.982	6.982	(0.853)	1116313	50.0000	51.49
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	355051	50.0000	51.75
	52 2-Hexanone	43	7.593	7.593	(0.928)	382492	100.000	94.36
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	222076	50.0000	49.23
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	470280	50.0000	51.03
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	307648	50.0000	57.48
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	265608	50.0000	50.29
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	287483	50.0000	51.66
	58 1-Chlorohexane	55	8.197	8.197	(1.476)	218237	50.0000	52.43
	59 Chlorobenzene	112	8.208	8.208	(1.003)	783162	50.0000	50.62
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	290290	50.0000	54.59
	61 Ethylbenzene	106	8.305	8.305	(1.015)	373478	50.0000	51.86
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	922302	100.000	108.26
	63 o-Xylene	106	8.748	8.748	(1.069)	454956	50.0000	54.05
	64 Styrene	104	8.763	8.763	(1.071)	768428	50.0000	57.53
	66 Bromoform	173	8.920	8.920	(1.090)	207889	50.0000	57.54
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	1079543	50.0000	53.40
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	379212	50.0000	47.75
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	362803	50.0000	50.92
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	422195	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	356028	50.0000	50.95
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	1172463	50.0000	52.94
	74 Bromobenzene	156	9.317	9.317	(0.916)	358049	50.0000	50.26
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	784940	50.0000	51.66
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	777096	50.0000	49.91
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	881168	50.0000	51.13
	78 tert-Butylbenzene	119	9.839	9.839	(0.967)	761608	50.0000	51.03
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	812621	50.0000	51.11
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	969818	50.0000	51.24
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	831761	50.0000	52.46
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	595532	50.0000	49.22
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	617192	50.0000	47.84
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	689708	50.0000	50.81
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	588353	50.0000	48.50

89	1,2-Dibromo-3-Chloropropane	155	11.166	11.166 (1.098)	55797	50.0000	48.14
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	403211	50.0000	48.32

	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)	172198	50.0000	51.10
92	Naphthalene	128	12.065	12.065	(1.186)	986449	50.0000	50.89
93	1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	385167	50.0000	47.21
M 94	1,2-Dichloroethylene (total)	96				524711	100.000	(a)
135	1,4-Dioxane	88	6.169	6.169	(1.281)	75657	1000.00	671.01
141	Cyclohexane	56	4.778	4.778	(0.992)	321160	50.0000	46.11
138	Freon TF	101	2.330	2.330	(0.484)	207068	50.0000	54.29
140	1,3-Butadiene	54	1.400	1.400	(0.291)	250901	50.0000	46.65
147	Methylcyclohexane	55	5.947	5.947	(1.071)	583437	50.0000	51.89
146	Methyl Acetate	43	2.709	2.709	(0.563)	227335	50.0000	47.54
148	Tert-Butyl alcohol	59	2.967	2.967	(0.616)	561534	1000.00	1070.64
149	Isopropyl Alcohol	45	2.559	2.559	(0.531)	367475	1000.00	989.94
72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	59881	50.0000	65.06
12	Isobutyl Alcohol	43	5.288	5.288	(1.098)	786826	1000.00	1066.49
13	Acetonitrile	39	2.667	2.667	(0.554)	307113	500.000	499.55
14	Allyl Chloride	41	2.667	2.667	(0.554)	708060	50.0000	48.02
25	Methacrylonitrile	41	4.493	4.493	(0.933)	169672	50.0000	50.57
40	Methyl Methacrylate	41	6.157	6.157	(1.279)	255713	50.0000	52.37
4	Propionitrile	54	4.339	4.339	(0.901)	391722	500.000	477.39
131	Methyl Acrylate	55	4.369	4.369	(0.907)	317776	50.0000	52.91
49	Ethyl Methacrylate	69	7.293	7.293	(1.313)	381964	50.0000	53.76
166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	804562	50.0000	49.57
156	Diisopropyl ether	45	3.619	3.619	(0.752)	810551	50.0000	51.19

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9,i\U230629,b\U062903,D
Date : 29-JUN-2023 11:09
Client ID: CCV
Sample Info: CCV;CCV;2;;;
Purge Volume: 5.0
Column phase: DB624

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

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062903.D
Inj Date : 29-JUN-2023 11:09
InstruID : VOA9.i
LabSampID : CCV

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062904.D Page 1
Report Date: 03-Jul-2023 13:02

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062904.D
Lab Smp Id: CCB Client Smp ID: CCB
Inj Date : 29-JUN-2023 11:32
Operator : PC Inst ID: VOA9.i
Smp Info : CCB;CCB;;;
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\8260C.m
Meth Date : 03-Jul-2023 13:02 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

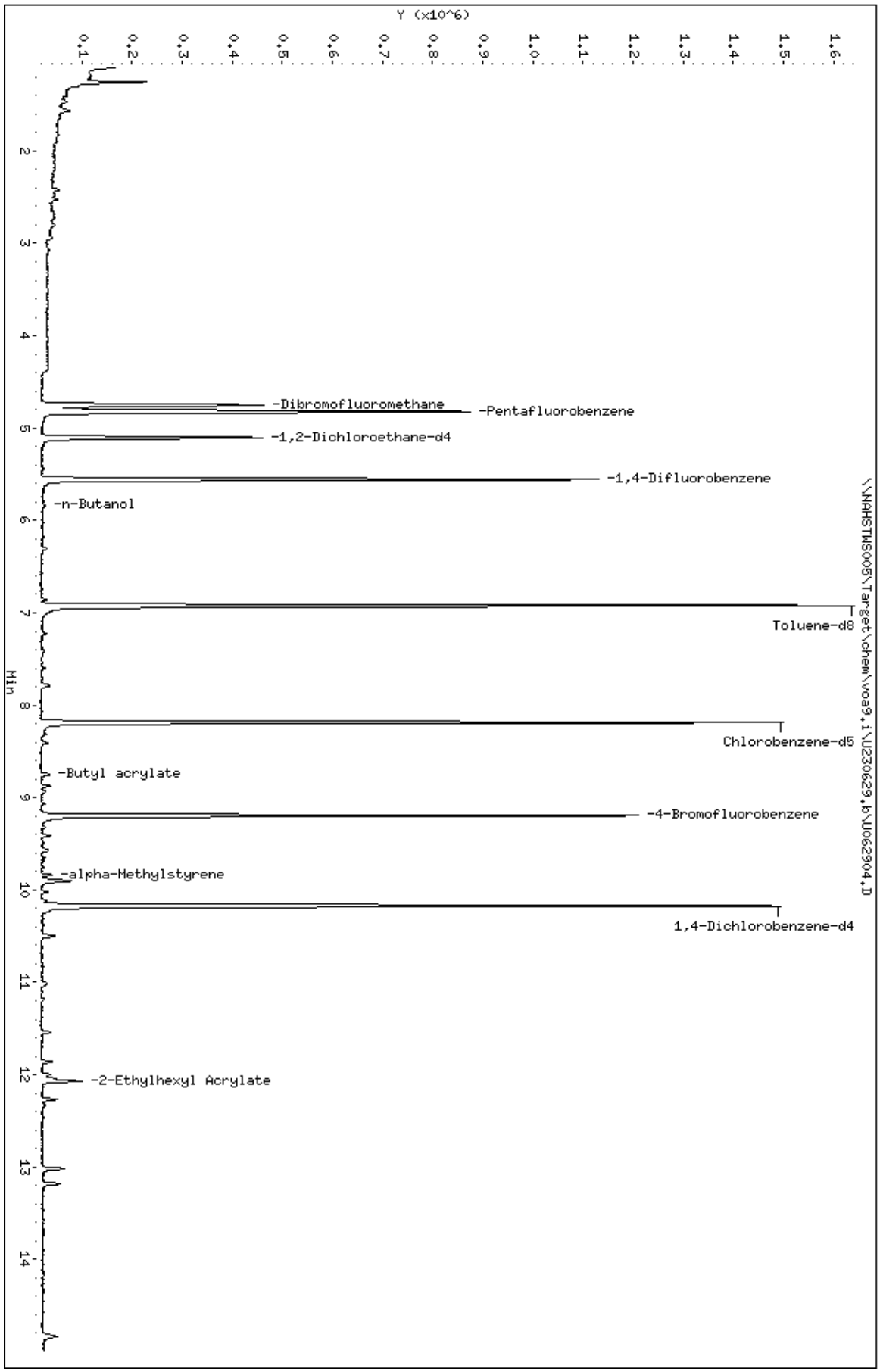
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.815	(1.000)	648308	50.0000	
$ 30 Dibromofluoromethane	113	4.751	4.748	(0.986)	262169	48.1667	48.16
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	295084	50.1161	50.11
* 36 1,4-Difluorobenzene	114	5.557	5.554	(1.000)	870455	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	795220	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	975326	54.1904	54.19
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	341661	48.1472	48.14
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	402526	50.0000	

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062904.D
Date : 29-JUN-2023 11:32
Client ID: CCB
Sample Info: CCB;CCB;;;
Purge Volume: 5.0
Column phase: DB624

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



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062904.D
Inj Date : 29-JUN-2023 11:32
InstruID : VOA9.i
LabSampID : CCB

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062905.D
Lab Smp Id: VLCSW-230629 Client Smp ID: VLCSW-230629
Inj Date : 29-JUN-2023 11:54
Operator : PC Inst ID: VOA9.i
Smp Info : VLCSW-230629;VLCSW-230629;3;;LCS
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\8260C.m
Meth Date : 03-Jul-2023 13:02 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.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: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.812	4.815	(1.000)	545168	50.0000	
2	Dichlorodifluoromethane	85	1.157	1.160	(0.240)	103457	20.5863	20.58
3	Chloromethane	50	1.291	1.291	(0.268)	150776	17.4831	17.48
5	Vinyl Chloride	62	1.370	1.370	(0.285)	120158	20.8373	20.83
6	Bromomethane	94	1.614	1.614	(0.335)	78766	25.7022	25.70
7	Chloroethane	64	1.693	1.696	(0.352)	79017	20.3418	20.34
8	Trichlorofluoromethane	101	1.891	1.891	(0.393)	159418	24.0707	24.07
9	Acrolein	56	2.259	2.259	(0.469)	12173	42.0678	42.06
10	Acetone	43	2.405	2.405	(0.500)	85202	42.3957	42.39
11	1,1-Dichloroethene	96	2.326	2.326	(0.484)	89677	21.6708	21.67
15	Iodomethane	142	2.465	2.465	(0.512)	155189	53.9311	53.93
16	Acrylonitrile	53	3.061	3.061	(0.636)	82353	40.7337	40.73
17	Methylene Chloride	84	2.787	2.791	(0.579)	113377	22.2457	22.24
18	Methyl tert-butyl ether	73	3.076	3.076	(0.639)	279425	22.0195	22.01
19	Carbon Disulfide	76	2.514	2.517	(0.522)	538878	48.7113	48.71
20	trans-1,2-Dichloroethene	96	3.053	3.053	(0.635)	98622	21.9144	21.91
21	Vinyl Acetate	43	3.601	3.604	(0.748)	583509	42.5347	42.53
22	1,1-Dichloroethane	63	3.511	3.511	(0.730)	175524	20.5231	20.52
24	2-Butanone	43	4.264	4.264	(0.886)	92163	37.0788	37.07
26	2,2-Dichloropropane	77	4.178	4.178	(0.868)	131593	23.4849	23.48

27 cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	113274	21.0393	21.03
28 Chloroform	83	4.568	4.572 (0.949)	190497	21.4009	21.40

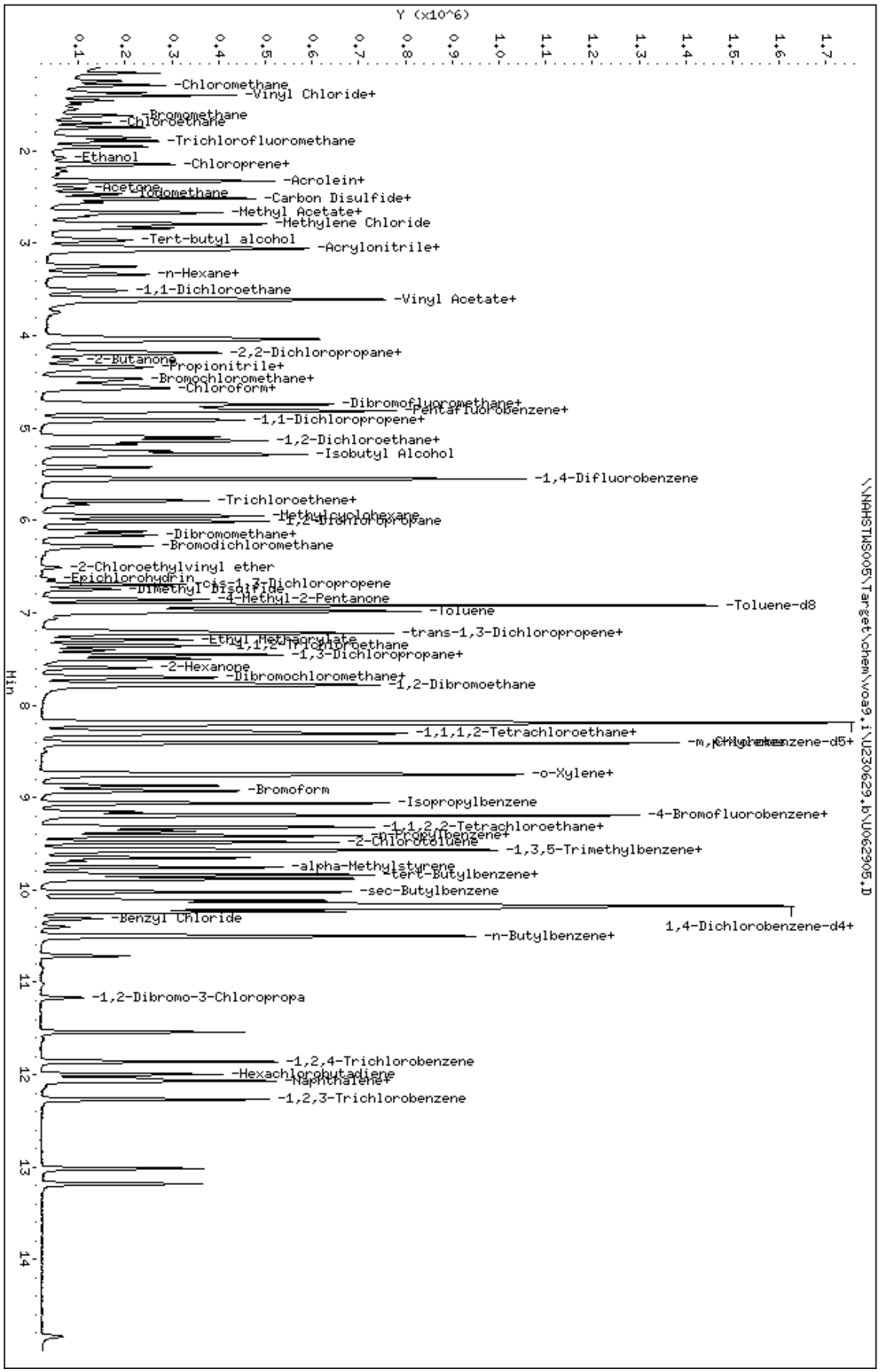
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	29 Bromochloromethane	128	4.467	4.467	(0.928)	61850	20.5373	20.53
$	30 Dibromofluoromethane	113	4.744	4.748	(0.986)	231262	50.5421	50.54
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.985)	155099	22.8613	22.86
	32 1,1-Dichloropropene	75	4.916	4.920	(0.886)	132608	22.5933	22.59
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	156476	22.5740	22.57
	34 Carbon Tetrachloride	117	4.909	4.909	(0.885)	127589	23.6654	23.66
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.059)	255848	51.6943	51.69
*	36 1,4-Difluorobenzene	114	5.550	5.554	(1.000)	800867	50.0000	
	37 Benzene	78	5.134	5.138	(0.925)	409266	21.2076	21.20
	38 Trichloroethene	130	5.786	5.786	(1.043)	117363	20.9823	20.98
	39 Bromodichloromethane	83	6.277	6.277	(1.131)	130744	21.7190	21.71
	41 2-Chloroethylvinyl ether	63	6.573	6.577	(1.184)	2044	14.0382	14.03(a)
	42 1,2-Dichloropropane	63	6.007	6.011	(1.082)	106865	20.7399	20.73
	44 Dibromomethane	93	6.120	6.120	(1.103)	70724	21.4820	21.48
	45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	213440	37.7547	37.75
	46 cis-1,3-Dichloropropene	75	6.690	6.690	(1.205)	156373	20.5593	20.55
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	776333	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	853057	48.5501	48.55
	50 Toluene	91	6.982	6.982	(0.853)	453827	21.5533	21.55
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	124116	19.6151	19.61
	52 2-Hexanone	43	7.593	7.593	(0.928)	143163	36.3629	36.36
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	87617	19.9986	19.99
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	182986	20.4428	20.44
	55 Dibromochloromethane	129	7.691	7.694	(0.940)	113552	21.8441	21.84
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	112875	22.0025	22.00
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	112066	20.7356	20.73
	58 1-Chlorohexane	55	8.197	8.197	(1.477)	95210	23.1522	23.15
	59 Chlorobenzene	112	8.208	8.208	(1.003)	324211	21.5743	21.57
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	111503	21.5882	21.58
	61 Ethylbenzene	106	8.305	8.305	(1.015)	154504	22.0898	22.08
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	380413	45.9707	45.97
	63 o-Xylene	106	8.748	8.748	(1.069)	181196	22.1647	22.16
	64 Styrene	104	8.763	8.763	(1.071)	302005	23.2787	23.27
	66 Bromoform	173	8.920	8.920	(1.090)	73958	21.0776	21.07
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	456971	23.2728	23.27
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	149036	19.3480	19.34
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	357047	51.6033	51.60
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	409506	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	132284	19.5209	19.52
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	494199	23.0075	23.00
	74 Bromobenzene	156	9.317	9.317	(0.916)	146321	21.1769	21.17
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	333102	22.6043	22.60
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	330415	21.8823	21.88
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	372249	22.2721	22.27
	78 tert-Butylbenzene	119	9.839	9.839	(0.967)	328495	22.6964	22.69
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	344247	22.3264	22.32
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	419945	22.8793	22.87
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	354699	23.0667	23.06
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	249006	21.2185	21.21
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	261383	20.8901	20.89
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	298939	22.7087	22.70
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	245677	20.8797	20.87

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.166 (1.098)	19156	17.0422	17.04
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	160536	19.8360	19.83

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	91 Hexachlorobutadiene	225	11.998	11.998	(1.179)	72757	22.2609	22.26
	92 Naphthalene	128	12.069	12.065	(1.186)	365251	19.4288	19.42
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	154243	19.4950	19.49
M	94 1,2-Dichloroethylene (total)	96				211896	42.9537	42.95
M	95 Xylenes (total)	106				561609	68.1354	68.13
	135 1,4-Dioxane	88	6.172	6.169	(1.283)	26694	246.596	246.59
	141 Cyclohexane	56	4.778	4.778	(0.993)	144654	22.0083	22.00
	138 Freon TF	101	2.330	2.330	(0.484)	88189	24.0862	24.08
	140 1,3-Butadiene	54	1.396	1.400	(0.290)	104587	20.2572	20.25
	147 Methylcyclohexane	55	5.947	5.947	(1.072)	233243	20.9947	20.99
	146 Methyl Acetate	43	2.708	2.709	(0.563)	88143	19.2018	19.20
	148 Tert-Butyl alcohol	59	2.963	2.967	(0.616)	215360	424.709	424.70
	149 Isopropyl Alcohol	45	2.559	2.559	(0.532)	136069	381.795	381.79
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	20525	22.9617	22.96
	12 Isobutyl Alcohol	43	5.288	5.288	(1.099)	333467	470.783	470.78
	13 Acetonitrile	39	2.667	2.667	(0.554)	127360	215.780	215.77
	14 Allyl Chloride	41	2.667	2.667	(0.554)	285544	20.1742	20.17
	25 Methacrylonitrile	41	4.493	4.493	(0.934)	66001	20.4911	20.49
	40 Methyl Methacrylate	41	6.157	6.157	(1.280)	95784	20.4341	20.43
	4 Propionitrile	54	4.335	4.339	(0.901)	159051	201.897	201.89(a)
	131 Methyl Acrylate	55	4.365	4.369	(0.907)	126196	21.8874	21.88
	49 Ethyl Methacrylate	69	7.293	7.293	(1.314)	141837	20.2038	20.20
	166 1,2,3-Trimethylbenzene	105	10.232	10.236	(1.006)	335628	21.3219	21.32
	156 Diisopropyl ether	45	3.616	3.619	(0.751)	335145	22.0471	22.04

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230629.b\U062905.D
Date : 29-JUN-2023 11:54
Client ID: VLCSW-230629
Sample Info: VLCSW-230629;VLCSW-230629;3;;LCS
Purge Volume: 5.0
Column phase: DB624

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

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062905.D
Inj Date : 29-JUN-2023 11:54
InstruID : VOA9.i
LabSampID : VLCSW-230629

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062907.D Page 1
Report Date: 03-Jul-2023 13:02

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062907.D
Lab Smp Id: VBLKW-230629 Client Smp ID: VBLKW-230629
Inj Date : 29-JUN-2023 12:39
Operator : PC Inst ID: VOA9.i
Smp Info : VBLKW-230629;VBLKW-230629;3;;BLANK
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\8260C.m
Meth Date : 03-Jul-2023 13:02 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.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: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	641704	50.0000	
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	261423	48.5262	48.52
$ 35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	297667	51.0881	51.08
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	867792	50.0000	
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	788040	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	960597	53.8584	53.85
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	331839	47.1711	47.17
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	391345	50.0000	

01205889

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062907.D

Page 1

Date : 29-JUN-2023 12:39

Client ID: VBLKW-230629

Instrument: VOA9.i

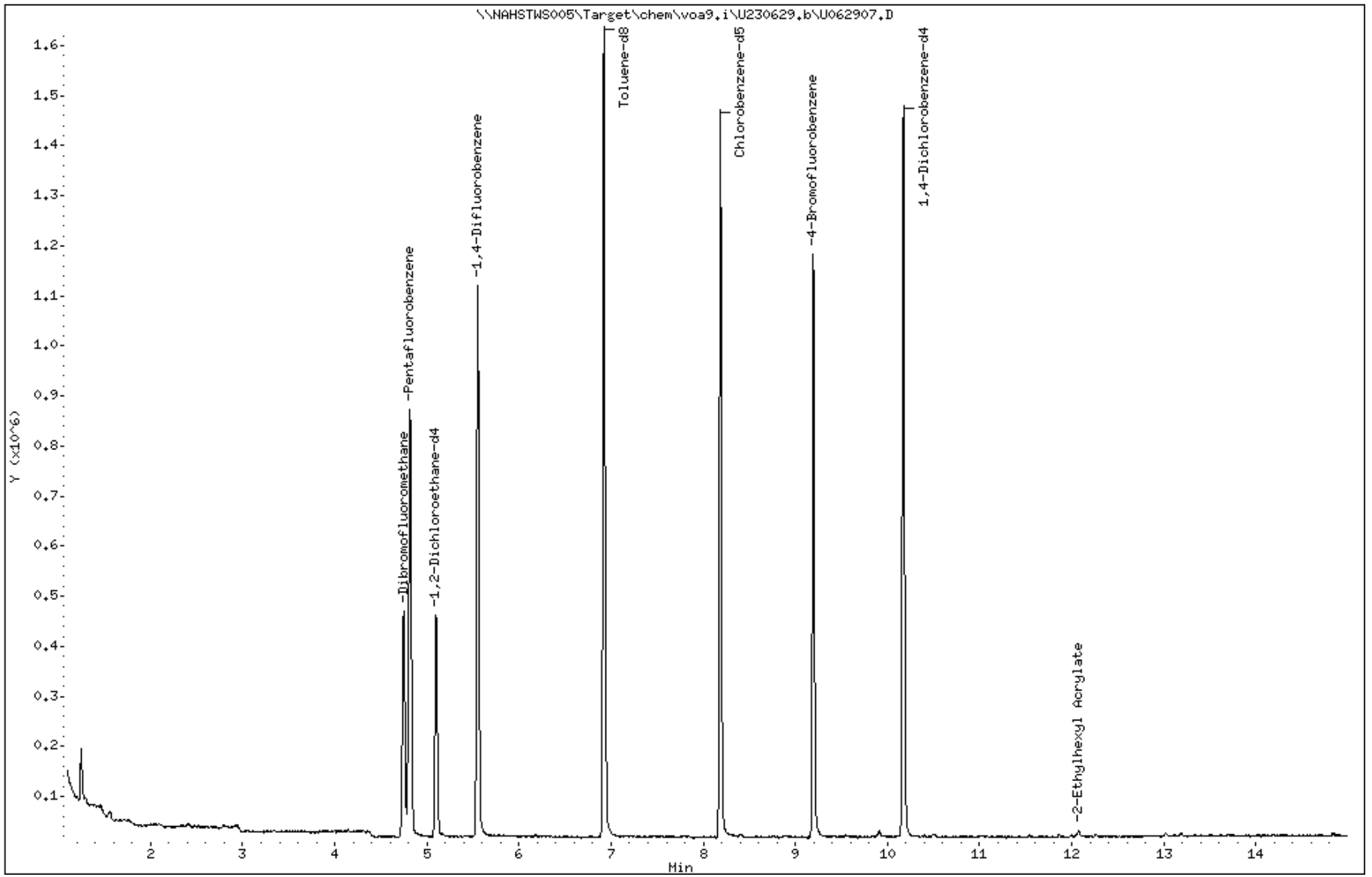
Sample Info: VBLKW-230629;VBLKW-230629;3;;BLANK

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062907.D
Inj Date : 29-JUN-2023 12:39
InstruID : VOA9.i
LabSampID : VBLKW-230629

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062910.D Page 1
Report Date: 03-Jul-2023 13:02

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062910.D
Lab Smp Id: HS23061825-04 Client Smp ID: HS23061825-04
Inj Date : 29-JUN-2023 14:03
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-04;HS23061825-04;;;
Misc Info : V9;WATER;0;25;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\8260C.m
Meth Date : 03-Jul-2023 13:02 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 10
Dil Factor: 25.00000
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	25.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

			QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
*	1	Pentafluorobenzene	168	4.812	4.815	(1.000)	640887	50.0000	
	27	cis-1,2-Dichloroethene	96	4.189	4.193	(0.871)	13066	2.06440	51.60(a)
$	30	Dibromofluoromethane	113	4.744	4.748	(0.986)	261785	48.6562	48.65
$	35	1,2-Dichloroethane-d4	65	5.093	5.096	(1.058)	297484	51.1223	51.12
*	36	1,4-Difluorobenzene	114	5.550	5.554	(1.000)	853226	50.0000	
	38	Trichloroethene	130	5.786	5.786	(1.043)	222478	37.3341	933.35
*	47	Chlorobenzene-d5	117	8.185	8.185	(1.000)	772721	50.0000	
$	48	Toluene-d8	98	6.922	6.922	(0.846)	959232	54.8480	54.84
$	69	4-Bromofluorobenzene	95	9.194	9.194	(1.123)	320634	46.4686	46.46
*	70	1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	381468	50.0000	
M	94	1,2-Dichloroethylene (total)	96				13066	2.06440	51.60(a)
	138	Freon TF	101	2.326	2.330	(0.484)	9455	2.19667	54.91(a)

QC Flag Legend

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

01205892

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062910.D

Date : 29-JUN-2023 14:03

Client ID: HS23061825-04

Instrument: VOA9.i

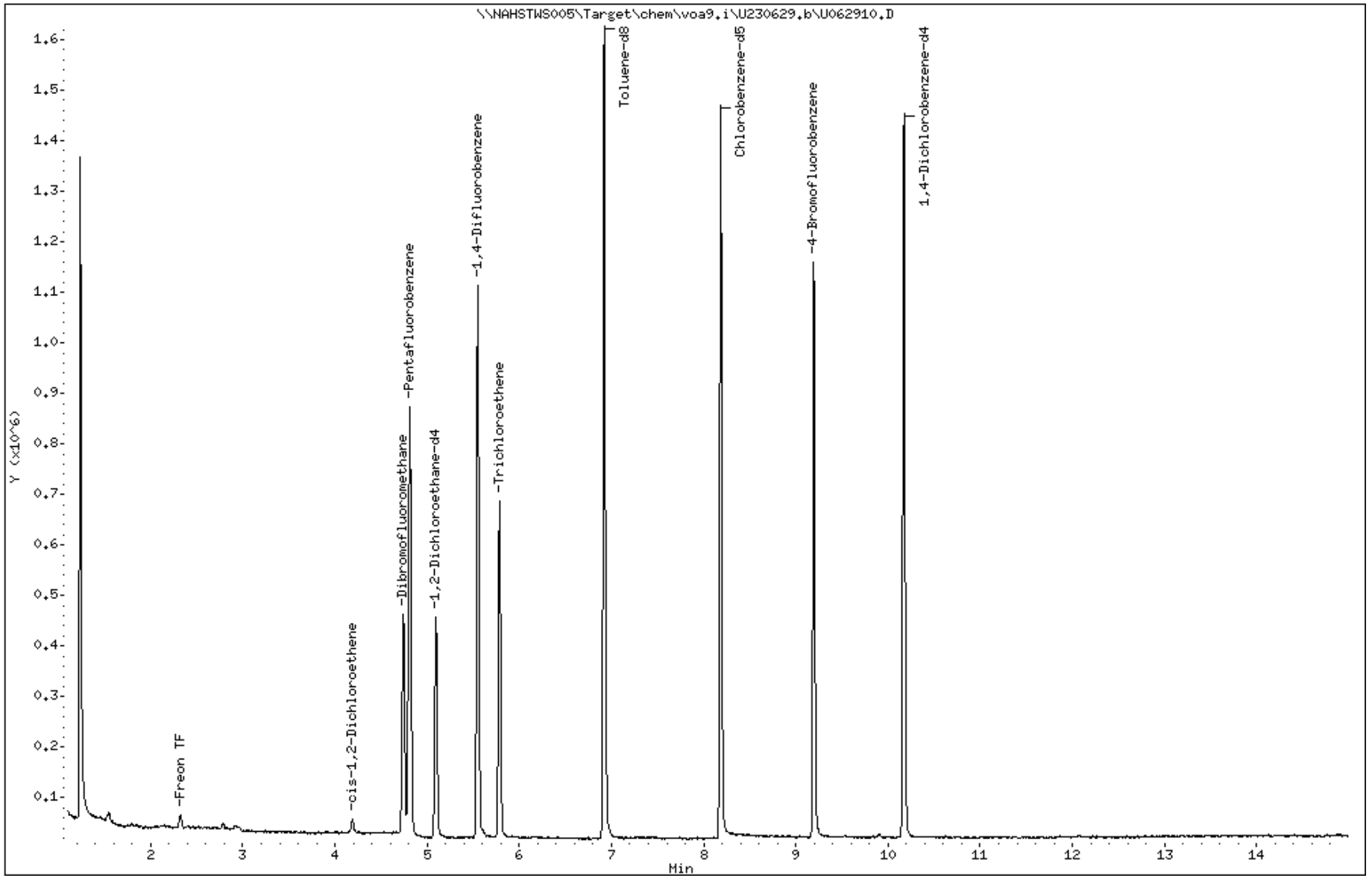
Sample Info: HS23061825-04;HS23061825-04;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062910.D

Date : 29-JUN-2023 14:03

Client ID: HS23061825-04

Instrument: VOA9.i

Sample Info: HS23061825-04;HS23061825-04;;;

Purge Volume: 5.0

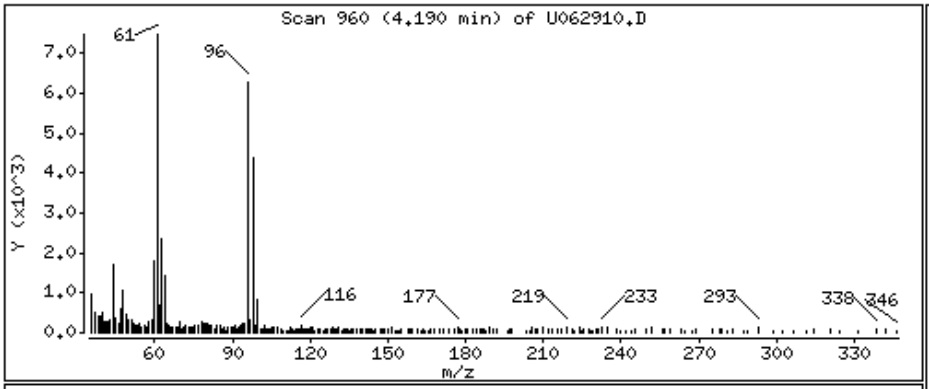
Operator: PC

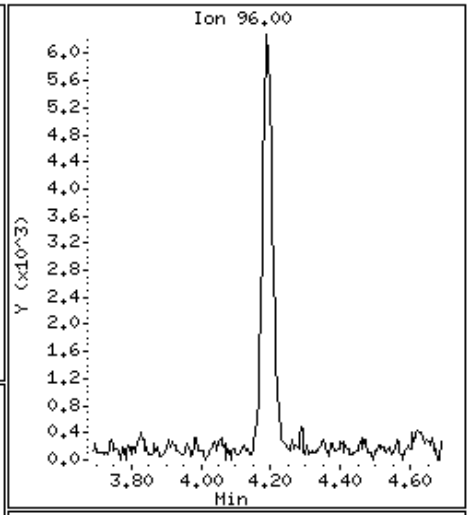
Column phase: DB624

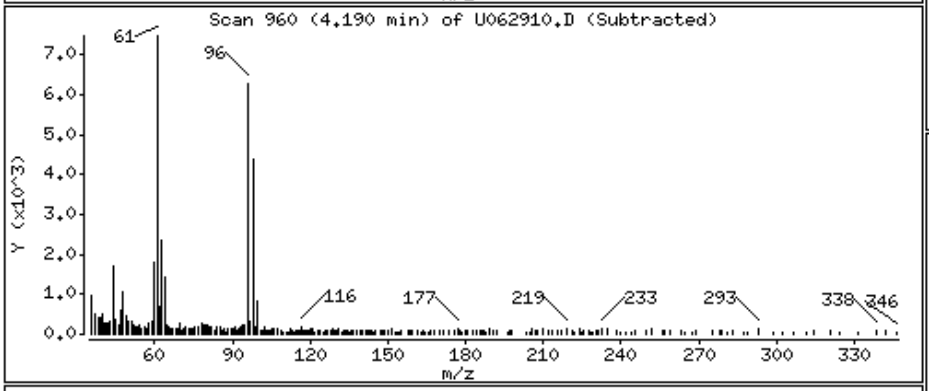
Column diameter: 0.18

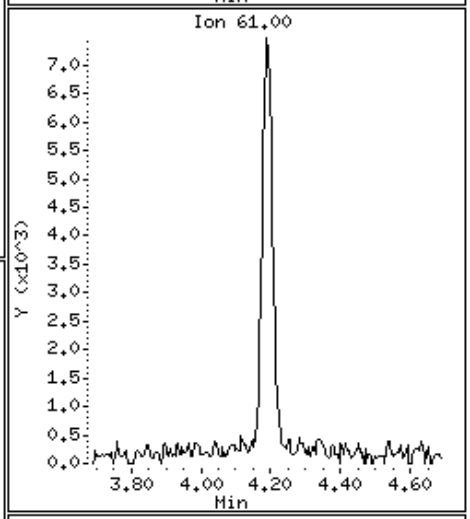
27 cis-1,2-Dichloroethene

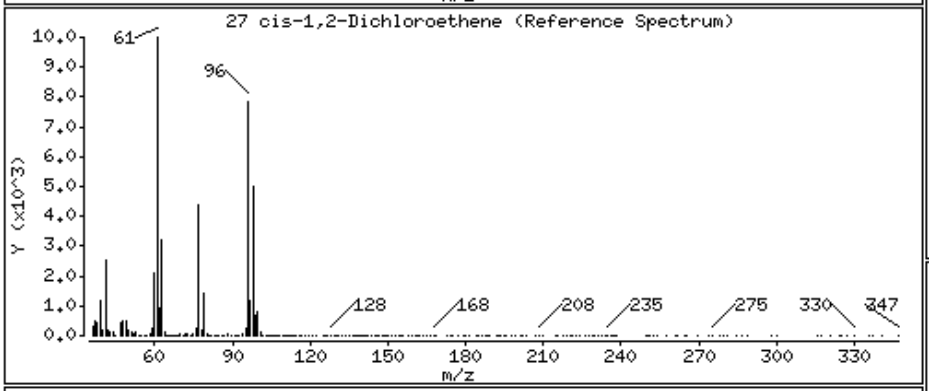
Concentration: 51.60 ug/l

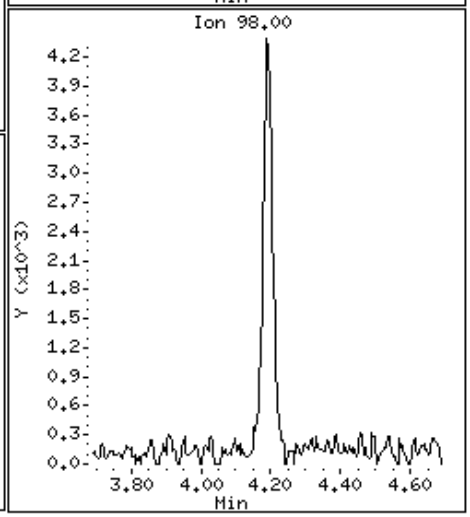


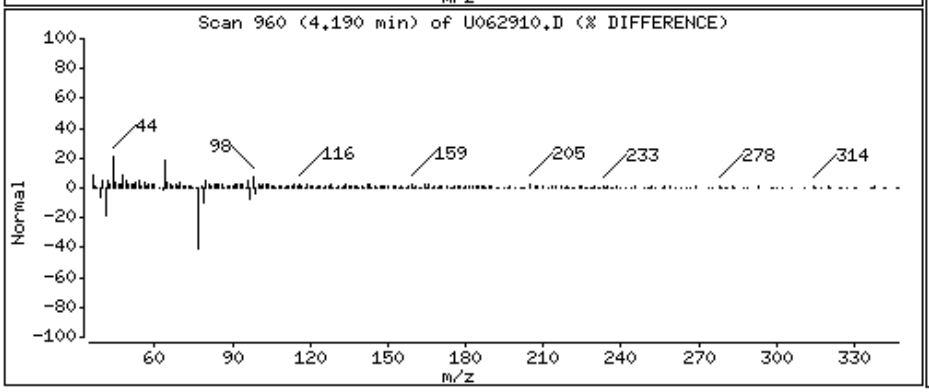












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062910.D

Date : 29-JUN-2023 14:03

Client ID: HS23061825-04

Instrument: VOA9.i

Sample Info: HS23061825-04;HS23061825-04;;;

Purge Volume: 5.0

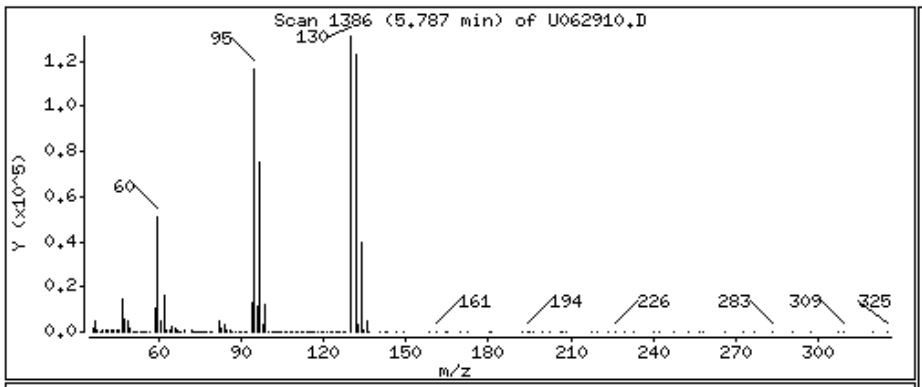
Operator: PC

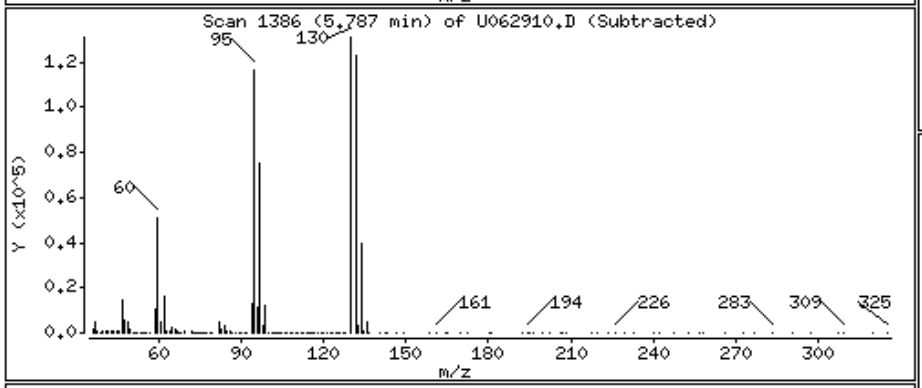
Column phase: DB624

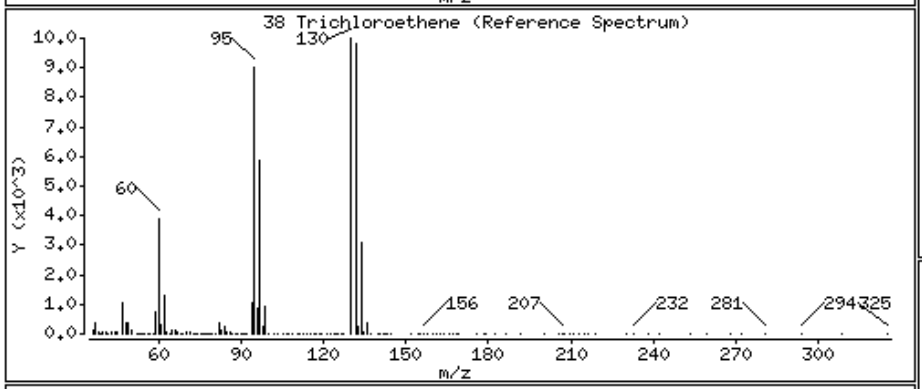
Column diameter: 0.18

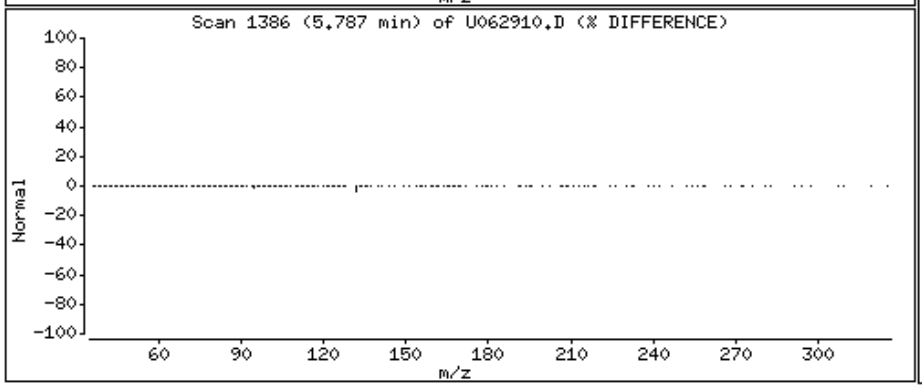
38 Trichloroethene

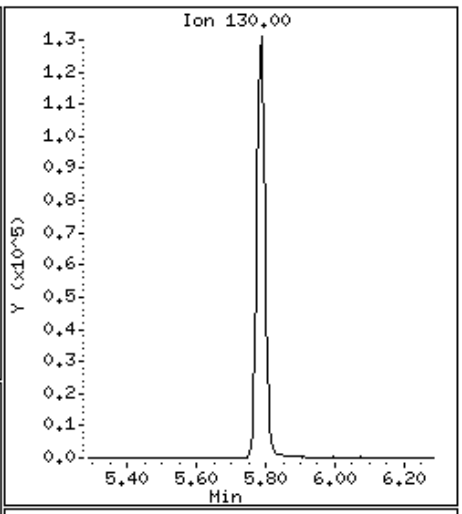
Concentration: 933.35 ug/l

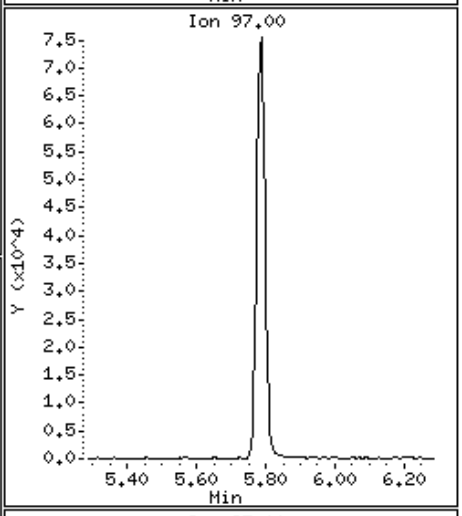


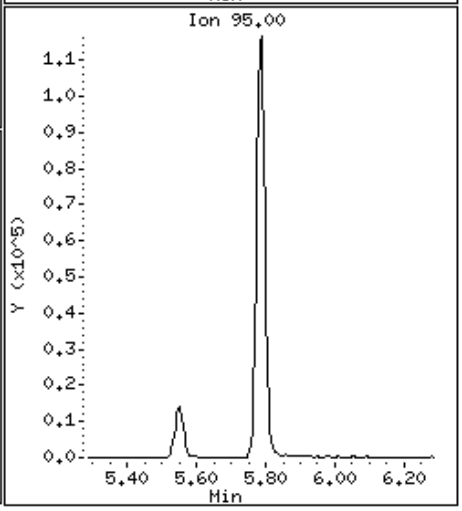












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062910.D

Date : 29-JUN-2023 14:03

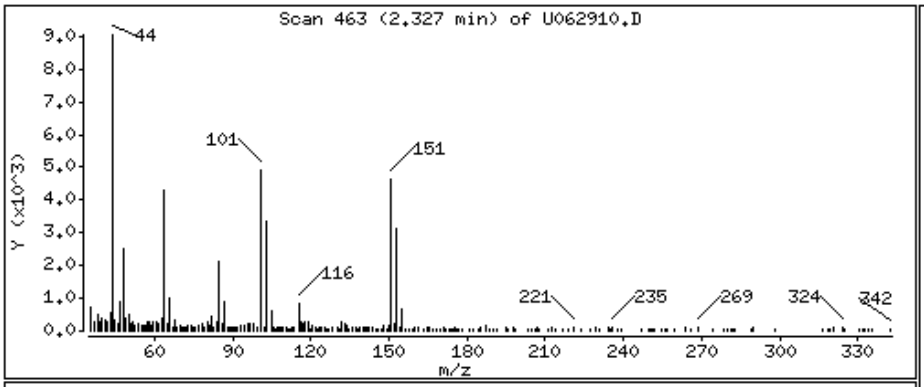
Client ID: HS23061825-04 Instrument: VOA9.i

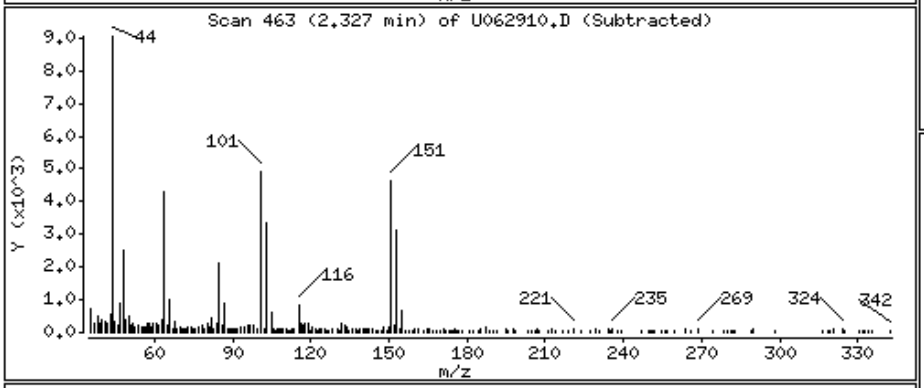
Sample Info: HS23061825-04;HS23061825-04;;;

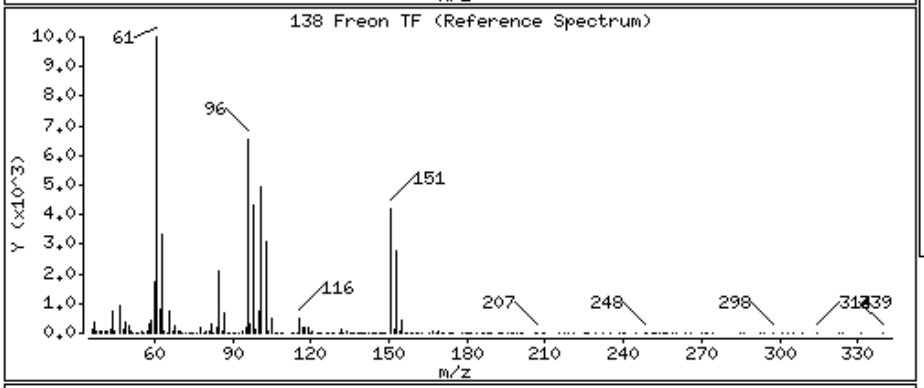
Purge Volume: 5.0 Operator: PC

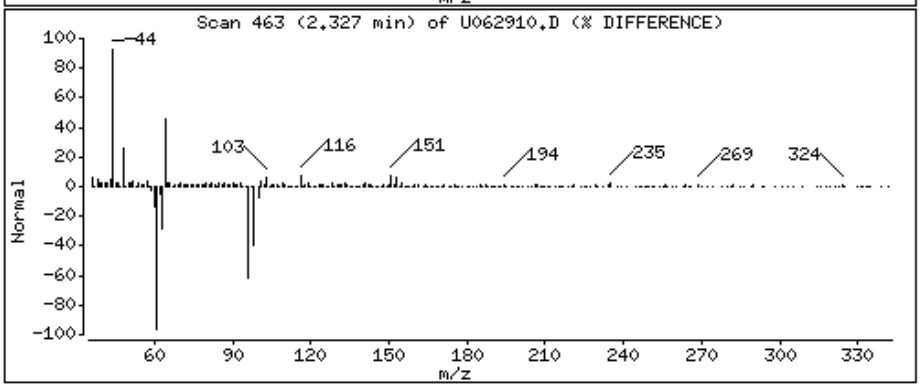
Column phase: DB624 Column diameter: 0.18

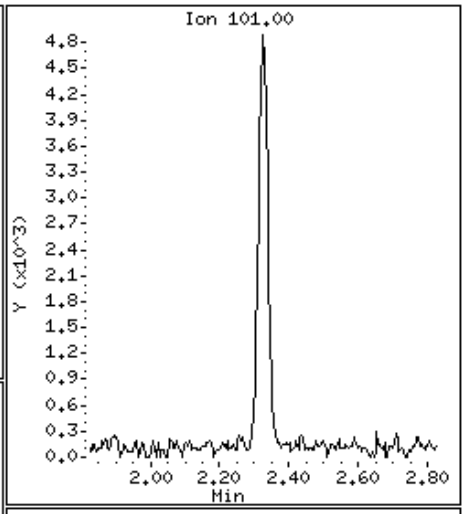
138 Freon TF Concentration: 54.91 ug/l

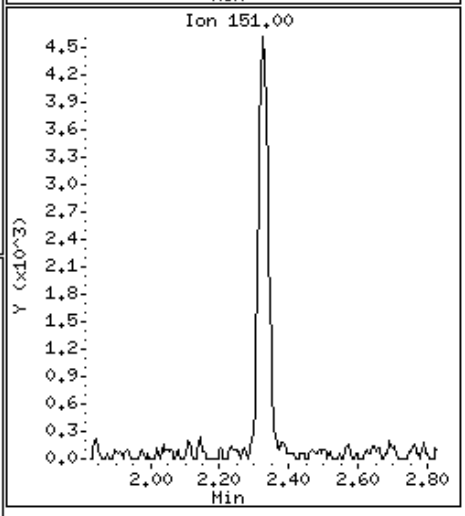












Data File : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062910.D
Inj Date : 29-JUN-2023 14:03
InstruID : VOA9.i
LabSampID : HS23061825-04

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062911.D Page 1
Report Date: 03-Jul-2023 13:02

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062911.D
Lab Smp Id: HS23061825-03 Client Smp ID: HS23061825-03
Inj Date : 29-JUN-2023 14:26
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-03;HS23061825-03;;;
Misc Info : V9;WATER;0;50;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\8260C.m
Meth Date : 03-Jul-2023 13:02 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 11
Dil Factor: 50.00000
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	50.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	599346	50.0000	
16 Acrylonitrile	53	3.068	3.061	(0.637)	222928	100.298	5014.89
$ 30 Dibromofluoromethane	113	4.748	4.748	(0.986)	253783	50.4498	50.44
33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	11306	1.59693	79.84(a)
$ 35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.059)	290266	53.3688	53.36
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	817984	50.0000	
38 Trichloroethene	130	5.790	5.786	(1.043)	297720	52.1130	2605.65
* 47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	759323	50.0000	
$ 48 Toluene-d8	98	6.922	6.922	(0.846)	914593	53.2184	53.21
$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	327846	48.3889	48.38
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	383857	50.0000	
138 Freon TF	101	2.337	2.330	(0.485)	256301	63.6732	3183.66

QC Flag Legend

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

01205898

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062911.D

Date : 29-JUN-2023 14:26

Client ID: HS23061825-03

Instrument: VOA9.i

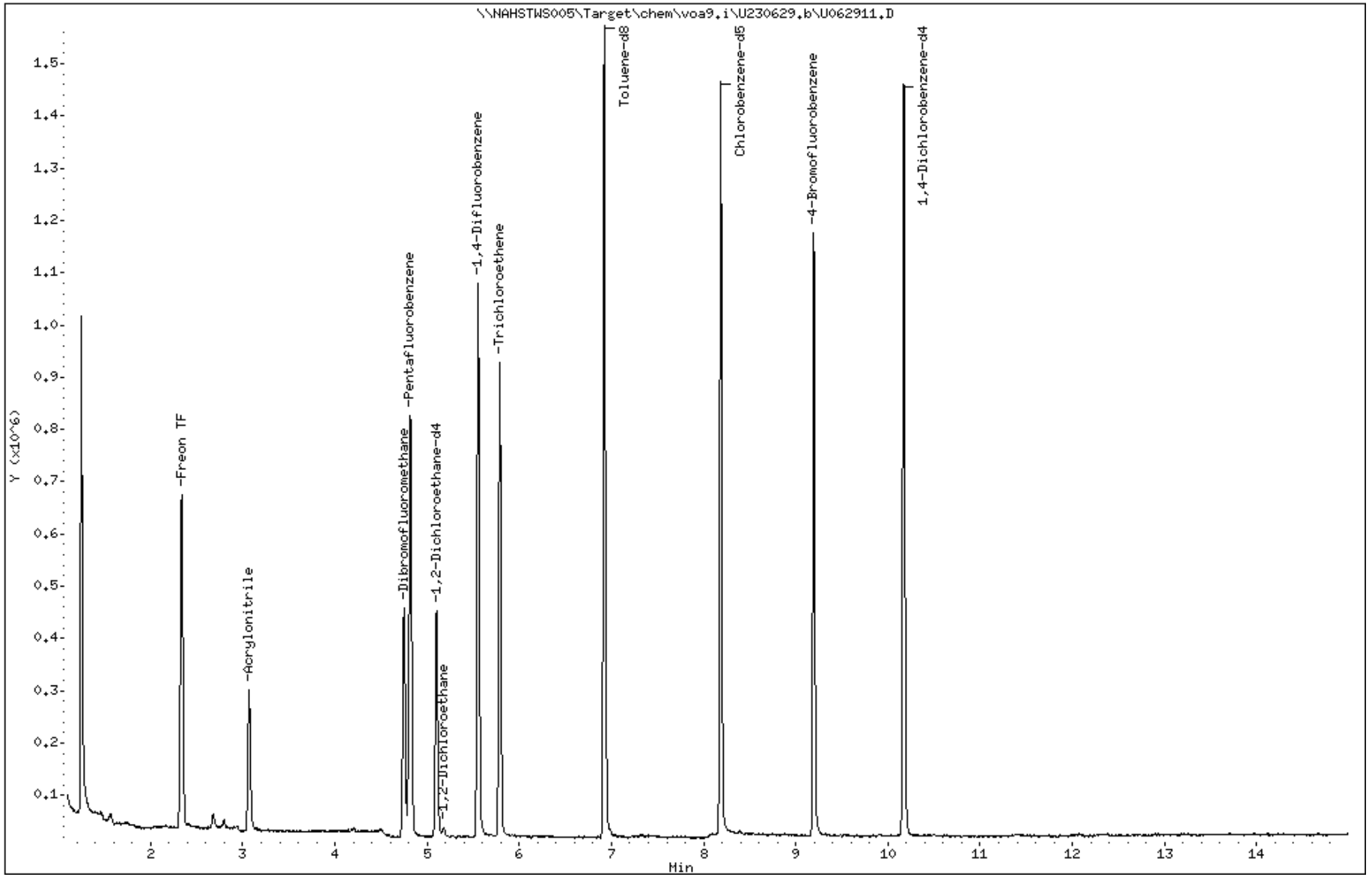
Sample Info: HS23061825-03;HS23061825-03;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062911.D

Date : 29-JUN-2023 14:26

Client ID: HS23061825-03

Instrument: VOA9.i

Sample Info: HS23061825-03;HS23061825-03;;;

Purge Volume: 5.0

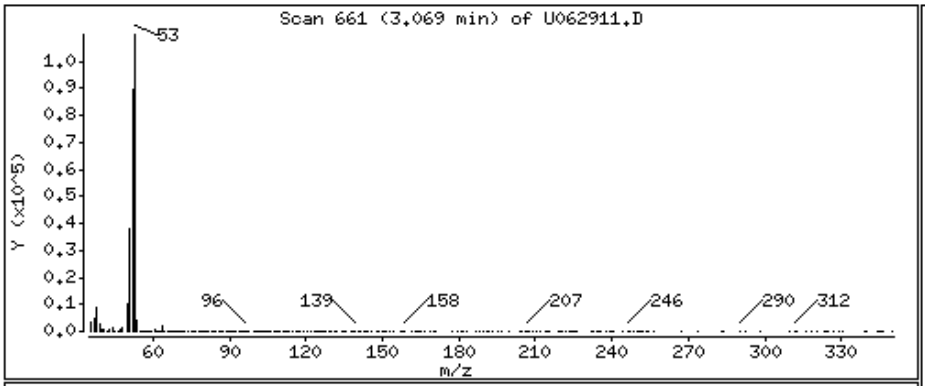
Operator: PC

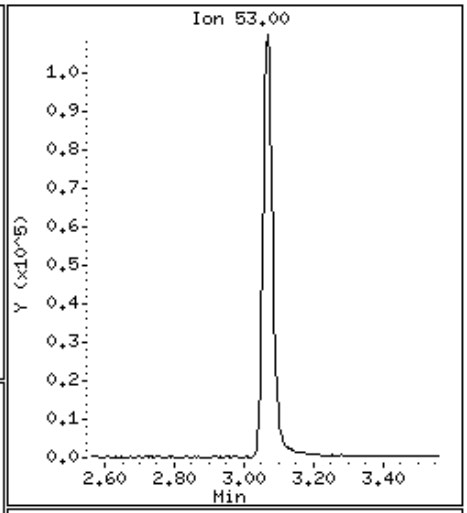
Column phase: DB624

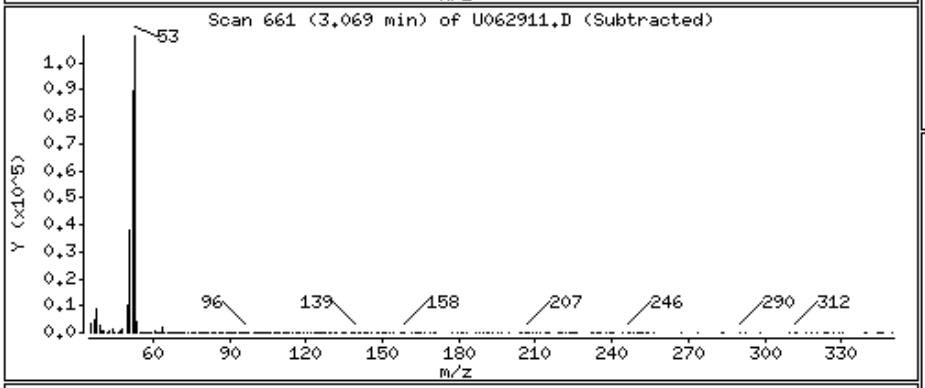
Column diameter: 0.18

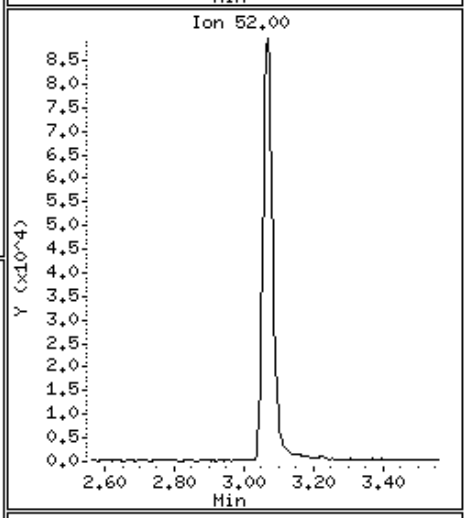
16 Acrylonitrile

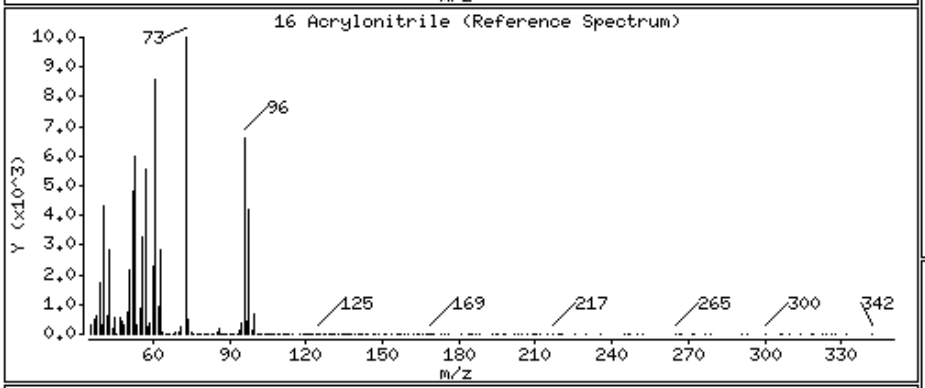
Concentration: 5014.89 ug/l

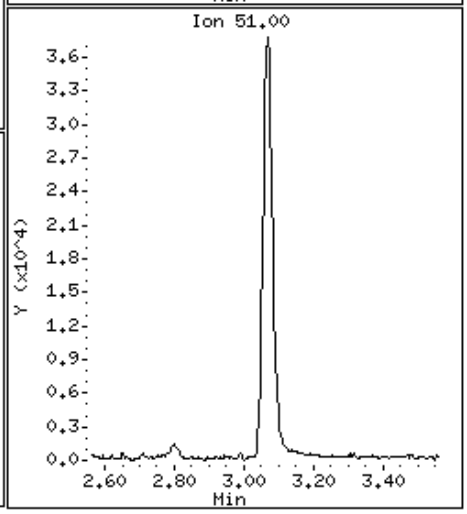


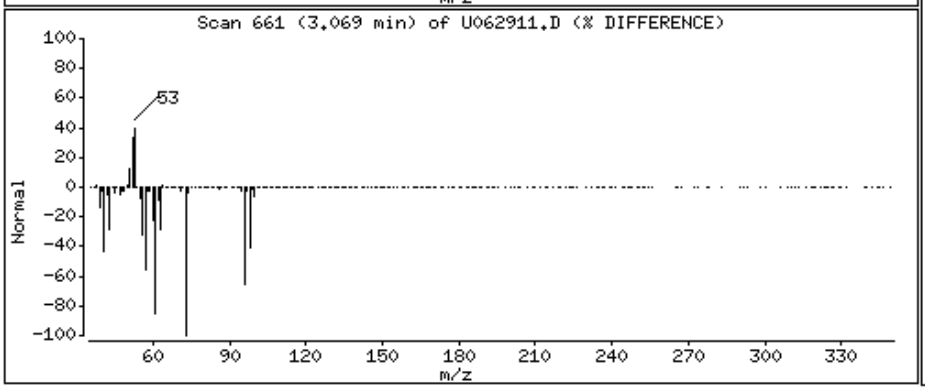












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062911.D

Date : 29-JUN-2023 14:26

Client ID: HS23061825-03

Instrument: VOA9.i

Sample Info: HS23061825-03;HS23061825-03;;;

Purge Volume: 5.0

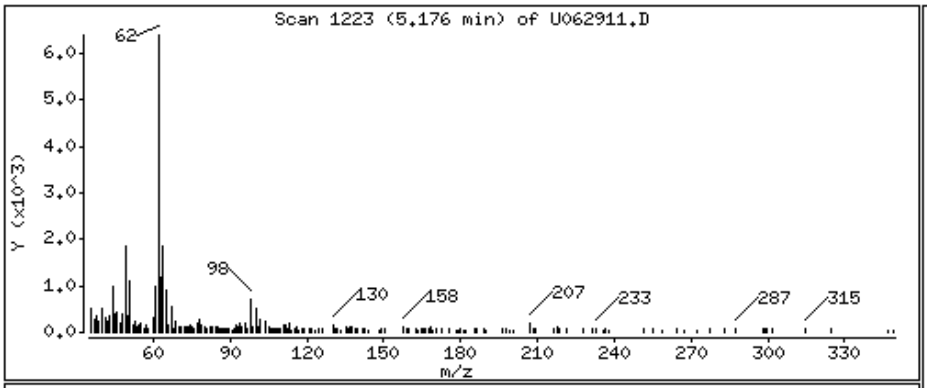
Operator: PC

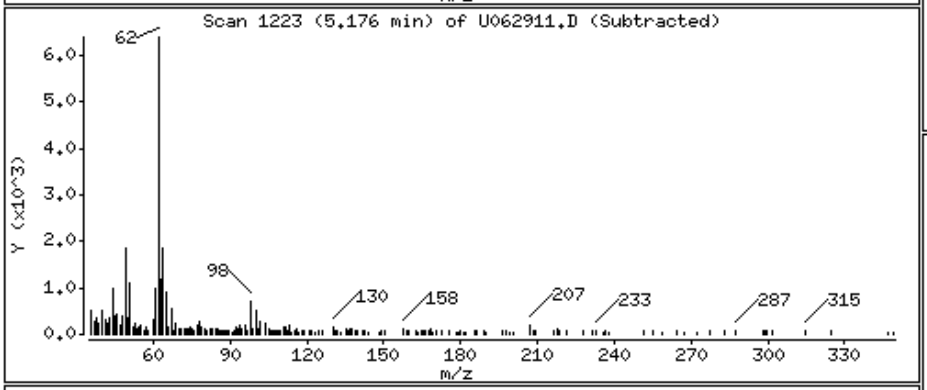
Column phase: DB624

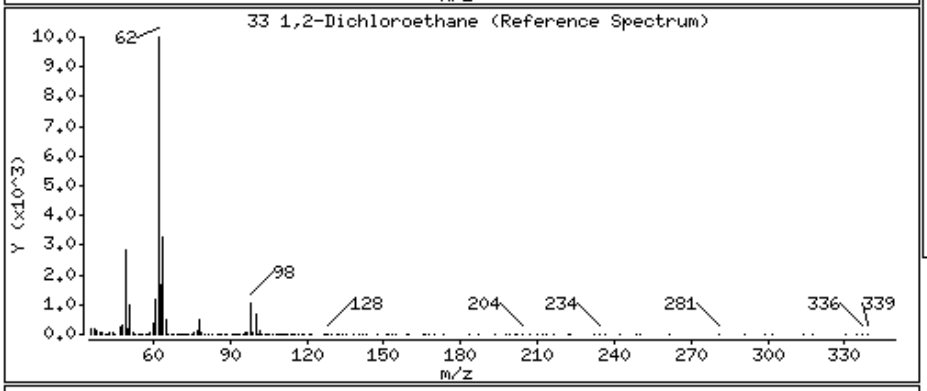
Column diameter: 0.18

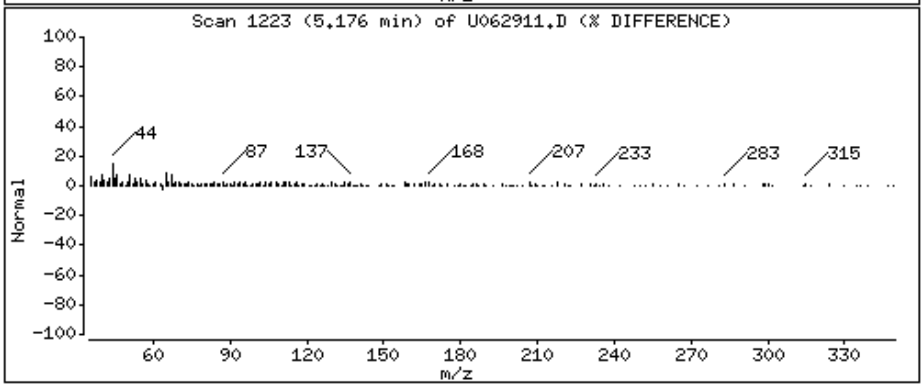
33 1,2-Dichloroethane

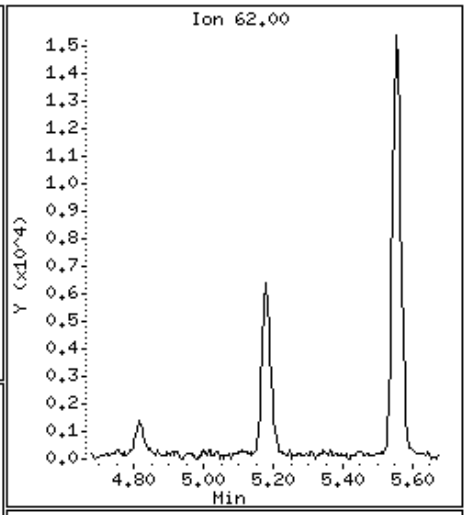
Concentration: 79.84 ug/l

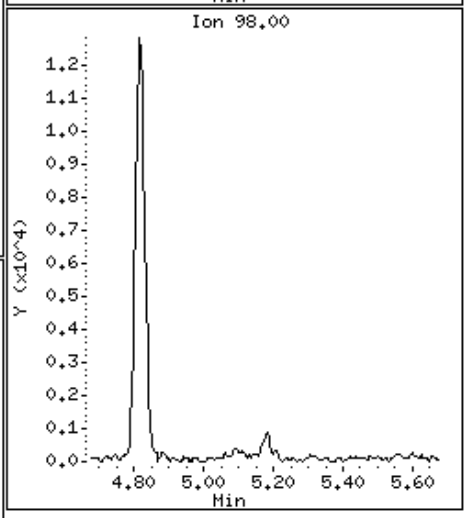












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062911.D

Date : 29-JUN-2023 14:26

Client ID: HS23061825-03

Instrument: VOA9.i

Sample Info: HS23061825-03;HS23061825-03;;;

Purge Volume: 5.0

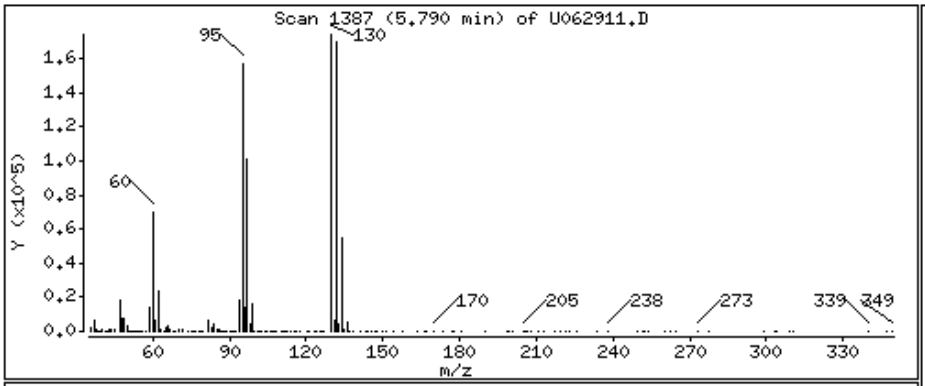
Operator: PC

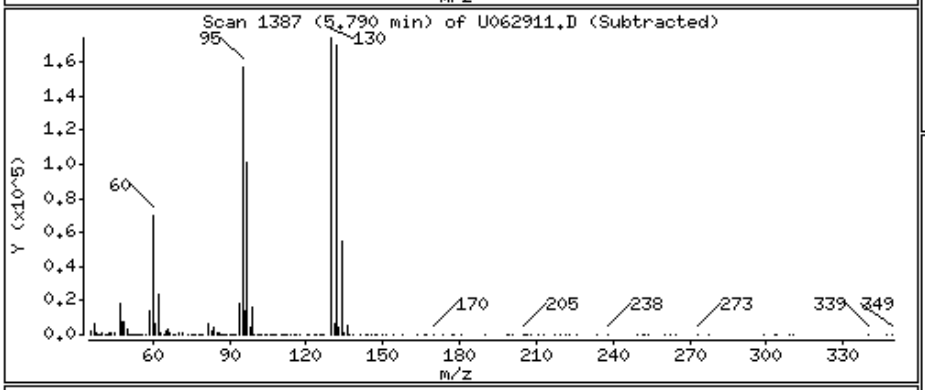
Column phase: DB624

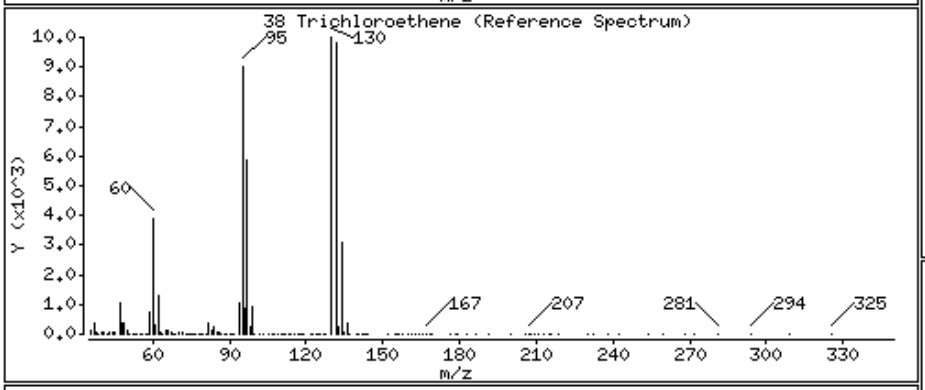
Column diameter: 0.18

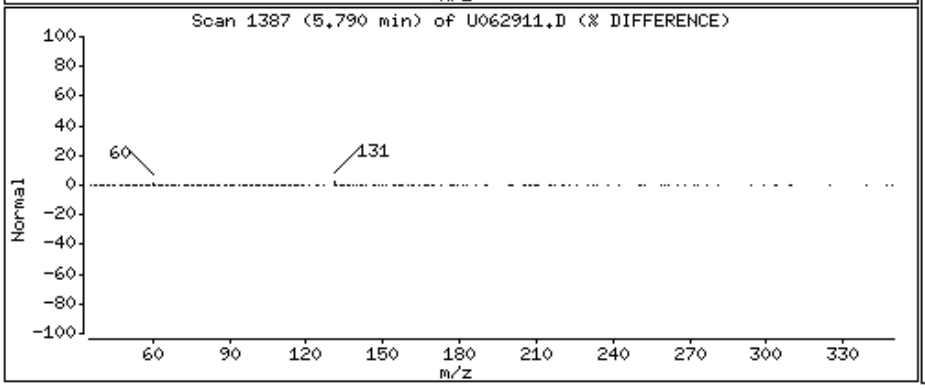
38 Trichloroethene

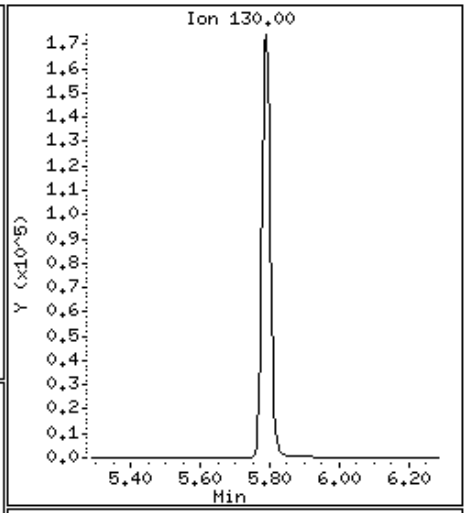
Concentration: 2605.65 ug/l

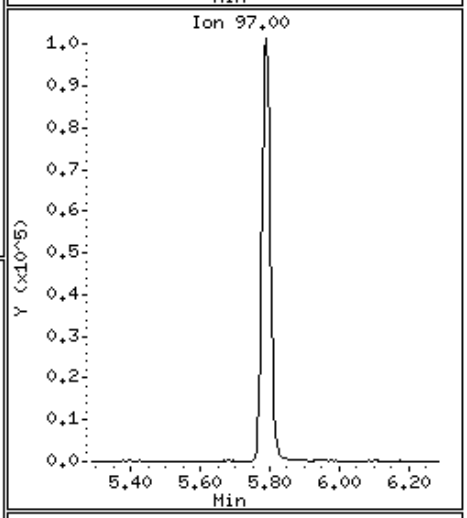


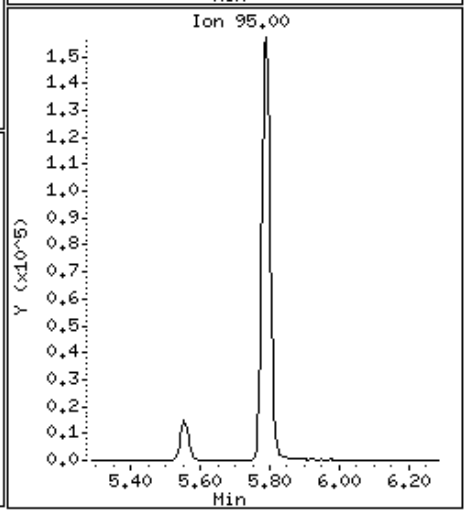












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062911.D Page 5

Date : 29-JUN-2023 14:26

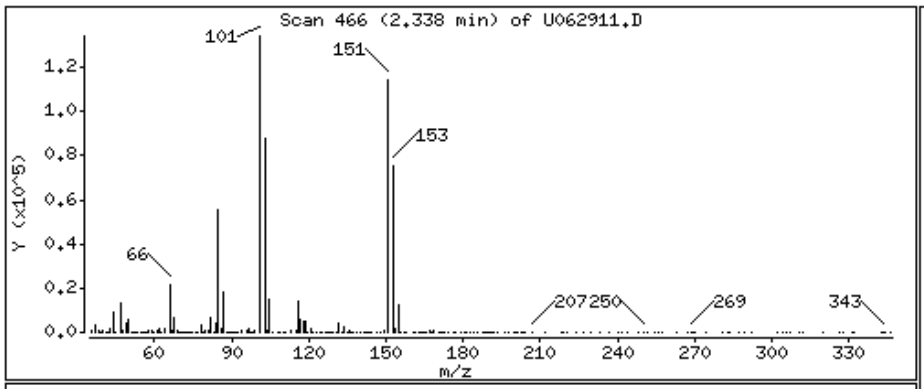
Client ID: HS23061825-03 Instrument: VOA9.i

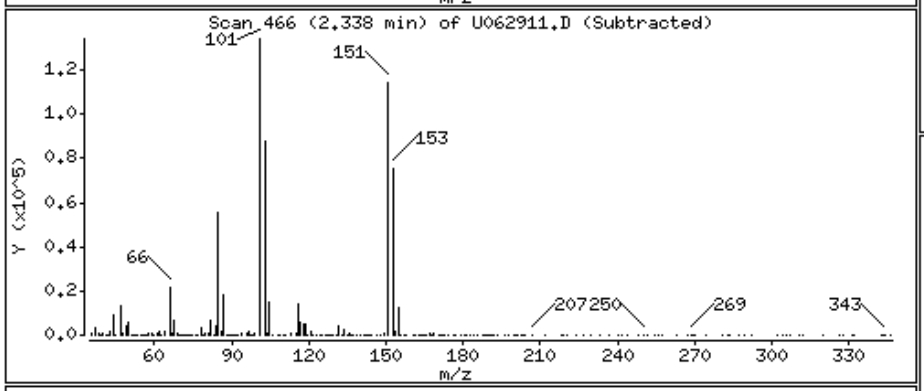
Sample Info: HS23061825-03;HS23061825-03;;;

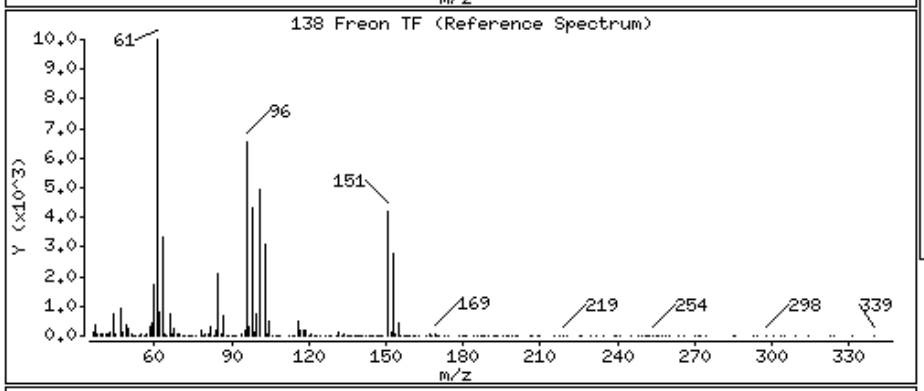
Purge Volume: 5.0 Operator: PC

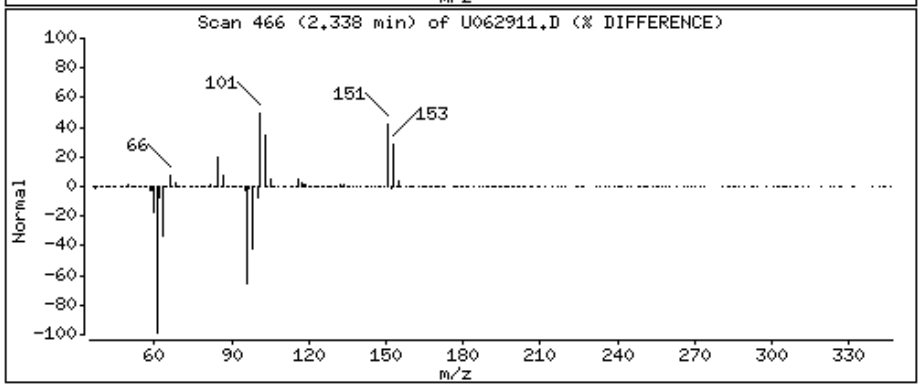
Column phase: DB624 Column diameter: 0.18

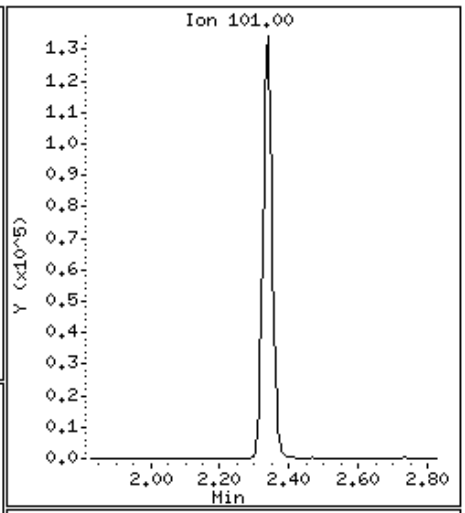
138 Freon TF Concentration: 3183.66 ug/l

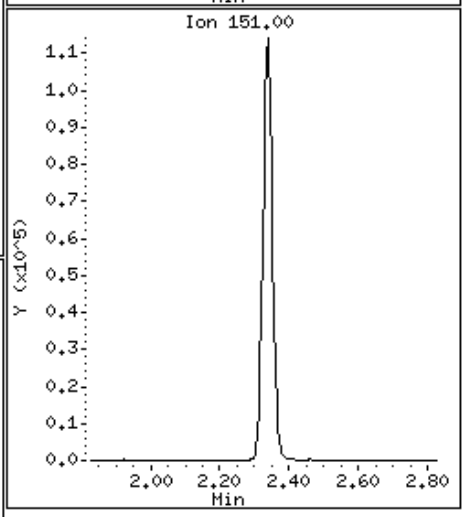












Data File : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062911.D
Inj Date : 29-JUN-2023 14:26
InstruID : VOA9.i
LabSampID : HS23061825-03

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062912.D Page 1
Report Date: 03-Jul-2023 13:02

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062912.D
Lab Smp Id: HS23061825-03 Client Smp ID: HS23061825-03
Inj Date : 29-JUN-2023 14:48
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-03;HS23061825-03;;;
Misc Info : V9;WATER;0;10;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\8260C.m
Meth Date : 03-Jul-2023 13:02 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 12
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

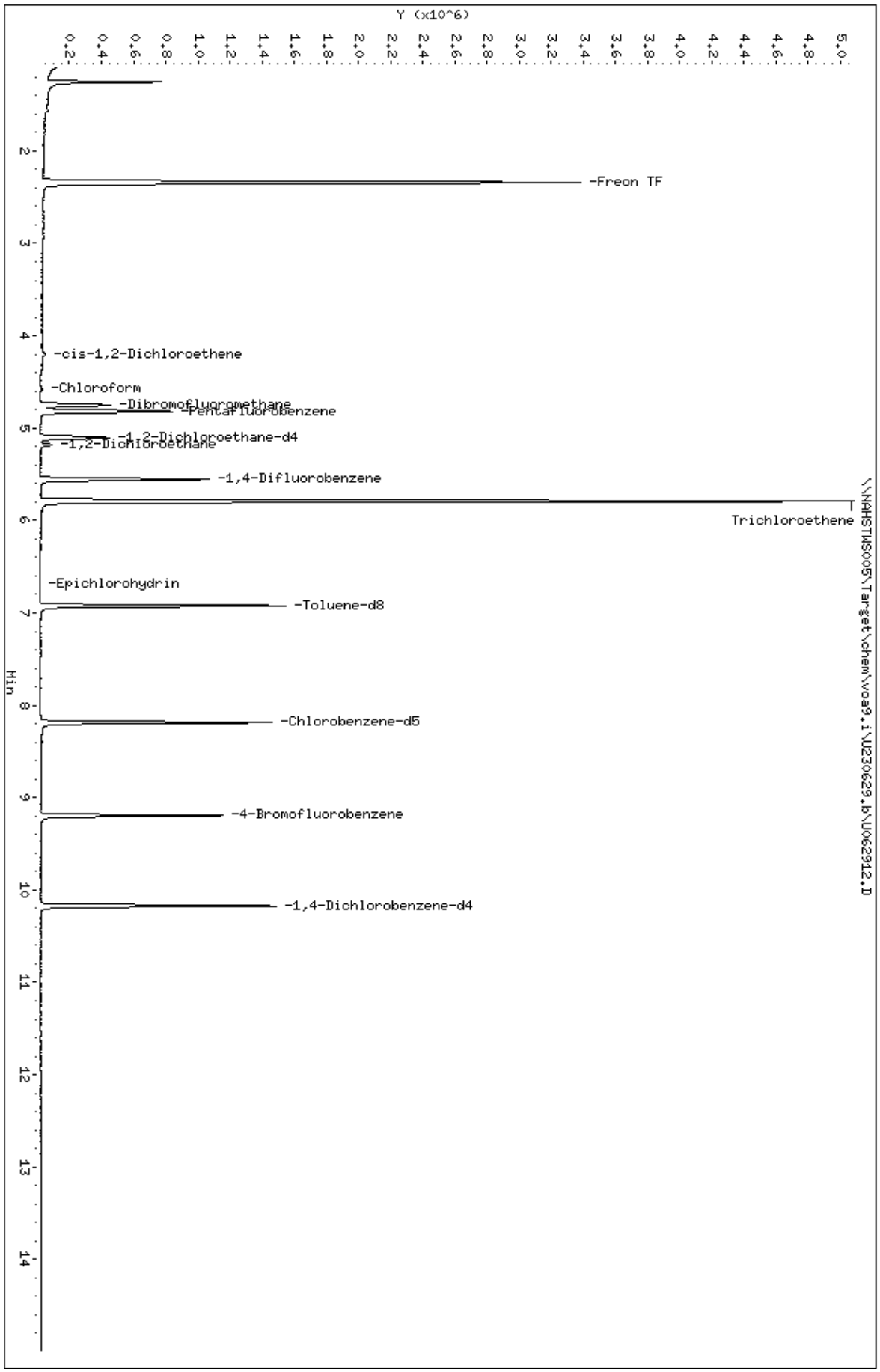
Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
*	1 Pentafluorobenzene	168	4.819	4.815	(1.000)	606942	50.0000	
	27 cis-1,2-Dichloroethene	96	4.200	4.193	(0.872)	12605	2.10294	21.02(a)
	28 Chloroform	83	4.575	4.572	(0.949)	9265	0.93492	9.34(a)
$	30 Dibromofluoromethane	113	4.751	4.748	(0.986)	256692	50.3891	50.38
	33 1,2-Dichloroethane	62	5.182	5.175	(0.933)	57744	8.07972	80.79
$	35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.058)	292943	53.1846	53.18
*	36 1,4-Difluorobenzene	114	5.557	5.554	(1.000)	825718	50.0000	
	38 Trichloroethene	130	5.789	5.786	(1.042)	1646099	285.435	2854.35(A)
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	767936	50.0000	
$	48 Toluene-d8	98	6.925	6.922	(0.846)	926417	53.3018	53.30
$	69 4-Bromofluorobenzene	95	9.193	9.194	(1.123)	323652	47.2125	47.21
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	384248	50.0000	
M	94 1,2-Dichloroethylene (total)	96				12605	2.10294	21.02(a)
	138 Freon TF	101	2.341	2.330	(0.486)	1330261	326.343	3263.42(A)

QC Flag Legend

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

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062912.D
Date : 29-JUN-2023 14:48
Client ID: HS23061825-03
Sample Info: HS23061825-03;HS23061825-03;;;
Purge Volume: 5.0
Column phase: DB624

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

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062912.D Page 2

Date : 29-JUN-2023 14:48

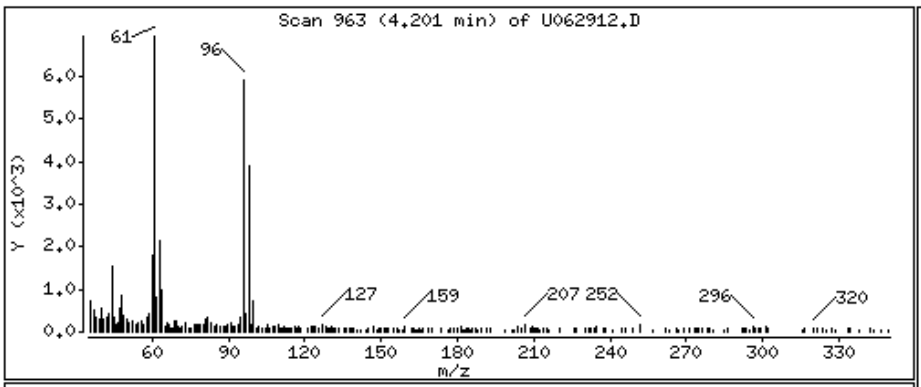
Client ID: HS23061825-03 Instrument: VOA9.i

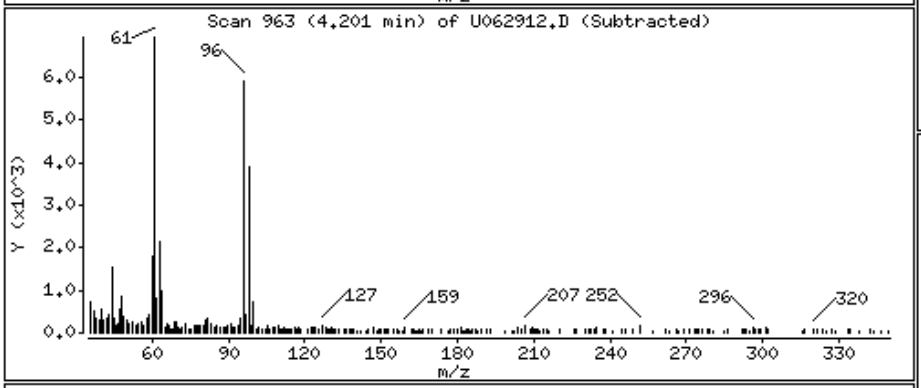
Sample Info: HS23061825-03;HS23061825-03;;;

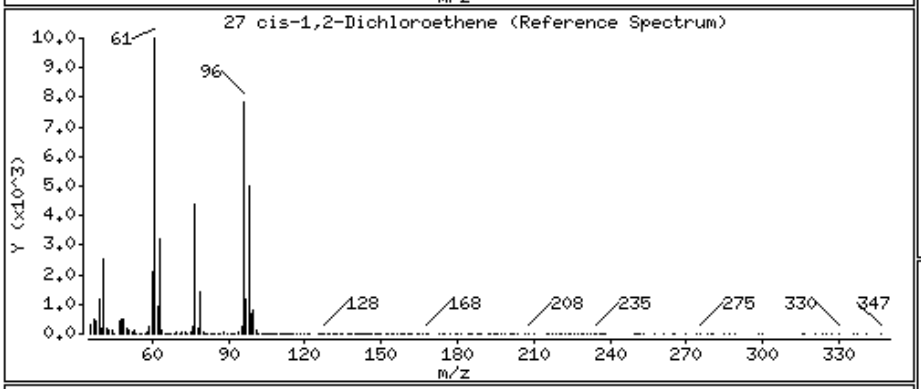
Purge Volume: 5.0 Operator: PC

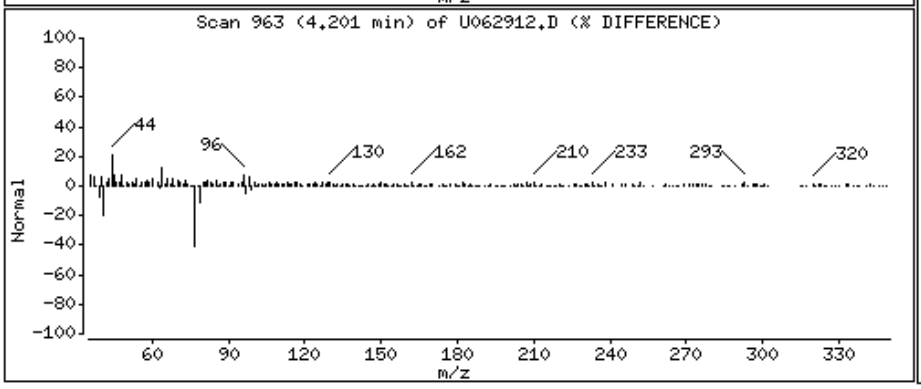
Column phase: DB624 Column diameter: 0.18

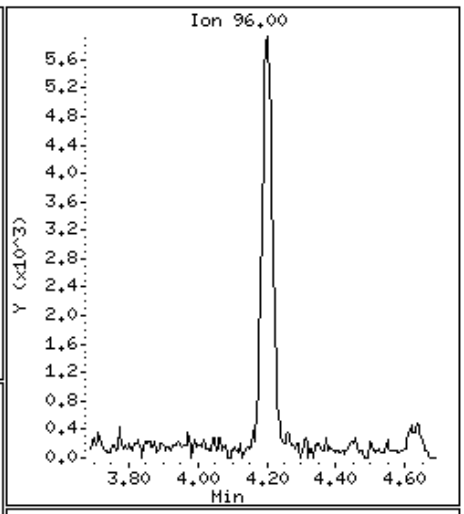
27 cis-1,2-Dichloroethene Concentration: 21.02 ug/l

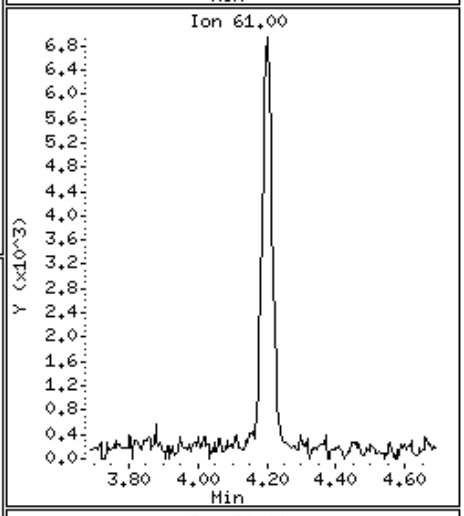


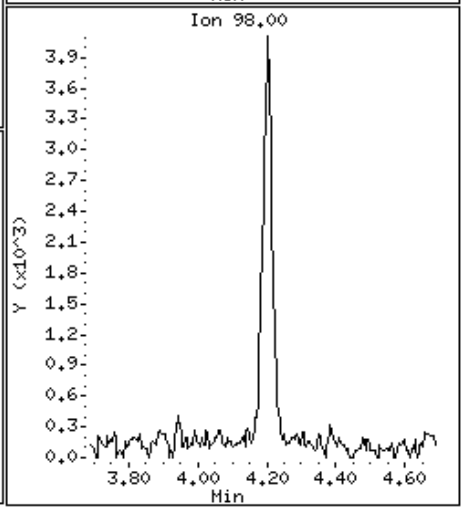












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062912.D Page 3

Date : 29-JUN-2023 14:48

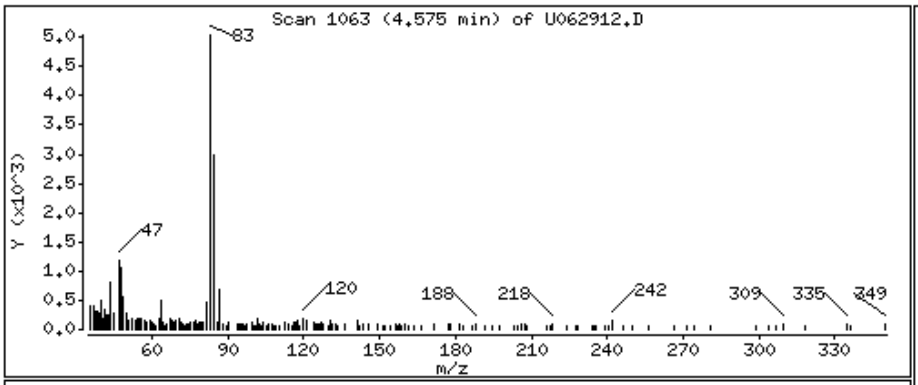
Client ID: HS23061825-03 Instrument: VOA9.i

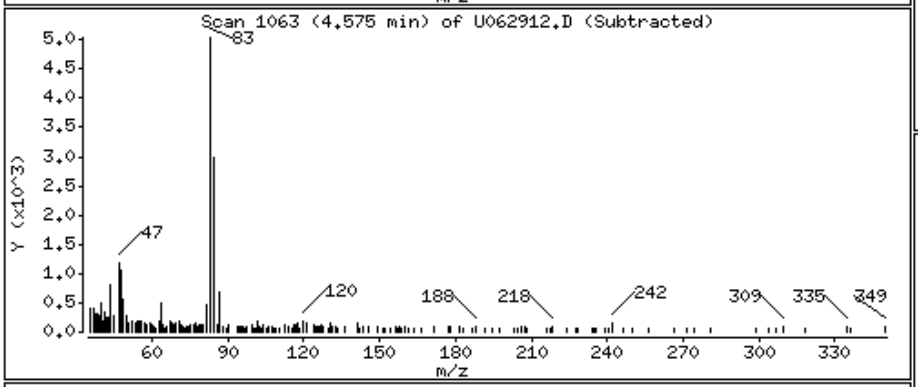
Sample Info: HS23061825-03;HS23061825-03;;;

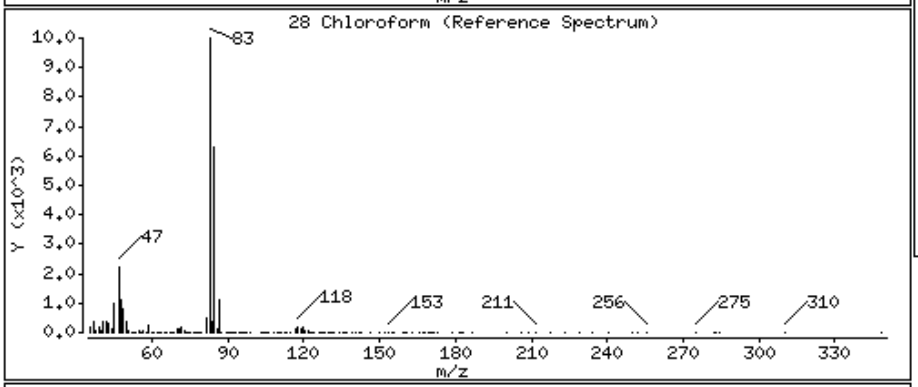
Purge Volume: 5.0 Operator: PC

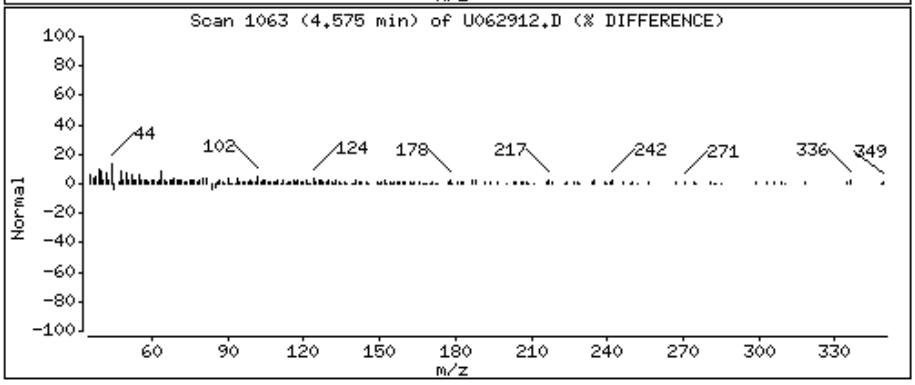
Column phase: DB624 Column diameter: 0.18

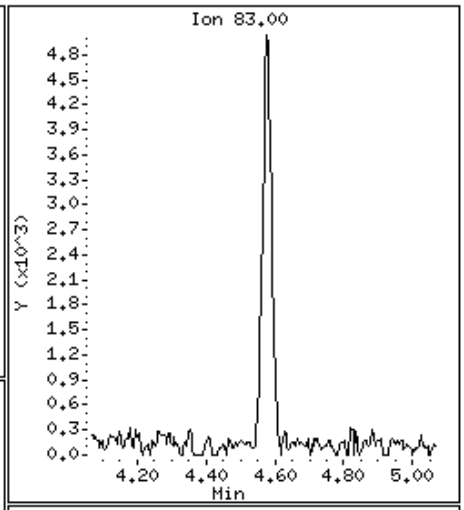
28 Chloroform Concentration: 9.34 ug/l

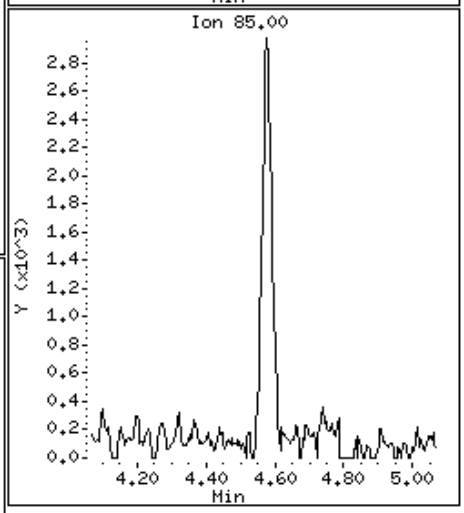












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062912.D Page 4

Date : 29-JUN-2023 14:48

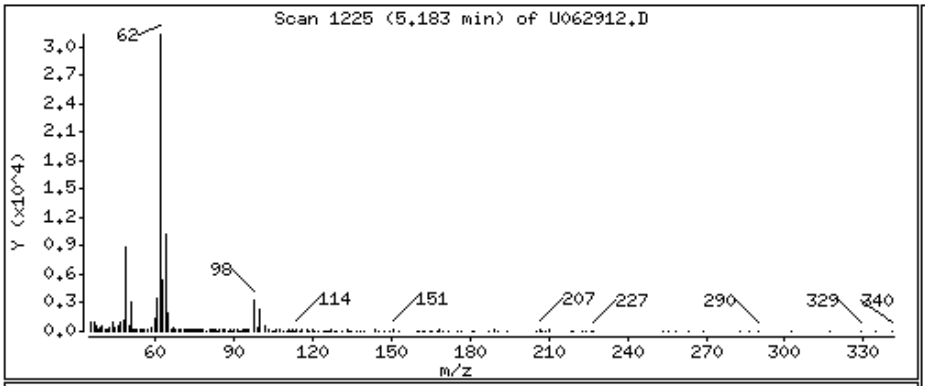
Client ID: HS23061825-03 Instrument: VOA9.i

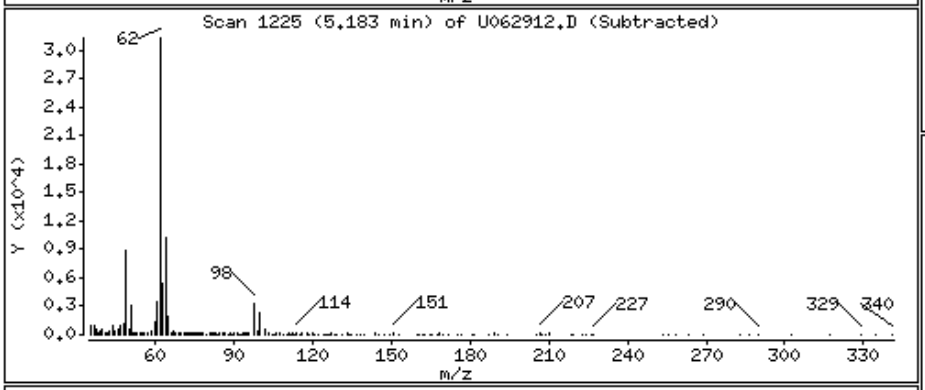
Sample Info: HS23061825-03;HS23061825-03;;;

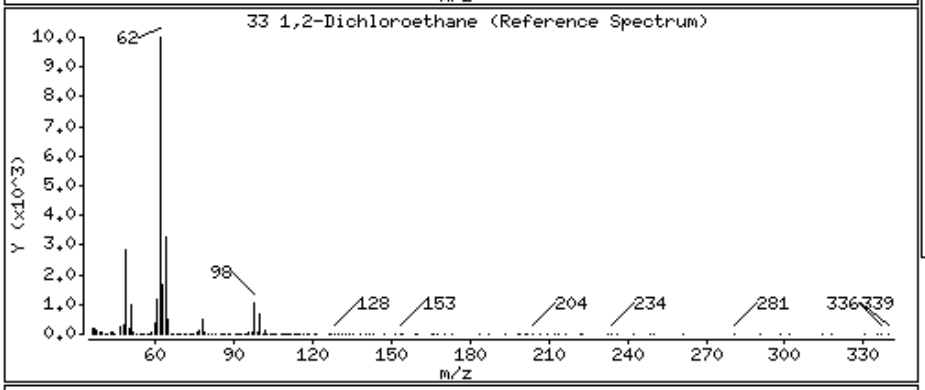
Purge Volume: 5.0 Operator: PC

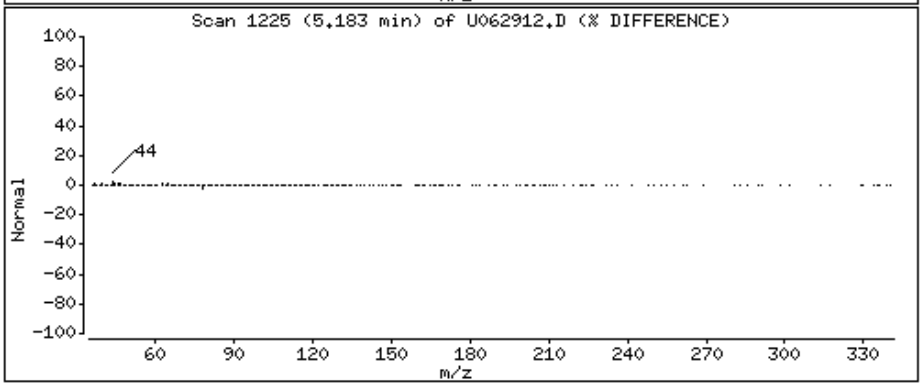
Column phase: DB624 Column diameter: 0.18

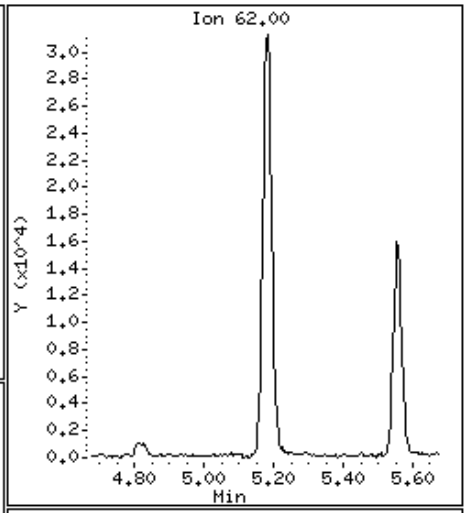
33 1,2-Dichloroethane Concentration: 80.79 ug/l

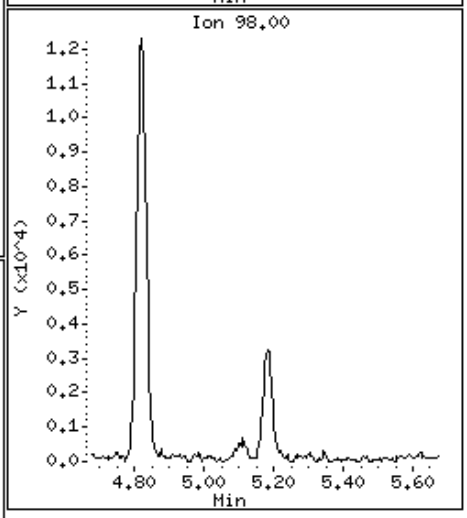












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062912.D Page 5

Date : 29-JUN-2023 14:48

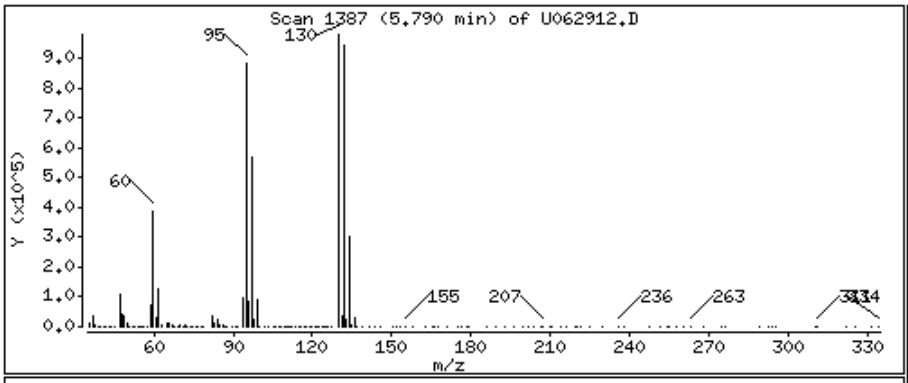
Client ID: HS23061825-03 Instrument: VOA9.i

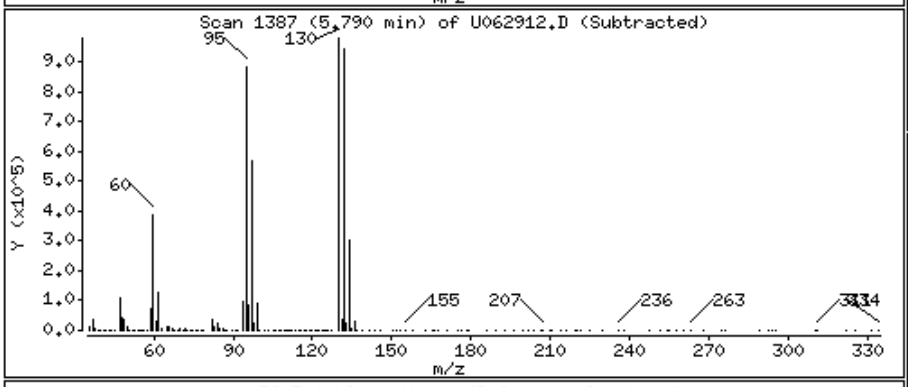
Sample Info: HS23061825-03;HS23061825-03;;;

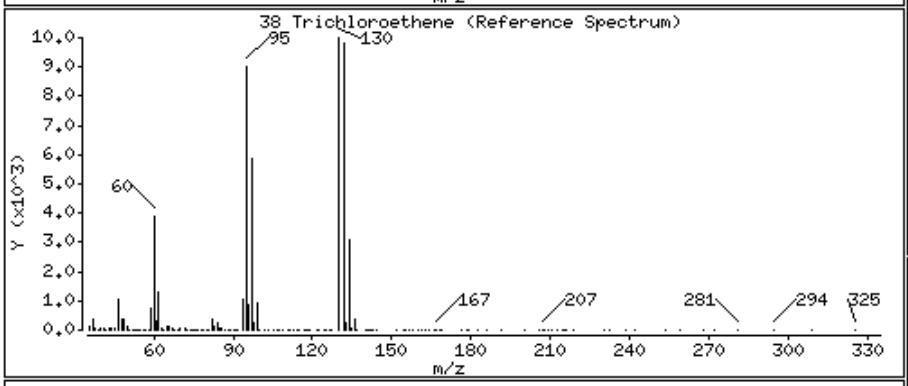
Purge Volume: 5.0 Operator: PC

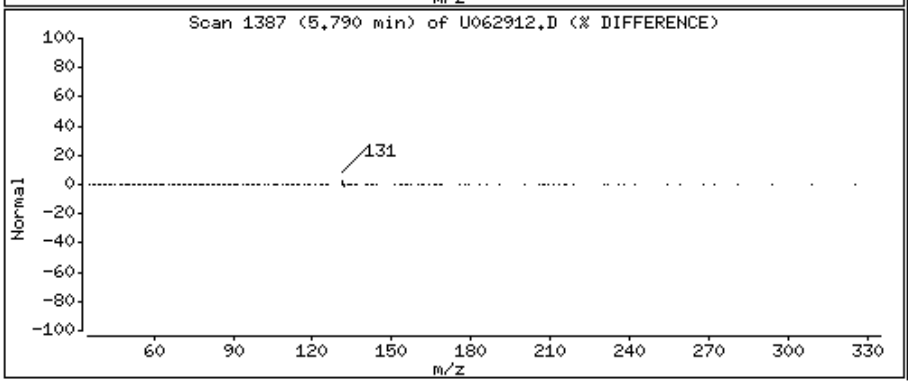
Column phase: DB624 Column diameter: 0.18

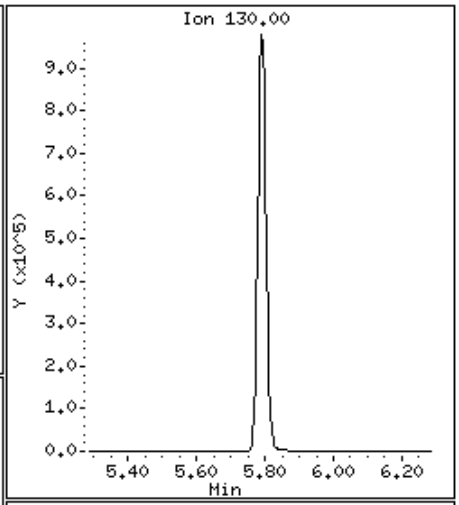
38 Trichloroethene Concentration: 2854.35 ug/l

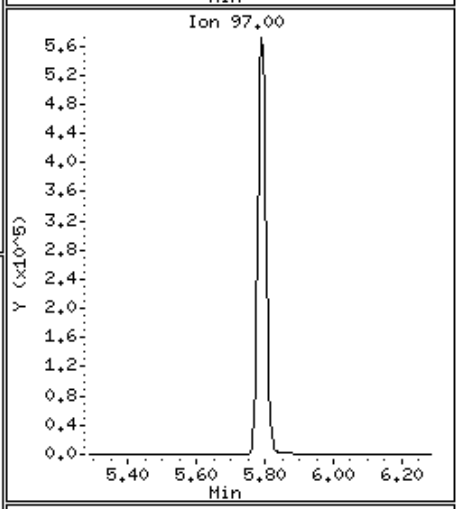


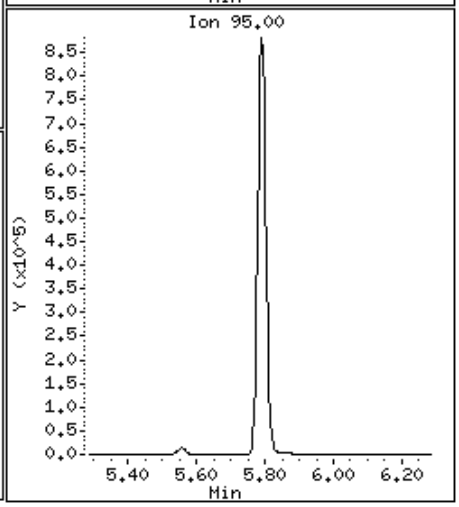












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062912.D

Date : 29-JUN-2023 14:48

Client ID: HS23061825-03

Instrument: VOA9.i

Sample Info: HS23061825-03;HS23061825-03;;;

Purge Volume: 5.0

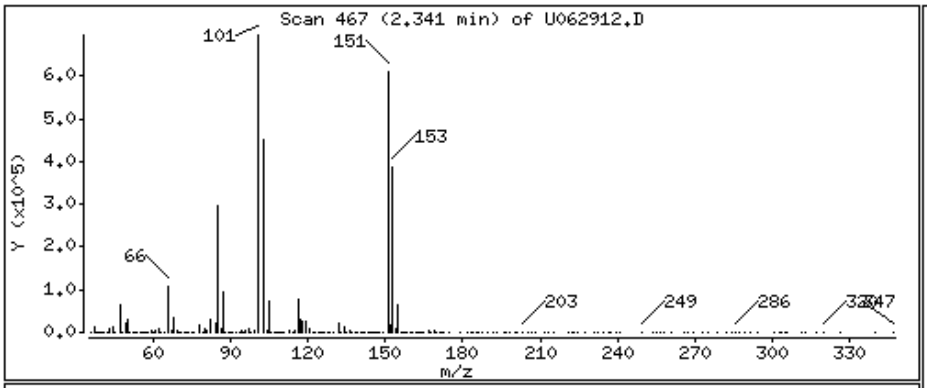
Operator: PC

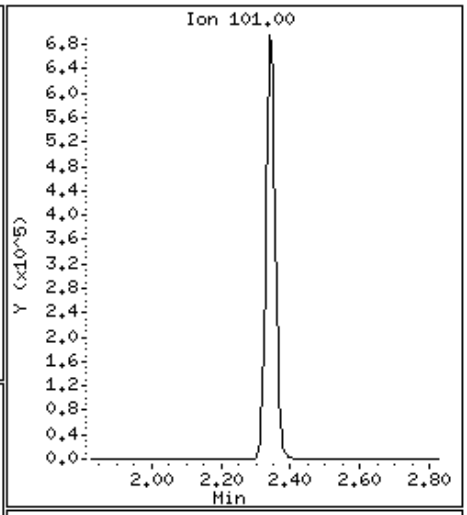
Column phase: DB624

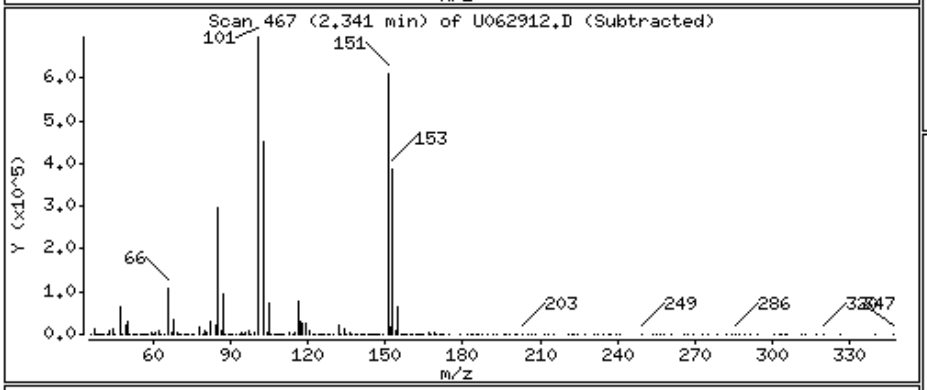
Column diameter: 0.18

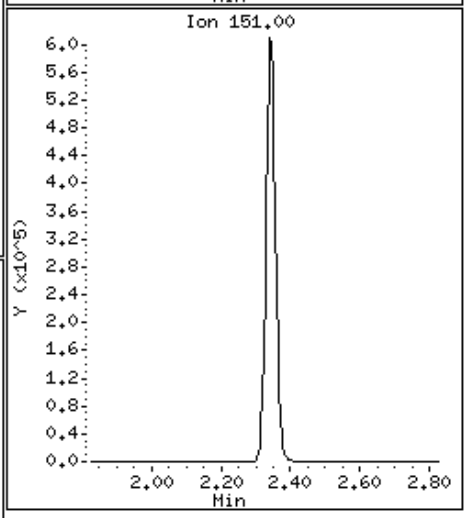
138 Freon TF

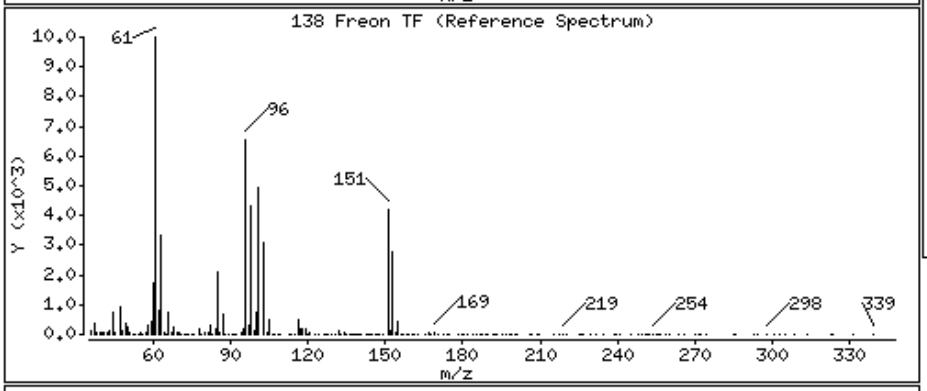
Concentration: 3263.42 ug/l

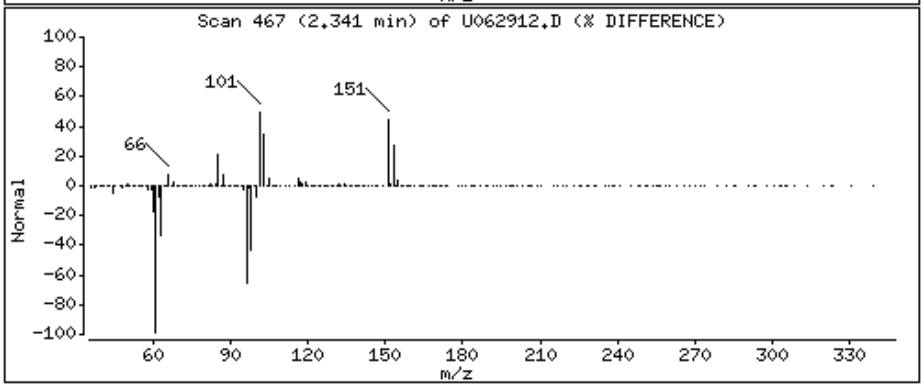












Data File : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062912.D
Inj Date : 29-JUN-2023 14:48
InstruID : VOA9.i
LabSampID : HS23061825-03

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062913.D Page 1
Report Date: 03-Jul-2023 13:02

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062913.D
Lab Smp Id: HS23061825-03MS Client Smp ID: HS23061825-03MS
Inj Date : 29-JUN-2023 15:10
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-03MS;HS23061825-03MS;3;;MS
Misc Info : V9;WATER;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\8260C.m
Meth Date : 03-Jul-2023 13:02 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 13 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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.815	4.815	(1.000)	636356	50.0000	
2	Dichlorodifluoromethane	85	1.164	1.160	(0.242)	104716	17.8616	17.86
3	Chloromethane	50	1.299	1.291	(0.270)	158286	15.5881	15.58
5	Vinyl Chloride	62	1.378	1.370	(0.286)	133359	19.8126	19.81
6	Bromomethane	94	1.618	1.614	(0.336)	85239	23.6946	23.69
7	Chloroethane	64	1.700	1.696	(0.353)	90526	19.9651	19.96
8	Trichlorofluoromethane	101	1.895	1.891	(0.394)	183671	23.7587	23.75
9	Acrolein	56	2.270	2.259	(0.471)	9918	29.3634	29.36
10	Acetone	43	2.409	2.405	(0.500)	74432	30.2936	30.29
11	1,1-Dichloroethene	96	2.334	2.326	(0.485)	104468	21.6276	21.62
15	Iodomethane	142	2.468	2.465	(0.513)	161437	49.2379	49.23
16	Acrylonitrile	53	3.068	3.061	(0.637)	110154	46.6772	46.67
17	Methylene Chloride	84	2.795	2.791	(0.580)	118931	19.8874	19.88
18	Methyl tert-butyl ether	73	3.080	3.076	(0.640)	276419	18.6613	18.66
19	Carbon Disulfide	76	2.521	2.517	(0.524)	552146	42.7586	42.75
20	trans-1,2-Dichloroethene	96	3.061	3.053	(0.636)	107902	20.5407	20.54
21	Vinyl Acetate	43	3.608	3.604	(0.749)	593972	37.0930	37.09
22	1,1-Dichloroethane	63	3.514	3.511	(0.730)	190875	19.1199	19.11
24	2-Butanone	43	4.268	4.264	(0.886)	91321	31.4753	31.47
26	2,2-Dichloropropane	77	4.182	4.178	(0.868)	146498	22.4169	22.41

27 cis-1,2-Dichloroethene	96	4.197	4.193 (0.872)	124933	19.8797	19.87
28 Chloroform	83	4.575	4.572 (0.950)	200995	19.3446	19.34

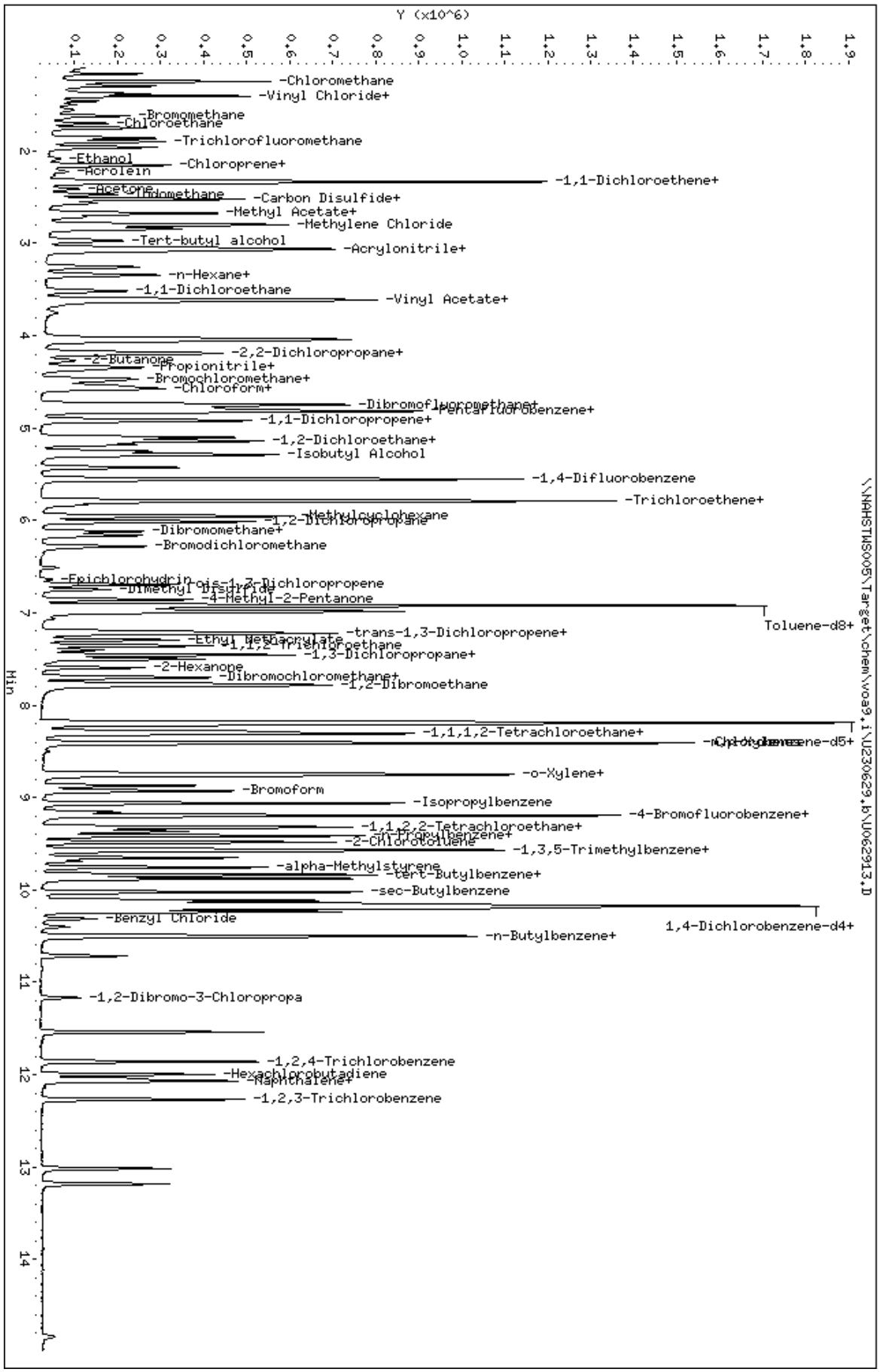
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	29 Bromochloromethane	128	4.470	4.467	(0.928)	64767	18.4241	18.42
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	266311	49.8576	49.85
	31 1,1,1-Trichloroethane	97	4.744	4.740	(0.985)	171211	21.6199	21.61
	32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	145079	23.0528	23.05
	33 1,2-Dichloroethane	62	5.179	5.175	(0.933)	171125	23.0242	23.02
	34 Carbon Tetrachloride	117	4.913	4.909	(0.885)	143894	24.8916	24.89
$	35 1,2-Dichloroethane-d4	65	5.100	5.096	(1.059)	299178	51.7882	51.78
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	858718	50.0000	
	37 Benzene	78	5.141	5.138	(0.926)	436246	21.0827	21.08
	38 Trichloroethene	130	5.790	5.786	(1.043)	434806	72.4984	72.49
	39 Bromodichloromethane	83	6.281	6.277	(1.131)	137243	21.2627	21.26
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	111104	20.1100	20.10
	44 Dibromomethane	93	6.120	6.120	(1.102)	73931	20.9433	20.94
	45 4-Methyl-2-Pentanone	43	6.858	6.855	(0.838)	211951	35.4731	35.47
	46 cis-1,3-Dichloropropene	75	6.693	6.690	(1.205)	155284	19.1819	19.18
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	820502	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	1004199	54.0755	54.07
	50 Toluene	91	6.982	6.982	(0.853)	483043	21.7058	21.70
	51 trans-1,3-Dichloropropene	75	7.199	7.196	(1.296)	127969	18.9392	18.93
	52 2-Hexanone	43	7.593	7.593	(0.928)	140615	33.7931	33.79
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	90136	19.4661	19.46
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	189945	20.0779	20.07
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	120555	21.9428	21.94
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	130853	24.1338	24.13
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	113167	19.8121	19.81
	58 1-Chlorohexane	55	8.196	8.197	(1.476)	108359	24.5744	24.57
	59 Chlorobenzene	112	8.211	8.208	(1.003)	343904	21.6528	21.65
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	120588	22.0904	22.09
	61 Ethylbenzene	106	8.305	8.305	(1.015)	166909	22.5788	22.57
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	415527	47.5109	47.51
	63 o-Xylene	106	8.748	8.748	(1.069)	197306	22.8361	22.83
	64 Styrene	104	8.763	8.763	(1.071)	318267	23.2116	23.21
	66 Bromoform	173	8.920	8.920	(1.090)	78727	21.2289	21.22
	67 Isopropylbenzene	105	9.062	9.063	(1.107)	504470	24.3088	24.30
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	150749	18.0235	18.02
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	374972	51.2709	51.27
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	444652	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	132865	18.0569	18.05
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	531366	22.7825	22.78
	74 Bromobenzene	156	9.317	9.317	(0.916)	150436	20.0515	20.05
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	365077	22.8160	22.81
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	356168	21.7234	21.72
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	402236	22.1640	22.16
	78 tert-Butylbenzene	119	9.838	9.839	(0.967)	361601	23.0091	23.00
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	366329	21.8806	21.88
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	466858	23.4247	23.42
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	392999	23.5373	23.53
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	263100	20.6474	20.64
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	273435	20.1260	20.12
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	331455	23.1886	23.18
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	255398	19.9903	19.99
	89 1,2-Dibromo-3-Chloropropane	155	11.169	11.166	(1.098)	19629	16.0827	16.08

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	159082	18.1026	18.10
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	76271	21.4915	21.49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	92 Naphthalene	128	12.069	12.065	(1.186)	331376	16.2337	16.23
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	149173	17.3639	17.36
M	94 1,2-Dichloroethylene (total)	96				232835	40.4204	40.42
M	95 Xylenes (total)	106				612833	70.3470	70.34
	135 1,4-Dioxane	88	6.172	6.169	(1.282)	25068	198.391	198.39
	141 Cyclohexane	56	4.781	4.778	(0.993)	171963	22.4061	22.40
	138 Freon TF	101	2.337	2.330	(0.485)	352212	82.4116	82.41
	140 1,3-Butadiene	54	1.404	1.400	(0.292)	122533	20.3322	20.33
	147 Methylcyclohexane	55	5.951	5.947	(1.072)	259256	21.7641	21.76
	146 Methyl Acetate	43	2.716	2.709	(0.564)	94314	17.6019	17.60
	148 Tert-Butyl alcohol	59	2.971	2.967	(0.617)	209346	352.860	352.85
	149 Isopropyl Alcohol	45	2.566	2.559	(0.533)	134735	323.879	323.87
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	15640	16.5549	16.55
	12 Isobutyl Alcohol	43	5.287	5.288	(1.098)	325049	393.140	393.13
	13 Acetonitrile	39	2.671	2.667	(0.555)	138225	200.629	200.62
	14 Allyl Chloride	41	2.675	2.667	(0.555)	303166	18.3500	18.34
	25 Methacrylonitrile	41	4.497	4.493	(0.934)	60031	15.9669	15.96
	40 Methyl Methacrylate	41	6.157	6.157	(1.279)	93451	17.0796	17.07
	4 Propionitrile	54	4.339	4.339	(0.901)	155758	169.385	169.38(a)
	131 Methyl Acrylate	55	4.369	4.369	(0.907)	123273	18.3167	18.31
	49 Ethyl Methacrylate	69	7.293	7.293	(1.313)	142405	18.9181	18.91
	166 1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	367008	21.4726	21.47
	156 Diisopropyl ether	45	3.623	3.619	(0.752)	334227	18.8361	18.83

QC Flag Legend

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



Data File: \\NAHSTWS005\Target\chem\voa9,i\U230629,b\U062913,D
Date : 29-JUN-2023 15:10
Client ID: HS23061825-03MS
Sample Info: HS23061825-03MS;HS23061825-03MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

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

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062913.D
Inj Date : 29-JUN-2023 15:10
InstruID : VOA9.i
LabSampID : HS23061825-03MS

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062914.D Page 1
Report Date: 03-Jul-2023 13:02

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062914.D
Lab Smp Id: HS23061825-03MSD Client Smp ID: HS23061825-03MSD
Inj Date : 29-JUN-2023 15:33
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-03MSD;HS23061825-03MSD;3;;MSD
Misc Info : V9;WATER;0;1;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\8260C.m
Meth Date : 03-Jul-2023 13:02 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 13 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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 1	Pentafluorobenzene	168	4.815	4.815	(1.000)	638913	50.0000	
2	Dichlorodifluoromethane	85	1.160	1.160	(0.241)	103428	17.5726	17.57
3	Chloromethane	50	1.291	1.291	(0.268)	161438	15.8562	15.85
5	Vinyl Chloride	62	1.374	1.370	(0.285)	130625	19.3287	19.32
6	Bromomethane	94	1.614	1.614	(0.335)	80774	22.2603	22.26
7	Chloroethane	64	1.696	1.696	(0.352)	86363	18.9707	18.97
8	Trichlorofluoromethane	101	1.891	1.891	(0.393)	181106	23.3331	23.33
9	Acrolein	56	2.262	2.259	(0.470)	9916	29.2400	29.24
10	Acetone	43	2.405	2.405	(0.499)	81944	33.7683	33.76
11	1,1-Dichloroethene	96	2.330	2.326	(0.484)	102653	21.1668	21.16
15	Iodomethane	142	2.465	2.465	(0.512)	169796	51.0694	51.06
16	Acrylonitrile	53	3.061	3.061	(0.636)	114506	48.3271	48.32
17	Methylene Chloride	84	2.791	2.791	(0.580)	120654	20.1055	20.10
18	Methyl tert-butyl ether	73	3.080	3.076	(0.640)	278845	18.7497	18.74
19	Carbon Disulfide	76	2.517	2.517	(0.523)	543783	41.9425	41.94
20	trans-1,2-Dichloroethene	96	3.057	3.053	(0.635)	109004	20.6674	20.66
21	Vinyl Acetate	43	3.604	3.604	(0.749)	606949	37.7517	37.75
22	1,1-Dichloroethane	63	3.511	3.511	(0.729)	187163	18.6731	18.67
24	2-Butanone	43	4.264	4.264	(0.886)	96098	32.9892	32.98
26	2,2-Dichloropropane	77	4.182	4.178	(0.868)	140675	21.4571	21.45

27	cis-1,2-Dichloroethene	96	4.193	4.193 (0.871)	121961	19.3291	19.32
28	Chloroform	83	4.572	4.572 (0.949)	204919	19.6433	19.64

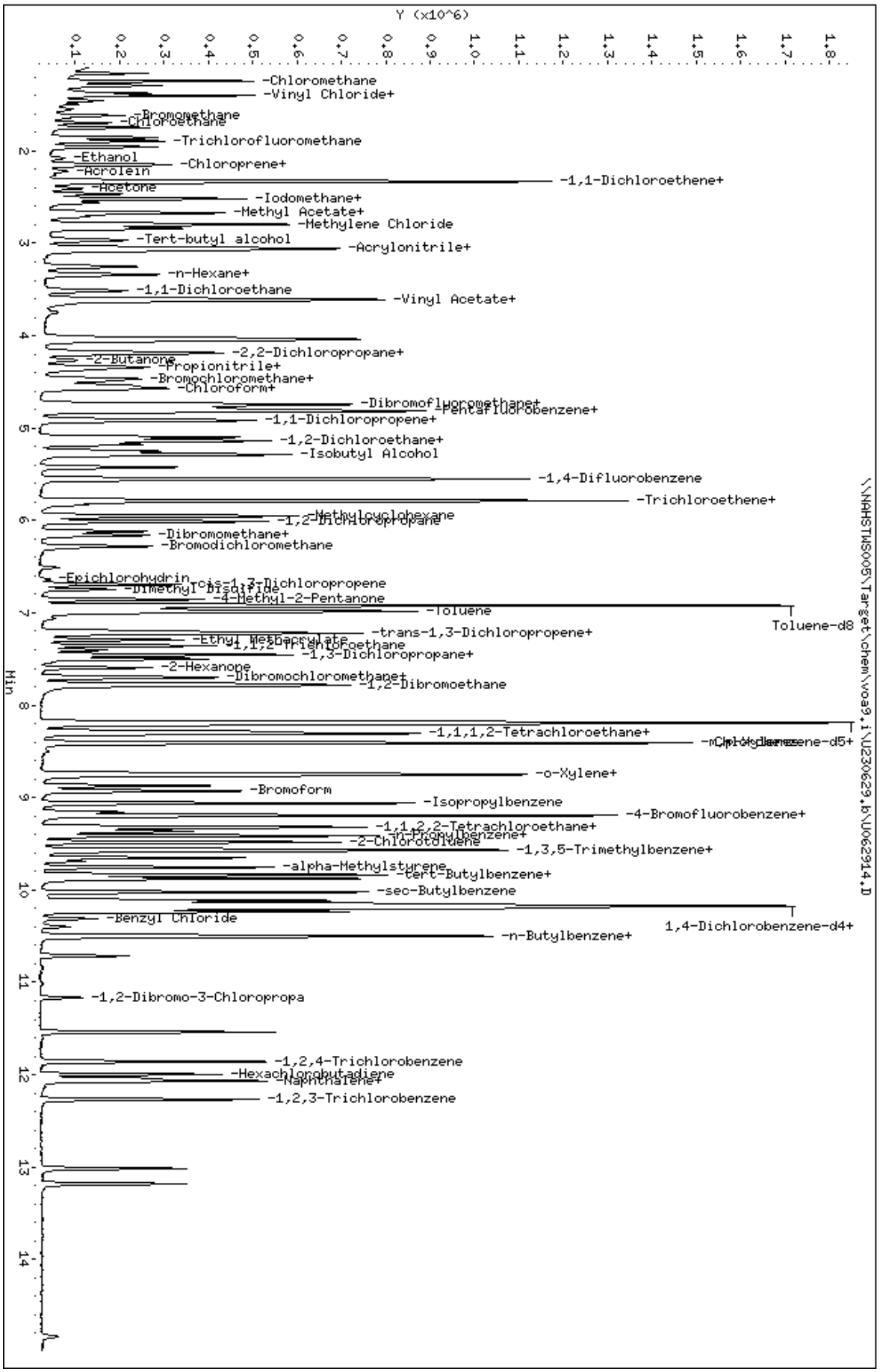
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	29 Bromochloromethane	128	4.467	4.467	(0.928)	65214	18.4770	18.47
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	267431	49.8670	49.86
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	170021	21.3837	21.38
	32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	147073	23.0699	23.06
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	170652	22.6660	22.66
	34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	140860	24.0542	24.05
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	293831	50.6442	50.64
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	869876	50.0000	
	37 Benzene	78	5.138	5.138	(0.925)	439318	20.9588	20.95
	38 Trichloroethene	130	5.786	5.786	(1.042)	432964	71.2652	71.26
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	141594	21.6554	21.65
	42 1,2-Dichloropropane	63	6.007	6.011	(1.082)	114036	20.3759	20.37
	44 Dibromomethane	93	6.120	6.120	(1.102)	72710	20.3332	20.33
	45 4-Methyl-2-Pentanone	43	6.855	6.855	(0.837)	219355	37.1255	37.12
	46 cis-1,3-Dichloropropene	75	6.693	6.690	(1.205)	158579	19.3221	19.32
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	811369	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	1000103	54.4611	54.46
	50 Toluene	91	6.982	6.982	(0.853)	487910	22.1713	22.17
	51 trans-1,3-Dichloropropene	75	7.196	7.196	(1.296)	133326	19.4213	19.42
	52 2-Hexanone	43	7.593	7.593	(0.928)	145480	35.3558	35.35
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	91162	19.9093	19.90
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	193443	20.6778	20.67
	55 Dibromochloromethane	129	7.690	7.694	(0.940)	117532	21.6334	21.63
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	128590	23.9834	23.98
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	114342	20.2432	20.24
	58 1-Chlorohexane	55	8.197	8.197	(1.476)	108341	24.2552	24.25
	59 Chlorobenzene	112	8.208	8.208	(1.003)	340388	21.6727	21.67
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	118509	21.9539	21.95
	61 Ethylbenzene	106	8.305	8.305	(1.015)	166501	22.7771	22.77
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	410231	47.4333	47.43
	63 o-Xylene	106	8.748	8.748	(1.069)	195372	22.8668	22.86
	64 Styrene	104	8.763	8.763	(1.071)	317425	23.4107	23.41
	66 Bromoform	173	8.920	8.920	(1.090)	78036	21.2794	21.27
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	505085	24.6124	24.61
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	152984	18.9575	18.95
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	365042	50.4609	50.46
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	429013	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	133106	18.7491	18.74
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	536695	23.8499	23.84
	74 Bromobenzene	156	9.317	9.317	(0.916)	151803	20.9713	20.97
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	362921	23.5080	23.50
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	348216	22.0126	22.01
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	394497	22.5300	22.53
	78 tert-Butylbenzene	119	9.838	9.839	(0.967)	363948	24.0026	24.00
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	369405	22.8687	22.86
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	468017	24.3389	24.33
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	393779	24.4438	24.44
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	263888	21.4642	21.46
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	276151	21.0668	21.06
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	331848	24.0624	24.06
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	256344	20.7957	20.79
	89 1,2-Dibromo-3-Chloropropane	155	11.166	11.166	(1.098)	19870	16.8736	16.87

90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	162185	19.1285	19.12
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	76940	22.4703	22.47

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	92 Naphthalene	128	12.065	12.065	(1.186)	364514	18.5080	18.50
	93 1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	155370	18.7445	18.74
M	94 1,2-Dichloroethylene (total)	96				230965	39.9965	39.99
M	95 Xylenes (total)	106				605603	70.3001	70.30
	135 1,4-Dioxane	88	6.172	6.169	(1.282)	28130	221.733	221.73
	141 Cyclohexane	56	4.782	4.778	(0.993)	172576	22.3962	22.39
	138 Freon TF	101	2.334	2.330	(0.485)	347934	81.0848	81.08
	140 1,3-Butadiene	54	1.400	1.400	(0.291)	120388	19.8963	19.89
	147 Methylcyclohexane	55	5.947	5.947	(1.071)	262192	21.7282	21.72
	146 Methyl Acetate	43	2.708	2.709	(0.563)	96406	17.9203	17.92
	148 Tert-Butyl alcohol	59	2.963	2.967	(0.615)	213837	359.073	359.07
	149 Isopropyl Alcohol	45	2.559	2.559	(0.531)	139535	334.075	334.07
	72 trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	18228	19.5114	19.51
	12 Isobutyl Alcohol	43	5.288	5.288	(1.098)	312718	376.712	376.71
	13 Acetonitrile	39	2.667	2.667	(0.554)	140742	203.465	203.46
	14 Allyl Chloride	41	2.667	2.667	(0.554)	307916	18.5629	18.56
	25 Methacrylonitrile	41	4.493	4.493	(0.933)	65817	17.4358	17.43
	40 Methyl Methacrylate	41	6.157	6.157	(1.279)	96465	17.5599	17.55
	4 Propionitrile	54	4.339	4.339	(0.901)	158121	171.266	171.26(a)
	131 Methyl Acrylate	55	4.365	4.369	(0.907)	125901	18.6323	18.63
	49 Ethyl Methacrylate	69	7.293	7.293	(1.313)	146721	19.2415	19.24
	166 1,2,3-Trimethylbenzene	105	10.232	10.236	(1.006)	364291	22.0906	22.09
	156 Diisopropyl ether	45	3.619	3.619	(0.752)	336918	18.9118	18.91

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230629.b\U062914.D
Date : 29-JUN-2023 15:33
Client ID: HS230618Z5-03MSD
Sample Info: HS230618Z5-03MSD;HS230618Z5-03MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

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

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062914.D
Inj Date : 29-JUN-2023 15:33
InstruID : VOA9.i
LabSampID : HS23061825-03MSD

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062915.D Page 1
Report Date: 03-Jul-2023 13:02

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062915.D
Lab Smp Id: HS23061825-09 Client Smp ID: HS23061825-09
Inj Date : 29-JUN-2023 15:55
Operator : PC Inst ID: VOA9.i
Smp Info : HS23061825-09;HS23061825-09;;;
Misc Info : V9;WATER;0;10;
Comment   :
Method   : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\8260C.m
Meth Date : 03-Jul-2023 13:02 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 14
Dil Factor: 10.00000
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	10.000	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	4.815	4.815	(1.000)	636003	50.0000	
	11 1,1-Dichloroethene	96	2.326	2.326	(0.483)	2994	0.62018	6.20(a)
	27 cis-1,2-Dichloroethene	96	4.197	4.193	(0.872)	13759	2.19058	21.90(a)
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	261944	49.0623	49.06
	33 1,2-Dichloroethane	62	5.175	5.175	(0.932)	29190	3.93250	39.32(a)
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	295303	51.1374	51.13
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	857604	50.0000	
	38 Trichloroethene	130	5.790	5.786	(1.043)	324518	54.1795	541.79
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	795708	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	961431	53.3857	53.38
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	343862	48.4329	48.43
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	408788	50.0000	
M	94 1,2-Dichloroethylene (total)	96				13759	2.19058	21.90(a)

QC Flag Legend

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

01205928

Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062915.D

Date : 29-JUN-2023 15:55

Client ID: HS23061825-09

Instrument: VOA9.i

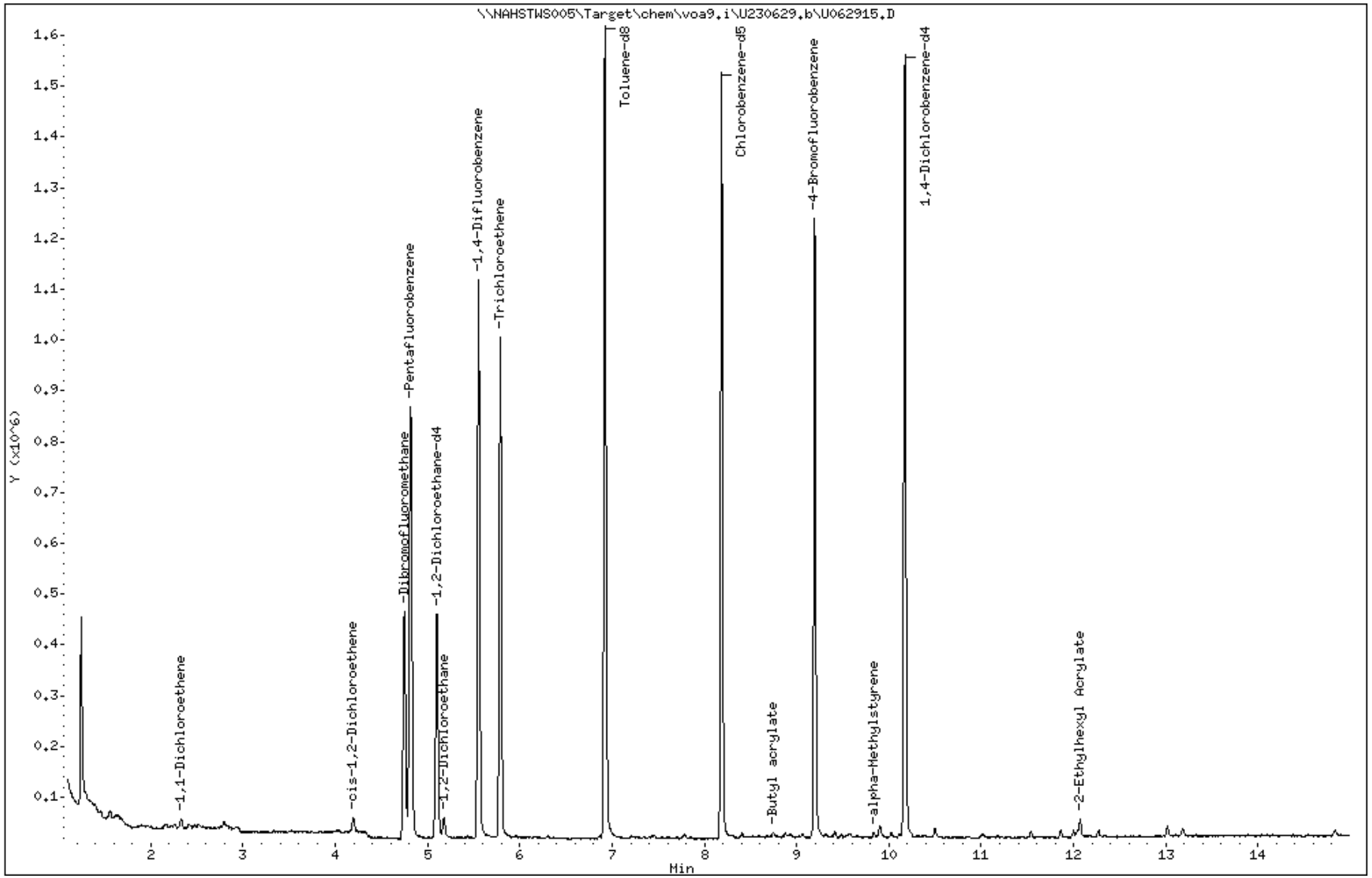
Sample Info: HS23061825-09;HS23061825-09;;;

Purge Volume: 5.0

Operator: PC

Column phase: DB624

Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062915.D Page 2

Date : 29-JUN-2023 15:55

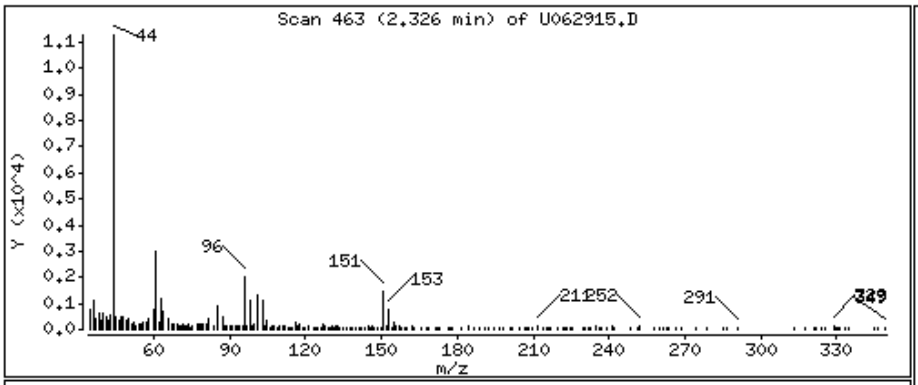
Client ID: HS23061825-09 Instrument: VOA9.i

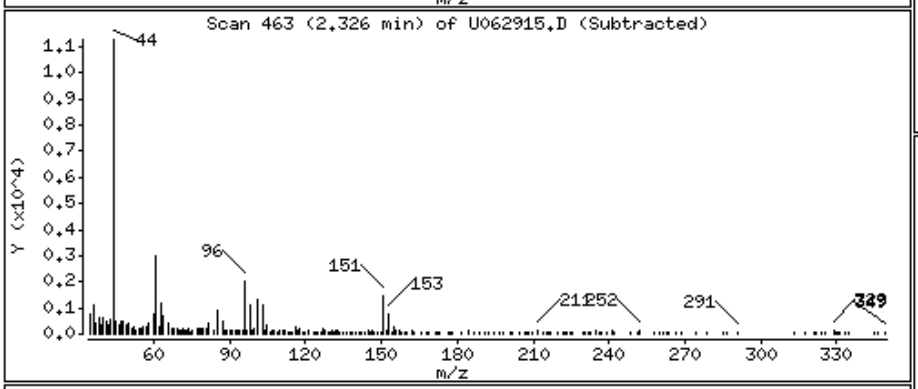
Sample Info: HS23061825-09;HS23061825-09;;;

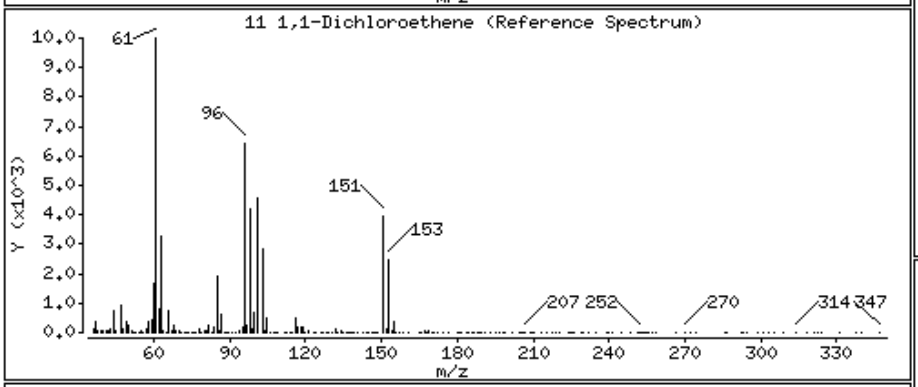
Purge Volume: 5.0 Operator: PC

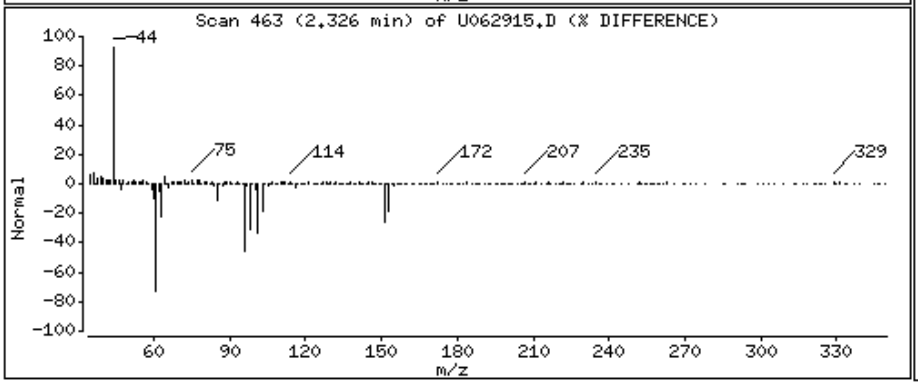
Column phase: DB624 Column diameter: 0.18

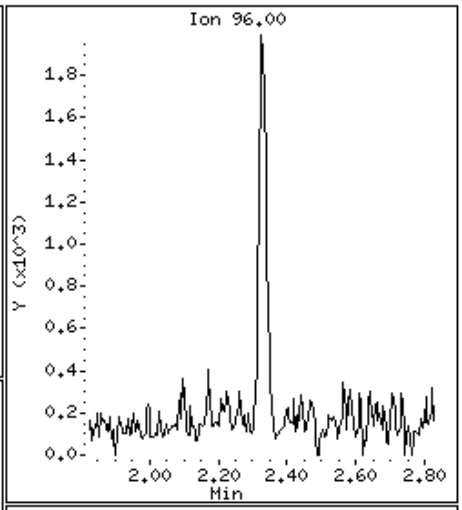
11 1,1-Dichloroethene Concentration: 6.20 ug/l

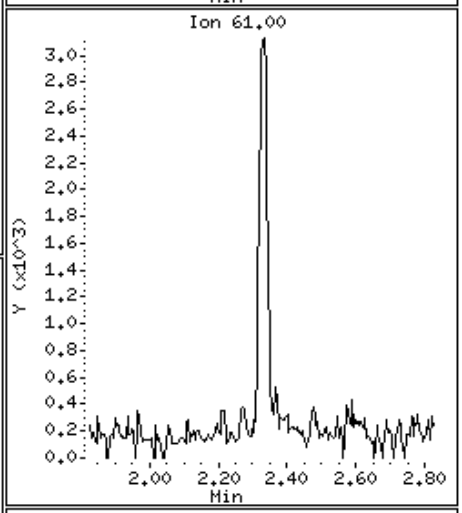


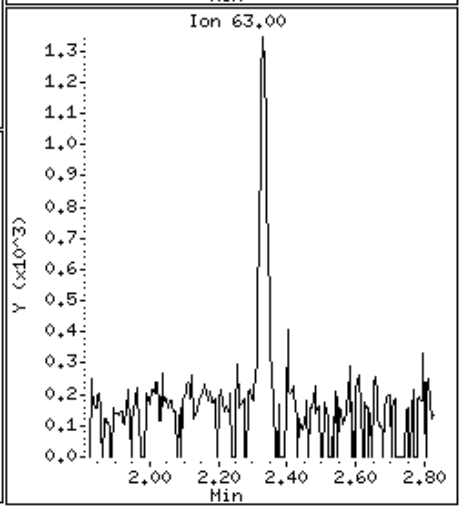












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062915.D Page 3

Date : 29-JUN-2023 15:55

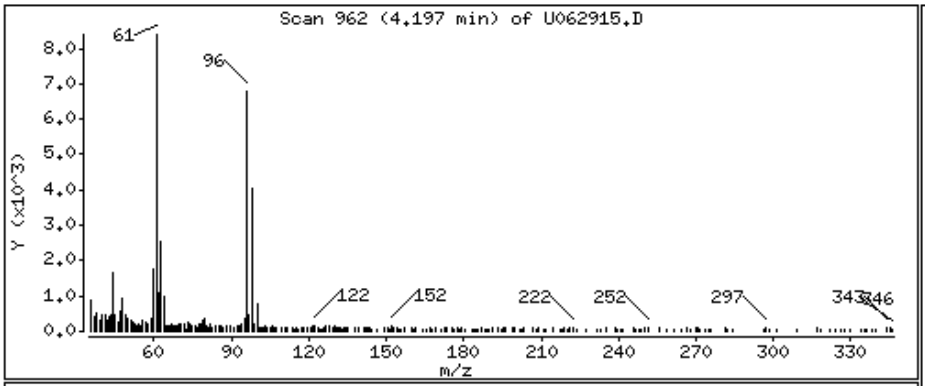
Client ID: HS23061825-09 Instrument: VOA9.i

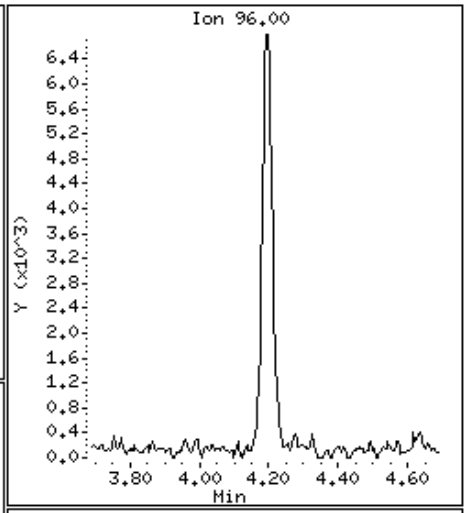
Sample Info: HS23061825-09;HS23061825-09;;;

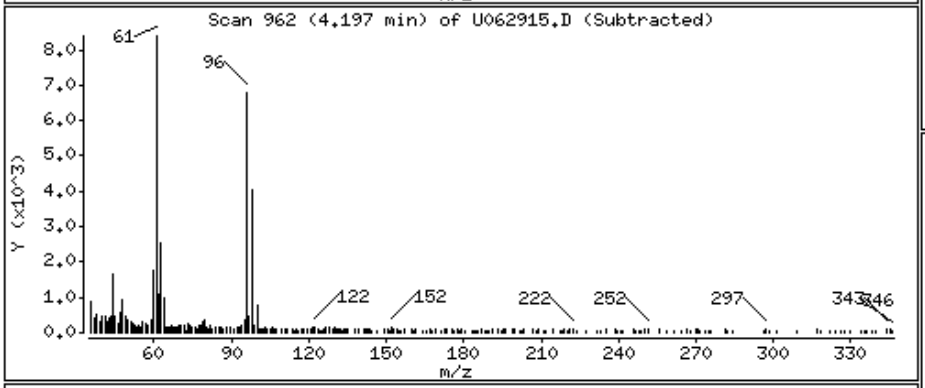
Purge Volume: 5.0 Operator: PC

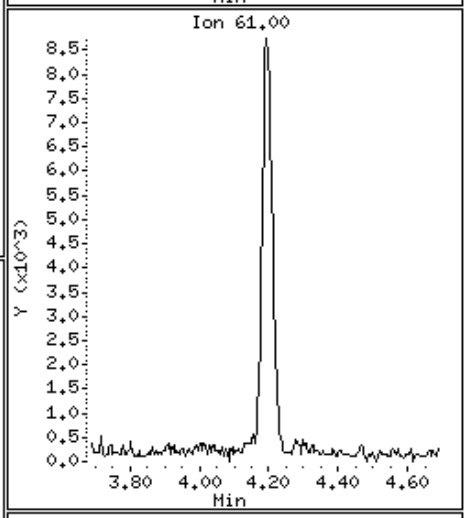
Column phase: DB624 Column diameter: 0.18

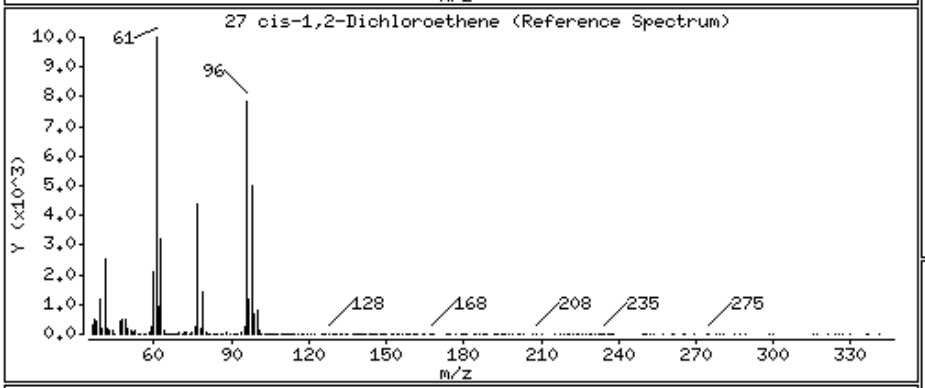
27 cis-1,2-Dichloroethene Concentration: 21.90 ug/l

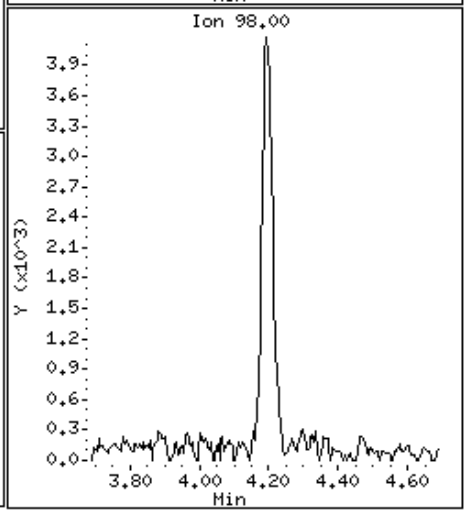


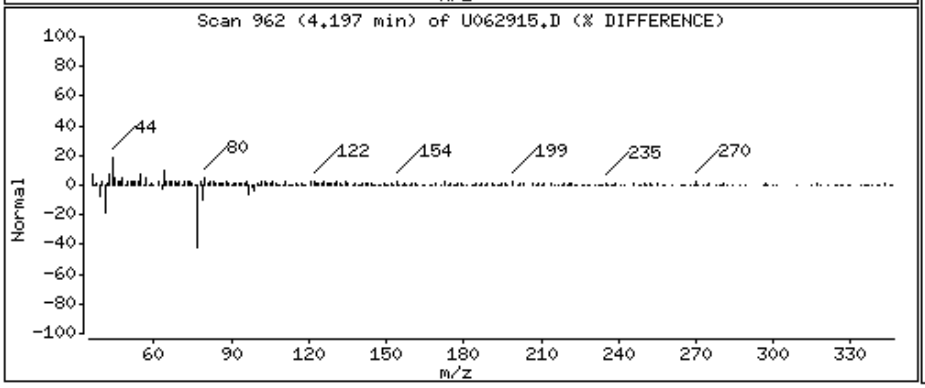












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062915.D Page 4

Date : 29-JUN-2023 15:55

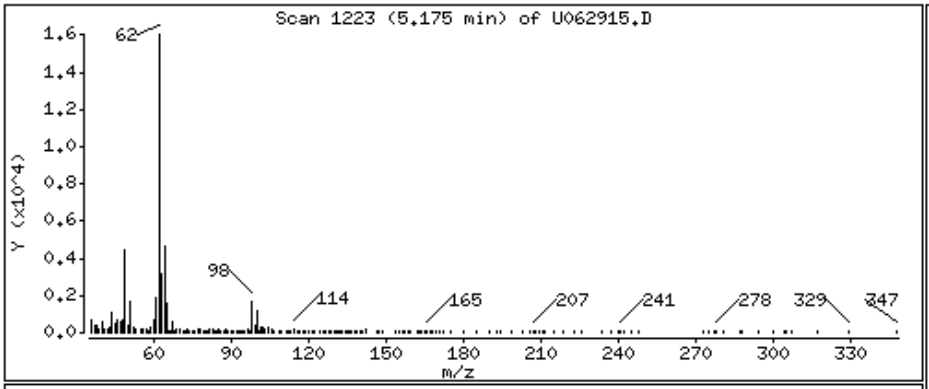
Client ID: HS23061825-09 Instrument: VOA9.i

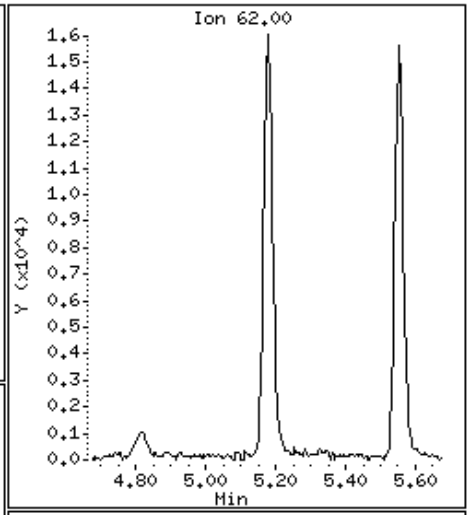
Sample Info: HS23061825-09;HS23061825-09;;;

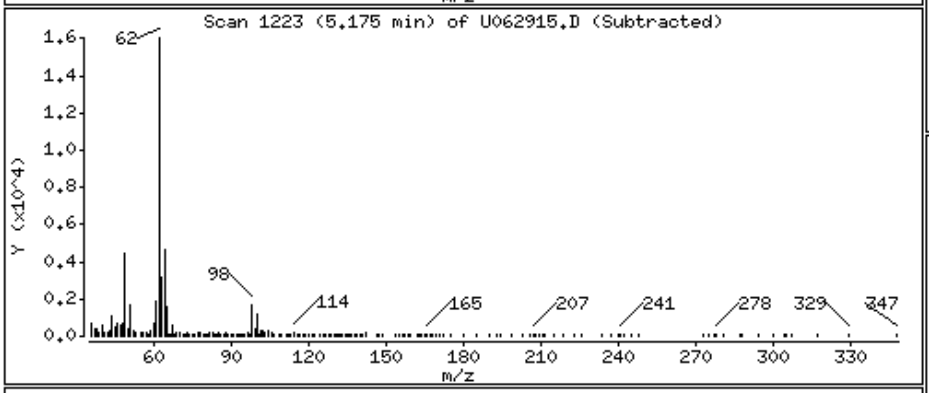
Purge Volume: 5.0 Operator: PC

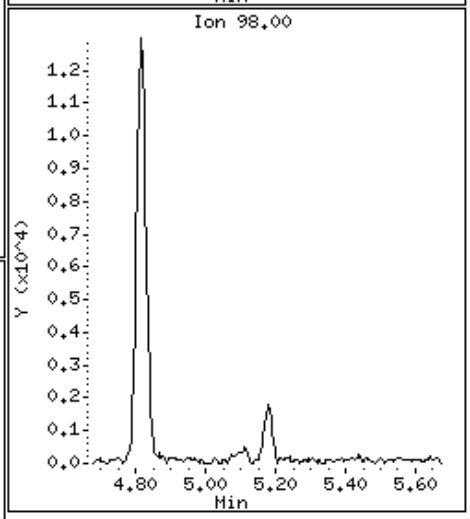
Column phase: DB624 Column diameter: 0.18

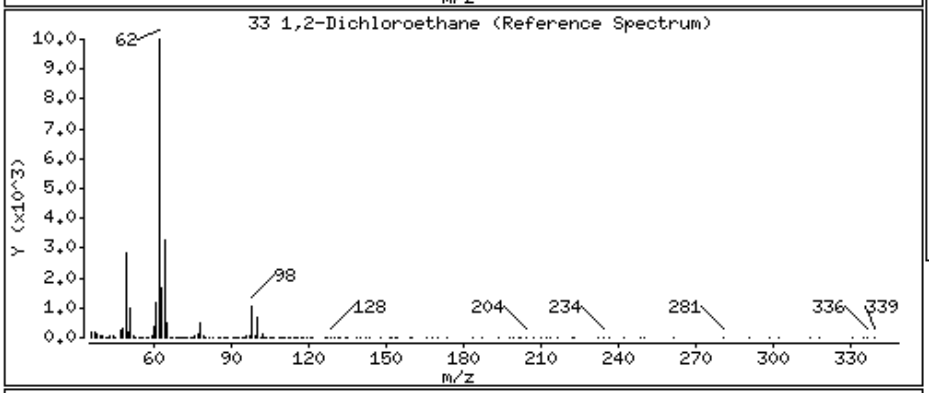
33 1,2-Dichloroethane Concentration: 39.32 ug/l

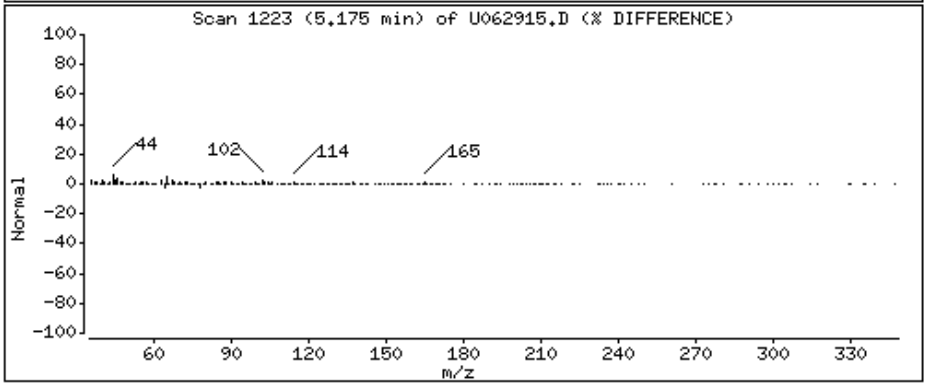












Data File: \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062915.D Page 5

Date : 29-JUN-2023 15:55

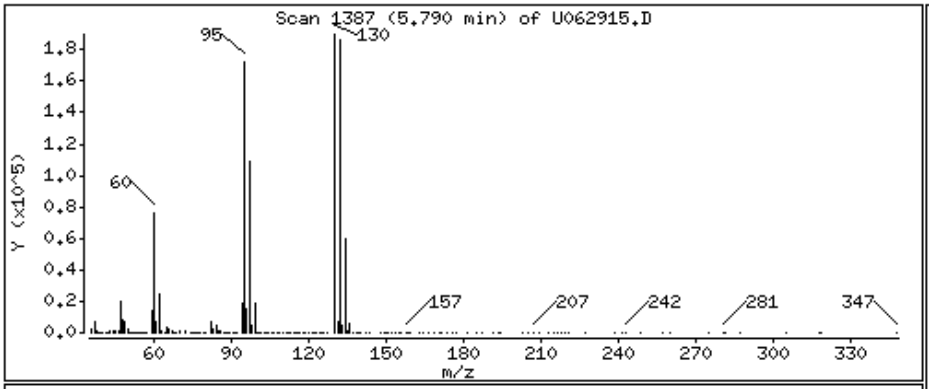
Client ID: HS23061825-09 Instrument: VOA9.i

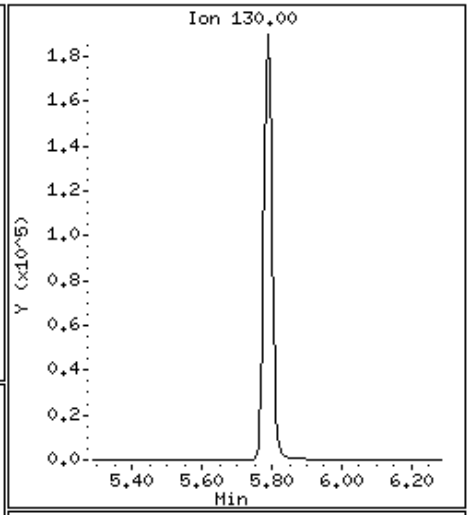
Sample Info: HS23061825-09;HS23061825-09;;;

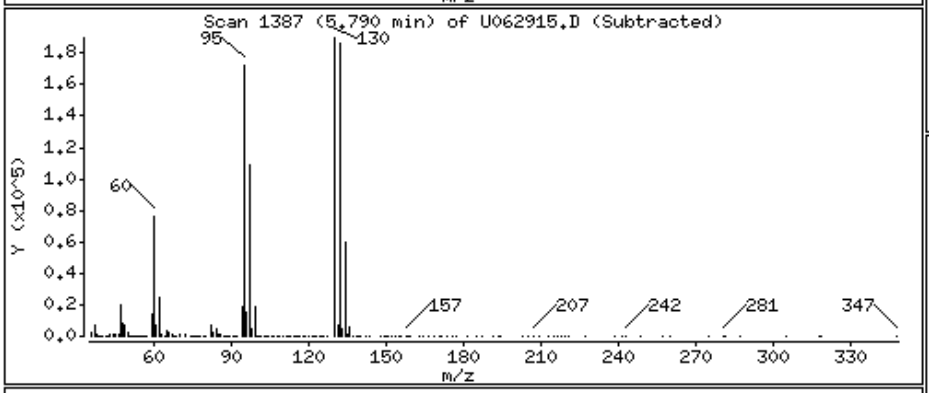
Purge Volume: 5.0 Operator: PC

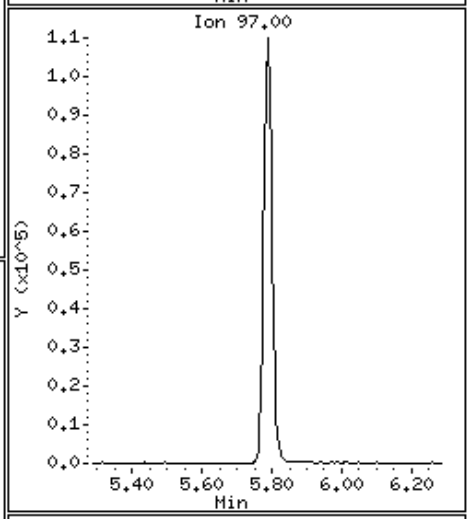
Column phase: DB624 Column diameter: 0.18

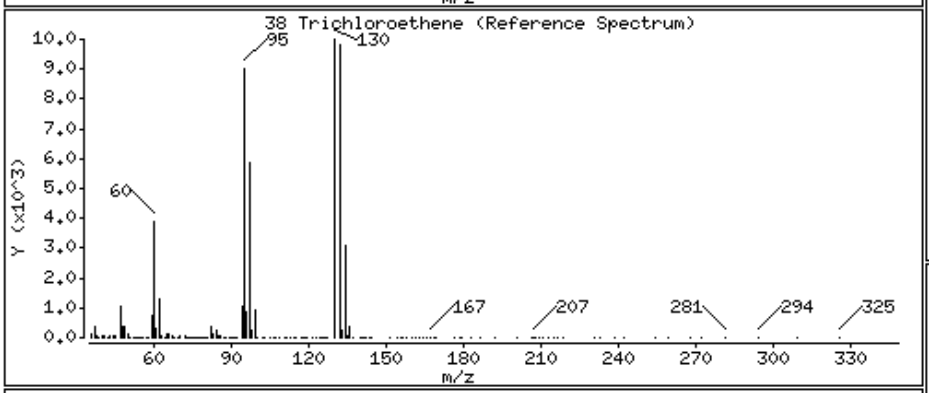
38 Trichloroethene Concentration: 541.79 ug/l

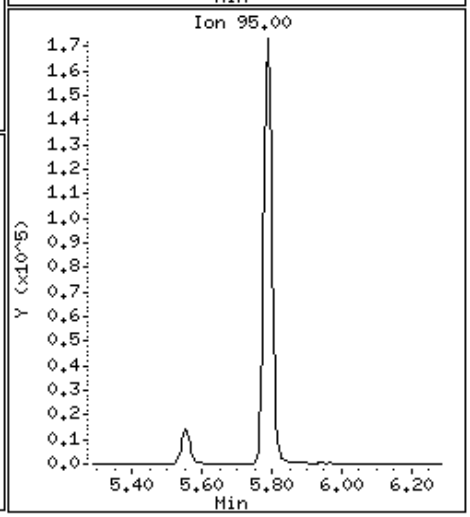


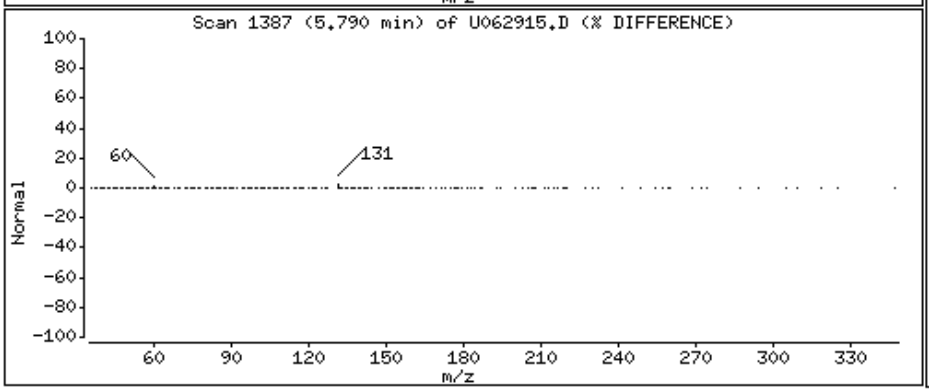












Data File : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062915.D
Inj Date : 29-JUN-2023 15:55
InstruID : VOA9.i
LabSampID : HS23061825-09

NO MANUAL INTEGRATIONS

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062931.D
Lab Smp Id: CCV-END Client Smp ID: CCV-END
Inj Date : 29-JUN-2023 21:53
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\U230629.b\8260C.m
Meth Date : 03-Jul-2023 13:03 VOA9.i Quant Type: ISTD
Cal Date : 06-JUN-2023 14:35 Cal File: U060610.D
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260_GB.sub
Target Version: 4.14
Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	524037	50.0000	
2 Dichlorodifluoromethane	85	1.164	1.164	(0.242)	167716	50.0000	34.66
3 Chloromethane	50	1.295	1.295	(0.269)	319606	50.0000	40.18
5 Vinyl Chloride	62	1.378	1.378	(0.286)	237639	50.0000	42.87
6 Bromomethane	94	1.618	1.618	(0.336)	158813	50.0000	55.93
7 Chloroethane	64	1.700	1.700	(0.353)	170867	50.0000	45.76
8 Trichlorofluoromethane	101	1.895	1.895	(0.394)	317684	50.0000	49.90
9 Acrolein	56	2.266	2.266	(0.471)	28101	100.000	101.02
10 Acetone	43	2.409	2.409	(0.500)	174276	100.000	96.65
11 1,1-Dichloroethene	96	2.334	2.334	(0.485)	187324	50.0000	47.09
15 Iodomethane	142	2.469	2.469	(0.513)	306261	100.000	98.06
16 Acrylonitrile	53	3.065	3.065	(0.636)	206969	100.000	106.49
17 Methylene Chloride	84	2.795	2.795	(0.580)	244647	50.0000	51.21
18 Methyl tert-butyl ether	73	3.080	3.080	(0.640)	656593	50.0000	53.82
19 Carbon Disulfide	76	2.521	2.521	(0.524)	1131257	100.000	106.38
20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	213400	50.0000	49.33
21 Vinyl Acetate	43	3.608	3.608	(0.749)	1283180	100.000	97.30
22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	386529	50.0000	47.01
24 2-Butanone	43	4.268	4.268	(0.886)	219098	100.000	91.70
26 2,2-Dichloropropane	77	4.182	4.182	(0.868)	241818	50.0000	44.53

27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	252313	50.0000	48.75
28 Chloroform	83	4.572	4.572 (0.949)	417678	50.0000	48.81

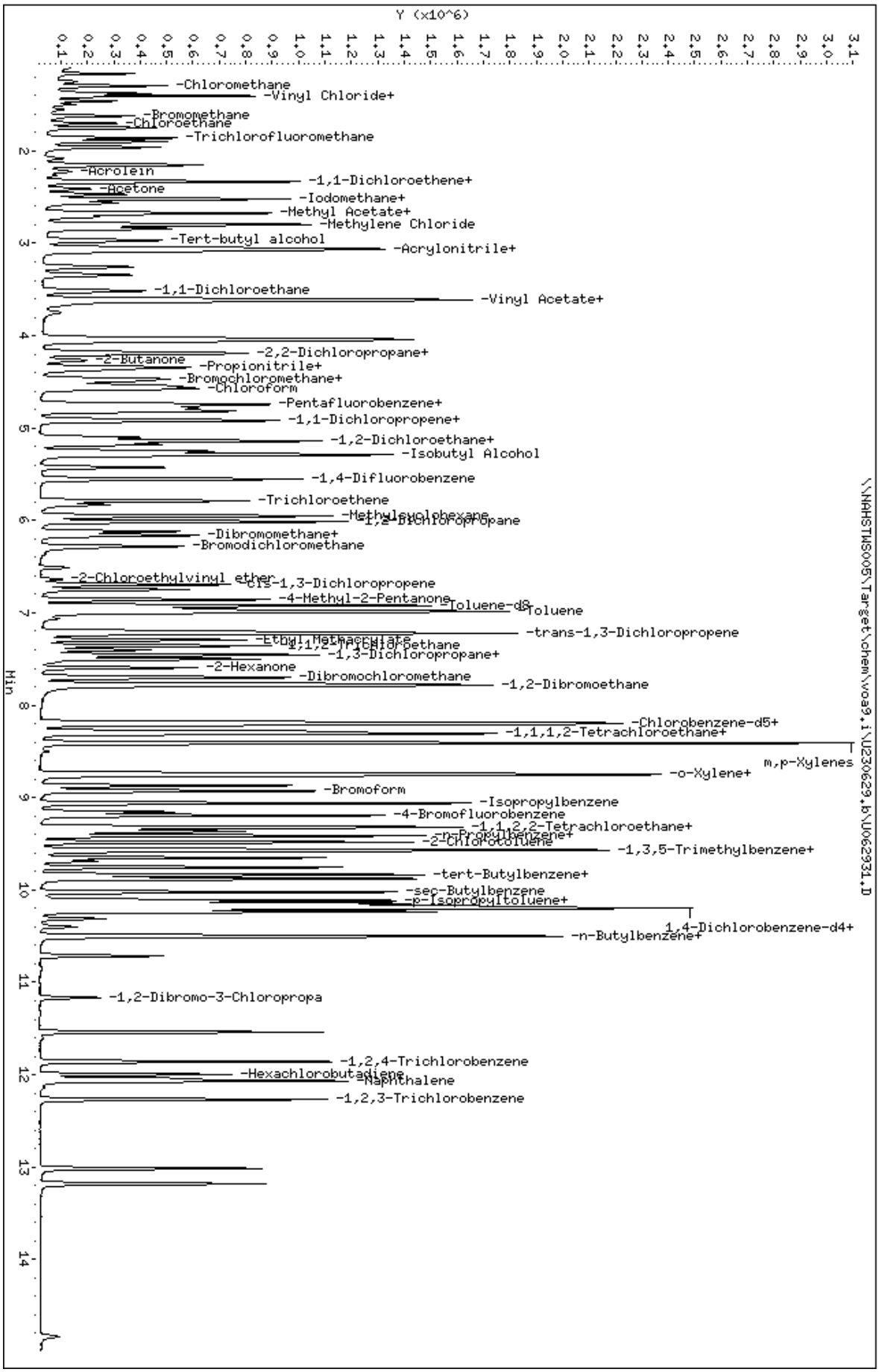
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	29 Bromochloromethane	128	4.470	4.470	(0.928)	137327	50.0000	47.43
$	30 Dibromofluoromethane	113	4.748	4.748	(0.986)	235230	50.0000	53.50
	31 1,1,1-Trichloroethane	97	4.740	4.740	(0.984)	322838	50.0000	49.50
	32 1,1-Dichloropropene	75	4.920	4.920	(0.886)	268616	50.0000	47.90
	33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	344306	50.0000	51.98
	34 Carbon Tetrachloride	117	4.909	4.909	(0.884)	265776	50.0000	51.59
$	35 1,2-Dichloroethane-d4	65	5.096	5.096	(1.058)	252455	50.0000	53.08
*	36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	765169	50.0000	
	37 Benzene	78	5.138	5.138	(0.925)	894587	50.0000	48.51
	38 Trichloroethene	130	5.790	5.790	(1.043)	258958	50.0000	48.45
	39 Bromodichloromethane	83	6.277	6.277	(1.130)	303682	50.0000	52.80
	41 2-Chloroethylvinyl ether	63	6.577	6.577	(1.184)	3194	100.000	22.95
	42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	239276	50.0000	48.60
	44 Dibromomethane	93	6.120	6.120	(1.102)	159158	50.0000	50.59
	45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	512108	100.000	93.09
	46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	349738	50.0000	45.56
*	47 Chlorobenzene-d5	117	8.185	8.185	(1.000)	755426	50.0000	
$	48 Toluene-d8	98	6.922	6.922	(0.846)	858906	50.0000	50.23
	50 Toluene	91	6.982	6.982	(0.853)	994981	50.0000	48.56
	51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	294390	50.0000	45.69
	52 2-Hexanone	43	7.593	7.593	(0.928)	328648	100.000	85.78
	53 1,1,2-Trichloroethane	83	7.357	7.357	(0.899)	197550	50.0000	46.33
	54 1,3-Dichloropropane	76	7.499	7.499	(0.916)	422698	50.0000	48.52
	55 Dibromochloromethane	129	7.694	7.694	(0.940)	270748	50.0000	53.52
	56 Tetrachloroethene	164	7.458	7.458	(0.911)	229920	50.0000	46.05
	57 1,2-Dibromoethane	107	7.784	7.784	(0.951)	256451	50.0000	48.76
	58 1-Chlorohexane	55	8.197	8.197	(1.476)	183034	50.0000	46.58
	59 Chlorobenzene	112	8.208	8.208	(1.003)	704057	50.0000	48.14
	60 1,1,1,2-Tetrachloroethane	131	8.283	8.283	(1.012)	257662	50.0000	51.26
	61 Ethylbenzene	106	8.305	8.305	(1.015)	331621	50.0000	48.72
	62 m,p-Xylenes	106	8.410	8.410	(1.027)	832180	100.000	103.34
	63 o-Xylene	106	8.748	8.748	(1.069)	411874	50.0000	51.77
	64 Styrene	104	8.763	8.763	(1.071)	678744	50.0000	53.76
	66 Bromoform	173	8.920	8.920	(1.090)	189257	50.0000	55.42
	67 Isopropylbenzene	105	9.063	9.063	(1.107)	962707	50.0000	50.38
	68 1,1,2,2-Tetrachloroethane	83	9.329	9.329	(0.917)	340622	50.0000	44.86
$	69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	359416	50.0000	53.41
*	70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	403598	50.0000	
	71 1,2,3-Trichloropropane	75	9.362	9.362	(0.920)	310620	50.0000	46.50
	73 n-Propylbenzene	91	9.411	9.411	(0.925)	1040395	50.0000	49.14
	74 Bromobenzene	156	9.317	9.317	(0.916)	326001	50.0000	47.87
	75 1,3,5-Trimethylbenzene	105	9.561	9.561	(0.940)	711316	50.0000	48.97
	76 2-Chlorotoluene	91	9.482	9.482	(0.932)	711579	50.0000	47.81
	77 4-Chlorotoluene	91	9.576	9.576	(0.941)	811147	50.0000	49.24
	78 tert-Butylbenzene	119	9.839	9.839	(0.967)	683420	50.0000	47.91
	79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	710431	50.0000	46.75
	81 sec-Butylbenzene	105	10.022	10.022	(0.985)	849766	50.0000	46.97
	82 p-Isopropyltoluene	119	10.146	10.146	(0.997)	710091	50.0000	46.85
	83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	543372	50.0000	46.98
	84 1,4-Dichlorobenzene	146	10.191	10.191	(1.002)	558725	50.0000	45.30
	87 n-Butylbenzene	91	10.491	10.491	(1.031)	575869	50.0000	44.38
	88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	543311	50.0000	46.85

89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	50761	50.0000	45.82
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	355669	50.0000	44.59

	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)	137360	50.0000	42.64
92	Naphthalene	128	12.065	12.065	(1.186)	838294	50.0000	45.24
93	1,2,3-Trichlorobenzene	180	12.268	12.268	(1.206)	346540	50.0000	44.44
M 94	1,2-Dichloroethylene (total)	96				465713	100.000	(a)
135	1,4-Dioxane	88	6.169	6.169	(1.281)	67224	1000.00	646.04
141	Cyclohexane	56	4.782	4.782	(0.993)	256988	50.0000	40.13
138	Freon TF	101	2.334	2.334	(0.485)	171535	50.0000	48.73
140	1,3-Butadiene	54	1.404	1.404	(0.292)	209418	50.0000	42.19
147	Methylcyclohexane	55	5.947	5.947	(1.071)	545061	50.0000	51.35
146	Methyl Acetate	43	2.712	2.712	(0.563)	217209	50.0000	49.22
148	Tert-Butyl alcohol	59	2.967	2.967	(0.616)	503805	1000.00	1040.72
149	Isopropyl Alcohol	45	2.562	2.562	(0.532)	328558	1000.00	959.07
72	trans-1,4-Dichloro-2-butene	53	9.377	9.377	(1.146)	46125	50.0000	53.02
12	Isobutyl Alcohol	43	5.288	5.288	(1.098)	719732	1000.00	1057.07
13	Acetonitrile	39	2.671	2.671	(0.555)	287501	500.000	506.74
14	Allyl Chloride	41	2.671	2.671	(0.555)	670357	50.0000	49.27
25	Methacrylonitrile	41	4.497	4.497	(0.934)	155514	50.0000	50.22
40	Methyl Methacrylate	41	6.157	6.157	(1.279)	233766	50.0000	51.88
4	Propionitrile	54	4.339	4.339	(0.901)	379739	500.000	501.47
131	Methyl Acrylate	55	4.369	4.369	(0.907)	303095	50.0000	54.68
49	Ethyl Methacrylate	69	7.293	7.293	(1.313)	350878	50.0000	52.31
166	1,2,3-Trimethylbenzene	105	10.236	10.236	(1.006)	783156	50.0000	50.48
156	Diisopropyl ether	45	3.623	3.623	(0.752)	777178	50.0000	53.18

QC Flag Legend

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



Data File: \\NAHSTMS005\Target\chem\voa9.i\U230629.b\U062934.D
Date : 29-JUN-2023 21:53
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

Data File : \\NAHSTWS005\Target\chem\voa9.i\U230629.b\U062931.D
Inj Date : 29-JUN-2023 21:53
InstruID : VOA9.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS

HS23061825-MSSEMI-SW8270SIM

ALS WO# HS23061825

01205942

right solutions.
right partner.

Form 1

Organic Analysis Data Sheet

Semi-Volatiles by EPA 8270SIM

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/12/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Semi-Volatiles by EPA 8270SIM

HS23061825-04

MW9_062623

Collected	Received	Matrix	Basis
06/26/23 09:20	06/27/23 09:40	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.76		0.10	0.10	0.10	10	07/10/23 16:08	SV-6_440594	20.D	196987

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Semi-Volatiles by EPA 8270SIM

HS23061825-07

18WW10_062623

Collected	Received	Matrix	Basis
06/26/23 11:35	06/27/23 09:40	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.054		0.010	0.010	0.010	1	07/10/23 14:27	SV-6_440594	15.D	196987

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Semi-Volatiles by EPA 8270SIM

HS23061825-08

MW17_062623

Collected	Received	Matrix	Basis
06/26/23 12:20	06/27/23 09:40	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	0.084		0.010	0.010	0.010	1	07/10/23 14:46	SV-6_440594	16.D	196987

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

Semi-Volatiles by EPA 8270SIM

HS23061825-09

MW16_062623

Collected	Received	Matrix	Basis
06/26/23 13:05	06/27/23 09:40	Groundwater	Wet

Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile	PrepBatch
1,4-Dioxane	ug/L	5.1		1.0	1.0	1.0	100	07/10/23 16:27	SV-6_440594	21.D	196987

Form 1 - Organic Analysis Data Sheet

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

Semi-Volatiles by EPA 8270SIM

MBLK-196987

MBLK-196987

Collected	Received	Matrix	Basis
NA	NA	Aqueous	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	07/10/23 11:26	SV-6_440594	05.D	196987

01205948

right solutions.
right partner.

Form 2

System Monitoring Compound Recovery

Semi-Volatiles by EPA 8270SIM

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/12/2023

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.

Project: LHAAP 18 24

Workorder: HS23061825

RunID: SV-6-440594

Semi-Volatiles by EPA 8270SIM

HS23061825-04	Analyzed	Conc Units	Dilution
MW9_062623	07/10/23	%REC	10

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.093	0.08	116		40-140
4-Terphenyl-d14	0.1	0.08	128		40-140
Nitrobenzene-d5	0.083	0.08	104		40-140

HS23061825-07	Analyzed	Conc Units	Dilution
18WW10_062623	07/10/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.09	0.08	113		40-140
4-Terphenyl-d14	0.083	0.08	104		40-140
Nitrobenzene-d5	0.088	0.08	110		40-140

HS23061825-08	Analyzed	Conc Units	Dilution
MW17_062623	07/10/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.09	0.08	113		40-140
4-Terphenyl-d14	0.083	0.08	104		40-140
Nitrobenzene-d5	0.076	0.08	95.2		40-140

HS23061825-09	Analyzed	Conc Units	Dilution
MW16_062623	07/10/23	%REC	100

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0	0.08	0		40-140
4-Terphenyl-d14	0	0.08	0		40-140
Nitrobenzene-d5	0	0.08	0		40-140

Form 2 - System Monitoring Compound Recovery

Client: Bhate Environmental Associates, Inc.

Project: LHAAP 18 24

Workorder: HS23061825

RunID: SV-6-440594

Semi-Volatiles by EPA 8270SIM

LCS1-196987	Analyzed	Conc Units	Dilution
LCS1-196987	07/10/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.08155	0.08	102		40-140
4-Terphenyl-d14	0.0876	0.08	109		40-140
Nitrobenzene-d5	0.08926	0.08	112		40-140

LCSD1-196987	Analyzed	Conc Units	Dilution
LCSD1-196987	07/10/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.07865	0.08	98.3		40-140
4-Terphenyl-d14	0.0868	0.08	109		40-140
Nitrobenzene-d5	0.086	0.08	108		40-140

MBLK-196987	Analyzed	Conc Units	Dilution
MBLK-196987	07/10/23	%REC	1

Surrogate	Result Conc	Spike Conc	%Recovery	Q	%Recovery Limits
2-Fluorobiphenyl	0.078	0.08	97.5		40-140
4-Terphenyl-d14	0.08711	0.08	109		40-140
Nitrobenzene-d5	0.08415	0.08	105		40-140

01205951

right solutions.
right partner.

Form 3B

Laboratory Control Sample Recovery

Semi-Volatiles by EPA 8270SIM

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/12/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 3B - Laboratory Control Sample Recovery

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

SAMPLENUM
LCS1-196987

Semi-Volatiles by EPA 8270SIM

SV-6_440594				LCS1-196987			LCSD1-196987					
Spike Matrix	Aqueous		Run Date	07/10/23			07/10/23					
Result Units	ug/L		Run Time	11:44			12:02					
Prep Method	Prep Batch	Prep Date	Data File	06.D			07.D					
SW3510	06/30/23	196987	Prep Amt	1000 mL			1000 mL					
Analyte		%Recovery Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
1,4-Dioxane		40-140	0.08	0.07952	99		0.07221	90.0		20	9.63	

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.

Project LHAAP 18 24

Workorder
HS23061825

SAMPLENUM
LCSD1-196987

Semi-Volatiles by EPA 8270SIM

SV-6_440594				LCSD1-196987		
Spike Matrix	Aqueous		Run Date	07/10/23		
Result Units	ug/L		Run Time	12:02		
Prep Method	Prep Batch	Prep Date	Data File	07.D		
SW3510	06/30/23	196987	Prep Amt	1000 mL		

Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q
1,4-Dioxane	40-140	0.08	0.07221	90	

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

01205954

right solutions.
right partner.

Form 4

Method Blank Summary

Semi-Volatiles by EPA 8270SIM

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/12/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 4 - Method Blank Summary

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

Semi-Volatiles by EPA 8270SIM

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	MBLK-196987	05.D	07/10/23 11:26	SV-6_440594
LCS1-196987	LCS	LCS1-196987	06.D	07/10/23 11:44	SV-6_440594
LCSD1-196987	LCSD	LCSD1-196987	07.D	07/10/23 12:02	SV-6_440594
18WW10_062623	SAMP	HS23061825-07	15.D	07/10/23 14:27	SV-6_440594
MW17_062623	SAMP	HS23061825-08	16.D	07/10/23 14:46	SV-6_440594
MW9_062623	SAMP	HS23061825-04	20.D	07/10/23 16:08	SV-6_440594
MW16_062623	SAMP	HS23061825-09	21.D	07/10/23 16:27	SV-6_440594

01205956

right solutions.
right partner.

Form 5

Instrument Performance Check

Semi-Volatiles by EPA 8270SIM

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/12/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

RunID SV-6-439923

Semi-Volatiles by EPA 8270SIM

Tune File 01.D 06/16/23 6/16/2023

m / e	Ion Abundance Criterion	%RA
51	30.0 - 80.0% of mass 198	40.3 (40.3)
68	Less than 2.0% of mass 69	0.5 (1.44) 1
69	Mass 69 RA	32.2 (32.2)
70	Less than 2.0% of mass 69	0.2 (0.502) 1
127	25.0 - 75.0% of mass 198	38.5 (38.5)
197	Less than 1.0% of mass 198	0.5 (0.46)
198	Base peak, 100% RA	100 (83.3)
199	5.0 - 9.0% of mass 198	6.5 (6.46)
275	10.0 - 30.0% of mass 198	25.8 (25.8)
365	Greater than 0.75% of mass 198	3.4 (3.43)
441	Present, but less than mass 443	17.7 (76.4)
442	40.0 - 110.0% of mass 198	120.1 (120)
443	15.0 - 24.0% of mass 442	23.2 (19.3) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	14DXICAL-	ICAL1	6/16/2023	04	14DXICAL-0.01
2	14DXICAL-	ICAL2	6/16/2023	05	14DXICAL-0.03
3	14DXICAL-	ICAL3	6/16/2023	06	14DXICAL-0.05
4	14DXICAL-	ICAL4	6/16/2023	07	14DXICAL-0.08
5	14DXICAL-	ICAL6	6/16/2023	09	14DXICAL-0.15
6	14DXICAL-0.1	ICAL5	6/16/2023	12	14DXICAL-0.1
7	14DXICAL-0.5	ICAL8	6/16/2023	14	14DXICAL-0.5
8	14DXICAL-0.2	ICAL7	6/16/2023	15	14DXICAL-0.2
9	14DXICV-0.08	ICV	6/16/2023	16	14DXICV-0.08

Form 5 - Instrument Performance Check

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder **HS23061825**

RunID SV-6-440594

Semi-Volatiles by EPA 8270SIM

Tune File 01.D 07/10/23 7/10/2023

m / e	Ion Abundance Criterion	%RA
51	30.0 - 80.0% of mass 198	56.4 (56.4)
68	Less than 2.0% of mass 69	0.5 (1.19) 1
69	Mass 69 RA	40.1 (40.12)
70	Less than 2.0% of mass 69	0.2 (0.48) 1
127	25.0 - 75.0% of mass 198	40.4 (40.45)
197	Less than 1.0% of mass 198	0.5 (0.5)
198	Base peak, 100% RA	100 (100)
199	5.0 - 9.0% of mass 198	6.9 (6.89)
275	10.0 - 30.0% of mass 198	22 (22.04)
365	Greater than 0.75% of mass 198	3.2 (3.2)
441	Present, but less than mass 443	12.3 (83.98)
442	40.0 - 110.0% of mass 198	78.9 (78.88)
443	15.0 - 24.0% of mass 442	14.6 (18.57) 2

%RA - Percent Relative Abundance

This check applies to the following analyses

	Lab Samp ID	Type	Date Analyzed	Lab File ID	Sample ID
1	MBLK-196987	MBLK	7/5/2023	23	MBLK-196987
2	LCS-196987	LCS	7/5/2023	24	LCS-196987
3	LCSD-196987	LCSD	7/5/2023	25	LCSD-196987
4	14DX-0.08	CCV	7/10/2023	03	14DX-0.08
5	MBLK-196987	MBLK	7/10/2023	05	MBLK-196987
6	LCS1-196987	LCS	7/10/2023	06	LCS1-196987
7	LCSD1-	LCSD	7/10/2023	07	LCSD1-196987
8	HS23061825-	SAMP	7/10/2023	15	18WW10_062623
9	HS23061825-	SAMP	7/10/2023	16	MW17_062623
10	HS23061825-	SAMP	7/10/2023	20	MW9_062623
11	HS23061825-	SAMP	7/10/2023	21	MW16_062623
12	14DXCCV-	CCV	7/10/2023	22	14DXCCV-END

right solutions.
right partner.

Form 6

Initial Calibration Data

Semi-Volatiles by EPA 8270SIM

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/12/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Data

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID SV-6_439923

Semi-Volatiles by EPA 8270SIM

ICAL Start Date 10-MAR-2022 1025
ICAL End Date 16-JUN-2023 1556

Calibration Files

Calibration file names

Level 1..target\chem\sv6.i\230616.b\04.d
Level 2..target\chem\sv6.i\230616.b\05.d
Level 3..target\chem\sv6.i\230616.b\06.d
Level 4..target\chem\sv6.i\230616.b\07.d
Level 5..target\chem\sv6.i\230616.b\12.d
Level 6..target\chem\sv6.i\230616.b\09.d
Level 7..target\chem\sv6.i\230616.b\15.d
Level 8..target\chem\sv6.i\230616.b\14.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	0.30124 0.40150	0.32659 0.31193	0.32643	0.34940	0.35892	0.33837	0.33930	9.241	
2-Fluorophenol	0.40150 NE NE	0.31193 NE NE	NE	NE	NE	NE	0.33930 NE	9.241 NE	
13 Phenol-d6	NE NE	NE NE	NE	NE	NE	NE	NE	NE	
33 Nitrobenzene-d5	0.28832 0.34832	0.28035 0.27609	0.30204	0.32108	0.30808	0.30634	0.30383	7.735	
69 2-Fluorobiphenyl	0.98985 1.25227	0.97067 0.94386	0.97876	1.06873	0.97017	1.00640	1.02259	9.764	
105 2,4,6-Tribromophenol	NE NE	NE NE	NE	NE	NE	NE	NE	NE	
158 4-Terphenyl-d14	0.60104 1.00267	0.68127 0.75942	0.64541	0.74244	0.75380	0.71602	0.73776	16.347	

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

01205961

right solutions.
right partner.

Form 6I

Initial Calibration Verification (ICV)

Semi-Volatiles by EPA 8270SIM

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/12/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Initial Calibration Verification (ICV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID SV-6_439923

Semi-Volatiles by EPA 8270SIM

Sample Matrix LIQUID
Lab Smp Id 14DXICV-0.08
Level LOW

Fraction SV
Client Smp ID 14DXICV-0.08
Operator LG

Compound	CONC Added	CONC Recovered	% Recovered	Limits	Q
1,4-Dioxane	0.08000	0.07070	88.38	40-140	
Nitrobenzene-d5	0.08000	0.07086	88.57	40-140	
2-Fluorobiphenyl	0.08000	0.08036	100.45	40-140	
4-Terphenyl-d14	0.08000	0.08379	104.74	40-140	

01205963

right solutions.
right partner.

Form 7

Continuing Calibration Verification (CCV)

Semi-Volatiles by EPA 8270SIM

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/12/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID SV-6_440594

Semi-Volatiles by EPA 8270SIM

Instrument ID SV6.I
Lab File ID 03.D
Analysis Type WATER
Lab Sample ID 14DX-0.08

Injection Date :38
ICAL Date(s) 10-MAR-2022 16-JUN-2023
ICAL Times :25 15:56
Quant Type ISTD

Compound	$\overline{RRF}$ / Conc	RF0.080	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
33 Nitrobenzene-d5	0.30383	0.32612	0.010	7.33692	20.0	Averaged	
69 2-Fluorobiphenyl	1.02259	0.98695	0.010	-3.48523	20.0	Averaged	
158 4-Terphenyl-d14	0.73776	0.65821	0.010	-10.78325	20.0	Averaged	
1,4-Dioxane	0.33930	0.36698	0.010	8.15929	20.0	Averaged	

Continuing Calibration Verification (CCV)

Client Bhate Environmental Associates, Inc.
Project LHAAP 18 24

Workorder HS23061825

RunID SV-6_440594

Semi-Volatiles by EPA 8270SIM

Instrument ID SV6.I
Lab File ID 22.D
Analysis Type WATER
Lab Sample ID 14DXCCV-END Quant Type

Injection Date :45
ICAL Date(s) 10-MAR-2022 16-JUN-2023
ICAL Times :25 15:56
ISTD

Compound	RRF / Conc	RF0.080	Min RRF	%D / %DRIFT	Max %D / %DRIFT	CURVE TYPE	Q
33 Nitrobenzene-d5	0.30383	0.28283	0.010	-6.91265	50.0	Averaged	
69 2-Fluorobiphenyl	1.02259	0.99193	0.010	-2.99845	50.0	Averaged	
158 4-Terphenyl-d14	0.73776	0.70622	0.010	-4.27540	50.0	Averaged	
1,4-Dioxane	0.33930	0.30351	0.010	-10.54719	50.0	Averaged	

01205966

right solutions.
right partner.

Form 12

Preparation Log

Semi-VolatilesEPA 3510

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/12/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 12 - Preparation Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

RunID
196987

Semi-VolatilesEPA 3510

Prep Batch 196987 **Prep Date** 06/30/23

	Matrix	Type	Client Sample ID	Lab Sample ID	Initial Amt (mL)	Final Amt (mL)
1	Aqueous	MBLK	MBLK-196987	MBLK-196987	1000	1
2	Aqueous	LCS	LCS1-196987	LCS1-196987	1000	1
3	Aqueous	LCSD	LCSD1-196987	LCSD1-196987	1000	1
4	Groundwater	SAMP	MW9_062623	HS23061825-04	1000	1
5	Groundwater	SAMP	18WW10_062623	HS23061825-07	1000	1
6	Groundwater	SAMP	MW17_062623	HS23061825-08	1000	1
7	Groundwater	SAMP	MW16_062623	HS23061825-09	1000	1

01205968

right solutions.
right partner.

Analysis Run Log

Semi-Volatiles by EPA 8270SIM

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/12/2023

ALS Environmental–Houston Laboratory
10450 Stancliff Road, Suite 210, Houston, TX 77099
Phone (281) 530-5656 Fax (281) 530-5887
www.alsglobal.com

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

RunID
SV-6-439923

Semi-Volatiles by EPA 8270SIM

Run ID SV-6_439923 **Start Date** 06/16/23 **EndDate** 06/16/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
09:28	DFTPP	TUNE	DFTPP	01.D	06/16/23	1
11:08	14DXICAL-0.01	ICAL1	14DXICAL-0.01	04.D	06/16/23	1
11:26	14DXICAL-0.03	ICAL2	14DXICAL-0.03	05.D	06/16/23	1
11:44	14DXICAL-0.05	ICAL3	14DXICAL-0.05	06.D	06/16/23	1
12:02	14DXICAL-0.08	ICAL4	14DXICAL-0.08	07.D	06/16/23	1
12:38	14DXICAL-0.15	ICAL6	14DXICAL-0.15	09.D	06/16/23	1
14:15	14DXICAL-0.1	ICAL5	14DXICAL-0.1	12.D	06/16/23	1
14:51	14DXICAL-0.5	ICAL8	14DXICAL-0.5	14.D	06/16/23	1
15:56	14DXICAL-0.2	ICAL7	14DXICAL-0.2	15.D	06/16/23	1
16:22	14DXICV-0.08	ICV	14DXICV-0.08	16.D	06/16/23	1

Form 13 - Analysis Run Log

Client Bhate Environmental Associates, Inc.

Project LHAAP 18 24

Workorder
HS23061825

RunID
SV-6-440594

Semi-Volatiles by EPA 8270SIM

Run ID SV-6_440594 **Start Date** 07/03/23 **EndDate** 07/10/23

Inj. Time	Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF
09:44	DFTPP	TUNE	DFTPP	01.D	07/10/23	1
10:38	14DX-0.08	CCV	14DX-0.08	03.D	07/10/23	1
11:26	MBLK-196987	MBLK	MBLK-196987	05.D	07/10/23	1
11:44	LCS1-196987	LCS	LCS1-196987	06.D	07/10/23	1
12:02	LCSD1-196987	LCSD	LCSD1-196987	07.D	07/10/23	1
12:39	HS23061821-03	SAMP	ZZZZZZZZZZ	09.D	07/10/23	1
13:47	HS23062044-06	SAMP	ZZZZZZZZZZ	10.D	07/06/23	1
12:57	HS23061821-04	SAMP	ZZZZZZZZZZ	10.D	07/10/23	1
13:15	HS23061821-05	SAMP	ZZZZZZZZZZ	11.D	07/10/23	1
13:51	HS23061821-07	SAMP	ZZZZZZZZZZ	13.D	07/10/23	1
14:27	HS23061825-07	SAMP	18WW10_062623	15.D	07/10/23	1
14:46	HS23061825-08	SAMP	MW17_062623	16.D	07/10/23	1
15:32	HS23061821-02	SAMP	ZZZZZZZZZZ	18.D	07/10/23	10
15:50	HS23061821-06	SAMP	ZZZZZZZZZZ	19.D	07/10/23	10
16:44	HS23061774-01	SAMP	ZZZZZZZZZZ	20.D	07/03/23	1
16:08	HS23061825-04	SAMP	MW9_062623	20.D	07/10/23	10
17:02	HS23061774-02	SAMP	ZZZZZZZZZZ	21.D	07/03/23	1
16:27	HS23061825-09	SAMP	MW16_062623	21.D	07/10/23	100
17:20	HS23061774-03	SAMP	ZZZZZZZZZZ	22.D	07/03/23	1
16:45	14DXCCV-END	CCV	14DXCCV-END	22.D	07/10/23	1
17:22	MBLK-196987	MBLK	MBLK-196987	23.D	07/05/23	1
17:42	LCS-196987	LCS	LCS-196987	24.D	07/05/23	1
18:03	LCSD-196987	LCSD	LCSD-196987	25.D	07/05/23	1
18:23	HS23062115-01	SAMP	ZZZZZZZZZZ	26.D	07/05/23	1
18:43	HS23061774-01	SAMP	ZZZZZZZZZZ	27.D	07/05/23	1
19:04	HS23061774-02	SAMP	ZZZZZZZZZZ	28.D	07/05/23	1
19:24	HS23061774-03	SAMP	ZZZZZZZZZZ	29.D	07/05/23	1
19:45	HS23061904-01	SAMP	ZZZZZZZZZZ	30.D	07/05/23	1
20:05	HS23061904-02	SAMP	ZZZZZZZZZZ	31.D	07/05/23	1
20:25	HS23061904-03	SAMP	ZZZZZZZZZZ	32.D	07/05/23	1
20:46	HS23061904-04	SAMP	ZZZZZZZZZZ	33.D	07/05/23	1
21:06	HS23061904-01	SAMP	ZZZZZZZZZZ	34.D	07/05/23	1
21:24	HS23061904-02	SAMP	ZZZZZZZZZZ	35.D	07/05/23	1
21:42	HS23061904-03	SAMP	ZZZZZZZZZZ	36.D	07/05/23	1
22:00	HS23061904-04	SAMP	ZZZZZZZZZZ	37.D	07/05/23	1

01205971

right solutions.
right partner.

Raw Data SV 6 439923

Semi-Volatiles by EPA 8270SIM

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/12/2023

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\SV6.i\230616.b\01.D Page 1
Report Date: 16-Jun-2023 09:41

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\SV6.i\230616.b\01.D
Lab Smp Id: DFTPP Client Smp ID: DFTPP
Inj Date : 16-JUN-2023 09:28
Operator : smith Inst ID: SV6.i
Smp Info : DFTPP;DFTPP;3;;DFTPP
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230616.b\DFTPP.m
Meth Date : 14-Mar-2023 15:59 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: NAHSTW7015

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
5.009	6.357	-1.348	198	573312			0.00- 100.00	83.28
5.009	6.357	-1.348	51	231176			10.00- 80.00	40.32
5.009	6.357	-1.348	68	2654			0.00- 2.00	1.44
5.009	6.357	-1.348	69	184729			0.00- 0.00	32.22
5.009	6.357	-1.348	70	927			0.00- 2.00	0.50
5.009	6.357	-1.348	127	220864			10.00- 80.00	38.52
5.009	6.357	-1.348	197	2637			0.00- 2.00	0.46
5.009	6.357	-1.348	199	37040			5.00- 9.00	6.46
5.009	6.357	-1.348	275	147776			10.00- 60.00	25.78
5.009	6.357	-1.348	365	19688			1.00- 100.00	3.43
5.009	6.357	-1.348	441	101568			0.01- 99.99	76.45
5.009	6.357	-1.348	442	688448			50.00- 150.00	120.08
5.009	6.357	-1.348	443	132864			15.00- 24.00	19.30

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	40.32
68	Less than 2.00% of mass 69	0.46 (1.44)
69	Mass 69 relative abundance	32.22
70	Less than 2.00% of mass 69	0.16 (0.50)
127	10.00 - 80.00% of mass 198	38.52
197	Less than 2.00% of mass 198	0.46
199	5.00 - 9.00% of mass 198	6.46
275	10.00 - 60.00% of mass 198	25.78
365	1.00 - 100.00% of mass 198	3.43
441	Present, but less than mass 443	17.72
442	50.00 - 150.00% of mass 198	120.08
443	15.00 - 24.00% of mass 442	23.17 (19.30)

Data File: 01.D
Spectrum: HP ChemStation MS 01.D, Scan 453: 5.010 min. (SUB)
Location of Maximum: 442.10
Number of points: 316

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.10	691	128.10	16159	209.00	1513	297.00	5492
38.00	1909	129.00	84336	210.10	2201	298.00	365
39.10	12523	130.00	6769	211.00	6102	301.00	640
40.00	181	131.00	1444	213.00	401	302.00	602
40.90	276	132.10	794	214.00	192	303.10	4693
45.00	312	133.10	248	215.00	1503	304.00	1179
49.00	1051	134.00	2156	216.00	2932	304.90	175
50.10	53200	135.00	6519	217.00	39448	308.00	557
51.10	231168	136.00	2427	218.00	4584	309.00	385
52.10	12049	137.10	3257	219.00	408	310.00	461
53.00	444	138.10	689	221.10	31488	311.10	249
55.00	841	139.00	436	221.70	5812	311.90	184
56.00	6699	140.00	864	223.00	9377	312.90	383
57.00	16176	141.00	10733	224.10	87680	314.00	1739
58.00	734	142.00	3754	225.10	21984	315.00	3954
61.00	2603	143.00	2343	226.00	2230	316.10	2781
62.00	2746	144.00	787	227.00	33024	317.00	633
63.00	8959	145.00	657	228.00	4457	319.90	232
64.00	1134	146.10	1823	229.00	7608	321.00	1268
65.10	3754	147.00	5380	230.00	950	322.00	605
66.20	170	148.00	12478	231.00	3201	323.10	14516
66.90	176	149.00	2115	232.00	487	324.00	2985
68.00	2654	150.00	633	233.00	674	325.00	302
69.00	184704	151.60	2531	234.00	1838	326.00	247
70.00	927	152.00	808	235.00	2392	327.00	2521
71.10	180	153.00	3358	236.00	1374	328.00	1205
73.00	1217	154.00	2616	237.00	2292	329.00	338
74.00	17520	155.00	6177	238.00	338	332.00	1141
75.00	28192	156.10	9411	239.00	1122	333.00	1368
76.10	9960	157.00	2001	240.00	936	334.10	8776
77.10	218880	158.00	2113	241.00	1871	335.00	2203
78.10	13466	159.00	1675	242.00	4359	336.00	187
79.00	12046	160.10	3244	243.10	4502	339.10	380
80.00	9791	161.00	5606	244.10	67632	339.90	281
81.00	14216	162.00	1730	245.10	8922	341.00	1623
82.00	3653	163.00	400	246.00	11263	342.10	476
83.00	3381	164.00	727	247.00	2407	346.00	2738
84.00	184	165.00	4330	248.10	663	347.00	596
85.00	2227	166.00	3419	249.00	2399	350.90	220
86.00	3237	167.00	24512	250.00	534	352.10	4359
87.00	1991	168.00	9507	251.00	626	353.00	3284
88.00	676	169.10	1791	252.00	592	354.10	4838
89.00	341	170.00	842	253.00	1532	355.00	896
91.00	2912	170.90	1000	254.00	2136	359.00	467
92.00	3110	172.00	2269	255.00	354304	365.00	19688

93.00	21304	173.10	2549	256.00	51136	366.00	2752
94.00	1218	174.00	5175	257.00	3611	370.10	513
95.00	484	175.00	9799	258.00	18768	371.00	1054
96.00	924	176.00	2683	259.00	3038	372.00	8081
97.10	374	177.00	3904	260.00	415	373.10	1766
98.00	16345	178.00	1303	261.00	547	374.00	321
99.00	11441	179.00	17472	263.00	216	377.00	254
100.00	1118	180.00	12918	264.00	482	383.00	2280
101.00	8931	181.00	6121	265.00	7562	384.00	529
101.90	481	182.10	939	266.00	1247	385.00	199
103.00	2466	183.00	711	267.90	202	390.10	1132
104.00	4787	184.00	1198	270.00	419	391.00	640
105.00	4856	185.10	9374	270.90	595	392.00	528
106.00	1473	186.10	74288	272.00	859	401.00	506
107.00	67952	187.10	20504	273.00	9955	402.00	3420
108.00	9807	188.00	2068	274.00	26688	403.00	5432
109.00	1838	189.00	3837	275.00	147776	404.00	1627
110.00	123544	189.90	682	276.10	18968	405.00	236
111.00	17696	191.00	2262	277.00	11809	415.00	201
112.00	1819	192.00	6230	278.00	1774	421.00	5131
112.90	638	193.10	7049	279.00	482	422.00	3941
114.00	179	194.00	1444	280.90	159	423.00	33192
114.80	238	195.00	1036	282.00	357	424.00	5796
116.00	3334	196.10	15513	283.00	1383	425.00	632
117.00	50184	197.00	2637	284.00	975	434.00	155
118.10	3139	198.00	573312	285.00	2248	436.70	155
119.00	504	199.00	37040	286.10	556	441.10	101568
120.00	697	200.00	3218	289.00	393	442.10	688448
121.00	285	201.50	2802	290.00	552	443.10	132864
122.00	4036	203.00	3916	291.00	367	444.10	12072
123.10	5628	204.00	19400	291.90	558	445.00	733
124.00	2843	205.10	32656	293.00	2916		
125.00	2735	206.10	146944	294.00	680		
126.10	975	207.10	18016	295.00	908		
127.00	220864	208.10	4201	296.00	40008		

Data File: \\nahstws005\target\chem\sv6.i\230616.b\01.d

Date : 16-JUN-2023 09:28

Client ID: DFTPP

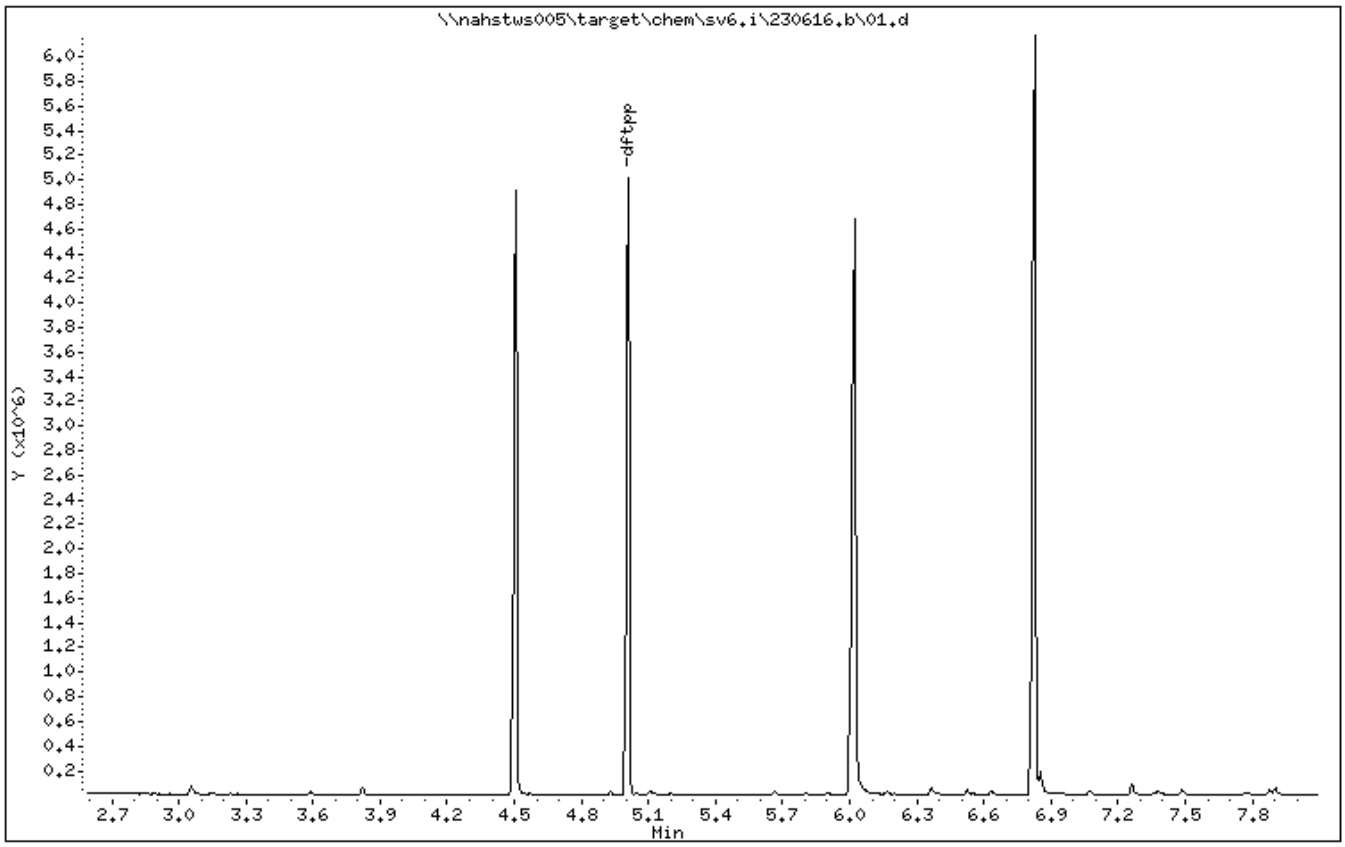
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File : \\nahstws005\target\chem\sv6.i\230616.b\01.d
Inj Date : 16-JUN-2023 09:28
InstruID : SV6.i
LabSampID : DFTPP

NO MANUAL INTEGRATIONS

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\04.D
Lab Smp Id: 14DXICAL-0.01 Client Smp ID: 14DXICAL-0.01
Inj Date : 16-JUN-2023 11:08
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.01
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 12:20 Cal File: 08.D
Als bottle: 4 Calibration Sample, Level: 1
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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.128	(1.000)	5079	0.10000	(a)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	17862	0.10000	
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	515	0.01000	0.009537(QM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	10143	0.10000	
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	1004	0.01000	0.009665(M)
* 126 Phenanthrene-d10	188	7.322	7.322	(1.000)	20228	0.10000	
* 182 Chrysene-d12	240	10.023	10.023	(1.000)	14841	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.909	8.909	(0.889)	892	0.01000	0.008235(M)
* 198 Perylene-d12	264	11.945	11.945	(1.000)	14498	0.10000	(M)
1 1,4-Dioxane	58	1.486	1.486	(0.475)	153	0.01000	0.008943(aQM)

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.

01205979

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\04.D

Date : 16-JUN-2023 11:08

Client ID: 14DXICAL-0.01

Instrument: SV6.i

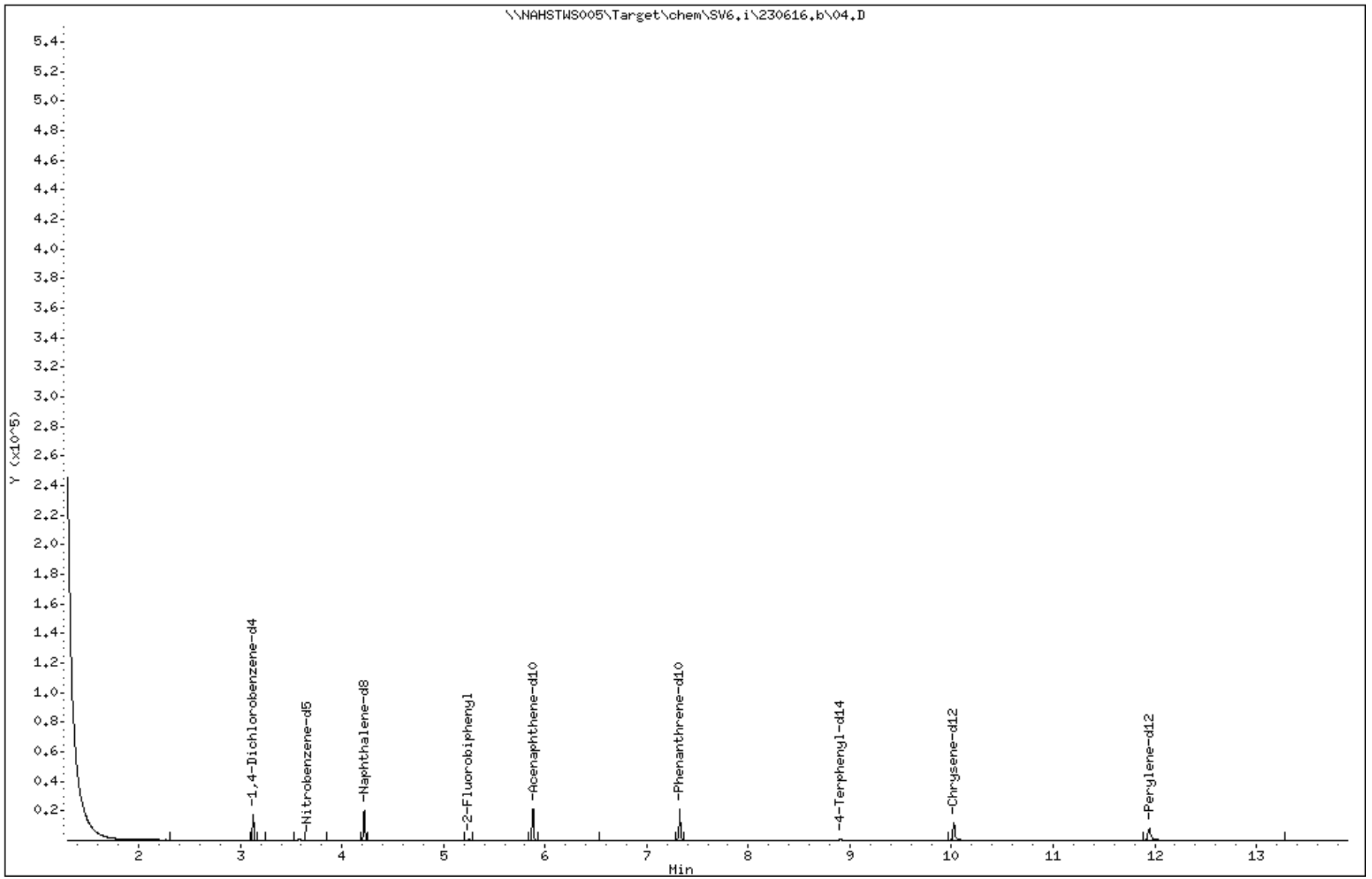
Sample Info: 14DXICAL-0.01

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



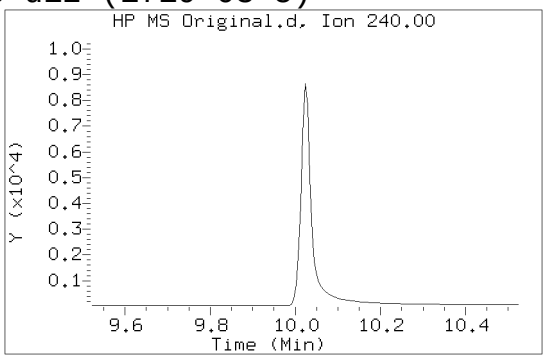
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\04.D
Inj Date : 16-JUN-2023 11:08
InstruID : SV6.i
LabSampID : 14DXICAL-0.01

Chrysene-d12 (1719-03-5)

Reason Code:

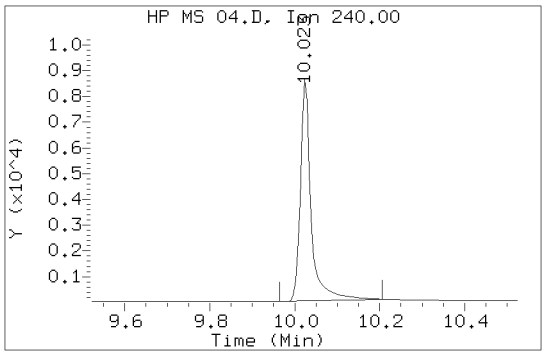
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



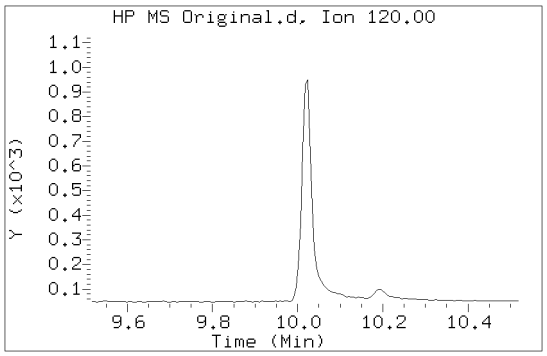
AFTER

MASS
240
AREA
14841
HEIGHT
8583
29-Jun-2023
14:26
ALSHS
Ser



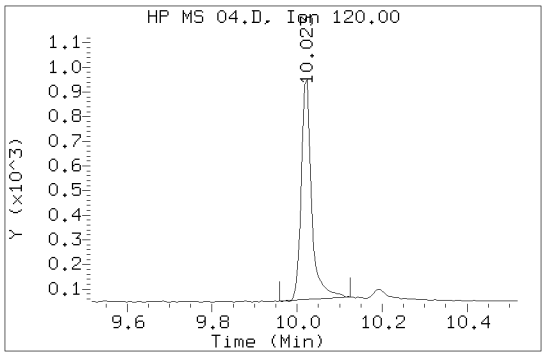
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



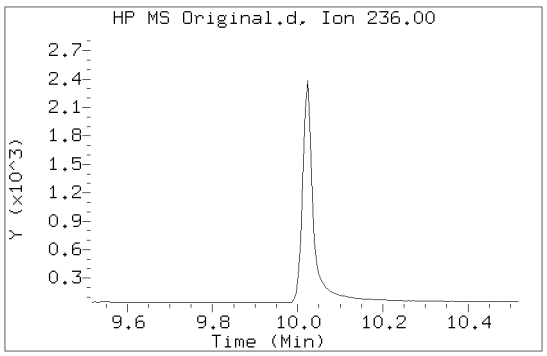
AFTER

MASS
120
AREA
1504
HEIGHT
891
29-Jun-2023
14:26
ALSHS
Ser



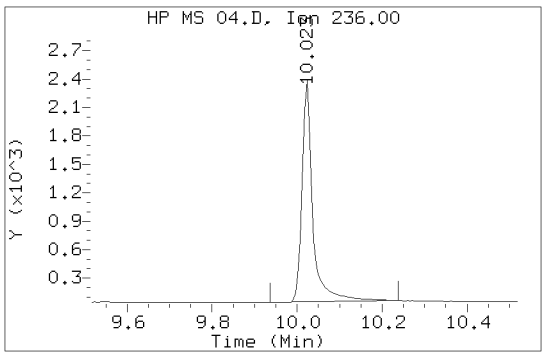
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



AFTER

MASS
236
AREA
4047
HEIGHT
2330
29-Jun-2023
14:26
ALSHS
Ser

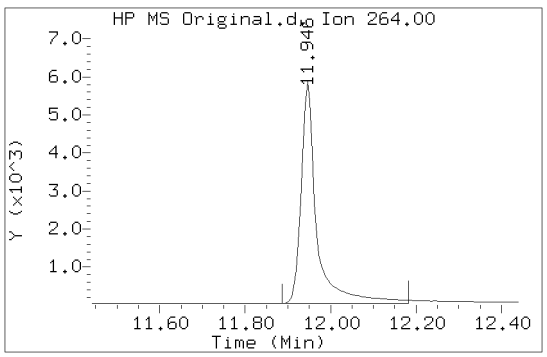


Perylene-d12 (1520-96-3)

Reason Code:

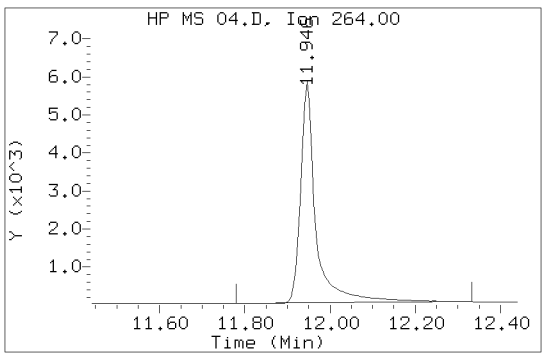
BEFORE

MASS
264
AREA
14674
HEIGHT
5826
16-Jun-2023
11:24
ALSHS
Server



AFTER

MASS
264
AREA
14498
HEIGHT
5814
29-Jun-2023
14:26
ALSHS
Ser



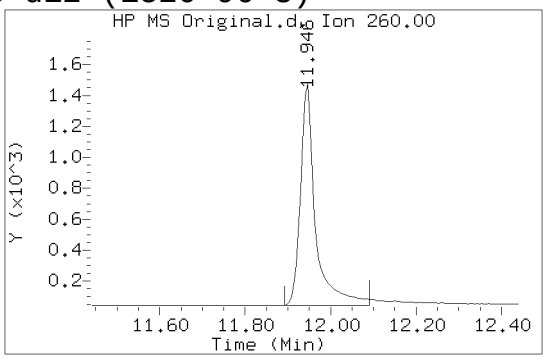
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\04.D
Inj Date : 16-JUN-2023 11:08
InstruID : SV6.i
LabSampID : 14DXICAL-0.01

Perylene-d12 (1520-96-3)

Reason Code:

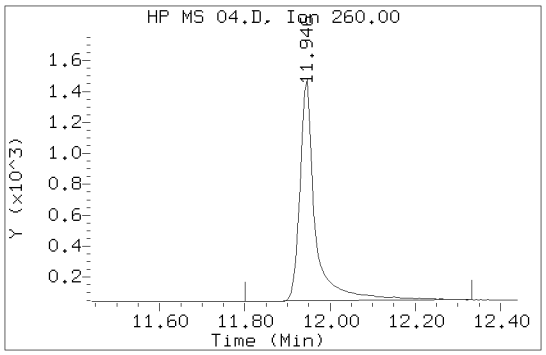
BEFORE

MASS
260
AREA
3461
HEIGHT
1431
16-Jun-2023
11:24
ALSHS
Server



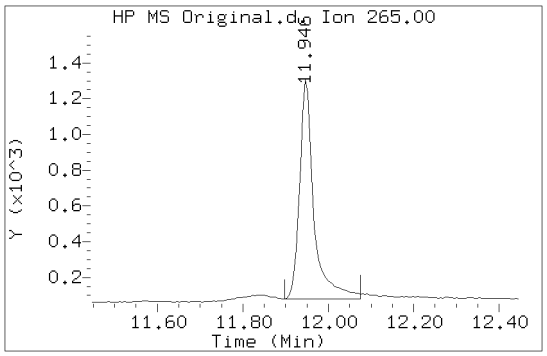
AFTER

MASS
260
AREA
3563
HEIGHT
1428
29-Jun-2023
14:26
ALSHS
Ser



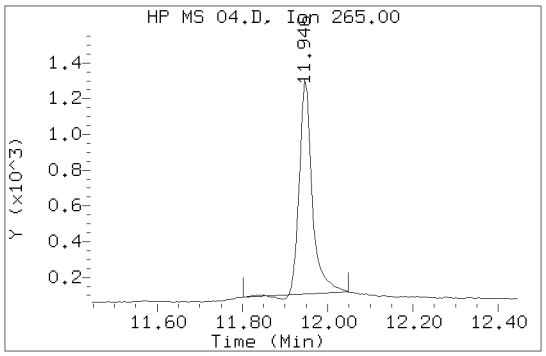
BEFORE

MASS
265
AREA
2841
HEIGHT
1225
16-Jun-2023
11:24
ALSHS
Server



AFTER

MASS
265
AREA
2485
HEIGHT
1196
29-Jun-2023
14:26
ALSHS
Ser

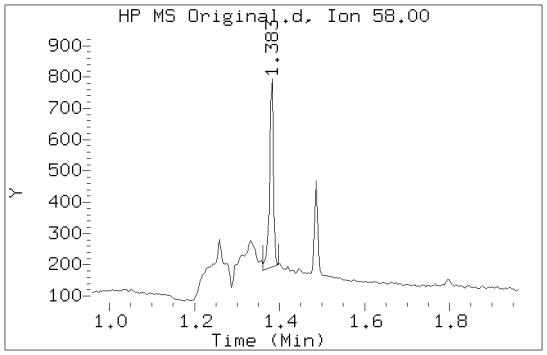


1,4-Dioxane ()

Reason Code:

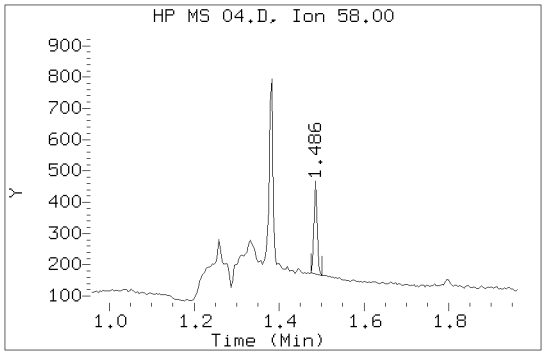
BEFORE

MASS
58
AREA
375
HEIGHT
599
16-Jun-2023
11:24
ALSHS
Server



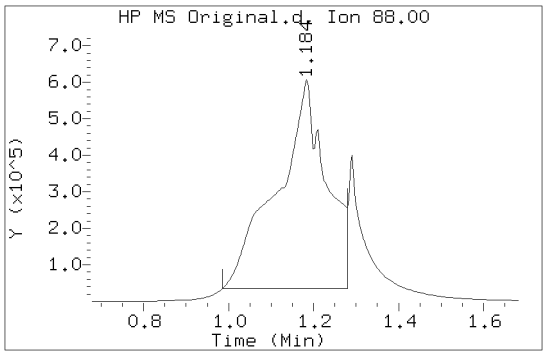
AFTER

MASS
58
AREA
153
HEIGHT
296
29-Jun-2023
14:26
ALSHS
Ser



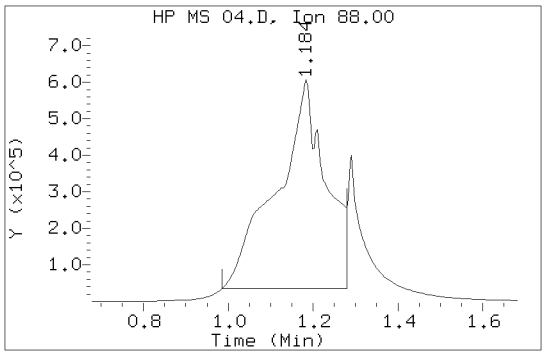
BEFORE

MASS
88
AREA
4618745
HEIGHT
572488
16-Jun-2023
11:24
ALSHS
Server



AFTER

MASS
88
AREA
4618745
HEIGHT
572488
29-Jun-2023
14:26
ALSHS
Ser



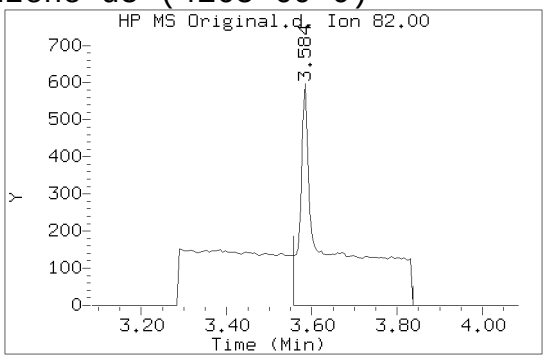
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\04.D
Inj Date : 16-JUN-2023 11:08
InstruID : SV6.i
LabSampID : 14DXICAL-0.01

Nitrobenzene-d5 (4165-60-0)

Reason Code:

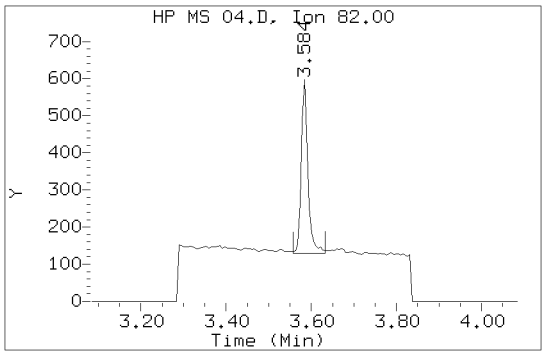
BEFORE

MASS
82
AREA
2695
HEIGHT
597
16-Jun-2023
11:24
ALSHS
Server



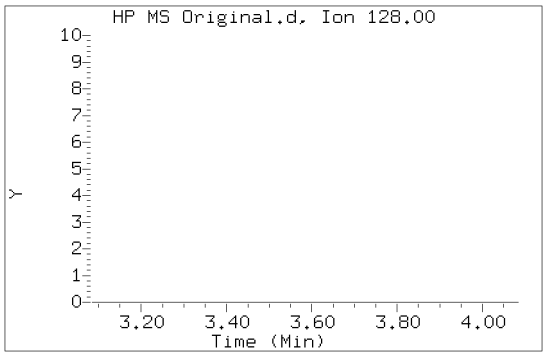
AFTER

MASS
82
AREA
515
HEIGHT
468
29-Jun-2023
14:26
ALSHS
Ser



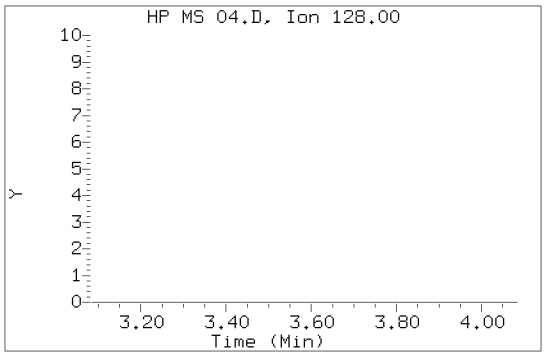
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



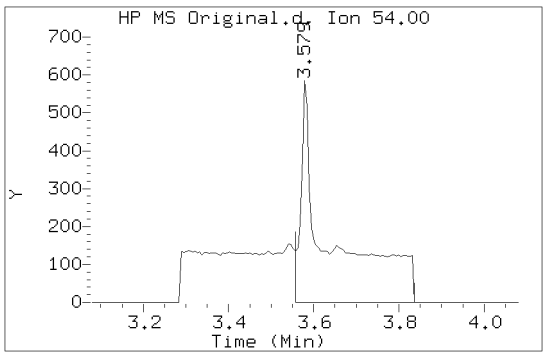
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:26
ALSHS
Ser



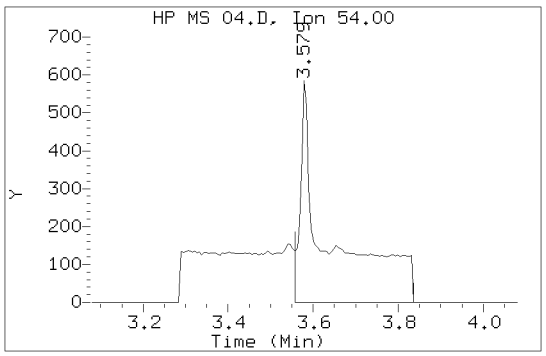
BEFORE

MASS
54
AREA
2634
HEIGHT
585
16-Jun-2023
11:24
ALSHS
Server



AFTER

MASS
54
AREA
2634
HEIGHT
585
29-Jun-2023
14:26
ALSHS
Ser

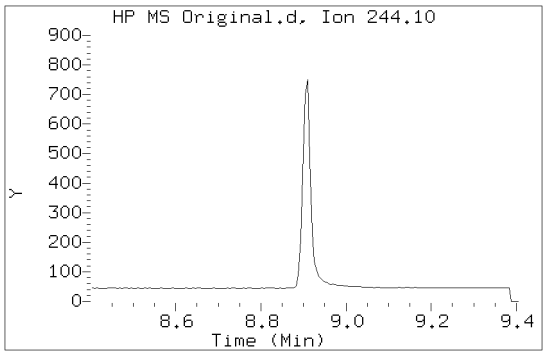


4-Terphenyl-d14 (1718-51-0)

Reason Code:

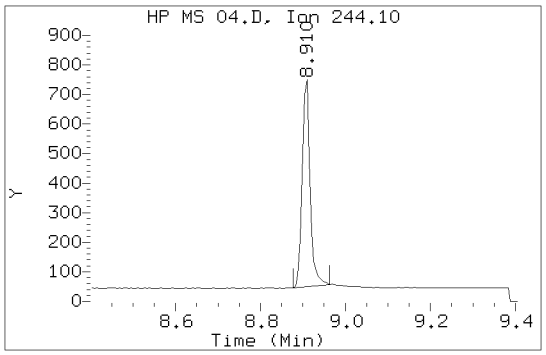
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



AFTER

MASS
244.1
AREA
892
HEIGHT
699
29-Jun-2023
14:26
ALSHS
Ser

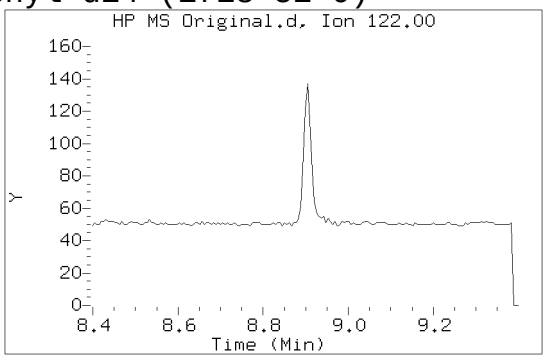


Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\04.D
Inj Date : 16-JUN-2023 11:08
InstruID : SV6.i
LabSampID : 14DXICAL-0.01

4-Terphenyl-d14 (1718-51-0)

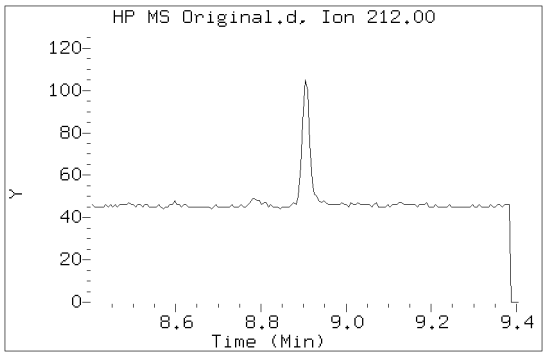
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



BEFORE

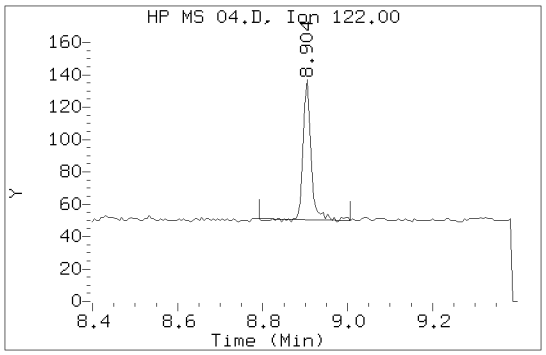
MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
11:24
ALSHS
Server



Reason Code:

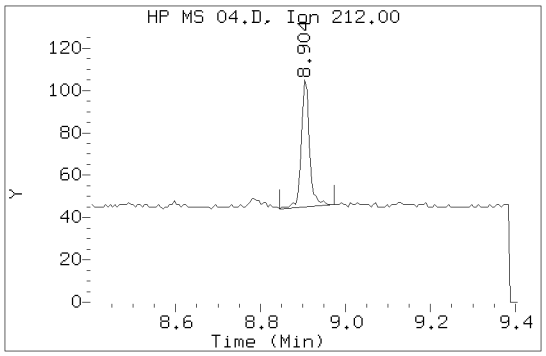
AFTER

MASS
122
AREA
109
HEIGHT
86
29-Jun-2023
14:26
ALSHS
Ser



AFTER

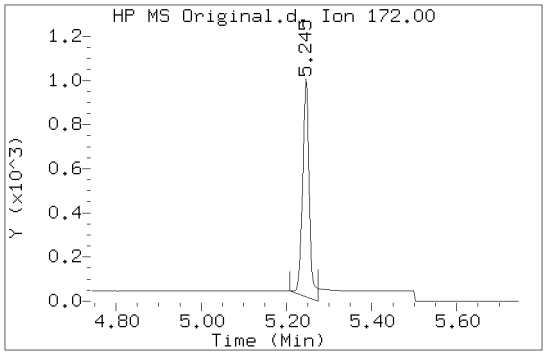
MASS
212
AREA
80
HEIGHT
60
29-Jun-2023
14:26
ALSHS
Ser



2-Fluorobiphenyl (321-60-8)

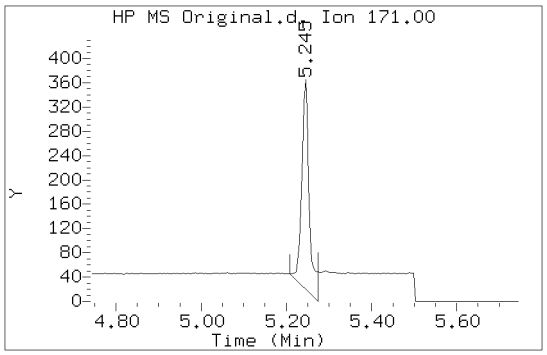
BEFORE

MASS
172
AREA
1093
HEIGHT
986
16-Jun-2023
11:24
ALSHS
Server



BEFORE

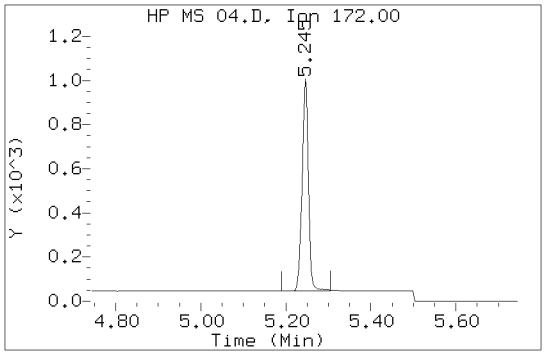
MASS
171
AREA
428
HEIGHT
345
16-Jun-2023
11:24
ALSHS
Server



Reason Code:

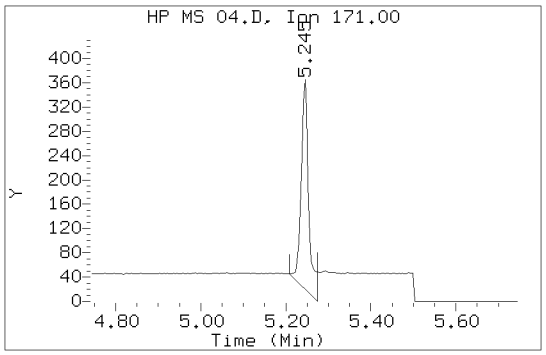
AFTER

MASS
172
AREA
1004
HEIGHT
960
29-Jun-2023
14:26
ALSHS
Ser



AFTER

MASS
171
AREA
428
HEIGHT
345
29-Jun-2023
14:26
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D Page 1
Report Date: 29-Jun-2023 14:27

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Lab Smp Id: 14DXICAL-0.03 Client Smp ID: 14DXICAL-0.03
Inj Date : 16-JUN-2023 11:26
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.03
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 11:08 Cal File: 04.D
Als bottle: 5 Calibration Sample, Level: 2
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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.128	(1.000)	4348	0.10000	(aM)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	14672	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	1234	0.03000	0.02782(QM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	8616	0.10000	
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	2509	0.03000	0.02843(M)
* 126 Phenanthrene-d10	188	7.322	7.322	(1.000)	16998	0.10000	
* 182 Chrysene-d12	240	10.023	10.023	(1.000)	11821	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.904	8.904	(0.888)	2416	0.03000	0.02800(M)
* 198 Perylene-d12	264	11.940	11.940	(1.000)	10677	0.10000	(M)
1 1,4-Dioxane	58	1.467	1.467	(0.469)	426	0.03000	0.02909(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.

01205985

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D

Date : 16-JUN-2023 11:26

Client ID: 14DXICAL-0.03

Instrument: SV6.i

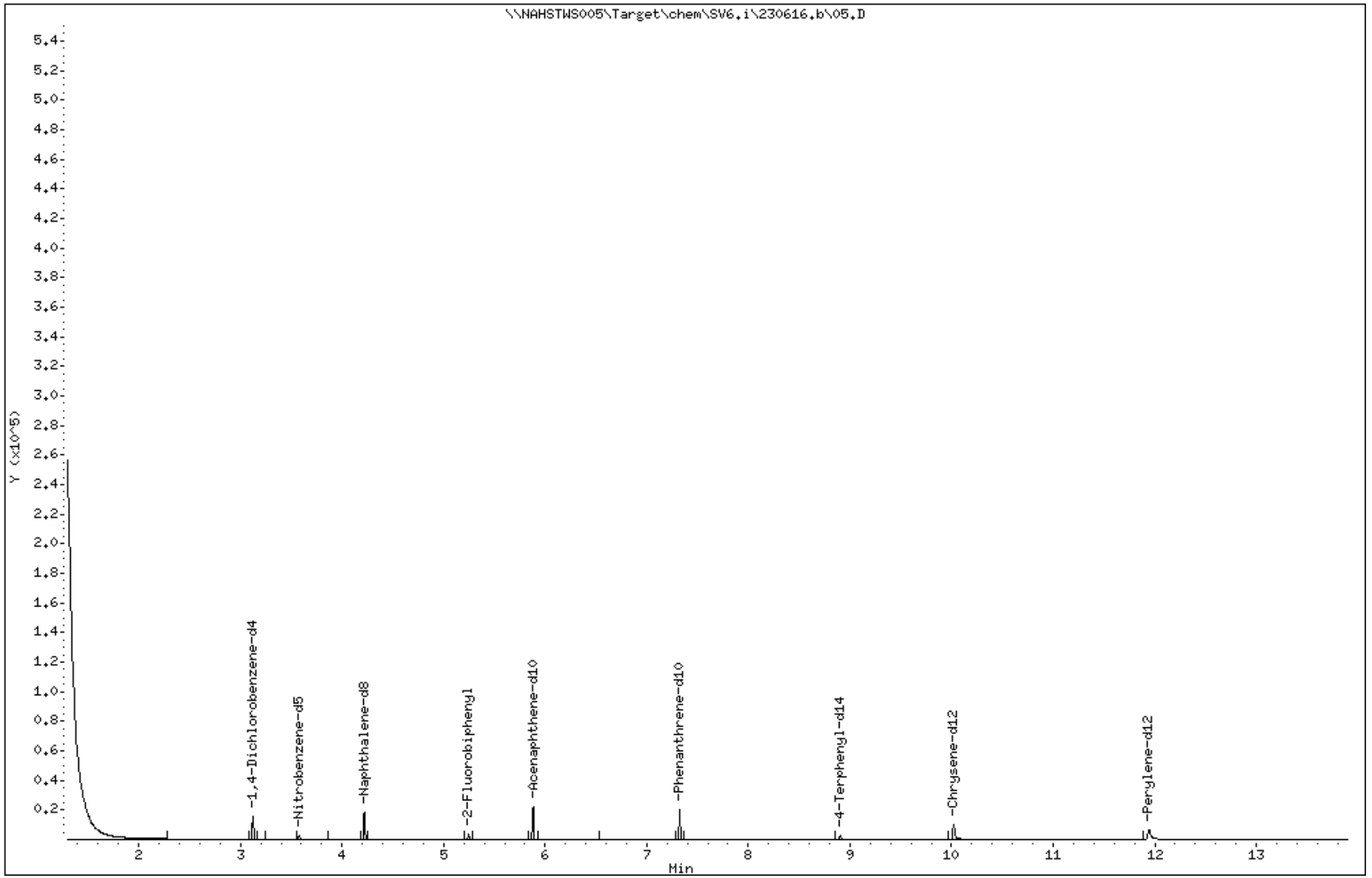
Sample Info: 14DXICAL-0.03

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



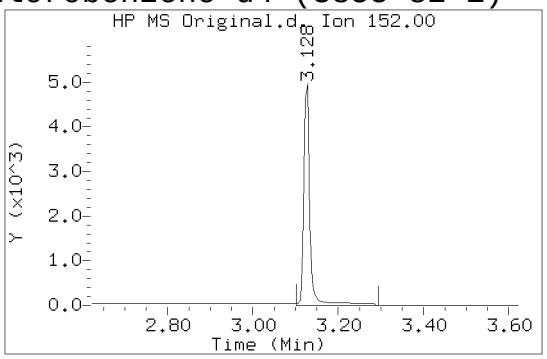
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Inj Date : 16-JUN-2023 11:26
InstruID : SV6.i
LabSampID : 14DXICAL-0.03

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

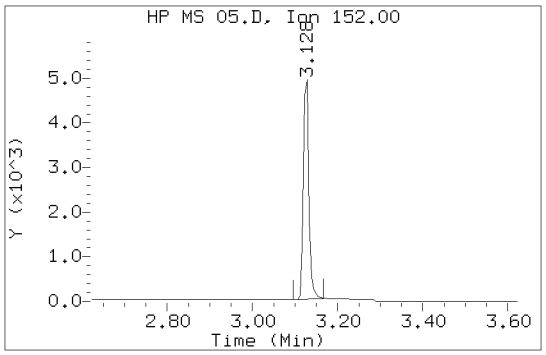
BEFORE

MASS
152
AREA
4935
HEIGHT
4966
16-Jun-2023
11:42
ALSHS
Server



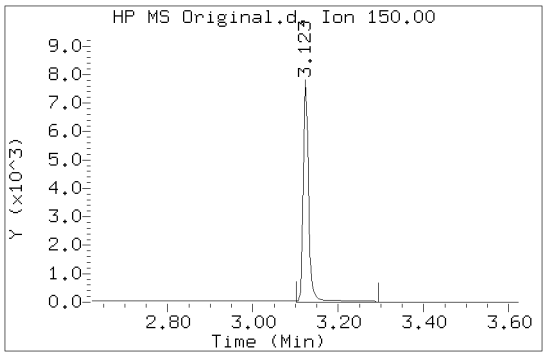
AFTER

MASS
152
AREA
4348
HEIGHT
4916
29-Jun-2023
14:26
ALSHS
Ser



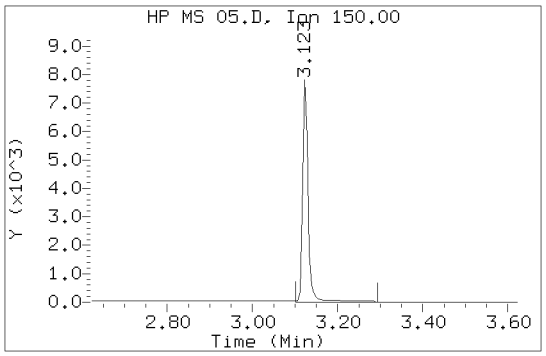
BEFORE

MASS
150
AREA
6954
HEIGHT
7812
16-Jun-2023
11:42
ALSHS
Server



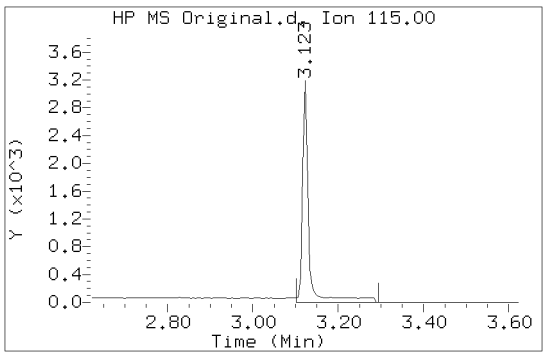
AFTER

MASS
150
AREA
6954
HEIGHT
7812
29-Jun-2023
14:26
ALSHS
Ser



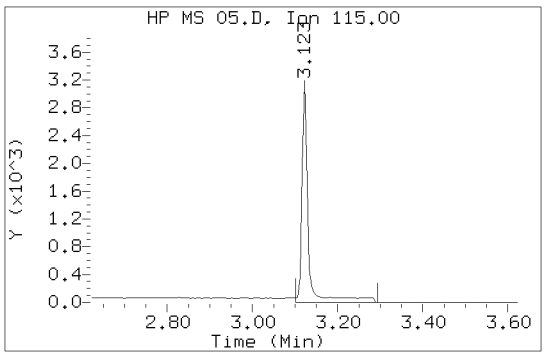
BEFORE

MASS
115
AREA
3189
HEIGHT
3190
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
115
AREA
3189
HEIGHT
3190
29-Jun-2023
14:26
ALSHS
Ser

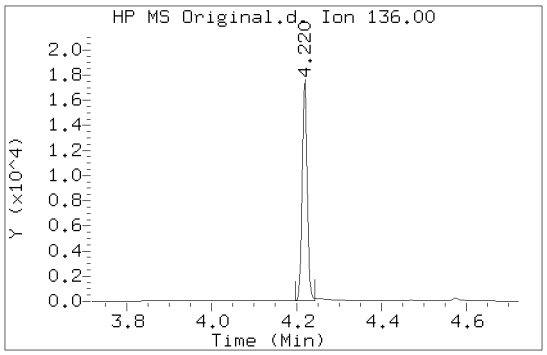


Naphthalene-d8 (1146-65-2)

Reason Code:

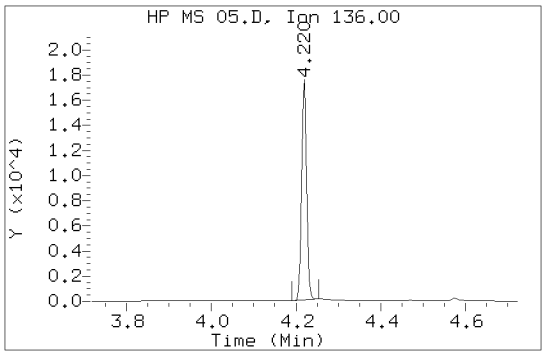
BEFORE

MASS
136
AREA
14851
HEIGHT
17567
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
136
AREA
14672
HEIGHT
17505
29-Jun-2023
14:26
ALSHS
Ser



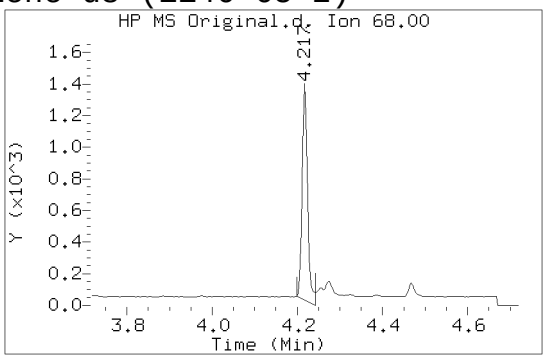
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Inj Date : 16-JUN-2023 11:26
InstruID : SV6.i
LabSampID : 14DXICAL-0.03

Naphthalene-d8 (1146-65-2)

Reason Code:

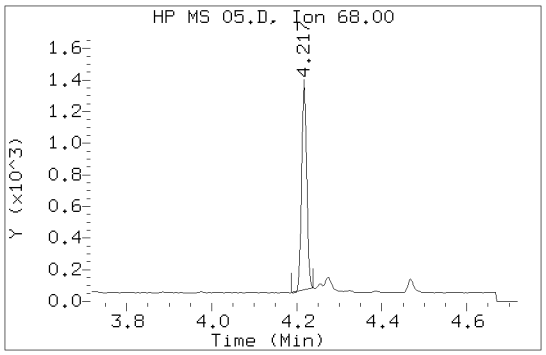
BEFORE

MASS
68
AREA
1196
HEIGHT
1368
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
68
AREA
1062
HEIGHT
1328
29-Jun-2023
14:26
ALSHS
Ser

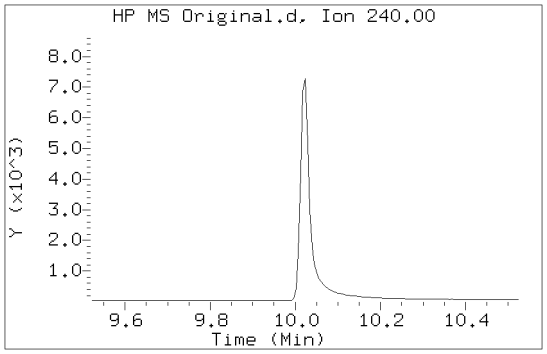


Chrysene-d12 (1719-03-5)

Reason Code:

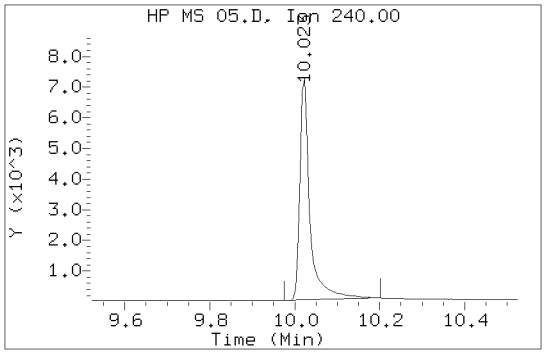
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



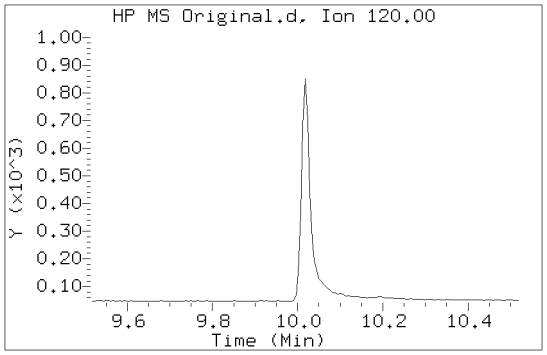
AFTER

MASS
240
AREA
11821
HEIGHT
7215
29-Jun-2023
14:26
ALSHS
Ser



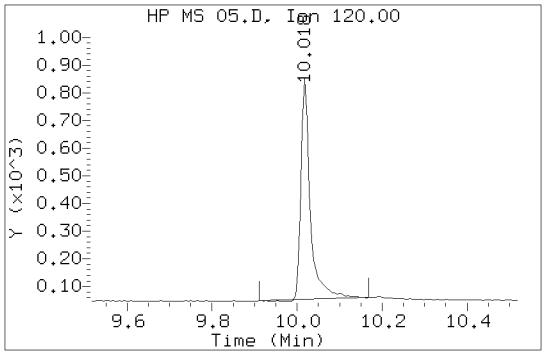
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



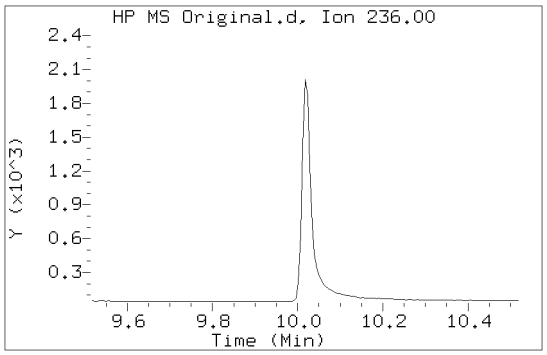
AFTER

MASS
120
AREA
1207
HEIGHT
796
29-Jun-2023
14:26
ALSHS
Ser



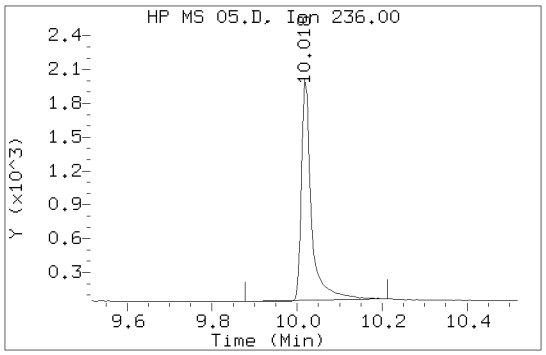
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
236
AREA
3185
HEIGHT
1956
29-Jun-2023
14:26
ALSHS
Ser



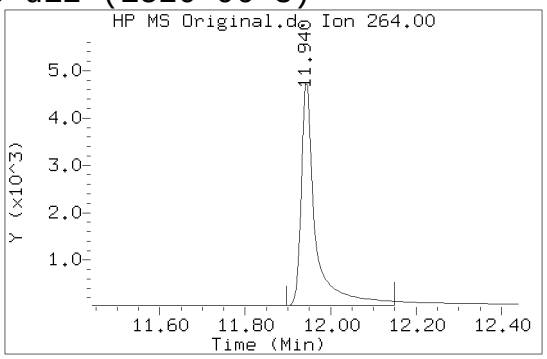
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Inj Date : 16-JUN-2023 11:26
InstruID : SV6.i
LabSampID : 14DXICAL-0.03

Perylene-d12 (1520-96-3)

Reason Code:

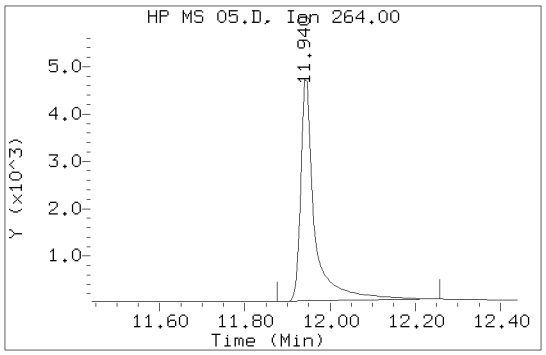
BEFORE

MASS
264
AREA
10829
HEIGHT
4681
16-Jun-2023
11:42
ALSHS
Server



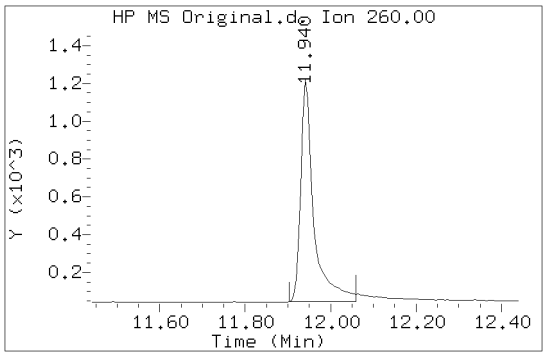
AFTER

MASS
264
AREA
10677
HEIGHT
4673
29-Jun-2023
14:26
ALSHS
Ser



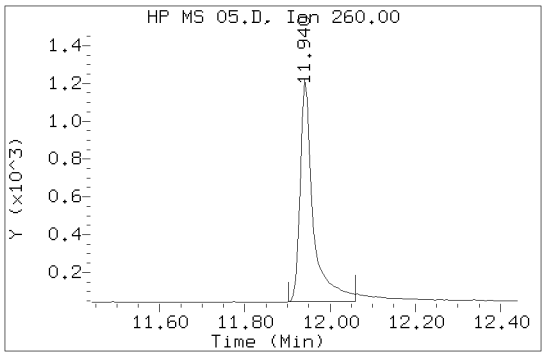
BEFORE

MASS
260
AREA
2488
HEIGHT
1174
16-Jun-2023
11:42
ALSHS
Server



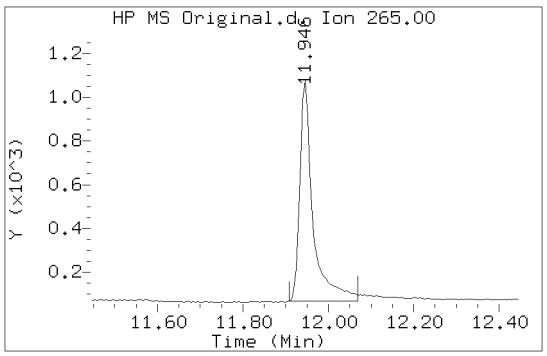
AFTER

MASS
260
AREA
2488
HEIGHT
1174
29-Jun-2023
14:26
ALSHS
Ser



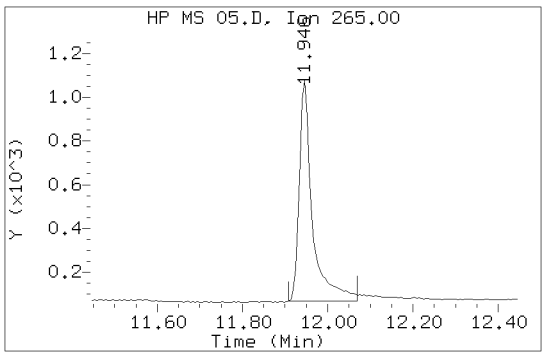
BEFORE

MASS
265
AREA
2154
HEIGHT
1009
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
265
AREA
2154
HEIGHT
1009
29-Jun-2023
14:26
ALSHS
Ser

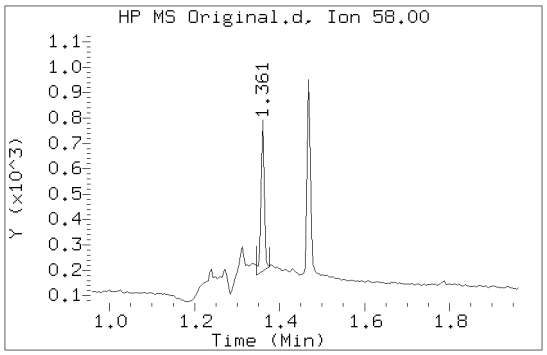


1,4-Dioxane ()

Reason Code:

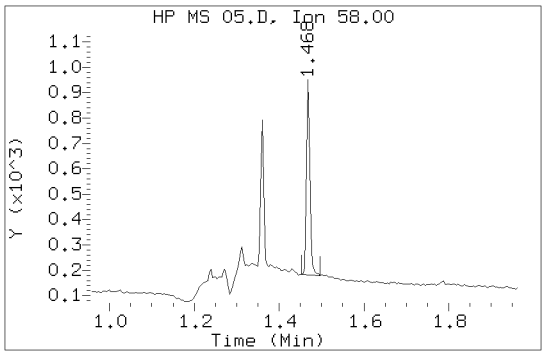
BEFORE

MASS
58
AREA
319
HEIGHT
594
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
58
AREA
426
HEIGHT
768
29-Jun-2023
14:26
ALSHS
Ser



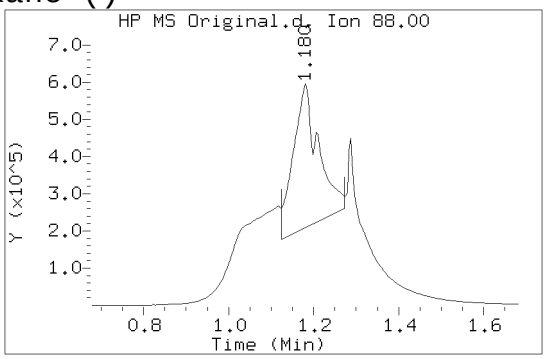
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Inj Date : 16-JUN-2023 11:26
InstruID : SV6.i
LabSampID : 14DXICAL-0.03

1,4-Dioxane ()

Reason Code:

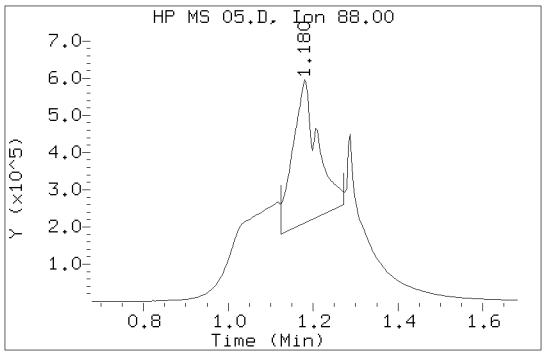
BEFORE

MASS
88
AREA
1599767
HEIGHT
386587
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
88
AREA
1591467
HEIGHT
385442
29-Jun-2023
14:26
ALSHS
Ser

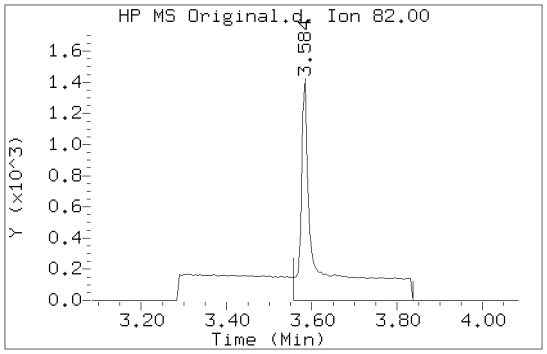


Nitrobenzene-d5 (4165-60-0)

Reason Code:

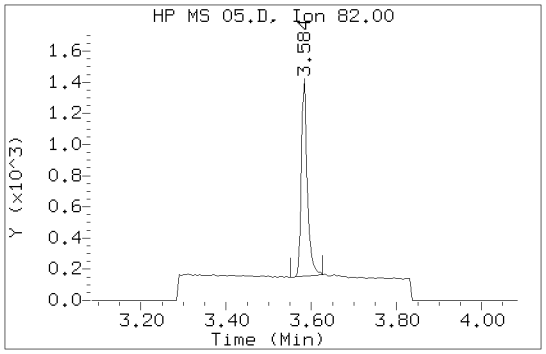
BEFORE

MASS
82
AREA
3739
HEIGHT
1423
16-Jun-2023
11:42
ALSHS
Server



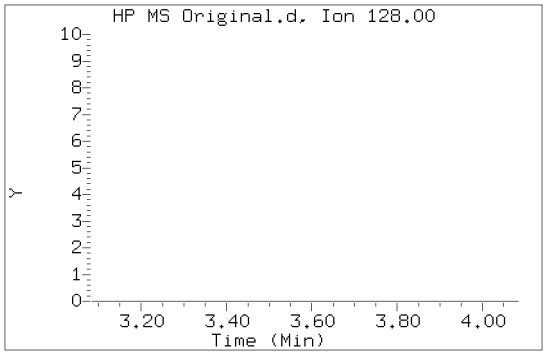
AFTER

MASS
82
AREA
1234
HEIGHT
1266
29-Jun-2023
14:26
ALSHS
Ser



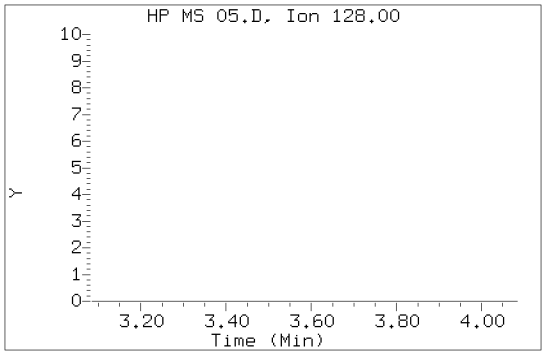
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



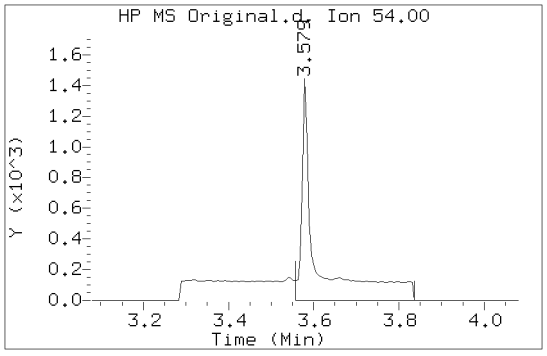
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:26
ALSHS
Ser



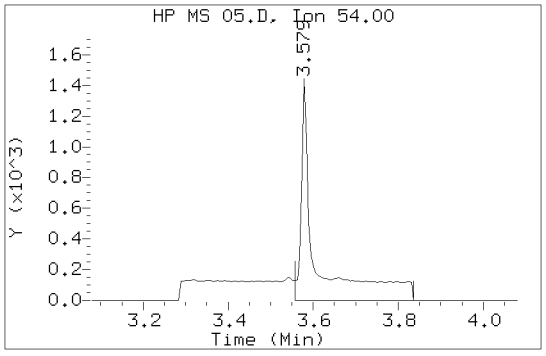
BEFORE

MASS
54
AREA
3364
HEIGHT
1444
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
54
AREA
3364
HEIGHT
1444
29-Jun-2023
14:26
ALSHS
Ser



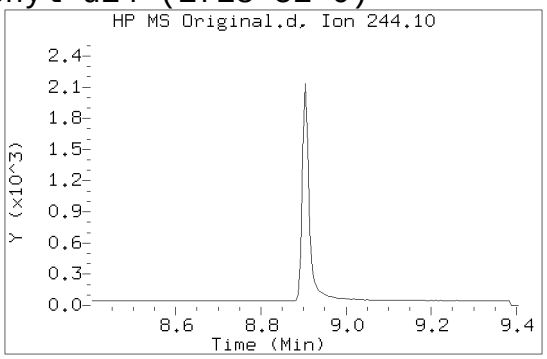
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Inj Date : 16-JUN-2023 11:26
InstruID : SV6.i
LabSampID : 14DXICAL-0.03

4-Terphenyl-d14 (1718-51-0)

Reason Code:

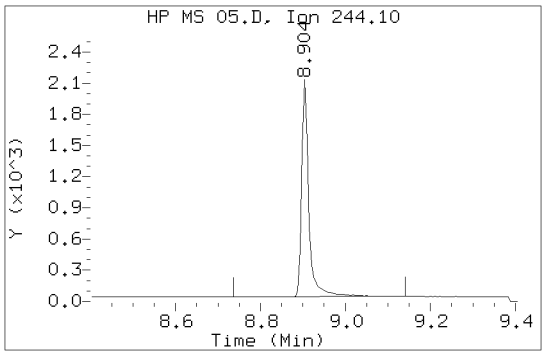
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



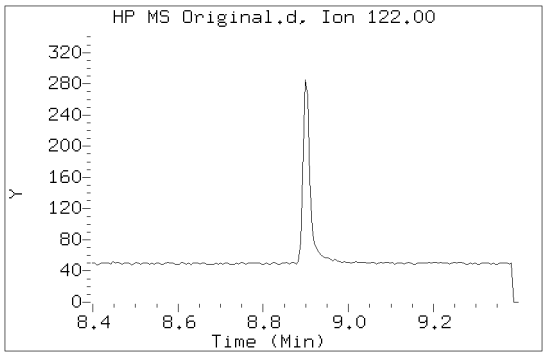
AFTER

MASS
244.1
AREA
2416
HEIGHT
2087
29-Jun-2023
14:26
ALSHS
Ser



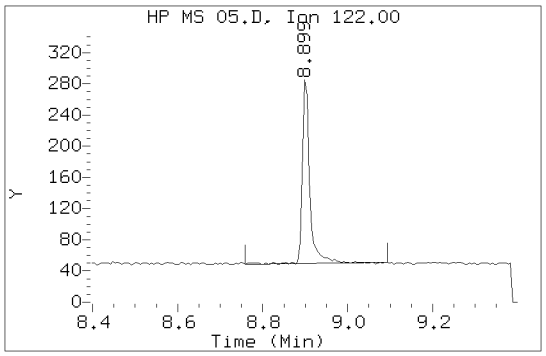
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



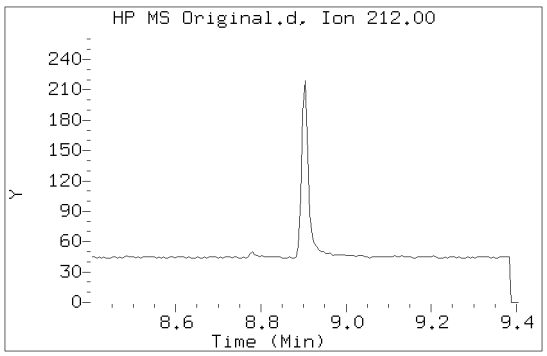
AFTER

MASS
122
AREA
278
HEIGHT
235
29-Jun-2023
14:26
ALSHS
Ser



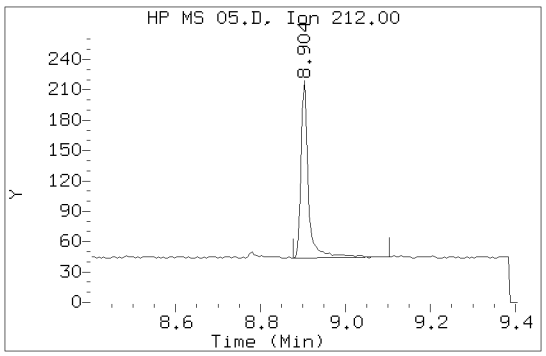
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
212
AREA
205
HEIGHT
174
29-Jun-2023
14:26
ALSHS
Ser

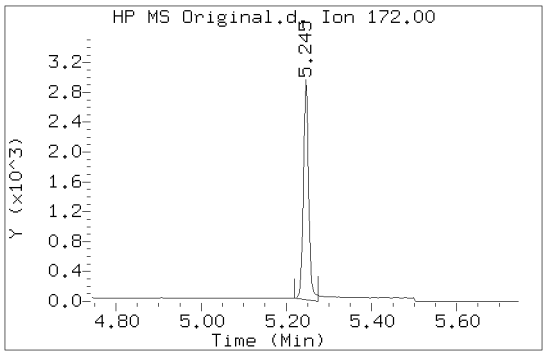


2-Fluorobiphenyl (321-60-8)

Reason Code:

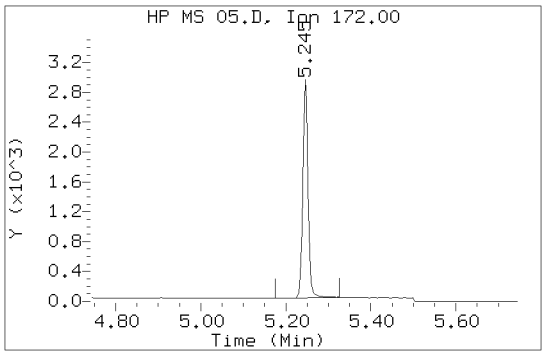
BEFORE

MASS
172
AREA
2588
HEIGHT
2943
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
172
AREA
2509
HEIGHT
2918
29-Jun-2023
14:26
ALSHS
Ser



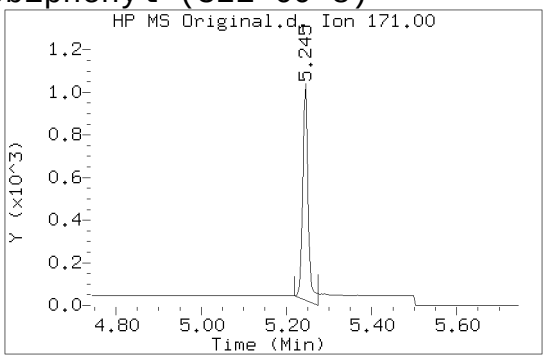
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\05.D
Inj Date : 16-JUN-2023 11:26
InstruID : SV6.i
LabSampID : 14DXICAL-0.03

2-Fluorobiphenyl (321-60-8)

Reason Code:

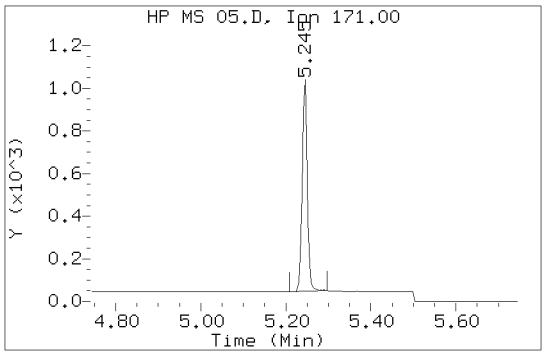
BEFORE

MASS
171
AREA
921
HEIGHT
1017
16-Jun-2023
11:42
ALSHS
Server



AFTER

MASS
171
AREA
834
HEIGHT
993
29-Jun-2023
14:26
ALSHS
Ser



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Lab Smp Id: 14DXICAL-0.05 Client Smp ID: 14DXICAL-0.05
Inj Date : 16-JUN-2023 11:44
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.05
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 11:26 Cal File: 05.D
Als bottle: 6 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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.128	(1.000)	5073	0.10000	(a)
* 45 Naphthalene-d8	136	4.216	4.216	(1.000)	17044	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.850)	2574	0.05000	0.04995(QM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	10027	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	4907	0.05000	0.04778(M)
* 126 Phenanthrene-d10	188	7.322	7.322	(1.000)	19800	0.10000	
* 182 Chrysene-d12	240	10.017	10.017	(1.000)	14524	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.904	8.904	(0.889)	4687	0.05000	0.04422(M)
* 198 Perylene-d12	264	11.940	11.940	(1.000)	12549	0.10000	(M)
1 1,4-Dioxane	58	1.486	1.486	(0.475)	828	0.05000	0.04846(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.

01205993

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D

Date : 16-JUN-2023 11:44

Client ID: 14DXICAL-0.05

Instrument: SV6.i

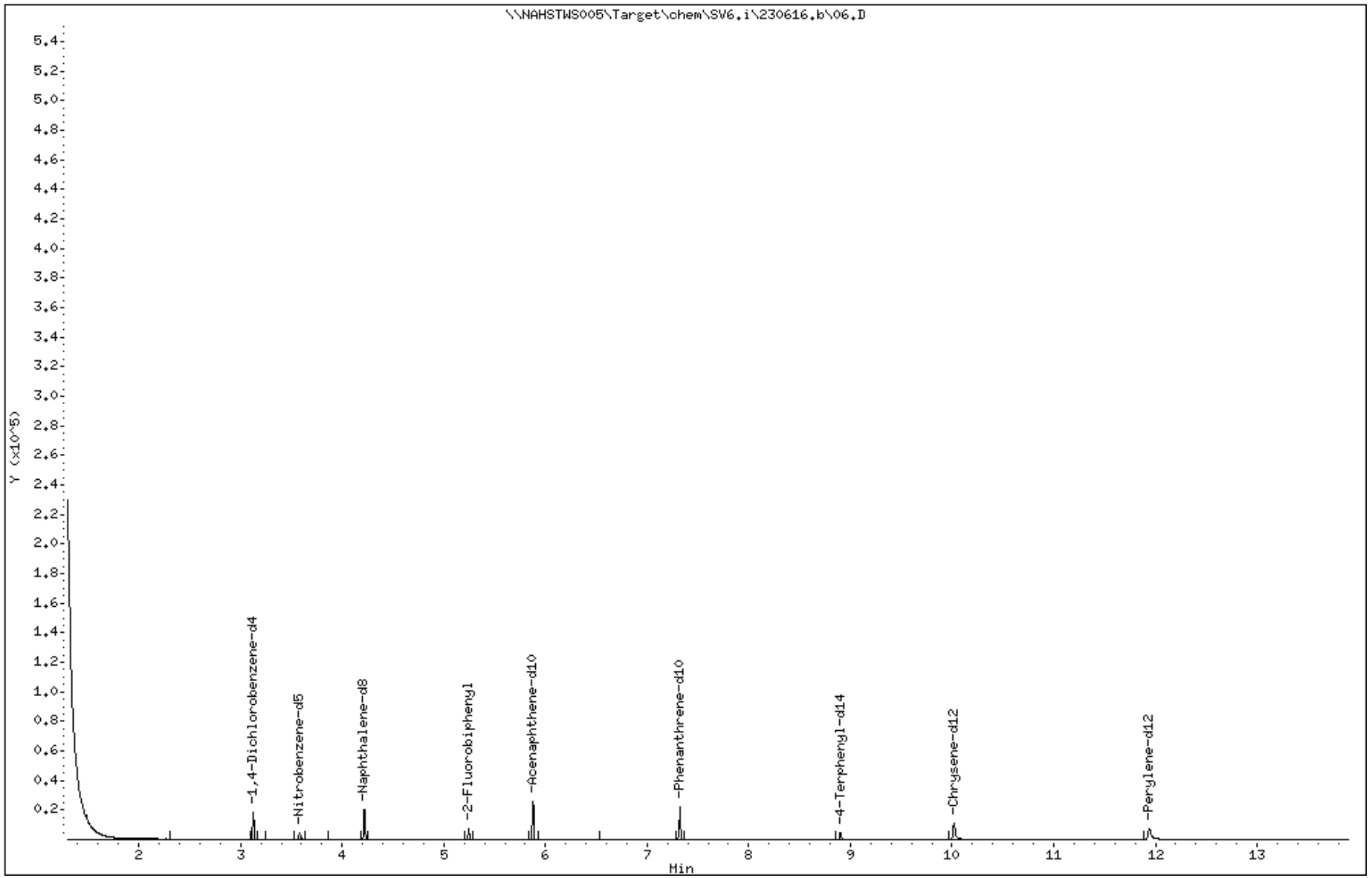
Sample Info: 14DXICAL-0.05

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



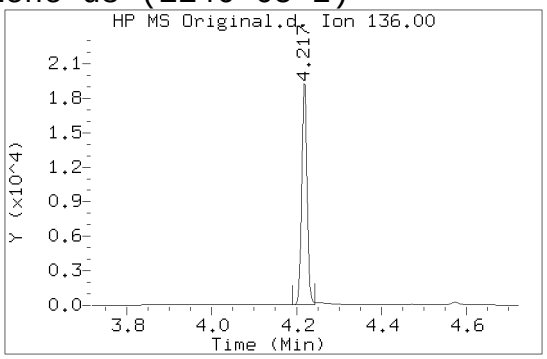
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Inj Date : 16-JUN-2023 11:44
InstruID : SV6.i
LabSampID : 14DXICAL-0.05

Naphthalene-d8 (1146-65-2)

Reason Code:

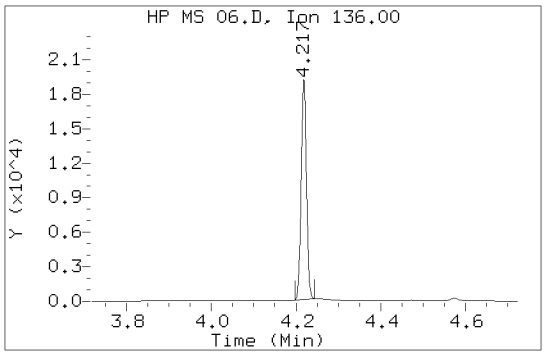
BEFORE

MASS
136
AREA
17378
HEIGHT
19211
16-Jun-2023
11:59
ALSHS
Server



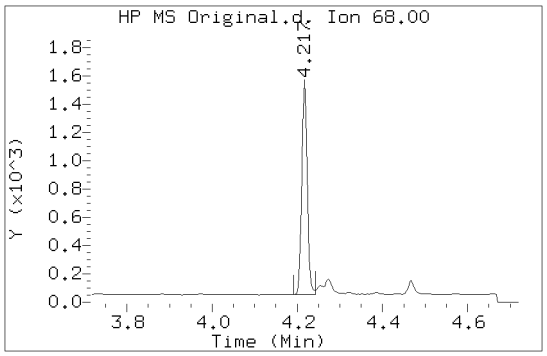
AFTER

MASS
136
AREA
17044
HEIGHT
19106
29-Jun-2023
14:26
ALSHS
Ser



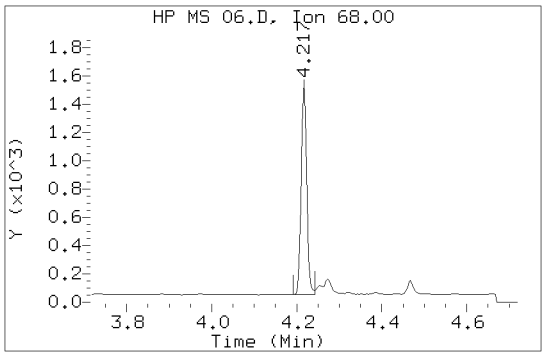
BEFORE

MASS
68
AREA
1330
HEIGHT
1515
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
68
AREA
1330
HEIGHT
1515
29-Jun-2023
14:26
ALSHS
Ser

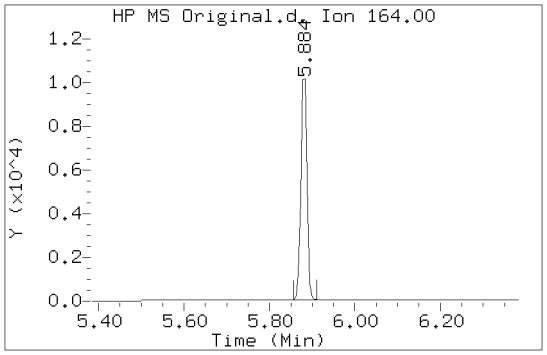


Acenaphthene-d10 (15067-26-2)

Reason Code:

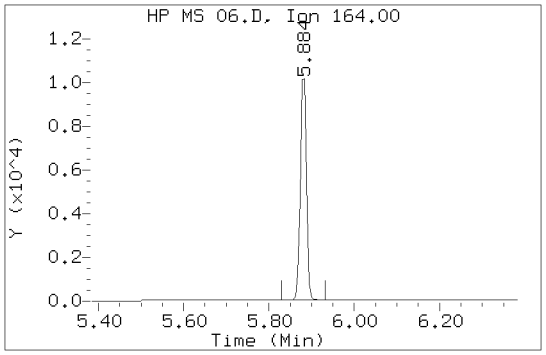
BEFORE

MASS
164
AREA
9969
HEIGHT
10109
16-Jun-2023
11:59
ALSHS
Server



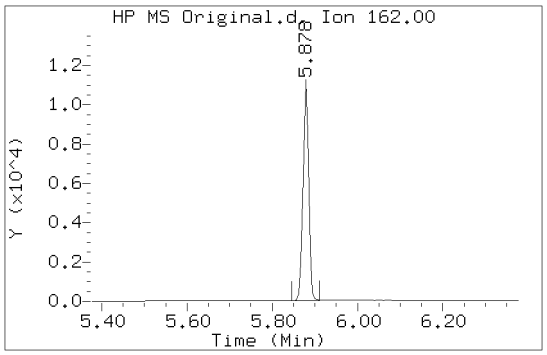
AFTER

MASS
164
AREA
10027
HEIGHT
10124
29-Jun-2023
14:26
ALSHS
Ser



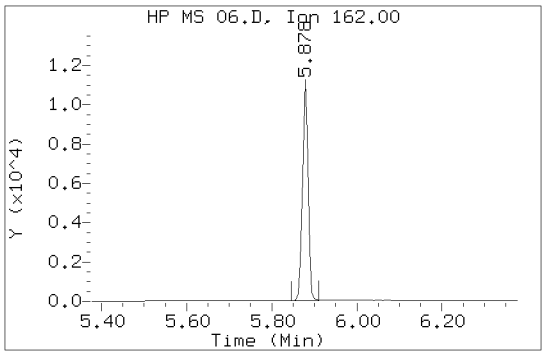
BEFORE

MASS
162
AREA
10122
HEIGHT
11230
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
162
AREA
10122
HEIGHT
11230
29-Jun-2023
14:26
ALSHS
Ser



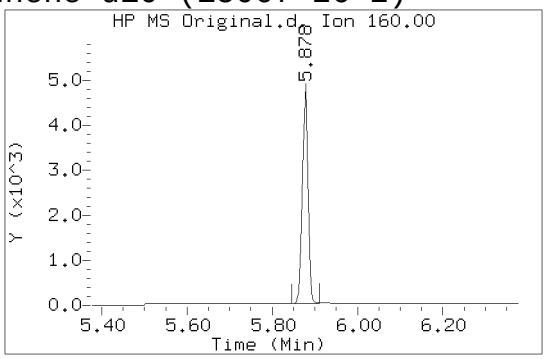
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Inj Date : 16-JUN-2023 11:44
InstruID : SV6.i
LabSampID : 14DXICAL-0.05

Acenaphthene-d10 (15067-26-2)

Reason Code:

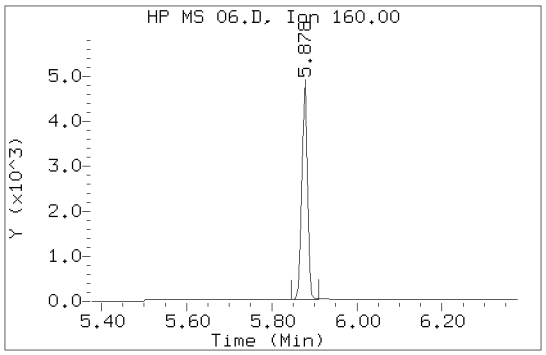
BEFORE

MASS
160
AREA
4359
HEIGHT
4881
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
160
AREA
4359
HEIGHT
4881
29-Jun-2023
14:26
ALSHS
Ser

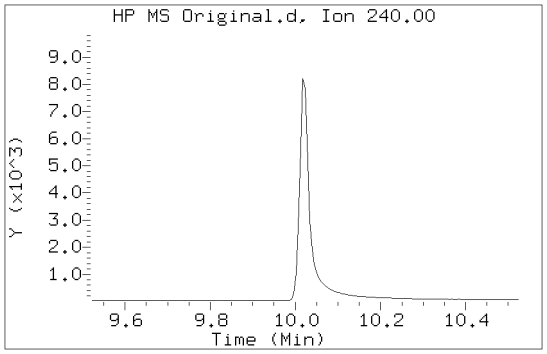


Chrysene-d12 (1719-03-5)

Reason Code:

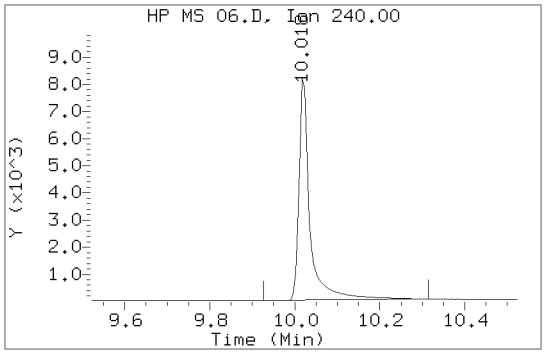
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



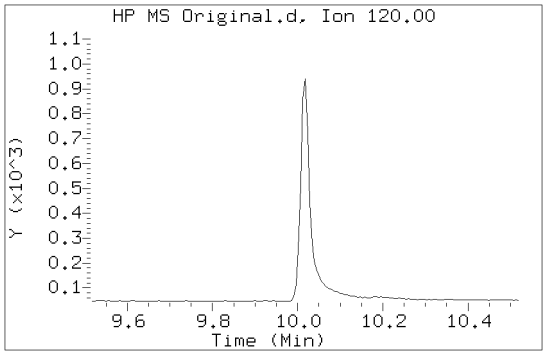
AFTER

MASS
240
AREA
14524
HEIGHT
8152
29-Jun-2023
14:26
ALSHS
Ser



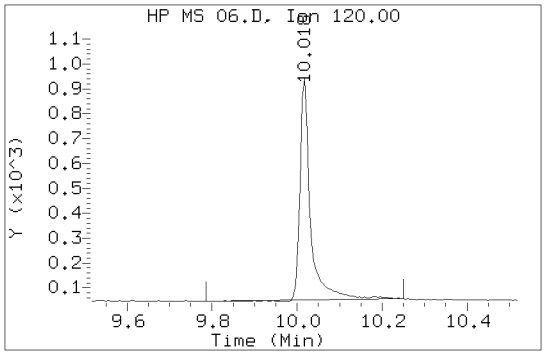
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



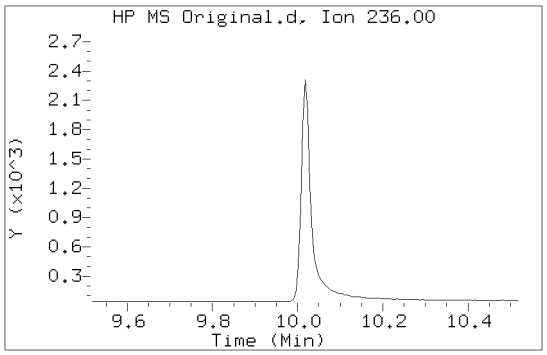
AFTER

MASS
120
AREA
1511
HEIGHT
888
29-Jun-2023
14:26
ALSHS
Ser



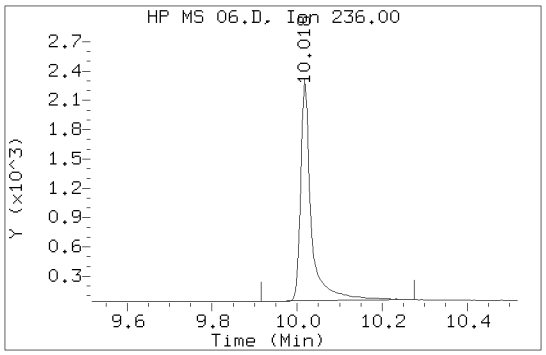
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
236
AREA
3903
HEIGHT
2262
29-Jun-2023
14:26
ALSHS
Ser



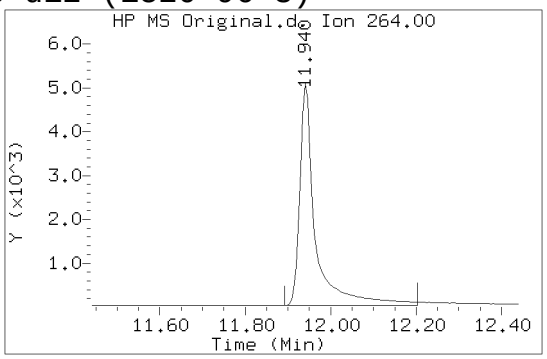
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Inj Date : 16-JUN-2023 11:44
InstruID : SV6.i
LabSampID : 14DXICAL-0.05

Perylene-d12 (1520-96-3)

Reason Code:

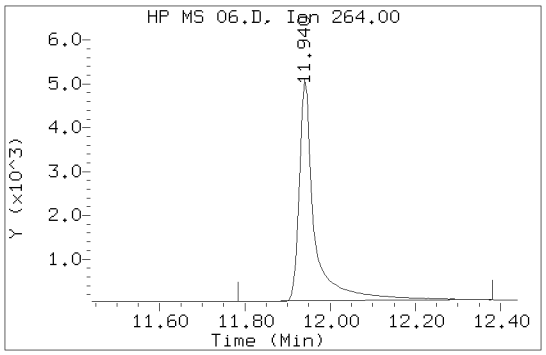
BEFORE

MASS
264
AREA
12686
HEIGHT
5050
16-Jun-2023
11:59
ALSHS
Server



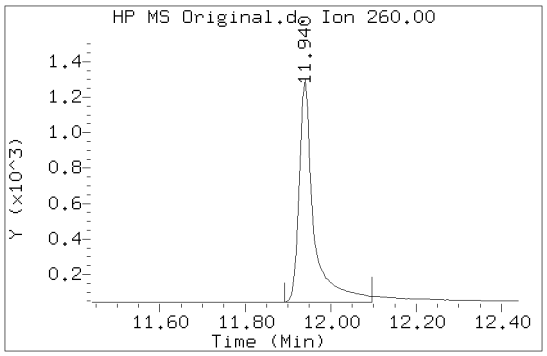
AFTER

MASS
264
AREA
12549
HEIGHT
5041
29-Jun-2023
14:26
ALSHS
Ser



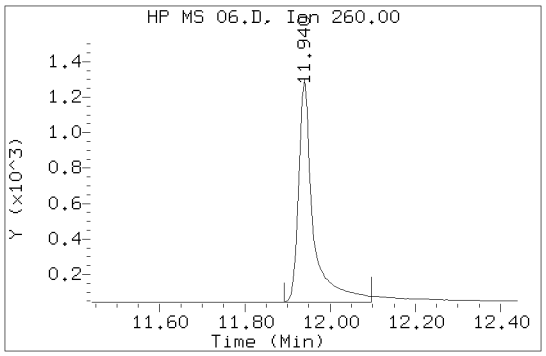
BEFORE

MASS
260
AREA
2978
HEIGHT
1253
16-Jun-2023
11:59
ALSHS
Server



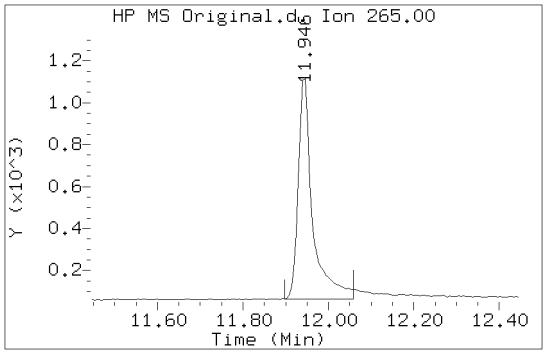
AFTER

MASS
260
AREA
2978
HEIGHT
1253
29-Jun-2023
14:26
ALSHS
Ser



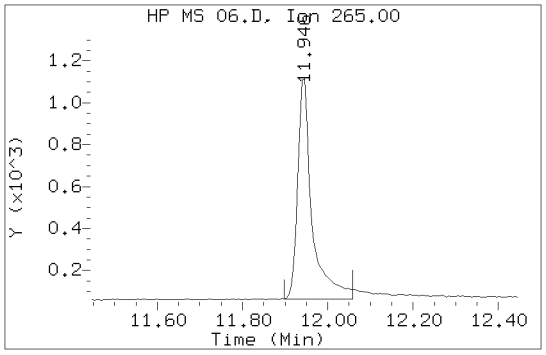
BEFORE

MASS
265
AREA
2473
HEIGHT
1053
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
265
AREA
2473
HEIGHT
1053
29-Jun-2023
14:26
ALSHS
Ser

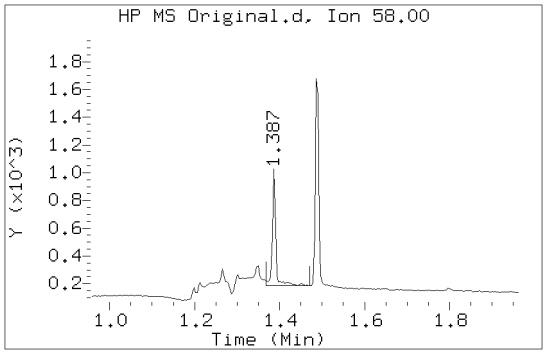


1,4-Dioxane ()

Reason Code:

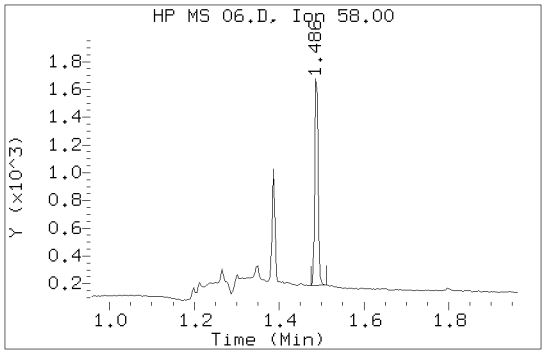
BEFORE

MASS
58
AREA
474
HEIGHT
839
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
58
AREA
828
HEIGHT
1488
29-Jun-2023
14:26
ALSHS
Ser



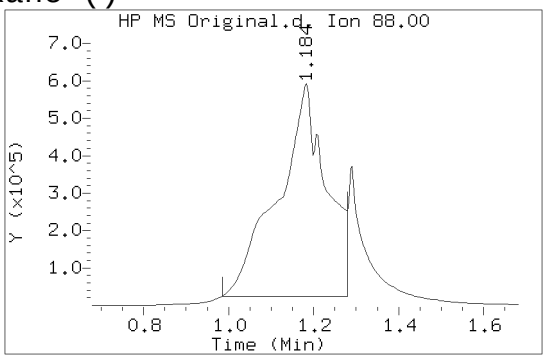
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Inj Date : 16-JUN-2023 11:44
InstruID : SV6.i
LabSampID : 14DXICAL-0.05

1,4-Dioxane ()

Reason Code:

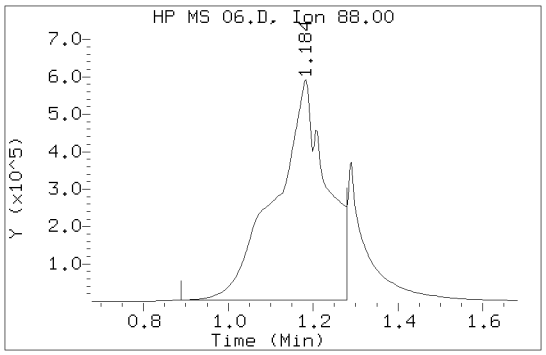
BEFORE

MASS
88
AREA
4490753
HEIGHT
567696
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
88
AREA
4905096
HEIGHT
589066
29-Jun-2023
14:26
ALSHS
Ser

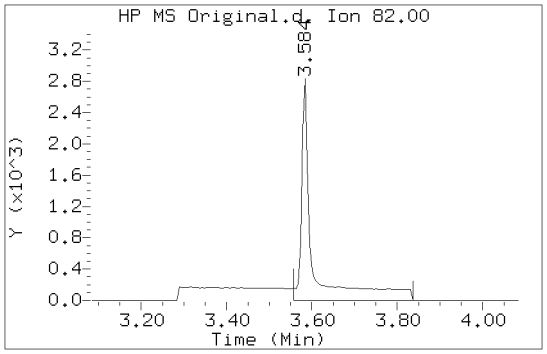


Nitrobenzene-d5 (4165-60-0)

Reason Code:

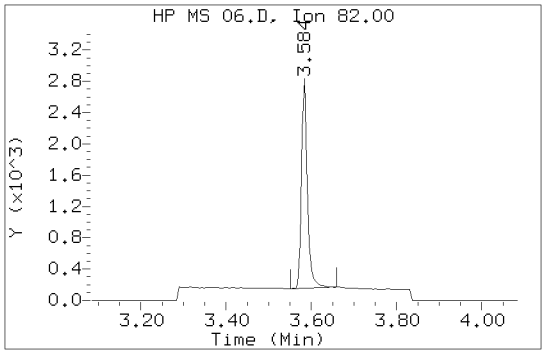
BEFORE

MASS
82
AREA
5121
HEIGHT
2833
16-Jun-2023
11:59
ALSHS
Server



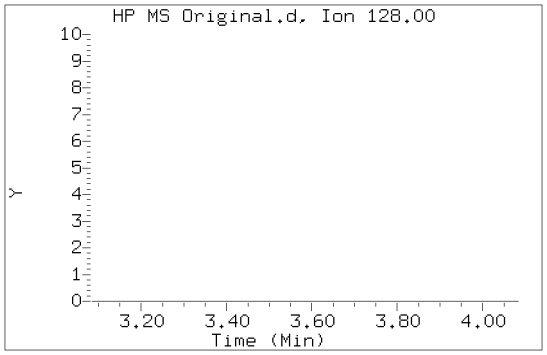
AFTER

MASS
82
AREA
2574
HEIGHT
2676
29-Jun-2023
14:26
ALSHS
Ser



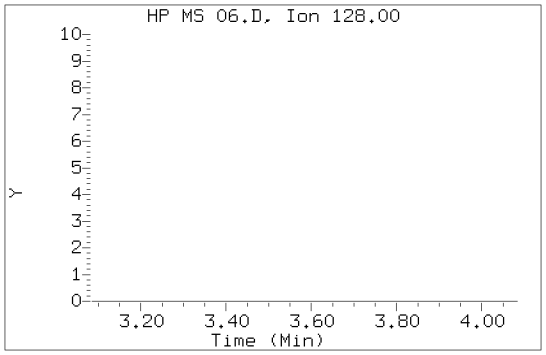
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



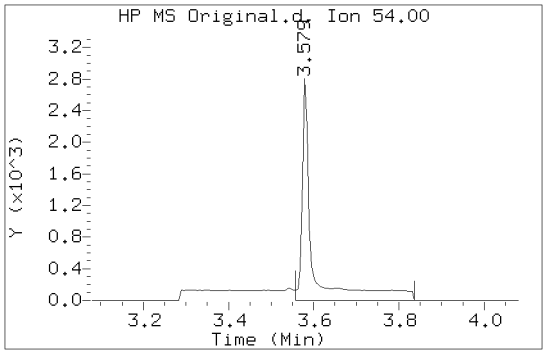
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:26
ALSHS
Ser



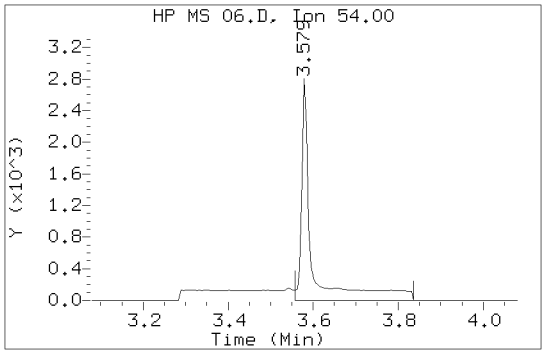
BEFORE

MASS
54
AREA
4709
HEIGHT
2805
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
54
AREA
4709
HEIGHT
2805
29-Jun-2023
14:26
ALSHS
Ser



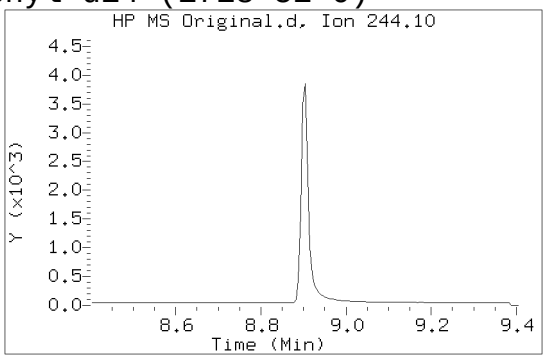
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Inj Date : 16-JUN-2023 11:44
InstruID : SV6.i
LabSampID : 14DXICAL-0.05

4-Terphenyl-d14 (1718-51-0)

Reason Code:

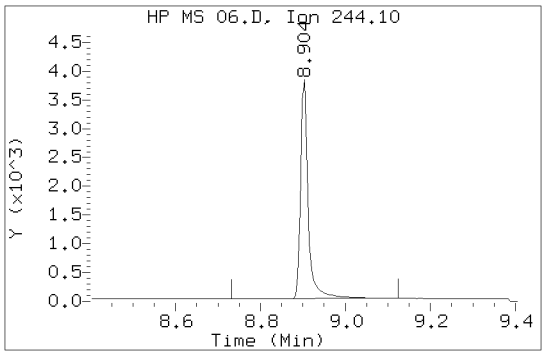
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



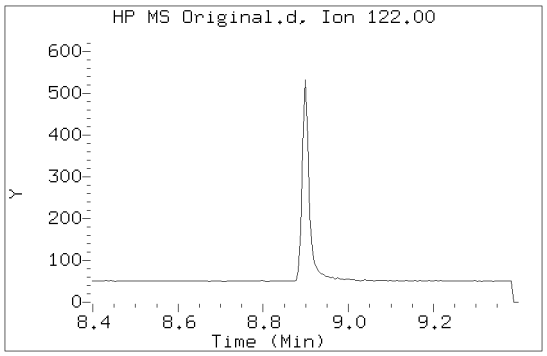
AFTER

MASS
244.1
AREA
4687
HEIGHT
3802
29-Jun-2023
14:26
ALSHS
Ser



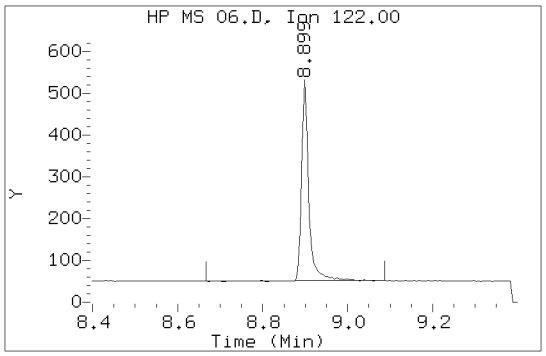
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



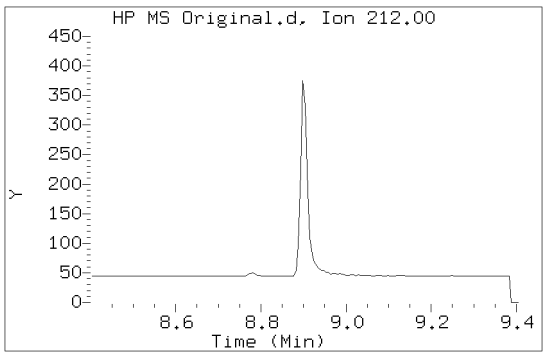
AFTER

MASS
122
AREA
540
HEIGHT
480
29-Jun-2023
14:26
ALSHS
Ser



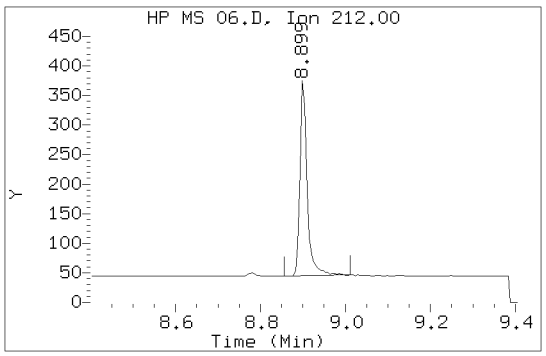
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
212
AREA
383
HEIGHT
330
29-Jun-2023
14:26
ALSHS
Ser

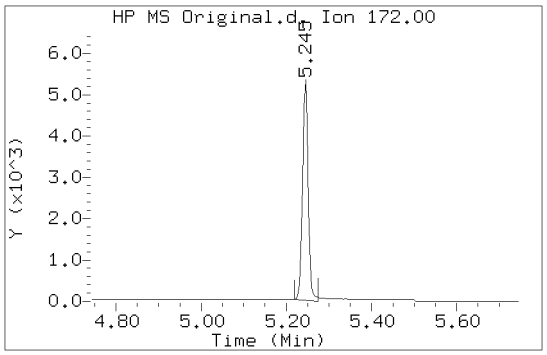


2-Fluorobiphenyl (321-60-8)

Reason Code:

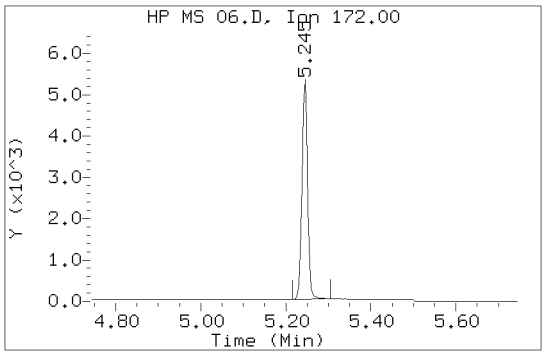
BEFORE

MASS
172
AREA
4989
HEIGHT
5338
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
172
AREA
4907
HEIGHT
5312
29-Jun-2023
14:26
ALSHS
Ser



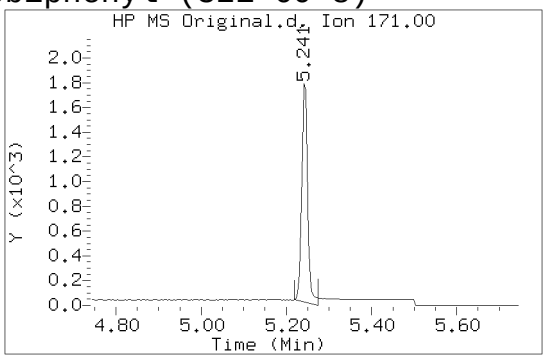
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\06.D
Inj Date : 16-JUN-2023 11:44
InstruID : SV6.i
LabSampID : 14DXICAL-0.05

2-Fluorobiphenyl (321-60-8)

Reason Code:

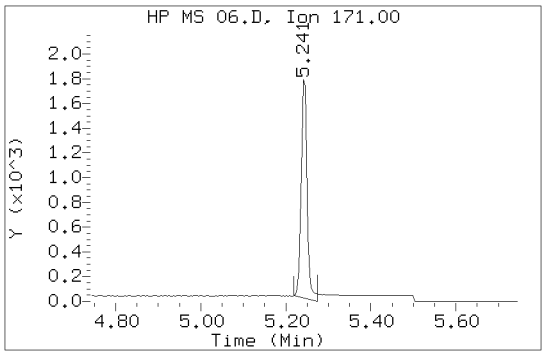
BEFORE

MASS
171
AREA
1727
HEIGHT
1764
16-Jun-2023
11:59
ALSHS
Server



AFTER

MASS
171
AREA
1727
HEIGHT
1764
29-Jun-2023
14:26
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D Page 1
Report Date: 29-Jun-2023 14:27

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D
Lab Smp Id: 14DXICAL-0.08 Client Smp ID: 14DXICAL-0.08
Inj Date : 16-JUN-2023 12:02
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 11:44 Cal File: 06.D
Als bottle: 7 Calibration Sample, Level: 4
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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.128	(1.000)	4590	0.10000	(a)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	15619	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	4012	0.08000	0.08496(M)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	9075	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	7759	0.08000	0.08348
* 126 Phenanthrene-d10	188	7.322	7.322	(1.000)	18261	0.10000	
* 182 Chrysene-d12	240	10.017	10.017	(1.000)	12097	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.904	8.904	(0.889)	7185	0.08000	0.08138(M)
* 198 Perylene-d12	264	11.940	11.940	(1.000)	10759	0.10000	(M)
1 1,4-Dioxane	58	1.482	1.482	(0.474)	1283	0.08000	0.08298(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.

01206001

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D

Date : 16-JUN-2023 12:02

Client ID: 14DXICAL-0.08

Instrument: SV6.i

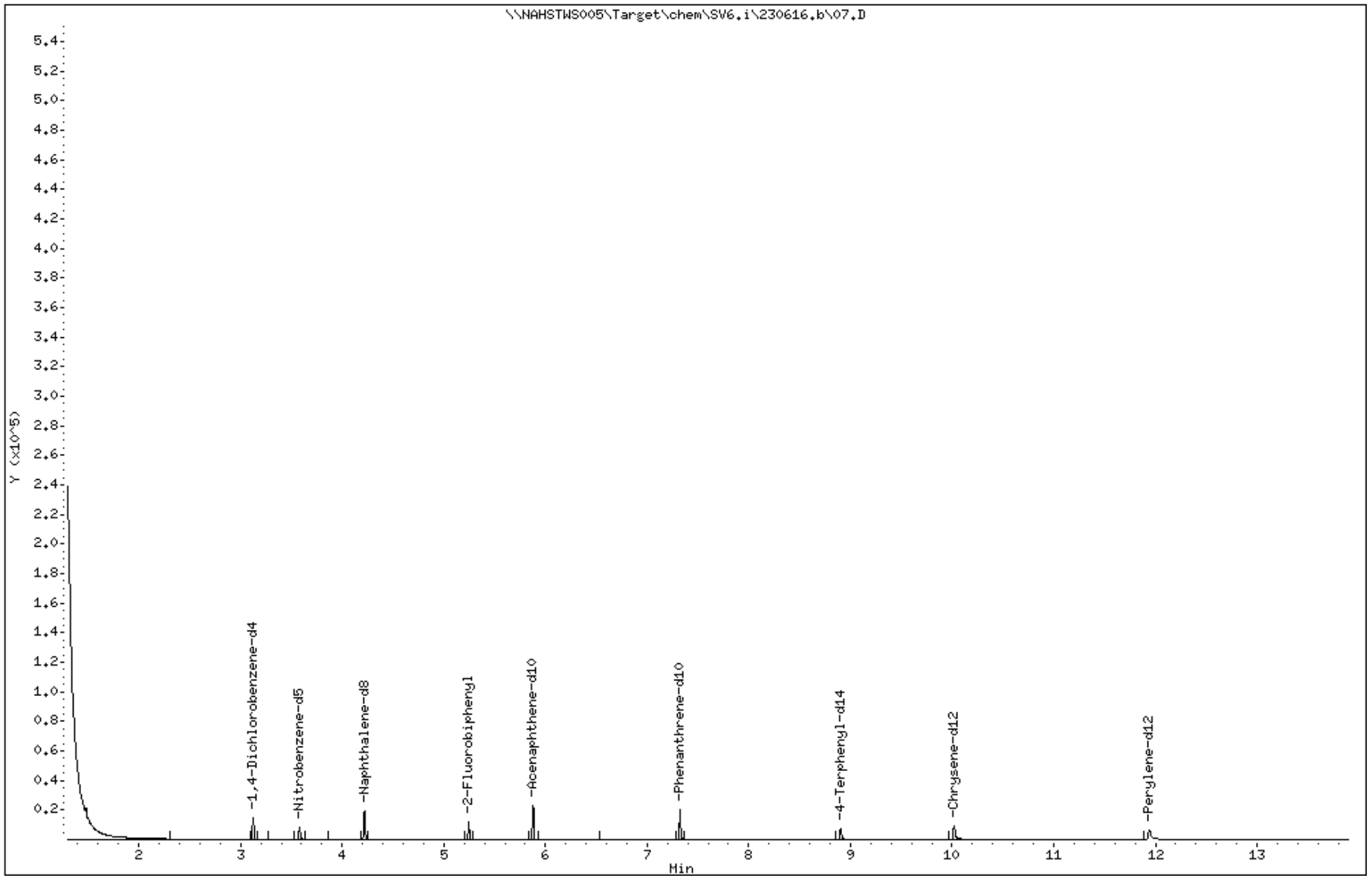
Sample Info: 14DXICAL-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



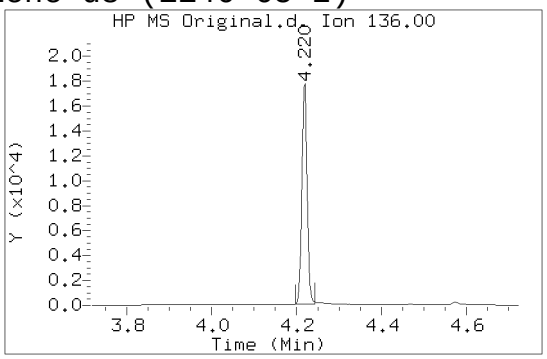
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D
Inj Date : 16-JUN-2023 12:02
InstruID : SV6.i
LabSampID : 14DXICAL-0.08

Naphthalene-d8 (1146-65-2)

Reason Code:

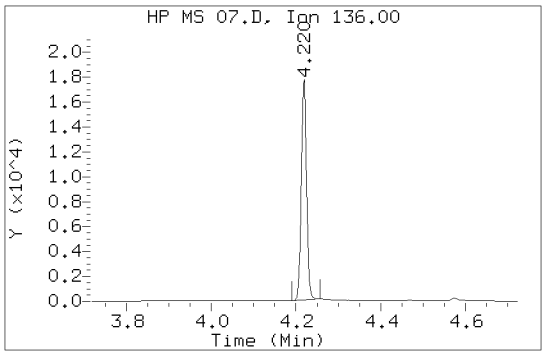
BEFORE

MASS
136
AREA
15744
HEIGHT
17718
16-Jun-2023
12:18
ALSHS
Server



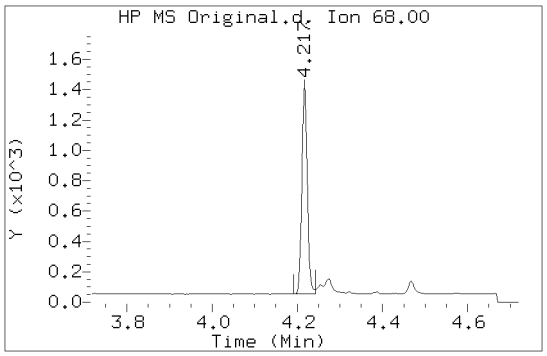
AFTER

MASS
136
AREA
15619
HEIGHT
17670
29-Jun-2023
14:26
ALSHS
Ser



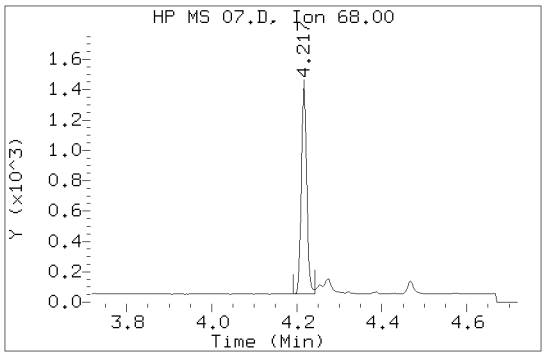
BEFORE

MASS
68
AREA
1209
HEIGHT
1411
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
68
AREA
1209
HEIGHT
1411
29-Jun-2023
14:26
ALSHS
Ser

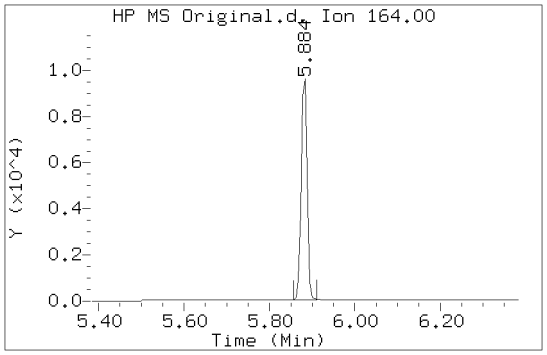


Acenaphthene-d10 (15067-26-2)

Reason Code:

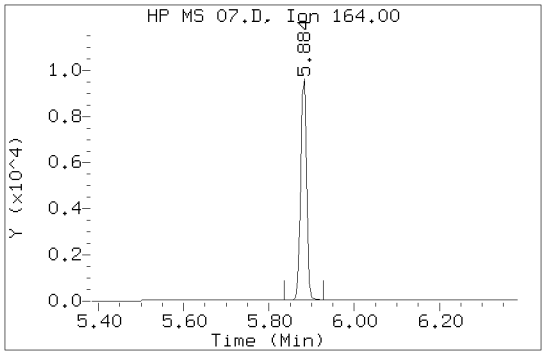
BEFORE

MASS
164
AREA
9060
HEIGHT
9568
16-Jun-2023
12:18
ALSHS
Server



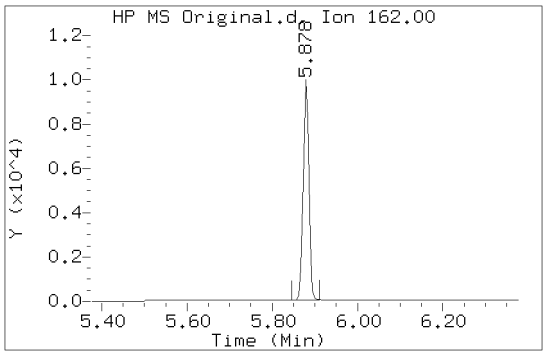
AFTER

MASS
164
AREA
9075
HEIGHT
9571
29-Jun-2023
14:26
ALSHS
Ser



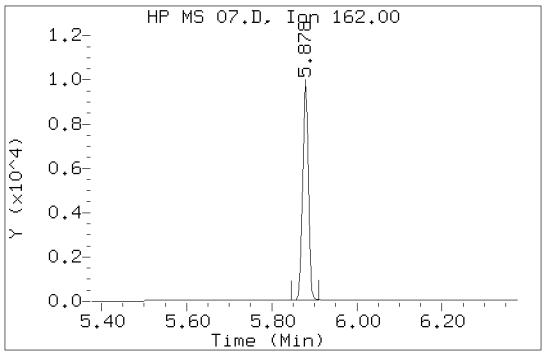
BEFORE

MASS
162
AREA
9173
HEIGHT
9961
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
162
AREA
9173
HEIGHT
9961
29-Jun-2023
14:26
ALSHS
Ser



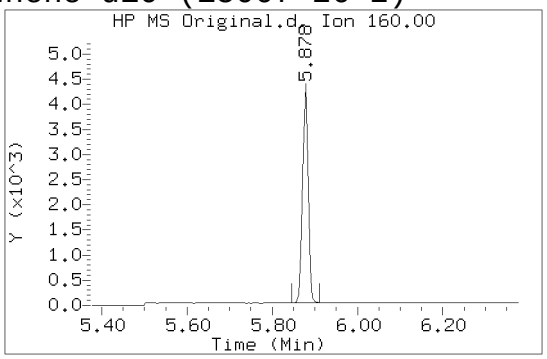
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D
Inj Date : 16-JUN-2023 12:02
InstruID : SV6.i
LabSampID : 14DXICAL-0.08

Acenaphthene-d10 (15067-26-2)

Reason Code:

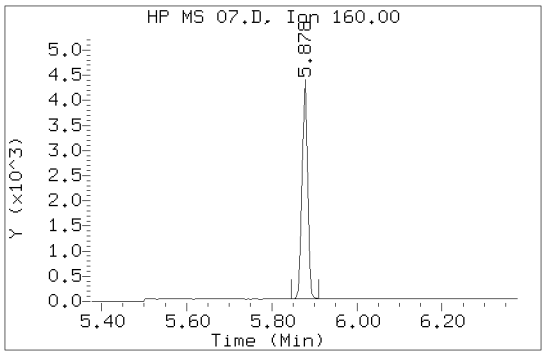
BEFORE

MASS
160
AREA
3928
HEIGHT
4365
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
160
AREA
3928
HEIGHT
4365
29-Jun-2023
14:26
ALSHS
Ser

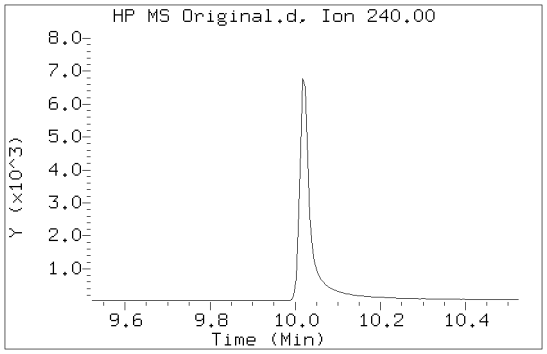


Chrysene-d12 (1719-03-5)

Reason Code:

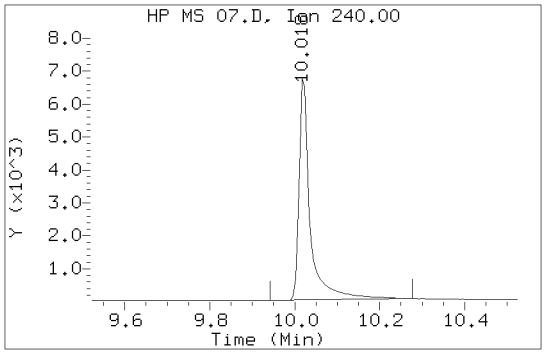
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



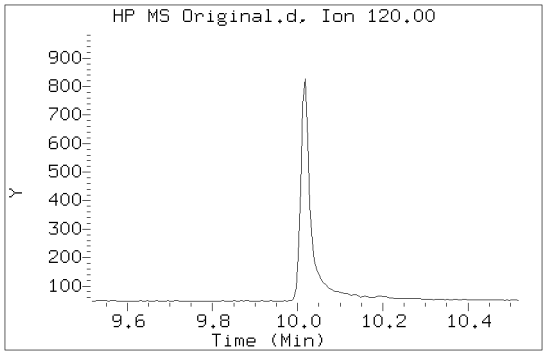
AFTER

MASS
240
AREA
12097
HEIGHT
6713
29-Jun-2023
14:26
ALSHS
Ser



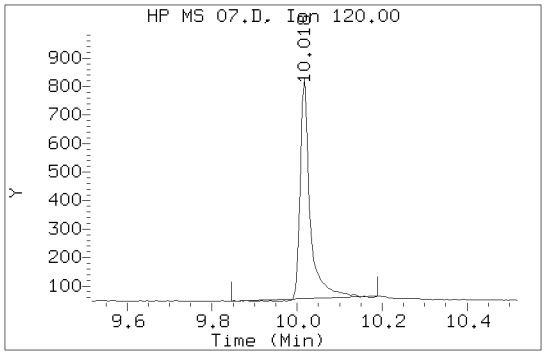
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



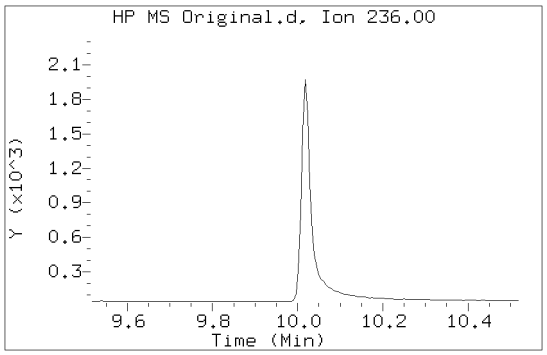
AFTER

MASS
120
AREA
1207
HEIGHT
771
29-Jun-2023
14:26
ALSHS
Ser



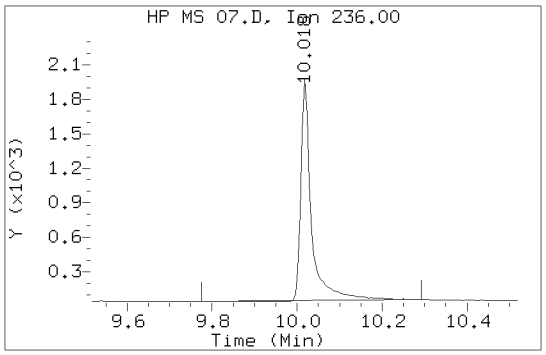
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
236
AREA
3279
HEIGHT
1919
29-Jun-2023
14:26
ALSHS
Ser



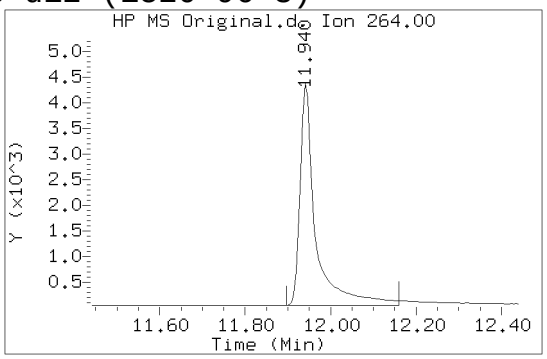
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D
Inj Date : 16-JUN-2023 12:02
InstruID : SV6.i
LabSampID : 14DXICAL-0.08

Perylene-d12 (1520-96-3)

Reason Code:

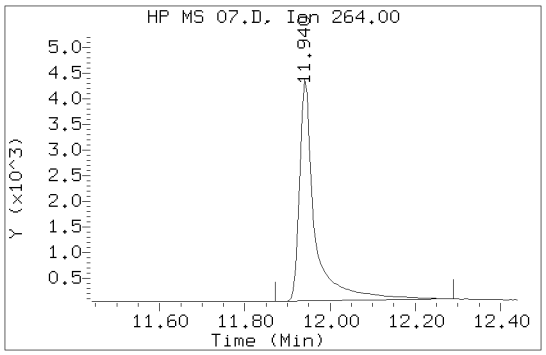
BEFORE

MASS
264
AREA
10879
HEIGHT
4324
16-Jun-2023
12:18
ALSHS
Server



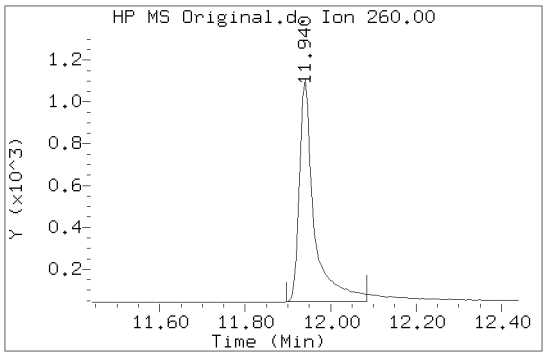
AFTER

MASS
264
AREA
10759
HEIGHT
4317
29-Jun-2023
14:26
ALSHS
Ser



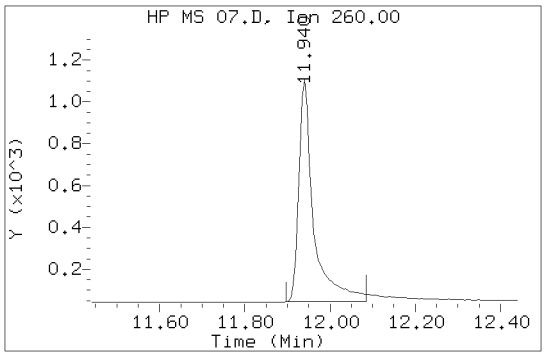
BEFORE

MASS
260
AREA
2559
HEIGHT
1060
16-Jun-2023
12:18
ALSHS
Server



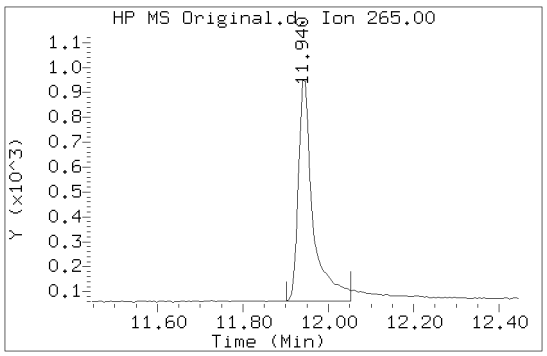
AFTER

MASS
260
AREA
2559
HEIGHT
1060
29-Jun-2023
14:26
ALSHS
Ser



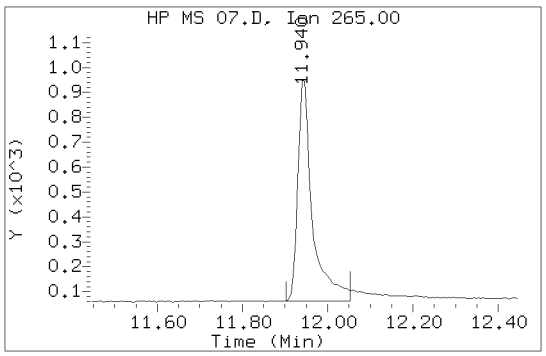
BEFORE

MASS
265
AREA
2115
HEIGHT
884
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
265
AREA
2115
HEIGHT
884
29-Jun-2023
14:26
ALSHS
Ser

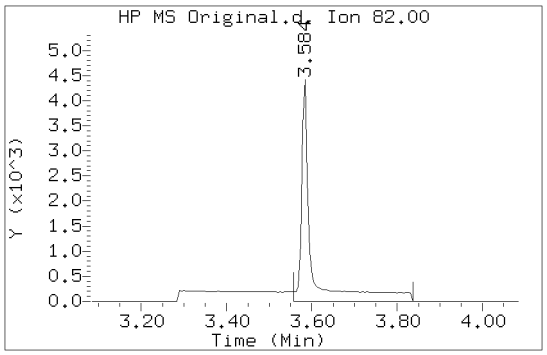


Nitrobenzene-d5 (4165-60-0)

Reason Code:

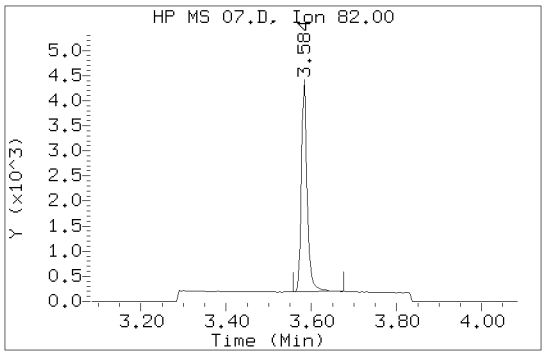
BEFORE

MASS
82
AREA
7140
HEIGHT
4418
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
82
AREA
4012
HEIGHT
4226
29-Jun-2023
14:26
ALSHS
Ser



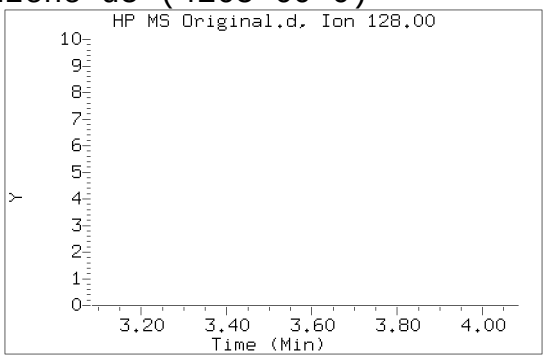
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D
Inj Date : 16-JUN-2023 12:02
InstruID : SV6.i
LabSampID : 14DXICAL-0.08

Nitrobenzene-d5 (4165-60-0)

Reason Code:

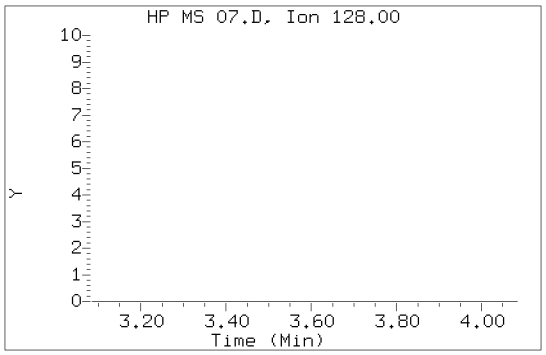
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



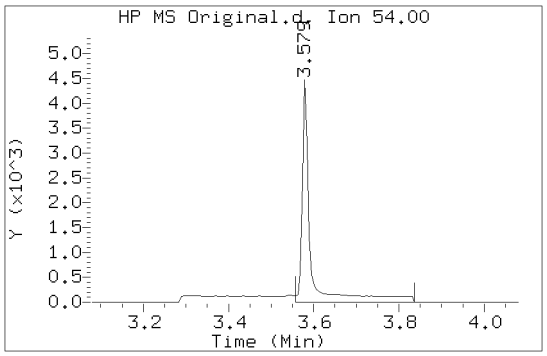
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:26
ALSHS
Ser



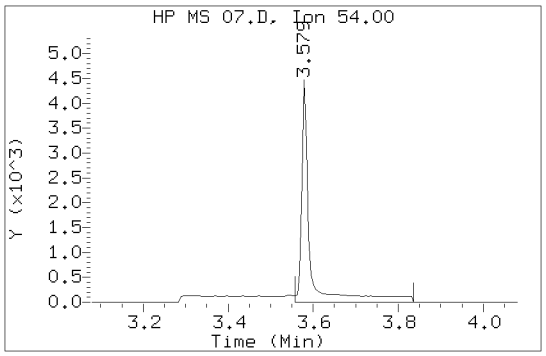
BEFORE

MASS
54
AREA
6137
HEIGHT
4470
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
54
AREA
6137
HEIGHT
4470
29-Jun-2023
14:26
ALSHS
Ser

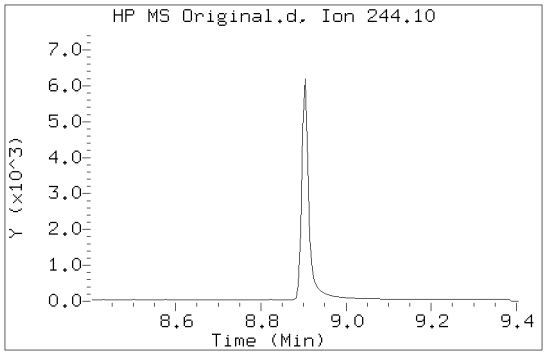


4-Terphenyl-d14 (1718-51-0)

Reason Code:

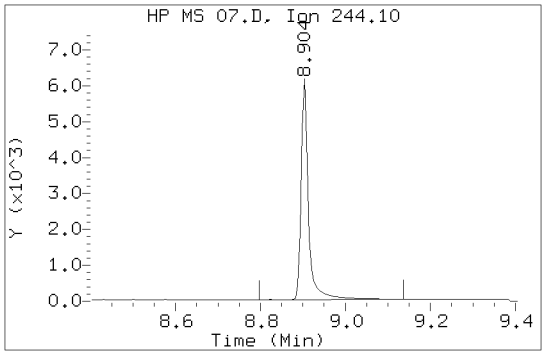
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



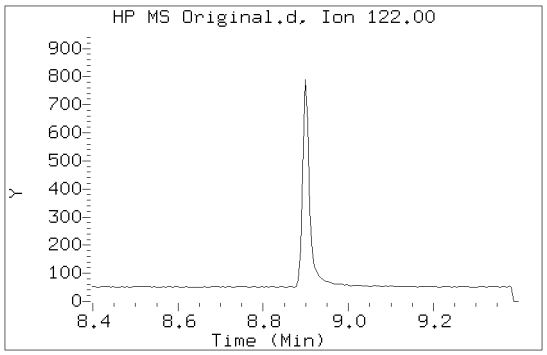
AFTER

MASS
244.1
AREA
7185
HEIGHT
6143
29-Jun-2023
14:26
ALSHS
Ser



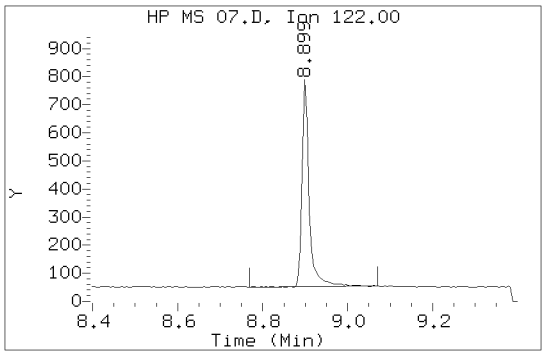
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
122
AREA
850
HEIGHT
736
29-Jun-2023
14:26
ALSHS
Ser



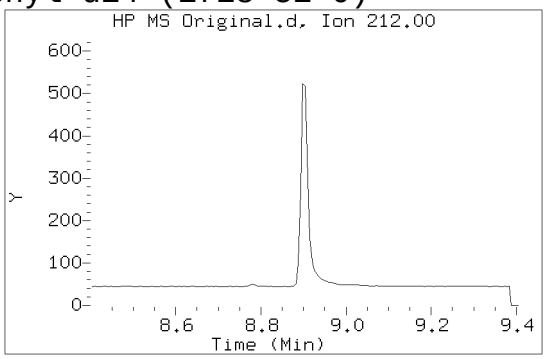
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\07.D
Inj Date : 16-JUN-2023 12:02
InstruID : SV6.i
LabSampID : 14DXICAL-0.08

4-Terphenyl-d14 (1718-51-0)

Reason Code:

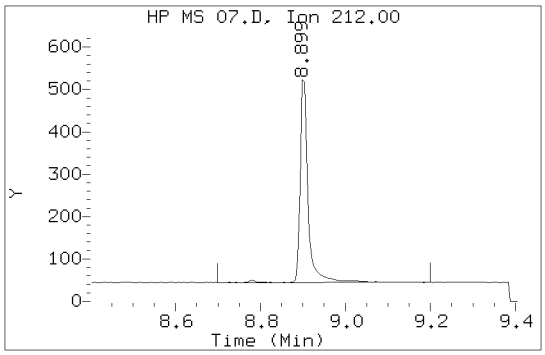
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
12:18
ALSHS
Server



AFTER

MASS
212
AREA
622
HEIGHT
478
29-Jun-2023
14:26
ALSHS
Ser



Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D Page 1
Report Date: 29-Jun-2023 14:27

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D
Lab Smp Id: 14DXICAL-0.15 Client Smp ID: 14DXICAL-0.15
Inj Date : 16-JUN-2023 12:38
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.15
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 12:20 Cal File: 08.D
Als bottle: 9 Calibration Sample, Level: 6
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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.128	(1.000)	3901	0.10000	(aM)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	13349	0.10000	
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	6134	0.15000	0.1520(AQM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	7708	0.10000	
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	11636	0.15000	0.1474
* 126 Phenanthrene-d10	188	7.323	7.323	(1.000)	15157	0.10000	
* 182 Chrysene-d12	240	10.018	10.018	(1.000)	10131	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.904	8.904	(0.889)	10881	0.15000	0.1472(M)
* 198 Perylene-d12	264	11.940	11.940	(1.000)	7987	0.10000	(M)
1 1,4-Dioxane	58	1.464	1.464	(0.468)	1980	0.15000	0.1507(QH)

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.
H - Operator selected an alternate compound hit.

01206009

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D

Date : 16-JUN-2023 12:38

Client ID: 14DXICAL-0.15

Instrument: SV6.i

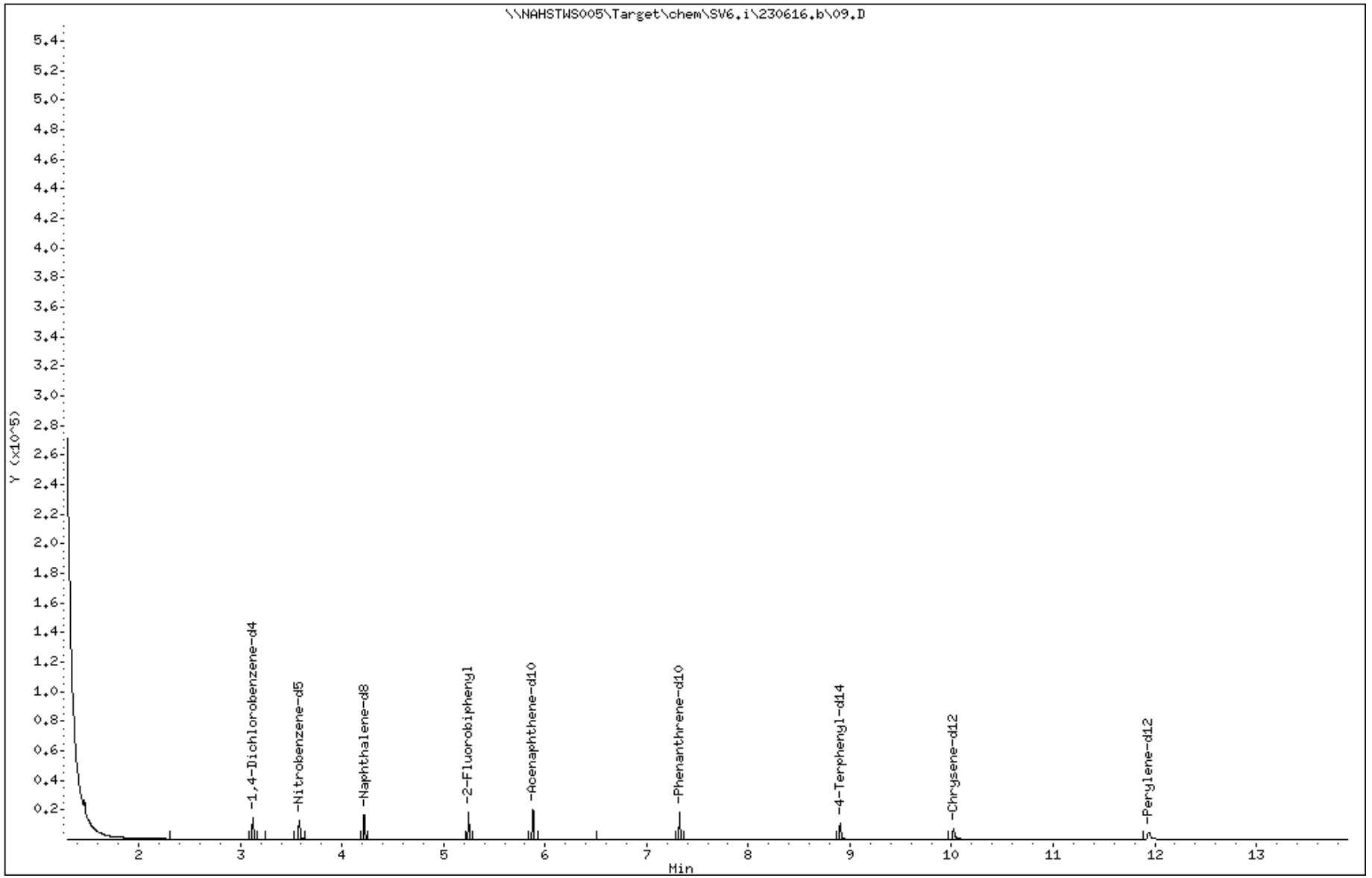
Sample Info: 14DXICAL-0.15

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



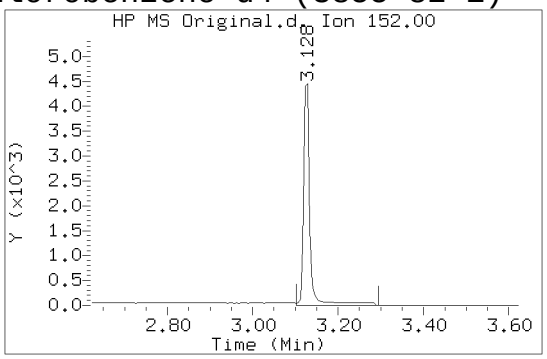
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D
Inj Date : 16-JUN-2023 12:38
InstruID : SV6.i
LabSampID : 14DXICAL-0.15

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

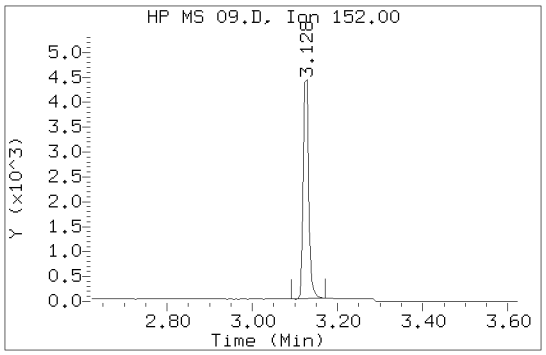
BEFORE

MASS
152
AREA
4505
HEIGHT
4453
16-Jun-2023
12:57
ALSHS
Server



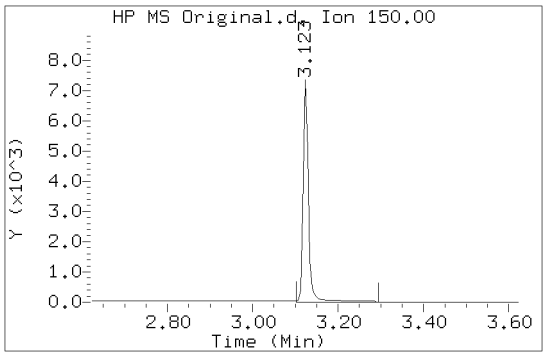
AFTER

MASS
152
AREA
3901
HEIGHT
4398
29-Jun-2023
14:27
ALSHS
Ser



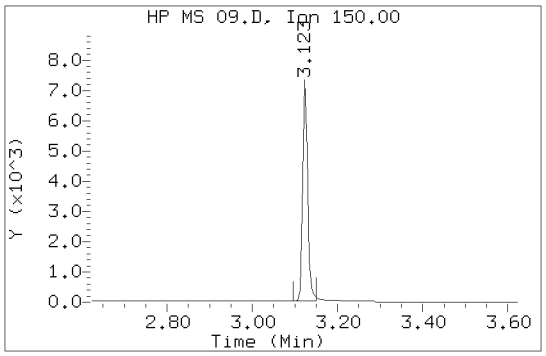
BEFORE

MASS
150
AREA
6326
HEIGHT
7351
16-Jun-2023
12:57
ALSHS
Server



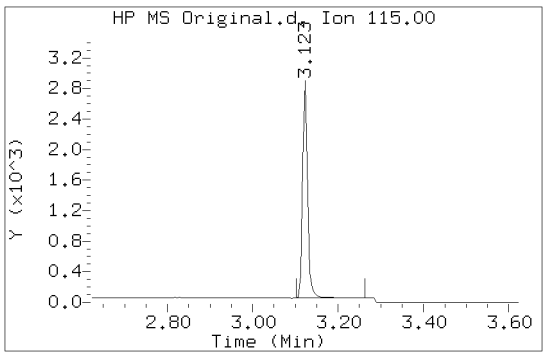
AFTER

MASS
150
AREA
5706
HEIGHT
7305
29-Jun-2023
14:27
ALSHS
Ser



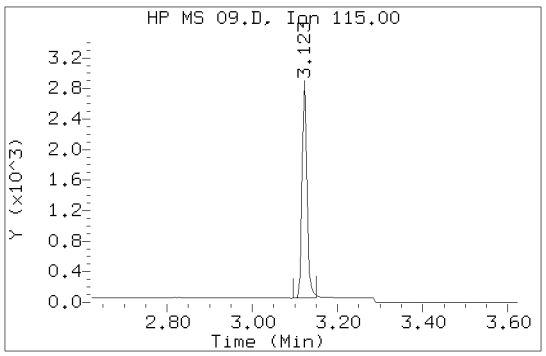
BEFORE

MASS
115
AREA
2255
HEIGHT
2847
16-Jun-2023
12:57
ALSHS
Server



AFTER

MASS
115
AREA
2210
HEIGHT
2846
29-Jun-2023
14:27
ALSHS
Ser

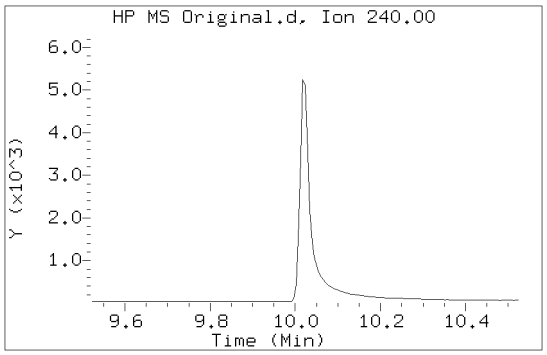


Chrysene-d12 (1719-03-5)

Reason Code:

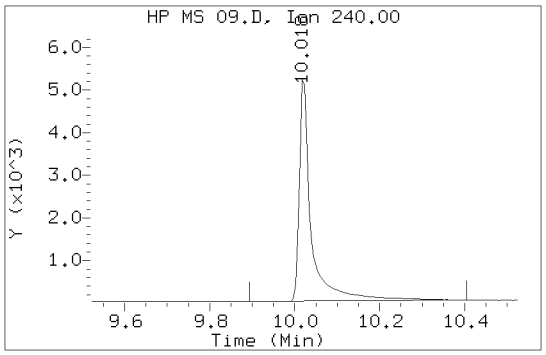
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



AFTER

MASS
240
AREA
10131
HEIGHT
5190
29-Jun-2023
14:27
ALSHS
Ser



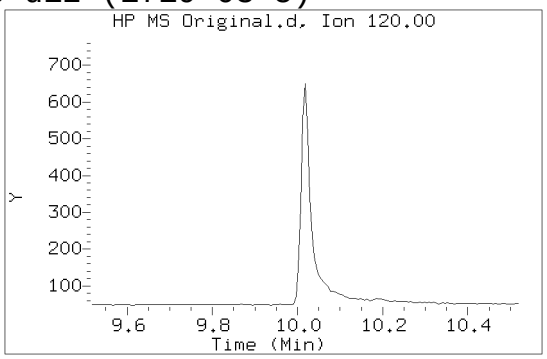
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D
Inj Date : 16-JUN-2023 12:38
InstruID : SV6.i
LabSampID : 14DXICAL-0.15

Chrysene-d12 (1719-03-5)

Reason Code:

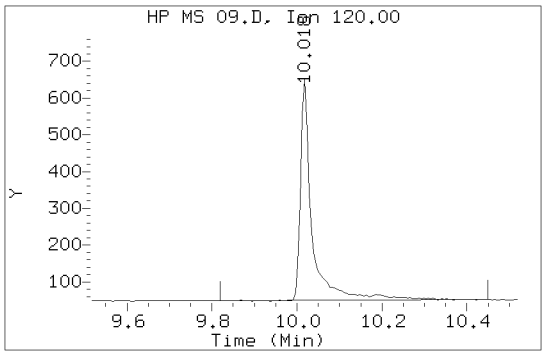
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



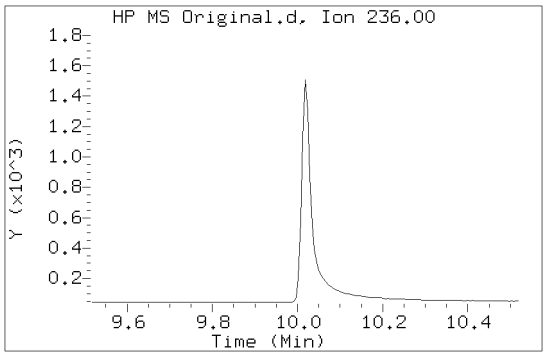
AFTER

MASS
120
AREA
1131
HEIGHT
600
29-Jun-2023
14:27
ALSHS
Ser



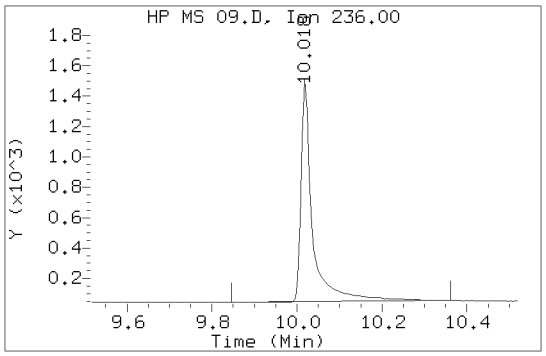
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



AFTER

MASS
236
AREA
2695
HEIGHT
1458
29-Jun-2023
14:27
ALSHS
Ser

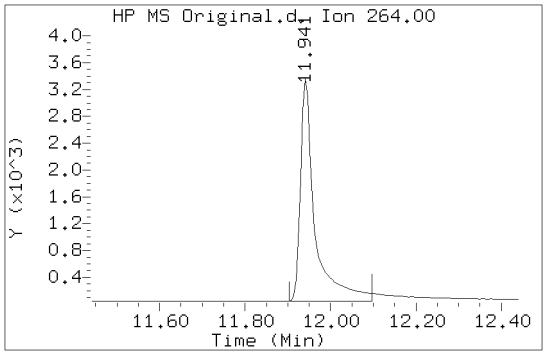


Perylene-d12 (1520-96-3)

Reason Code:

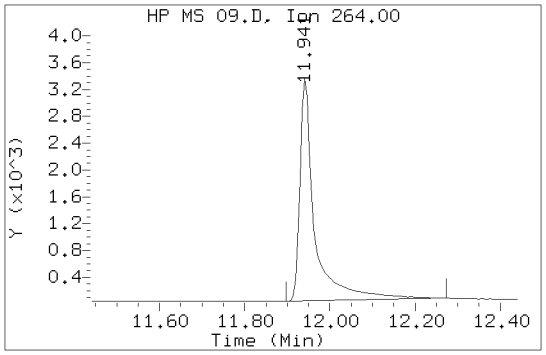
BEFORE

MASS
264
AREA
7735
HEIGHT
3310
16-Jun-2023
12:57
ALSHS
Server



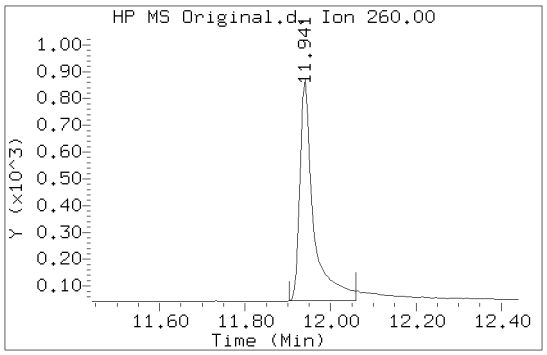
AFTER

MASS
264
AREA
7987
HEIGHT
3307
29-Jun-2023
14:27
ALSHS
Ser



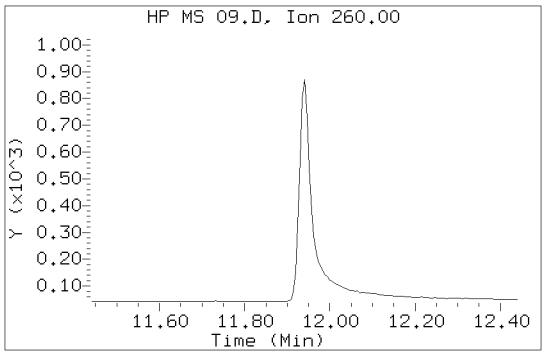
BEFORE

MASS
260
AREA
1816
HEIGHT
824
16-Jun-2023
12:57
ALSHS
Server



AFTER

MASS
260
AREA
2012
HEIGHT
823
29-Jun-2023
14:27
ALSHS
Ser



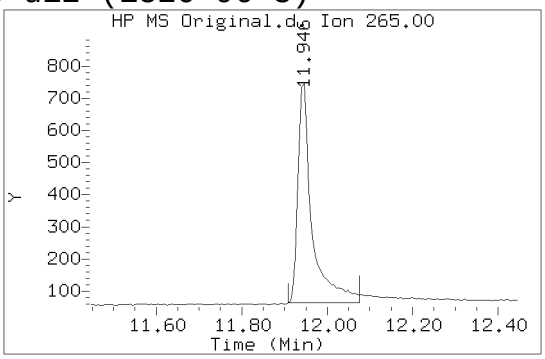
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D
Inj Date : 16-JUN-2023 12:38
InstruID : SV6.i
LabSampID : 14DXICAL-0.15

Perylene-d12 (1520-96-3)

Reason Code:

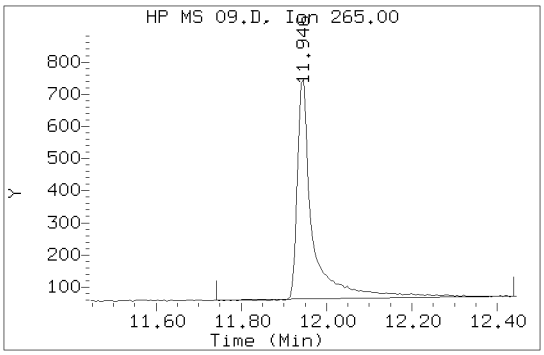
BEFORE

MASS
265
AREA
1571
HEIGHT
682
16-Jun-2023
12:57
ALSHS
Server



AFTER

MASS
265
AREA
1706
HEIGHT
682
29-Jun-2023
14:27
ALSHS
Ser

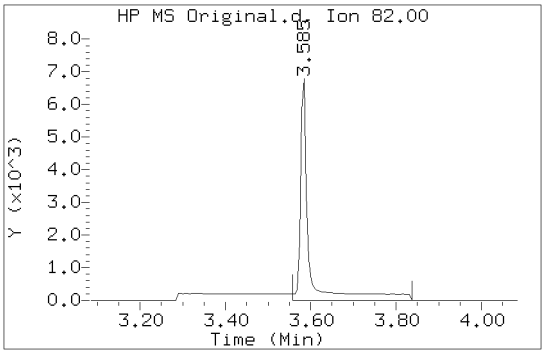


Nitrobenzene-d5 (4165-60-0)

Reason Code:

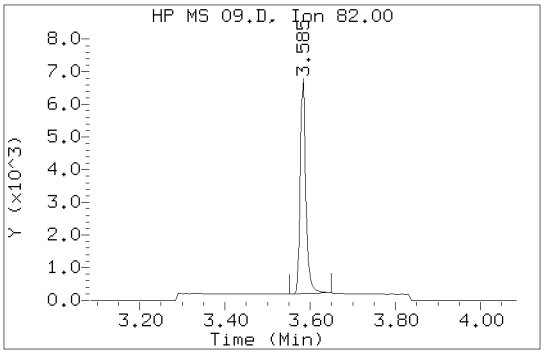
BEFORE

MASS
82
AREA
9487
HEIGHT
6787
16-Jun-2023
12:57
ALSHS
Server



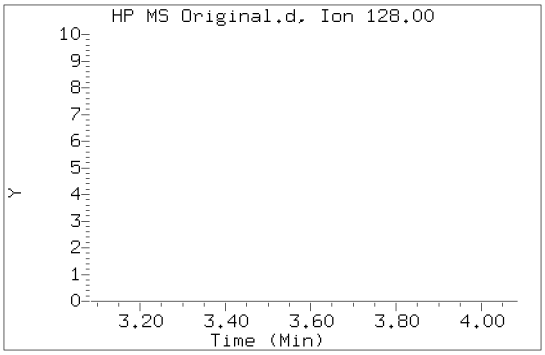
AFTER

MASS
82
AREA
6134
HEIGHT
6582
29-Jun-2023
14:27
ALSHS
Ser



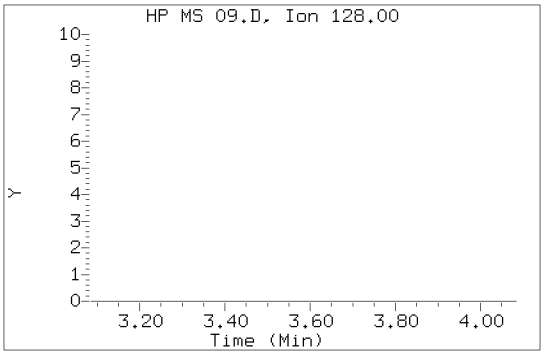
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



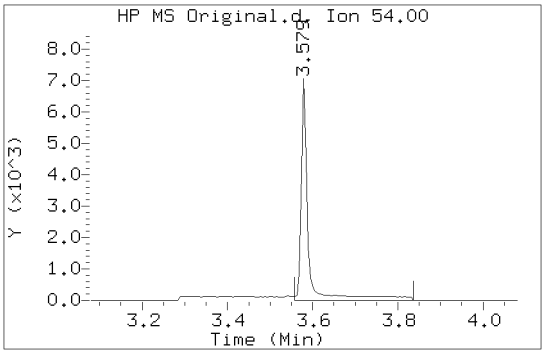
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:27
ALSHS
Ser



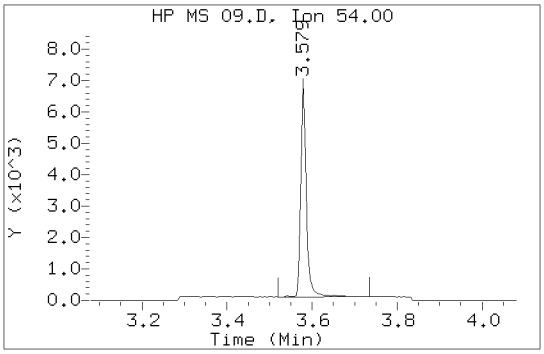
BEFORE

MASS
54
AREA
8200
HEIGHT
7059
16-Jun-2023
12:57
ALSHS
Server



AFTER

MASS
54
AREA
6294
HEIGHT
6945
29-Jun-2023
14:27
ALSHS
Ser

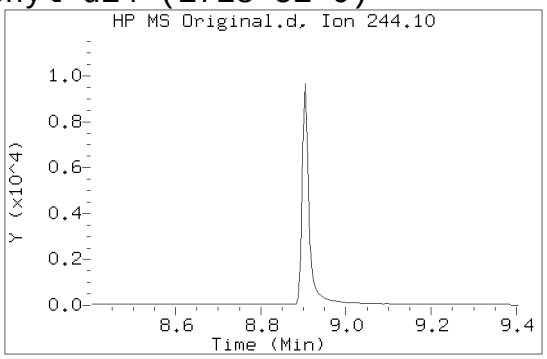


Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\09.D
Inj Date : 16-JUN-2023 12:38
InstruID : SV6.i
LabSampID : 14DXICAL-0.15

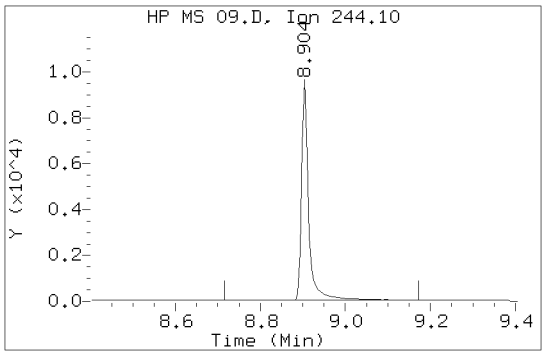
4-Terphenyl-d14 (1718-51-0)

Reason Code:

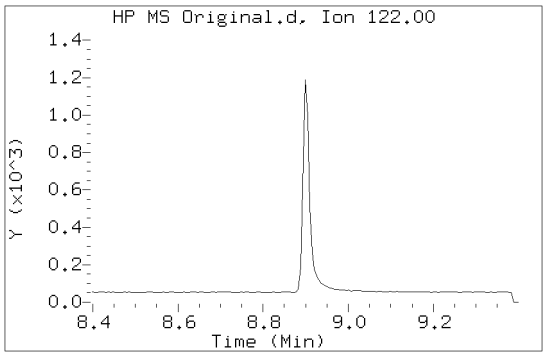
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



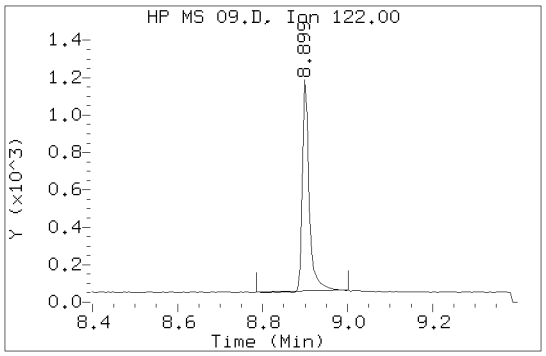
AFTER
MASS
244.1
AREA
10881
HEIGHT
9614
29-Jun-2023
14:27
ALSHS
Ser



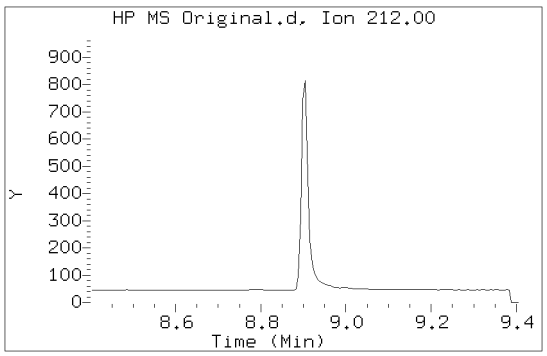
BEFORE
MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



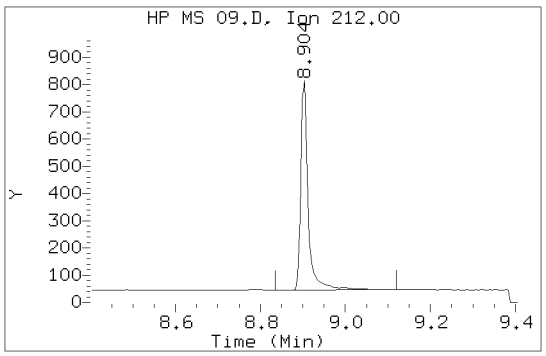
AFTER
MASS
122
AREA
1222
HEIGHT
1128
29-Jun-2023
14:27
ALSHS
Ser



BEFORE
MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
12:57
ALSHS
Server



AFTER
MASS
212
AREA
918
HEIGHT
769
29-Jun-2023
14:27
ALSHS
Ser



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Lab Smp Id: 14DXICAL-0.1 Client Smp ID: 14DXICAL-0.1
Inj Date : 16-JUN-2023 14:15
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.1
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 15:48 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.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: 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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.128	(1.000)	4026	0.10000	(aM)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	13383	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	4123	0.10000	0.1019(QM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	7945	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.248	5.248	(0.892)	7708	0.10000	0.09473(M)
* 126 Phenanthrene-d10	188	7.328	7.328	(1.000)	15519	0.10000	(M)
* 182 Chrysene-d12	240	10.028	10.028	(1.000)	9988	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.909	8.909	(0.888)	7529	0.10000	0.1033(M)
* 198 Perylene-d12	264	11.946	11.946	(1.000)	8963	0.10000	(M)
1 1,4-Dioxane	58	1.471	1.471	(0.470)	1445	0.10000	0.1066(Q)

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.

01206015

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D

Date : 16-JUN-2023 14:15

Client ID: 14DXICAL-0.1

Instrument: SV6.i

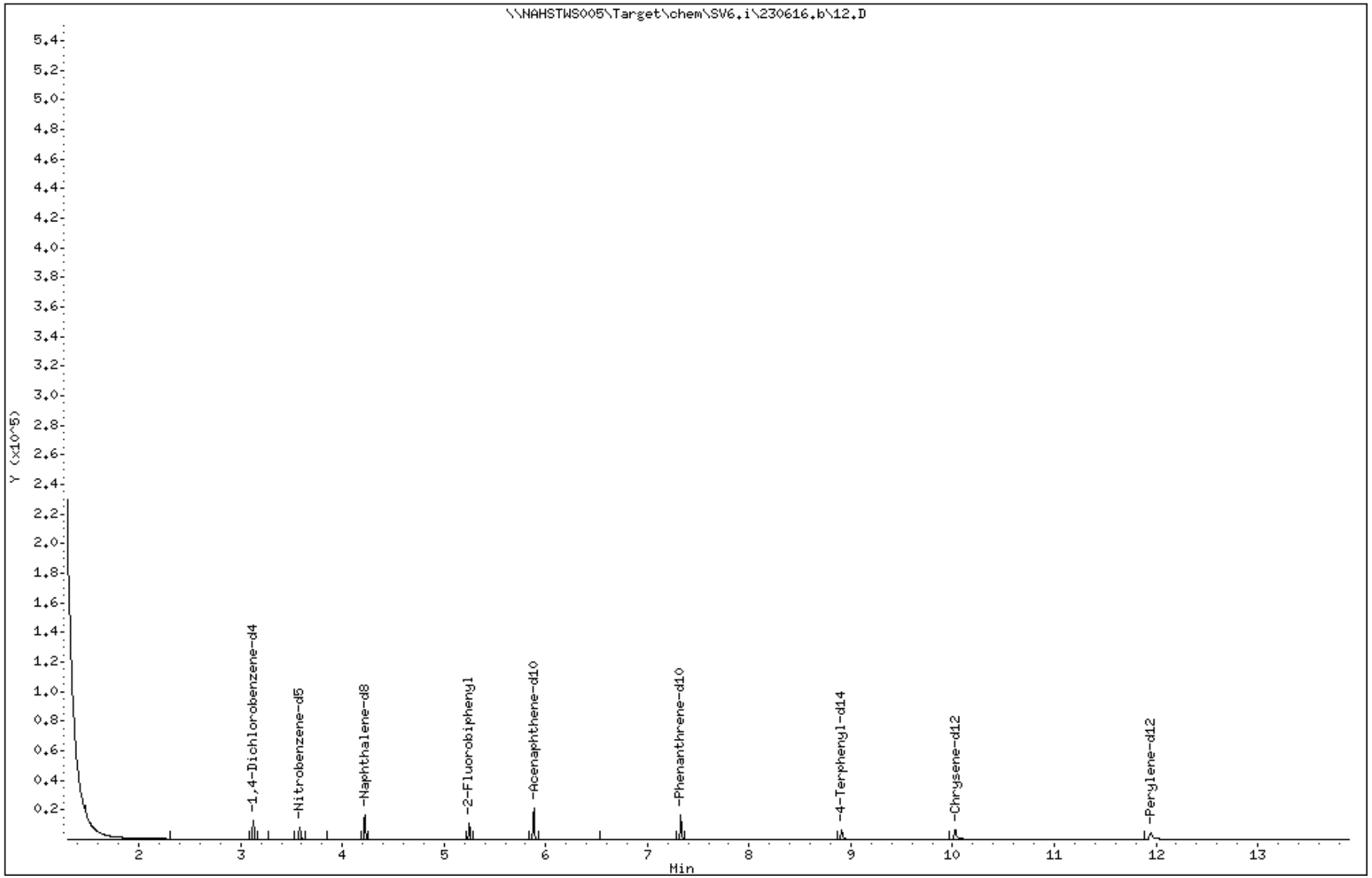
Sample Info: 14DXICAL-0.1

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

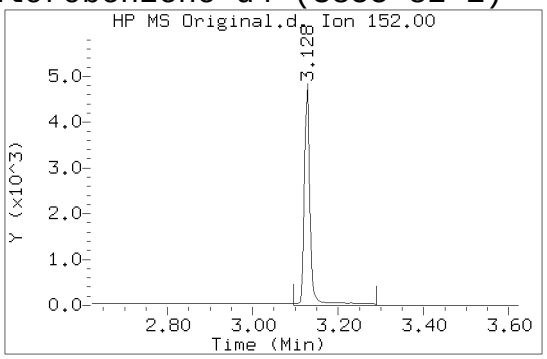


Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

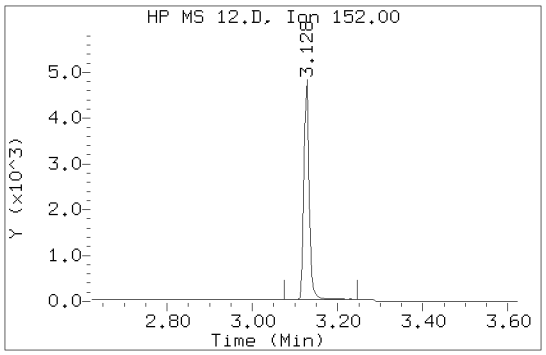
1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

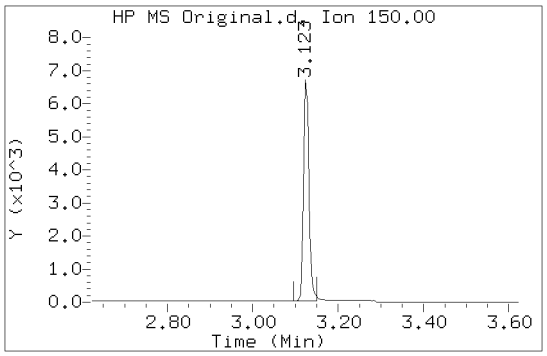
BEFORE
MASS
152
AREA
4570
HEIGHT
4842
16-Jun-2023
14:59
jiayi
lu



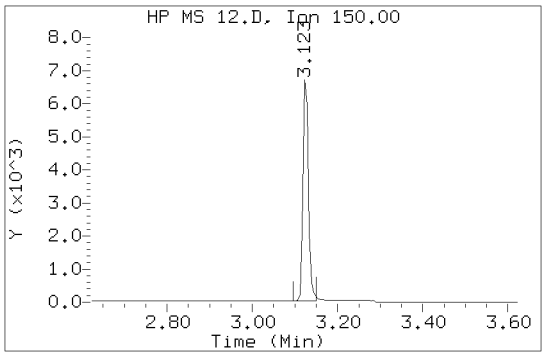
AFTER
MASS
152
AREA
4026
HEIGHT
4796
29-Jun-2023
15:48



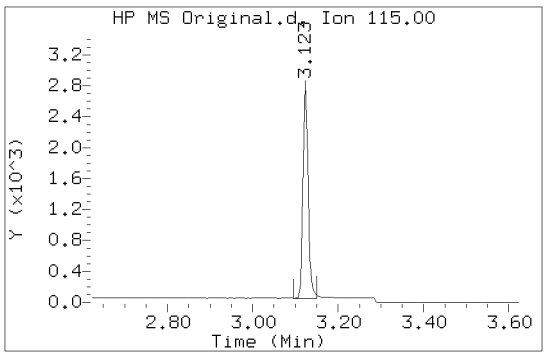
BEFORE
MASS
150
AREA
5752
HEIGHT
6676
16-Jun-2023
14:59
jiayi
lu



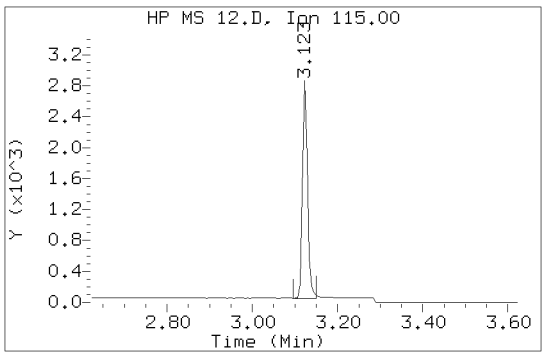
AFTER
MASS
150
AREA
5752
HEIGHT
6676
29-Jun-2023
15:48



BEFORE
MASS
115
AREA
2249
HEIGHT
2814
16-Jun-2023
14:59
jiayi
lu



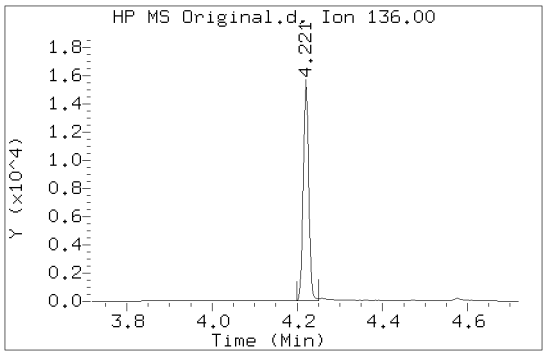
AFTER
MASS
115
AREA
2249
HEIGHT
2814
29-Jun-2023
15:48



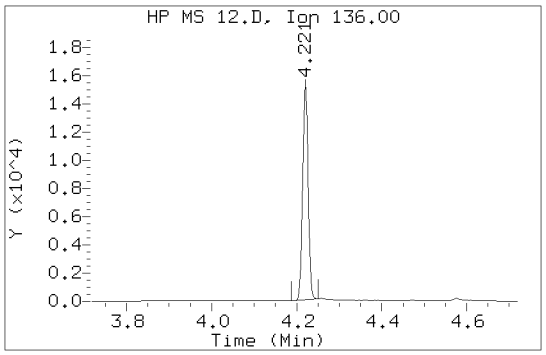
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
136
AREA
13619
HEIGHT
15676
16-Jun-2023
14:59
jiayi
lu



AFTER
MASS
136
AREA
13383
HEIGHT
15614
29-Jun-2023
15:48



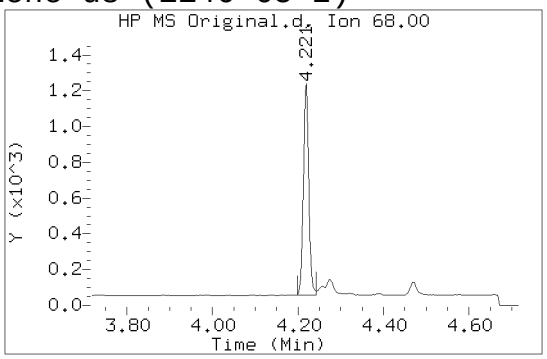
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

Naphthalene-d8 (1146-65-2)

Reason Code:

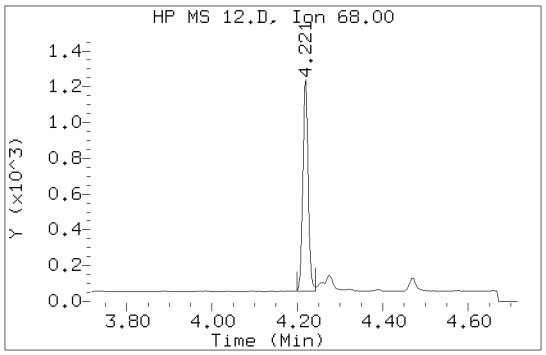
BEFORE

MASS
68
AREA
1062
HEIGHT
1182
16-Jun-2023
14:59
jiayi
lu



AFTER

MASS
68
AREA
1062
HEIGHT
1182
29-Jun-2023
15:48

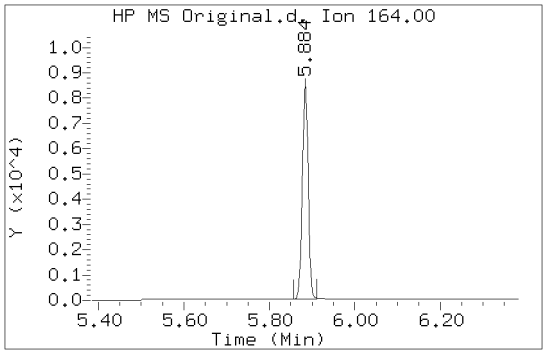


Acenaphthene-d10 (15067-26-2)

Reason Code:

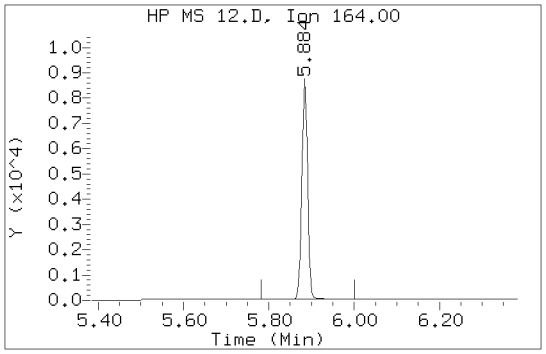
BEFORE

MASS
164
AREA
7893
HEIGHT
8717
16-Jun-2023
14:59
jiayi
lu



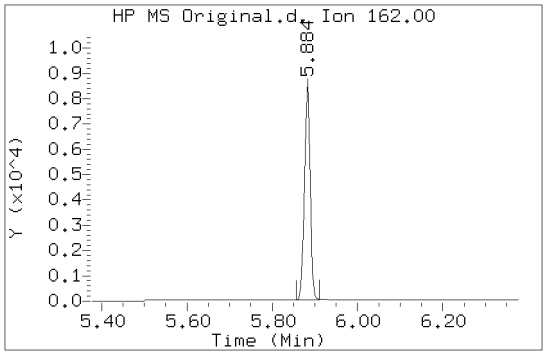
AFTER

MASS
164
AREA
7945
HEIGHT
8719
29-Jun-2023
15:48



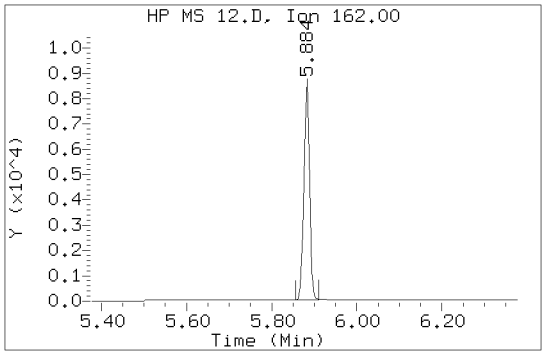
BEFORE

MASS
162
AREA
7978
HEIGHT
8729
16-Jun-2023
14:59
jiayi
lu



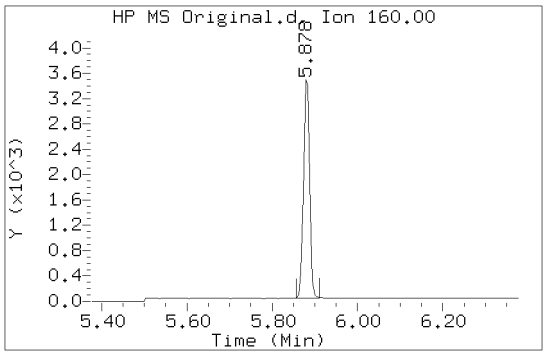
AFTER

MASS
162
AREA
7978
HEIGHT
8729
29-Jun-2023
15:48



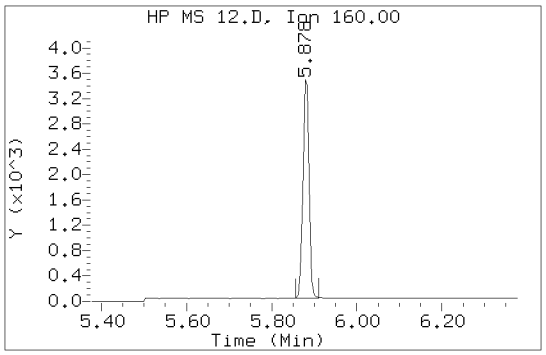
BEFORE

MASS
160
AREA
3420
HEIGHT
3449
16-Jun-2023
14:59
jiayi
lu



AFTER

MASS
160
AREA
3420
HEIGHT
3449
29-Jun-2023
15:48

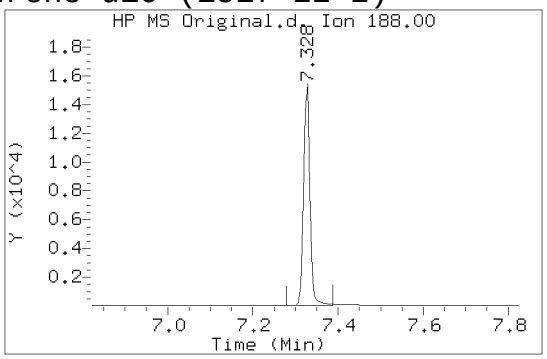


Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

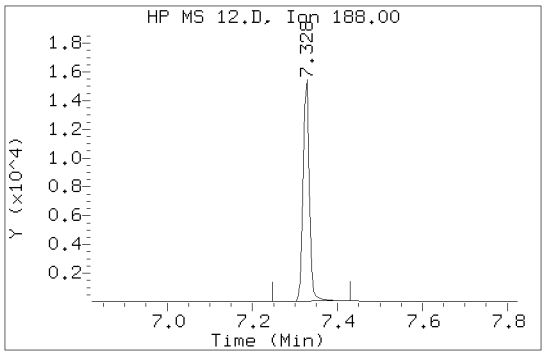
Phenanthrene-d10 (1517-22-2)

Reason Code:

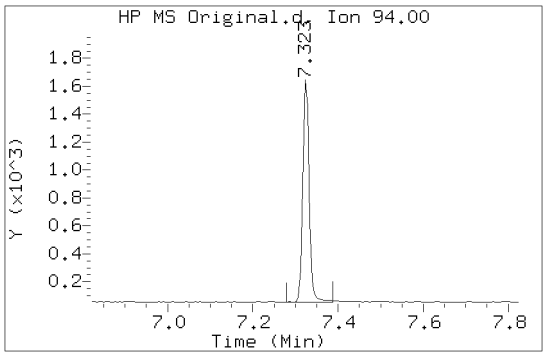
BEFORE
MASS
188
AREA
15580
HEIGHT
15412
16-Jun-2023
14:59
jiayi
lu



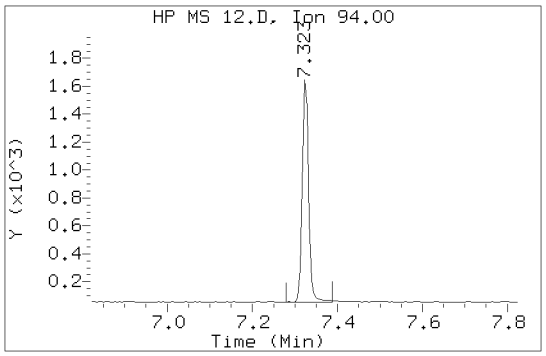
AFTER
MASS
188
AREA
15519
HEIGHT
15398
29-Jun-2023
15:48



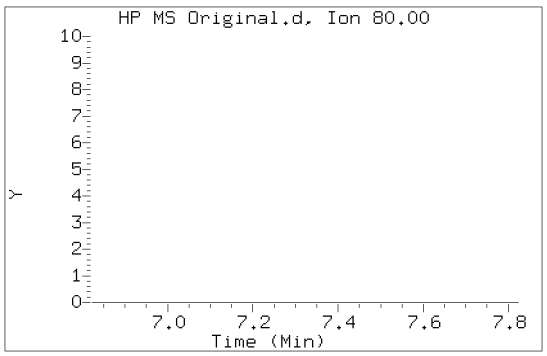
BEFORE
MASS
94
AREA
1615
HEIGHT
1589
16-Jun-2023
14:59
jiayi
lu



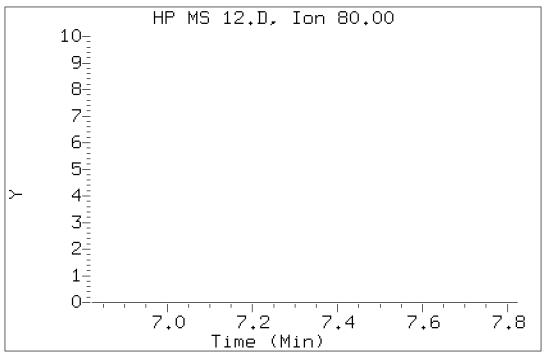
AFTER
MASS
94
AREA
1615
HEIGHT
1589
29-Jun-2023
15:48



BEFORE
MASS
80
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



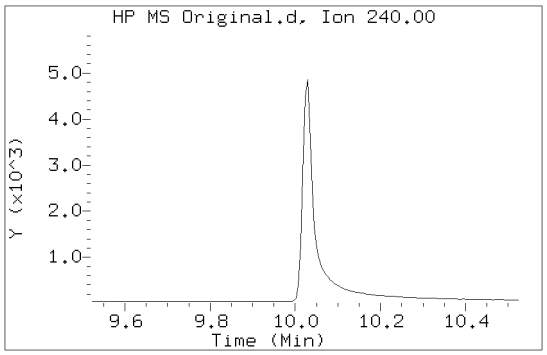
AFTER
MASS
80
AREA
0
HEIGHT
0
29-Jun-2023
15:48



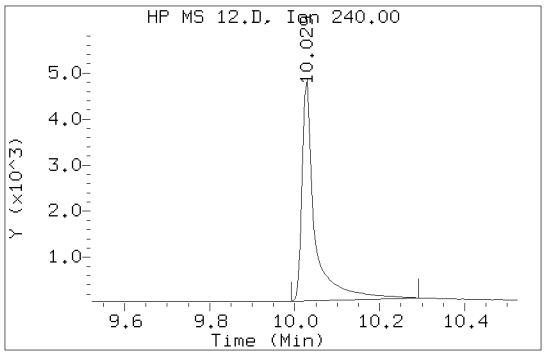
Chrysene-d12 (1719-03-5)

Reason Code:

BEFORE
MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



AFTER
MASS
240
AREA
9988
HEIGHT
4801
29-Jun-2023
15:48



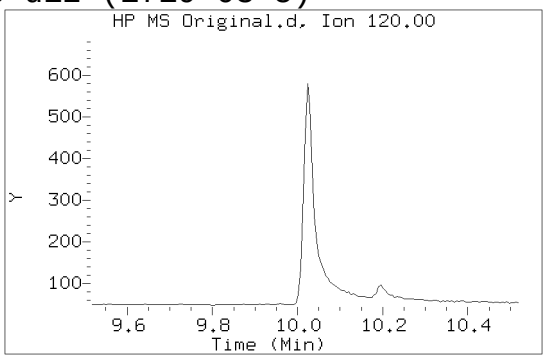
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

Chrysene-d12 (1719-03-5)

Reason Code:

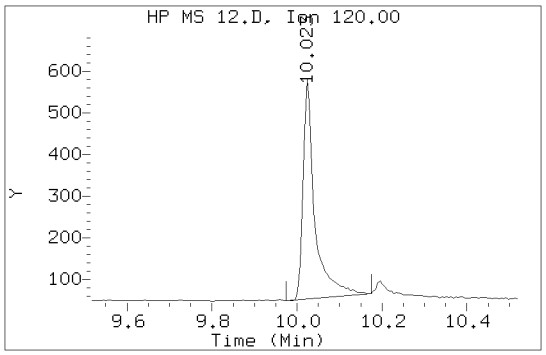
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



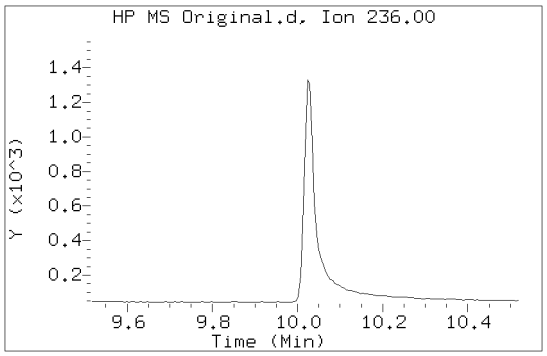
AFTER

MASS
120
AREA
998
HEIGHT
525
29-Jun-2023
15:48



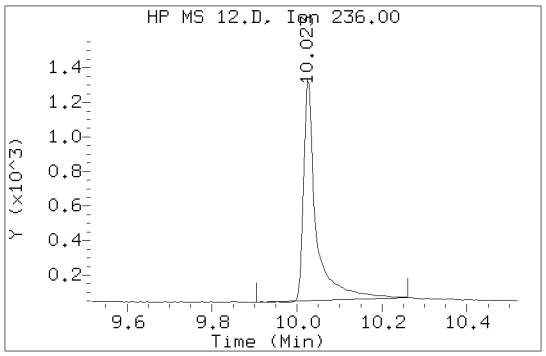
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



AFTER

MASS
236
AREA
2622
HEIGHT
1277
29-Jun-2023
15:48

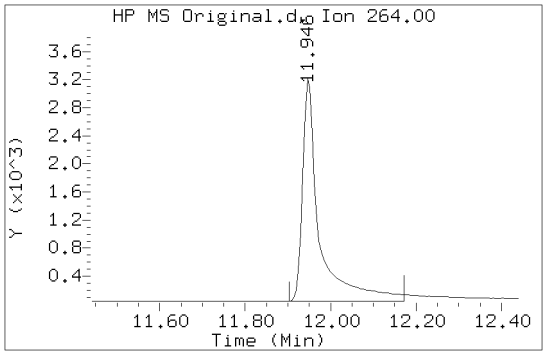


Perylene-d12 (1520-96-3)

Reason Code:

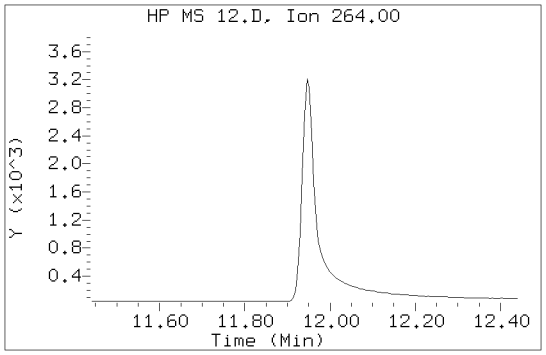
BEFORE

MASS
264
AREA
8613
HEIGHT
3164
16-Jun-2023
14:59
jiayi
lu



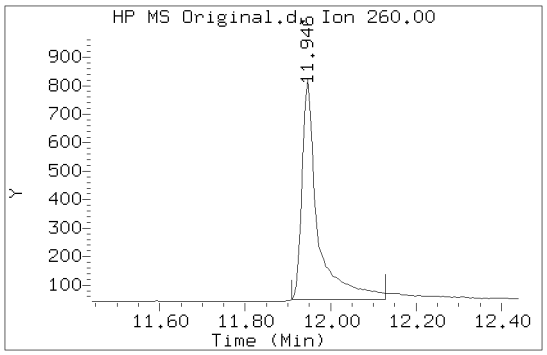
AFTER

MASS
264
AREA
8963
HEIGHT
3161
29-Jun-2023
15:48



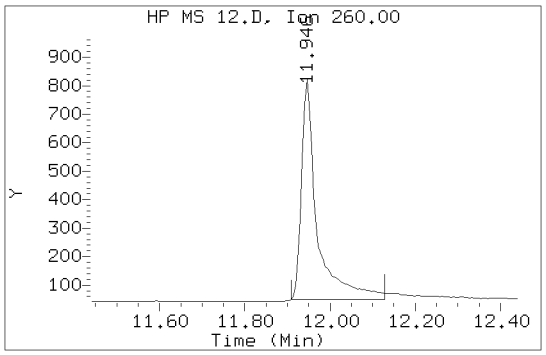
BEFORE

MASS
260
AREA
1977
HEIGHT
772
16-Jun-2023
14:59
jiayi
lu



AFTER

MASS
260
AREA
1977
HEIGHT
772
29-Jun-2023
15:48



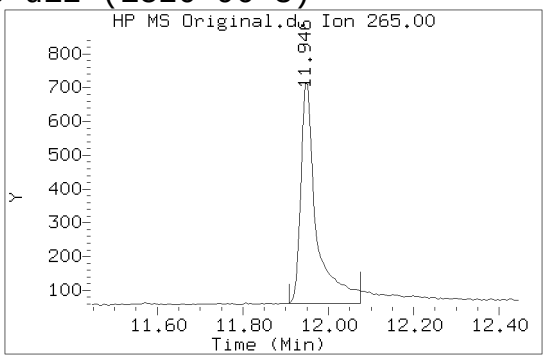
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

Perylene-d12 (1520-96-3)

Reason Code:

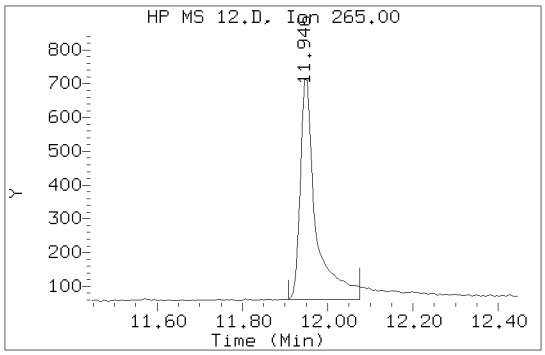
BEFORE

MASS
265
AREA
1666
HEIGHT
651
16-Jun-2023
14:59
jiayi
lu



AFTER

MASS
265
AREA
1666
HEIGHT
651
29-Jun-2023
15:48

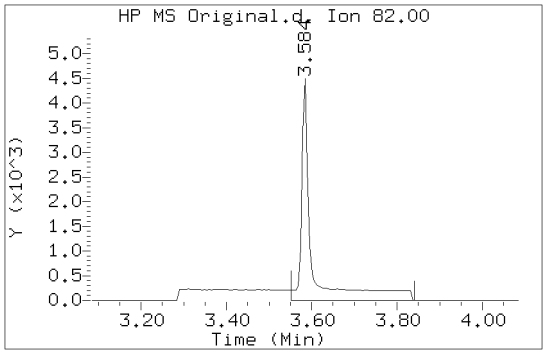


Nitrobenzene-d5 (4165-60-0)

Reason Code:

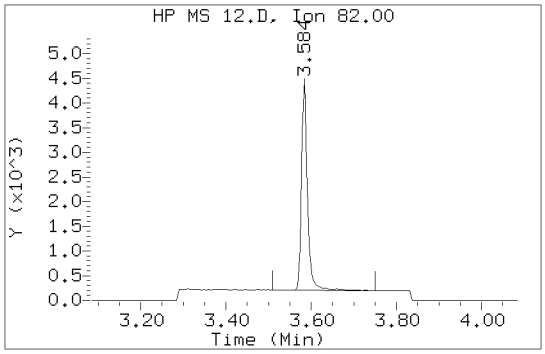
BEFORE

MASS
82
AREA
7524
HEIGHT
4492
16-Jun-2023
14:59
jiayi
lu



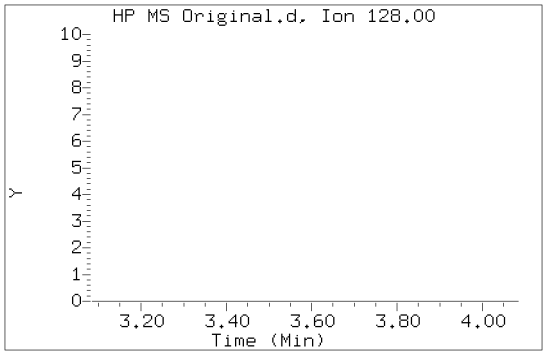
AFTER

MASS
82
AREA
4123
HEIGHT
4285
29-Jun-2023
15:48



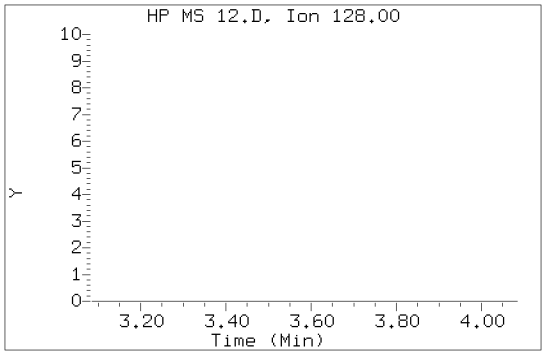
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



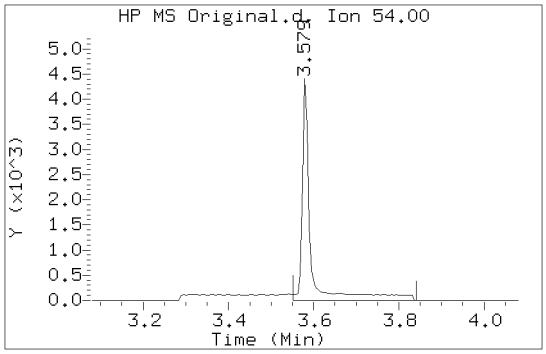
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
15:48



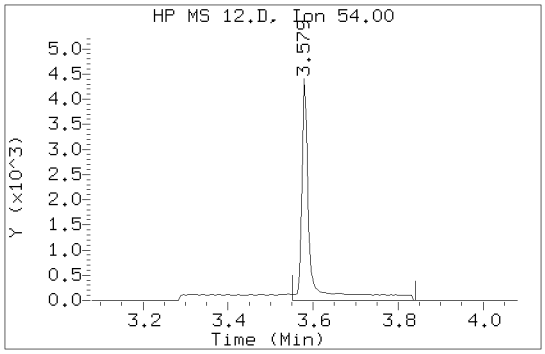
BEFORE

MASS
54
AREA
6015
HEIGHT
4407
16-Jun-2023
14:59
jiayi
lu



AFTER

MASS
54
AREA
6015
HEIGHT
4407
29-Jun-2023
15:48

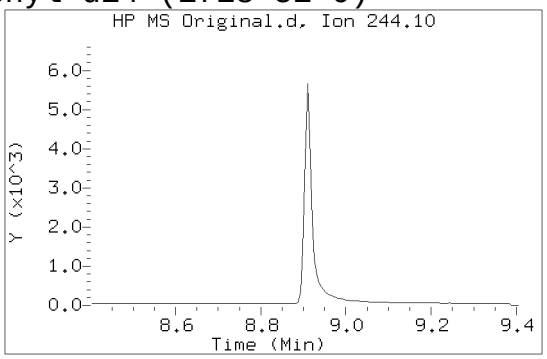


Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

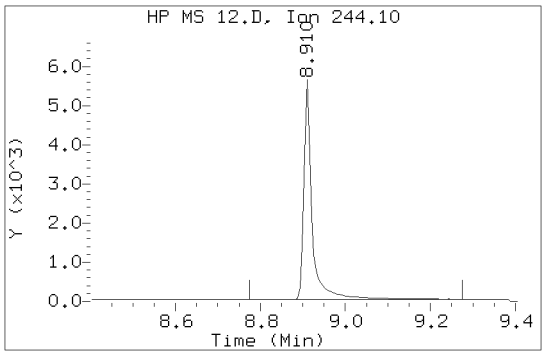
4-Terphenyl-d14 (1718-51-0)

Reason Code:

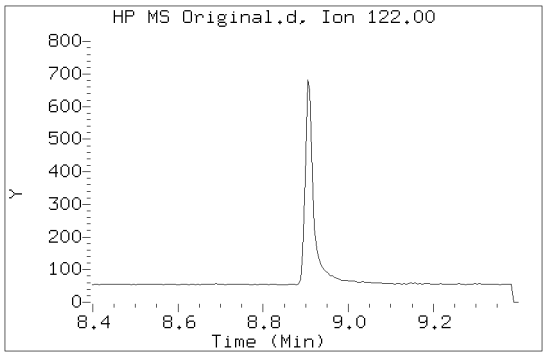
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



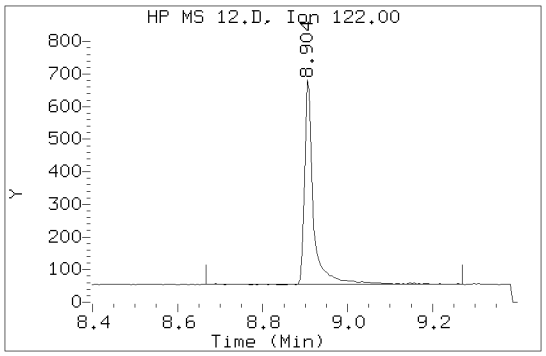
AFTER
MASS
244.1
AREA
7529
HEIGHT
5616
29-Jun-2023
15:48



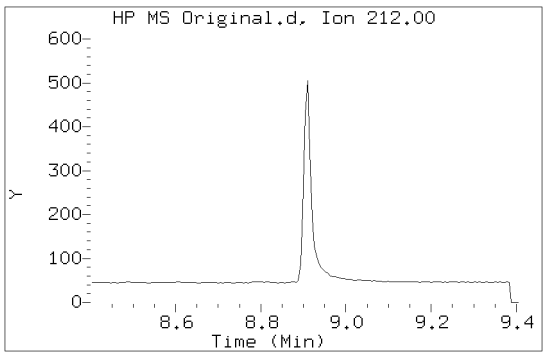
BEFORE
MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



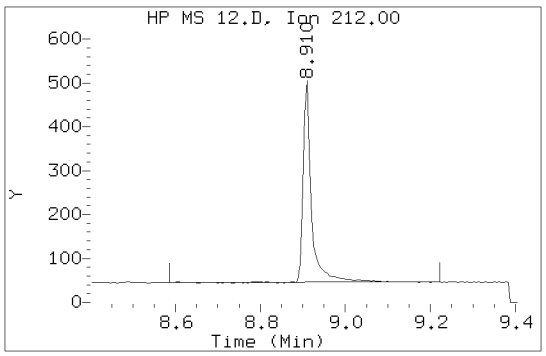
AFTER
MASS
122
AREA
918
HEIGHT
627
29-Jun-2023
15:48



BEFORE
MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
14:59
jiayi
lu



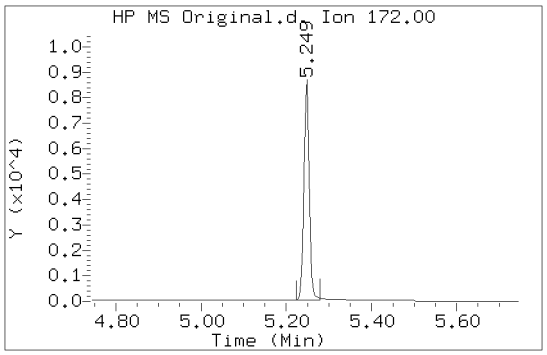
AFTER
MASS
212
AREA
625
HEIGHT
459
29-Jun-2023
15:48



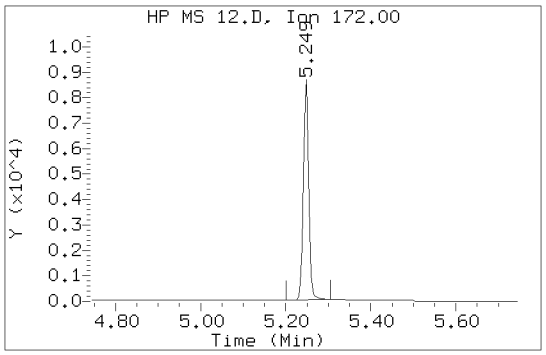
2-Fluorobiphenyl (321-60-8)

Reason Code:

BEFORE
MASS
172
AREA
7733
HEIGHT
8663
16-Jun-2023
14:59
jiayi
lu



AFTER
MASS
172
AREA
7708
HEIGHT
8650
29-Jun-2023
15:48



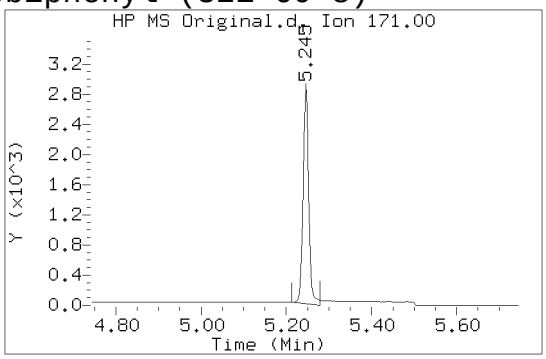
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\12.D
Inj Date : 16-JUN-2023 14:15
InstruID : SV6.i
LabSampID : 14DXICAL-0.1

2-Fluorobiphenyl (321-60-8)

Reason Code:

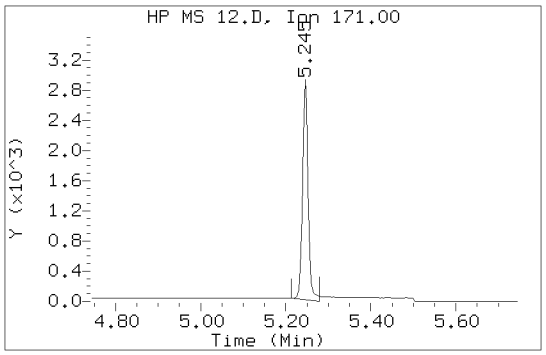
BEFORE

MASS
171
AREA
2685
HEIGHT
2917
16-Jun-2023
14:59
jiayi
lu



AFTER

MASS
171
AREA
2685
HEIGHT
2917
29-Jun-2023
15:48



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Lab Smp Id: 14DXICAL-0.5 Client Smp ID: 14DXICAL-0.5
Inj Date : 16-JUN-2023 14:51
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.5
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 12:38 Cal File: 09.D
Als bottle: 14 Calibration Sample, Level: 8
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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.122	3.122	(1.000)	4165	0.10000	(aM)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	13989	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.579	3.579	(0.848)	19311	0.50000	0.4566(AM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	8414	0.10000	
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	39708	0.50000	0.4608(AM)
* 126 Phenanthrene-d10	188	7.322	7.322	(1.000)	16472	0.10000	(M)
* 182 Chrysene-d12	240	10.017	10.017	(1.000)	10483	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.904	8.904	(0.889)	39805	0.50000	0.5203(AM)
* 198 Perylene-d12	264	11.940	11.940	(1.000)	8460	0.10000	(M)
1 1,4-Dioxane	58	1.452	1.452	(0.465)	6496	0.50000	0.4630(QM)

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.

01206025

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D

Date : 16-JUN-2023 14:51

Client ID: 14DXICAL-0.5

Instrument: SV6.i

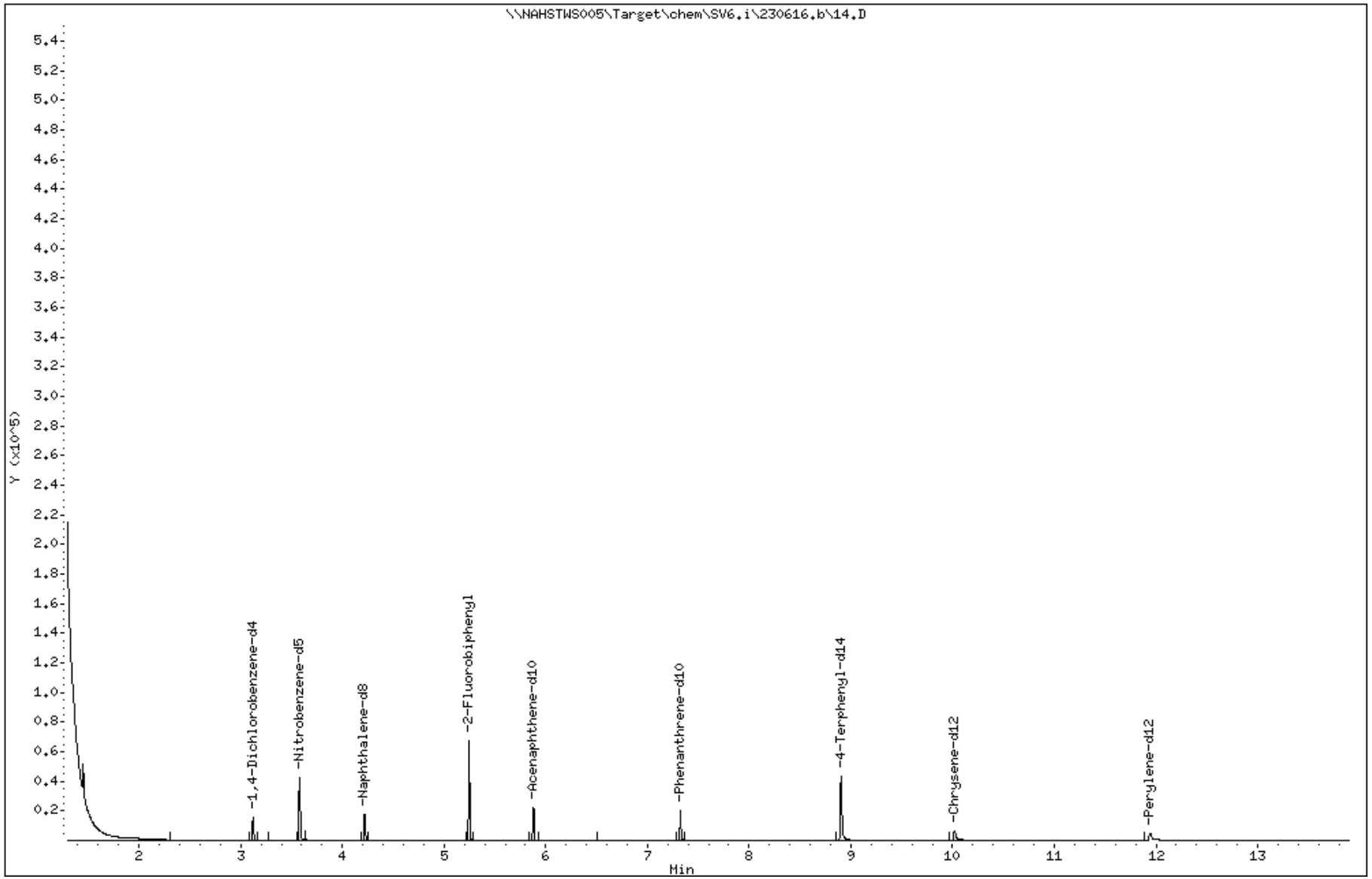
Sample Info: 14DXICAL-0.5

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



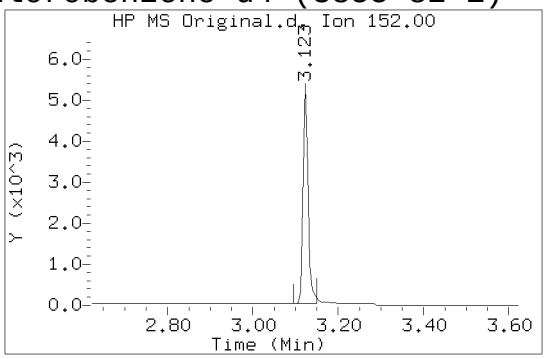
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Inj Date : 16-JUN-2023 14:51
InstruID : SV6.i
LabSampID : 14DXICAL-0.5

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

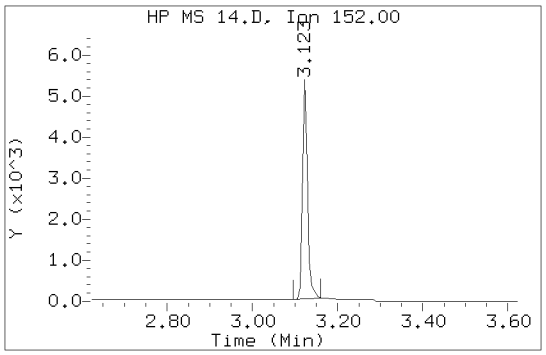
BEFORE

MASS
152
AREA
4211
HEIGHT
5358
16-Jun-2023
15:06
ALSHS
Server



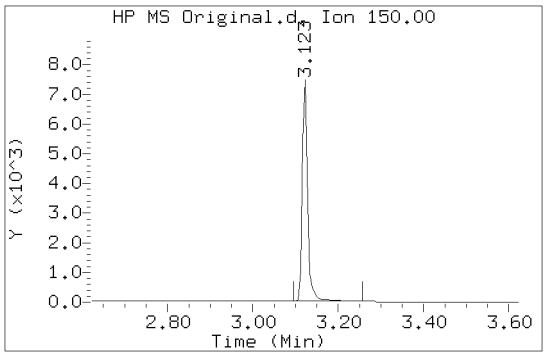
AFTER

MASS
152
AREA
4165
HEIGHT
5341
29-Jun-2023
14:27
ALSHS
Ser



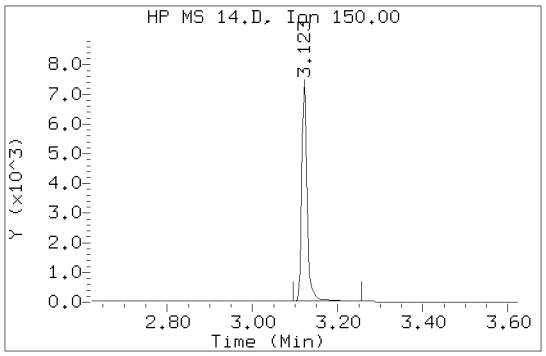
BEFORE

MASS
150
AREA
6228
HEIGHT
7441
16-Jun-2023
15:06
ALSHS
Server



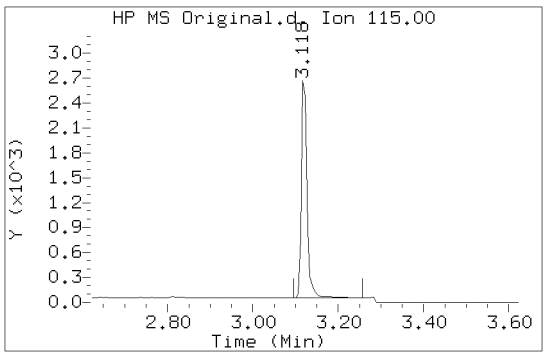
AFTER

MASS
150
AREA
6228
HEIGHT
7441
29-Jun-2023
14:27
ALSHS
Ser



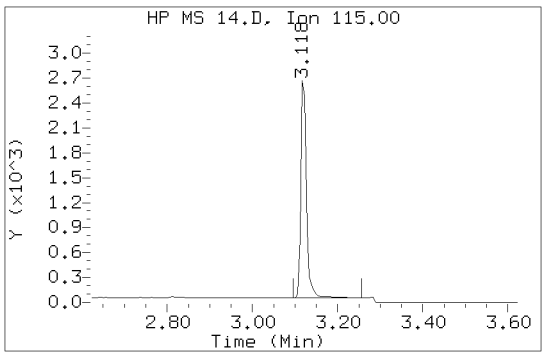
BEFORE

MASS
115
AREA
2367
HEIGHT
2615
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
115
AREA
2367
HEIGHT
2615
29-Jun-2023
14:27
ALSHS
Ser

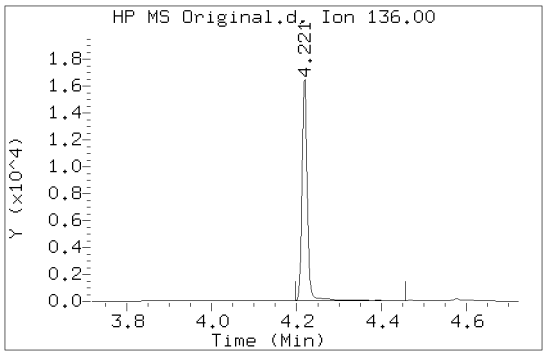


Naphthalene-d8 (1146-65-2)

Reason Code:

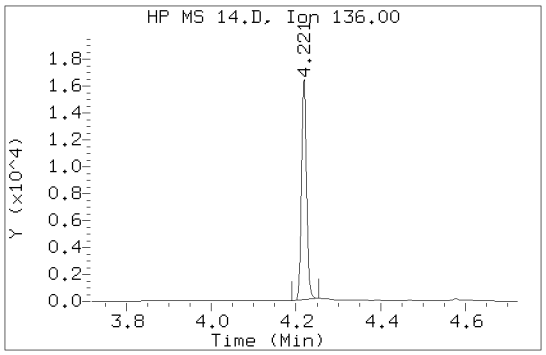
BEFORE

MASS
136
AREA
14856
HEIGHT
16448
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
136
AREA
13989
HEIGHT
16349
29-Jun-2023
14:27
ALSHS
Ser



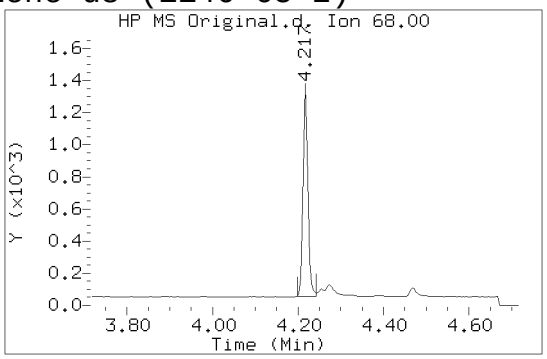
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Inj Date : 16-JUN-2023 14:51
InstruID : SV6.i
LabSampID : 14DXICAL-0.5

Naphthalene-d8 (1146-65-2)

Reason Code:

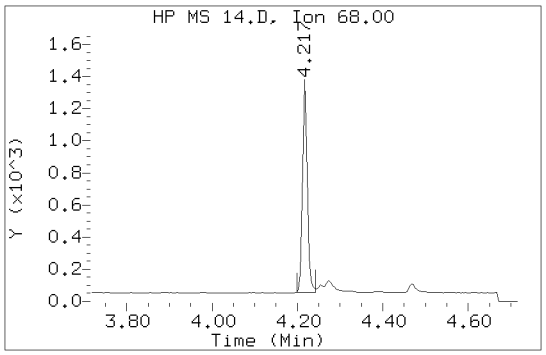
BEFORE

MASS
68
AREA
1074
HEIGHT
1326
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
68
AREA
1074
HEIGHT
1326
29-Jun-2023
14:27
ALSHS
Ser

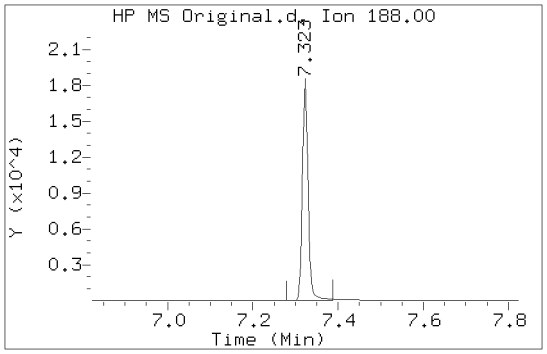


Phenanthrene-d10 (1517-22-2)

Reason Code:

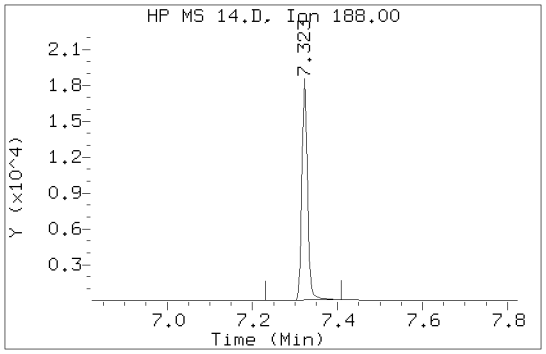
BEFORE

MASS
188
AREA
16664
HEIGHT
18523
16-Jun-2023
15:06
ALSHS
Server



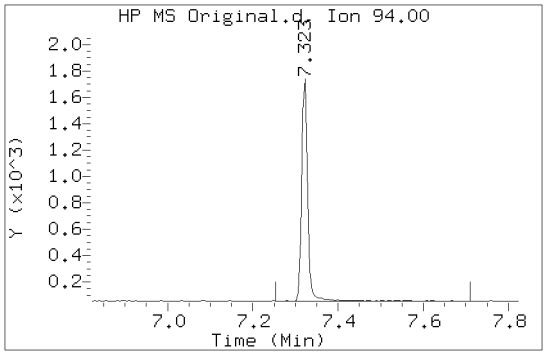
AFTER

MASS
188
AREA
16472
HEIGHT
18498
29-Jun-2023
14:27
ALSHS
Ser



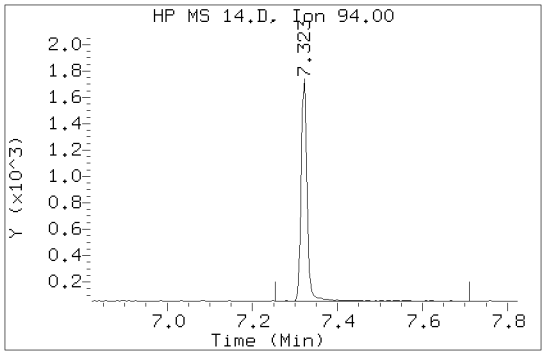
BEFORE

MASS
94
AREA
1634
HEIGHT
1685
16-Jun-2023
15:06
ALSHS
Server



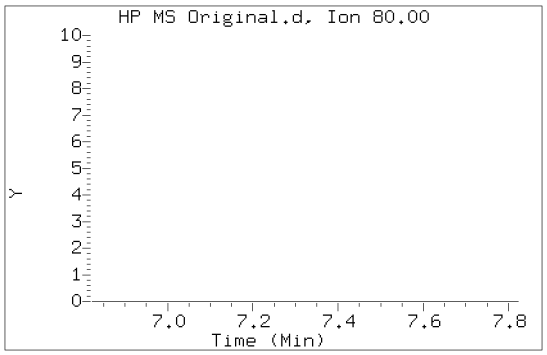
AFTER

MASS
94
AREA
1634
HEIGHT
1685
29-Jun-2023
14:27
ALSHS
Ser



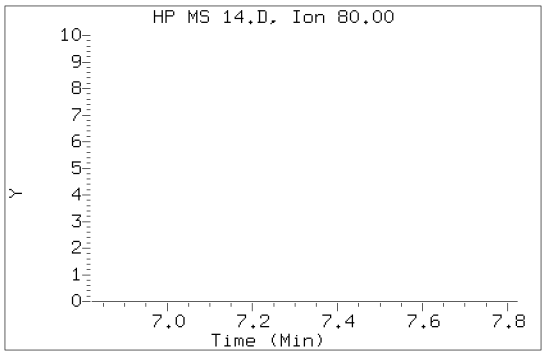
BEFORE

MASS
80
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
29-Jun-2023
14:27
ALSHS
Ser

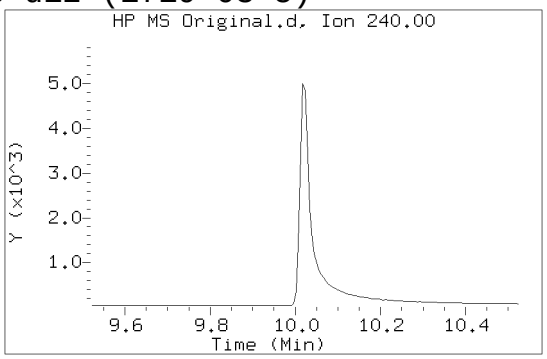


Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Inj Date : 16-JUN-2023 14:51
InstruID : SV6.i
LabSampID : 14DXICAL-0.5

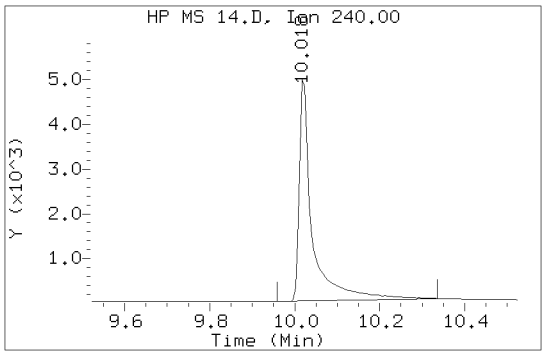
Chrysene-d12 (1719-03-5)

Reason Code:

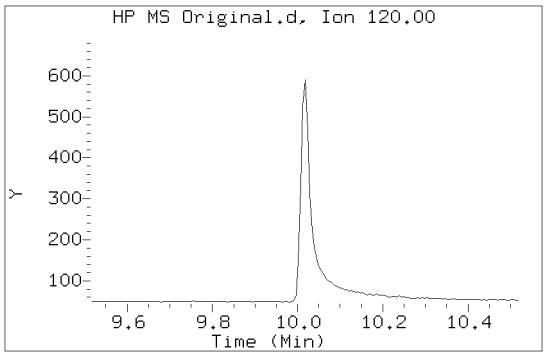
BEFORE
MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



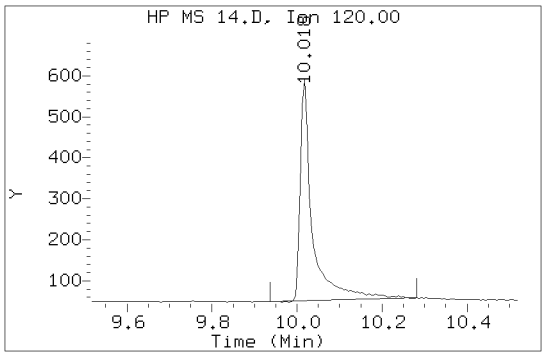
AFTER
MASS
240
AREA
10483
HEIGHT
4943
29-Jun-2023
14:27
ALSHS
Ser



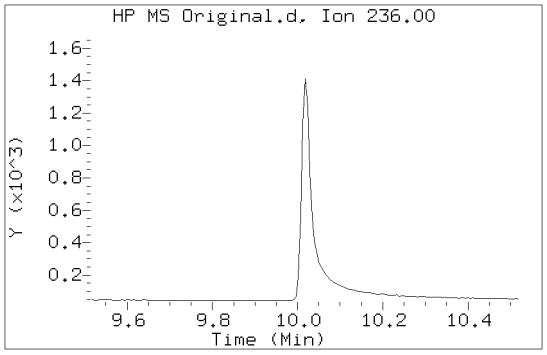
BEFORE
MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



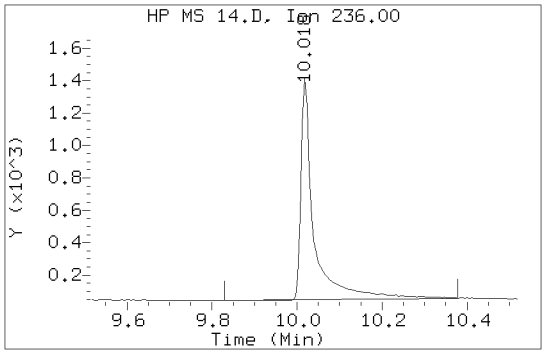
AFTER
MASS
120
AREA
1068
HEIGHT
538
29-Jun-2023
14:27
ALSHS
Ser



BEFORE
MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



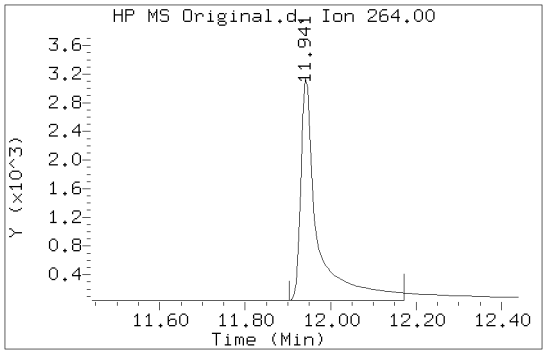
AFTER
MASS
236
AREA
2872
HEIGHT
1362
29-Jun-2023
14:27
ALSHS
Ser



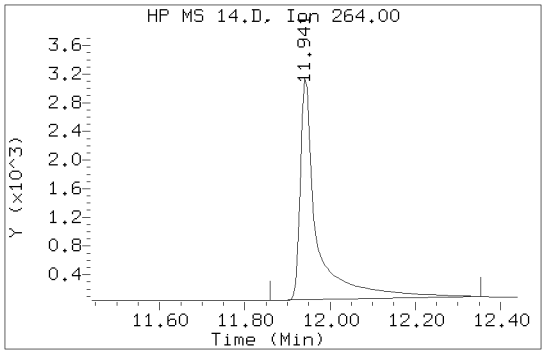
Perylene-d12 (1520-96-3)

Reason Code:

BEFORE
MASS
264
AREA
8406
HEIGHT
3088
16-Jun-2023
15:06
ALSHS
Server



AFTER
MASS
264
AREA
8460
HEIGHT
3081
29-Jun-2023
14:27
ALSHS
Ser



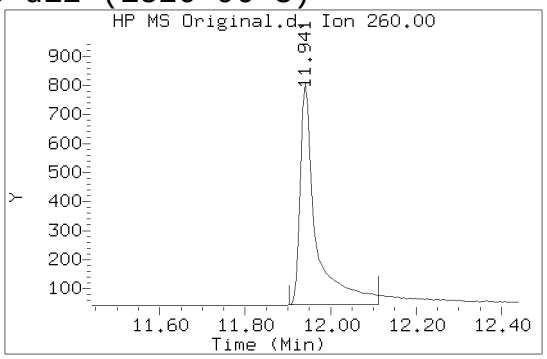
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Inj Date : 16-JUN-2023 14:51
InstruID : SV6.i
LabSampID : 14DXICAL-0.5

Perylene-d12 (1520-96-3)

Reason Code:

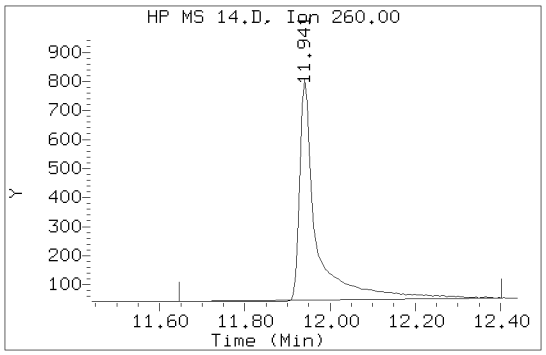
BEFORE

MASS
260
AREA
1950
HEIGHT
761
16-Jun-2023
15:06
ALSHS
Server



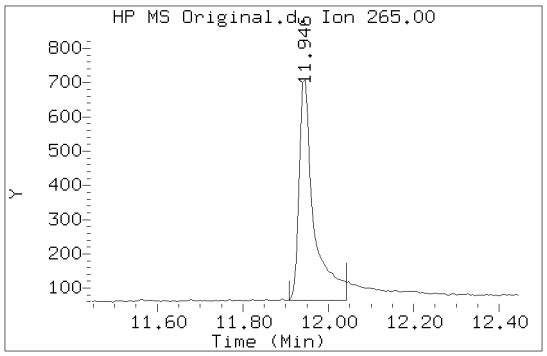
AFTER

MASS
260
AREA
2034
HEIGHT
757
29-Jun-2023
14:27
ALSHS
Ser



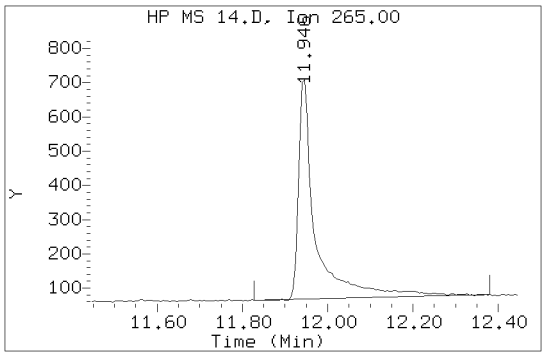
BEFORE

MASS
265
AREA
1539
HEIGHT
643
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
265
AREA
1765
HEIGHT
639
29-Jun-2023
14:27
ALSHS
Ser

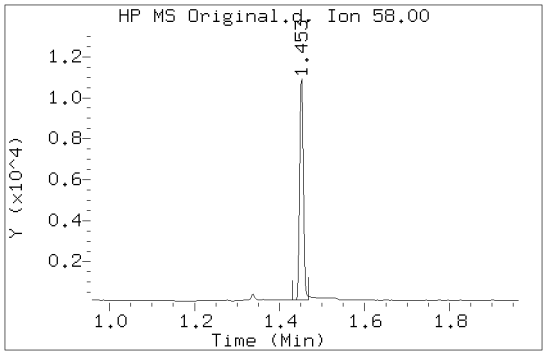


1,4-Dioxane ()

Reason Code:

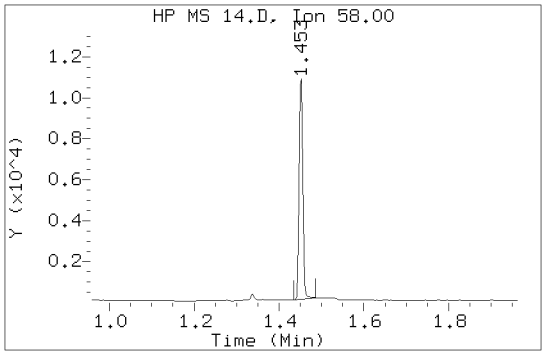
BEFORE

MASS
58
AREA
6535
HEIGHT
10789
16-Jun-2023
15:06
ALSHS
Server



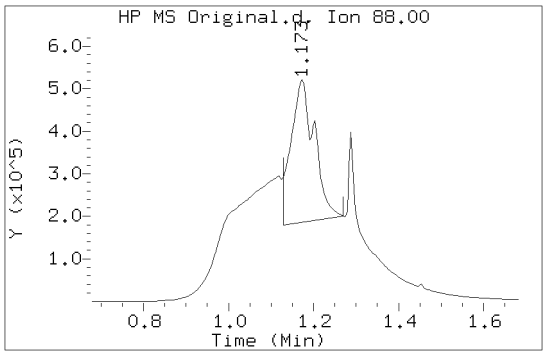
AFTER

MASS
58
AREA
6496
HEIGHT
10751
29-Jun-2023
14:27
ALSHS
Ser



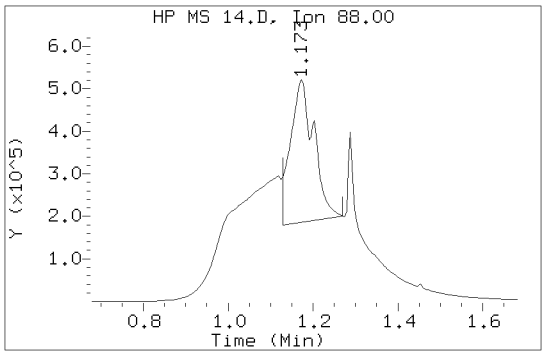
BEFORE

MASS
88
AREA
1285756
HEIGHT
334955
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
88
AREA
1285756
HEIGHT
334955
29-Jun-2023
14:27
ALSHS
Ser



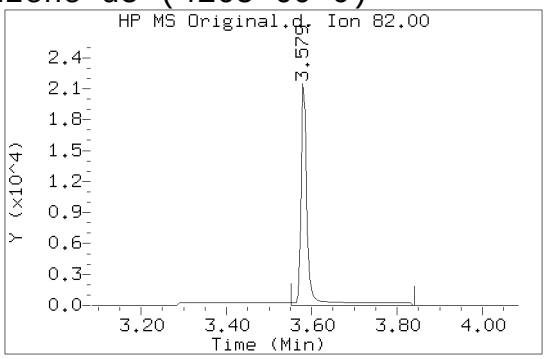
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Inj Date : 16-JUN-2023 14:51
InstruID : SV6.i
LabSampID : 14DXICAL-0.5

Nitrobenzene-d5 (4165-60-0)

Reason Code:

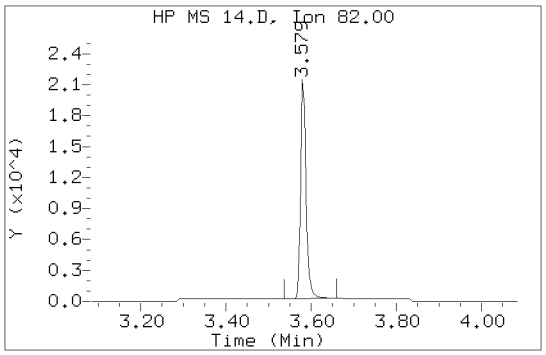
BEFORE

MASS
82
AREA
23560
HEIGHT
21488
16-Jun-2023
15:06
ALSHS
Server



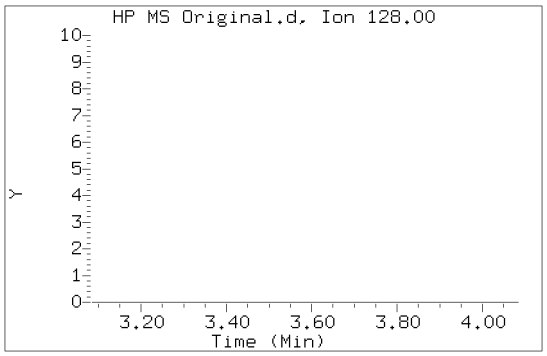
AFTER

MASS
82
AREA
19311
HEIGHT
21230
29-Jun-2023
14:27
ALSHS
Ser



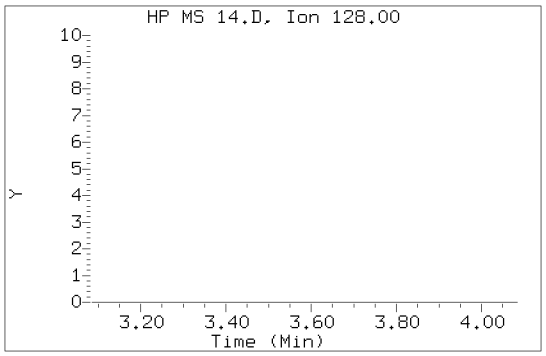
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



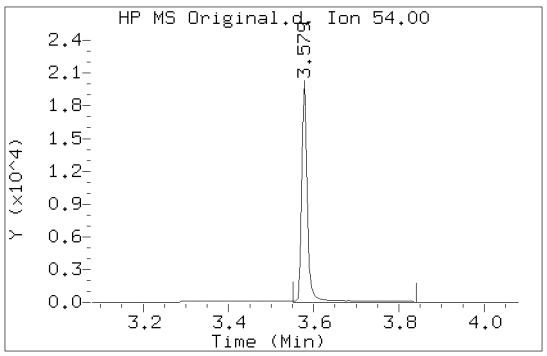
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:27
ALSHS
Ser



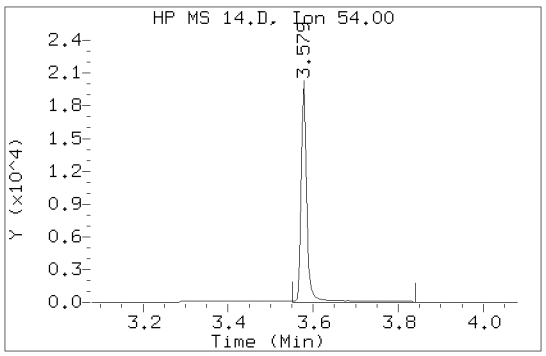
BEFORE

MASS
54
AREA
20065
HEIGHT
20304
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
54
AREA
20065
HEIGHT
20304
29-Jun-2023
14:27
ALSHS
Ser

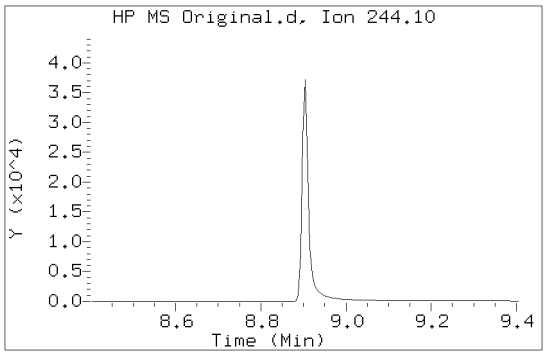


4-Terphenyl-d14 (1718-51-0)

Reason Code:

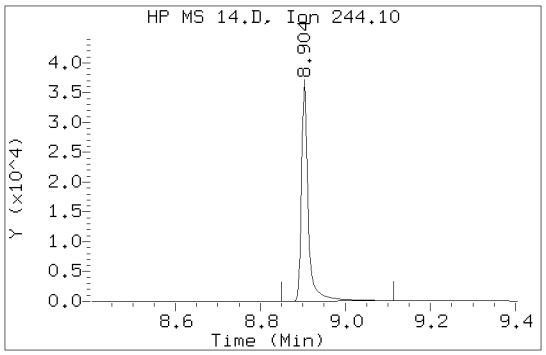
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
244.1
AREA
39805
HEIGHT
37107
29-Jun-2023
14:27
ALSHS
Ser



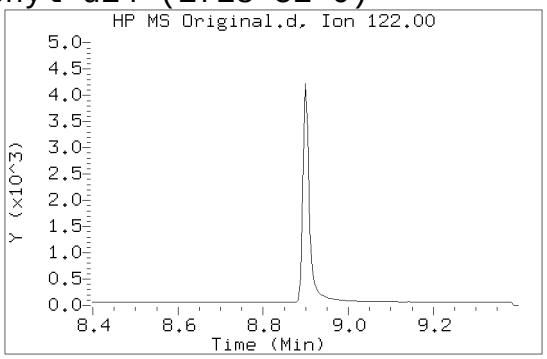
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\14.D
Inj Date : 16-JUN-2023 14:51
InstruID : SV6.i
LabSampID : 14DXICAL-0.5

4-Terphenyl-d14 (1718-51-0)

Reason Code:

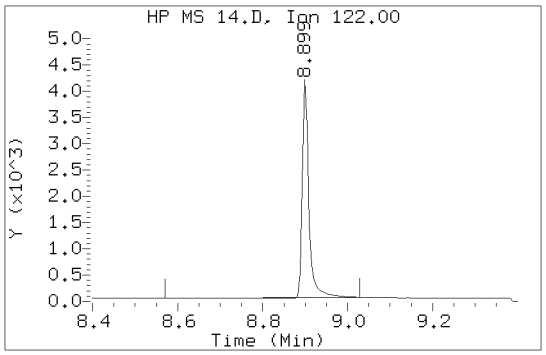
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



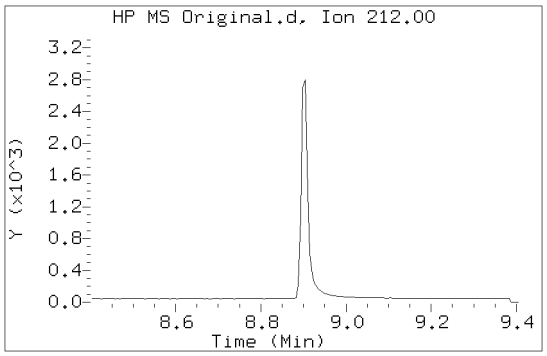
AFTER

MASS
122
AREA
4228
HEIGHT
4149
29-Jun-2023
14:27
ALSHS
Ser



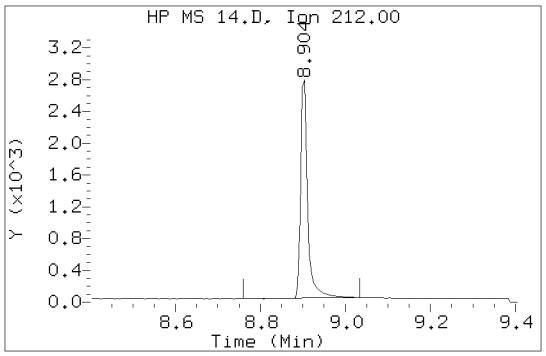
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
212
AREA
3105
HEIGHT
2745
29-Jun-2023
14:27
ALSHS
Ser

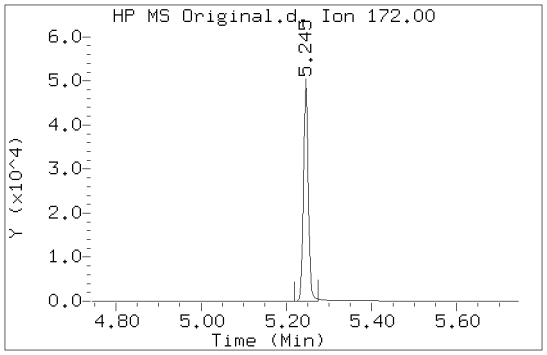


2-Fluorobiphenyl (321-60-8)

Reason Code:

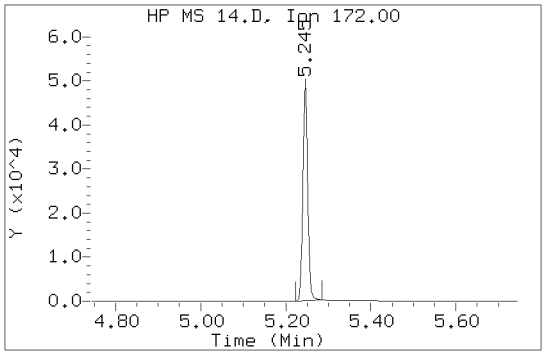
BEFORE

MASS
172
AREA
40002
HEIGHT
50410
16-Jun-2023
15:06
ALSHS
Server



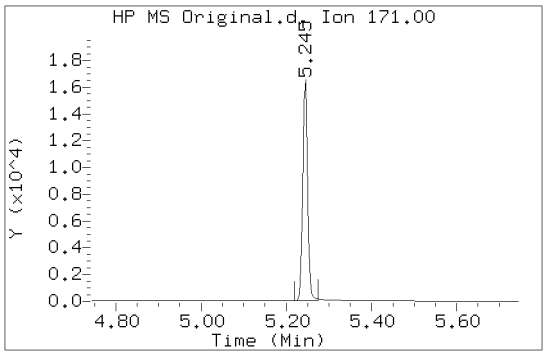
AFTER

MASS
172
AREA
39708
HEIGHT
50322
29-Jun-2023
14:27
ALSHS
Ser



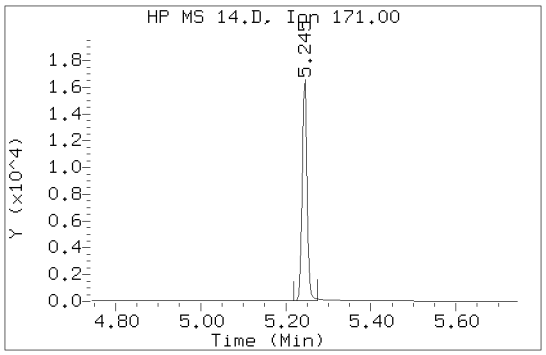
BEFORE

MASS
171
AREA
13389
HEIGHT
16514
16-Jun-2023
15:06
ALSHS
Server



AFTER

MASS
171
AREA
13389
HEIGHT
16514
29-Jun-2023
14:27
ALSHS
Ser



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D
Lab Smp Id: 14DXICAL-0.2 Client Smp ID: 14DXICAL-0.2
Inj Date : 16-JUN-2023 15:56
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICAL-0.2RR
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 14:51 Cal File: 14.D
Als bottle: 15 Calibration Sample, Level: 7
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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	3.122	3.122	(1.000)	3731	0.10000	(aM)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	12688	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	8839	0.20000	0.2304(AM)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	7256	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.245	5.245	(0.891)	18173	0.20000	0.2446(AM)
* 126 Phenanthrene-d10	188	7.322	7.322	(1.000)	14346	0.10000	
* 182 Chrysene-d12	240	10.023	10.023	(1.000)	8796	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.904	8.904	(0.888)	17639	0.20000	0.2748(AM)
* 198 Perylene-d12	264	11.940	11.940	(1.000)	6565	0.10000	(M)
1 1,4-Dioxane	58	1.460	1.460	(0.468)	2996	0.20000	0.2384(Q)

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.

01206034

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D

Date : 16-JUN-2023 15:56

Client ID: 14DXICAL-0.2

Instrument: SV6.i

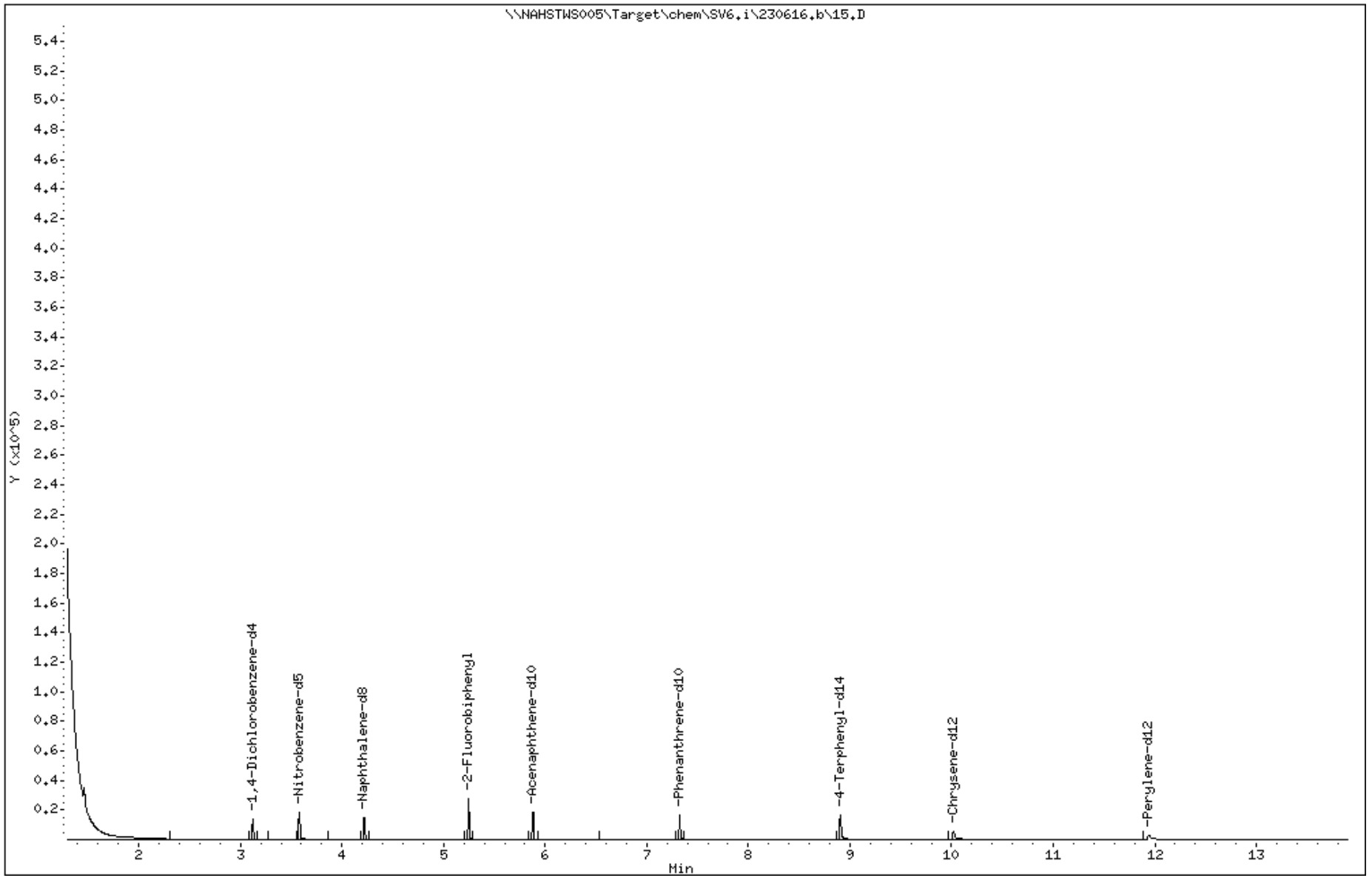
Sample Info: 14DXICAL-0.2RR

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



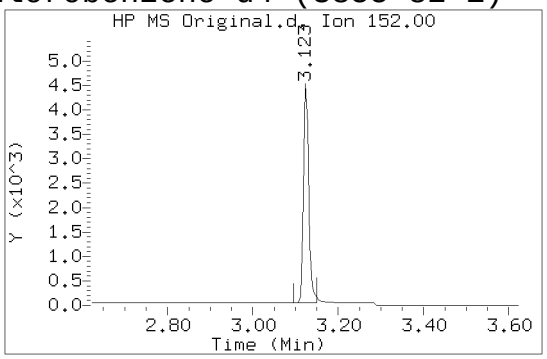
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D
Inj Date : 16-JUN-2023 15:56
InstruID : SV6.i
LabSampID : 14DXICAL-0.2

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

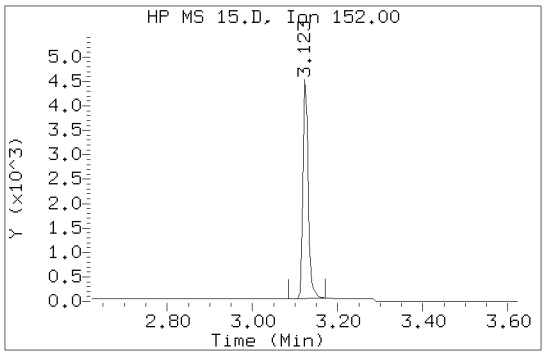
BEFORE

MASS
152
AREA
3749
HEIGHT
4489
16-Jun-2023
16:11
ALSHS
Server



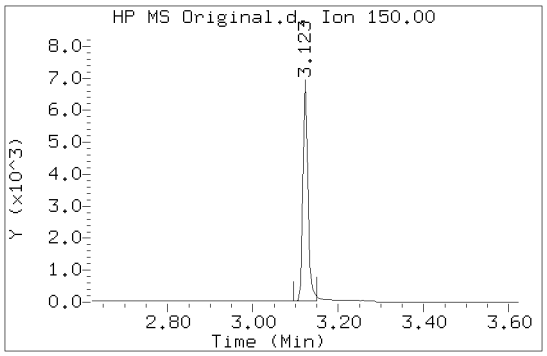
AFTER

MASS
152
AREA
3731
HEIGHT
4478
29-Jun-2023
14:27
ALSHS
Ser



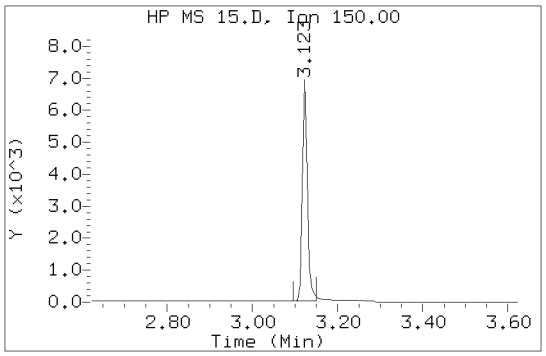
BEFORE

MASS
150
AREA
5426
HEIGHT
6903
16-Jun-2023
16:11
ALSHS
Server



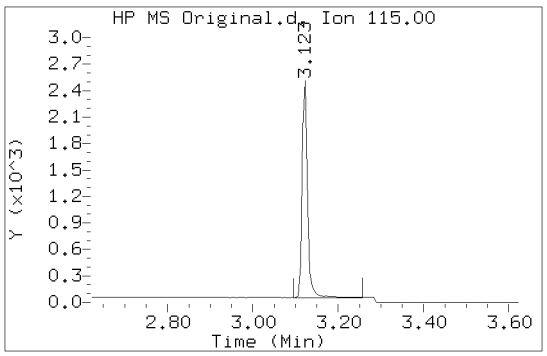
AFTER

MASS
150
AREA
5426
HEIGHT
6903
29-Jun-2023
14:27
ALSHS
Ser



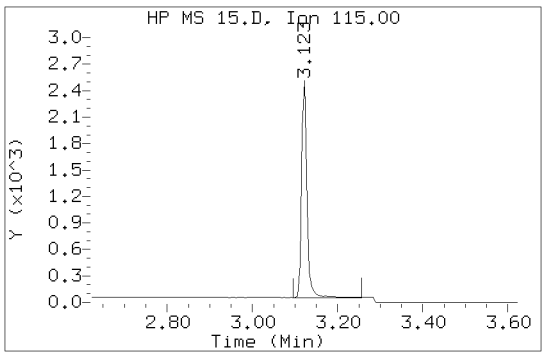
BEFORE

MASS
115
AREA
2094
HEIGHT
2459
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
115
AREA
2094
HEIGHT
2459
29-Jun-2023
14:27
ALSHS
Ser

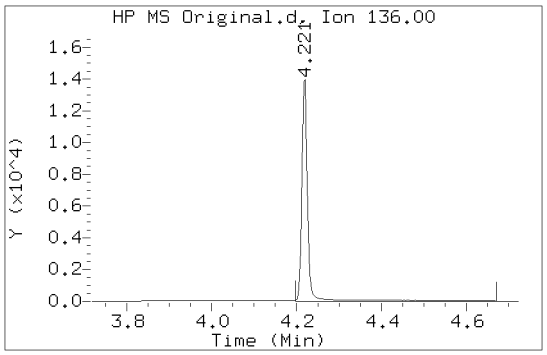


Naphthalene-d8 (1146-65-2)

Reason Code:

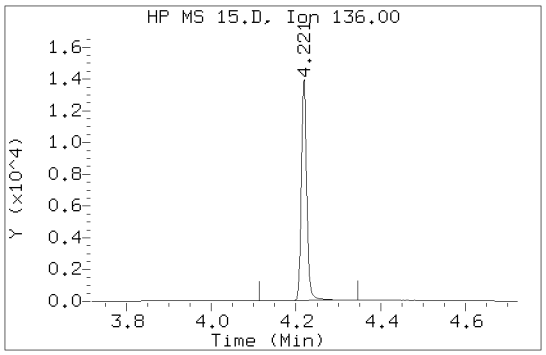
BEFORE

MASS
136
AREA
14465
HEIGHT
13959
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
136
AREA
12688
HEIGHT
13897
29-Jun-2023
14:27
ALSHS
Ser



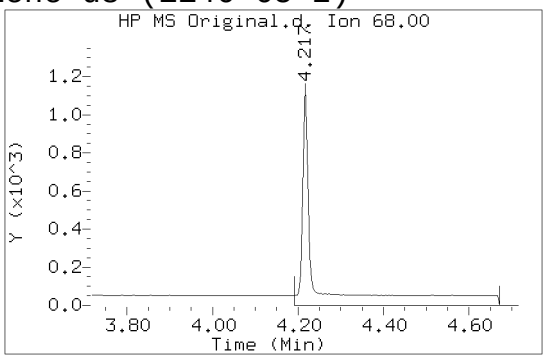
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D
Inj Date : 16-JUN-2023 15:56
InstruID : SV6.i
LabSampID : 14DXICAL-0.2

Naphthalene-d8 (1146-65-2)

Reason Code:

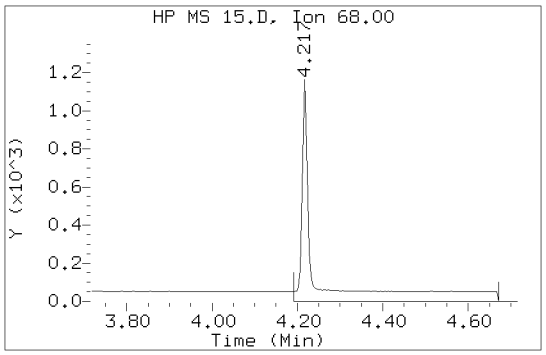
BEFORE

MASS
68
AREA
2461
HEIGHT
1163
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
68
AREA
2461
HEIGHT
1163
29-Jun-2023
14:27
ALSHS
Ser

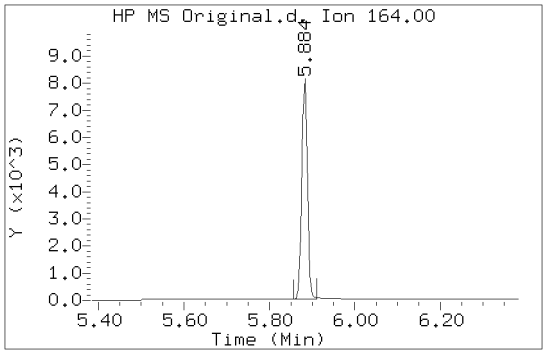


Acenaphthene-d10 (15067-26-2)

Reason Code:

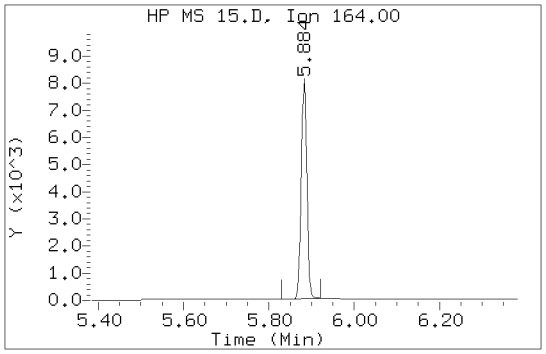
BEFORE

MASS
164
AREA
7305
HEIGHT
8114
16-Jun-2023
16:11
ALSHS
Server



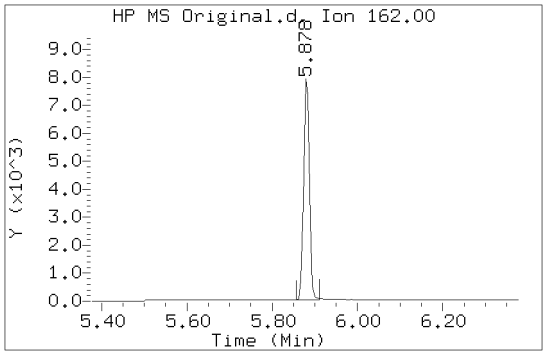
AFTER

MASS
164
AREA
7256
HEIGHT
8100
29-Jun-2023
14:27
ALSHS
Ser



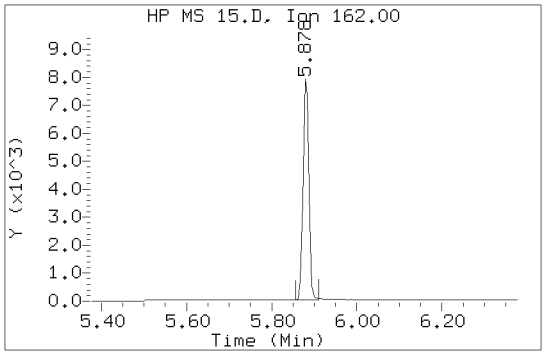
BEFORE

MASS
162
AREA
7389
HEIGHT
7893
16-Jun-2023
16:11
ALSHS
Server



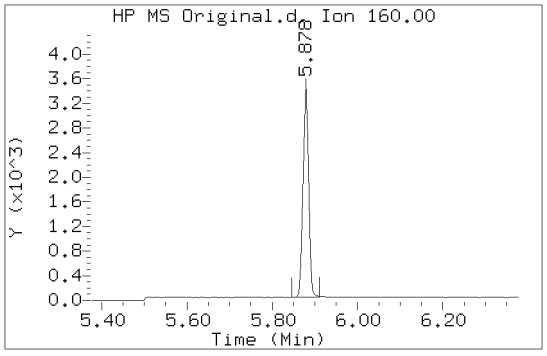
AFTER

MASS
162
AREA
7389
HEIGHT
7893
29-Jun-2023
14:27
ALSHS
Ser



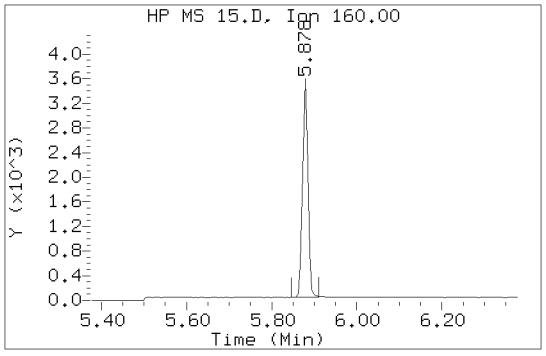
BEFORE

MASS
160
AREA
3110
HEIGHT
3554
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
160
AREA
3110
HEIGHT
3554
29-Jun-2023
14:27
ALSHS
Ser



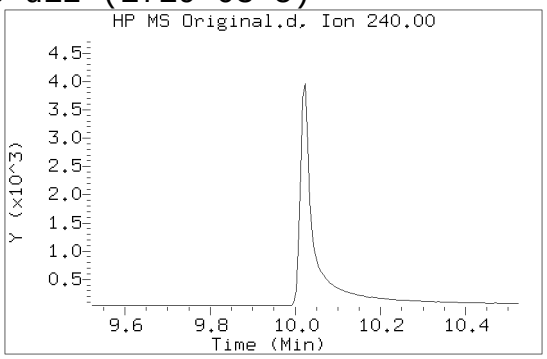
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D
Inj Date : 16-JUN-2023 15:56
InstruID : SV6.i
LabSampID : 14DXICAL-0.2

Chrysene-d12 (1719-03-5)

Reason Code:

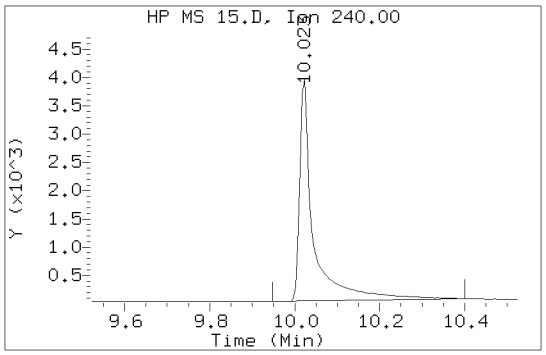
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



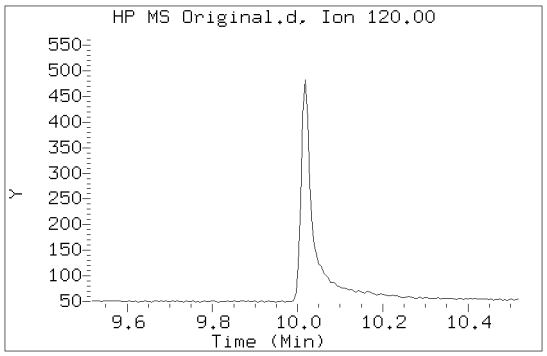
AFTER

MASS
240
AREA
8796
HEIGHT
3907
29-Jun-2023
14:27
ALSHS
Ser



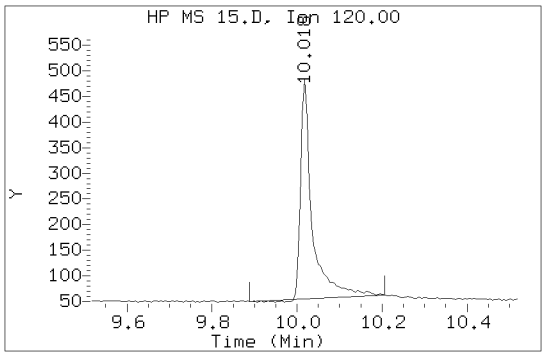
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



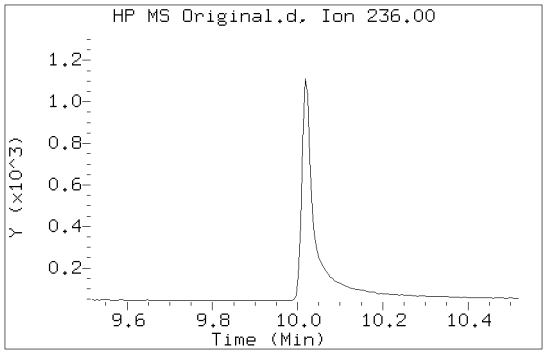
AFTER

MASS
120
AREA
798
HEIGHT
426
29-Jun-2023
14:27
ALSHS
Ser



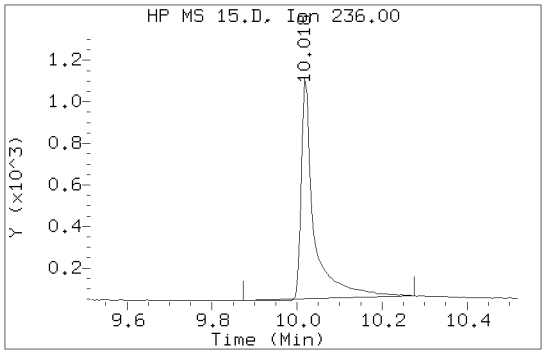
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
236
AREA
2198
HEIGHT
1058
29-Jun-2023
14:27
ALSHS
Ser

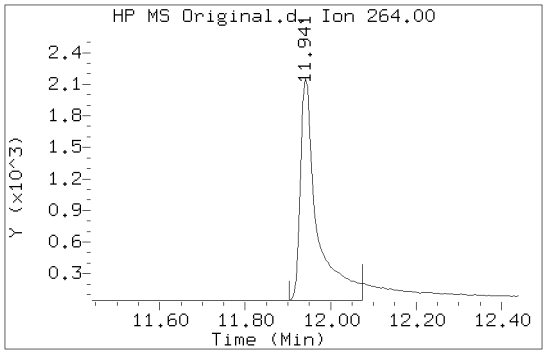


Perylene-d12 (1520-96-3)

Reason Code:

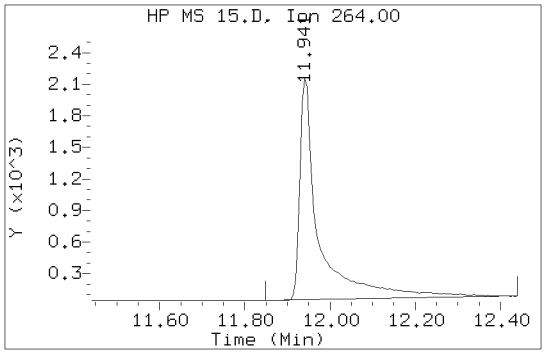
BEFORE

MASS
264
AREA
5713
HEIGHT
2106
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
264
AREA
6565
HEIGHT
2100
29-Jun-2023
14:27
ALSHS
Ser



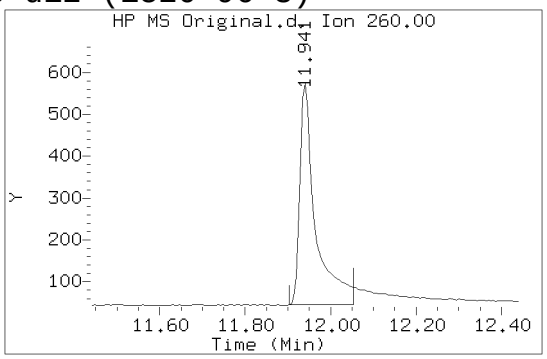
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D
Inj Date : 16-JUN-2023 15:56
InstruID : SV6.i
LabSampID : 14DXICAL-0.2

Perylene-d12 (1520-96-3)

Reason Code:

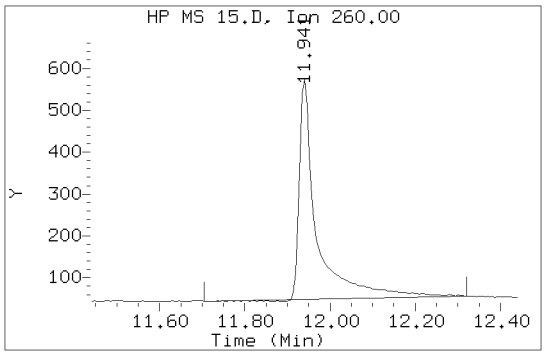
BEFORE

MASS
260
AREA
1348
HEIGHT
528
16-Jun-2023
16:11
ALSHS
Server



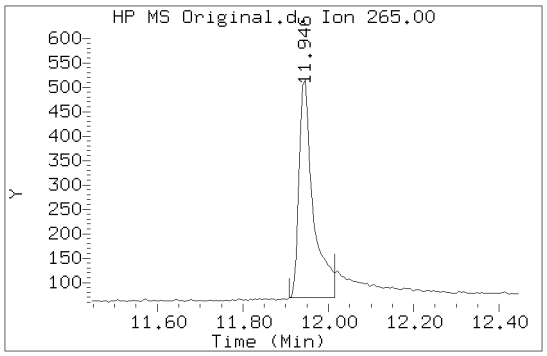
AFTER

MASS
260
AREA
1491
HEIGHT
524
29-Jun-2023
14:27
ALSHS
Ser



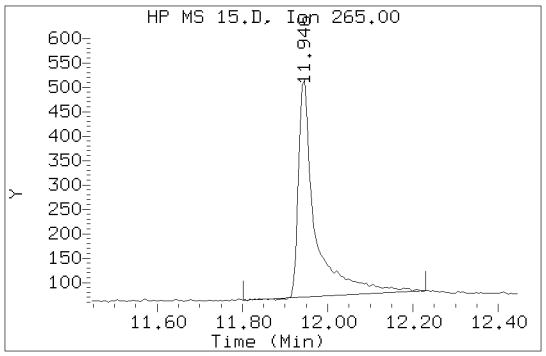
BEFORE

MASS
265
AREA
1037
HEIGHT
446
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
265
AREA
1210
HEIGHT
444
29-Jun-2023
14:27
ALSHS
Ser

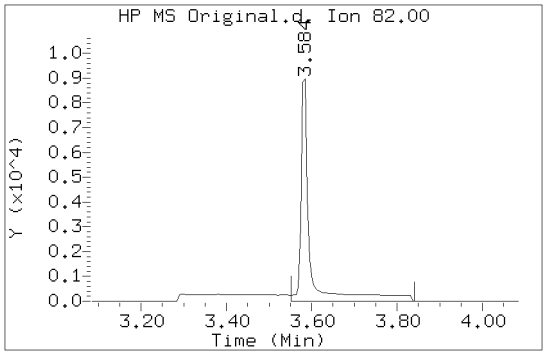


Nitrobenzene-d5 (4165-60-0)

Reason Code:

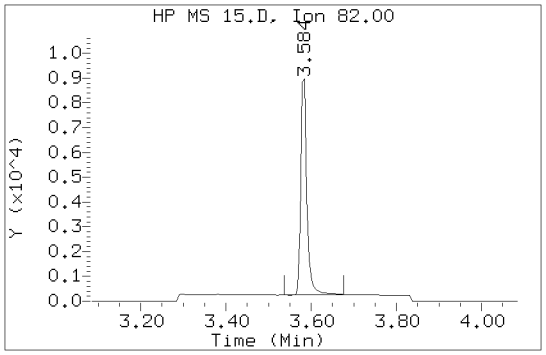
BEFORE

MASS
82
AREA
13113
HEIGHT
8968
16-Jun-2023
16:11
ALSHS
Server



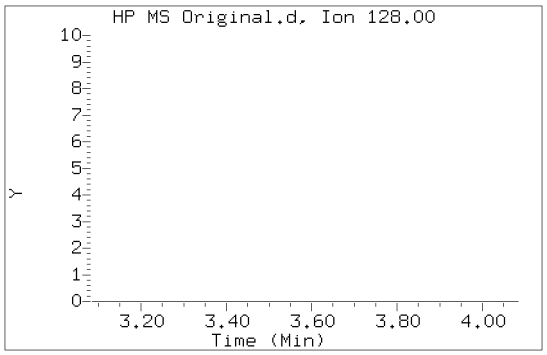
AFTER

MASS
82
AREA
8839
HEIGHT
8709
29-Jun-2023
14:27
ALSHS
Ser



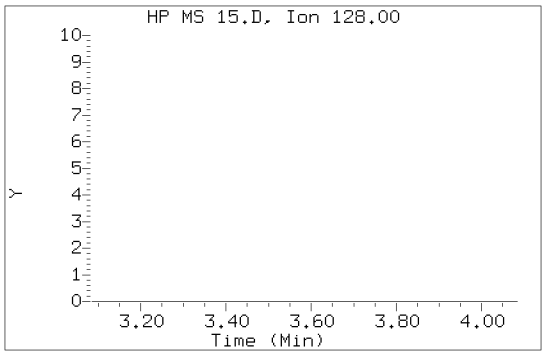
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:27
ALSHS
Ser



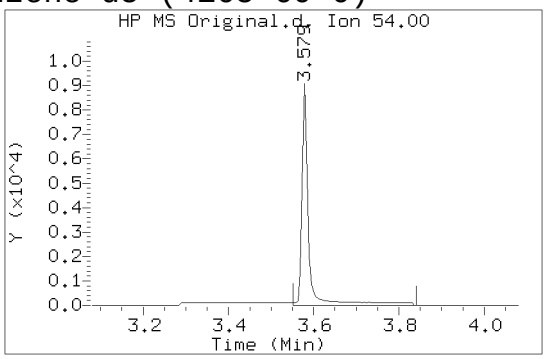
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D
Inj Date : 16-JUN-2023 15:56
InstruID : SV6.i
LabSampID : 14DXICAL-0.2

Nitrobenzene-d5 (4165-60-0)

Reason Code:

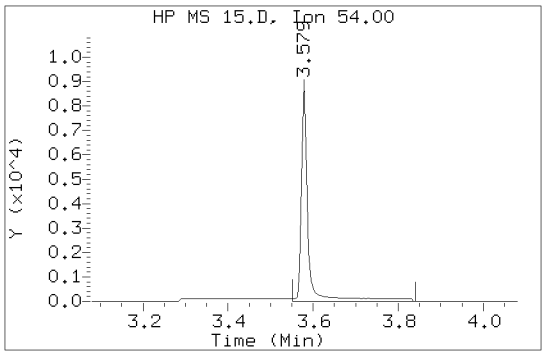
BEFORE

MASS
54
AREA
10106
HEIGHT
9078
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
54
AREA
10106
HEIGHT
9078
29-Jun-2023
14:27
ALSHS
Ser

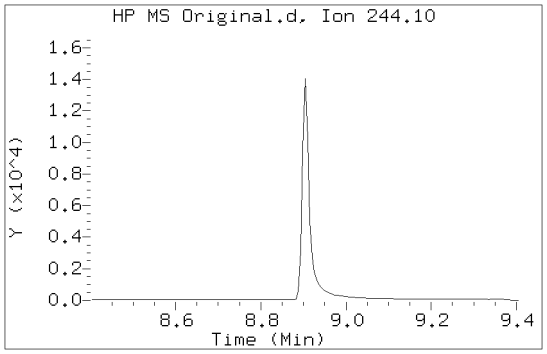


4-Terphenyl-d14 (1718-51-0)

Reason Code:

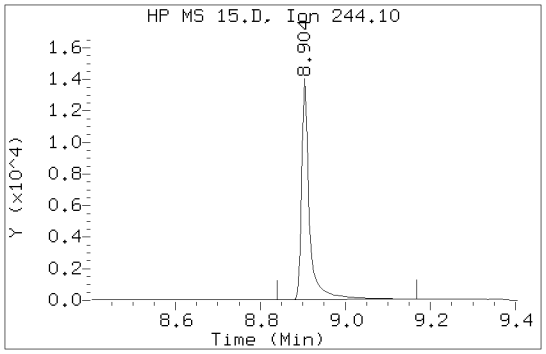
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



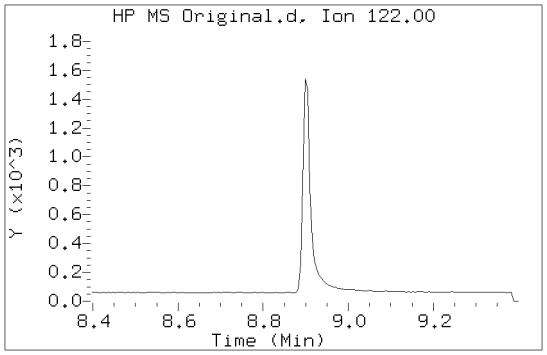
AFTER

MASS
244.1
AREA
17639
HEIGHT
13989
29-Jun-2023
14:27
ALSHS
Ser



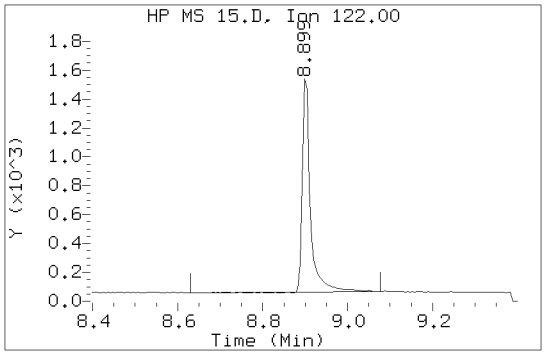
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



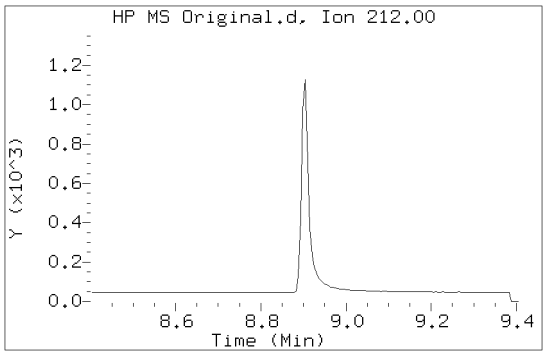
AFTER

MASS
122
AREA
1896
HEIGHT
1474
29-Jun-2023
14:27
ALSHS
Ser



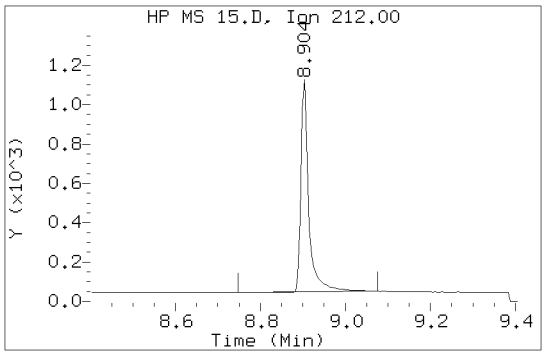
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
212
AREA
1371
HEIGHT
1079
29-Jun-2023
14:27
ALSHS
Ser



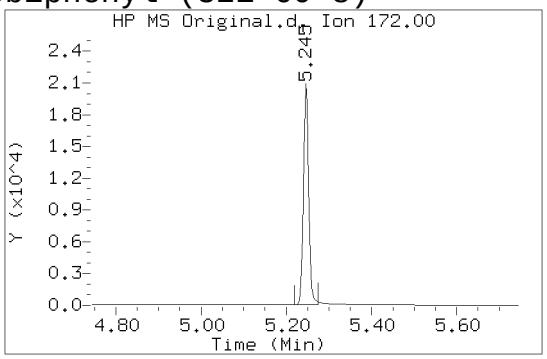
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\15.D
Inj Date : 16-JUN-2023 15:56
InstruID : SV6.i
LabSampID : 14DXICAL-0.2

2-Fluorobiphenyl (321-60-8)

Reason Code:

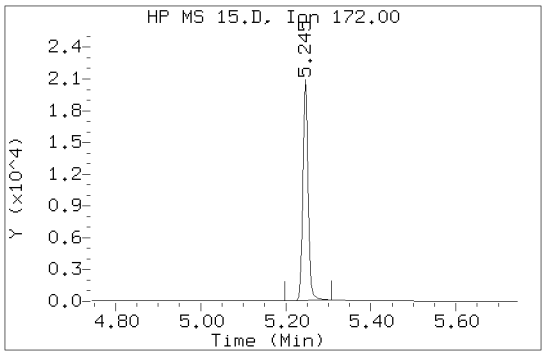
BEFORE

MASS
172
AREA
18197
HEIGHT
20880
16-Jun-2023
16:11
ALSHS
Server



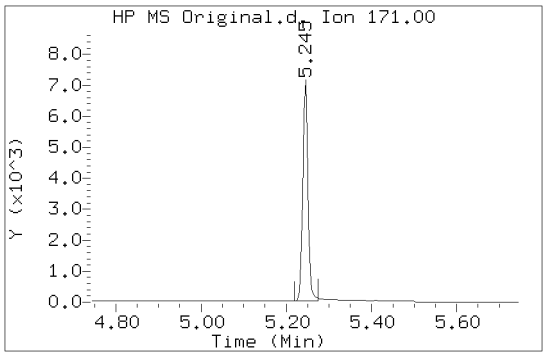
AFTER

MASS
172
AREA
18173
HEIGHT
20843
29-Jun-2023
14:27
ALSHS
Ser



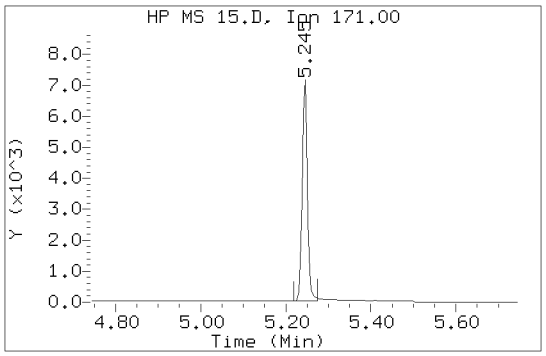
BEFORE

MASS
171
AREA
6120
HEIGHT
7129
16-Jun-2023
16:11
ALSHS
Server



AFTER

MASS
171
AREA
6120
HEIGHT
7129
29-Jun-2023
14:27
ALSHS
Ser



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Lab Smp Id: 14DXICV-0.08 Client Smp ID: 14DXICV-0.08
Inj Date : 16-JUN-2023 16:22
Operator : LG Inst ID: SV6.i
Smp Info : 14DXICV-0.08
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230616.b\DXSIM.m
Meth Date : 29-Jun-2023 14:27 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 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: 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 MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	3.128	3.122	(1.000)	5295	0.10000	(aM)
* 45 Naphthalene-d8	136	4.220	4.220	(1.000)	17725	0.10000	(M)
$ 33 Nitrobenzene-d5	82	3.584	3.584	(0.849)	3797	0.07086	0.07086(M)
* 86 Acenaphthene-d10	164	5.883	5.883	(1.000)	10379	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	5.248	5.245	(0.892)	8542	0.08036	0.08036(M)
* 126 Phenanthrene-d10	188	7.328	7.322	(1.000)	20505	0.10000	(M)
* 182 Chrysene-d12	240	10.023	10.023	(1.000)	12662	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.909	8.904	(0.889)	7743	0.08379	0.08379(M)
* 198 Perylene-d12	264	11.945	11.940	(1.000)	10635	0.10000	(M)
1 1,4-Dioxane	58	1.464	1.460	(0.468)	1261	0.07070	0.07070(M)

QC Flag Legend

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

01206042

Data File: \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D

Date : 16-JUN-2023 16:22

Client ID: 14DXICV-0.08

Instrument: SV6.i

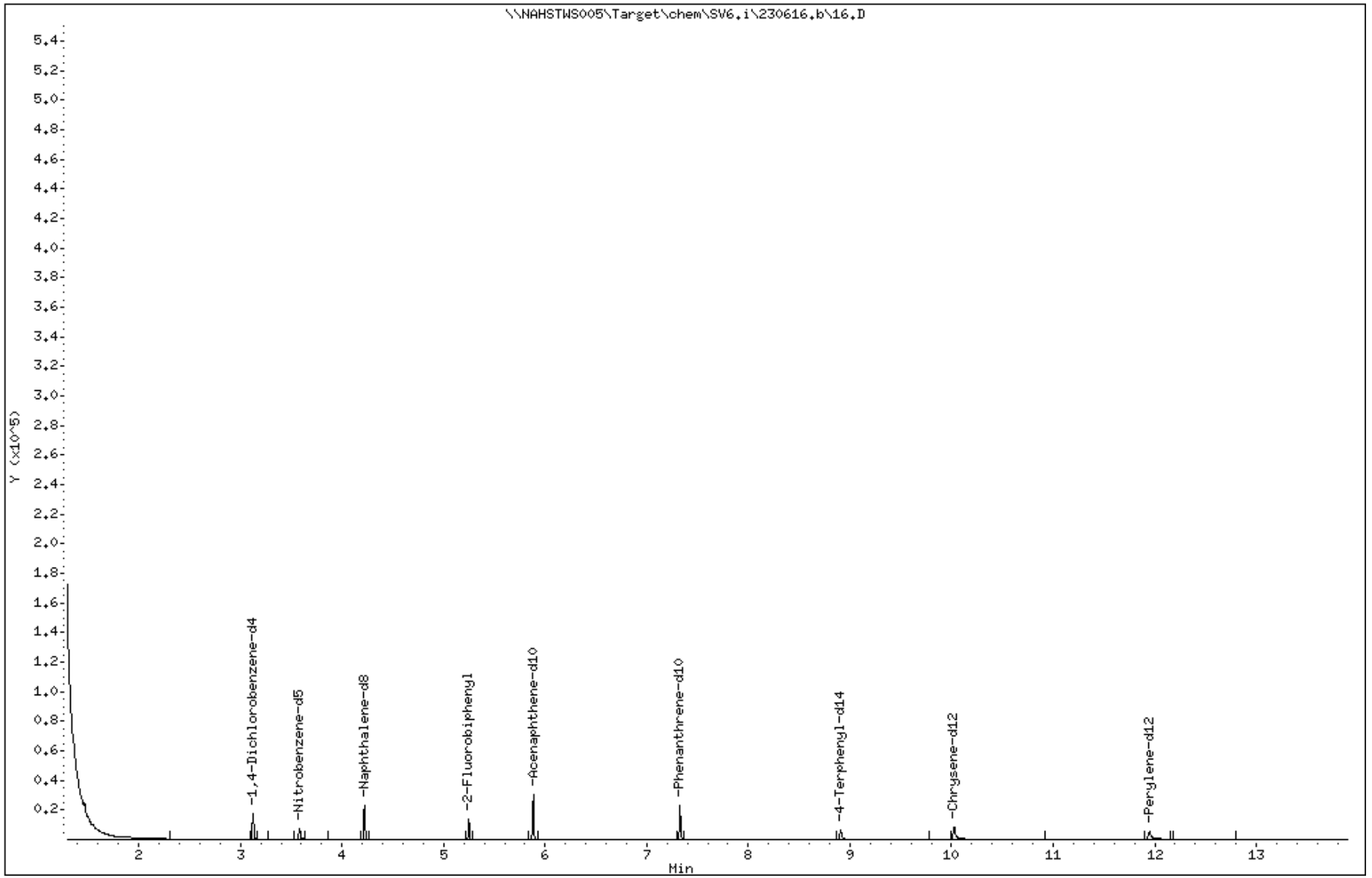
Sample Info: 14DXICV-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



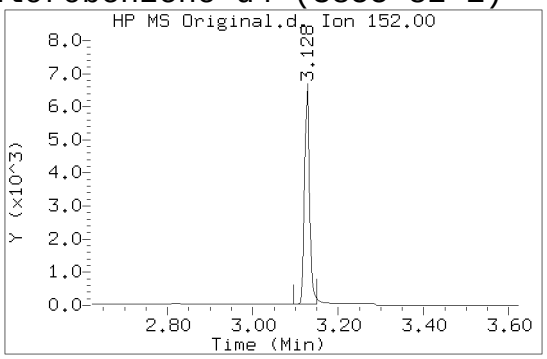
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

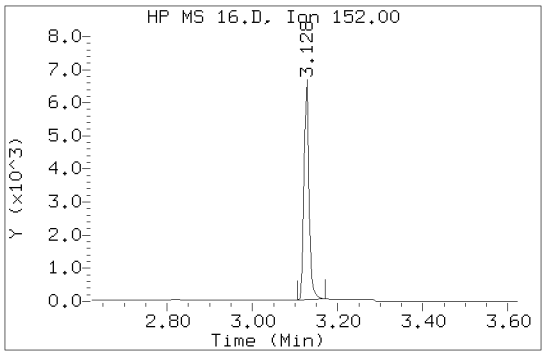
BEFORE

MASS
152
AREA
5292
HEIGHT
6650
16-Jun-2023
16:37
ALSHS
Server



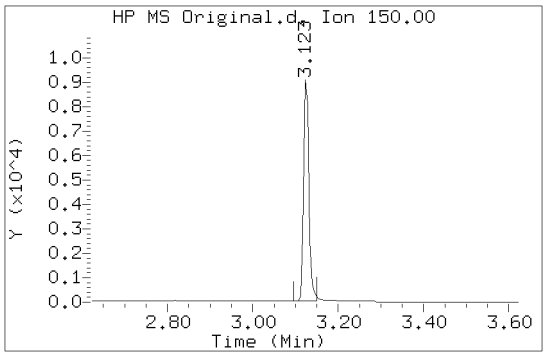
AFTER

MASS
152
AREA
5295
HEIGHT
6641
29-Jun-2023
14:27
ALSHS
Ser



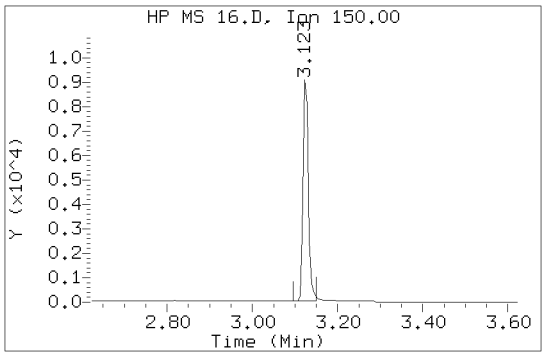
BEFORE

MASS
150
AREA
7668
HEIGHT
9050
16-Jun-2023
16:37
ALSHS
Server



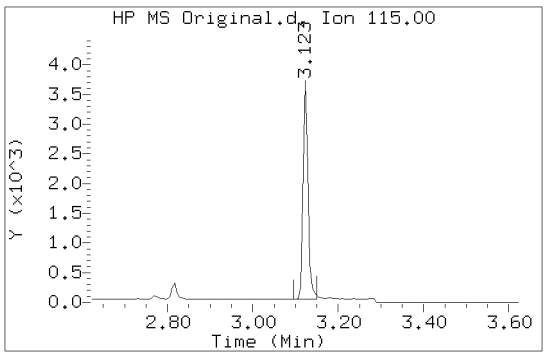
AFTER

MASS
150
AREA
7668
HEIGHT
9050
29-Jun-2023
14:27
ALSHS
Ser



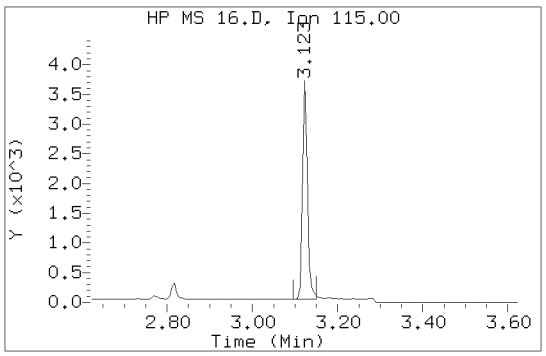
BEFORE

MASS
115
AREA
2824
HEIGHT
3676
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
115
AREA
2824
HEIGHT
3676
29-Jun-2023
14:27
ALSHS
Ser

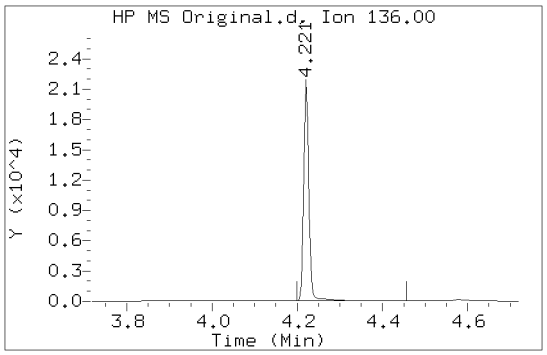


Naphthalene-d8 (1146-65-2)

Reason Code:

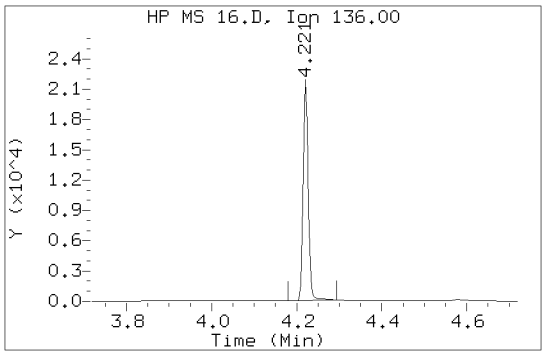
BEFORE

MASS
136
AREA
18147
HEIGHT
21880
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
136
AREA
17725
HEIGHT
21858
29-Jun-2023
14:27
ALSHS
Ser



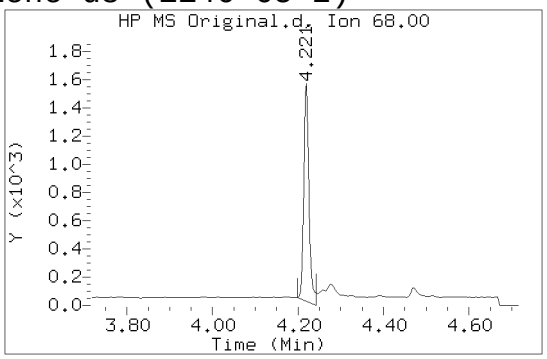
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

Naphthalene-d8 (1146-65-2)

Reason Code:

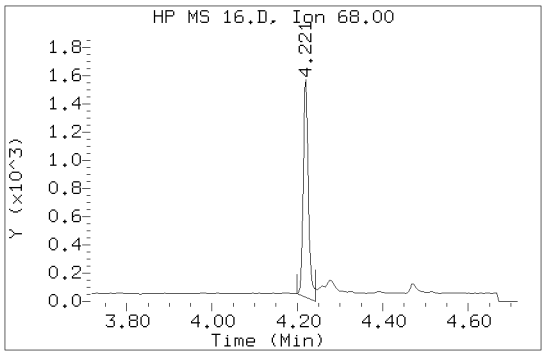
BEFORE

MASS
68
AREA
1351
HEIGHT
1544
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
68
AREA
1351
HEIGHT
1544
29-Jun-2023
14:27
ALSHS
Ser

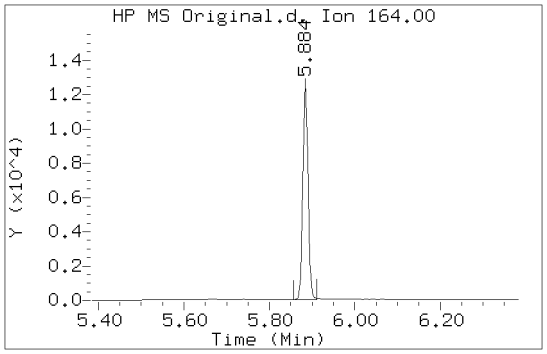


Acenaphthene-d10 (15067-26-2)

Reason Code:

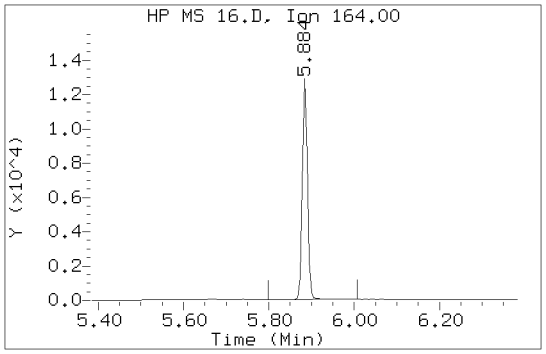
BEFORE

MASS
164
AREA
10322
HEIGHT
12879
16-Jun-2023
16:37
ALSHS
Server



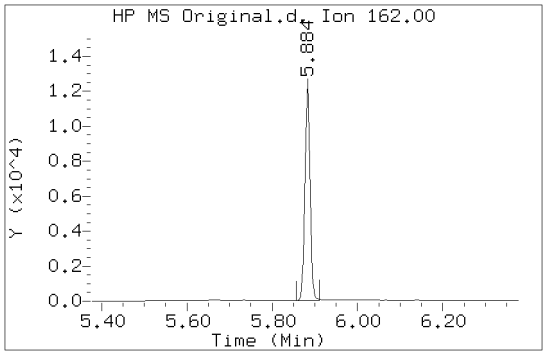
AFTER

MASS
164
AREA
10379
HEIGHT
12877
29-Jun-2023
14:27
ALSHS
Ser



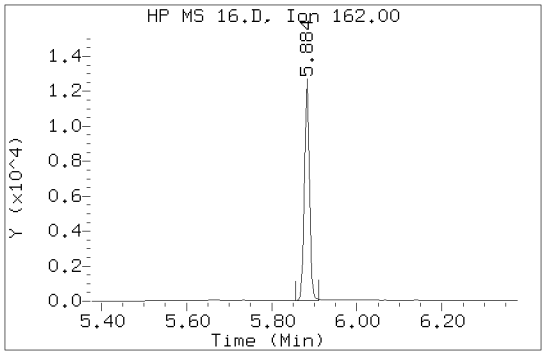
BEFORE

MASS
162
AREA
10387
HEIGHT
12657
16-Jun-2023
16:37
ALSHS
Server



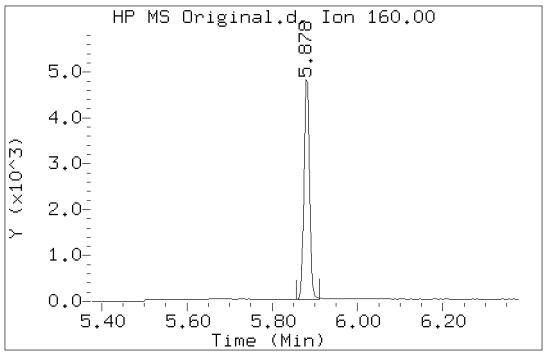
AFTER

MASS
162
AREA
10387
HEIGHT
12657
29-Jun-2023
14:27
ALSHS
Ser



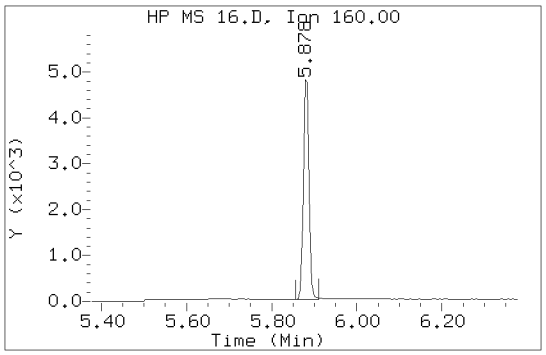
BEFORE

MASS
160
AREA
4356
HEIGHT
4785
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
160
AREA
4356
HEIGHT
4785
29-Jun-2023
14:27
ALSHS
Ser



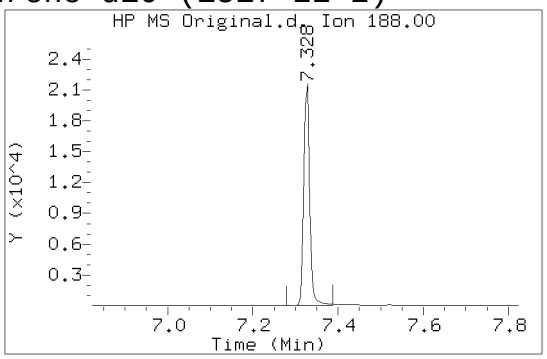
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

Phenanthrene-d10 (1517-22-2)

Reason Code:

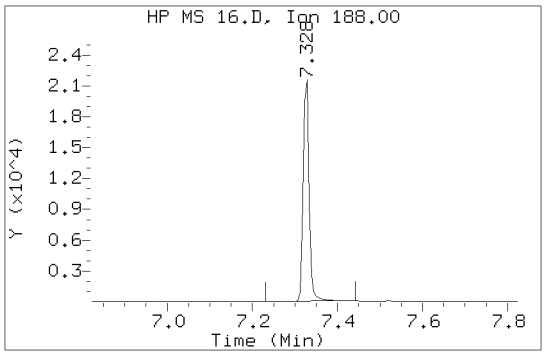
BEFORE

MASS
188
AREA
20554
HEIGHT
21579
16-Jun-2023
16:37
ALSHS
Server



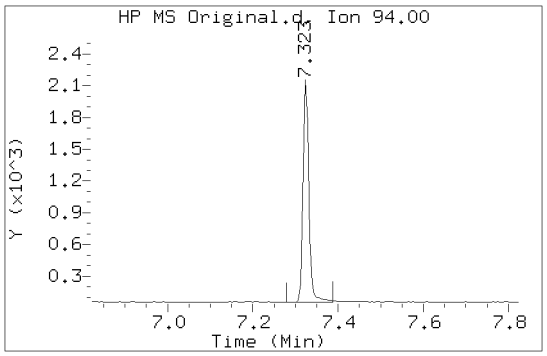
AFTER

MASS
188
AREA
20505
HEIGHT
21562
29-Jun-2023
14:27
ALSHS
Ser



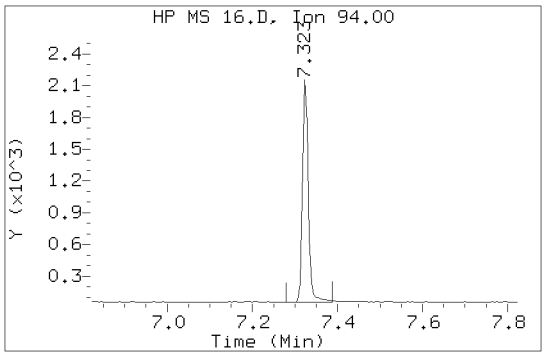
BEFORE

MASS
94
AREA
1950
HEIGHT
2099
16-Jun-2023
16:37
ALSHS
Server



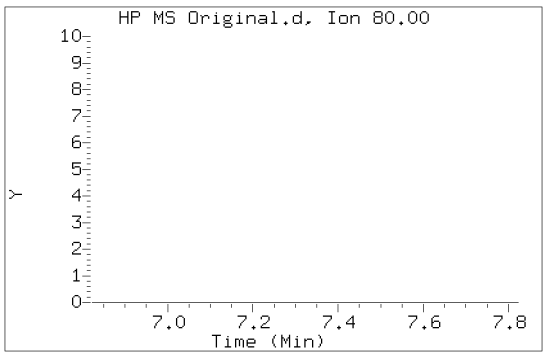
AFTER

MASS
94
AREA
1950
HEIGHT
2099
29-Jun-2023
14:27
ALSHS
Ser



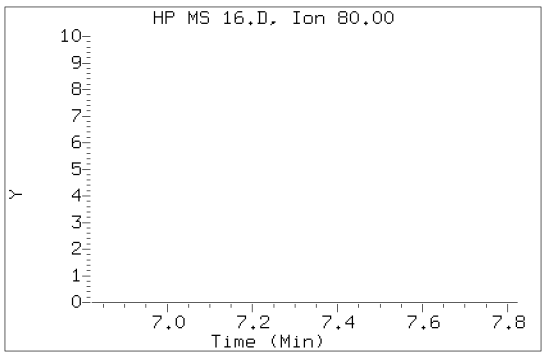
BEFORE

MASS
80
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
80
AREA
0
HEIGHT
0
29-Jun-2023
14:27
ALSHS
Ser

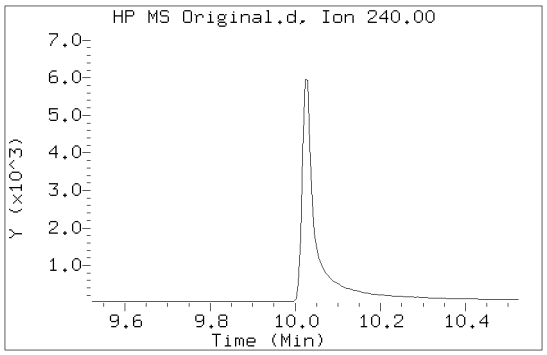


Chrysene-d12 (1719-03-5)

Reason Code:

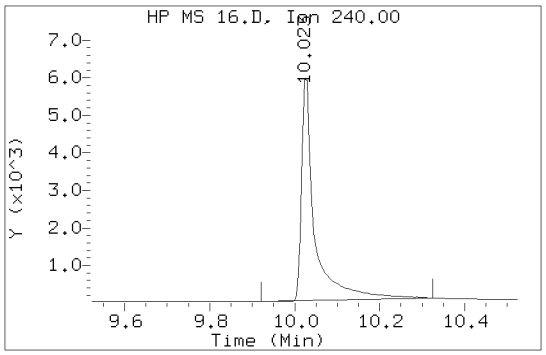
BEFORE

MASS
240
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
240
AREA
12662
HEIGHT
5881
29-Jun-2023
14:27
ALSHS
Ser



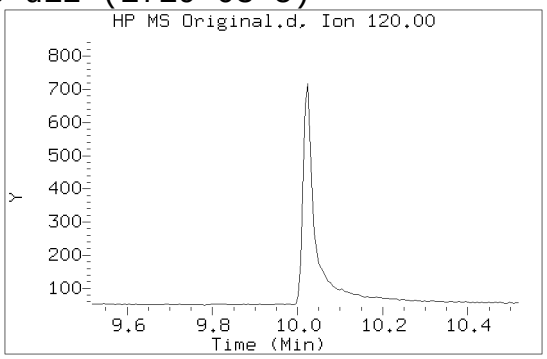
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

Chrysene-d12 (1719-03-5)

Reason Code:

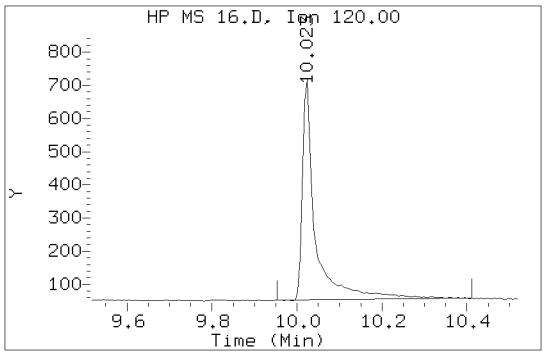
BEFORE

MASS
120
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



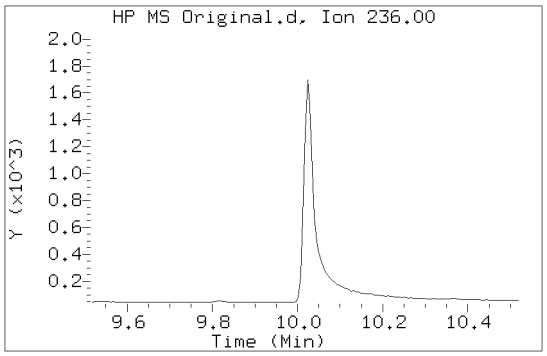
AFTER

MASS
120
AREA
1417
HEIGHT
664
29-Jun-2023
14:27
ALSHS
Ser



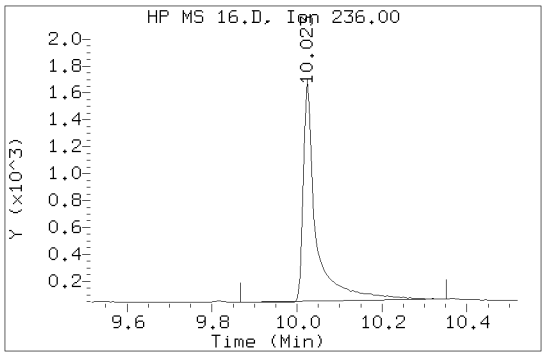
BEFORE

MASS
236
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
236
AREA
3367
HEIGHT
1641
29-Jun-2023
14:27
ALSHS
Ser

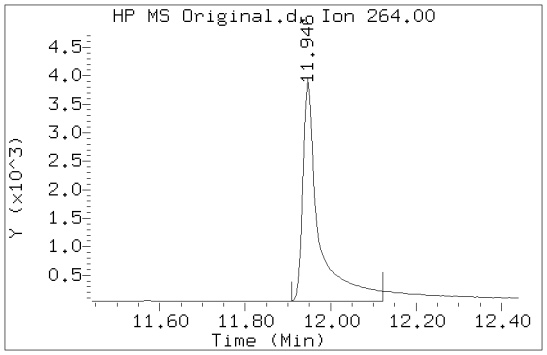


Perylene-d12 (1520-96-3)

Reason Code:

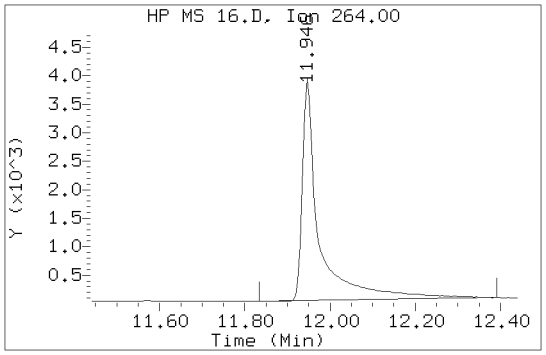
BEFORE

MASS
264
AREA
10066
HEIGHT
3896
16-Jun-2023
16:37
ALSHS
Server



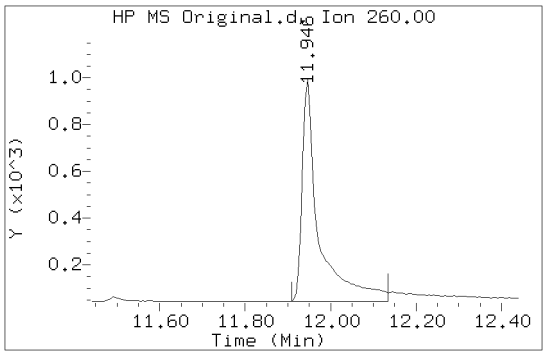
AFTER

MASS
264
AREA
10635
HEIGHT
3885
29-Jun-2023
14:27
ALSHS
Ser



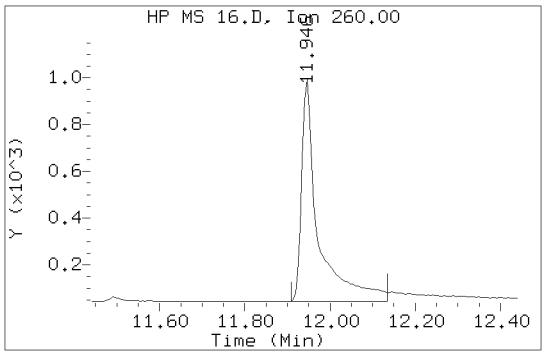
BEFORE

MASS
260
AREA
2544
HEIGHT
947
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
260
AREA
2544
HEIGHT
947
29-Jun-2023
14:27
ALSHS
Ser



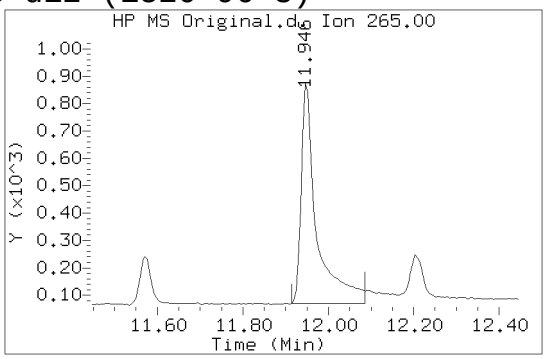
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

Perylene-d12 (1520-96-3)

Reason Code:

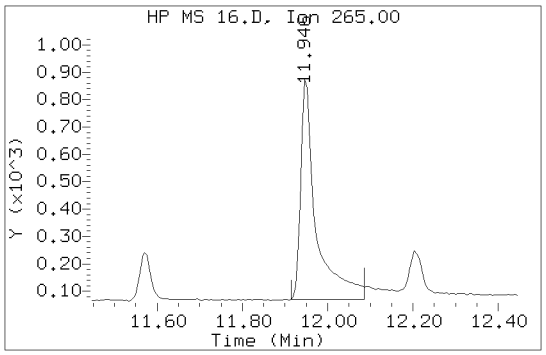
BEFORE

MASS
265
AREA
2015
HEIGHT
803
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
265
AREA
2015
HEIGHT
803
29-Jun-2023
14:27
ALSHS
Ser

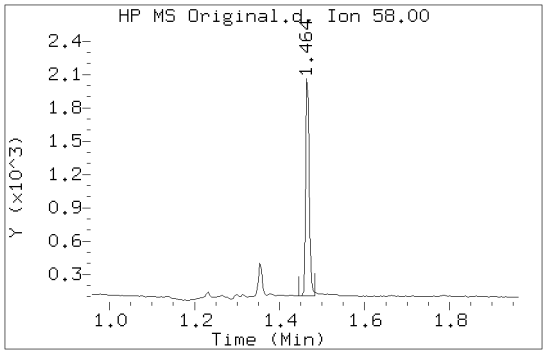


1,4-Dioxane ()

Reason Code:

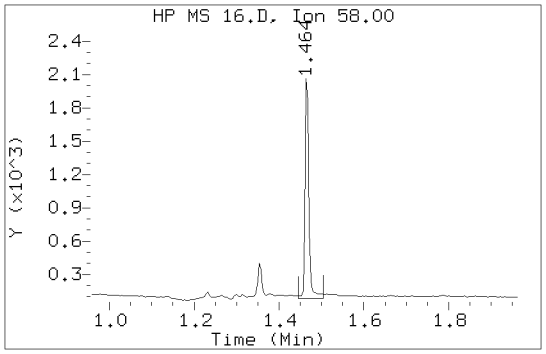
BEFORE

MASS
58
AREA
1149
HEIGHT
1956
16-Jun-2023
16:37
ALSHS
Server



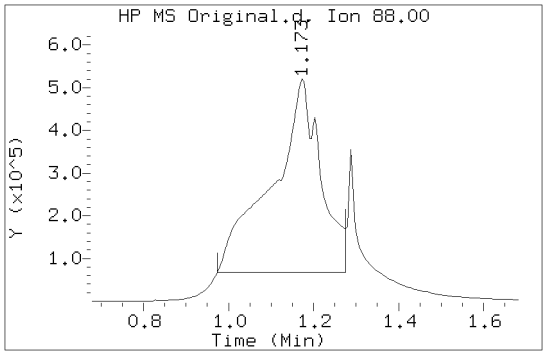
AFTER

MASS
58
AREA
1261
HEIGHT
1979
29-Jun-2023
14:27
ALSHS
Ser



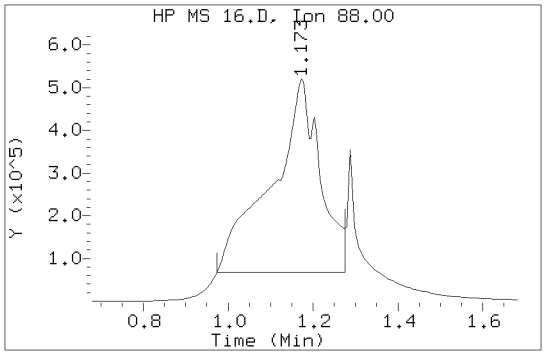
BEFORE

MASS
88
AREA
3609729
HEIGHT
452352
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
88
AREA
3609729
HEIGHT
452352
29-Jun-2023
14:27
ALSHS
Ser

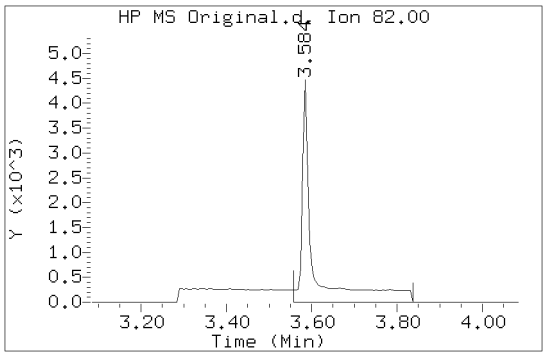


Nitrobenzene-d5 (4165-60-0)

Reason Code:

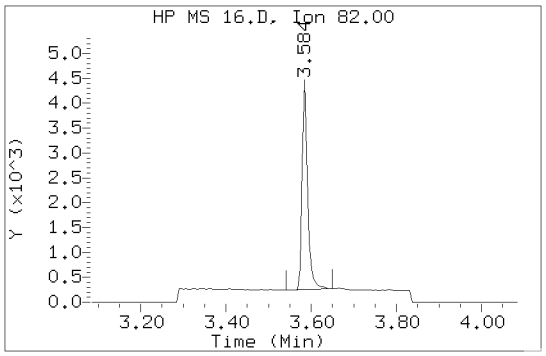
BEFORE

MASS
82
AREA
8001
HEIGHT
4469
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
82
AREA
3797
HEIGHT
4214
29-Jun-2023
14:27
ALSHS
Ser



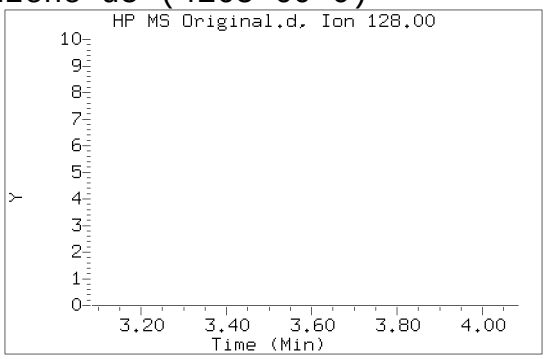
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

Nitrobenzene-d5 (4165-60-0)

Reason Code:

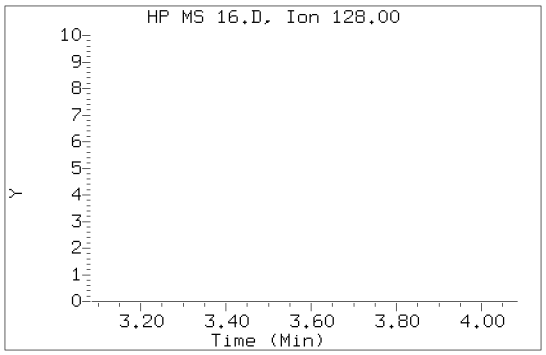
BEFORE

MASS
128
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



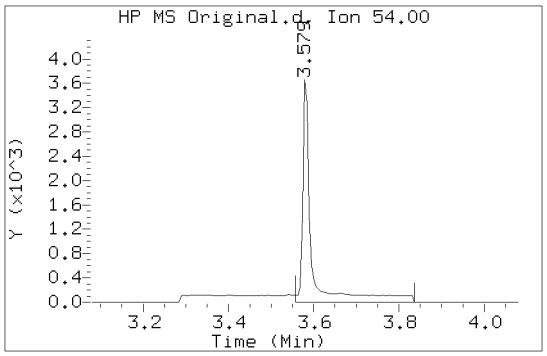
AFTER

MASS
128
AREA
0
HEIGHT
0
29-Jun-2023
14:27
ALSHS
Ser



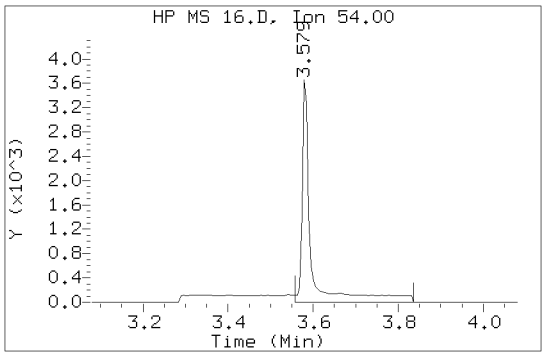
BEFORE

MASS
54
AREA
5382
HEIGHT
3655
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
54
AREA
5382
HEIGHT
3655
29-Jun-2023
14:27
ALSHS
Ser

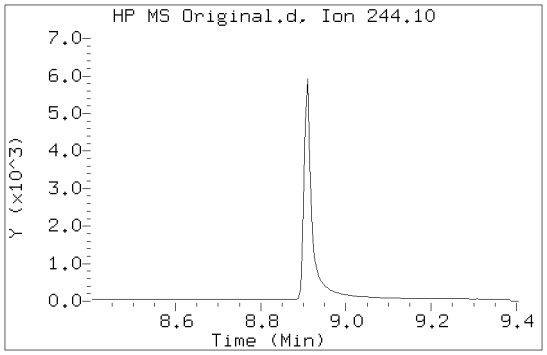


4-Terphenyl-d14 (1718-51-0)

Reason Code:

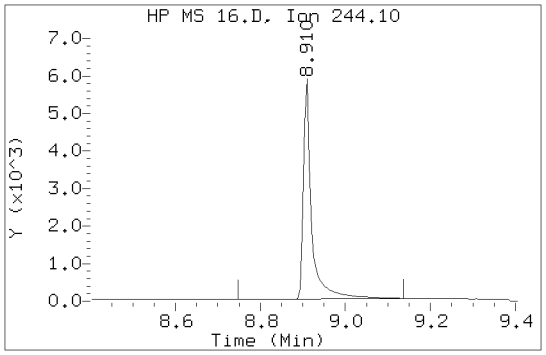
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



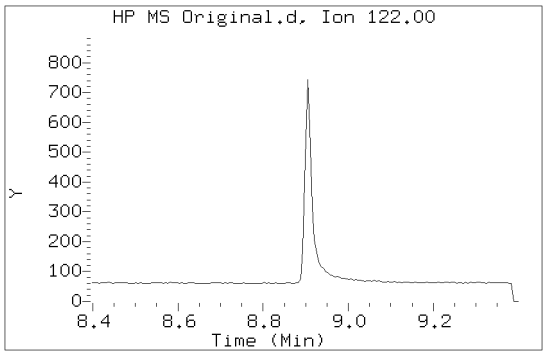
AFTER

MASS
244.1
AREA
7743
HEIGHT
5864
29-Jun-2023
14:27
ALSHS
Ser



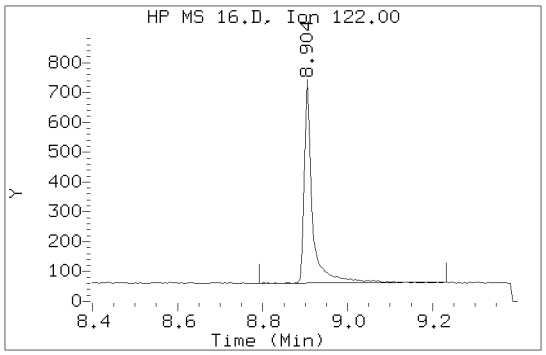
BEFORE

MASS
122
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
122
AREA
889
HEIGHT
681
29-Jun-2023
14:27
ALSHS
Ser



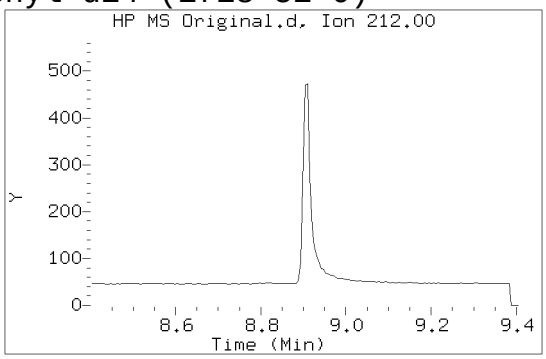
Data File : \\NAHSTWS005\Target\chem\SV6.i\230616.b\16.D
Inj Date : 16-JUN-2023 16:22
InstruID : SV6.i
LabSampID : 14DXICV-0.08

4-Terphenyl-d14 (1718-51-0)

Reason Code:

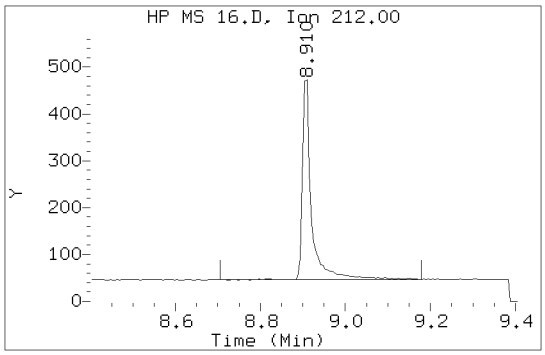
BEFORE

MASS
212
AREA
0
HEIGHT
0
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
212
AREA
632
HEIGHT
426
29-Jun-2023
14:27
ALSHS
Ser

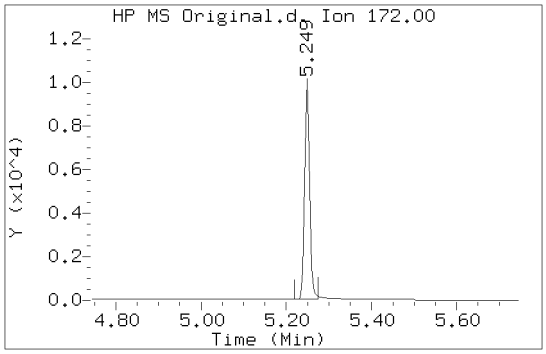


2-Fluorobiphenyl (321-60-8)

Reason Code:

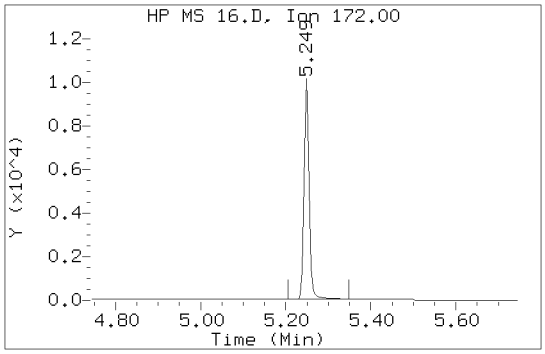
BEFORE

MASS
172
AREA
8416
HEIGHT
10125
16-Jun-2023
16:37
ALSHS
Server



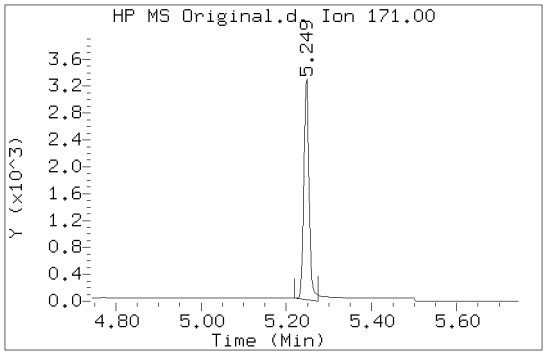
AFTER

MASS
172
AREA
8542
HEIGHT
10120
29-Jun-2023
14:27
ALSHS
Ser



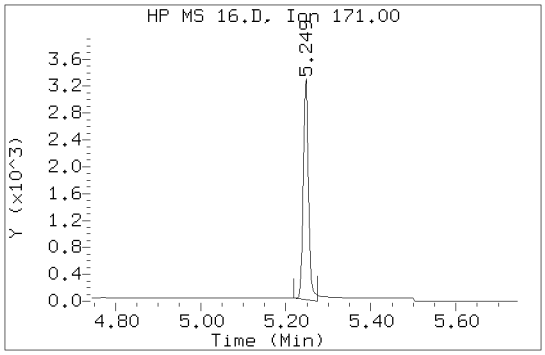
BEFORE

MASS
171
AREA
2911
HEIGHT
3286
16-Jun-2023
16:37
ALSHS
Server



AFTER

MASS
171
AREA
2911
HEIGHT
3286
29-Jun-2023
14:27
ALSHS
Ser



01206050

right solutions.
right partner.

Raw Data SV 6 440594

Semi-Volatiles by EPA 8270SIM

Workorder

HS23061825

Client

Bhate Environmental Associates, Inc.

Project

LHAAP 18 24

07/12/2023

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\SV6.i\230710.b\01.D Page 1
Report Date: 10-Jul-2023 09:58

ALS Laboratory Group

Data file : \\nahstws005\Target\chem\SV6.i\230710.b\01.D
Lab Smp Id: DFTPP Client Smp ID: DFTPP
Inj Date : 10-JUL-2023 09:44
Operator : smith Inst ID: SV6.i
Smp Info : DFTPP;DFTPP;3;;DFTPP
Misc Info :
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230710.b\DFTPP.m
Meth Date : 14-Mar-2023 15:59 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: NAHSTW7015

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
4.138	6.357	-2.219	198	239424			0.00- 100.00	100.00
4.138	6.357	-2.219	51	135027			10.00- 80.00	56.40
4.138	6.357	-2.219	68	1146			0.00- 2.00	1.19
4.138	6.357	-2.219	69	96048			0.00- 0.00	40.12
4.138	6.357	-2.219	70	462			0.00- 2.00	0.48
4.138	6.357	-2.219	127	96840			10.00- 80.00	40.45
4.138	6.357	-2.219	197	1196			0.00- 2.00	0.50
4.138	6.357	-2.219	199	16488			5.00- 9.00	6.89
4.138	6.357	-2.219	275	52776			10.00- 60.00	22.04
4.138	6.357	-2.219	365	7655			1.00- 100.00	3.20
4.138	6.357	-2.219	441	29448			0.01- 99.99	83.98
4.138	6.357	-2.219	442	188864			50.00- 150.00	78.88
4.138	6.357	-2.219	443	35064			15.00- 24.00	18.57

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	56.40
68	Less than 2.00% of mass 69	0.48 (1.19)
69	Mass 69 relative abundance	40.12
70	Less than 2.00% of mass 69	0.19 (0.48)
127	10.00 - 80.00% of mass 198	40.45
197	Less than 2.00% of mass 198	0.50
199	5.00 - 9.00% of mass 198	6.89
275	10.00 - 60.00% of mass 198	22.04
365	1.00 - 100.00% of mass 198	3.20
441	Present, but less than mass 443	12.30
442	50.00 - 150.00% of mass 198	78.88
443	15.00 - 24.00% of mass 442	14.65 (18.57)

Data File: 01.D
Spectrum: HP ChemStation MS 01.D, Scan 290: 4.138 min. (SUB)
Location of Maximum: 198.00
Number of points: 281

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	390	123.00	2438	196.00	6985	275.00	52776
38.00	1067	124.00	1237	196.80	1196	276.00	7204
39.00	7689	125.00	1354	198.00	239424	277.00	4349
40.00	173	126.10	538	199.00	16488	278.00	695
41.00	250	127.00	96840	200.00	1285	282.90	490
44.90	329	128.00	7810	201.50	1190	284.00	427
47.90	203	129.00	36640	203.00	1559	285.00	966
49.00	198	130.00	3445	204.00	8404	286.00	153
50.00	31472	131.10	534	205.00	13831	289.00	195
51.00	134976	132.00	406	206.10	58072	290.00	177
52.00	6725	133.90	885	207.00	7719	291.90	272
53.10	247	135.00	2669	208.00	1881	293.00	1211
55.00	576	136.00	1066	209.00	628	294.00	239
56.00	3703	137.00	1580	210.00	1000	295.00	310
57.00	9868	138.00	239	211.00	2371	296.00	15859
58.00	347	140.00	336	212.00	397	297.00	2303
59.00	232	141.00	4766	215.00	571	300.80	222
61.00	1288	142.00	1566	216.00	1309	302.00	291
62.00	1654	142.90	1318	217.00	16600	303.00	1990
63.00	4426	144.00	327	218.00	1920	303.90	431
64.00	601	145.00	203	219.10	198	307.90	223
65.00	2272	145.90	817	221.00	12076	310.00	174
68.00	1146	147.00	2235	223.00	3973	314.00	673
69.00	96048	148.00	6006	224.00	35224	315.00	1596
69.90	462	149.00	1232	225.00	8578	316.00	996
73.00	770	150.10	252	226.00	1084	317.00	205
74.00	8852	151.00	560	227.00	14286	321.00	422
75.00	14842	151.80	325	228.00	1609	322.00	298
76.10	5220	153.00	1211	229.00	2778	323.10	5578
77.10	112376	153.90	868	229.90	427	324.00	883
78.10	7121	155.00	2834	231.00	1275	326.90	924
79.00	5659	156.00	4256	231.90	165	327.90	549
80.00	4749	157.00	705	232.90	239	332.00	285
81.00	7231	158.00	924	234.00	914	333.00	647
82.00	2152	159.00	642	235.00	1064	334.00	3338
83.00	1708	160.00	1347	235.90	610	334.90	855
83.90	123	161.00	2779	237.00	1212	340.90	611
85.00	981	161.90	624	239.00	619	346.00	1021
86.00	1862	162.90	172	240.00	296	347.00	257
87.10	770	164.00	218	240.90	797	352.00	1678
88.00	298	165.00	1889	242.00	2021	353.00	1107
89.00	166	166.00	1605	243.10	1707	354.10	1625
91.00	1352	167.00	11788	244.10	25048	355.00	304
92.00	1523	168.00	4995	245.10	3164	358.90	173
93.00	10496	169.00	937	246.00	4665	365.00	7655

94.00	752	170.00	363	247.00	977	366.00	1091
94.90	245	170.90	336	248.00	196	370.90	420
96.00	630	172.00	937	249.00	981	372.00	2472
97.00	237	173.00	1122	249.90	211	373.00	772
98.00	7630	174.00	2242	250.90	324	383.00	806
99.00	6097	175.00	4129	251.90	316	384.10	191
100.00	630	176.00	1199	253.00	577	390.00	302
101.00	4375	177.00	1807	254.00	696	390.90	170
102.00	349	178.00	604	255.00	138688	391.90	193
103.00	868	179.00	7522	256.00	20096	400.90	170
104.00	2192	180.00	6007	257.00	1327	402.00	1191
105.00	1963	181.00	2595	258.00	7344	403.00	1424
106.10	771	182.00	417	259.00	1191	403.90	463
107.00	32408	183.10	318	259.80	180	421.00	1591
108.00	4751	184.00	766	261.00	336	422.00	979
109.10	915	185.00	4294	262.80	172	423.00	9340
110.00	57408	186.00	30368	264.00	279	424.00	1951
111.00	7932	187.00	8103	265.00	2860	425.10	227
112.00	937	188.00	1062	265.90	493	441.00	29448
113.00	317	189.00	1663	266.90	155	442.00	188864
116.00	1486	190.00	364	267.90	168	443.00	35064
117.00	24584	191.00	1206	269.90	223	444.00	3397
118.00	1743	192.00	3062	271.00	310	445.00	214
118.90	186	193.00	2891	272.00	350		
120.00	344	194.00	634	273.00	3973		
122.00	1665	194.90	545	274.00	9352		

Data File: \\nahstws005\target\chem\sv6.i\230710.b\01.d

Date : 10-JUL-2023 09:44

Client ID: DFTPP

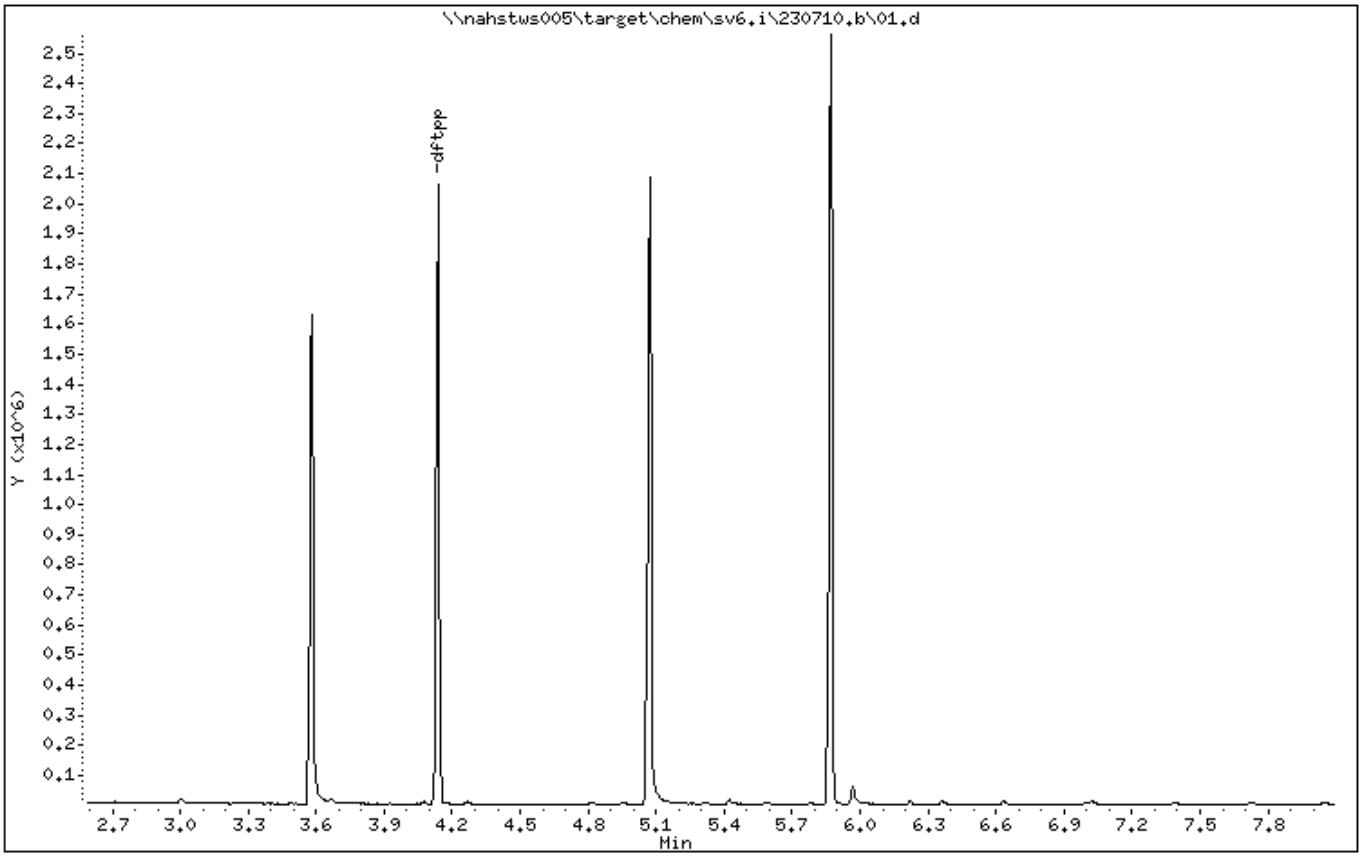
Instrument: SV6.i

Sample Info: DFTPP;DFTPP;3;;DFTPP

Operator: smith

Column phase: DB-5MS

Column diameter: 0.25



Data File : \\nahstws005\target\chem\sv6.i\230710.b\01.d
Inj Date : 10-JUL-2023 09:44
InstruID : SV6.i
LabSampID : DFTPP

NO MANUAL INTEGRATIONS

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230710.b\03.D
Lab Smp Id: 14DX-0.08 Client Smp ID: 14DX-0.08
Inj Date : 10-JUL-2023 10:38
Operator : LG Inst ID: SV6.i
Smp Info : 14DX-0.08
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230710.b\DXSIM.m
Meth Date : 10-Jul-2023 10:56 jiayi.lu Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 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: NAHSTW7015

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	2.442	2.442	(1.000)	3321	0.10000	(aQM)
* 45 Naphthalene-d8	136	3.494	3.494	(1.000)	11541	0.10000	(M)
$ 33 Nitrobenzene-d5	82	2.887	2.887	(0.826)	3011	0.08000	0.08587(QM)
* 86 Acenaphthene-d10	164	5.121	5.121	(1.000)	6762	0.10000	
$ 69 2-Fluorobiphenyl	172	4.515	4.515	(0.882)	5339	0.08000	0.07721(M)
* 126 Phenanthrene-d10	188	6.533	6.533	(1.000)	12605	0.10000	
* 182 Chrysene-d12	240	9.077	9.077	(1.000)	9110	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.114	8.114	(0.894)	4797	0.08000	0.07137(M)
* 198 Perylene-d12	264	10.667	10.667	(1.000)	8728	0.10000	
1 1,4-Dioxane	58	0.942	0.942	(0.386)	975	0.08000	0.08653(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.

01206058

Data File: \\nahstws005\Target\chem\SV6.i\230710.b\03.D

Date : 10-JUL-2023 10:38

Client ID: 14DX-0.08

Instrument: SV6.i

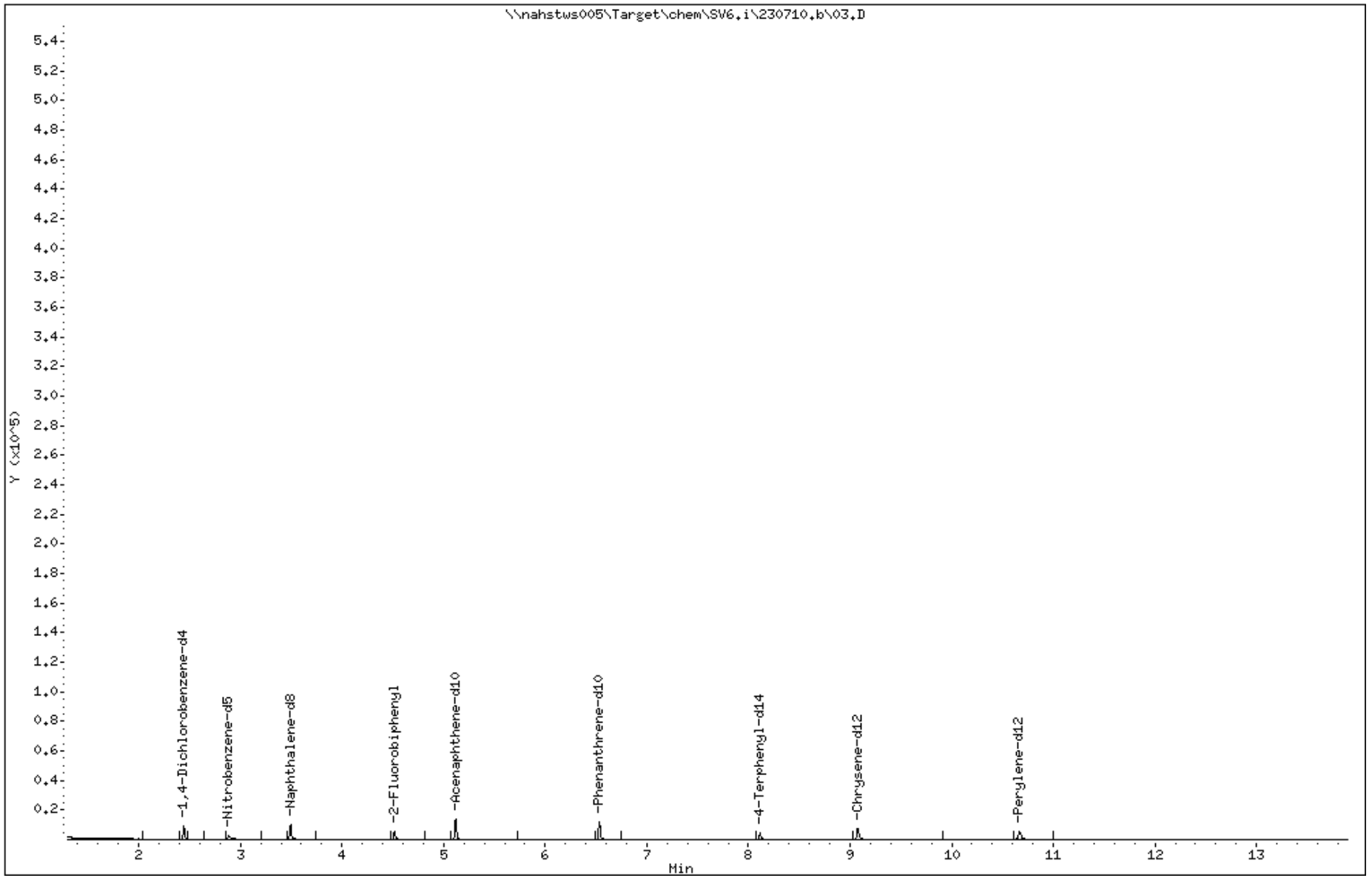
Sample Info: 14DX-0.08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



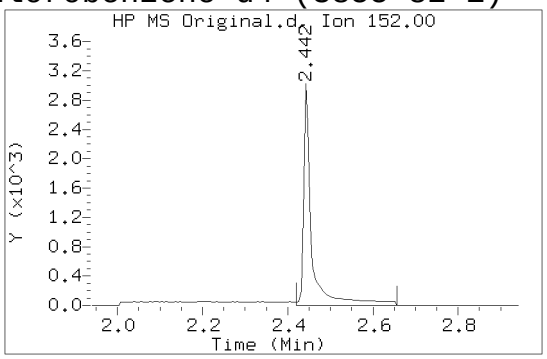
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\03.D
Inj Date : 10-JUL-2023 10:38
InstruID : SV6.i
LabSampID : 14DX-0.08

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

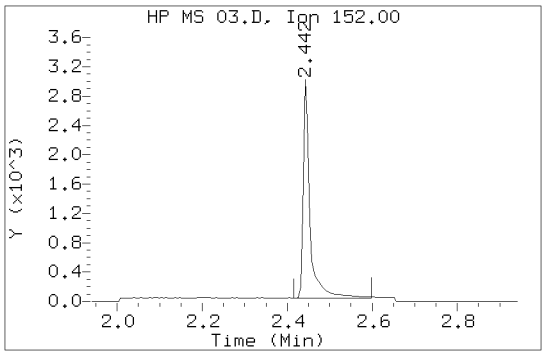
BEFORE

MASS
152
AREA
3975
HEIGHT
3024
10-Jul-2023
10:54
ALSHS
Server



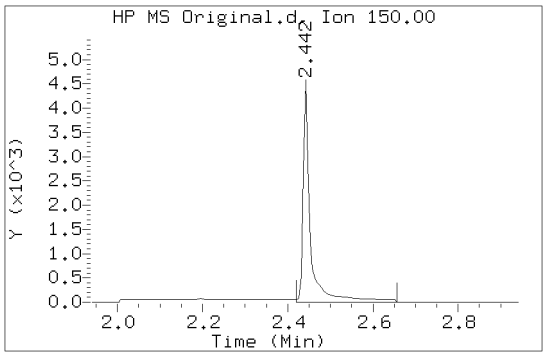
AFTER

MASS
152
AREA
3321
HEIGHT
2980
10-Jul-2023
10:58
ALSHS
Se



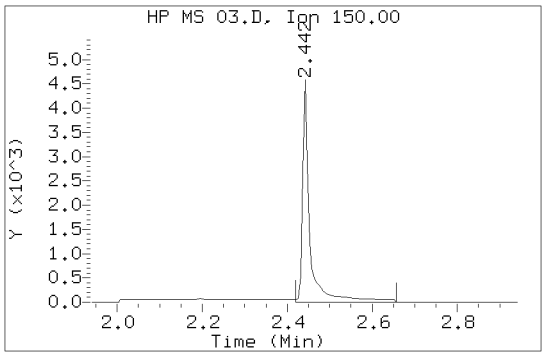
BEFORE

MASS
150
AREA
5524
HEIGHT
4581
10-Jul-2023
10:54
ALSHS
Server



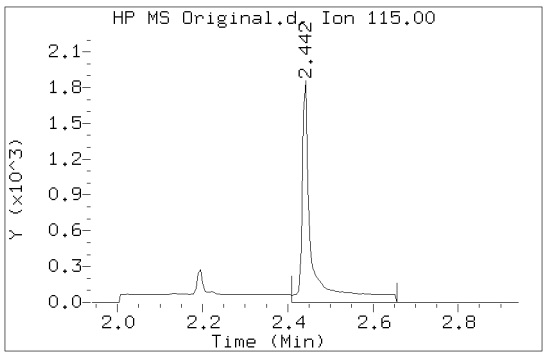
AFTER

MASS
150
AREA
5524
HEIGHT
4581
10-Jul-2023
10:58
ALSHS
Se



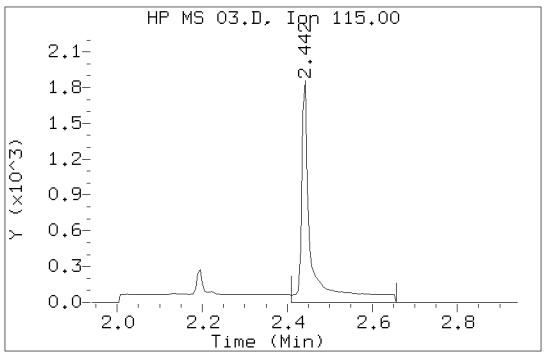
BEFORE

MASS
115
AREA
2970
HEIGHT
1858
10-Jul-2023
10:54
ALSHS
Server



AFTER

MASS
115
AREA
2970
HEIGHT
1858
10-Jul-2023
10:58
ALSHS
Se

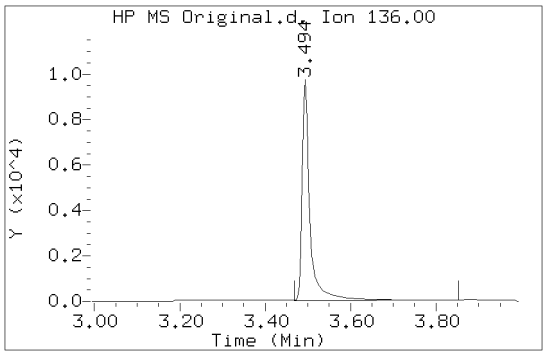


Naphthalene-d8 (1146-65-2)

Reason Code:

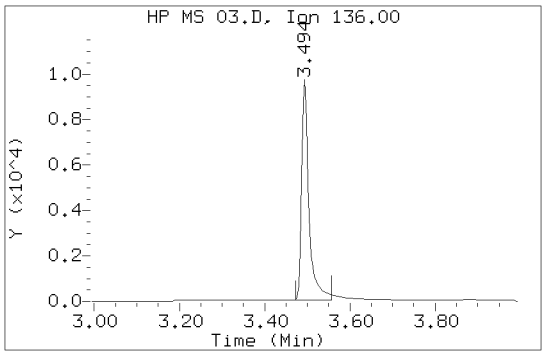
BEFORE

MASS
136
AREA
12583
HEIGHT
9731
10-Jul-2023
10:54
ALSHS
Server



AFTER

MASS
136
AREA
11541
HEIGHT
9698
10-Jul-2023
10:58
ALSHS
Se

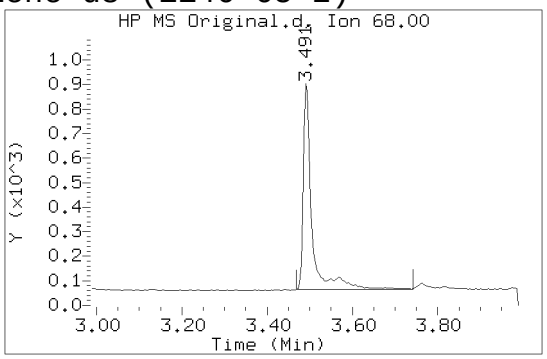


Data File : \\nahstws005\Target\chem\SV6.i\230710.b\03.D
Inj Date : 10-JUL-2023 10:38
InstruID : SV6.i
LabSampID : 14DX-0.08

Naphthalene-d8 (1146-65-2)

BEFORE

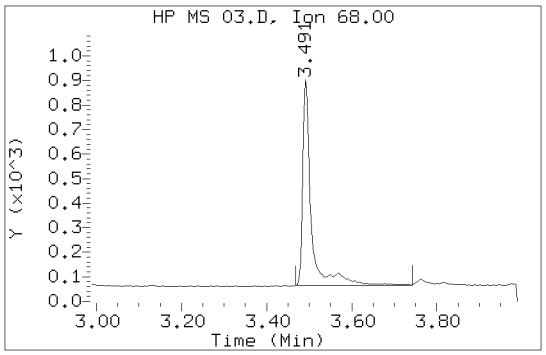
MASS
68
AREA
1178
HEIGHT
838
10-Jul-2023
10:54
ALSHS
Server



Reason Code:

AFTER

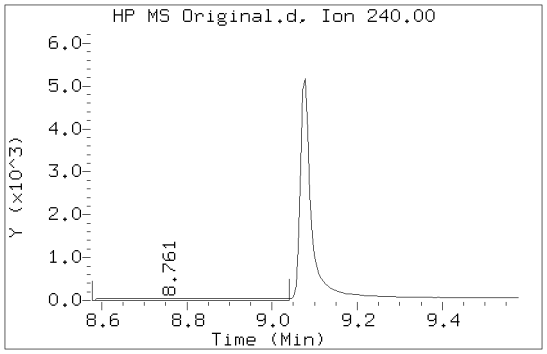
MASS
68
AREA
1178
HEIGHT
838
10-Jul-2023
10:58
ALSHS
Se



Chrysene-d12 (1719-03-5)

BEFORE

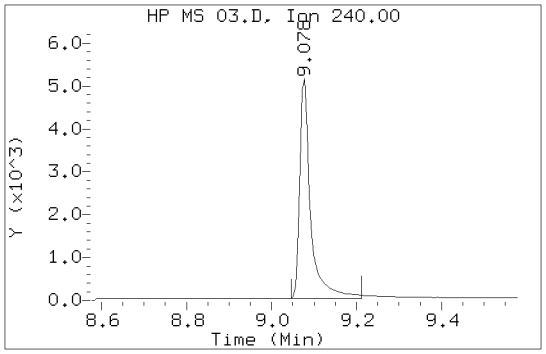
MASS
240
AREA
1285
HEIGHT
51
10-Jul-2023
10:54
ALSHS
Server



Reason Code:

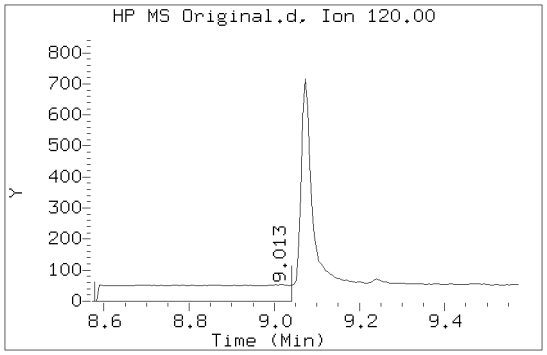
AFTER

MASS
240
AREA
9110
HEIGHT
5129
10-Jul-2023
10:58
ALSHS
Se



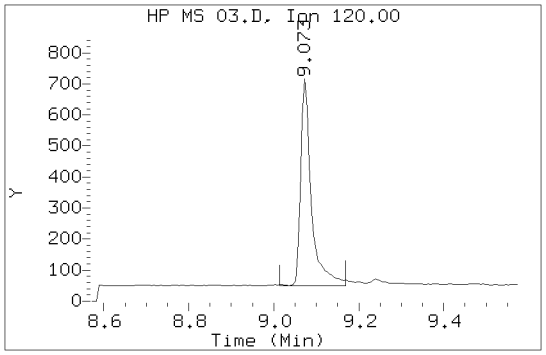
BEFORE

MASS
120
AREA
1384
HEIGHT
54
10-Jul-2023
10:54
ALSHS
Server



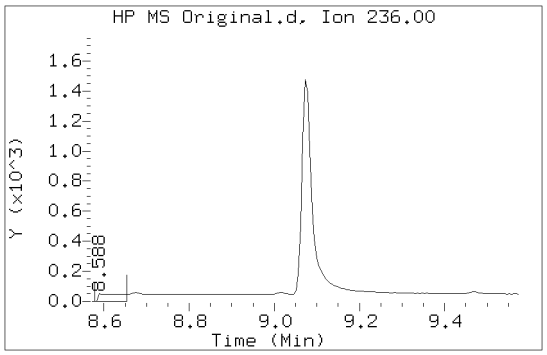
AFTER

MASS
120
AREA
1161
HEIGHT
666
10-Jul-2023
10:58
ALSHS
Se



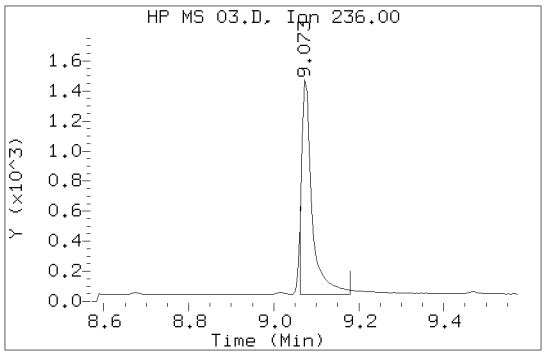
BEFORE

MASS
236
AREA
199
HEIGHT
50
10-Jul-2023
10:54
ALSHS
Server



AFTER

MASS
236
AREA
2430
HEIGHT
1429
10-Jul-2023
10:58
ALSHS
Se



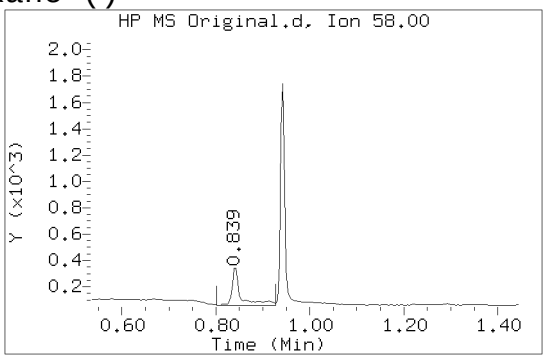
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\03.D
Inj Date : 10-JUL-2023 10:38
InstruID : SV6.i
LabSampID : 14DX-0.08

1,4-Dioxane ()

Reason Code:

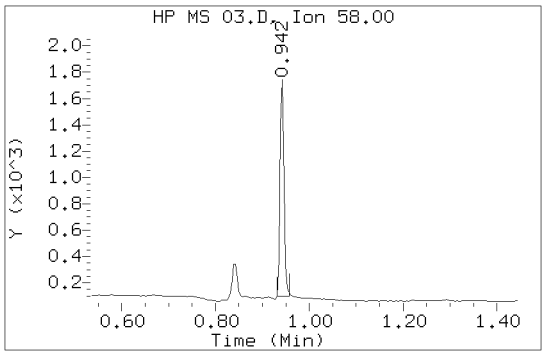
BEFORE

MASS
58
AREA
373
HEIGHT
283
10-Jul-2023
10:54
ALSHS
Server



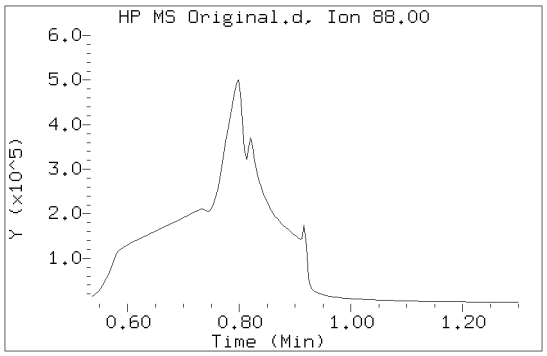
AFTER

MASS
58
AREA
975
HEIGHT
1646
10-Jul-2023
10:58
ALSHS
Se



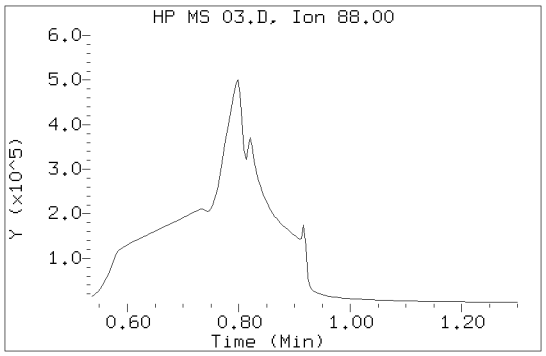
BEFORE

MASS
88
AREA
2906155
HEIGHT
499046
10-Jul-2023
10:54
ALSHS
Server



AFTER

MASS
88
AREA
2906155
HEIGHT
499046
10-Jul-2023
10:58
ALSHS
Se

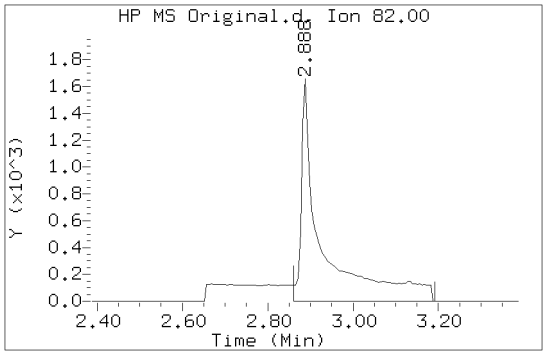


Nitrobenzene-d5 (4165-60-0)

Reason Code:

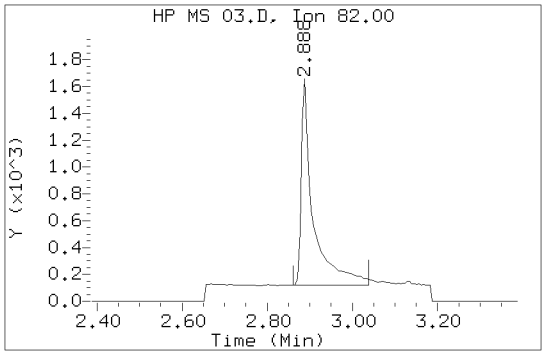
BEFORE

MASS
82
AREA
5463
HEIGHT
1657
10-Jul-2023
10:54
ALSHS
Server



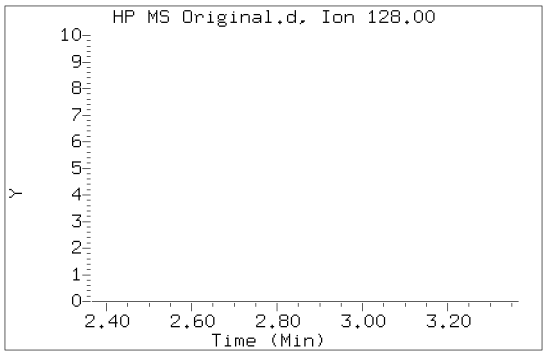
AFTER

MASS
82
AREA
3011
HEIGHT
1538
10-Jul-2023
10:58
ALSHS
Se



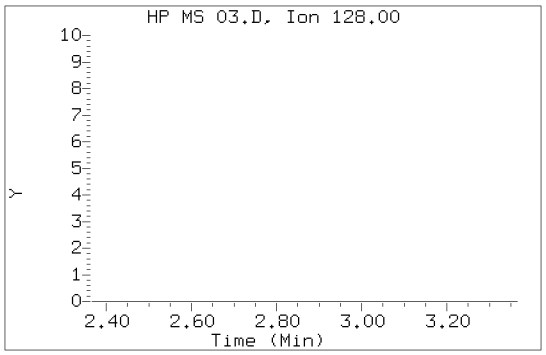
BEFORE

MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
10:54
ALSHS
Server



AFTER

MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
10:58
ALSHS
Se



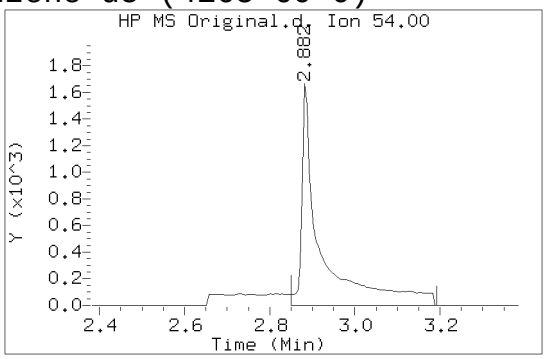
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\03.D
Inj Date : 10-JUL-2023 10:38
InstruID : SV6.i
LabSampID : 14DX-0.08

Nitrobenzene-d5 (4165-60-0)

Reason Code:

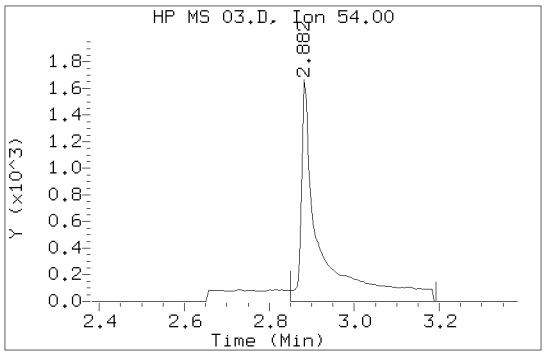
BEFORE

MASS
54
AREA
5043
HEIGHT
1666
10-Jul-2023
10:54
ALSHS
Server



AFTER

MASS
54
AREA
5043
HEIGHT
1666
10-Jul-2023
10:58
ALSHS
Se

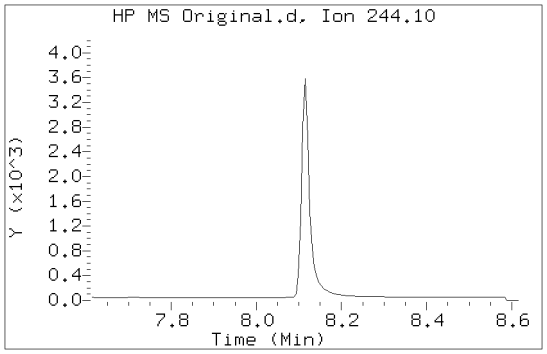


4-Terphenyl-d14 (1718-51-0)

Reason Code:

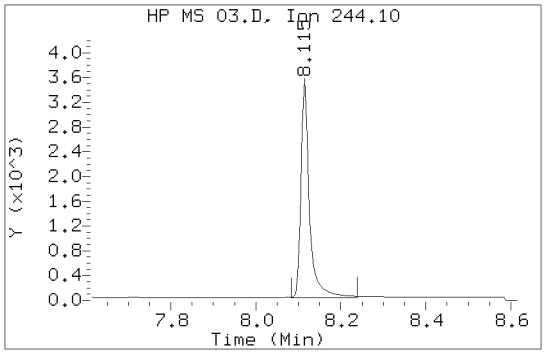
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
10-Jul-2023
10:54
ALSHS
Server



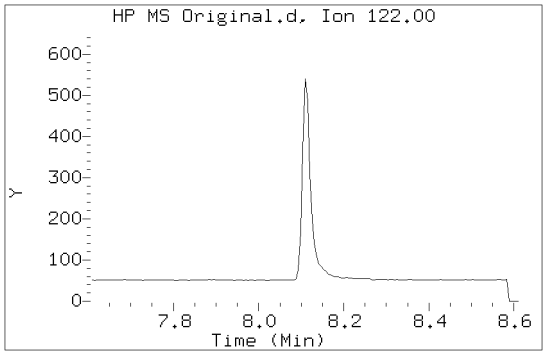
AFTER

MASS
244.1
AREA
4797
HEIGHT
3536
10-Jul-2023
10:58
ALSHS
Se



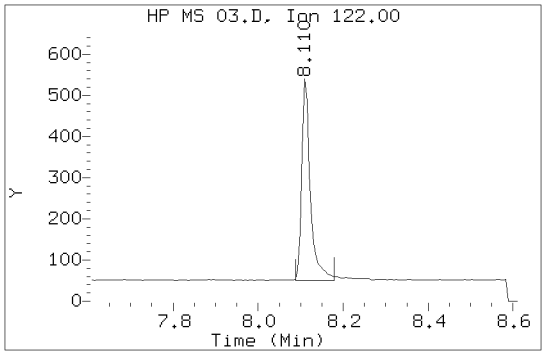
BEFORE

MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
10:54
ALSHS
Server



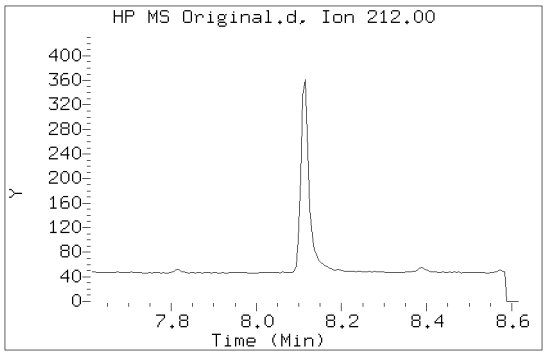
AFTER

MASS
122
AREA
684
HEIGHT
490
10-Jul-2023
10:58
ALSHS
Se



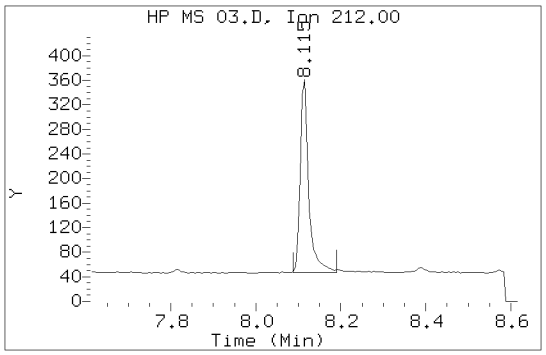
BEFORE

MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
10:54
ALSHS
Server



AFTER

MASS
212
AREA
429
HEIGHT
314
10-Jul-2023
10:58
ALSHS
Se



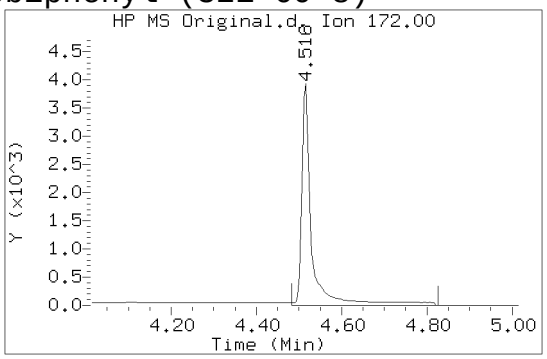
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\03.D
Inj Date : 10-JUL-2023 10:38
InstruID : SV6.i
LabSampID : 14DX-0.08

2-Fluorobiphenyl (321-60-8)

Reason Code:

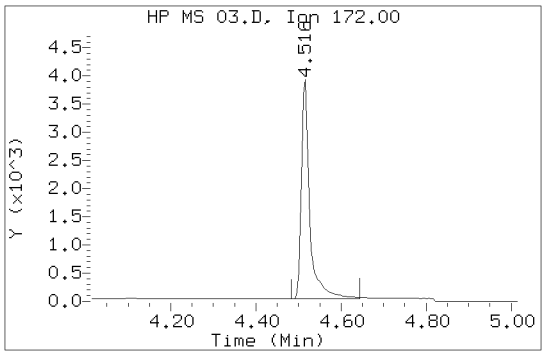
BEFORE

MASS
172
AREA
6358
HEIGHT
3933
10-Jul-2023
10:54
ALSHS
Server



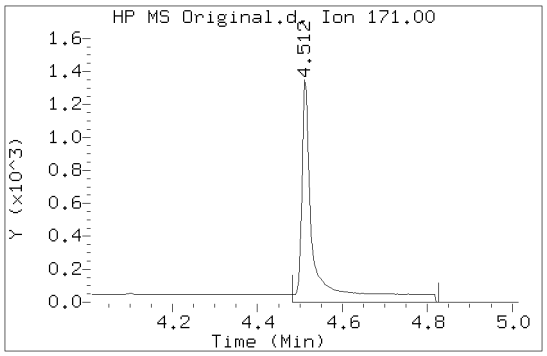
AFTER

MASS
172
AREA
5339
HEIGHT
3891
10-Jul-2023
10:58
ALSHS
Se



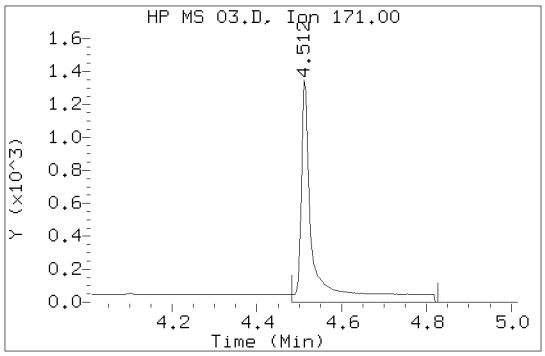
BEFORE

MASS
171
AREA
2769
HEIGHT
1349
10-Jul-2023
10:54
ALSHS
Server



AFTER

MASS
171
AREA
2769
HEIGHT
1349
10-Jul-2023
10:58
ALSHS
Se



Data File: \\nahstws005\Target\chem\SV6.i\230710.b\05.D Page 1
Report Date: 10-Jul-2023 12:21

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230710.b\05.D
Lab Smp Id: MBLK-196987 Client Smp ID: MBLK-196987
Inj Date : 10-JUL-2023 11:26
Operator : LG Inst ID: SV6.i
Smp Info : MBLK-196987
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230710.b\DXSIM.m
Meth Date : 10-Jul-2023 10:56 jiayi.lu Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7015

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	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)	
* 20 1,4-Dichlorobenzene-d4	152	2.447	2.442	(1.000)	3438	0.10000		(a)
* 45 Naphthalene-d8	136	3.494	3.494	(1.000)	11358	0.10000		(M)
$ 33 Nitrobenzene-d5	82	2.887	2.887	(0.826)	2904	0.08415	0.08415	(M)
* 86 Acenaphthene-d10	164	5.121	5.121	(1.000)	6419	0.10000		(M)
$ 69 2-Fluorobiphenyl	172	4.515	4.515	(0.882)	5120	0.07800	0.07800	(M)
* 126 Phenanthrene-d10	188	6.533	6.533	(1.000)	10233	0.10000		
* 182 Chrysene-d12	240	9.072	9.077	(1.000)	8171	0.10000		(M)
$ 158 4-Terphenyl-d14	244	8.114	8.114	(0.894)	5251	0.08711	0.08711	(M)
* 198 Perylene-d12	264	10.662	10.667	(1.000)	5838	0.10000		(M)

QC Flag Legend

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

01206065

Data File: \\nahstws005\target\chem\sv6.i\230710.b\05.d

Date : 10-JUL-2023 11:26

Client ID: MBLK-196987

Instrument: SV6.i

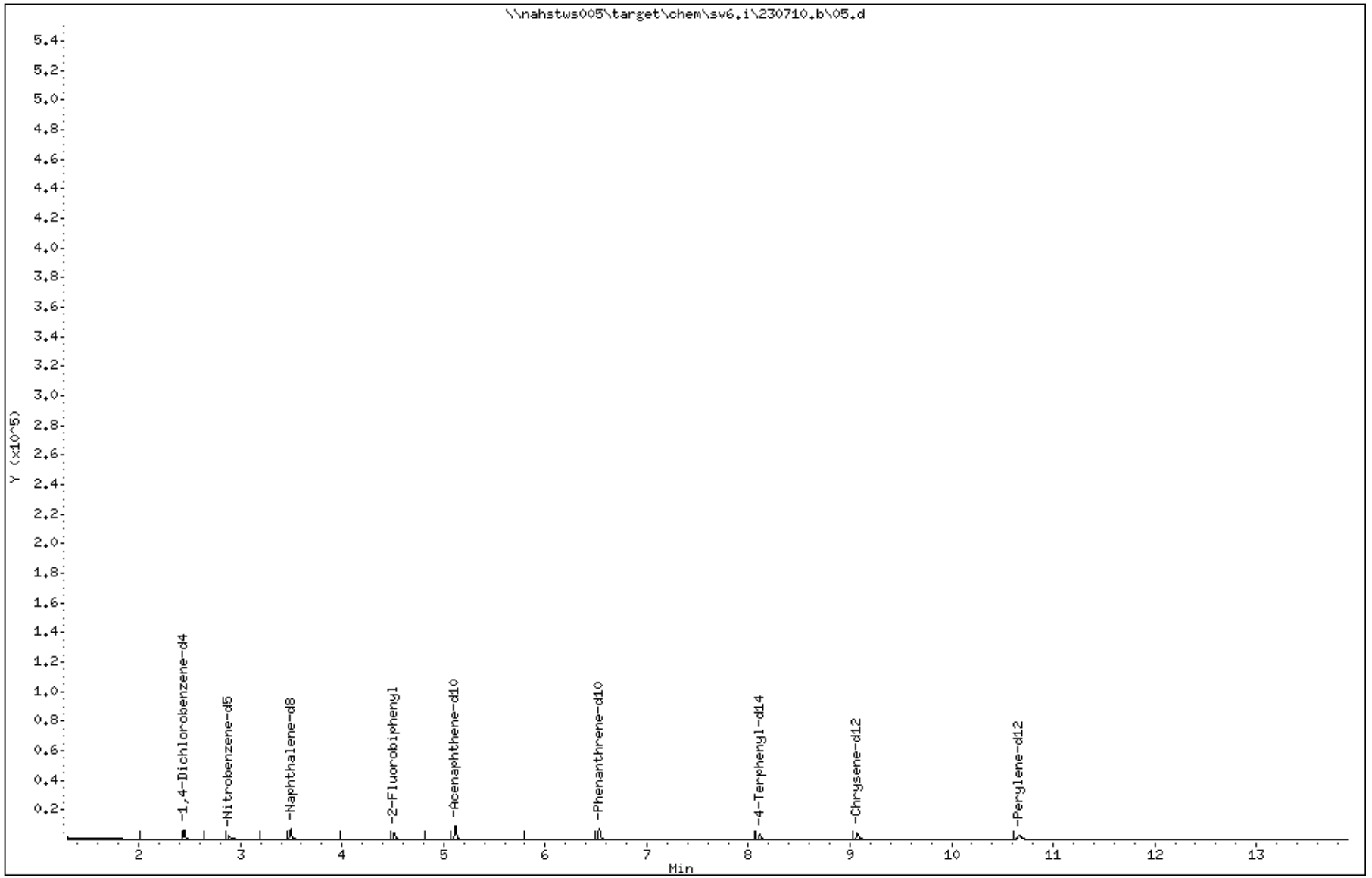
Sample Info: MBLK-196987

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28

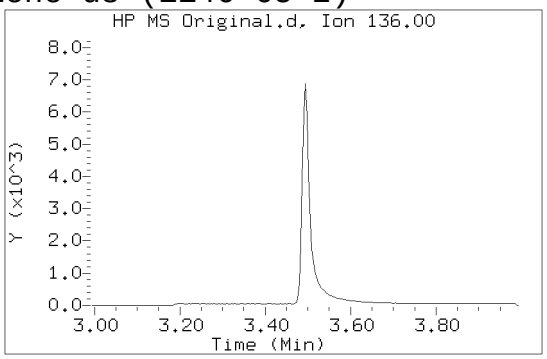


Data File : \\nahstws005\target\chem\sv6.i\230710.b\05.d
Inj Date : 10-JUL-2023 11:26
InstruID : SV6.i
LabSampID : MBLK-196987

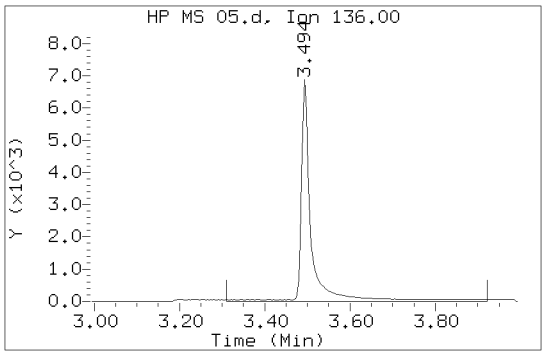
Naphthalene-d8 (1146-65-2)

Reason Code:

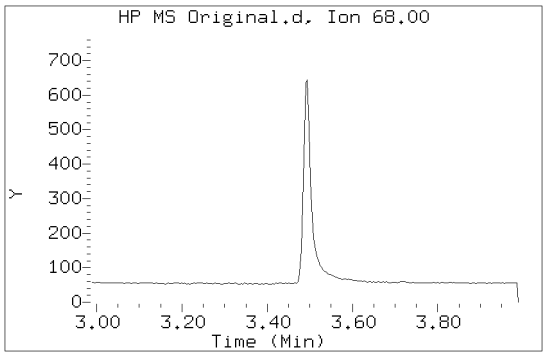
BEFORE
MASS
136
AREA
0
HEIGHT
0
10-Jul-2023
11:40
ALSHS
Server



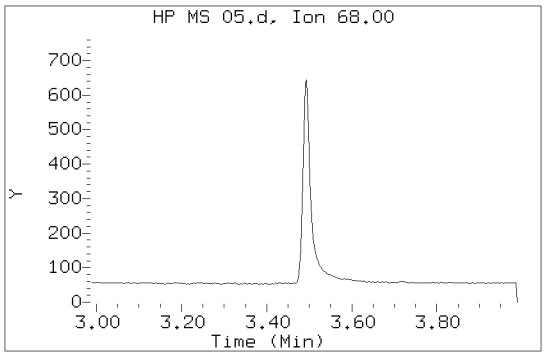
AFTER
MASS
136
AREA
11358
HEIGHT
6873
10-Jul-2023
12:21
ALSHS
Se



BEFORE
MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
11:40
ALSHS
Server



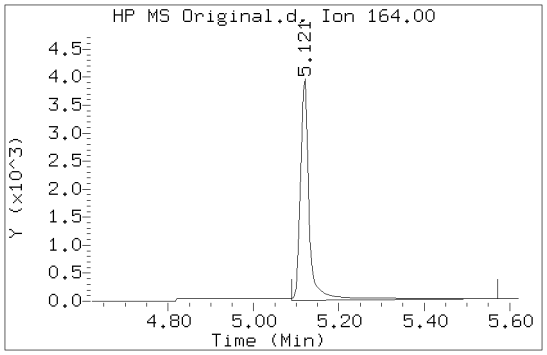
AFTER
MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
12:21
ALSHS
Se



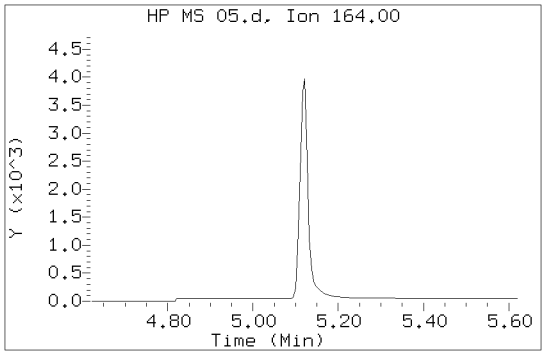
Acenaphthene-d10 (15067-26-2)

Reason Code:

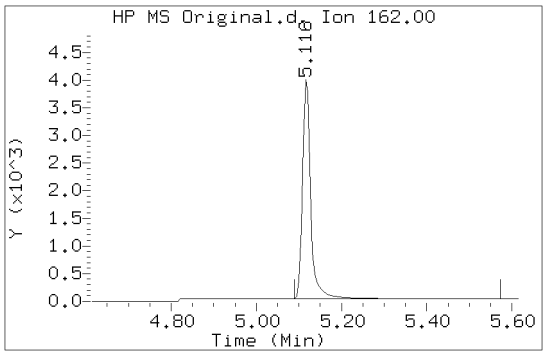
BEFORE
MASS
164
AREA
5791
HEIGHT
3948
10-Jul-2023
11:40
ALSHS
Server



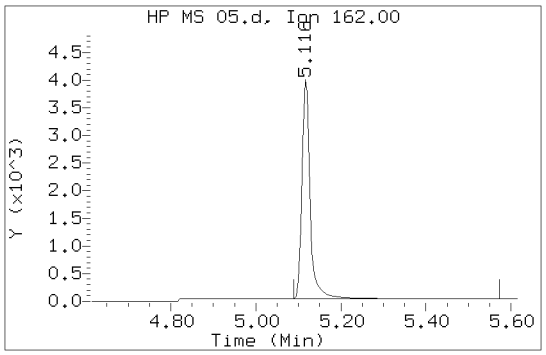
AFTER
MASS
164
AREA
6419
HEIGHT
3946
10-Jul-2023
12:21
ALSHS
Se



BEFORE
MASS
162
AREA
5419
HEIGHT
3960
10-Jul-2023
11:40
ALSHS
Server



AFTER
MASS
162
AREA
5419
HEIGHT
3960
10-Jul-2023
12:21
ALSHS
Se



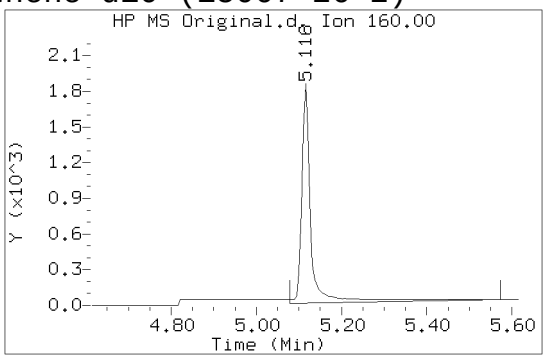
Data File : \\nahstws005\target\chem\sv6.i\230710.b\05.d
Inj Date : 10-JUL-2023 11:26
InstruID : SV6.i
LabSampID : MBLK-196987

Acenaphthene-d10 (15067-26-2)

Reason Code:

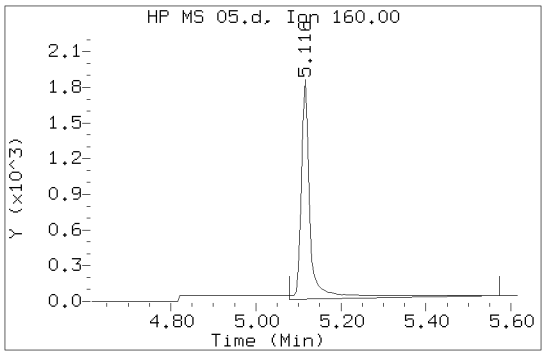
BEFORE

MASS
160
AREA
2851
HEIGHT
1845
10-Jul-2023
11:40
ALSHS
Server



AFTER

MASS
160
AREA
2851
HEIGHT
1845
10-Jul-2023
12:21
ALSHS
Se

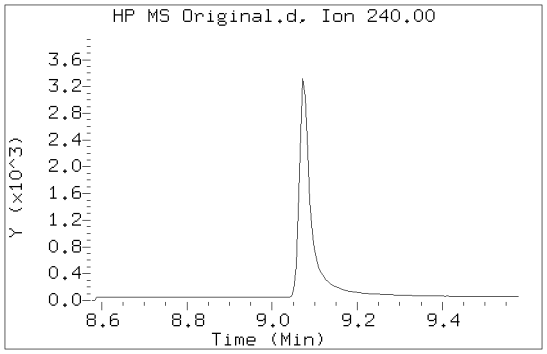


Chrysene-d12 (1719-03-5)

Reason Code:

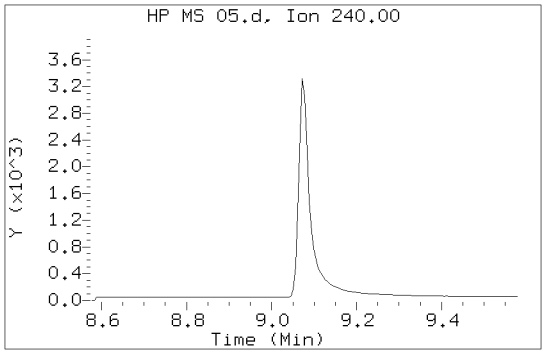
BEFORE

MASS
240
AREA
0
HEIGHT
0
10-Jul-2023
11:40
ALSHS
Server



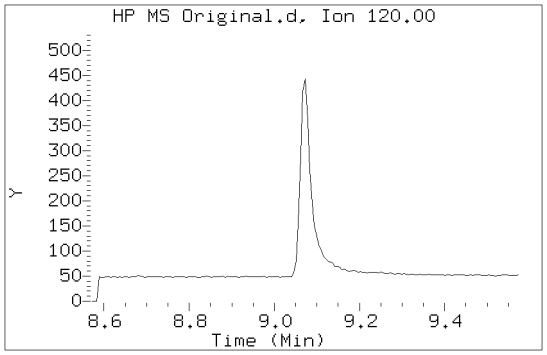
AFTER

MASS
240
AREA
8171
HEIGHT
3287
10-Jul-2023
12:21
ALSHS
Se



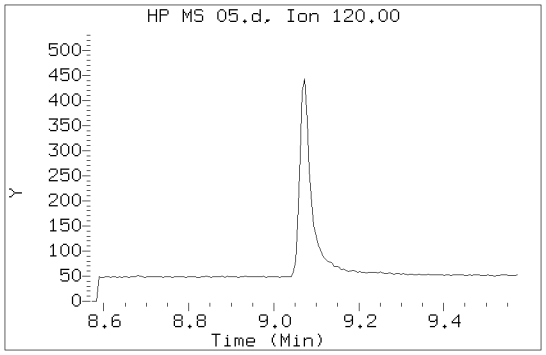
BEFORE

MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
11:40
ALSHS
Server



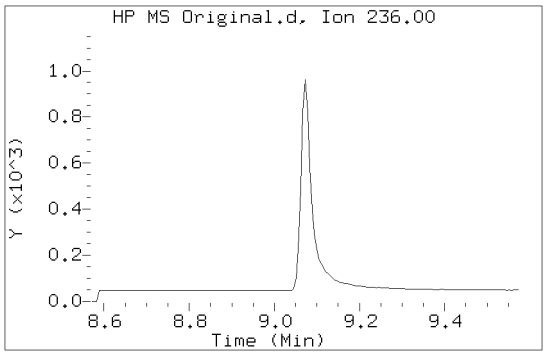
AFTER

MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
12:21
ALSHS
Se



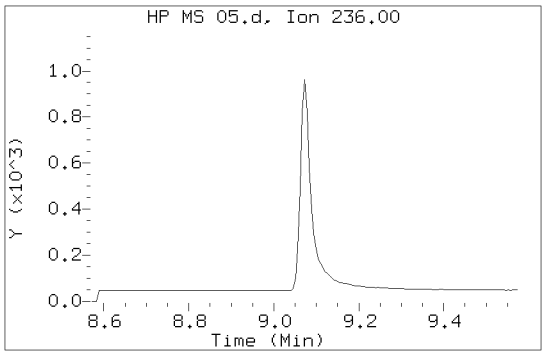
BEFORE

MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
11:40
ALSHS
Server



AFTER

MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
12:21
ALSHS
Se



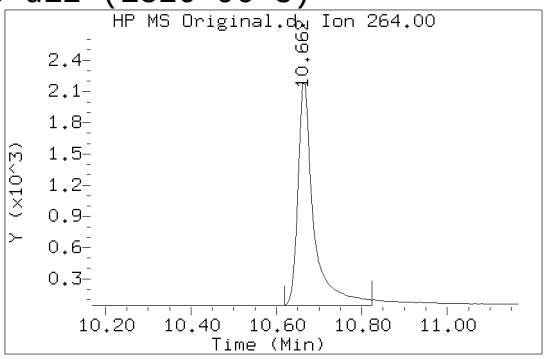
Data File : \\nahstws005\target\chem\sv6.i\230710.b\05.d
Inj Date : 10-JUL-2023 11:26
InstruID : SV6.i
LabSampID : MBLK-196987

Perylene-d12 (1520-96-3)

Reason Code:

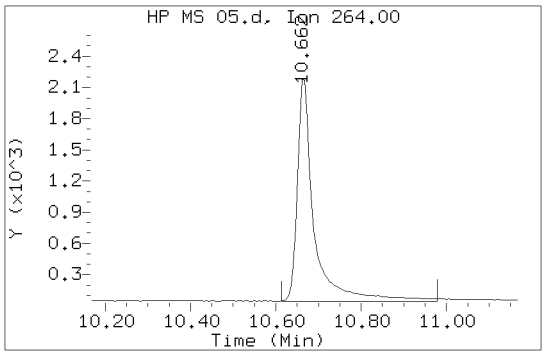
BEFORE

MASS
264
AREA
5434
HEIGHT
2126
10-Jul-2023
11:40
ALSHS
Server



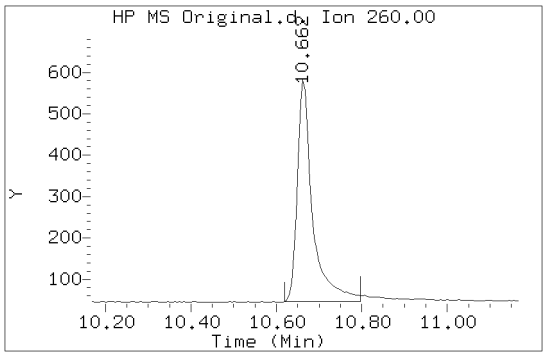
AFTER

MASS
264
AREA
5838
HEIGHT
2132
10-Jul-2023
12:21
ALSHS
Se



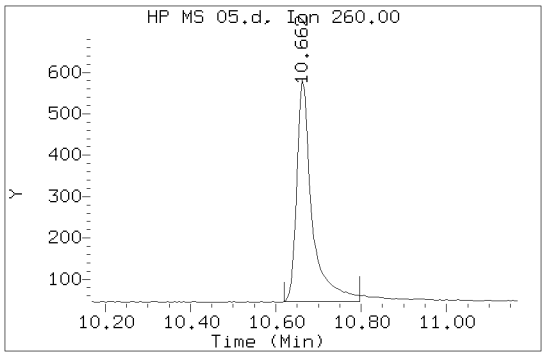
BEFORE

MASS
260
AREA
1323
HEIGHT
535
10-Jul-2023
11:40
ALSHS
Server



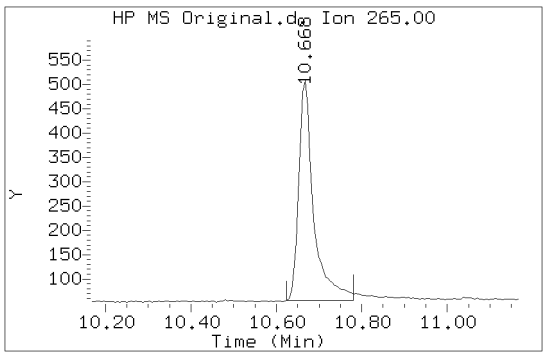
AFTER

MASS
260
AREA
1323
HEIGHT
535
10-Jul-2023
12:21
ALSHS
Se



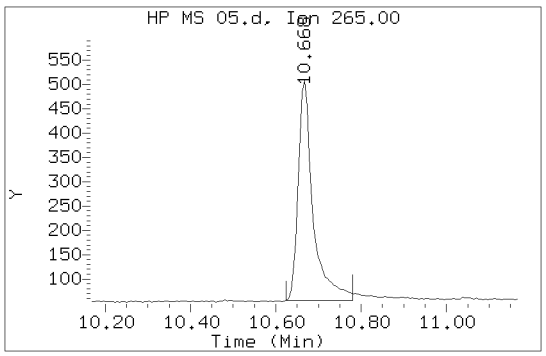
BEFORE

MASS
265
AREA
1092
HEIGHT
452
10-Jul-2023
11:40
ALSHS
Server



AFTER

MASS
265
AREA
1092
HEIGHT
452
10-Jul-2023
12:21
ALSHS
Se

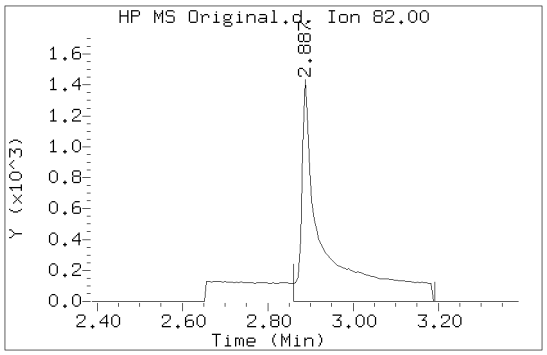


Nitrobenzene-d5 (4165-60-0)

Reason Code:

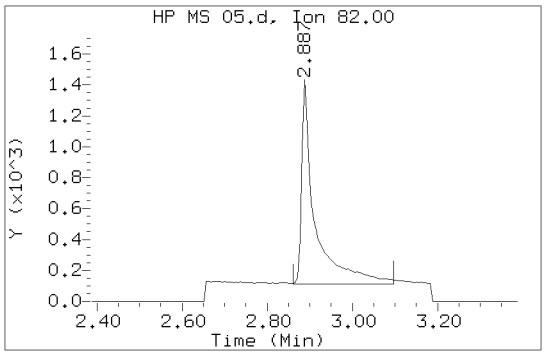
BEFORE

MASS
82
AREA
5133
HEIGHT
1434
10-Jul-2023
11:40
ALSHS
Server



AFTER

MASS
82
AREA
2904
HEIGHT
1323
10-Jul-2023
12:21
ALSHS
Se

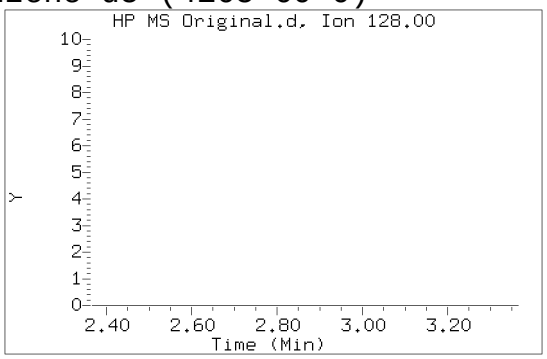


Data File : \\nahstws005\target\chem\sv6.i\230710.b\05.d
Inj Date : 10-JUL-2023 11:26
InstruID : SV6.i
LabSampID : MBLK-196987

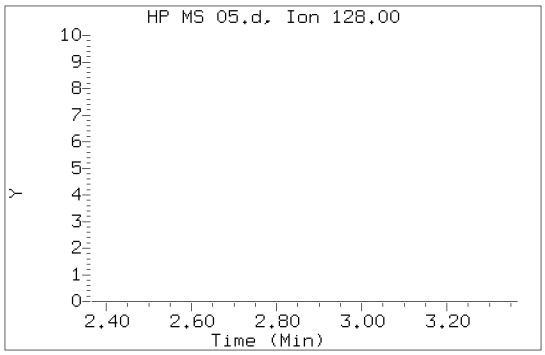
Nitrobenzene-d5 (4165-60-0)

Reason Code:

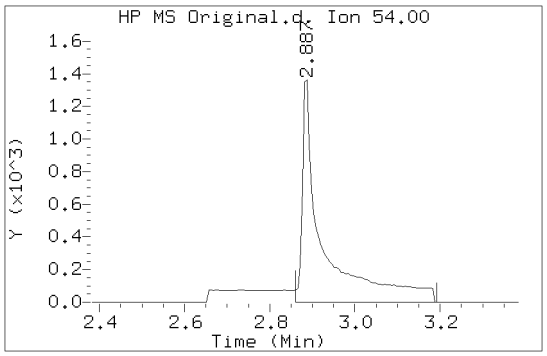
BEFORE
MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
11:40
ALSHS
Server



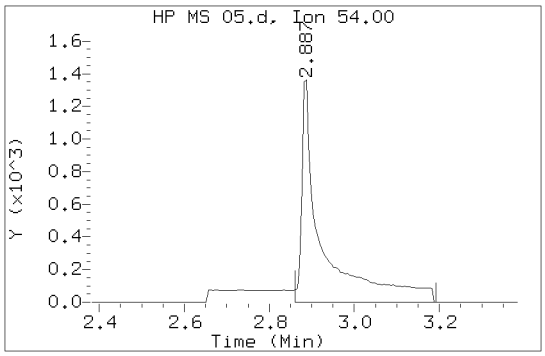
AFTER
MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
12:21
ALSHS
Se



BEFORE
MASS
54
AREA
4490
HEIGHT
1362
10-Jul-2023
11:40
ALSHS
Server



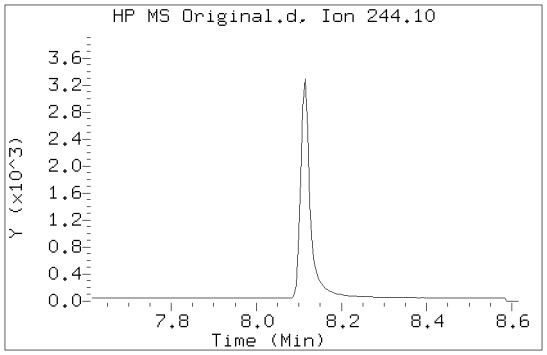
AFTER
MASS
54
AREA
4490
HEIGHT
1362
10-Jul-2023
12:21
ALSHS
Se



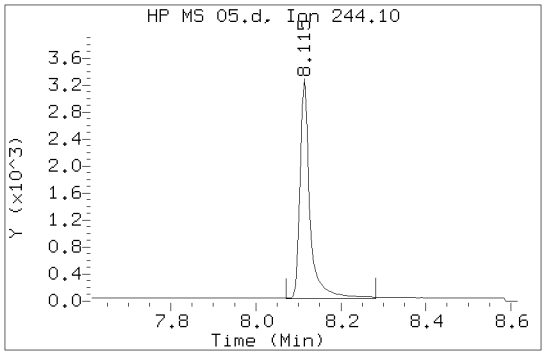
4-Terphenyl-d14 (1718-51-0)

Reason Code:

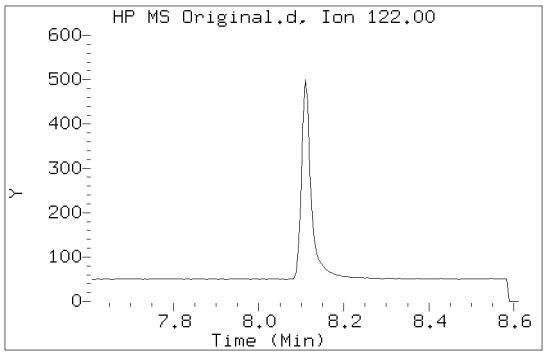
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
10-Jul-2023
11:40
ALSHS
Server



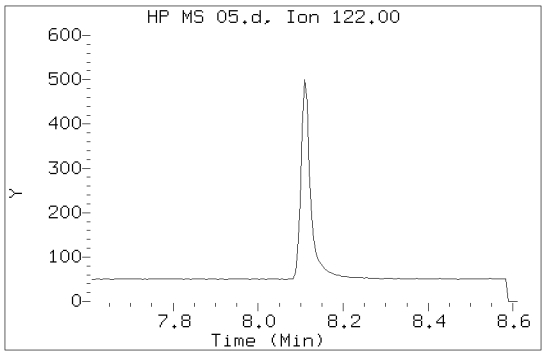
AFTER
MASS
244.1
AREA
5251
HEIGHT
3253
10-Jul-2023
12:21
ALSHS
Se



BEFORE
MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
11:40
ALSHS
Server



AFTER
MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
12:21
ALSHS
Se



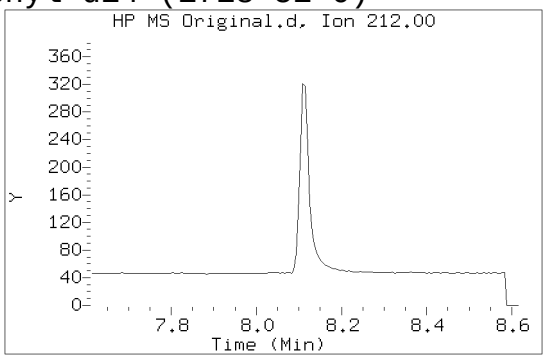
Data File : \\nahstws005\target\chem\sv6.i\230710.b\05.d
Inj Date : 10-JUL-2023 11:26
InstruID : SV6.i
LabSampID : MBLK-196987

4-Terphenyl-d14 (1718-51-0)

Reason Code:

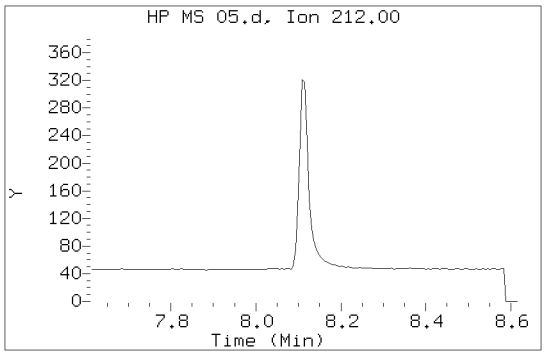
BEFORE

MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
11:40
ALSHS
Server



AFTER

MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
12:21
ALSHS
Se

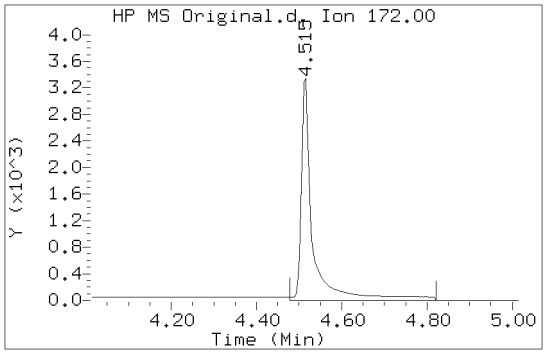


2-Fluorobiphenyl (321-60-8)

Reason Code:

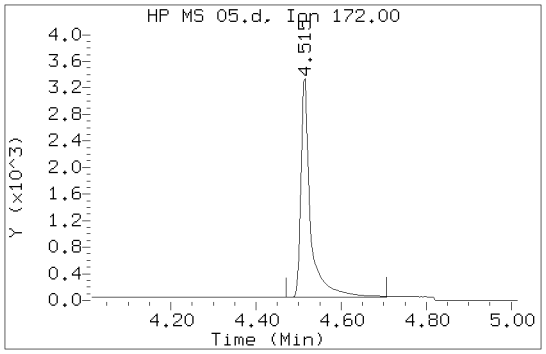
BEFORE

MASS
172
AREA
6167
HEIGHT
3338
10-Jul-2023
11:40
ALSHS
Server



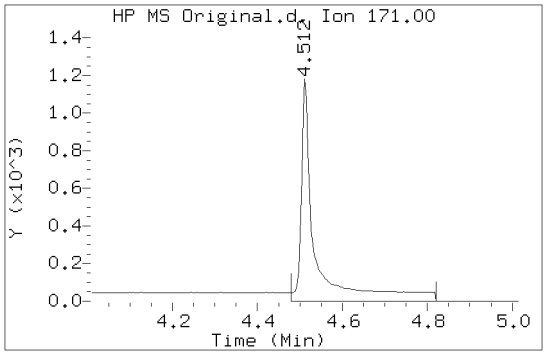
AFTER

MASS
172
AREA
5120
HEIGHT
3289
10-Jul-2023
12:21
ALSHS
Se



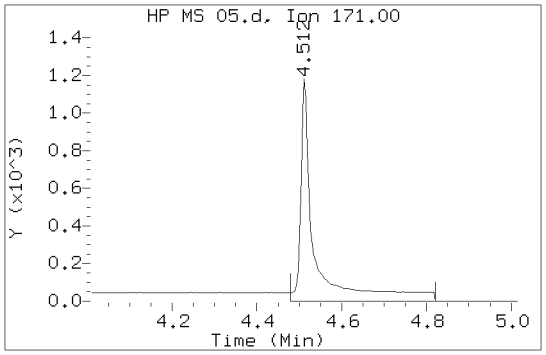
BEFORE

MASS
171
AREA
2691
HEIGHT
1182
10-Jul-2023
11:40
ALSHS
Server



AFTER

MASS
171
AREA
2691
HEIGHT
1182
10-Jul-2023
12:21
ALSHS
Se



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230710.b\06.D
Lab Smp Id: LCS1-196987 Client Smp ID: LCS1-196987
Inj Date : 10-JUL-2023 11:44
Operator : LG Inst ID: SV6.i
Smp Info : LCS1-196987
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230710.b\DXSIM.m
Meth Date : 10-Jul-2023 10:56 jiayi.lu Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7015

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	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.447	2.442	(1.000)	4166	0.10000	(aM)
* 45 Naphthalene-d8	136	3.494	3.494	(1.000)	15056	0.10000	(M)
$ 33 Nitrobenzene-d5	82	2.887	2.887	(0.826)	4083	0.08926	0.08926(M)
* 86 Acenaphthene-d10	164	5.121	5.121	(1.000)	9442	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.515	4.515	(0.882)	7874	0.08155	0.08155(M)
* 126 Phenanthrene-d10	188	6.528	6.533	(1.000)	16118	0.10000	
* 182 Chrysene-d12	240	9.072	9.077	(1.000)	12192	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.109	8.114	(0.894)	7879	0.08760	0.08760(M)
* 198 Perylene-d12	264	10.662	10.667	(1.000)	11697	0.10000	
1 1,4-Dioxane	58	0.960	0.942	(0.393)	1124	0.07952	0.07952(M)

QC Flag Legend

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

01206072

Data File: \\nahstws005\Target\chem\SV6.i\230710.b\06.D

Date : 10-JUL-2023 11:44

Client ID: LCS1-196987

Instrument: SV6.i

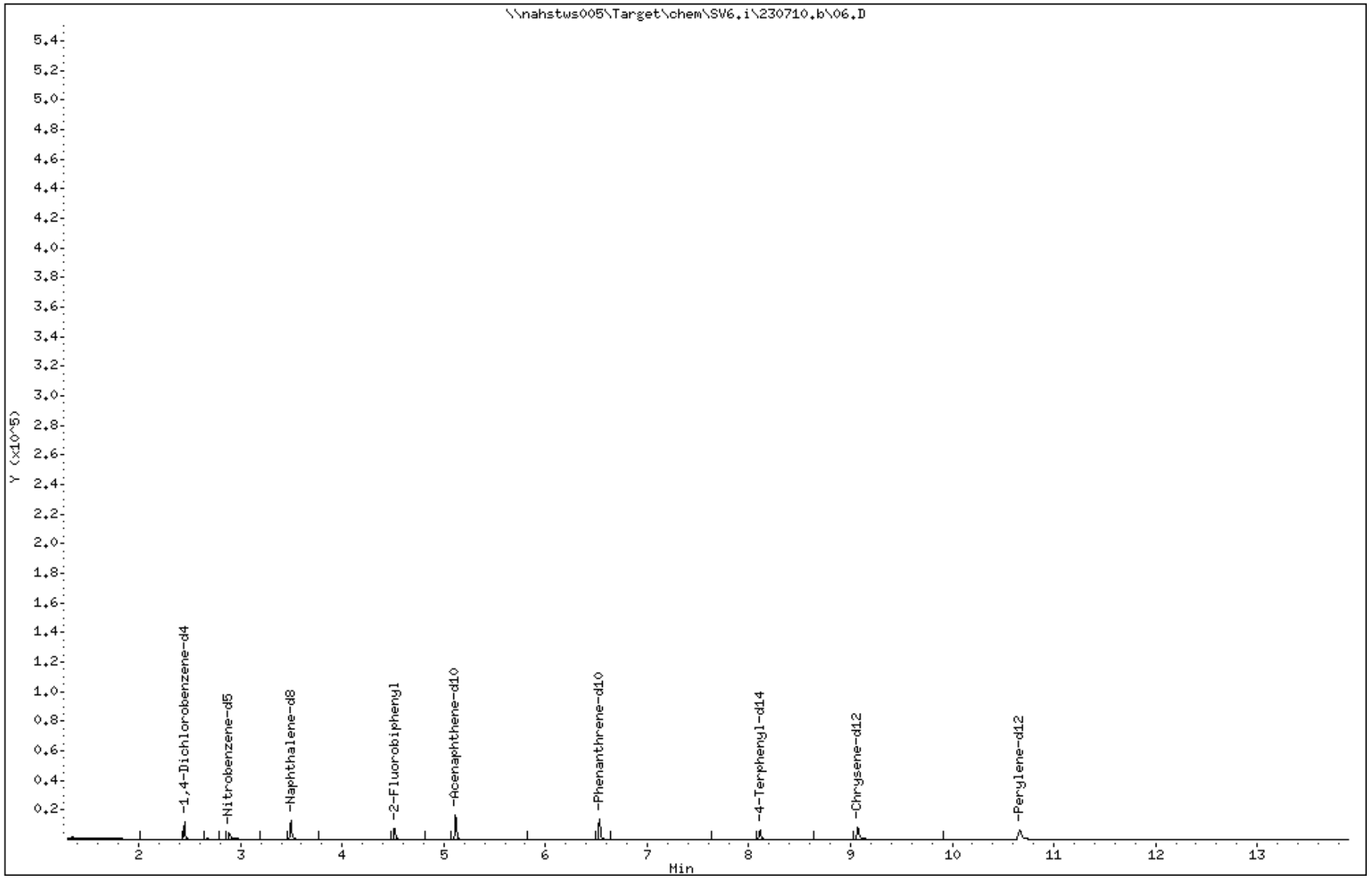
Sample Info: LCS1-196987

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



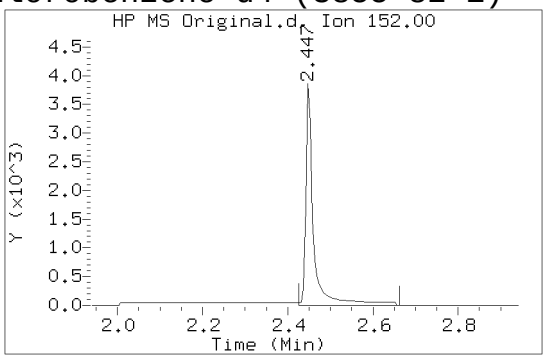
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\06.D
Inj Date : 10-JUL-2023 11:44
InstruID : SV6.i
LabSampID : LCS1-196987

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

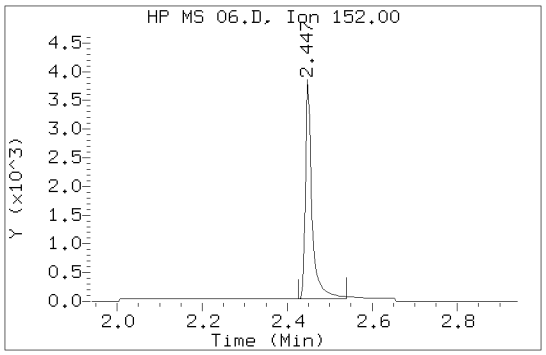
BEFORE

MASS
152
AREA
4905
HEIGHT
3860
10-Jul-2023
12:00
ALSHS
Server



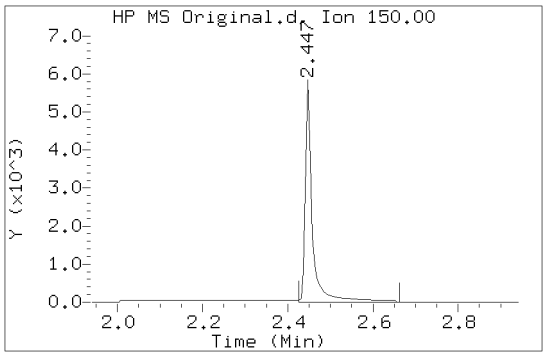
AFTER

MASS
152
AREA
4166
HEIGHT
3813
10-Jul-2023
12:23
ALSHS
Se



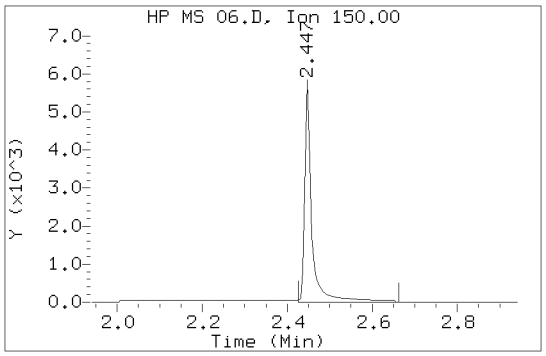
BEFORE

MASS
150
AREA
6881
HEIGHT
5841
10-Jul-2023
12:00
ALSHS
Server



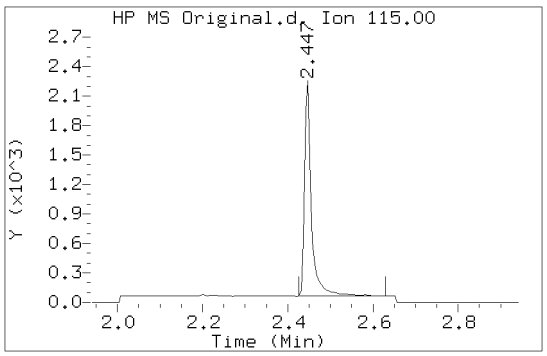
AFTER

MASS
150
AREA
6881
HEIGHT
5841
10-Jul-2023
12:23
ALSHS
Se



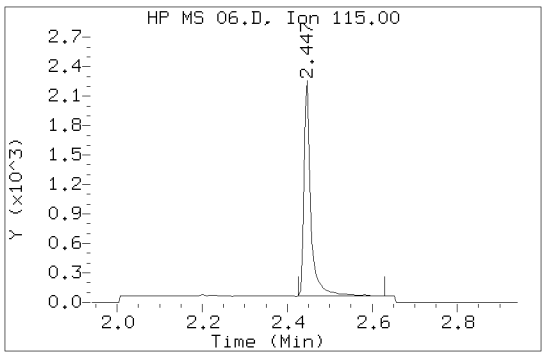
BEFORE

MASS
115
AREA
2499
HEIGHT
2194
10-Jul-2023
12:00
ALSHS
Server



AFTER

MASS
115
AREA
2499
HEIGHT
2194
10-Jul-2023
12:23
ALSHS
Se

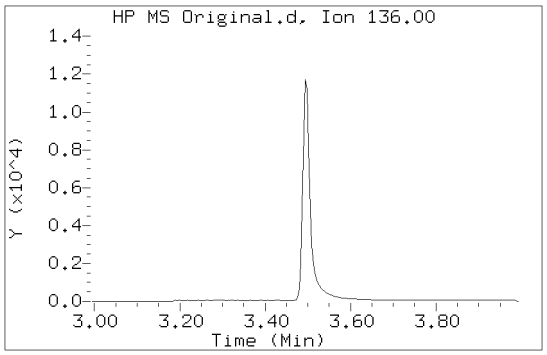


Naphthalene-d8 (1146-65-2)

Reason Code:

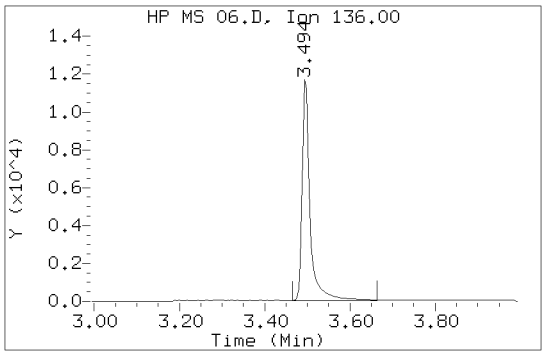
BEFORE

MASS
136
AREA
0
HEIGHT
0
10-Jul-2023
12:00
ALSHS
Server



AFTER

MASS
136
AREA
15056
HEIGHT
11674
10-Jul-2023
12:23
ALSHS
Se



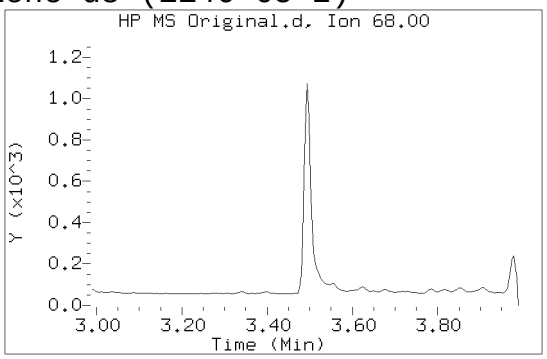
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\06.D
Inj Date : 10-JUL-2023 11:44
InstruID : SV6.i
LabSampID : LCS1-196987

Naphthalene-d8 (1146-65-2)

Reason Code:

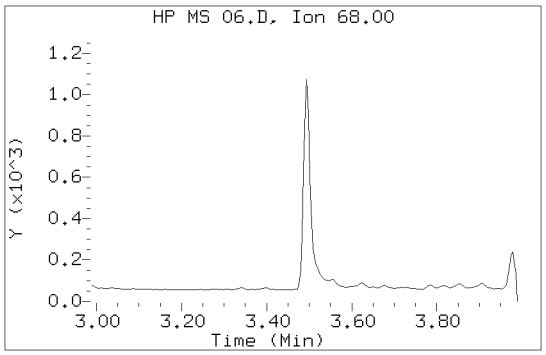
BEFORE

MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
12:00
ALSHS
Server



AFTER

MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
12:23
ALSHS
Se

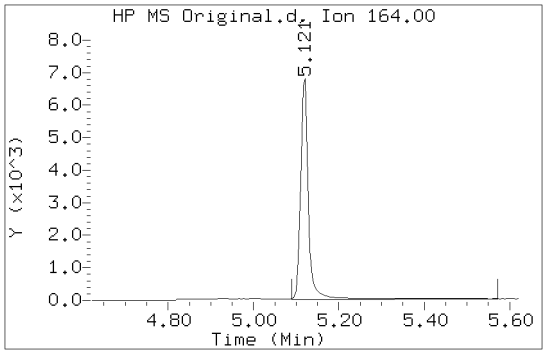


Acenaphthene-d10 (15067-26-2)

Reason Code:

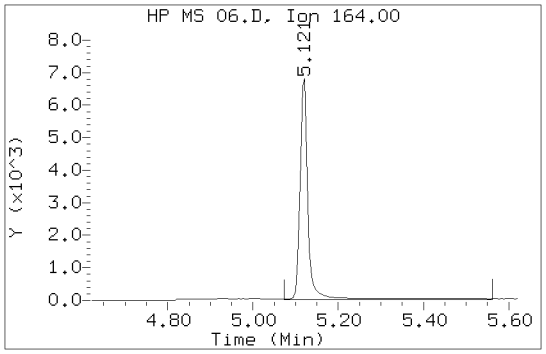
BEFORE

MASS
164
AREA
8831
HEIGHT
6793
10-Jul-2023
12:00
ALSHS
Server



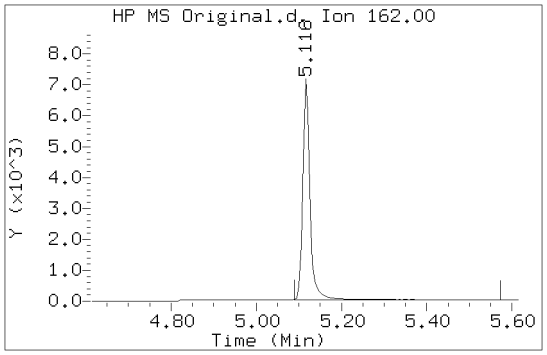
AFTER

MASS
164
AREA
9442
HEIGHT
6801
10-Jul-2023
12:23
ALSHS
Se



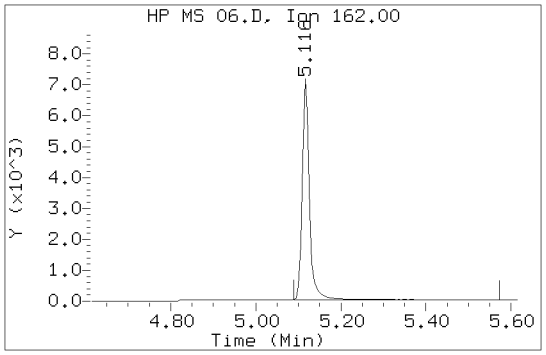
BEFORE

MASS
162
AREA
8476
HEIGHT
7143
10-Jul-2023
12:00
ALSHS
Server



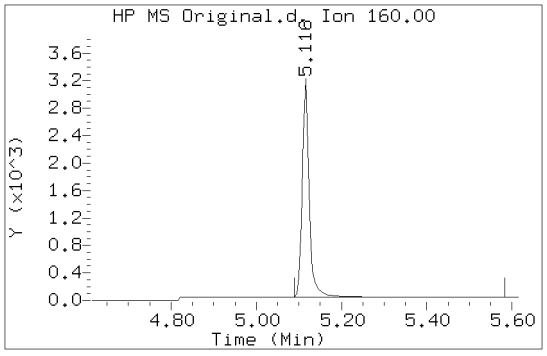
AFTER

MASS
162
AREA
8476
HEIGHT
7143
10-Jul-2023
12:23
ALSHS
Se



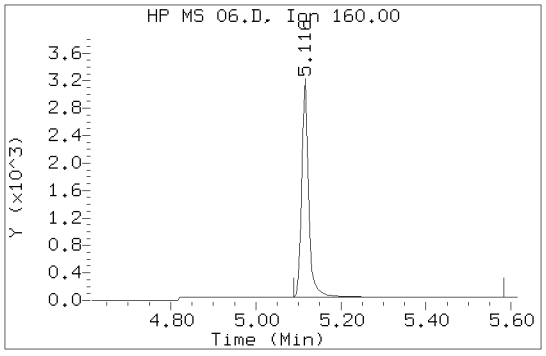
BEFORE

MASS
160
AREA
3695
HEIGHT
3184
10-Jul-2023
12:00
ALSHS
Server



AFTER

MASS
160
AREA
3695
HEIGHT
3184
10-Jul-2023
12:23
ALSHS
Se

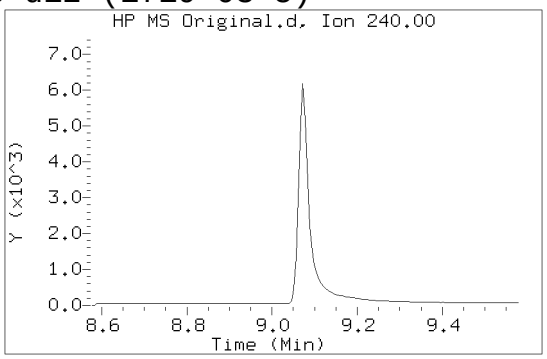


Data File : \\nahstws005\Target\chem\SV6.i\230710.b\06.D
Inj Date : 10-JUL-2023 11:44
InstruID : SV6.i
LabSampID : LCS1-196987

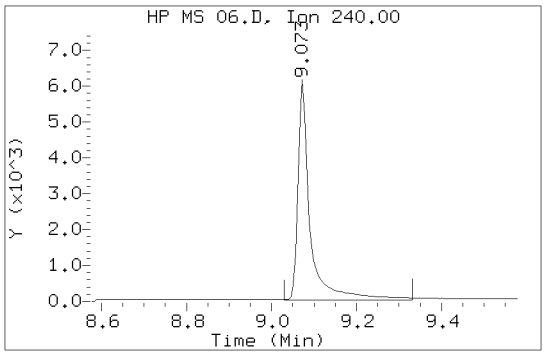
Chrysene-d12 (1719-03-5)

Reason Code:

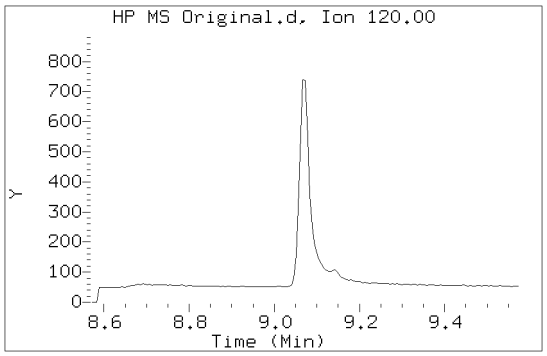
BEFORE
MASS
240
AREA
0
HEIGHT
0
10-Jul-2023
12:00
ALSHS
Server



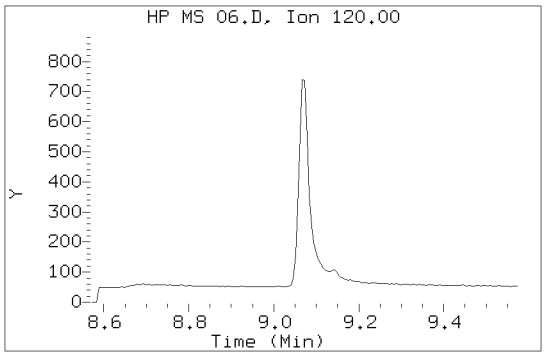
AFTER
MASS
240
AREA
12192
HEIGHT
6145
10-Jul-2023
12:23
ALSHS
Se



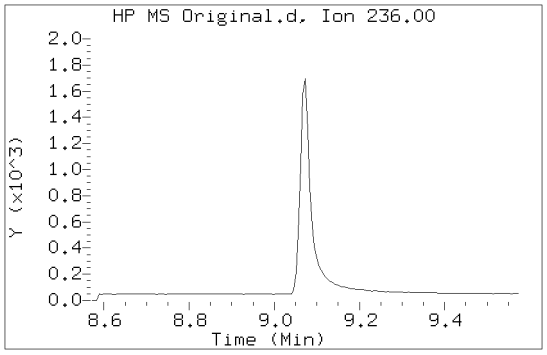
BEFORE
MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
12:00
ALSHS
Server



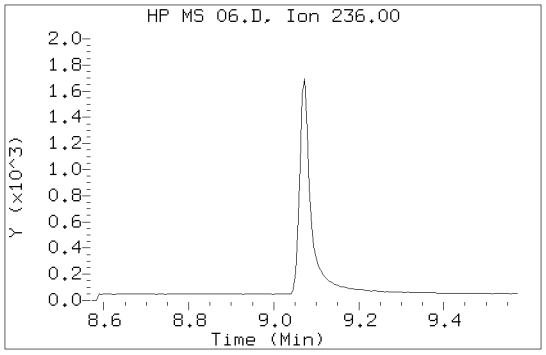
AFTER
MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
12:23
ALSHS
Se



BEFORE
MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
12:00
ALSHS
Server



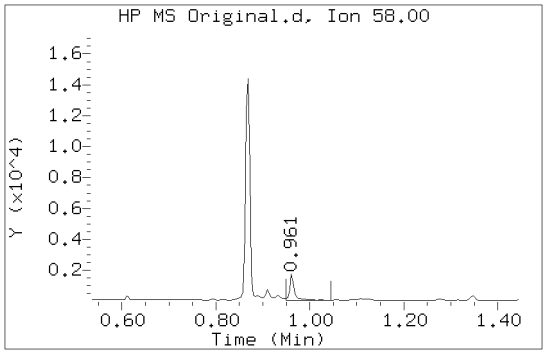
AFTER
MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
12:23
ALSHS
Se



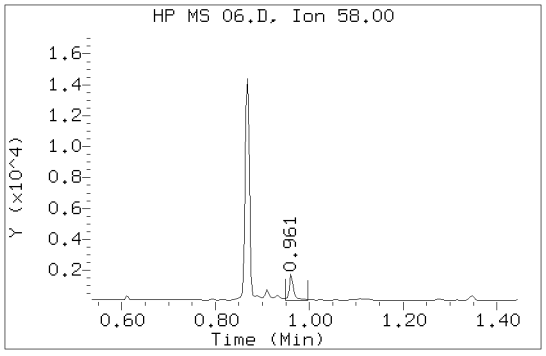
1,4-Dioxane ()

Reason Code:

BEFORE
MASS
58
AREA
1129
HEIGHT
1679
10-Jul-2023
12:00
ALSHS
Server



AFTER
MASS
58
AREA
1124
HEIGHT
1687
10-Jul-2023
12:23
ALSHS
Se



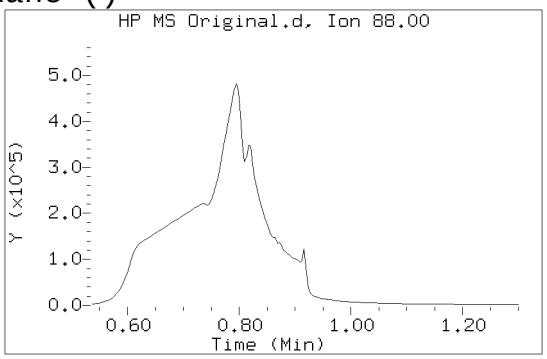
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\06.D
Inj Date : 10-JUL-2023 11:44
InstruID : SV6.i
LabSampID : LCS1-196987

1,4-Dioxane ()

Reason Code:

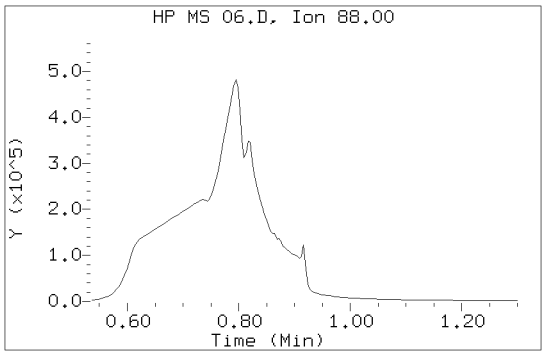
BEFORE

MASS
88
AREA
0
HEIGHT
0
10-Jul-2023
12:00
ALSHS
Server



AFTER

MASS
88
AREA
0
HEIGHT
0
10-Jul-2023
12:23
ALSHS
Se

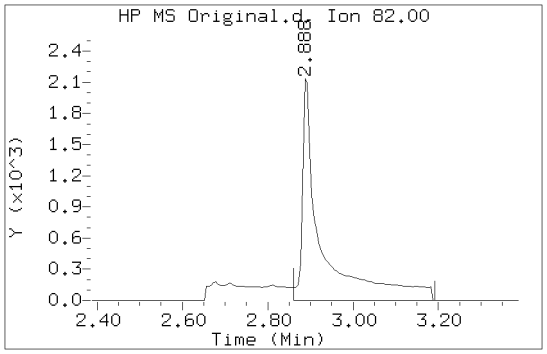


Nitrobenzene-d5 (4165-60-0)

Reason Code:

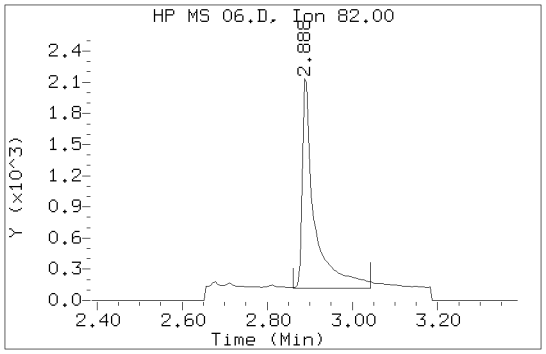
BEFORE

MASS
82
AREA
6541
HEIGHT
2134
10-Jul-2023
12:00
ALSHS
Server



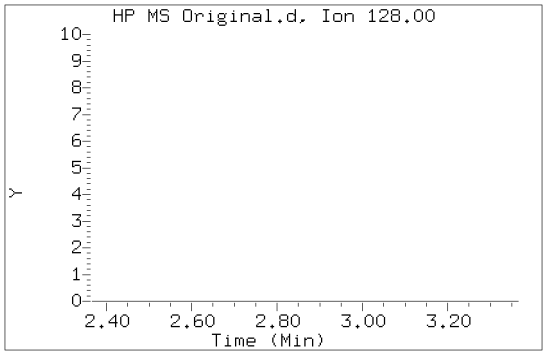
AFTER

MASS
82
AREA
4083
HEIGHT
2019
10-Jul-2023
12:23
ALSHS
Se



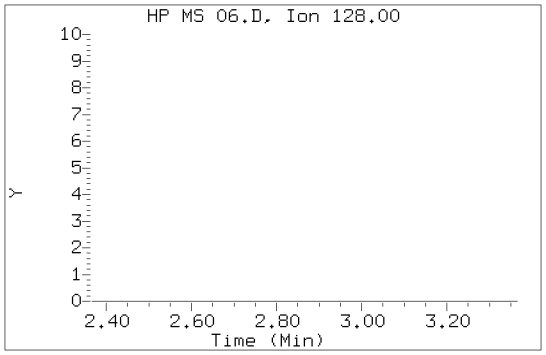
BEFORE

MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
12:00
ALSHS
Server



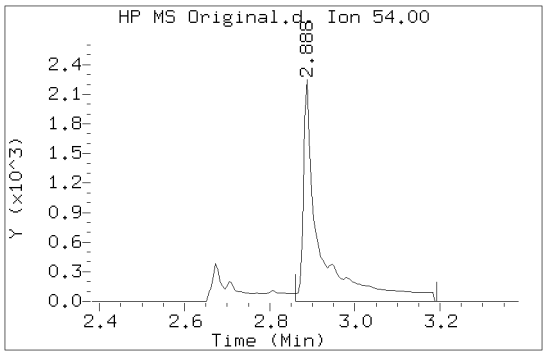
AFTER

MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
12:23
ALSHS
Se



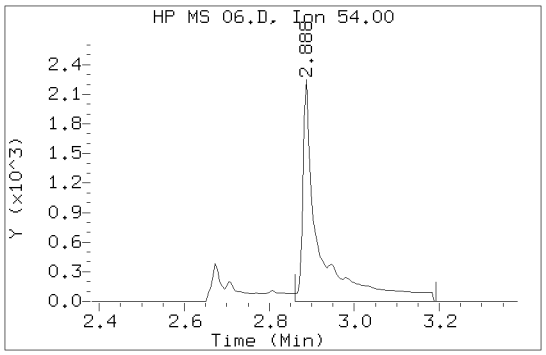
BEFORE

MASS
54
AREA
5975
HEIGHT
2248
10-Jul-2023
12:00
ALSHS
Server



AFTER

MASS
54
AREA
5975
HEIGHT
2248
10-Jul-2023
12:23
ALSHS
Se



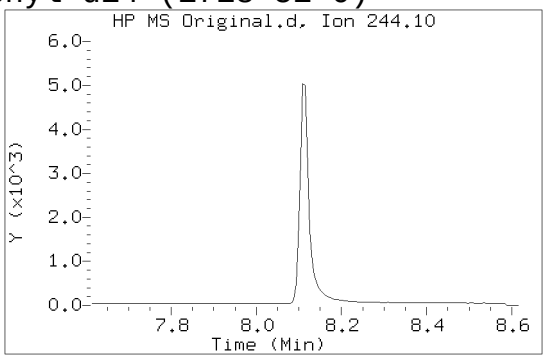
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\06.D
Inj Date : 10-JUL-2023 11:44
InstruID : SV6.i
LabSampID : LCS1-196987

4-Terphenyl-d14 (1718-51-0)

Reason Code:

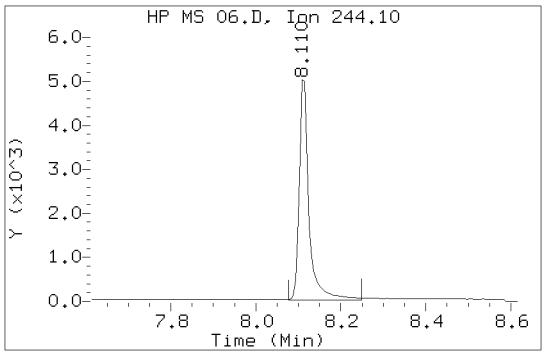
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
10-Jul-2023
12:00
ALSHS
Server



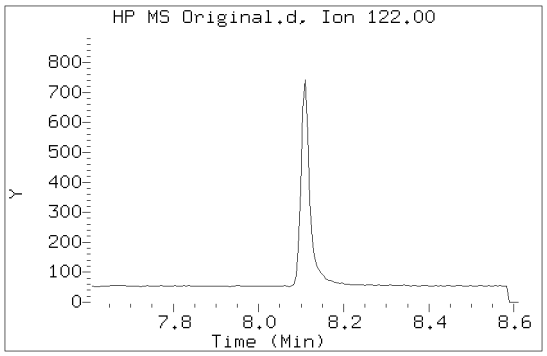
AFTER

MASS
244.1
AREA
7879
HEIGHT
5005
10-Jul-2023
12:23
ALSHS
Se



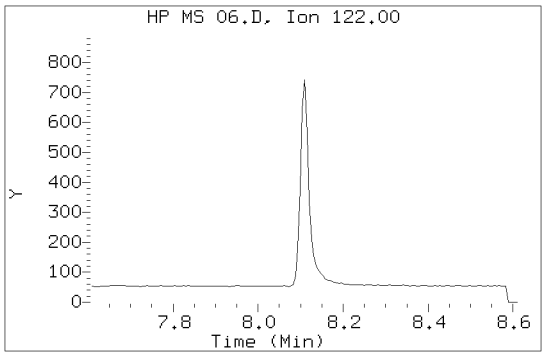
BEFORE

MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
12:00
ALSHS
Server



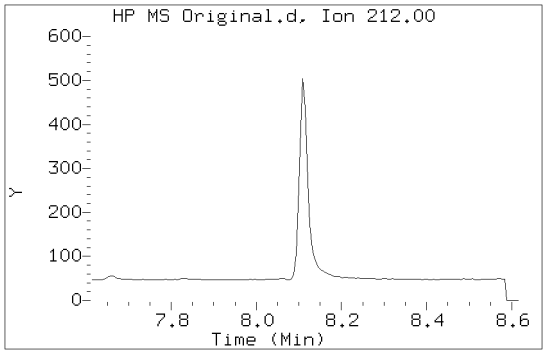
AFTER

MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
12:23
ALSHS
Se



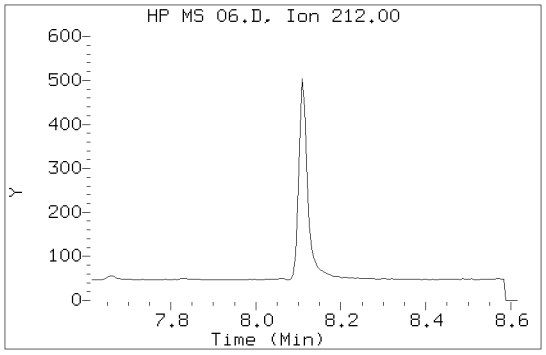
BEFORE

MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
12:00
ALSHS
Server



AFTER

MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
12:23
ALSHS
Se

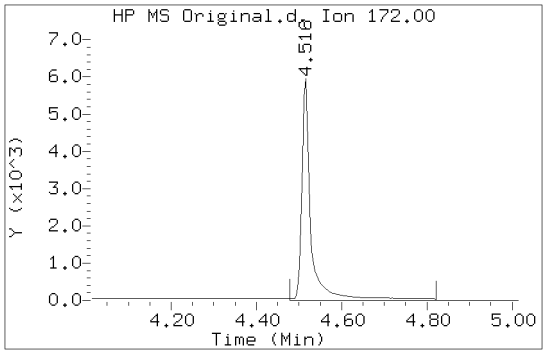


2-Fluorobiphenyl (321-60-8)

Reason Code:

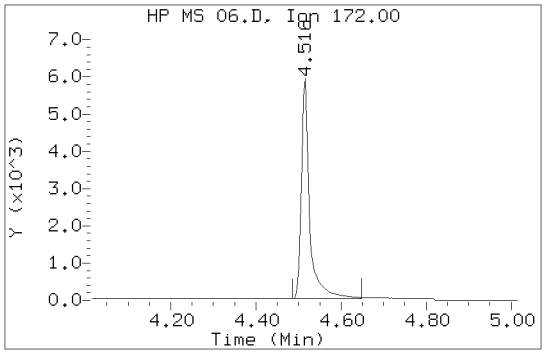
BEFORE

MASS
172
AREA
9007
HEIGHT
5954
10-Jul-2023
12:00
ALSHS
Server



AFTER

MASS
172
AREA
7874
HEIGHT
5903
10-Jul-2023
12:23
ALSHS
Se



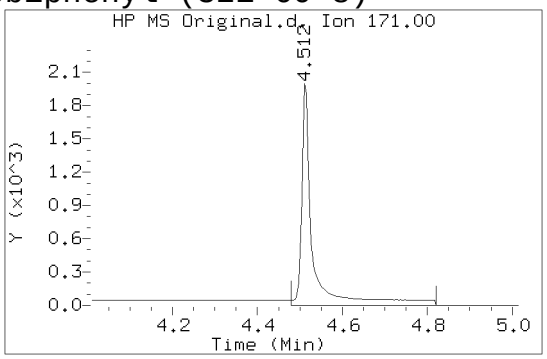
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\06.D
Inj Date : 10-JUL-2023 11:44
InstruID : SV6.i
LabSampID : LCS1-196987

2-Fluorobiphenyl (321-60-8)

Reason Code:

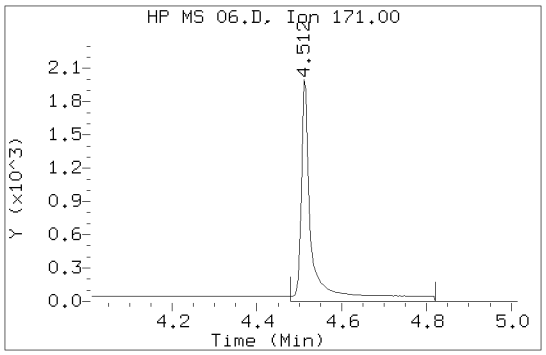
BEFORE

MASS
171
AREA
3629
HEIGHT
1997
10-Jul-2023
12:00
ALSHS
Server



AFTER

MASS
171
AREA
3629
HEIGHT
1997
10-Jul-2023
12:23
ALSHS
Se



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230710.b\07.D
Lab Smp Id: LCSD1-196987 Client Smp ID: LCSD1-196987
Inj Date : 10-JUL-2023 12:02
Operator : LG Inst ID: SV6.i
Smp Info : LCSD1-196987
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230710.b\DXSIM.m
Meth Date : 10-Jul-2023 10:56 jiayi.lu Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 7 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7015

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	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.447	2.442	(1.000)	2661	0.10000	(aM)
* 45 Naphthalene-d8	136	3.494	3.494	(1.000)	9575	0.10000	(M)
$ 33 Nitrobenzene-d5	82	2.887	2.887	(0.826)	2502	0.08600	0.08600(M)
* 86 Acenaphthene-d10	164	5.116	5.121	(1.000)	6160	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.515	4.515	(0.883)	4954	0.07865	0.07864(M)
* 126 Phenanthrene-d10	188	6.528	6.533	(1.000)	9885	0.10000	
* 182 Chrysene-d12	240	9.072	9.077	(1.000)	7141	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.109	8.114	(0.894)	4573	0.08680	0.08680(M)
* 198 Perylene-d12	264	10.662	10.667	(1.000)	6191	0.10000	
1 1,4-Dioxane	58	0.945	0.942	(0.387)	652	0.07221	0.07221(M)

QC Flag Legend

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

01206080

Data File: \\nahstws005\Target\chem\SV6.i\230710.b\07.D

Date : 10-JUL-2023 12:02

Client ID: LCSD1-196987

Instrument: SV6.i

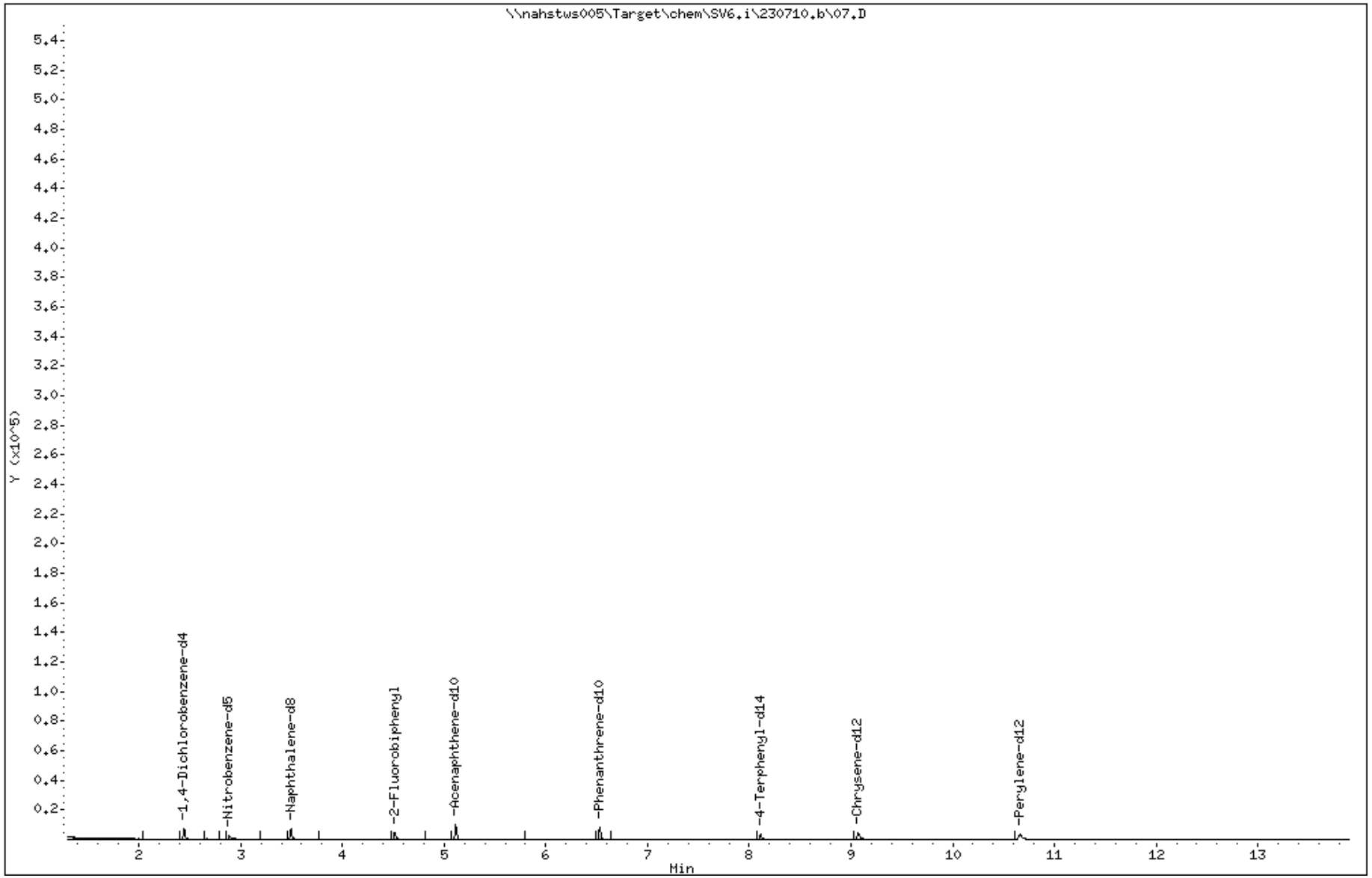
Sample Info: LCSD1-196987

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



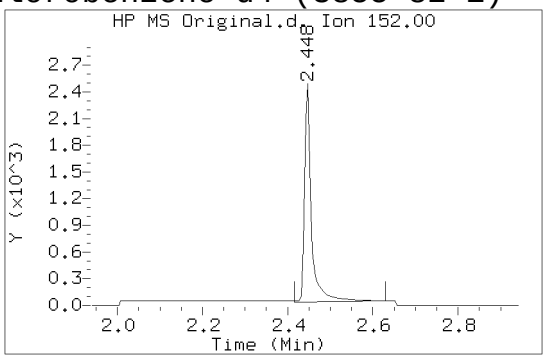
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\07.D
Inj Date : 10-JUL-2023 12:02
InstruID : SV6.i
LabSampID : LCSD1-196987

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

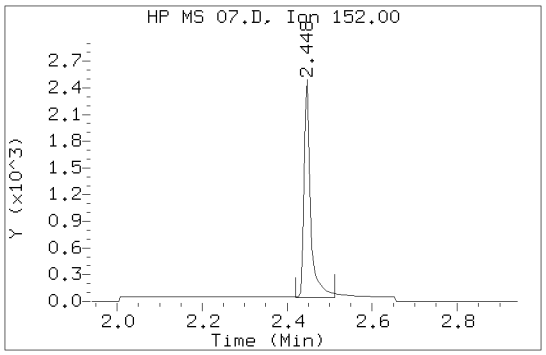
BEFORE

MASS
152
AREA
2830
HEIGHT
2456
10-Jul-2023
12:17
ALSHS
Server



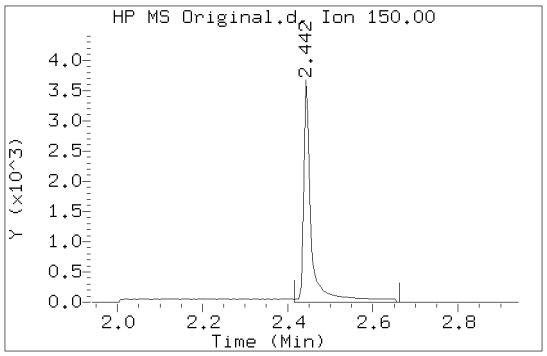
AFTER

MASS
152
AREA
2661
HEIGHT
2449
10-Jul-2023
13:25
ALSHS
Se



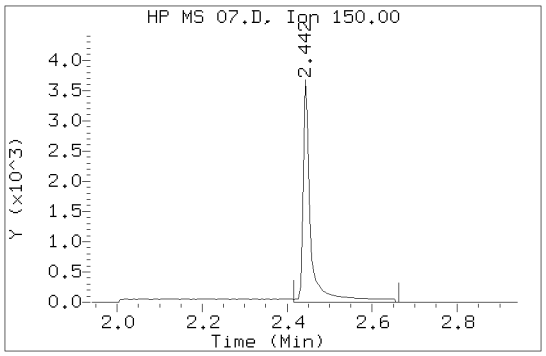
BEFORE

MASS
150
AREA
4726
HEIGHT
3676
10-Jul-2023
12:17
ALSHS
Server



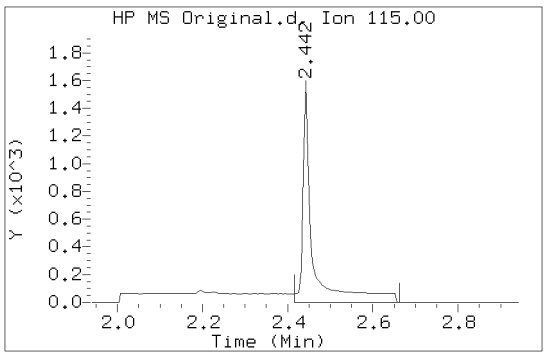
AFTER

MASS
150
AREA
4726
HEIGHT
3676
10-Jul-2023
13:25
ALSHS
Se



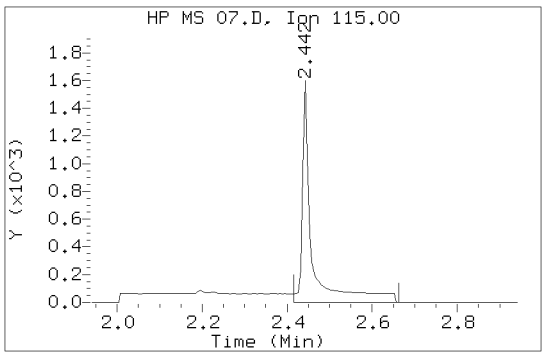
BEFORE

MASS
115
AREA
2517
HEIGHT
1599
10-Jul-2023
12:17
ALSHS
Server



AFTER

MASS
115
AREA
2517
HEIGHT
1599
10-Jul-2023
13:25
ALSHS
Se

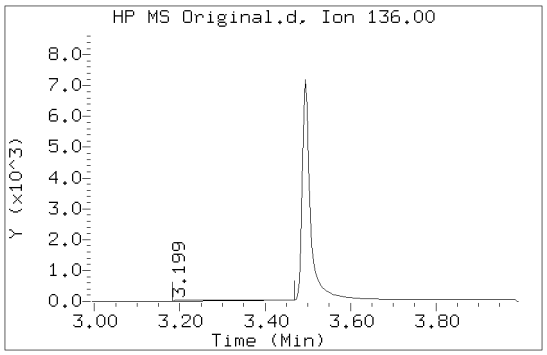


Naphthalene-d8 (1146-65-2)

Reason Code:

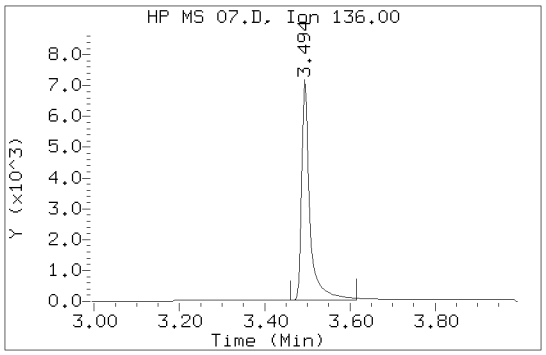
BEFORE

MASS
136
AREA
415
HEIGHT
48
10-Jul-2023
12:17
ALSHS
Server



AFTER

MASS
136
AREA
9575
HEIGHT
7151
10-Jul-2023
13:25
ALSHS
Se

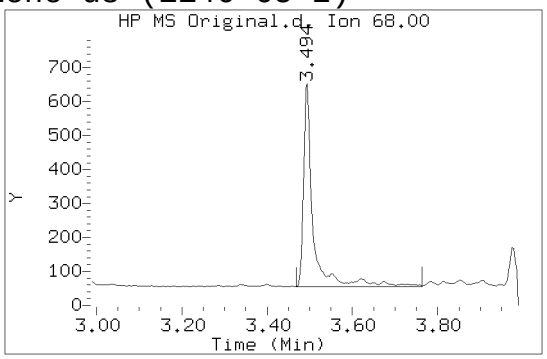


Data File : \\nahstws005\Target\chem\SV6.i\230710.b\07.D
Inj Date : 10-JUL-2023 12:02
InstruID : SV6.i
LabSampID : LCSD1-196987

Naphthalene-d8 (1146-65-2)

BEFORE

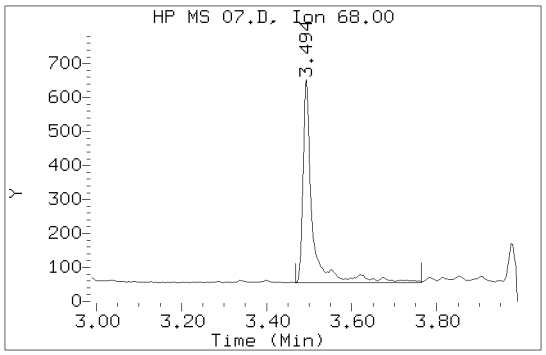
MASS
68
AREA
944
HEIGHT
598
10-Jul-2023
12:17
ALSHS
Server



Reason Code:

AFTER

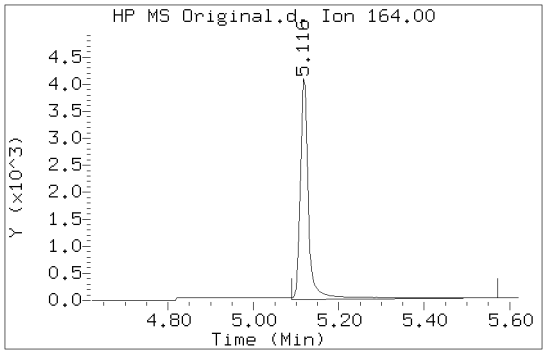
MASS
68
AREA
944
HEIGHT
598
10-Jul-2023
13:25
ALSHS
Se



Acenaphthene-d10 (15067-26-2)

BEFORE

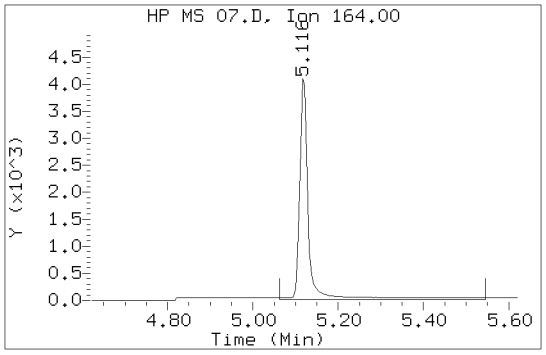
MASS
164
AREA
5619
HEIGHT
4082
10-Jul-2023
12:17
ALSHS
Server



Reason Code:

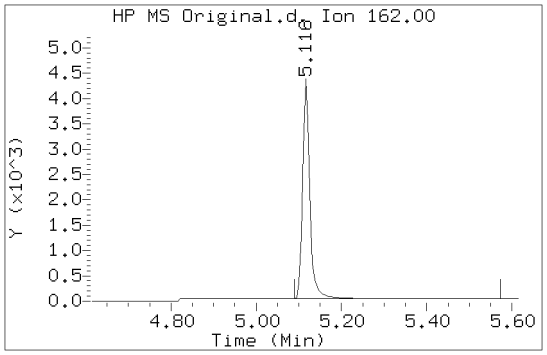
AFTER

MASS
164
AREA
6160
HEIGHT
4087
10-Jul-2023
13:25
ALSHS
Se



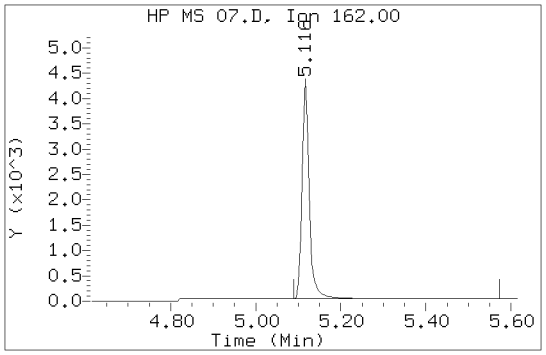
BEFORE

MASS
162
AREA
5206
HEIGHT
4339
10-Jul-2023
12:17
ALSHS
Server



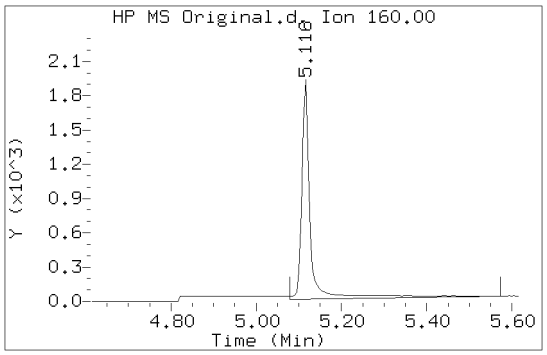
AFTER

MASS
162
AREA
5206
HEIGHT
4339
10-Jul-2023
13:25
ALSHS
Se



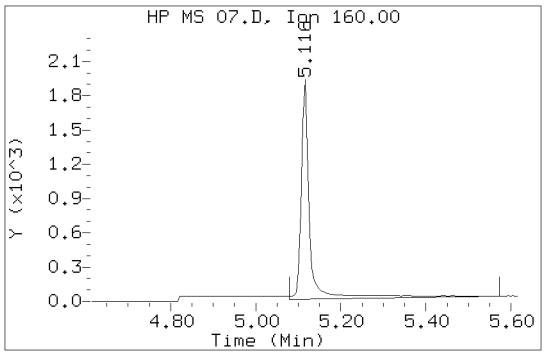
BEFORE

MASS
160
AREA
2733
HEIGHT
1922
10-Jul-2023
12:17
ALSHS
Server



AFTER

MASS
160
AREA
2733
HEIGHT
1922
10-Jul-2023
13:25
ALSHS
Se



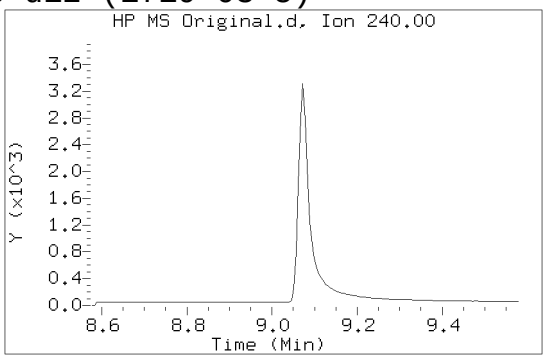
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\07.D
Inj Date : 10-JUL-2023 12:02
InstruID : SV6.i
LabSampID : LCSD1-196987

Chrysene-d12 (1719-03-5)

Reason Code:

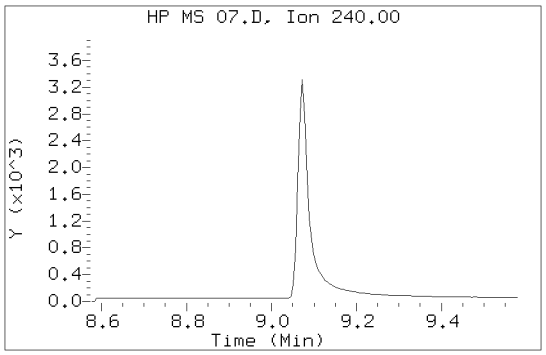
BEFORE

MASS
240
AREA
0
HEIGHT
0
10-Jul-2023
12:17
ALSHS
Server



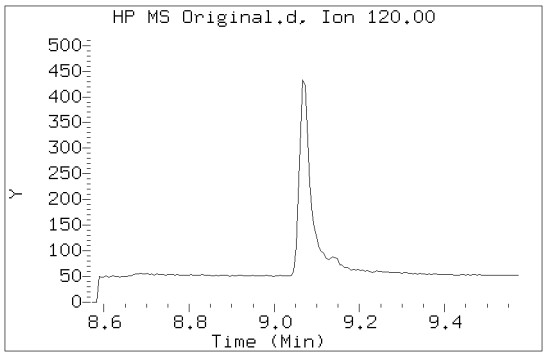
AFTER

MASS
240
AREA
7141
HEIGHT
3266
10-Jul-2023
13:25
ALSHS
Se



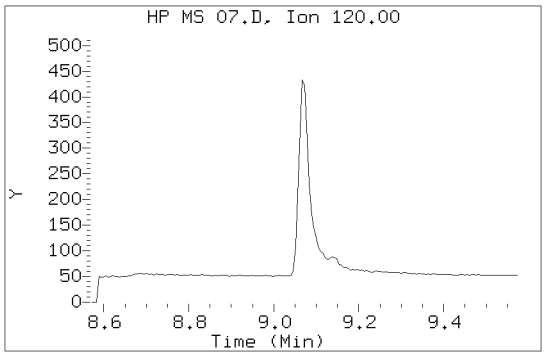
BEFORE

MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
12:17
ALSHS
Server



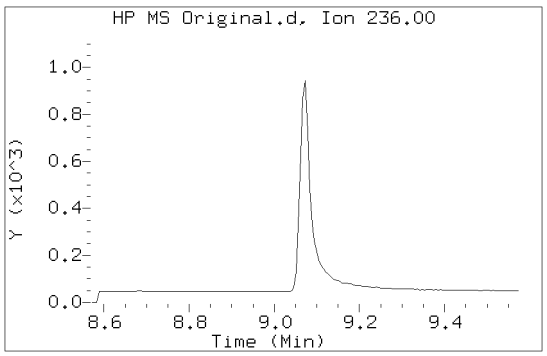
AFTER

MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
13:25
ALSHS
Se



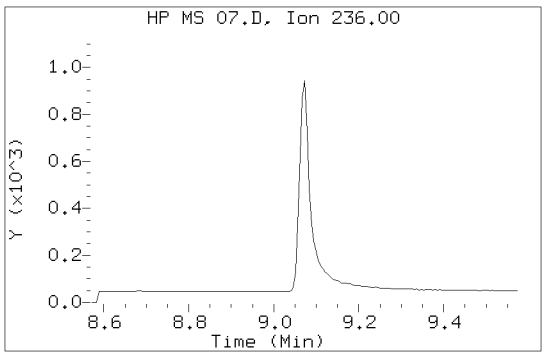
BEFORE

MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
12:17
ALSHS
Server



AFTER

MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
13:25
ALSHS
Se

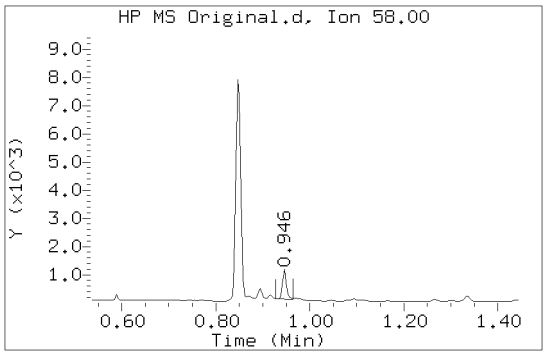


1,4-Dioxane ()

Reason Code:

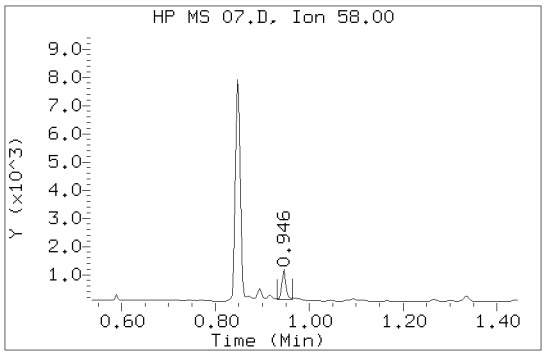
BEFORE

MASS
58
AREA
620
HEIGHT
1052
10-Jul-2023
12:17
ALSHS
Server



AFTER

MASS
58
AREA
652
HEIGHT
1069
10-Jul-2023
13:25
ALSHS
Se



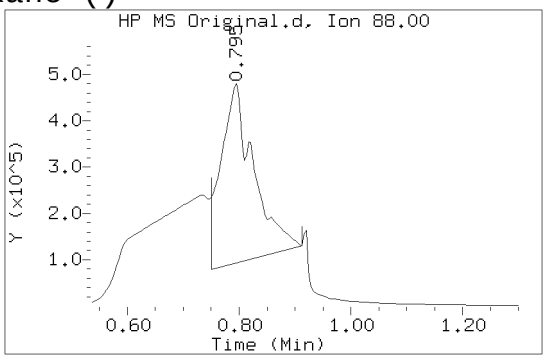
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\07.D
Inj Date : 10-JUL-2023 12:02
InstruID : SV6.i
LabSampID : LCSD1-196987

1,4-Dioxane ()

Reason Code:

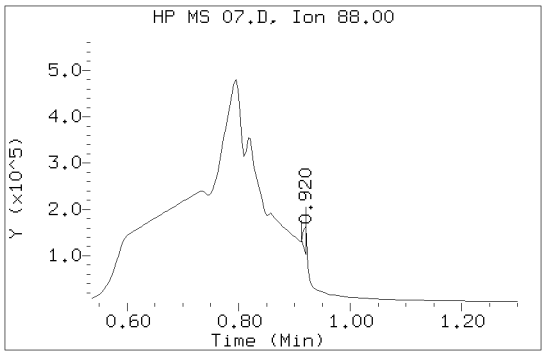
BEFORE

MASS
88
AREA
1578032
HEIGHT
386678
10-Jul-2023
12:17
ALSHS
Server



AFTER

MASS
88
AREA
20277
HEIGHT
59874
10-Jul-2023
13:25
ALSHS
Se

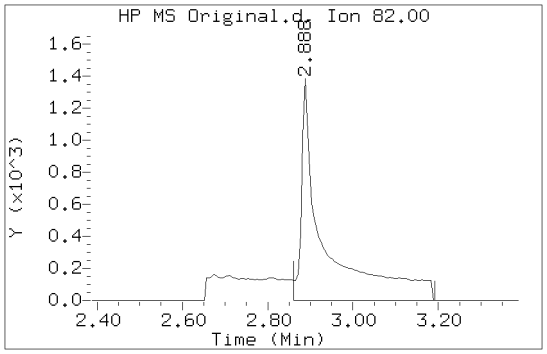


Nitrobenzene-d5 (4165-60-0)

Reason Code:

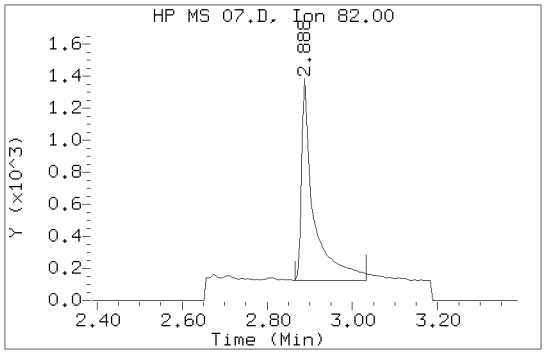
BEFORE

MASS
82
AREA
5058
HEIGHT
1384
10-Jul-2023
12:17
ALSHS
Server



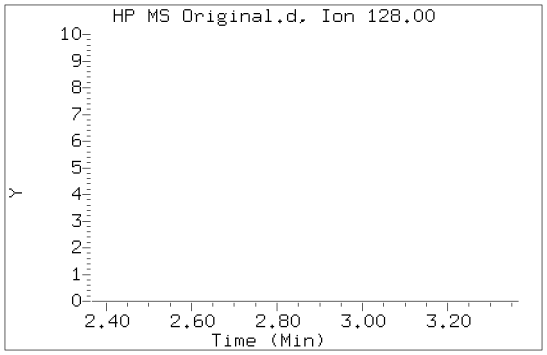
AFTER

MASS
82
AREA
2502
HEIGHT
1258
10-Jul-2023
13:25
ALSHS
Se



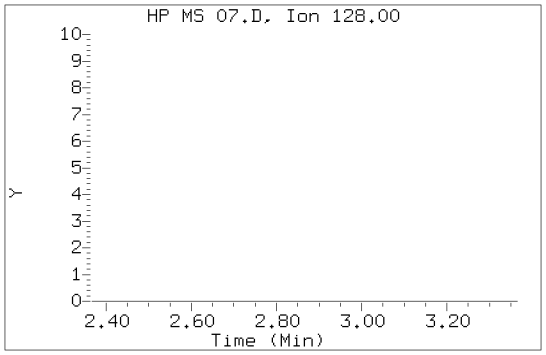
BEFORE

MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
12:17
ALSHS
Server



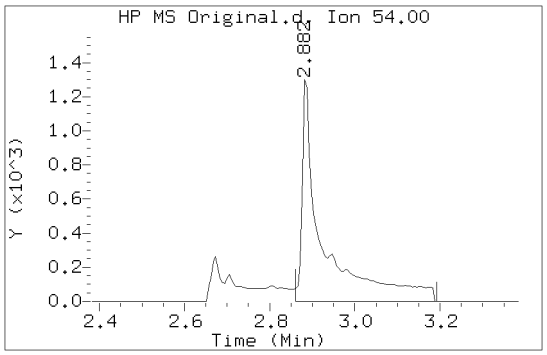
AFTER

MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
13:25
ALSHS
Se



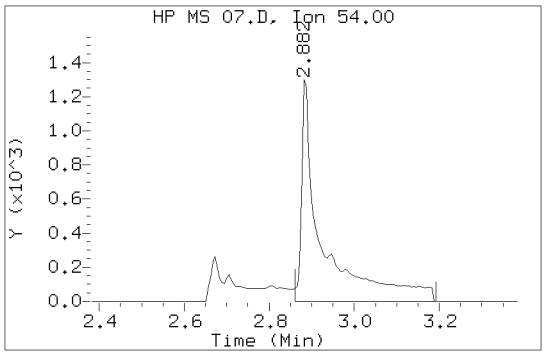
BEFORE

MASS
54
AREA
4314
HEIGHT
1300
10-Jul-2023
12:17
ALSHS
Server



AFTER

MASS
54
AREA
4314
HEIGHT
1300
10-Jul-2023
13:25
ALSHS
Se



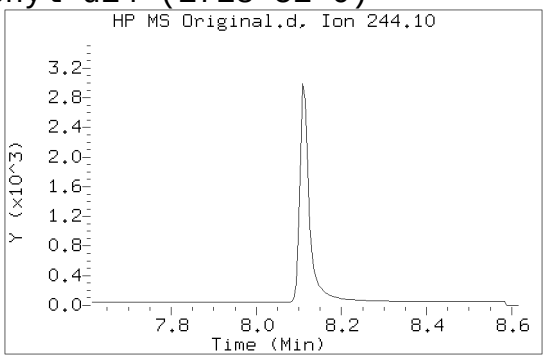
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\07.D
Inj Date : 10-JUL-2023 12:02
InstruID : SV6.i
LabSampID : LCSD1-196987

4-Terphenyl-d14 (1718-51-0)

Reason Code:

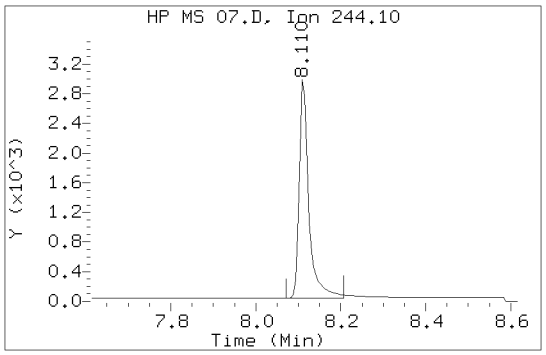
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
10-Jul-2023
12:17
ALSHS
Server



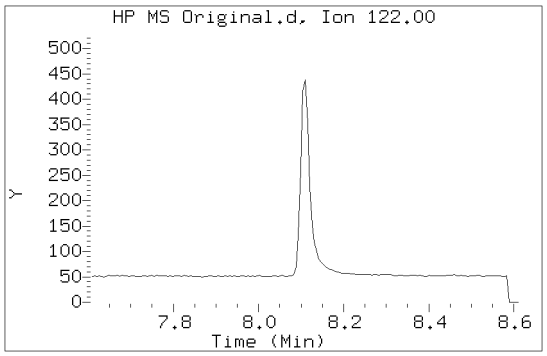
AFTER

MASS
244.1
AREA
4573
HEIGHT
2945
10-Jul-2023
13:25
ALSHS
Se



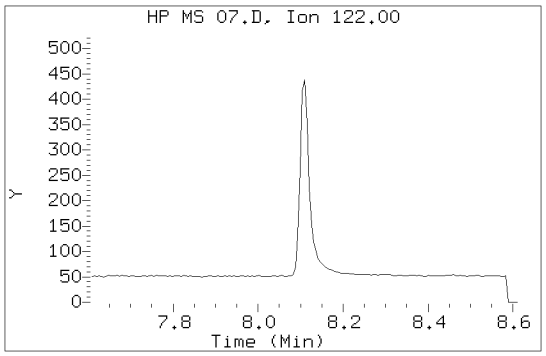
BEFORE

MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
12:17
ALSHS
Server



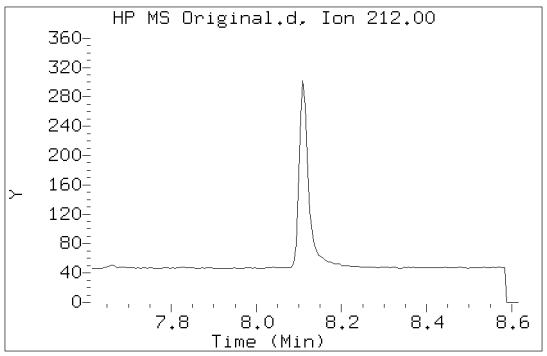
AFTER

MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
13:25
ALSHS
Se



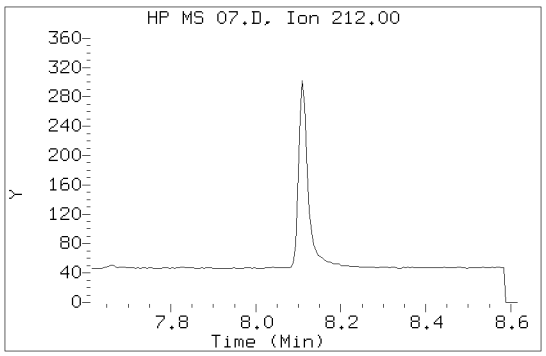
BEFORE

MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
12:17
ALSHS
Server



AFTER

MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
13:25
ALSHS
Se

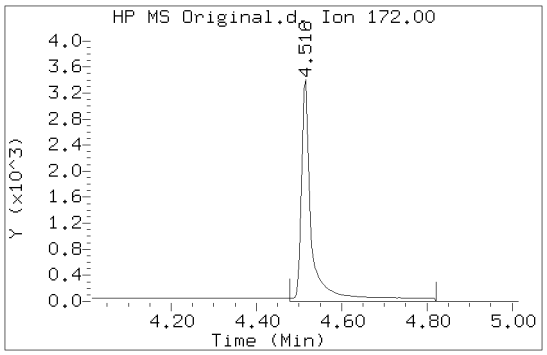


2-Fluorobiphenyl (321-60-8)

Reason Code:

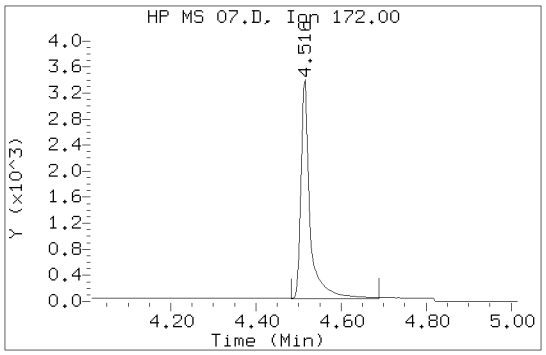
BEFORE

MASS
172
AREA
5925
HEIGHT
3404
10-Jul-2023
12:17
ALSHS
Server



AFTER

MASS
172
AREA
4954
HEIGHT
3361
10-Jul-2023
13:25
ALSHS
Se



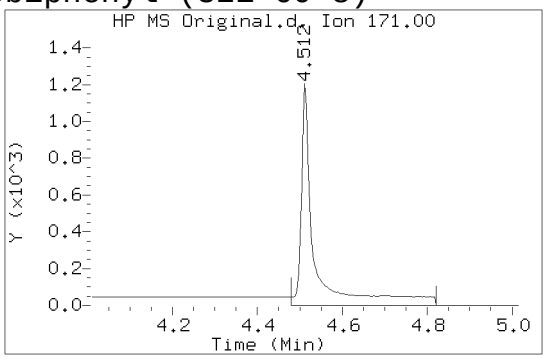
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\07.D
Inj Date : 10-JUL-2023 12:02
InstruID : SV6.i
LabSampID : LCSD1-196987

2-Fluorobiphenyl (321-60-8)

Reason Code:

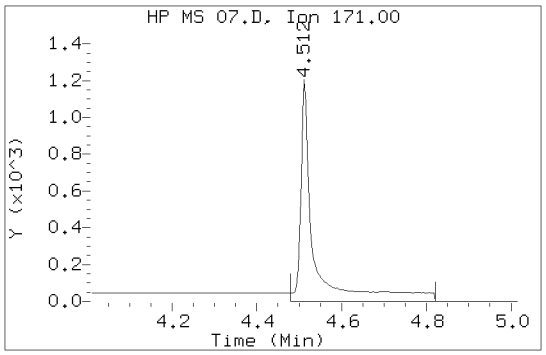
BEFORE

MASS
171
AREA
2614
HEIGHT
1205
10-Jul-2023
12:17
ALSHS
Server



AFTER

MASS
171
AREA
2614
HEIGHT
1205
10-Jul-2023
13:25
ALSHS
Se



Data File: \\nahstws005\Target\chem\SV6.i\230710.b\15.D Page 1
Report Date: 10-Jul-2023 16:42

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230710.b\15.D
Lab Smp Id: HS23061825-07 Client Smp ID: HS23061825-07
Inj Date : 10-JUL-2023 14:27
Operator : LG Inst ID: SV6.i
Smp Info : HS23061825-07
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230710.b\DXSIM.m
Meth Date : 10-Jul-2023 10:56 jiayi.lu Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7015

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	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.447	2.442	(1.000)	4057	0.10000	(aM)
* 45 Naphthalene-d8	136	3.498	3.494	(1.000)	12784	0.10000	(M)
$ 33 Nitrobenzene-d5	82	2.892	2.887	(0.827)	3431	0.08833	0.08833(M)
* 86 Acenaphthene-d10	164	5.121	5.121	(1.000)	8661	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.515	4.515	(0.882)	8011	0.09045	0.09045(M)
* 126 Phenanthrene-d10	188	6.533	6.533	(1.000)	13824	0.10000	
* 182 Chrysene-d12	240	9.077	9.077	(1.000)	14119	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.114	8.114	(0.894)	8625	0.08280	0.08280(M)
* 198 Perylene-d12	264	10.667	10.667	(1.000)	8677	0.10000	
1 1,4-Dioxane	58	0.916	0.942	(0.374)	740	0.05376	0.05376

QC Flag Legend

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

01206088

Data File: \\nahstws005\Target\chem\SV6.i\230710.b\15.D

Date : 10-JUL-2023 14:27

Client ID: HS23061825-07

Instrument: SV6.i

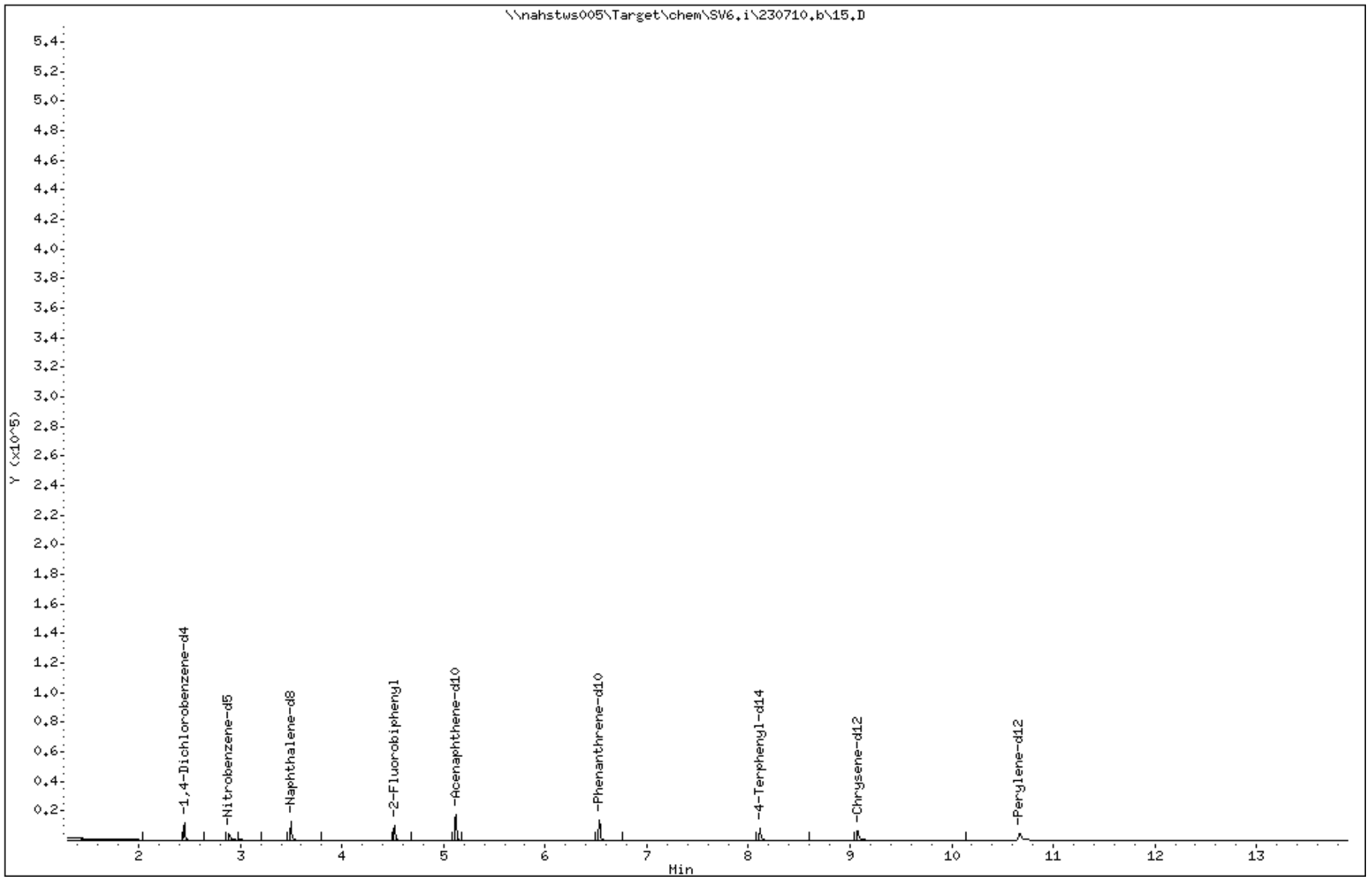
Sample Info: HS23061825-07

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\230710.b\15.D

Date : 10-JUL-2023 14:27

Client ID: HS23061825-07

Instrument: SV6.i

Sample Info: HS23061825-07

Purge Volume: 1000.0

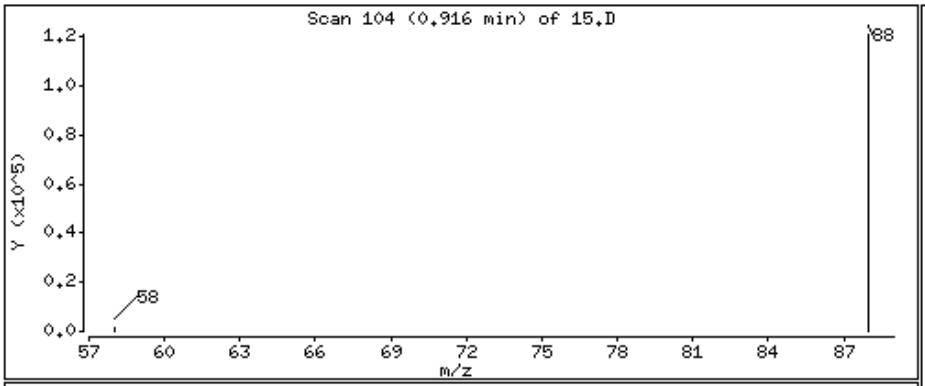
Operator: LG

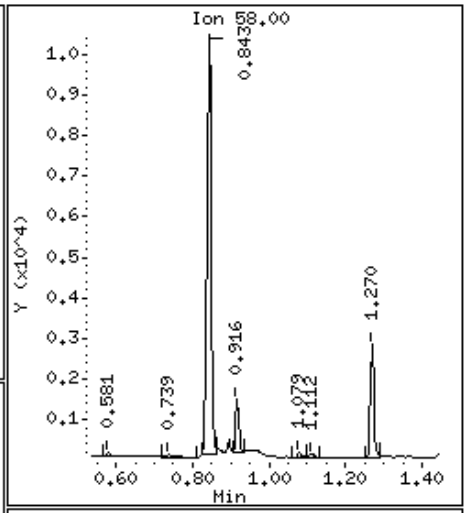
Column phase: RTX-5SIL MS

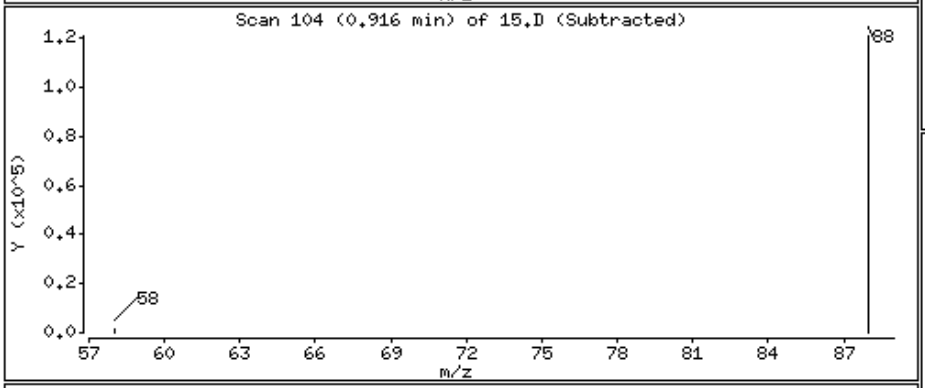
Column diameter: 0.28

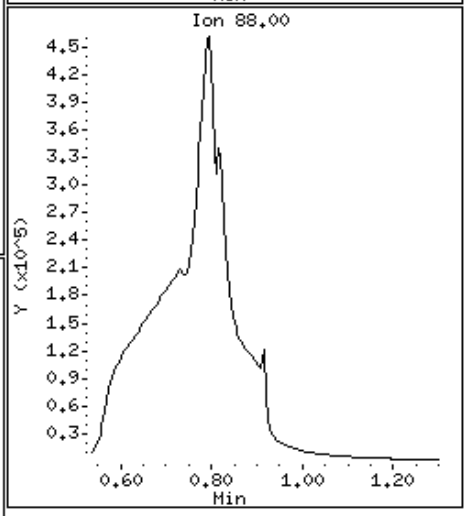
1 1,4-Dioxane

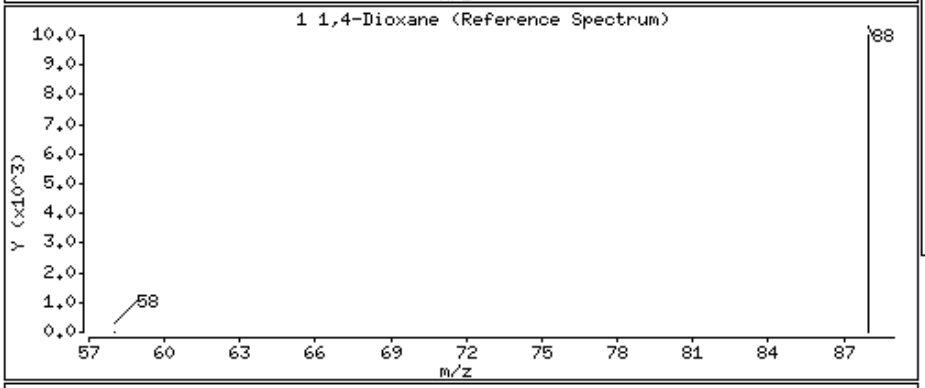
Concentration: 0.05376 ug/L

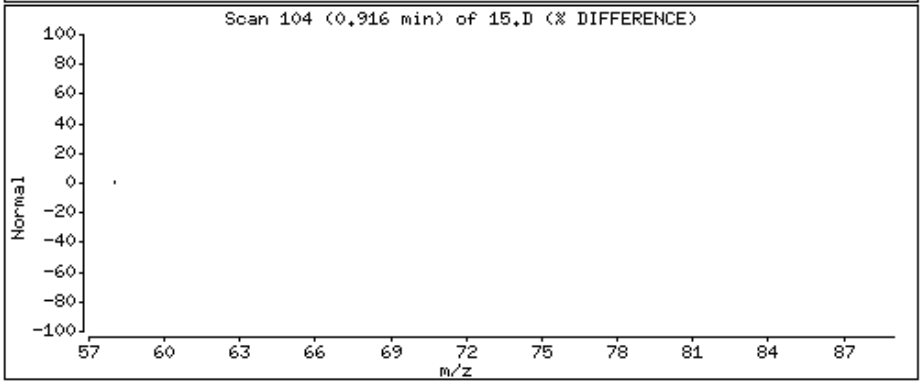












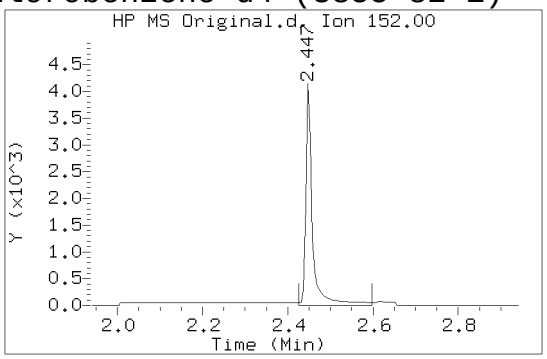
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\15.D
Inj Date : 10-JUL-2023 14:27
InstruID : SV6.i
LabSampID : HS23061825-07

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

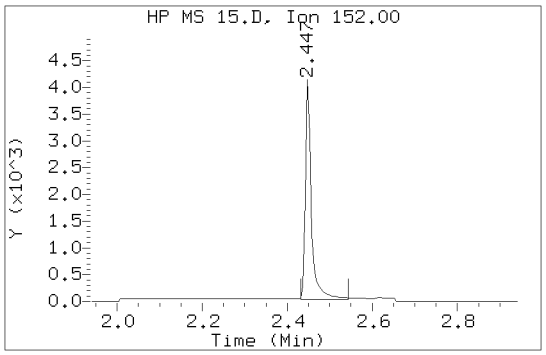
BEFORE

MASS
152
AREA
4524
HEIGHT
4142
10-Jul-2023
14:44
ALSHS
Server



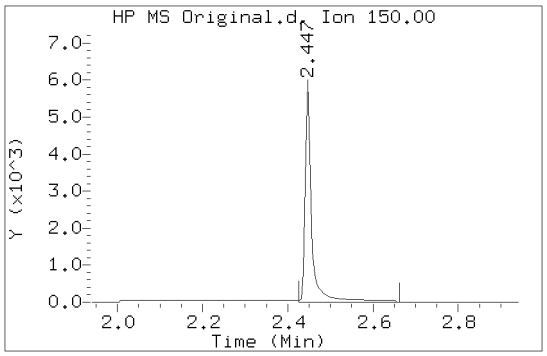
AFTER

MASS
152
AREA
4057
HEIGHT
4104
10-Jul-2023
16:41
ALSHS
Se



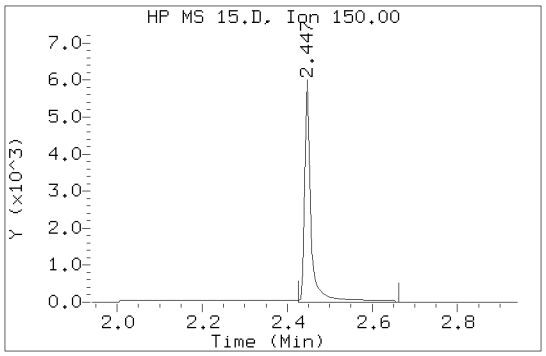
BEFORE

MASS
150
AREA
6508
HEIGHT
6004
10-Jul-2023
14:44
ALSHS
Server



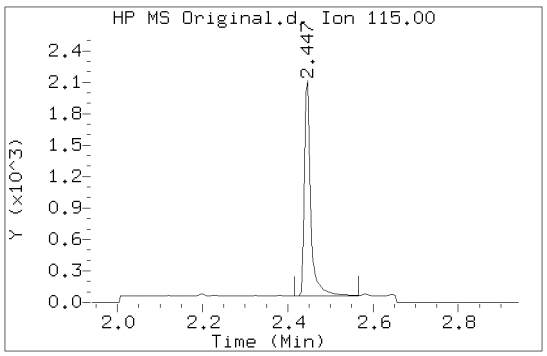
AFTER

MASS
150
AREA
6508
HEIGHT
6004
10-Jul-2023
16:41
ALSHS
Se



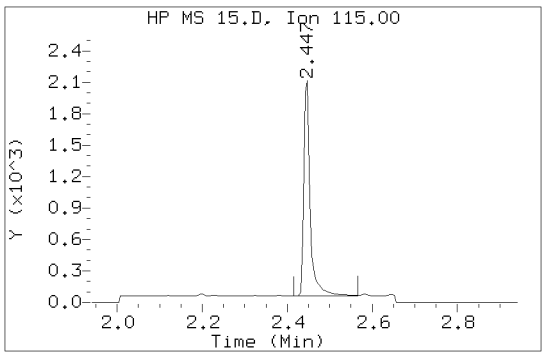
BEFORE

MASS
115
AREA
2175
HEIGHT
2054
10-Jul-2023
14:44
ALSHS
Server



AFTER

MASS
115
AREA
2175
HEIGHT
2054
10-Jul-2023
16:41
ALSHS
Se

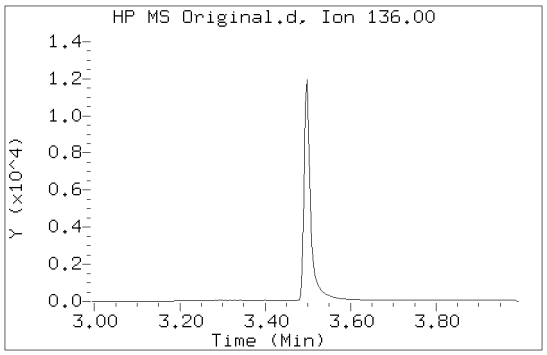


Naphthalene-d8 (1146-65-2)

Reason Code:

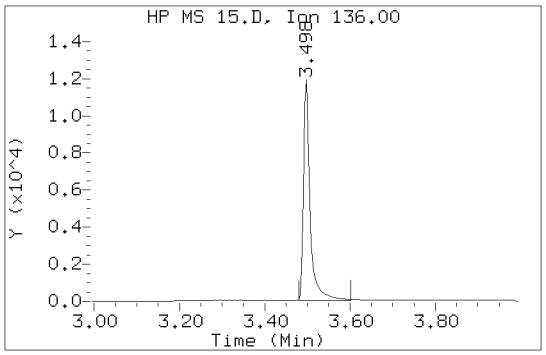
BEFORE

MASS
136
AREA
0
HEIGHT
0
10-Jul-2023
14:44
ALSHS
Server



AFTER

MASS
136
AREA
12784
HEIGHT
11915
10-Jul-2023
16:41
ALSHS
Se



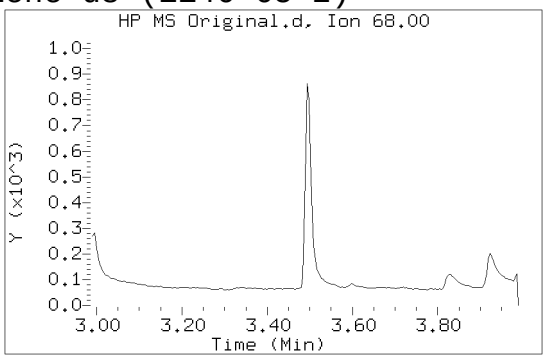
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\15.D
Inj Date : 10-JUL-2023 14:27
InstruID : SV6.i
LabSampID : HS23061825-07

Naphthalene-d8 (1146-65-2)

Reason Code:

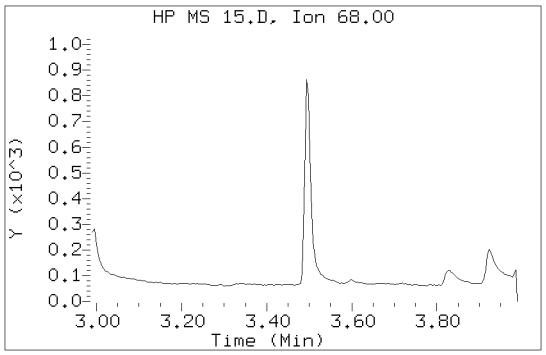
BEFORE

MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
14:44
ALSHS
Server



AFTER

MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se

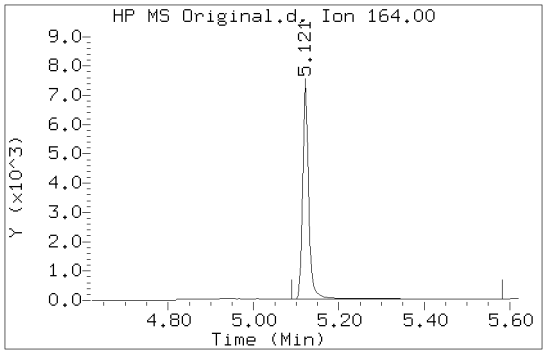


Acenaphthene-d10 (15067-26-2)

Reason Code:

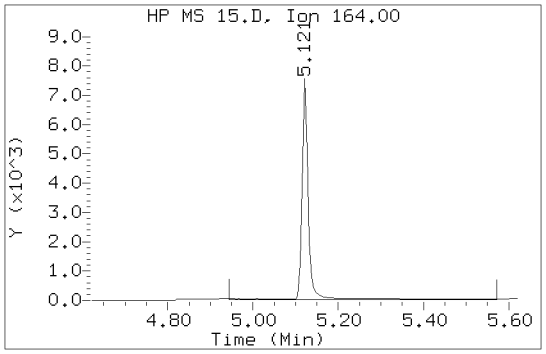
BEFORE

MASS
164
AREA
7249
HEIGHT
7514
10-Jul-2023
14:44
ALSHS
Server



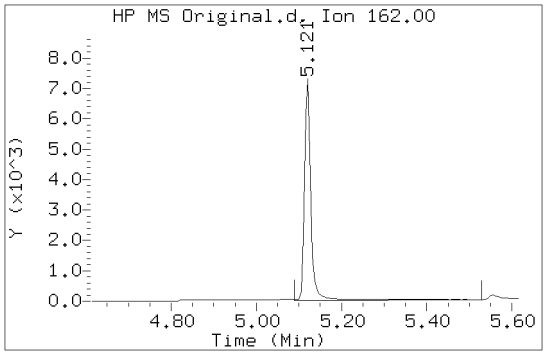
AFTER

MASS
164
AREA
8661
HEIGHT
7551
10-Jul-2023
16:41
ALSHS
Se



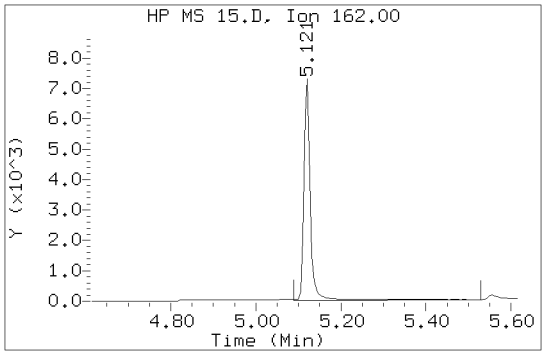
BEFORE

MASS
162
AREA
7777
HEIGHT
7292
10-Jul-2023
14:44
ALSHS
Server



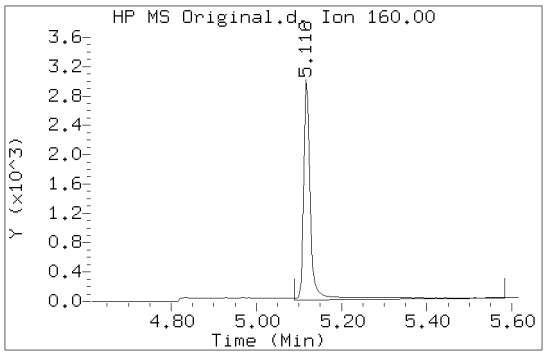
AFTER

MASS
162
AREA
7777
HEIGHT
7292
10-Jul-2023
16:41
ALSHS
Se



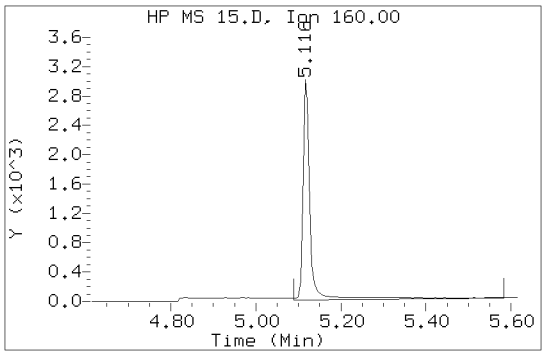
BEFORE

MASS
160
AREA
3566
HEIGHT
3002
10-Jul-2023
14:44
ALSHS
Server



AFTER

MASS
160
AREA
3566
HEIGHT
3002
10-Jul-2023
16:41
ALSHS
Se



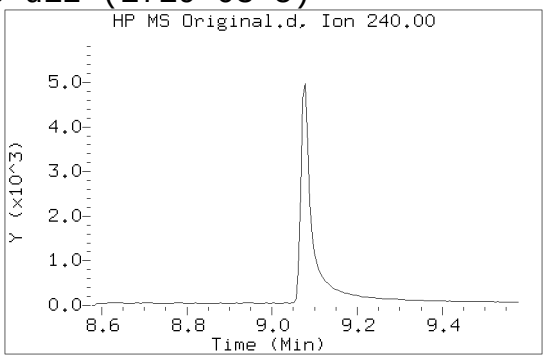
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\15.D
Inj Date : 10-JUL-2023 14:27
InstruID : SV6.i
LabSampID : HS23061825-07

Chrysene-d12 (1719-03-5)

Reason Code:

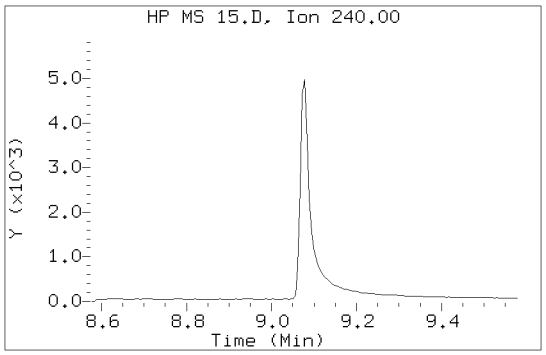
BEFORE

MASS
240
AREA
0
HEIGHT
0
10-Jul-2023
14:44
ALSHS
Server



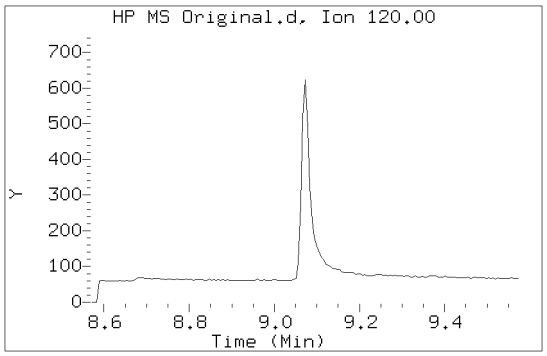
AFTER

MASS
240
AREA
14119
HEIGHT
4965
10-Jul-2023
16:41
ALSHS
Se



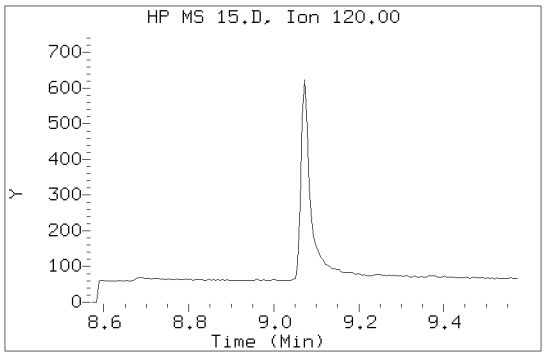
BEFORE

MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
14:44
ALSHS
Server



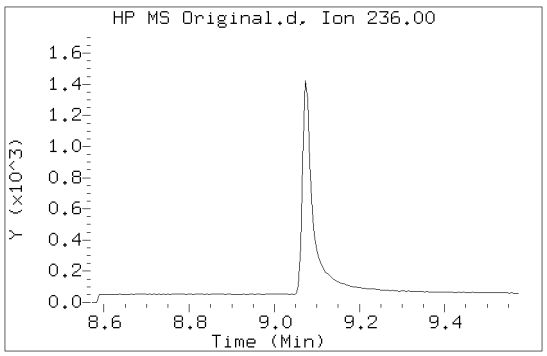
AFTER

MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se



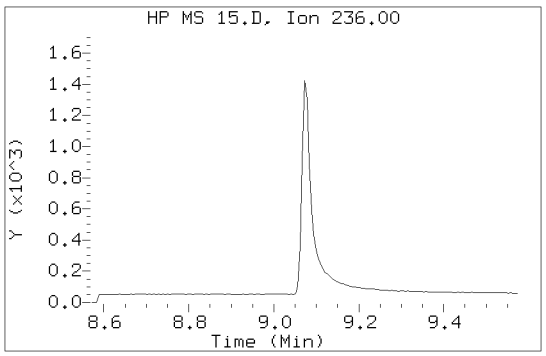
BEFORE

MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
14:44
ALSHS
Server



AFTER

MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se

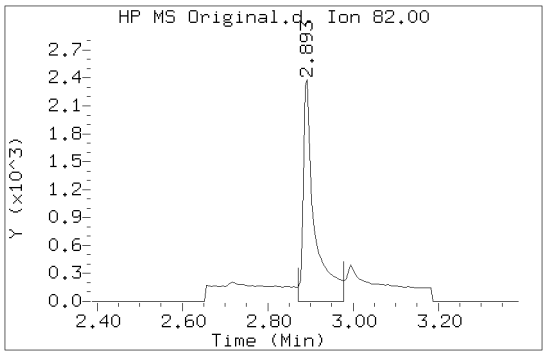


Nitrobenzene-d5 (4165-60-0)

Reason Code:

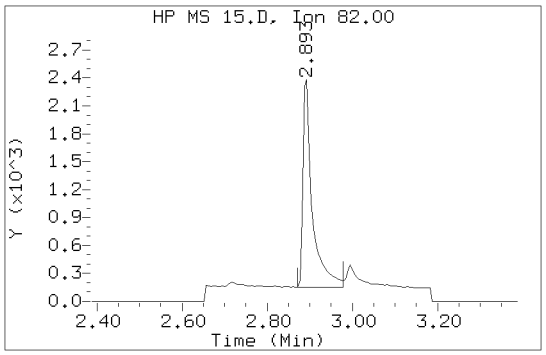
BEFORE

MASS
82
AREA
4452
HEIGHT
2381
10-Jul-2023
14:44
ALSHS
Server



AFTER

MASS
82
AREA
3431
HEIGHT
2230
10-Jul-2023
16:41
ALSHS
Se

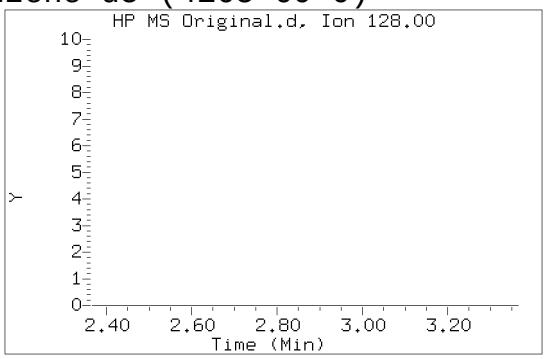


Data File : \\nahstws005\Target\chem\SV6.i\230710.b\15.D
Inj Date : 10-JUL-2023 14:27
InstruID : SV6.i
LabSampID : HS23061825-07

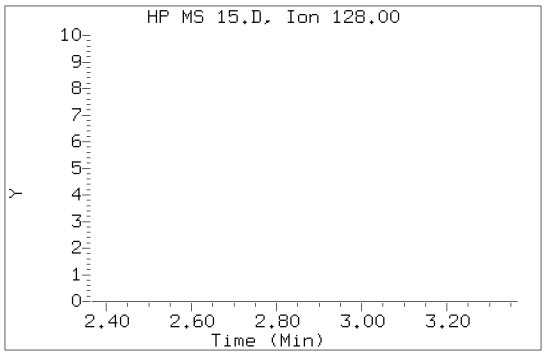
Nitrobenzene-d5 (4165-60-0)

Reason Code:

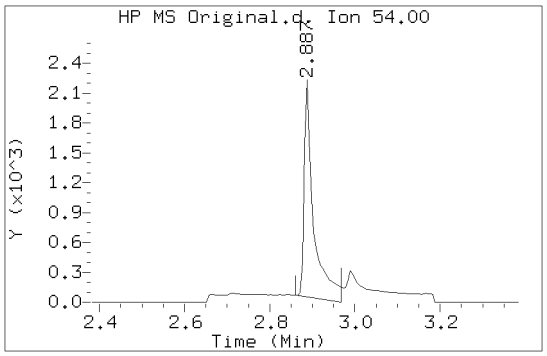
BEFORE
MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
14:44
ALSHS
Server



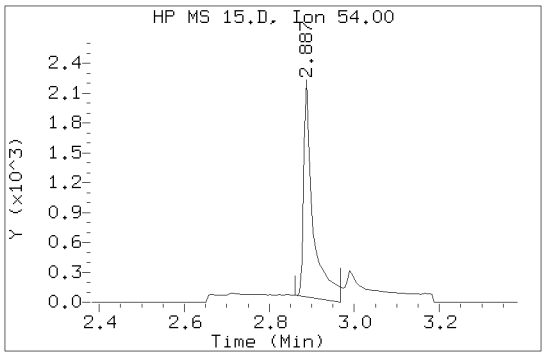
AFTER
MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se



BEFORE
MASS
54
AREA
3346
HEIGHT
2178
10-Jul-2023
14:44
ALSHS
Server



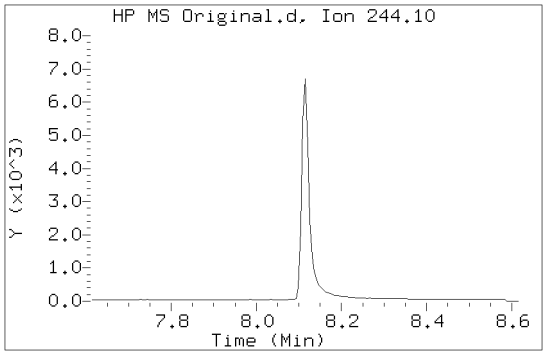
AFTER
MASS
54
AREA
3346
HEIGHT
2178
10-Jul-2023
16:41
ALSHS
Se



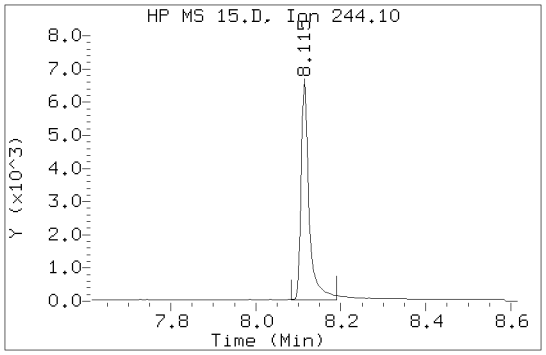
4-Terphenyl-d14 (1718-51-0)

Reason Code:

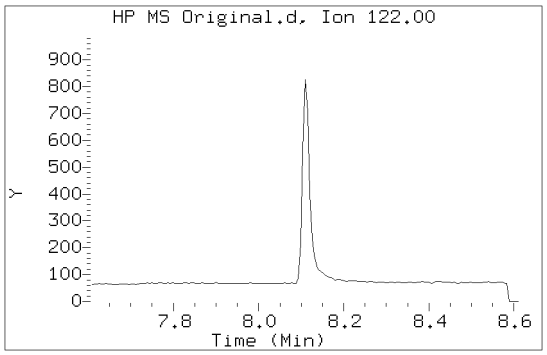
BEFORE
MASS
244.1
AREA
0
HEIGHT
0
10-Jul-2023
14:44
ALSHS
Server



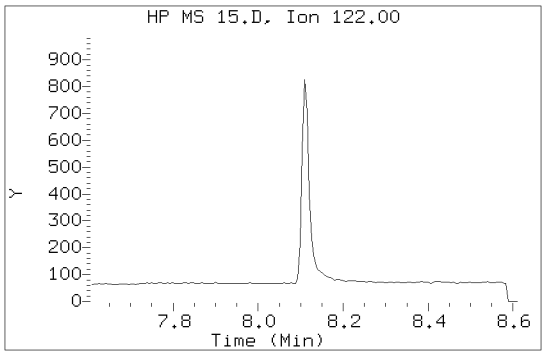
AFTER
MASS
244.1
AREA
8625
HEIGHT
6667
10-Jul-2023
16:41
ALSHS
Se



BEFORE
MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
14:44
ALSHS
Server



AFTER
MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se



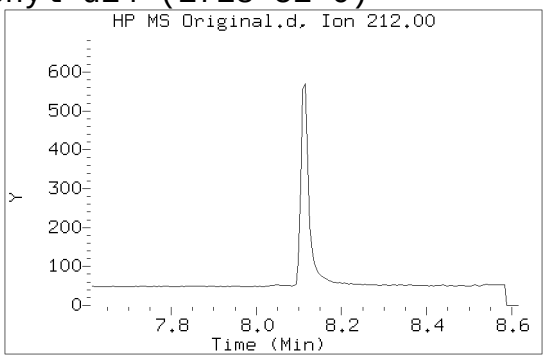
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\15.D
Inj Date : 10-JUL-2023 14:27
InstruID : SV6.i
LabSampID : HS23061825-07

4-Terphenyl-d14 (1718-51-0)

Reason Code:

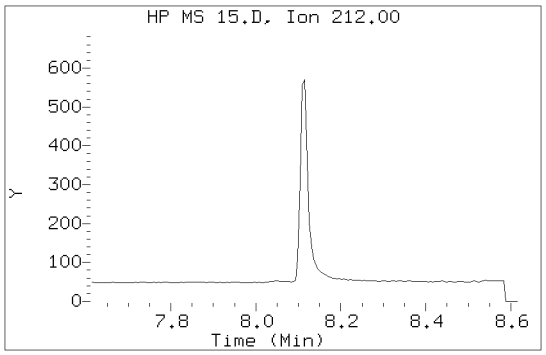
BEFORE

MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
14:44
ALSHS
Server



AFTER

MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se

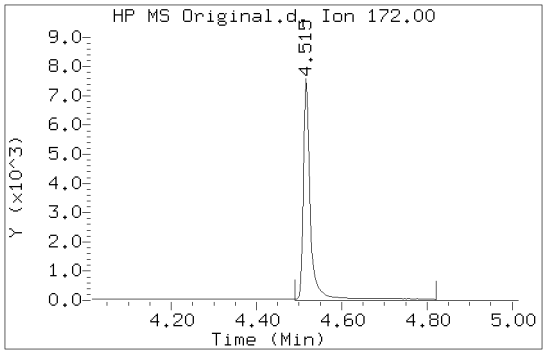


2-Fluorobiphenyl (321-60-8)

Reason Code:

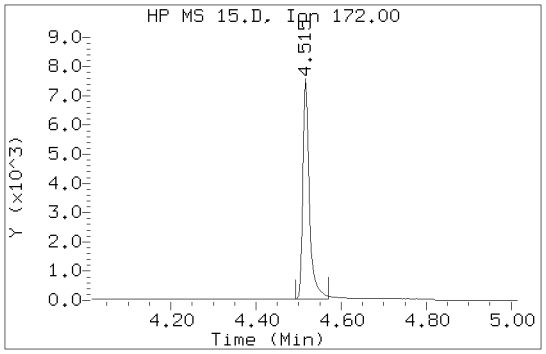
BEFORE

MASS
172
AREA
9207
HEIGHT
7586
10-Jul-2023
14:44
ALSHS
Server



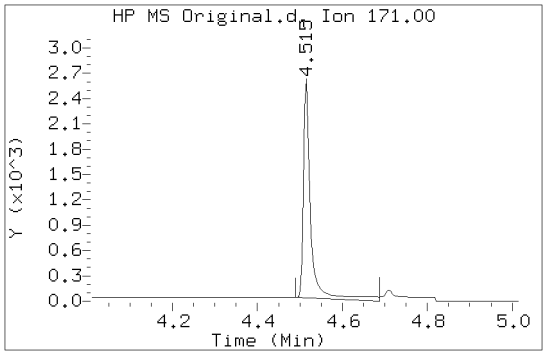
AFTER

MASS
172
AREA
8011
HEIGHT
7539
10-Jul-2023
16:41
ALSHS
Se



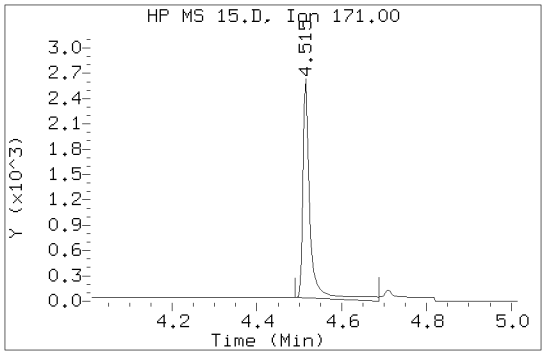
BEFORE

MASS
171
AREA
3067
HEIGHT
2592
10-Jul-2023
14:44
ALSHS
Server



AFTER

MASS
171
AREA
3067
HEIGHT
2592
10-Jul-2023
16:41
ALSHS
Se



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230710.b\16.D
Lab Smp Id: HS23061825-08 Client Smp ID: HS23061825-08
Inj Date : 10-JUL-2023 14:46
Operator : LG Inst ID: SV6.i
Smp Info : HS23061825-08
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230710.b\DXSIM.m
Meth Date : 10-Jul-2023 10:56 jiayi.lu Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7015

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	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.447	2.442	(1.000)	4702	0.10000	(aM)
* 45 Naphthalene-d8	136	3.497	3.494	(1.000)	15016	0.10000	(M)
$ 33 Nitrobenzene-d5	82	2.892	2.887	(0.827)	3474	0.07615	0.07615(M)
* 86 Acenaphthene-d10	164	5.121	5.121	(1.000)	9326	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.519	4.515	(0.882)	8594	0.09012	0.09012(M)
* 126 Phenanthrene-d10	188	6.533	6.533	(1.000)	16356	0.10000	
* 182 Chrysene-d12	240	9.077	9.077	(1.000)	15057	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.114	8.114	(0.894)	9201	0.08283	0.08283(M)
* 198 Perylene-d12	264	10.672	10.667	(1.000)	11309	0.10000	
1 1,4-Dioxane	58	0.945	0.942	(0.386)	1340	0.08399	0.08399(M)

QC Flag Legend

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

01206096

Data File: \\nahstws005\Target\chem\SV6.i\230710.b\16.D

Date : 10-JUL-2023 14:46

Client ID: HS23061825-08

Instrument: SV6.i

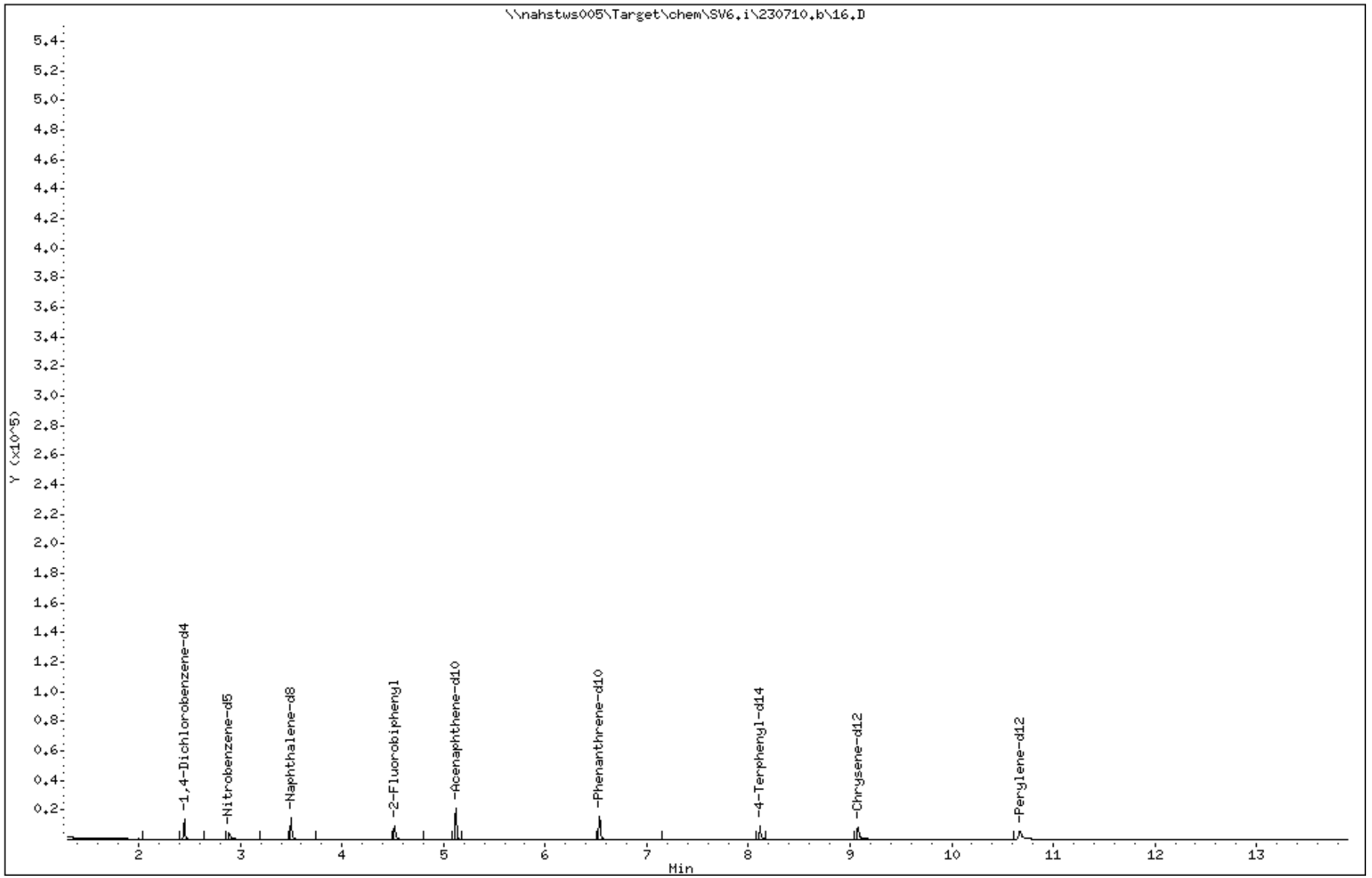
Sample Info: HS23061825-08

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\230710.b\16.D

Date : 10-JUL-2023 14:46

Client ID: HS23061825-08

Instrument: SV6.i

Sample Info: HS23061825-08

Purge Volume: 1000.0

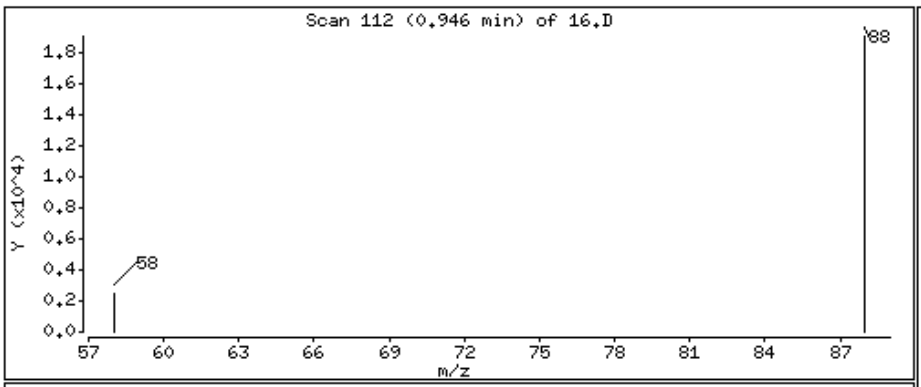
Operator: LC

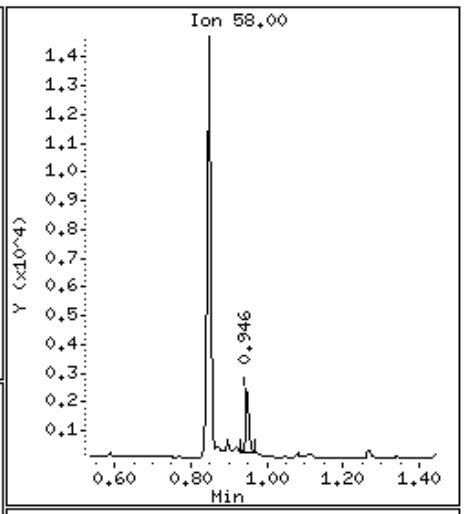
Column phase: RTX-5SIL MS

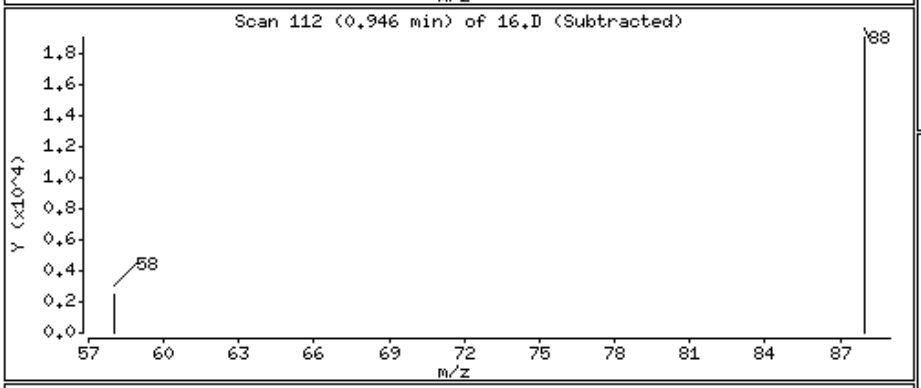
Column diameter: 0.28

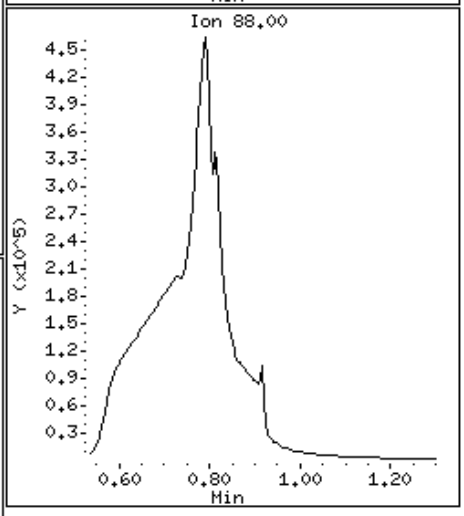
1 1,4-Dioxane

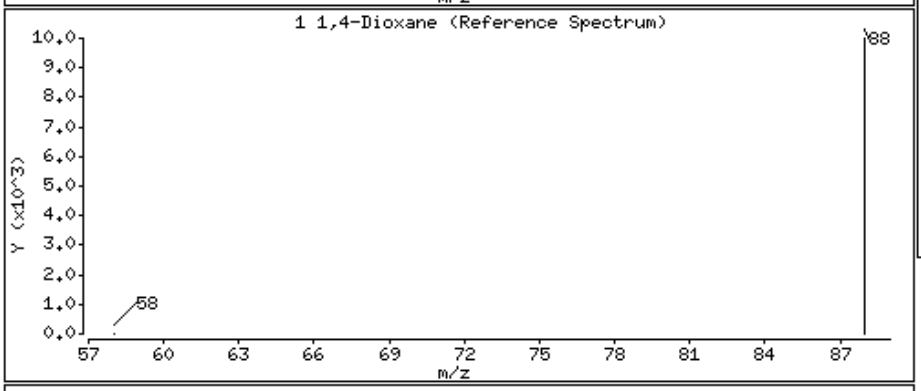
Concentration: 0.08399 ug/L

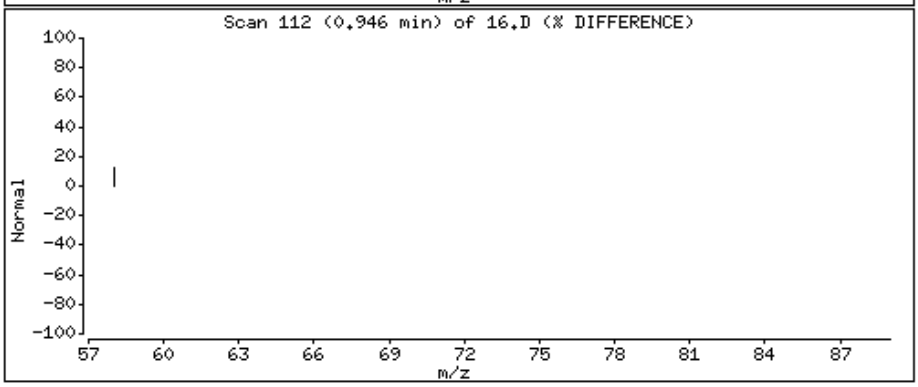












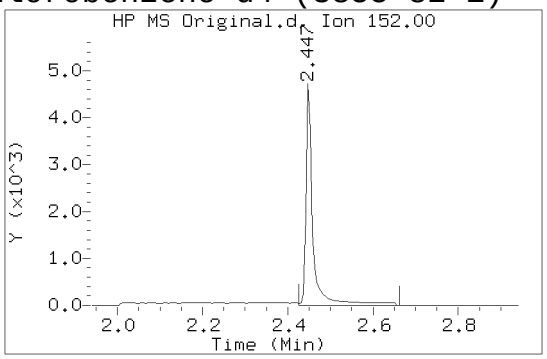
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\16.D
Inj Date : 10-JUL-2023 14:46
InstruID : SV6.i
LabSampID : HS23061825-08

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

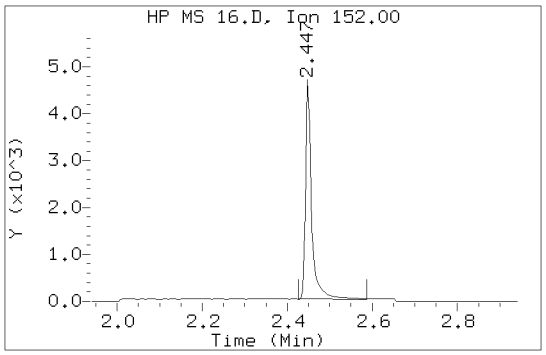
BEFORE

MASS
152
AREA
5375
HEIGHT
4725
10-Jul-2023
15:01
ALSHS
Server



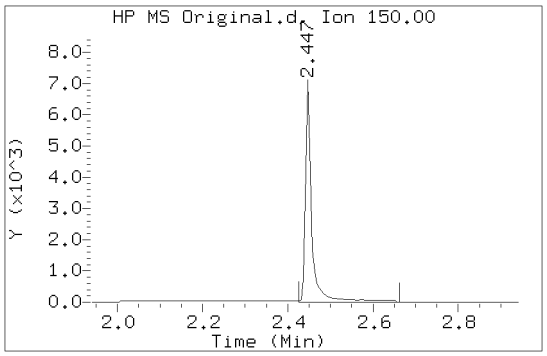
AFTER

MASS
152
AREA
4702
HEIGHT
4676
10-Jul-2023
16:41
ALSHS
Se



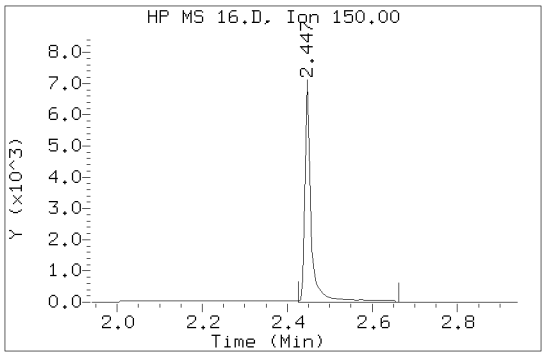
BEFORE

MASS
150
AREA
7493
HEIGHT
7116
10-Jul-2023
15:01
ALSHS
Server



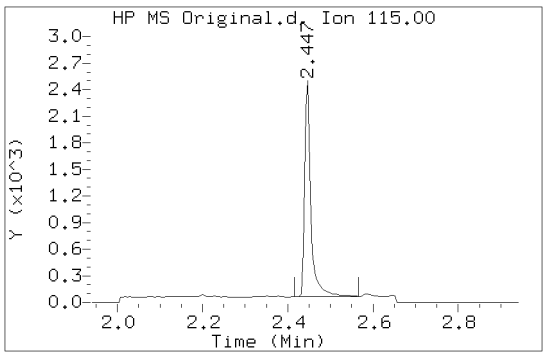
AFTER

MASS
150
AREA
7493
HEIGHT
7116
10-Jul-2023
16:41
ALSHS
Se



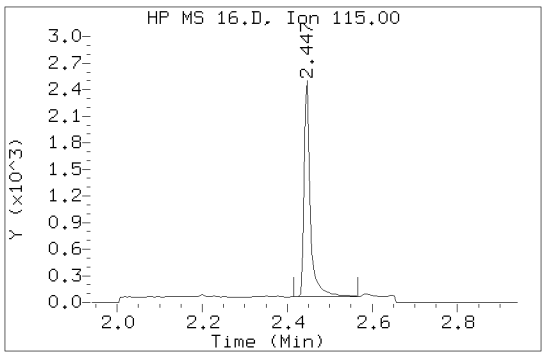
BEFORE

MASS
115
AREA
2549
HEIGHT
2440
10-Jul-2023
15:01
ALSHS
Server



AFTER

MASS
115
AREA
2549
HEIGHT
2440
10-Jul-2023
16:41
ALSHS
Se

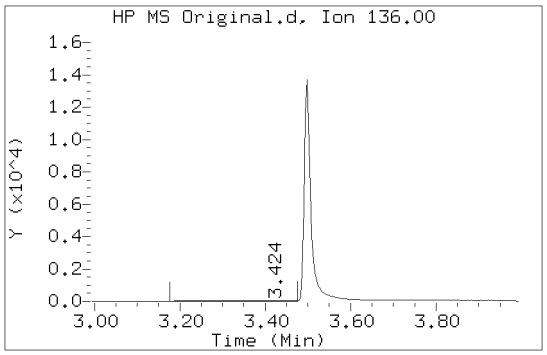


Naphthalene-d8 (1146-65-2)

Reason Code:

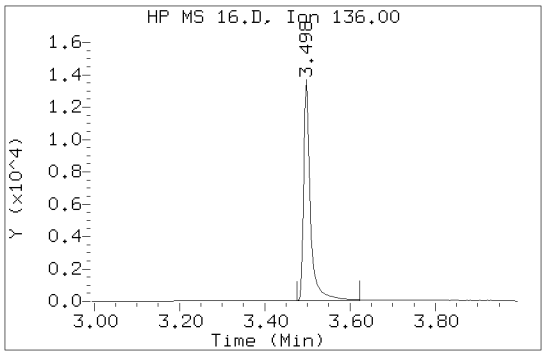
BEFORE

MASS
136
AREA
887
HEIGHT
55
10-Jul-2023
15:01
ALSHS
Server



AFTER

MASS
136
AREA
15016
HEIGHT
13667
10-Jul-2023
16:41
ALSHS
Se



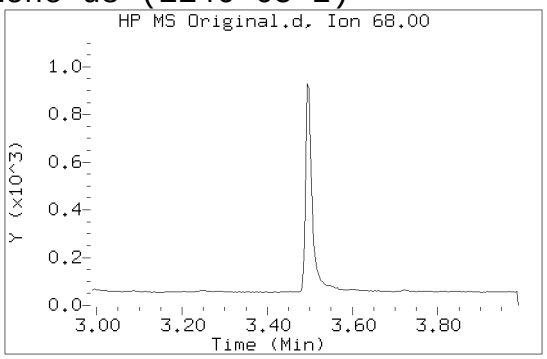
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\16.D
Inj Date : 10-JUL-2023 14:46
InstruID : SV6.i
LabSampID : HS23061825-08

Naphthalene-d8 (1146-65-2)

Reason Code:

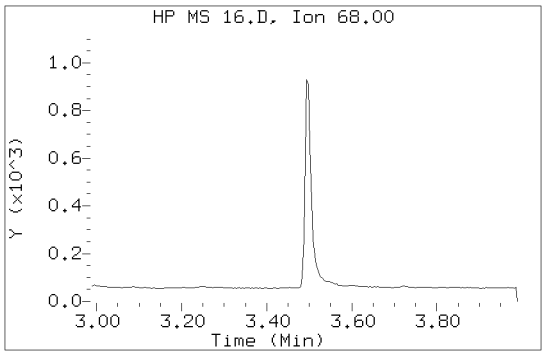
BEFORE

MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
15:01
ALSHS
Server



AFTER

MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se

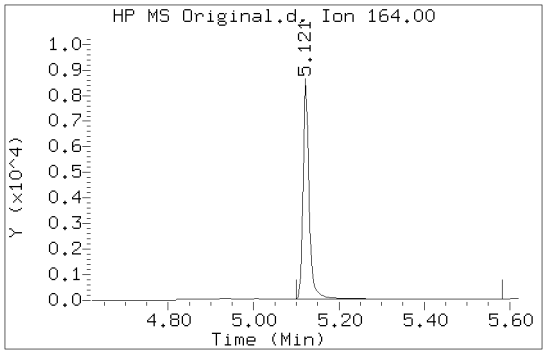


Acenaphthene-d10 (15067-26-2)

Reason Code:

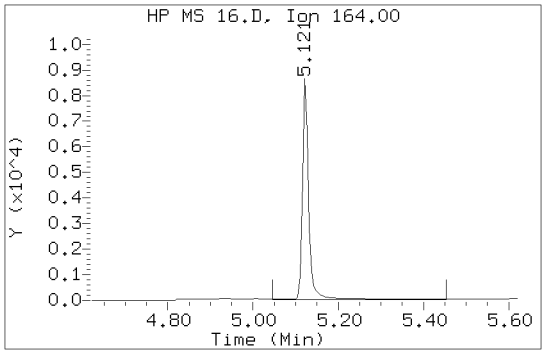
BEFORE

MASS
164
AREA
8575
HEIGHT
8607
10-Jul-2023
15:01
ALSHS
Server



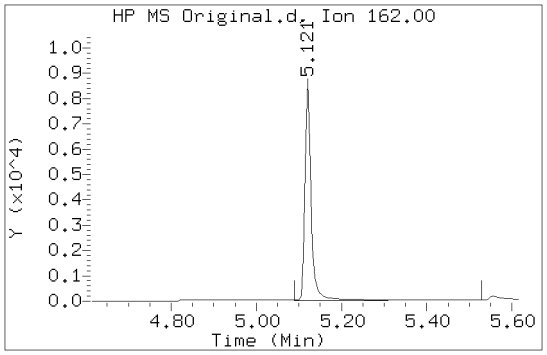
AFTER

MASS
164
AREA
9326
HEIGHT
8638
10-Jul-2023
16:41
ALSHS
Se



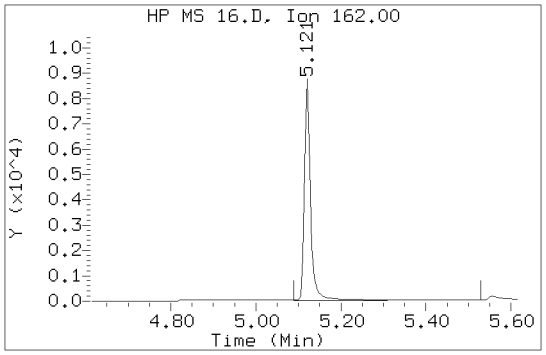
BEFORE

MASS
162
AREA
9120
HEIGHT
8756
10-Jul-2023
15:01
ALSHS
Server



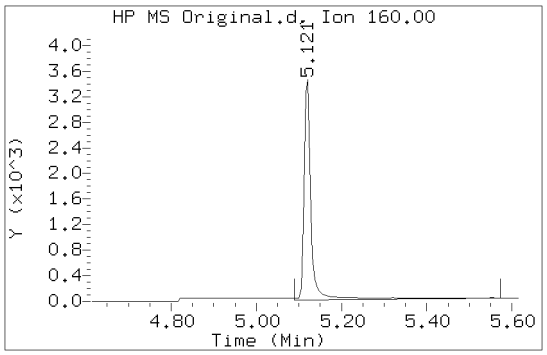
AFTER

MASS
162
AREA
9120
HEIGHT
8756
10-Jul-2023
16:41
ALSHS
Se



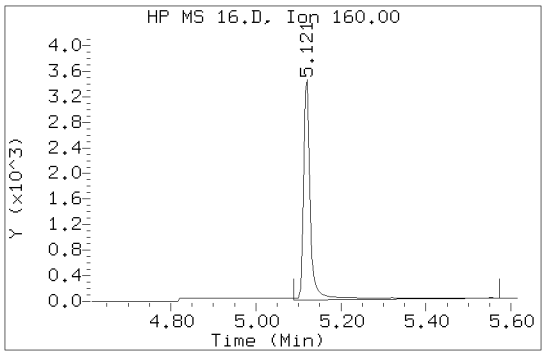
BEFORE

MASS
160
AREA
4125
HEIGHT
3446
10-Jul-2023
15:01
ALSHS
Server



AFTER

MASS
160
AREA
4125
HEIGHT
3446
10-Jul-2023
16:41
ALSHS
Se



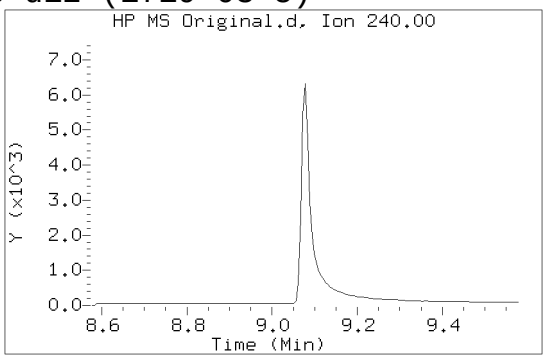
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\16.D
Inj Date : 10-JUL-2023 14:46
InstruID : SV6.i
LabSampID : HS23061825-08

Chrysene-d12 (1719-03-5)

Reason Code:

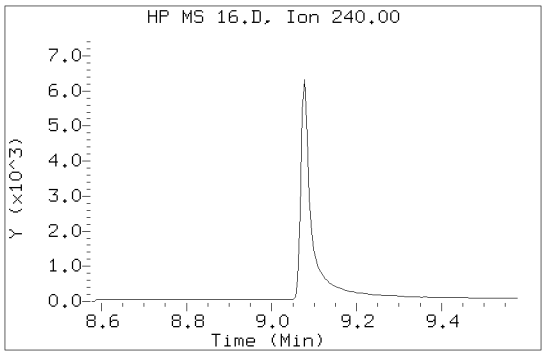
BEFORE

MASS
240
AREA
0
HEIGHT
0
10-Jul-2023
15:01
ALSHS
Server



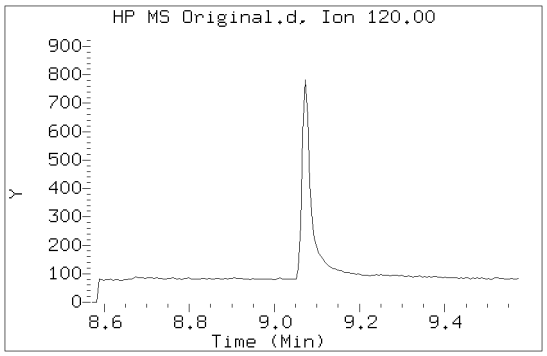
AFTER

MASS
240
AREA
15057
HEIGHT
6296
10-Jul-2023
16:41
ALSHS
Se



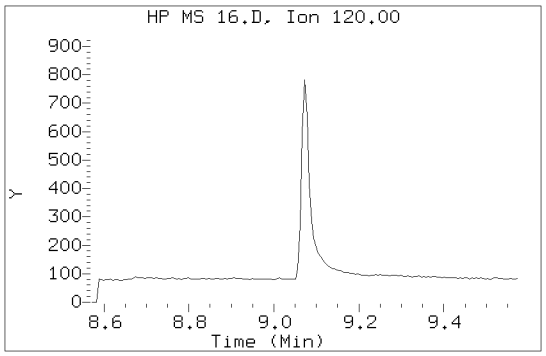
BEFORE

MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
15:01
ALSHS
Server



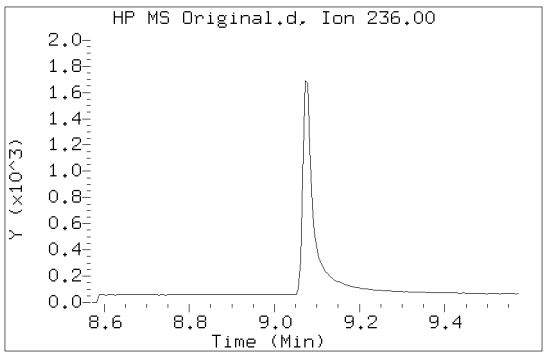
AFTER

MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se



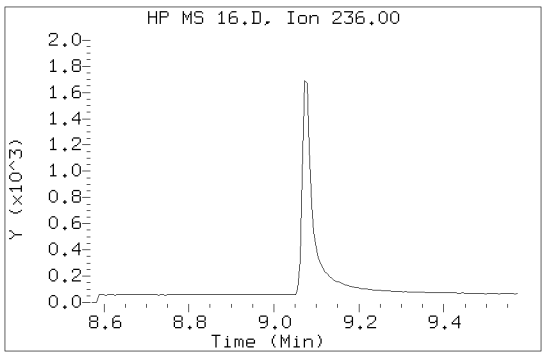
BEFORE

MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
15:01
ALSHS
Server



AFTER

MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se

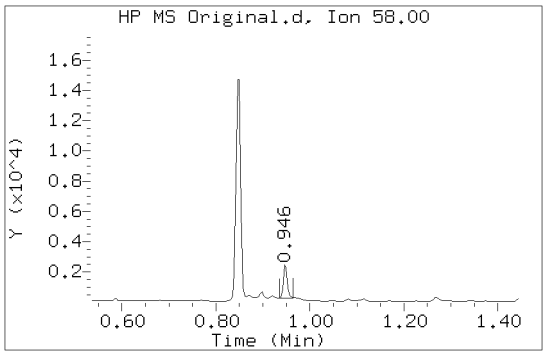


1,4-Dioxane ()

Reason Code:

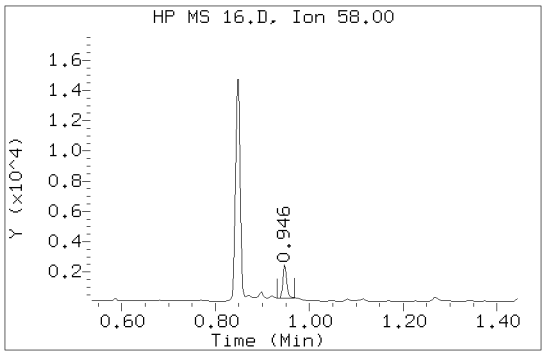
BEFORE

MASS
58
AREA
1261
HEIGHT
2190
10-Jul-2023
15:01
ALSHS
Server



AFTER

MASS
58
AREA
1340
HEIGHT
2220
10-Jul-2023
16:41
ALSHS
Se



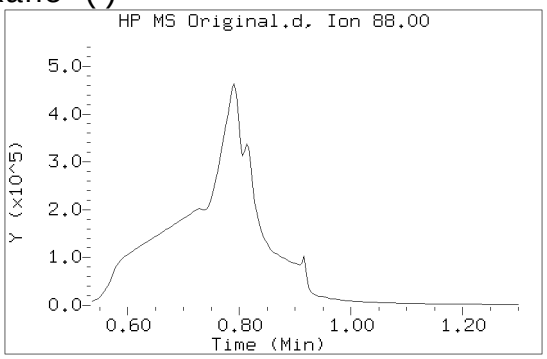
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\16.D
Inj Date : 10-JUL-2023 14:46
InstruID : SV6.i
LabSampID : HS23061825-08

1,4-Dioxane ()

Reason Code:

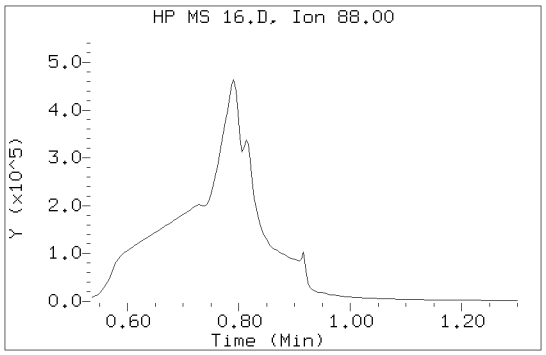
BEFORE

MASS
88
AREA
0
HEIGHT
0
10-Jul-2023
15:01
ALSHS
Server



AFTER

MASS
88
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se

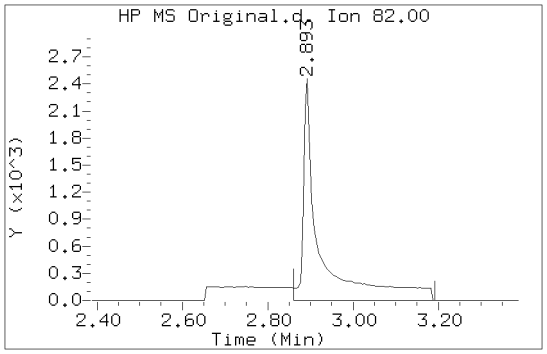


Nitrobenzene-d5 (4165-60-0)

Reason Code:

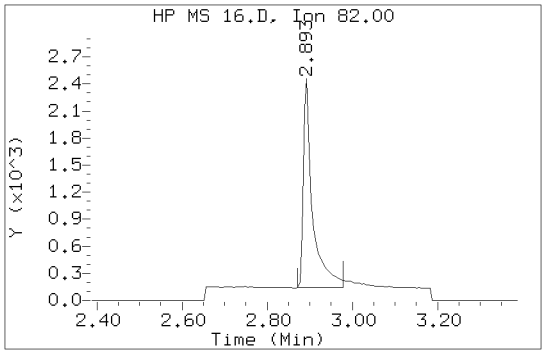
BEFORE

MASS
82
AREA
6445
HEIGHT
2458
10-Jul-2023
15:01
ALSHS
Server



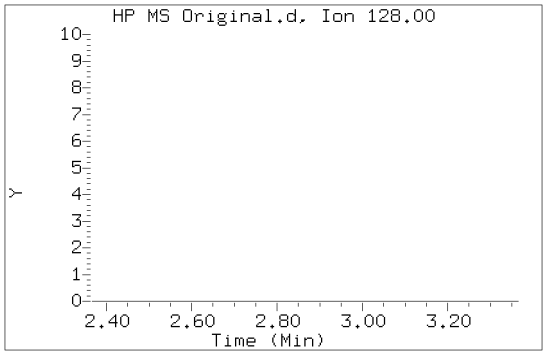
AFTER

MASS
82
AREA
3474
HEIGHT
2316
10-Jul-2023
16:41
ALSHS
Se



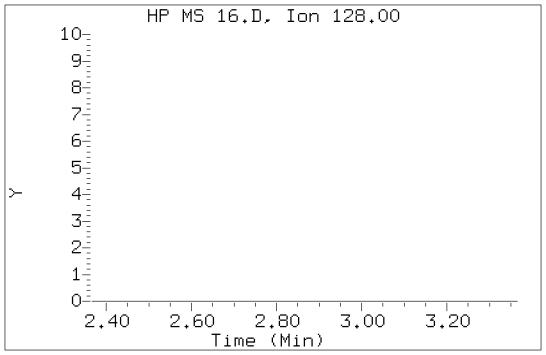
BEFORE

MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
15:01
ALSHS
Server



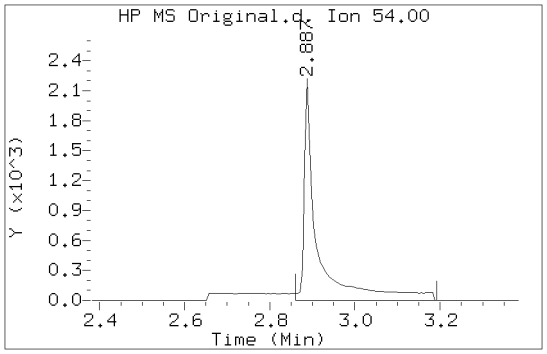
AFTER

MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se



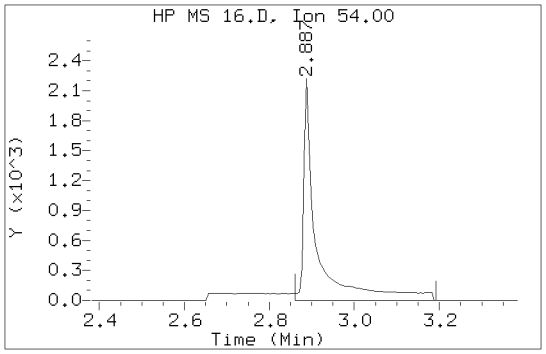
BEFORE

MASS
54
AREA
4747
HEIGHT
2221
10-Jul-2023
15:01
ALSHS
Server



AFTER

MASS
54
AREA
4747
HEIGHT
2221
10-Jul-2023
16:41
ALSHS
Se

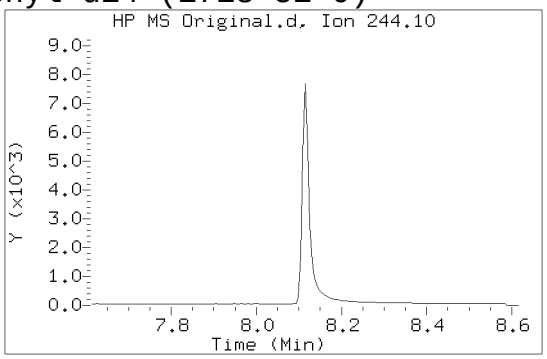


Data File : \\nahstws005\Target\chem\SV6.i\230710.b\16.D
Inj Date : 10-JUL-2023 14:46
InstruID : SV6.i
LabSampID : HS23061825-08

4-Terphenyl-d14 (1718-51-0)

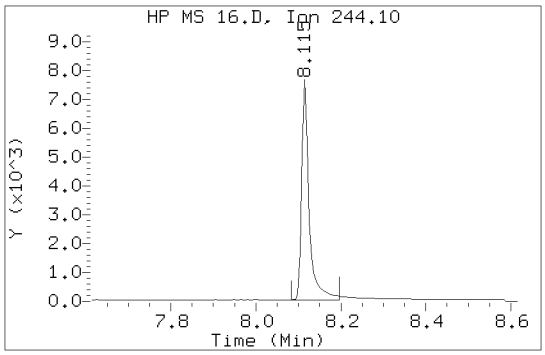
Reason Code:

BEFORE



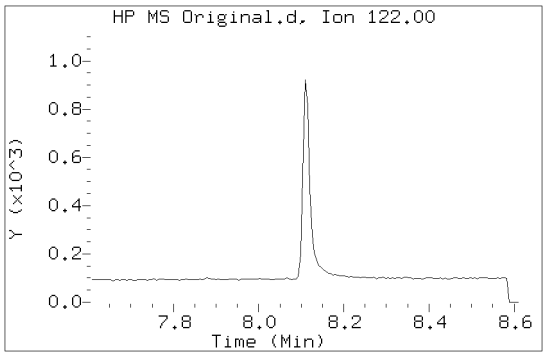
MASS
244.1
AREA
0
HEIGHT
0
10-Jul-2023
15:01
ALSHS
Server

AFTER



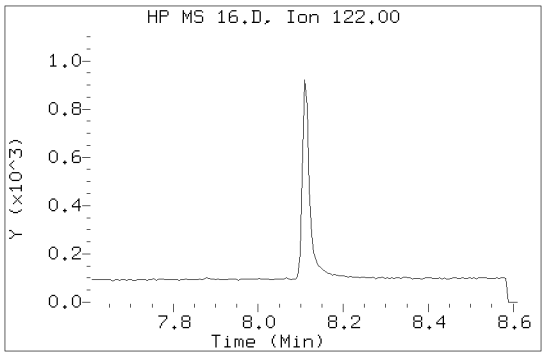
MASS
244.1
AREA
9201
HEIGHT
7633
10-Jul-2023
16:41
ALSHS
Se

BEFORE



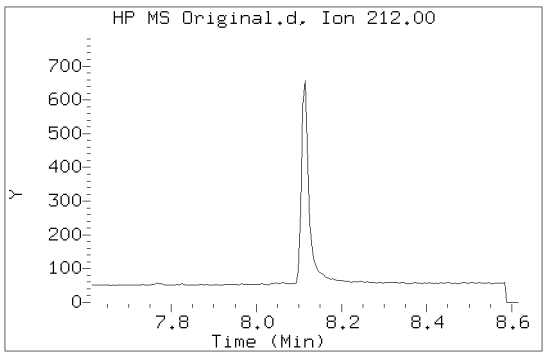
MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
15:01
ALSHS
Server

AFTER



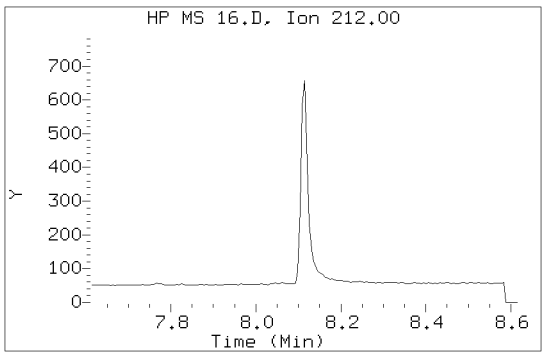
MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se

BEFORE



MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
15:01
ALSHS
Server

AFTER

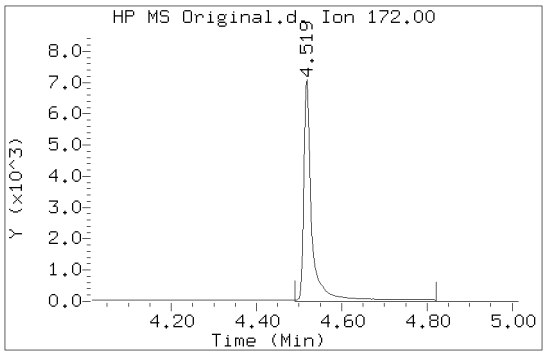


MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
16:41
ALSHS
Se

2-Fluorobiphenyl (321-60-8)

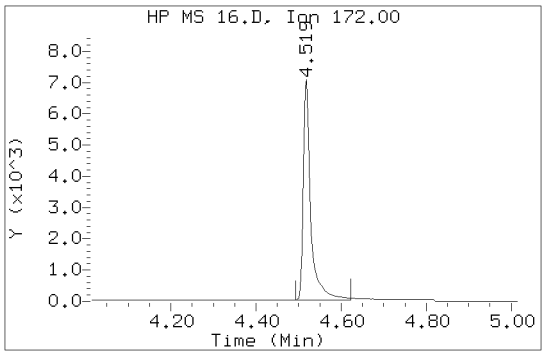
Reason Code:

BEFORE



MASS
172
AREA
9761
HEIGHT
7090
10-Jul-2023
15:01
ALSHS
Server

AFTER



MASS
172
AREA
8594
HEIGHT
7043
10-Jul-2023
16:41
ALSHS
Se

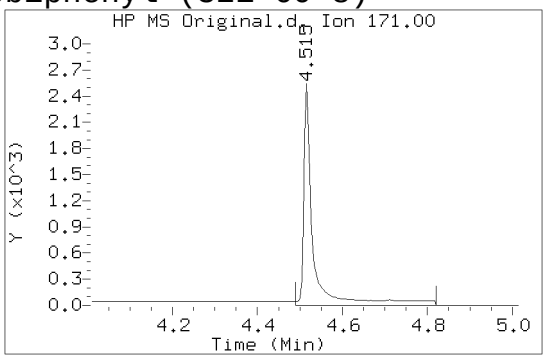
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\16.D
Inj Date : 10-JUL-2023 14:46
InstruID : SV6.i
LabSampID : HS23061825-08

2-Fluorobiphenyl (321-60-8)

Reason Code:

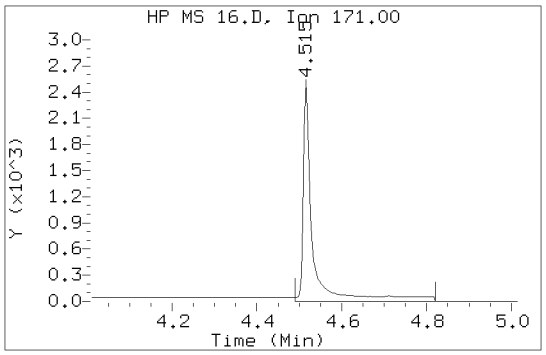
BEFORE

MASS
171
AREA
3919
HEIGHT
2543
10-Jul-2023
15:01
ALSHS
Server



AFTER

MASS
171
AREA
3919
HEIGHT
2543
10-Jul-2023
16:41
ALSHS
Se



Data File: \\nahstws005\Target\chem\SV6.i\230710.b\20.D Page 1
Report Date: 10-Jul-2023 16:42

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230710.b\20.D
Lab Smp Id: HS23061825-04 Client Smp ID: HS23061825-04
Inj Date : 10-JUL-2023 16:08
Operator : LG Inst ID: SV6.i
Smp Info : HS23061825-04X10
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230710.b\DXSIM.m
Meth Date : 10-Jul-2023 10:56 jiayi.lu Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 20
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	10.000	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	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.452	2.442	(1.000)	3182	0.10000	(aM)
* 45 Naphthalene-d8	136	3.498	3.494	(1.000)	9713	0.10000	(M)
$ 33 Nitrobenzene-d5	82	2.892	2.887	(0.827)	245	0.00830	0.08302(M)
* 86 Acenaphthene-d10	164	5.121	5.121	(1.000)	7990	0.10000	(M)
$ 69 2-Fluorobiphenyl	172	4.519	4.515	(0.882)	757	0.00927	0.09265(M)
* 126 Phenanthrene-d10	188	6.533	6.533	(1.000)	11085	0.10000	
* 182 Chrysene-d12	240	9.078	9.077	(1.000)	9513	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.115	8.114	(0.894)	719	0.01024	0.1024(M)
* 198 Perylene-d12	264	10.667	10.667	(1.000)	4812	0.10000	
1 1,4-Dioxane	58	0.968	0.942	(0.395)	824	0.07632	0.7632

QC Flag Legend

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

01206105

Data File: \\nahstws005\Target\chem\SV6.i\230710.b\20.D

Date : 10-JUL-2023 16:08

Client ID: HS23061825-04

Instrument: SV6.i

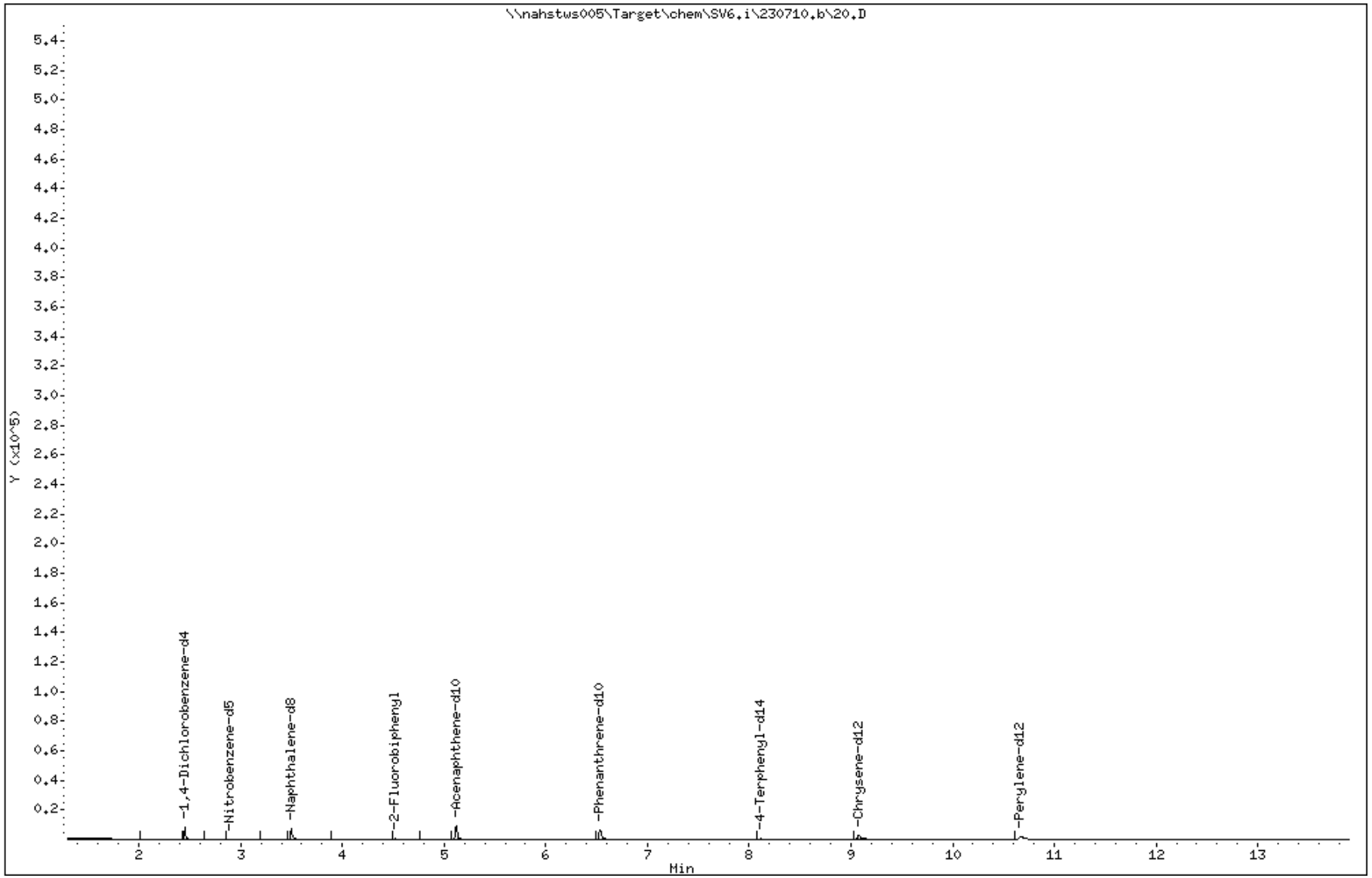
Sample Info: HS23061825-04X10

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\230710.b\20.D

Date : 10-JUL-2023 16:08

Client ID: HS23061825-04

Instrument: SV6.i

Sample Info: HS23061825-04X10

Purge Volume: 1000.0

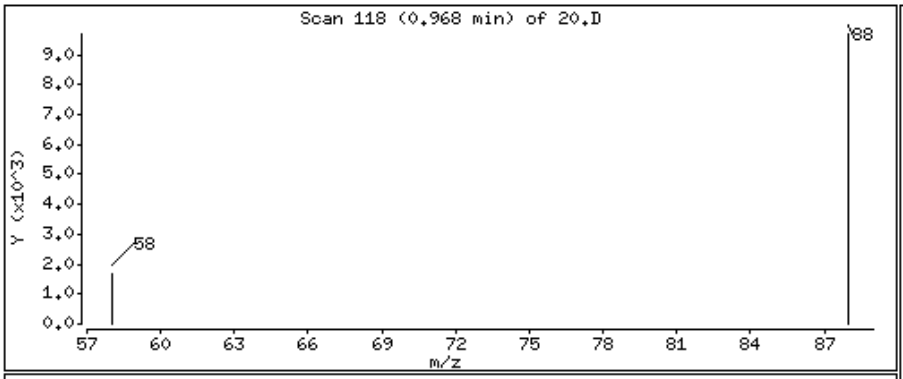
Operator: LG

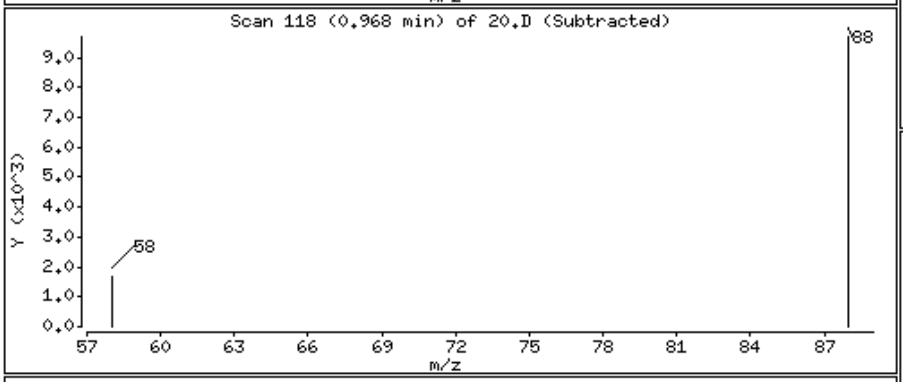
Column phase: RTX-5SIL MS

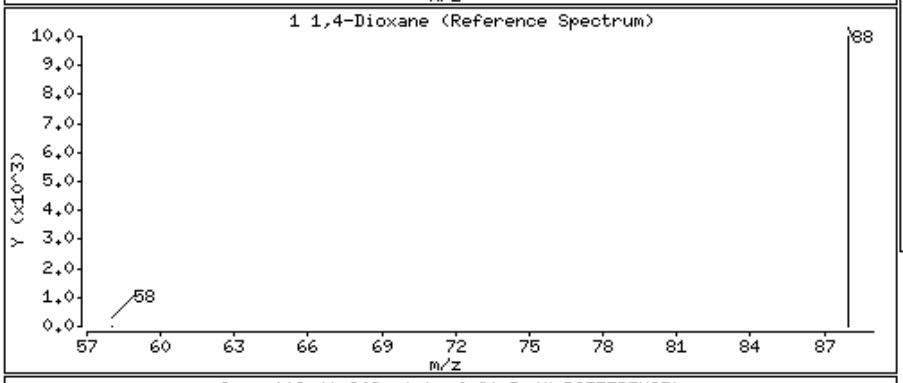
Column diameter: 0.28

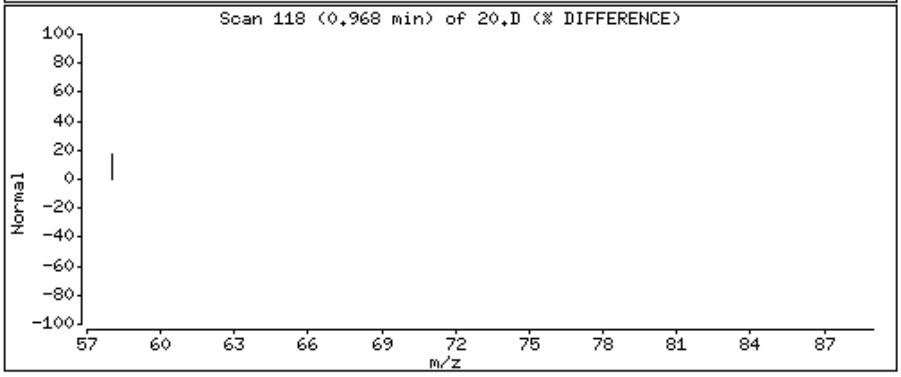
1 1,4-Dioxane

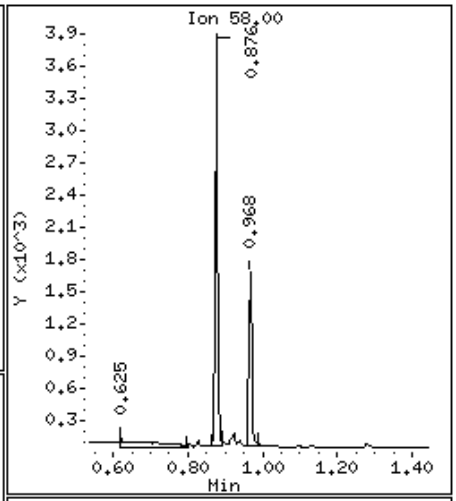
Concentration: 0.7632 ug/L

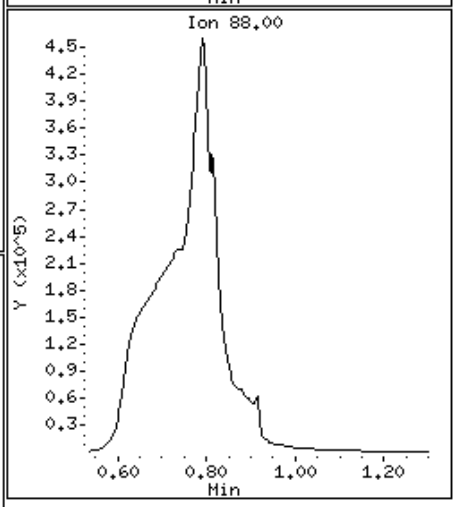












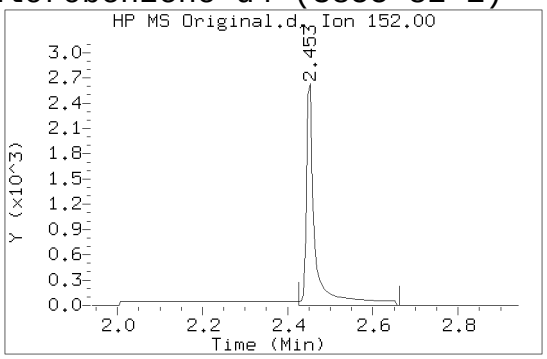
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\20.D
Inj Date : 10-JUL-2023 16:08
InstruID : SV6.i
LabSampID : HS23061825-04

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

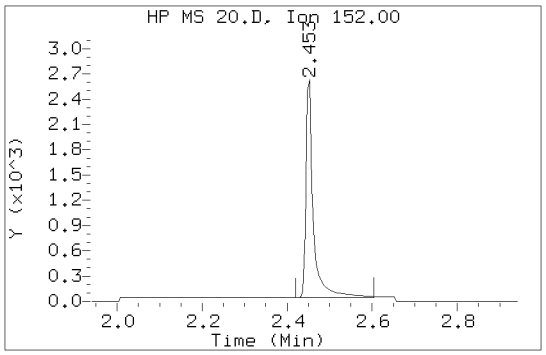
BEFORE

MASS
152
AREA
3820
HEIGHT
2631
10-Jul-2023
16:25
ALSHS
Server



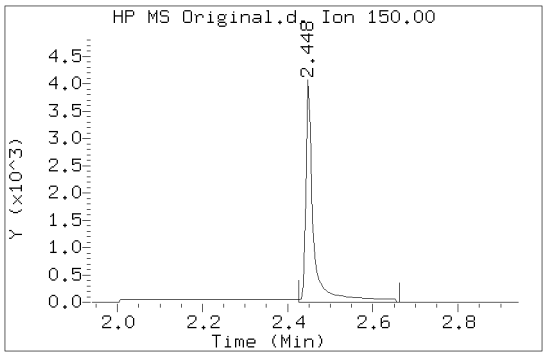
AFTER

MASS
152
AREA
3182
HEIGHT
2587
10-Jul-2023
16:42
ALSHS
Se



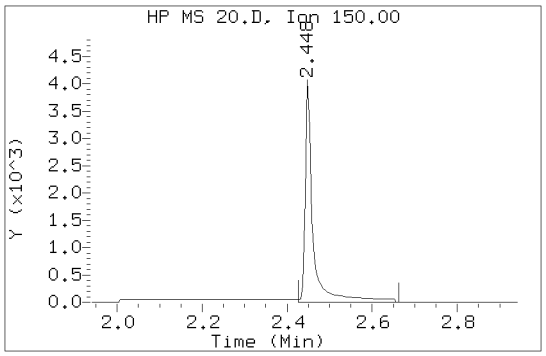
BEFORE

MASS
150
AREA
5235
HEIGHT
4070
10-Jul-2023
16:25
ALSHS
Server



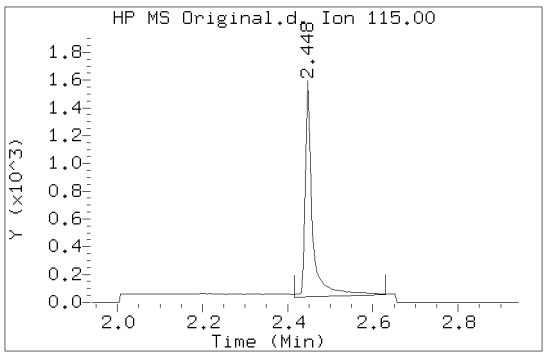
AFTER

MASS
150
AREA
5235
HEIGHT
4070
10-Jul-2023
16:42
ALSHS
Se



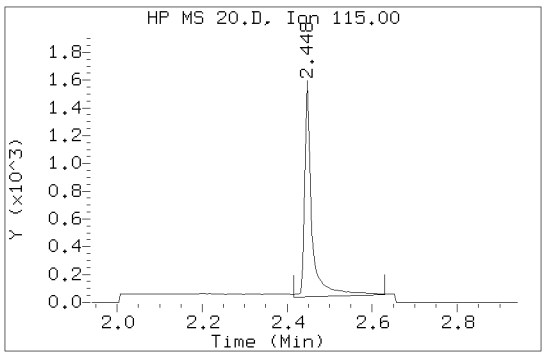
BEFORE

MASS
115
AREA
1843
HEIGHT
1554
10-Jul-2023
16:25
ALSHS
Server



AFTER

MASS
115
AREA
1843
HEIGHT
1554
10-Jul-2023
16:42
ALSHS
Se

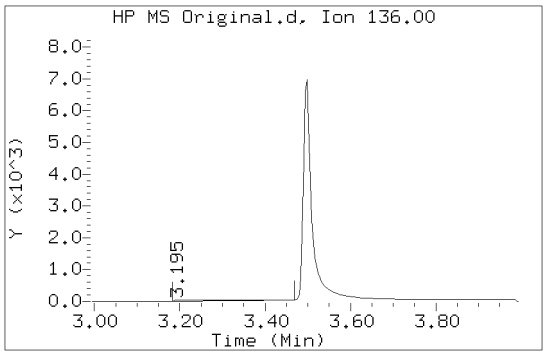


Naphthalene-d8 (1146-65-2)

Reason Code:

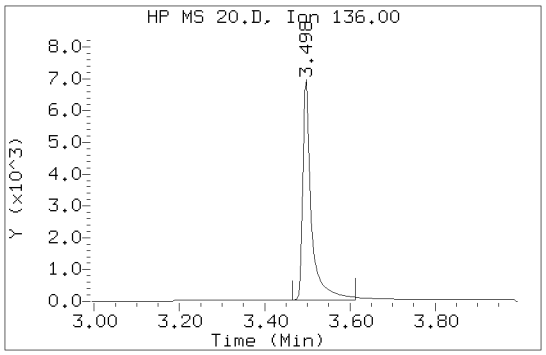
BEFORE

MASS
136
AREA
407
HEIGHT
48
10-Jul-2023
16:25
ALSHS
Server



AFTER

MASS
136
AREA
9713
HEIGHT
6931
10-Jul-2023
16:42
ALSHS
Se



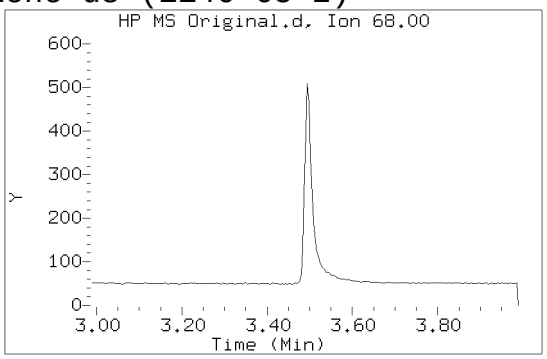
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\20.D
Inj Date : 10-JUL-2023 16:08
InstruID : SV6.i
LabSampID : HS23061825-04

Naphthalene-d8 (1146-65-2)

Reason Code:

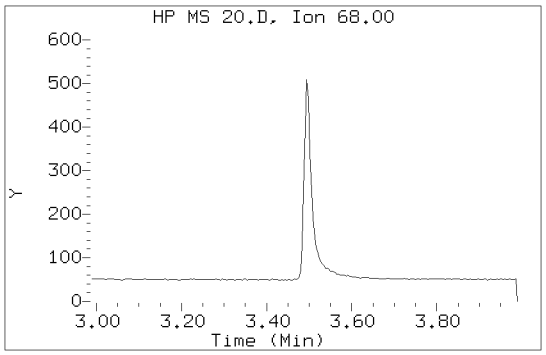
BEFORE

MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
16:25
ALSHS
Server



AFTER

MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
16:42
ALSHS
Se

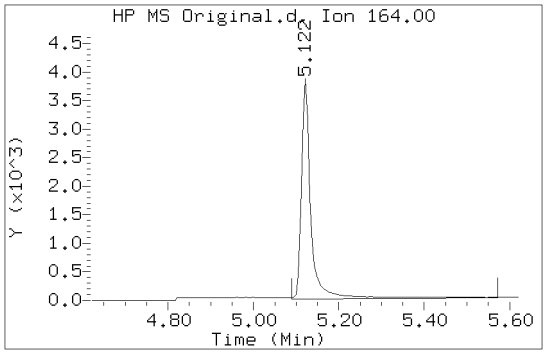


Acenaphthene-d10 (15067-26-2)

Reason Code:

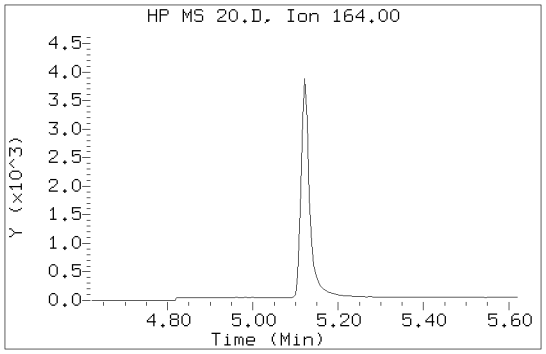
BEFORE

MASS
164
AREA
6053
HEIGHT
3862
10-Jul-2023
16:25
ALSHS
Server



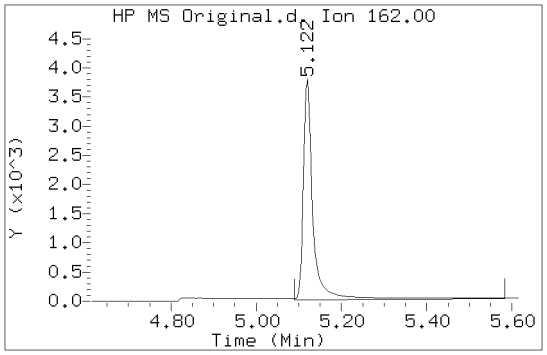
AFTER

MASS
164
AREA
7990
HEIGHT
3874
10-Jul-2023
16:42
ALSHS
Se



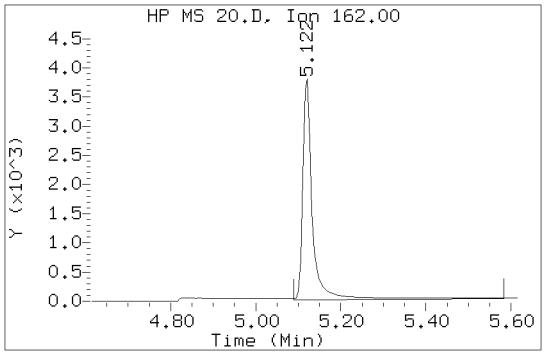
BEFORE

MASS
162
AREA
6126
HEIGHT
3789
10-Jul-2023
16:25
ALSHS
Server



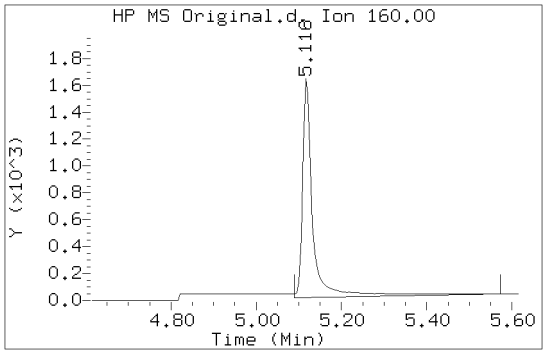
AFTER

MASS
162
AREA
6126
HEIGHT
3789
10-Jul-2023
16:42
ALSHS
Se



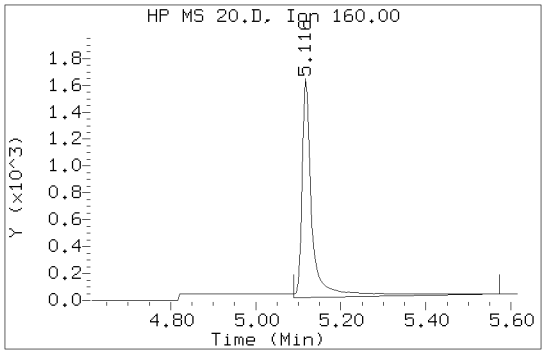
BEFORE

MASS
160
AREA
2839
HEIGHT
1631
10-Jul-2023
16:25
ALSHS
Server



AFTER

MASS
160
AREA
2839
HEIGHT
1631
10-Jul-2023
16:42
ALSHS
Se



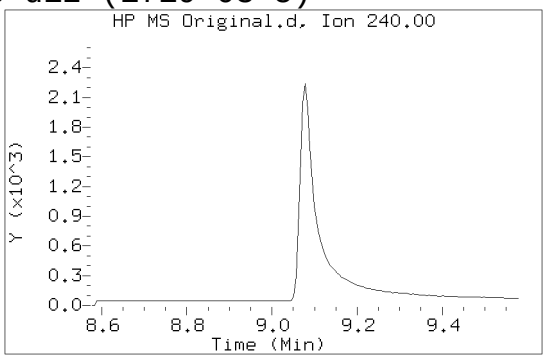
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\20.D
Inj Date : 10-JUL-2023 16:08
InstruID : SV6.i
LabSampID : HS23061825-04

Chrysene-d12 (1719-03-5)

Reason Code:

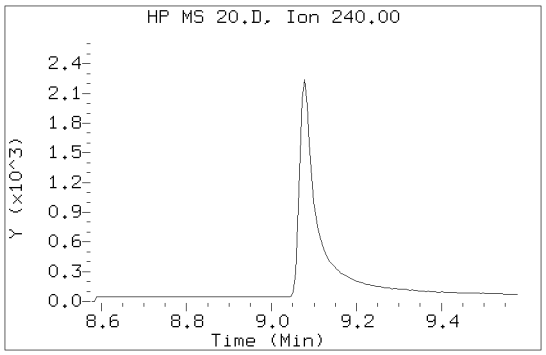
BEFORE

MASS
240
AREA
0
HEIGHT
0
10-Jul-2023
16:25
ALSHS
Server



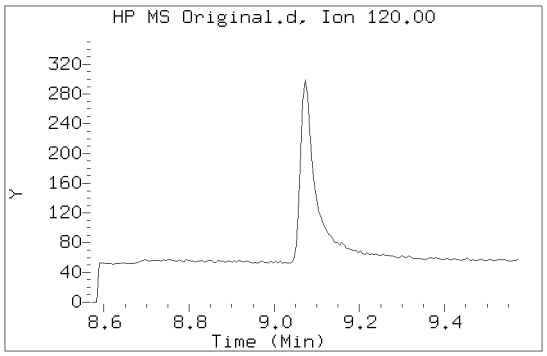
AFTER

MASS
240
AREA
9513
HEIGHT
2217
10-Jul-2023
16:42
ALSHS
Se



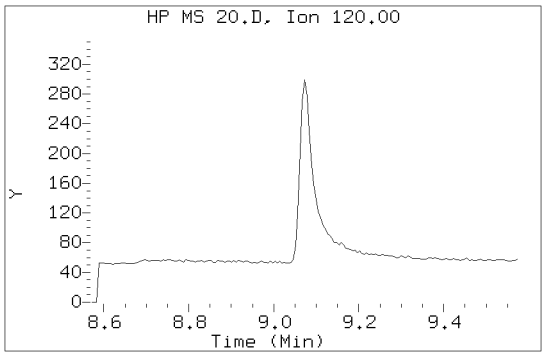
BEFORE

MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
16:25
ALSHS
Server



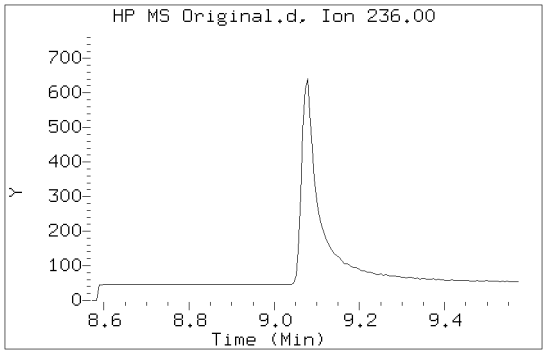
AFTER

MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
16:42
ALSHS
Se



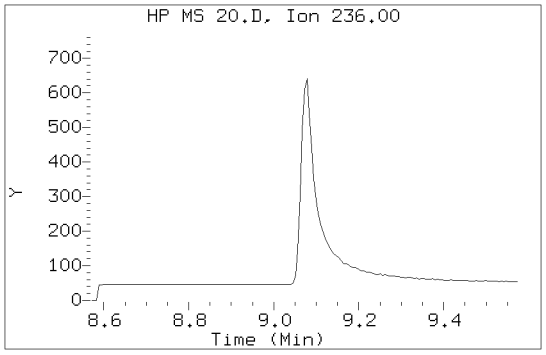
BEFORE

MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
16:25
ALSHS
Server



AFTER

MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
16:42
ALSHS
Se

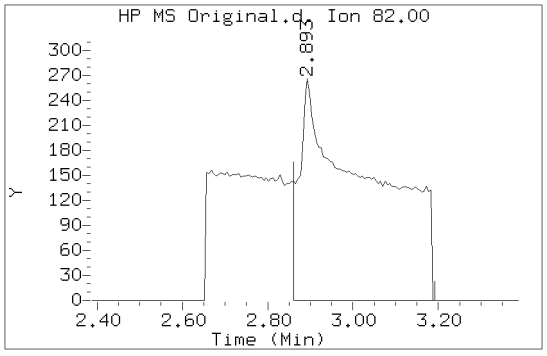


Nitrobenzene-d5 (4165-60-0)

Reason Code:

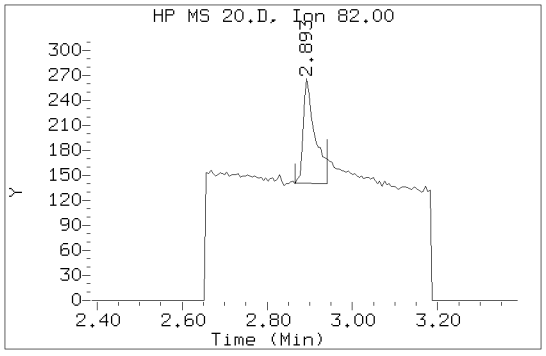
BEFORE

MASS
82
AREA
3036
HEIGHT
266
10-Jul-2023
16:25
ALSHS
Server



AFTER

MASS
82
AREA
245
HEIGHT
125
10-Jul-2023
16:42
ALSHS
Se



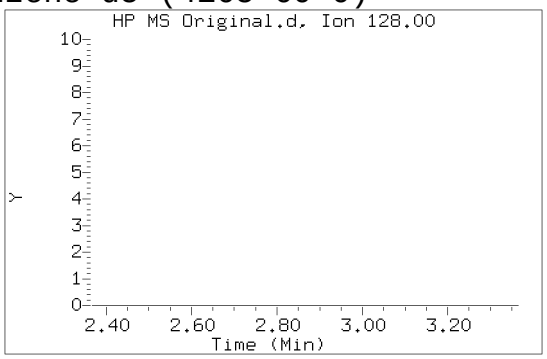
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\20.D
Inj Date : 10-JUL-2023 16:08
InstruID : SV6.i
LabSampID : HS23061825-04

Nitrobenzene-d5 (4165-60-0)

Reason Code:

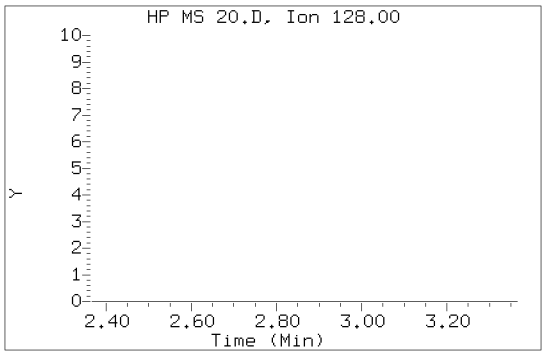
BEFORE

MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
16:25
ALSHS
Server



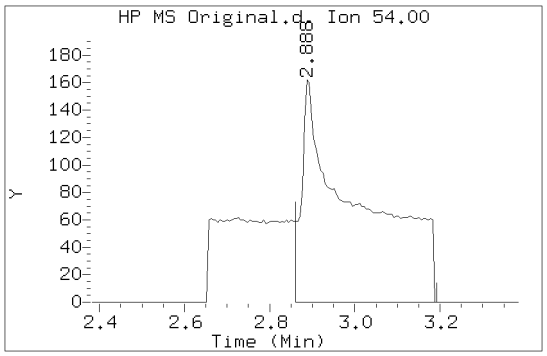
AFTER

MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
16:42
ALSHS
Se



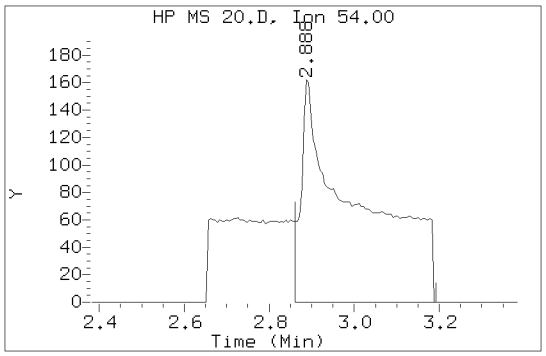
BEFORE

MASS
54
AREA
1483
HEIGHT
162
10-Jul-2023
16:25
ALSHS
Server



AFTER

MASS
54
AREA
1483
HEIGHT
162
10-Jul-2023
16:42
ALSHS
Se

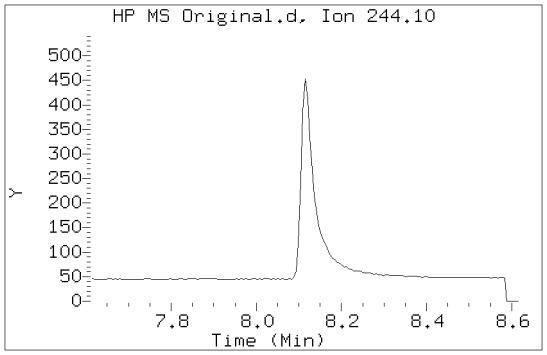


4-Terphenyl-d14 (1718-51-0)

Reason Code:

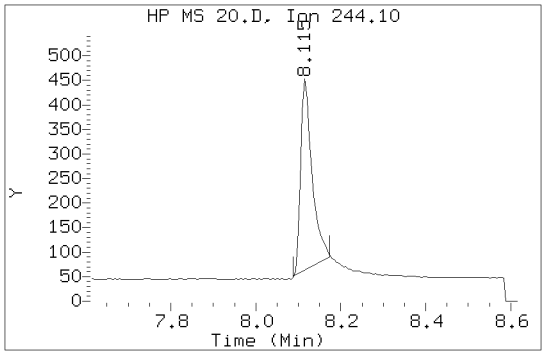
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
10-Jul-2023
16:25
ALSHS
Server



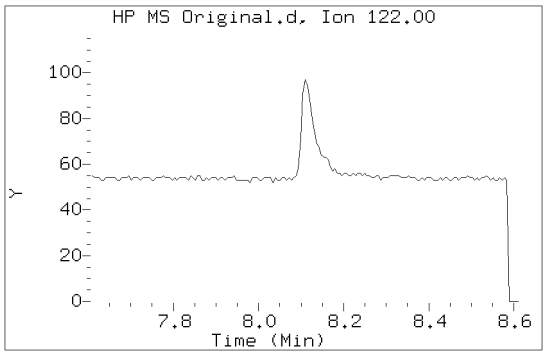
AFTER

MASS
244.1
AREA
719
HEIGHT
389
10-Jul-2023
16:42
ALSHS
Se



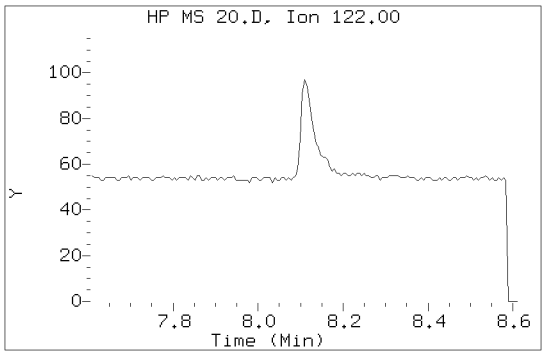
BEFORE

MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
16:25
ALSHS
Server



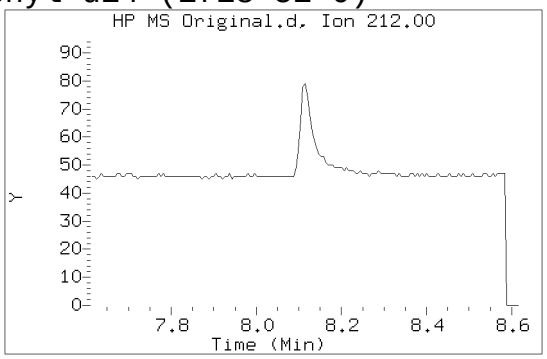
AFTER

MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
16:42
ALSHS
Se



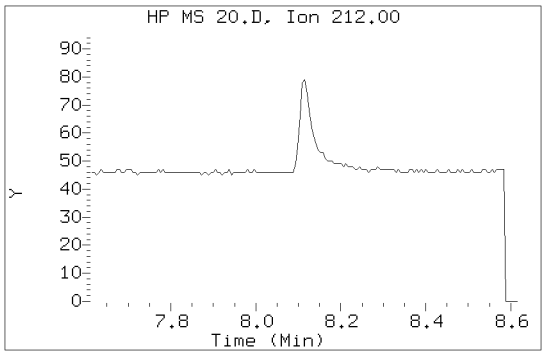
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\20.D
Inj Date : 10-JUL-2023 16:08
InstruID : SV6.i
LabSampID : HS23061825-04

4-Terphenyl-d14 (1718-51-0)



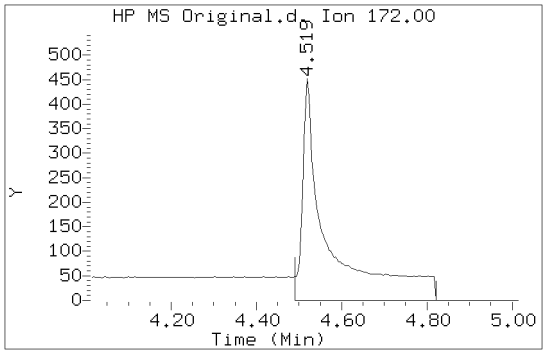
BEFORE
MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
16:25
ALSHS
Server

Reason Code:



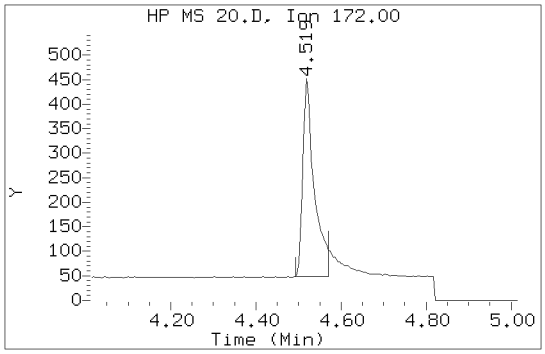
AFTER
MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
16:42
ALSHS
Se

2-Fluorobiphenyl (321-60-8)

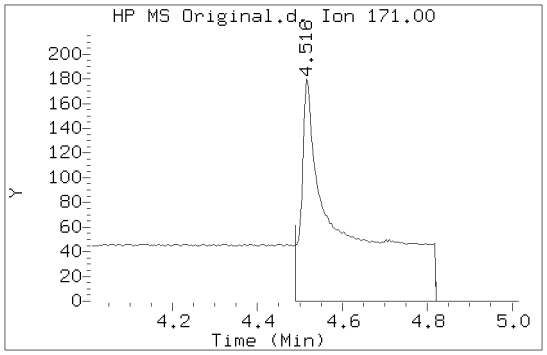


BEFORE
MASS
172
AREA
1864
HEIGHT
452
10-Jul-2023
16:25
ALSHS
Server

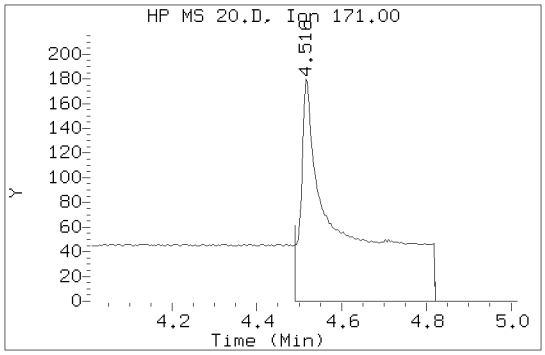
Reason Code:



AFTER
MASS
172
AREA
757
HEIGHT
403
10-Jul-2023
16:42
ALSHS
Se



BEFORE
MASS
171
AREA
1228
HEIGHT
180
10-Jul-2023
16:25
ALSHS
Server



AFTER
MASS
171
AREA
1228
HEIGHT
180
10-Jul-2023
16:42
ALSHS
Se

Data File: \\nahstws005\Target\chem\SV6.i\230710.b\21.D Page 1
Report Date: 10-Jul-2023 16:44

ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\nahstws005\Target\chem\SV6.i\230710.b\21.D
Lab Smp Id: HS23061825-09 Client Smp ID: HS23061825-09
Inj Date : 10-JUL-2023 16:27
Operator : LG Inst ID: SV6.i
Smp Info : HS23061825-09X1H
Misc Info : ;;0;1;
Comment :
Method : \\nahstws005\Target\chem\SV6.i\230710.b\DXSIM.m
Meth Date : 10-Jul-2023 10:56 jiayi.lu Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 21
Dil Factor: 100.00000
Integrator: HP RTE Compound Sublist: 14dx.sub
Target Version: 4.14
Processing Host: NAHSTW7015

Concentration Formula: Amt * DF * Uf * Vt/Vo * CpndVariable

Name	Value	Description
DF	100.000	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	CONCENTRATIONS ON-COLUMN (NG)	FINAL (ug/L)
* 20 1,4-Dichlorobenzene-d4	152	2.447	2.442	(1.000)	2764	0.10000	(aM)
* 45 Naphthalene-d8	136	3.498	3.494	(1.000)	8498	0.10000	(M)
* 86 Acenaphthene-d10	164	5.126	5.121	(1.000)	5077	0.10000	(M)
* 126 Phenanthrene-d10	188	6.539	6.533	(1.000)	9912	0.10000	
* 182 Chrysene-d12	240	9.083	9.077	(1.000)	6377	0.10000	(M)
* 198 Perylene-d12	264	10.673	10.667	(1.000)	5561	0.10000	(M)
1 1,4-Dioxane	58	0.956	0.942	(0.391)	482	0.05140	5.140(M)

QC Flag Legend

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

01206113

Data File: \\nahstws005\Target\chem\SV6.i\230710.b\21.D

Date : 10-JUL-2023 16:27

Client ID: HS23061825-09

Instrument: SV6.i

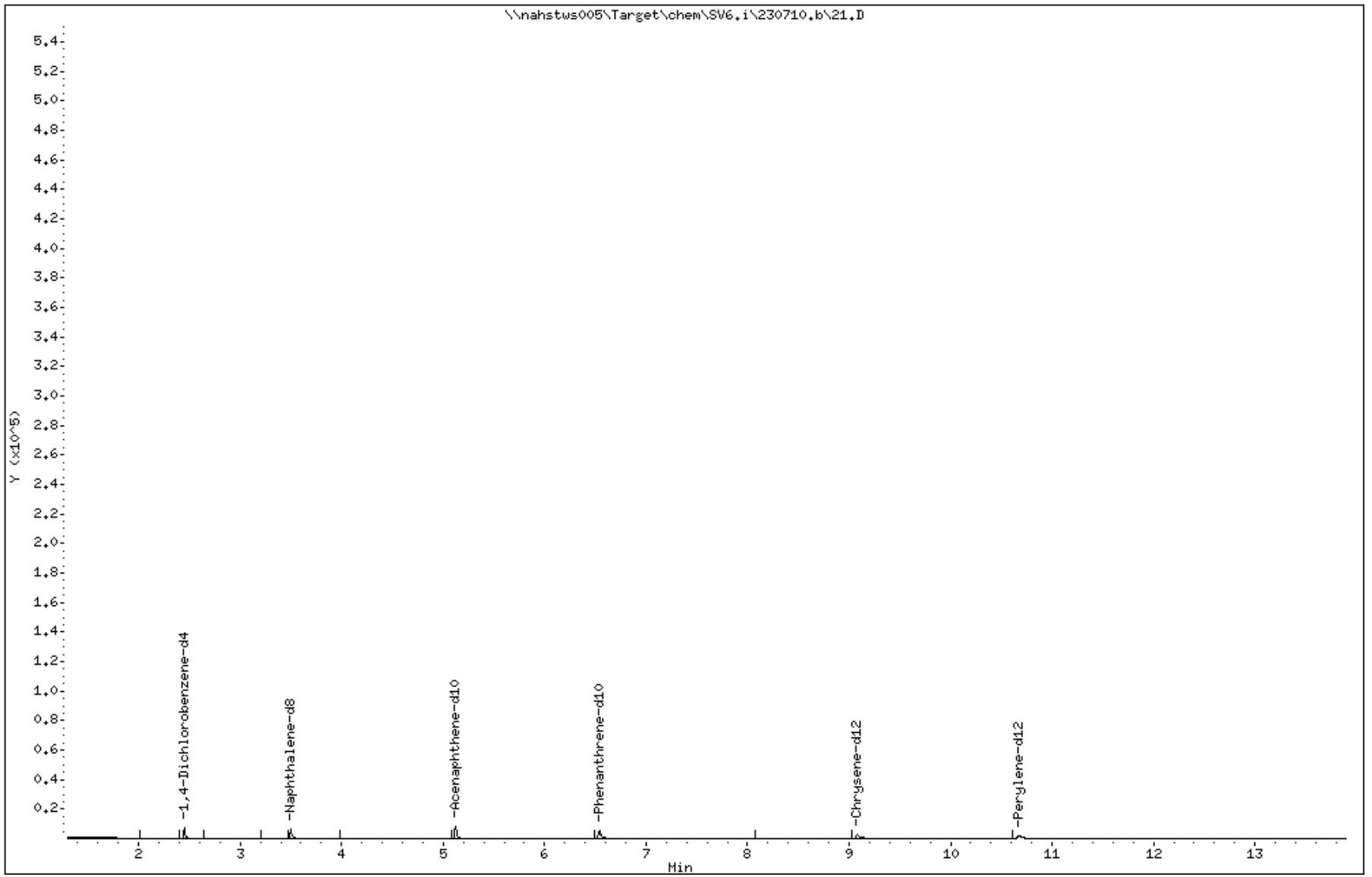
Sample Info: HS23061825-09X1H

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



Data File: \\nahstws005\Target\chem\SV6.i\230710.b\21.D

Date : 10-JUL-2023 16:27

Client ID: HS23061825-09

Instrument: SV6.i

Sample Info: HS23061825-09X1H

Purge Volume: 1000.0

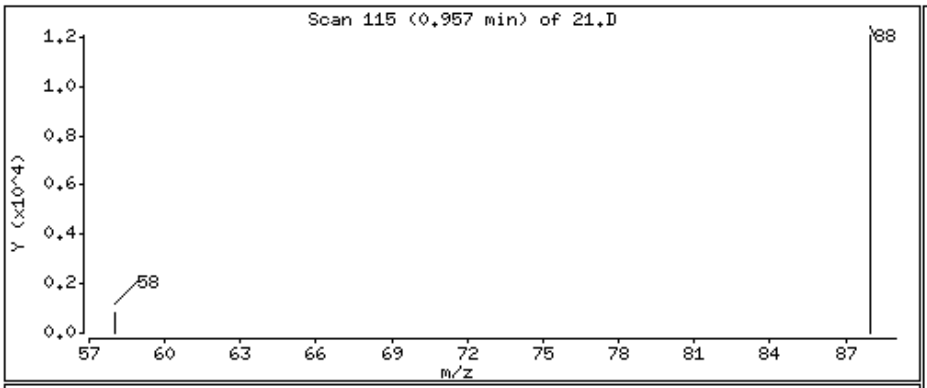
Operator: LG

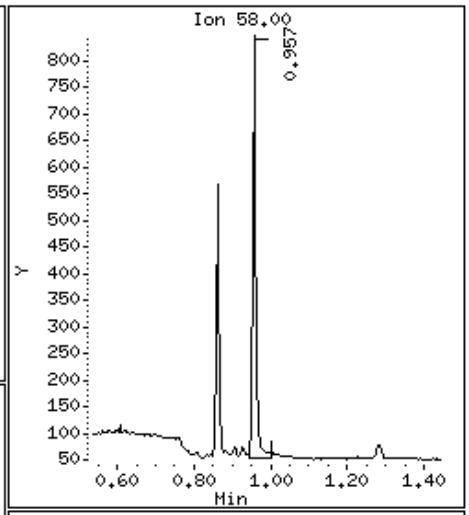
Column phase: RTX-5SIL MS

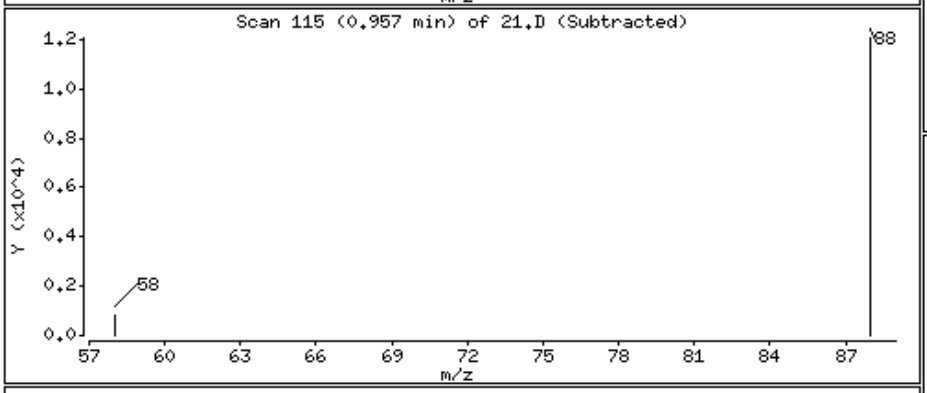
Column diameter: 0.28

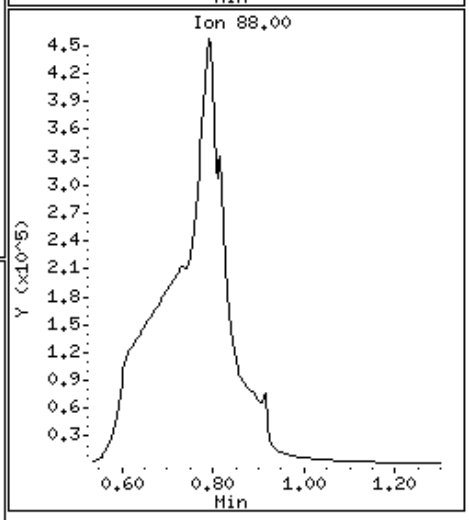
1 1,4-Dioxane

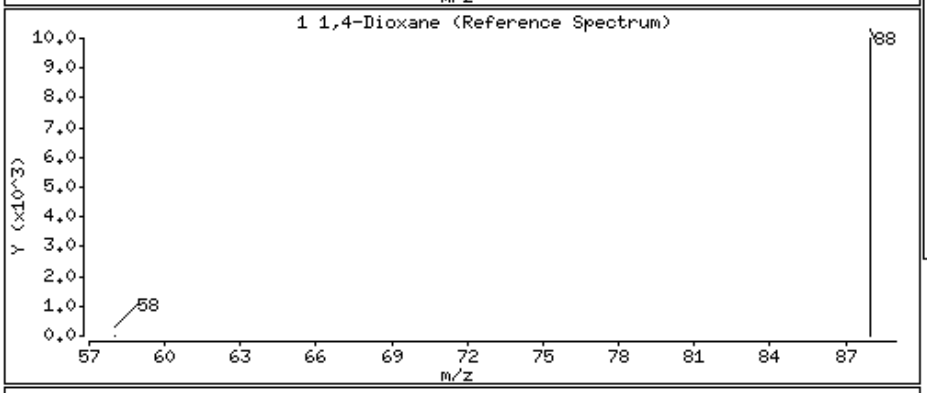
Concentration: 5.140 ug/L

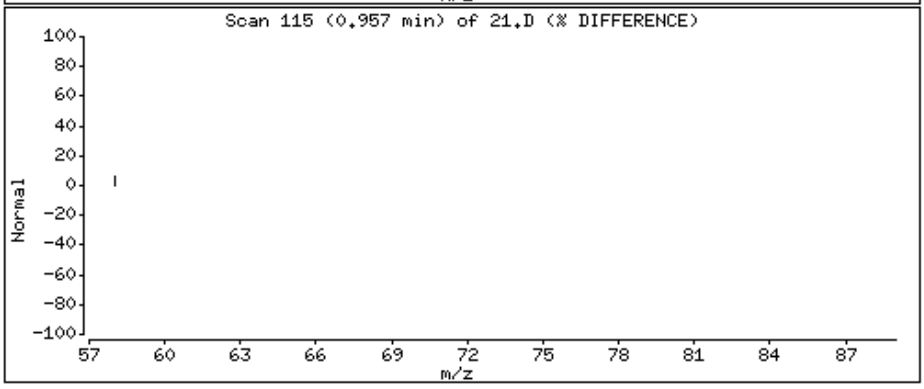












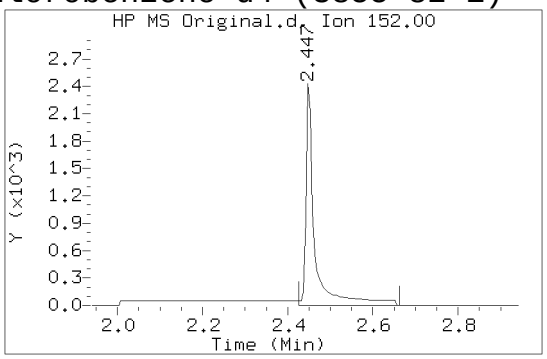
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\21.D
Inj Date : 10-JUL-2023 16:27
InstruID : SV6.i
LabSampID : HS23061825-09

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

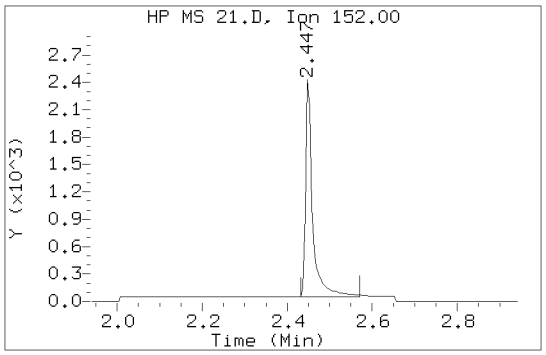
BEFORE

MASS
152
AREA
3491
HEIGHT
2429
10-Jul-2023
16:42
ALSHS
Server



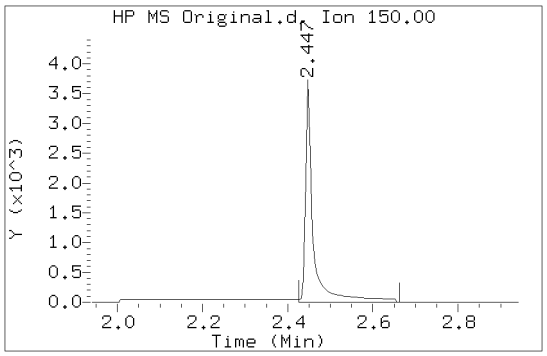
AFTER

MASS
152
AREA
2764
HEIGHT
2379
10-Jul-2023
16:44
ALSHS
Se



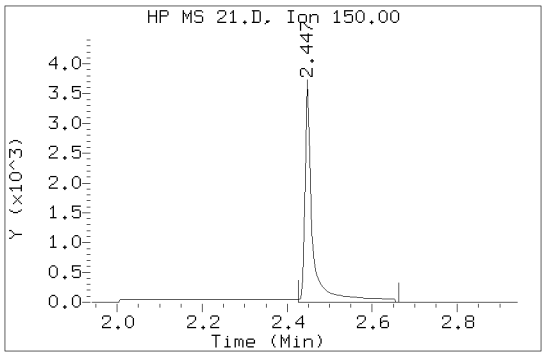
BEFORE

MASS
150
AREA
4758
HEIGHT
3730
10-Jul-2023
16:42
ALSHS
Server



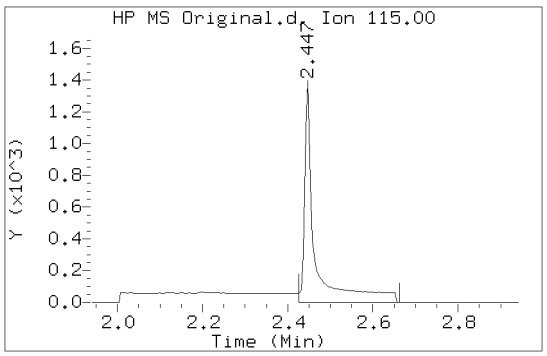
AFTER

MASS
150
AREA
4758
HEIGHT
3730
10-Jul-2023
16:44
ALSHS
Se



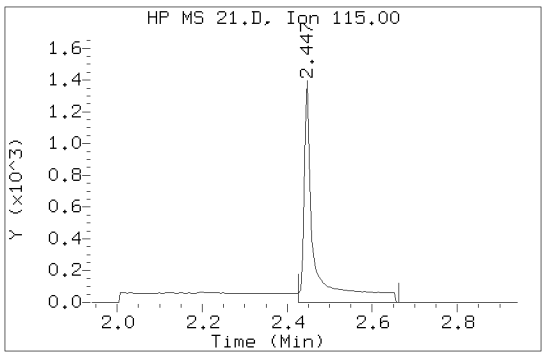
BEFORE

MASS
115
AREA
2315
HEIGHT
1396
10-Jul-2023
16:42
ALSHS
Server



AFTER

MASS
115
AREA
2315
HEIGHT
1396
10-Jul-2023
16:44
ALSHS
Se

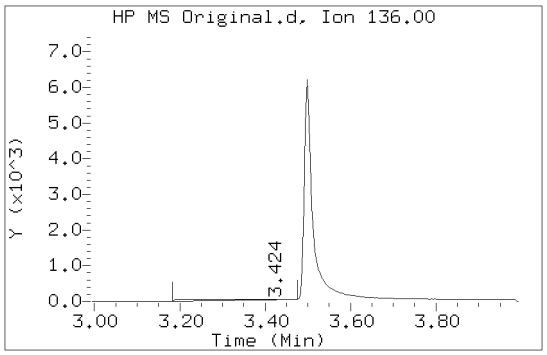


Naphthalene-d8 (1146-65-2)

Reason Code:

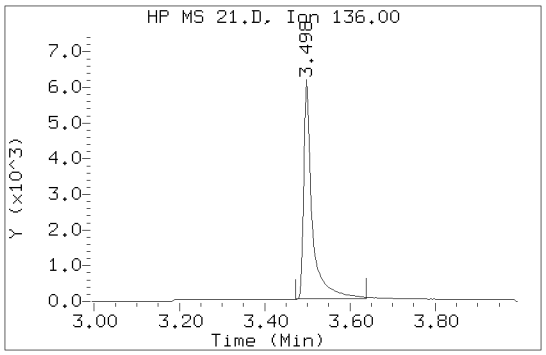
BEFORE

MASS
136
AREA
399
HEIGHT
9
10-Jul-2023
16:42
ALSHS
Server



AFTER

MASS
136
AREA
8498
HEIGHT
6150
10-Jul-2023
16:44
ALSHS
Se



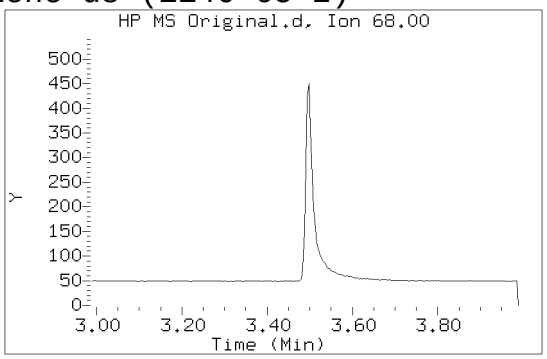
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\21.D
Inj Date : 10-JUL-2023 16:27
InstruID : SV6.i
LabSampID : HS23061825-09

Naphthalene-d8 (1146-65-2)

Reason Code:

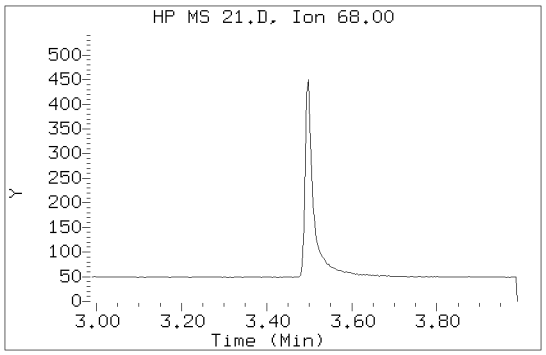
BEFORE

MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
16:42
ALSHS
Server



AFTER

MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
16:44
ALSHS
Se

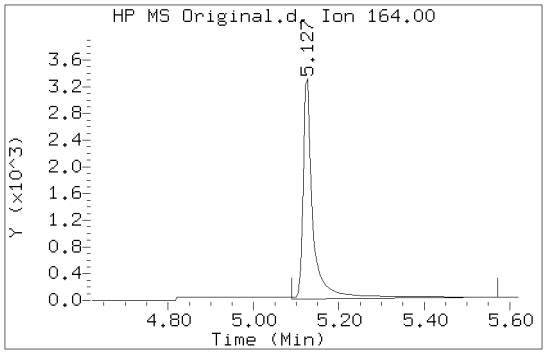


Acenaphthene-d10 (15067-26-2)

Reason Code:

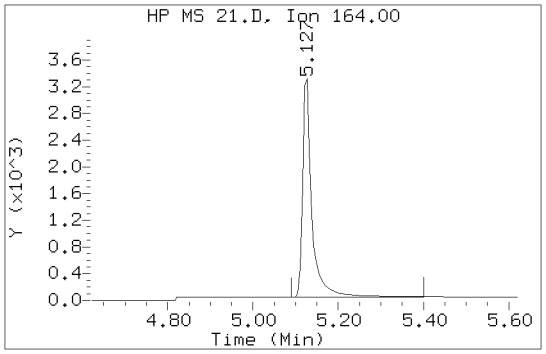
BEFORE

MASS
164
AREA
5498
HEIGHT
3299
10-Jul-2023
16:42
ALSHS
Server



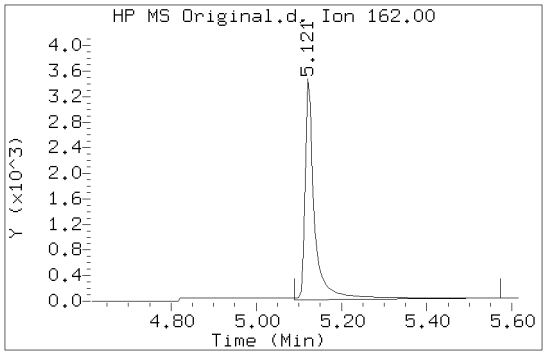
AFTER

MASS
164
AREA
5077
HEIGHT
3275
10-Jul-2023
16:44
ALSHS
Se



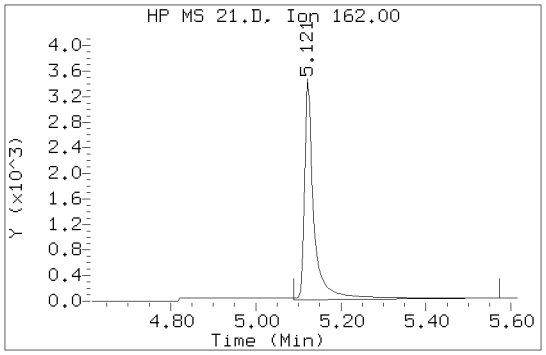
BEFORE

MASS
162
AREA
5566
HEIGHT
3457
10-Jul-2023
16:42
ALSHS
Server



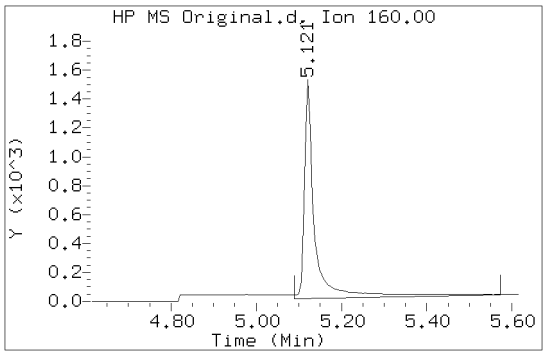
AFTER

MASS
162
AREA
5566
HEIGHT
3457
10-Jul-2023
16:44
ALSHS
Se



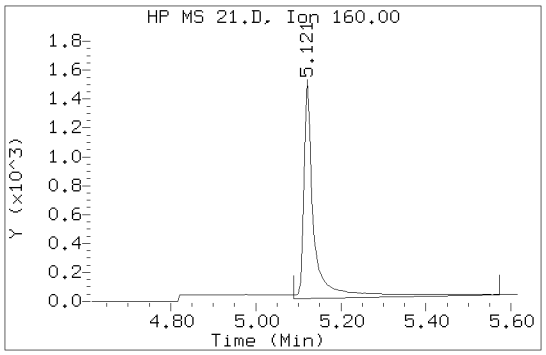
BEFORE

MASS
160
AREA
2600
HEIGHT
1515
10-Jul-2023
16:42
ALSHS
Server



AFTER

MASS
160
AREA
2600
HEIGHT
1515
10-Jul-2023
16:44
ALSHS
Se



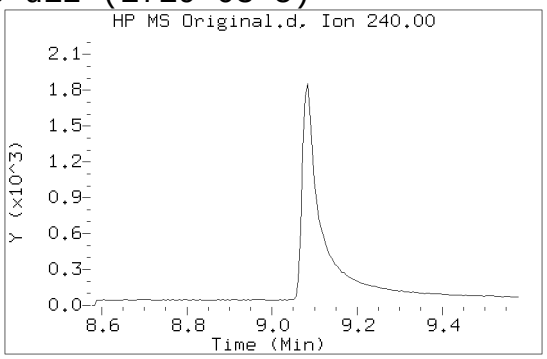
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\21.D
Inj Date : 10-JUL-2023 16:27
InstruID : SV6.i
LabSampID : HS23061825-09

Chrysene-d12 (1719-03-5)

Reason Code:

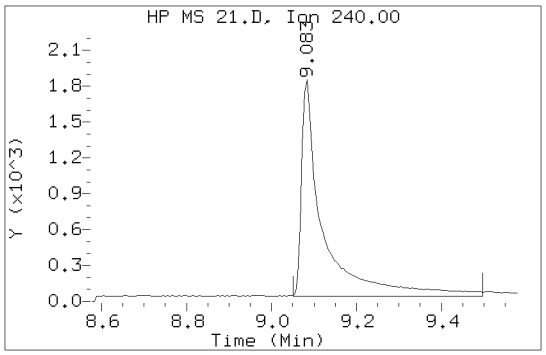
BEFORE

MASS
240
AREA
0
HEIGHT
0
10-Jul-2023
16:42
ALSHS
Server



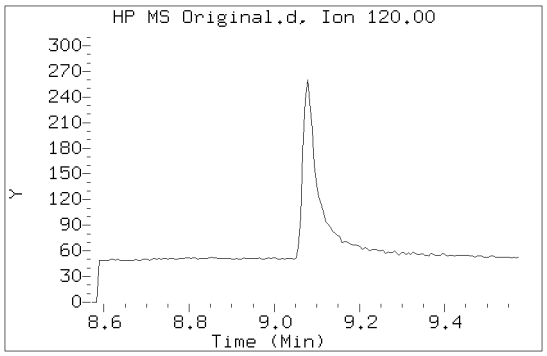
AFTER

MASS
240
AREA
6377
HEIGHT
1811
10-Jul-2023
16:44
ALSHS
Se



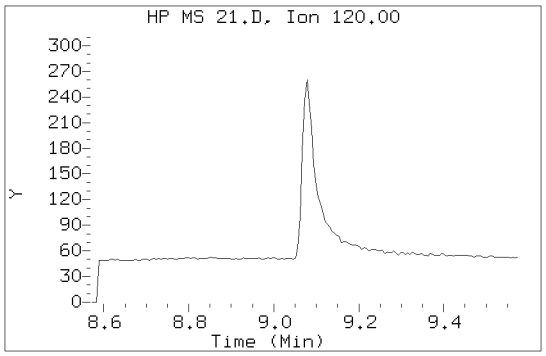
BEFORE

MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
16:42
ALSHS
Server



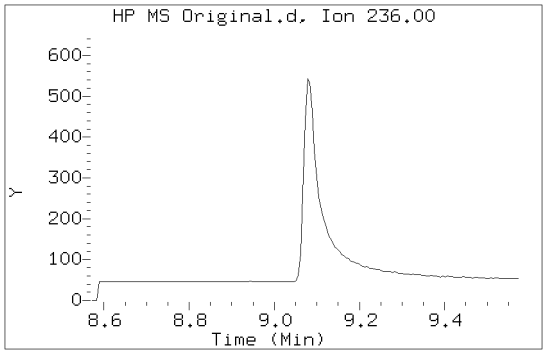
AFTER

MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
16:44
ALSHS
Se



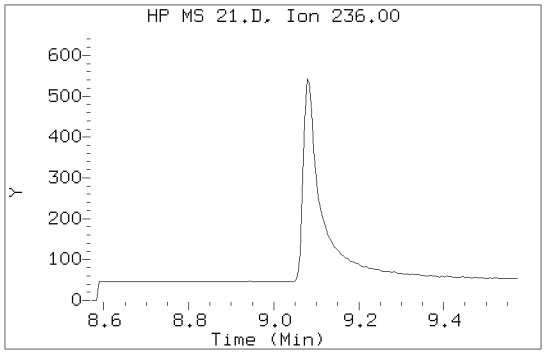
BEFORE

MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
16:42
ALSHS
Server



AFTER

MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
16:44
ALSHS
Se

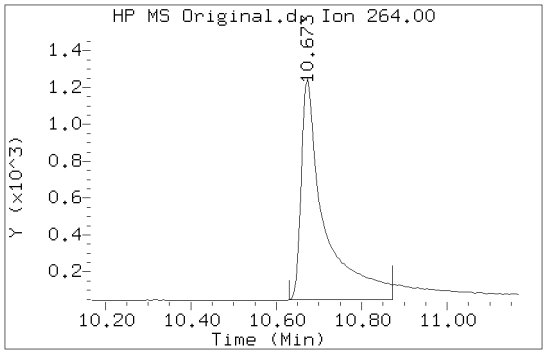


Perylene-d12 (1520-96-3)

Reason Code:

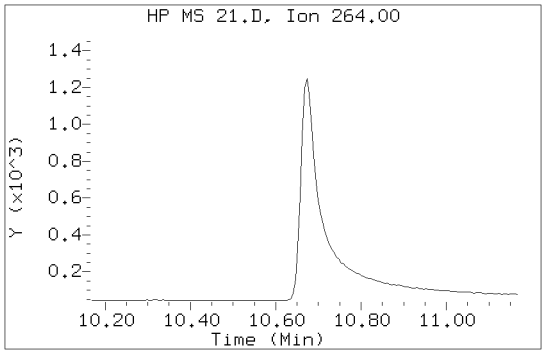
BEFORE

MASS
264
AREA
4519
HEIGHT
1200
10-Jul-2023
16:42
ALSHS
Server



AFTER

MASS
264
AREA
5561
HEIGHT
1201
10-Jul-2023
16:44
ALSHS
Se



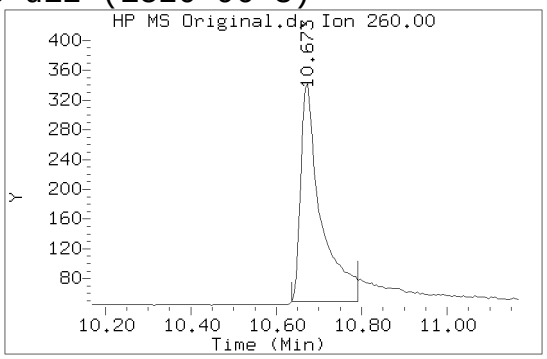
Data File : \\nahstws005\Target\chem\SV6.i\230710.b\21.D
Inj Date : 10-JUL-2023 16:27
InstruID : SV6.i
LabSampID : HS23061825-09

Perylene-d12 (1520-96-3)

Reason Code:

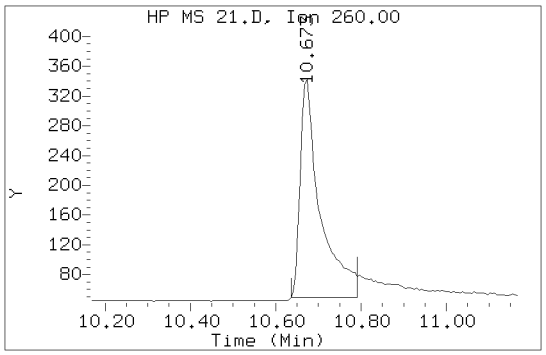
BEFORE

MASS
260
AREA
955
HEIGHT
293
10-Jul-2023
16:42
ALSHS
Server



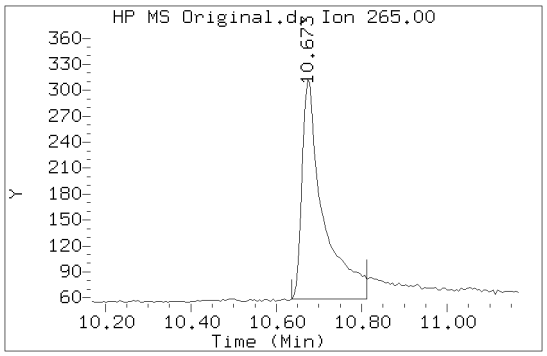
AFTER

MASS
260
AREA
955
HEIGHT
293
10-Jul-2023
16:44
ALSHS
Se



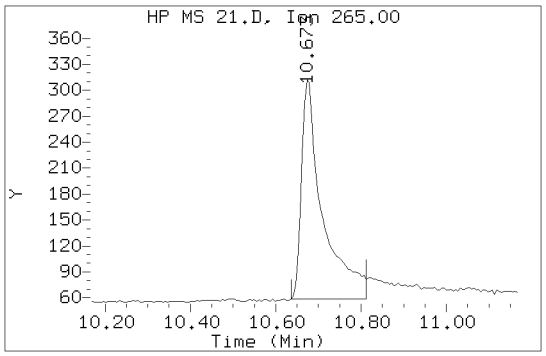
BEFORE

MASS
265
AREA
869
HEIGHT
253
10-Jul-2023
16:42
ALSHS
Server



AFTER

MASS
265
AREA
869
HEIGHT
253
10-Jul-2023
16:44
ALSHS
Se

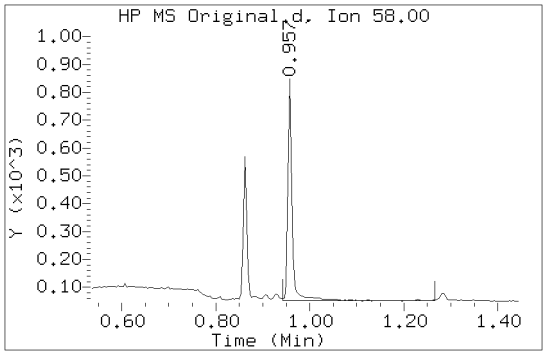


1,4-Dioxane ()

Reason Code:

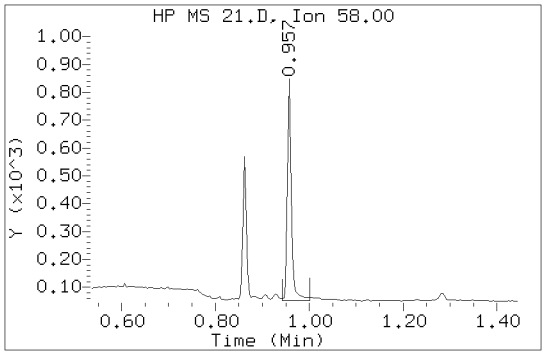
BEFORE

MASS
58
AREA
499
HEIGHT
795
10-Jul-2023
16:42
ALSHS
Server



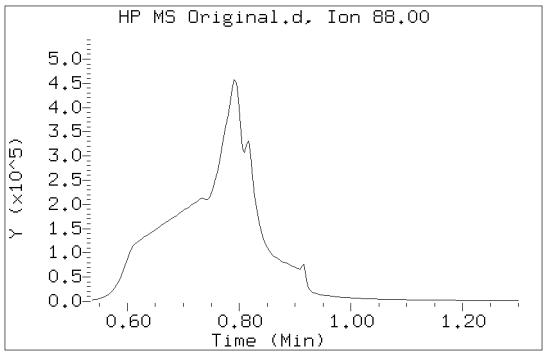
AFTER

MASS
58
AREA
482
HEIGHT
795
10-Jul-2023
16:44
ALSHS
Se



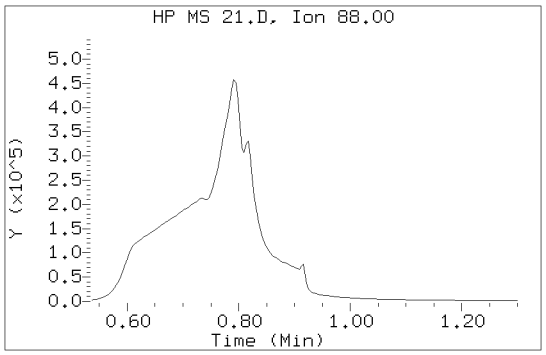
BEFORE

MASS
88
AREA
0
HEIGHT
0
10-Jul-2023
16:42
ALSHS
Server



AFTER

MASS
88
AREA
0
HEIGHT
0
10-Jul-2023
16:44
ALSHS
Se



ALS Laboratory Group

GC/MS Semivolatiles EPA method 8270D

Data file : \\NAHSTWS005\Target\chem\SV6.i\230710.b\22.D
Lab Smp Id: 14DXCCV-END Client Smp ID: 14DXCCV-END
Inj Date : 10-JUL-2023 16:45
Operator : LG Inst ID: SV6.i
Smp Info : 14DXCCV-END
Misc Info : ;;0;1;
Comment :
Method : \\NAHSTWS005\Target\chem\SV6.i\230710.b\DXSIM.m
Meth Date : 12-Jul-2023 15:28 SV6.i Quant Type: ISTD
Cal Date : 16-JUN-2023 15:56 Cal File: 15.D
Als bottle: 22 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 MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (NG)	AMOUNTS ON-COL (NG)
* 20 1,4-Dichlorobenzene-d4	152	2.447	2.447	(1.000)	5111	0.10000	(aM)
* 45 Naphthalene-d8	136	3.498	3.498	(1.000)	15628	0.10000	(M)
$ 33 Nitrobenzene-d5	82	2.887	2.887	(0.825)	3536	0.08000	0.07447(M)
* 86 Acenaphthene-d10	164	5.121	5.121	(1.000)	9445	0.10000	
$ 69 2-Fluorobiphenyl	172	4.519	4.519	(0.882)	7495	0.08000	0.07760(M)
* 126 Phenanthrene-d10	188	6.533	6.533	(1.000)	18708	0.10000	
* 182 Chrysene-d12	240	9.077	9.077	(1.000)	12151	0.10000	(M)
$ 158 4-Terphenyl-d14	244	8.120	8.120	(0.895)	6865	0.08000	0.07658(M)
* 198 Perylene-d12	264	10.673	10.673	(1.000)	10353	0.10000	
1 1,4-Dioxane	58	0.953	0.953	(0.389)	1241	0.08000	0.07156(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.

01206120

Data File: \\NAHSTWS005\Target\chem\SV6.i\230710.b\22.D

Date : 10-JUL-2023 16:45

Client ID: 14DXCCV-END

Instrument: SV6.i

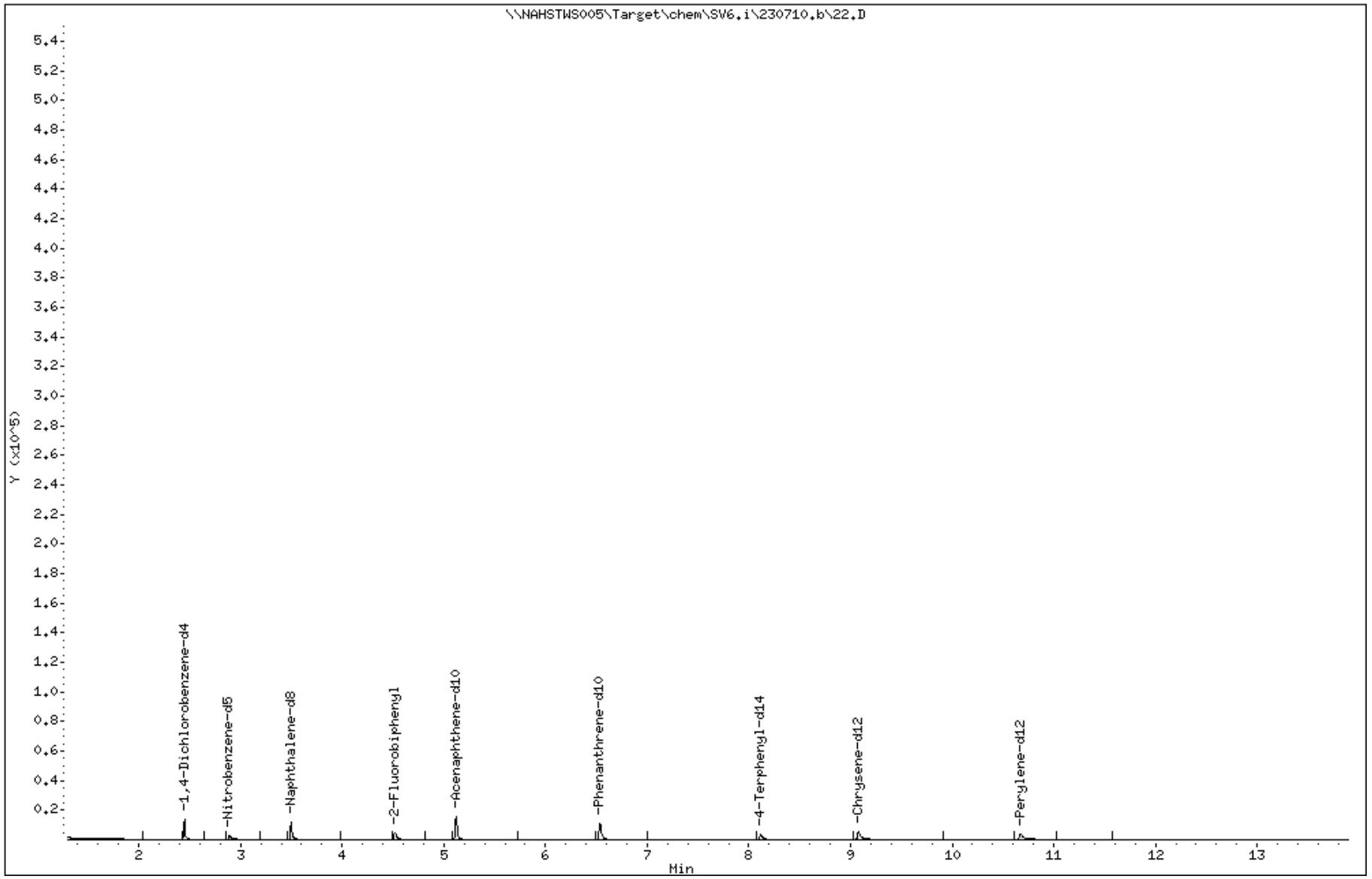
Sample Info: 14DXCCV-END

Purge Volume: 1000.0

Operator: LG

Column phase: RTX-5SIL MS

Column diameter: 0.28



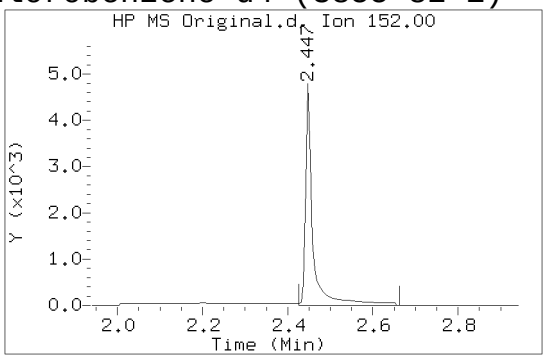
Data File : \\NAHSTWS005\Target\chem\SV6.i\230710.b\22.D
Inj Date : 10-JUL-2023 16:45
InstruID : SV6.i
LabSampID : 14DXCCV-END

1,4-Dichlorobenzene-d4 (3855-82-1)

Reason Code:

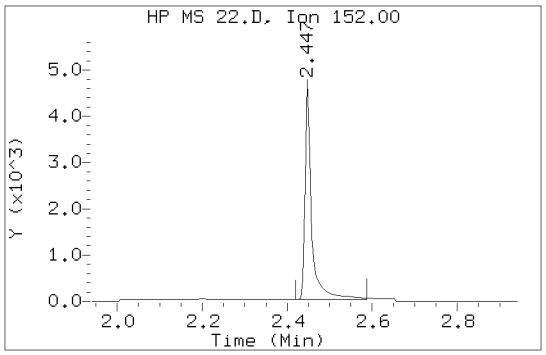
BEFORE

MASS
152
AREA
5712
HEIGHT
4791
10-Jul-2023
17:02
ALSHS
Server



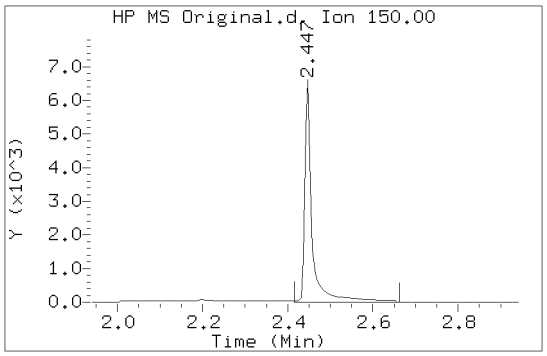
AFTER

MASS
152
AREA
5111
HEIGHT
4753
12-Jul-2023
15:28
ALSHS
Ser



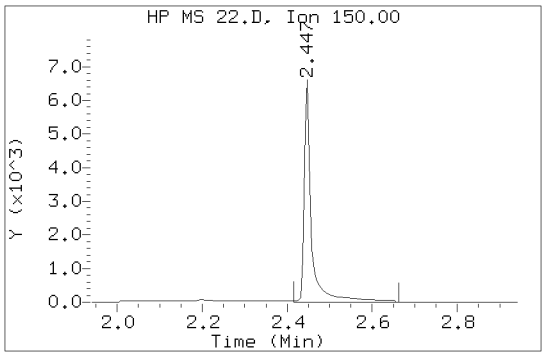
BEFORE

MASS
150
AREA
7997
HEIGHT
6609
10-Jul-2023
17:02
ALSHS
Server



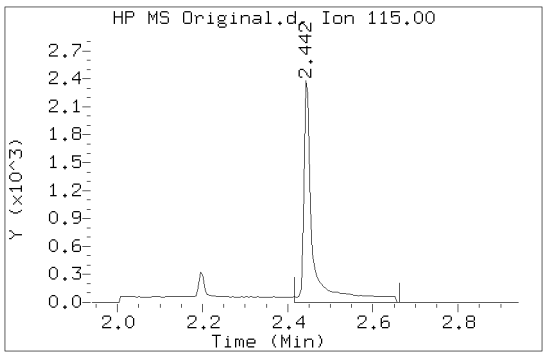
AFTER

MASS
150
AREA
7997
HEIGHT
6609
12-Jul-2023
15:28
ALSHS
Ser



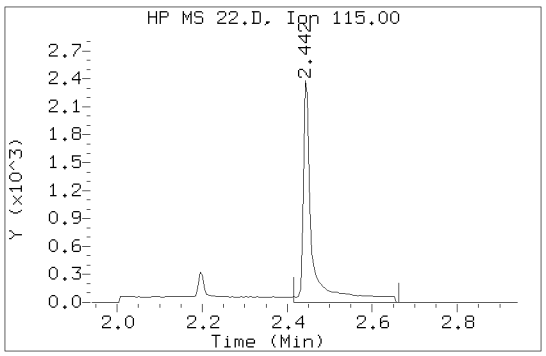
BEFORE

MASS
115
AREA
3581
HEIGHT
2380
10-Jul-2023
17:02
ALSHS
Server



AFTER

MASS
115
AREA
3581
HEIGHT
2380
12-Jul-2023
15:28
ALSHS
Ser

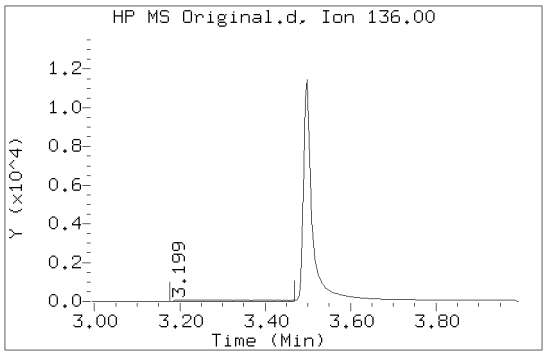


Naphthalene-d8 (1146-65-2)

Reason Code:

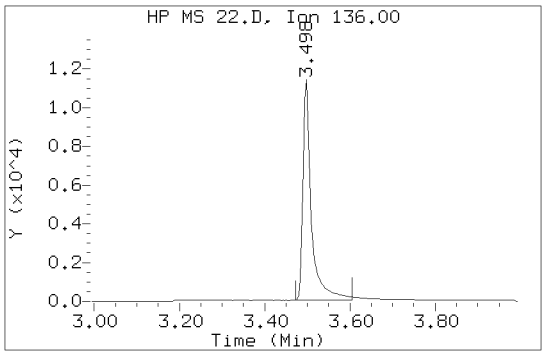
BEFORE

MASS
136
AREA
870
HEIGHT
52
10-Jul-2023
17:02
ALSHS
Server



AFTER

MASS
136
AREA
15628
HEIGHT
11390
12-Jul-2023
15:28
ALSHS
Ser

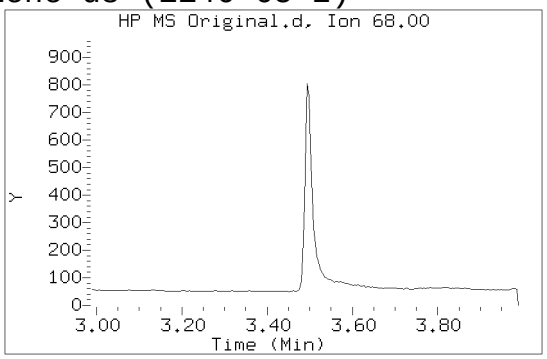


Data File : \\NAHSTWS005\Target\chem\SV6.i\230710.b\22.D
Inj Date : 10-JUL-2023 16:45
InstruID : SV6.i
LabSampID : 14DXCCV-END

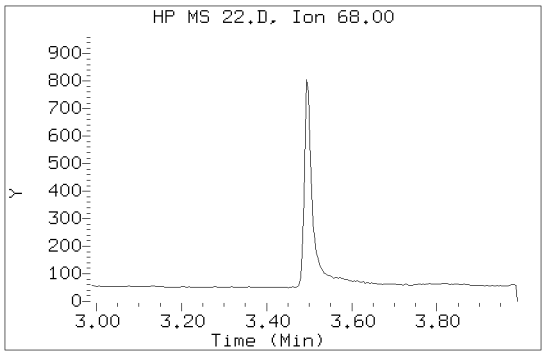
Naphthalene-d8 (1146-65-2)

Reason Code:

BEFORE
MASS
68
AREA
0
HEIGHT
0
10-Jul-2023
17:02
ALSHS
Server



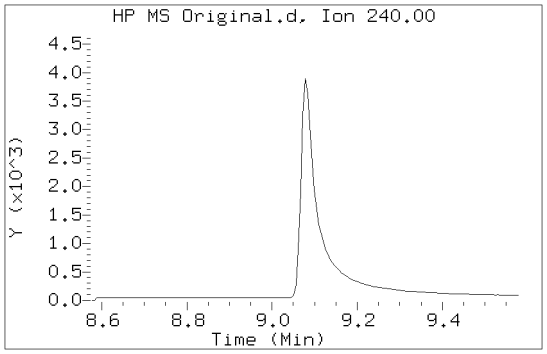
AFTER
MASS
68
AREA
0
HEIGHT
0
12-Jul-2023
15:28
ALSHS
Ser



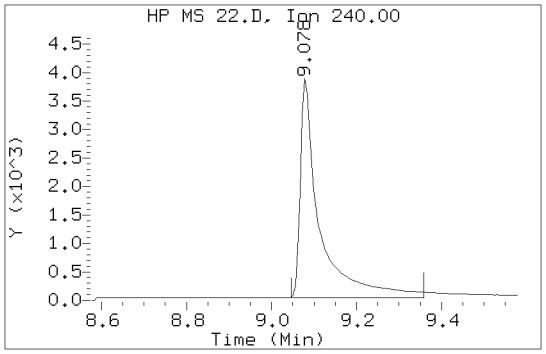
Chrysene-d12 (1719-03-5)

Reason Code:

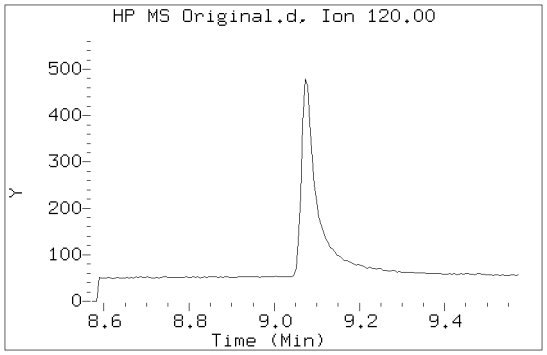
BEFORE
MASS
240
AREA
0
HEIGHT
0
10-Jul-2023
17:02
ALSHS
Server



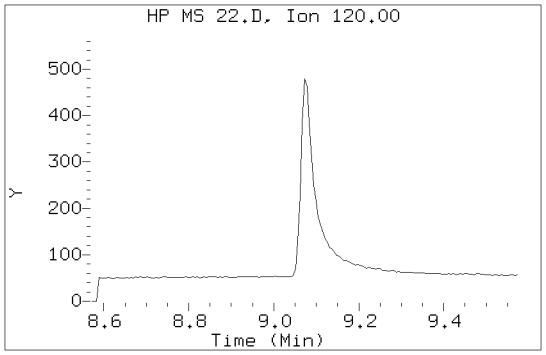
AFTER
MASS
240
AREA
12151
HEIGHT
3849
12-Jul-2023
15:28
ALSHS
Ser



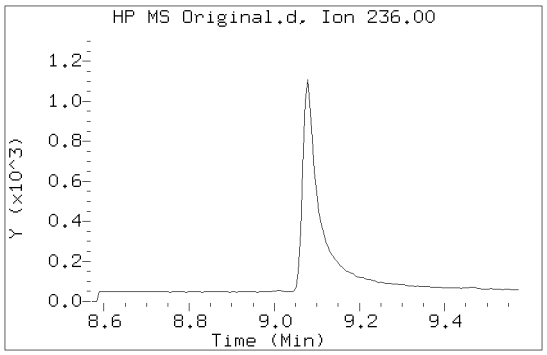
BEFORE
MASS
120
AREA
0
HEIGHT
0
10-Jul-2023
17:02
ALSHS
Server



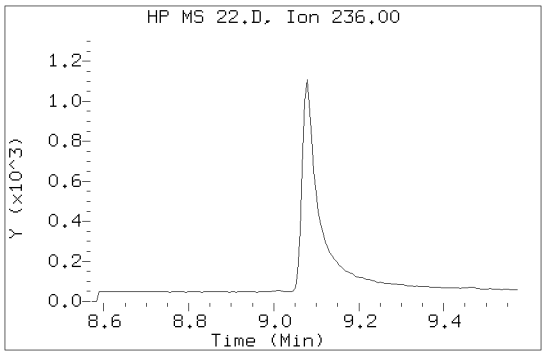
AFTER
MASS
120
AREA
0
HEIGHT
0
12-Jul-2023
15:28
ALSHS
Ser



BEFORE
MASS
236
AREA
0
HEIGHT
0
10-Jul-2023
17:02
ALSHS
Server



AFTER
MASS
236
AREA
0
HEIGHT
0
12-Jul-2023
15:28
ALSHS
Ser



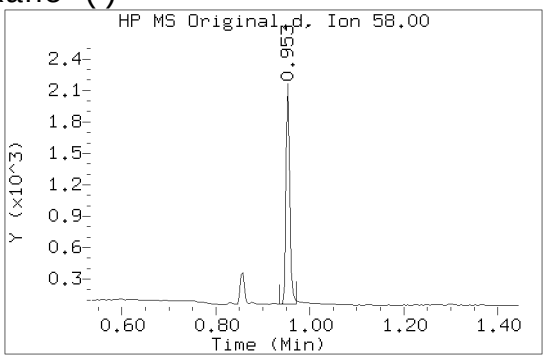
Data File : \\NAHSTWS005\Target\chem\SV6.i\230710.b\22.D
Inj Date : 10-JUL-2023 16:45
InstruID : SV6.i
LabSampID : 14DXCCV-END

1,4-Dioxane ()

Reason Code:

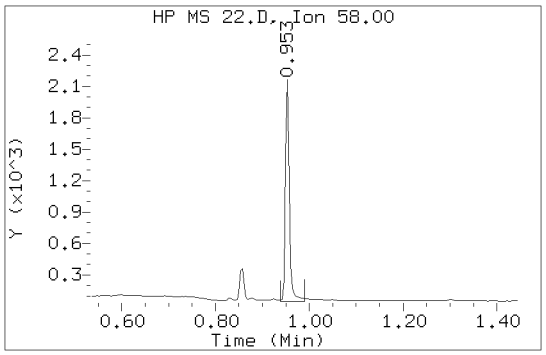
BEFORE

MASS
58
AREA
1174
HEIGHT
2103
10-Jul-2023
17:02
ALSHS
Server



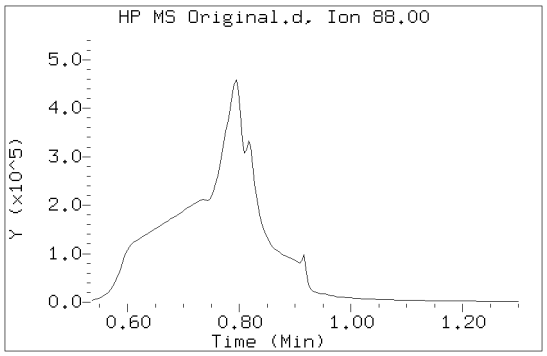
AFTER

MASS
58
AREA
1241
HEIGHT
2117
12-Jul-2023
15:28
ALSHS
Ser



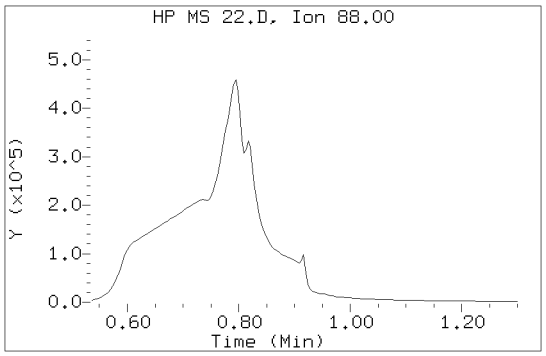
BEFORE

MASS
88
AREA
0
HEIGHT
0
10-Jul-2023
17:02
ALSHS
Server



AFTER

MASS
88
AREA
0
HEIGHT
0
12-Jul-2023
15:28
ALSHS
Ser

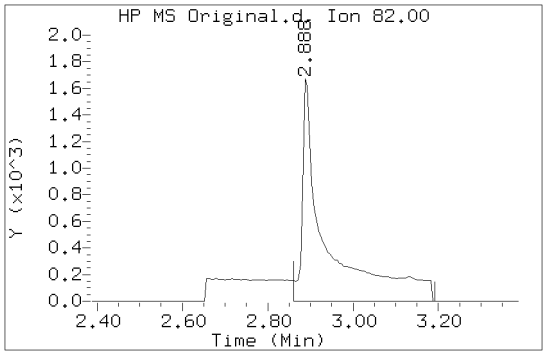


Nitrobenzene-d5 (4165-60-0)

Reason Code:

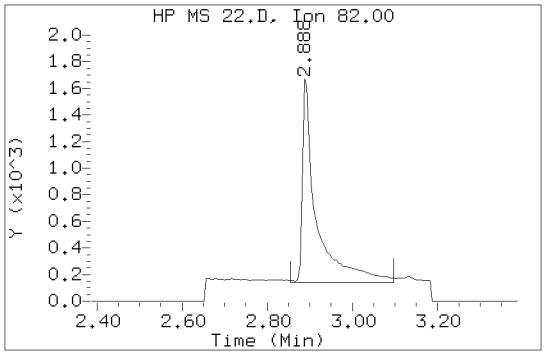
BEFORE

MASS
82
AREA
6386
HEIGHT
1671
10-Jul-2023
17:02
ALSHS
Server



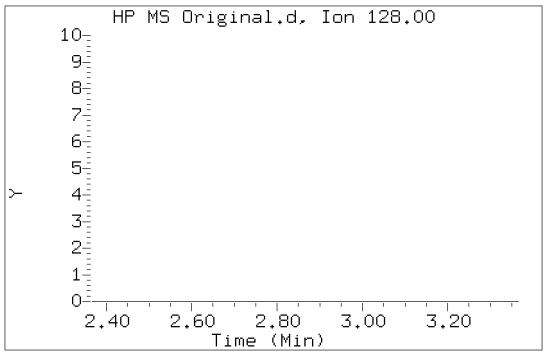
AFTER

MASS
82
AREA
3536
HEIGHT
1531
12-Jul-2023
15:28
ALSHS
Ser



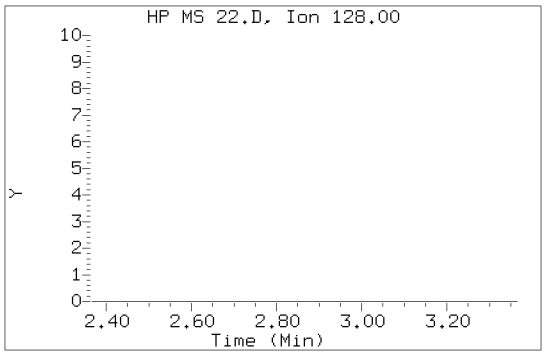
BEFORE

MASS
128
AREA
0
HEIGHT
0
10-Jul-2023
17:02
ALSHS
Server



AFTER

MASS
128
AREA
0
HEIGHT
0
12-Jul-2023
15:28
ALSHS
Ser



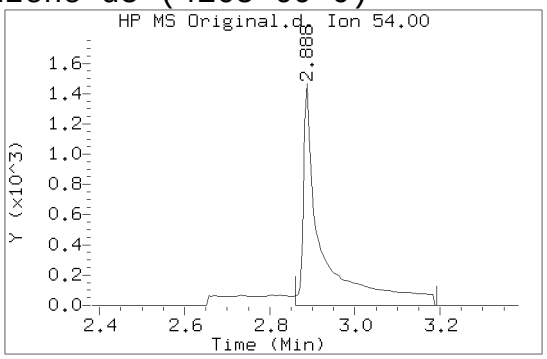
Data File : \\NAHSTWS005\Target\chem\SV6.i\230710.b\22.D
Inj Date : 10-JUL-2023 16:45
InstruID : SV6.i
LabSampID : 14DXCCV-END

Nitrobenzene-d5 (4165-60-0)

Reason Code:

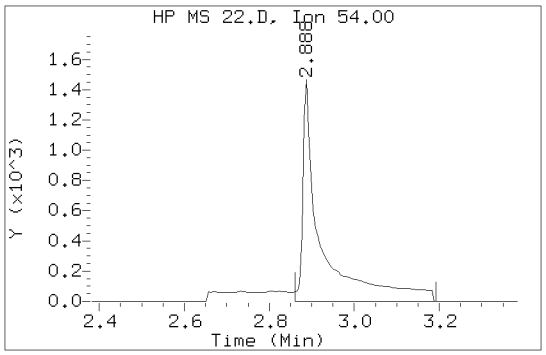
BEFORE

MASS
54
AREA
4346
HEIGHT
1466
10-Jul-2023
17:02
ALSHS
Server



AFTER

MASS
54
AREA
4346
HEIGHT
1466
12-Jul-2023
15:28
ALSHS
Ser

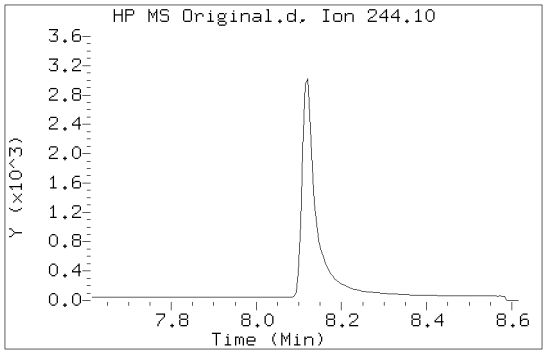


4-Terphenyl-d14 (1718-51-0)

Reason Code:

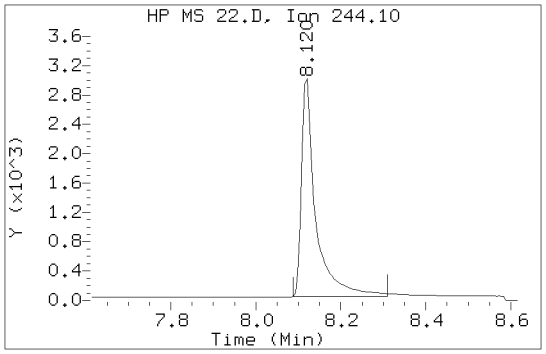
BEFORE

MASS
244.1
AREA
0
HEIGHT
0
10-Jul-2023
17:02
ALSHS
Server



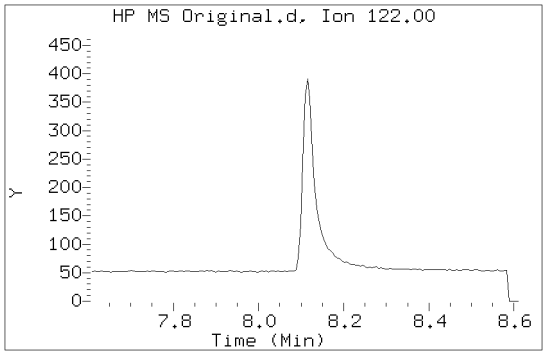
AFTER

MASS
244.1
AREA
6865
HEIGHT
2967
12-Jul-2023
15:28
ALSHS
Ser



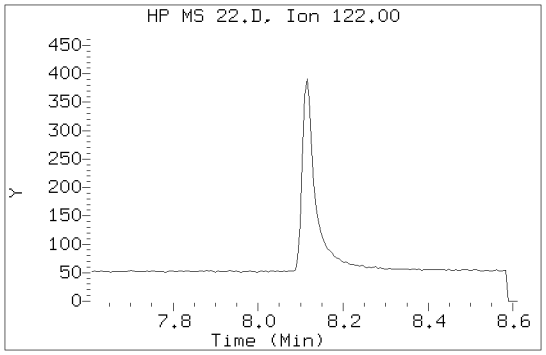
BEFORE

MASS
122
AREA
0
HEIGHT
0
10-Jul-2023
17:02
ALSHS
Server



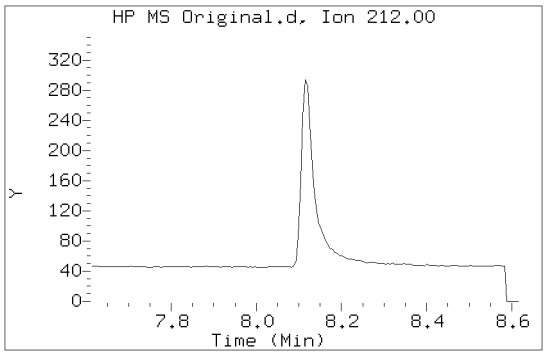
AFTER

MASS
122
AREA
0
HEIGHT
0
12-Jul-2023
15:28
ALSHS
Ser



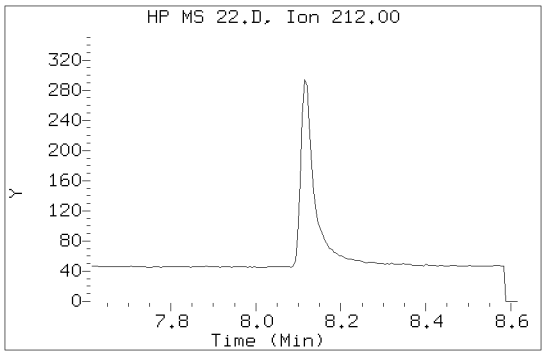
BEFORE

MASS
212
AREA
0
HEIGHT
0
10-Jul-2023
17:02
ALSHS
Server



AFTER

MASS
212
AREA
0
HEIGHT
0
12-Jul-2023
15:28
ALSHS
Ser



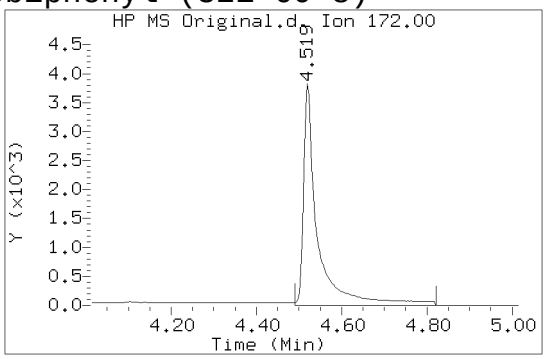
Data File : \\NAHSTWS005\Target\chem\SV6.i\230710.b\22.D
Inj Date : 10-JUL-2023 16:45
InstruID : SV6.i
LabSampID : 14DXCCV-END

2-Fluorobiphenyl (321-60-8)

Reason Code:

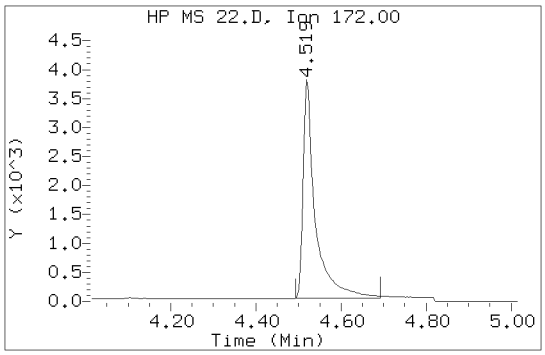
BEFORE

MASS
172
AREA
8748
HEIGHT
3827
10-Jul-2023
17:02
ALSHS
Server



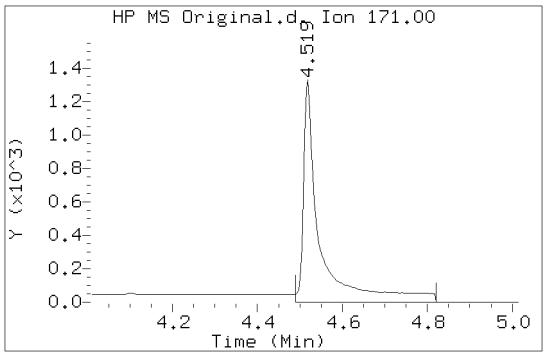
AFTER

MASS
172
AREA
7495
HEIGHT
3770
12-Jul-2023
15:28
ALSHS
Ser



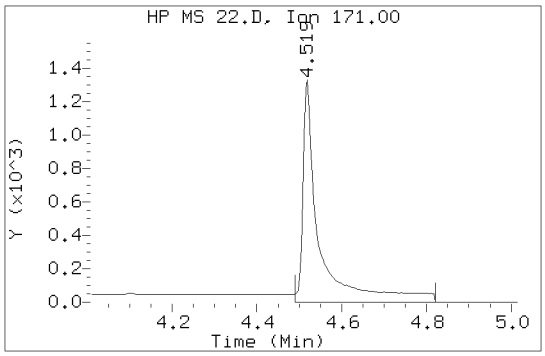
BEFORE

MASS
171
AREA
3545
HEIGHT
1330
10-Jul-2023
17:02
ALSHS
Server



AFTER

MASS
171
AREA
3545
HEIGHT
1330
12-Jul-2023
15:28
ALSHS
Ser



HS23061825 - ME - HG_W_DODICP_W_DOD

ALS WO# HS23061825

ALS Houston, US Date: 18-Jul-23

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Instrument:ICPMS06

Mass	Analyte	Assoc Int Standard 1	Assoc Int Standard 2	Mode
9	Beryllium	Lithium		Ar
11	Boron	Lithium		Ar
23	Sodium	Germanium		ArHe
24	Magnesium	Germanium		ArHe
27	Aluminum	Germanium		ArHe
39	Potassium	Germanium		ArHe
44	Calcium	Germanium		Ar
47	Titanium	Germanium		Ar
51	Vanadium	Germanium		ArHe
52	Chromium	Germanium		ArHe
55	Manganese	Germanium		ArHe
56	Iron	Germanium		ArHe
59	Cobalt	Germanium		ArHe
60	Nickel	Germanium		ArHe
63	Copper	Germanium		ArHe
66	Zinc	Germanium		ArHe
75	Arsenic	Germanium		ArHe
82	Selenium	Germanium		Ar
88	Strontium	Indium		Ar
95	Molybdenum	Indium		Ar
105	Palladium	Germanium		Ar
107	Silver	Indium		Ar
114	Cadmium	Indium		Ar
118	Tin	Indium		Ar
121	Antimony	Germanium		ArHe
137	Barium	Indium		Ar
205	Thallium	Bismuth		Ar
208	Lead	Bismuth		Ar

ALS Houston, US Date: 18-Jul-23

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825
Start Date: 11-Jul-2023 End Date: 11-Jul-2023

Run ID:HG04_441015
Instrument:HG04
Method:SW7470A

Sample No.	D/F	Time	FileID	Analytes
ICCV 1	1	11-Jul-2023 12:37	_7419227	HG
ICV	1	11-Jul-2023 12:44	_7419228	HG
ICB	1	11-Jul-2023 12:46	_7419229	HG
CRA	1	11-Jul-2023 12:48	_7419230	HG
CCV 2	1	11-Jul-2023 12:52	_7419231	HG
CCB 1	1	11-Jul-2023 12:54	_7419232	HG
CCV 3	1	11-Jul-2023 13:16	HG04_441015 Raw Data_7419213	HG
CCB 2	1	11-Jul-2023 13:18	_7419214	HG
CCV 4	1	11-Jul-2023 13:41	_7419225	HG
CCB 3	1	11-Jul-2023 13:43	_7419226	HG
MBLK-197408	1	11-Jul-2023 13:47	_7419235	HG
LCS-197408	1	11-Jul-2023 13:49	_7419236	HG
ZZZZZZMS	1	11-Jul-2023 13:59	_7419242	HG
ZZZZZZMSD	1	11-Jul-2023 14:01	_7419243	HG
CCV 5	1	11-Jul-2023 14:05	_7419245	HG
CCB 4	1	11-Jul-2023 14:06	_7419246	HG
125_062623	1	11-Jul-2023 14:23	_7419256	HG
CCV 6	1	11-Jul-2023 14:34	_7419257	HG
CCB 5	1	11-Jul-2023 14:36	_7419258	HG
MW3_062623	1	11-Jul-2023 14:40	_7419259	HG
MW9_062623	1	11-Jul-2023 14:42	_7419260	HG
MW13_062623	1	11-Jul-2023 14:43	_7419261	HG
MW13_062623MS	1	11-Jul-2023 14:45	_7419262	HG
MW13_062623MSD	1	11-Jul-2023 14:47	_7419263	HG
CCV 7	1	11-Jul-2023 14:57	_7419269	HG
CCB 6	1	11-Jul-2023 14:59	_7419270	HG
CCV 8	1	11-Jul-2023 15:21	_7419281	HG
CCB 7	1	11-Jul-2023 15:23	_7419282	HG
CCV 9	1	11-Jul-2023 15:43	_7419292	HG
CCB 8	1	11-Jul-2023 15:45	_7419293	HG
CCV 10	1	11-Jul-2023 15:59	_7419747	HG
CCB 9	1	11-Jul-2023 16:00	_7419748	HG
CCV 11	1	11-Jul-2023 16:30	_7419759	HG
CCB 10	1	11-Jul-2023 16:32	_7419760	HG
CCV 12	1	11-Jul-2023 16:53	_7419771	HG
CCB 11	1	11-Jul-2023 16:55	_7419772	HG
CCV 13	1	11-Jul-2023 17:01	_7419781	HG
CCB 12	1	11-Jul-2023 17:03	_7419782	HG

ALS Houston, US Date: 18-Jul-23

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825
Start Date: 12-Jul-2023 End Date: 12-Jul-2023

Run ID:ICPMS06_441153
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_441153_Tune	1	12-Jul-2023 00:00	ICPMS06_441153_Tune_1	
CAL BLK	1	12-Jul-2023 13:23	014CALB.d_7422657	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
2/10/200	1	12-Jul-2023 13:25	015CALS.d_7422658	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
5/25/500	1	12-Jul-2023 13:27	016CALS.d_7422659	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
10/50/100	1	12-Jul-2023 13:29	017CALS.d_7422660	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
100/500/10K	1	12-Jul-2023 13:31	018CALS.d_7422661	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
200/1000/20K	1	12-Jul-2023 13:33	019CALS.d_7422662	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ICV	1	12-Jul-2023 13:37	021_ICV.d_7422664	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
LLICV2	1	12-Jul-2023 13:41	023LCV2.d_7422666	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
LLICV5	1	12-Jul-2023 13:43	024LCV5.d_7422667	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ICB	1	12-Jul-2023 13:45	025_ICB.d_7422668	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ICSA	1	12-Jul-2023 13:52	027ICSA.d_7422670	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ICSAB	1	12-Jul-2023 13:55	028ICSB.d_7422671	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CAL BLK	1	12-Jul-2023 20:59	199CALB.d_7423271	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
2/10/200	1	12-Jul-2023 21:01	200CALS.d_7423272	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
5/25/500	1	12-Jul-2023 21:03	201CALS.d_7423273	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
10/50/100	1	12-Jul-2023 21:05	202CALS.d_7423274	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
100/500/10K	1	12-Jul-2023 21:07	203CALS.d_7423275	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
200/1000/20K	1	12-Jul-2023 21:09	204CALS.d_7423276	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ICCV 1	1	12-Jul-2023 21:13	206_ICV.d_7423278	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
LLCCV2	1	12-Jul-2023 21:15	207LCV2.d_7423279	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
LLCCV5	1	12-Jul-2023 21:17	208LCV5.d_7423280	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ICCB 1	1	12-Jul-2023 21:19	209_ICB.d_7423284	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCV 2	1	12-Jul-2023 21:23	211_CCV.d_7423314	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCB 2	1	12-Jul-2023 21:25	212_CCB.d_7423315	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
MBLK-197423	1	12-Jul-2023 21:27	213SMPL.d_7423316	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
LCS-197423	1	12-Jul-2023 21:29	214SMPL.d_7423317	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE V ZN
MW13_062623	1	12-Jul-2023 21:31	215SMPL.d_7423318	AG AL AS BA BE CA CD CO CU FE K MG MN NA NI PB SB SE TL V ZN
MW13_062623SD	5	12-Jul-2023 21:33	216SMPL.d_7423319	AG AL AS BA BE CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
MW13_062623MS	1	12-Jul-2023 21:35	217SMPL.d_7423320	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE V ZN
MW13_062623MSD	1	12-Jul-2023 21:38	218SMPL.d_7423321	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE V ZN

ALS Houston, US Date: 18-Jul-23

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825
Start Date: 12-Jul-2023 End Date: 12-Jul-2023

Run ID:ICPMS06_441153
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
MW13_062623PDS	1	12-Jul-2023 21:40	219SMPL.d_7423322	AG AL AS BA BE CA CD CO CU FE K MG MN NA NI PB SB SE V ZN
CCV 3	1	12-Jul-2023 21:42	220_CCV.d_7423323	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCB 3	1	12-Jul-2023 21:44	221_CCB.d_7423324	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCV 4	1	12-Jul-2023 22:19	235_CCV.d_7423330	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCB 4	1	12-Jul-2023 22:20	236_CCB.d_7423331	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
125_062623	1	12-Jul-2023 22:24	238SMPL.d_7423333	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
MW3_062623	1	12-Jul-2023 22:26	239SMPL.d_7423334	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
MW9_062623	1	12-Jul-2023 22:28	240SMPL.d_7423335	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCV 5	1	12-Jul-2023 22:41	246_CCV.d_7423345	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCB 5	1	12-Jul-2023 22:43	247_CCB.d_7423346	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN

ALS Houston, US Date: 18-Jul-23

FORM 13 - ANALYSIS RUN LOG

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825
Start Date: 13-Jul-2023 End Date: 13-Jul-2023

Run ID:ICPMS06_441200
Instrument:ICPMS06
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS06_441200_Tune	1	13-Jul-2023 00:00	ICPMS06_441200_Tune_1	
CAL BLK	1	13-Jul-2023 11:15	014CALB.d_7424364	CR TL
2/10/200	1	13-Jul-2023 11:17	015CALS.d_7424365	CR TL
5/25/500	1	13-Jul-2023 11:19	016CALS.d_7424366	CR TL
10/50/100	1	13-Jul-2023 11:21	017CALS.d_7424367	CR TL
100/500/10K	1	13-Jul-2023 11:23	018CALS.d_7424368	CR TL
200/1000/20K	1	13-Jul-2023 11:25	019CALS.d_7424369	CR TL
ICV	1	13-Jul-2023 11:34	021_ICV.d_7424371	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
LLICV2	1	13-Jul-2023 11:38	023LCV2.d_7424373	CR TL
LLICV5	1	13-Jul-2023 11:40	024LCV5.d_7424374	CR TL
ICB	1	13-Jul-2023 11:42	025_ICB.d_7424419	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
ICSA	1	13-Jul-2023 11:47	027ICSA.d_7424433	CR TL
ICSAB	1	13-Jul-2023 11:49	028ICSB.d_7424434	CR TL
CCV 1	1	13-Jul-2023 11:57	031_CCV.d_7424661	CR TL
CCB 1	1	13-Jul-2023 11:58	032_CCB.d_7424662	CR TL
LCS-197423	1	13-Jul-2023 12:01	033SMPL.d_7424663	TL
MW13_062623MS	1	13-Jul-2023 12:03	034SMPL.d_7424664	TL
MW13_062623MSD	1	13-Jul-2023 12:05	035SMPL.d_7424665	TL
MW13_062623	5	13-Jul-2023 12:18	038SMPL.d_7424733	CR
MW13_062623SD	25	13-Jul-2023 12:20	039SMPL.d_7424734	CR
MW13_062623PDS	5	13-Jul-2023 12:22	040SMPL.d_7424735	CR
CCV 2	1	13-Jul-2023 12:26	042_CCV.d_7424737	CR TL
CCB 2	1	13-Jul-2023 12:28	043_CCB.d_7424738	CR TL
CCV 3	1	13-Jul-2023 12:45	051_CCV.d_7424746	CR TL
CCB 3	1	13-Jul-2023 12:46	052_CCB.d_7424747	CR TL
CAL BLK	1	13-Jul-2023 20:36	206CALB.d_7426602	CR TL
2/10/200	1	13-Jul-2023 20:38	207CALS.d_7426603	CR TL
5/25/500	1	13-Jul-2023 20:41	208CALS.d_7426604	CR TL
10/50/100	1	13-Jul-2023 20:43	209CALS.d_7426605	CR TL
100/500/10K	1	13-Jul-2023 20:45	210CALS.d_7426606	CR TL
200/1000/20K	1	13-Jul-2023 20:47	211CALS.d_7426607	CR TL
ICV	1	13-Jul-2023 20:51	213_ICV.d_7426609	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
LLCCV2	1	13-Jul-2023 20:55	215LCV2.d_7426611	CR TL
LLCCV5	1	13-Jul-2023 20:57	216LCV5.d_7426612	CR TL
ICCB 4	1	13-Jul-2023 20:59	217_ICB.d_7426613	AG AL AS BA BE CA CD CO CR CU FE K MG MN NA NI PB SB SE TL V ZN
CCV 4	1	13-Jul-2023 21:03	219_CCV.d_7426625	CR TL
CCB 5	1	13-Jul-2023 21:05	220_CCB.d_7426626	CR TL
CCV 5	1	13-Jul-2023 21:11	223_CCV.d_7426629	CR TL
CCB 6	1	13-Jul-2023 21:13	224_CCB.d_7426630	CR TL
CCV 6	1	13-Jul-2023 21:25	230_CCV.d_7426636	CR TL
CCB 7	1	13-Jul-2023 21:27	231_CCB.d_7426637	CR TL
CCV 7	1	13-Jul-2023 21:42	238_CCV.d_7426644	CR TL
CCB 8	1	13-Jul-2023 21:44	239_CCB.d_7426645	CR TL
CCV 8	1	13-Jul-2023 21:58	246_CCV.d_7426652	CR TL
CCB 9	1	13-Jul-2023 22:00	247_CCB.d_7426614	CR TL
CCV 9	1	13-Jul-2023 22:17	255_CCV.d_7426622	CR TL
CCB 10	1	13-Jul-2023 22:19	256_CCB.d_7426623	CR TL

ALS Houston, US Date: 18-Jul-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID: HG04_441015
Instrument: HG04
Method: SW7470A

ICCV1 Date: 11-Jul-2023 12:37 Seq: 7419227 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.07	101	90-110	

ICV Date: 11-Jul-2023 12:44 Seq: 7419228 ICV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.13	103	90-110	

CCV2 Date: 11-Jul-2023 12:52 Seq: 7419231 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.14	103	90-110	

CCV3 Date: 11-Jul-2023 13:16 Seq: 7419213 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.12	102	90-110	

CCV4 Date: 11-Jul-2023 13:41 Seq: 7419225 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.15	103	90-110	

CCV5 Date: 11-Jul-2023 14:05 Seq: 7419245 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	4.87	97	90-110	

CCV6 Date: 11-Jul-2023 14:34 Seq: 7419257 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.1	102	90-110	

CCV7 Date: 11-Jul-2023 14:57 Seq: 7419269 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.03	101	90-110	

CCV8 Date: 11-Jul-2023 15:21 Seq: 7419281 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.1	102	90-110	

CCV9 Date: 11-Jul-2023 15:43 Seq: 7419292 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	4.97	99	90-110	

CCV10 Date: 11-Jul-2023 15:59 Seq: 7419747 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.1	102	90-110	

CCV11 Date: 11-Jul-2023 16:30 Seq: 7419759 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.02	100	90-110	

CCV12 Date: 11-Jul-2023 16:53 Seq: 7419771 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.03	101	90-110	

CCV13 Date: 11-Jul-2023 17:01 Seq: 7419781 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Mercury	5	5.06	101	90-110	

ALS Houston, US Date: 18-Jul-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID: ICPMS06_441153
Instrument: ICPMS06
Method: SW6020A

ICV | Date: 12-Jul-2023 13:37 | Seq: 7422664 | ICV | Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	103.355	103	90-110	
Antimony	100	106.453	106	90-110	
Arsenic	100	104.303	104	90-110	
Barium	100	99.033	99	90-110	
Beryllium	100	101.187	101	90-110	
Cadmium	100	101.22	101	90-110	
Calcium	10000	9696.793	97	90-110	
Chromium	100	100.563	101	90-110	
Cobalt	100	103.093	103	90-110	
Copper	100	98.276	98	90-110	
Iron	10000	10004.01	100	90-110	
Lead	100	99.521	100	90-110	
Magnesium	10000	10232.414	102	90-110	
Manganese	100	99.192	99	90-110	
Nickel	100	100.555	101	90-110	
Potassium	10000	10168.218	102	90-110	
Selenium	100	100.192	100	90-110	
Silver	100	101.452	101	90-110	
Sodium	10000	10195.737	102	90-110	
Thallium	100	103.985	104	90-110	
Vanadium	100	99.096	99	90-110	
Zinc	100	102.733	103	90-110	

ICCV1 | Date: 12-Jul-2023 21:13 | Seq: 7423278 | CCV | Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	99.327	99	90-110	
Antimony	100	95.127	95	90-110	
Arsenic	100	101.865	102	90-110	
Barium	100	99.375	99	90-110	
Beryllium	100	97.523	98	90-110	
Cadmium	100	99.936	100	90-110	
Calcium	10000	10155.862	102	90-110	
Chromium	100	98.496	99	90-110	
Cobalt	100	97.133	97	90-110	
Copper	100	99.29	99	90-110	
Iron	10000	10120.341	101	90-110	
Lead	100	98.714	99	90-110	
Magnesium	10000	10092.218	101	90-110	
Manganese	100	98.636	99	90-110	
Nickel	100	100.71	101	90-110	
Potassium	10000	10145.698	101	90-110	
Selenium	100	99.978	100	90-110	
Silver	100	102.452	102	90-110	
Sodium	10000	10089.285	101	90-110	
Thallium	100	102.481	102	90-110	
Vanadium	100	100.057	100	90-110	
Zinc	100	99.77	100	90-110	

CCV2 | Date: 12-Jul-2023 21:23 | Seq: 7423314 | CCV | Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	96.591	97	90-110	
Antimony	100	91.35	91	90-110	
Arsenic	100	99.556	100	90-110	
Barium	100	98.334	98	90-110	
Beryllium	100	98.015	98	90-110	

ALS Houston, US Date: 18-Jul-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID: ICPMS06_441153
Instrument: ICPMS06
Method: SW6020A

CCV2	Date: 12-Jul-2023 21:23	Seq: 7423314	CCV	Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Cadmium	100	99.04	99	90-110	
Calcium	10000	10035.79	100	90-110	
Chromium	100	97.811	98	90-110	
Cobalt	100	96.729	97	90-110	
Copper	100	98.863	99	90-110	
Iron	10000	10101.559	101	90-110	
Lead	100	98.731	99	90-110	
Magnesium	10000	9926.725	99	90-110	
Manganese	100	98.739	99	90-110	
Nickel	100	100.368	100	90-110	
Potassium	10000	10112.579	101	90-110	
Selenium	100	99.308	99	90-110	
Silver	100	100.804	101	90-110	
Sodium	10000	10021.629	100	90-110	
Thallium	100	102.391	102	90-110	
Vanadium	100	99.298	99	90-110	
Zinc	100	99.174	99	90-110	

CCV3	Date: 12-Jul-2023 21:42	Seq: 7423323	CCV	Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	98.036	98	90-110	
Antimony	100	90.055	90	90-110	
Arsenic	100	100.014	100	90-110	
Barium	100	96.77	97	90-110	
Beryllium	100	94.195	94	90-110	
Cadmium	100	99.931	100	90-110	
Calcium	10000	10220.136	102	90-110	
Chromium	100	97.891	98	90-110	
Cobalt	100	96.748	97	90-110	
Copper	100	98.814	99	90-110	
Iron	10000	10071.94	101	90-110	
Lead	100	98.554	99	90-110	
Magnesium	10000	10210.595	102	90-110	
Manganese	100	98.243	98	90-110	
Nickel	100	100.276	100	90-110	
Potassium	10000	10251.407	103	90-110	
Selenium	100	98.618	99	90-110	
Silver	100	100.847	101	90-110	
Sodium	10000	10195.111	102	90-110	
Thallium	100	103.713	104	90-110	
Vanadium	100	99.664	100	90-110	
Zinc	100	98.675	99	90-110	

CCV4	Date: 12-Jul-2023 22:19	Seq: 7423330	CCV	Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	103.702	104	90-110	
Antimony	100	94.125	94	90-110	
Arsenic	100	103.623	104	90-110	
Barium	100	100.467	100	90-110	
Beryllium	100	100.223	100	90-110	
Cadmium	100	102.883	103	90-110	
Calcium	10000	10598.615	106	90-110	
Chromium	100	101.674	102	90-110	
Cobalt	100	100.767	101	90-110	
Copper	100	102.013	102	90-110	

ALS Houston, US Date: 18-Jul-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID: ICPMS06_441153
Instrument: ICPMS06
Method: SW6020A

CCV4 Date: 12-Jul-2023 22:19 Seq: 7423330 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Iron	10000	10502.159	105	90-110	
Lead	100	100.353	100	90-110	
Magnesium	10000	10576.093	106	90-110	
Manganese	100	102.777	103	90-110	
Nickel	100	104.156	104	90-110	
Potassium	10000	10691.31	107	90-110	
Selenium	100	104.82	105	90-110	
Silver	100	104.735	105	90-110	
Sodium	10000	10509.279	105	90-110	
Thallium	100	104.123	104	90-110	
Vanadium	100	103.823	104	90-110	
Zinc	100	102.588	103	90-110	

CCV5 Date: 12-Jul-2023 22:41 Seq: 7423345 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Aluminum	100	101.087	101	90-110	
Antimony	100	91.122	91	90-110	
Arsenic	100	100.221	100	90-110	
Barium	100	99.079	99	90-110	
Beryllium	100	99.559	100	90-110	
Cadmium	100	100.683	101	90-110	
Calcium	10000	10181.843	102	90-110	
Chromium	100	99.404	99	90-110	
Cobalt	100	97.142	97	90-110	
Copper	100	99.302	99	90-110	
Iron	10000	10141.608	101	90-110	
Lead	100	99.11	99	90-110	
Magnesium	10000	10342.397	103	90-110	
Manganese	100	99.993	100	90-110	
Nickel	100	100.841	101	90-110	
Potassium	10000	10256.604	103	90-110	
Selenium	100	99.482	100	90-110	
Silver	100	102.875	103	90-110	
Sodium	10000	10222.77	102	90-110	
Thallium	100	103.938	104	90-110	
Vanadium	100	100.178	100	90-110	
Zinc	100	99.909	100	90-110	

ALS Houston, US Date: 18-Jul-23

Form 2 - Initial and Continuing Calibration Verification

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID: ICPMS06_441200
Instrument: ICPMS06
Method: SW6020A

ICV	Date: 13-Jul-2023 11:34		Seq: 7424371	ICV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	99.824	100	90-110	
Thallium	100	102.941	103	90-110	

CCV1	Date: 13-Jul-2023 11:57		Seq: 7424661	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	101.443	101	90-110	
Thallium	100	102.706	103	90-110	

CCV2	Date: 13-Jul-2023 12:26		Seq: 7424737	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	102.192	102	90-110	
Thallium	100	99.049	99	90-110	

CCV3	Date: 13-Jul-2023 12:45		Seq: 7424746	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	100.786	101	90-110	
Thallium	100	100.002	100	90-110	

ICV	Date: 13-Jul-2023 20:51		Seq: 7426609	ICV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	97.727	98	90-110	
Thallium	100	101.39	101	90-110	

CCV4	Date: 13-Jul-2023 21:03		Seq: 7426625	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	96.424	96	90-110	
Thallium	100	99.044	99	90-110	

CCV5	Date: 13-Jul-2023 21:11		Seq: 7426629	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	96.958	97	90-110	
Thallium	100	99.353	99	90-110	

CCV6	Date: 13-Jul-2023 21:25		Seq: 7426636	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	96.376	96	90-110	
Thallium	100	103.363	103	90-110	

CCV7	Date: 13-Jul-2023 21:42		Seq: 7426644	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	98.192	98	90-110	
Thallium	100	101.997	102	90-110	

CCV8	Date: 13-Jul-2023 21:58		Seq: 7426652	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	99.719	100	90-110	
Thallium	100	100.613	101	90-110	

CCV9	Date: 13-Jul-2023 22:17		Seq: 7426622	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Chromium	100	93.321	93	90-110	
Thallium	100	97.389	97	90-110	

ALS Houston, US

Date: 18-Jul-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID: HG04_441015
Instrument: HG04
Method: SW7470A

ICB	Date: 11-Jul-2023 12:46		Seq: 7419229	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB1	Date: 11-Jul-2023 12:54		Seq: 7419232	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB2	Date: 11-Jul-2023 13:18		Seq: 7419214	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB3	Date: 11-Jul-2023 13:43		Seq: 7419226	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
MBLK-197408	Date: 11-Jul-2023 13:47		Seq: 7419235	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB4	Date: 11-Jul-2023 14:06		Seq: 7419246	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB5	Date: 11-Jul-2023 14:36		Seq: 7419258	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB6	Date: 11-Jul-2023 14:59		Seq: 7419270	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB7	Date: 11-Jul-2023 15:23		Seq: 7419282	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB8	Date: 11-Jul-2023 15:45		Seq: 7419293	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB9	Date: 11-Jul-2023 16:00		Seq: 7419748	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB10	Date: 11-Jul-2023 16:32		Seq: 7419760	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB11	Date: 11-Jul-2023 16:55		Seq: 7419772	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	
CCB12	Date: 11-Jul-2023 17:03		Seq: 7419782	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Mercury	0.2	0.03	0.2	U	

ALS Houston, US Date: 18-Jul-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID: ICPMS06_441153
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 12-Jul-2023 13:45		Seq: 7422668	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	-2.362	1.8	10	J	
Antimony	5	0.4	5	U	
Arsenic	5	0.4	5	U	
Barium	5	1.9	5	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	5	0.4	5	U	
Cobalt	5	0.1	5	U	
Copper	5	1	5	U	
Iron	200	12	200	U	
Lead	5	0.6	5	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	5	0.6	5	U	
Potassium	200	18	200	U	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	
Sodium	200	14	200	U	
Thallium	2	0.2	2	U	
Vanadium	5	0.6	5	U	
Zinc	5	2	5	U	

ICCB1	Date: 12-Jul-2023 21:19		Seq: 7423284	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	-2.112	1.8	10	J	
Antimony	2	0.4	2	U	
Arsenic	2	0.4	2	U	
Barium	4	1.9	4	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	4	0.4	4	U	
Cobalt	5	0.2	5	U	
Copper	2	1	2	U	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	2	0.6	2	U	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	-17.07	14	200	J	
Thallium	2	0.2	2	U	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

CCB2	Date: 12-Jul-2023 21:25		Seq: 7423315	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	-2.246	1.8	10	J	
Antimony	2	0.4	2	U	
Arsenic	2	0.4	2	U	
Barium	4	1.9	4	U	
Beryllium	2	0.2	2	U	

ALS Houston, US

Date: 18-Jul-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID: ICPMS06_441153
Instrument: ICPMS06
Method: SW6020A

CCB2	Date: 12-Jul-2023 21:25		Seq: 7423315	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	4	0.4	4	U	
Cobalt	5	0.2	5	U	
Copper	2	1	2	U	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	2	0.6	2	U	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	-17.34	14	200	J	
Thallium	2	0.2	2	U	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

MBLK-197423	Date: 12-Jul-2023 21:27		Seq: 7423316	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	10	1.8	10	U	
Antimony	5	0.4	5	U	
Arsenic	5	0.4	5	U	
Barium	5	1.9	5	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	5	0.4	5	U	
Cobalt	5	0.1	5	U	
Copper	5	1	5	U	
Iron	200	12	200	U	
Lead	5	0.6	5	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	5	0.6	5	U	
Potassium	200	18	200	U	
Selenium	5	1.1	5	U	
Silver	5	0.2	5	U	
Sodium	200	14	200	U	
Thallium	2	0.2	2	U	
Vanadium	5	0.6	5	U	
Zinc	5	2	5	U	

CCB3	Date: 12-Jul-2023 21:44		Seq: 7423324	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	10	1.8	10	U	
Antimony	0.469	0.4	2	J	
Arsenic	2	0.4	2	U	
Barium	4	1.9	4	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	4	0.4	4	U	
Cobalt	5	0.2	5	U	
Copper	2	1	2	U	

ALS Houston, US

Date: 18-Jul-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID: ICPMS06_441153
Instrument: ICPMS06
Method: SW6020A

CCB3	Date: 12-Jul-2023 21:44		Seq: 7423324	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	2	0.6	2	U	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	200	14	200	U	
Thallium	2	0.2	2	U	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

CCB4	Date: 12-Jul-2023 22:20		Seq: 7423331	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	-1.947	1.8	10	J	
Antimony	0.453	0.4	2	J	
Arsenic	2	0.4	2	U	
Barium	4	1.9	4	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	4	0.4	4	U	
Cobalt	5	0.2	5	U	
Copper	2	1	2	U	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	2	0.6	2	U	
Potassium	200	18	200	U	
Selenium	2	1.1	2	U	
Silver	2	0.2	2	U	
Sodium	200	14	200	U	
Thallium	2	0.2	2	U	
Vanadium	5	0.6	5	U	
Zinc	4	2	4	U	

CCB5	Date: 12-Jul-2023 22:43		Seq: 7423346	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Aluminum	-1.957	1.8	10	J	
Antimony	2	0.4	2	U	
Arsenic	2	0.4	2	U	
Barium	4	1.9	4	U	
Beryllium	2	0.2	2	U	
Cadmium	2	0.2	2	U	
Calcium	500	34	500	U	
Chromium	4	0.4	4	U	
Cobalt	5	0.2	5	U	
Copper	2	1	2	U	
Iron	200	12	200	U	
Lead	2	0.6	2	U	
Magnesium	200	10	200	U	
Manganese	5	0.7	5	U	
Nickel	2	0.6	2	U	

ALS Houston, US

Date: 18-Jul-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID: ICPMS06_441153
Instrument: ICPMS06
Method: SW6020A

CCB5 | Date: 12-Jul-2023 22:43 | Seq: 7423346 | CCB | Units: ug/L

Analyte	Result	MDL	Report Limit	Qual
Potassium	200	18	200	U
Selenium	2	1.1	2	U
Silver	2	0.2	2	U
Sodium	200	14	200	U
Thallium	2	0.2	2	U
Vanadium	5	0.6	5	U
Zinc	4	2	4	U

ALS Houston, US Date: 18-Jul-23

Form 3 - BLANKS

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID: ICPMS06_441200
Instrument: ICPMS06
Method: SW6020A

ICB	Date: 13-Jul-2023 11:42		Seq: 7424419	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Chromium	5	0.4	5	U	
Thallium	2	0.2	2	U	
CCB1	Date: 13-Jul-2023 11:58		Seq: 7424662	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Chromium	4	0.4	4	U	
Thallium	0.492	0.2	2	J	
CCB2	Date: 13-Jul-2023 12:28		Seq: 7424738	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Chromium	4	0.4	4	U	
Thallium	0.498	0.2	2	J	
CCB3	Date: 13-Jul-2023 12:46		Seq: 7424747	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Chromium	4	0.4	4	U	
Thallium	0.527	0.2	2	J	
ICCB4	Date: 13-Jul-2023 20:59		Seq: 7426613	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Chromium	5	0.4	5	U	
Thallium	2	0.2	2	U	
CCB5	Date: 13-Jul-2023 21:05		Seq: 7426626	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Chromium	4	0.4	4	U	
Thallium	0.594	0.2	2	J	
CCB6	Date: 13-Jul-2023 21:13		Seq: 7426630	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Chromium	4	0.4	4	U	
Thallium	0.632	0.2	2	J	
CCB7	Date: 13-Jul-2023 21:27		Seq: 7426637	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Chromium	4	0.4	4	U	
Thallium	0.511	0.2	2	J	
CCB8	Date: 13-Jul-2023 21:44		Seq: 7426645	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Chromium	4	0.4	4	U	
Thallium	0.475	0.2	2	J	
CCB9	Date: 13-Jul-2023 22:00		Seq: 7426614	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Chromium	4	0.4	4	U	
Thallium	0.58	0.2	2	J	
CCB10	Date: 13-Jul-2023 22:19		Seq: 7426623	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Chromium	4	0.4	4	U	
Thallium	0.507	0.2	2	J	

ALS Houston, US

Date: 18-Jul-23

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID:ICPMS06_441153
Instrument:ICPMS06
Method:SW6020A

ICSA	Date: 12-Jul-2023 13:52	Seq: 7422670	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Aluminum	100000	97710	97.7	
Antimony		0.315	0	
Arsenic		0.296	0	
Barium		0.569	0	
Beryllium		0.001	0	
Cadmium		0.389	0	
Calcium	100000	95050	95.1	
Chromium		1.906	0	
Cobalt		0.615	0	
Copper		0.308	0	
Iron	100000	97550	97.5	
Lead		0.176	0	
Magnesium	100000	98900	98.9	
Manganese		1.352	0	
Nickel		1.001	0	
Potassium	100000	99040	99.0	
Selenium		0.158	0	
Silver		0.161	0	
Sodium	100000	99780	99.8	
Thallium		0.008	0	
Vanadium		0.078	0	
Zinc		2.364	0	

ICSAB	Date: 12-Jul-2023 13:55	Seq: 7422671	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Aluminum	100500	97130	96.6	
Antimony	100	102.6	103	
Arsenic	100	101.6	102	
Barium	100	99.51	99.5	
Beryllium	100	96.7	96.7	
Cadmium	100	100.3	100	
Calcium	110000	103700	94.2	
Chromium	100	100	100.0	
Cobalt	100	96.76	96.8	
Copper	100	94.29	94.3	
Iron	110000	107700	97.9	
Lead	100	99.37	99.4	
Magnesium	110000	109300	99.4	
Manganese	100	98.59	98.6	
Nickel	100	97.69	97.7	
Potassium	110000	108000	98.2	
Selenium	100	101.7	102	
Silver	100	98.15	98.1	
Sodium	110000	108500	98.6	
Thallium	100	96.62	96.6	
Vanadium	100	99.32	99.3	
Zinc	100	101.7	102	

ALS Houston, US

Date: 18-Jul-23

Form 4 - ICP Interference Check Sample

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Run ID: ICPMS06_441200
Instrument: ICPMS06
Method: SW6020A

ICSA	Date: 13-Jul-2023 11:47	Seq: 7424433	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Chromium		1.935	0	
Thallium		0.004	0	

ICSAB	Date: 13-Jul-2023 11:49	Seq: 7424434	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Chromium	100	100.7	101	
Thallium	100	97.52	97.5	

ALS Houston, US Date: 18-Jul-23

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Date Analyzed: 11-Jul-2023 14:01
Date Extracted: 11-Jul-2023 08:00
Units: ug/L

Matrix Spike: HS23061712-08MS Analysis Method: SW7470A
Client Sample ID:

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Mercury	0.2000	5.060	5.000	101	4.790	5.000	95.5	82-119	5.48	20

Matrix Spike: HS23061825-05MS Analysis Method: SW7470A
Client Sample ID: MW13_062623

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Mercury	0.2000	5.190	5.000	104	4.980	5.000	99.4	82-119	4.13	20

ALS Houston, US Date: 18-Jul-23

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Date Analyzed: 12-Jul-2023 21:38
Date Extracted: 11-Jul-2023 14:00
Units: ug/L

Matrix Spike: HS23061825-05MS
Client Sample ID: MW13_062623

Analysis Method: SW6020A

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aluminum	34.56	140.1	100.0	105	128.7	100.0	94.2	84-117	8.42	20
Antimony	5.000	42.29	50.00	84.3	42.05	50.00	83.8	85-117	0.567	20
Arsenic	5.000	45.38	50.00	90.3	45.12	50.00	89.7	84-116	0.594	20
Barium	451.4	488.1	50.00	73.4	490.9	50.00	78.9	86-114	0.558	20
Beryllium	2.000	44.15	50.00	88.2	44.75	50.00	89.4	83-121	1.35	20
Cadmium	2.000	45.47	50.00	90.7	45.84	50.00	91.5	87-115	0.810	20
Calcium	25080	29960	5000	97.6	30010	5000	98.6	87-118	0.155	20
Chromium	216.7	247.9	50.00	62.5	250.4	50.00	67.5	85-116	1.00	20
Cobalt	0.4490	44.04	50.00	87.2	43.60	50.00	86.3	86-115	0.995	20
Copper	3.124	47.41	50.00	88.6	46.92	50.00	87.6	85-118	1.03	20
Iron	93270	95740	5000	49.3	94810	5000	30.8	87-118	0.976	20
Lead	5.000	44.36	50.00	88.5	44.27	50.00	88.3	88-115	0.214	20
Magnesium	12520	17000	5000	89.7	17070	5000	91.1	83-118	0.403	20
Manganese	1071	1089	50.00	34.9	1090	50.00	37.2	87-115	0.104	20
Nickel	36.46	80.56	50.00	88.2	80.80	50.00	88.7	85-117	0.307	20
Potassium	3349	7965	5000	92.3	7885	5000	90.7	87-115	1.01	20
Selenium	5.000	44.59	50.00	89.3	43.78	50.00	87.7	80-120	1.84	20
Silver	5.000	45.17	50.00	90.3	45.11	50.00	90.2	85-116	0.140	20
Sodium	87400	90130	5000	54.7	90520	5000	62.6	85-117	0.435	20
Vanadium	0.7530	44.76	50.00	88.0	44.92	50.00	88.3	86-115	0.359	20
Zinc	5.191	49.94	50.00	89.5	50.30	50.00	90.2	83-119	0.708	20

ALS Houston, US Date: 18-Jul-23

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Date Analyzed: 13-Jul-2023 12:05
Date Extracted: 11-Jul-2023 14:00
Units: ug/L

Matrix Spike: HS23061825-05MS
Client Sample ID: MW13_062623

Analysis Method: SW6020A

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Thallium	0.5220	45.13	50.00	89.2	46.14	50.00	91.2	82-116	2.21	20

ALS Houston, US Date: 18-Jul-23

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Date Analyzed: 12-Jul-2023 21:40
Date Extracted: 11-Jul-2023 14:00
Units: ug/L

Lab Sample ID: HS23061825-05PDS
Client Sample ID: MW13_062623

Analysis Method: SW6020A

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Aluminum	34.56	132	100	97	80-120
Antimony	0	82.72	100	83	80-120
Arsenic	0	90.04	100	90	80-120
Barium	451.4	529.8	100	78	80-120
Beryllium	0	86.69	100	87	80-120
Cadmium	0	89.6	100	90	80-120
Calcium	25080	33950	10000	89	80-120
Cobalt	0.449	85.59	100	85	80-120
Copper	3.124	89.65	100	87	80-120
Iron	93270	99410	10000	61	80-120
Lead	0	88.49	100	88	80-120
Magnesium	12520	21540	10000	90	80-120
Manganese	1071	1121	100	50	80-120
Nickel	36.46	122.2	100	86	80-120
Potassium	3349	12550	10000	92	80-120
Selenium	0	87.71	100	88	80-120
Silver	0	91.66	100	92	80-120
Sodium	87400	93920	10000	65	80-120
Vanadium	0.753	88.68	100	88	80-120
Zinc	5.191	94.2	100	89	80-120

ALS Houston, US

Date: 18-Jul-23

Form 5B - Post Digest Sample Recovery

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Date Analyzed: 13-Jul-2023 12:22
Date Extracted: 11-Jul-2023 14:00
Units: ug/L

Lab Sample ID: HS23061825-05PDS
Client Sample ID: MW13_062623

Analysis Method: SW6020A

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Chromium	226.6	706.2	500	96	80-120

ALS Houston, US

Date: 18-Jul-23

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Date Analyzed: 11-Jul-2023 13:49
Date Extracted: 11-Jul-2023 08:00
Units: ug/L

Lab Sample ID: LCS-197408

Analysis Method: SW7470A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Mercury	5	5.6	112	82-119

ALS Houston, US

Date: 18-Jul-23

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Date Analyzed: 12-Jul-2023 21:29
Date Extracted: 11-Jul-2023 14:00
Units: ug/L

Lab Sample ID: LCS-197423
Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Aluminum	100	94.42	94	84-117
Antimony	50	43.45	87	85-117
Arsenic	50	45.74	92	84-116
Barium	50	44.76	90	86-114
Beryllium	50	45.93	92	83-121
Cadmium	50	46.57	93	87-115
Calcium	5000	4729	95	87-118
Chromium	50	44.17	88	85-116
Cobalt	50	43.93	88	86-115
Copper	50	45.24	91	85-118
Iron	5000	4667	93	87-118
Lead	50	44.32	89	88-115
Magnesium	5000	4777	96	83-118
Manganese	50	44.4	89	87-115
Nickel	50	45.46	91	85-117
Potassium	5000	4714	94	87-115
Selenium	50	45.89	92	80-120
Silver	50	47.01	94	85-116
Sodium	5000	4681	94	85-117
Vanadium	50	44.37	89	86-115
Zinc	50	47.63	95	83-119

ALS Houston, US

Date: 18-Jul-23

Form 7 - Laboratory Control Sample

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Date Analyzed: 13-Jul-2023 12:01
Date Extracted: 11-Jul-2023 14:00
Units: ug/L

Lab Sample ID: LCS-197423

Analysis Method: SW6020A

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Thallium	50	44.83	90	82-116

ALS Houston, US Date: 18-Jul-23

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Date Analyzed: 12-Jul-2023 21:33
Date Extracted: 11-Jul-2023 14:00
Units: ug/L

Lab Sample ID: HS23061825-05SD
Client Sample ID:MW13_062623

Analysis Method: SW6020A

Analyte	Sample Result	C	SD Result	C	RPD	Q
Aluminum	34.56		26.06	J	25	
Antimony	0	U	0	U	0	
Arsenic	0	U	0	U	0	
Barium	451.4		453.8		1	
Beryllium	0	U	0	U	0	
Cadmium	0	U	0	U	0	
Chromium	216.7		219.7		1	
Cobalt	0.449	J	0.517	J	15	
Copper	3.124	J	0	U	0	
Iron	93270		96630		4	
Lead	0	U	0	U	0	
Magnesium	12520		13280		6	
Manganese	1071		1135		6	
Nickel	36.46		38.18		5	
Potassium	3349		3385		1	
Selenium	0	U	0	U	0	
Silver	0	U	0	U	0	
Sodium	87400		88550		1	
Thallium	0.522	J	0	U	0	
Vanadium	0.753	J	0	U	0	
Zinc	5.191		0	U	0	

ALS Houston, US Date: 18-Jul-23

Form 8 - ICP Serial Dilutions

Client: Bhate Environmental Associates, Inc.
Project: LHAAP 18 24
WorkOrder: HS23061825

Date Analyzed: 13-Jul-2023 12:20
Date Extracted: 11-Jul-2023 14:00
Units: ug/L

Lab Sample ID: HS23061825-05SD
Client Sample ID:MW13_062623

Analysis Method: SW6020A

Analyte	Sample Result	C	SD Result	C	RPD	Q
Chromium	226.6		231.7		2	

Report Generated By Teledyne Leeman QuickTrace

Analyst: ALSHS.NoUser,

Worksheet file: C:\Users\Public\Documents\Teledyne CETAC\QuickTrace\Worksheets\071123AW.wszf

Creation Date: 7/11/2023 10:32:20 AM

Comment:

Results

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
Calibration Blank					STD	07/11/23 12:26:34 pm	0.000	43	21.96		
	Replicates	53.5	44.0	30.6	42.8						
Standard #1 (0.2 ppb)					STD	07/11/23 12:28:16 pm	0.200	1485	0.98	1.62%	
	Replicates	1473.9	1470.6	1494.2	1499.8						
Standard #2 (0.5 ppb)					STD	07/11/23 12:29:58 pm	0.500	3545	0.36	-0.12%	
	Replicates	3528.4	3545.4	3559.4	3548.8						
Standard #3 (2.0 ppb)					STD	07/11/23 12:31:41 pm	2.000	13908	0.71	-0.57%	
	Replicates	13785.5	13879.2	13953.5	14015.3						
Standard #4 (5.0 ppb)					STD	07/11/23 12:33:24 pm	5.000	35461	0.36	1.72%	
	Replicates	35299.7	35438.2	35503.0	35601.4						
Standard #5 (10.0 ppb)					STD	07/11/23 12:35:07 pm	10.000	68565	0.72	-1.57%	
	Replicates	67949.5	68429.2	68791.4	69090.8						

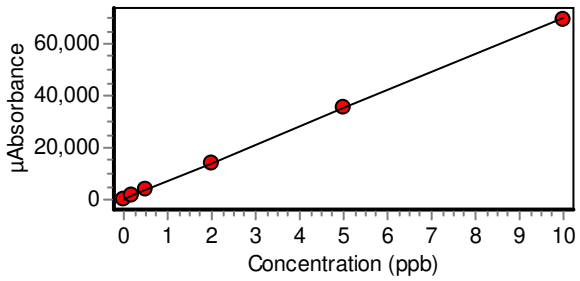
Calibration

Equation: Abs = 6958.517x + 70.320

R2: 0.99957 RSE: 1.67%

SEE: 623.1786

Flags:



ICCV					UNK	07/11/23 12:37:55 pm	5.070	35321	0.60		
	Replicates	35043.2	35288.4	35416.4	35534.4						
ICV					UNK	07/11/23 12:44:46 pm	5.130	35780	0.09		
	Replicates	35818.4	35789.9	35747.7	35763.5						
ICB					UNK	07/11/23 12:46:27 pm	-0.005	39	61.70		
	Replicates	34.5	42.3	16.0	62.8						
CRA					UNK	07/11/23 12:48:09 pm	0.194	1418	1.07		
	Replicates	1420.3	1397.4	1430.4	1424.4						
CCV					UNK	07/11/23 12:52:27 pm	5.140	35833	0.38		
	Replicates	35657.3	35800.3	35913.9	35960.7						
CCB					UNK	07/11/23 12:54:11 pm	-0.007	21	34.99		
	Replicates	34.6	37.5	7.4	5.3						
MBLK-197399					UNK	07/11/23 12:55:53 pm	0.023	232	44.73		
	Replicates	153.4	194.0	266.8	315.2						

Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
LCS-197399				UNK	07/11/23 01:01:20 pm	4.570	31847	7.21		
Replicates	28630.4	31778.3	33482.3	33498.7						
HS23061658-01				UNK	07/11/23 01:03:02 pm	0.020	212	11.72		
Replicates	232.7	201.9	195.9	218.3						
HS23061670-01				UNK	07/11/23 01:04:44 pm	0.021	214	42.40		
Replicates	177.3	198.6	176.2	304.2						
HS23061673-01				UNK	07/11/23 01:06:27 pm	0.024	237	7.18		
Replicates	223.4	246.4	248.3	231.4						
HS23061774-01				UNK	07/11/23 01:08:10 pm	0.014	168	77.08		
Replicates	157.4	127.5	275.9	109.3						
HS23061774-02				UNK	07/11/23 01:09:52 pm	0.011	145	52.20		
Replicates	200.1	130.1	140.4	109.3						
HS23061774-03				UNK	07/11/23 01:11:35 pm	0.011	148	35.53		
Replicates	188.4	128.7	137.1	136.3						
HS23061904-01				UNK	07/11/23 01:13:17 pm	0.006	114	70.68		
Replicates	116.9	84.3	99.7	156.4						
HS23061904-02				UNK	07/11/23 01:14:58 pm	0.006	111	68.32		
Replicates	127.0	93.9	81.9	141.8						
CCV				UNK	07/11/23 01:16:58 pm	5.120	35711	0.22		
Replicates	35601.9	35740.9	35716.9	35785.1						
CCB				UNK	07/11/23 01:18:42 pm	-0.010	0	13.60		
Replicates	1.1	-14.6	5.8	5.7						
HS23061904-03				UNK	07/11/23 01:22:16 pm	0.012	155	43.08		
Replicates	209.9	139.9	138.9	132.3						
HS23061904-04				UNK	07/11/23 01:23:58 pm	0.156	1158	1.55		
Replicates	1174.2	1155.3	1135.7	1167.1						
HS23062187-02				UNK	07/11/23 01:25:40 pm	0.011	145	32.44		
Replicates	176.1	143.7	116.7	144.3						
HS23062191-01				UNK	07/11/23 01:27:22 pm	0.013	158	40.42		
Replicates	141.2	185.2	116.4	190.2						
HS23062191-02				UNK	07/11/23 01:29:04 pm	0.008	127	34.21		
Replicates	117.5	114.2	119.9	155.6						
HS23070020-01				UNK	07/11/23 01:30:47 pm	0.015	172	27.21		
Replicates	183.3	196.9	176.5	132.7						
HS23070020-01MS				UNK	07/11/23 01:34:35 pm	4.700	32795	0.95		
Replicates	33159.0	32940.3	32586.5	32494.3						
HS23070020-01MSD				UNK	07/11/23 01:36:18 pm	4.970	34672	0.48		
Replicates	34478.5	34595.7	34760.1	34852.7						

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS23070093-01					UNK	07/11/23 01:38:01 pm	0.011	150	33.20		
	Replicates	145.9	115.6	177.4	163.2						
HS23070093-02					UNK	07/11/23 01:39:44 pm	0.021	215	12.19		
	Replicates	195.9	204.8	224.6	234.2						
CCV					UNK	07/11/23 01:41:51 pm	5.150	35934	0.28		
	Replicates	35801.9	35935.6	35953.6	36043.9						
CCB					UNK	07/11/23 01:43:35 pm	-0.008	17	20.49		
	Replicates	26.0	1.1	21.1	19.8						
MBLK-197408					UNK	07/11/23 01:47:43 pm	0.013	161	5.74		
	Replicates	164.7	165.6	156.6	155.8						
LCS-197408					UNK	07/11/23 01:49:25 pm	5.600	39040	0.54		
	Replicates	38749.4	39151.6	39228.6	39032.1						
HS23061712-03					UNK	07/11/23 01:51:06 pm	0.004	98	82.44		
	Replicates	69.0	94.5	105.1	124.1						
HS23061712-04					UNK	07/11/23 01:52:48 pm	0.018	197	20.61		
	Replicates	193.1	162.0	222.0	210.2						
HS23061712-05					UNK	07/11/23 01:54:30 pm	0.002	86	66.80		
	Replicates	97.7	77.4	91.4	77.0						
HS23061712-06					UNK	07/11/23 01:56:12 pm	0.020	211	6.87		
	Replicates	214.1	197.2	218.6	215.9						
HS23061712-08					UNK	07/11/23 01:57:54 pm	0.013	163	23.74		
	Replicates	142.9	178.9	184.3	144.8						
HS23061712-08MS					UNK	07/11/23 01:59:37 pm	5.060	35284	1.04		
	Replicates	35267.5	35630.3	35459.5	34780.3						
HS23061712-08MSD					UNK	07/11/23 02:01:19 pm	4.790	33380	1.93		
	Replicates	34262.4	33165.3	32738.4	33353.3						
HS23061812-01					UNK	07/11/23 02:03:02 pm	0.008	123	64.12		
	Replicates	159.9	78.4	121.4	133.1						
CCV					UNK	07/11/23 02:05:06 pm	4.870	33935	2.02		
	Replicates	33113.7	33700.7	34219.1	34707.1						
CCB					UNK	07/11/23 02:06:50 pm	-0.008	13	52.02		
	Replicates	54.5	-16.1	8.0	7.4						
HS23061812-04					UNK	07/11/23 02:08:33 pm	0.021	220	13.39		
	Replicates	209.3	219.6	201.8	247.4						
HS23061812-05					UNK	07/11/23 02:10:16 pm	0.010	141	33.75		
	Replicates	109.1	148.4	140.3	166.1						
HS23061812-06					UNK	07/11/23 02:11:58 pm	0.015	177	14.00		
	Replicates	169.2	185.3	160.3	193.1						

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS23061812-07					UNK	07/11/23 02:13:40 pm	0.018	199	15.75		
	Replicates	228.2	188.2	182.6	198.2						
HS23061821-03					UNK	07/11/23 02:15:21 pm	0.058	470	5.94		
	Replicates	485.5	435.3	484.9	475.1						
HS23061821-05					UNK	07/11/23 02:17:03 pm	0.015	178	45.14		
	Replicates	226.9	210.7	151.1	123.9						
HS23061821-08					UNK	07/11/23 02:18:45 pm	0.018	196	13.04		
	Replicates	219.4	187.1	182.7	194.7						
HS23061821-09					UNK	07/11/23 02:20:27 pm	0.018	193	7.41		
	Replicates	186.2	184.1	198.3	202.7						
HS23061821-10					UNK	07/11/23 02:22:09 pm	0.015	174	9.08		
	Replicates	187.6	172.2	165.6	171.2						
HS23061825-01					UNK	07/11/23 02:23:52 pm	0.018	192	10.90		
	Replicates	179.0	205.6	182.6	201.4						
CCV					UNK	07/11/23 02:34:49 pm	5.100	35569	0.29		
	Replicates	35544.0	35470.0	35548.0	35715.4						
CCB					UNK	07/11/23 02:36:33 pm	-0.004	39	52.29		
	Replicates	29.4	29.1	34.5	63.3						
HS23061825-02					UNK	07/11/23 02:40:30 pm	0.010	140	28.02		
	Replicates	151.5	113.7	137.7	157.9						
HS23061825-04					UNK	07/11/23 02:42:13 pm	0.027	260	8.85		
	Replicates	260.6	272.0	270.5	235.8						
HS23061825-05					UNK	07/11/23 02:43:56 pm	0.010	142	16.44		
	Replicates	137.4	160.3	136.6	135.6						
HS23061825-05MS					UNK	07/11/23 02:45:39 pm	5.190	36215	0.17		
	Replicates	36256.3	36271.9	36192.3	36138.6						
HS23061825-05MSD					UNK	07/11/23 02:47:21 pm	4.980	34730	0.71		
	Replicates	34878.8	34856.1	34819.3	34364.6						
MBLK-197418					UNK	07/11/23 02:49:03 pm	0.002	84	163.91		
	Replicates	52.3	91.5	87.1	105.7						
LCS-197418					UNK	07/11/23 02:50:45 pm	4.910	34260	1.26		
	Replicates	34819.3	34112.4	33794.4	34315.2						
HS23061925-01					UNK	07/11/23 02:52:27 pm	0.012	152	32.91		
	Replicates	149.6	115.4	165.3	177.4						
HS23061925-02					UNK	07/11/23 02:54:09 pm	0.011	149	39.70		
	Replicates	135.1	122.3	144.3	193.4						
HS23061925-02MS					UNK	07/11/23 02:55:51 pm	4.640	32371	1.86		
	Replicates	31528.4	32945.6	32562.8	32447.2						

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
CCV					UNK	07/11/23 02:57:54 pm	5.030	35051	1.21		
	Replicates	34520.8	34935.7	35237.9	35508.5						
CCB					UNK	07/11/23 02:59:38 pm	-0.009	6	18.39		
	Replicates	17.8	-7.7	13.5	-0.1						
HS23061925-02MSD					UNK	07/11/23 03:02:10 pm	4.920	34284	3.24		
	Replicates	35105.6	35057.3	34241.4	32732.3						
HS23061925-03					UNK	07/11/23 03:03:52 pm	0.021	217	13.83		
	Replicates	195.4	203.9	232.5	235.9						
HS23061925-04					UNK	07/11/23 03:05:35 pm	0.014	166	44.62		
	Replicates	127.4	219.7	180.5	136.3						
HS23061925-05					UNK	07/11/23 03:07:18 pm	0.018	199	15.34		
	Replicates	180.1	187.9	224.9	202.8						
HS23061925-06					UNK	07/11/23 03:09:00 pm	0.024	240	11.31		
	Replicates	234.8	235.1	266.6	221.6						
HS23061925-07					UNK	07/11/23 03:10:44 pm	0.013	157	20.25		
	Replicates	131.7	160.0	167.8	169.8						
HS23061925-08					UNK	07/11/23 03:12:26 pm	0.027	260	28.08		
	Replicates	216.7	325.9	279.1	216.5						
HS23061925-09					UNK	07/11/23 03:14:08 pm	0.028	265	9.68		
	Replicates	282.4	274.1	238.9	264.8						
HS23061925-10					UNK	07/11/23 03:15:50 pm	0.039	342	3.53		
	Replicates	346.8	352.4	334.0	333.0						
HS23061925-11					UNK	07/11/23 03:17:32 pm	0.006	113	143.59		
	Replicates	101.9	33.2	140.4	178.2						
CCV					UNK	07/11/23 03:21:46 pm	5.100	35593	0.26		
	Replicates	35534.5	35539.3	35568.5	35730.9						
CCB					UNK	07/11/23 03:23:30 pm	-0.007	21	21.70		
	Replicates	17.6	6.8	31.2	26.8						
HS23061925-12					UNK	07/11/23 03:26:07 pm	0.013	159	12.94		
	Replicates	176.3	150.6	155.4	154.9						
HS23061925-13					UNK	07/11/23 03:27:49 pm	0.014	170	32.26		
	Replicates	165.3	181.4	129.1	206.1						
HS23061925-14					UNK	07/11/23 03:29:32 pm	0.006	112	39.54		
	Replicates	135.6	110.4	97.6	104.8						
HS23061925-15					UNK	07/11/23 03:31:14 pm	0.012	155	46.28		
	Replicates	118.6	131.7	163.1	206.7						
HS23061925-16					UNK	07/11/23 03:32:57 pm	-0.001	67	974.03		
	Replicates	58.1	23.8	79.6	105.6						

Sample Name			Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS23061925-17			UNK	07/11/23 03:34:39 pm	0.010	142	50.69		
Replicates	110.7	110.7	174.1	173.7					
HS23061925-18			UNK	07/11/23 03:36:22 pm	0.011	144	18.75		
Replicates	133.9	131.0	157.0	155.8					
HS23061925-19			UNK	07/11/23 03:38:05 pm	0.017	189	14.76		
Replicates	198.3	168.1	182.8	208.1					
HS23061925-20			UNK	07/11/23 03:39:48 pm	0.011	144	27.36		
Replicates	161.3	161.3	125.6	127.2					
MBLK-197421			UNK	07/11/23 03:41:30 pm	0.010	140	12.90		
Replicates	146.8	146.8	140.6	127.6					
CCV			UNK	07/11/23 03:43:41 pm	4.970	34645	1.48		
Replicates	34018.9	34521.9	34802.5	35238.3					
CCB			UNK	07/11/23 03:45:25 pm	-0.007	19	33.11		
Replicates	43.8	15.4	5.8	10.8					
LCS-197421			UNK	07/11/23 03:48:36 pm	5.310	37013	0.26		
Replicates	37073.8	37109.3	36972.7	36894.7					
HS23061925-21			UNK	07/11/23 03:50:18 pm	0.009	135	3.83		
Replicates	134.5	135.5	138.3	132.3					
HS23061925-22			UNK	07/11/23 03:52:01 pm	0.021	217	15.20		
Replicates	202.8	199.1	248.1	218.1					
HS23061925-22MS			UNK	07/11/23 03:53:43 pm	4.940	34427	0.55		
Replicates	34199.9	34600.2	34558.6	34347.6					
HS23061925-22MSD			UNK	07/11/23 03:55:25 pm	4.930	34378	0.78		
Replicates	34002.5	34381.9	34513.9	34614.1					
HS23061925-23			UNK	07/11/23 03:57:08 pm	0.006	110	7.00		
Replicates	110.8	110.4	112.3	105.8					
CCV			UNK	07/11/23 03:59:14 pm	5.100	35571	0.47		
Replicates	35342.1	35560.6	35660.6	35721.6					
CCB			UNK	07/11/23 04:00:58 pm	-0.006	28	31.57		
Replicates	29.8	28.2	11.4	43.8					
MBLK-197427			UNK	07/11/23 04:05:04 pm	0.005	108	17.40		
Replicates	103.5	110.9	116.8	102.8					
LCS-197427			UNK	07/11/23 04:09:07 pm	5.260	36651	0.11		
Replicates	36639.3	36703.5	36607.5	36652.9					
HS23070349-01			UNK	07/11/23 04:10:50 pm	0.008	127	63.44		
Replicates	100.0	146.2	93.6	167.6					
HS23070349-02			UNK	07/11/23 04:12:33 pm	0.010	140	24.44		
Replicates	119.0	147.4	158.6	134.8					

Sample Name					Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
HS23070349-02MS					UNK	07/11/23 04:16:15 pm	4.810	33507	0.44		
Replicates	33672.8	33571.5	33452.3	33329.9							
HS23070349-02MSD					UNK	07/11/23 04:17:58 pm	6.980	48658	4.41		
Replicates	51627.0	48825.3	47162.6	47018.3							
HS23070349-02MSD					UNK	07/11/23 04:20:38 pm	4.660	32465	0.30		
Replicates	32494.5	32564.9	32465.5	32334.7							
HS23070349-03					UNK	07/11/23 04:22:21 pm	0.007	116	21.07		
Replicates	130.9	112.9	111.3	110.5							
MBLK-197424					UNK	07/11/23 04:24:37 pm	0.006	114	21.98		
Replicates	115.5	103.9	127.1	111.3							
LCS-197424					UNK	07/11/23 04:28:37 pm	4.930	34380	0.19		
Replicates	34399.4	34446.3	34378.3	34294.4							
CCV					UNK	07/11/23 04:30:40 pm	5.020	34977	0.85		
Replicates	34581.4	34933.1	35127.7	35266.1							
CCB					UNK	07/11/23 04:32:24 pm	-0.002	59	46.73		
Replicates	63.9	54.7	62.9	53.5							
MBKLT1-196912					UNK	07/11/23 04:36:26 pm	0.005	106	61.23		
Replicates	125.4	85.5	88.3	122.9							
MBKLT2-196909					UNK	07/11/23 04:38:08 pm	0.009	134	28.01		
Replicates	131.2	134.1	112.8	156.1							
MBKLT3-196980					UNK	07/11/23 04:39:51 pm	-0.005	37	26.61		
Replicates	49.9	32.6	35.0	30.2							
HS23061842-01					UNK	07/11/23 04:41:34 pm	0.006	111	41.23		
Replicates	120.8	113.7	86.4	122.4							
HS23061842-01MS					UNK	07/11/23 04:43:16 pm	4.800	33456	0.09		
Replicates	33494.8	33465.1	33430.5	33432.5							
HS23061842-01MSD					UNK	07/11/23 04:44:59 pm	5.190	36170	0.06		
Replicates	36182.2	36192.5	36154.7	36151.9							
HS32061941-01					UNK	07/11/23 04:46:42 pm	0.003	89	78.38		
Replicates	95.1	97.1	95.1	67.1							
HS23061942-01					UNK	07/11/23 04:48:25 pm	0.015	174	8.68		
Replicates	169.8	174.6	164.8	185.8							
HS23061957-01					UNK	07/11/23 04:50:07 pm	0.014	166	23.58		
Replicates	188.3	182.1	146.1	146.8							
HS23061958-01					UNK	07/11/23 04:51:50 pm	0.012	154	22.76		
Replicates	157.7	145.3	179.1	134.7							
CCV					UNK	07/11/23 04:53:56 pm	5.030	35070	0.93		
Replicates	34633.0	35019.5	35270.5	35356.3							

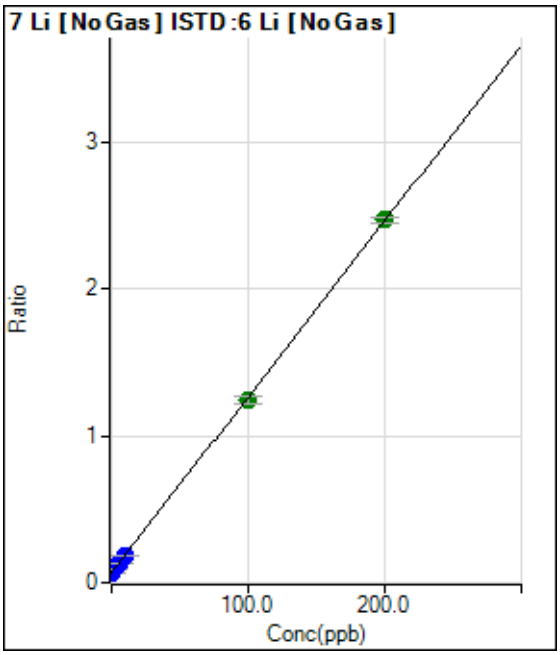
Sample Name				Type	Date/Time	Conc (ppb)	µAbs	%RSD	Residual	Flags
CCB				UNK	07/11/23 04:55:40 pm	-0.010	-2	33.24		
	Replicates	3.3	-36.3	20.7	3.3					
HS23061962-01				UNK	07/11/23 04:58:22 pm	0.018	197	10.54		
	Replicates	190.5	215.3	184.4	197.1					
HS23061965-01				UNK	07/11/23 05:00:05 pm	0.017	189	15.85		
	Replicates	180.7	176.1	183.3	217.3					
CCV				UNK	07/11/23 05:01:48 pm	5.060	35306	0.30		
	Replicates	35152.3	35326.5	35389.5	35356.7					
CCB				UNK	07/11/23 05:03:32 pm	-0.007	18	60.77		
	Replicates	2.6	-11.5	21.7	61.1					

Calibration for 206_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071223A.b\
Analysis File: 071223A.batch.bin
DA Date-Time: 7/12/2023 10:19:40 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	199CALB.d	CAL BLK	7/12/2023 8:59:22 PM
2	200CALS.d	2/10/200	7/12/2023 9:01:32 PM
3	201CALS.d	5/25/500	7/12/2023 9:03:27 PM
4	202CALS.d	10/50/100	7/12/2023 9:05:25 PM
5	203CALS.d	100/500/10K	7/12/2023 9:07:21 PM
6	204CALS.d	200/1000/20K	7/12/2023 9:09:13 PM

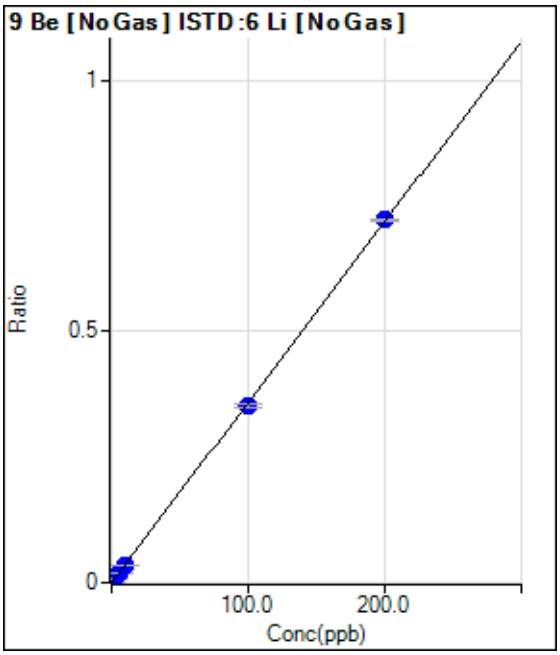
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74961.42	0.0685	P	3.4
2	☐	2.000	1.966	99227.99	0.0920	P	0.3
3	☐	5.000	5.110	135216.77	0.1295	P	2.7
4	☐	10.000	9.868	195086.28	0.1864	P	2.9
5	☐	100.000	98.472	1271015.53	1.2451	A	4.0
6	☐	200.000	200.768	2449704.81	2.4674	A	1.9

y = 0.0119 * x + 0.0685
R = 1.0000
DL = 0.5818
BEC = 5.732

Weight: <None>
Min Conc: <None>

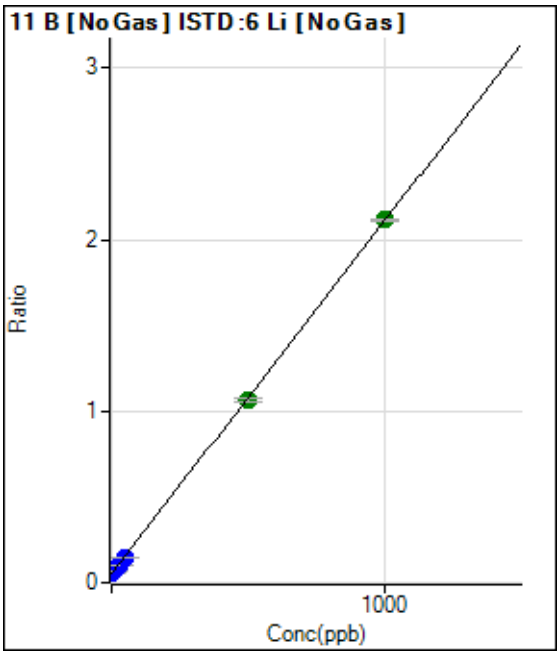


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	35.6
2	☐	2.000	1.855	7215.23	0.0067	P	0.4
3	☐	5.000	4.950	18592.34	0.0178	P	1.3
4	☐	10.000	9.539	35895.75	0.0343	P	1.9
5	☐	100.000	97.907	359151.69	0.3518	P	2.8
6	☐	200.000	201.072	717246.11	0.7224	P	0.7

y = 0.0036 * x + 2.2909E-005
R = 0.9999
DL = 0.006816
BEC = 0.006377

Weight: <None>
Min Conc: <None>

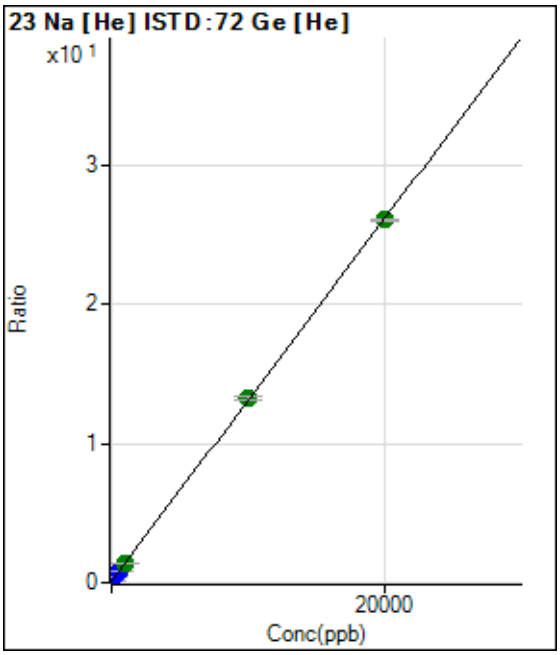
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56844.58	0.0519	P	1.8
2	☐	10.000	9.135	76287.27	0.0707	P	1.1
3	☐	25.000	24.554	106943.37	0.1024	P	1.3
4	☐	50.000	47.675	156989.16	0.1500	P	1.4
5	☐	500.000	494.183	1090796.49	1.0683	A	2.4
6	☐	1000.000	1003.045	2099774.35	2.1149	A	0.6

y = 0.0021 * x + 0.0519
R = 1.0000
DL = 1.372
BEC = 25.25

Weight: <None>
Min Conc: <None>

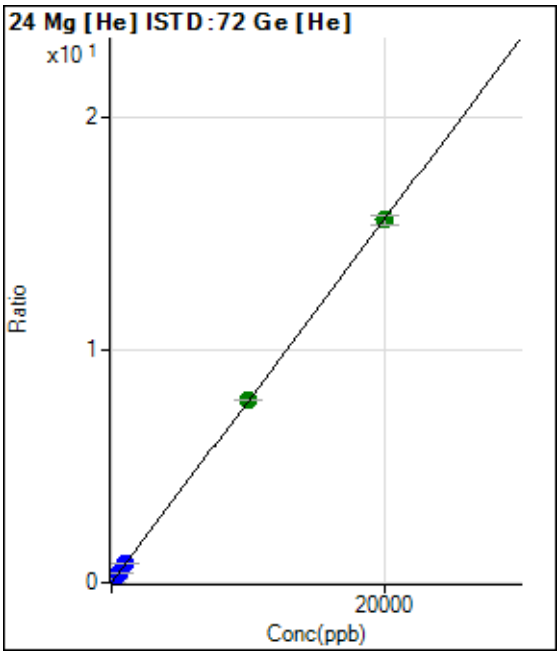


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	78117.82	0.1029	P	0.6
2	☐	200.000	206.874	283195.36	0.3727	P	0.7
3	☐	500.000	531.634	600524.82	0.7964	P	1.3
4	☐	1000.000	1024.663	1089293.45	1.4395	A	0.5
5	☐	10000.00	10115.33	9983465.06	13.2972	A	2.8
6	☐	20000.00	19940.24	19653853.46	26.1127	A	0.4

y = 0.0013 * x + 0.1029
R = 1.0000
DL = 1.525
BEC = 78.89

Weight: <None>
Min Conc: <None>

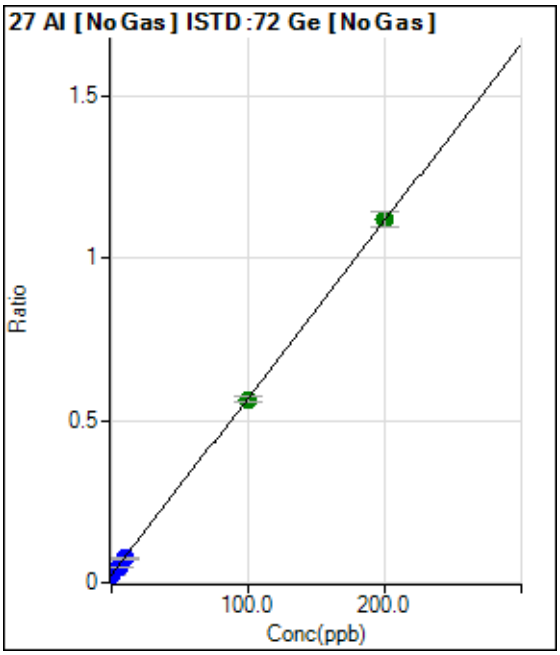
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1016.72	0.0013	P	11.6
2	☐	200.000	212.295	126896.86	0.1670	P	1.5
3	☐	500.000	544.875	321686.05	0.4266	P	0.9
4	☐	1000.000	1049.259	620705.25	0.8202	P	0.4
5	☐	10000.00	10045.53	5888403.25	7.8414	A	0.4
6	☐	20000.00	19973.52	11733924.41	15.5897	A	2.3

y = 7.8045E-004 * x + 0.0013
R = 1.0000
DL = 0.5957
BEC = 1.715

Weight: <None>
Min Conc: <None>

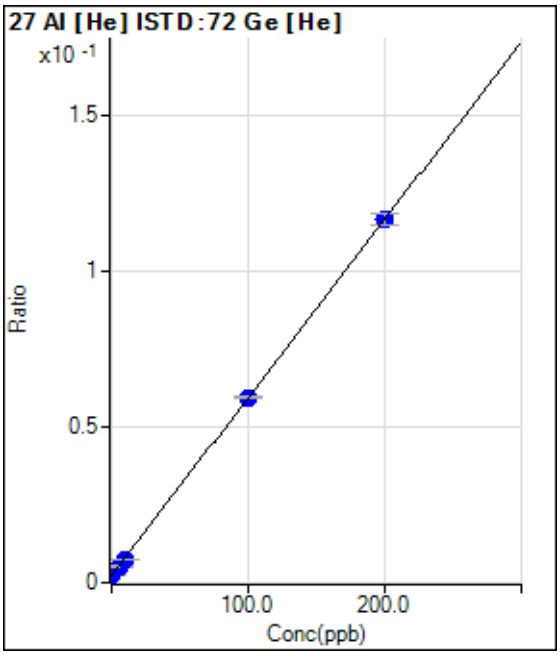


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72863.74	0.0245	P	2.8
2	☐	2.000	2.192	108464.22	0.0365	P	0.2
3	☐	5.000	4.487	144898.71	0.0490	P	0.8
4	☐	10.000	9.193	218752.63	0.0746	P	1.7
5	☐	100.000	98.985	1665061.69	0.5644	A	2.9
6	☐	200.000	200.559	3242382.24	1.1184	A	4.1

y = 0.0055 * x + 0.0245
R = 1.0000
DL = 0.3718
BEC = 4.492

Weight: <None>
Min Conc: <None>

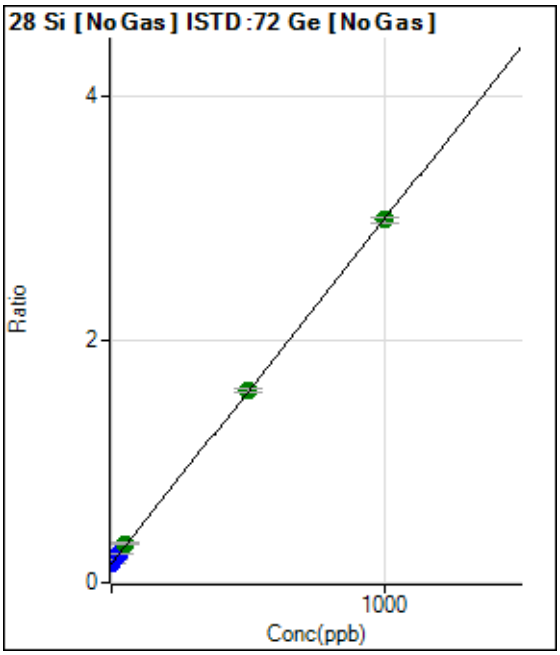
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1763.48	0.0023	P	9.3
2	☐	2.000	2.373	2797.01	0.0037	P	6.1
3	☐	5.000	4.933	3877.30	0.0051	P	10.0
4	☐	10.000	9.303	5784.63	0.0076	P	2.1
5	☐	100.000	100.245	44789.03	0.0596	P	1.5
6	☐	200.000	199.910	87792.73	0.1166	P	3.1

y = 5.7184E-004 * x + 0.0023
R = 1.0000
DL = 1.129
BEC = 4.065

Weight: <None>
Min Conc: <None>

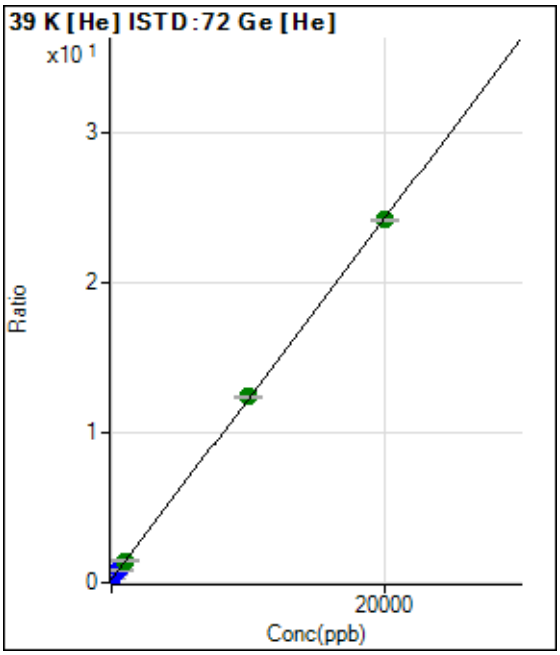


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	467781.61	0.1573	P	1.5
2	☐	10.000	10.279	554514.47	0.1864	P	1.5
3	☐	25.000	27.010	691601.06	0.2338	P	1.3
4	☐	50.000	58.522	947164.62	0.3231	A	1.3
5	☐	500.000	503.474	4673673.37	1.5840	A	1.8
6	☐	1000.000	997.784	8655672.79	2.9848	A	1.9

y = 0.0028 * x + 0.1573
R = 1.0000
DL = 2.579
BEC = 55.5

Weight: <None>
Min Conc: <None>

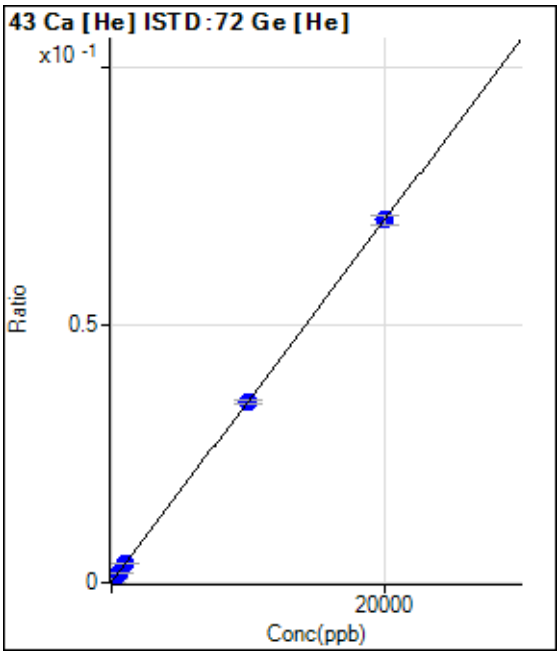
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155153.67	0.2044	P	1.0
2	☐	200.000	206.695	344609.21	0.4536	P	0.8
3	☐	500.000	524.926	631351.96	0.8372	P	1.1
4	☐	1000.000	1053.716	1115889.28	1.4748	A	1.6
5	☐	10000.00	10128.70	9323030.70	12.4158	A	1.2
6	☐	20000.00	19932.27	18241172.65	24.2353	A	0.7

y = 0.0012 * x + 0.2044
R = 1.0000
DL = 4.841
BEC = 169.5

Weight: <None>
Min Conc: <None>

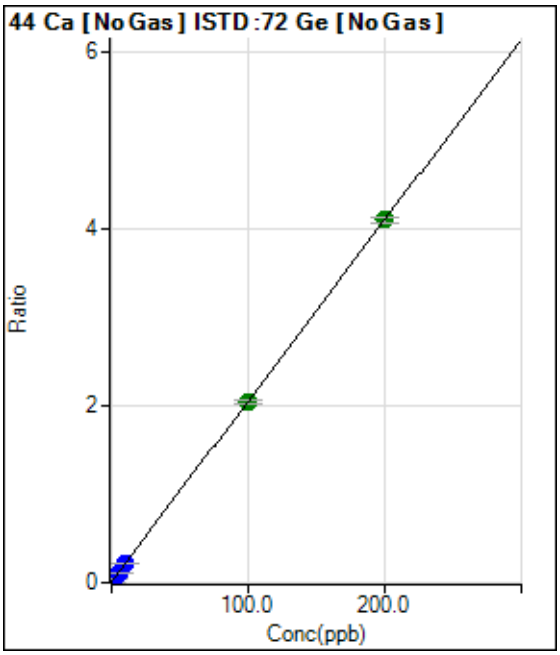


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	63.7
2	☐	200.000	177.228	543.36	0.0007	P	5.2
3	☐	500.000	487.173	1360.10	0.0018	P	3.6
4	☐	1000.000	1027.730	2803.68	0.0037	P	6.5
5	☐	10000.00	9977.909	26382.13	0.0351	P	1.7
6	☐	20000.00	20010.20	52965.51	0.0704	P	2.7

y = 3.5120E-006 * x + 9.2728E-005
R = 1.0000
DL = 50.48
BEC = 26.4

Weight: <None>
Min Conc: <None>

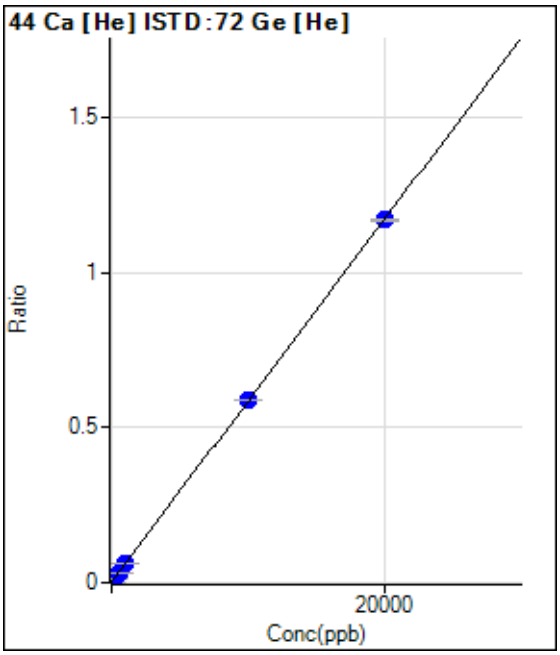
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	28215.77	0.0095	P	1.3
2	☐	2.000	2.034	151772.14	0.0510	P	0.4
3	☐	5.000	5.053	333138.79	0.1126	P	0.9
4	☐	10.000	10.150	635076.46	0.2167	P	0.8
5	☐	100.000	99.569	6024389.49	2.0418	A	2.2
6	☐	200.000	200.206	11877933.15	4.0960	A	1.9

y = 0.0204 * x + 0.0095
R = 1.0000
DL = 0.0184
BEC = 0.4647

Weight: <None>
Min Conc: <None>

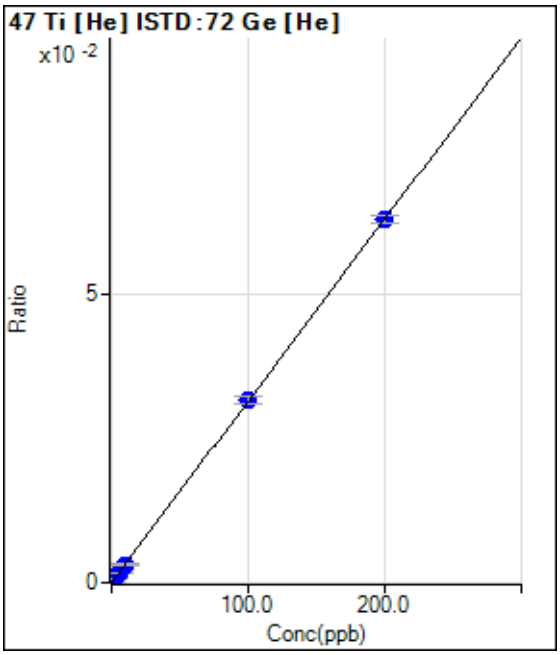


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1053.40	0.0014	P	7.1
2	☐	200.000	199.285	9927.07	0.0131	P	1.9
3	☐	500.000	504.606	23340.06	0.0310	P	3.6
4	☐	1000.000	994.117	45130.99	0.0596	P	1.7
5	☐	10000.00	10062.28	443831.56	0.5910	P	0.2
6	☐	20000.00	19969.04	881759.13	1.1716	P	0.6

y = 5.8599E-005 * x + 0.0014
R = 1.0000
DL = 5.065
BEC = 23.69

Weight: <None>
Min Conc: <None>

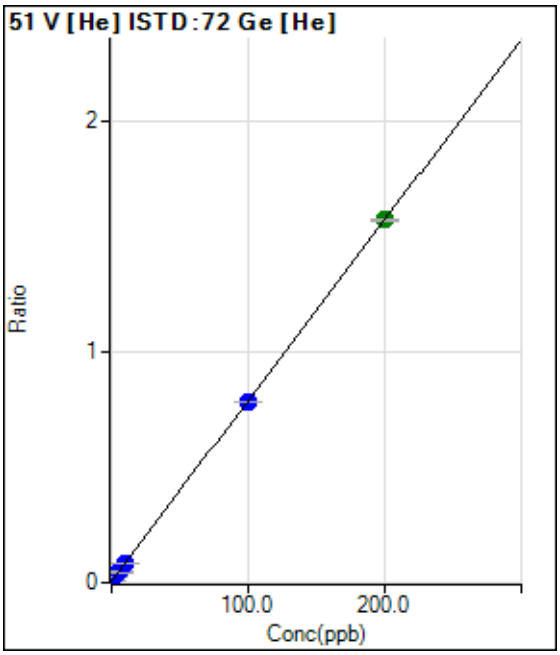
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	92.2
2	☐	2.000	2.008	496.69	0.0007	P	14.6
3	☐	5.000	5.187	1246.75	0.0017	P	9.3
4	☐	10.000	9.769	2343.57	0.0031	P	10.9
5	☐	100.000	100.525	23760.89	0.0317	P	4.3
6	☐	200.000	199.744	47318.59	0.0629	P	2.0

y = 3.1464E-004 * x + 2.2090E-005
R = 1.0000
DL = 0.1942
BEC = 0.07021

Weight: <None>
Min Conc: <None>

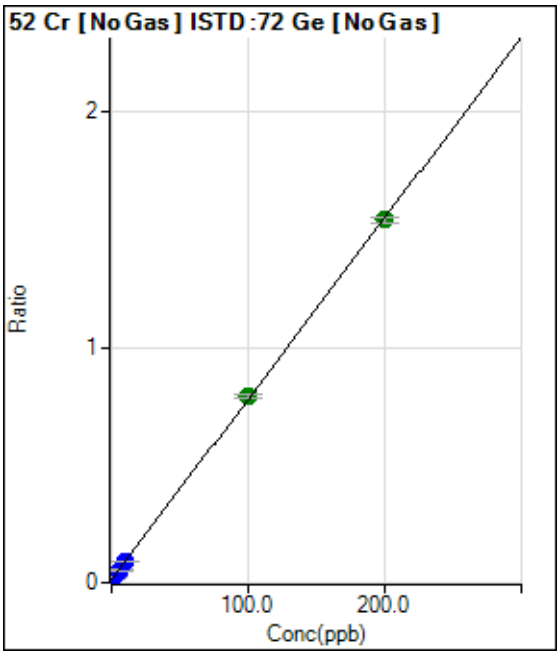


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5022.05	0.0066	P	1.7
2	☐	2.000	1.954	16620.12	0.0219	P	1.8
3	☐	5.000	5.033	34625.85	0.0459	P	1.2
4	☐	10.000	9.688	62250.63	0.0823	P	0.8
5	☐	100.000	99.662	589402.70	0.7849	P	0.1
6	☐	200.000	200.184	1181508.01	1.5698	A	0.8

y = 0.0078 * x + 0.0066
R = 1.0000
DL = 0.04425
BEC = 0.847

Weight: <None>
Min Conc: <None>

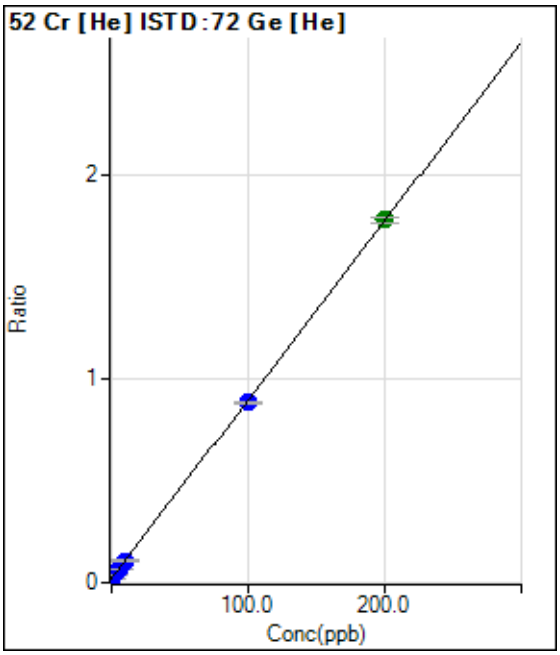
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37866.05	0.0127	P	2.2
2	☐	2.000	2.046	84667.28	0.0285	P	2.1
3	☐	5.000	5.237	156722.23	0.0530	P	2.5
4	☐	10.000	10.373	271058.79	0.0925	P	0.6
5	☐	100.000	101.819	2347271.17	0.7955	A	1.6
6	☐	200.000	199.065	4475297.85	1.5431	A	1.2

y = 0.0077 * x + 0.0127
R = 0.9999
DL = 0.1112
BEC = 1.656

Weight: <None>
Min Conc: <None>

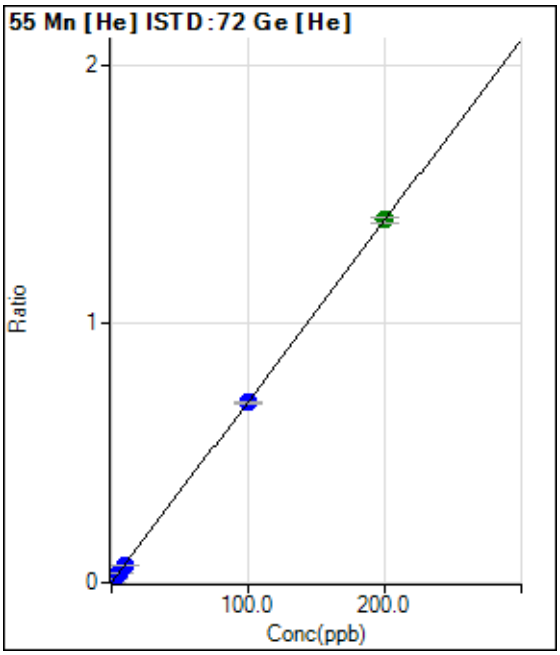


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15846.13	0.0209	P	3.6
2	☐	2.000	2.010	29258.20	0.0385	P	0.8
3	☐	5.000	5.149	49794.16	0.0660	P	2.8
4	☐	10.000	9.976	82007.93	0.1084	P	1.9
5	☐	100.000	98.486	664428.89	0.8848	P	0.9
6	☐	200.000	200.754	1341173.84	1.7819	A	1.8

y = 0.0088 * x + 0.0209
R = 1.0000
DL = 0.2564
BEC = 2.38

Weight: <None>
Min Conc: <None>

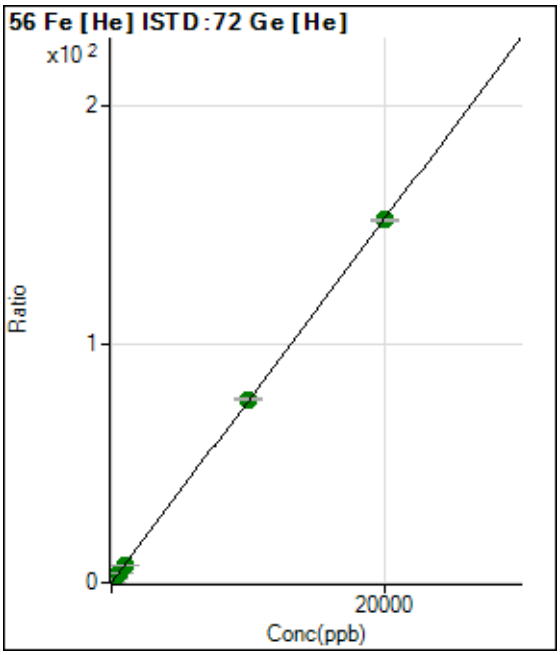
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	686.70	0.0009	P	3.4
2	☐	2.000	1.991	11264.85	0.0148	P	3.6
3	☐	5.000	4.948	26773.15	0.0355	P	1.2
4	☐	10.000	9.744	52230.00	0.0690	P	2.1
5	☐	100.000	99.362	522356.80	0.6956	P	0.7
6	☐	200.000	200.333	1054884.18	1.4016	A	1.9

y = 0.0070 * x + 9.0426E-004
R = 1.0000
DL = 0.01315
BEC = 0.1293

Weight: <None>
Min Conc: <None>

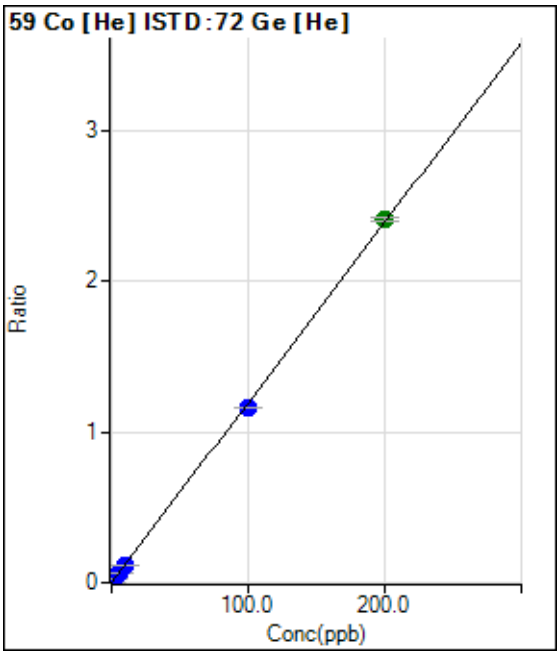


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22472.06	0.0296	P	2.0
2	☐	200.000	208.929	1234035.24	1.6242	A	1.5
3	☐	500.000	523.243	3033826.10	4.0232	A	1.3
4	☐	1000.000	1000.124	5799208.04	7.6630	A	0.2
5	☐	10000.00	10081.24	57803989.14	76.9741	A	0.4
6	☐	20000.00	19958.70	114678118.2	152.363	A	0.3

y = 0.0076 * x + 0.0296
R = 1.0000
DL = 0.2379
BEC = 3.879

Weight: <None>
Min Conc: <None>

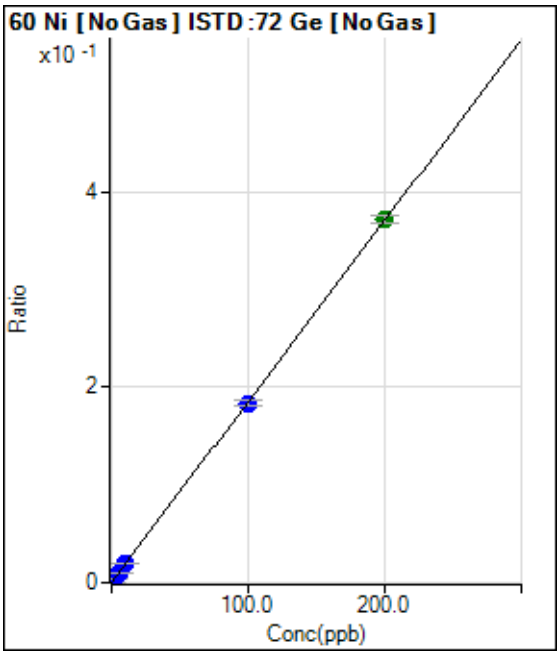
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0001	P	26.3
2	☐	2.000	1.941	17675.08	0.0233	P	0.8
3	☐	5.000	4.920	44355.99	0.0588	P	2.0
4	☐	10.000	9.698	87651.46	0.1158	P	1.5
5	☐	100.000	96.880	868262.02	1.1562	P	0.2
6	☐	200.000	201.578	1810629.04	2.4056	A	1.2

y = 0.0119 * x + 1.0083E-004
R = 0.9998
DL = 0.006664
BEC = 0.008449

Weight: <None>
Min Conc: <None>

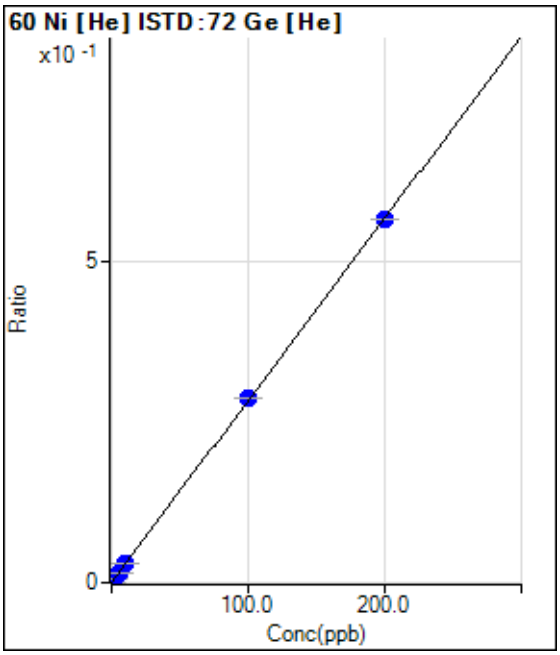


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	760.04	0.0003	P	11.7
2	☐	2.000	2.110	12372.46	0.0042	P	1.5
3	☐	5.000	5.076	28530.20	0.0096	P	1.6
4	☐	10.000	10.134	55707.28	0.0190	P	1.0
5	☐	100.000	99.089	541522.95	0.1836	P	2.7
6	☐	200.000	200.446	1076245.30	0.3711	A	2.2

y = 0.0018 * x + 2.5574E-004
R = 1.0000
DL = 0.04863
BEC = 0.1382

Weight: <None>
Min Conc: <None>

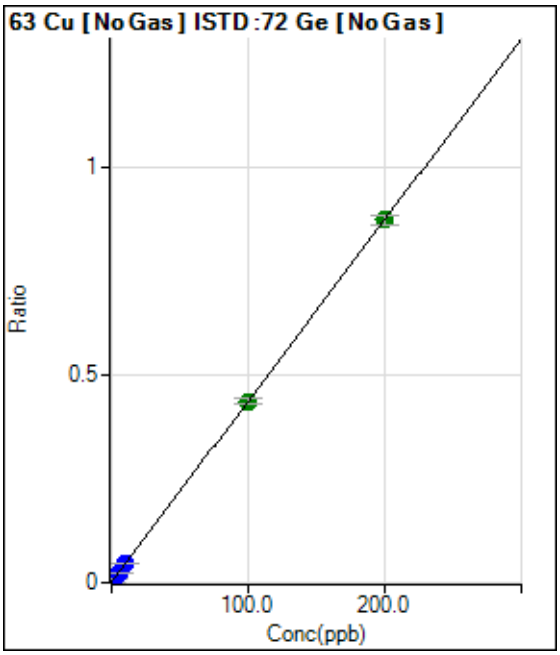
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	253.34	0.0003	P	13.1
2	☐	2.000	2.173	4937.64	0.0065	P	4.0
3	☐	5.000	4.913	10764.45	0.0143	P	3.9
4	☐	10.000	10.017	21754.24	0.0288	P	1.7
5	☐	100.000	101.391	216251.84	0.2880	P	0.6
6	☐	200.000	199.304	425786.29	0.5657	P	0.1

y = 0.0028 * x + 3.3402E-004
R = 1.0000
DL = 0.04637
BEC = 0.1177

Weight: <None>
Min Conc: <None>

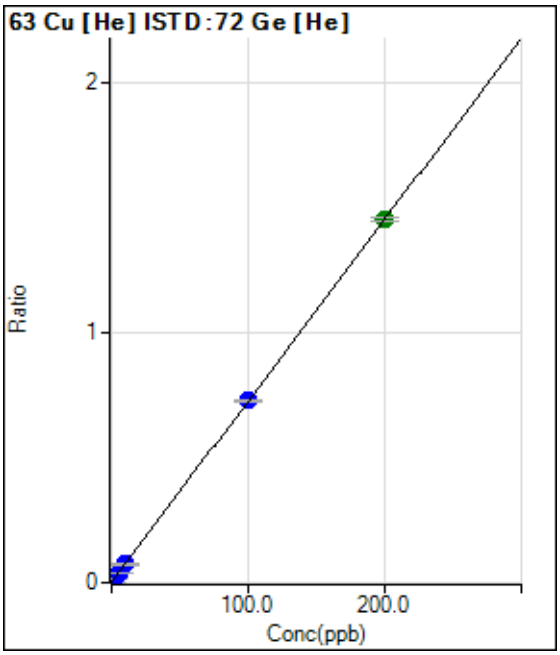


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3210.43	0.0011	P	3.0
2	☐	2.000	2.278	32722.96	0.0110	P	3.4
3	☐	5.000	5.189	70043.22	0.0237	P	2.3
4	☐	10.000	10.112	132292.25	0.0451	P	0.2
5	☐	100.000	99.879	1286736.47	0.4362	A	3.2
6	☐	200.000	200.047	2530063.40	0.8726	A	2.9

y = 0.0044 * x + 0.0011
R = 1.0000
DL = 0.02235
BEC = 0.2477

Weight: <None>
Min Conc: <None>

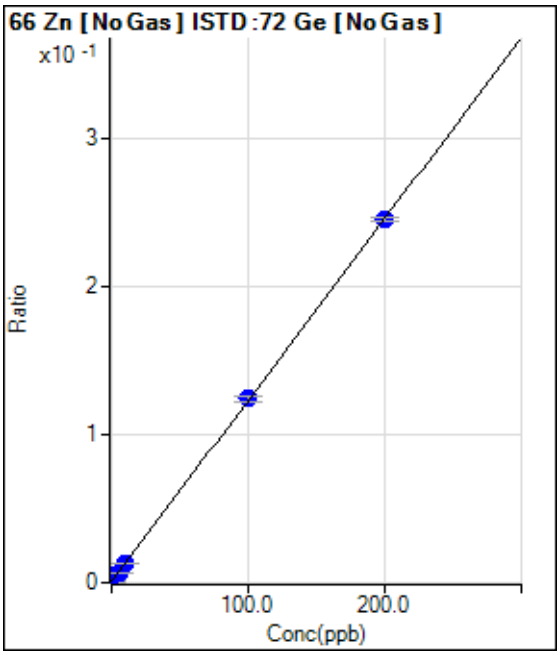
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1273.42	0.0017	P	13.8
2	☐	2.000	2.217	13476.94	0.0177	P	6.0
3	☐	5.000	5.004	28593.79	0.0379	P	2.4
4	☐	10.000	9.899	55526.78	0.0734	P	1.5
5	☐	100.000	100.118	545843.51	0.7269	P	0.8
6	☐	200.000	199.944	1091360.82	1.4500	A	0.9

y = 0.0072 * x + 0.0017
R = 1.0000
DL = 0.09577
BEC = 0.2317

Weight: <None>
Min Conc: <None>

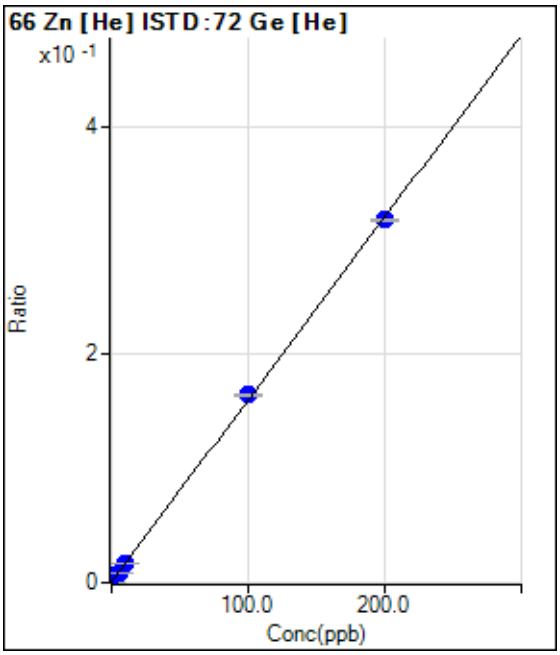


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1950.19	0.0007	P	4.2
2	☐	2.000	3.580	15008.53	0.0050	P	3.1
3	☐	5.000	4.948	19884.94	0.0067	P	1.8
4	☐	10.000	10.303	38952.91	0.0133	P	1.5
5	☐	100.000	100.836	366746.77	0.1243	P	2.6
6	☐	200.000	199.552	711616.00	0.2454	P	1.1

y = 0.0012 * x + 6.5542E-004
R = 1.0000
DL = 0.06709
BEC = 0.5345

Weight: <None>
Min Conc: <None>

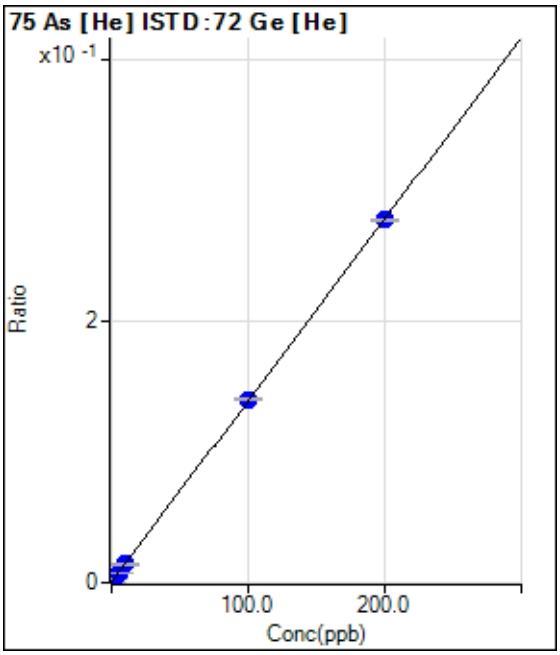
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	470.02	0.0006	P	18.2
2	☐	2.000	3.486	4704.23	0.0062	P	1.9
3	☐	5.000	5.007	6505.01	0.0086	P	2.8
4	☐	10.000	10.280	12903.02	0.0171	P	3.2
5	☐	100.000	102.606	123626.00	0.1646	P	0.5
6	☐	200.000	198.668	239482.00	0.3182	P	0.5

y = 0.0016 * x + 6.2000E-004
R = 0.9999
DL = 0.2122
BEC = 0.3879

Weight: <None>
Min Conc: <None>

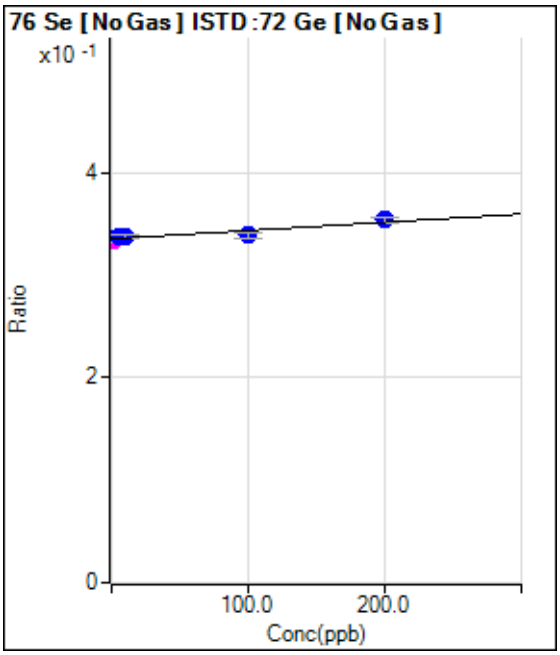


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	337.78	0.0004	P	15.7
2	☐	2.000	2.041	2491.35	0.0033	P	0.5
3	☐	5.000	5.117	5694.56	0.0076	P	0.7
4	☐	10.000	9.787	10620.87	0.0140	P	1.5
5	☐	100.000	100.604	105241.51	0.1401	P	1.0
6	☐	200.000	199.705	209053.25	0.2778	P	0.7

y = 0.0014 * x + 4.4516E-004
R = 1.0000
DL = 0.1505
BEC = 0.3206

Weight: <None>
Min Conc: <None>

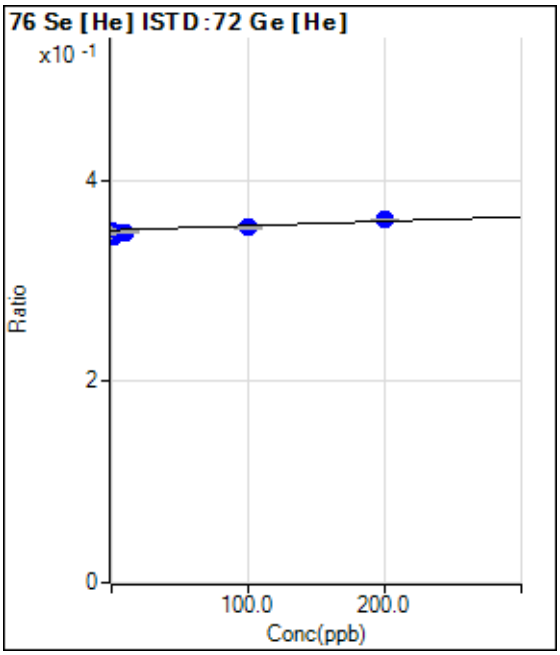
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	997567.46	0.3354	P	1.4
2	☐	2.000	-21.355	992556.86	0.3336	M	1.4
3	☐	5.000	21.184	997083.29	0.3371	P	1.3
4	☐	10.000	28.042	989669.80	0.3376	P	0.7
5	☐	100.000	42.467	999674.23	0.3388	P	1.8
6	☐	200.000	227.694	1026039.23	0.3538	P	1.6

y = 8.0911E-005 * x + 0.3354
R = 0.9347
DL = 176.2
BEC = 4145

Weight: <None>
Min Conc: <None>

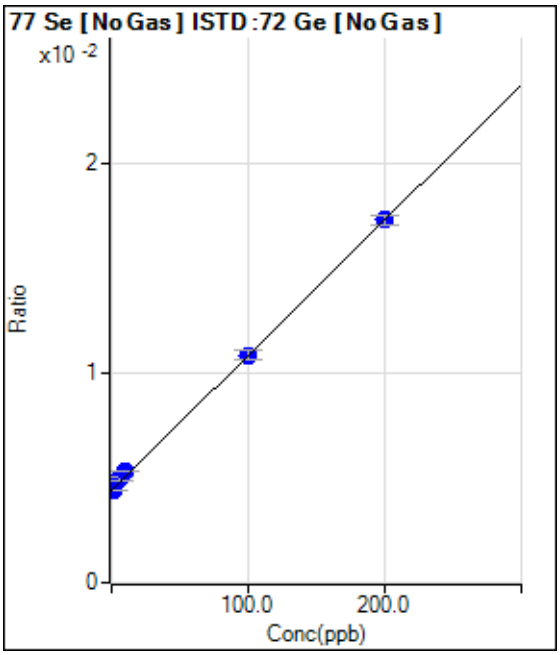


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	265929.23	0.3503	P	1.5
2	☐	2.000	-147.097	261167.92	0.3438	P	1.3
3	☐	5.000	-51.099	262429.81	0.3480	P	1.8
4	☐	10.000	-37.669	263818.78	0.3486	P	0.4
5	☐	100.000	54.105	264861.99	0.3527	P	0.9
6	☐	200.000	228.224	271293.73	0.3604	P	0.6

y = 4.4477E-005 * x + 0.3503
R = 0.9207
DL = 361.2
BEC = 7876

Weight: <None>
Min Conc: <None>

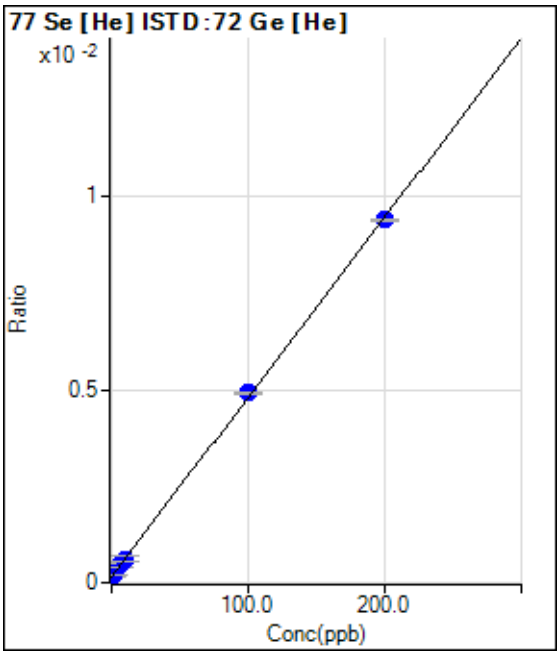
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13093.29	0.0044	P	1.3
2	☐	2.000	0.096	13116.65	0.0044	P	1.5
3	☐	5.000	9.007	14741.64	0.0050	P	4.1
4	☐	10.000	14.358	15629.37	0.0053	P	1.5
5	☐	100.000	100.015	32105.29	0.0109	P	3.9
6	☐	200.000	199.694	50290.70	0.0173	P	2.8

y = 6.4808E-005 * x + 0.0044
R = 0.9996
DL = 2.621
BEC = 67.92

Weight: <None>
Min Conc: <None>

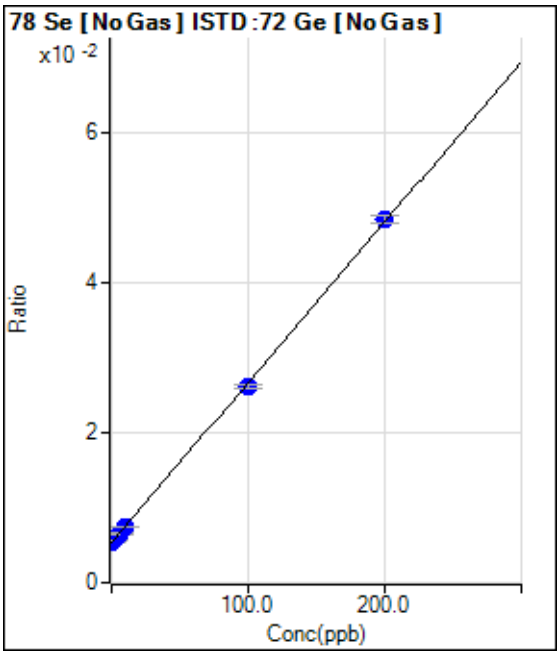


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0002	P	20.4
2	☐	2.000	0.749	143.33	0.0002	P	10.7
3	☐	5.000	6.191	333.34	0.0004	P	14.3
4	☐	10.000	9.917	466.68	0.0006	P	26.7
5	☐	100.000	102.395	3690.59	0.0049	P	1.0
6	☐	200.000	198.790	7071.99	0.0094	P	0.4

y = 4.6492E-005 * x + 1.5383E-004
R = 0.9999
DL = 2.024
BEC = 3.309

Weight: <None>
Min Conc: <None>

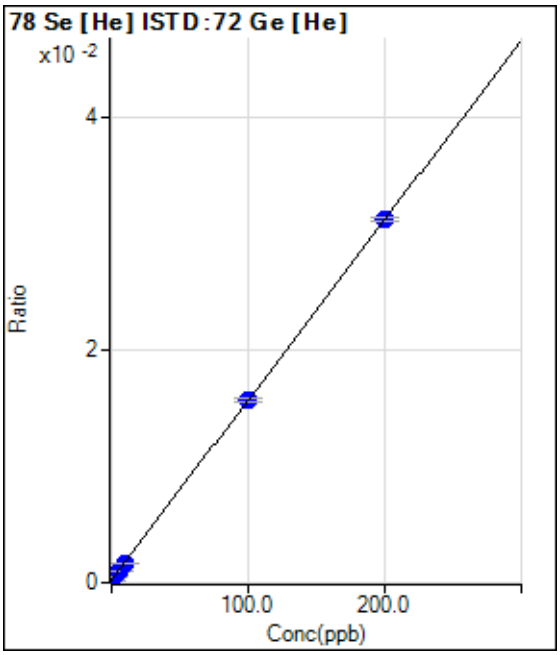
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15873.00	0.0053	P	3.1
2	☐	2.000	1.120	16590.41	0.0056	P	0.9
3	☐	5.000	5.158	19033.75	0.0064	P	5.1
4	☐	10.000	9.713	21714.41	0.0074	P	1.9
5	☐	100.000	97.180	76875.36	0.0261	P	2.5
6	☐	200.000	201.429	140019.18	0.0483	P	2.0

y = 2.1321E-004 * x + 0.0053
R = 0.9999
DL = 2.324
BEC = 25.03

Weight: <None>
Min Conc: <None>

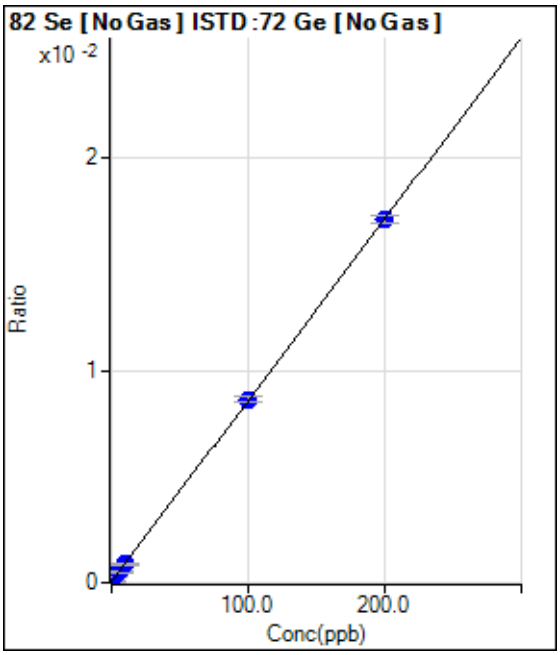


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	173.33	0.0002	P	9.2
2	☐	2.000	1.644	366.68	0.0005	P	9.1
3	☐	5.000	4.791	730.69	0.0010	P	9.3
4	☐	10.000	9.312	1262.73	0.0017	P	3.0
5	☐	100.000	99.755	11758.48	0.0157	P	1.8
6	☐	200.000	200.166	23478.44	0.0312	P	0.9

y = 1.5470E-004 * x + 2.2829E-004
R = 1.0000
DL = 0.4088
BEC = 1.476

Weight: <None>
Min Conc: <None>

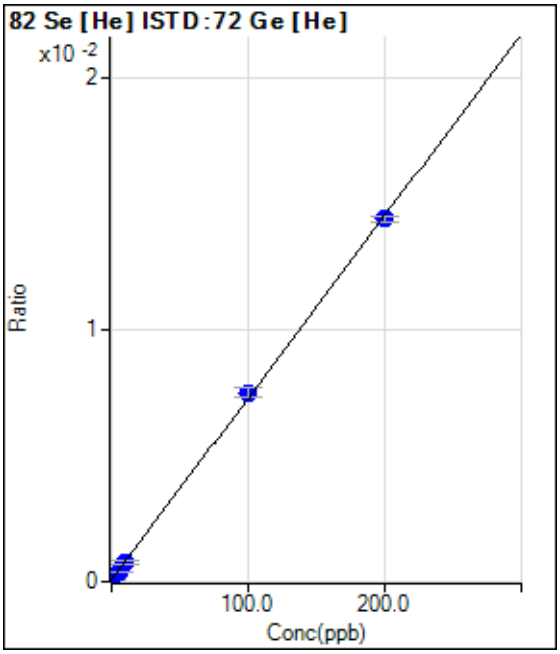
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	124.18	0.0000	P	33.1
2	☐	2.000	2.468	751.07	0.0003	P	13.1
3	☐	5.000	5.431	1494.46	0.0005	P	14.1
4	☐	10.000	9.860	2588.13	0.0009	P	14.6
5	☐	100.000	100.626	25499.75	0.0086	P	3.1
6	☐	200.000	199.678	49617.14	0.0171	P	2.2

y = 8.5483E-005 * x + 4.1700E-005
R = 1.0000
DL = 0.4851
BEC = 0.4878

Weight: <None>
Min Conc: <None>

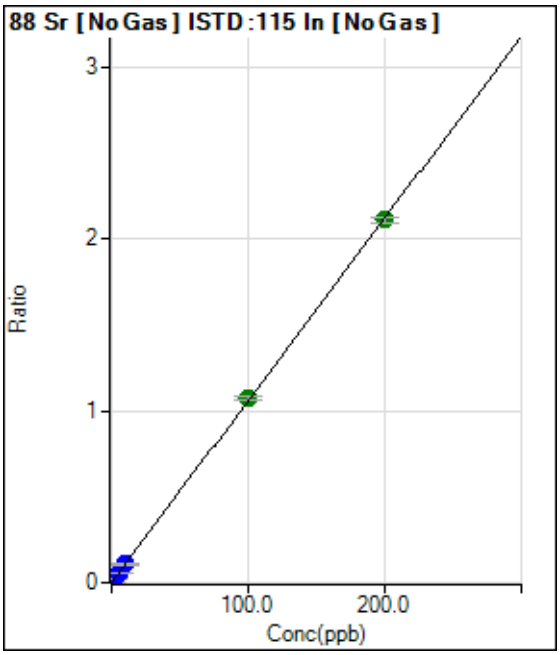


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	30.0
2	☐	2.000	2.669	200.01	0.0003	P	22.9
3	☐	5.000	4.410	293.34	0.0004	P	4.9
4	☐	10.000	10.074	603.36	0.0008	P	18.6
5	☐	100.000	103.113	5647.96	0.0075	P	4.7
6	☐	200.000	198.448	10841.20	0.0144	P	1.2

y = 7.2230E-005 * x + 7.0429E-005
R = 0.9998
DL = 0.878
BEC = 0.9751

Weight: <None>
Min Conc: <None>

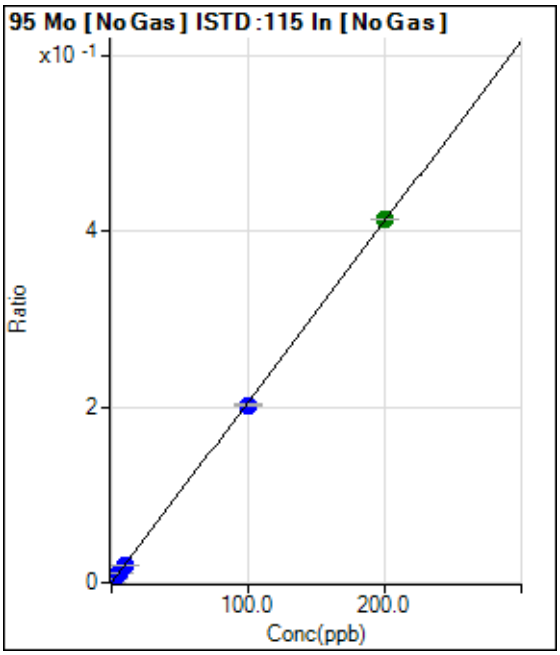
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2847.03	0.0008	P	2.2
2	☐	2.000	1.992	75670.52	0.0219	P	2.4
3	☐	5.000	5.055	183803.17	0.0544	P	1.4
4	☐	10.000	10.061	365912.00	0.1074	P	2.1
5	☐	100.000	101.420	3569733.80	1.0749	A	1.5
6	☐	200.000	199.286	7047688.23	2.1114	A	1.6

y = 0.0106 * x + 8.3727E-004
R = 1.0000
DL = 0.005304
BEC = 0.07906

Weight: <None>
Min Conc: <None>

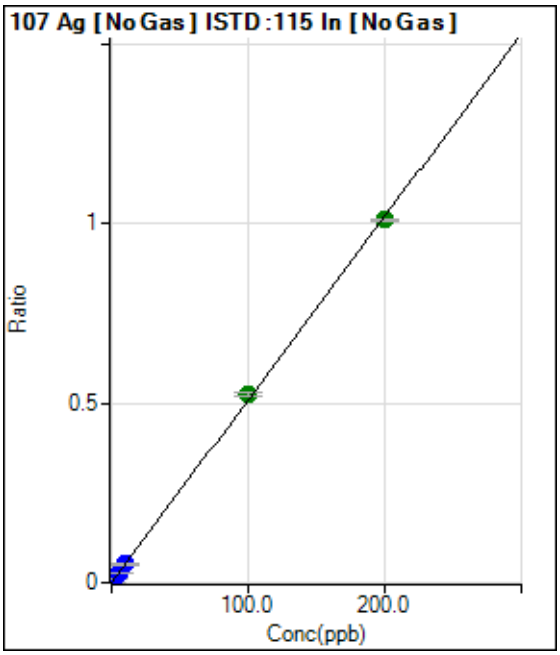


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	423.35	0.0001	P	7.8
2	☐	2.000	1.916	14031.02	0.0041	P	3.3
3	☐	5.000	4.865	34237.61	0.0101	P	2.8
4	☐	10.000	9.600	67688.34	0.0199	P	2.1
5	☐	100.000	98.398	672412.93	0.2025	P	0.9
6	☐	200.000	200.825	1379134.41	0.4131	A	0.1

y = 0.0021 * x + 1.2443E-004
R = 1.0000
DL = 0.01419
BEC = 0.06051

Weight: <None>
Min Conc: <None>

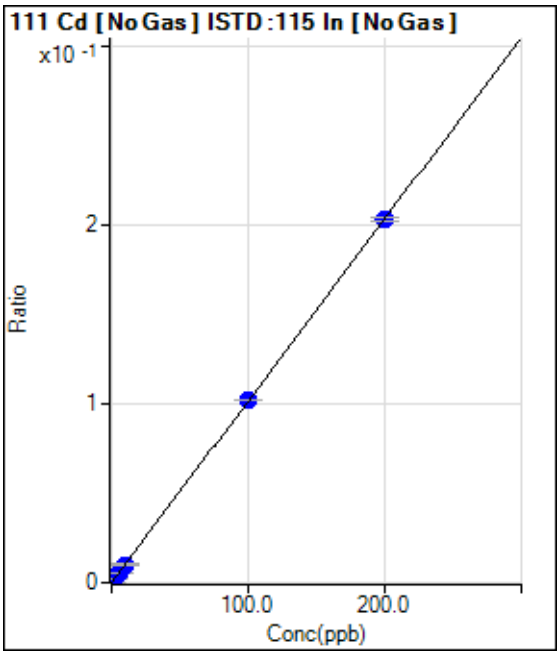
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0000	P	21.5
2	☐	2.000	1.983	34946.68	0.0101	P	1.8
3	☐	5.000	5.130	88438.33	0.0262	P	1.0
4	☐	10.000	10.062	174750.83	0.0513	P	2.0
5	☐	100.000	103.283	1747633.05	0.5262	A	1.7
6	☐	200.000	198.352	3373809.32	1.0106	A	0.4

y = 0.0051 * x + 2.2605E-005
R = 0.9998
DL = 0.002861
BEC = 0.004437

Weight: <None>
Min Conc: <None>

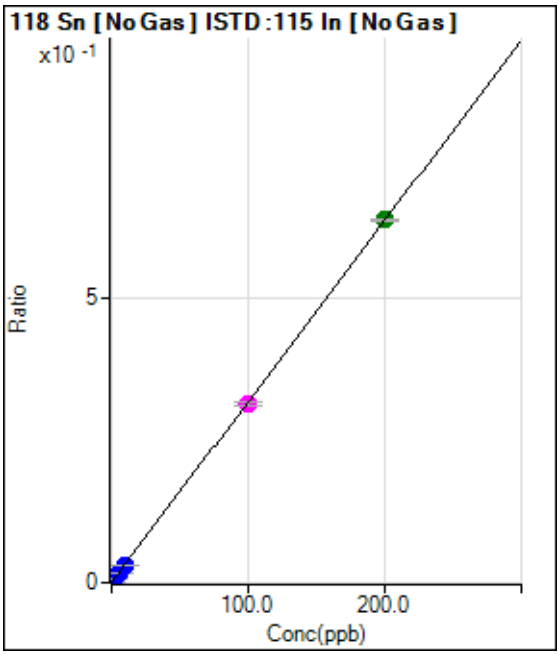


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-4.06	0.0000	P	-632.0
2	☐	2.000	1.966	6893.56	0.0020	P	3.7
3	☐	5.000	5.057	17369.79	0.0051	P	2.2
4	☐	10.000	9.929	34363.73	0.0101	P	3.1
5	☐	100.000	100.703	339759.07	0.1023	P	0.4
6	☐	200.000	199.651	677070.12	0.2028	P	0.9

y = 0.0010 * x - 1.1210E-006
R = 1.0000
DL = 0.02092
BEC = -0.001103

Weight: <None>
Min Conc: <None>

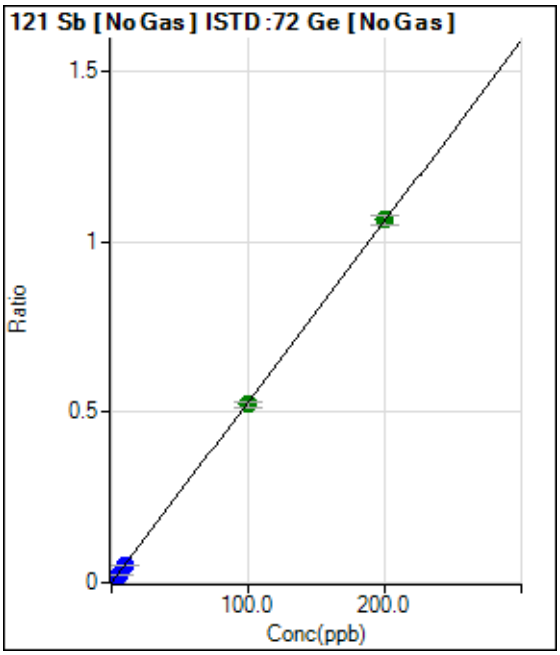
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1786.88	0.0005	P	11.2
2	☐	2.000	1.875	22406.21	0.0065	P	2.8
3	☐	5.000	4.883	54332.49	0.0161	P	2.5
4	☐	10.000	9.668	106647.31	0.0313	P	3.5
5	☐	100.000	98.766	1046191.76	0.3150	M	2.0
6	☐	200.000	200.638	2134477.05	0.6394	A	0.5

y = 0.0032 * x + 5.2500E-004
R = 1.0000
DL = 0.05526
BEC = 0.1649

Weight: <None>
Min Conc: <None>

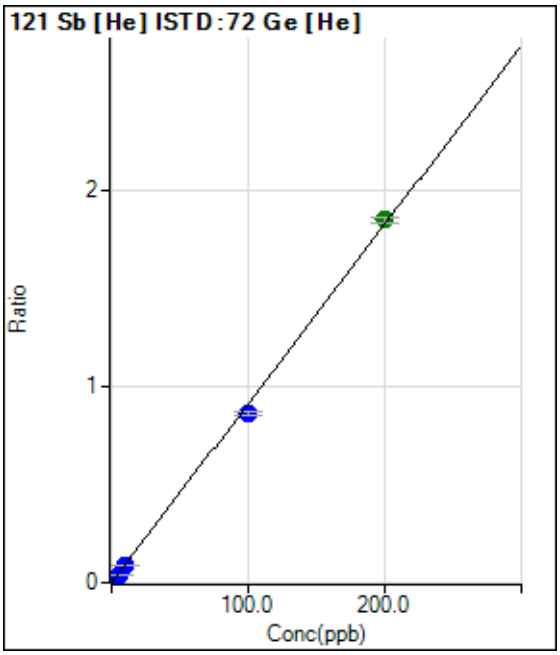


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	376.68	0.0001	P	11.8
2	☐	2.000	1.834	29353.22	0.0099	P	1.6
3	☐	5.000	4.701	74189.57	0.0251	P	1.6
4	☐	10.000	9.379	146289.83	0.0499	P	1.7
5	☐	100.000	98.567	1544084.77	0.5234	A	2.8
6	☐	200.000	200.757	3090888.39	1.0659	A	2.3

y = 0.0053 * x + 1.2673E-004
R = 1.0000
DL = 0.008452
BEC = 0.02387

Weight: <None>
Min Conc: <None>

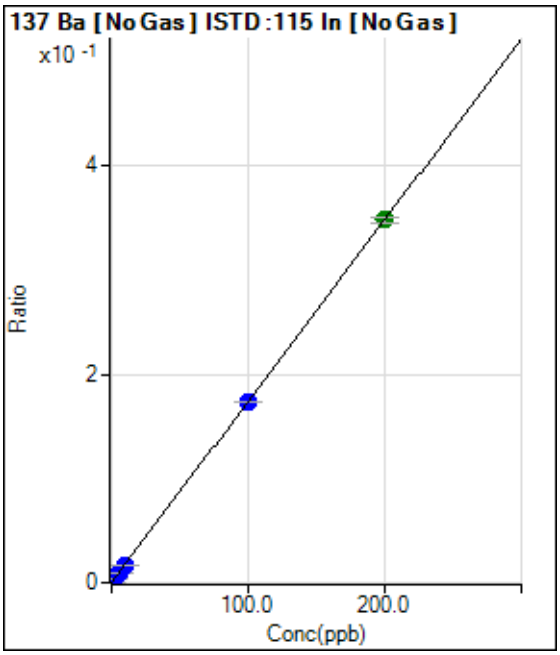
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156.67	0.0002	P	36.6
2	☐	2.000	1.787	12532.88	0.0165	P	4.2
3	☐	5.000	4.556	31471.54	0.0417	P	1.3
4	☐	10.000	9.199	63607.62	0.0841	P	0.3
5	☐	100.000	94.691	648165.60	0.8633	P	2.1
6	☐	200.000	202.708	1390758.63	1.8477	A	1.7

y = 0.0091 * x + 2.0703E-004
R = 0.9995
DL = 0.02497
BEC = 0.02272

Weight: <None>
Min Conc: <None>

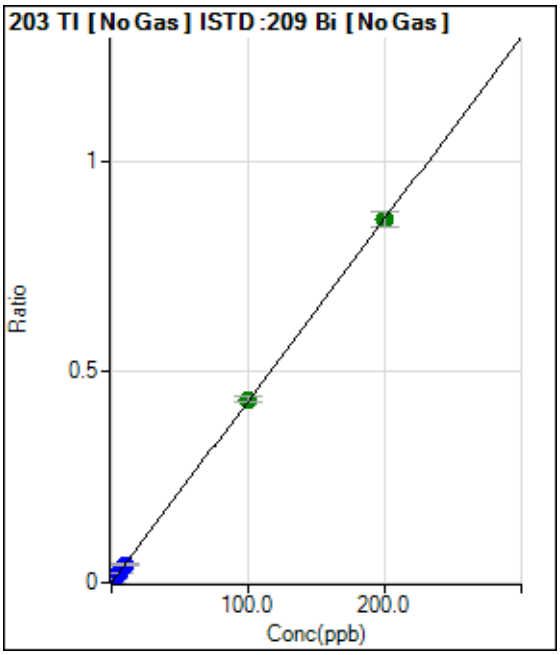


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	836.71	0.0002	P	2.6
2	☐	2.000	1.937	12459.48	0.0036	P	2.6
3	☐	5.000	4.824	29153.02	0.0086	P	2.5
4	☐	10.000	9.631	57849.25	0.0170	P	1.0
5	☐	100.000	99.771	576346.07	0.1735	P	0.3
6	☐	200.000	200.138	1161222.77	0.3479	A	1.8

y = 0.0017 * x + 2.4624E-004
R = 1.0000
DL = 0.01125
BEC = 0.1418

Weight: <None>
Min Conc: <None>

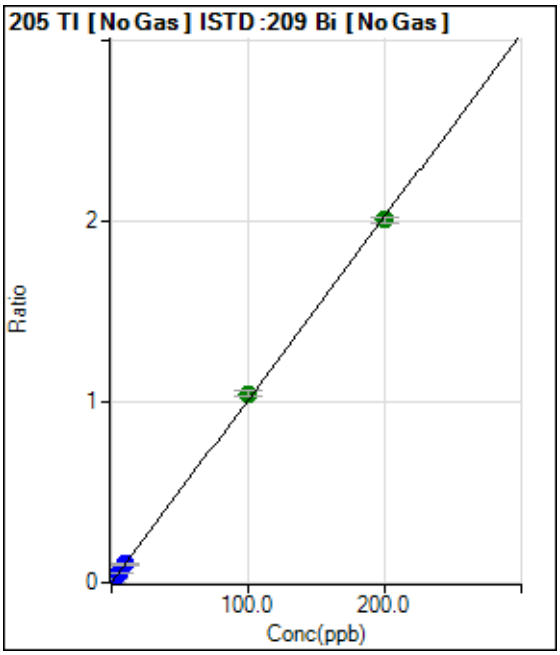
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0000	P	52.3
2	☐	2.000	1.971	24046.80	0.0085	P	3.7
3	☐	5.000	5.001	59669.25	0.0216	P	3.7
4	☐	10.000	9.842	117132.71	0.0425	P	4.2
5	☐	100.000	100.933	1191695.71	0.4354	A	3.1
6	☐	200.000	199.542	2347051.01	0.8607	A	4.1

y = 0.0043 * x + 1.6636E-005
R = 1.0000
DL = 0.006053
BEC = 0.003857

Weight: <None>
Min Conc: <None>

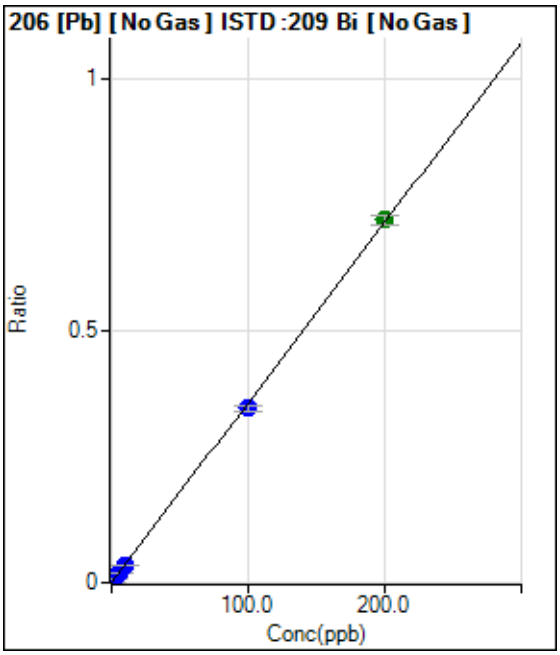


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	146.67	0.0001	P	14.7
2	☐	2.000	1.994	57040.54	0.0202	P	1.7
3	☐	5.000	5.140	143748.60	0.0520	P	4.3
4	☐	10.000	10.113	282135.44	0.1023	P	3.5
5	☐	100.000	103.482	2863957.46	1.0461	A	2.3
6	☐	200.000	198.250	5466401.38	2.0041	A	1.5

y = 0.0101 * x + 5.2628E-005
R = 0.9998
DL = 0.002303
BEC = 0.005206

Weight: <None>
Min Conc: <None>

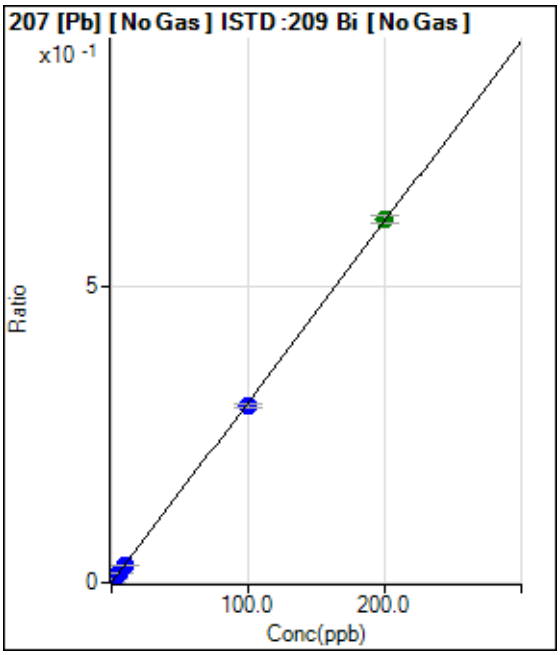
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	200.01	0.0001	P	10.8
2	☐	2.000	2.004	20410.29	0.0072	P	1.0
3	☐	5.000	4.897	48574.86	0.0176	P	1.3
4	☐	10.000	9.594	94765.51	0.0343	P	2.5
5	☐	100.000	96.838	947237.02	0.3460	P	3.0
6	☐	200.000	201.604	1964537.89	0.7203	A	2.5

y = 0.0036 * x + 7.1816E-005
R = 0.9998
DL = 0.006518
BEC = 0.0201

Weight: <None>
Min Conc: <None>

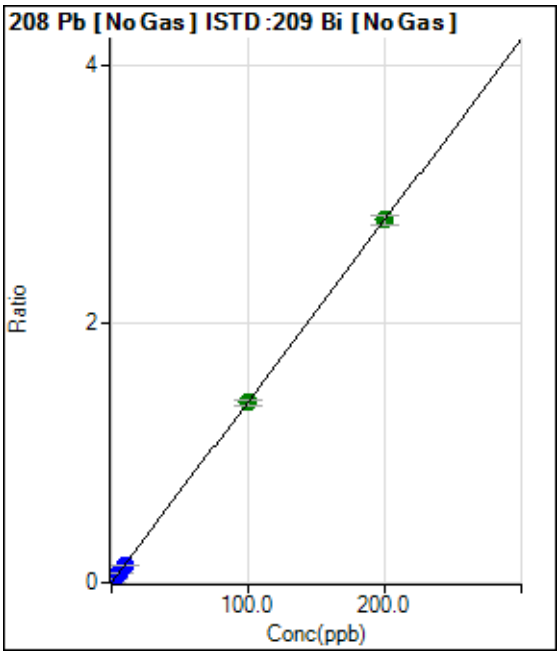


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	173.34	0.0001	P	36.6
2	☐	2.000	1.939	16911.80	0.0060	P	3.5
3	☐	5.000	4.990	42372.23	0.0153	P	1.2
4	☐	10.000	9.708	82086.59	0.0298	P	2.3
5	☐	100.000	98.305	823265.09	0.3007	P	2.4
6	☐	200.000	200.863	1675582.00	0.6143	A	2.0

y = 0.0031 * x + 6.2104E-005
R = 1.0000
DL = 0.02228
BEC = 0.02031

Weight: <None>
Min Conc: <None>

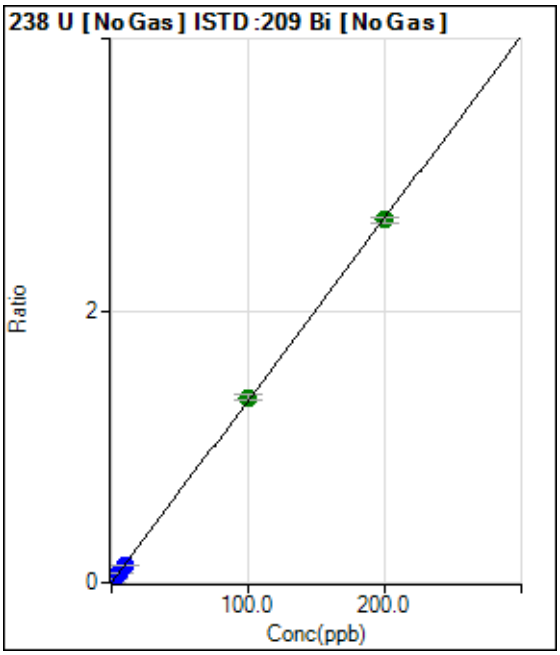
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	800.03	0.0003	P	21.0
2	☐	2.000	1.975	78885.19	0.0279	P	2.0
3	☐	5.000	4.972	193322.93	0.0699	P	1.5
4	☐	10.000	9.795	379280.50	0.1375	P	2.5
5	☐	100.000	99.591	3819059.21	1.3951	A	3.0
6	☐	200.000	200.216	7648615.87	2.8045	A	2.5

y = 0.0140 * x + 2.8716E-004
R = 1.0000
DL = 0.01292
BEC = 0.0205

Weight: <None>
Min Conc: <None>

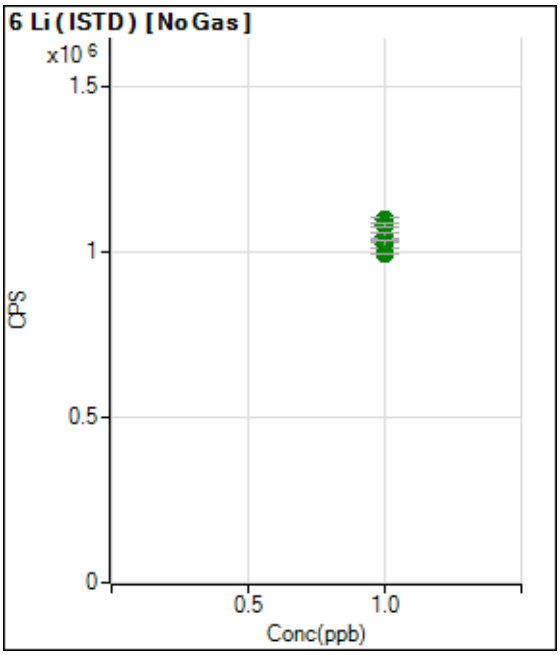


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0000	P	29.7
2	☐	2.000	1.924	72843.14	0.0258	P	0.5
3	☐	5.000	4.917	182184.29	0.0659	P	2.6
4	☐	10.000	9.545	352997.93	0.1279	P	1.6
5	☐	100.000	101.822	3735150.78	1.3644	A	2.2
6	☐	200.000	199.115	7277203.23	2.6680	A	1.8

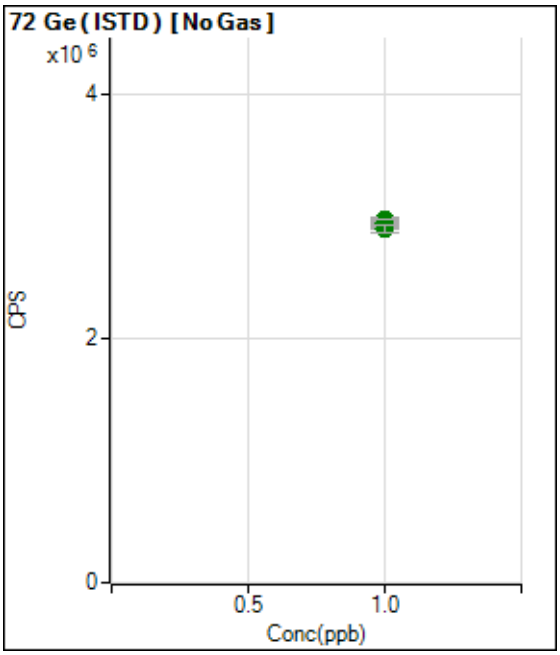
y = 0.0134 * x + 2.3907E-005
R = 0.9999
DL = 0.001588
BEC = 0.001784

Weight: <None>
Min Conc: <None>

Calibration for 206_ICV.d

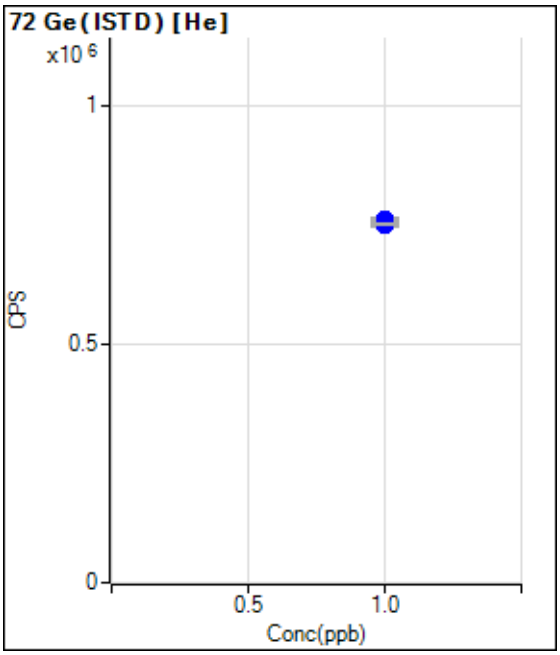


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1094872.39		A	1.4
2	☐	1.000		1078763.89		A	0.9
3	☐	1.000		1044348.09		A	2.8
4	☐	1.000		1046902.64		A	1.7
5	☐	1.000		1021380.09		A	2.1
6	☐	1.000		992856.72		A	0.3

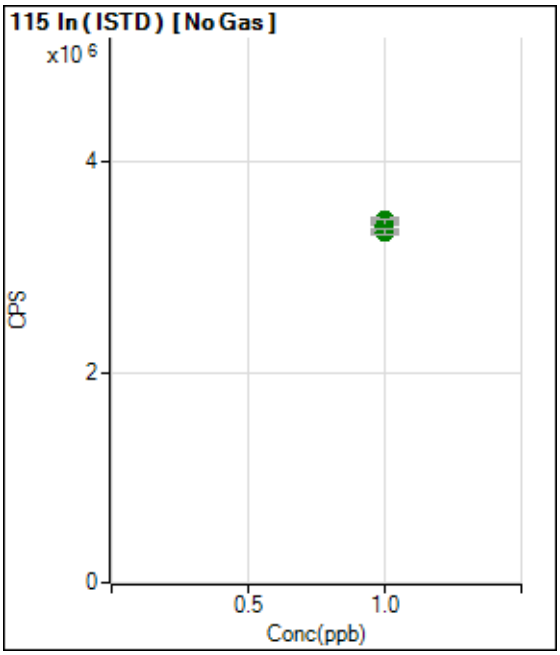


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2974835.68		A	1.6
2	☐	1.000		2975180.69		A	1.2
3	☐	1.000		2958451.10		A	2.0
4	☐	1.000		2931373.29		A	1.9
5	☐	1.000		2951389.85		A	2.3
6	☐	1.000		2900632.98		A	2.1

Calibration for 206_ICV.d

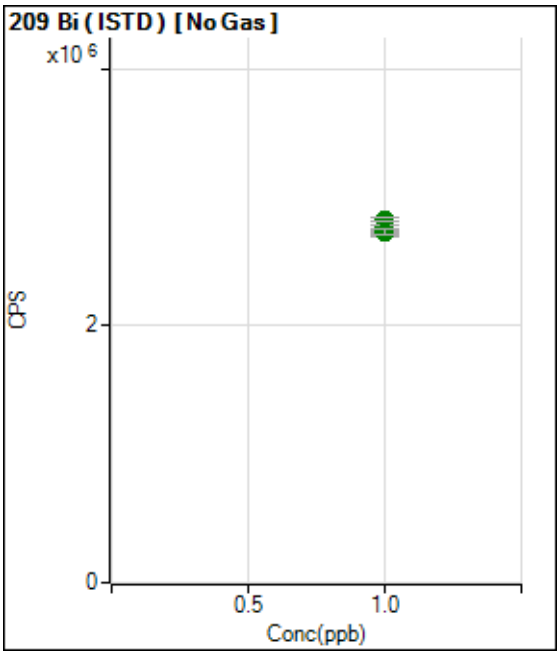


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		759177.98		P	1.3
2	☐	1.000		759752.70		P	0.1
3	☐	1.000		754141.81		P	1.1
4	☐	1.000		756777.39		P	1.7
5	☐	1.000		750962.93		P	1.2
6	☐	1.000		752657.44		P	0.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3399243.06		A	2.3
2	☐	1.000		3451516.99		A	1.8
3	☐	1.000		3381035.34		A	1.6
4	☐	1.000		3408604.39		A	2.7
5	☐	1.000		3321061.29		A	0.7
6	☐	1.000		3338513.00		A	1.7

Calibration for 206_ICV.d



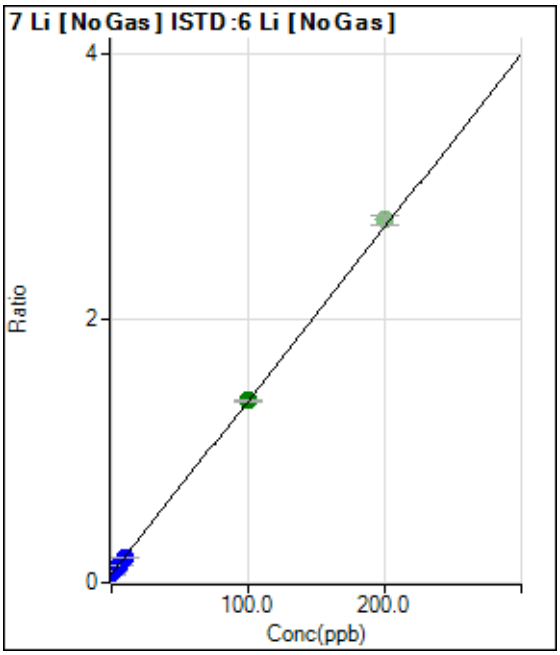
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2779836.00		A	2.7
2	☐	1.000		2822838.91		A	0.9
3	☐	1.000		2765877.25		A	3.0
4	☐	1.000		2760397.67		A	3.6
5	☐	1.000		2738696.00		A	2.9
6	☐	1.000		2728061.52		A	1.8

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071223A.b\
Analysis File: 071223A.batch.bin
DA Date-Time: 7/12/2023 10:19:40 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	014CALB.d	CAL BLK	7/12/2023 1:23:25 PM
2	015CALS.d	2/10/200	7/12/2023 1:25:23 PM
3	016CALS.d	5/25/500	7/12/2023 1:27:31 PM
4	017CALS.d	10/50/100	7/12/2023 1:29:28 PM
5	018CALS.d	100/500/10K	7/12/2023 1:31:23 PM
6	019CALS.d	200/1000/20K	7/12/2023 1:33:15 PM

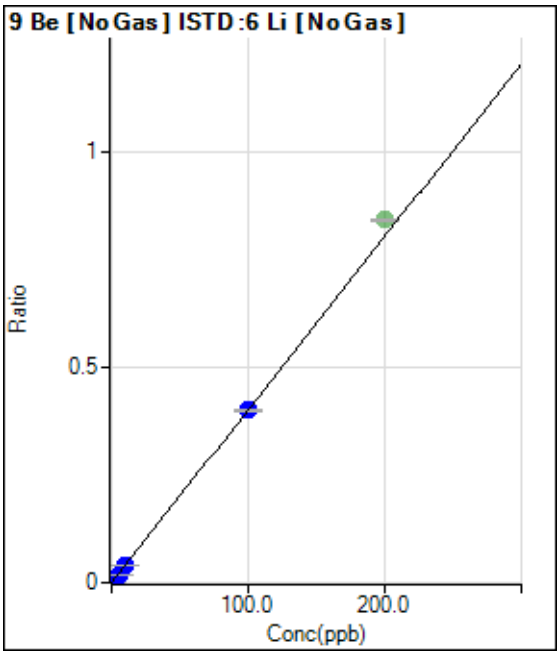
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	85378.29	0.0656	P	1.7
2	☐	2.000	1.854	115833.84	0.0899	P	2.8
3	☐	5.000	4.632	164389.38	0.1264	P	2.5
4	☐	10.000	9.782	244347.66	0.1940	P	1.7
5	☐	100.000	100.043	1679371.96	1.3790	A	0.5
6	☑	200.000		3139403.81	2.7483	A	2.7

y = 0.0131 * x + 0.0656
R = 1.0000
DL = 0.2504
BEC = 4.995

Weight: <None>
Min Conc: <None>

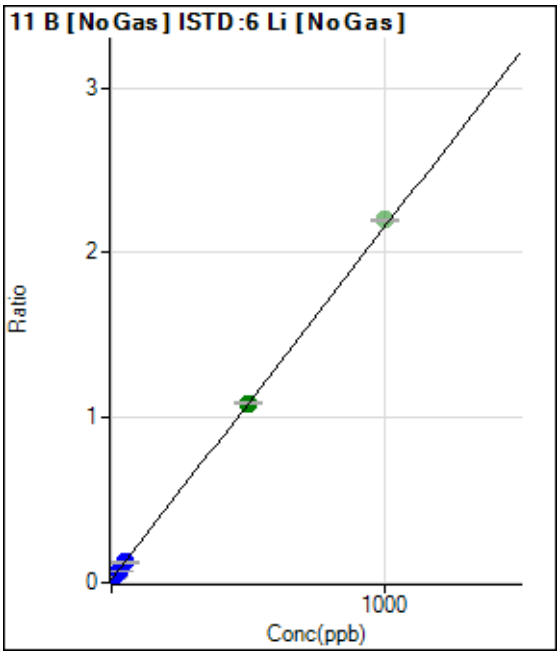


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	17.8
2	☐	2.000	1.874	9721.74	0.0075	P	4.1
3	☐	5.000	4.668	24369.52	0.0187	P	4.6
4	☐	10.000	9.680	48904.61	0.0388	P	1.7
5	☐	100.000	100.051	488234.29	0.4009	P	1.1
6	☑	200.000		960427.88	0.8407	A	0.8

y = 0.0040 * x + 3.8419E-005
R = 1.0000
DL = 0.005131
BEC = 0.009588

Weight: <None>
Min Conc: <None>

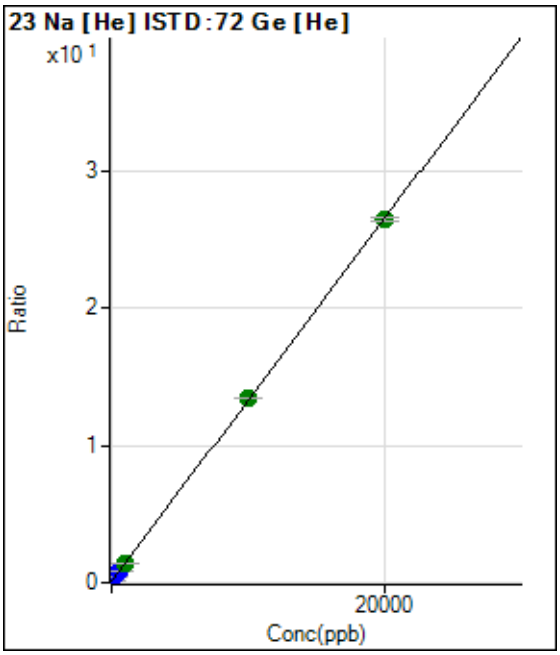
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25072.43	0.0193	P	2.7
2	☐	10.000	9.331	50480.36	0.0392	P	1.7
3	☐	25.000	23.004	88929.11	0.0684	P	3.7
4	☐	50.000	48.364	154341.41	0.1225	P	2.2
5	☐	500.000	500.277	1324521.00	1.0877	A	1.6
6	☑	1000.000		2513455.33	2.2001	A	0.9

y = 0.0021 * x + 0.0193
R = 1.0000
DL = 0.7206
BEC = 9.015

Weight: <None>
Min Conc: <None>

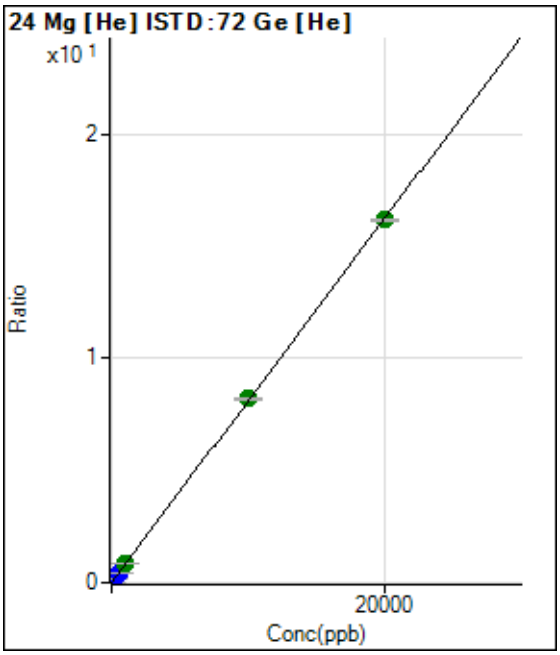


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76710.24	0.0821	P	2.0
2	☐	200.000	209.034	334391.43	0.3589	P	1.0
3	☐	500.000	528.408	731533.76	0.7818	P	2.3
4	☐	1000.000	1042.350	1365248.99	1.4624	A	1.3
5	☐	10000.00	10133.13	12440943.15	13.5006	A	0.5
6	☐	20000.00	19930.51	23905513.81	26.4745	A	0.9

y = 0.0013 * x + 0.0821
R = 1.0000
DL = 3.782
BEC = 62.01

Weight: <None>
Min Conc: <None>

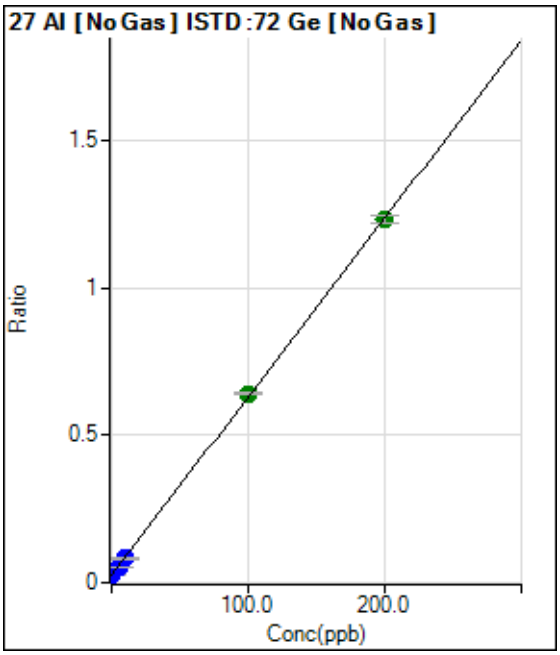
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	743.37	0.0008	P	12.7
2	☐	200.000	213.274	161969.19	0.1739	P	1.9
3	☐	500.000	532.092	404753.26	0.4326	P	1.7
4	☐	1000.000	1043.104	790794.81	0.8472	A	2.5
5	☐	10000.00	10117.20	7565747.60	8.2104	A	0.9
6	☐	20000.00	19938.30	14609836.45	16.1797	A	0.6

y = 8.1145E-004 * x + 7.9523E-004
R = 1.0000
DL = 0.3733
BEC = 0.98

Weight: <None>
Min Conc: <None>

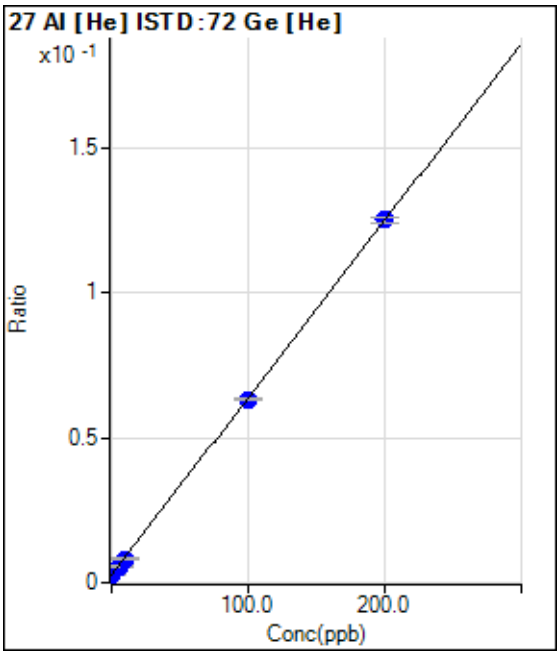


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83954.45	0.0258	P	2.4
2	☐	2.000	2.241	126959.07	0.0394	P	0.8
3	☐	5.000	4.085	164628.12	0.0506	P	2.1
4	☐	10.000	9.350	264208.71	0.0825	P	2.2
5	☐	100.000	101.613	2035439.19	0.6411	A	0.8
6	☐	200.000	199.247	3757942.23	1.2322	A	2.0

y = 0.0061 * x + 0.0258
R = 0.9999
DL = 0.301
BEC = 4.268

Weight: <None>
Min Conc: <None>

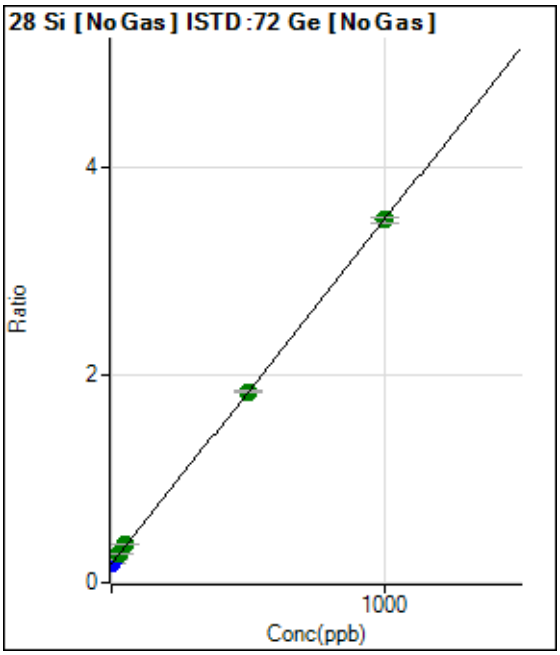
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2553.63	0.0027	P	10.3
2	☐	2.000	2.556	4004.01	0.0043	P	3.2
3	☐	5.000	4.631	5207.73	0.0056	P	4.9
4	☐	10.000	8.916	7638.91	0.0082	P	5.9
5	☐	100.000	99.225	58405.95	0.0634	P	1.4
6	☐	200.000	200.445	113099.90	0.1253	P	1.5

y = 6.1125E-004 * x + 0.0027
R = 1.0000
DL = 1.386
BEC = 4.474

Weight: <None>
Min Conc: <None>

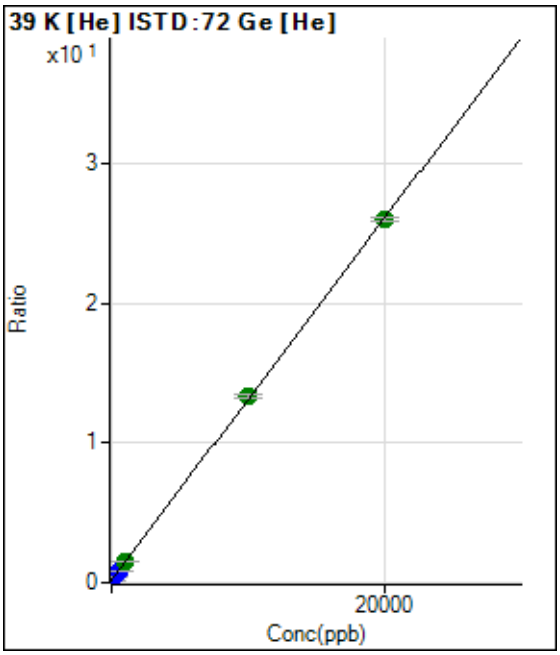


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	584954.59	0.1800	P	1.1
2	☐	10.000	10.565	692772.75	0.2150	P	0.3
3	☐	25.000	30.389	913750.25	0.2807	A	3.0
4	☐	50.000	56.285	1174768.68	0.3666	A	0.9
5	☐	500.000	501.016	5843525.96	1.8405	A	1.9
6	☐	1000.000	999.037	10647792.97	3.4911	A	1.6

y = 0.0033 * x + 0.1800
R = 1.0000
DL = 1.799
BEC = 54.31

Weight: <None>
Min Conc: <None>

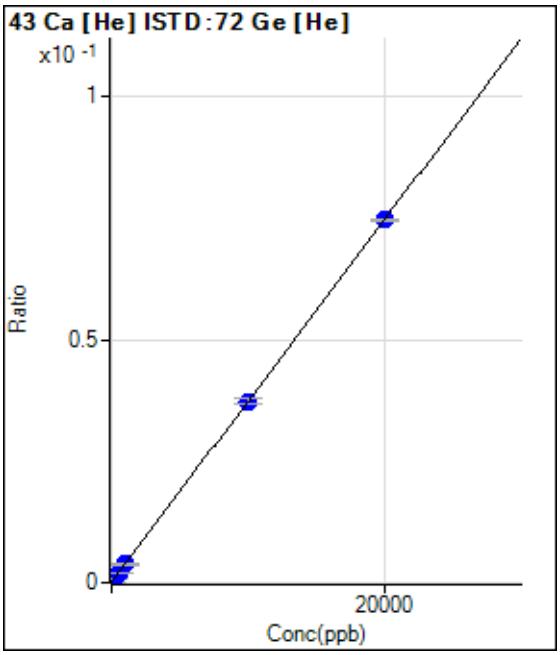
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	174569.59	0.1869	P	1.0
2	☐	200.000	200.772	416560.52	0.4471	P	1.1
3	☐	500.000	510.384	793926.26	0.8485	P	1.2
4	☐	1000.000	1022.546	1411604.72	1.5124	A	1.6
5	☐	10000.00	10156.27	12302748.98	13.3521	A	2.2
6	☐	20000.00	19920.46	23484837.98	26.0091	A	1.0

y = 0.0013 * x + 0.1869
R = 1.0000
DL = 4.185
BEC = 144.2

Weight: <None>
Min Conc: <None>

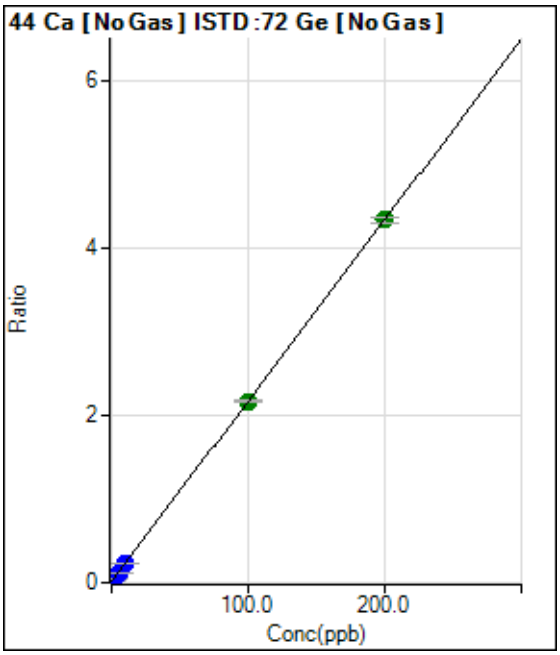


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0001	P	55.8
2	☐	200.000	219.670	836.71	0.0009	P	12.3
3	☐	500.000	522.441	1896.83	0.0020	P	3.8
4	☐	1000.000	1016.003	3610.53	0.0039	P	7.1
5	☐	10000.00	10004.81	34470.20	0.0374	P	3.1
6	☐	20000.00	19996.03	67424.76	0.0747	P	0.6

y = 3.7303E-006 * x + 7.8685E-005
R = 1.0000
DL = 35.33
BEC = 21.09

Weight: <None>
Min Conc: <None>

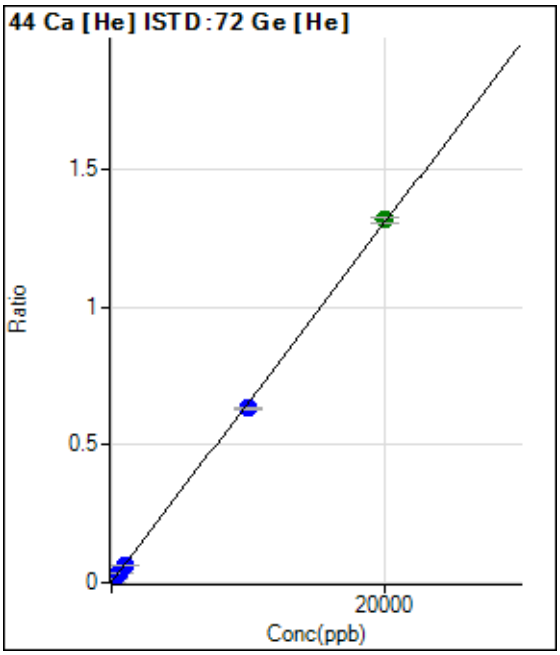
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43663.03	0.0134	P	2.5
2	☐	2.000	1.954	179116.59	0.0556	P	0.9
3	☐	5.000	4.904	388129.98	0.1192	P	1.9
4	☐	10.000	9.936	729906.32	0.2278	P	2.1
5	☐	100.000	99.864	6883284.48	2.1679	A	0.6
6	☐	200.000	200.074	13204588.13	4.3297	A	1.8

y = 0.0216 * x + 0.0134
R = 1.0000
DL = 0.04623
BEC = 0.6229

Weight: <None>
Min Conc: <None>

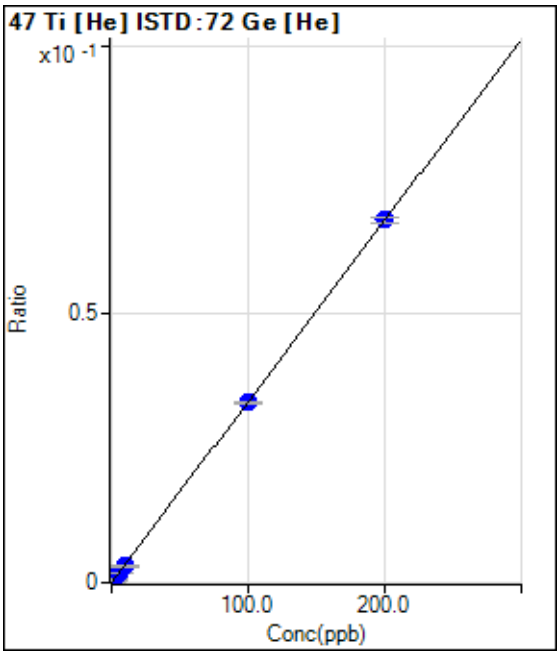


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1373.42	0.0015	P	2.0
2	☐	200.000	183.391	12519.27	0.0134	P	2.5
3	☐	500.000	477.739	30537.54	0.0326	P	5.2
4	☐	1000.000	935.575	58367.04	0.0625	P	0.8
5	☐	10000.00	9665.773	582645.97	0.6323	P	1.0
6	☐	20000.00	20171.05	1189916.63	1.3179	A	1.7

y = 6.5262E-005 * x + 0.0015
R = 0.9998
DL = 1.374
BEC = 22.53

Weight: <None>
Min Conc: <None>

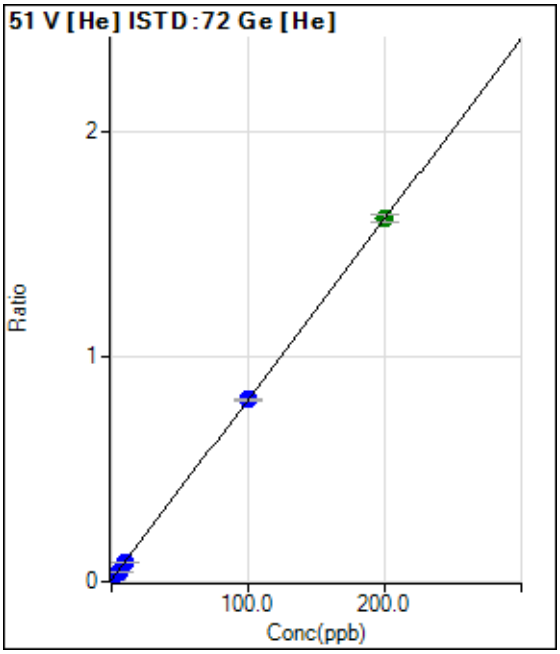
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	86.6
2	☐	2.000	1.572	500.02	0.0005	P	14.7
3	☐	5.000	4.861	1540.11	0.0016	P	3.0
4	☐	10.000	9.106	2870.35	0.0031	P	3.8
5	☐	100.000	99.347	30858.36	0.0335	P	0.9
6	☐	200.000	200.379	60975.58	0.0675	P	1.2

y = 3.3698E-004 * x + 7.1103E-006
R = 1.0000
DL = 0.05484
BEC = 0.0211

Weight: <None>
Min Conc: <None>

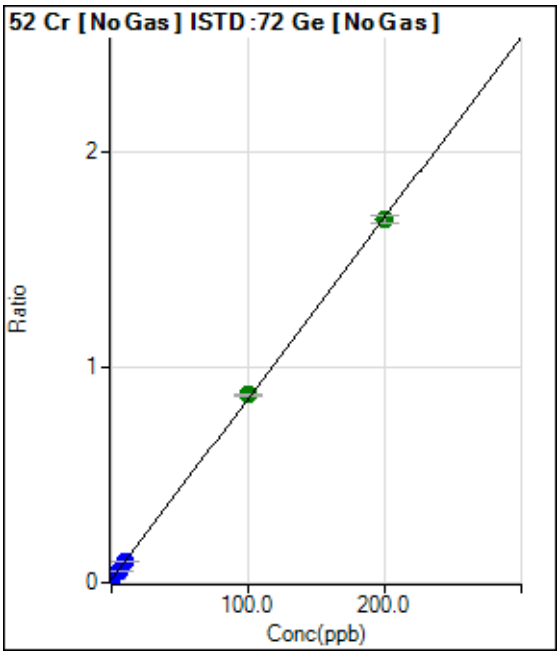


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6807.28	0.0073	P	4.2
2	☐	2.000	1.998	21724.99	0.0233	P	1.2
3	☐	5.000	4.863	43319.34	0.0463	P	1.9
4	☐	10.000	9.652	79075.62	0.0847	P	0.4
5	☐	100.000	99.943	745470.52	0.8090	P	0.7
6	☐	200.000	200.049	1455428.73	1.6120	A	2.1

y = 0.0080 * x + 0.0073
R = 1.0000
DL = 0.1143
BEC = 0.9087

Weight: <None>
Min Conc: <None>

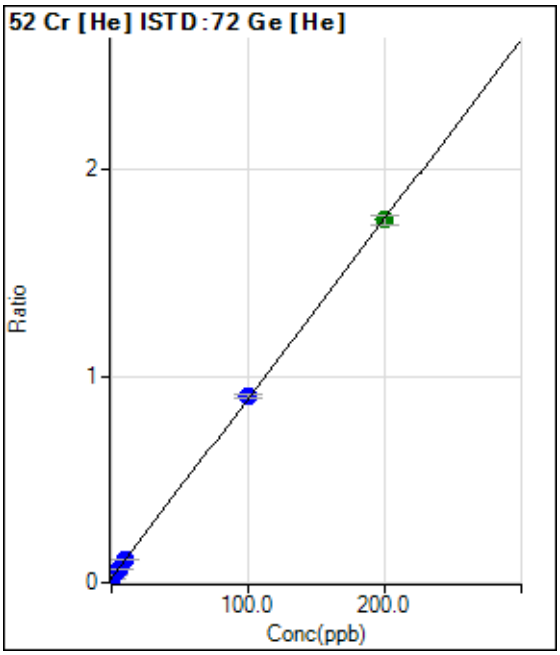
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46847.14	0.0144	P	4.2
2	☐	2.000	2.049	101810.06	0.0316	P	0.7
3	☐	5.000	5.001	183462.63	0.0564	P	2.4
4	☐	10.000	10.165	319326.58	0.0997	P	2.6
5	☐	100.000	102.287	2769193.19	0.8722	A	1.2
6	☐	200.000	198.848	5129467.74	1.6819	A	2.0

y = 0.0084 * x + 0.0144
R = 0.9999
DL = 0.2147
BEC = 1.72

Weight: <None>
Min Conc: <None>

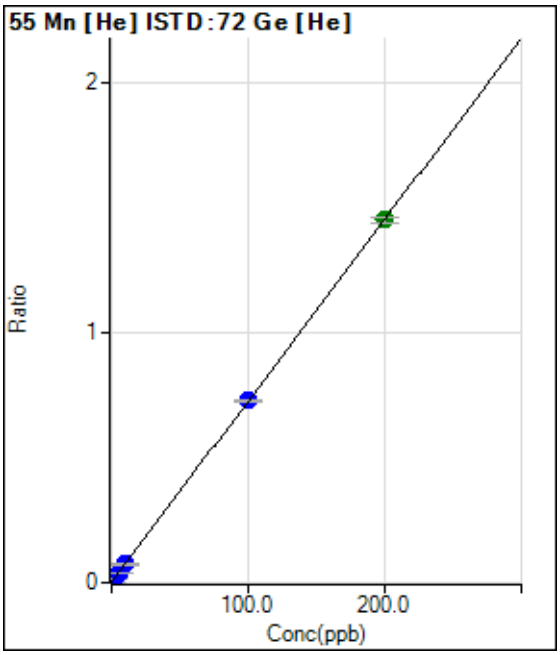


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20802.74	0.0223	P	4.9
2	☐	2.000	2.118	37909.60	0.0407	P	3.0
3	☐	5.000	5.089	62258.44	0.0665	P	1.6
4	☐	10.000	10.274	104190.96	0.1116	P	1.5
5	☐	100.000	100.928	829324.86	0.9001	P	2.1
6	☐	200.000	199.519	1586893.10	1.7576	A	2.8

y = 0.0087 * x + 0.0223
R = 1.0000
DL = 0.3777
BEC = 2.561

Weight: <None>
Min Conc: <None>

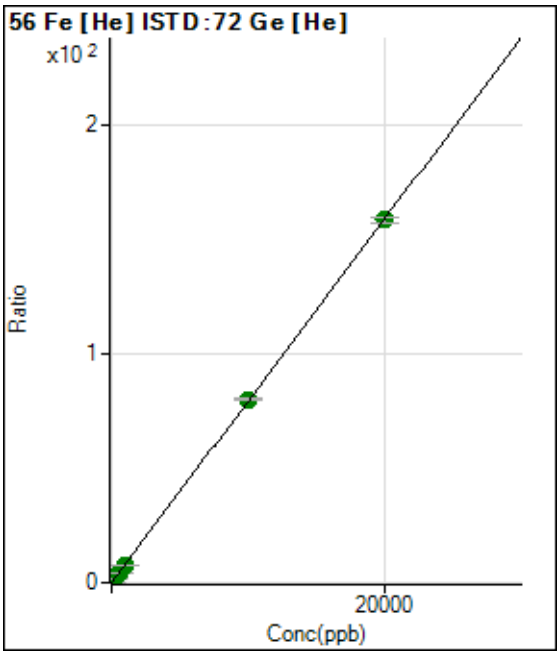
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1473.44	0.0016	P	5.6
2	☐	2.000	2.026	15128.60	0.0162	P	2.7
3	☐	5.000	4.911	34724.48	0.0371	P	2.7
4	☐	10.000	9.885	68247.04	0.0731	P	1.7
5	☐	100.000	100.090	668888.43	0.7259	P	0.8
6	☐	200.000	199.963	1307996.31	1.4486	A	1.3

y = 0.0072 * x + 0.0016
R = 1.0000
DL = 0.0364
BEC = 0.2179

Weight: <None>
Min Conc: <None>

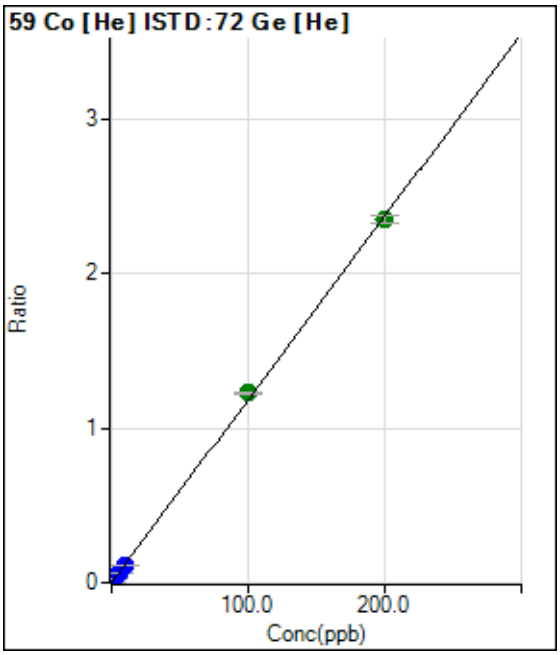


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24599.12	0.0263	P	2.4
2	☐	200.000	208.302	1562587.22	1.6773	A	2.2
3	☐	500.000	503.817	3760718.90	4.0194	A	2.1
4	☐	1000.000	977.114	7253295.10	7.7706	A	0.9
5	☐	10000.00	10078.52	73629293.90	79.9052	A	1.4
6	☐	20000.00	19961.70	142875487.8	158.235	A	1.8

y = 0.0079 * x + 0.0263
R = 1.0000
DL = 0.2356
BEC = 3.323

Weight: <None>
Min Conc: <None>

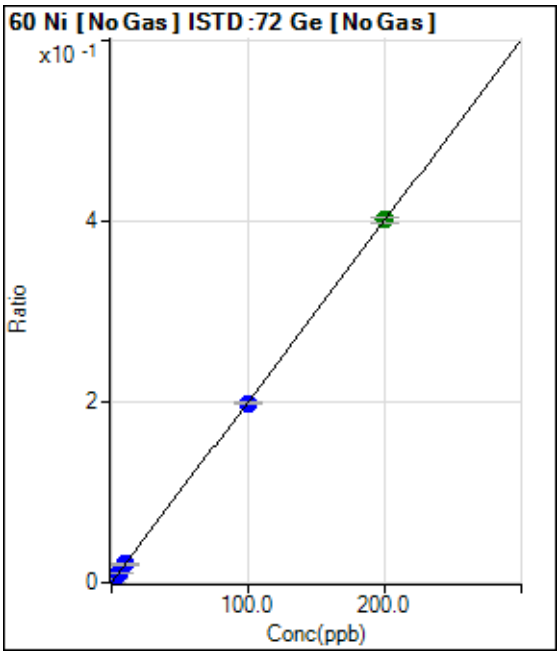
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.01	0.0002	P	40.9
2	☐	2.000	1.961	21737.64	0.0233	P	3.7
3	☐	5.000	4.958	54994.69	0.0588	P	2.0
4	☐	10.000	9.761	107874.73	0.1156	P	1.8
5	☐	100.000	103.604	1129175.45	1.2253	A	0.8
6	☐	200.000	198.211	2116487.62	2.3440	A	2.1

y = 0.0118 * x + 1.5038E-004
R = 0.9998
DL = 0.01559
BEC = 0.01272

Weight: <None>
Min Conc: <None>

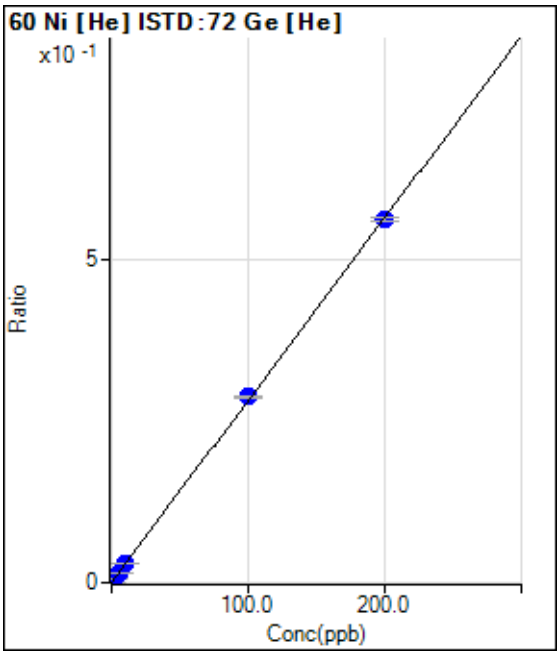


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	666.70	0.0002	P	8.6
2	☐	2.000	2.018	13667.06	0.0042	P	3.3
3	☐	5.000	5.038	33478.15	0.0103	P	0.6
4	☐	10.000	10.107	65426.56	0.0204	P	2.3
5	☐	100.000	99.163	630401.21	0.1985	P	0.4
6	☐	200.000	200.412	1223261.05	0.4011	A	1.4

y = 0.0020 * x + 2.0503E-004
R = 1.0000
DL = 0.02636
BEC = 0.1025

Weight: <None>
Min Conc: <None>

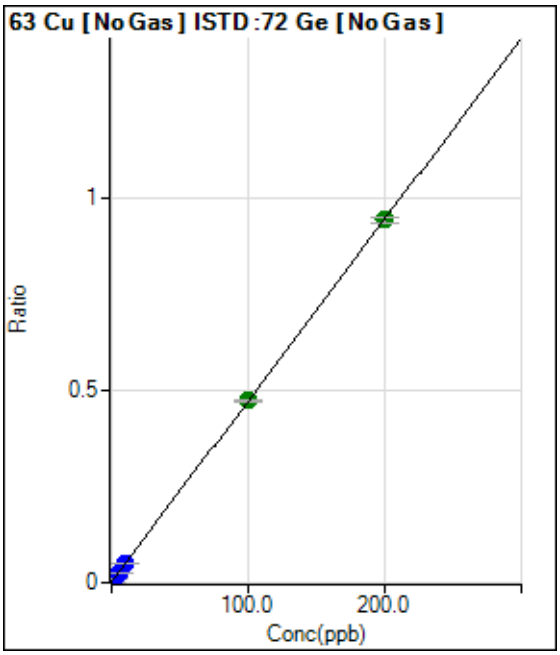
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	300.01	0.0003	P	31.2
2	☐	2.000	2.058	5717.94	0.0061	P	1.5
3	☐	5.000	5.044	13637.06	0.0146	P	1.7
4	☐	10.000	10.210	27224.30	0.0292	P	3.7
5	☐	100.000	101.806	265351.64	0.2880	P	1.5
6	☐	200.000	199.085	508183.51	0.5628	P	1.2

y = 0.0028 * x + 3.2204E-004
R = 0.9999
DL = 0.1066
BEC = 0.114

Weight: <None>
Min Conc: <None>

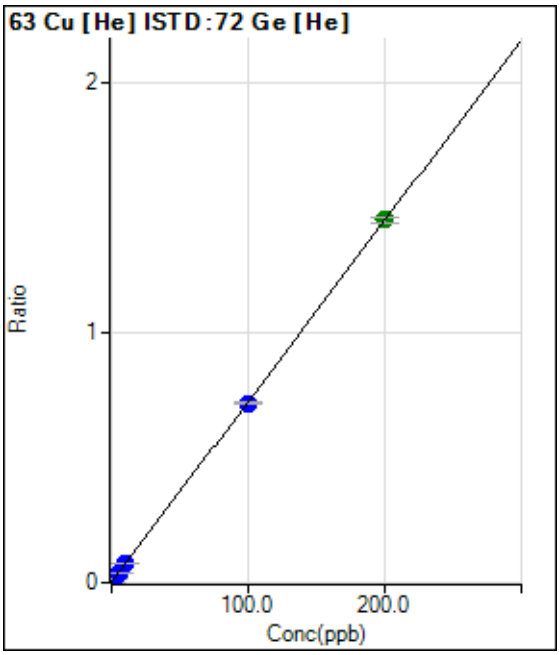


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5821.36	0.0018	P	2.2
2	☐	2.000	2.229	39688.22	0.0123	P	1.9
3	☐	5.000	4.888	81000.50	0.0249	P	1.8
4	☐	10.000	10.094	158451.68	0.0495	P	3.1
5	☐	100.000	100.293	1509495.14	0.4754	A	1.1
6	☐	200.000	199.849	2883848.60	0.9456	A	1.3

y = 0.0047 * x + 0.0018
R = 1.0000
DL = 0.02483
BEC = 0.3793

Weight: <None>
Min Conc: <None>

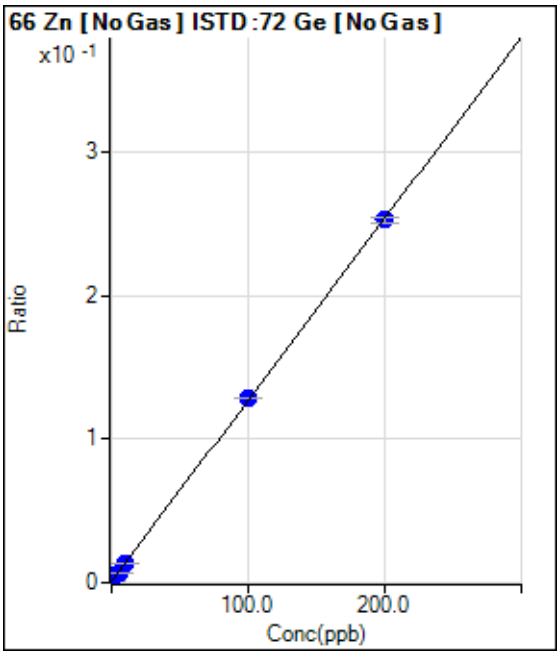
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2343.58	0.0025	P	3.5
2	☐	2.000	2.189	17047.70	0.0183	P	5.6
3	☐	5.000	4.944	35703.80	0.0382	P	2.6
4	☐	10.000	9.947	69296.26	0.0742	P	1.0
5	☐	100.000	98.869	659279.55	0.7155	P	1.2
6	☐	200.000	200.568	1308212.79	1.4489	A	1.3

y = 0.0072 * x + 0.0025
R = 1.0000
DL = 0.03693
BEC = 0.3479

Weight: <None>
Min Conc: <None>

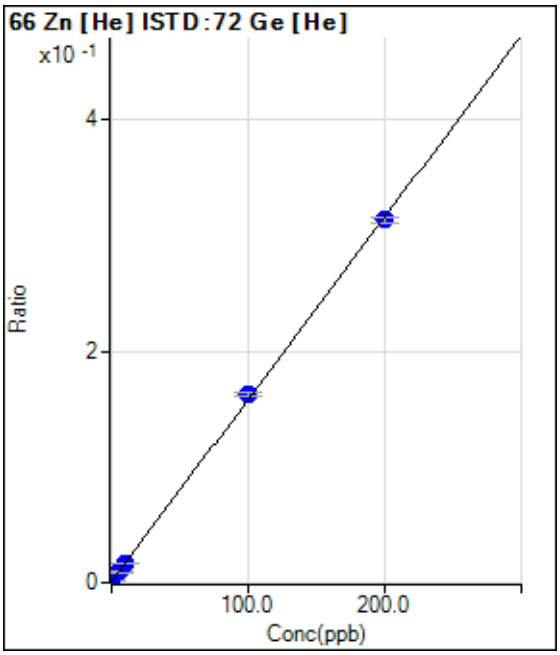


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2893.70	0.0009	P	5.7
2	☐	2.000	3.426	16810.63	0.0052	P	4.3
3	☐	5.000	4.811	22686.01	0.0070	P	0.5
4	☐	10.000	10.250	44352.56	0.0138	P	0.7
5	☐	100.000	101.204	408728.26	0.1287	P	0.1
6	☐	200.000	199.376	770811.11	0.2527	P	1.4

y = 0.0013 * x + 8.9020E-004
R = 1.0000
DL = 0.1209
BEC = 0.7047

Weight: <None>
Min Conc: <None>

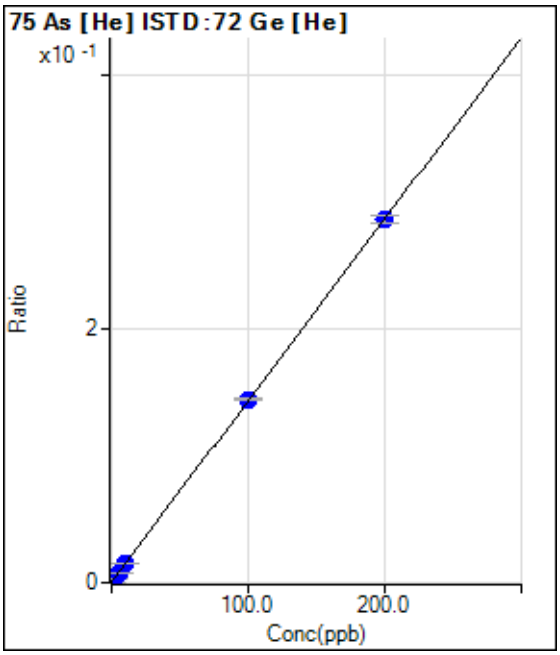
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1016.73	0.0011	P	6.0
2	☐	2.000	3.565	6234.87	0.0067	P	1.4
3	☐	5.000	5.131	8566.21	0.0092	P	1.3
4	☐	10.000	10.114	15856.17	0.0170	P	3.1
5	☐	100.000	102.696	149728.96	0.1625	P	1.7
6	☐	200.000	198.627	282870.90	0.3133	P	1.3

y = 0.0016 * x + 0.0011
R = 0.9999
DL = 0.1244
BEC = 0.6922

Weight: <None>
Min Conc: <None>

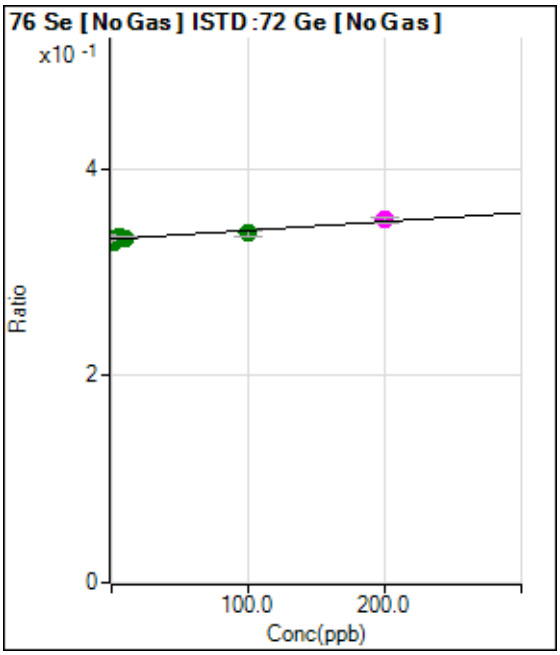


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	434.45	0.0005	P	14.8
2	☐	2.000	2.007	3100.38	0.0033	P	0.7
3	☐	5.000	5.047	7171.94	0.0077	P	3.5
4	☐	10.000	9.853	13555.73	0.0145	P	0.8
5	☐	100.000	100.675	132777.85	0.1441	P	1.2
6	☐	200.000	199.669	257617.15	0.2853	P	2.0

y = 0.0014 * x + 4.6453E-004
R = 1.0000
DL = 0.1445
BEC = 0.3256

Weight: <None>
Min Conc: <None>

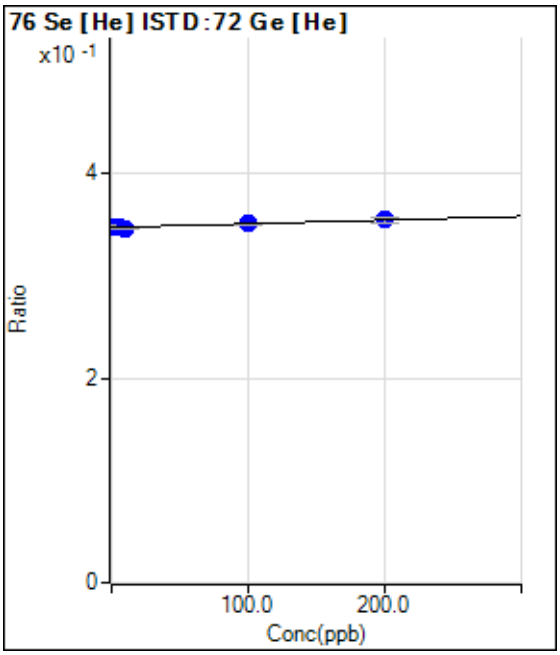
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1079024.73	0.3321	A	2.0
2	☐	2.000	-30.798	1061398.63	0.3294	A	0.6
3	☐	5.000	18.598	1086387.95	0.3337	A	1.8
4	☐	10.000	15.367	1068735.40	0.3334	A	0.8
5	☐	100.000	63.861	1071719.41	0.3375	A	1.9
6	☐	200.000	217.789	1069761.94	0.3507	M	1.6

y = 8.5518E-005 * x + 0.3321
R = 0.9659
DL = 234.6
BEC = 3883

Weight: <None>
Min Conc: <None>

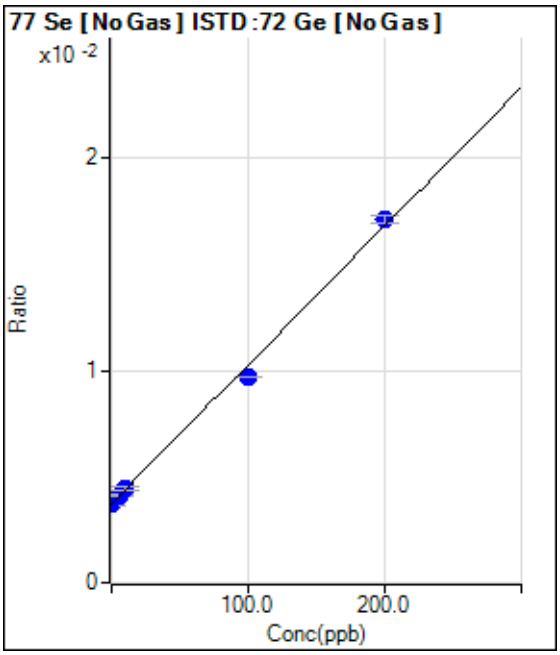


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	324364.97	0.3472	P	1.1
2	☐	2.000	21.991	324178.31	0.3480	P	1.6
3	☐	5.000	-4.087	324730.82	0.3470	P	0.9
4	☐	10.000	-38.858	322758.39	0.3458	P	0.3
5	☐	100.000	102.152	323324.84	0.3509	P	0.4
6	☐	200.000	201.394	320044.64	0.3545	P	1.7

y = 3.6152E-005 * x + 0.3472
R = 0.9670
DL = 318.9
BEC = 9603

Weight: <None>
Min Conc: <None>

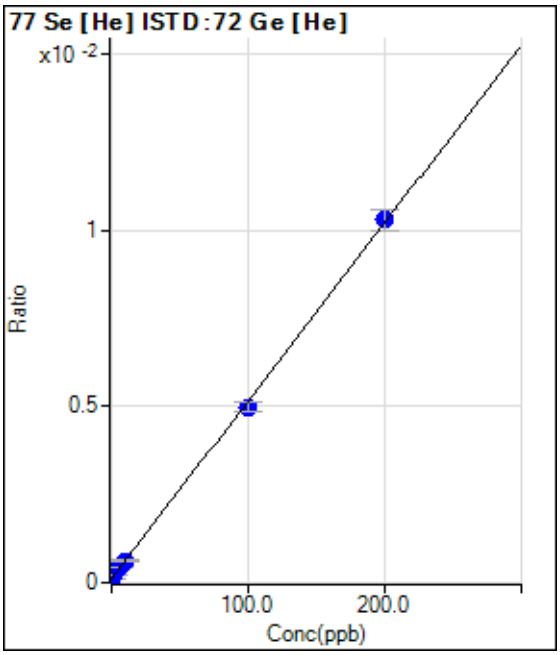
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12125.67	0.0037	P	4.4
2	☐	2.000	3.597	12782.94	0.0040	P	2.8
3	☐	5.000	5.854	13400.22	0.0041	P	2.8
4	☐	10.000	11.237	14311.13	0.0045	P	3.3
5	☐	100.000	91.178	30782.20	0.0097	P	0.9
6	☐	200.000	204.312	52127.81	0.0171	P	2.1

y = 6.5393E-005 * x + 0.0037
R = 0.9985
DL = 7.544
BEC = 57.08

Weight: <None>
Min Conc: <None>

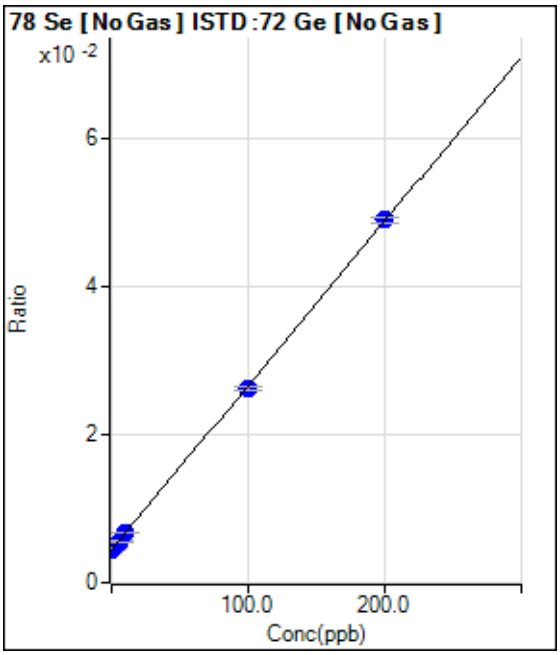


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0001	P	27.8
2	☐	2.000	2.056	203.34	0.0002	P	11.6
3	☐	5.000	6.479	413.34	0.0004	P	9.0
4	☐	10.000	9.834	570.02	0.0006	P	8.4
5	☐	100.000	96.299	4587.54	0.0050	P	5.4
6	☐	200.000	201.821	9303.42	0.0103	P	5.6

y = 5.0497E-005 * x + 1.1432E-004
R = 0.9997
DL = 1.887
BEC = 2.264

Weight: <None>
Min Conc: <None>

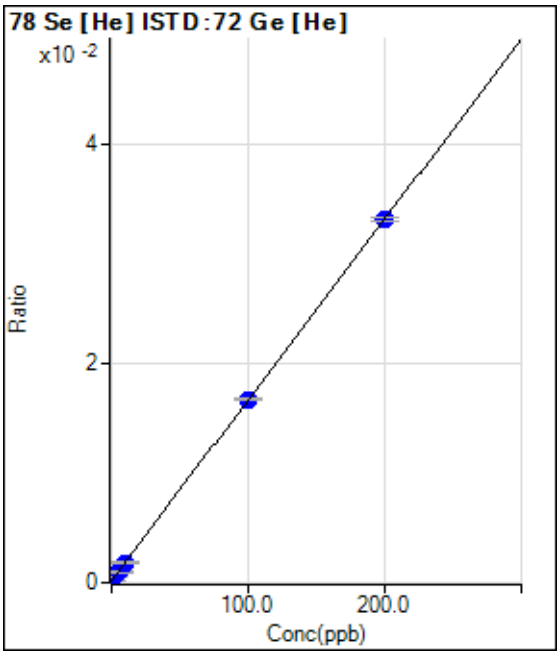
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14478.04	0.0045	P	1.1
2	☐	2.000	1.138	15165.38	0.0047	P	4.6
3	☐	5.000	4.688	17878.70	0.0055	P	6.0
4	☐	10.000	10.270	21577.63	0.0067	P	2.2
5	☐	100.000	98.373	83471.52	0.0263	P	1.7
6	☐	200.000	200.816	149522.52	0.0490	P	1.3

y = 2.2195E-004 * x + 0.0045
R = 0.9999
DL = 0.6354
BEC = 20.07

Weight: <None>
Min Conc: <None>

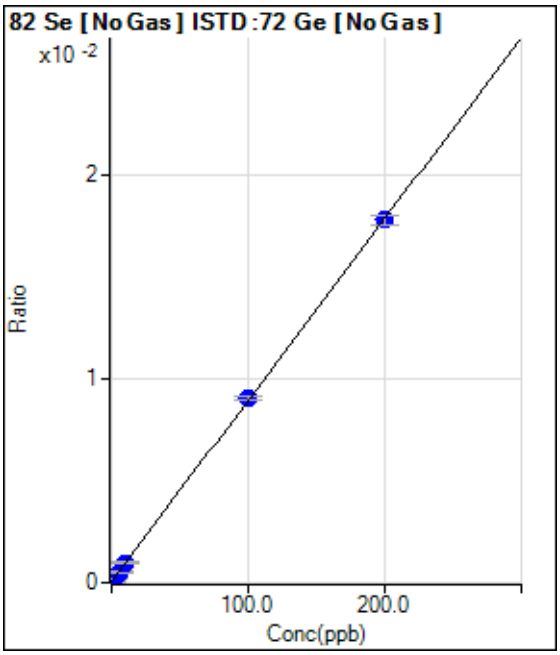


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	182.67	0.0002	P	17.4
2	☐	2.000	2.136	510.01	0.0005	P	8.6
3	☐	5.000	4.849	930.70	0.0010	P	6.7
4	☐	10.000	9.831	1694.11	0.0018	P	7.0
5	☐	100.000	100.519	15426.83	0.0167	P	0.6
6	☐	200.000	199.751	29863.65	0.0331	P	1.2

y = 1.6460E-004 * x + 1.9575E-004
R = 1.0000
DL = 0.62
BEC = 1.189

Weight: <None>
Min Conc: <None>

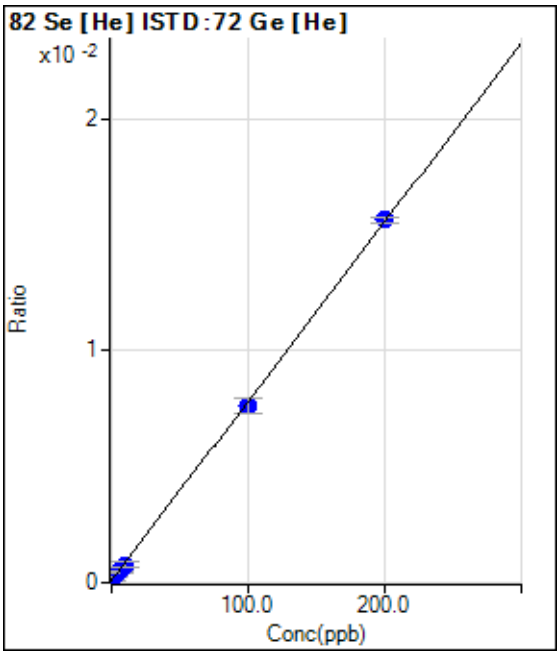
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	198.02	0.0001	P	67.1
2	☐	2.000	1.809	714.55	0.0002	P	17.1
3	☐	5.000	5.124	1684.38	0.0005	P	4.9
4	☐	10.000	10.200	3101.71	0.0010	P	9.1
5	☐	100.000	100.869	28719.13	0.0090	P	2.2
6	☐	200.000	199.554	54385.48	0.0178	P	2.6

y = 8.9065E-005 * x + 6.0599E-005
R = 1.0000
DL = 1.37
BEC = 0.6804

Weight: <None>
Min Conc: <None>

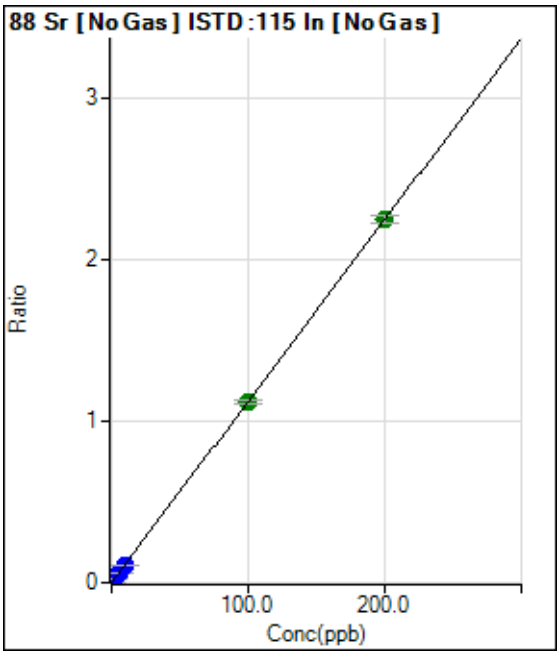


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.33	0.0001	P	42.2
2	☐	2.000	1.536	203.34	0.0002	P	7.0
3	☐	5.000	4.758	436.68	0.0005	P	8.0
4	☐	10.000	8.761	723.37	0.0008	P	25.0
5	☐	100.000	97.613	7031.97	0.0076	P	8.4
6	☐	200.000	201.266	14120.96	0.0156	P	1.9

y = 7.7208E-005 * x + 9.9593E-005
R = 0.9999
DL = 1.634
BEC = 1.29

Weight: <None>
Min Conc: <None>

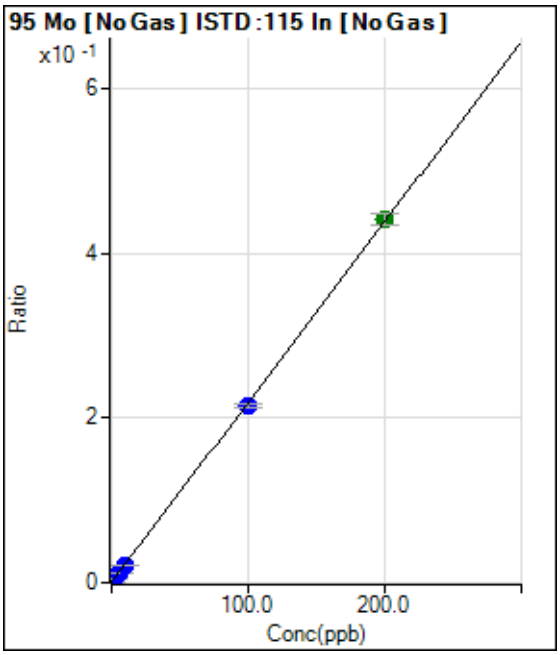
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2610.31	0.0007	P	4.2
2	☐	2.000	1.970	81225.63	0.0229	P	3.0
3	☐	5.000	4.864	197214.57	0.0554	P	1.9
4	☐	10.000	9.770	394004.21	0.1106	P	3.1
5	☐	100.000	99.969	3884481.92	1.1246	A	2.1
6	☐	200.000	200.031	7447082.18	2.2496	A	2.0

y = 0.0112 * x + 7.3234E-004
R = 1.0000
DL = 0.00814
BEC = 0.06514

Weight: <None>
Min Conc: <None>

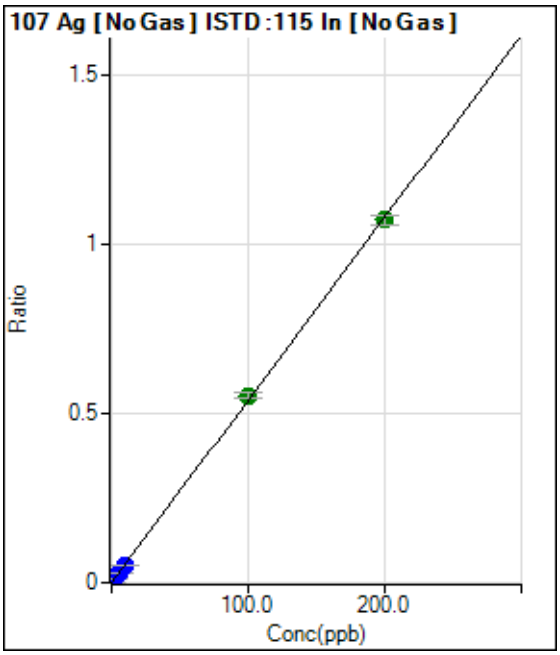


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1513.91	0.0004	P	7.0
2	☐	2.000	1.803	15525.92	0.0044	P	4.2
3	☐	5.000	4.715	38265.95	0.0108	P	3.0
4	☐	10.000	9.428	75101.32	0.0211	P	3.3
5	☐	100.000	97.800	741484.00	0.2147	P	1.7
6	☐	200.000	201.138	1459686.07	0.4410	A	3.1

y = 0.0022 * x + 4.2455E-004
R = 0.9999
DL = 0.04085
BEC = 0.1938

Weight: <None>
Min Conc: <None>

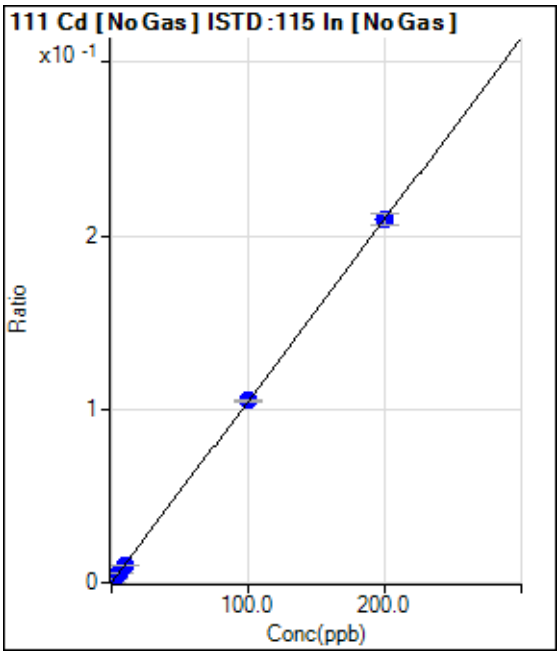
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	213.34	0.0001	P	4.4
2	☐	2.000	1.990	38232.31	0.0108	P	3.7
3	☐	5.000	4.990	95835.67	0.0269	P	2.0
4	☐	10.000	9.787	188030.13	0.0528	P	1.3
5	☐	100.000	102.433	1904896.38	0.5516	A	2.8
6	☐	200.000	198.795	3543113.07	1.0704	A	2.5

y = 0.0054 * x + 5.9836E-005
R = 0.9999
DL = 0.001468
BEC = 0.01111

Weight: <None>
Min Conc: <None>

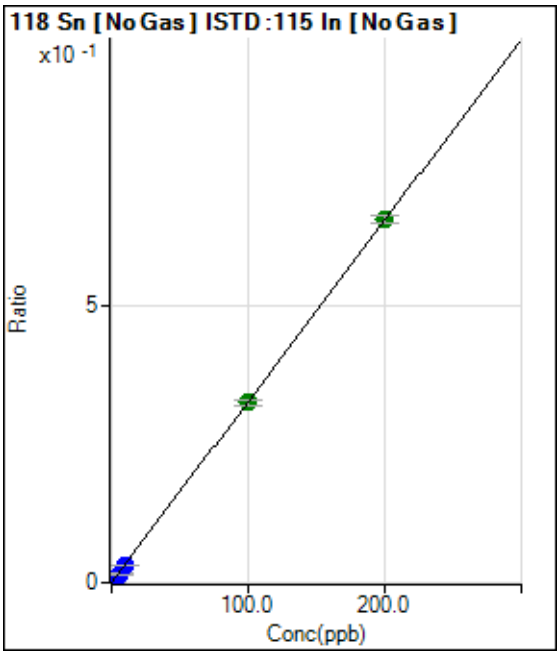


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-12.19	0.0000	P	-6.9
2	☐	2.000	1.973	7327.10	0.0021	P	2.4
3	☐	5.000	4.990	18581.64	0.0052	P	2.2
4	☐	10.000	9.858	36758.38	0.0103	P	2.3
5	☐	100.000	100.348	362818.47	0.1050	P	0.7
6	☐	200.000	199.834	692245.82	0.2091	P	3.0

y = 0.0010 * x - 3.4215E-006
R = 1.0000
DL = 0.0006813
BEC = -0.003269

Weight: <None>
Min Conc: <None>

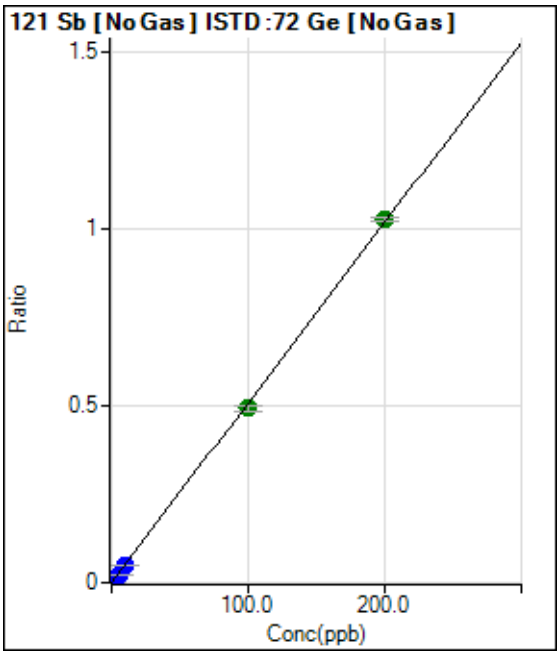
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1320.09	0.0004	P	2.2
2	☐	2.000	1.894	23230.89	0.0065	P	4.7
3	☐	5.000	4.624	54978.49	0.0154	P	2.9
4	☐	10.000	9.378	110316.41	0.0310	P	2.0
5	☐	100.000	99.381	1120823.03	0.3244	A	2.7
6	☐	200.000	200.351	2164069.45	0.6537	A	2.0

y = 0.0033 * x + 3.7035E-004
R = 1.0000
DL = 0.007613
BEC = 0.1136

Weight: <None>
Min Conc: <None>

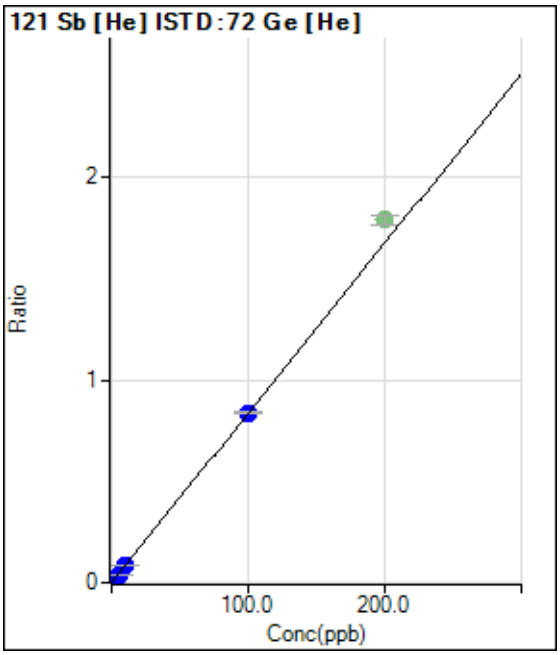


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	330.01	0.0001	P	8.7
2	☐	2.000	1.809	30004.69	0.0093	P	0.9
3	☐	5.000	4.560	75902.28	0.0233	P	2.4
4	☐	10.000	9.305	152131.70	0.0475	P	1.6
5	☐	100.000	96.840	1565584.82	0.4931	A	2.8
6	☐	200.000	201.628	3131082.24	1.0266	A	1.0

y = 0.0051 * x + 1.0160E-004
R = 0.9998
DL = 0.005233
BEC = 0.01996

Weight: <None>
Min Conc: <None>

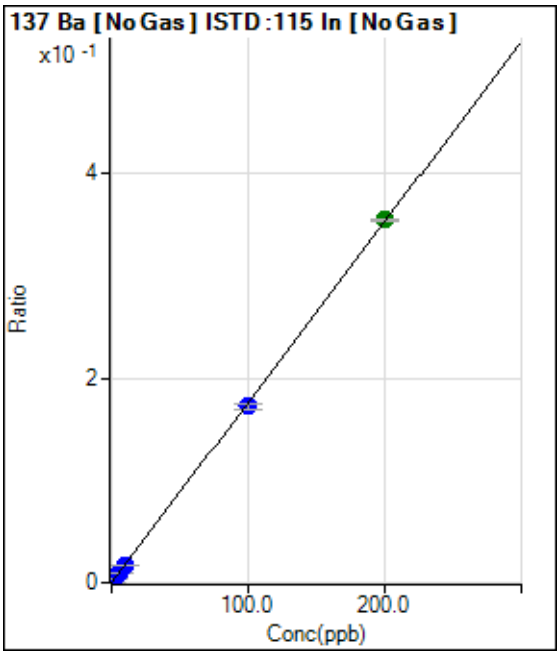
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	103.33	0.0001	P	29.5
2	☐	2.000	1.872	14685.16	0.0158	P	0.6
3	☐	5.000	4.781	37507.49	0.0401	P	2.0
4	☐	10.000	9.699	75805.41	0.0812	P	0.8
5	☐	100.000	100.044	770836.76	0.8366	P	1.1
6	☑	200.000		1615167.47	1.7889	A	2.4

y = 0.0084 * x + 1.1052E-004
R = 1.0000
DL = 0.01168
BEC = 0.01322

Weight: <None>
Min Conc: <None>

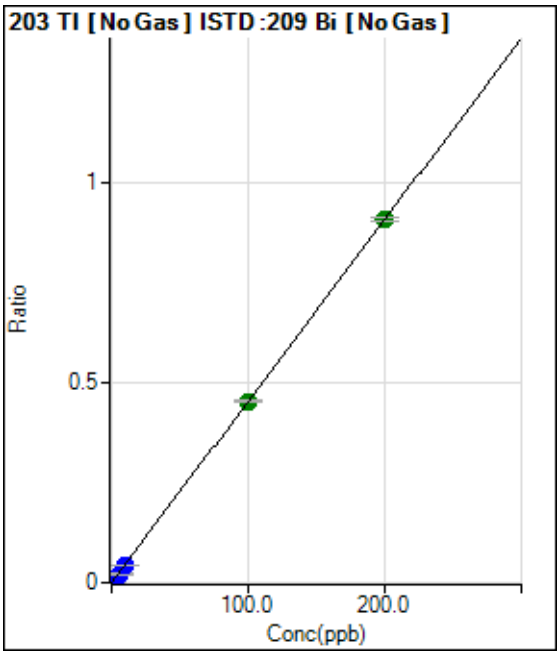


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	643.36	0.0002	P	1.8
2	☐	2.000	1.941	12789.83	0.0036	P	7.9
3	☐	5.000	4.780	30639.88	0.0086	P	1.8
4	☐	10.000	9.457	60069.18	0.0169	P	3.7
5	☐	100.000	97.604	595035.71	0.1723	P	2.7
6	☐	200.000	201.231	1175573.78	0.3550	A	0.8

y = 0.0018 * x + 1.8049E-004
R = 0.9999
DL = 0.005408
BEC = 0.1024

Weight: <None>
Min Conc: <None>

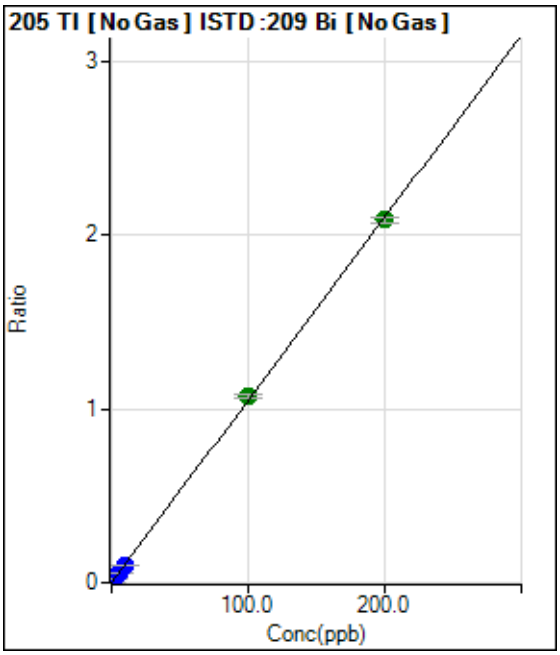
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	286.68	0.0001	P	16.4
2	☐	2.000	1.903	24624.59	0.0087	P	2.7
3	☐	5.000	4.717	61015.85	0.0215	P	1.8
4	☐	10.000	9.478	120993.65	0.0431	P	1.0
5	☐	100.000	100.047	1236893.08	0.4536	A	1.5
6	☐	200.000	200.011	2393397.31	0.9067	A	1.1

y = 0.0045 * x + 1.0112E-004
R = 1.0000
DL = 0.01096
BEC = 0.02231

Weight: <None>
Min Conc: <None>

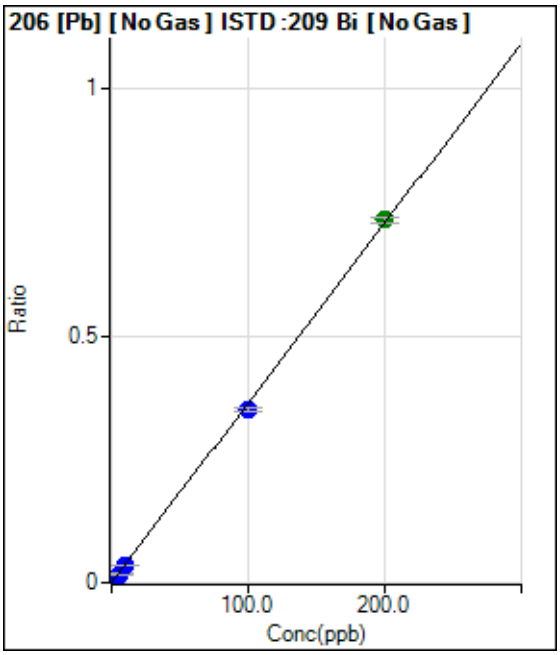


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	646.70	0.0002	P	14.1
2	☐	2.000	1.929	57787.38	0.0205	P	2.5
3	☐	5.000	4.906	146959.45	0.0517	P	2.5
4	☐	10.000	9.769	288932.88	0.1028	P	0.6
5	☐	100.000	102.456	2934555.06	1.0763	A	1.8
6	☐	200.000	198.786	5511830.13	2.0880	A	1.4

y = 0.0105 * x + 2.2779E-004
R = 0.9999
DL = 0.009194
BEC = 0.02169

Weight: <None>
Min Conc: <None>

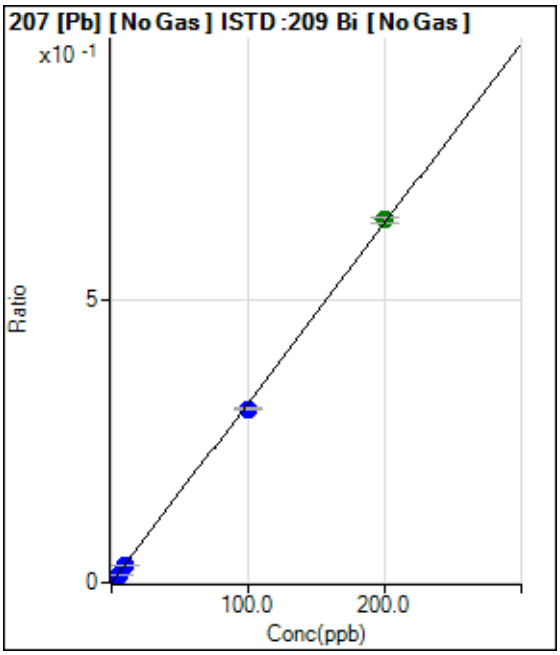
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	273.34	0.0001	P	20.9
2	☐	2.000	1.930	20076.52	0.0071	P	1.1
3	☐	5.000	4.750	49347.90	0.0174	P	2.1
4	☐	10.000	9.534	97715.19	0.0348	P	0.3
5	☐	100.000	96.170	954073.76	0.3499	P	1.5
6	☐	200.000	201.945	1939318.46	0.7346	A	1.4

y = 0.0036 * x + 9.6632E-005
R = 0.9997
DL = 0.01669
BEC = 0.02657

Weight: <None>
Min Conc: <None>

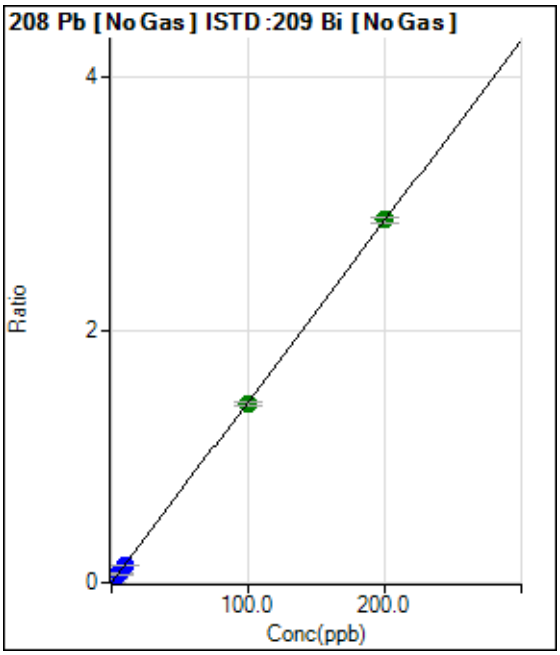


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	266.68	0.0001	P	11.9
2	☐	2.000	1.882	17085.31	0.0061	P	3.4
3	☐	5.000	4.697	42533.05	0.0150	P	3.1
4	☐	10.000	9.634	86032.48	0.0306	P	1.6
5	☐	100.000	96.428	833436.18	0.3057	P	1.5
6	☐	200.000	201.813	1688354.51	0.6396	A	1.7

y = 0.0032 * x + 9.4203E-005
R = 0.9998
DL = 0.0106
BEC = 0.02973

Weight: <None>
Min Conc: <None>

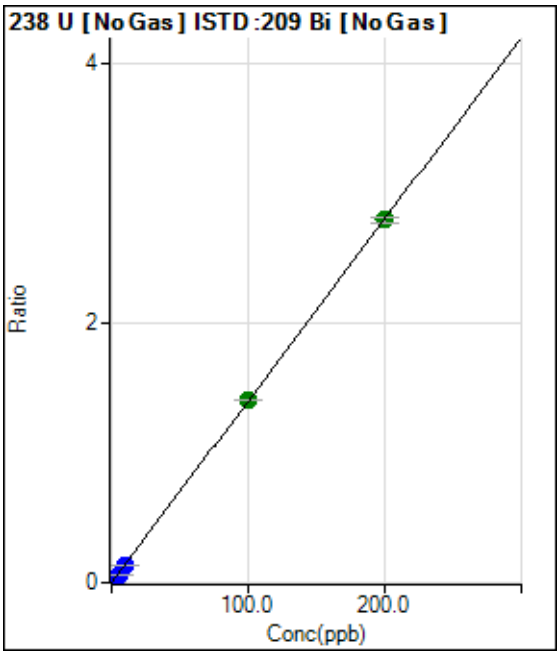
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1096.71	0.0004	P	5.2
2	☐	2.000	1.899	77751.89	0.0276	P	1.7
3	☐	5.000	4.805	196390.75	0.0692	P	2.9
4	☐	10.000	9.741	392818.48	0.1398	P	1.4
5	☐	100.000	98.845	3858877.05	1.4152	A	1.7
6	☐	200.000	200.596	7580277.39	2.8716	A	1.5

y = 0.0143 * x + 3.8737E-004
R = 1.0000
DL = 0.004231
BEC = 0.02706

Weight: <None>
Min Conc: <None>

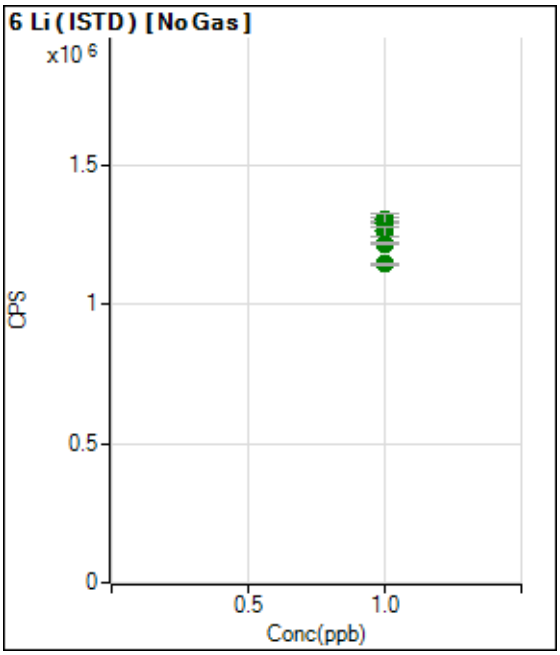


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0001	P	23.3
2	☐	2.000	1.875	74315.51	0.0263	P	2.8
3	☐	5.000	4.638	184798.08	0.0651	P	2.3
4	☐	10.000	9.498	374220.45	0.1332	P	1.2
5	☐	100.000	100.720	3850092.44	1.4120	A	0.6
6	☐	200.000	199.676	7389666.56	2.7992	A	1.9

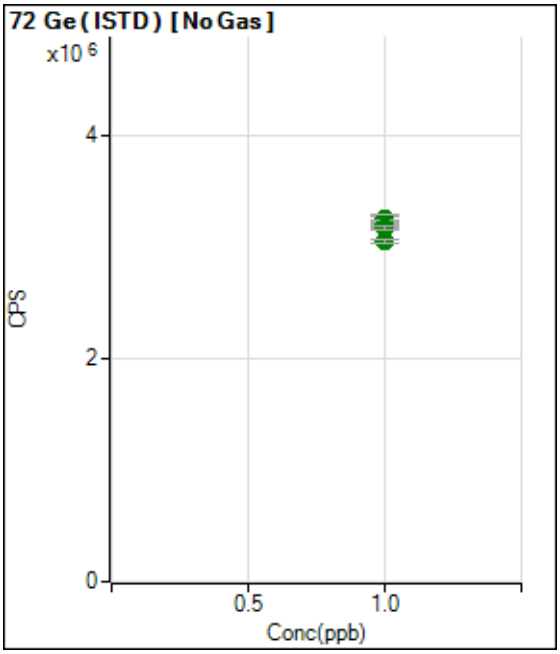
y = 0.0140 * x + 5.7948E-005
R = 1.0000
DL = 0.00289
BEC = 0.004134

Weight: <None>
Min Conc: <None>

Calibration for 021_ICV.d

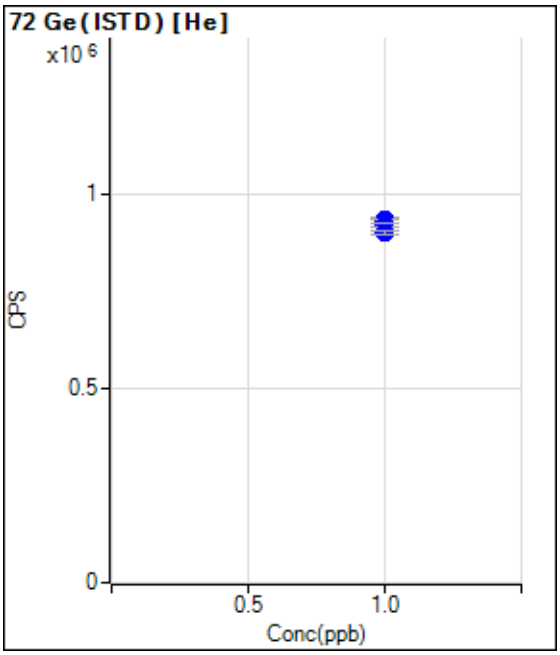


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1302275.75		A	1.3
2	☐	1.000		1288644.74		A	1.6
3	☐	1.000		1301506.39		A	3.3
4	☐	1.000		1259974.90		A	2.7
5	☐	1.000		1217822.82		A	1.0
6	☐	1.000		1142448.33		A	0.6

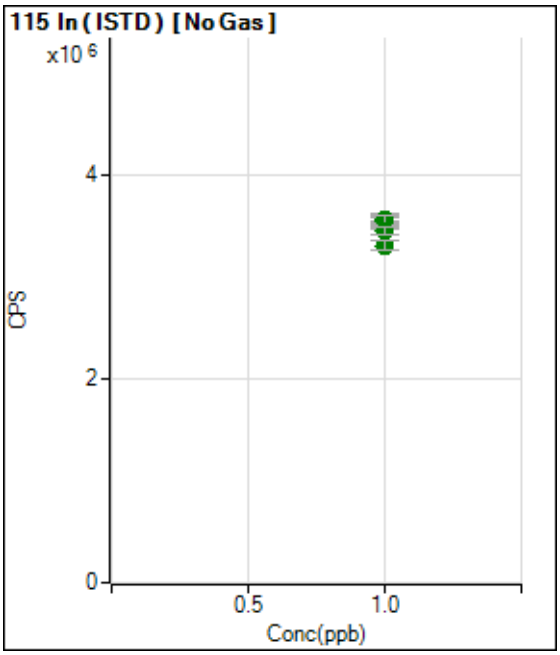


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3249935.68		A	1.6
2	☐	1.000		3221792.66		A	0.2
3	☐	1.000		3256205.37		A	2.0
4	☐	1.000		3205296.41		A	2.3
5	☐	1.000		3175114.12		A	0.6
6	☐	1.000		3050194.95		A	1.2

Calibration for 021_ICV.d

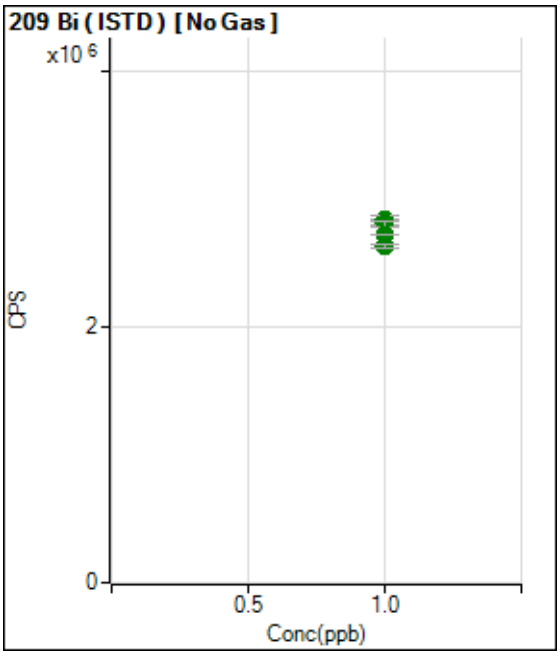


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		934309.26		P	1.5
2	☐	1.000		931700.09		P	0.8
3	☐	1.000		935854.73		P	1.7
4	☐	1.000		933474.52		P	1.0
5	☐	1.000		921532.93		P	1.3
6	☐	1.000		902983.76		P	0.9



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3564377.30		A	1.0
2	☐	1.000		3552527.63		A	4.1
3	☐	1.000		3559806.50		A	1.6
4	☐	1.000		3565055.10		A	2.3
5	☐	1.000		3454996.13		A	2.0
6	☐	1.000		3311749.23		A	3.0

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2833408.19		A	3.4
2	☐	1.000		2821117.04		A	1.9
3	☐	1.000		2840977.87		A	2.3
4	☐	1.000		2809800.48		A	1.2
5	☐	1.000		2726740.48		A	0.4
6	☐	1.000		2639760.22		A	1.2

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	014CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:23:25-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	85378	0.00
Be	9	1	No Gas	50	34.64
V	51	2	He	6807	0.04
Cr	52	2	He	20803	0.02
Fe	56	2	He	24599	0.01
Se	78	2	He	183	8.98
As	75	2	He	434	3.64
Ca	44	2	He	1373	0.15
Na	23	2	He	76710	0.00
Mg	24	2	He	743	1.79
K	39	2	He	174570	0.00
Mn	55	2	He	1473	0.41
Co	59	2	He	140	28.41
Ni	60	2	He	300	10.00
Cu	63	2	He	2344	0.15
Zn	66	2	He	1017	0.64
Al	27	2	He	2554	0.37
B	11	1	No Gas	25072	0.01
Al	27	1	No Gas	83954	0.00
Si	28	1	No Gas	584955	0.00
Ag	107	1	No Gas	213	2.54
Sr	88	1	No Gas	2610	0.16
Mo	95	1	No Gas	1514	0.52
Sn	118	1	No Gas	1320	0.20
Sb	121	1	No Gas	330	2.43
Ba	137	1	No Gas	643	0.37
Tl	205	1	No Gas	647	2.51
Tl	203	1	No Gas	287	6.12
Pb	208	1	No Gas	1097	0.35
U	238	1	No Gas	163	12.05
Ca	43	2	He	73	75.15
Sb	121	2	He	103	28.61
Ti	47	2	He	7	1299.04
Cu	63	1	No Gas	5821	0.05

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	No Gas	1302276	1.35

Calibration Blank Report

Ge	72	2	He	934309	1.54
Ge	72	1	No Gas	3249936	1.61
In	115	1	No Gas	3564377	1.04
Bi	209	1	No Gas	2833408	3.36

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	015CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:25:23-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	9722	0.02
V	51	2	He	21725	0.01
Cr	52	2	He	37910	0.01
Fe	56	2	He	1562587	0.00
Se	78	2	He	510	1.71
As	75	2	He	3100	0.02
Ca	44	2	He	12519	0.01
Na	23	2	He	334391	0.00
Mg	24	2	He	161969	0.00
K	39	2	He	416561	0.00
Mn	55	2	He	15129	0.02
Co	59	2	He	21738	0.01
Ni	60	2	He	5718	0.01
Cu	63	2	He	17048	0.03
Zn	66	2	He	6235	0.03
Al	27	2	He	4004	0.09
B	11	1	No Gas	50480	0.00
Al	27	1	No Gas	126959	0.00
Si	28	1	No Gas	692773	0.00
Ag	107	1	No Gas	38232	0.00
Cd	111	1	No Gas	7327	0.07
Sr	88	1	No Gas	81226	0.00
Mo	95	1	No Gas	15526	0.01
Sn	118	1	No Gas	23231	0.01
Sb	121	1	No Gas	30005	0.00
Ba	137	1	No Gas	12790	0.06
Tl	205	1	No Gas	57787	0.00
Tl	203	1	No Gas	24625	0.01
Pb	208	1	No Gas	77752	0.00
U	238	1	No Gas	74316	0.00
Ca	43	2	He	837	1.46
Sb	121	2	He	14685	0.01
Cu	63	1	No Gas	39688	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	1288645	1.64	1302276	98.95	70	120	
Ge	72	2	He	931700	0.76	934309	99.72	70	120	
Ge	72	1	No Gas	3221793	0.21	3249936	99.13	70	120	

Calibration Standard Report

In	115	1	No Gas	3552528	4.11	3564377	99.67	70	120	
Bi	209	1	No Gas	2821117	1.86	2833408	99.57	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	016CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:27:31-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	24370	0.01
V	51	2	He	43319	0.00
Cr	52	2	He	62258	0.00
Fe	56	2	He	3760719	0.00
Se	78	2	He	931	0.89
As	75	2	He	7172	0.04
Ca	44	2	He	30538	0.01
Na	23	2	He	731534	0.00
Mg	24	2	He	404753	0.00
K	39	2	He	793926	0.00
Mn	55	2	He	34724	0.00
Co	59	2	He	54995	0.00
Ni	60	2	He	13637	0.00
Cu	63	2	He	35704	0.00
Zn	66	2	He	8566	0.03
Al	27	2	He	5208	0.09
B	11	1	No Gas	88929	0.00
Al	27	1	No Gas	164628	0.00
Si	28	1	No Gas	913750	0.00
Ag	107	1	No Gas	95836	0.00
Cd	111	1	No Gas	18582	0.02
Sr	88	1	No Gas	197215	0.00
Mo	95	1	No Gas	38266	0.01
Sn	118	1	No Gas	54978	0.00
Sb	121	1	No Gas	75902	0.00
Ba	137	1	No Gas	30640	0.00
Tl	205	1	No Gas	146959	0.00
Tl	203	1	No Gas	61016	0.00
Pb	208	1	No Gas	196391	0.00
U	238	1	No Gas	184798	0.00
Ca	43	2	He	1897	0.13
Sb	121	2	He	37507	0.00
Cu	63	1	No Gas	81000	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	1301506	3.34	1302276	99.94	70	120	
Ge	72	2	He	935855	1.69	934309	100.17	70	120	
Ge	72	1	No Gas	3256205	2.00	3249936	100.19	70	120	

Calibration Standard Report

In	115	1	No Gas	3559807	1.58	3564377	99.87	70	120	
Bi	209	1	No Gas	2840978	2.34	2833408	100.27	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	017CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:29:28-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	48905	0.00
V	51	2	He	79076	0.00
Cr	52	2	He	104191	0.00
Fe	56	2	He	7253295	0.00
Se	78	2	He	1694	0.47
As	75	2	He	13556	0.01
Ca	44	2	He	58367	0.00
Na	23	2	He	1365249	0.00
Mg	24	2	He	790795	0.00
K	39	2	He	1411605	0.00
Mn	55	2	He	68247	0.00
Co	59	2	He	107875	0.00
Ni	60	2	He	27224	0.01
Cu	63	2	He	69296	0.00
Zn	66	2	He	15856	0.02
Al	27	2	He	7639	0.07
B	11	1	No Gas	154341	0.00
Al	27	1	No Gas	264209	0.00
Si	28	1	No Gas	1174769	0.00
Ag	107	1	No Gas	188030	0.00
Cd	111	1	No Gas	36758	0.00
Sr	88	1	No Gas	394004	0.00
Mo	95	1	No Gas	75101	0.00
Sn	118	1	No Gas	110316	0.00
Sb	121	1	No Gas	152132	0.00
Ba	137	1	No Gas	60069	0.00
Tl	205	1	No Gas	288933	0.00
Tl	203	1	No Gas	120994	0.00
Pb	208	1	No Gas	392818	0.00
U	238	1	No Gas	374220	0.00
Ca	43	2	He	3611	0.18
Sb	121	2	He	75805	0.00
Cu	63	1	No Gas	158452	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	1259975	2.67	1302276	96.75	70	120	
Ge	72	2	He	933475	1.02	934309	99.91	70	120	
Ge	72	1	No Gas	3205296	2.34	3249936	98.63	70	120	

Calibration Standard Report

In	115	1	No Gas	3565055	2.31	3564377	100.02	70	120	
Bi	209	1	No Gas	2809800	1.21	2833408	99.17	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	018CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:31:23-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	488234	0.00
V	51	2	He	745471	0.00
Cr	52	2	He	829325	0.00
Fe	56	2	He	73629294	0.00
Se	78	2	He	15427	0.01
As	75	2	He	132778	0.00
Ca	44	2	He	582646	0.00
Na	23	2	He	12440943	0.00
Mg	24	2	He	7565748	0.00
K	39	2	He	12302749	0.00
Mn	55	2	He	668888	0.00
Co	59	2	He	1129175	0.00
Ni	60	2	He	265352	0.00
Cu	63	2	He	659280	0.00
Zn	66	2	He	149729	0.00
Al	27	2	He	58406	0.00
B	11	1	No Gas	1324521	0.00
Al	27	1	No Gas	2035439	0.00
Si	28	1	No Gas	5843526	0.00
Ag	107	1	No Gas	1904896	0.00
Cd	111	1	No Gas	362818	0.00
Sr	88	1	No Gas	3884482	0.00
Mo	95	1	No Gas	741484	0.00
Sn	118	1	No Gas	1120823	0.00
Sb	121	1	No Gas	1565585	0.00
Ba	137	1	No Gas	595036	0.00
Tl	205	1	No Gas	2934555	0.00
Tl	203	1	No Gas	1236893	0.00
Pb	208	1	No Gas	3858877	0.00
U	238	1	No Gas	3850092	0.00
Ca	43	2	He	34470	0.01
Sb	121	2	He	770837	0.00
Cu	63	1	No Gas	1509495	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	1217823	1.02	1302276	93.51	70	120	
Ge	72	2	He	921533	1.34	934309	98.63	70	120	
Ge	72	1	No Gas	3175114	0.64	3249936	97.70	70	120	

Calibration Standard Report

In	115	1	No Gas	3454996	2.02	3564377	96.93	70	120	
Bi	209	1	No Gas	2726740	0.42	2833408	96.24	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	019CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:33:15-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	960428	0.00
V	51	2	He	1455429	0.00
Cr	52	2	He	1586893	0.00
Fe	56	2	He	142875488	0.00
Se	78	2	He	29864	0.00
As	75	2	He	257617	0.00
Ca	44	2	He	1189917	0.00
Na	23	2	He	23905514	0.00
Mg	24	2	He	14609836	0.00
K	39	2	He	23484838	0.00
Mn	55	2	He	1307996	0.00
Co	59	2	He	2116488	0.00
Ni	60	2	He	508184	0.00
Cu	63	2	He	1308213	0.00
Zn	66	2	He	282871	0.00
Al	27	2	He	113100	0.00
B	11	1	No Gas	2513455	0.00
Al	27	1	No Gas	3757942	0.00
Si	28	1	No Gas	10647793	0.00
Ag	107	1	No Gas	3543113	0.00
Cd	111	1	No Gas	692246	0.00
Sr	88	1	No Gas	7447082	0.00
Mo	95	1	No Gas	1459686	0.00
Sn	118	1	No Gas	2164069	0.00
Sb	121	1	No Gas	3131082	0.00
Ba	137	1	No Gas	1175574	0.00
Tl	205	1	No Gas	5511830	0.00
Tl	203	1	No Gas	2393397	0.00
Pb	208	1	No Gas	7580277	0.00
U	238	1	No Gas	7389667	0.00
Ca	43	2	He	67425	0.00
Sb	121	2	He	1615167	0.00
Cu	63	1	No Gas	2883849	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	1142448	0.61	1302276	87.73	70	120	
Ge	72	2	He	902984	0.86	934309	96.65	70	120	
Ge	72	1	No Gas	3050195	1.22	3249936	93.85	70	120	

Calibration Standard Report

In	115	1	No Gas	3311749	2.97	3564377	92.91	70	120	
Bi	209	1	No Gas	2639760	1.16	2833408	93.17	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	021_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:37:24-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	99.364	3.610	1698952	1.85	100	99.4	90	110	
Be	9	1	No Gas	97.379	3.028	494660	0.12	100	97.4	90	110	
V	51	2	He	99.096	1.044	740464	0.40	100	99.1	90	110	
Cr	52	2	He	100.563	1.270	827890	0.03	100	100.6	90	110	
Fe	56	2	He	10004.010	0.702	73214614	0.53	10000	100.0	90	110	
Se	78	2	He	100.192	1.194	15403	0.76	100	100.2	90	110	
As	75	2	He	104.303	0.386	137797	1.19	100	104.3	90	110	
Ca	44	2	He	9696.793	1.090	585505	0.30	10000	97.0	90	110	
Na	23	2	He	10195.737	1.699	12537809	0.48	10000	102.0	90	110	
Mg	24	2	He	10232.414	1.602	7664709	0.55	10000	102.3	90	110	
K	39	2	He	10168.218	1.570	12339037	1.02	10000	101.7	90	110	
Mn	55	2	He	99.192	0.790	664069	0.71	100	99.2	90	110	
Co	59	2	He	103.093	1.360	1125589	2.28	100	103.1	90	110	
Ni	60	2	He	100.555	1.225	262546	0.21	100	100.6	90	110	
Cu	63	2	He	98.276	0.642	656520	0.69	100	98.3	90	110	
Zn	66	2	He	102.733	0.902	150067	1.60	100	102.7	90	110	
Al	27	2	He	103.355	3.331	60830	1.99	100	103.4	90	110	
B	11	1	No Gas	475.411	4.943	1282569	2.06	500	95.1	90	110	
Al	27	1	No Gas	103.626	0.422	2053190	1.18	100	103.6	90	110	
Si	28	1	No Gas	519.868	0.865	5980776	0.69	500	104.0	90	110	
Ag	107	1	No Gas	101.452	4.366	1856656	1.90	100	101.5	90	110	
Cd	111	1	No Gas	101.220	3.451	360100	0.94	100	101.2	90	110	
Sr	88	1	No Gas	102.990	2.594	3938924	0.48	100	103.0	90	110	
Mo	95	1	No Gas	97.110	3.051	724624	1.10	100	97.1	90	110	
Sn	118	1	No Gas	103.594	4.640	1149349	2.13	100	103.6	90	110	
Sb	121	1	No Gas	104.117	0.378	1666242	1.10	100	104.1	90	110	
Ba	137	1	No Gas	99.033	2.632	594313	1.03	100	99.0	90	110	
Tl	205	1	No Gas	103.985	3.119	2924814	2.19	100	104.0	90	110	
Tl	203	1	No Gas	101.733	2.593	1235104	1.64	100	101.7	90	110	
Pb	208	1	No Gas	99.521	0.641	3815887	0.39	100	99.5	90	110	
U	238	1	No Gas	102.763	1.965	3857719	1.06	100	102.8	90	110	
Ca	43	2	He	9988.540	2.355	34463	1.30	10000	99.9	90	110	
Sb	121	2	He	100.842	1.705	821620	0.70	100	100.8	90	110	
Ti	47	2	He	103.374	2.622	32158	1.54	100	103.4	90	110	
Cu	63	1	No Gas	99.674	2.335	1484730	1.03	100	99.7	90	110	
Se	82	1	No Gas	96.734	5.986	27256	4.75	100	96.7	90	110	

QC ISTD Table

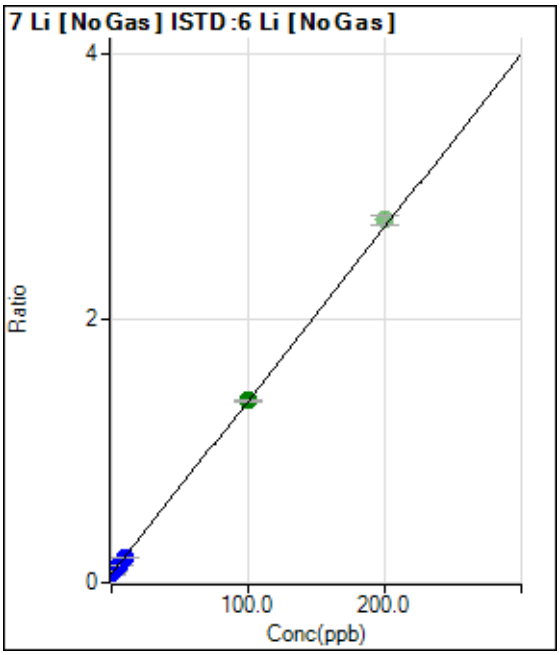
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1220685	3.13	1302276	93.73	70	120	
Ge	72	2	He	923143	1.23	934309	98.80	70	120	
Ge	72	1	No Gas	3143025	1.43	3249936	96.71	70	120	
In	115	1	No Gas	3401258	2.57	3564377	95.42	70	120	
Bi	209	1	No Gas	2678150	0.98	2833408	94.52	70	120	

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071223A.b\
Analysis File: 071223A.batch.bin
DA Date-Time: 7/12/2023 10:19:40 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	014CALB.d	CAL BLK	7/12/2023 1:23:25 PM
2	015CALS.d	2/10/200	7/12/2023 1:25:23 PM
3	016CALS.d	5/25/500	7/12/2023 1:27:31 PM
4	017CALS.d	10/50/100	7/12/2023 1:29:28 PM
5	018CALS.d	100/500/10K	7/12/2023 1:31:23 PM
6	019CALS.d	200/1000/20K	7/12/2023 1:33:15 PM

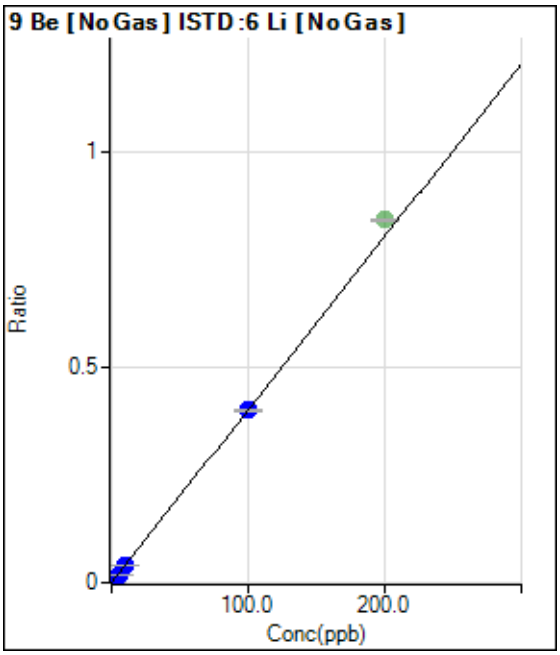
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	85378.29	0.0656	P	1.7
2	☐	2.000	1.854	115833.84	0.0899	P	2.8
3	☐	5.000	4.632	164389.38	0.1264	P	2.5
4	☐	10.000	9.782	244347.66	0.1940	P	1.7
5	☐	100.000	100.043	1679371.96	1.3790	A	0.5
6	☑	200.000		3139403.81	2.7483	A	2.7

y = 0.0131 * x + 0.0656
R = 1.0000
DL = 0.2504
BEC = 4.995

Weight: <None>
Min Conc: <None>

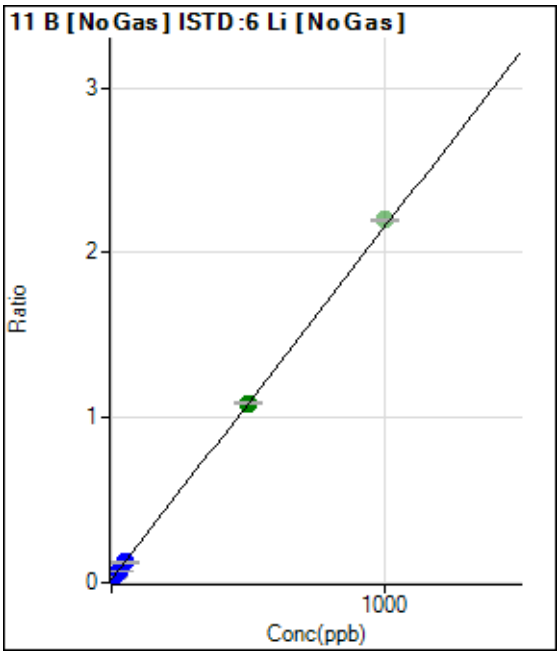


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	17.8
2	☐	2.000	1.874	9721.74	0.0075	P	4.1
3	☐	5.000	4.668	24369.52	0.0187	P	4.6
4	☐	10.000	9.680	48904.61	0.0388	P	1.7
5	☐	100.000	100.051	488234.29	0.4009	P	1.1
6	☑	200.000		960427.88	0.8407	A	0.8

y = 0.0040 * x + 3.8419E-005
R = 1.0000
DL = 0.005131
BEC = 0.009588

Weight: <None>
Min Conc: <None>

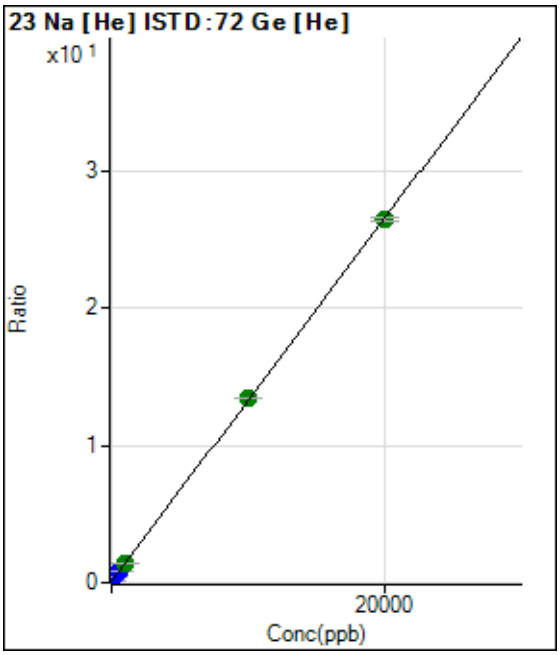
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25072.43	0.0193	P	2.7
2	☐	10.000	9.331	50480.36	0.0392	P	1.7
3	☐	25.000	23.004	88929.11	0.0684	P	3.7
4	☐	50.000	48.364	154341.41	0.1225	P	2.2
5	☐	500.000	500.277	1324521.00	1.0877	A	1.6
6	☑	1000.000		2513455.33	2.2001	A	0.9

y = 0.0021 * x + 0.0193
R = 1.0000
DL = 0.7206
BEC = 9.015

Weight: <None>
Min Conc: <None>

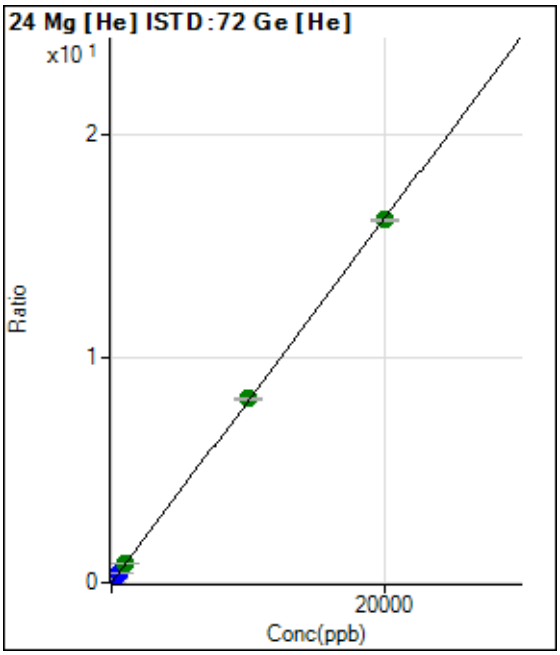


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76710.24	0.0821	P	2.0
2	☐	200.000	209.034	334391.43	0.3589	P	1.0
3	☐	500.000	528.408	731533.76	0.7818	P	2.3
4	☐	1000.000	1042.350	1365248.99	1.4624	A	1.3
5	☐	10000.00	10133.13	12440943.15	13.5006	A	0.5
6	☐	20000.00	19930.51	23905513.81	26.4745	A	0.9

y = 0.0013 * x + 0.0821
R = 1.0000
DL = 3.782
BEC = 62.01

Weight: <None>
Min Conc: <None>

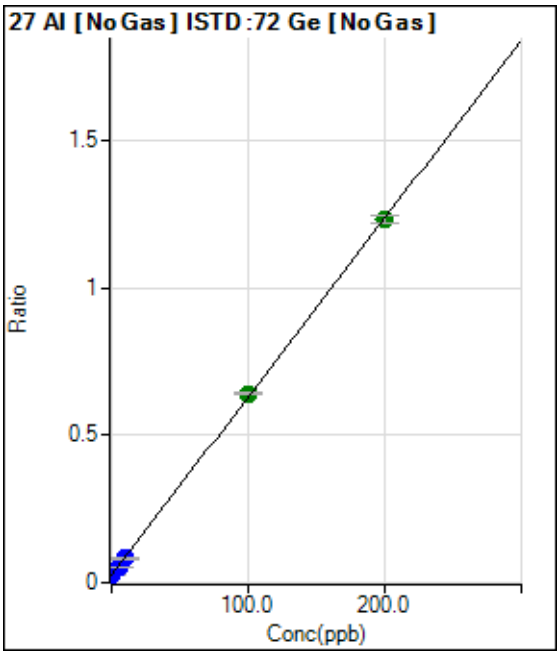
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	743.37	0.0008	P	12.7
2	☐	200.000	213.274	161969.19	0.1739	P	1.9
3	☐	500.000	532.092	404753.26	0.4326	P	1.7
4	☐	1000.000	1043.104	790794.81	0.8472	A	2.5
5	☐	10000.00	10117.20	7565747.60	8.2104	A	0.9
6	☐	20000.00	19938.30	14609836.45	16.1797	A	0.6

y = 8.1145E-004 * x + 7.9523E-004
R = 1.0000
DL = 0.3733
BEC = 0.98

Weight: <None>
Min Conc: <None>

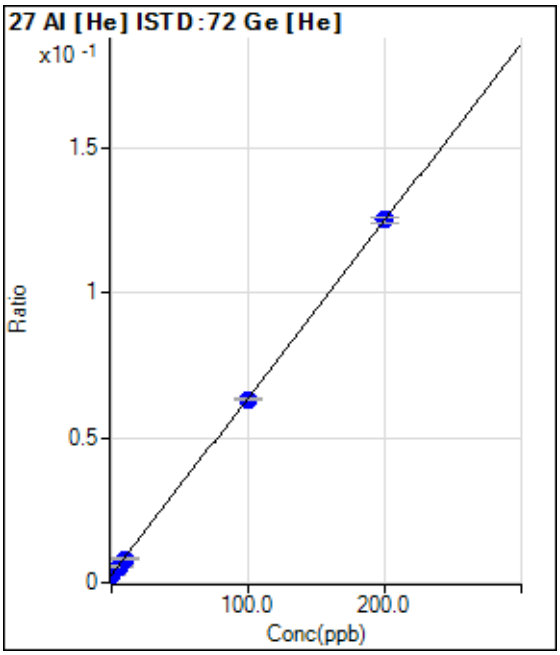


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83954.45	0.0258	P	2.4
2	☐	2.000	2.241	126959.07	0.0394	P	0.8
3	☐	5.000	4.085	164628.12	0.0506	P	2.1
4	☐	10.000	9.350	264208.71	0.0825	P	2.2
5	☐	100.000	101.613	2035439.19	0.6411	A	0.8
6	☐	200.000	199.247	3757942.23	1.2322	A	2.0

y = 0.0061 * x + 0.0258
R = 0.9999
DL = 0.301
BEC = 4.268

Weight: <None>
Min Conc: <None>

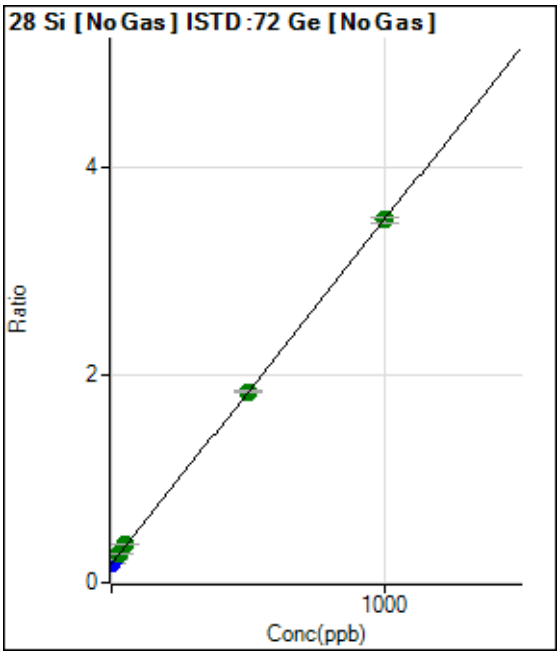
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2553.63	0.0027	P	10.3
2	☐	2.000	2.556	4004.01	0.0043	P	3.2
3	☐	5.000	4.631	5207.73	0.0056	P	4.9
4	☐	10.000	8.916	7638.91	0.0082	P	5.9
5	☐	100.000	99.225	58405.95	0.0634	P	1.4
6	☐	200.000	200.445	113099.90	0.1253	P	1.5

y = 6.1125E-004 * x + 0.0027
R = 1.0000
DL = 1.386
BEC = 4.474

Weight: <None>
Min Conc: <None>

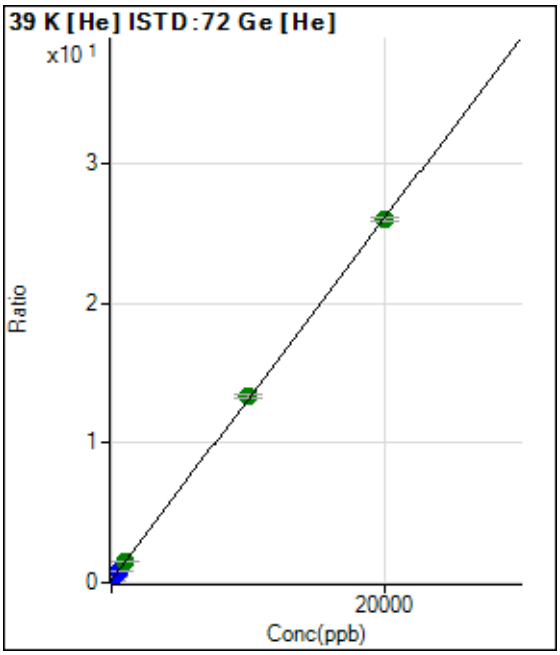


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	584954.59	0.1800	P	1.1
2	☐	10.000	10.565	692772.75	0.2150	P	0.3
3	☐	25.000	30.389	913750.25	0.2807	A	3.0
4	☐	50.000	56.285	1174768.68	0.3666	A	0.9
5	☐	500.000	501.016	5843525.96	1.8405	A	1.9
6	☐	1000.000	999.037	10647792.97	3.4911	A	1.6

y = 0.0033 * x + 0.1800
R = 1.0000
DL = 1.799
BEC = 54.31

Weight: <None>
Min Conc: <None>

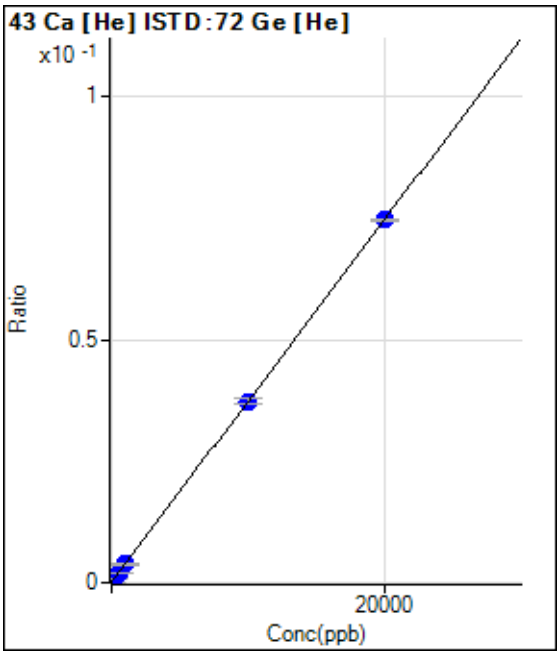
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	174569.59	0.1869	P	1.0
2	☐	200.000	200.772	416560.52	0.4471	P	1.1
3	☐	500.000	510.384	793926.26	0.8485	P	1.2
4	☐	1000.000	1022.546	1411604.72	1.5124	A	1.6
5	☐	10000.00	10156.27	12302748.98	13.3521	A	2.2
6	☐	20000.00	19920.46	23484837.98	26.0091	A	1.0

y = 0.0013 * x + 0.1869
R = 1.0000
DL = 4.185
BEC = 144.2

Weight: <None>
Min Conc: <None>

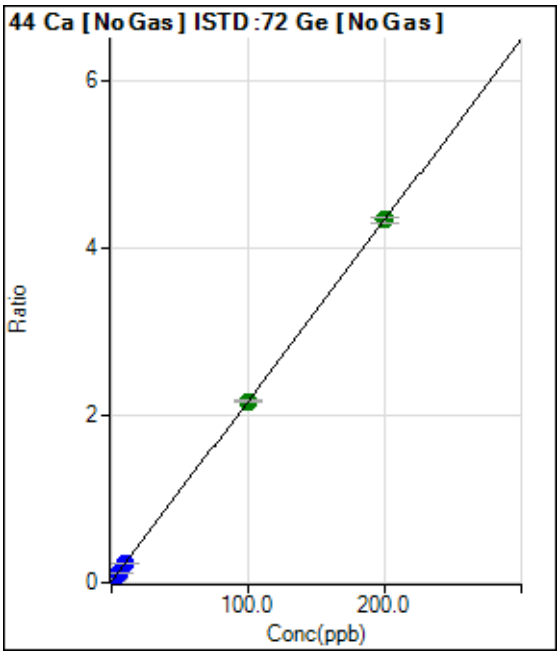


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0001	P	55.8
2	☐	200.000	219.670	836.71	0.0009	P	12.3
3	☐	500.000	522.441	1896.83	0.0020	P	3.8
4	☐	1000.000	1016.003	3610.53	0.0039	P	7.1
5	☐	10000.00	10004.81	34470.20	0.0374	P	3.1
6	☐	20000.00	19996.03	67424.76	0.0747	P	0.6

y = 3.7303E-006 * x + 7.8685E-005
R = 1.0000
DL = 35.33
BEC = 21.09

Weight: <None>
Min Conc: <None>

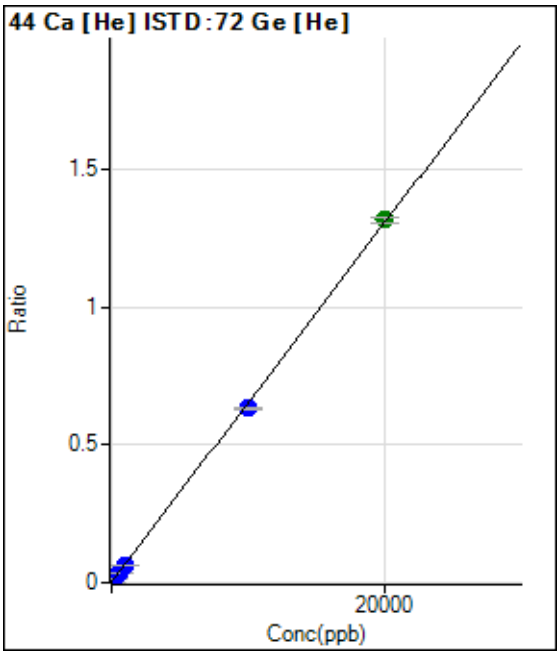
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43663.03	0.0134	P	2.5
2	☐	2.000	1.954	179116.59	0.0556	P	0.9
3	☐	5.000	4.904	388129.98	0.1192	P	1.9
4	☐	10.000	9.936	729906.32	0.2278	P	2.1
5	☐	100.000	99.864	6883284.48	2.1679	A	0.6
6	☐	200.000	200.074	13204588.13	4.3297	A	1.8

y = 0.0216 * x + 0.0134
R = 1.0000
DL = 0.04623
BEC = 0.6229

Weight: <None>
Min Conc: <None>

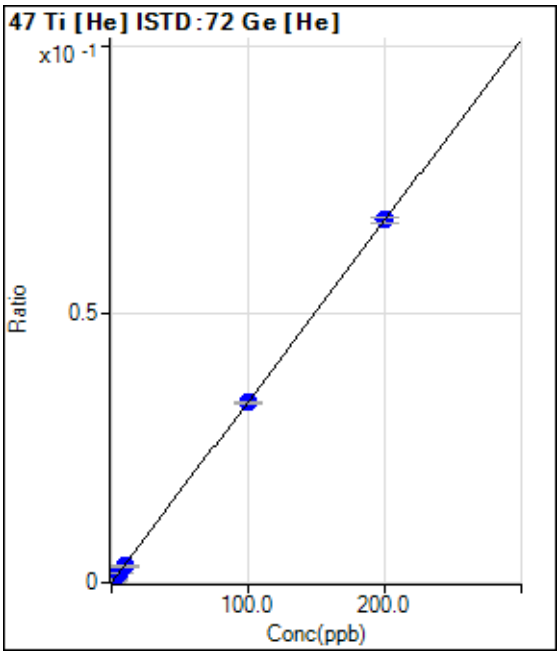


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1373.42	0.0015	P	2.0
2	☐	200.000	183.391	12519.27	0.0134	P	2.5
3	☐	500.000	477.739	30537.54	0.0326	P	5.2
4	☐	1000.000	935.575	58367.04	0.0625	P	0.8
5	☐	10000.00	9665.773	582645.97	0.6323	P	1.0
6	☐	20000.00	20171.05	1189916.63	1.3179	A	1.7

y = 6.5262E-005 * x + 0.0015
R = 0.9998
DL = 1.374
BEC = 22.53

Weight: <None>
Min Conc: <None>

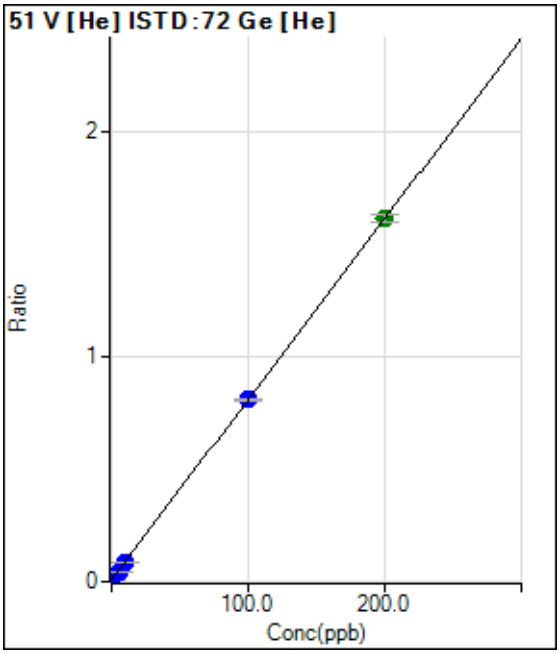
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	86.6
2	☐	2.000	1.572	500.02	0.0005	P	14.7
3	☐	5.000	4.861	1540.11	0.0016	P	3.0
4	☐	10.000	9.106	2870.35	0.0031	P	3.8
5	☐	100.000	99.347	30858.36	0.0335	P	0.9
6	☐	200.000	200.379	60975.58	0.0675	P	1.2

y = 3.3698E-004 * x + 7.1103E-006
R = 1.0000
DL = 0.05484
BEC = 0.0211

Weight: <None>
Min Conc: <None>

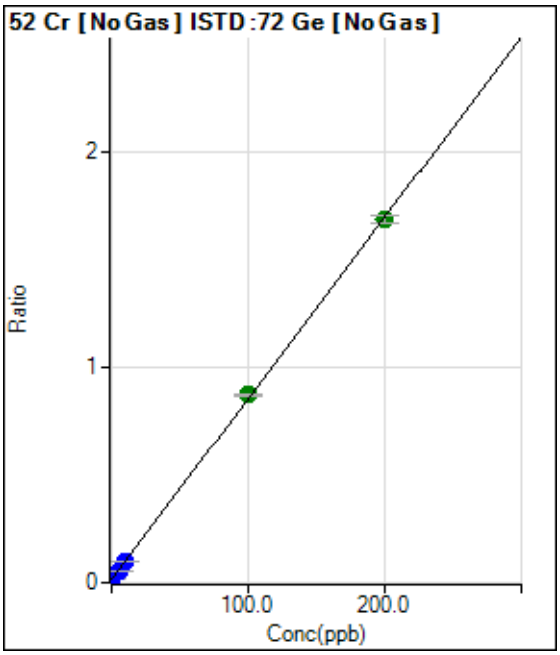


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6807.28	0.0073	P	4.2
2	☐	2.000	1.998	21724.99	0.0233	P	1.2
3	☐	5.000	4.863	43319.34	0.0463	P	1.9
4	☐	10.000	9.652	79075.62	0.0847	P	0.4
5	☐	100.000	99.943	745470.52	0.8090	P	0.7
6	☐	200.000	200.049	1455428.73	1.6120	A	2.1

y = 0.0080 * x + 0.0073
R = 1.0000
DL = 0.1143
BEC = 0.9087

Weight: <None>
Min Conc: <None>

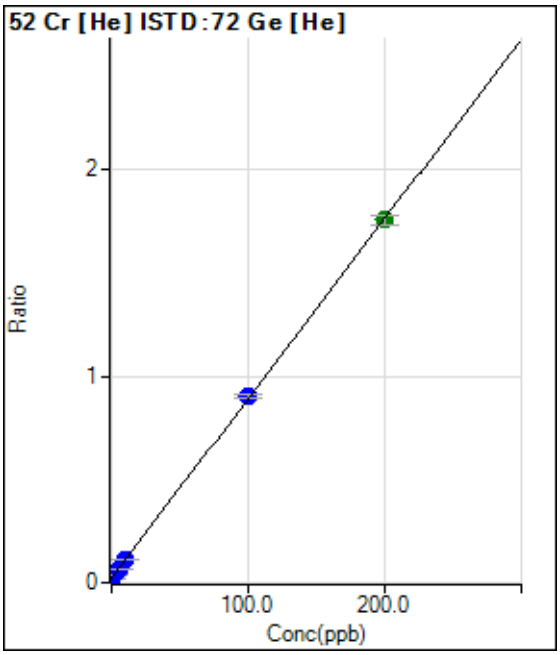
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46847.14	0.0144	P	4.2
2	☐	2.000	2.049	101810.06	0.0316	P	0.7
3	☐	5.000	5.001	183462.63	0.0564	P	2.4
4	☐	10.000	10.165	319326.58	0.0997	P	2.6
5	☐	100.000	102.287	2769193.19	0.8722	A	1.2
6	☐	200.000	198.848	5129467.74	1.6819	A	2.0

y = 0.0084 * x + 0.0144
R = 0.9999
DL = 0.2147
BEC = 1.72

Weight: <None>
Min Conc: <None>

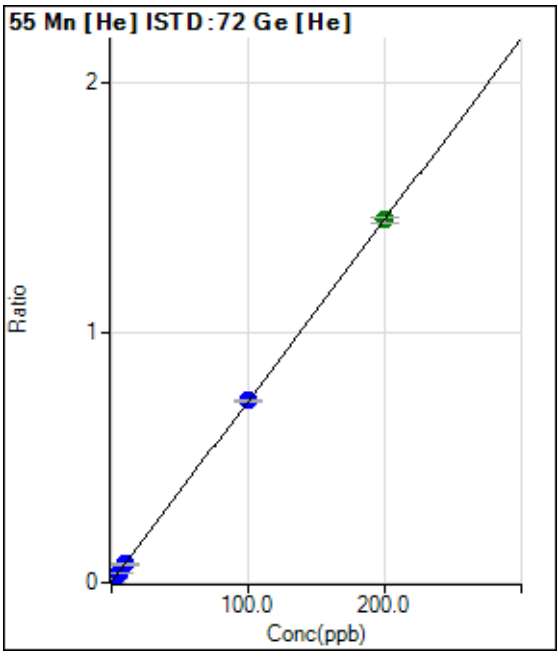


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20802.74	0.0223	P	4.9
2	☐	2.000	2.118	37909.60	0.0407	P	3.0
3	☐	5.000	5.089	62258.44	0.0665	P	1.6
4	☐	10.000	10.274	104190.96	0.1116	P	1.5
5	☐	100.000	100.928	829324.86	0.9001	P	2.1
6	☐	200.000	199.519	1586893.10	1.7576	A	2.8

y = 0.0087 * x + 0.0223
R = 1.0000
DL = 0.3777
BEC = 2.561

Weight: <None>
Min Conc: <None>

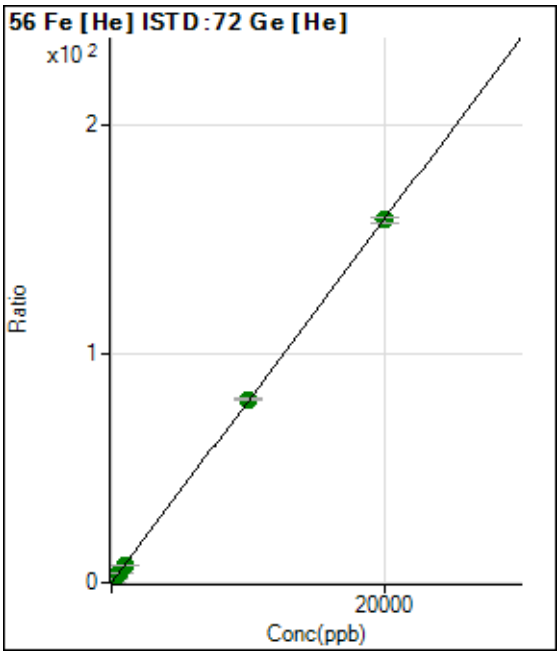
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1473.44	0.0016	P	5.6
2	☐	2.000	2.026	15128.60	0.0162	P	2.7
3	☐	5.000	4.911	34724.48	0.0371	P	2.7
4	☐	10.000	9.885	68247.04	0.0731	P	1.7
5	☐	100.000	100.090	668888.43	0.7259	P	0.8
6	☐	200.000	199.963	1307996.31	1.4486	A	1.3

y = 0.0072 * x + 0.0016
R = 1.0000
DL = 0.0364
BEC = 0.2179

Weight: <None>
Min Conc: <None>

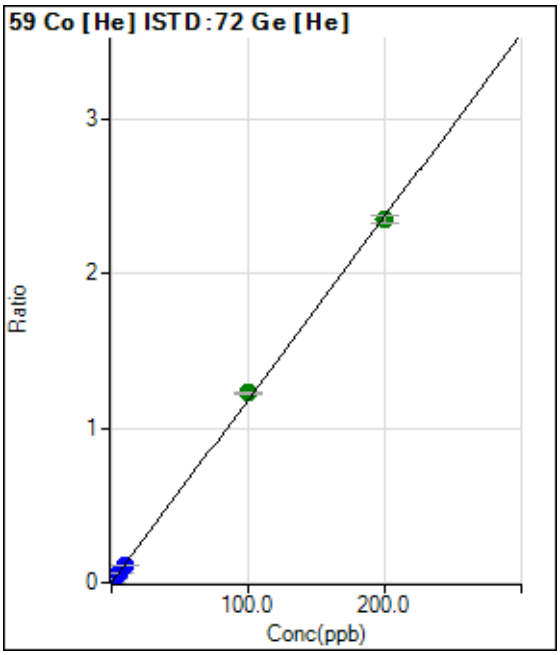


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24599.12	0.0263	P	2.4
2	☐	200.000	208.302	1562587.22	1.6773	A	2.2
3	☐	500.000	503.817	3760718.90	4.0194	A	2.1
4	☐	1000.000	977.114	7253295.10	7.7706	A	0.9
5	☐	10000.00	10078.52	73629293.90	79.9052	A	1.4
6	☐	20000.00	19961.70	142875487.8	158.235	A	1.8

y = 0.0079 * x + 0.0263
R = 1.0000
DL = 0.2356
BEC = 3.323

Weight: <None>
Min Conc: <None>

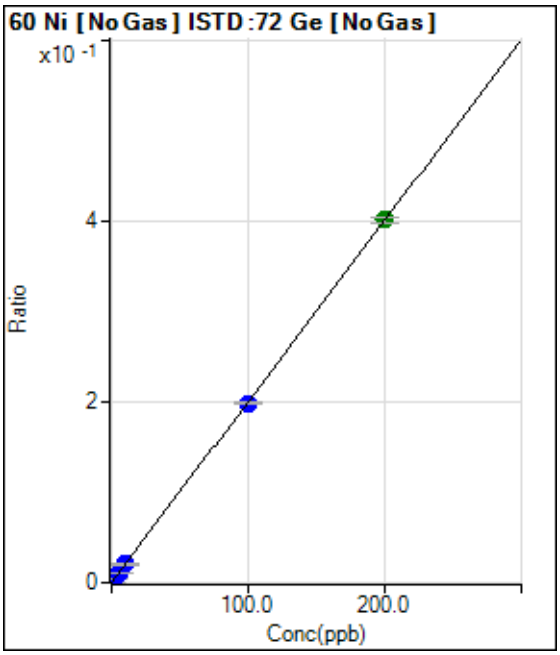
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.01	0.0002	P	40.9
2	☐	2.000	1.961	21737.64	0.0233	P	3.7
3	☐	5.000	4.958	54994.69	0.0588	P	2.0
4	☐	10.000	9.761	107874.73	0.1156	P	1.8
5	☐	100.000	103.604	1129175.45	1.2253	A	0.8
6	☐	200.000	198.211	2116487.62	2.3440	A	2.1

y = 0.0118 * x + 1.5038E-004
R = 0.9998
DL = 0.01559
BEC = 0.01272

Weight: <None>
Min Conc: <None>

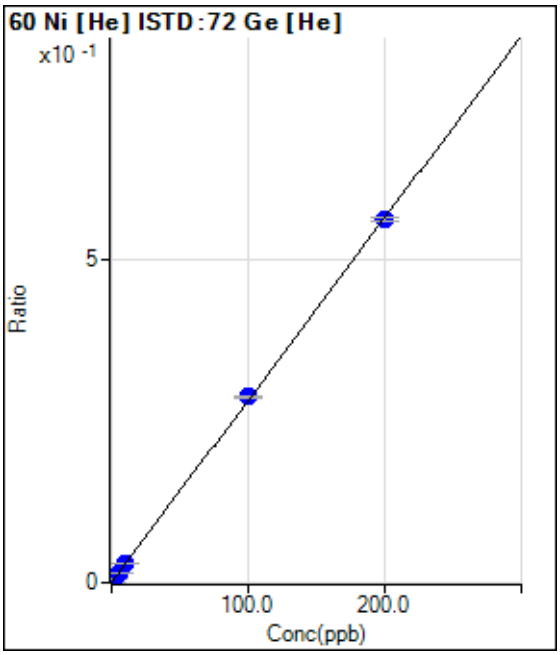


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	666.70	0.0002	P	8.6
2	☐	2.000	2.018	13667.06	0.0042	P	3.3
3	☐	5.000	5.038	33478.15	0.0103	P	0.6
4	☐	10.000	10.107	65426.56	0.0204	P	2.3
5	☐	100.000	99.163	630401.21	0.1985	P	0.4
6	☐	200.000	200.412	1223261.05	0.4011	A	1.4

y = 0.0020 * x + 2.0503E-004
R = 1.0000
DL = 0.02636
BEC = 0.1025

Weight: <None>
Min Conc: <None>

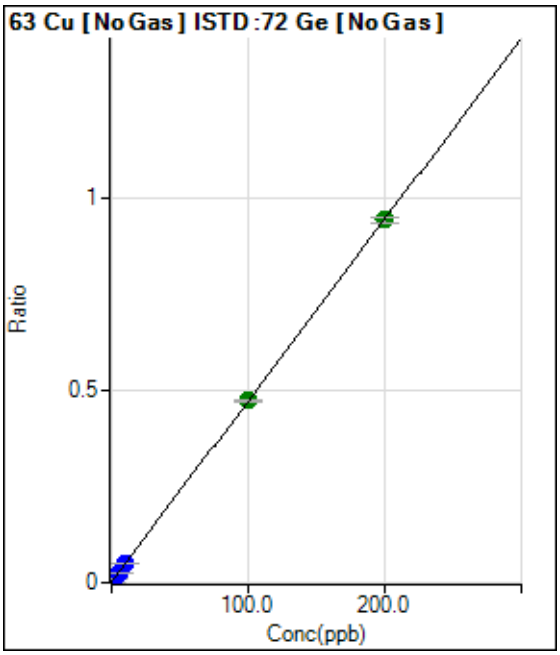
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	300.01	0.0003	P	31.2
2	☐	2.000	2.058	5717.94	0.0061	P	1.5
3	☐	5.000	5.044	13637.06	0.0146	P	1.7
4	☐	10.000	10.210	27224.30	0.0292	P	3.7
5	☐	100.000	101.806	265351.64	0.2880	P	1.5
6	☐	200.000	199.085	508183.51	0.5628	P	1.2

y = 0.0028 * x + 3.2204E-004
R = 0.9999
DL = 0.1066
BEC = 0.114

Weight: <None>
Min Conc: <None>

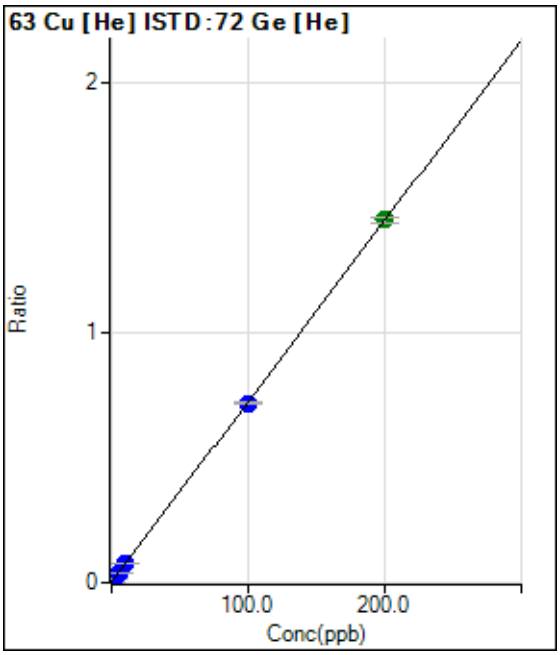


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5821.36	0.0018	P	2.2
2	☐	2.000	2.229	39688.22	0.0123	P	1.9
3	☐	5.000	4.888	81000.50	0.0249	P	1.8
4	☐	10.000	10.094	158451.68	0.0495	P	3.1
5	☐	100.000	100.293	1509495.14	0.4754	A	1.1
6	☐	200.000	199.849	2883848.60	0.9456	A	1.3

y = 0.0047 * x + 0.0018
R = 1.0000
DL = 0.02483
BEC = 0.3793

Weight: <None>
Min Conc: <None>

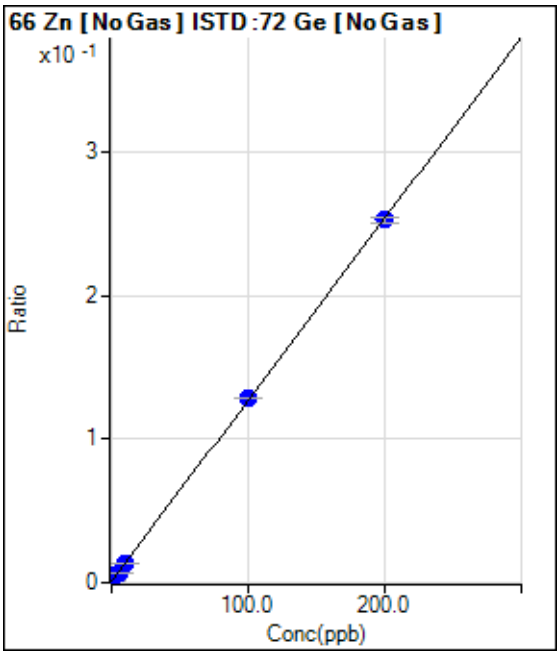
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2343.58	0.0025	P	3.5
2	☐	2.000	2.189	17047.70	0.0183	P	5.6
3	☐	5.000	4.944	35703.80	0.0382	P	2.6
4	☐	10.000	9.947	69296.26	0.0742	P	1.0
5	☐	100.000	98.869	659279.55	0.7155	P	1.2
6	☐	200.000	200.568	1308212.79	1.4489	A	1.3

y = 0.0072 * x + 0.0025
R = 1.0000
DL = 0.03693
BEC = 0.3479

Weight: <None>
Min Conc: <None>

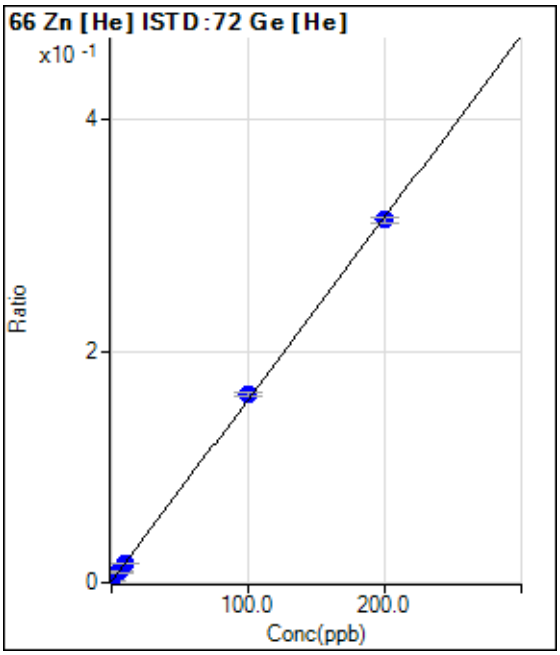


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2893.70	0.0009	P	5.7
2	☐	2.000	3.426	16810.63	0.0052	P	4.3
3	☐	5.000	4.811	22686.01	0.0070	P	0.5
4	☐	10.000	10.250	44352.56	0.0138	P	0.7
5	☐	100.000	101.204	408728.26	0.1287	P	0.1
6	☐	200.000	199.376	770811.11	0.2527	P	1.4

y = 0.0013 * x + 8.9020E-004
R = 1.0000
DL = 0.1209
BEC = 0.7047

Weight: <None>
Min Conc: <None>

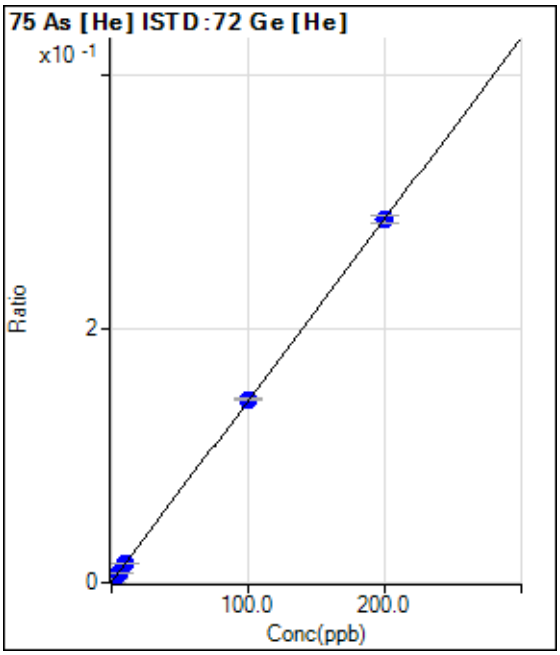
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1016.73	0.0011	P	6.0
2	☐	2.000	3.565	6234.87	0.0067	P	1.4
3	☐	5.000	5.131	8566.21	0.0092	P	1.3
4	☐	10.000	10.114	15856.17	0.0170	P	3.1
5	☐	100.000	102.696	149728.96	0.1625	P	1.7
6	☐	200.000	198.627	282870.90	0.3133	P	1.3

y = 0.0016 * x + 0.0011
R = 0.9999
DL = 0.1244
BEC = 0.6922

Weight: <None>
Min Conc: <None>

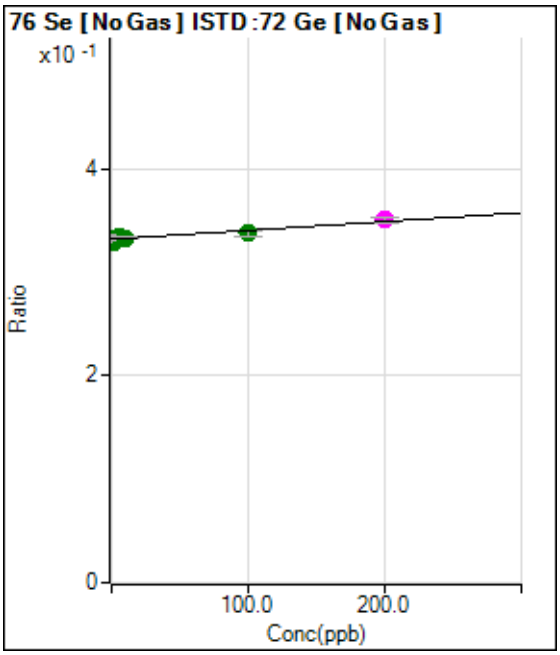


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	434.45	0.0005	P	14.8
2	☐	2.000	2.007	3100.38	0.0033	P	0.7
3	☐	5.000	5.047	7171.94	0.0077	P	3.5
4	☐	10.000	9.853	13555.73	0.0145	P	0.8
5	☐	100.000	100.675	132777.85	0.1441	P	1.2
6	☐	200.000	199.669	257617.15	0.2853	P	2.0

y = 0.0014 * x + 4.6453E-004
R = 1.0000
DL = 0.1445
BEC = 0.3256

Weight: <None>
Min Conc: <None>

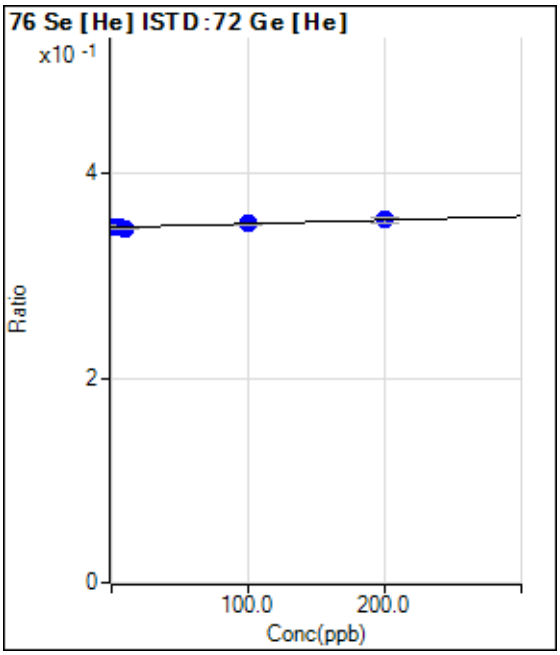
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1079024.73	0.3321	A	2.0
2	☐	2.000	-30.798	1061398.63	0.3294	A	0.6
3	☐	5.000	18.598	1086387.95	0.3337	A	1.8
4	☐	10.000	15.367	1068735.40	0.3334	A	0.8
5	☐	100.000	63.861	1071719.41	0.3375	A	1.9
6	☐	200.000	217.789	1069761.94	0.3507	M	1.6

y = 8.5518E-005 * x + 0.3321
R = 0.9659
DL = 234.6
BEC = 3883

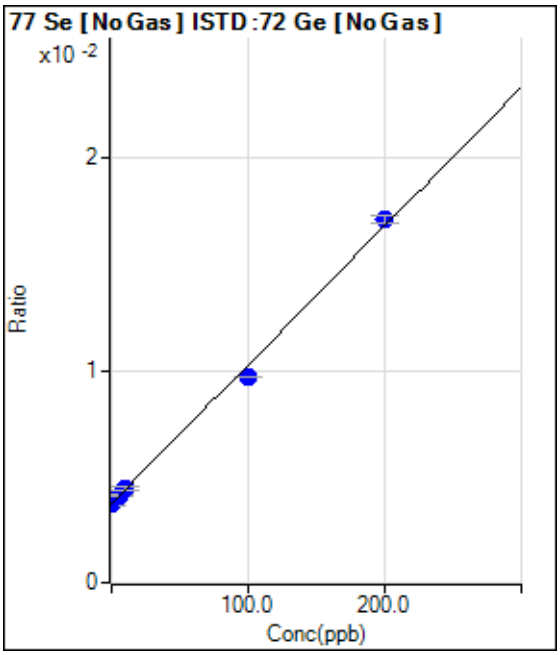
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	324364.97	0.3472	P	1.1
2	☐	2.000	21.991	324178.31	0.3480	P	1.6
3	☐	5.000	-4.087	324730.82	0.3470	P	0.9
4	☐	10.000	-38.858	322758.39	0.3458	P	0.3
5	☐	100.000	102.152	323324.84	0.3509	P	0.4
6	☐	200.000	201.394	320044.64	0.3545	P	1.7

y = 3.6152E-005 * x + 0.3472
R = 0.9670
DL = 318.9
BEC = 9603

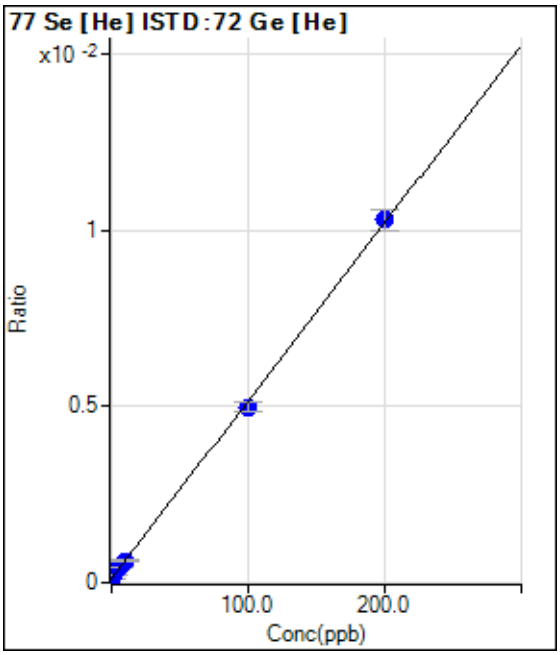
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12125.67	0.0037	P	4.4
2	☐	2.000	3.597	12782.94	0.0040	P	2.8
3	☐	5.000	5.854	13400.22	0.0041	P	2.8
4	☐	10.000	11.237	14311.13	0.0045	P	3.3
5	☐	100.000	91.178	30782.20	0.0097	P	0.9
6	☐	200.000	204.312	52127.81	0.0171	P	2.1

y = 6.5393E-005 * x + 0.0037
R = 0.9985
DL = 7.544
BEC = 57.08

Weight: <None>
Min Conc: <None>

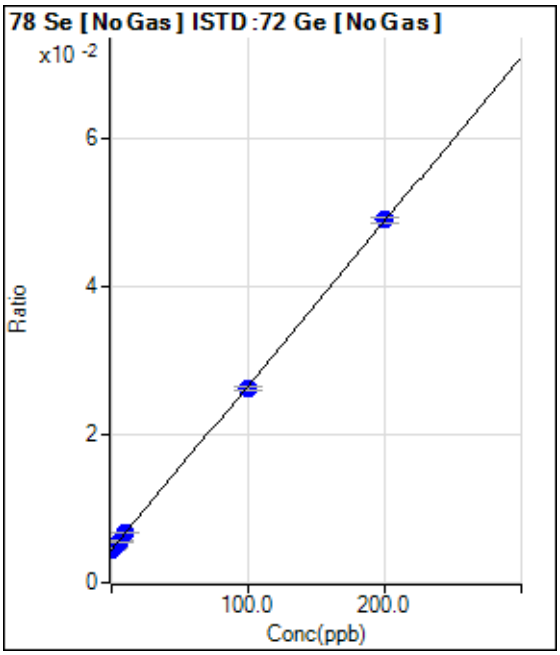


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0001	P	27.8
2	☐	2.000	2.056	203.34	0.0002	P	11.6
3	☐	5.000	6.479	413.34	0.0004	P	9.0
4	☐	10.000	9.834	570.02	0.0006	P	8.4
5	☐	100.000	96.299	4587.54	0.0050	P	5.4
6	☐	200.000	201.821	9303.42	0.0103	P	5.6

y = 5.0497E-005 * x + 1.1432E-004
R = 0.9997
DL = 1.887
BEC = 2.264

Weight: <None>
Min Conc: <None>

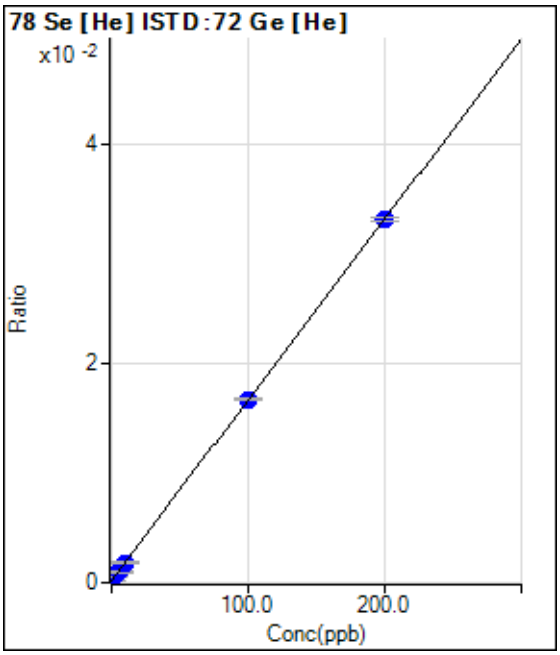
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14478.04	0.0045	P	1.1
2	☐	2.000	1.138	15165.38	0.0047	P	4.6
3	☐	5.000	4.688	17878.70	0.0055	P	6.0
4	☐	10.000	10.270	21577.63	0.0067	P	2.2
5	☐	100.000	98.373	83471.52	0.0263	P	1.7
6	☐	200.000	200.816	149522.52	0.0490	P	1.3

y = 2.2195E-004 * x + 0.0045
R = 0.9999
DL = 0.6354
BEC = 20.07

Weight: <None>
Min Conc: <None>

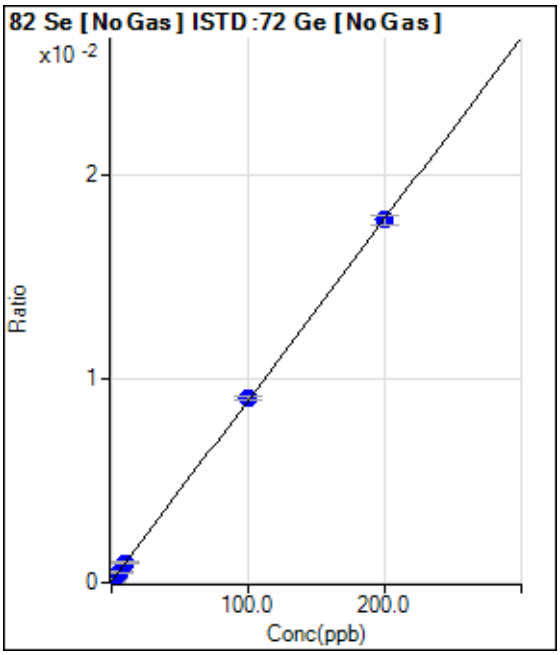


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	182.67	0.0002	P	17.4
2	☐	2.000	2.136	510.01	0.0005	P	8.6
3	☐	5.000	4.849	930.70	0.0010	P	6.7
4	☐	10.000	9.831	1694.11	0.0018	P	7.0
5	☐	100.000	100.519	15426.83	0.0167	P	0.6
6	☐	200.000	199.751	29863.65	0.0331	P	1.2

y = 1.6460E-004 * x + 1.9575E-004
R = 1.0000
DL = 0.62
BEC = 1.189

Weight: <None>
Min Conc: <None>

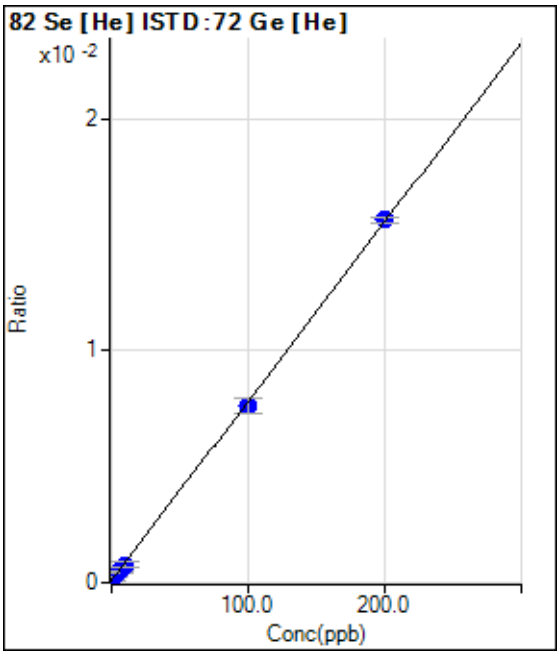
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	198.02	0.0001	P	67.1
2	☐	2.000	1.809	714.55	0.0002	P	17.1
3	☐	5.000	5.124	1684.38	0.0005	P	4.9
4	☐	10.000	10.200	3101.71	0.0010	P	9.1
5	☐	100.000	100.869	28719.13	0.0090	P	2.2
6	☐	200.000	199.554	54385.48	0.0178	P	2.6

y = 8.9065E-005 * x + 6.0599E-005
R = 1.0000
DL = 1.37
BEC = 0.6804

Weight: <None>
Min Conc: <None>

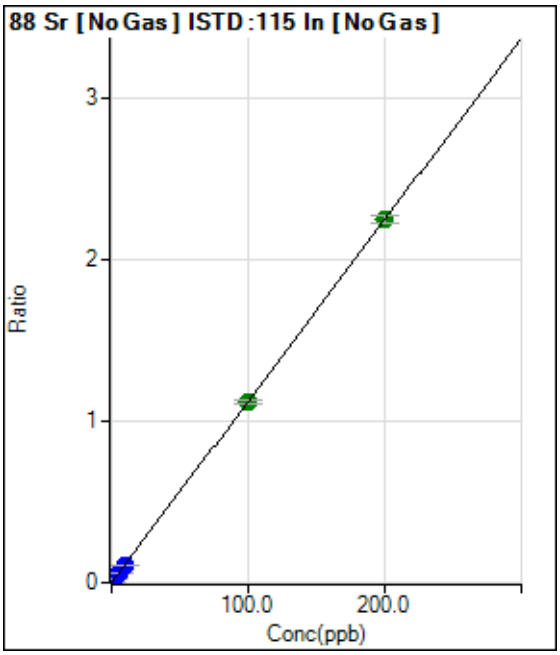


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.33	0.0001	P	42.2
2	☐	2.000	1.536	203.34	0.0002	P	7.0
3	☐	5.000	4.758	436.68	0.0005	P	8.0
4	☐	10.000	8.761	723.37	0.0008	P	25.0
5	☐	100.000	97.613	7031.97	0.0076	P	8.4
6	☐	200.000	201.266	14120.96	0.0156	P	1.9

y = 7.7208E-005 * x + 9.9593E-005
R = 0.9999
DL = 1.634
BEC = 1.29

Weight: <None>
Min Conc: <None>

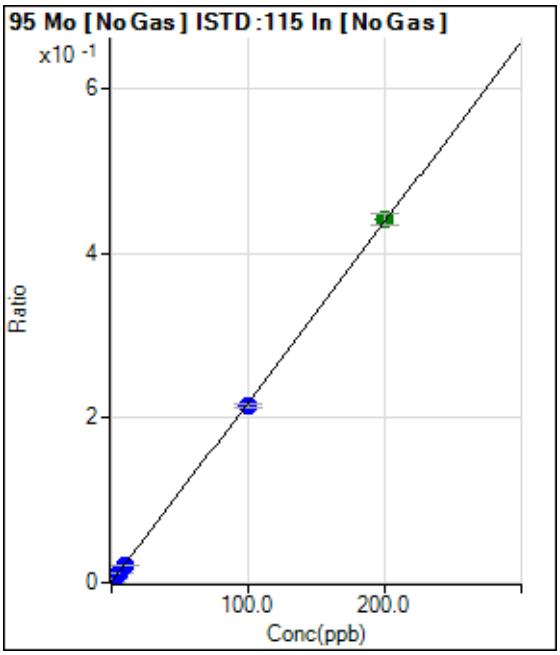
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2610.31	0.0007	P	4.2
2	☐	2.000	1.970	81225.63	0.0229	P	3.0
3	☐	5.000	4.864	197214.57	0.0554	P	1.9
4	☐	10.000	9.770	394004.21	0.1106	P	3.1
5	☐	100.000	99.969	3884481.92	1.1246	A	2.1
6	☐	200.000	200.031	7447082.18	2.2496	A	2.0

y = 0.0112 * x + 7.3234E-004
R = 1.0000
DL = 0.00814
BEC = 0.06514

Weight: <None>
Min Conc: <None>

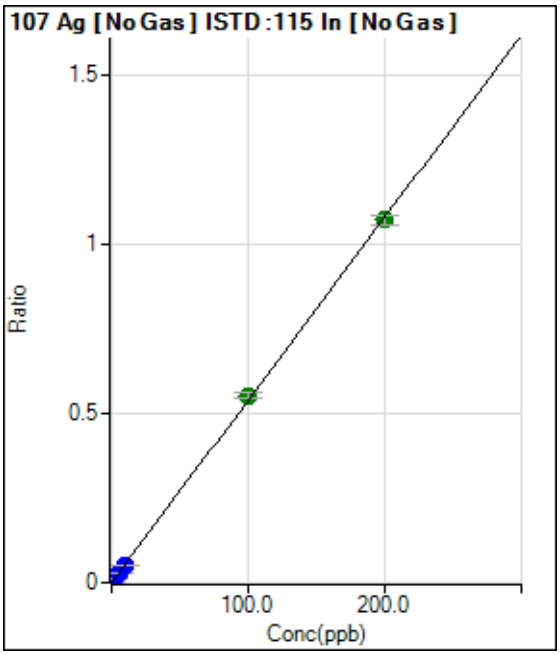


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1513.91	0.0004	P	7.0
2	☐	2.000	1.803	15525.92	0.0044	P	4.2
3	☐	5.000	4.715	38265.95	0.0108	P	3.0
4	☐	10.000	9.428	75101.32	0.0211	P	3.3
5	☐	100.000	97.800	741484.00	0.2147	P	1.7
6	☐	200.000	201.138	1459686.07	0.4410	A	3.1

y = 0.0022 * x + 4.2455E-004
R = 0.9999
DL = 0.04085
BEC = 0.1938

Weight: <None>
Min Conc: <None>

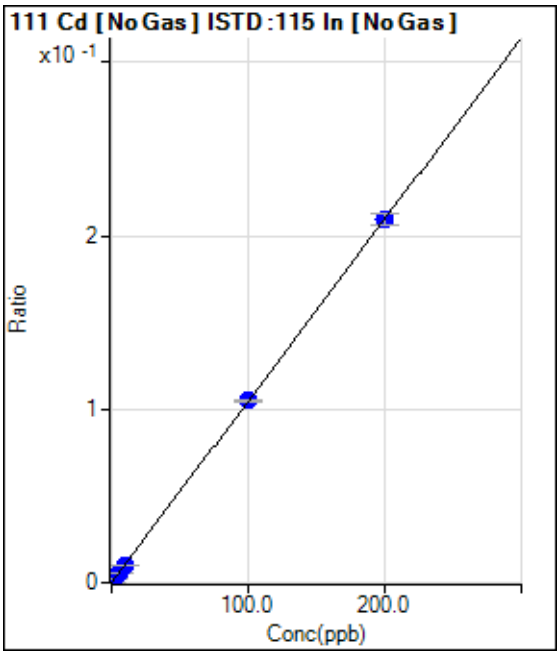
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	213.34	0.0001	P	4.4
2	☐	2.000	1.990	38232.31	0.0108	P	3.7
3	☐	5.000	4.990	95835.67	0.0269	P	2.0
4	☐	10.000	9.787	188030.13	0.0528	P	1.3
5	☐	100.000	102.433	1904896.38	0.5516	A	2.8
6	☐	200.000	198.795	3543113.07	1.0704	A	2.5

y = 0.0054 * x + 5.9836E-005
R = 0.9999
DL = 0.001468
BEC = 0.01111

Weight: <None>
Min Conc: <None>

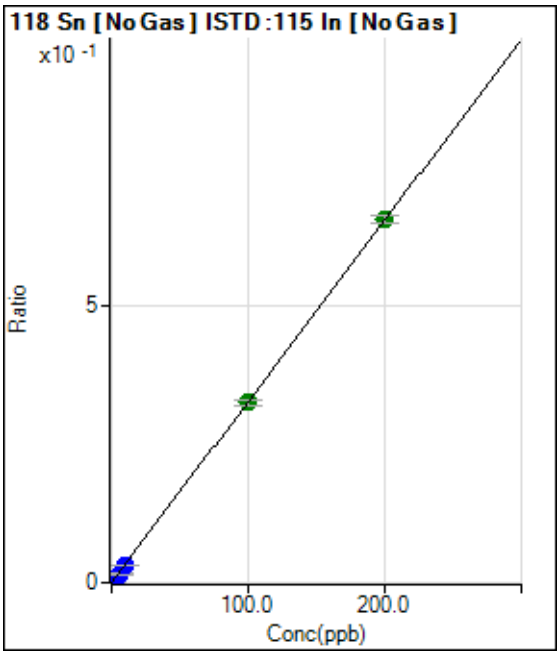


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-12.19	0.0000	P	-6.9
2	☐	2.000	1.973	7327.10	0.0021	P	2.4
3	☐	5.000	4.990	18581.64	0.0052	P	2.2
4	☐	10.000	9.858	36758.38	0.0103	P	2.3
5	☐	100.000	100.348	362818.47	0.1050	P	0.7
6	☐	200.000	199.834	692245.82	0.2091	P	3.0

y = 0.0010 * x - 3.4215E-006
R = 1.0000
DL = 0.0006813
BEC = -0.003269

Weight: <None>
Min Conc: <None>

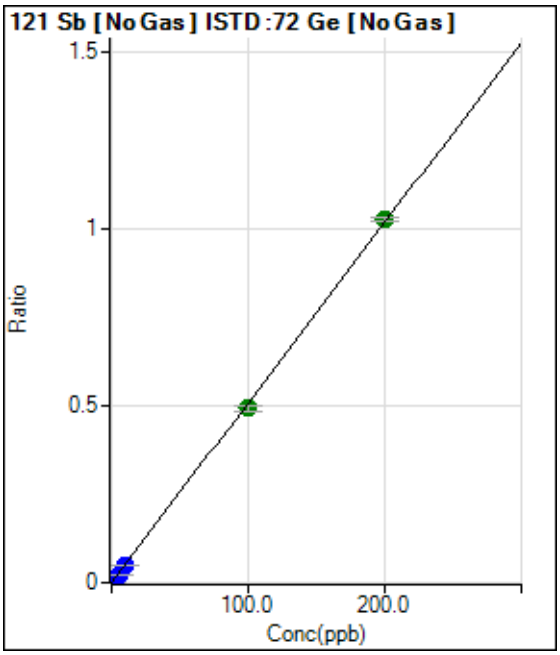
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1320.09	0.0004	P	2.2
2	☐	2.000	1.894	23230.89	0.0065	P	4.7
3	☐	5.000	4.624	54978.49	0.0154	P	2.9
4	☐	10.000	9.378	110316.41	0.0310	P	2.0
5	☐	100.000	99.381	1120823.03	0.3244	A	2.7
6	☐	200.000	200.351	2164069.45	0.6537	A	2.0

y = 0.0033 * x + 3.7035E-004
R = 1.0000
DL = 0.007613
BEC = 0.1136

Weight: <None>
Min Conc: <None>

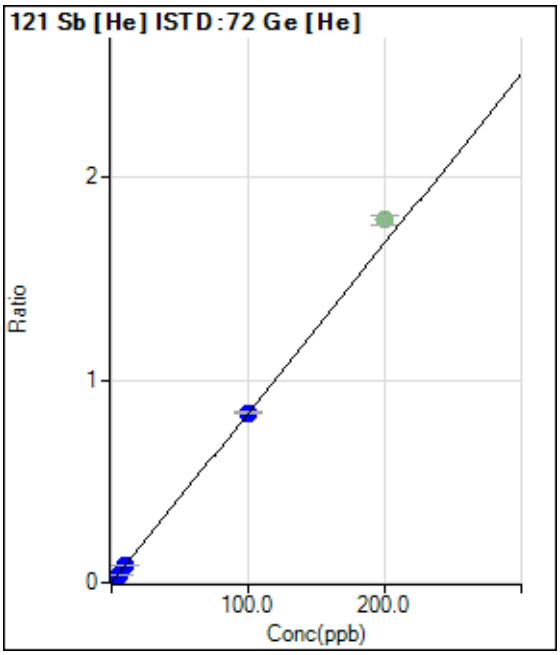


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	330.01	0.0001	P	8.7
2	☐	2.000	1.809	30004.69	0.0093	P	0.9
3	☐	5.000	4.560	75902.28	0.0233	P	2.4
4	☐	10.000	9.305	152131.70	0.0475	P	1.6
5	☐	100.000	96.840	1565584.82	0.4931	A	2.8
6	☐	200.000	201.628	3131082.24	1.0266	A	1.0

y = 0.0051 * x + 1.0160E-004
R = 0.9998
DL = 0.005233
BEC = 0.01996

Weight: <None>
Min Conc: <None>

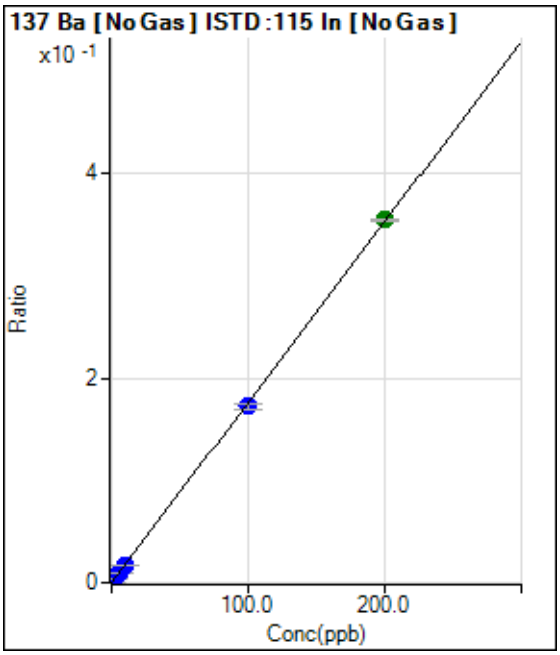
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	103.33	0.0001	P	29.5
2	☐	2.000	1.872	14685.16	0.0158	P	0.6
3	☐	5.000	4.781	37507.49	0.0401	P	2.0
4	☐	10.000	9.699	75805.41	0.0812	P	0.8
5	☐	100.000	100.044	770836.76	0.8366	P	1.1
6	☑	200.000		1615167.47	1.7889	A	2.4

y = 0.0084 * x + 1.1052E-004
R = 1.0000
DL = 0.01168
BEC = 0.01322

Weight: <None>
Min Conc: <None>

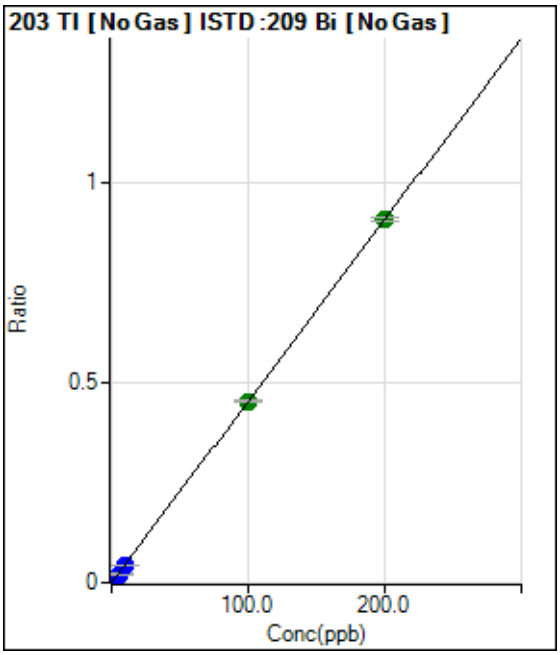


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	643.36	0.0002	P	1.8
2	☐	2.000	1.941	12789.83	0.0036	P	7.9
3	☐	5.000	4.780	30639.88	0.0086	P	1.8
4	☐	10.000	9.457	60069.18	0.0169	P	3.7
5	☐	100.000	97.604	595035.71	0.1723	P	2.7
6	☐	200.000	201.231	1175573.78	0.3550	A	0.8

y = 0.0018 * x + 1.8049E-004
R = 0.9999
DL = 0.005408
BEC = 0.1024

Weight: <None>
Min Conc: <None>

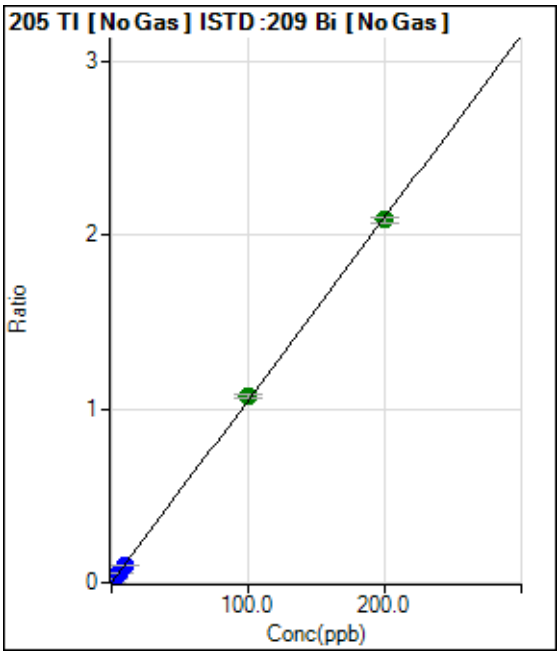
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	286.68	0.0001	P	16.4
2	☐	2.000	1.903	24624.59	0.0087	P	2.7
3	☐	5.000	4.717	61015.85	0.0215	P	1.8
4	☐	10.000	9.478	120993.65	0.0431	P	1.0
5	☐	100.000	100.047	1236893.08	0.4536	A	1.5
6	☐	200.000	200.011	2393397.31	0.9067	A	1.1

y = 0.0045 * x + 1.0112E-004
R = 1.0000
DL = 0.01096
BEC = 0.02231

Weight: <None>
Min Conc: <None>

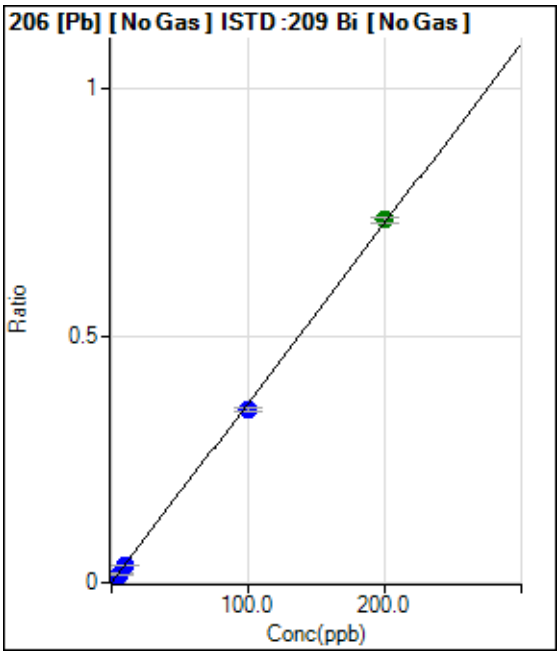


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	646.70	0.0002	P	14.1
2	☐	2.000	1.929	57787.38	0.0205	P	2.5
3	☐	5.000	4.906	146959.45	0.0517	P	2.5
4	☐	10.000	9.769	288932.88	0.1028	P	0.6
5	☐	100.000	102.456	2934555.06	1.0763	A	1.8
6	☐	200.000	198.786	5511830.13	2.0880	A	1.4

y = 0.0105 * x + 2.2779E-004
R = 0.9999
DL = 0.009194
BEC = 0.02169

Weight: <None>
Min Conc: <None>

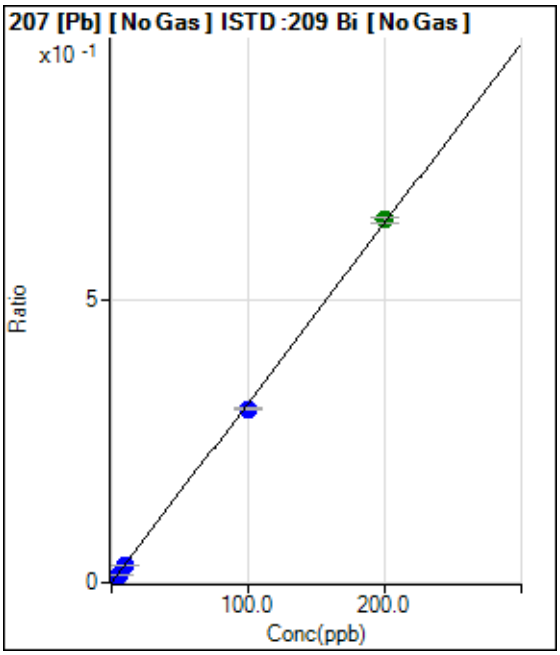
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	273.34	0.0001	P	20.9
2	☐	2.000	1.930	20076.52	0.0071	P	1.1
3	☐	5.000	4.750	49347.90	0.0174	P	2.1
4	☐	10.000	9.534	97715.19	0.0348	P	0.3
5	☐	100.000	96.170	954073.76	0.3499	P	1.5
6	☐	200.000	201.945	1939318.46	0.7346	A	1.4

y = 0.0036 * x + 9.6632E-005
R = 0.9997
DL = 0.01669
BEC = 0.02657

Weight: <None>
Min Conc: <None>

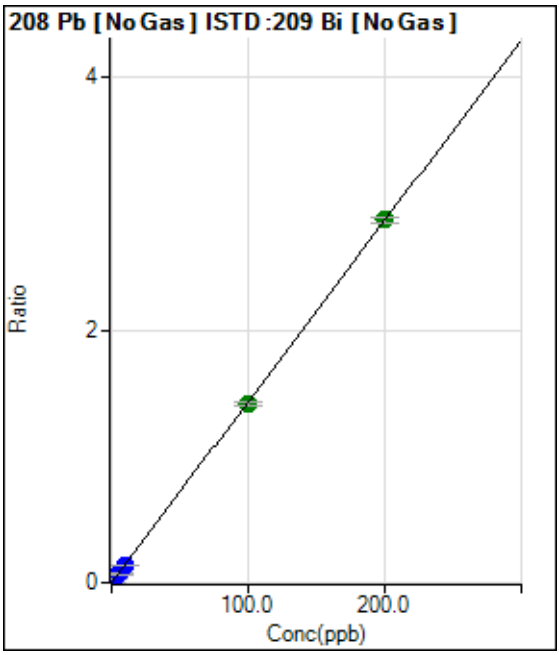


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	266.68	0.0001	P	11.9
2	☐	2.000	1.882	17085.31	0.0061	P	3.4
3	☐	5.000	4.697	42533.05	0.0150	P	3.1
4	☐	10.000	9.634	86032.48	0.0306	P	1.6
5	☐	100.000	96.428	833436.18	0.3057	P	1.5
6	☐	200.000	201.813	1688354.51	0.6396	A	1.7

y = 0.0032 * x + 9.4203E-005
R = 0.9998
DL = 0.0106
BEC = 0.02973

Weight: <None>
Min Conc: <None>

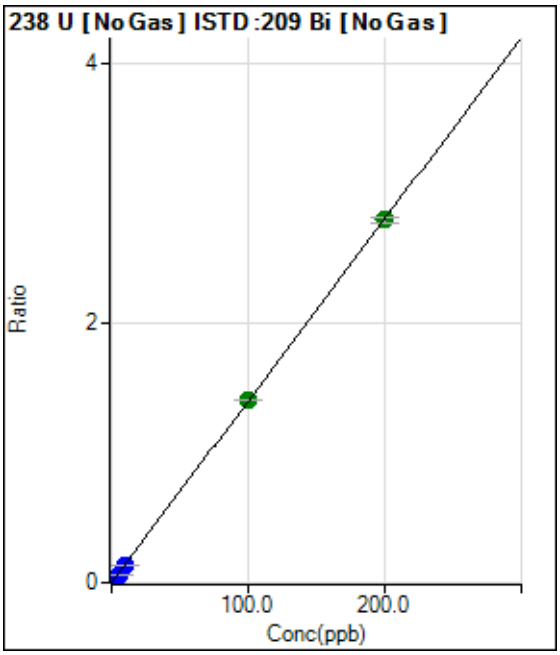
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1096.71	0.0004	P	5.2
2	☐	2.000	1.899	77751.89	0.0276	P	1.7
3	☐	5.000	4.805	196390.75	0.0692	P	2.9
4	☐	10.000	9.741	392818.48	0.1398	P	1.4
5	☐	100.000	98.845	3858877.05	1.4152	A	1.7
6	☐	200.000	200.596	7580277.39	2.8716	A	1.5

y = 0.0143 * x + 3.8737E-004
R = 1.0000
DL = 0.004231
BEC = 0.02706

Weight: <None>
Min Conc: <None>

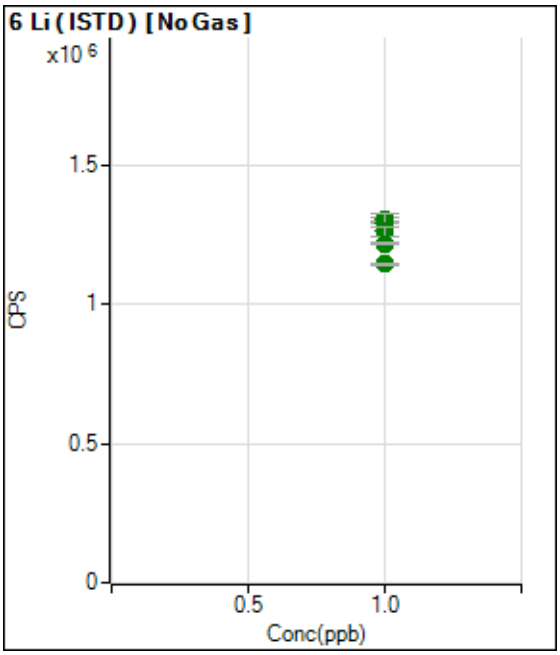


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0001	P	23.3
2	☐	2.000	1.875	74315.51	0.0263	P	2.8
3	☐	5.000	4.638	184798.08	0.0651	P	2.3
4	☐	10.000	9.498	374220.45	0.1332	P	1.2
5	☐	100.000	100.720	3850092.44	1.4120	A	0.6
6	☐	200.000	199.676	7389666.56	2.7992	A	1.9

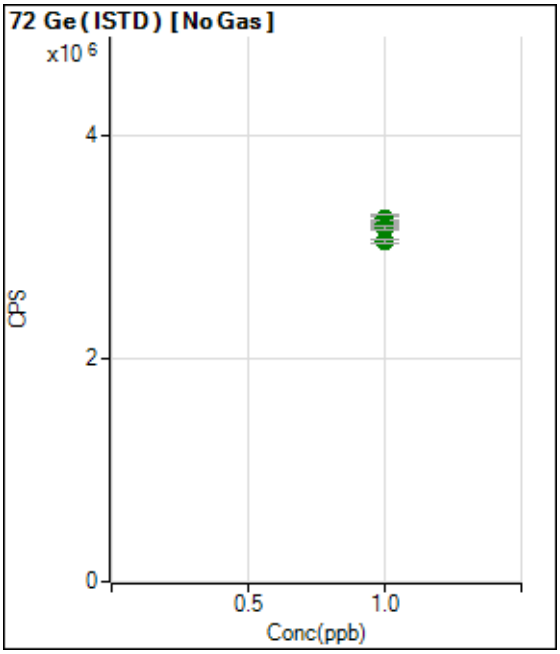
y = 0.0140 * x + 5.7948E-005
R = 1.0000
DL = 0.00289
BEC = 0.004134

Weight: <None>
Min Conc: <None>

Calibration for 021_ICV.d

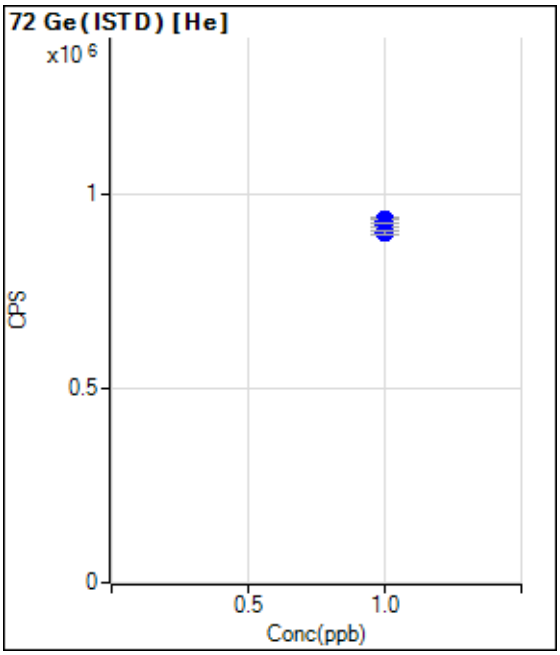


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1302275.75		A	1.3
2	☐	1.000		1288644.74		A	1.6
3	☐	1.000		1301506.39		A	3.3
4	☐	1.000		1259974.90		A	2.7
5	☐	1.000		1217822.82		A	1.0
6	☐	1.000		1142448.33		A	0.6

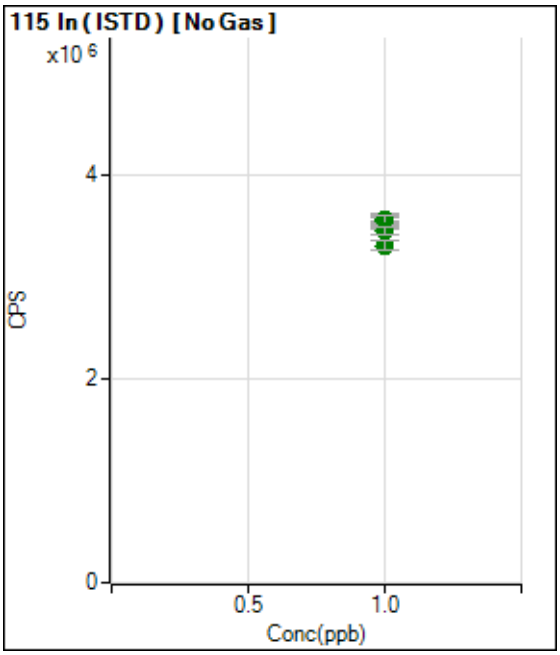


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3249935.68		A	1.6
2	☐	1.000		3221792.66		A	0.2
3	☐	1.000		3256205.37		A	2.0
4	☐	1.000		3205296.41		A	2.3
5	☐	1.000		3175114.12		A	0.6
6	☐	1.000		3050194.95		A	1.2

Calibration for 021_ICV.d

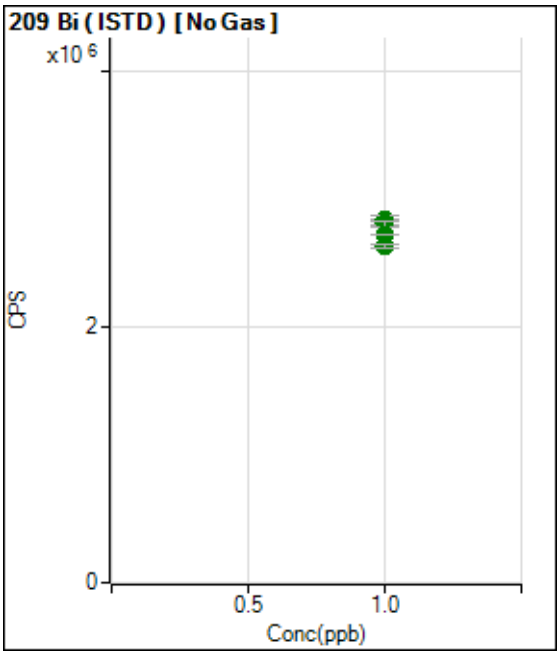


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		934309.26		P	1.5
2	☐	1.000		931700.09		P	0.8
3	☐	1.000		935854.73		P	1.7
4	☐	1.000		933474.52		P	1.0
5	☐	1.000		921532.93		P	1.3
6	☐	1.000		902983.76		P	0.9



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3564377.30		A	1.0
2	☐	1.000		3552527.63		A	4.1
3	☐	1.000		3559806.50		A	1.6
4	☐	1.000		3565055.10		A	2.3
5	☐	1.000		3454996.13		A	2.0
6	☐	1.000		3311749.23		A	3.0

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2833408.19		A	3.4
2	☐	1.000		2821117.04		A	1.9
3	☐	1.000		2840977.87		A	2.3
4	☐	1.000		2809800.48		A	1.2
5	☐	1.000		2726740.48		A	0.4
6	☐	1.000		2639760.22		A	1.2

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	023LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:41:35-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	014CALB.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	1.937	1.937	2.50	116240	0.00	2	
Be	9	1	No Gas	1.813	1.813	0.92	9643	0.02	2	
V	51	2	He	1.683	1.683	0.79	19445	0.01	2	
Cr	52	2	He	1.982	1.982	4.00	36970	0.01	2	
Fe	56	2	He	204.175	204.175	1.68	1538175	0.01	200	
Se	78	2	He	1.924	1.924	1.48	479	0.40	2	
As	75	2	He	2.033	2.033	5.66	3147	0.06	2	
Ca	44	2	He	188.590	188.590	3.74	12890	1.46	200	
Na	23	2	He	210.683	210.683	1.12	337768	0.06	200	
Mg	24	2	He	213.382	213.382	1.12	162697	0.13	200	
K	39	2	He	201.616	201.616	3.37	419209	0.05	200	
Mn	55	2	He	1.963	1.963	7.43	14772	0.01	2	
Co	59	2	He	1.967	1.967	2.53	21891	0.01	2	
Ni	60	2	He	2.065	2.065	5.18	5761	0.04	2	
Cu	63	2	He	2.207	2.207	0.45	17238	0.01	2	
Zn	66	2	He	3.288	3.288	2.85	5851	0.06	2	NewName Main CR1 Failed
Al	27	2	He	2.628	2.628	19.08	4061	0.06	2	NewName Main CR1 Failed
B	11	1	No Gas	15.394	15.394	0.95	66969	0.02	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.656	2.656	25.02	134370	0.00	2	NewName Main CR1 Failed
Si	28	1	No Gas	13.123	13.123	13.07	716562	0.00	10	NewName Main CR1 Failed
Ag	107	1	No Gas	2.041	2.041	3.53	38426	0.01	2	
Cd	111	1	No Gas	1.971	1.971	1.86	7171	0.03	2	
Sr	88	1	No Gas	1.965	1.965	1.36	79442	0.00	2	
Mo	95	1	No Gas	2.818	2.818	40.79	22838	0.01	2	NewName Main CR1 Failed
Sn	118	1	No Gas	1.971	1.971	3.81	23648	0.01	2	
Sb	121	1	No Gas	1.936	1.936	1.75	31919	0.01	2	
Ba	137	1	No Gas	1.934	1.934	3.25	12496	0.02	2	
Tl	205	1	No Gas	1.956	1.956	0.98	57466	0.00	2	
Tl	203	1	No Gas	1.895	1.895	0.48	24043	0.01	2	
Pb	208	1	No Gas	1.956	1.956	1.98	78515	0.00	2	
U	238	1	No Gas	1.882	1.882	0.96	73142	0.00	2	
Ca	43	2	He	207.076	207.076	17.47	797	25.99	200	
Sb	121	2	He	1.922	1.922	2.60	15967	0.01	2	
Ti	47	2	He	2.095	2.095	9.84	667	0.31	200	
Cu	63	1	No Gas	2.172	2.172	3.20	38619	0.01	2	
Se	82	1	No Gas	1.704	1.704	12.79	681	0.25	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	1271137	0.66	1302276	97.61	70	120	
Ge	72	2	He	935432	1.26	934309	100.12	70	120	
Ge	72	1	No Gas	3205976	0.41	3249936	98.65	70	120	
In	115	1	No Gas	3480903	2.70	3564377	97.66	70	120	
Bi	209	1	No Gas	2766689	1.03	2833408	97.65	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	024LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:43:31-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	014CALB.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	4.606	4.606	4.33	164623	0.00	5	
Be	9	1	No Gas	4.503	4.503	0.82	24341	0.02	5	
V	51	2	He	4.666	4.666	1.18	41304	0.01	5	
Cr	52	2	He	5.127	5.127	2.32	61763	0.01	5	
Fe	56	2	He	504.275	504.275	2.07	3715790	0.01	500	
Se	78	2	He	4.763	4.763	7.52	905	0.53	5	
As	75	2	He	5.128	5.128	1.88	7187	0.07	5	
Ca	44	2	He	484.182	484.182	5.64	30541	1.59	500	
Na	23	2	He	535.787	535.787	1.55	731148	0.07	500	
Mg	24	2	He	539.209	539.209	1.78	404846	0.13	500	
K	39	2	He	512.825	512.825	1.85	786589	0.07	500	
Mn	55	2	He	4.921	4.921	3.22	34350	0.01	5	
Co	59	2	He	4.916	4.916	1.42	53830	0.01	5	
Ni	60	2	He	5.170	5.170	3.49	13790	0.04	5	
Cu	63	2	He	4.917	4.917	0.83	35072	0.01	5	
Zn	66	2	He	4.783	4.783	3.99	7949	0.06	5	
Al	27	2	He	4.654	4.654	4.23	5154	0.09	5	
B	11	1	No Gas	26.753	26.753	3.28	100192	0.03	25	
Al	27	1	No Gas	4.265	4.265	3.60	164983	0.00	5	
Si	28	1	No Gas	36.542	36.542	22.96	960608	0.00	25	NewName2 Main CR1 Failed
Ag	107	1	No Gas	4.973	4.973	2.14	93882	0.01	5	
Cd	111	1	No Gas	5.006	5.006	3.13	18320	0.03	5	
Sr	88	1	No Gas	4.822	4.822	2.13	192199	0.00	5	
Mo	95	1	No Gas	4.574	4.574	0.95	36554	0.01	5	
Sn	118	1	No Gas	4.748	4.748	3.47	55451	0.01	5	
Sb	121	1	No Gas	4.626	4.626	2.27	75517	0.01	5	
Ba	137	1	No Gas	4.774	4.774	0.23	30089	0.02	5	
Tl	205	1	No Gas	4.915	4.915	1.95	143671	0.00	5	
Tl	203	1	No Gas	4.766	4.766	0.41	60149	0.01	5	
Pb	208	1	No Gas	4.812	4.812	2.27	191922	0.00	5	
U	238	1	No Gas	4.669	4.669	1.28	181530	0.00	5	
Ca	43	2	He	478.769	478.769	13.73	1723	27.78	500	
Sb	121	2	He	4.648	4.648	0.79	37992	0.01	5	
Ti	47	2	He	4.927	4.927	2.39	1540	0.32	5	
Cu	63	1	No Gas	4.884	4.884	0.40	79368	0.01	5	
Se	82	1	No Gas	4.825	4.825	10.64	1565	0.31	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	1295735	2.56	1302276	99.50	70	120	
Ge	72	2	He	923681	0.77	934309	98.86	70	120	
Ge	72	1	No Gas	3193538	1.87	3249936	98.26	70	120	
In	115	1	No Gas	3499273	1.88	3564377	98.17	70	120	
Bi	209	1	No Gas	2771292	0.61	2833408	97.81	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	025_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:45:32-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	-0.020	-266.4	83398	0.8	0.5	
Be	9	1	No Gas	-0.002	-116.1	38	32.8	0.5	
V	51	2	He	-0.214	-8.5	5193	2.2	2.5	
Cr	52	2	He	0.240	22.7	22719	3.1	2.5	
Fe	56	2	He	-0.162	-27.5	23354	0.4	100	
Se	78	2	He	0.092	61.0	197	3.9	1	
As	75	2	He	-0.040	-54.0	380	6.3	2.5	
Ca	44	2	He	-6.950	-27.6	947	10.8	100	
Na	23	2	He	-8.407	-8.8	66177	0.4	100	
Mg	24	2	He	-0.081	-48.6	680	2.9	100	
K	39	2	He	0.350	441.6	174636	0.4	100	
Mn	55	2	He	0.019	33.0	1600	1.2	2.5	
Co	59	2	He	0.001	81.0	150	6.7	2.5	
Ni	60	2	He	0.314	4.6	1127	2.7	2.5	
Cu	63	2	He	0.060	10.7	2744	2.9	1	
Zn	66	2	He	-0.133	-40.0	820	10.6	2.5	
Al	27	2	He	-2.362	-7.9	1203	8.3	5	
B	11	1	No Gas	3.228	9.0	33540	2.1	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-2.316	-1.8	37962	1.0	5	
Si	28	1	No Gas	0.441	262.1	582958	0.6	10	
Ag	107	1	No Gas	-0.001	-172.4	197	10.6	2.5	
Cd	111	1	No Gas	0.003	0.2	-1	0.0	1	
Sr	88	1	No Gas	-0.040	-2.9	1017	6.0	2.5	
Mo	95	1	No Gas	-0.052	-175.4	1107	66.7	2.5	
Sn	118	1	No Gas	0.058	45.6	1970	13.7	5	
Sb	121	1	No Gas	0.100	10.5	1964	8.7	2.5	
Ba	137	1	No Gas	-0.058	-7.5	273	8.4	2.5	
Tl	205	1	No Gas	0.001	703.6	650	20.0	1	
Tl	203	1	No Gas	0.003	177.2	313	18.7	1	
Pb	208	1	No Gas	0.005	36.9	1287	6.5	2.5	
U	238	1	No Gas	0.000	-3865.4	160	16.5	2.5	
Ca	43	2	He	-5.743	-32.6	53	10.8	100	
Sb	121	2	He	0.094	13.6	880	12.3	2.5	
Ti	47	2	He	0.096	19.4	37	15.7	2.5	
Se	82	1	No Gas	-0.746	-27.0	-19	-304.5	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	1277184	0.51	1302276	98.07	70	120	
Ge	72	2	He	932419	1.43	934309	99.80	70	120	
Ge	72	1	No Gas	3213118	1.54	3249936	98.87	70	120	
In	115	1	No Gas	3527724	2.40	3564377	98.97	70	120	
Bi	209	1	No Gas	2773198	1.01	2833408	97.87	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	027ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:52:55-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	0.053	191.4	77609	1.9	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.001	183.9	52	24.4	0	ICSA Main CR1 Failed
V	51	2	He	0.078	21.8	6846	1.2	0	ICSA Main CR1 Failed
Cr	52	2	He	1.906	4.1	33628	1.6	0	ICSA Main CR1 Failed
Fe	56	2	He	97545.616	1.9	669064830	0.9	0	
Se	78	2	He	0.158	118.5	192	14.0	0	ICSA Main CR1 Failed
As	75	2	He	0.296	20.3	768	10.3	0	ICSA Main CR1 Failed
Ca	44	2	He	95052.936	1.2	5369914	0.6	0	
Na	23	2	He	99779.012	1.9	114416835	1.3	0	
Mg	24	2	He	98900.390	1.5	69452162	0.6	0	
K	39	2	He	99043.077	1.9	111265598	0.9	0	
Mn	55	2	He	1.352	1.8	9834	2.2	0	ICSA Main CR1 Failed
Co	59	2	He	0.615	2.7	6422	2.5	0	ICSA Main CR1 Failed
Ni	60	2	He	1.001	7.1	2727	5.8	0	ICSA Main CR1 Failed
Cu	63	2	He	0.308	3.9	4091	0.8	0	ICSA Main CR1 Failed
Zn	66	2	He	2.364	2.6	4157	1.9	0	ICSA Main CR1 Failed
Al	27	2	He	97710.919	1.9	51688664	0.9	0	
B	11	1	No Gas	3.261	5.4	30836	0.3	0	
Al	27	1	No Gas	93116.933	2.0	1678428775	0.2	0	
Si	28	1	No Gas	34.482	4.2	876115	0.6	0	
Ag	107	1	No Gas	0.161	6.1	2934	4.6	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	0.389	16.8	1284	18.4	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	4.341	0.9	157215	2.1	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1944.499	2.1	13516197	0.9	0	
Sn	118	1	No Gas	0.029	36.6	1473	8.0	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.264	3.5	4311	5.4	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.569	1.8	3754	1.3	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.008	38.4	747	8.7	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.017	39.7	427	15.6	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.176	1.3	7058	2.6	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.005	13.4	320	8.3	0	ICSA Main CR1 Failed
Ca	43	2	He	95266.487	0.4	307636	0.6	0	
Sb	121	2	He	0.299	7.9	2377	8.4	0	ICSA Main CR1 Failed
Ti	47	2	He	2032.951	1.8	592876	1.2	0	
Se	82	1	No Gas	-0.087	-234.9	157	33.7	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	1171069	1.28	1302276	89.92	70	120	
Ge	72	2	He	865497	1.01	934309	92.63	70	120	
Ge	72	1	No Gas	2977757	2.26	3249936	91.63	70	120	
In	115	1	No Gas	3174001	2.72	3564377	89.05	70	120	
Bi	209	1	No Gas	2427270	1.44	2833408	85.67	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	028ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T13:55:08-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	95.047	1.213	1533525	1.49	100	95.0	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	93.060	2.213	445051	0.45	100	93.1	80	120	
V	51	2	He	99.322	1.395	701109	0.64	100	99.3	80	120	
Cr	52	2	He	99.999	0.870	777871	0.33	100	100.0	80	120	
Fe	56	2	He	107659.983	1.299	744157722	1.50	100	107660.0	80	120	
Se	78	2	He	101.735	1.010	14774	1.11	100	101.7	80	120	
As	75	2	He	101.597	1.719	126801	1.09	100	101.6	80	120	
Ca	44	2	He	103661.919	1.590	5901031	1.53	100	103661.9	80	120	
Na	23	2	He	108507.764	0.376	125378578	0.40	100	108507.8	80	120	
Mg	24	2	He	109336.710	1.607	77367519	0.87	100	109336.7	80	120	
K	39	2	He	108048.462	1.338	122304125	1.20	100	108048.5	80	120	
Mn	55	2	He	98.592	0.830	623578	0.75	100	98.6	80	120	
Co	59	2	He	96.759	1.178	997899	0.43	100	96.8	80	120	
Ni	60	2	He	97.692	1.323	240980	0.57	100	97.7	80	120	
Cu	63	2	He	94.288	1.754	595113	1.03	100	94.3	80	120	
Zn	66	2	He	101.692	2.069	140327	1.33	100	101.7	80	120	
Al	27	2	He	97125.293	0.212	51776921	0.77	100	97125.3	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	472.359	1.328	1200651	2.43	100	472.4	80	120	
Al	27	1	No Gas	90742.244	1.591	1661561149	0.65	100	90742.2	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	510.363	1.360	5659938	1.24	100	510.4	80	120	
Ag	107	1	No Gas	98.149	1.486	1663032	2.44	100	98.1	80	120	
Cd	111	1	No Gas	100.305	0.821	330288	0.25	100	100.3	80	120	
Sr	88	1	No Gas	105.247	0.372	3725241	1.05	100	105.2	80	120	
Mo	95	1	No Gas	2050.351	1.181	14133563	1.72	100	2050.4	80	120	
Sn	118	1	No Gas	96.705	0.682	993360	0.38	100	96.7	80	120	
Sb	121	1	No Gas	99.525	3.217	1532172	0.98	100	99.5	80	120	
Ba	137	1	No Gas	99.507	1.078	552606	0.40	100	99.5	80	120	
Tl	205	1	No Gas	96.625	0.638	2461897	0.49	100	96.6	80	120	
Tl	203	1	No Gas	91.070	0.161	1001534	0.56	100	91.1	80	120	
Pb	208	1	No Gas	99.368	0.885	3450741	1.07	100	99.4	80	120	
U	238	1	No Gas	103.135	0.981	3506761	0.48	100	103.1	80	120	
Ca	43	2	He	105501.152	0.668	343275	0.44	100	105501.2	80	120	
Sb	121	2	He	97.162	0.669	747943	0.66	100	97.2	80	120	
Ti	47	2	He	2136.503	1.021	627847	0.28	100	2136.5	80	120	
Cu	63	1	No Gas	94.807	2.608	1359164	1.02	100	94.8	80	120	
Se	82	1	No Gas	99.970	2.839	27109	2.39	100	100.0	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	1148922	2.54	1302276	88.22	70	120	
Ge	72	2	He	872091	0.74	934309	93.34	70	120	
Ge	72	1	No Gas	3024761	2.22	3249936	93.07	70	120	
In	115	1	No Gas	3146442	1.06	3564377	88.27	70	120	
Bi	209	1	No Gas	2425504	0.59	2833408	85.60	70	120	

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	199CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T20:59:22-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	74961	0.00
Be	9	1	No Gas	25	138.56
V	51	2	He	5022	0.06
Cr	52	2	He	15846	0.02
Fe	56	2	He	22472	0.01
Se	78	2	He	173	5.54
As	75	2	He	338	4.54
Ca	44	2	He	1053	0.55
Na	23	2	He	78118	0.00
Mg	24	2	He	1017	1.20
K	39	2	He	155154	0.00
Mn	55	2	He	687	0.68
Co	59	2	He	77	35.42
Ni	60	2	He	253	4.76
Cu	63	2	He	1273	1.04
Zn	66	2	He	470	3.62
Al	27	2	He	1763	0.47
B	11	1	No Gas	56845	0.00
Al	27	1	No Gas	72864	0.00
Si	28	1	No Gas	467782	0.00
Ag	107	1	No Gas	77	25.99
Sr	88	1	No Gas	2847	0.16
Mo	95	1	No Gas	423	2.25
Sn	118	1	No Gas	1787	0.73
Sb	121	1	No Gas	377	2.85
Ba	137	1	No Gas	837	0.08
Tl	205	1	No Gas	147	11.70
Tl	203	1	No Gas	47	115.56
Pb	208	1	No Gas	800	2.85
U	238	1	No Gas	67	46.84
Ca	43	2	He	70	88.96
Sb	121	2	He	157	22.44
Ti	47	2	He	17	549.91
Cu	63	1	No Gas	3210	0.14

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	No Gas	1094872	1.39

Calibration Blank Report

Ge	72	2	He	759178	1.33
Ge	72	1	No Gas	2974836	1.63
In	115	1	No Gas	3399243	2.32
Bi	209	1	No Gas	2779836	2.74

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	200CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:01:32-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	7215	0.01
V	51	2	He	16620	0.01
Cr	52	2	He	29258	0.00
Fe	56	2	He	1234035	0.00
Se	78	2	He	367	2.50
As	75	2	He	2491	0.02
Ca	44	2	He	9927	0.02
Na	23	2	He	283195	0.00
Mg	24	2	He	126897	0.00
K	39	2	He	344609	0.00
Mn	55	2	He	11265	0.03
Co	59	2	He	17675	0.00
Ni	60	2	He	4938	0.08
Cu	63	2	He	13477	0.04
Zn	66	2	He	4704	0.04
Al	27	2	He	2797	0.22
B	11	1	No Gas	76287	0.00
Al	27	1	No Gas	108464	0.00
Si	28	1	No Gas	554514	0.00
Ag	107	1	No Gas	34947	0.00
Cd	111	1	No Gas	6894	0.08
Sr	88	1	No Gas	75671	0.00
Mo	95	1	No Gas	14031	0.03
Sn	118	1	No Gas	22406	0.01
Sb	121	1	No Gas	29353	0.01
Ba	137	1	No Gas	12459	0.02
Tl	205	1	No Gas	57041	0.00
Tl	203	1	No Gas	24047	0.01
Pb	208	1	No Gas	78885	0.00
U	238	1	No Gas	72843	0.00
Ca	43	2	He	543	0.98
Sb	121	2	He	12533	0.03
Cu	63	1	No Gas	32723	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	1078764	0.95	1094872	98.53	70	120	
Ge	72	2	He	759753	0.12	759178	100.08	70	120	
Ge	72	1	No Gas	2975181	1.23	2974836	100.01	70	120	

Calibration Standard Report

In	115	1	No Gas	3451517	1.82	3399243	101.54	70	120	
Bi	209	1	No Gas	2822839	0.92	2779836	101.55	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	201CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:03:27-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	18592	0.01
V	51	2	He	34626	0.00
Cr	52	2	He	49794	0.00
Fe	56	2	He	3033826	0.00
Se	78	2	He	731	1.15
As	75	2	He	5695	0.03
Ca	44	2	He	23340	0.01
Na	23	2	He	600525	0.00
Mg	24	2	He	321686	0.00
K	39	2	He	631352	0.00
Mn	55	2	He	26773	0.01
Co	59	2	He	44356	0.00
Ni	60	2	He	10764	0.05
Cu	63	2	He	28594	0.00
Zn	66	2	He	6505	0.06
Al	27	2	He	3877	0.23
B	11	1	No Gas	106943	0.00
Al	27	1	No Gas	144899	0.00
Si	28	1	No Gas	691601	0.00
Ag	107	1	No Gas	88438	0.00
Cd	111	1	No Gas	17370	0.02
Sr	88	1	No Gas	183803	0.00
Mo	95	1	No Gas	34238	0.00
Sn	118	1	No Gas	54332	0.00
Sb	121	1	No Gas	74190	0.00
Ba	137	1	No Gas	29153	0.00
Tl	205	1	No Gas	143749	0.00
Tl	203	1	No Gas	59669	0.00
Pb	208	1	No Gas	193323	0.00
U	238	1	No Gas	182184	0.00
Ca	43	2	He	1360	0.25
Sb	121	2	He	31472	0.00
Cu	63	1	No Gas	70043	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	1044348	2.80	1094872	95.39	70	120	
Ge	72	2	He	754142	1.15	759178	99.34	70	120	
Ge	72	1	No Gas	2958451	2.05	2974836	99.45	70	120	

Calibration Standard Report

In	115	1	No Gas	3381035	1.62	3399243	99.46	70	120	
Bi	209	1	No Gas	2765877	3.01	2779836	99.50	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	202CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:05:25-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	35896	0.00
V	51	2	He	62251	0.00
Cr	52	2	He	82008	0.00
Fe	56	2	He	5799208	0.00
Se	78	2	He	1263	0.21
As	75	2	He	10621	0.01
Ca	44	2	He	45131	0.00
Na	23	2	He	1089293	0.00
Mg	24	2	He	620705	0.00
K	39	2	He	1115889	0.00
Mn	55	2	He	52230	0.00
Co	59	2	He	87651	0.00
Ni	60	2	He	21754	0.00
Cu	63	2	He	55527	0.00
Zn	66	2	He	12903	0.02
Al	27	2	He	5785	0.04
B	11	1	No Gas	156989	0.00
Al	27	1	No Gas	218753	0.00
Si	28	1	No Gas	947165	0.00
Ag	107	1	No Gas	174751	0.00
Cd	111	1	No Gas	34364	0.01
Sr	88	1	No Gas	365912	0.00
Mo	95	1	No Gas	67688	0.00
Sn	118	1	No Gas	106647	0.00
Sb	121	1	No Gas	146290	0.00
Ba	137	1	No Gas	57849	0.00
Tl	205	1	No Gas	282135	0.00
Tl	203	1	No Gas	117133	0.00
Pb	208	1	No Gas	379280	0.00
U	238	1	No Gas	352998	0.00
Ca	43	2	He	2804	0.29
Sb	121	2	He	63608	0.00
Cu	63	1	No Gas	132292	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	1046903	1.72	1094872	95.62	70	120	
Ge	72	2	He	756777	1.67	759178	99.68	70	120	
Ge	72	1	No Gas	2931373	1.91	2974836	98.54	70	120	

Calibration Standard Report

In	115	1	No Gas	3408604	2.71	3399243	100.28	70	120	
Bi	209	1	No Gas	2760398	3.55	2779836	99.30	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	203CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:07:21-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	359152	0.00
V	51	2	He	589403	0.00
Cr	52	2	He	664429	0.00
Fe	56	2	He	57803989	0.00
Se	78	2	He	11758	0.01
As	75	2	He	105242	0.00
Ca	44	2	He	443832	0.00
Na	23	2	He	9983465	0.00
Mg	24	2	He	5888403	0.00
K	39	2	He	9323031	0.00
Mn	55	2	He	522357	0.00
Co	59	2	He	868262	0.00
Ni	60	2	He	216252	0.00
Cu	63	2	He	545844	0.00
Zn	66	2	He	123626	0.00
Al	27	2	He	44789	0.00
B	11	1	No Gas	1090796	0.00
Al	27	1	No Gas	1665062	0.00
Si	28	1	No Gas	4673673	0.00
Ag	107	1	No Gas	1747633	0.00
Cd	111	1	No Gas	339759	0.00
Sr	88	1	No Gas	3569734	0.00
Mo	95	1	No Gas	672413	0.00
Sn	118	1	No Gas	1046192	0.00
Sb	121	1	No Gas	1544085	0.00
Ba	137	1	No Gas	576346	0.00
Tl	205	1	No Gas	2863957	0.00
Tl	203	1	No Gas	1191696	0.00
Pb	208	1	No Gas	3819059	0.00
U	238	1	No Gas	3735151	0.00
Ca	43	2	He	26382	0.00
Sb	121	2	He	648166	0.00
Cu	63	1	No Gas	1286736	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	1021380	2.08	1094872	93.29	70	120	
Ge	72	2	He	750963	1.19	759178	98.92	70	120	
Ge	72	1	No Gas	2951390	2.33	2974836	99.21	70	120	

Calibration Standard Report

In	115	1	No Gas	3321061	0.70	3399243	97.70	70	120	
Bi	209	1	No Gas	2738696	2.92	2779836	98.52	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	204CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:09:13-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	717246	0.00
V	51	2	He	1181508	0.00
Cr	52	2	He	1341174	0.00
Fe	56	2	He	114678118	0.00
Se	78	2	He	23478	0.01
As	75	2	He	209053	0.00
Ca	44	2	He	881759	0.00
Na	23	2	He	19653853	0.00
Mg	24	2	He	11733924	0.00
K	39	2	He	18241173	0.00
Mn	55	2	He	1054884	0.00
Co	59	2	He	1810629	0.00
Ni	60	2	He	425786	0.00
Cu	63	2	He	1091361	0.00
Zn	66	2	He	239482	0.00
Al	27	2	He	87793	0.00
B	11	1	No Gas	2099774	0.00
Al	27	1	No Gas	3242382	0.00
Si	28	1	No Gas	8655673	0.00
Ag	107	1	No Gas	3373809	0.00
Cd	111	1	No Gas	677070	0.00
Sr	88	1	No Gas	7047688	0.00
Mo	95	1	No Gas	1379134	0.00
Sn	118	1	No Gas	2134477	0.00
Sb	121	1	No Gas	3090888	0.00
Ba	137	1	No Gas	1161223	0.00
Tl	205	1	No Gas	5466401	0.00
Tl	203	1	No Gas	2347051	0.00
Pb	208	1	No Gas	7648616	0.00
U	238	1	No Gas	7277203	0.00
Ca	43	2	He	52966	0.01
Sb	121	2	He	1390759	0.00
Cu	63	1	No Gas	2530063	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	992857	0.34	1094872	90.68	70	120	
Ge	72	2	He	752657	0.57	759178	99.14	70	120	
Ge	72	1	No Gas	2900633	2.07	2974836	97.51	70	120	

Calibration Standard Report

In	115	1	No Gas	3338513	1.74	3399243	98.21	70	120	
Bi	209	1	No Gas	2728062	1.75	2779836	98.14	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICCV
Data File Name	206_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:13:10-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	199CALB.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	99.106	3.680	1325706	1.97	100	99.1	90	110	
Be	9	1	No Gas	97.523	0.516	370940	1.07	100	97.5	90	110	
V	51	2	He	100.057	1.540	608032	0.23	100	100.1	90	110	
Cr	52	2	He	98.496	2.138	682819	0.70	100	98.5	90	110	
Fe	56	2	He	10120.341	1.780	59630201	1.28	10000	101.2	90	110	
Se	78	2	He	99.978	3.118	12110	2.20	100	100.0	90	110	
As	75	2	He	101.865	1.275	109501	0.36	100	101.9	90	110	
Ca	44	2	He	10155.862	2.552	460265	1.16	10000	101.6	90	110	
Na	23	2	He	10089.285	2.774	10233645	1.36	10000	100.9	90	110	
Mg	24	2	He	10092.218	2.989	6078229	1.62	10000	100.9	90	110	
K	39	2	He	10145.698	1.135	9597069	0.33	10000	101.5	90	110	
Mn	55	2	He	98.636	1.671	532921	1.75	100	98.6	90	110	
Co	59	2	He	97.133	1.761	894613	1.77	100	97.1	90	110	
Ni	60	2	He	100.710	1.831	220724	1.52	100	100.7	90	110	
Cu	63	2	He	99.290	1.420	556341	1.42	100	99.3	90	110	
Zn	66	2	He	99.770	1.336	123558	1.95	100	99.8	90	110	
Al	27	2	He	99.327	2.793	45619	1.36	100	99.3	90	110	
B	11	1	No Gas	487.538	1.463	1116482	1.51	500	97.5	90	110	
Al	27	1	No Gas	100.212	1.575	1713436	1.50	100	100.2	90	110	
Si	28	1	No Gas	512.312	1.812	4827613	1.51	500	102.5	90	110	
Ag	107	1	No Gas	102.452	1.940	1770050	1.10	100	102.5	90	110	
Cd	111	1	No Gas	99.936	1.456	344278	1.25	100	99.9	90	110	
Sr	88	1	No Gas	103.314	1.619	3713118	1.30	100	103.3	90	110	
Mo	95	1	No Gas	97.794	1.212	682415	1.64	100	97.8	90	110	
Sn	118	1	No Gas	99.793	3.933	1078914	2.32	100	99.8	90	110	
Sb	121	1	No Gas	98.534	1.242	1569764	1.02	100	98.5	90	110	
Ba	137	1	No Gas	99.375	1.368	586173	1.59	100	99.4	90	110	
Tl	205	1	No Gas	102.481	0.097	2905948	0.56	100	102.5	90	110	
Tl	203	1	No Gas	101.868	1.416	1232627	1.98	100	101.9	90	110	
Pb	208	1	No Gas	98.714	0.532	3878816	0.86	100	98.7	90	110	
U	238	1	No Gas	100.325	2.613	3771046	3.12	100	100.3	90	110	
Ca	43	2	He	10127.269	2.034	27524	3.10	10000	101.3	90	110	
Sb	121	2	He	95.127	1.146	669237	0.38	100	95.1	90	110	
Ti	47	2	He	102.187	0.822	24829	0.69	100	102.2	90	110	
Cu	63	1	No Gas	102.072	2.535	1337344	2.41	100	102.1	90	110	
Se	82	1	No Gas	104.065	3.303	26812	2.62	100	104.1	90	110	

QC ISTD Table

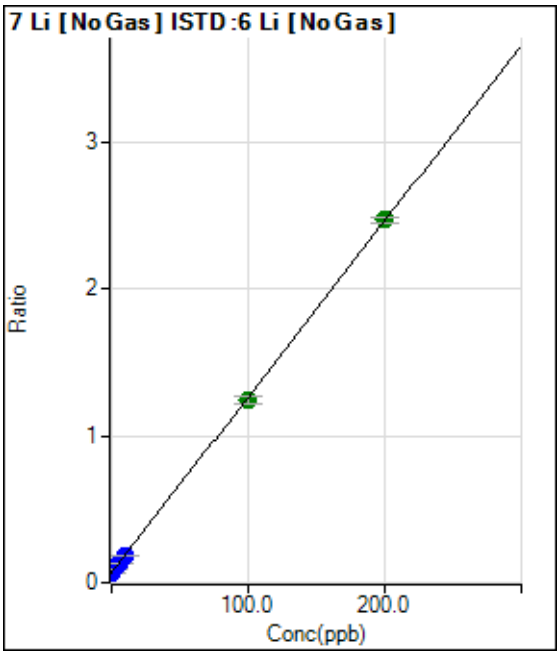
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1058698	1.59	1094872	96.70	70	120	
Ge	72	2	He	771778	1.41	759178	101.66	70	120	
Ge	72	1	No Gas	3000382	0.73	2974836	100.86	70	120	
In	115	1	No Gas	3391939	2.72	3399243	99.79	70	120	
Bi	209	1	No Gas	2804927	0.59	2779836	100.90	70	120	

Calibration for 206_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071223A.b\
Analysis File: 071223A.batch.bin
DA Date-Time: 7/12/2023 10:19:40 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	199CALB.d	CAL BLK	7/12/2023 8:59:22 PM
2	200CALS.d	2/10/200	7/12/2023 9:01:32 PM
3	201CALS.d	5/25/500	7/12/2023 9:03:27 PM
4	202CALS.d	10/50/100	7/12/2023 9:05:25 PM
5	203CALS.d	100/500/10K	7/12/2023 9:07:21 PM
6	204CALS.d	200/1000/20K	7/12/2023 9:09:13 PM

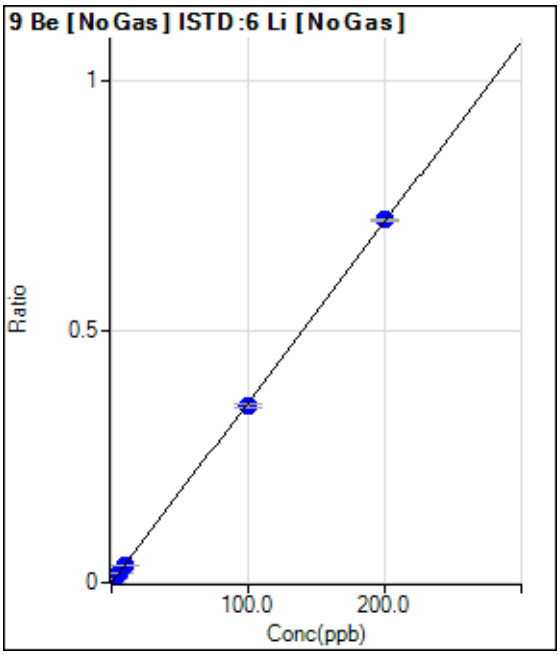
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74961.42	0.0685	P	3.4
2	☐	2.000	1.966	99227.99	0.0920	P	0.3
3	☐	5.000	5.110	135216.77	0.1295	P	2.7
4	☐	10.000	9.868	195086.28	0.1864	P	2.9
5	☐	100.000	98.472	1271015.53	1.2451	A	4.0
6	☐	200.000	200.768	2449704.81	2.4674	A	1.9

y = 0.0119 * x + 0.0685
R = 1.0000
DL = 0.5818
BEC = 5.732

Weight: <None>
Min Conc: <None>

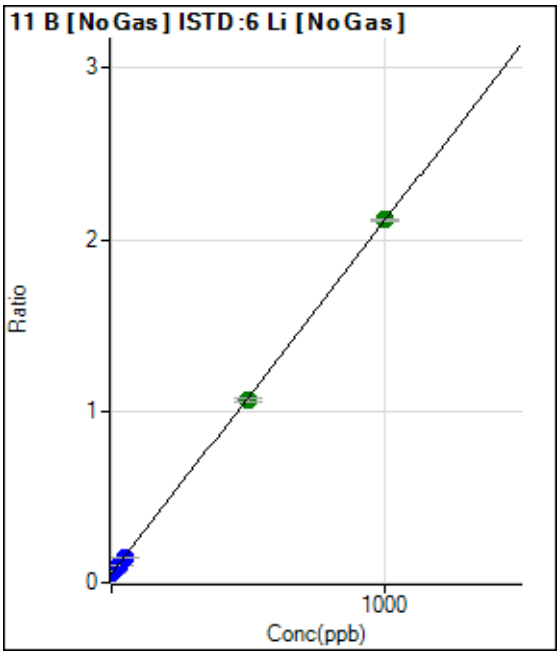


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	35.6
2	☐	2.000	1.855	7215.23	0.0067	P	0.4
3	☐	5.000	4.950	18592.34	0.0178	P	1.3
4	☐	10.000	9.539	35895.75	0.0343	P	1.9
5	☐	100.000	97.907	359151.69	0.3518	P	2.8
6	☐	200.000	201.072	717246.11	0.7224	P	0.7

y = 0.0036 * x + 2.2909E-005
R = 0.9999
DL = 0.006816
BEC = 0.006377

Weight: <None>
Min Conc: <None>

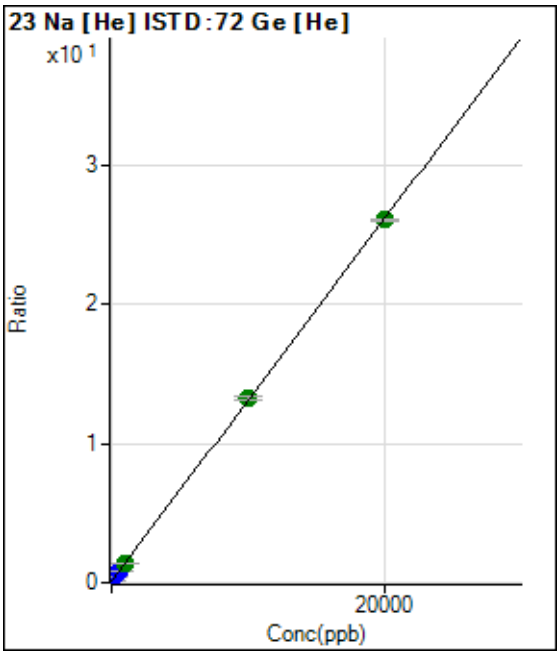
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56844.58	0.0519	P	1.8
2	☐	10.000	9.135	76287.27	0.0707	P	1.1
3	☐	25.000	24.554	106943.37	0.1024	P	1.3
4	☐	50.000	47.675	156989.16	0.1500	P	1.4
5	☐	500.000	494.183	1090796.49	1.0683	A	2.4
6	☐	1000.000	1003.045	2099774.35	2.1149	A	0.6

y = 0.0021 * x + 0.0519
R = 1.0000
DL = 1.372
BEC = 25.25

Weight: <None>
Min Conc: <None>

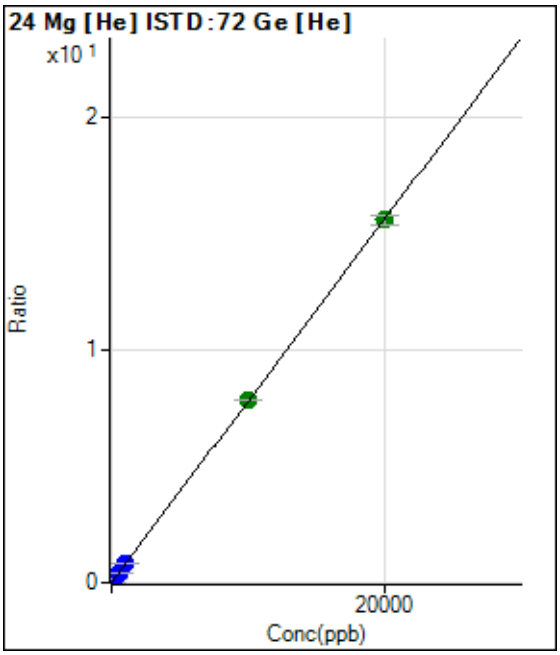


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	78117.82	0.1029	P	0.6
2	☐	200.000	206.874	283195.36	0.3727	P	0.7
3	☐	500.000	531.634	600524.82	0.7964	P	1.3
4	☐	1000.000	1024.663	1089293.45	1.4395	A	0.5
5	☐	10000.00	10115.33	9983465.06	13.2972	A	2.8
6	☐	20000.00	19940.24	19653853.46	26.1127	A	0.4

y = 0.0013 * x + 0.1029
R = 1.0000
DL = 1.525
BEC = 78.89

Weight: <None>
Min Conc: <None>

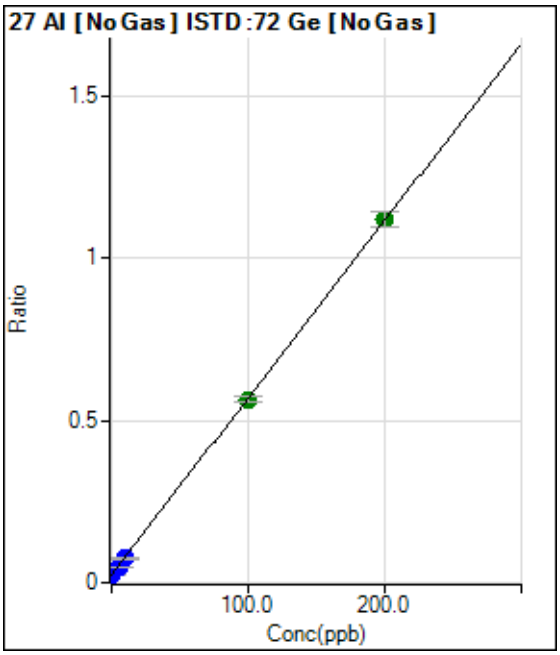
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1016.72	0.0013	P	11.6
2	☐	200.000	212.295	126896.86	0.1670	P	1.5
3	☐	500.000	544.875	321686.05	0.4266	P	0.9
4	☐	1000.000	1049.259	620705.25	0.8202	P	0.4
5	☐	10000.00	10045.53	5888403.25	7.8414	A	0.4
6	☐	20000.00	19973.52	11733924.41	15.5897	A	2.3

y = 7.8045E-004 * x + 0.0013
R = 1.0000
DL = 0.5957
BEC = 1.715

Weight: <None>
Min Conc: <None>

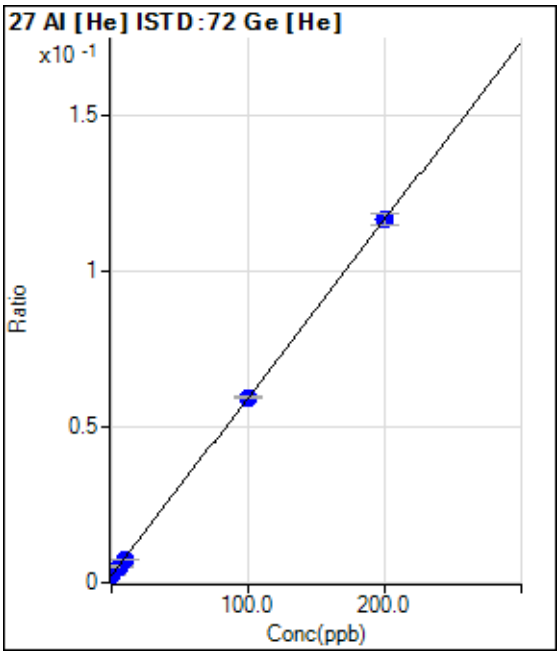


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72863.74	0.0245	P	2.8
2	☐	2.000	2.192	108464.22	0.0365	P	0.2
3	☐	5.000	4.487	144898.71	0.0490	P	0.8
4	☐	10.000	9.193	218752.63	0.0746	P	1.7
5	☐	100.000	98.985	1665061.69	0.5644	A	2.9
6	☐	200.000	200.559	3242382.24	1.1184	A	4.1

y = 0.0055 * x + 0.0245
R = 1.0000
DL = 0.3718
BEC = 4.492

Weight: <None>
Min Conc: <None>

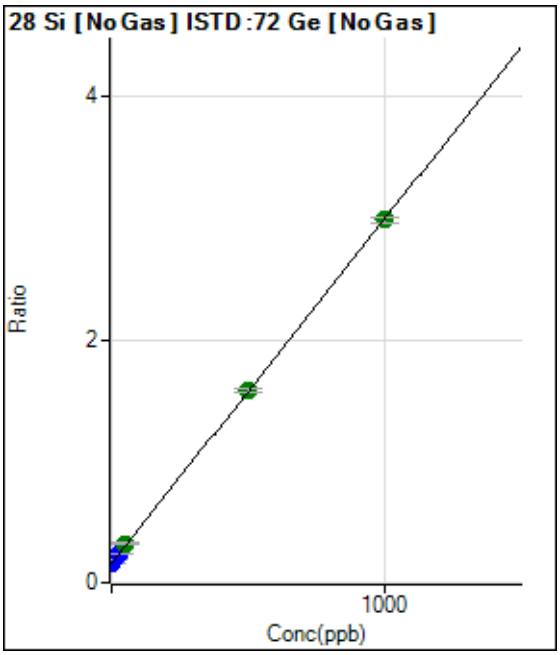
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1763.48	0.0023	P	9.3
2	☐	2.000	2.373	2797.01	0.0037	P	6.1
3	☐	5.000	4.933	3877.30	0.0051	P	10.0
4	☐	10.000	9.303	5784.63	0.0076	P	2.1
5	☐	100.000	100.245	44789.03	0.0596	P	1.5
6	☐	200.000	199.910	87792.73	0.1166	P	3.1

y = 5.7184E-004 * x + 0.0023
R = 1.0000
DL = 1.129
BEC = 4.065

Weight: <None>
Min Conc: <None>

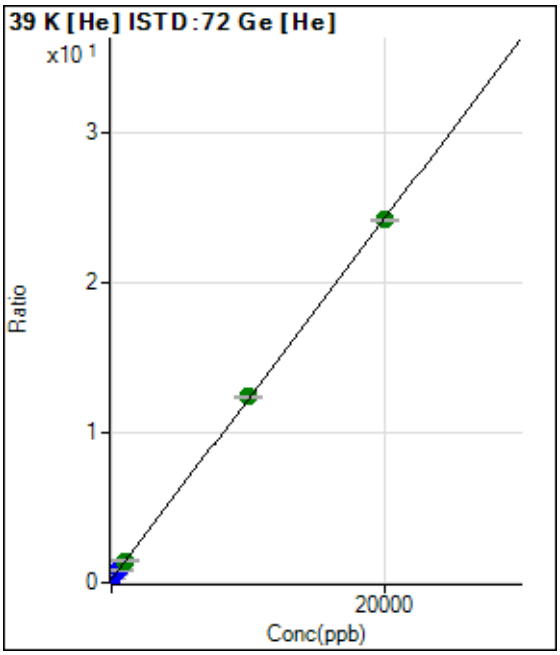


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	467781.61	0.1573	P	1.5
2	☐	10.000	10.279	554514.47	0.1864	P	1.5
3	☐	25.000	27.010	691601.06	0.2338	P	1.3
4	☐	50.000	58.522	947164.62	0.3231	A	1.3
5	☐	500.000	503.474	4673673.37	1.5840	A	1.8
6	☐	1000.000	997.784	8655672.79	2.9848	A	1.9

y = 0.0028 * x + 0.1573
R = 1.0000
DL = 2.579
BEC = 55.5

Weight: <None>
Min Conc: <None>

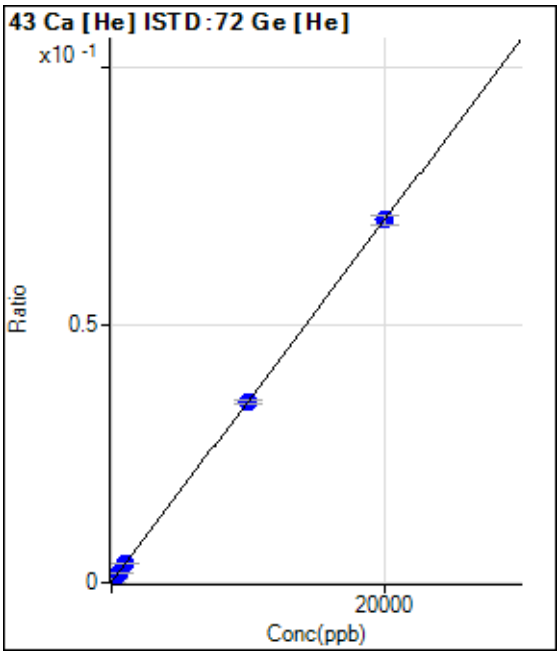
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155153.67	0.2044	P	1.0
2	☐	200.000	206.695	344609.21	0.4536	P	0.8
3	☐	500.000	524.926	631351.96	0.8372	P	1.1
4	☐	1000.000	1053.716	1115889.28	1.4748	A	1.6
5	☐	10000.00	10128.70	9323030.70	12.4158	A	1.2
6	☐	20000.00	19932.27	18241172.65	24.2353	A	0.7

y = 0.0012 * x + 0.2044
R = 1.0000
DL = 4.841
BEC = 169.5

Weight: <None>
Min Conc: <None>

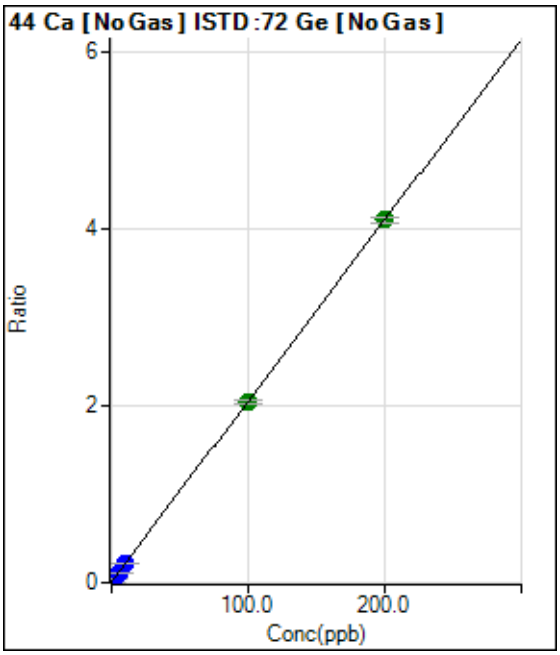


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	63.7
2	☐	200.000	177.228	543.36	0.0007	P	5.2
3	☐	500.000	487.173	1360.10	0.0018	P	3.6
4	☐	1000.000	1027.730	2803.68	0.0037	P	6.5
5	☐	10000.00	9977.909	26382.13	0.0351	P	1.7
6	☐	20000.00	20010.20	52965.51	0.0704	P	2.7

y = 3.5120E-006 * x + 9.2728E-005
R = 1.0000
DL = 50.48
BEC = 26.4

Weight: <None>
Min Conc: <None>

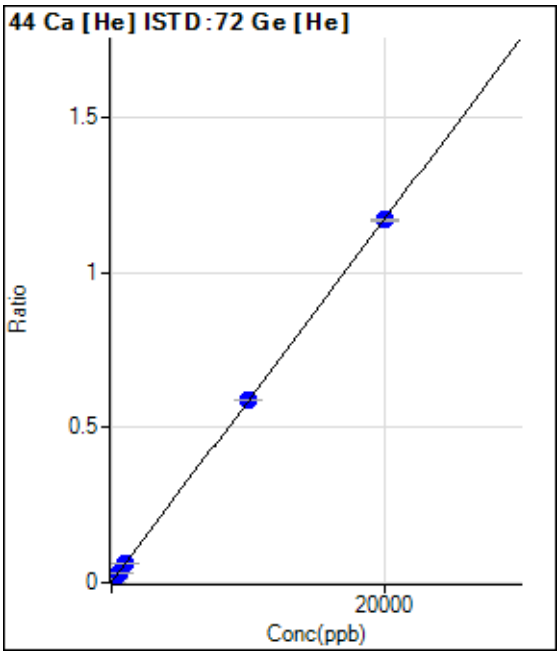
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	28215.77	0.0095	P	1.3
2	☐	2.000	2.034	151772.14	0.0510	P	0.4
3	☐	5.000	5.053	333138.79	0.1126	P	0.9
4	☐	10.000	10.150	635076.46	0.2167	P	0.8
5	☐	100.000	99.569	6024389.49	2.0418	A	2.2
6	☐	200.000	200.206	11877933.15	4.0960	A	1.9

y = 0.0204 * x + 0.0095
R = 1.0000
DL = 0.0184
BEC = 0.4647

Weight: <None>
Min Conc: <None>

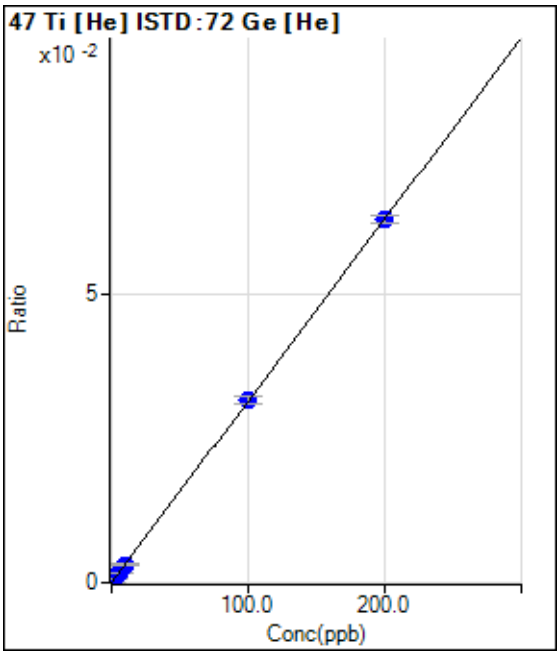


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1053.40	0.0014	P	7.1
2	☐	200.000	199.285	9927.07	0.0131	P	1.9
3	☐	500.000	504.606	23340.06	0.0310	P	3.6
4	☐	1000.000	994.117	45130.99	0.0596	P	1.7
5	☐	10000.00	10062.28	443831.56	0.5910	P	0.2
6	☐	20000.00	19969.04	881759.13	1.1716	P	0.6

y = 5.8599E-005 * x + 0.0014
R = 1.0000
DL = 5.065
BEC = 23.69

Weight: <None>
Min Conc: <None>

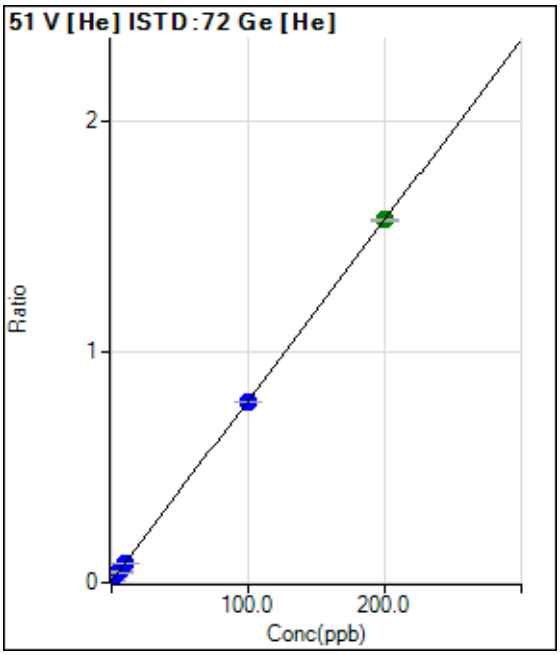
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	92.2
2	☐	2.000	2.008	496.69	0.0007	P	14.6
3	☐	5.000	5.187	1246.75	0.0017	P	9.3
4	☐	10.000	9.769	2343.57	0.0031	P	10.9
5	☐	100.000	100.525	23760.89	0.0317	P	4.3
6	☐	200.000	199.744	47318.59	0.0629	P	2.0

y = 3.1464E-004 * x + 2.2090E-005
R = 1.0000
DL = 0.1942
BEC = 0.07021

Weight: <None>
Min Conc: <None>

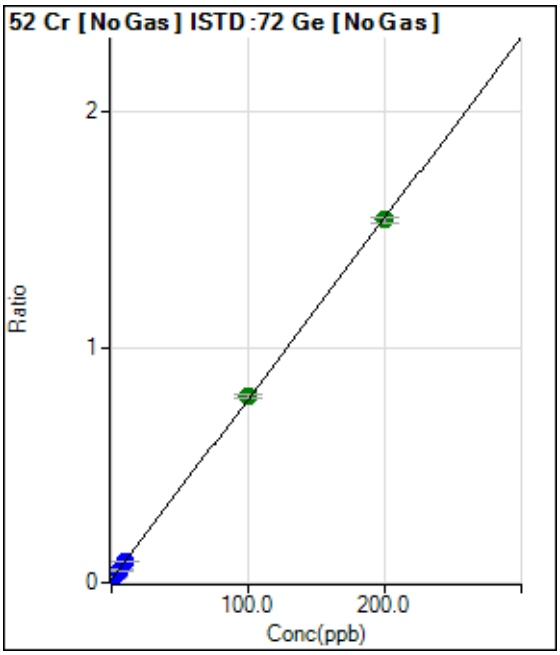


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5022.05	0.0066	P	1.7
2	☐	2.000	1.954	16620.12	0.0219	P	1.8
3	☐	5.000	5.033	34625.85	0.0459	P	1.2
4	☐	10.000	9.688	62250.63	0.0823	P	0.8
5	☐	100.000	99.662	589402.70	0.7849	P	0.1
6	☐	200.000	200.184	1181508.01	1.5698	A	0.8

y = 0.0078 * x + 0.0066
R = 1.0000
DL = 0.04425
BEC = 0.847

Weight: <None>
Min Conc: <None>

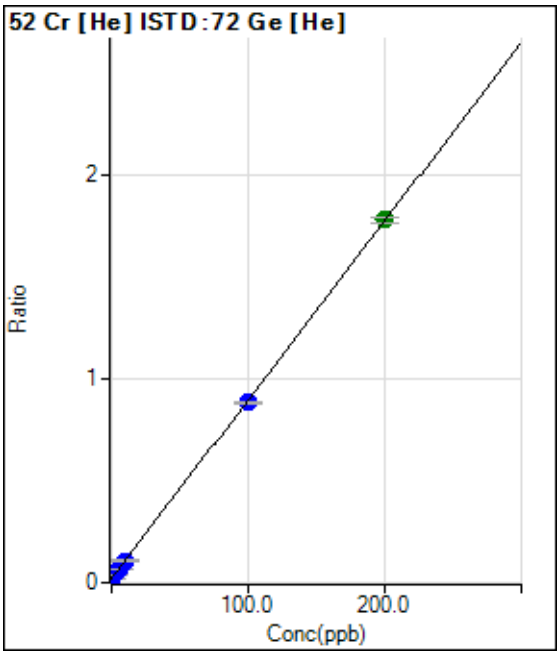
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37866.05	0.0127	P	2.2
2	☐	2.000	2.046	84667.28	0.0285	P	2.1
3	☐	5.000	5.237	156722.23	0.0530	P	2.5
4	☐	10.000	10.373	271058.79	0.0925	P	0.6
5	☐	100.000	101.819	2347271.17	0.7955	A	1.6
6	☐	200.000	199.065	4475297.85	1.5431	A	1.2

y = 0.0077 * x + 0.0127
R = 0.9999
DL = 0.1112
BEC = 1.656

Weight: <None>
Min Conc: <None>

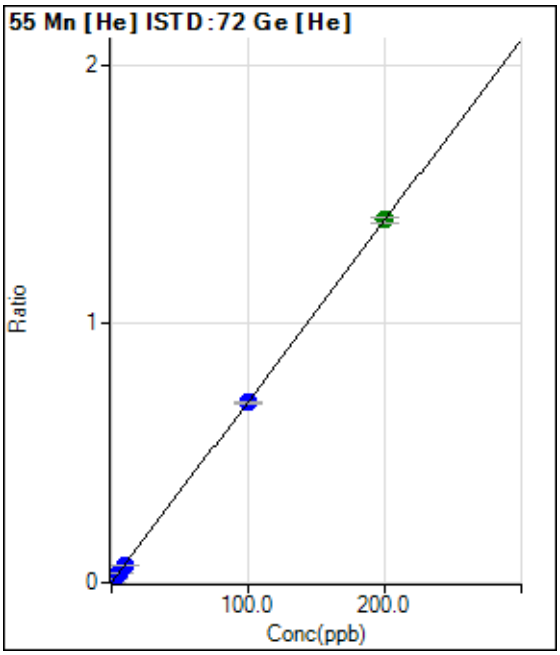


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15846.13	0.0209	P	3.6
2	☐	2.000	2.010	29258.20	0.0385	P	0.8
3	☐	5.000	5.149	49794.16	0.0660	P	2.8
4	☐	10.000	9.976	82007.93	0.1084	P	1.9
5	☐	100.000	98.486	664428.89	0.8848	P	0.9
6	☐	200.000	200.754	1341173.84	1.7819	A	1.8

y = 0.0088 * x + 0.0209
R = 1.0000
DL = 0.2564
BEC = 2.38

Weight: <None>
Min Conc: <None>

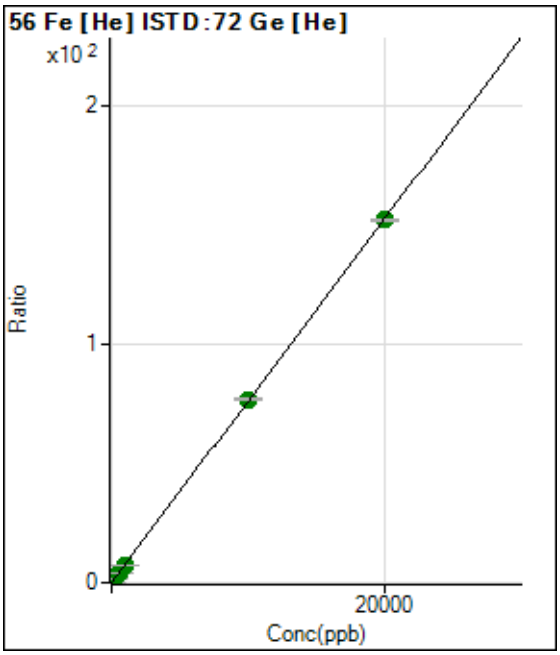
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	686.70	0.0009	P	3.4
2	☐	2.000	1.991	11264.85	0.0148	P	3.6
3	☐	5.000	4.948	26773.15	0.0355	P	1.2
4	☐	10.000	9.744	52230.00	0.0690	P	2.1
5	☐	100.000	99.362	522356.80	0.6956	P	0.7
6	☐	200.000	200.333	1054884.18	1.4016	A	1.9

y = 0.0070 * x + 9.0426E-004
R = 1.0000
DL = 0.01315
BEC = 0.1293

Weight: <None>
Min Conc: <None>

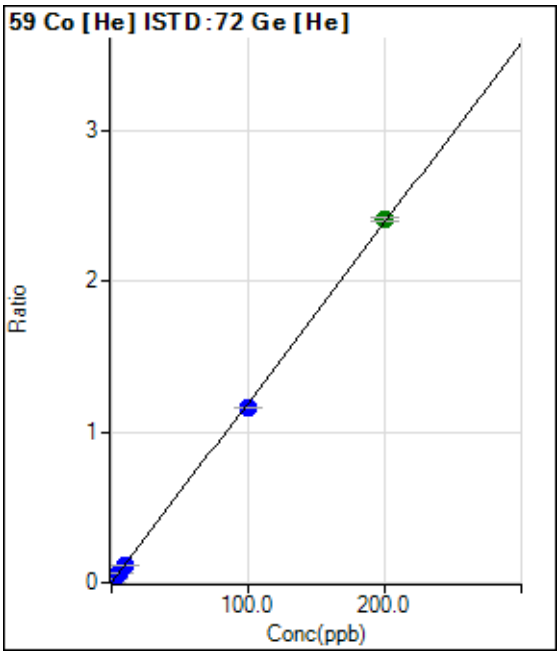


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22472.06	0.0296	P	2.0
2	☐	200.000	208.929	1234035.24	1.6242	A	1.5
3	☐	500.000	523.243	3033826.10	4.0232	A	1.3
4	☐	1000.000	1000.124	5799208.04	7.6630	A	0.2
5	☐	10000.00	10081.24	57803989.14	76.9741	A	0.4
6	☐	20000.00	19958.70	114678118.2	152.363	A	0.3

y = 0.0076 * x + 0.0296
R = 1.0000
DL = 0.2379
BEC = 3.879

Weight: <None>
Min Conc: <None>

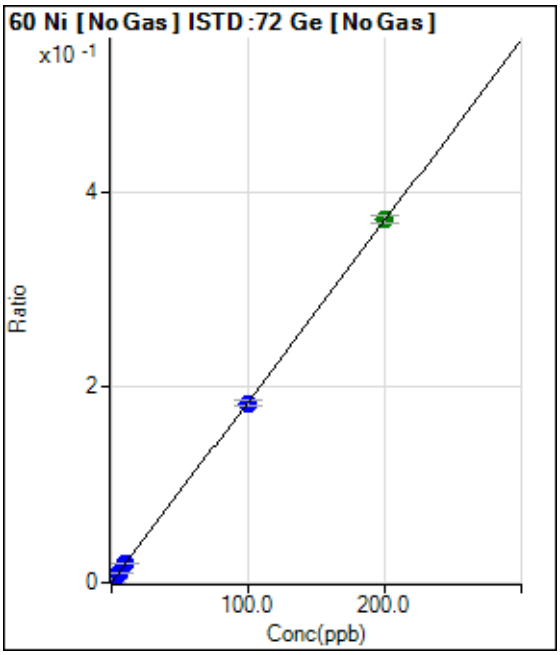
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0001	P	26.3
2	☐	2.000	1.941	17675.08	0.0233	P	0.8
3	☐	5.000	4.920	44355.99	0.0588	P	2.0
4	☐	10.000	9.698	87651.46	0.1158	P	1.5
5	☐	100.000	96.880	868262.02	1.1562	P	0.2
6	☐	200.000	201.578	1810629.04	2.4056	A	1.2

y = 0.0119 * x + 1.0083E-004
R = 0.9998
DL = 0.006664
BEC = 0.008449

Weight: <None>
Min Conc: <None>

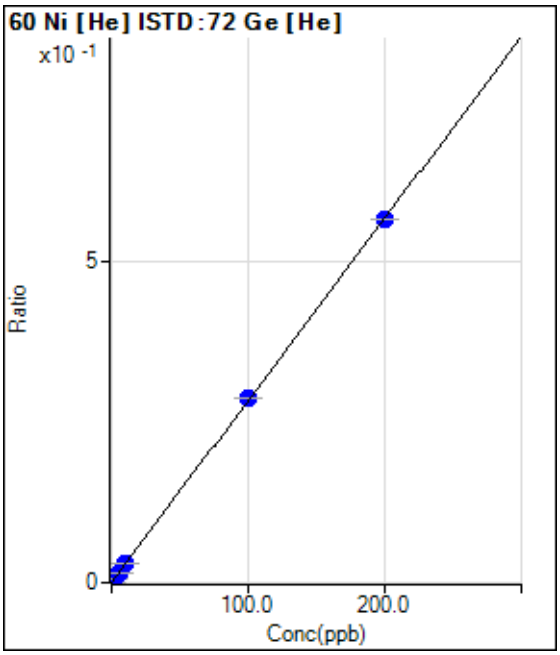


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	760.04	0.0003	P	11.7
2	☐	2.000	2.110	12372.46	0.0042	P	1.5
3	☐	5.000	5.076	28530.20	0.0096	P	1.6
4	☐	10.000	10.134	55707.28	0.0190	P	1.0
5	☐	100.000	99.089	541522.95	0.1836	P	2.7
6	☐	200.000	200.446	1076245.30	0.3711	A	2.2

y = 0.0018 * x + 2.5574E-004
R = 1.0000
DL = 0.04863
BEC = 0.1382

Weight: <None>
Min Conc: <None>

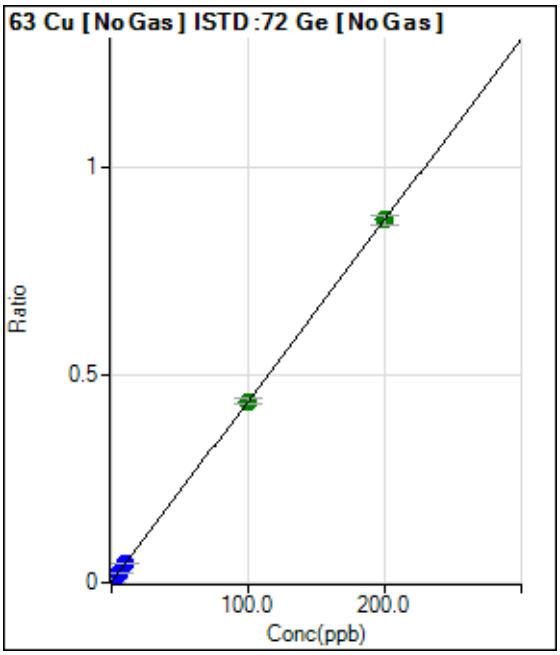
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	253.34	0.0003	P	13.1
2	☐	2.000	2.173	4937.64	0.0065	P	4.0
3	☐	5.000	4.913	10764.45	0.0143	P	3.9
4	☐	10.000	10.017	21754.24	0.0288	P	1.7
5	☐	100.000	101.391	216251.84	0.2880	P	0.6
6	☐	200.000	199.304	425786.29	0.5657	P	0.1

y = 0.0028 * x + 3.3402E-004
R = 1.0000
DL = 0.04637
BEC = 0.1177

Weight: <None>
Min Conc: <None>

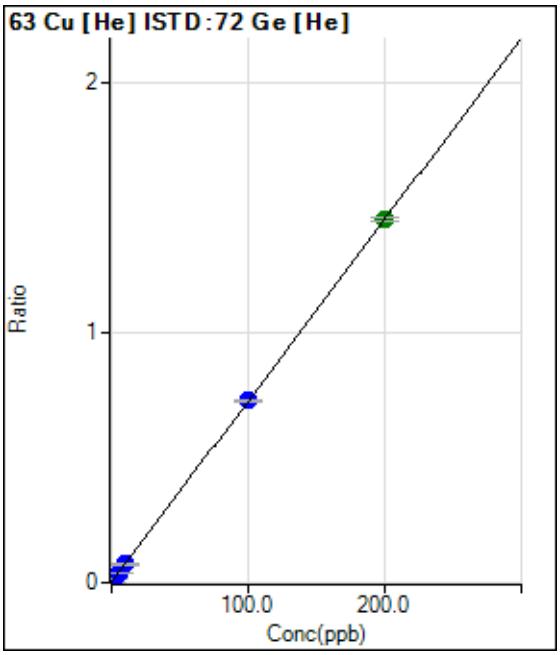


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3210.43	0.0011	P	3.0
2	☐	2.000	2.278	32722.96	0.0110	P	3.4
3	☐	5.000	5.189	70043.22	0.0237	P	2.3
4	☐	10.000	10.112	132292.25	0.0451	P	0.2
5	☐	100.000	99.879	1286736.47	0.4362	A	3.2
6	☐	200.000	200.047	2530063.40	0.8726	A	2.9

y = 0.0044 * x + 0.0011
R = 1.0000
DL = 0.02235
BEC = 0.2477

Weight: <None>
Min Conc: <None>

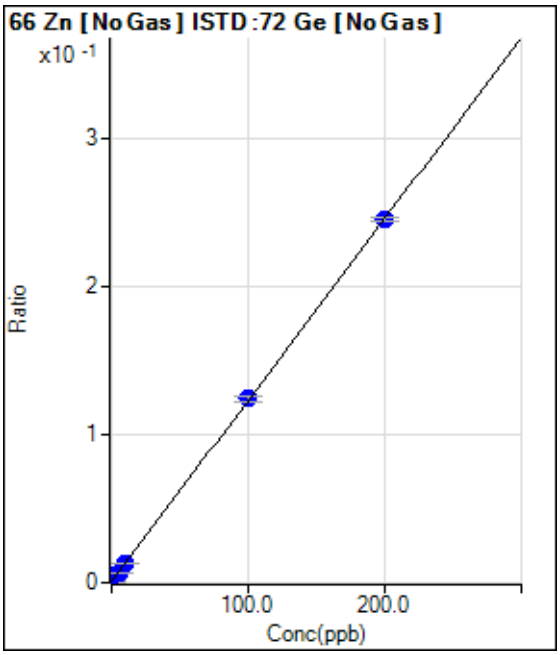
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1273.42	0.0017	P	13.8
2	☐	2.000	2.217	13476.94	0.0177	P	6.0
3	☐	5.000	5.004	28593.79	0.0379	P	2.4
4	☐	10.000	9.899	55526.78	0.0734	P	1.5
5	☐	100.000	100.118	545843.51	0.7269	P	0.8
6	☐	200.000	199.944	1091360.82	1.4500	A	0.9

y = 0.0072 * x + 0.0017
R = 1.0000
DL = 0.09577
BEC = 0.2317

Weight: <None>
Min Conc: <None>

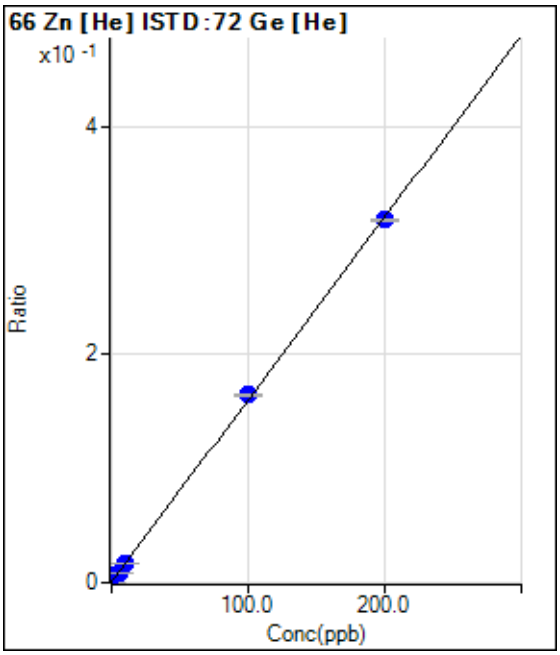


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1950.19	0.0007	P	4.2
2	☐	2.000	3.580	15008.53	0.0050	P	3.1
3	☐	5.000	4.948	19884.94	0.0067	P	1.8
4	☐	10.000	10.303	38952.91	0.0133	P	1.5
5	☐	100.000	100.836	366746.77	0.1243	P	2.6
6	☐	200.000	199.552	711616.00	0.2454	P	1.1

y = 0.0012 * x + 6.5542E-004
R = 1.0000
DL = 0.06709
BEC = 0.5345

Weight: <None>
Min Conc: <None>

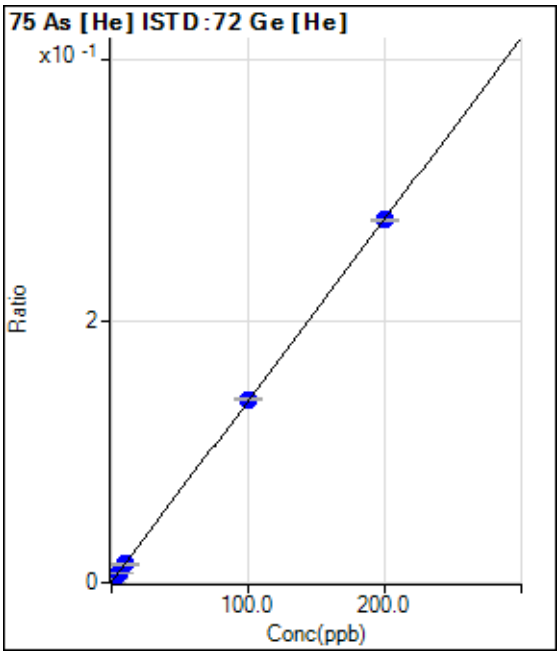
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	470.02	0.0006	P	18.2
2	☐	2.000	3.486	4704.23	0.0062	P	1.9
3	☐	5.000	5.007	6505.01	0.0086	P	2.8
4	☐	10.000	10.280	12903.02	0.0171	P	3.2
5	☐	100.000	102.606	123626.00	0.1646	P	0.5
6	☐	200.000	198.668	239482.00	0.3182	P	0.5

y = 0.0016 * x + 6.2000E-004
R = 0.9999
DL = 0.2122
BEC = 0.3879

Weight: <None>
Min Conc: <None>

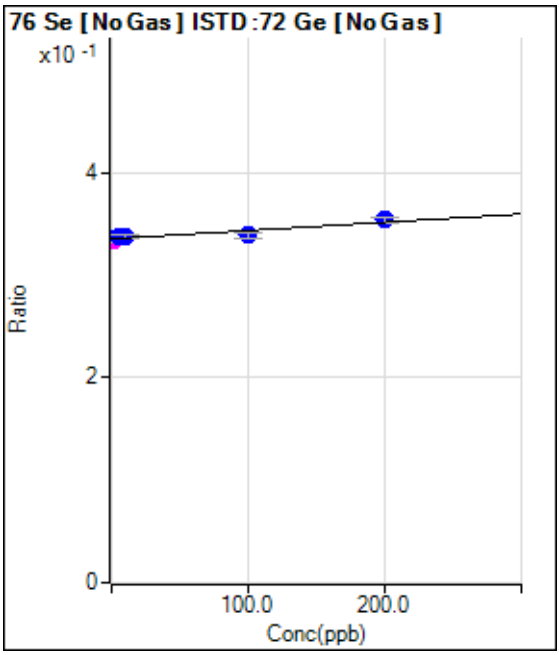


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	337.78	0.0004	P	15.7
2	☐	2.000	2.041	2491.35	0.0033	P	0.5
3	☐	5.000	5.117	5694.56	0.0076	P	0.7
4	☐	10.000	9.787	10620.87	0.0140	P	1.5
5	☐	100.000	100.604	105241.51	0.1401	P	1.0
6	☐	200.000	199.705	209053.25	0.2778	P	0.7

y = 0.0014 * x + 4.4516E-004
R = 1.0000
DL = 0.1505
BEC = 0.3206

Weight: <None>
Min Conc: <None>

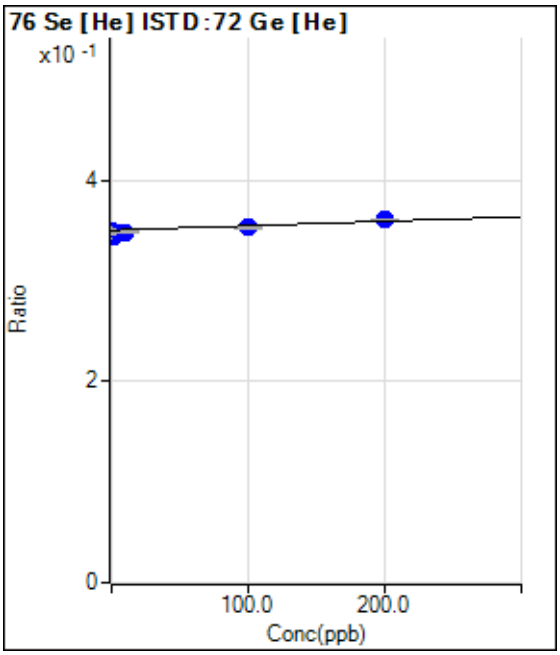
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	997567.46	0.3354	P	1.4
2	☐	2.000	-21.355	992556.86	0.3336	M	1.4
3	☐	5.000	21.184	997083.29	0.3371	P	1.3
4	☐	10.000	28.042	989669.80	0.3376	P	0.7
5	☐	100.000	42.467	999674.23	0.3388	P	1.8
6	☐	200.000	227.694	1026039.23	0.3538	P	1.6

y = 8.0911E-005 * x + 0.3354
R = 0.9347
DL = 176.2
BEC = 4145

Weight: <None>
Min Conc: <None>

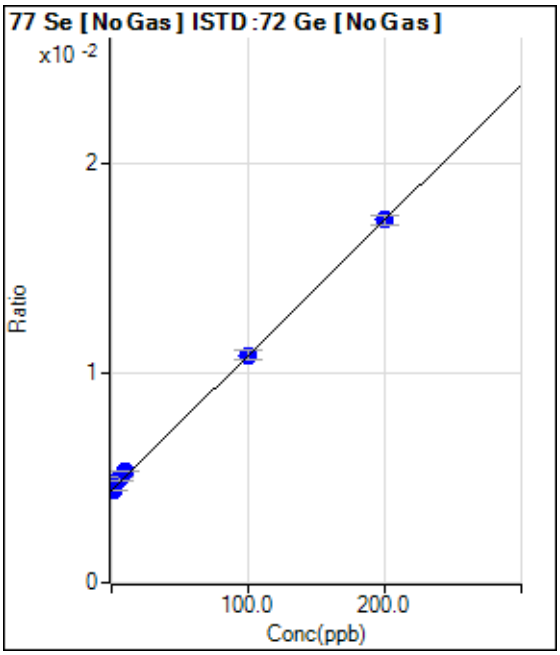


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	265929.23	0.3503	P	1.5
2	☐	2.000	-147.097	261167.92	0.3438	P	1.3
3	☐	5.000	-51.099	262429.81	0.3480	P	1.8
4	☐	10.000	-37.669	263818.78	0.3486	P	0.4
5	☐	100.000	54.105	264861.99	0.3527	P	0.9
6	☐	200.000	228.224	271293.73	0.3604	P	0.6

y = 4.4477E-005 * x + 0.3503
R = 0.9207
DL = 361.2
BEC = 7876

Weight: <None>
Min Conc: <None>

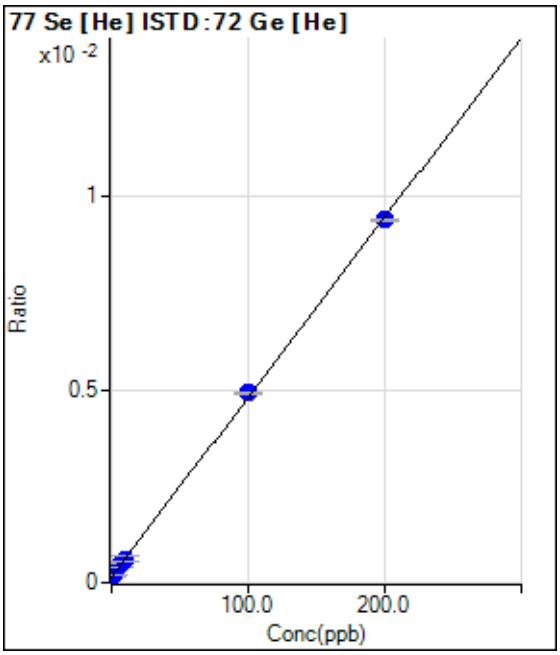
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13093.29	0.0044	P	1.3
2	☐	2.000	0.096	13116.65	0.0044	P	1.5
3	☐	5.000	9.007	14741.64	0.0050	P	4.1
4	☐	10.000	14.358	15629.37	0.0053	P	1.5
5	☐	100.000	100.015	32105.29	0.0109	P	3.9
6	☐	200.000	199.694	50290.70	0.0173	P	2.8

y = 6.4808E-005 * x + 0.0044
R = 0.9996
DL = 2.621
BEC = 67.92

Weight: <None>
Min Conc: <None>

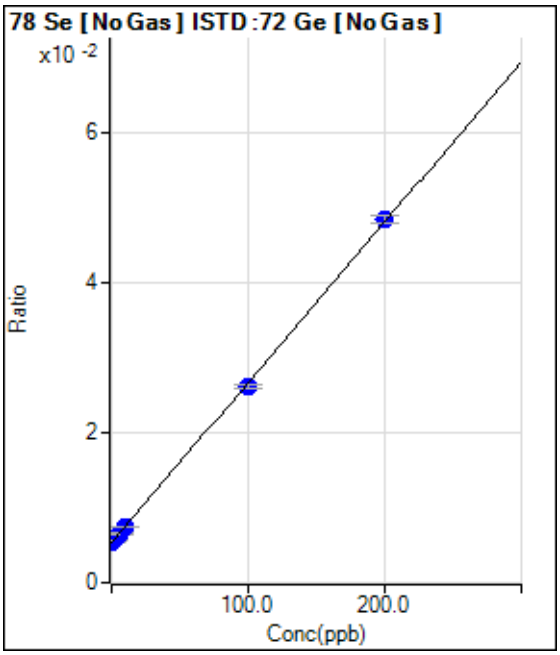


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0002	P	20.4
2	☐	2.000	0.749	143.33	0.0002	P	10.7
3	☐	5.000	6.191	333.34	0.0004	P	14.3
4	☐	10.000	9.917	466.68	0.0006	P	26.7
5	☐	100.000	102.395	3690.59	0.0049	P	1.0
6	☐	200.000	198.790	7071.99	0.0094	P	0.4

y = 4.6492E-005 * x + 1.5383E-004
R = 0.9999
DL = 2.024
BEC = 3.309

Weight: <None>
Min Conc: <None>

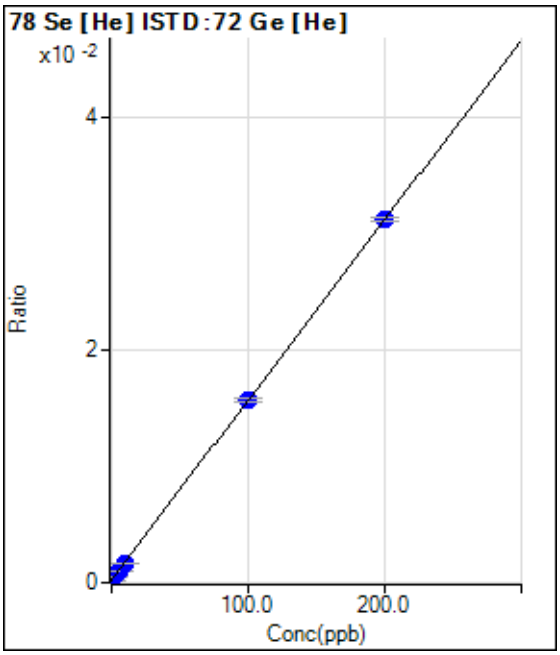
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15873.00	0.0053	P	3.1
2	☐	2.000	1.120	16590.41	0.0056	P	0.9
3	☐	5.000	5.158	19033.75	0.0064	P	5.1
4	☐	10.000	9.713	21714.41	0.0074	P	1.9
5	☐	100.000	97.180	76875.36	0.0261	P	2.5
6	☐	200.000	201.429	140019.18	0.0483	P	2.0

y = 2.1321E-004 * x + 0.0053
R = 0.9999
DL = 2.324
BEC = 25.03

Weight: <None>
Min Conc: <None>

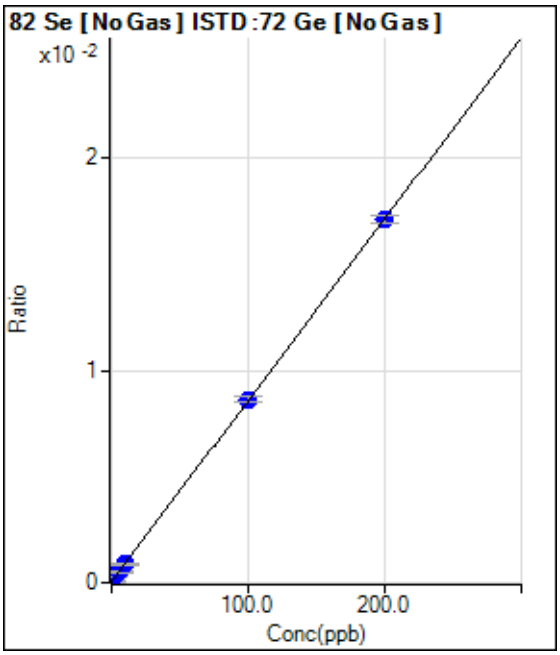


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	173.33	0.0002	P	9.2
2	☐	2.000	1.644	366.68	0.0005	P	9.1
3	☐	5.000	4.791	730.69	0.0010	P	9.3
4	☐	10.000	9.312	1262.73	0.0017	P	3.0
5	☐	100.000	99.755	11758.48	0.0157	P	1.8
6	☐	200.000	200.166	23478.44	0.0312	P	0.9

y = 1.5470E-004 * x + 2.2829E-004
R = 1.0000
DL = 0.4088
BEC = 1.476

Weight: <None>
Min Conc: <None>

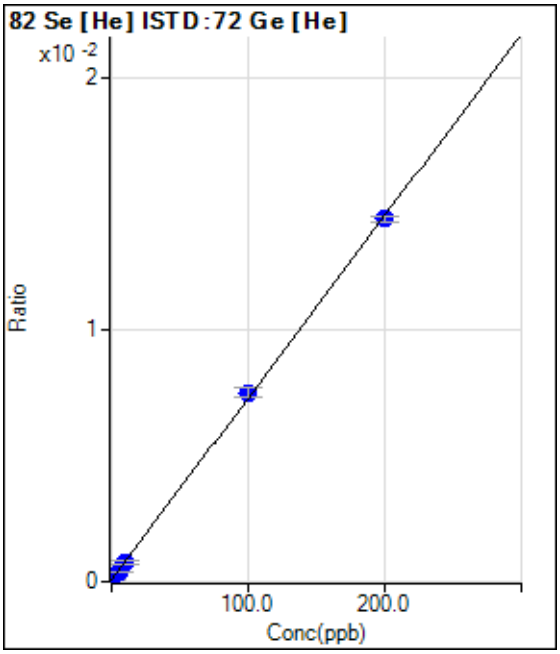
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	124.18	0.0000	P	33.1
2	☐	2.000	2.468	751.07	0.0003	P	13.1
3	☐	5.000	5.431	1494.46	0.0005	P	14.1
4	☐	10.000	9.860	2588.13	0.0009	P	14.6
5	☐	100.000	100.626	25499.75	0.0086	P	3.1
6	☐	200.000	199.678	49617.14	0.0171	P	2.2

y = 8.5483E-005 * x + 4.1700E-005
R = 1.0000
DL = 0.4851
BEC = 0.4878

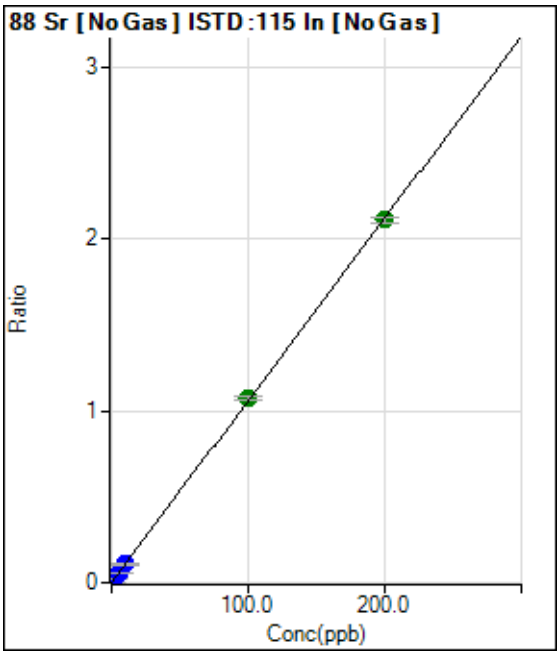
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	30.0
2	☐	2.000	2.669	200.01	0.0003	P	22.9
3	☐	5.000	4.410	293.34	0.0004	P	4.9
4	☐	10.000	10.074	603.36	0.0008	P	18.6
5	☐	100.000	103.113	5647.96	0.0075	P	4.7
6	☐	200.000	198.448	10841.20	0.0144	P	1.2

y = 7.2230E-005 * x + 7.0429E-005
R = 0.9998
DL = 0.878
BEC = 0.9751

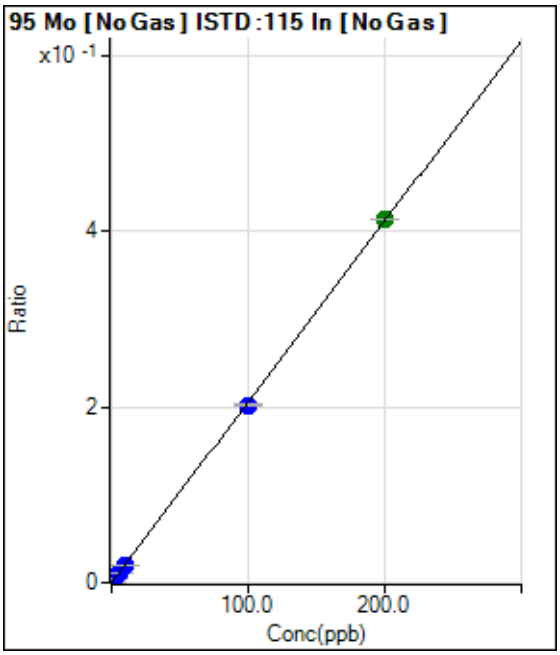
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2847.03	0.0008	P	2.2
2	☐	2.000	1.992	75670.52	0.0219	P	2.4
3	☐	5.000	5.055	183803.17	0.0544	P	1.4
4	☐	10.000	10.061	365912.00	0.1074	P	2.1
5	☐	100.000	101.420	3569733.80	1.0749	A	1.5
6	☐	200.000	199.286	7047688.23	2.1114	A	1.6

y = 0.0106 * x + 8.3727E-004
R = 1.0000
DL = 0.005304
BEC = 0.07906

Weight: <None>
Min Conc: <None>

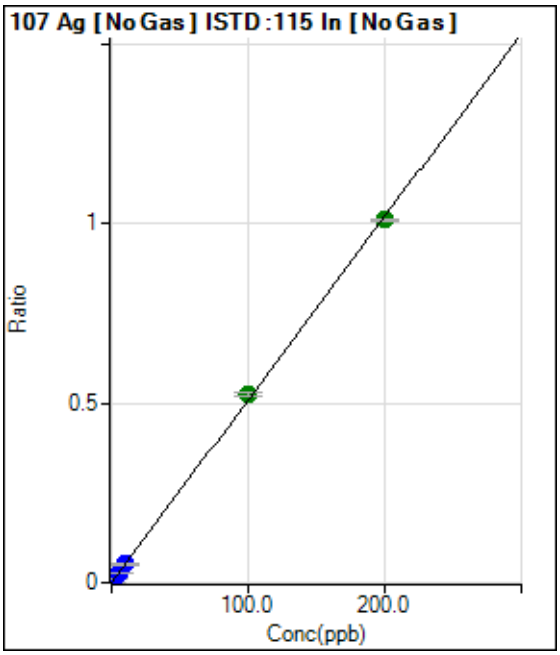


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	423.35	0.0001	P	7.8
2	☐	2.000	1.916	14031.02	0.0041	P	3.3
3	☐	5.000	4.865	34237.61	0.0101	P	2.8
4	☐	10.000	9.600	67688.34	0.0199	P	2.1
5	☐	100.000	98.398	672412.93	0.2025	P	0.9
6	☐	200.000	200.825	1379134.41	0.4131	A	0.1

y = 0.0021 * x + 1.2443E-004
R = 1.0000
DL = 0.01419
BEC = 0.06051

Weight: <None>
Min Conc: <None>

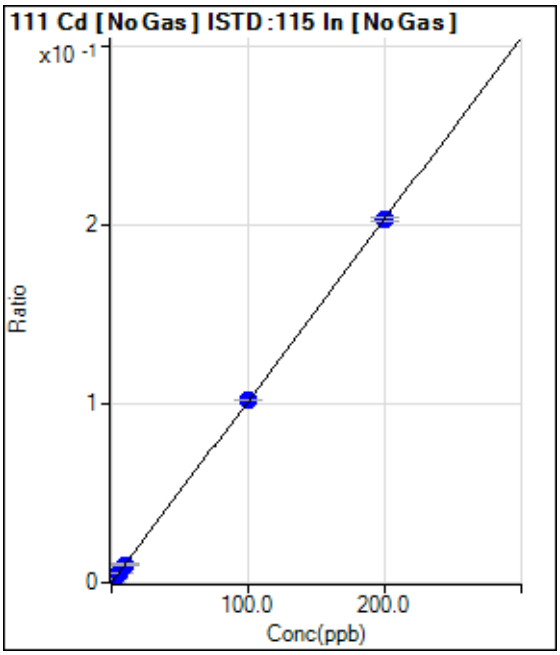
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0000	P	21.5
2	☐	2.000	1.983	34946.68	0.0101	P	1.8
3	☐	5.000	5.130	88438.33	0.0262	P	1.0
4	☐	10.000	10.062	174750.83	0.0513	P	2.0
5	☐	100.000	103.283	1747633.05	0.5262	A	1.7
6	☐	200.000	198.352	3373809.32	1.0106	A	0.4

y = 0.0051 * x + 2.2605E-005
R = 0.9998
DL = 0.002861
BEC = 0.004437

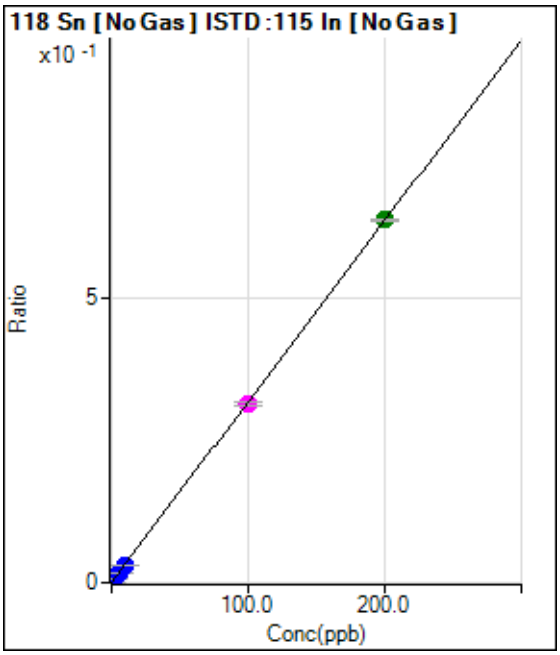
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-4.06	0.0000	P	-632.0
2	☐	2.000	1.966	6893.56	0.0020	P	3.7
3	☐	5.000	5.057	17369.79	0.0051	P	2.2
4	☐	10.000	9.929	34363.73	0.0101	P	3.1
5	☐	100.000	100.703	339759.07	0.1023	P	0.4
6	☐	200.000	199.651	677070.12	0.2028	P	0.9

y = 0.0010 * x - 1.1210E-006
R = 1.0000
DL = 0.02092
BEC = -0.001103

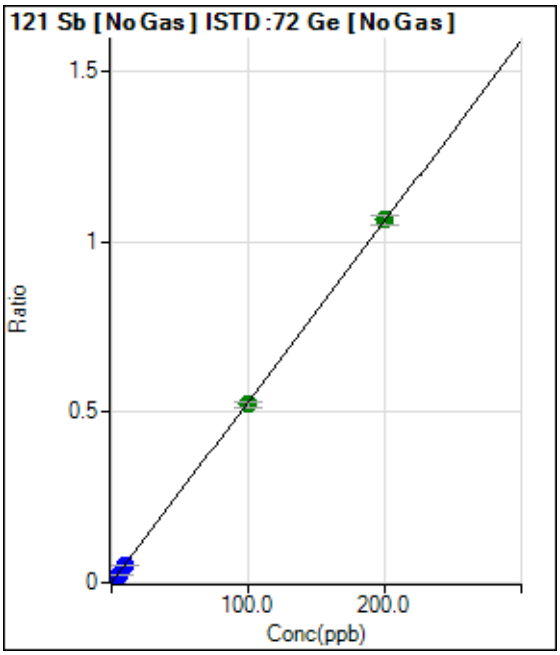
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1786.88	0.0005	P	11.2
2	☐	2.000	1.875	22406.21	0.0065	P	2.8
3	☐	5.000	4.883	54332.49	0.0161	P	2.5
4	☐	10.000	9.668	106647.31	0.0313	P	3.5
5	☐	100.000	98.766	1046191.76	0.3150	M	2.0
6	☐	200.000	200.638	2134477.05	0.6394	A	0.5

y = 0.0032 * x + 5.2500E-004
R = 1.0000
DL = 0.05526
BEC = 0.1649

Weight: <None>
Min Conc: <None>

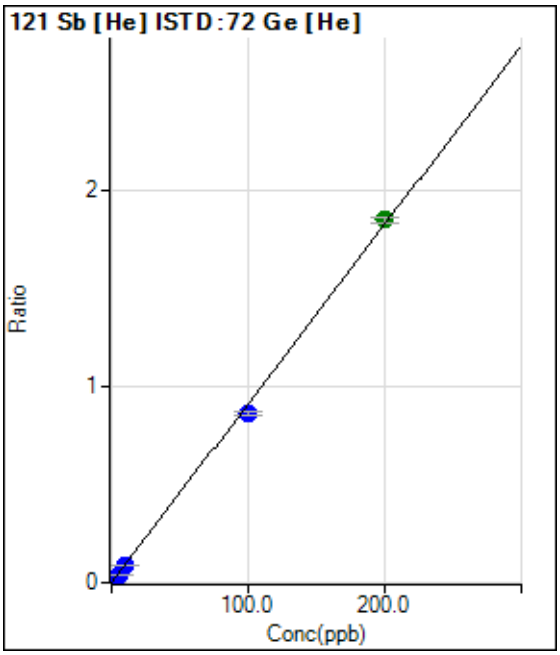


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	376.68	0.0001	P	11.8
2	☐	2.000	1.834	29353.22	0.0099	P	1.6
3	☐	5.000	4.701	74189.57	0.0251	P	1.6
4	☐	10.000	9.379	146289.83	0.0499	P	1.7
5	☐	100.000	98.567	1544084.77	0.5234	A	2.8
6	☐	200.000	200.757	3090888.39	1.0659	A	2.3

y = 0.0053 * x + 1.2673E-004
R = 1.0000
DL = 0.008452
BEC = 0.02387

Weight: <None>
Min Conc: <None>

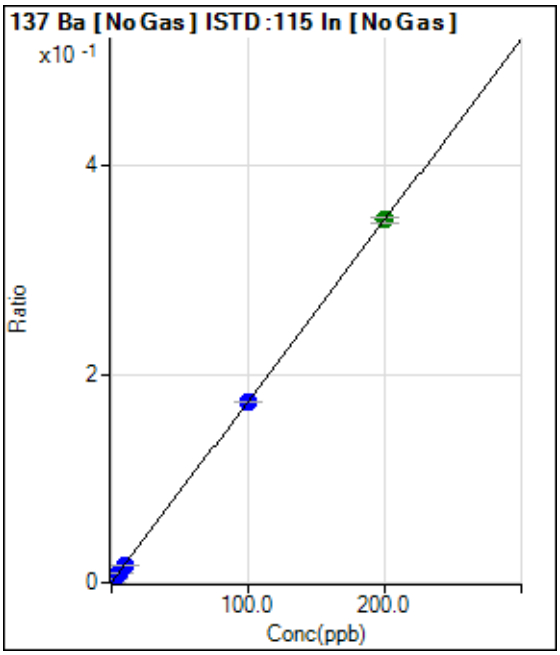
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156.67	0.0002	P	36.6
2	☐	2.000	1.787	12532.88	0.0165	P	4.2
3	☐	5.000	4.556	31471.54	0.0417	P	1.3
4	☐	10.000	9.199	63607.62	0.0841	P	0.3
5	☐	100.000	94.691	648165.60	0.8633	P	2.1
6	☐	200.000	202.708	1390758.63	1.8477	A	1.7

y = 0.0091 * x + 2.0703E-004
R = 0.9995
DL = 0.02497
BEC = 0.02272

Weight: <None>
Min Conc: <None>

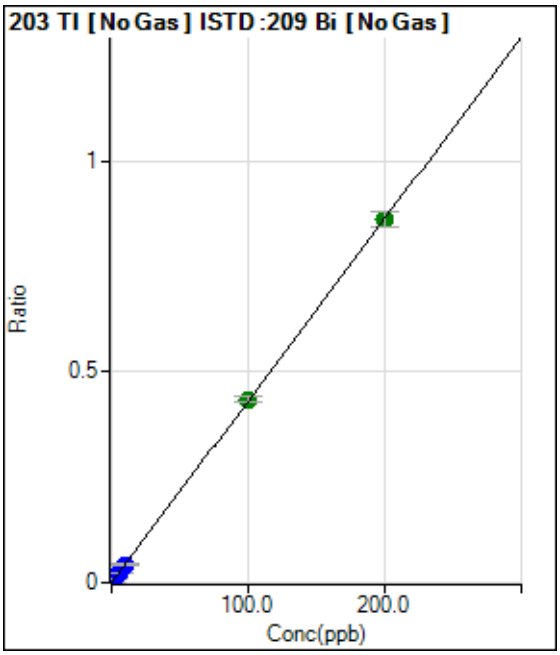


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	836.71	0.0002	P	2.6
2	☐	2.000	1.937	12459.48	0.0036	P	2.6
3	☐	5.000	4.824	29153.02	0.0086	P	2.5
4	☐	10.000	9.631	57849.25	0.0170	P	1.0
5	☐	100.000	99.771	576346.07	0.1735	P	0.3
6	☐	200.000	200.138	1161222.77	0.3479	A	1.8

y = 0.0017 * x + 2.4624E-004
R = 1.0000
DL = 0.01125
BEC = 0.1418

Weight: <None>
Min Conc: <None>

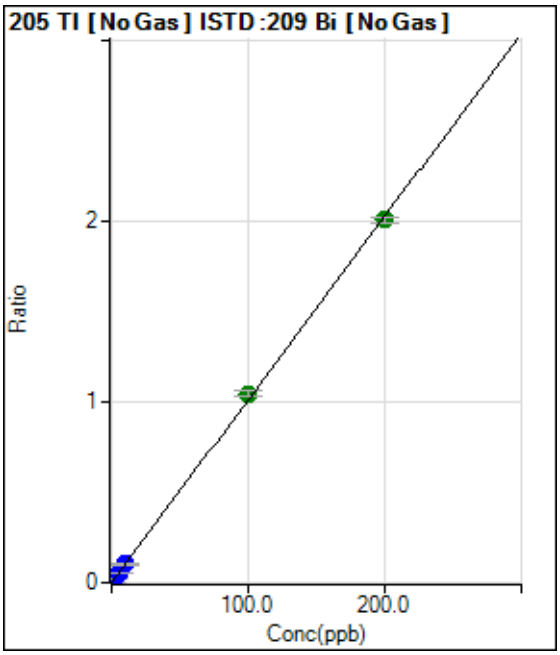
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0000	P	52.3
2	☐	2.000	1.971	24046.80	0.0085	P	3.7
3	☐	5.000	5.001	59669.25	0.0216	P	3.7
4	☐	10.000	9.842	117132.71	0.0425	P	4.2
5	☐	100.000	100.933	1191695.71	0.4354	A	3.1
6	☐	200.000	199.542	2347051.01	0.8607	A	4.1

y = 0.0043 * x + 1.6636E-005
R = 1.0000
DL = 0.006053
BEC = 0.003857

Weight: <None>
Min Conc: <None>

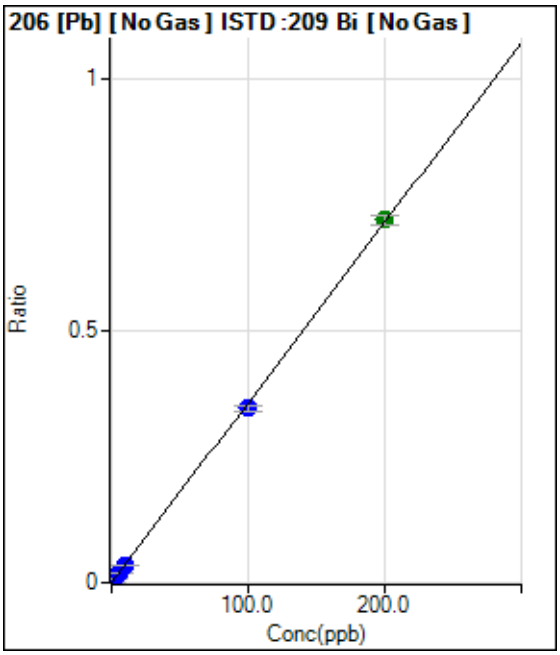


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	146.67	0.0001	P	14.7
2	☐	2.000	1.994	57040.54	0.0202	P	1.7
3	☐	5.000	5.140	143748.60	0.0520	P	4.3
4	☐	10.000	10.113	282135.44	0.1023	P	3.5
5	☐	100.000	103.482	2863957.46	1.0461	A	2.3
6	☐	200.000	198.250	5466401.38	2.0041	A	1.5

y = 0.0101 * x + 5.2628E-005
R = 0.9998
DL = 0.002303
BEC = 0.005206

Weight: <None>
Min Conc: <None>

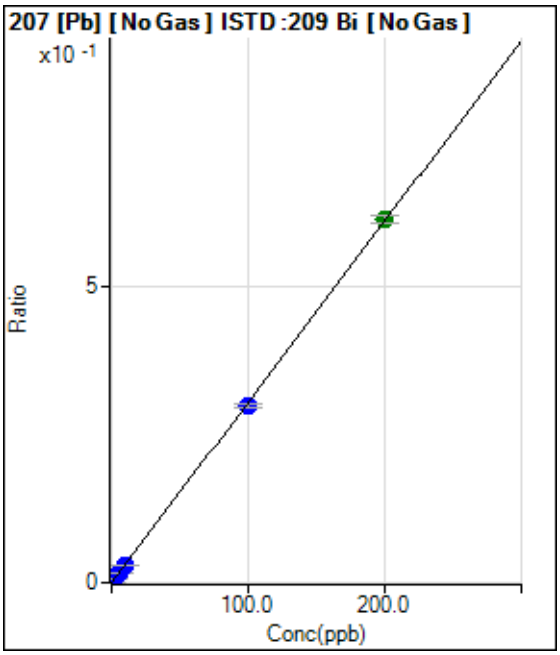
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	200.01	0.0001	P	10.8
2	☐	2.000	2.004	20410.29	0.0072	P	1.0
3	☐	5.000	4.897	48574.86	0.0176	P	1.3
4	☐	10.000	9.594	94765.51	0.0343	P	2.5
5	☐	100.000	96.838	947237.02	0.3460	P	3.0
6	☐	200.000	201.604	1964537.89	0.7203	A	2.5

y = 0.0036 * x + 7.1816E-005
R = 0.9998
DL = 0.006518
BEC = 0.0201

Weight: <None>
Min Conc: <None>

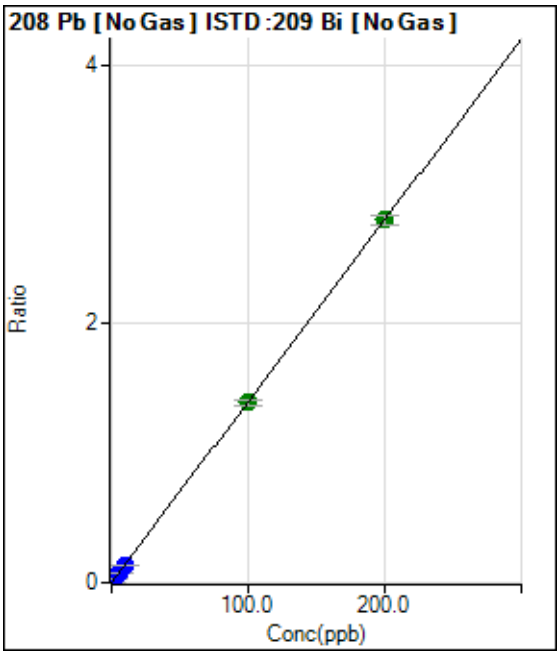


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	173.34	0.0001	P	36.6
2	☐	2.000	1.939	16911.80	0.0060	P	3.5
3	☐	5.000	4.990	42372.23	0.0153	P	1.2
4	☐	10.000	9.708	82086.59	0.0298	P	2.3
5	☐	100.000	98.305	823265.09	0.3007	P	2.4
6	☐	200.000	200.863	1675582.00	0.6143	A	2.0

y = 0.0031 * x + 6.2104E-005
R = 1.0000
DL = 0.02228
BEC = 0.02031

Weight: <None>
Min Conc: <None>

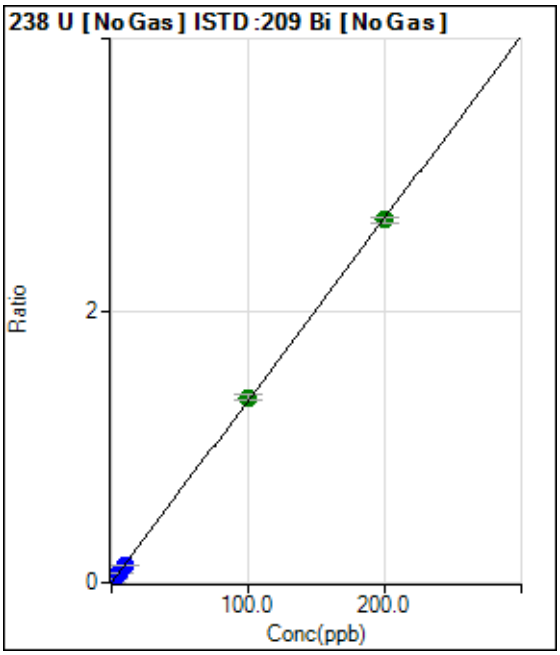
Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	800.03	0.0003	P	21.0
2	☐	2.000	1.975	78885.19	0.0279	P	2.0
3	☐	5.000	4.972	193322.93	0.0699	P	1.5
4	☐	10.000	9.795	379280.50	0.1375	P	2.5
5	☐	100.000	99.591	3819059.21	1.3951	A	3.0
6	☐	200.000	200.216	7648615.87	2.8045	A	2.5

y = 0.0140 * x + 2.8716E-004
R = 1.0000
DL = 0.01292
BEC = 0.0205

Weight: <None>
Min Conc: <None>

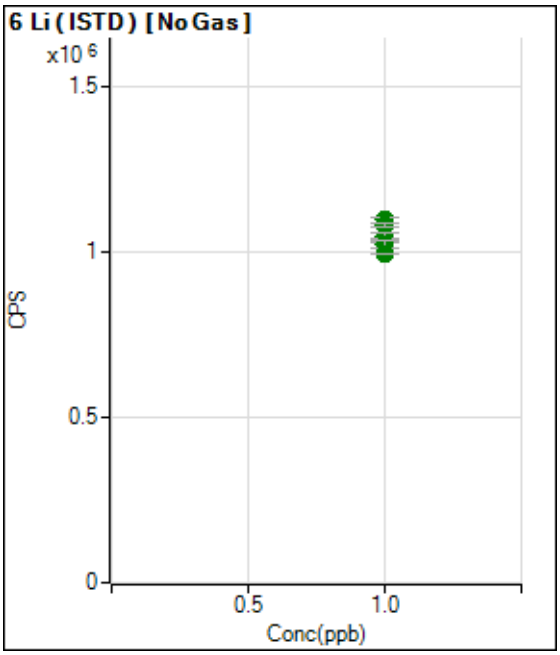


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0000	P	29.7
2	☐	2.000	1.924	72843.14	0.0258	P	0.5
3	☐	5.000	4.917	182184.29	0.0659	P	2.6
4	☐	10.000	9.545	352997.93	0.1279	P	1.6
5	☐	100.000	101.822	3735150.78	1.3644	A	2.2
6	☐	200.000	199.115	7277203.23	2.6680	A	1.8

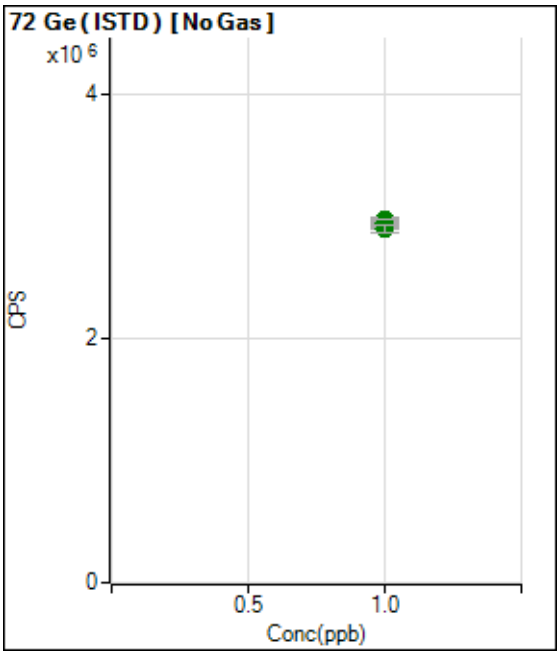
y = 0.0134 * x + 2.3907E-005
R = 0.9999
DL = 0.001588
BEC = 0.001784

Weight: <None>
Min Conc: <None>

Calibration for 206_ICV.d

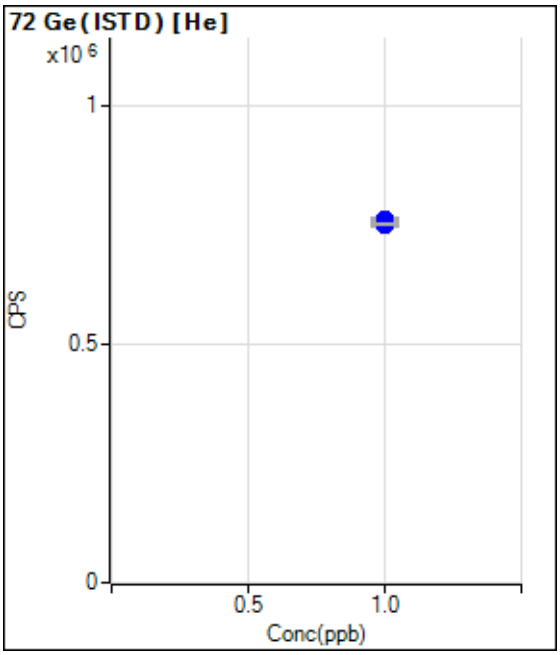


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1094872.39		A	1.4
2	☐	1.000		1078763.89		A	0.9
3	☐	1.000		1044348.09		A	2.8
4	☐	1.000		1046902.64		A	1.7
5	☐	1.000		1021380.09		A	2.1
6	☐	1.000		992856.72		A	0.3

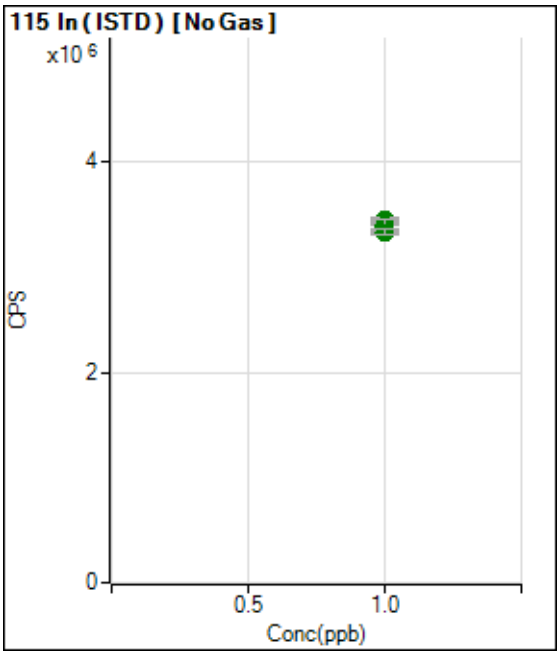


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2974835.68		A	1.6
2	☐	1.000		2975180.69		A	1.2
3	☐	1.000		2958451.10		A	2.0
4	☐	1.000		2931373.29		A	1.9
5	☐	1.000		2951389.85		A	2.3
6	☐	1.000		2900632.98		A	2.1

Calibration for 206_ICV.d

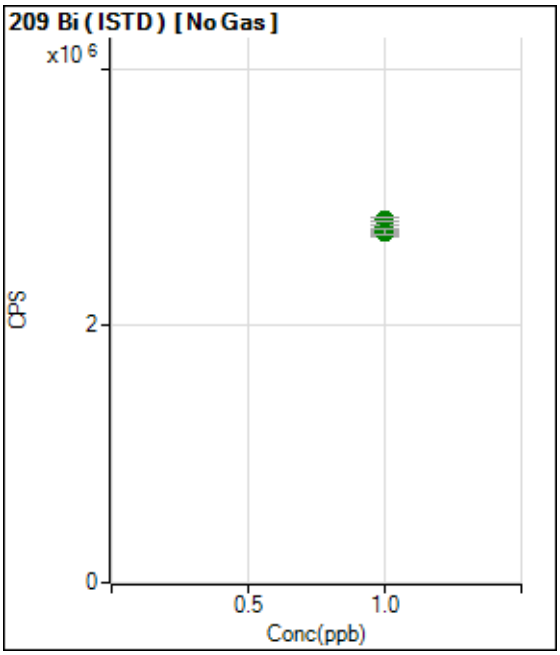


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		759177.98		P	1.3
2	☐	1.000		759752.70		P	0.1
3	☐	1.000		754141.81		P	1.1
4	☐	1.000		756777.39		P	1.7
5	☐	1.000		750962.93		P	1.2
6	☐	1.000		752657.44		P	0.6



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3399243.06		A	2.3
2	☐	1.000		3451516.99		A	1.8
3	☐	1.000		3381035.34		A	1.6
4	☐	1.000		3408604.39		A	2.7
5	☐	1.000		3321061.29		A	0.7
6	☐	1.000		3338513.00		A	1.7

Calibration for 206_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2779836.00		A	2.7
2	☐	1.000		2822838.91		A	0.9
3	☐	1.000		2765877.25		A	3.0
4	☐	1.000		2760397.67		A	3.6
5	☐	1.000		2738696.00		A	2.9
6	☐	1.000		2728061.52		A	1.8

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	207LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:15:12-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	199CALB.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	1.955	1.955	12.53	99161	0.00	2	
Be	9	1	No Gas	1.976	1.976	4.13	7690	0.03	2	
V	51	2	He	1.671	1.671	3.86	15549	0.01	2	
Cr	52	2	He	1.968	1.968	5.64	30154	0.01	2	
Fe	56	2	He	210.012	210.012	5.90	1290468	0.02	200	
Se	78	2	He	1.728	1.728	10.10	392	0.44	2	
As	75	2	He	1.945	1.945	2.59	2488	0.08	2	
Ca	44	2	He	204.384	204.384	3.33	10568	1.93	200	
Na	23	2	He	199.856	199.856	2.08	287527	0.07	200	
Mg	24	2	He	216.716	216.716	1.38	134817	0.16	200	
K	39	2	He	202.640	202.640	2.04	354832	0.06	200	
Mn	55	2	He	1.925	1.925	2.10	11362	0.02	2	
Co	59	2	He	1.939	1.939	2.50	18376	0.01	2	
Ni	60	2	He	2.147	2.147	2.88	5081	0.04	2	
Cu	63	2	He	2.251	2.251	3.69	14221	0.02	2	
Zn	66	2	He	3.367	3.367	6.19	4748	0.07	2	NewName Main CR1 Failed
Al	27	2	He	2.283	2.283	7.36	2870	0.08	2	
B	11	1	No Gas	10.441	10.441	14.44	79237	0.01	10	
Al	27	1	No Gas	2.197	2.197	5.65	111182	0.00	2	
Si	28	1	No Gas	11.784	11.784	7.29	581016	0.00	10	
Ag	107	1	No Gas	2.067	2.067	0.48	36778	0.01	2	
Cd	111	1	No Gas	1.977	1.977	2.69	6995	0.03	2	
Sr	88	1	No Gas	2.041	2.041	1.67	78255	0.00	2	
Mo	95	1	No Gas	2.046	2.046	2.70	15095	0.01	2	
Sn	118	1	No Gas	2.081	2.081	2.87	24924	0.01	2	
Sb	121	1	No Gas	2.304	2.304	2.76	37665	0.01	2	
Ba	137	1	No Gas	1.931	1.931	2.57	12546	0.02	2	
Tl	205	1	No Gas	2.109	2.109	3.75	60989	0.00	2	
Tl	203	1	No Gas	2.081	2.081	0.76	25673	0.01	2	
Pb	208	1	No Gas	1.977	1.977	1.26	79876	0.00	2	
U	238	1	No Gas	1.941	1.941	2.27	74298	0.00	2	
Ca	43	2	He	187.446	187.446	27.79	593	31.59	200	
Sb	121	2	He	2.083	2.083	3.19	15172	0.01	2	
Ti	47	2	He	2.178	2.178	13.85	560	0.39	200	
Cu	63	1	No Gas	2.269	2.269	3.09	33405	0.01	2	
Se	82	1	No Gas	2.627	2.627	7.31	812	0.32	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	1080052	1.74	1094872	98.65	70	120	
Ge	72	2	He	790891	1.34	759178	104.18	70	120	
Ge	72	1	No Gas	3047608	1.17	2974836	102.45	70	120	
In	115	1	No Gas	3485345	0.39	3399243	102.53	70	120	
Bi	209	1	No Gas	2855327	2.65	2779836	102.72	70	120	

Sample Report

Sample Table

Sample Name	LLCCV5
Data File Name	208LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:17:23-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	199CALB.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	4.759	4.759	5.25	136657	0.00	5	
Be	9	1	No Gas	4.690	4.690	0.76	18397	0.03	5	
V	51	2	He	4.565	4.565	1.50	33563	0.01	5	
Cr	52	2	He	4.869	4.869	0.17	50500	0.01	5	
Fe	56	2	He	507.866	507.866	0.42	3102187	0.02	500	
Se	78	2	He	4.627	4.627	9.05	750	0.62	5	
As	75	2	He	4.798	4.798	2.92	5645	0.08	5	
Ca	44	2	He	481.838	481.838	1.02	23527	2.05	500	
Na	23	2	He	508.346	508.346	1.09	608344	0.08	500	
Mg	24	2	He	526.263	526.263	0.83	327261	0.16	500	
K	39	2	He	499.153	499.153	0.43	640284	0.08	500	
Mn	55	2	He	4.809	4.809	2.45	27421	0.02	5	
Co	59	2	He	4.829	4.829	1.02	45848	0.01	5	
Ni	60	2	He	4.870	4.870	5.60	11238	0.04	5	
Cu	63	2	He	4.892	4.892	2.26	29479	0.02	5	
Zn	66	2	He	5.014	5.014	3.37	6859	0.07	5	
Al	27	2	He	4.559	4.559	5.61	3917	0.12	5	
B	11	1	No Gas	21.123	21.123	4.00	103976	0.02	25	
Al	27	1	No Gas	4.375	4.375	7.08	148604	0.00	5	
Si	28	1	No Gas	27.065	27.065	9.22	718992	0.00	25	
Ag	107	1	No Gas	5.053	5.053	0.57	90116	0.01	5	
Cd	111	1	No Gas	4.788	4.788	1.60	17009	0.03	5	
Sr	88	1	No Gas	5.052	5.052	1.16	190009	0.00	5	
Mo	95	1	No Gas	4.745	4.745	2.64	34552	0.01	5	
Sn	118	1	No Gas	4.798	4.798	1.09	55267	0.01	5	
Sb	121	1	No Gas	4.709	4.709	4.51	77200	0.01	5	
Ba	137	1	No Gas	4.765	4.765	2.46	29805	0.02	5	
Tl	205	1	No Gas	4.936	4.936	0.88	143203	0.00	5	
Tl	203	1	No Gas	4.934	4.934	2.27	61060	0.01	5	
Pb	208	1	No Gas	4.852	4.852	1.00	195637	0.00	5	
U	238	1	No Gas	4.695	4.695	2.41	180402	0.00	5	
Ca	43	2	He	499.704	499.704	11.69	1467	34.07	500	
Sb	121	2	He	4.518	4.518	1.45	32868	0.01	5	
Ti	47	2	He	4.854	4.854	7.82	1230	0.39	5	
Cu	63	1	No Gas	4.947	4.947	4.03	69528	0.01	5	
Se	82	1	No Gas	5.342	5.342	5.50	1531	0.35	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	1090515	1.98	1094872	99.60	70	120	
Ge	72	2	He	794235	0.69	759178	104.62	70	120	
Ge	72	1	No Gas	3074808	2.90	2974836	103.36	70	120	

Sample Report

In	115	1	No Gas	3497365	1.65	3399243	102.89	70	120	
Bi	209	1	No Gas	2867249	2.02	2779836	103.14	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICCB
Data File Name	209_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:19:31-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	199CALB.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	Upper Limit	QC Flag
Li	7	1	No Gas	-0.160	-84.3	72644	1.6	0.5	
Be	9	1	No Gas	0.008	113.9	57	62.6	0.5	
V	51	2	He	-0.212	-4.8	3893	1.9	2.5	
Cr	52	2	He	0.117	28.8	17204	2.5	2.5	
Fe	56	2	He	-0.426	-50.9	20689	5.2	100	
Se	78	2	He	-0.072	-169.3	171	10.1	1	
As	75	2	He	0.023	238.6	376	17.4	2.5	
Ca	44	2	He	-6.951	-27.0	770	10.3	100	
Na	23	2	He	-17.071	-6.6	63330	1.2	100	
Mg	24	2	He	0.141	146.4	1137	9.7	100	
K	39	2	He	-0.257	-1947.0	160259	1.6	100	
Mn	55	2	He	0.016	106.2	800	13.0	2.5	
Co	59	2	He	0.002	6.8	100	0.0	2.5	
Ni	60	2	He	0.185	24.8	673	14.1	2.5	
Cu	63	2	He	0.082	39.0	1783	8.8	1	
Zn	66	2	He	0.234	16.3	780	5.6	2.5	
Al	27	2	He	-2.112	-9.9	877	10.0	5	
B	11	1	No Gas	-4.457	-15.7	46651	2.3	0.5	
Al	27	1	No Gas	-2.447	-3.6	34047	6.2	5	
Si	28	1	No Gas	0.208	572.8	481621	0.8	10	
Ag	107	1	No Gas	0.004	63.4	157	31.5	2.5	
Cd	111	1	No Gas	0.008	51.3	26	58.9	1	
Sr	88	1	No Gas	-0.032	-9.3	1750	6.0	2.5	
Mo	95	1	No Gas	-0.002	-375.1	417	13.2	2.5	
Sn	118	1	No Gas	0.061	41.9	2501	10.0	5	
Sb	121	1	No Gas	0.116	11.8	2267	7.2	2.5	
Ba	137	1	No Gas	-0.026	-79.0	697	16.8	2.5	
Tl	205	1	No Gas	0.014	13.1	550	9.4	1	
Tl	203	1	No Gas	0.015	6.2	233	4.9	1	
Pb	208	1	No Gas	0.005	37.1	987	6.7	2.5	
U	238	1	No Gas	0.005	25.1	257	18.4	2.5	
Ca	43	2	He	-16.775	-32.7	27	57.3	100	
Sb	121	2	He	0.112	10.9	963	10.2	2.5	
Ti	47	2	He	0.037	273.9	27	94.4	2.5	
Se	82	1	No Gas	-0.569	-76.9	-19	-594.1	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	1091333	1.79	1094872	99.68	70	120	

Initial Calibration Blank (ICB) Report

Ge	72	2	He	785511	1.41	759178	103.47	70	120	
Ge	72	1	No Gas	3052021	2.69	2974836	102.59	70	120	
In	115	1	No Gas	3484851	1.51	3399243	102.52	70	120	
Bi	209	1	No Gas	2803595	0.14	2779836	100.85	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	211_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:23:25-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
n	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	97.571	2.199	1303428	2.18	100	97.6	90	110	
Be	9	1	No Gas	98.015	1.101	371870	1.00	100	98.0	90	110	
V	51	2	He	99.298	1.733	601956	0.36	100	99.3	90	110	
Cr	52	2	He	97.811	1.327	676555	0.30	100	97.8	90	110	
Fe	56	2	He	10101.559	2.004	59369809	1.08	10000	101.0	90	110	
Se	78	2	He	99.308	1.060	12002	0.88	100	99.3	90	110	
As	75	2	He	99.556	1.394	106760	0.12	100	99.6	90	110	
Ca	44	2	He	10035.790	1.761	453747	0.59	10000	100.4	90	110	
Na	23	2	He	10021.629	2.628	10140585	1.26	10000	100.2	90	110	
Mg	24	2	He	9926.725	1.397	5964724	0.54	10000	99.3	90	110	
K	39	2	He	10112.579	2.104	9541769	0.71	10000	101.1	90	110	
Mn	55	2	He	98.739	1.754	532104	0.66	100	98.7	90	110	
Co	59	2	He	96.729	1.528	888636	0.80	100	96.7	90	110	
Ni	60	2	He	100.368	1.851	219423	1.14	100	100.4	90	110	
Cu	63	2	He	98.863	1.260	552560	0.45	100	98.9	90	110	
Zn	66	2	He	99.174	0.696	122512	0.85	100	99.2	90	110	
Al	27	2	He	96.591	2.465	44304	1.34	100	96.6	90	110	
B	11	1	No Gas	489.360	0.975	1117641	0.75	500	97.9	90	110	
Al	27	1	No Gas	99.612	3.564	1705276	1.80	100	99.6	90	110	
Si	28	1	No Gas	505.958	2.428	4779059	1.13	5000	10.1	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.804	1.071	1752364	2.98	100	100.8	90	110	
Cd	111	1	No Gas	99.040	1.612	343167	0.63	100	99.0	90	110	
Sr	88	1	No Gas	100.931	3.541	3647900	2.03	100	100.9	90	110	
Mo	95	1	No Gas	96.891	1.489	680022	0.92	100	96.9	90	110	
Sn	118	1	No Gas	96.558	1.555	1050385	0.58	100	96.6	90	110	
Sb	121	1	No Gas	95.720	1.485	1526809	0.78	100	95.7	90	110	
Ba	137	1	No Gas	98.334	1.474	583390	0.64	100	98.3	90	110	
Tl	205	1	No Gas	102.391	3.269	2854141	1.02	100	102.4	90	110	
Tl	203	1	No Gas	102.579	3.096	1220157	1.10	100	102.6	90	110	
Pb	208	1	No Gas	98.731	2.249	3814375	1.10	100	98.7	90	110	
U	238	1	No Gas	101.689	1.777	3757965	0.47	100	101.7	90	110	
Ca	43	2	He	9695.337	2.633	26282	2.29	10000	97.0	90	110	
Sb	121	2	He	91.350	1.368	641069	0.49	100	91.3	90	110	
Ti	47	2	He	99.512	5.532	24111	4.49	100	99.5	90	110	
Cu	63	1	No Gas	100.849	1.259	1323201	2.31	100	100.8	90	110	
Se	82	1	No Gas	101.389	3.156	26154	0.93	100	101.4	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	1055983	0.24	1094872	96.45	70	120	
Ge	72	2	He	769867	1.36	759178	101.41	70	120	
Ge	72	1	No Gas	3004582	2.22	2974836	101.00	70	120	
In	115	1	No Gas	3411405	1.98	3399243	100.36	70	120	
Bi	209	1	No Gas	2758676	2.22	2779836	99.24	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	212_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:25:30-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	199CALB.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	Upper Limit	QC Flag
Li	7	1	No Gas	-0.084	-81.9	73532	0.8	0.5	
Be	9	1	No Gas	0.015	16.9	85	11.8	0.5	
V	51	2	He	-0.250	-3.5	3674	1.5	2.5	
Cr	52	2	He	0.097	13.3	17131	0.6	2.5	
Fe	56	2	He	-0.031	-470.7	23153	3.8	100	
Se	78	2	He	-0.104	-40.3	167	3.0	2	
As	75	2	He	0.000	18630.2	351	7.1	2.5	
Ca	44	2	He	-7.820	-27.4	733	13.5	100	
Na	23	2	He	-17.340	-3.7	63300	1.0	100	
Mg	24	2	He	0.517	23.8	1373	5.5	100	
K	39	2	He	2.441	81.5	163469	1.2	100	
Mn	55	2	He	0.062	48.0	1053	15.5	2.5	
Co	59	2	He	0.007	14.1	150	6.7	2.5	
Ni	60	2	He	0.110	35.1	510	17.0	2.5	
Cu	63	2	He	-0.039	-74.0	1100	15.0	2	
Zn	66	2	He	0.302	5.2	870	2.3	2.5	
Al	27	2	He	-2.246	-9.1	820	11.2	5	
B	11	1	No Gas	-2.761	-10.4	50392	1.7	0.5	
Al	27	1	No Gas	-2.392	-0.1	34884	0.9	5	
Si	28	1	No Gas	0.387	96.5	482264	0.8	10	
Ag	107	1	No Gas	0.009	41.2	243	28.0	2.5	
Cd	111	1	No Gas	0.003	57.5	5	98.2	1	
Sr	88	1	No Gas	-0.020	-8.6	2167	1.4	2.5	
Mo	95	1	No Gas	0.059	50.6	843	23.5	2.5	
Sn	118	1	No Gas	0.144	29.8	3377	13.3	5	
Sb	121	1	No Gas	0.567	16.8	9537	15.4	2.5	
Ba	137	1	No Gas	-0.075	-5.3	397	6.3	2.5	
Tl	205	1	No Gas	0.081	22.7	2464	22.1	1	
Tl	203	1	No Gas	0.086	13.5	1093	13.8	1	
Pb	208	1	No Gas	0.010	17.7	1187	6.4	2.5	
U	238	1	No Gas	0.027	22.5	1103	21.9	2.5	
Ca	43	2	He	-15.570	-23.2	30	33.3	100	
Sb	121	2	He	0.391	4.1	2974	3.9	2.5	
Ti	47	2	He	-0.043	-53.7	7	86.6	2.5	
Cu	63	1	No Gas	-0.019	-48.8	3037	3.1	2.5	
Se	82	1	No Gas	-0.356	-40.4	35	109.9	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag

Continuing Calibration Blank (CCB) Report

Li	6	1	No Gas	1089651	1.43	1094872	99.52	70	120	
Ge	72	2	He	788461	0.04	759178	103.86	70	120	
Ge	72	1	No Gas	3045275	0.94	2974836	102.37	70	120	
In	115	1	No Gas	3437491	1.41	3399243	101.13	70	120	
Bi	209	1	No Gas	2810689	0.88	2779836	101.11	70	120	

Sample Report

Sample Table

Sample Name	MBLK-197423
Data File Name	213SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:27:40-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	-0.128	-0.128	-43.90	72452	0.00	2000	
Be	9	1	No Gas	0.005	0.005	22.69	45	0.01	2000	
V	51	2	He	-0.261	-0.261	-1.96	3623	-0.01	2000	
Cr	52	2	He	-0.008	-0.008	-676.81	16473	0.00	2000	
Fe	56	2	He	-0.233	-0.233	-18.73	22041	0.00	200000	
Se	78	2	He	-0.207	-0.207	-107.07	155	-0.13	2000	
As	75	2	He	-0.014	-0.014	-189.75	338	0.00	2000	
Ca	44	2	He	-2.579	-2.579	-34.48	980	-0.26	200000	
Na	23	2	He	-14.729	-14.729	-4.50	66287	-0.02	200000	
Mg	24	2	He	0.189	0.189	74.25	1177	0.02	200000	
K	39	2	He	0.700	0.700	423.49	162538	0.00	200000	
Mn	55	2	He	-0.003	-0.003	-740.44	697	0.00	2000	
Co	59	2	He	0.002	0.002	21.17	103	0.00	2000	
Ni	60	2	He	-0.034	-0.034	-61.74	187	-0.02	2000	
Cu	63	2	He	-0.062	-0.062	-41.59	973	-0.01	2000	
Zn	66	2	He	0.086	0.086	30.39	600	0.01	2000	
Al	27	2	He	0.468	0.468	37.80	2054	0.02	2000	
B	11	1	No Gas	-5.840	-5.840	-7.44	43176	-0.01	2000	
Al	27	1	No Gas	0.110	0.110	71.08	76831	0.00	2000	
Si	28	1	No Gas	1.117	1.117	59.58	491128	0.00	2000	
Ag	107	1	No Gas	0.003	0.003	62.11	127	0.00	2000	
Cd	111	1	No Gas	0.005	0.005	87.05	13	0.04	2000	
Sr	88	1	No Gas	0.007	0.007	113.42	3164	0.00	2000	
Mo	95	1	No Gas	0.002	0.002	306.38	447	0.00	2000	
Sn	118	1	No Gas	-0.007	-0.007	-118.90	1747	0.00	2000	
Sb	121	1	No Gas	0.126	0.126	9.12	2427	0.01	2000	
Ba	137	1	No Gas	-0.011	-0.011	-185.81	793	0.00	2000	
Tl	205	1	No Gas	0.010	0.010	25.02	440	0.00	2000	
Tl	203	1	No Gas	0.013	0.013	11.81	203	0.01	2000	
Pb	208	1	No Gas	0.001	0.001	349.39	840	0.00	2000	
U	238	1	No Gas	0.005	0.005	10.70	250	0.00	2000	
Ca	43	2	He	-6.147	-6.147	-184.65	57	-10.85	200000	
Sb	121	2	He	0.115	0.115	13.19	990	0.01	2000	
Ti	47	2	He	0.024	0.024	104.93	23	0.10	2000	
Cu	63	1	No Gas	-0.037	-0.037	-61.66	2804	0.00	2000	
Zn	66	1	No Gas	-0.014	-0.014	-179.05	1954	0.00	2000	
Se	82	1	No Gas	0.738	0.738	39.83	321	0.23	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	1081914	1.04	1094872	98.82	70	120	
Ge	72	2	He	792128	1.55	759178	104.34	70	120	
Ge	72	1	No Gas	3061223	1.23	2974836	102.90	70	120	
In	115	1	No Gas	3482070	0.89	3399243	102.44	70	120	

Sample Report

Bi	209	1	No Gas	2790005	1.89	2779836	100.37	70	120	

Sample Report

Sample Table

Sample Name	LCS-197423
Data File Name	214SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:29:40-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	93.699	93.699	1.77	1332428	0.01	2000	
Be	9	1	No Gas	45.931	45.931	1.26	185102	0.02	2000	
V	51	2	He	44.367	44.367	1.55	288553	0.02	2000	
Cr	52	2	He	44.174	44.174	1.15	333764	0.01	2000	
Fe	56	2	He	4667.144	4667.144	0.52	29138267	0.02	200000	
Se	78	2	He	45.894	45.894	0.36	5989	0.77	2000	
As	75	2	He	45.736	45.736	1.56	52269	0.09	2000	
Ca	44	2	He	4728.729	4728.729	1.37	227599	2.08	200000	
Na	23	2	He	4681.047	4681.047	3.03	5073987	0.09	200000	
Mg	24	2	He	4776.679	4776.679	1.62	3047926	0.16	200000	
K	39	2	He	4714.151	4714.151	0.97	4812148	0.10	200000	
Mn	55	2	He	44.400	44.400	0.67	254465	0.02	2000	
Co	59	2	He	43.931	43.931	0.83	428564	0.01	2000	
Ni	60	2	He	45.460	45.460	1.81	105664	0.04	2000	
Cu	63	2	He	45.245	45.245	0.88	269232	0.02	2000	
Zn	66	2	He	47.631	47.631	2.50	62725	0.08	2000	
Al	27	2	He	94.423	94.423	1.27	46033	0.21	2000	
B	11	1	No Gas	445.200	445.200	2.29	1085102	0.04	2000	
Al	27	1	No Gas	98.314	98.314	0.73	1797089	0.01	2000	
Si	28	1	No Gas	581.932	581.932	0.30	5789387	0.01	2000	
Ag	107	1	No Gas	47.013	47.013	2.73	839674	0.01	2000	
Cd	111	1	No Gas	46.569	46.569	2.26	165845	0.03	2000	
Sr	88	1	No Gas	95.476	95.476	2.45	3547408	0.00	2000	
Mo	95	1	No Gas	45.061	45.061	2.93	325232	0.01	2000	
Sn	118	1	No Gas	91.187	91.187	0.91	1019848	0.01	2000	
Sb	121	1	No Gas	43.895	43.895	0.79	747212	0.01	2000	
Ba	137	1	No Gas	44.761	44.761	3.25	273358	0.02	2000	
Tl	205	1	No Gas	37.356	37.356	1.80	1090442	0.00	2000	
Tl	203	1	No Gas	36.244	36.244	0.97	451443	0.01	2000	
Pb	208	1	No Gas	44.321	44.321	0.78	1793093	0.00	2000	
U	238	1	No Gas	91.774	91.774	0.15	3550579	0.00	2000	
Ca	43	2	He	4693.400	4693.400	1.88	13547	34.65	200000	
Sb	121	2	He	43.446	43.446	1.22	323795	0.01	2000	
Ti	47	2	He	138.812	138.812	1.50	35714	0.39	2000	
Cu	63	1	No Gas	45.911	45.911	1.13	644428	0.01	2000	
Zn	66	1	No Gas	48.024	48.024	1.14	190834	0.03	2000	
Se	82	1	No Gas	44.748	44.748	0.77	12393	0.36	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	1121655	1.20	1094872	102.45	70	120	
Ge	72	2	He	817338	0.90	759178	107.66	70	120	
Ge	72	1	No Gas	3205002	1.03	2974836	107.74	70	120	
In	115	1	No Gas	3506706	2.37	3399243	103.16	70	120	

Sample Report

Bi	209	1	No Gas	2887262	0.10	2779836	103.86	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05
Data File Name	215SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:31:45-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	27.020	27.020	2.87	428744	0.01	2000	
Be	9	1	No Gas	0.062	0.062	30.65	268	0.02	2000	
V	51	2	He	0.753	0.753	4.11	9887	0.01	2000	
Cr	52	2	He	216.687	216.687	3.43	1520285	0.01	2000	
Fe	56	2	He	93271.518	93271.518	1.09	563405872	0.02	200000	
Se	78	2	He	-0.079	-0.079	-405.18	171	-0.05	2000	
As	75	2	He	0.254	0.254	2.39	631	0.04	2000	
Ca	44	2	He	25081.883	25081.883	1.19	1164215	2.15	200000	
Na	23	2	He	87396.015	87396.015	2.46	90280475	0.10	200000	
Mg	24	2	He	12519.556	12519.556	2.02	7732722	0.16	200000	
K	39	2	He	3349.047	3349.047	1.77	3356739	0.10	200000	
Mn	55	2	He	1071.184	1071.184	1.49	5927560	0.02	2000	
Co	59	2	He	0.449	0.449	6.48	4314	0.01	2000	
Ni	60	2	He	36.455	36.455	1.51	82097	0.04	2000	
Cu	63	2	He	3.124	3.124	0.87	19237	0.02	2000	
Zn	66	2	He	5.191	5.191	6.60	7052	0.07	2000	
Al	27	2	He	34.557	34.557	8.25	17475	0.20	2000	
B	11	1	No Gas	47.809	47.809	2.58	164635	0.03	2000	
Al	27	1	No Gas	35.876	35.876	10.89	678064	0.01	2000	
Si	28	1	No Gas	20528.625	20528.625	2.02	179629204	0.01	2000	>LDR
Ag	107	1	No Gas	0.019	0.019	15.38	413	0.00	2000	
Cd	111	1	No Gas	0.105	0.105	21.27	358	0.03	2000	
Sr	88	1	No Gas	477.662	477.662	1.40	17180004	0.00	2000	
Mo	95	1	No Gas	1.413	1.413	1.23	10291	0.01	2000	
Sn	118	1	No Gas	0.336	0.336	5.79	5418	0.01	2000	
Sb	121	1	No Gas	0.145	0.145	7.09	2760	0.01	2000	
Ba	137	1	No Gas	451.401	451.401	2.05	2662973	0.02	2000	
Tl	205	1	No Gas	0.522	0.522	24.20	14522	0.00	2000	
Tl	203	1	No Gas	0.513	0.513	26.72	6078	0.01	2000	
Pb	208	1	No Gas	0.110	0.110	2.35	4974	0.00	2000	
U	238	1	No Gas	0.062	0.062	23.71	2337	0.00	2000	
Ca	43	2	He	24049.160	24049.160	2.11	66903	35.95	200000	
Sb	121	2	He	0.131	0.131	10.80	1113	0.01	2000	
Ti	47	2	He	3.627	3.627	10.26	920	0.39	2000	
Cu	63	1	No Gas	3.755	3.755	2.63	53719	0.01	2000	
Zn	66	1	No Gas	4.992	4.992	0.75	20873	0.02	2000	
Se	82	1	No Gas	2.300	2.300	16.20	734	0.31	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	1096016	2.55	1094872	100.10	70	120	
Ge	72	2	He	791452	1.95	759178	104.25	70	120	
Ge	72	1	No Gas	3080032	1.40	2974836	103.54	70	120	
In	115	1	No Gas	3396055	1.62	3399243	99.91	70	120	

Sample Report

Bi	209	1	No Gas	2715337	2.89	2779836	97.68	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05SD
Data File Name	216SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:33:58-05:00
Sample Type	Sample
Dilution	5
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	5.444	27.219	2.41	146559	0.00	2000	
Be	9	1	No Gas	0.013	0.067	9.74	78	0.02	2000	
V	51	2	He	-0.124	-0.620	-11.82	4492	0.00	2000	
Cr	52	2	He	43.946	219.729	2.25	323312	0.01	2000	
Fe	56	2	He	19325.005	96625.023	1.73	117377708	0.02	200000	
Se	78	2	He	-0.205	-1.023	-151.99	156	-0.13	2000	
As	75	2	He	0.005	0.023	729.41	359	0.00	2000	
Ca	44	2	He	4937.406	24687.029	1.93	231300	2.13	200000	
Na	23	2	He	17710.421	88552.107	2.51	18460938	0.10	200000	
Mg	24	2	He	2656.341	13281.703	2.46	1650404	0.16	200000	
K	39	2	He	677.051	3385.256	3.55	811954	0.08	200000	
Mn	55	2	He	227.068	1135.341	2.68	1263731	0.02	2000	
Co	59	2	He	0.103	0.517	5.01	1063	0.01	2000	
Ni	60	2	He	7.636	38.180	3.24	17498	0.04	2000	
Cu	63	2	He	0.674	3.370	3.39	5221	0.01	2000	
Zn	66	2	He	1.782	8.911	0.81	2760	0.06	2000	
Al	27	2	He	5.212	26.060	9.85	4221	0.12	2000	
B	11	1	No Gas	5.369	26.843	7.16	69117	0.01	2000	
Al	27	1	No Gas	5.063	25.315	3.83	158809	0.00	2000	
Si	28	1	No Gas	4246.558	21232.789	1.09	37153005	0.01	2000	>LDR
Ag	107	1	No Gas	0.005	0.023	45.98	160	0.00	2000	
Cd	111	1	No Gas	0.023	0.117	42.21	79	0.03	2000	
Sr	88	1	No Gas	98.536	492.682	2.85	3603178	0.00	2000	
Mo	95	1	No Gas	0.295	1.476	1.61	2524	0.01	2000	
Sn	118	1	No Gas	0.069	0.347	18.38	2574	0.00	2000	
Sb	121	1	No Gas	0.072	0.359	4.84	1547	0.00	2000	
Ba	137	1	No Gas	90.758	453.790	1.03	544767	0.02	2000	
Tl	205	1	No Gas	0.060	0.302	22.38	1847	0.00	2000	
Tl	203	1	No Gas	0.061	0.307	19.63	783	0.01	2000	
Pb	208	1	No Gas	0.021	0.105	2.61	1623	0.00	2000	
U	238	1	No Gas	0.015	0.074	25.77	617	0.00	2000	
Ca	43	2	He	4961.088	24805.441	6.82	13941	35.59	200000	
Sb	121	2	He	0.072	0.359	7.91	687	0.01	2000	
Ti	47	2	He	0.663	3.317	25.81	183	0.36	2000	
Cu	63	1	No Gas	0.900	4.500	5.21	15232	0.01	2000	
Zn	66	1	No Gas	1.502	7.509	4.89	7609	0.02	2000	
Se	82	1	No Gas	0.166	0.828	137.83	171	0.10	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	1097682	1.45	1094872	100.26	70	120	
Ge	72	2	He	795826	2.05	759178	104.83	70	120	
Ge	72	1	No Gas	3047750	1.30	2974836	102.45	70	120	
In	115	1	No Gas	3450661	1.38	3399243	101.51	70	120	

Sample Report

Bi	209	1	No Gas	2787492	0.84	2779836	100.28	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05MS
Data File Name	217SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:35:54-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	117.286	117.286	1.24	1643549	0.01	2000	
Be	9	1	No Gas	44.149	44.149	1.83	177373	0.02	2000	
V	51	2	He	44.760	44.760	1.44	286734	0.02	2000	
Cr	52	2	He	247.927	247.927	1.58	1767812	0.01	2000	
Fe	56	2	He	95738.831	95738.831	1.84	588325378	0.02	200000	
Se	78	2	He	44.592	44.592	3.07	5737	0.78	2000	
As	75	2	He	45.385	45.385	2.38	51096	0.09	2000	
Ca	44	2	He	29964.026	29964.026	1.53	1414779	2.12	200000	
Na	23	2	He	90130.446	90130.446	1.24	94737155	0.10	200000	
Mg	24	2	He	17004.031	17004.031	1.60	10685538	0.16	200000	
K	39	2	He	7965.476	7965.476	2.23	7896054	0.10	200000	
Mn	55	2	He	1088.649	1088.649	3.20	6128389	0.02	2000	
Co	59	2	He	44.039	44.039	2.69	423164	0.01	2000	
Ni	60	2	He	80.556	80.556	3.00	184236	0.04	2000	
Cu	63	2	He	47.408	47.408	0.96	277844	0.02	2000	
Zn	66	2	He	49.942	49.942	2.13	64771	0.08	2000	
Al	27	2	He	140.055	140.055	14.23	66318	0.21	2000	
B	11	1	No Gas	499.793	499.793	1.89	1207391	0.04	2000	
Al	27	1	No Gas	129.218	129.218	3.62	2280862	0.01	2000	
Si	28	1	No Gas	20809.314	20809.314	2.16	184938104	0.01	2000	>LDR
Ag	107	1	No Gas	45.171	45.171	2.26	780706	0.01	2000	
Cd	111	1	No Gas	45.474	45.474	1.54	156727	0.03	2000	
Sr	88	1	No Gas	568.025	568.025	2.00	20408458	0.00	2000	
Mo	95	1	No Gas	45.960	45.960	1.99	321013	0.01	2000	
Sn	118	1	No Gas	88.625	88.625	2.61	958907	0.01	2000	
Sb	121	1	No Gas	42.592	42.592	0.97	707700	0.01	2000	
Ba	137	1	No Gas	488.126	488.126	1.50	2876988	0.02	2000	
Tl	205	1	No Gas	37.422	37.422	2.57	1002708	0.00	2000	
Tl	203	1	No Gas	36.402	36.402	2.57	416187	0.01	2000	
Pb	208	1	No Gas	44.365	44.365	2.02	1647708	0.00	2000	
U	238	1	No Gas	94.896	94.896	3.87	3369449	0.00	2000	
Ca	43	2	He	28461.846	28461.846	1.70	80552	35.33	200000	
Sb	121	2	He	42.289	42.289	1.16	310494	0.01	2000	
Ti	47	2	He	142.868	142.868	1.85	36208	0.39	2000	
Cu	63	1	No Gas	47.934	47.934	0.79	656607	0.01	2000	
Zn	66	1	No Gas	50.839	50.839	2.72	197046	0.03	2000	
Se	82	1	No Gas	47.578	47.578	2.76	12851	0.37	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	1118236	1.05	1094872	102.13	70	120	
Ge	72	2	He	805179	0.84	759178	106.06	70	120	
Ge	72	1	No Gas	3128446	1.31	2974836	105.16	70	120	
In	115	1	No Gas	3393052	2.23	3399243	99.82	70	120	

Sample Report

Bi	209	1	No Gas	2651066	1.86	2779836	95.37	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05MSD
Data File Name	218SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:38:05-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	119.238	119.238	4.22	1636553	0.01	2000	
Be	9	1	No Gas	44.750	44.750	2.33	176284	0.03	2000	
V	51	2	He	44.921	44.921	0.66	284266	0.02	2000	
Cr	52	2	He	250.422	250.422	1.21	1763858	0.01	2000	
Fe	56	2	He	94809.237	94809.237	0.89	575571978	0.02	200000	
Se	78	2	He	43.780	43.780	2.92	5569	0.79	2000	
As	75	2	He	45.116	45.116	0.45	50184	0.09	2000	
Ca	44	2	He	30010.537	30010.537	1.26	1399850	2.14	200000	
Na	23	2	He	90523.608	90523.608	1.28	93998455	0.10	200000	
Mg	24	2	He	17072.623	17072.623	0.60	10598899	0.16	200000	
K	39	2	He	7885.279	7885.279	0.39	7723931	0.10	200000	
Mn	55	2	He	1089.781	1089.781	1.03	6061161	0.02	2000	
Co	59	2	He	43.603	43.603	1.26	413935	0.01	2000	
Ni	60	2	He	80.804	80.804	0.60	182582	0.04	2000	
Cu	63	2	He	46.922	46.922	0.69	271669	0.02	2000	
Zn	66	2	He	50.297	50.297	1.80	64440	0.08	2000	
Al	27	2	He	128.738	128.738	3.27	60400	0.21	2000	
B	11	1	No Gas	501.420	501.420	2.69	1187523	0.04	2000	
Al	27	1	No Gas	125.134	125.134	1.33	2201589	0.01	2000	
Si	28	1	No Gas	20834.967	20834.967	1.50	184317477	0.01	2000	>LDR
Ag	107	1	No Gas	45.108	45.108	0.48	770568	0.01	2000	
Cd	111	1	No Gas	45.844	45.844	0.75	156138	0.03	2000	
Sr	88	1	No Gas	571.131	571.131	0.73	20281233	0.00	2000	
Mo	95	1	No Gas	45.957	45.957	0.36	317260	0.01	2000	
Sn	118	1	No Gas	89.370	89.370	0.60	955760	0.01	2000	
Sb	121	1	No Gas	42.503	42.503	1.36	702914	0.01	2000	
Ba	137	1	No Gas	490.855	490.855	1.52	2859042	0.02	2000	
Tl	205	1	No Gas	37.454	37.454	0.89	998524	0.00	2000	
Tl	203	1	No Gas	36.768	36.768	2.71	418195	0.01	2000	
Pb	208	1	No Gas	44.270	44.270	1.47	1635607	0.00	2000	
U	238	1	No Gas	94.394	94.394	2.14	3334973	0.00	2000	
Ca	43	2	He	28415.609	28415.609	0.78	79448	35.77	200000	
Sb	121	2	He	42.050	42.050	0.32	304998	0.01	2000	
Ti	47	2	He	141.129	141.129	2.29	35336	0.40	2000	
Cu	63	1	No Gas	47.964	47.964	0.43	653975	0.01	2000	
Zn	66	1	No Gas	51.014	51.014	1.32	196821	0.03	2000	
Se	82	1	No Gas	46.057	46.057	4.97	12390	0.37	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	1096802	2.75	1094872	100.18	70	120	
Ge	72	2	He	795372	0.17	759178	104.77	70	120	
Ge	72	1	No Gas	3113765	0.76	2974836	104.67	70	120	
In	115	1	No Gas	3352622	0.50	3399243	98.63	70	120	

Sample Report

Bi	209	1	No Gas	2637215	1.98	2779836	94.87	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05PDS
Data File Name	219SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:40:14-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	26.193	26.193	2.60	426165	0.01	2000	
Be	9	1	No Gas	86.687	86.687	1.06	348001	0.02	2000	
V	51	2	He	88.682	88.682	3.13	555869	0.02	2000	
Cr	52	2	He	293.876	293.876	3.70	2066220	0.01	2000	
Fe	56	2	He	99412.655	99412.655	3.63	603261124	0.02	200000	
Se	78	2	He	87.711	87.711	2.96	10970	0.80	2000	
As	75	2	He	90.041	90.041	2.24	99780	0.09	2000	
Ca	44	2	He	33953.235	33953.235	3.34	1583078	2.14	200000	
Na	23	2	He	93924.940	93924.940	2.03	97508312	0.10	200000	
Mg	24	2	He	21537.790	21537.790	3.19	13365650	0.16	200000	
K	39	2	He	12552.404	12552.404	2.62	12196039	0.10	200000	
Mn	55	2	He	1120.776	1120.776	3.47	6231285	0.02	2000	
Co	59	2	He	85.586	85.586	2.44	812240	0.01	2000	
Ni	60	2	He	122.210	122.210	1.95	275959	0.04	2000	
Cu	63	2	He	89.653	89.653	1.79	517798	0.02	2000	
Zn	66	2	He	94.196	94.196	2.99	120209	0.08	2000	
Al	27	2	He	132.003	132.003	7.45	61825	0.21	2000	
B	11	1	No Gas	47.600	47.600	2.50	167391	0.03	2000	
Al	27	1	No Gas	141.329	141.329	11.29	2439607	0.01	2000	
Si	28	1	No Gas	20505.442	20505.442	0.74	178680251	0.01	2000	>LDR
Ag	107	1	No Gas	91.657	91.657	0.50	1557255	0.01	2000	
Cd	111	1	No Gas	89.599	89.599	0.63	303510	0.03	2000	
Sr	88	1	No Gas	467.787	467.787	1.34	16522699	0.00	2000	
Mo	95	1	No Gas	89.191	89.191	0.27	612002	0.01	2000	
Sn	118	1	No Gas	0.346	0.346	12.87	5421	0.01	2000	
Sb	121	1	No Gas	85.979	85.979	2.57	1400276	0.01	2000	
Ba	137	1	No Gas	529.772	529.772	1.84	3068841	0.02	2000	
Tl	205	1	No Gas	79.895	79.895	2.72	2084119	0.00	2000	
Tl	203	1	No Gas	76.175	76.175	1.41	847991	0.01	2000	
Pb	208	1	No Gas	88.491	88.491	1.82	3199086	0.00	2000	
U	238	1	No Gas	0.048	0.048	26.62	1734	0.00	2000	
Ca	43	2	He	32565.386	32565.386	3.54	91003	35.78	200000	
Sb	121	2	He	82.721	82.721	2.23	599720	0.01	2000	
Ti	47	2	He	95.643	95.643	1.72	23951	0.40	2000	
Cu	63	1	No Gas	94.595	94.595	2.53	1267198	0.01	2000	
Zn	66	1	No Gas	95.074	95.074	0.62	359570	0.03	2000	
Se	82	1	No Gas	91.682	91.682	3.67	24160	0.38	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	1117442	1.66	1094872	102.06	70	120	
Ge	72	2	He	795479	2.37	759178	104.78	70	120	
Ge	72	1	No Gas	3066762	0.55	2974836	103.09	70	120	
In	115	1	No Gas	3334530	0.90	3399243	98.10	70	120	

Sample Report

Bi	209	1	No Gas	2580936	1.31	2779836	92.84	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	220_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:42:23-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
n	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	95.683	3.777	1337674	0.46	100	95.7	90	110	
Be	9	1	No Gas	94.195	3.335	373626	0.31	100	94.2	90	110	
V	51	2	He	99.664	0.897	611235	0.66	100	99.7	90	110	
Cr	52	2	He	97.891	1.126	684996	0.88	100	97.9	90	110	
Fe	56	2	He	10071.940	1.041	59888859	0.59	10000	100.7	90	110	
Se	78	2	He	98.618	2.055	12058	1.61	100	98.6	90	110	
As	75	2	He	100.014	1.094	108503	0.91	100	100.0	90	110	
Ca	44	2	He	10220.136	1.199	467471	0.87	10000	102.2	90	110	
Na	23	2	He	10195.111	0.315	10436645	0.52	10000	102.0	90	110	
Mg	24	2	He	10210.595	0.381	6207107	0.83	10000	102.1	90	110	
K	39	2	He	10251.407	2.353	9783895	1.99	10000	102.5	90	110	
Mn	55	2	He	98.243	1.314	535628	0.92	100	98.2	90	110	
Co	59	2	He	96.748	1.002	899192	0.73	100	96.7	90	110	
Ni	60	2	He	100.276	1.593	221783	1.31	100	100.3	90	110	
Cu	63	2	He	98.814	0.573	558734	0.27	100	98.8	90	110	
Zn	66	2	He	98.675	1.791	123309	1.30	100	98.7	90	110	
Al	27	2	He	98.036	1.180	45468	0.80	100	98.0	90	110	
B	11	1	No Gas	480.178	3.423	1147729	1.66	500	96.0	90	110	
Al	27	1	No Gas	100.604	0.825	1730946	1.31	100	100.6	90	110	
Si	28	1	No Gas	526.693	2.433	4981102	1.14	5000	10.5	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.847	0.848	1740496	0.78	100	100.8	90	110	
Cd	111	1	No Gas	99.931	1.324	343862	0.48	100	99.9	90	110	
Sr	88	1	No Gas	101.214	1.866	3633492	1.21	100	101.2	90	110	
Mo	95	1	No Gas	98.249	0.987	684769	0.30	100	98.2	90	110	
Sn	118	1	No Gas	96.414	1.157	1041581	0.60	100	96.4	90	110	
Sb	121	1	No Gas	94.616	1.851	1516893	0.27	100	94.6	90	110	
Ba	137	1	No Gas	96.770	0.711	570170	0.41	100	96.8	90	110	
Tl	205	1	No Gas	103.713	2.333	2784441	1.39	100	103.7	90	110	
Tl	203	1	No Gas	99.982	1.235	1145471	0.44	100	100.0	90	110	
Pb	208	1	No Gas	98.554	1.457	3666725	0.42	100	98.6	90	110	
U	238	1	No Gas	100.027	2.670	3559317	1.37	100	100.0	90	110	
Ca	43	2	He	9988.555	3.036	27394	3.50	10000	99.9	90	110	
Sb	121	2	He	90.055	0.895	639360	0.55	100	90.1	90	110	
Ti	47	2	He	103.536	0.020	25387	0.48	100	103.5	90	110	
Cu	63	1	No Gas	101.293	2.759	1335384	0.76	100	101.3	90	110	
Se	82	1	No Gas	100.916	3.983	26164	1.97	100	100.9	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	1104746	3.15	1094872	100.90	70	120	
Ge	72	2	He	778783	0.49	759178	102.58	70	120	
Ge	72	1	No Gas	3019982	2.03	2974836	101.52	70	120	
In	115	1	No Gas	3387425	1.07	3399243	99.65	70	120	
Bi	209	1	No Gas	2656199	1.36	2779836	95.55	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	221_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T21:44:15-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	199CALB.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	Upper Limit	QC Flag
Li	7	1	No Gas	0.066	58.4	77332	1.1	0.5	
Be	9	1	No Gas	0.015	56.1	87	40.9	0.5	
V	51	2	He	-0.368	-3.6	2966	2.4	2.5	
Cr	52	2	He	0.120	51.0	17401	2.4	2.5	
Fe	56	2	He	3.394	20.7	44049	9.4	100	
Se	78	2	He	0.001	10136.7	181	9.2	2	
As	75	2	He	-0.003	-945.2	350	7.6	2.5	
Ca	44	2	He	-7.482	-30.4	753	13.3	100	
Na	23	2	He	-12.079	-16.0	69155	2.3	100	
Mg	24	2	He	0.288	100.9	1240	13.8	100	
K	39	2	He	9.179	28.6	170978	0.6	100	
Mn	55	2	He	0.059	15.6	1047	5.8	2.5	
Co	59	2	He	0.012	36.9	197	21.2	2.5	
Ni	60	2	He	0.081	20.1	447	9.0	2.5	
Cu	63	2	He	-0.040	-65.1	1100	13.4	2	
Zn	66	2	He	0.109	91.1	630	19.2	2.5	
Al	27	2	He	-1.634	-9.2	1103	6.4	5	
B	11	1	No Gas	-0.752	-138.2	56215	2.7	0.5	
Al	27	1	No Gas	-2.391	-1.3	34874	1.4	5	
Si	28	1	No Gas	7.305	13.4	541484	0.5	10	
Ag	107	1	No Gas	0.013	6.7	300	3.3	2.5	
Cd	111	1	No Gas	0.004	79.2	9	114.0	1	
Sr	88	1	No Gas	-0.017	-58.3	2267	13.9	2.5	
Mo	95	1	No Gas	0.103	26.1	1153	14.8	2.5	
Sn	118	1	No Gas	0.180	19.4	3767	9.0	5	
Sb	121	1	No Gas	0.626	15.0	10481	12.9	2.5	
Ba	137	1	No Gas	-0.063	-17.9	467	12.9	2.5	
Tl	205	1	No Gas	0.172	16.2	4884	16.7	1	
Tl	203	1	No Gas	0.174	21.6	2084	22.3	1	
Pb	208	1	No Gas	0.010	37.5	1163	13.5	2.5	
U	238	1	No Gas	0.028	34.0	1073	32.7	2.5	
Ca	43	2	He	-18.023	-11.8	23	24.7	100	
Sb	121	2	He	0.469	9.2	3557	8.1	2.5	
Ti	47	2	He	-0.004	-1656.0	17	91.7	2.5	
Cu	63	1	No Gas	-0.041	-35.6	2740	5.5	2.5	
Se	82	1	No Gas	-0.158	-266.0	85	126.5	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag

Continuing Calibration Blank (CCB) Report

Li	6	1	No Gas	1116355	1.61	1094872	101.96	70	120	
Ge	72	2	He	793653	0.87	759178	104.54	70	120	
Ge	72	1	No Gas	3042992	1.68	2974836	102.29	70	120	
In	115	1	No Gas	3434621	1.67	3399243	101.04	70	120	
Bi	209	1	No Gas	2718651	1.15	2779836	97.80	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	235_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:19:00-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
n	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	103.010	5.323	1446725	3.05	100	103.0	90	110	
Be	9	1	No Gas	100.223	2.980	401059	0.54	100	100.2	90	110	
V	51	2	He	103.823	1.443	658008	0.17	100	103.8	90	110	
Cr	52	2	He	101.674	1.791	734819	0.74	100	101.7	90	110	
Fe	56	2	He	10502.159	2.528	64546939	1.05	10000	105.0	90	110	
Se	78	2	He	104.820	1.500	13239	1.28	100	104.8	90	110	
As	75	2	He	103.623	0.983	116206	0.70	100	103.6	90	110	
Ca	44	2	He	10598.615	2.016	501090	1.07	10000	106.0	90	110	
Na	23	2	He	10509.279	1.508	11118580	0.60	10000	105.1	90	110	
Mg	24	2	He	10576.093	2.912	6645192	1.68	10000	105.8	90	110	
K	39	2	He	10691.310	1.528	10541357	0.49	10000	106.9	90	110	
Mn	55	2	He	102.777	1.203	579247	0.50	100	102.8	90	110	
Co	59	2	He	100.767	2.232	968074	0.88	100	100.8	90	110	
Ni	60	2	He	104.156	1.535	238131	0.55	100	104.2	90	110	
Cu	63	2	He	102.013	1.402	596244	0.43	100	102.0	90	110	
Zn	66	2	He	102.588	2.355	132499	0.93	100	102.6	90	110	
Al	27	2	He	103.702	3.185	49613	2.94	100	103.7	90	110	
B	11	1	No Gas	489.244	3.153	1178575	1.11	500	97.8	90	110	
Al	27	1	No Gas	104.908	3.363	1832234	1.88	100	104.9	90	110	
Si	28	1	No Gas	545.096	3.212	5226106	1.38	5000	10.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	104.735	0.118	1831043	0.89	100	104.7	90	110	
Cd	111	1	No Gas	102.883	1.569	358592	0.59	100	102.9	90	110	
Sr	88	1	No Gas	106.265	2.232	3863846	1.22	100	106.3	90	110	
Mo	95	1	No Gas	102.246	1.733	721800	0.92	100	102.2	90	110	
Sn	118	1	No Gas	100.492	1.222	1099601	0.65	100	100.5	90	110	
Sb	121	1	No Gas	97.700	2.078	1593212	1.39	100	97.7	90	110	
Ba	137	1	No Gas	100.467	0.872	599584	0.81	100	100.5	90	110	
Tl	205	1	No Gas	104.123	3.782	2901137	2.52	100	104.1	90	110	
Tl	203	1	No Gas	102.686	2.259	1220975	0.77	100	102.7	90	110	
Pb	208	1	No Gas	100.353	2.895	3874646	1.02	100	100.4	90	110	
U	238	1	No Gas	102.981	2.696	3803383	0.98	100	103.0	90	110	
Ca	43	2	He	10552.819	3.498	29906	2.31	10000	105.5	90	110	
Sb	121	2	He	94.125	2.052	690759	0.51	100	94.1	90	110	
Ti	47	2	He	108.332	0.715	27461	1.30	100	108.3	90	110	
Cu	63	1	No Gas	104.294	2.349	1398544	1.06	100	104.3	90	110	
Se	82	1	No Gas	106.604	1.422	28115	0.29	100	106.6	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	1114395	2.89	1094872	101.78	70	120	
Ge	72	2	He	805164	1.54	759178	106.06	70	120	
Ge	72	1	No Gas	3071581	1.59	2974836	103.25	70	120	
In	115	1	No Gas	3431231	1.01	3399243	100.94	70	120	
Bi	209	1	No Gas	2757647	2.96	2779836	99.20	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	236_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:20:53-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	199CALB.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	Upper Limit	QC Flag
Li	7	1	No Gas	0.101	75.0	84156	1.1	0.5	
Be	9	1	No Gas	0.012	19.2	82	12.7	0.5	
V	51	2	He	-0.256	-14.6	3916	5.2	2.5	
Cr	52	2	He	0.154	27.6	18873	2.6	2.5	
Fe	56	2	He	0.026	246.8	25304	2.2	100	
Se	78	2	He	-0.085	-143.8	183	8.2	2	
As	75	2	He	-0.035	-46.0	337	6.9	2.5	
Ca	44	2	He	-11.630	-15.2	600	14.2	100	
Na	23	2	He	-0.614	-328.3	86682	1.8	100	
Mg	24	2	He	-0.024	-796.6	1120	10.9	100	
K	39	2	He	-2.736	-54.8	170735	0.3	100	
Mn	55	2	He	0.049	31.7	1057	7.6	2.5	
Co	59	2	He	0.007	37.7	160	16.5	2.5	
Ni	60	2	He	0.062	69.8	433	23.3	2.5	
Cu	63	2	He	0.006	188.4	1463	4.0	2	
Zn	66	2	He	0.157	25.2	740	8.4	2.5	
Al	27	2	He	-1.947	-18.4	1027	15.8	5	
B	11	1	No Gas	-8.265	-4.1	42176	1.8	0.5	
Al	27	1	No Gas	-2.364	-2.0	38106	1.7	5	
Si	28	1	No Gas	1.050	17.7	526045	0.6	10	
Ag	107	1	No Gas	0.009	26.2	253	19.5	2.5	
Cd	111	1	No Gas	0.009	61.1	30	67.8	1	
Sr	88	1	No Gas	-0.023	-28.2	2187	9.3	2.5	
Mo	95	1	No Gas	0.185	26.1	1871	21.5	2.5	
Sn	118	1	No Gas	0.183	56.0	4065	26.9	5	
Sb	121	1	No Gas	0.619	16.1	11205	15.3	2.5	
Ba	137	1	No Gas	-0.067	-3.7	480	4.2	2.5	
Tl	205	1	No Gas	0.106	27.4	3347	26.5	1	
Tl	203	1	No Gas	0.100	21.8	1330	21.4	1	
Pb	208	1	No Gas	0.002	71.7	953	7.9	2.5	
U	238	1	No Gas	0.025	38.2	1067	36.0	2.5	
Ca	43	2	He	-12.985	-26.2	40	25.0	100	
Sb	121	2	He	0.453	3.8	3684	4.7	2.5	
Ti	47	2	He	-0.033	-200.0	10	173.2	2.5	
Cu	63	1	No Gas	0.012	119.7	3717	6.3	2.5	
Se	82	1	No Gas	-0.306	-24.4	51	41.3	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag

Continuing Calibration Blank (CCB) Report

Li	6	1	No Gas	1207572	0.28	1094872	110.29	70	120	
Ge	72	2	He	849132	1.23	759178	111.85	70	120	
Ge	72	1	No Gas	3282756	0.95	2974836	110.35	70	120	
In	115	1	No Gas	3691312	2.42	3399243	108.59	70	120	
Bi	209	1	No Gas	2975173	0.49	2779836	107.03	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-01
Data File Name	238SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:24:52-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	6.849	6.849	1.18	192025	0.00	2000	
Be	9	1	No Gas	0.107	0.107	6.99	518	0.02	2000	
V	51	2	He	0.114	0.114	12.47	6686	0.00	2000	
Cr	52	2	He	2.063	2.063	1.55	34724	0.01	2000	
Fe	56	2	He	205.192	205.192	3.15	1421508	0.01	200000	
Se	78	2	He	0.052	0.052	91.46	211	0.02	2000	
As	75	2	He	0.369	0.369	11.34	853	0.04	2000	
Ca	44	2	He	1351.873	1351.873	0.84	71820	1.88	200000	
Na	23	2	He	32276.913	32276.913	1.64	37601177	0.09	200000	
Mg	24	2	He	1075.682	1075.682	1.16	749167	0.14	200000	
K	39	2	He	478.055	478.055	2.34	695670	0.07	200000	
Mn	55	2	He	12.316	12.316	2.78	77520	0.02	2000	
Co	59	2	He	0.549	0.549	0.45	5928	0.01	2000	
Ni	60	2	He	2.342	2.342	1.48	6218	0.04	2000	
Cu	63	2	He	0.829	0.829	2.31	6845	0.01	2000	
Zn	66	2	He	5.062	5.062	5.50	7759	0.07	2000	
Al	27	2	He	165.715	165.715	6.23	86498	0.19	2000	
B	11	1	No Gas	-9.123	-9.123	-2.64	42359	-0.02	2000	
Al	27	1	No Gas	177.473	177.473	25.82	3354897	0.01	2000	
Si	28	1	No Gas	22336.392	22336.392	2.22	214341143	0.01	2000	>LDR
Ag	107	1	No Gas	0.011	0.011	26.61	293	0.00	2000	
Cd	111	1	No Gas	0.456	0.456	9.63	1749	0.03	2000	
Sr	88	1	No Gas	34.073	34.073	2.67	1369707	0.00	2000	
Mo	95	1	No Gas	0.052	0.052	93.94	880	0.01	2000	
Sn	118	1	No Gas	-0.021	-0.021	-61.69	1730	0.00	2000	
Sb	121	1	No Gas	0.156	0.156	10.24	3224	0.00	2000	
Ba	137	1	No Gas	68.991	68.991	2.02	454748	0.02	2000	
Tl	205	1	No Gas	0.009	0.009	11.70	420	0.00	2000	
Tl	203	1	No Gas	0.010	0.010	50.98	183	0.01	2000	
Pb	208	1	No Gas	0.322	0.322	2.41	14197	0.00	2000	
U	238	1	No Gas	0.039	0.039	10.76	1603	0.00	2000	
Ca	43	2	He	1365.053	1365.053	2.26	4354	31.35	200000	
Sb	121	2	He	0.148	0.148	4.18	1390	0.01	2000	
Ti	47	2	He	6.147	6.147	6.87	1744	0.35	2000	
Cu	63	1	No Gas	1.196	1.196	3.92	21244	0.01	2000	
Zn	66	1	No Gas	5.002	5.002	2.04	22936	0.02	2000	
Se	82	1	No Gas	0.255	0.255	135.01	214	0.12	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	1277422	0.59	1094872	116.67	70	120	
Ge	72	2	He	891026	1.08	759178	117.37	70	120	
Ge	72	1	No Gas	3378629	1.53	2974836	113.57	70	120	
In	115	1	No Gas	3787886	1.55	3399243	111.43	70	120	

Sample Report

Bi	209	1	No Gas	2961442	0.27	2779836	106.53	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-02
Data File Name	239SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:26:50-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	14.832	14.832	1.82	291100	0.01	2000	
Be	9	1	No Gas	0.003	0.003	74.52	40	0.01	2000	
V	51	2	He	0.080	0.080	6.86	6141	0.00	2000	
Cr	52	2	He	2.996	2.996	1.49	40022	0.01	2000	
Fe	56	2	He	167.261	167.261	2.15	1108622	0.02	200000	
Se	78	2	He	0.368	0.368	46.37	242	0.15	2000	
As	75	2	He	0.320	0.320	17.20	754	0.04	2000	
Ca	44	2	He	15984.999	15984.999	0.48	796176	2.01	200000	
Na	23	2	He	178572.316	178572.316	1.98	197769257	0.09	200000	
Mg	24	2	He	8672.487	8672.487	1.94	5745259	0.15	200000	
K	39	2	He	1166.629	1166.629	0.68	1367203	0.09	200000	
Mn	55	2	He	116.260	116.260	1.71	690652	0.02	2000	
Co	59	2	He	0.399	0.399	7.56	4131	0.01	2000	
Ni	60	2	He	1.754	1.754	5.83	4508	0.04	2000	
Cu	63	2	He	0.574	0.574	3.96	4954	0.01	2000	
Zn	66	2	He	2.347	2.347	5.00	3711	0.06	2000	
Al	27	2	He	6.014	6.014	10.89	4891	0.12	2000	
B	11	1	No Gas	-1.423	-1.423	-57.78	58039	0.00	2000	
Al	27	1	No Gas	5.684	5.684	5.38	179119	0.00	2000	
Si	28	1	No Gas	23504.649	23504.649	3.11	215453717	0.01	2000	>LDR
Ag	107	1	No Gas	0.010	0.010	32.48	263	0.00	2000	
Cd	111	1	No Gas	0.121	0.121	13.50	426	0.03	2000	
Sr	88	1	No Gas	251.938	251.938	3.66	9339032	0.00	2000	
Mo	95	1	No Gas	0.334	0.334	12.13	2837	0.01	2000	
Sn	118	1	No Gas	-0.010	-0.010	-148.19	1727	0.00	2000	
Sb	121	1	No Gas	0.115	0.115	10.29	2387	0.00	2000	
Ba	137	1	No Gas	175.909	175.909	5.23	1069665	0.02	2000	
Tl	205	1	No Gas	0.010	0.010	24.18	417	0.00	2000	
Tl	203	1	No Gas	0.013	0.013	9.13	193	0.01	2000	
Pb	208	1	No Gas	0.023	0.023	28.66	1653	0.00	2000	
U	238	1	No Gas	0.717	0.717	0.93	26062	0.00	2000	
Ca	43	2	He	16137.030	16137.030	1.46	48178	33.49	200000	
Sb	121	2	He	0.122	0.122	10.96	1120	0.01	2000	
Ti	47	2	He	3.200	3.200	5.69	873	0.37	2000	
Cu	63	1	No Gas	2.126	2.126	3.72	33371	0.01	2000	
Zn	66	1	No Gas	2.226	2.226	4.01	10925	0.02	2000	
Se	82	1	No Gas	1.018	1.018	48.05	417	0.24	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	1184874	1.42	1094872	108.22	70	120	
Ge	72	2	He	848740	0.76	759178	111.80	70	120	
Ge	72	1	No Gas	3228610	2.34	2974836	108.53	70	120	
In	115	1	No Gas	3501798	3.21	3399243	103.02	70	120	
Bi	209	1	No Gas	2704692	1.16	2779836	97.30	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-04
Data File Name	240SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:28:52-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	199CALB.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	11.554	11.554	1.85	248979	0.00	2000	
Be	9	1	No Gas	0.031	0.031	5.72	163	0.02	2000	
V	51	2	He	0.691	0.691	2.60	10275	0.01	2000	
Cr	52	2	He	94.599	94.599	0.90	727945	0.01	2000	
Fe	56	2	He	1317.764	1317.764	0.87	8631498	0.02	200000	
Se	78	2	He	-0.116	-0.116	-205.45	180	-0.06	2000	
As	75	2	He	0.169	0.169	20.17	581	0.03	2000	
Ca	44	2	He	14832.920	14832.920	1.34	744929	1.99	200000	
Na	23	2	He	22452.590	22452.590	1.06	25148000	0.09	200000	
Mg	24	2	He	6219.723	6219.723	1.72	4154696	0.15	200000	
K	39	2	He	399.369	399.369	1.82	586882	0.07	200000	
Mn	55	2	He	216.572	216.572	2.62	1296427	0.02	2000	
Co	59	2	He	10.025	10.025	1.83	102454	0.01	2000	
Ni	60	2	He	298.353	298.353	0.81	724492	0.04	2000	
Cu	63	2	He	1.767	1.767	2.70	12386	0.01	2000	
Zn	66	2	He	7.146	7.146	4.12	10304	0.07	2000	
Al	27	2	He	21.123	21.123	12.97	12324	0.17	2000	
B	11	1	No Gas	1.718	1.718	39.72	66852	0.00	2000	
Al	27	1	No Gas	21.885	21.885	9.78	474059	0.00	2000	
Si	28	1	No Gas	18949.362	18949.362	0.91	177423137	0.01	2000	>LDR
Ag	107	1	No Gas	0.012	0.012	29.64	313	0.00	2000	
Cd	111	1	No Gas	0.182	0.182	7.07	674	0.03	2000	
Sr	88	1	No Gas	208.934	208.934	1.92	8111924	0.00	2000	
Mo	95	1	No Gas	0.778	0.778	8.36	6318	0.01	2000	
Sn	118	1	No Gas	-0.031	-0.031	-29.63	1567	0.00	2000	
Sb	121	1	No Gas	0.080	0.080	11.04	1817	0.00	2000	
Ba	137	1	No Gas	137.186	137.186	0.12	874140	0.02	2000	
Tl	205	1	No Gas	0.006	0.006	9.29	337	0.00	2000	
Tl	203	1	No Gas	0.007	0.007	21.90	140	0.01	2000	
Pb	208	1	No Gas	0.080	0.080	3.21	4110	0.00	2000	
U	238	1	No Gas	0.270	0.270	5.10	10668	0.00	2000	
Ca	43	2	He	14541.174	14541.174	1.40	43777	33.22	200000	
Sb	121	2	He	0.082	0.082	0.28	820	0.01	2000	
Ti	47	2	He	2.963	2.963	12.32	817	0.36	2000	
Cu	63	1	No Gas	1.990	1.990	2.86	32118	0.01	2000	
Zn	66	1	No Gas	7.312	7.312	2.62	31701	0.02	2000	
Se	82	1	No Gas	-0.178	-0.178	-179.57	88	-0.20	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	1205554	0.77	1094872	110.11	70	120	
Ge	72	2	He	855685	0.22	759178	112.71	70	120	
Ge	72	1	No Gas	3294352	0.70	2974836	110.74	70	120	
In	115	1	No Gas	3664746	0.63	3399243	107.81	70	120	

Sample Report

Bi	209	1	No Gas	2929452	0.52	2779836	105.38	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	246_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:41:04-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	199CALB.d
n	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	100.787	2.282	1412810	0.76	100	100.8	90	110	
Be	9	1	No Gas	99.559	2.109	397082	0.89	100	99.6	90	110	
V	51	2	He	100.178	0.681	642041	0.55	100	100.2	90	110	
Cr	52	2	He	99.404	1.091	726657	0.91	100	99.4	90	110	
Fe	56	2	He	10141.608	0.833	63019804	0.64	10000	101.4	90	110	
Se	78	2	He	99.482	0.358	12711	0.51	100	99.5	90	110	
As	75	2	He	100.221	1.688	113623	1.47	100	100.2	90	110	
Ca	44	2	He	10181.843	1.525	486700	1.32	10000	101.8	90	110	
Na	23	2	He	10222.770	0.995	10935986	0.98	10000	102.2	90	110	
Mg	24	2	He	10342.397	1.107	6570180	0.92	10000	103.4	90	110	
K	39	2	He	10256.604	1.924	10229860	1.68	10000	102.6	90	110	
Mn	55	2	He	99.993	1.373	569719	1.21	100	100.0	90	110	
Co	59	2	He	97.142	0.549	943539	0.74	100	97.1	90	110	
Ni	60	2	He	100.841	0.419	233085	0.61	100	100.8	90	110	
Cu	63	2	He	99.302	0.525	586779	0.30	100	99.3	90	110	
Zn	66	2	He	99.909	0.812	130473	0.62	100	99.9	90	110	
Al	27	2	He	101.087	1.074	48936	0.90	100	101.1	90	110	
B	11	1	No Gas	487.913	2.904	1171608	2.03	500	97.6	90	110	
Al	27	1	No Gas	103.214	2.957	1823857	2.14	100	103.2	90	110	
Si	28	1	No Gas	530.999	1.782	5160185	0.73	5000	10.6	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	102.875	2.986	1823948	0.91	100	102.9	90	110	
Cd	111	1	No Gas	100.683	3.680	355889	1.67	100	100.7	90	110	
Sr	88	1	No Gas	104.452	2.726	3852477	1.16	100	104.5	90	110	
Mo	95	1	No Gas	99.905	2.646	715368	0.79	100	99.9	90	110	
Sn	118	1	No Gas	101.618	2.780	1127802	1.56	100	101.6	90	110	
Sb	121	1	No Gas	96.705	2.657	1594186	1.61	100	96.7	90	110	
Ba	137	1	No Gas	99.079	2.448	599766	1.30	100	99.1	90	110	
Tl	205	1	No Gas	103.938	2.589	2965983	2.29	100	103.9	90	110	
Tl	203	1	No Gas	100.882	1.489	1228408	1.10	100	100.9	90	110	
Pb	208	1	No Gas	99.110	2.718	3918917	2.10	100	99.1	90	110	
U	238	1	No Gas	101.296	1.115	3831568	1.02	100	101.3	90	110	
Ca	43	2	He	9905.028	0.727	28386	0.55	10000	99.1	90	110	
Sb	121	2	He	91.122	1.126	676085	1.08	100	91.1	90	110	
Ti	47	2	He	102.152	2.563	26175	2.45	100	102.2	90	110	
Cu	63	1	No Gas	103.848	3.145	1407748	1.80	100	103.8	90	110	
Se	82	1	No Gas	102.627	1.867	27367	0.73	100	102.6	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	1110336	1.86	1094872	101.41	70	120	
Ge	72	2	He	813852	0.22	759178	107.20	70	120	
Ge	72	1	No Gas	3105193	1.32	2974836	104.38	70	120	
In	115	1	No Gas	3481185	2.13	3399243	102.41	70	120	
Bi	209	1	No Gas	2822925	0.61	2779836	101.55	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	247_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq Date Time	2023-07-12T22:43:06-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	199CALB.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	Upper Limit	QC Flag
Li	7	1	No Gas	-0.218	-5.1	77524	0.9	0.5	
Be	9	1	No Gas	0.011	67.5	72	42.6	0.5	
V	51	2	He	-0.166	-14.9	4382	3.3	2.5	
Cr	52	2	He	0.200	18.0	18660	2.2	2.5	
Fe	56	2	He	-0.147	-80.3	23477	1.9	100	
Se	78	2	He	-0.087	-195.4	177	13.5	2	
As	75	2	He	0.025	40.8	396	4.0	2.5	
Ca	44	2	He	-9.892	-8.6	667	5.7	100	
Na	23	2	He	4.828	47.0	90029	2.1	100	
Mg	24	2	He	0.108	49.6	1173	3.0	100	
K	39	2	He	-3.138	-146.9	165374	1.6	100	
Mn	55	2	He	0.032	52.6	930	9.2	2.5	
Co	59	2	He	0.008	80.2	160	39.0	2.5	
Ni	60	2	He	0.063	17.7	423	4.9	2.5	
Cu	63	2	He	-0.006	-192.5	1347	4.1	2	
Zn	66	2	He	0.103	29.1	647	5.0	2.5	
Al	27	2	He	-1.957	-6.5	993	4.8	5	
B	11	1	No Gas	-10.447	-4.7	35811	2.8	0.5	
Al	27	1	No Gas	-2.366	-3.1	37154	3.3	5	
Si	28	1	No Gas	2.043	38.2	522443	0.6	10	
Ag	107	1	No Gas	0.008	23.7	233	13.8	2.5	
Cd	111	1	No Gas	0.001	1118.5	2	3632.6	1	
Sr	88	1	No Gas	-0.014	-73.8	2497	17.5	2.5	
Mo	95	1	No Gas	0.057	55.6	877	26.0	2.5	
Sn	118	1	No Gas	0.089	37.5	2930	11.6	5	
Sb	121	1	No Gas	0.520	19.0	9243	17.5	2.5	
Ba	137	1	No Gas	-0.064	-14.4	493	10.2	2.5	
Tl	205	1	No Gas	0.079	32.3	2480	31.2	1	
Tl	203	1	No Gas	0.081	21.5	1067	20.6	1	
Pb	208	1	No Gas	0.005	49.4	1037	10.6	2.5	
U	238	1	No Gas	0.020	28.4	837	27.2	2.5	
Ca	43	2	He	-18.391	-28.0	23	65.5	100	
Sb	121	2	He	0.347	10.5	2777	10.5	2.5	
Ti	47	2	He	0.019	225.7	23	49.5	2.5	
Cu	63	1	No Gas	-0.011	-257.6	3307	10.2	2.5	
Se	82	1	No Gas	-0.337	-54.2	41	120.9	2	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag

Continuing Calibration Blank (CCB) Report

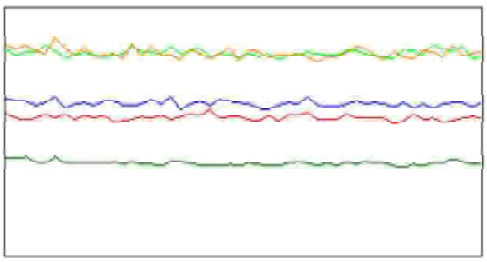
Li	6	1	No Gas	1176588	0.85	1094872	107.46	70	120	
Ge	72	2	He	824582	1.32	759178	108.62	70	120	
Ge	72	1	No Gas	3204302	1.32	2974836	107.71	70	120	
In	115	1	No Gas	3634033	1.54	3399243	106.91	70	120	
Bi	209	1	No Gas	2926149	1.87	2779836	105.26	70	120	

Tune Check Report

Operator Name	ALSHS.NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\071223A.b
Acq. Date-Time	7/12/2023 12:24:12 PM
Report Comment	---
Instrument Name	G8421A SG18523544

[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	10000	5617	56172.59		
24	20000	16425	164248.50		
59	50000	30868	308680.63		
115	50000	41124	411235.21		
208	50000	18880	188797.30		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	1.990	5.000	
24	1.657	5.000	
59	2.000	5.000	
115	2.331	5.000	
208	2.376	5.000	

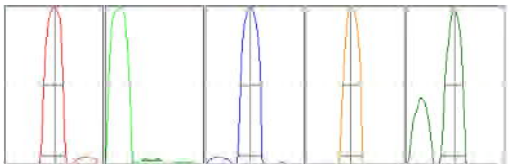
Mass	Background	Background (Required)	Background (Flag)
9	2.200		
24	1.600		
59	2.100		
115	2.000		
208	4.300		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.275 %
Doubly Charged	70 / 140 0.948 %

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	5789.75	9.05	8.90 - 9.10	
24	16763.94	23.90	23.90 - 24.10	
59	31738.32	58.90	58.90 - 59.10	
115	42057.17	114.90	114.90 - 115.10	
208	18692.32	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.60	0.771		
24	0.63	0.738		
59	0.60	0.733		
115	0.53	0.688		
208	0.56	0.757		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.55 L/min	Dilution Gas	0.52 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	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.7 V	Deflect	15.8 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-90 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	134	Axis Gain	1.0006	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.05		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-0.8 mm

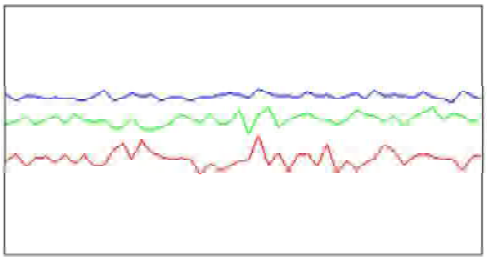
EM

Discriminator	4.5 mV	Analog HV	3004 V	Pulse HV	1633 V

[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	500	193	1933.13		
24	2000	1089	10887.42		
59	20000	12753	127525.60		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

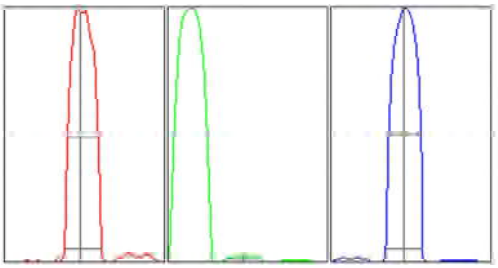
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	8.638	5.000	Fail
24	4.391	5.000	
59	1.821	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.400		
24	0.000		
59	0.400		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 2.361 %
Doubly Charged	70 / 140 0.969 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	199.02	8.95	8.90 - 9.10	
24	1087.45	23.95	23.90 - 24.10	
59	12942.22	58.90	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.59	0.695		
24	0.63	0.737		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.59	0.693		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.55 L/min	Dilution Gas	0.52 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	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.4 V	Deflect	0.9 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-90 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	3.8 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	134	Axis Gain	1.0006	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.05		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-0.8 mm

EM

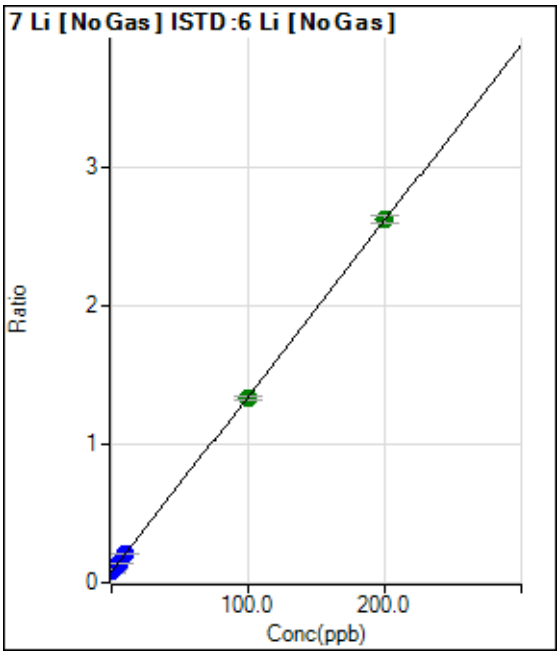
Discriminator	4.5 mV	Analog HV	3004 V	Pulse HV	1633 V

Calibration for 289_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071323A.b\
Analysis File: 071323A.batch.bin
DA Date-Time: 7/14/2023 8:11:05 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	282CALB.d	CAL BLK	7/13/2023 11:13:07 PM
2	283CALS.d	2/10/200	7/13/2023 11:15:16 PM
3	284CALS.d	5/25/500	7/13/2023 11:17:13 PM
4	285CALS.d	10/50/100	7/13/2023 11:19:22 PM
5	286CALS.d	100/500/10K	7/13/2023 11:21:17 PM
6	287CALS.d	200/1000/20K	7/13/2023 11:23:10 PM

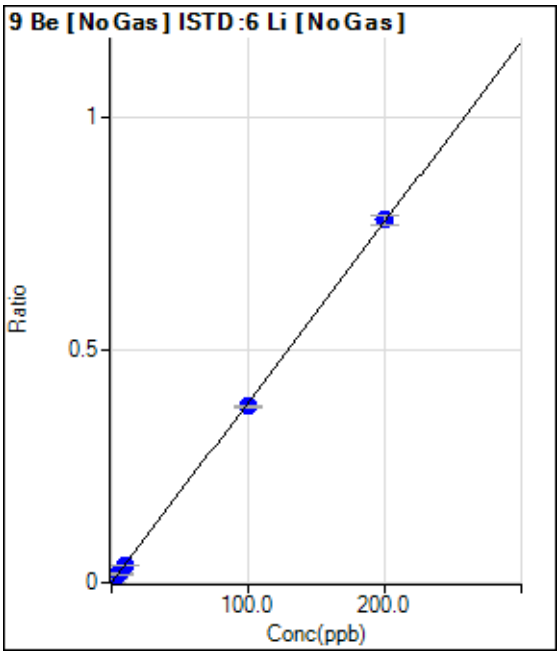
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69532.35	0.0769	P	2.5
2	☐	2.000	1.848	92450.86	0.1003	P	2.9
3	☐	5.000	5.001	127709.37	0.1402	P	1.1
4	☐	10.000	9.982	186534.42	0.2033	P	0.9
5	☐	100.000	99.123	1156042.09	1.3319	A	1.3
6	☐	200.000	200.441	2091879.97	2.6147	A	2.1

y = 0.0127 * x + 0.0769
R = 1.0000
DL = 0.4524
BEC = 6.074

Weight: <None>
Min Conc: <None>

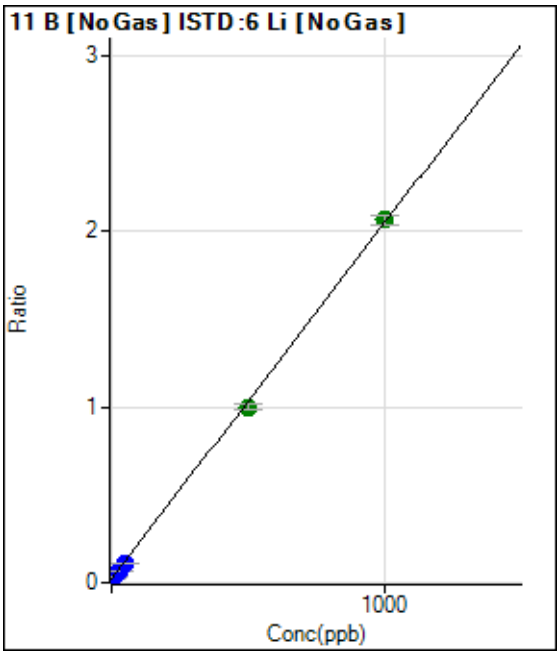


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.00	0.0000	P	46.3
2	☐	2.000	1.863	6684.98	0.0072	P	1.7
3	☐	5.000	4.798	16961.98	0.0186	P	0.9
4	☐	10.000	9.548	33967.61	0.0370	P	1.2
5	☐	100.000	97.901	329184.66	0.3793	P	0.9
6	☐	200.000	201.078	623123.16	0.7789	P	2.6

y = 0.0039 * x + 3.3452E-005
R = 0.9999
DL = 0.012
BEC = 0.008636

Weight: <None>
Min Conc: <None>

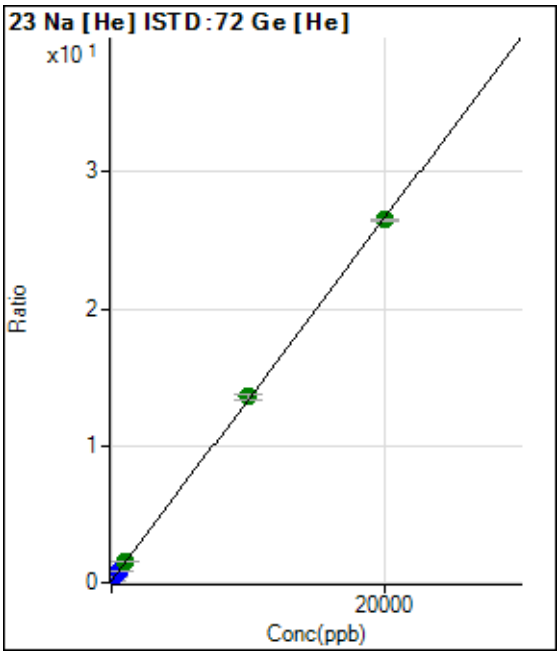
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19330.03	0.0214	P	4.9
2	☐	10.000	7.255	33257.69	0.0361	P	2.0
3	☐	25.000	21.573	59252.68	0.0651	P	1.3
4	☐	50.000	45.748	104589.01	0.1140	P	1.0
5	☐	500.000	483.421	867651.11	0.9998	A	2.6
6	☐	1000.000	1008.615	1650203.73	2.0628	A	2.9

y = 0.0020 * x + 0.0214
R = 0.9998
DL = 1.562
BEC = 10.57

Weight: <None>
Min Conc: <None>

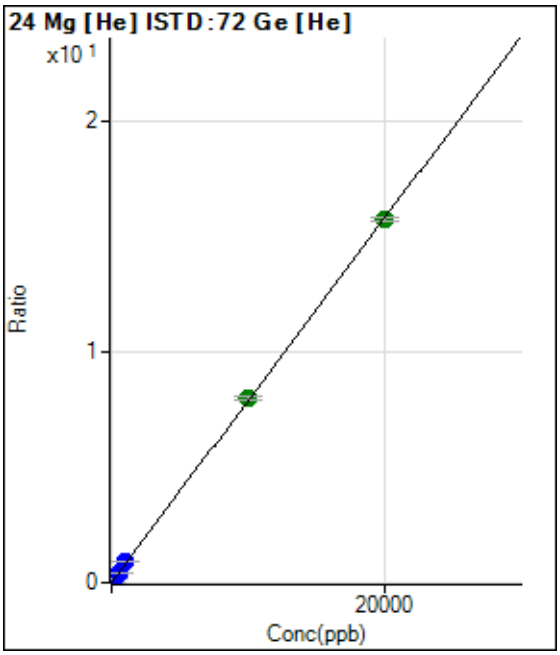


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74006.00	0.1254	P	0.7
2	☐	200.000	215.162	248077.77	0.4102	P	0.8
3	☐	500.000	535.301	507880.55	0.8341	P	1.1
4	☐	1000.000	1058.228	929485.14	1.5264	A	1.0
5	☐	10000.000	10173.432	7952351.34	13.5945	A	2.8
6	☐	20000.000	19909.339	15143591.02	26.4844	A	0.7

y = 0.0013 * x + 0.1254
R = 0.9999
DL = 2.022
BEC = 94.69

Weight: <None>
Min Conc: <None>

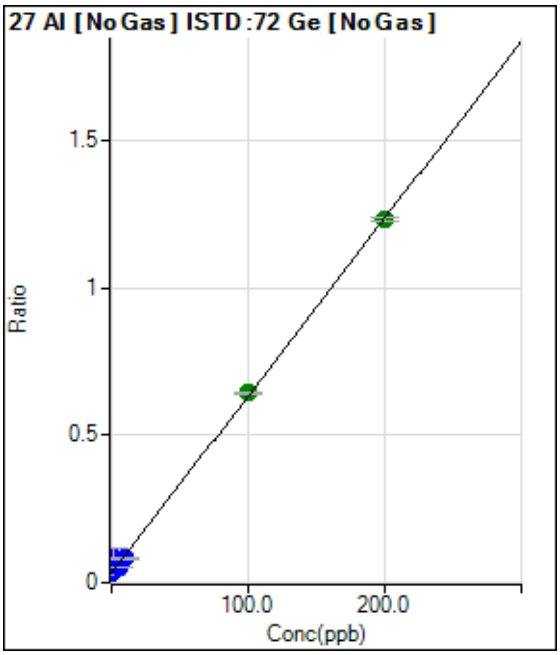
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1113.40	0.0019	P	7.8
2	☐	200.000	224.689	108590.28	0.1796	P	0.9
3	☐	500.000	556.861	269260.55	0.4422	P	0.9
4	☐	1000.000	1128.888	544666.31	0.8945	P	0.5
5	☐	10000.000	10153.807	4697759.72	8.0307	A	1.9
6	☐	20000.000	19914.984	9005164.45	15.7490	A	1.2

y = 7.9072E-004 * x + 0.0019
R = 1.0000
DL = 0.5574
BEC = 2.386

Weight: <None>
Min Conc: <None>

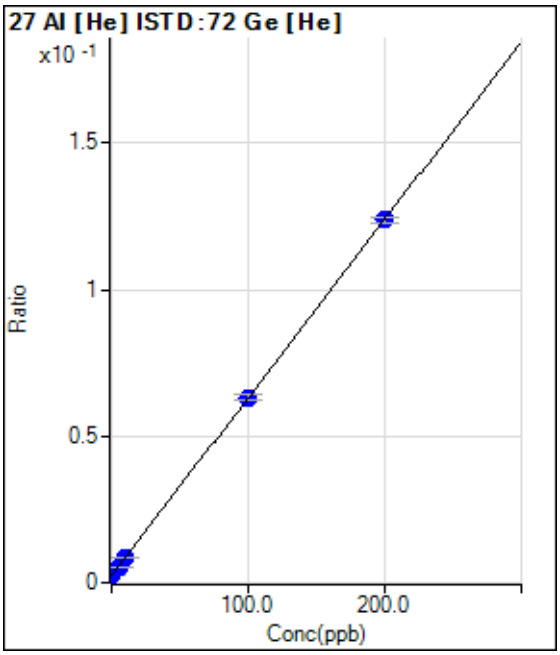


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69546.16	0.0322	P	29.3
2	☐	2.000	8.679	186478.78	0.0843	P	76.5
3	☐	5.000	3.431	116776.43	0.0528	P	2.0
4	☐	10.000	8.293	181937.09	0.0820	P	1.9
5	☐	100.000	101.521	1382768.21	0.6422	A	1.5
6	☐	200.000	199.297	2546992.67	1.2297	A	1.1

y = 0.0060 * x + 0.0322
R = 0.9993
DL = 4.701
BEC = 5.352

Weight: <None>
Min Conc: <None>

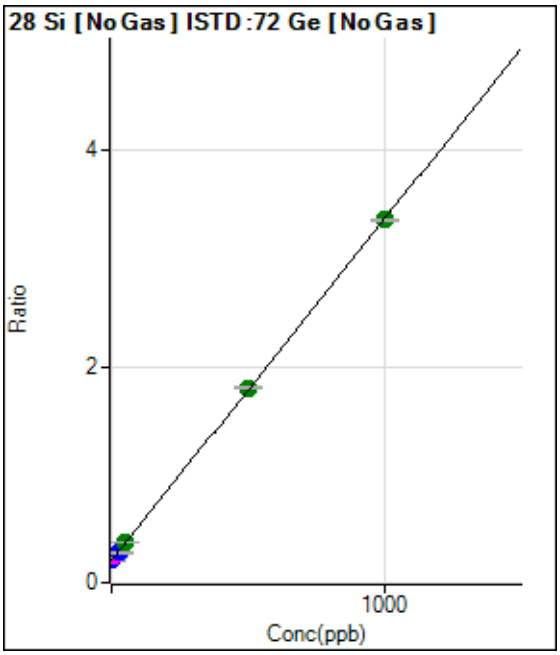
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1410.10	0.0024	P	5.5
2	☐	2.000	2.775	2463.60	0.0041	P	2.5
3	☐	5.000	5.138	3353.80	0.0055	P	2.2
4	☐	10.000	9.915	5117.72	0.0084	P	4.9
5	☐	100.000	100.162	36972.77	0.0632	P	2.6
6	☐	200.000	199.912	70773.01	0.1238	P	1.5

y = 6.0719E-004 * x + 0.0024
R = 1.0000
DL = 0.6502
BEC = 3.933

Weight: <None>
Min Conc: <None>

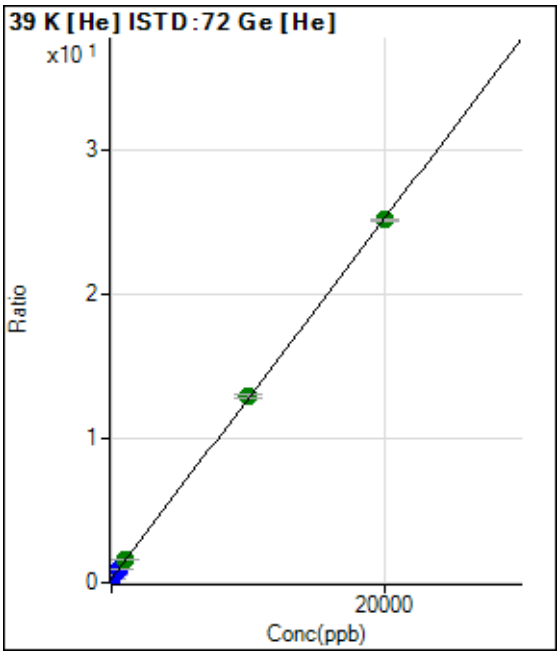


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	442766.04	0.2054	P	2.5
2	☐	10.000	15.933	561783.87	0.2558	M	14.3
3	☐	25.000	22.675	613282.41	0.2772	P	1.9
4	☐	50.000	51.882	820126.32	0.3695	A	0.6
5	☐	500.000	504.975	3880943.69	1.8025	A	1.4
6	☐	1000.000	997.417	6959164.27	3.3599	A	0.8

y = 0.0032 * x + 0.2054
R = 1.0000
DL = 4.878
BEC = 64.96

Weight: <None>
Min Conc: <None>

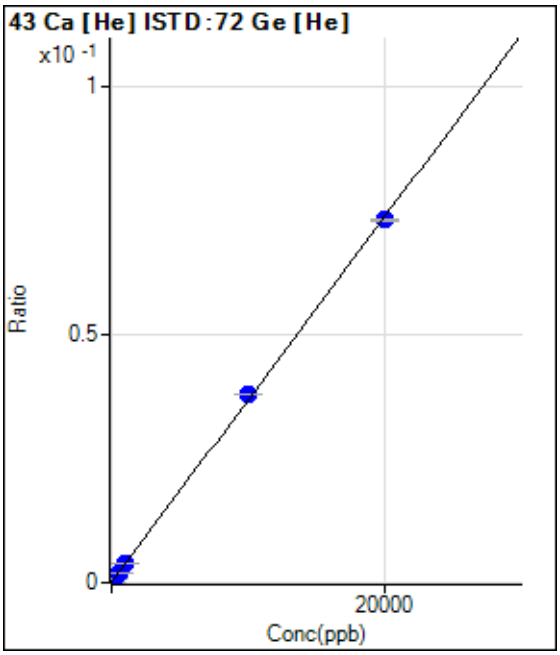
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	167620.99	0.2840	P	0.8
2	☐	200.000	200.377	322902.28	0.5339	P	0.2
3	☐	500.000	516.005	564903.70	0.9277	P	0.5
4	☐	1000.000	1045.694	967231.08	1.5886	A	0.7
5	☐	10000.000	10118.727	7550828.22	12.9081	A	1.9
6	☐	20000.000	19937.948	14385630.62	25.1585	A	0.5

y = 0.0012 * x + 0.2840
R = 1.0000
DL = 5.226
BEC = 227.6

Weight: <None>
Min Conc: <None>

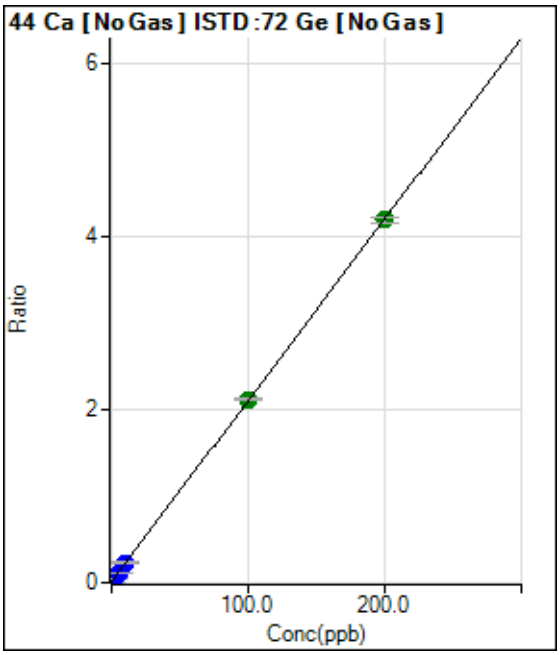


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0001	P	41.4
2	☐	200.000	187.129	453.35	0.0007	P	7.7
3	☐	500.000	487.902	1130.07	0.0019	P	4.9
4	☐	1000.000	992.964	2260.22	0.0037	P	1.5
5	☐	10000.000	10299.860	22184.90	0.0379	P	0.9
6	☐	20000.000	19850.853	41760.46	0.0730	P	0.8

y = 3.6760E-006 * x + 6.2028E-005
R = 0.9998
DL = 20.97
BEC = 16.87

Weight: <None>
Min Conc: <None>

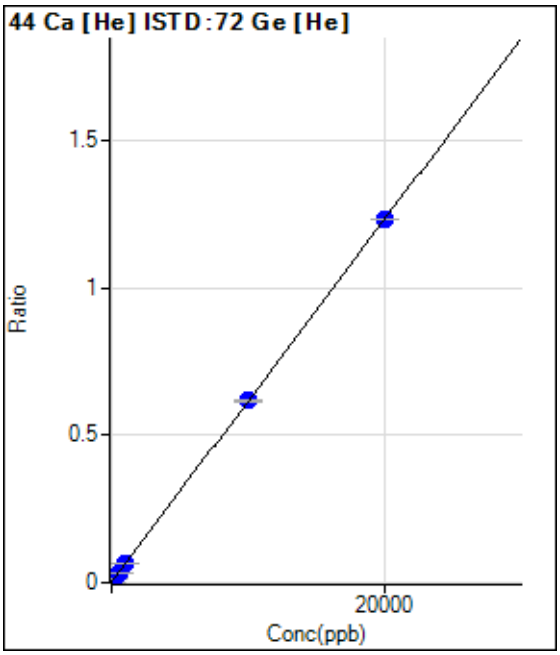
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23880.99	0.0111	P	0.6
2	☐	2.000	2.054	118748.58	0.0542	P	2.3
3	☐	5.000	5.229	267198.71	0.1208	P	2.6
4	☐	10.000	10.589	517473.04	0.2332	P	1.3
5	☐	100.000	100.494	4562364.20	2.1189	A	1.2
6	☐	200.000	199.717	8698800.08	4.2001	A	1.4

y = 0.0210 * x + 0.0111
R = 1.0000
DL = 0.008896
BEC = 0.5284

Weight: <None>
Min Conc: <None>

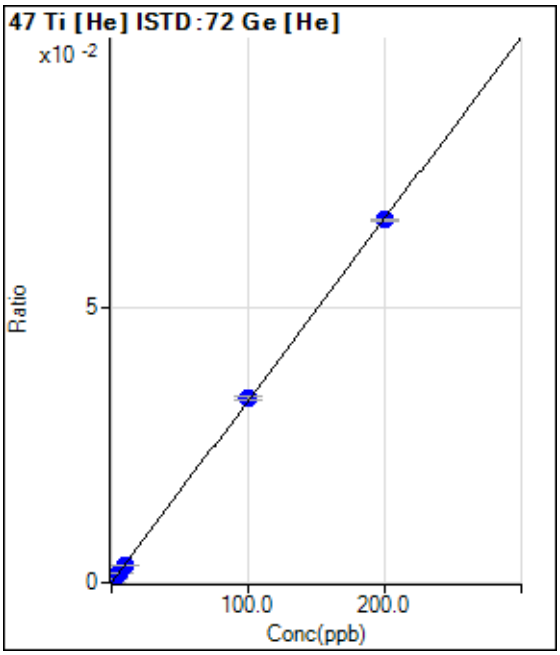


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	886.71	0.0015	P	10.6
2	☐	200.000	201.574	8406.02	0.0139	P	4.8
3	☐	500.000	491.900	19343.95	0.0318	P	1.9
4	☐	1000.000	1013.576	38885.10	0.0639	P	1.3
5	☐	10000.000	10030.737	361934.11	0.6187	P	1.4
6	☐	20000.000	19984.139	703975.95	1.2312	P	0.0

y = 6.1532E-005 * x + 0.0015
R = 1.0000
DL = 7.793
BEC = 24.41

Weight: <None>
Min Conc: <None>

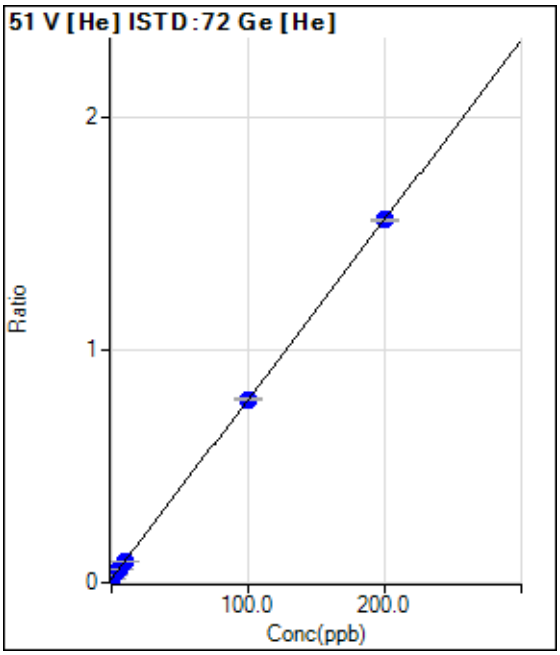
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	100.5
2	☐	2.000	1.963	403.35	0.0007	P	19.8
3	☐	5.000	5.151	1046.73	0.0017	P	6.8
4	☐	10.000	9.640	1950.18	0.0032	P	5.2
5	☐	100.000	101.238	19584.23	0.0335	P	2.7
6	☐	200.000	199.395	37691.94	0.0659	P	0.4

y = 3.3051E-004 * x + 1.6982E-005
R = 1.0000
DL = 0.155
BEC = 0.05138

Weight: <None>
Min Conc: <None>

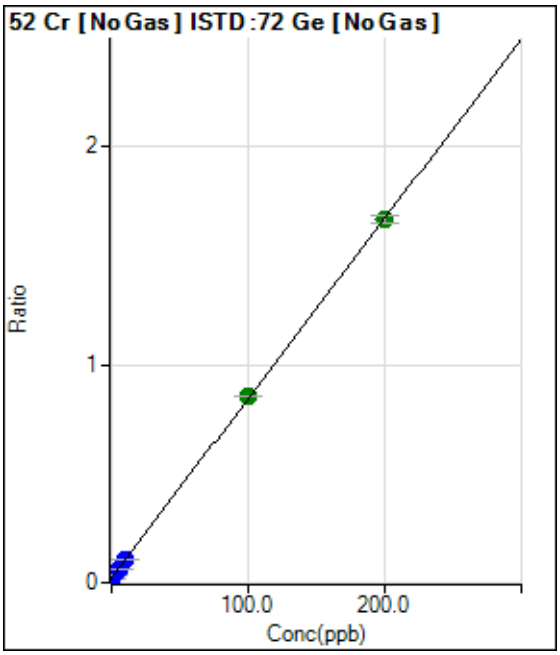


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9267.62	0.0157	P	0.7
2	☐	2.000	2.018	18916.41	0.0313	P	0.7
3	☐	5.000	4.996	33044.17	0.0543	P	0.8
4	☐	10.000	10.119	57121.72	0.0938	P	0.9
5	☐	100.000	100.139	461332.19	0.7887	P	1.7
6	☐	200.000	199.924	891350.80	1.5589	P	0.8

y = 0.0077 * x + 0.0157
R = 1.0000
DL = 0.04249
BEC = 2.034

Weight: <None>
Min Conc: <None>

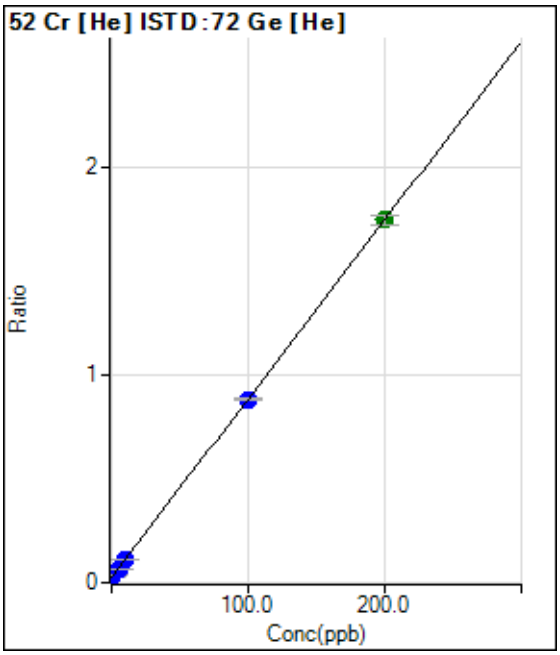
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46298.32	0.0215	P	3.5
2	☐	2.000	2.085	84784.67	0.0387	P	0.9
3	☐	5.000	5.217	142660.18	0.0645	P	2.5
4	☐	10.000	10.365	237207.16	0.1069	P	0.9
5	☐	100.000	101.224	1841914.61	0.8554	A	0.9
6	☐	200.000	199.363	3445704.01	1.6639	A	2.2

y = 0.0082 * x + 0.0215
R = 1.0000
DL = 0.2705
BEC = 2.609

Weight: <None>
Min Conc: <None>

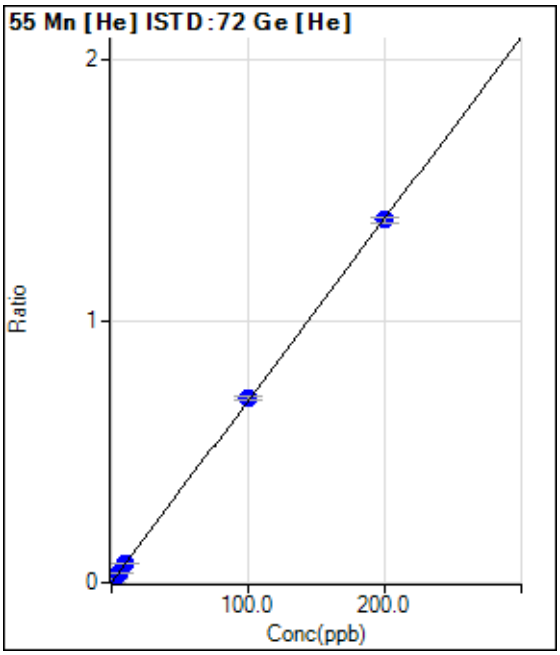


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14504.61	0.0246	P	2.1
2	☐	2.000	2.047	25520.88	0.0422	P	2.6
3	☐	5.000	4.949	40924.83	0.0672	P	1.4
4	☐	10.000	10.031	67550.12	0.1110	P	2.9
5	☐	100.000	99.697	516710.26	0.8833	P	1.2
6	☐	200.000	200.151	999828.63	1.7486	A	2.9

y = 0.0086 * x + 0.0246
R = 1.0000
DL = 0.1822
BEC = 2.853

Weight: <None>
Min Conc: <None>

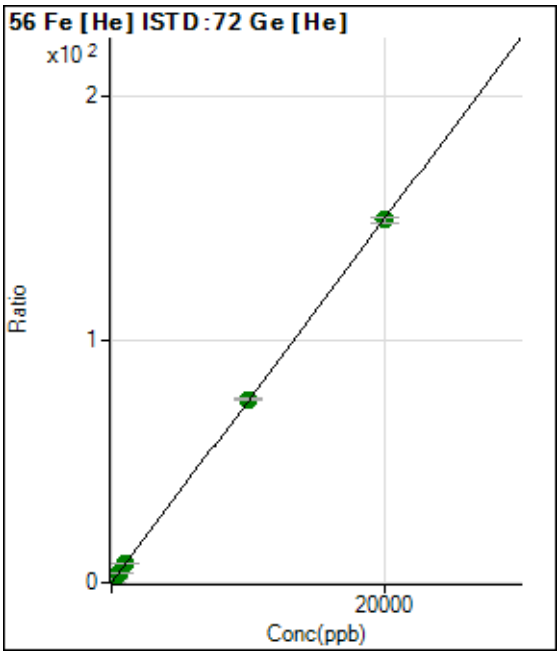
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	490.02	0.0008	P	5.3
2	☐	2.000	2.094	9296.66	0.0154	P	2.2
3	☐	5.000	5.235	22645.74	0.0372	P	2.0
4	☐	10.000	10.295	44041.22	0.0723	P	1.8
5	☐	100.000	101.058	411094.21	0.7028	P	1.9
6	☐	200.000	199.449	792611.03	1.3862	P	1.6

y = 0.0069 * x + 8.2983E-004
R = 1.0000
DL = 0.01906
BEC = 0.1195

Weight: <None>
Min Conc: <None>

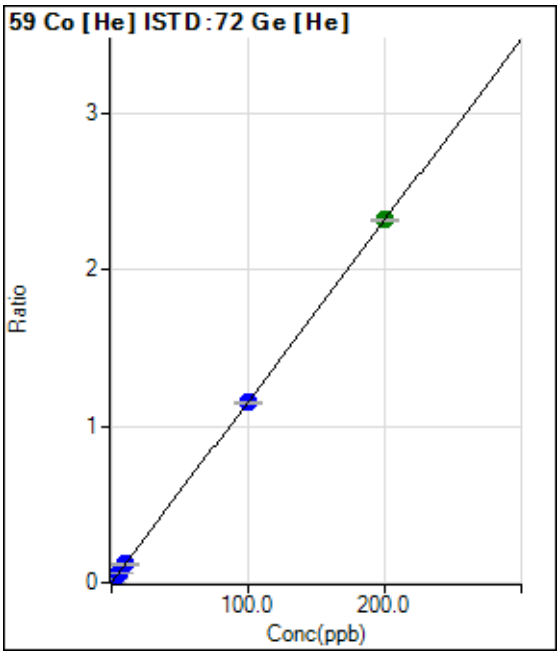


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22746.31	0.0385	P	3.6
2	☐	200.000	209.118	968993.63	1.6025	A	1.9
3	☐	500.000	524.126	2410363.19	3.9584	A	1.0
4	☐	1000.000	1037.523	4747898.68	7.7979	A	0.8
5	☐	10000.000	10095.281	44187512.67	75.5389	A	0.5
6	☐	20000.000	19949.789	85333238.73	149.2385	A	1.8

y = 0.0075 * x + 0.0385
R = 1.0000
DL = 0.5591
BEC = 5.152

Weight: <None>
Min Conc: <None>

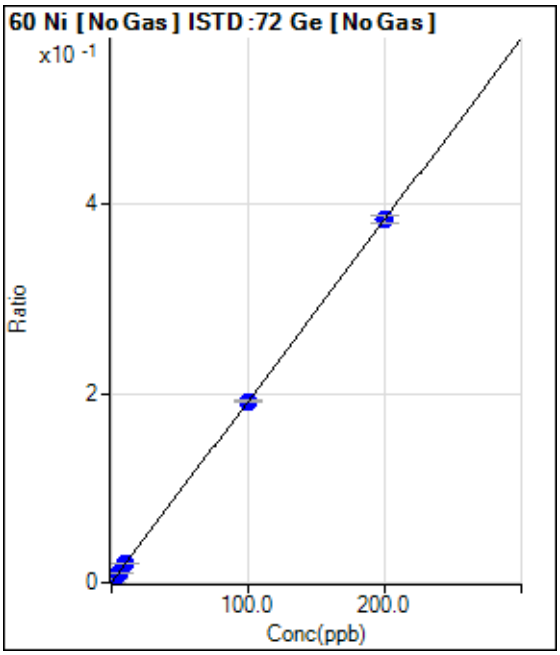
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0001	P	25.5
2	☐	2.000	1.954	13710.42	0.0227	P	0.5
3	☐	5.000	4.930	34758.00	0.0571	P	0.6
4	☐	10.000	10.123	71323.00	0.1171	P	2.0
5	☐	100.000	99.385	672173.79	1.1491	P	0.9
6	☐	200.000	200.304	1324162.95	2.3158	A	0.8

y = 0.0116 * x + 7.9142E-005
R = 1.0000
DL = 0.005235
BEC = 0.006846

Weight: <None>
Min Conc: <None>

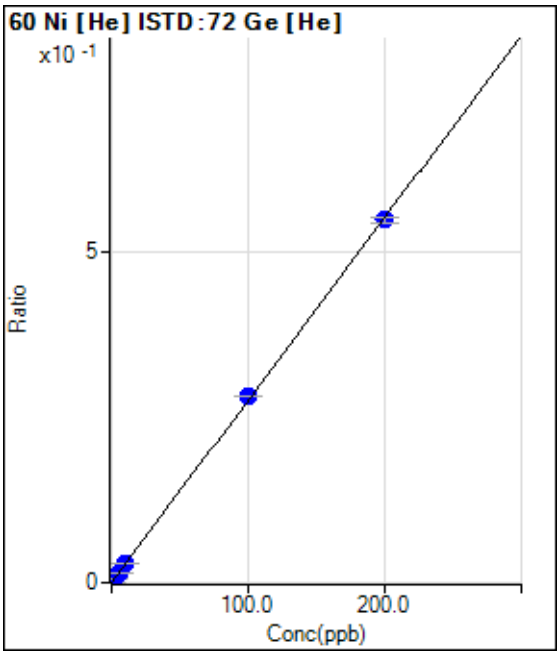


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	516.69	0.0002	P	17.4
2	☐	2.000	2.134	9483.47	0.0043	P	7.7
3	☐	5.000	5.091	22115.04	0.0100	P	5.8
4	☐	10.000	10.324	44435.99	0.0200	P	0.8
5	☐	100.000	99.999	413144.80	0.1919	P	0.9
6	☐	200.000	199.981	794124.67	0.3835	P	2.1

y = 0.0019 * x + 2.3958E-004
R = 1.0000
DL = 0.06527
BEC = 0.125

Weight: <None>
Min Conc: <None>

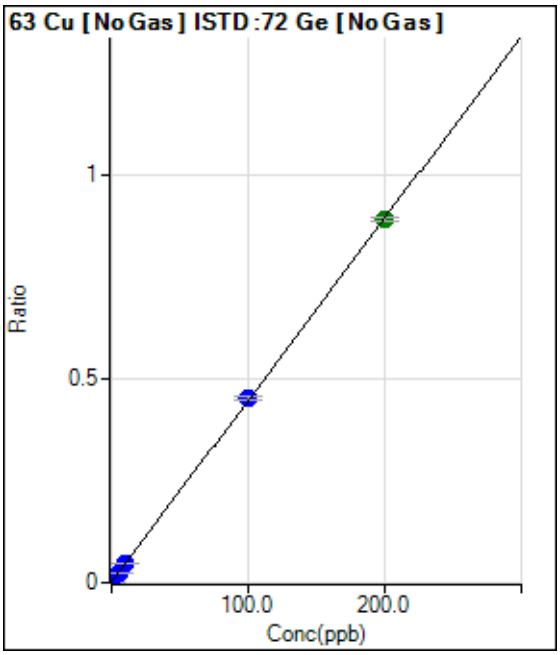
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	96.67	0.0002	P	12.7
2	☐	2.000	2.137	3670.57	0.0061	P	1.4
3	☐	5.000	5.162	8782.97	0.0144	P	2.0
4	☐	10.000	10.347	17498.20	0.0287	P	3.4
5	☐	100.000	102.134	165144.15	0.2823	P	0.6
6	☐	200.000	198.910	314293.04	0.5497	P	1.6

y = 0.0028 * x + 1.6384E-004
R = 0.9999
DL = 0.02254
BEC = 0.05931

Weight: <None>
Min Conc: <None>

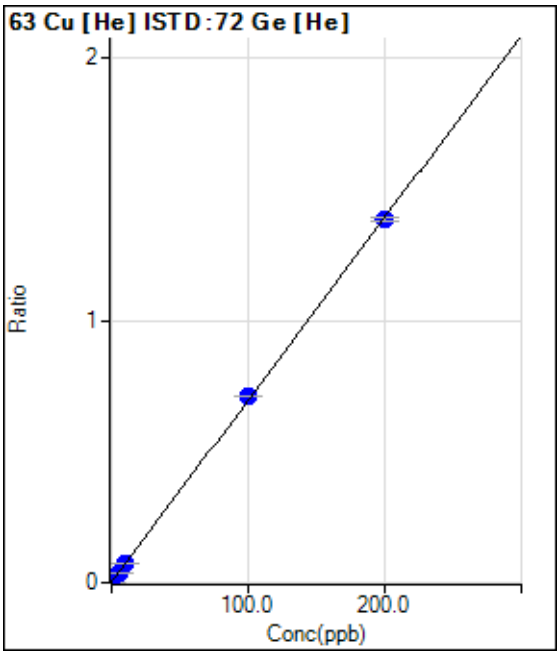


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2210.22	0.0010	P	2.6
2	☐	2.000	2.491	26639.71	0.0122	P	4.1
3	☐	5.000	5.113	52802.76	0.0239	P	2.2
4	☐	10.000	10.354	104899.01	0.0473	P	1.6
5	☐	100.000	101.442	977778.97	0.4541	P	1.7
6	☐	200.000	199.254	1845504.87	0.8910	A	1.0

y = 0.0045 * x + 0.0010
R = 1.0000
DL = 0.01769
BEC = 0.2297

Weight: <None>
Min Conc: <None>

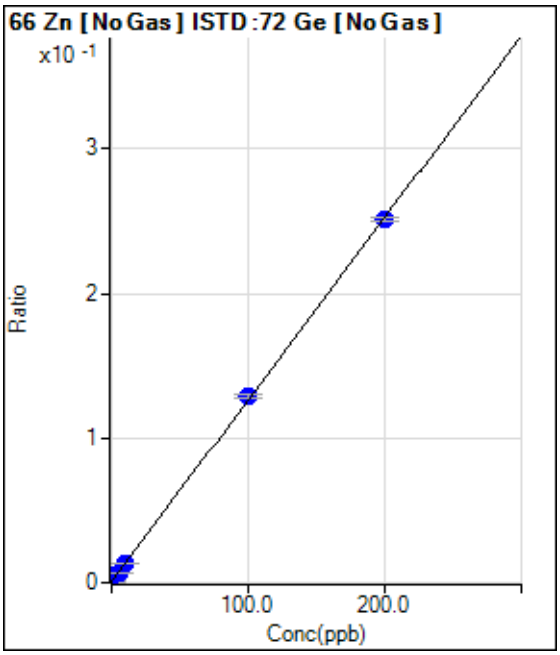
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	823.37	0.0014	P	12.7
2	☐	2.000	2.564	11611.79	0.0192	P	2.2
3	☐	5.000	5.003	22008.24	0.0361	P	4.5
4	☐	10.000	10.280	44329.19	0.0728	P	0.5
5	☐	100.000	102.161	415928.48	0.7110	P	0.7
6	☐	200.000	198.900	790791.39	1.3830	P	1.1

y = 0.0069 * x + 0.0014
R = 0.9999
DL = 0.07666
BEC = 0.2008

Weight: <None>
Min Conc: <None>

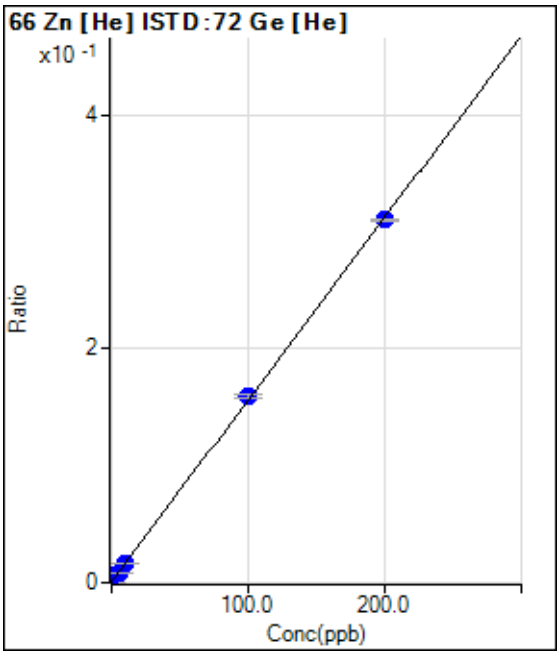


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1353.43	0.0006	P	12.6
2	☐	2.000	3.571	11224.85	0.0051	P	4.1
3	☐	5.000	5.003	15315.56	0.0069	P	2.3
4	☐	10.000	10.400	30421.19	0.0137	P	2.2
5	☐	100.000	102.053	277705.63	0.1290	P	1.6
6	☐	200.000	198.938	519510.66	0.2508	P	1.2

y = 0.0013 * x + 6.2897E-004
R = 0.9999
DL = 0.1883
BEC = 0.5001

Weight: <None>
Min Conc: <None>

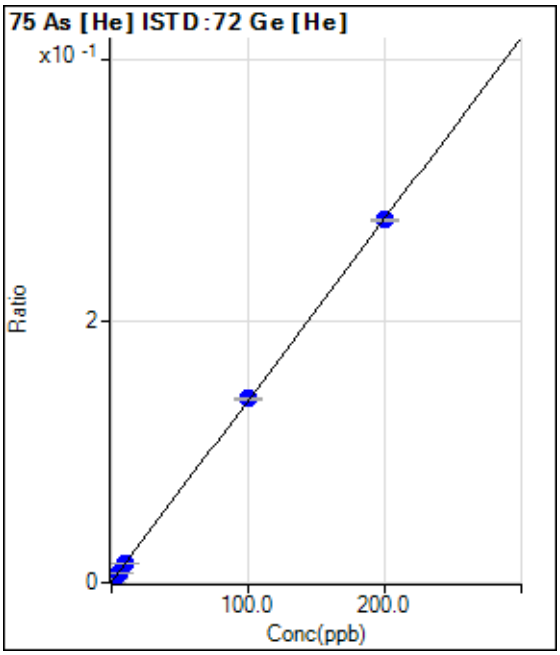
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	400.02	0.0007	P	33.8
2	☐	2.000	3.702	3890.65	0.0064	P	7.3
3	☐	5.000	4.941	5091.04	0.0084	P	6.9
4	☐	10.000	10.217	10093.90	0.0166	P	4.6
5	☐	100.000	102.195	93379.43	0.1596	P	1.4
6	☐	200.000	198.876	177258.71	0.3100	P	0.9

y = 0.0016 * x + 6.7801E-004
R = 0.9999
DL = 0.442
BEC = 0.4359

Weight: <None>
Min Conc: <None>

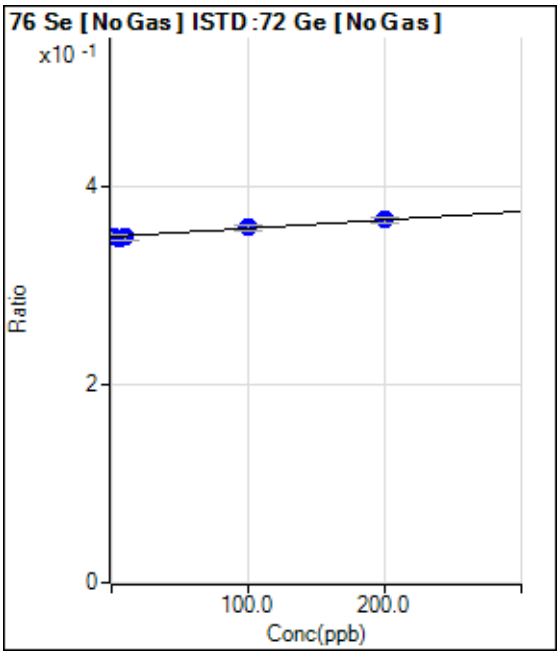


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	365.56	0.0006	P	17.7
2	☐	2.000	2.016	2065.72	0.0034	P	4.4
3	☐	5.000	5.006	4606.36	0.0076	P	2.1
4	☐	10.000	10.057	8872.95	0.0146	P	3.1
5	☐	100.000	100.871	82230.82	0.1406	P	0.9
6	☐	200.000	199.561	158671.91	0.2775	P	0.4

y = 0.0014 * x + 6.1945E-004
R = 1.0000
DL = 0.2367
BEC = 0.4465

Weight: <None>
Min Conc: <None>

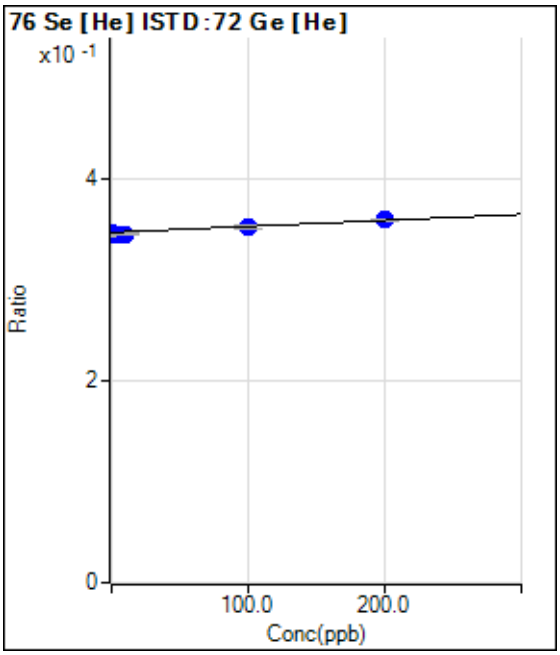
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	752471.42	0.3493	P	0.9
2	☐	2.000	6.843	766951.99	0.3498	P	1.6
3	☐	5.000	-14.428	770170.69	0.3480	P	1.6
4	☐	10.000	-5.783	773974.34	0.3488	P	1.6
5	☐	100.000	103.978	771012.38	0.3581	P	1.1
6	☐	200.000	199.237	758403.11	0.3662	P	1.3

y = 8.4879E-005 * x + 0.3493
R = 0.9934
DL = 115.6
BEC = 4115

Weight: <None>
Min Conc: <None>

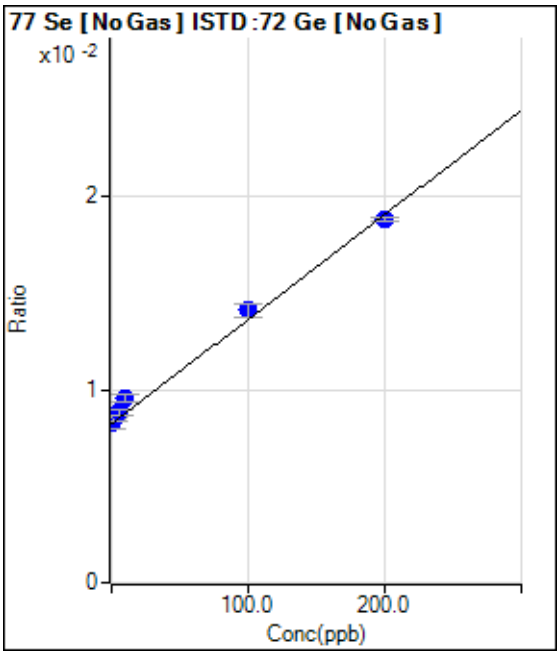


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	204469.32	0.3464	P	1.3
2	☐	2.000	-31.058	208339.72	0.3445	P	0.8
3	☐	5.000	-51.533	209041.84	0.3433	P	0.8
4	☐	10.000	-27.318	209922.40	0.3447	P	0.5
5	☐	100.000	94.254	205906.60	0.3520	P	1.0
6	☐	200.000	206.483	205091.04	0.3587	P	0.4

y = 5.9588E-005 * x + 0.3464
R = 0.9821
DL = 219.4
BEC = 5813

Weight: <None>
Min Conc: <None>

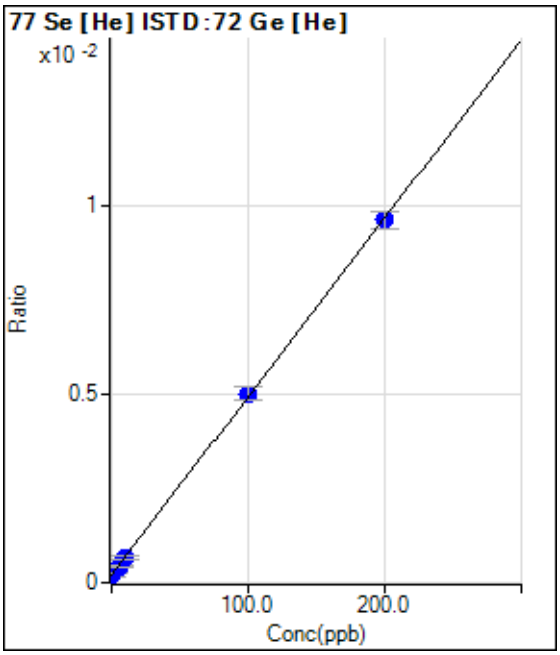
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17728.56	0.0082	P	6.2
2	☐	2.000	4.571	18596.53	0.0085	P	2.9
3	☐	5.000	10.941	19541.19	0.0088	P	4.2
4	☐	10.000	24.667	21233.64	0.0096	P	3.4
5	☐	100.000	108.249	30344.47	0.0141	P	4.4
6	☐	200.000	194.968	38929.88	0.0188	P	0.9

y = 5.4151E-005 * x + 0.0082
R = 0.9971
DL = 28.42
BEC = 152.1

Weight: <None>
Min Conc: <None>

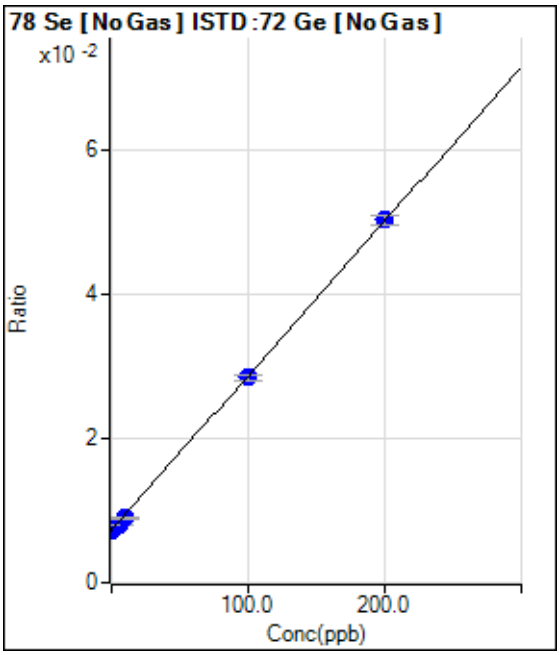


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.33	0.0002	P	36.0
2	☐	2.000	2.005	183.34	0.0003	P	19.8
3	☐	5.000	4.508	256.68	0.0004	P	14.0
4	☐	10.000	9.974	413.34	0.0007	P	16.5
5	☐	100.000	101.735	2933.70	0.0050	P	7.1
6	☐	200.000	199.146	5497.89	0.0096	P	4.9

y = 4.7236E-005 * x + 2.0868E-004
R = 0.9999
DL = 4.769
BEC = 4.418

Weight: <None>
Min Conc: <None>

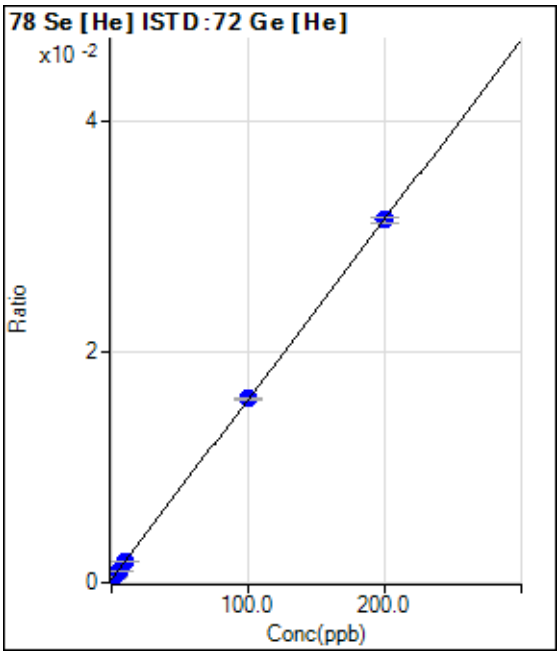
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15722.73	0.0073	P	1.1
2	☐	2.000	1.170	16547.00	0.0075	P	2.2
3	☐	5.000	3.139	17635.05	0.0080	P	1.3
4	☐	10.000	7.696	19845.08	0.0089	P	1.4
5	☐	100.000	98.697	61145.75	0.0284	P	2.2
6	☐	200.000	200.822	104027.02	0.0502	P	2.5

y = 2.1381E-004 * x + 0.0073
R = 0.9999
DL = 1.148
BEC = 34.13

Weight: <None>
Min Conc: <None>

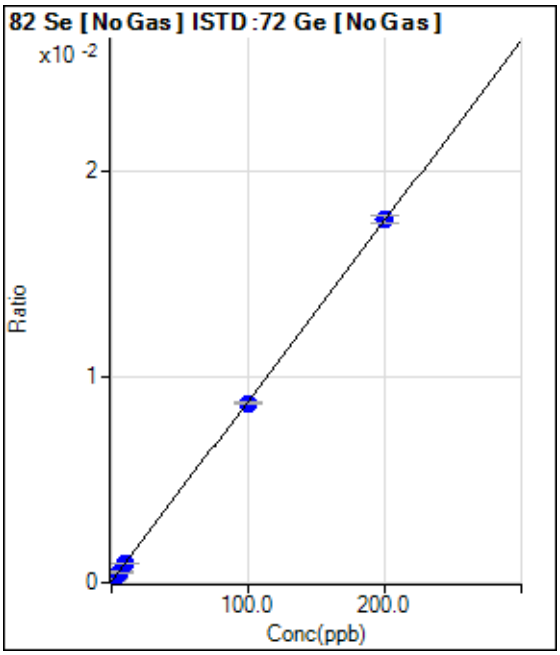


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	180.67	0.0003	P	9.6
2	☐	2.000	1.718	347.34	0.0006	P	10.5
3	☐	5.000	4.441	608.02	0.0010	P	0.4
4	☐	10.000	9.784	1115.38	0.0018	P	3.4
5	☐	100.000	100.381	9333.26	0.0160	P	1.6
6	☐	200.000	199.837	17988.66	0.0315	P	1.6

y = 1.5590E-004 * x + 3.0609E-004
R = 1.0000
DL = 0.566
BEC = 1.963

Weight: <None>
Min Conc: <None>

Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	131.60	0.0001	P	39.8
2	☐	2.000	1.818	484.47	0.0002	P	8.1
3	☐	5.000	4.968	1101.56	0.0005	P	7.9
4	☐	10.000	9.747	2034.55	0.0009	P	3.0
5	☐	100.000	98.943	18831.91	0.0087	P	1.4
6	☐	200.000	200.544	36585.71	0.0177	P	2.1

y = 8.7777E-005 * x + 6.1339E-005

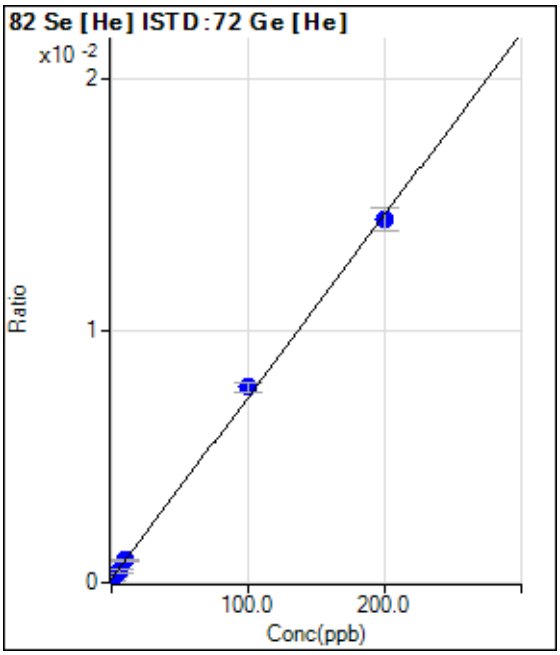
R = 1.0000

DL = 0.8342

BEC = 0.6988

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0001	P	63.0
2	☐	2.000	1.558	156.67	0.0003	P	7.8
3	☐	5.000	4.715	296.67	0.0005	P	31.2
4	☐	10.000	10.338	543.35	0.0009	P	11.4
5	☐	100.000	105.353	4537.54	0.0078	P	4.3
6	☐	200.000	197.318	8232.73	0.0144	P	6.3

y = 7.2230E-005 * x + 1.4657E-004

R = 0.9995

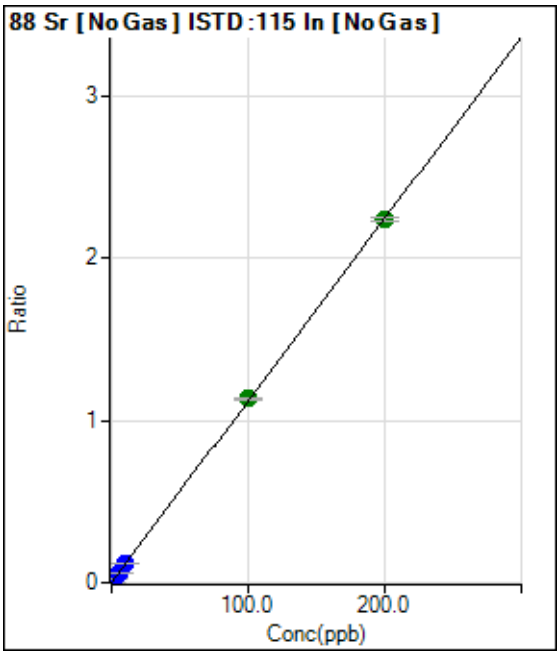
DL = 3.837

BEC = 2.029

Weight: <None>

Min Conc: <None>

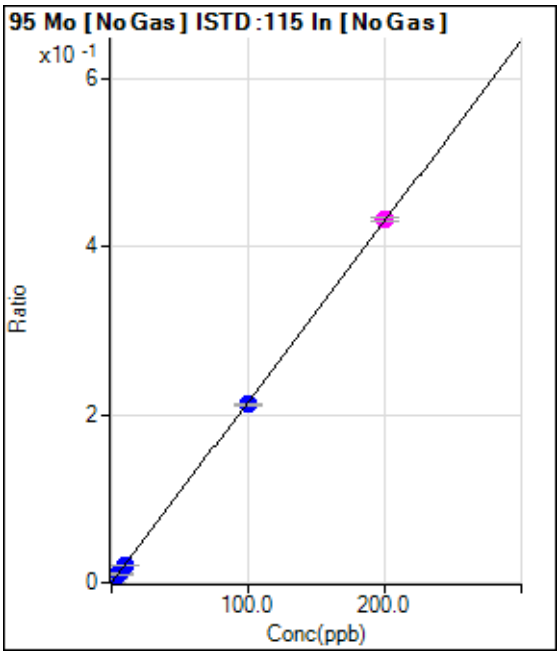
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2233.56	0.0009	P	5.3
2	☐	2.000	2.026	58494.47	0.0237	P	2.4
3	☐	5.000	5.075	144230.38	0.0578	P	0.8
4	☐	10.000	10.226	286931.91	0.1156	P	2.5
5	☐	100.000	101.055	2720421.73	1.1341	A	0.8
6	☐	200.000	199.459	5124619.30	2.2375	A	1.2

y = 0.0112 * x + 9.3718E-004
R = 1.0000
DL = 0.01341
BEC = 0.08358

Weight: <None>
Min Conc: <None>

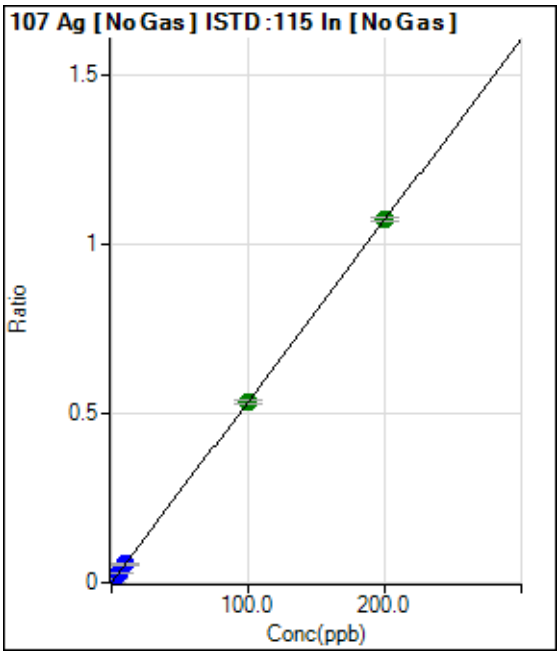


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.67	0.0001	P	12.9
2	☐	2.000	1.906	10357.53	0.0042	P	1.8
3	☐	5.000	4.821	26072.53	0.0105	P	3.8
4	☐	10.000	9.835	52697.80	0.0212	P	3.0
5	☐	100.000	98.540	508322.53	0.2119	P	1.0
6	☐	200.000	200.744	988477.88	0.4316	M	1.2

y = 0.0021 * x + 9.0733E-005
R = 1.0000
DL = 0.01633
BEC = 0.04221

Weight: <None>
Min Conc: <None>

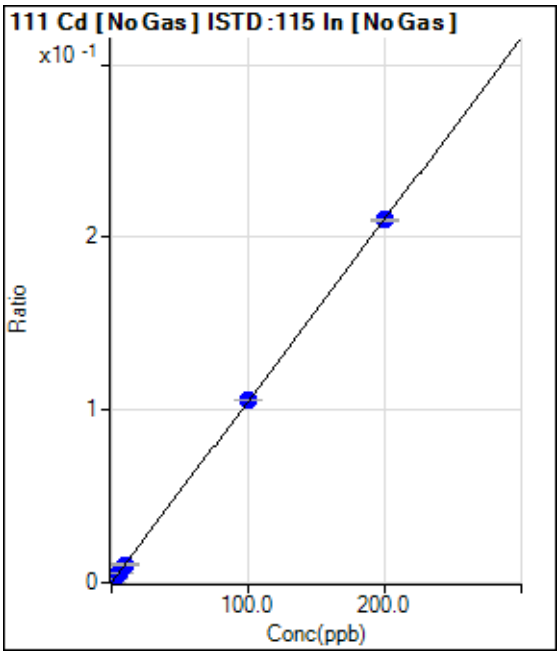
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0000	P	7.8
2	☐	2.000	2.001	26533.63	0.0107	P	3.5
3	☐	5.000	5.022	67029.59	0.0269	P	1.3
4	☐	10.000	10.143	134680.00	0.0543	P	1.6
5	☐	100.000	99.580	1276779.75	0.5323	A	2.2
6	☐	200.000	200.202	2450953.97	1.0702	A	1.2

y = 0.0053 * x + 3.6385E-005
R = 1.0000
DL = 0.001598
BEC = 0.006807

Weight: <None>
Min Conc: <None>

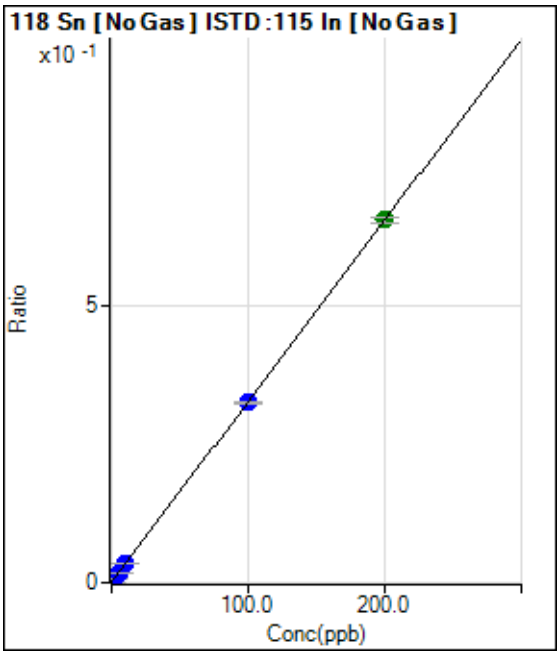


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-14.55	0.0000	P	-39.8
2	☐	2.000	1.988	5153.10	0.0021	P	4.1
3	☐	5.000	4.908	12852.67	0.0052	P	5.4
4	☐	10.000	9.977	26016.58	0.0105	P	3.3
5	☐	100.000	100.343	253036.30	0.1055	P	0.3
6	☐	200.000	199.832	481099.37	0.2101	P	0.8

y = 0.0011 * x - 6.0857E-006
R = 1.0000
DL = 0.00691
BEC = -0.005789

Weight: <None>
Min Conc: <None>

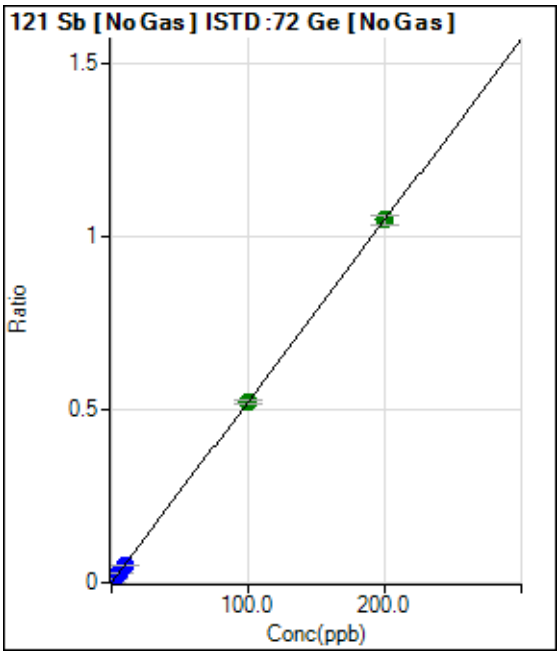
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1693.47	0.0007	P	3.9
2	☐	2.000	1.915	17241.58	0.0070	P	2.2
3	☐	5.000	4.867	41429.14	0.0166	P	0.1
4	☐	10.000	10.056	83343.90	0.0336	P	1.5
5	☐	100.000	99.345	780451.18	0.3254	P	0.6
6	☐	200.000	200.329	1500953.05	0.6553	A	1.6

y = 0.0033 * x + 7.1034E-004
R = 1.0000
DL = 0.02526
BEC = 0.2174

Weight: <None>
Min Conc: <None>

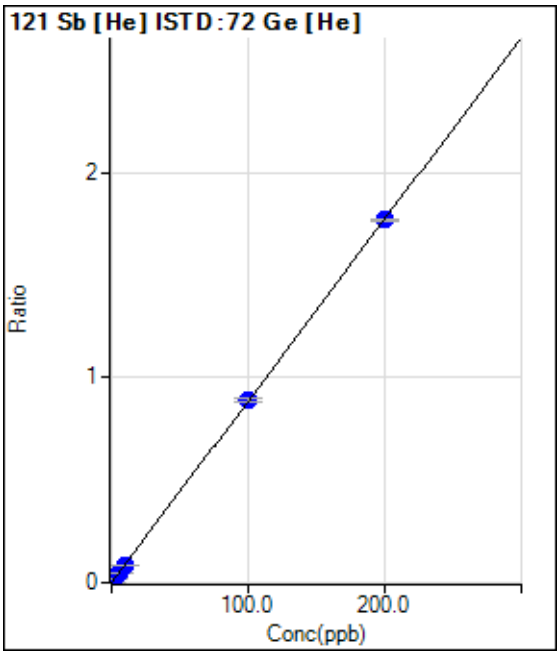


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156.67	0.0001	P	20.3
2	☐	2.000	1.873	21648.22	0.0099	P	3.8
3	☐	5.000	4.820	56002.61	0.0253	P	2.3
4	☐	10.000	9.900	115172.58	0.0519	P	1.9
5	☐	100.000	99.586	1122958.73	0.5214	A	2.2
6	☐	200.000	200.218	2170814.61	1.0483	A	2.4

y = 0.0052 * x + 7.2884E-005
R = 1.0000
DL = 0.00848
BEC = 0.01392

Weight: <None>
Min Conc: <None>

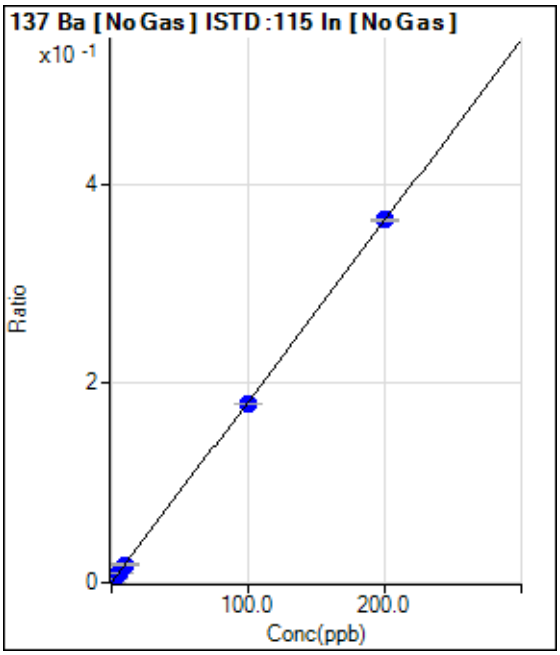
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	52.9
2	☐	2.000	1.966	10584.49	0.0175	P	4.7
3	☐	5.000	4.837	26126.28	0.0429	P	1.9
4	☐	10.000	9.623	51916.13	0.0853	P	0.8
5	☐	100.000	100.545	520468.49	0.8897	P	1.7
6	☐	200.000	199.751	1010652.69	1.7675	P	0.9

y = 0.0088 * x + 1.1313E-004
R = 1.0000
DL = 0.02027
BEC = 0.01279

Weight: <None>
Min Conc: <None>

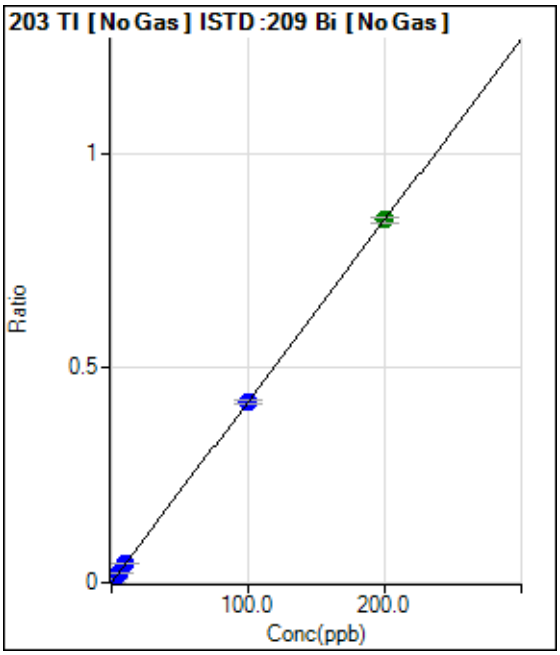


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	586.69	0.0002	P	28.7
2	☐	2.000	1.955	9380.21	0.0038	P	2.1
3	☐	5.000	4.854	22573.32	0.0091	P	0.4
4	☐	10.000	9.912	45242.53	0.0182	P	3.8
5	☐	100.000	99.126	432042.14	0.1801	P	0.2
6	☐	200.000	200.445	833539.02	0.3639	P	0.7

y = 0.0018 * x + 2.4601E-004
R = 1.0000
DL = 0.1169
BEC = 0.1356

Weight: <None>
Min Conc: <None>

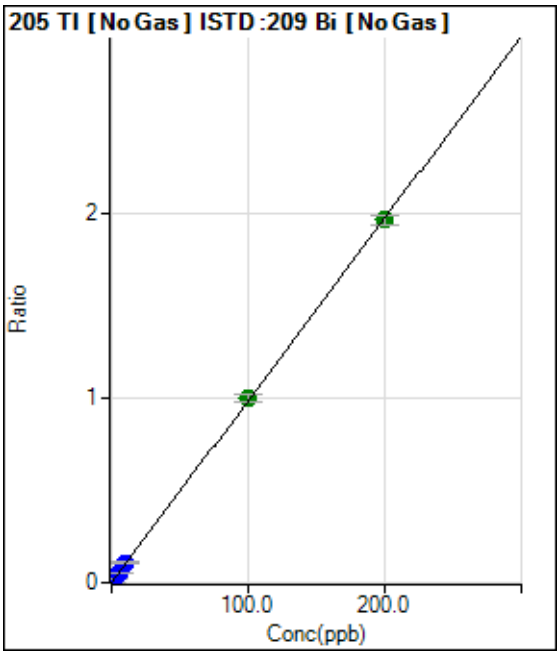
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	103.33	0.0001	P	14.4
2	☐	2.000	2.079	16601.31	0.0088	P	3.0
3	☐	5.000	5.241	42582.82	0.0222	P	1.8
4	☐	10.000	10.583	85159.01	0.0447	P	3.2
5	☐	100.000	99.588	780631.03	0.4205	P	2.1
6	☐	200.000	200.170	1513178.42	0.8452	A	1.6

y = 0.0042 * x + 5.7801E-005
R = 1.0000
DL = 0.005933
BEC = 0.01369

Weight: <None>
Min Conc: <None>

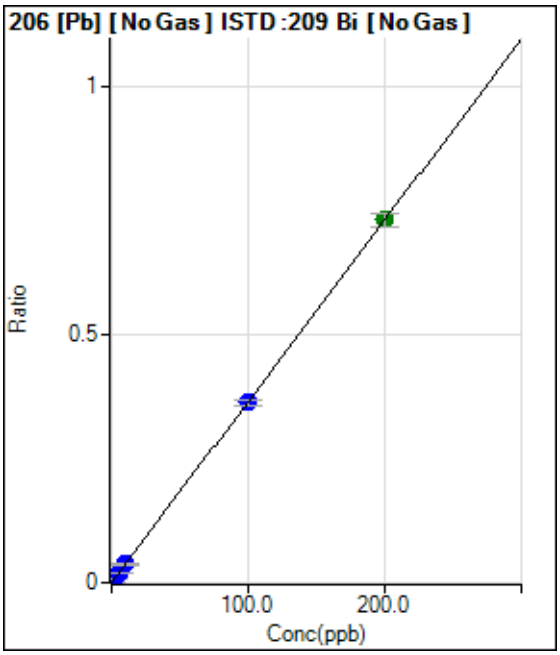


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0001	P	16.9
2	☐	2.000	2.140	39813.85	0.0212	P	3.6
3	☐	5.000	5.319	100987.52	0.0526	P	1.0
4	☐	10.000	10.897	204991.66	0.1077	P	4.2
5	☐	100.000	101.317	1857937.99	1.0010	A	3.8
6	☐	200.000	199.287	3524792.13	1.9689	A	2.5

y = 0.0099 * x + 6.5198E-005
R = 1.0000
DL = 0.003336
BEC = 0.006599

Weight: <None>
Min Conc: <None>

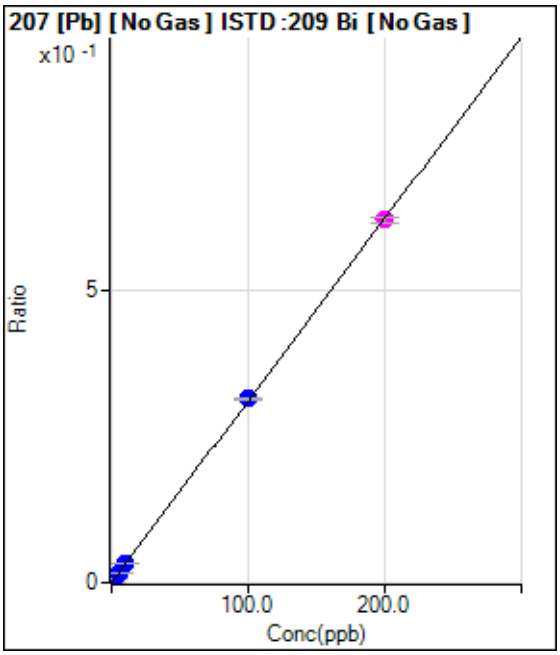
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.33	0.0001	P	11.3
2	☐	2.000	1.934	13394.11	0.0071	P	5.8
3	☐	5.000	5.068	35657.92	0.0186	P	4.3
4	☐	10.000	10.140	70639.89	0.0371	P	3.9
5	☐	100.000	99.405	674322.25	0.3633	P	2.9
6	☐	200.000	200.289	1310306.59	0.7319	A	3.4

y = 0.0037 * x + 6.8944E-005
R = 1.0000
DL = 0.006408
BEC = 0.01887

Weight: <None>
Min Conc: <None>

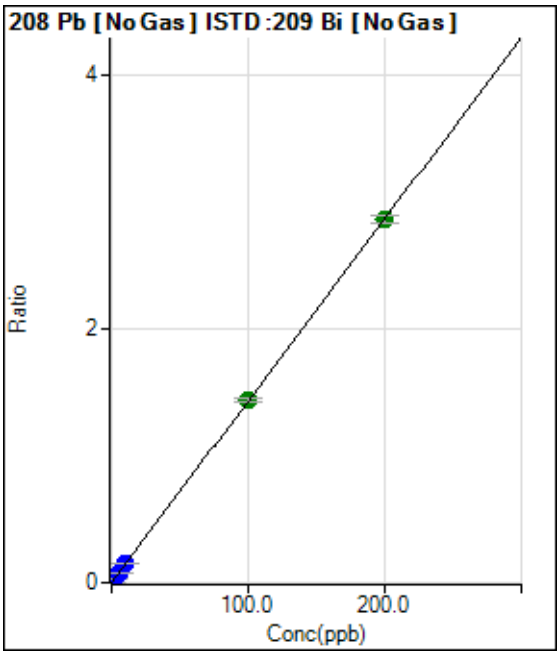


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	120.00	0.0001	P	22.4
2	☐	2.000	2.016	11865.91	0.0063	P	4.2
3	☐	5.000	5.090	30434.11	0.0159	P	0.7
4	☐	10.000	10.274	60767.79	0.0319	P	4.2
5	☐	100.000	101.008	581697.77	0.3134	P	1.7
6	☐	200.000	199.480	1107802.54	0.6188	M	1.4

y = 0.0031 * x + 6.7189E-005
R = 1.0000
DL = 0.01456
BEC = 0.02166

Weight: <None>
Min Conc: <None>

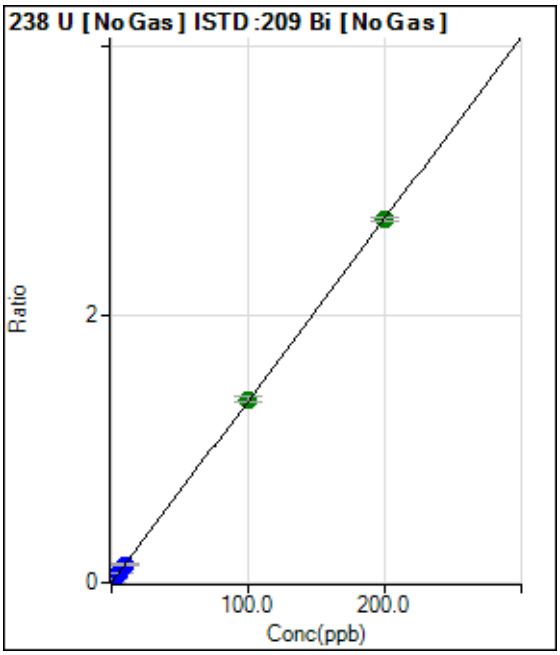
Calibration for 289_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	406.67	0.0002	P	6.5
2	☐	2.000	2.001	54180.71	0.0288	P	2.8
3	☐	5.000	5.094	140258.96	0.0731	P	1.7
4	☐	10.000	10.246	279315.53	0.1468	P	3.2
5	☐	100.000	100.699	2673708.64	1.4404	A	2.1
6	☐	200.000	199.636	5111804.19	2.8553	A	2.0

y = 0.0143 * x + 2.2737E-004
R = 1.0000
DL = 0.003112
BEC = 0.0159

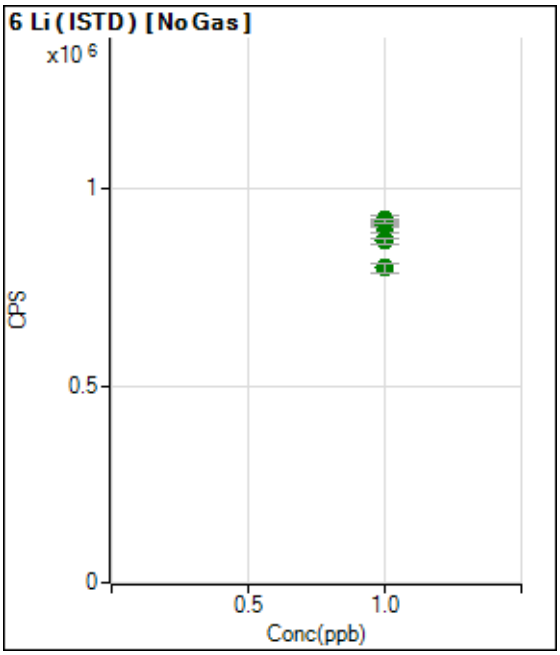
Weight: <None>
Min Conc: <None>



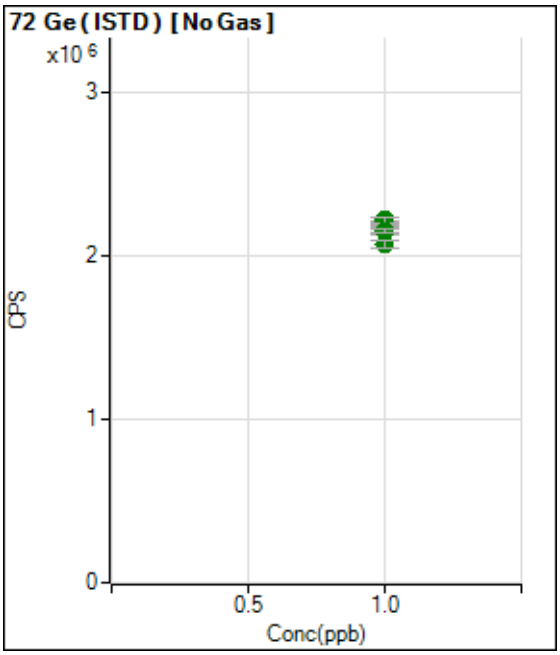
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40.00	0.0000	P	89.3
2	☐	2.000	1.966	50189.93	0.0267	P	2.3
3	☐	5.000	4.972	129614.16	0.0675	P	2.2
4	☐	10.000	9.943	257017.35	0.1350	P	2.6
5	☐	100.000	100.987	2545217.57	1.3712	A	2.3
6	☐	200.000	199.510	4849667.63	2.7089	A	1.2

y = 0.0136 * x + 2.2335E-005
R = 1.0000
DL = 0.004408
BEC = 0.001645

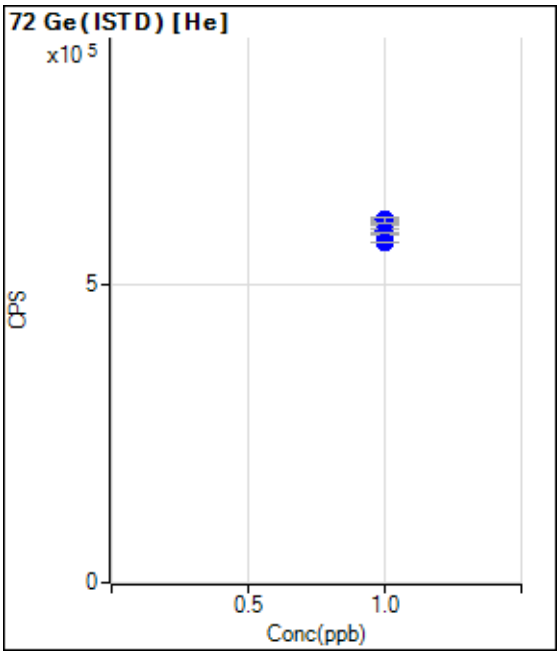
Weight: <None>
Min Conc: <None>



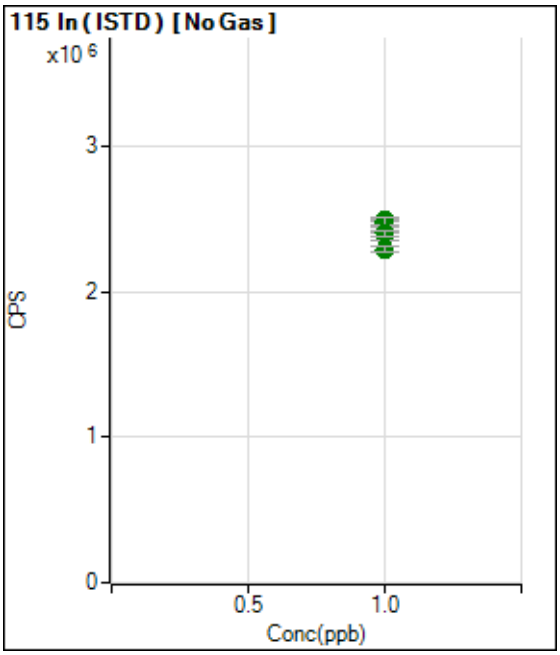
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		904727.58		A	3.6
2	☐	1.000		922253.32		A	2.7
3	☐	1.000		910942.42		A	1.5
4	☐	1.000		917613.18		A	1.0
5	☐	1.000		868032.10		A	1.5
6	☐	1.000		800392.36		A	3.1



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2154684.39		A	2.0
2	☐	1.000		2192588.35		A	2.0
3	☐	1.000		2213471.27		A	2.5
4	☐	1.000		2219313.25		A	1.4
5	☐	1.000		2153288.25		A	1.0
6	☐	1.000		2071539.29		A	2.5

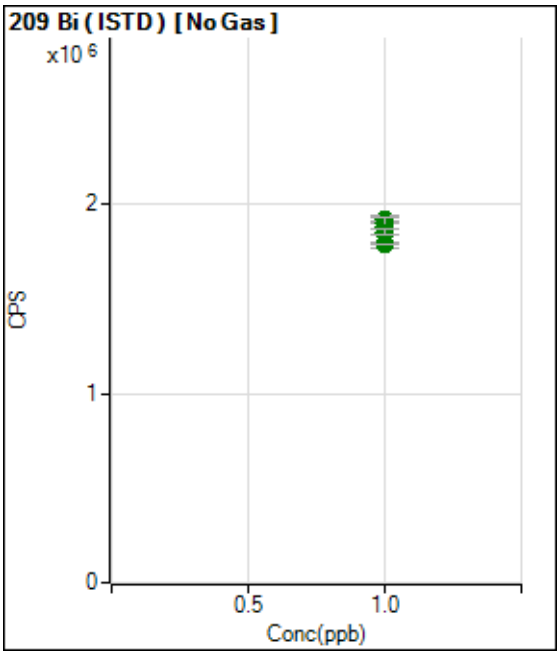


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		590340.50		P	0.8
2	☐	1.000		604759.64		P	1.4
3	☐	1.000		608926.75		P	0.7
4	☐	1.000		608893.96		P	1.6
5	☐	1.000		584968.28		P	0.4
6	☐	1.000		571796.55		P	0.2



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2383688.60		A	2.2
2	☐	1.000		2473421.03		A	2.5
3	☐	1.000		2493363.29		A	0.6
4	☐	1.000		2482873.98		A	1.9
5	☐	1.000		2398933.91		A	1.6
6	☐	1.000		2290463.71		A	1.7

Calibration for 289_ICV.d



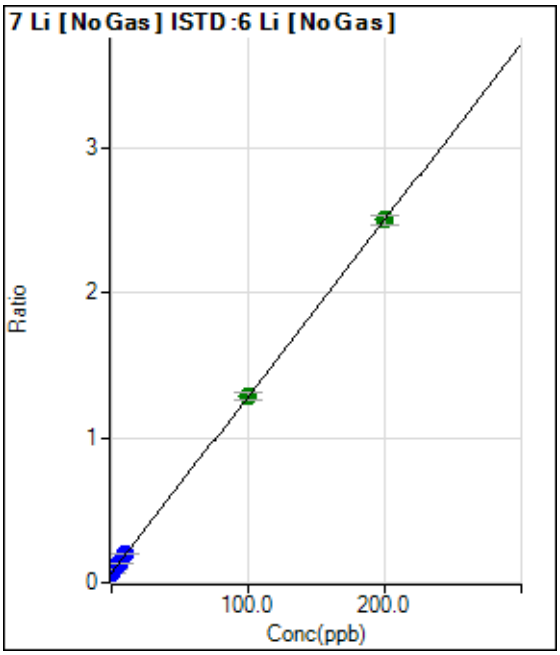
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1787494.09		A	1.5
2	☐	1.000		1879244.19		A	3.8
3	☐	1.000		1919766.85		A	2.2
4	☐	1.000		1904605.08		A	3.3
5	☐	1.000		1856654.35		A	1.5
6	☐	1.000		1790349.40		A	0.3

Calibration for 213_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071323A.b\
Analysis File: 071323A.batch.bin
DA Date-Time: 7/14/2023 8:11:04 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	206CALB.d	CAL BLK	7/13/2023 8:36:49 PM
2	207CALS.d	2/10/200	7/13/2023 8:38:59 PM
3	208CALS.d	5/25/500	7/13/2023 8:41:07 PM
4	209CALS.d	10/50/100	7/13/2023 8:43:17 PM
5	210CALS.d	100/500/10K	7/13/2023 8:45:24 PM
6	211CALS.d	200/1000/20K	7/13/2023 8:47:27 PM

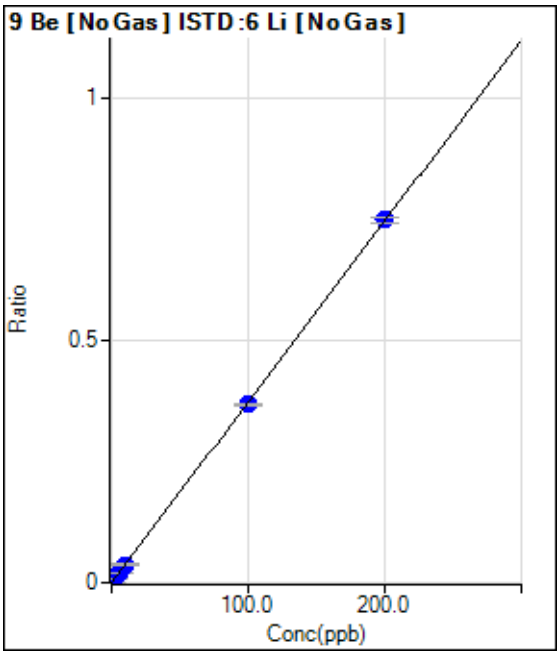
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76301.75	0.0681	P	1.6
2	☐	2.000	2.110	102403.87	0.0938	P	2.1
3	☐	5.000	5.165	142384.95	0.1309	P	1.1
4	☐	10.000	10.790	209294.88	0.1993	P	0.9
5	☐	100.000	99.712	1351784.20	1.2808	A	4.3
6	☐	200.000	200.100	2506917.10	2.5017	A	2.4

y = 0.0122 * x + 0.0681
R = 1.0000
DL = 0.2631
BEC = 5.602

Weight: <None>
Min Conc: <None>

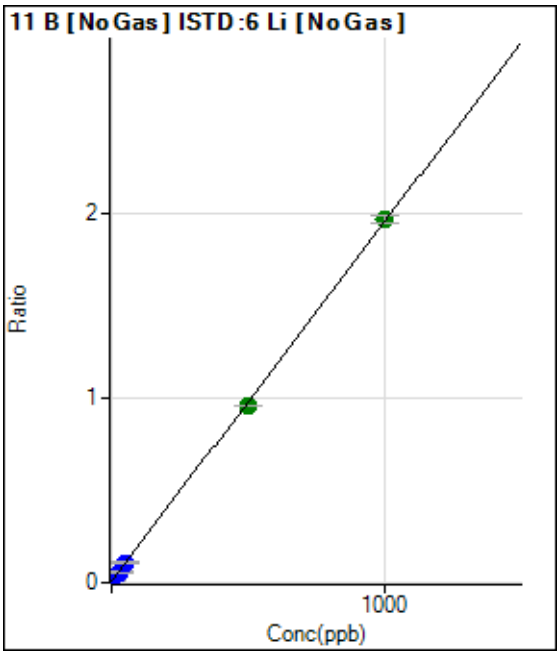


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	75.5
2	☐	2.000	1.968	8045.71	0.0074	P	3.7
3	☐	5.000	4.884	19850.74	0.0183	P	3.0
4	☐	10.000	10.032	39346.64	0.0375	P	2.9
5	☐	100.000	98.470	388150.12	0.3677	P	1.7
6	☐	200.000	200.766	751269.60	0.7496	P	1.6

y = 0.0037 * x + 2.0931E-005
R = 1.0000
DL = 0.01269
BEC = 0.005606

Weight: <None>
Min Conc: <None>

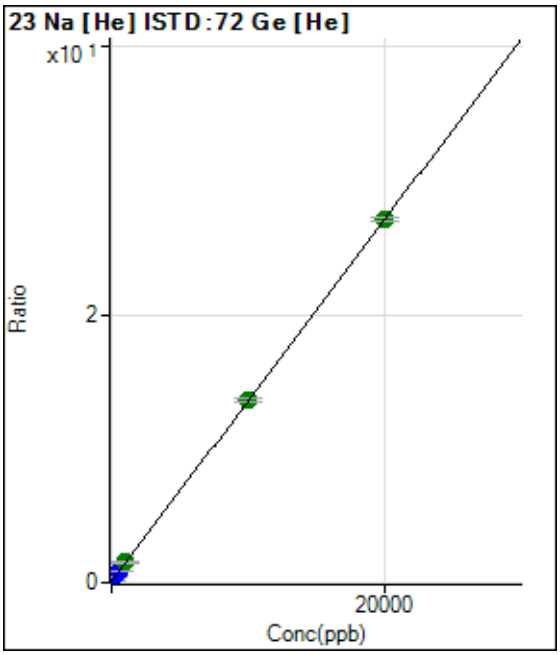
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8911.23	0.0080	P	1.6
2	☐	10.000	9.901	29673.02	0.0272	P	1.7
3	☐	25.000	25.233	61907.22	0.0569	P	1.3
4	☐	50.000	51.773	113826.48	0.1084	P	3.0
5	☐	500.000	488.089	1008580.79	0.9553	A	0.1
6	☐	1000.000	1005.862	1964389.29	1.9602	A	2.2

y = 0.0019 * x + 0.0080
R = 0.9999
DL = 0.1928
BEC = 4.099

Weight: <None>
Min Conc: <None>

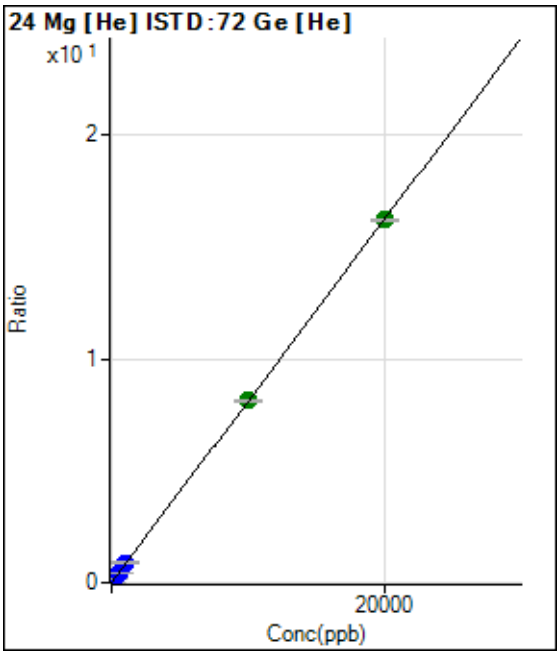


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56825.89	0.0824	P	0.8
2	☐	200.000	221.725	263264.68	0.3817	P	1.2
3	☐	500.000	553.025	574557.62	0.8290	P	1.0
4	☐	1000.000	1057.915	1035182.67	1.5106	A	1.3
5	☐	10000.000	9998.713	9145441.74	13.5811	A	2.0
6	☐	20000.000	19996.205	17874660.98	27.0781	A	1.0

y = 0.0014 * x + 0.0824
R = 1.0000
DL = 1.51
BEC = 61.01

Weight: <None>
Min Conc: <None>

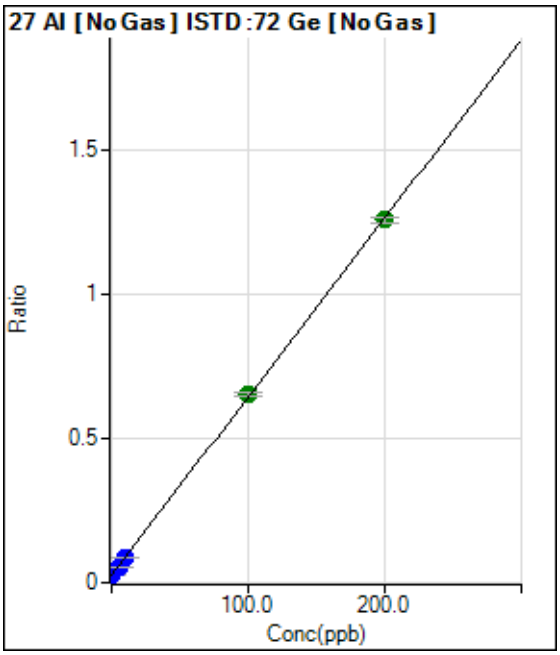
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	840.04	0.0012	P	10.0
2	☐	200.000	224.361	126408.94	0.1833	P	1.1
3	☐	500.000	563.970	318027.29	0.4588	P	0.2
4	☐	1000.000	1107.304	616407.05	0.8997	P	2.0
5	☐	10000.000	10032.099	5482787.84	8.1414	A	1.2
6	☐	20000.000	19976.743	10701127.76	16.2106	A	0.7

y = 8.1141E-004 * x + 0.0012
R = 1.0000
DL = 0.4503
BEC = 1.499

Weight: <None>
Min Conc: <None>

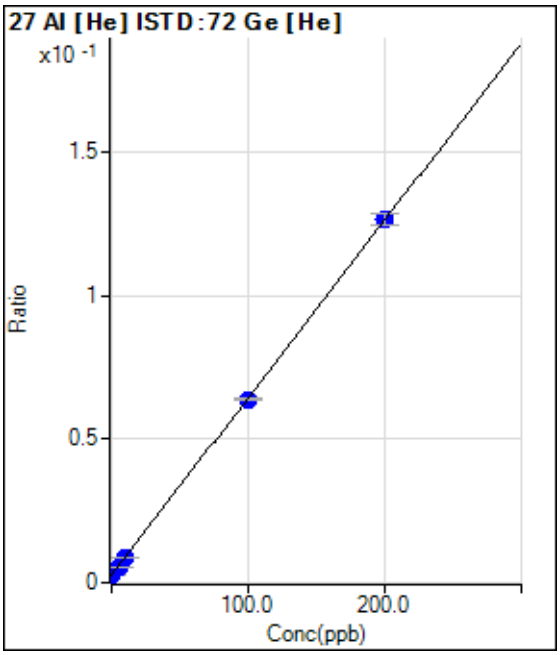


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	64161.30	0.0258	P	2.0
2	☐	2.000	2.308	100118.89	0.0401	P	1.6
3	☐	5.000	4.674	135231.53	0.0547	P	1.3
4	☐	10.000	9.817	211957.76	0.0864	P	0.8
5	☐	100.000	101.593	1587380.76	0.6533	A	1.5
6	☐	200.000	199.218	2973288.60	1.2563	A	1.3

y = 0.0062 * x + 0.0258
R = 1.0000
DL = 0.2501
BEC = 4.178

Weight: <None>
Min Conc: <None>

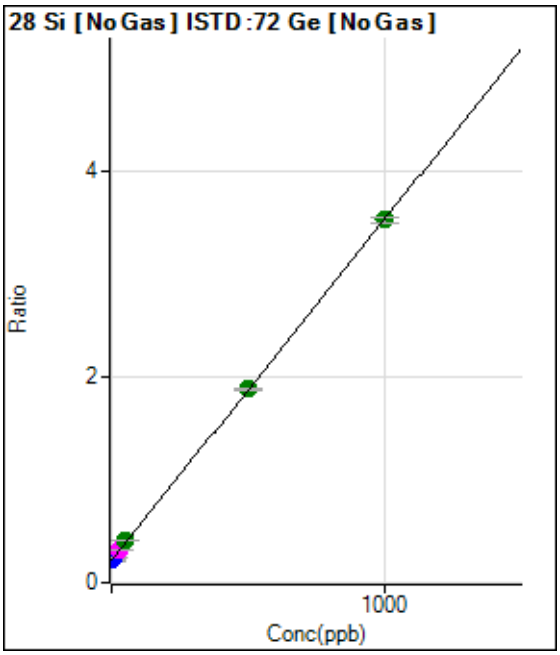
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1850.16	0.0027	P	3.7
2	☐	2.000	2.276	2817.00	0.0041	P	7.9
3	☐	5.000	4.576	3813.94	0.0055	P	2.6
4	☐	10.000	9.971	6048.07	0.0088	P	4.5
5	☐	100.000	99.271	43036.96	0.0639	P	0.9
6	☐	200.000	200.374	83335.43	0.1262	P	3.1

y = 6.1667E-004 * x + 0.0027
R = 1.0000
DL = 0.4806
BEC = 4.348

Weight: <None>
Min Conc: <None>

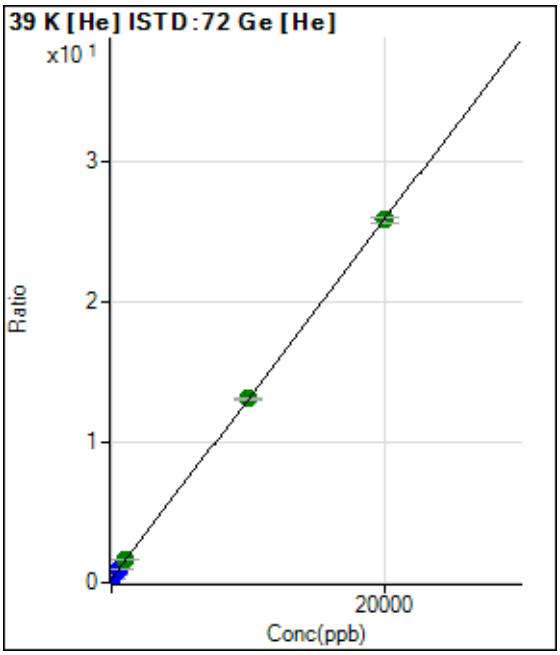


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	535979.17	0.2156	P	1.3
2	☐	10.000	10.419	625070.26	0.2501	P	1.5
3	☐	25.000	31.403	790683.79	0.3196	M	3.2
4	☐	50.000	58.617	1004805.35	0.4098	A	0.6
5	☐	500.000	501.851	4563836.91	1.8782	A	1.1
6	☐	1000.000	998.480	8339375.50	3.5236	A	1.3

y = 0.0033 * x + 0.2156
R = 1.0000
DL = 2.619
BEC = 65.07

Weight: <None>
Min Conc: <None>

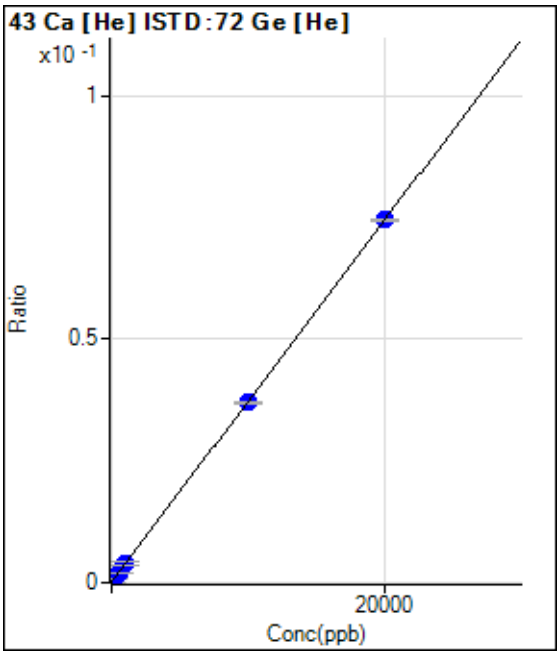
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190312.89	0.2758	P	1.1
2	☐	200.000	216.270	381319.93	0.5529	P	1.0
3	☐	500.000	534.512	665743.84	0.9605	P	0.9
4	☐	1000.000	1059.855	1119244.85	1.6334	A	3.4
5	☐	10000.000	10042.921	8848902.79	13.1399	A	1.3
6	☐	20000.000	19974.521	17071491.00	25.8614	A	1.4

y = 0.0013 * x + 0.2758
R = 1.0000
DL = 7.264
BEC = 215.4

Weight: <None>
Min Conc: <None>

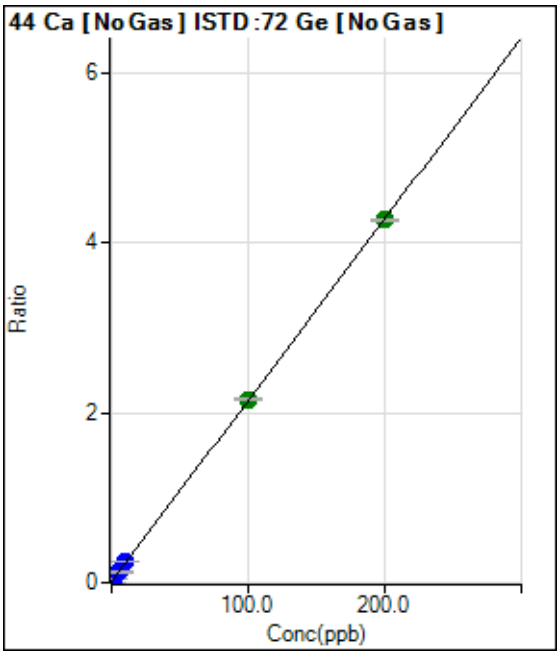


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	22.5
2	☐	200.000	207.073	610.03	0.0009	P	9.1
3	☐	500.000	489.639	1340.09	0.0019	P	6.8
4	☐	1000.000	1024.212	2683.65	0.0039	P	12.5
5	☐	10000.000	9938.863	24926.10	0.0370	P	1.1
6	☐	20000.000	20029.546	49154.61	0.0745	P	0.3

y = 3.7118E-006 * x + 1.1609E-004
R = 1.0000
DL = 21.12
BEC = 31.27

Weight: <None>
Min Conc: <None>

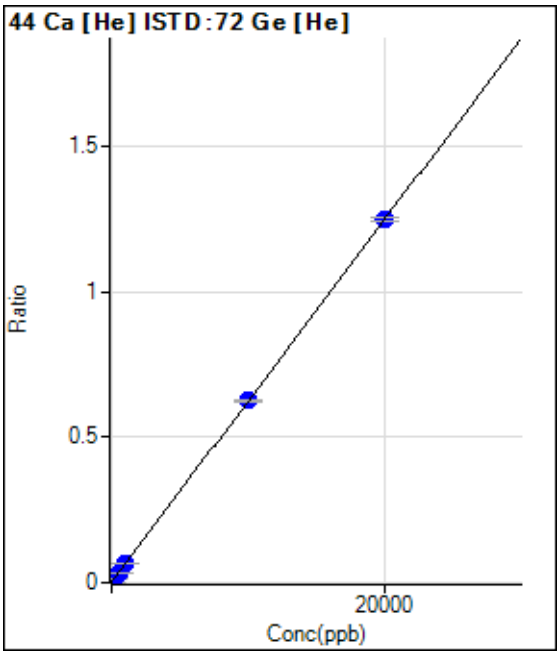
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27200.51	0.0109	P	3.0
2	☐	2.000	2.113	140126.82	0.0561	P	0.7
3	☐	5.000	5.324	308233.56	0.1246	P	0.8
4	☐	10.000	10.715	587894.44	0.2397	P	0.6
5	☐	100.000	100.614	5247175.23	2.1595	A	0.8
6	☐	200.000	199.648	10115830.89	4.2742	A	0.7

y = 0.0214 * x + 0.0109
R = 1.0000
DL = 0.04661
BEC = 0.5124

Weight: <None>
Min Conc: <None>

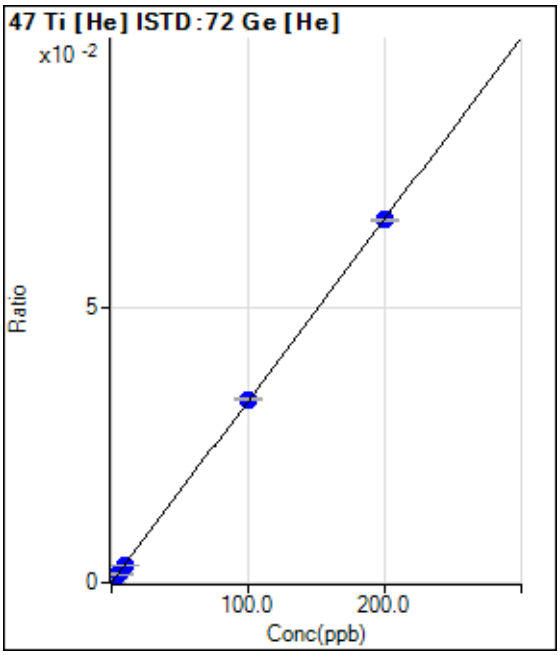


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1046.72	0.0015	P	10.0
2	☐	200.000	209.481	10047.15	0.0146	P	5.2
3	☐	500.000	513.533	23223.15	0.0335	P	3.5
4	☐	1000.000	999.370	43693.05	0.0638	P	0.7
5	☐	10000.000	10012.963	421081.75	0.6252	P	0.6
6	☐	20000.000	19993.117	823111.26	1.2469	P	0.9

y = 6.2291E-005 * x + 0.0015
R = 1.0000
DL = 7.296
BEC = 24.35

Weight: <None>
Min Conc: <None>

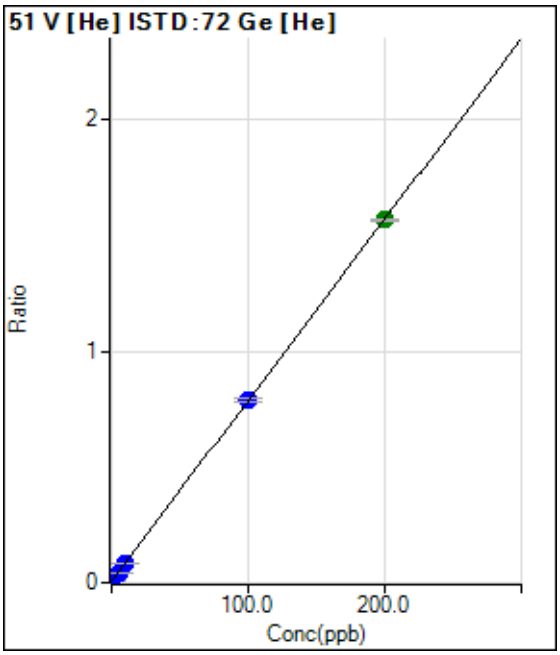
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	25.6
2	☐	2.000	1.879	450.01	0.0007	P	25.1
3	☐	5.000	4.842	1130.07	0.0016	P	8.6
4	☐	10.000	9.569	2183.55	0.0032	P	4.7
5	☐	100.000	100.756	22388.62	0.0332	P	1.5
6	☐	200.000	199.649	43462.30	0.0658	P	0.6

y = 3.2961E-004 * x + 3.3864E-005
R = 1.0000
DL = 0.07891
BEC = 0.1027

Weight: <None>
Min Conc: <None>

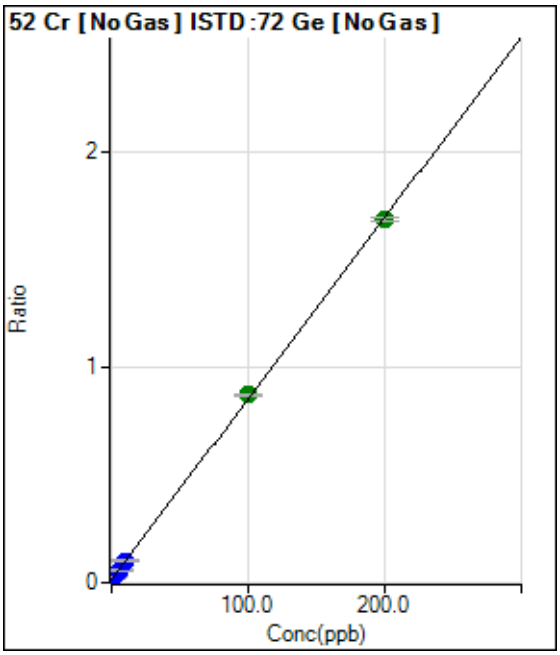


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3956.15	0.0057	P	3.0
2	☐	2.000	2.000	14742.42	0.0214	P	2.0
3	☐	5.000	5.048	31333.55	0.0452	P	0.8
4	☐	10.000	9.987	57432.96	0.0838	P	1.3
5	☐	100.000	100.291	532003.43	0.7900	P	1.2
6	☐	200.000	199.854	1035425.93	1.5685	A	0.8

y = 0.0078 * x + 0.0057
R = 1.0000
DL = 0.06655
BEC = 0.7332

Weight: <None>
Min Conc: <None>

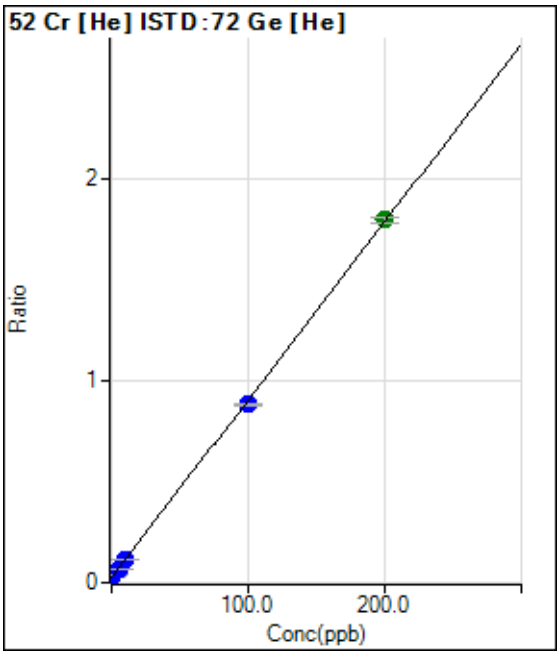
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35459.54	0.0143	P	2.0
2	☐	2.000	2.019	77991.36	0.0312	P	1.4
3	☐	5.000	5.198	143142.23	0.0579	P	1.2
4	☐	10.000	10.462	250232.75	0.1020	P	1.2
5	☐	100.000	102.146	2117229.19	0.8713	A	0.4
6	☐	200.000	198.899	3983471.19	1.6831	A	1.2

y = 0.0084 * x + 0.0143
R = 0.9999
DL = 0.104
BEC = 1.7

Weight: <None>
Min Conc: <None>

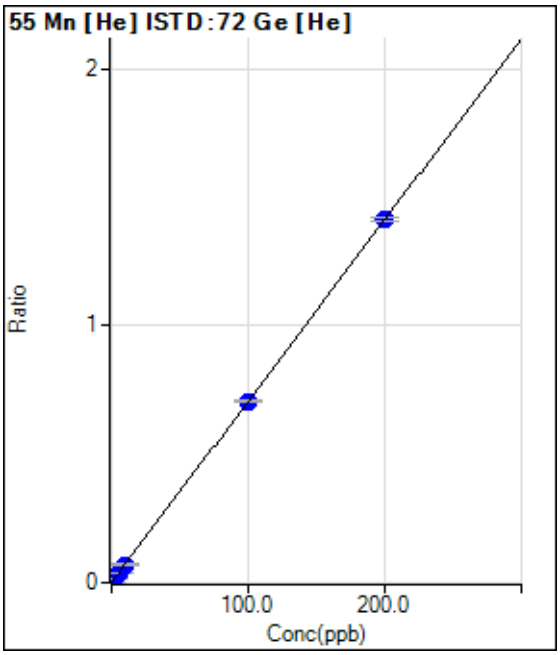


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17317.89	0.0251	P	3.1
2	☐	2.000	2.020	29565.62	0.0429	P	1.2
3	☐	5.000	5.026	48031.18	0.0693	P	0.7
4	☐	10.000	10.241	78909.82	0.1152	P	0.4
5	☐	100.000	97.540	594514.46	0.8828	P	1.1
6	☐	200.000	201.217	1184522.61	1.7945	A	1.8

y = 0.0088 * x + 0.0251
R = 0.9999
DL = 0.262
BEC = 2.855

Weight: <None>
Min Conc: <None>

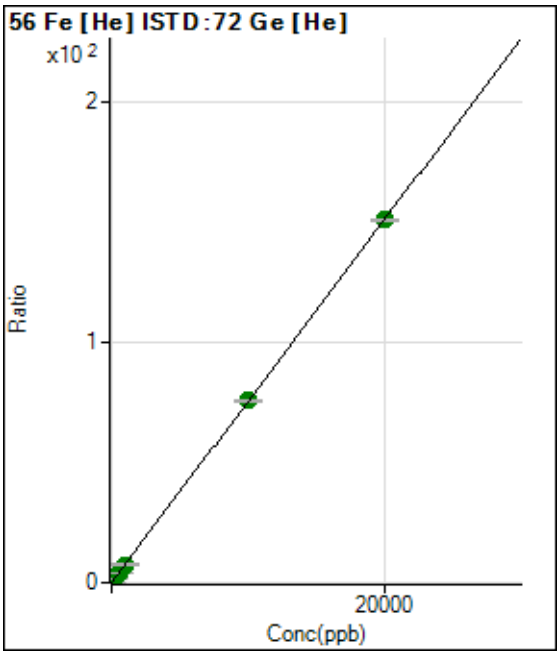
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	630.03	0.0009	P	19.4
2	☐	2.000	2.071	10697.70	0.0155	P	2.7
3	☐	5.000	5.339	26709.72	0.0385	P	4.5
4	☐	10.000	9.946	48646.75	0.0710	P	0.8
5	☐	100.000	99.818	474283.45	0.7043	P	0.9
6	☐	200.000	200.084	931275.82	1.4107	P	1.1

y = 0.0070 * x + 9.1456E-004
R = 1.0000
DL = 0.07563
BEC = 0.1298

Weight: <None>
Min Conc: <None>

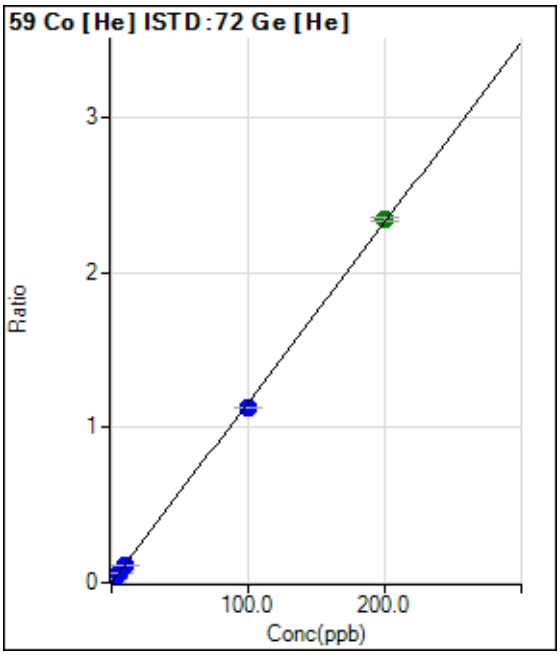


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25644.37	0.0372	P	0.7
2	☐	200.000	209.772	1119897.12	1.6236	A	1.8
3	☐	500.000	520.243	2752908.92	3.9717	A	0.8
4	☐	1000.000	1001.140	5212839.92	7.6087	A	1.7
5	☐	10000.000	10020.541	51064894.24	75.8211	A	0.6
6	☐	20000.000	19989.069	99819555.18	151.2117	A	0.6

y = 0.0076 * x + 0.0372
R = 1.0000
DL = 0.09783
BEC = 4.914

Weight: <None>
Min Conc: <None>

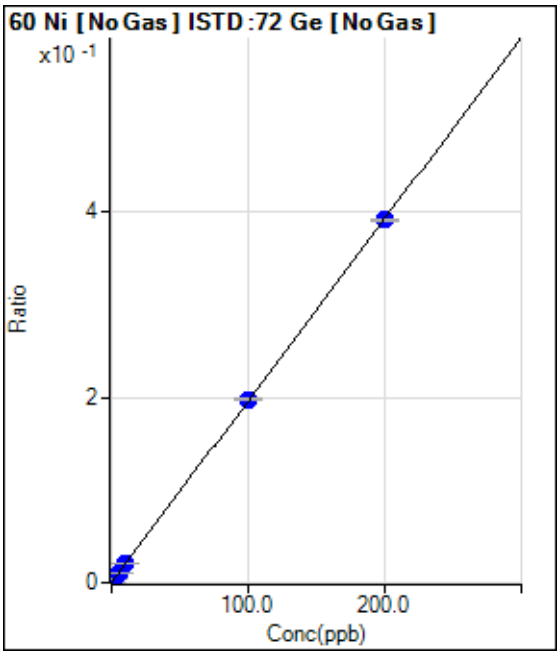
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0001	P	36.8
2	☐	2.000	2.035	16413.42	0.0238	P	1.3
3	☐	5.000	5.021	40570.60	0.0585	P	2.1
4	☐	10.000	9.774	77978.89	0.1138	P	1.2
5	☐	100.000	97.195	761399.39	1.1306	P	0.8
6	☐	200.000	201.413	1546412.17	2.3427	A	1.1

y = 0.0116 * x + 1.2544E-004
R = 0.9999
DL = 0.01191
BEC = 0.01079

Weight: <None>
Min Conc: <None>

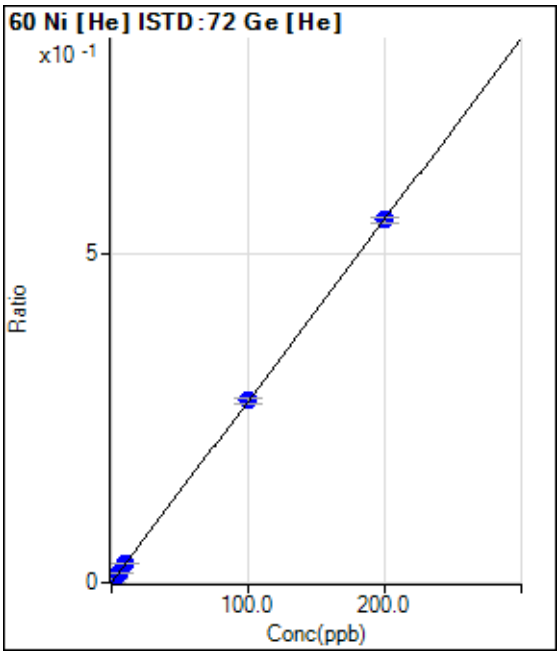


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	520.02	0.0002	P	6.6
2	☐	2.000	2.128	10937.87	0.0044	P	1.5
3	☐	5.000	5.118	25303.78	0.0102	P	0.9
4	☐	10.000	10.320	50065.52	0.0204	P	0.9
5	☐	100.000	100.778	479996.31	0.1975	P	1.1
6	☐	200.000	199.591	925443.76	0.3910	P	0.8

y = 0.0020 * x + 2.0905E-004
R = 1.0000
DL = 0.02117
BEC = 0.1068

Weight: <None>
Min Conc: <None>

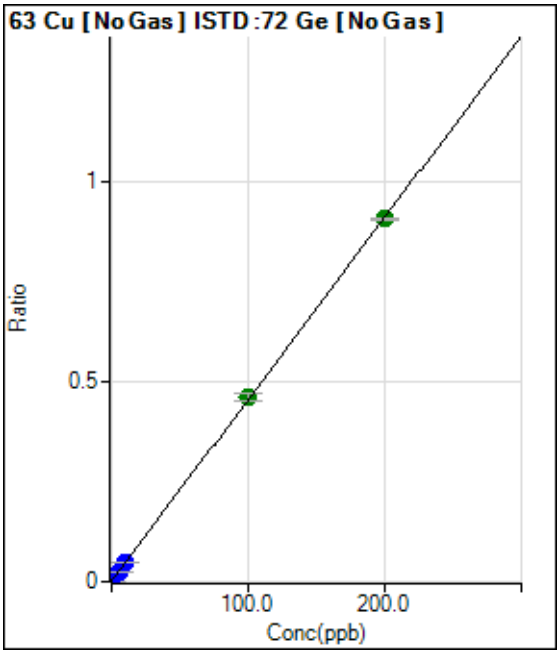
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0002	P	40.0
2	☐	2.000	2.110	4140.71	0.0060	P	4.4
3	☐	5.000	5.270	10217.32	0.0147	P	4.1
4	☐	10.000	10.203	19450.75	0.0284	P	1.3
5	☐	100.000	100.197	186773.95	0.2774	P	2.5
6	☐	200.000	199.884	365127.65	0.5531	P	1.8

y = 0.0028 * x + 1.6425E-004
R = 1.0000
DL = 0.07131
BEC = 0.05937

Weight: <None>
Min Conc: <None>

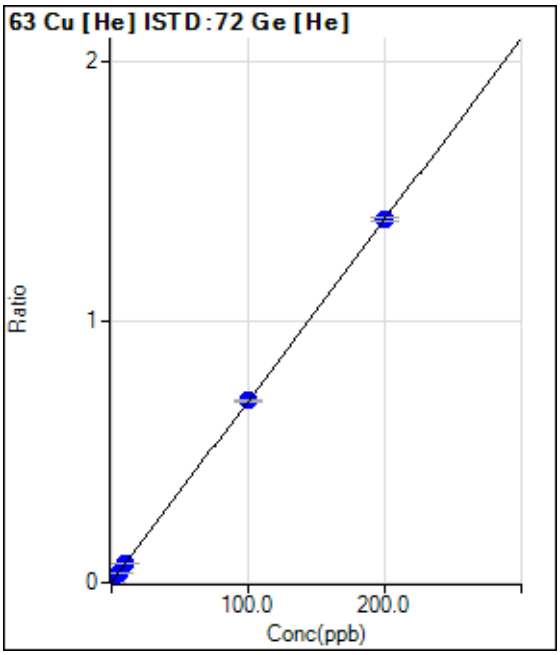


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2790.33	0.0011	P	4.4
2	☐	2.000	2.553	31820.92	0.0127	P	3.2
3	☐	5.000	5.188	61093.93	0.0247	P	1.2
4	☐	10.000	10.292	117464.14	0.0479	P	0.2
5	☐	100.000	101.218	1120432.98	0.4612	A	3.9
6	☐	200.000	199.366	2147359.08	0.9073	A	0.8

y = 0.0045 * x + 0.0011
R = 1.0000
DL = 0.0324
BEC = 0.2469

Weight: <None>
Min Conc: <None>

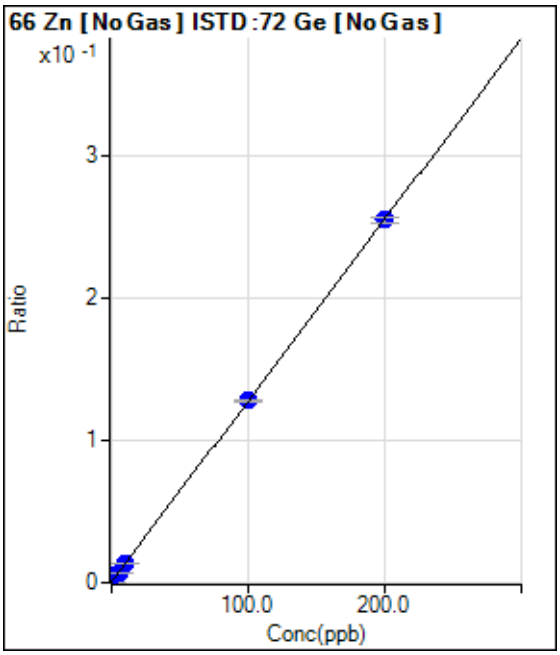
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	796.70	0.0012	P	11.7
2	☐	2.000	2.587	13199.93	0.0191	P	1.6
3	☐	5.000	5.194	25821.53	0.0373	P	2.2
4	☐	10.000	10.208	49403.29	0.0721	P	1.5
5	☐	100.000	100.095	469360.53	0.6969	P	0.7
6	☐	200.000	199.931	918107.77	1.3908	P	1.1

y = 0.0070 * x + 0.0012
R = 1.0000
DL = 0.05842
BEC = 0.1663

Weight: <None>
Min Conc: <None>

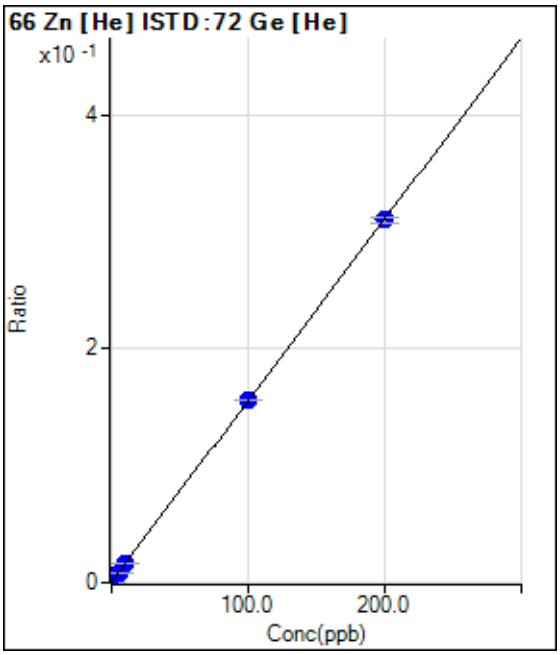


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1390.09	0.0006	P	14.0
2	☐	2.000	3.575	12786.27	0.0051	P	3.0
3	☐	5.000	5.049	17294.57	0.0070	P	1.9
4	☐	10.000	10.364	33755.64	0.0138	P	1.1
5	☐	100.000	100.121	311362.98	0.1281	P	1.2
6	☐	200.000	199.904	604218.65	0.2553	P	1.4

y = 0.0013 * x + 5.5961E-004
R = 1.0000
DL = 0.1839
BEC = 0.4392

Weight: <None>
Min Conc: <None>

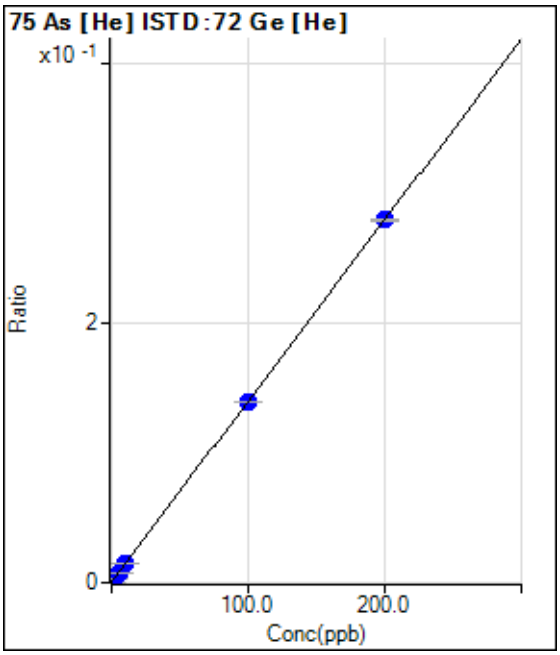
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	490.02	0.0007	P	7.3
2	☐	2.000	3.472	4204.08	0.0061	P	3.7
3	☐	5.000	4.877	5734.64	0.0083	P	1.7
4	☐	10.000	9.918	11024.67	0.0161	P	1.4
5	☐	100.000	100.556	105504.59	0.1567	P	0.5
6	☐	200.000	199.715	204926.01	0.3104	P	1.3

y = 0.0016 * x + 7.1061E-004
R = 1.0000
DL = 0.1003
BEC = 0.4582

Weight: <None>
Min Conc: <None>

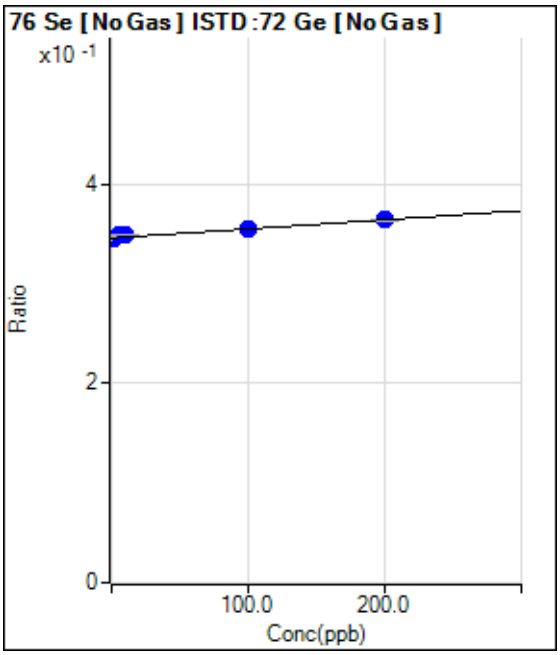


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	332.23	0.0005	P	7.6
2	☐	2.000	2.097	2351.33	0.0034	P	5.7
3	☐	5.000	5.173	5338.86	0.0077	P	2.1
4	☐	10.000	10.028	9920.36	0.0145	P	2.5
5	☐	100.000	99.653	94021.39	0.1396	P	0.8
6	☐	200.000	200.167	184789.33	0.2799	P	0.3

y = 0.0014 * x + 4.8174E-004
R = 1.0000
DL = 0.07837
BEC = 0.3451

Weight: <None>
Min Conc: <None>

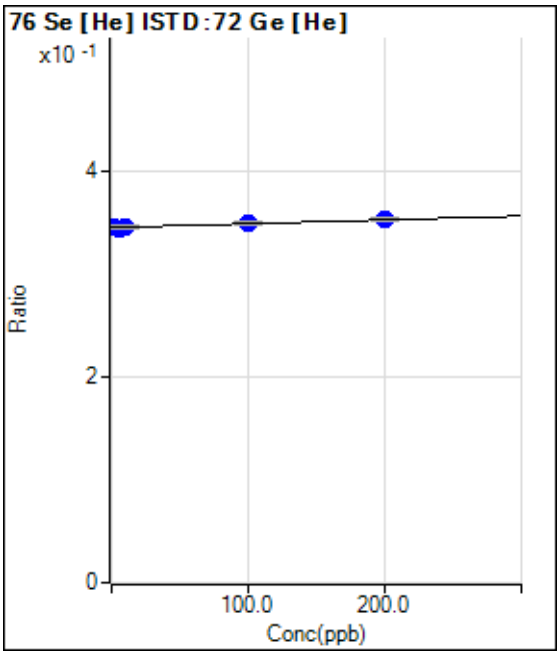
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	861054.34	0.3463	P	1.0
2	☐	2.000	-0.556	865445.79	0.3463	P	1.5
3	☐	5.000	30.570	863583.79	0.3491	P	0.4
4	☐	10.000	37.838	857804.39	0.3498	P	0.5
5	☐	100.000	100.451	864090.93	0.3556	P	0.3
6	☐	200.000	197.769	862813.66	0.3646	P	0.5

y = 9.2188E-005 * x + 0.3463
R = 0.9856
DL = 110
BEC = 3757

Weight: <None>
Min Conc: <None>

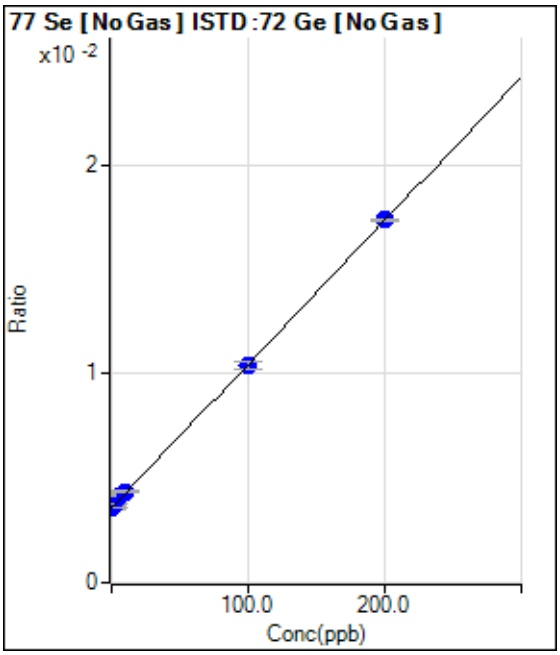


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	238564.49	0.3457	P	0.6
2	☐	2.000	-4.930	238337.92	0.3456	P	0.5
3	☐	5.000	-37.197	238684.19	0.3444	P	0.3
4	☐	10.000	16.957	237329.93	0.3464	P	0.8
5	☐	100.000	107.981	235580.32	0.3498	P	1.1
6	☐	200.000	196.786	233067.69	0.3531	P	1.0

y = 3.7276E-005 * x + 0.3457
R = 0.9793
DL = 162.3
BEC = 9275

Weight: <None>
Min Conc: <None>

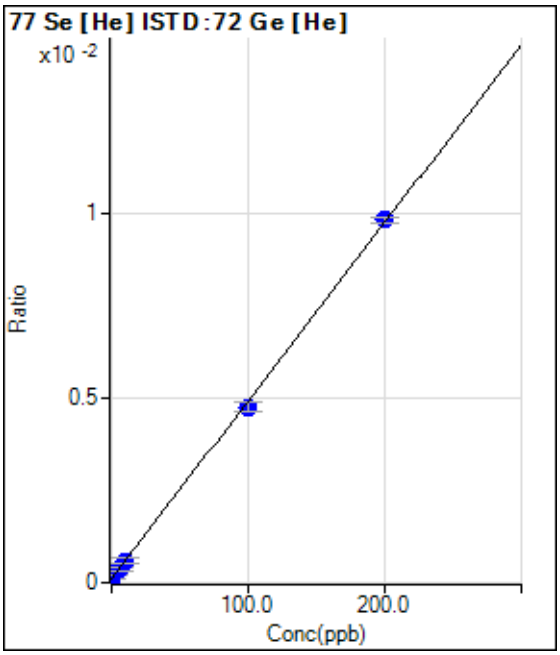
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8916.42	0.0036	P	5.5
2	☐	2.000	1.878	9280.03	0.0037	P	4.2
3	☐	5.000	8.570	10324.12	0.0042	P	1.5
4	☐	10.000	11.378	10707.78	0.0044	P	3.3
5	☐	100.000	98.850	25230.59	0.0104	P	3.3
6	☐	200.000	200.418	41109.65	0.0174	P	0.8

y = 6.8782E-005 * x + 0.0036
R = 0.9998
DL = 8.612
BEC = 52.12

Weight: <None>
Min Conc: <None>

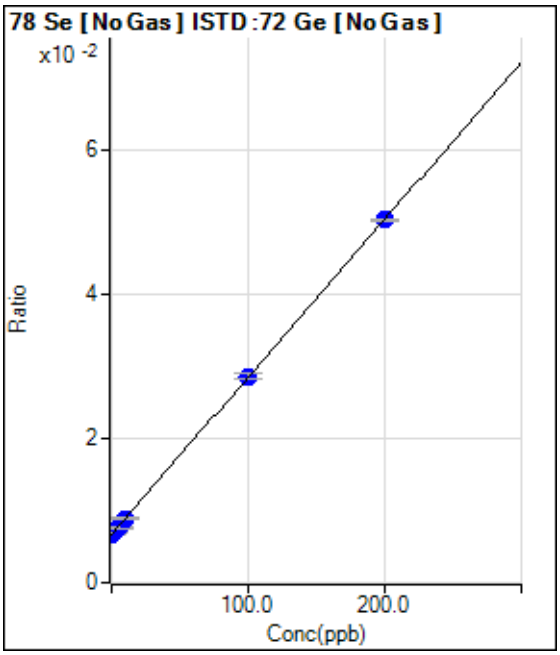


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0001	P	40.7
2	☐	2.000	2.927	170.00	0.0002	P	26.4
3	☐	5.000	5.486	256.68	0.0004	P	24.3
4	☐	10.000	10.215	410.02	0.0006	P	20.7
5	☐	100.000	96.601	3200.44	0.0048	P	4.8
6	☐	200.000	201.668	6475.00	0.0098	P	1.6

y = 4.8111E-005 * x + 1.0598E-004
R = 0.9998
DL = 2.691
BEC = 2.203

Weight: <None>
Min Conc: <None>

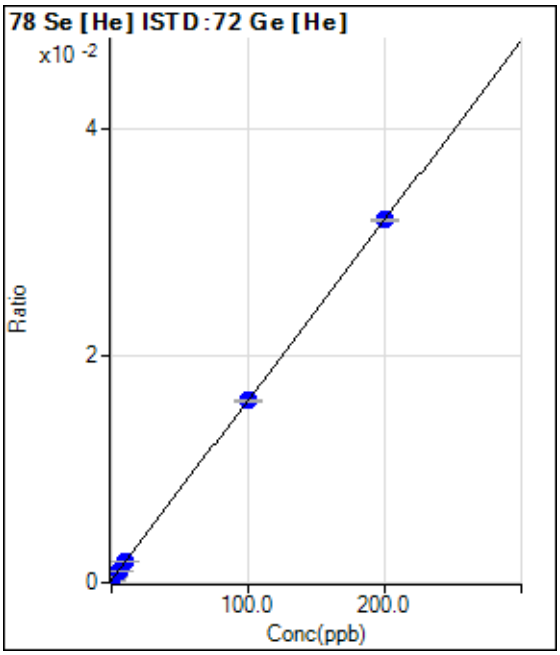
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16687.23	0.0067	P	2.9
2	☐	2.000	1.118	17384.81	0.0070	P	1.7
3	☐	5.000	4.382	18963.70	0.0077	P	3.4
4	☐	10.000	10.063	21841.33	0.0089	P	2.6
5	☐	100.000	100.427	69565.88	0.0286	P	2.4
6	☐	200.000	199.807	119092.94	0.0503	P	0.5

y = 2.1825E-004 * x + 0.0067
R = 1.0000
DL = 2.653
BEC = 30.76

Weight: <None>
Min Conc: <None>

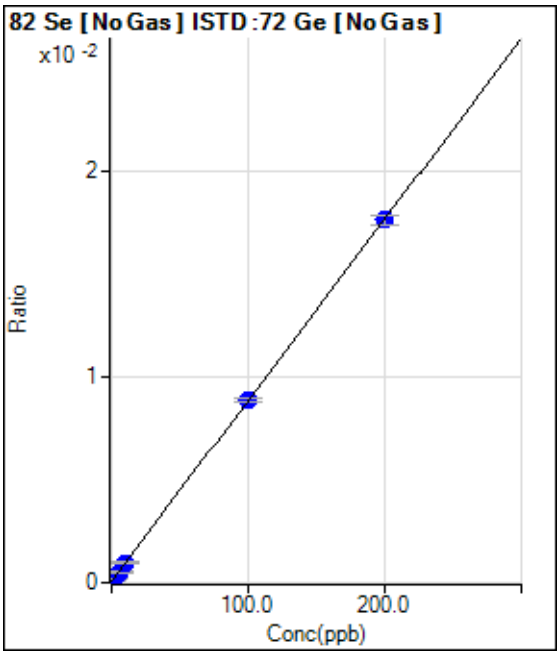


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	174.00	0.0003	P	6.8
2	☐	2.000	2.289	424.68	0.0006	P	10.1
3	☐	5.000	4.830	706.02	0.0010	P	2.8
4	☐	10.000	10.043	1264.73	0.0018	P	6.0
5	☐	100.000	99.566	10810.35	0.0161	P	1.8
6	☐	200.000	200.216	21138.53	0.0320	P	0.3

y = 1.5868E-004 * x + 2.5229E-004
R = 1.0000
DL = 0.3261
BEC = 1.59

Weight: <None>
Min Conc: <None>

Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	167.84	0.0001	P	45.7
2	☐	2.000	1.712	544.39	0.0002	P	12.9
3	☐	5.000	5.074	1271.25	0.0005	P	3.6
4	☐	10.000	10.365	2401.45	0.0010	P	2.1
5	☐	100.000	100.381	21619.22	0.0089	P	2.6
6	☐	200.000	199.792	41757.08	0.0176	P	2.8

y = 8.7969E-005 * x + 6.7539E-005

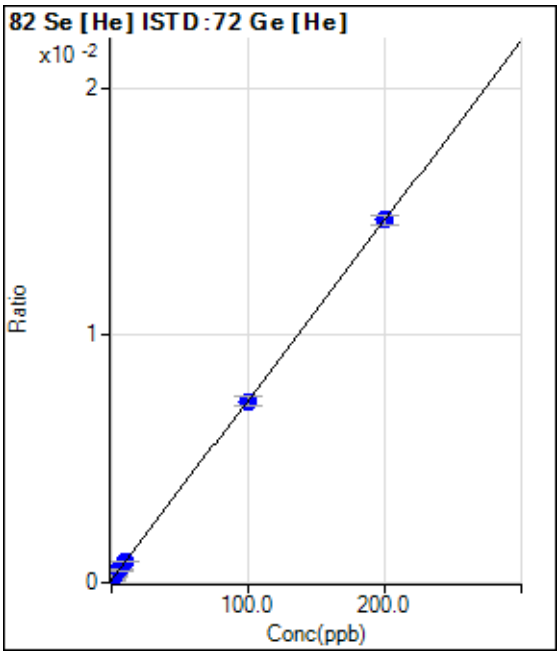
R = 1.0000

DL = 1.052

BEC = 0.7678

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	34.0
2	☐	2.000	1.921	176.67	0.0003	P	40.5
3	☐	5.000	5.415	353.35	0.0005	P	9.3
4	☐	10.000	9.979	576.69	0.0008	P	5.8
5	☐	100.000	99.389	4944.35	0.0073	P	4.8
6	☐	200.000	200.297	9687.03	0.0147	P	2.5

y = 7.2682E-005 * x + 1.1627E-004

R = 1.0000

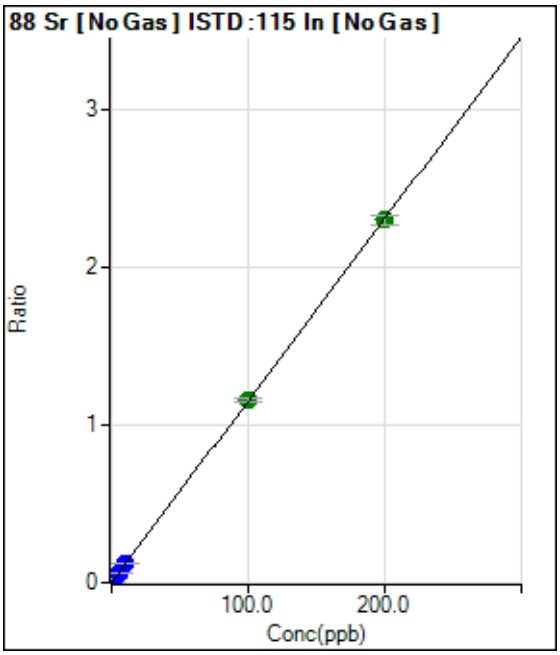
DL = 1.631

BEC = 1.6

Weight: <None>

Min Conc: <None>

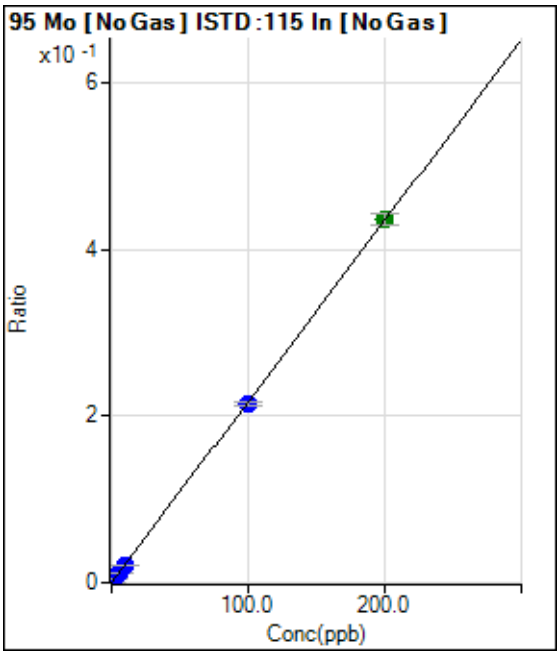
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2236.90	0.0008	P	3.2
2	☐	2.000	2.041	65768.39	0.0243	P	2.2
3	☐	5.000	5.179	158702.02	0.0605	P	2.3
4	☐	10.000	10.206	316267.59	0.1183	P	0.8
5	☐	100.000	100.849	3035804.22	1.1621	A	2.0
6	☐	200.000	199.560	5837140.54	2.2987	A	2.3

y = 0.0115 * x + 8.1883E-004
R = 1.0000
DL = 0.00684
BEC = 0.07111

Weight: <None>
Min Conc: <None>

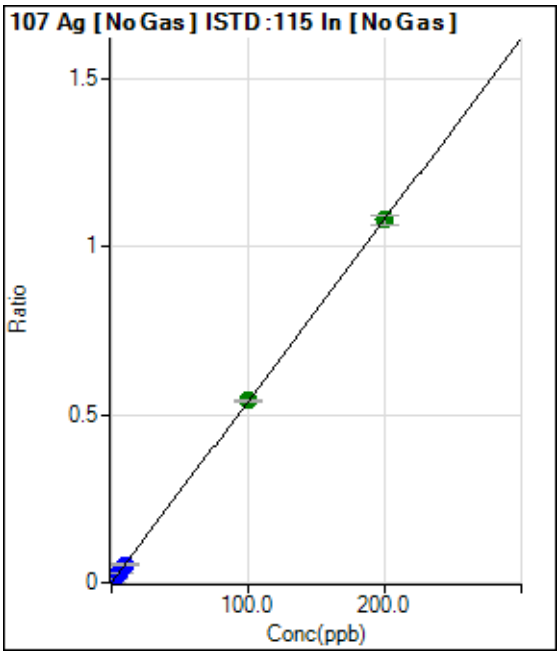


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	333.34	0.0001	P	22.8
2	☐	2.000	1.894	11465.14	0.0042	P	2.2
3	☐	5.000	4.989	28784.64	0.0110	P	2.7
4	☐	10.000	9.858	57587.77	0.0215	P	1.6
5	☐	100.000	99.017	562564.05	0.2153	P	1.7
6	☐	200.000	200.500	1106888.29	0.4359	A	3.1

y = 0.0022 * x + 1.2204E-004
R = 1.0000
DL = 0.03846
BEC = 0.05615

Weight: <None>
Min Conc: <None>

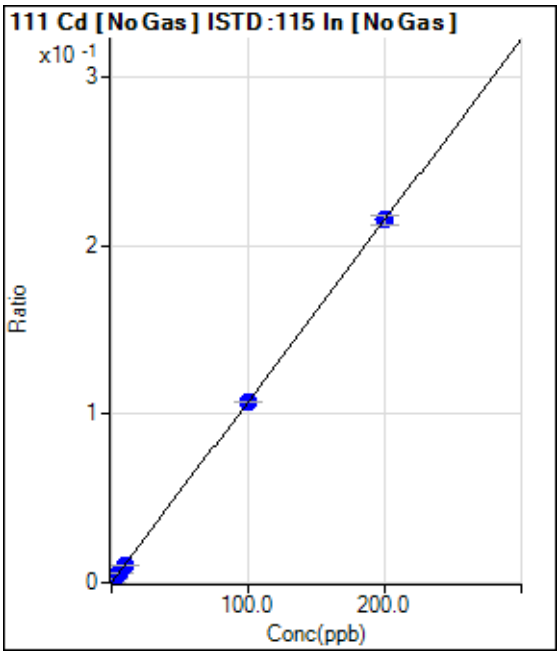
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	143.33	0.0001	P	28.7
2	☐	2.000	2.025	29750.42	0.0110	P	3.1
3	☐	5.000	5.081	72193.19	0.0275	P	4.2
4	☐	10.000	10.020	144897.57	0.0542	P	1.3
5	☐	100.000	100.186	1414946.75	0.5416	A	1.3
6	☐	200.000	199.904	2744235.37	1.0806	A	2.4

y = 0.0054 * x + 5.2435E-005
R = 1.0000
DL = 0.008338
BEC = 0.0097

Weight: <None>
Min Conc: <None>

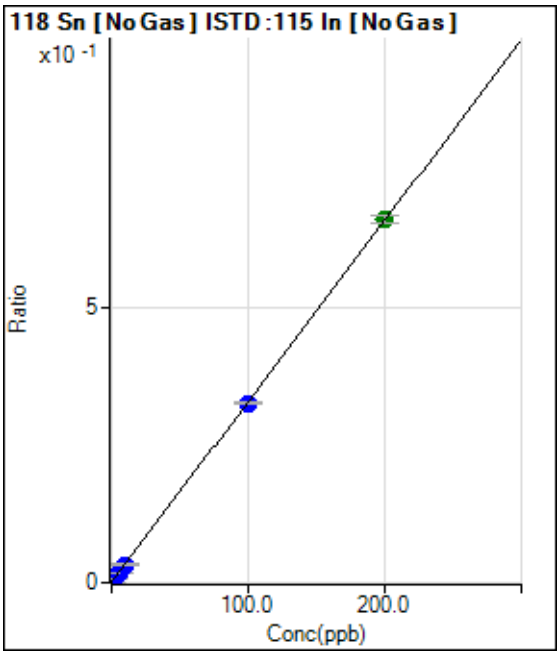


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.09	0.0000	P	67.2
2	☐	2.000	2.012	5875.75	0.0022	P	1.8
3	☐	5.000	4.963	14041.06	0.0053	P	1.5
4	☐	10.000	9.856	28363.06	0.0106	P	1.0
5	☐	100.000	99.564	279868.36	0.1071	P	0.3
6	☐	200.000	200.226	547062.41	0.2154	P	2.4

y = 0.0011 * x + 8.4398E-006
R = 1.0000
DL = 0.01581
BEC = 0.007845

Weight: <None>
Min Conc: <None>

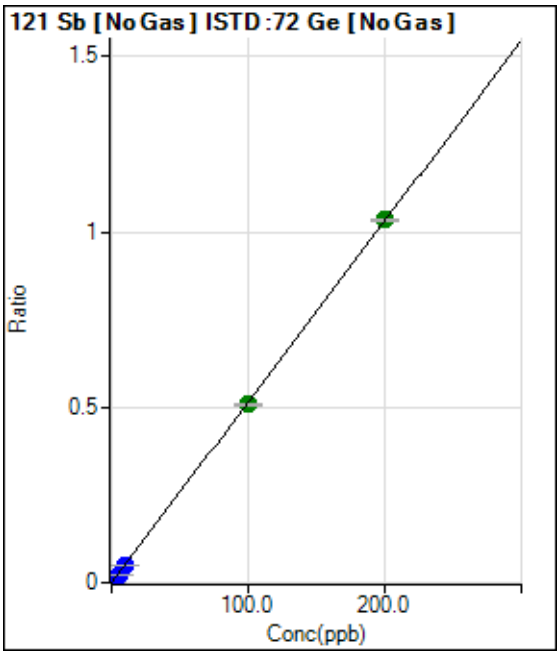
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2374.94	0.0009	P	37.5
2	☐	2.000	1.923	19485.44	0.0072	P	1.9
3	☐	5.000	4.812	43883.72	0.0167	P	4.0
4	☐	10.000	9.835	88916.94	0.0333	P	0.6
5	☐	100.000	99.182	855914.41	0.3276	P	0.8
6	☐	200.000	200.423	1678979.30	0.6612	A	2.1

y = 0.0033 * x + 8.6995E-004
R = 1.0000
DL = 0.2968
BEC = 0.2641

Weight: <None>
Min Conc: <None>

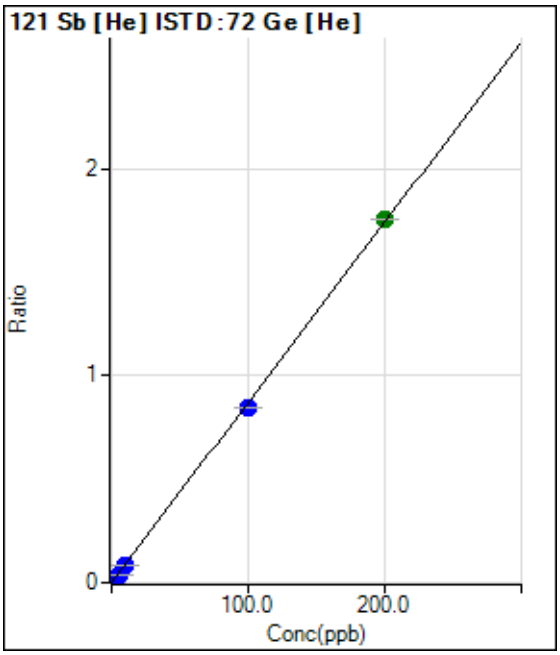


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	180.00	0.0001	P	25.6
2	☐	2.000	1.866	24206.05	0.0097	P	2.1
3	☐	5.000	4.701	60064.33	0.0243	P	2.5
4	☐	10.000	9.681	122448.08	0.0499	P	1.1
5	☐	100.000	98.474	1232542.74	0.5073	A	1.8
6	☐	200.000	200.788	2447798.19	1.0343	A	0.8

y = 0.0052 * x + 7.2396E-005
R = 1.0000
DL = 0.01078
BEC = 0.01406

Weight: <None>
Min Conc: <None>

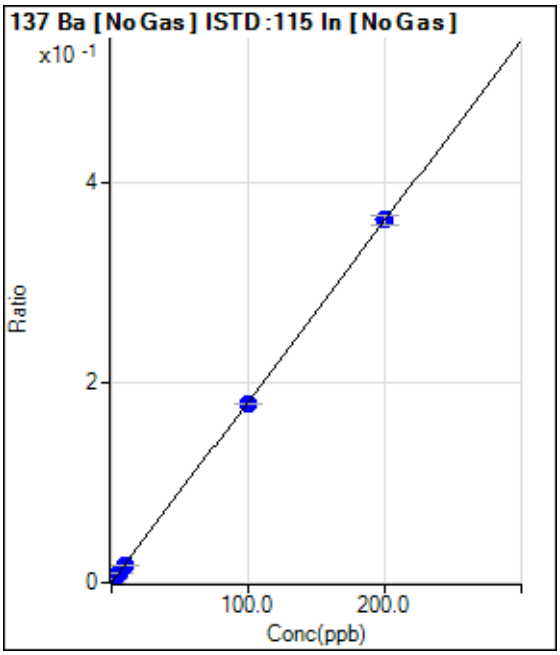
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0002	P	11.7
2	☐	2.000	1.868	11328.43	0.0164	P	1.3
3	☐	5.000	4.732	28675.17	0.0414	P	1.9
4	☐	10.000	9.459	56562.03	0.0825	P	0.9
5	☐	100.000	97.313	570973.27	0.8478	P	0.6
6	☐	200.000	201.379	1158038.42	1.7543	A	0.1

y = 0.0087 * x + 1.5470E-004
R = 0.9999
DL = 0.006219
BEC = 0.01776

Weight: <None>
Min Conc: <None>

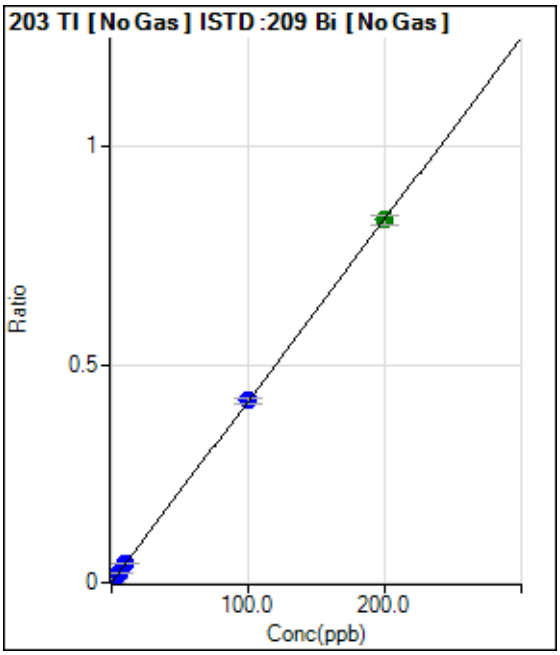


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.36	0.0003	P	4.5
2	☐	2.000	1.969	10314.25	0.0038	P	1.9
3	☐	5.000	4.984	24309.67	0.0093	P	3.2
4	☐	10.000	9.669	47373.37	0.0177	P	2.7
5	☐	100.000	98.815	467138.83	0.1788	P	0.8
6	☐	200.000	200.610	921082.23	0.3627	P	2.8

y = 0.0018 * x + 2.5751E-004
R = 1.0000
DL = 0.01914
BEC = 0.1425

Weight: <None>
Min Conc: <None>

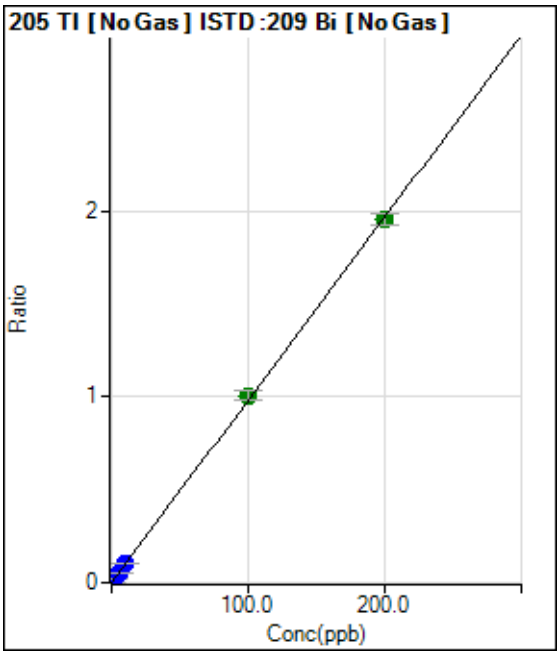
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0001	P	19.3
2	☐	2.000	2.062	16804.88	0.0086	P	5.0
3	☐	5.000	5.248	43415.84	0.0219	P	3.7
4	☐	10.000	10.578	86830.64	0.0441	P	3.2
5	☐	100.000	100.388	809332.54	0.4180	P	2.9
6	☐	200.000	199.770	1595801.80	0.8317	A	2.7

y = 0.0042 * x + 5.4675E-005
R = 1.0000
DL = 0.007585
BEC = 0.01313

Weight: <None>
Min Conc: <None>

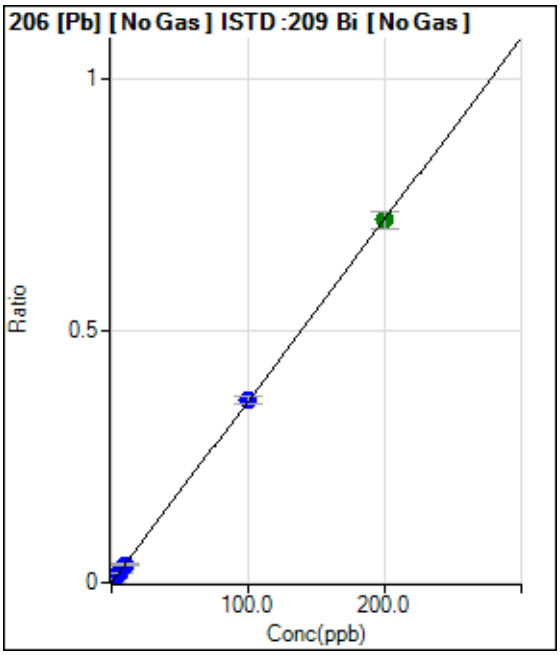


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0001	P	28.8
2	☐	2.000	2.154	41348.65	0.0213	P	4.9
3	☐	5.000	5.336	104142.33	0.0525	P	4.1
4	☐	10.000	10.754	208329.02	0.1058	P	4.0
5	☐	100.000	102.466	1950034.08	1.0075	A	5.1
6	☐	200.000	198.719	3748695.15	1.9538	A	3.3

y = 0.0098 * x + 8.4594E-005
R = 0.9999
DL = 0.007423
BEC = 0.008604

Weight: <None>
Min Conc: <None>

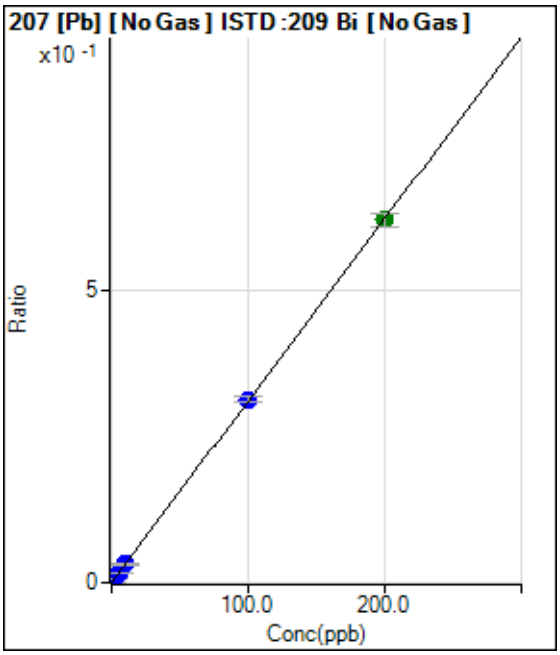
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.34	0.0001	P	43.6
2	☐	2.000	2.065	14612.06	0.0075	P	6.0
3	☐	5.000	5.018	36018.85	0.0182	P	3.4
4	☐	10.000	10.025	71354.05	0.0362	P	3.8
5	☐	100.000	100.419	701666.53	0.3625	P	3.7
6	☐	200.000	199.788	1382875.76	0.7211	A	4.5

y = 0.0036 * x + 6.3036E-005
R = 1.0000
DL = 0.02284
BEC = 0.01747

Weight: <None>
Min Conc: <None>

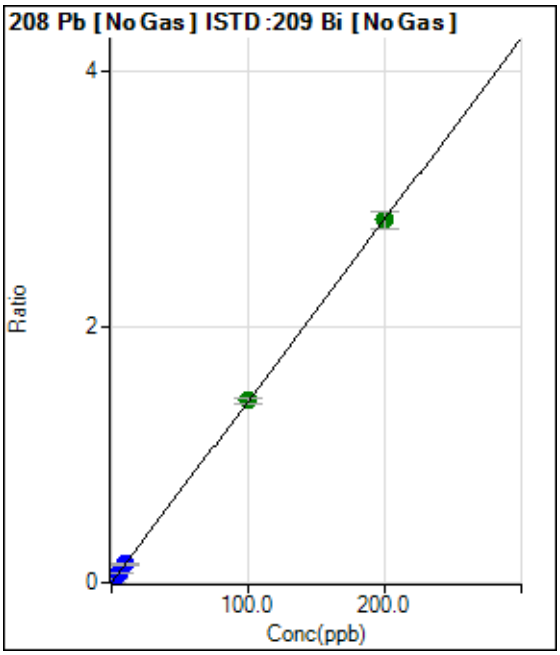


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0001	P	41.9
2	☐	2.000	2.037	12436.40	0.0064	P	3.9
3	☐	5.000	5.001	30871.93	0.0156	P	5.5
4	☐	10.000	10.074	61622.44	0.0313	P	5.5
5	☐	100.000	100.922	606109.55	0.3131	P	3.1
6	☐	200.000	199.535	1187120.69	0.6189	A	4.0

y = 0.0031 * x + 7.3072E-005
R = 1.0000
DL = 0.02965
BEC = 0.02356

Weight: <None>
Min Conc: <None>

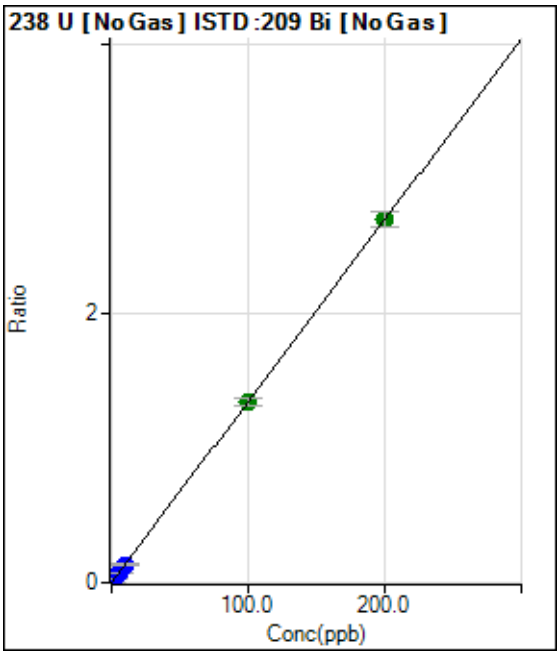
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	540.02	0.0003	P	13.4
2	☐	2.000	2.074	57763.33	0.0297	P	3.1
3	☐	5.000	5.015	141392.70	0.0714	P	4.7
4	☐	10.000	10.096	282227.36	0.1434	P	5.0
5	☐	100.000	100.264	2751765.48	1.4215	A	3.7
6	☐	200.000	199.862	5432980.88	2.8332	A	5.1

y = 0.0142 * x + 2.7835E-004
R = 1.0000
DL = 0.00788
BEC = 0.01964

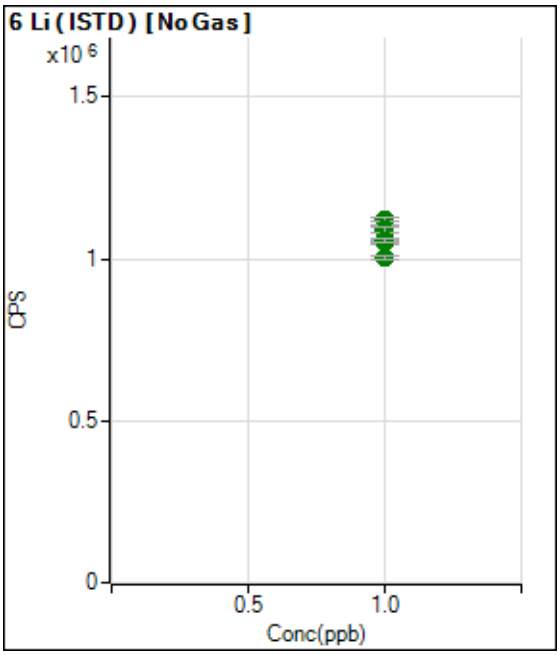
Weight: <None>
Min Conc: <None>



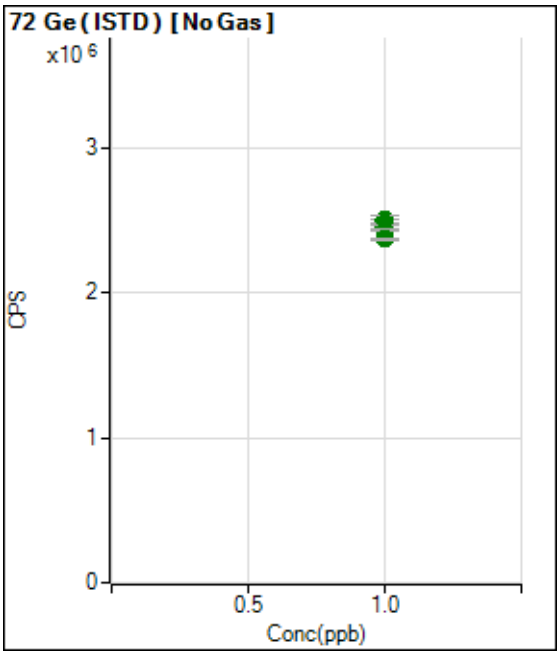
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	69.6
2	☐	2.000	1.933	50584.96	0.0260	P	4.7
3	☐	5.000	4.859	129553.71	0.0654	P	3.4
4	☐	10.000	9.784	258942.01	0.1316	P	6.0
5	☐	100.000	99.777	2598038.76	1.3419	A	3.7
6	☐	200.000	200.127	5162590.76	2.6916	A	4.3

y = 0.0134 * x + 1.2296E-005
R = 1.0000
DL = 0.001909
BEC = 0.0009143

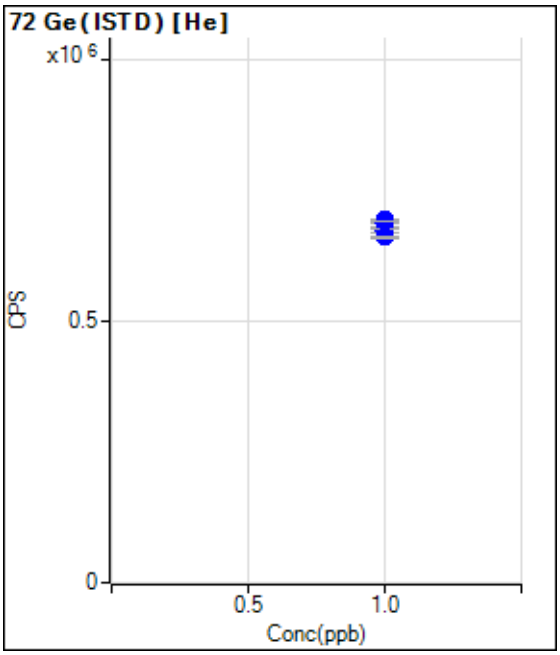
Weight: <None>
Min Conc: <None>



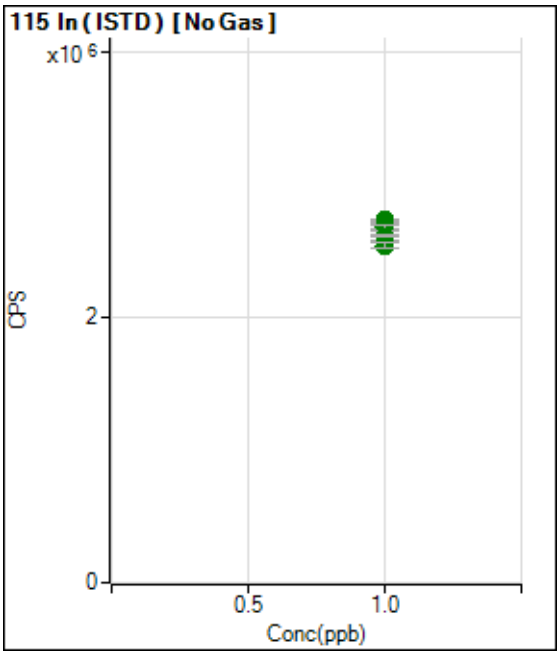
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1120139.33		A	1.2
2	☐	1.000		1092174.65		A	1.9
3	☐	1.000		1087572.34		A	1.6
4	☐	1.000		1049992.93		A	1.5
5	☐	1.000		1055797.43		A	1.5
6	☐	1.000		1002298.64		A	1.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2486363.97		A	1.1
2	☐	1.000		2499642.25		A	2.0
3	☐	1.000		2473353.03		A	0.8
4	☐	1.000		2452084.08		A	0.8
5	☐	1.000		2429983.30		A	1.0
6	☐	1.000		2366701.11		A	0.2

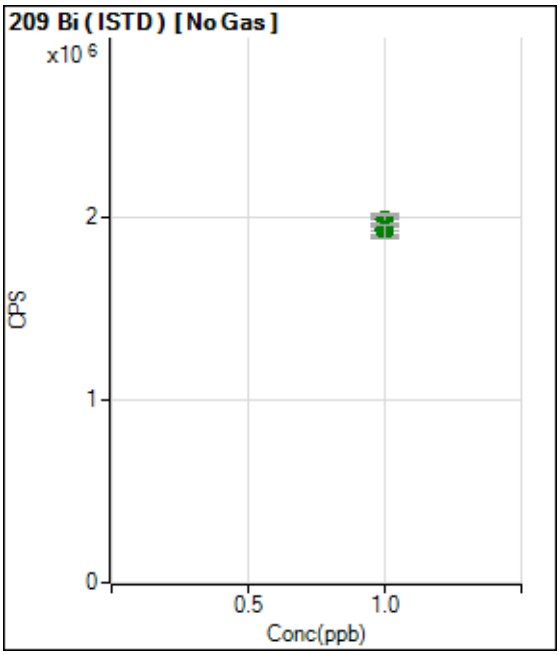


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		689982.65		P	1.3
2	☐	1.000		689735.09		P	0.7
3	☐	1.000		693131.99		P	0.7
4	☐	1.000		685233.74		P	1.7
5	☐	1.000		673502.65		P	1.2
6	☐	1.000		660124.50		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2731714.21		A	0.4
2	☐	1.000		2703981.64		A	0.7
3	☐	1.000		2626148.35		A	3.3
4	☐	1.000		2672733.04		A	1.3
5	☐	1.000		2612503.52		A	0.6
6	☐	1.000		2539910.09		A	1.5

Calibration for 213_ICV.d



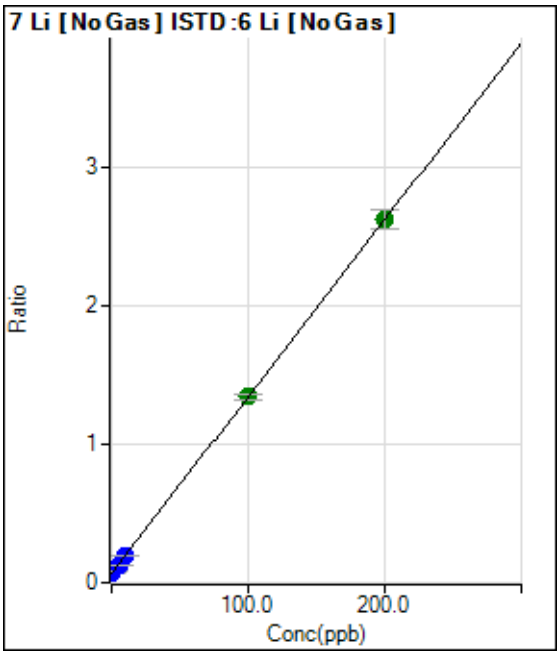
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1939317.89		A	4.7
2	☐	1.000		1947951.38		A	4.7
3	☐	1.000		1983806.48		A	3.8
4	☐	1.000		1970973.25		A	4.2
5	☐	1.000		1937362.42		A	3.1
6	☐	1.000		1919798.88		A	3.5

Calibration for 181_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071323A.b\
Analysis File: 071323A.batch.bin
DA Date-Time: 7/13/2023 8:18:40 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	174CALB.d	CAL BLK	7/13/2023 7:01:29 PM
2	175CALS.d	2/10/200	7/13/2023 7:03:39 PM
3	176CALS.d	5/25/500	7/13/2023 7:05:47 PM
4	177CALS.d	10/50/100	7/13/2023 7:07:45 PM
5	178CALS.d	100/500/10K	7/13/2023 7:09:40 PM
6	179CALS.d	200/1000/20K	7/13/2023 7:11:33 PM

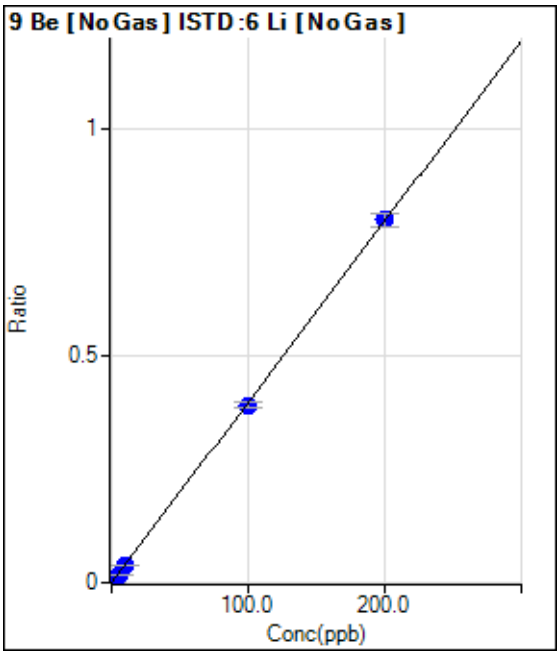
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	64567.00	0.0670	P	1.7
2	☐	2.000	1.841	89460.03	0.0905	P	2.4
3	☐	5.000	4.928	126361.01	0.1299	P	0.1
4	☐	10.000	9.799	190440.46	0.1921	P	0.4
5	☐	100.000	99.989	1245561.05	1.3440	A	2.5
6	☐	200.000	200.019	2275686.79	2.6214	A	5.2

y = 0.0128 * x + 0.0670
R = 1.0000
DL = 0.261
BEC = 5.247

Weight: <None>
Min Conc: <None>

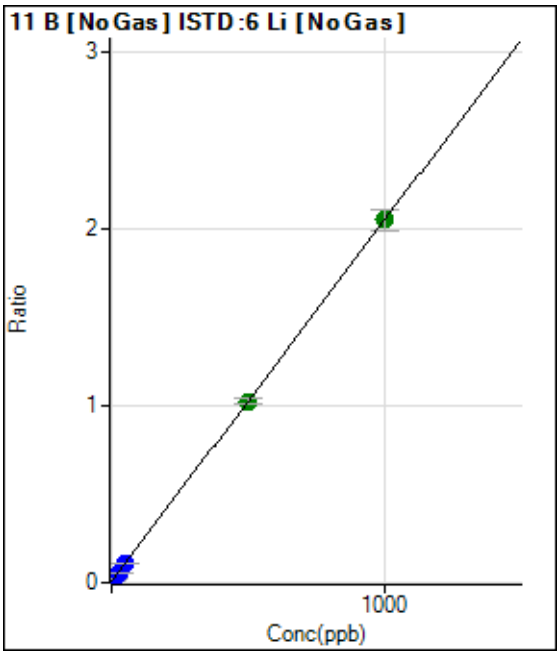


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.67	0.0000	P	26.3
2	☐	2.000	1.923	7588.75	0.0077	P	4.6
3	☐	5.000	4.736	18372.11	0.0189	P	1.3
4	☐	10.000	9.427	37259.16	0.0376	P	1.6
5	☐	100.000	98.331	363290.52	0.3920	P	2.7
6	☐	200.000	200.870	695416.42	0.8008	P	3.6

y = 0.0040 * x + 1.2136E-005
R = 1.0000
DL = 0.002404
BEC = 0.003044

Weight: <None>
Min Conc: <None>

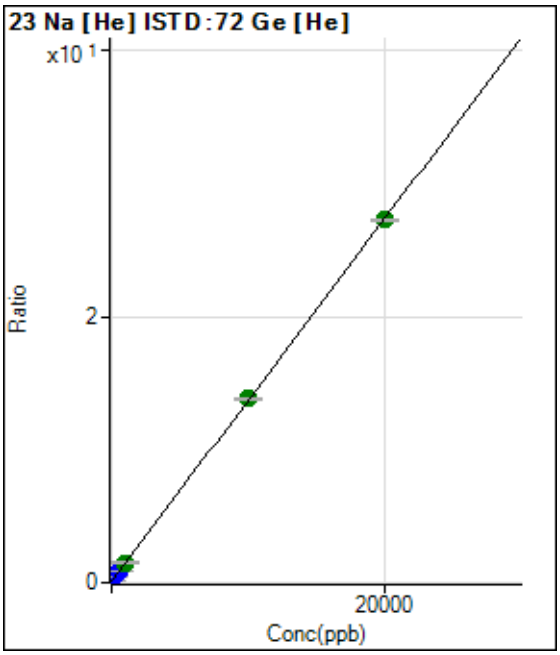
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7373.67	0.0077	P	1.4
2	☐	10.000	9.268	26279.58	0.0266	P	3.1
3	☐	25.000	24.018	55166.07	0.0567	P	0.8
4	☐	50.000	47.899	104589.11	0.1055	P	1.0
5	☐	500.000	498.115	950372.75	1.0255	A	2.8
6	☐	1000.000	1001.079	1782267.47	2.0532	A	5.7

y = 0.0020 * x + 0.0077
R = 1.0000
DL = 0.1556
BEC = 3.745

Weight: <None>
Min Conc: <None>

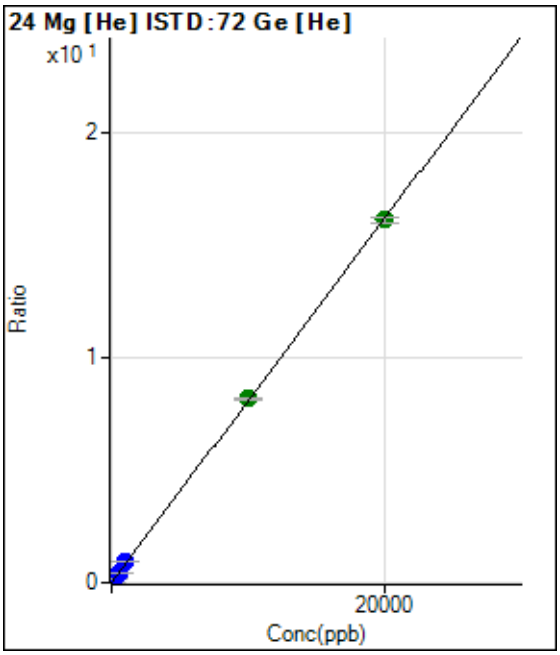


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50621.81	0.0771	P	1.6
2	☐	200.000	218.066	241237.87	0.3740	P	0.4
3	☐	500.000	548.701	529653.26	0.8243	P	0.4
4	☐	1000.000	1050.049	960439.10	1.5071	A	2.4
5	☐	10000.000	10091.307	8605284.67	13.8207	A	1.2
6	☐	20000.000	19950.446	16600623.92	27.2481	A	0.8

y = 0.0014 * x + 0.0771
R = 1.0000
DL = 2.655
BEC = 56.58

Weight: <None>
Min Conc: <None>

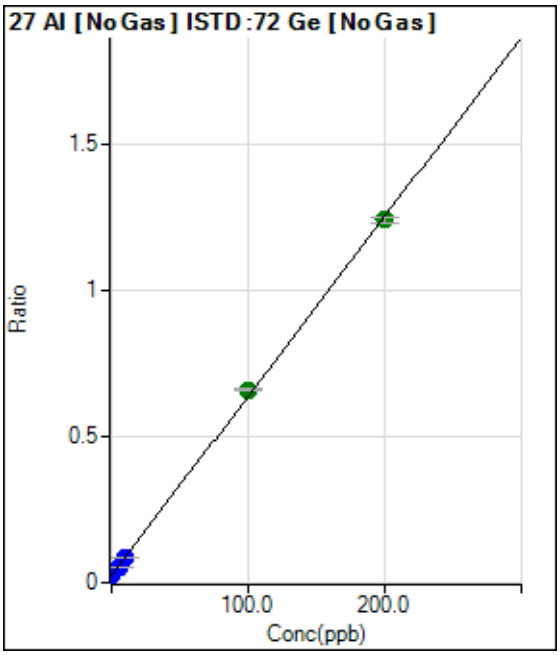
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	923.38	0.0014	P	2.2
2	☐	200.000	224.627	118032.31	0.1830	P	0.5
3	☐	500.000	566.634	295242.24	0.4595	P	1.0
4	☐	1000.000	1115.860	575844.42	0.9036	P	1.1
5	☐	10000.000	10113.213	5091792.42	8.1777	A	1.1
6	☐	20000.000	19935.688	9820163.60	16.1190	A	1.5

y = 8.0848E-004 * x + 0.0014
R = 1.0000
DL = 0.114
BEC = 1.739

Weight: <None>
Min Conc: <None>

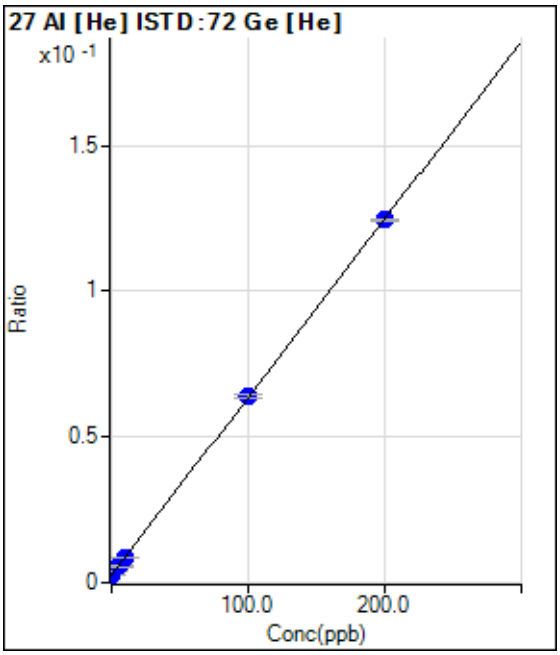


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58004.05	0.0251	P	1.4
2	☐	2.000	2.384	91526.54	0.0398	P	1.7
3	☐	5.000	4.772	122532.39	0.0544	P	2.4
4	☐	10.000	9.654	192091.82	0.0844	P	3.2
5	☐	100.000	103.444	1453197.01	0.6601	A	1.2
6	☐	200.000	198.297	2711767.56	1.2424	A	1.3

y = 0.0061 * x + 0.0251
R = 0.9998
DL = 0.1711
BEC = 4.095

Weight: <None>
Min Conc: <None>

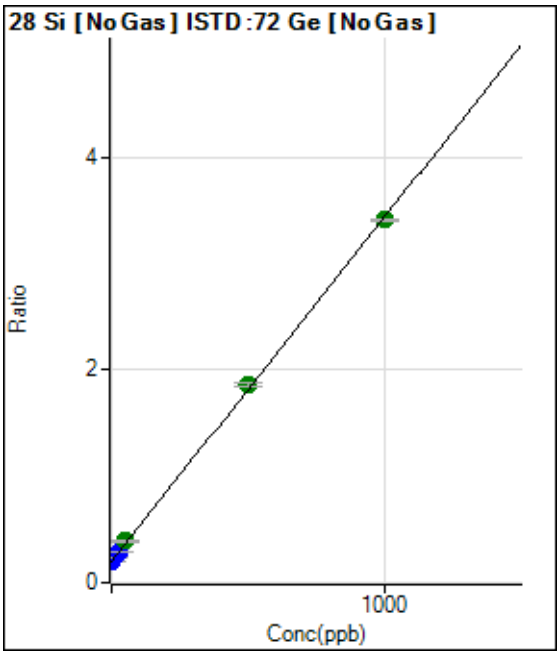
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1720.14	0.0026	P	11.1
2	☐	2.000	2.849	2810.34	0.0044	P	5.0
3	☐	5.000	4.933	3617.20	0.0056	P	3.1
4	☐	10.000	10.067	5584.56	0.0088	P	3.2
5	☐	100.000	100.546	39830.49	0.0640	P	1.4
6	☐	200.000	199.717	75842.74	0.1245	P	0.4

y = 6.1018E-004 * x + 0.0026
R = 1.0000
DL = 1.426
BEC = 4.292

Weight: <None>
Min Conc: <None>

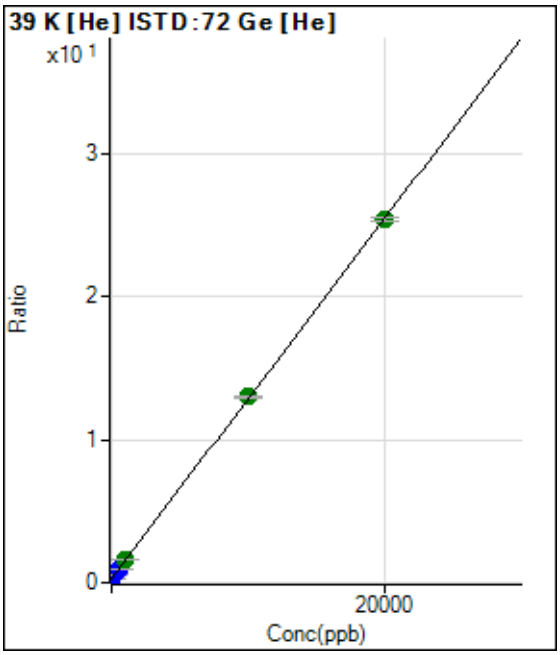


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	462157.30	0.2003	P	0.2
2	☐	10.000	11.184	544157.47	0.2365	P	1.0
3	☐	25.000	29.648	666901.29	0.2962	P	0.7
4	☐	50.000	59.686	895452.77	0.3934	A	2.7
5	☐	500.000	514.996	4108312.34	1.8665	A	2.3
6	☐	1000.000	991.889	7442561.97	3.4094	A	0.5

y = 0.0032 * x + 0.2003
R = 0.9998
DL = 0.3253
BEC = 61.9

Weight: <None>
Min Conc: <None>

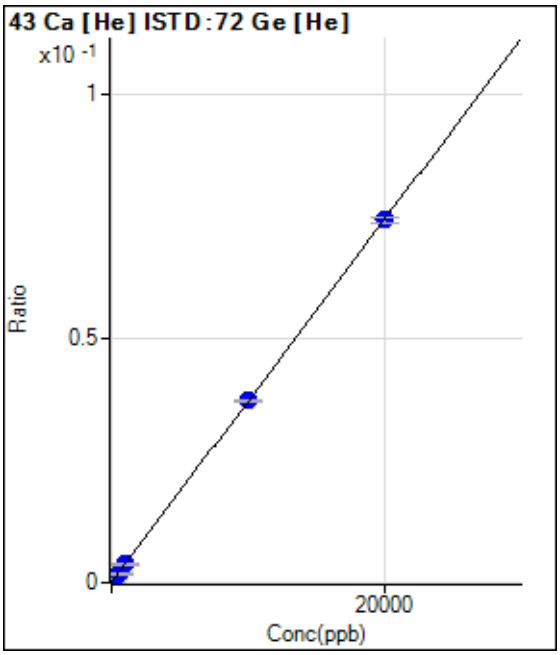
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	179815.20	0.2737	P	1.7
2	☐	200.000	217.877	353416.34	0.5480	P	0.9
3	☐	500.000	544.497	616236.11	0.9591	P	0.7
4	☐	1000.000	1075.160	1036924.57	1.6271	A	1.9
5	☐	10000.000	10111.623	8095287.38	13.0015	A	0.6
6	☐	20000.000	19939.140	15457191.44	25.3717	A	1.1

y = 0.0013 * x + 0.2737
R = 1.0000
DL = 11.28
BEC = 217.5

Weight: <None>
Min Conc: <None>

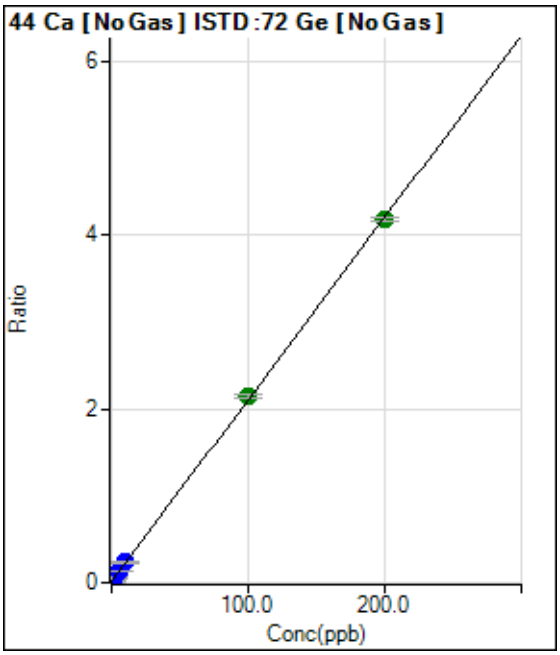


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43.33	0.0001	P	48.4
2	☐	200.000	192.685	503.35	0.0008	P	28.7
3	☐	500.000	477.767	1180.08	0.0018	P	12.0
4	☐	1000.000	1036.385	2490.27	0.0039	P	10.6
5	☐	10000.000	10022.403	23173.10	0.0372	P	1.3
6	☐	20000.000	19987.608	45184.39	0.0742	P	1.9

y = 3.7069E-006 * x + 6.6117E-005
R = 1.0000
DL = 25.88
BEC = 17.84

Weight: <None>
Min Conc: <None>

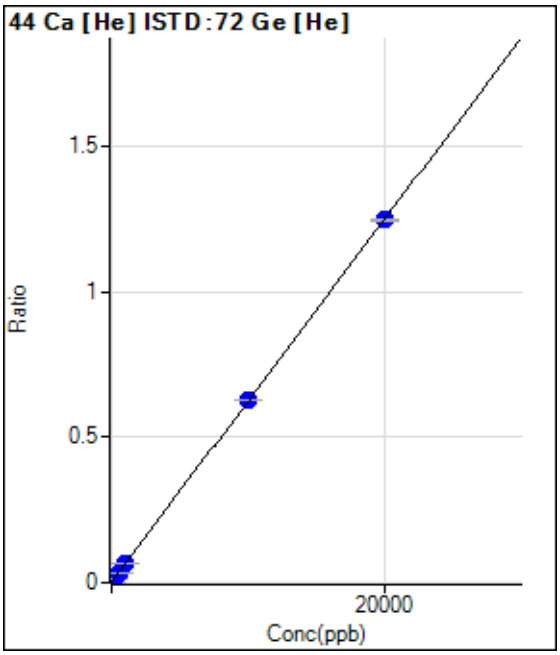
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25453.86	0.0110	P	2.1
2	☐	2.000	2.112	127250.53	0.0553	P	1.0
3	☐	5.000	5.391	279183.51	0.1240	P	1.4
4	☐	10.000	10.752	537877.96	0.2363	P	3.5
5	☐	100.000	102.408	4748167.22	2.1570	A	2.0
6	☐	200.000	198.747	9115745.70	4.1759	A	1.1

y = 0.0210 * x + 0.0110
R = 0.9999
DL = 0.03324
BEC = 0.5264

Weight: <None>
Min Conc: <None>

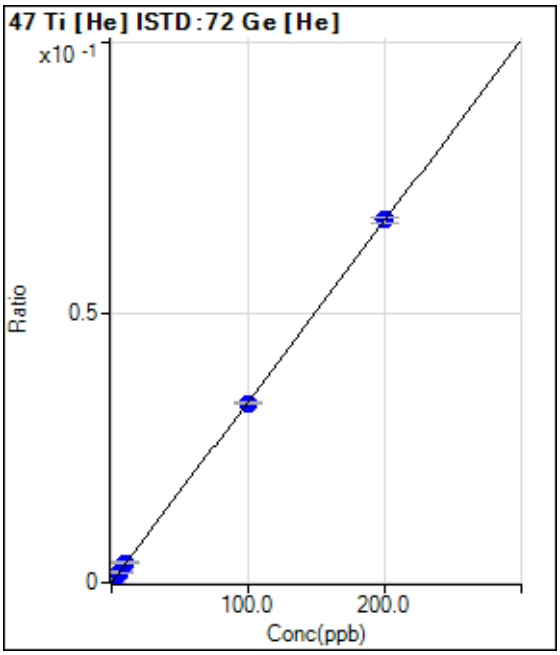


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	986.72	0.0015	P	11.7
2	☐	200.000	201.618	9083.15	0.0141	P	2.0
3	☐	500.000	511.917	21490.46	0.0334	P	1.3
4	☐	1000.000	1011.827	41202.10	0.0646	P	2.7
5	☐	10000.000	10058.275	391750.25	0.6292	P	0.6
6	☐	20000.000	19969.957	760182.41	1.2477	P	0.5

y = 6.2403E-005 * x + 0.0015
R = 1.0000
DL = 8.474
BEC = 24.07

Weight: <None>
Min Conc: <None>

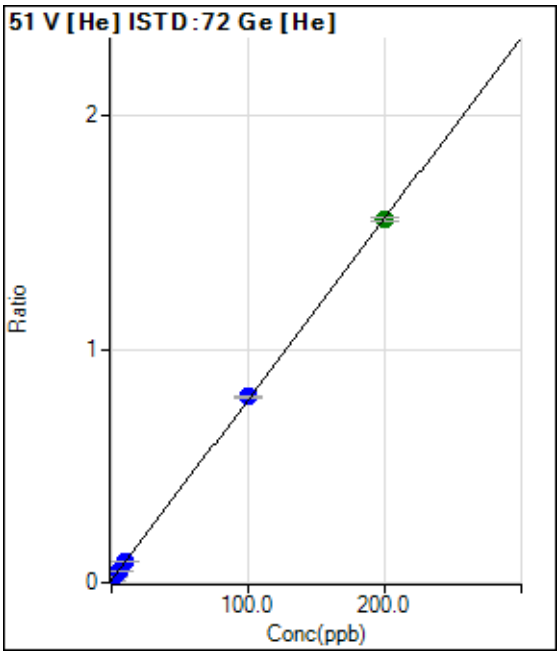
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	91.2
2	☐	2.000	1.945	436.68	0.0007	P	15.3
3	☐	5.000	5.419	1183.41	0.0018	P	17.1
4	☐	10.000	10.684	2296.90	0.0036	P	7.9
5	☐	100.000	99.006	20672.50	0.0332	P	1.3
6	☐	200.000	200.453	40937.96	0.0672	P	1.3

y = 3.3507E-004 * x + 2.5321E-005
R = 1.0000
DL = 0.2067
BEC = 0.07557

Weight: <None>
Min Conc: <None>

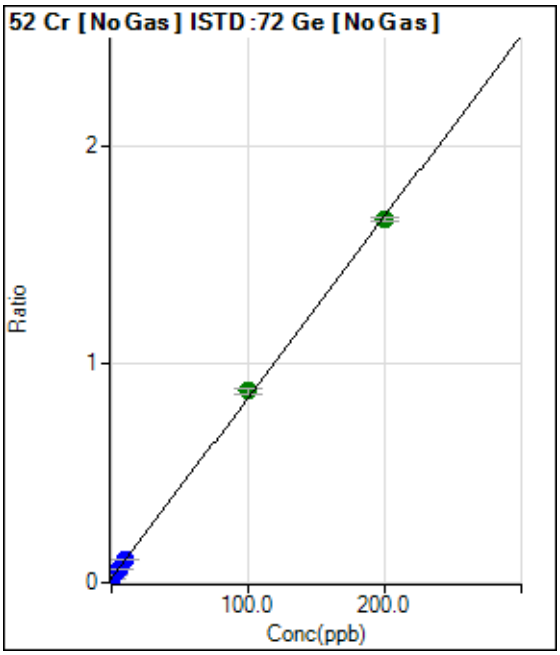


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6358.17	0.0097	P	2.8
2	☐	2.000	2.012	16307.49	0.0253	P	2.5
3	☐	5.000	5.078	31528.39	0.0491	P	1.0
4	☐	10.000	10.265	56916.44	0.0893	P	1.2
5	☐	100.000	101.406	495818.83	0.7963	P	0.6
6	☐	200.000	199.282	947695.87	1.5555	A	1.1

y = 0.0078 * x + 0.0097
R = 1.0000
DL = 0.1033
BEC = 1.248

Weight: <None>
Min Conc: <None>

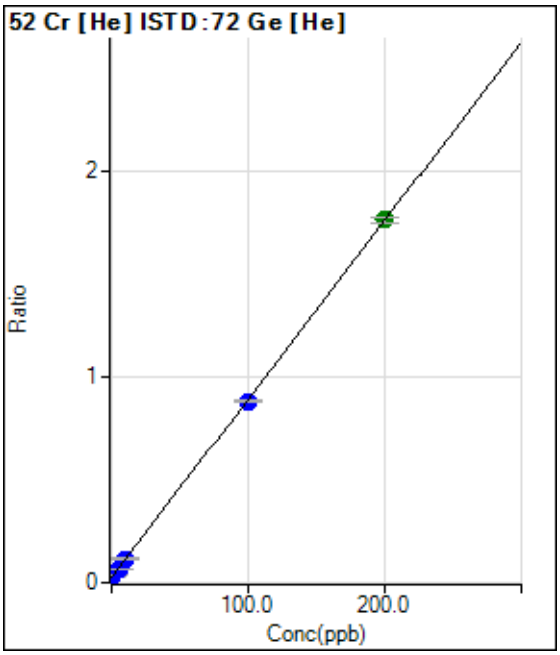
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44074.81	0.0191	P	2.3
2	☐	2.000	1.946	81032.63	0.0352	P	1.4
3	☐	5.000	5.291	141629.39	0.0629	P	1.9
4	☐	10.000	10.464	240629.67	0.1057	P	3.2
5	☐	100.000	103.664	1931044.97	0.8773	A	2.9
6	☐	200.000	198.138	3621919.95	1.6594	A	0.9

y = 0.0083 * x + 0.0191
R = 0.9998
DL = 0.1605
BEC = 2.307

Weight: <None>
Min Conc: <None>

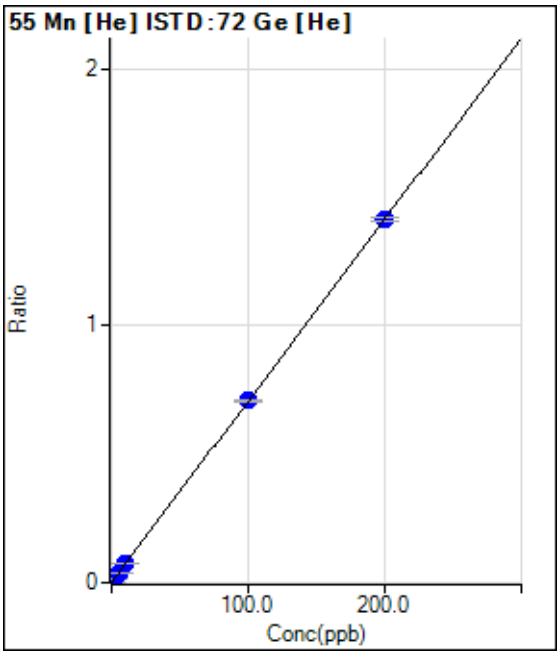


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16653.75	0.0254	P	3.3
2	☐	2.000	1.989	27467.85	0.0426	P	3.4
3	☐	5.000	4.989	44074.42	0.0686	P	1.3
4	☐	10.000	10.461	73935.83	0.1160	P	2.8
5	☐	100.000	98.943	549780.64	0.8830	P	0.9
6	☐	200.000	200.506	1074271.26	1.7633	A	1.3

y = 0.0087 * x + 0.0254
R = 1.0000
DL = 0.2864
BEC = 2.925

Weight: <None>
Min Conc: <None>

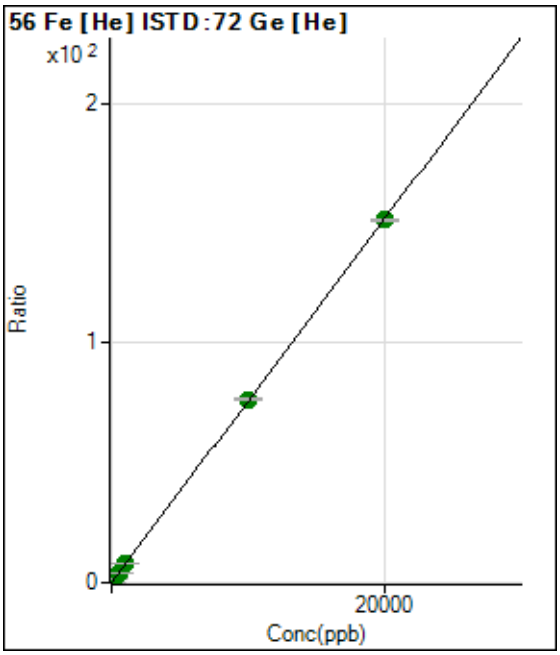
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	613.36	0.0009	P	25.8
2	☐	2.000	2.045	9920.44	0.0154	P	5.0
3	☐	5.000	5.170	24064.83	0.0375	P	2.0
4	☐	10.000	10.312	47014.31	0.0738	P	2.3
5	☐	100.000	100.134	440980.21	0.7082	P	1.0
6	☐	200.000	199.913	860925.07	1.4130	P	1.0

y = 0.0071 * x + 9.3460E-004
R = 1.0000
DL = 0.1024
BEC = 0.1323

Weight: <None>
Min Conc: <None>

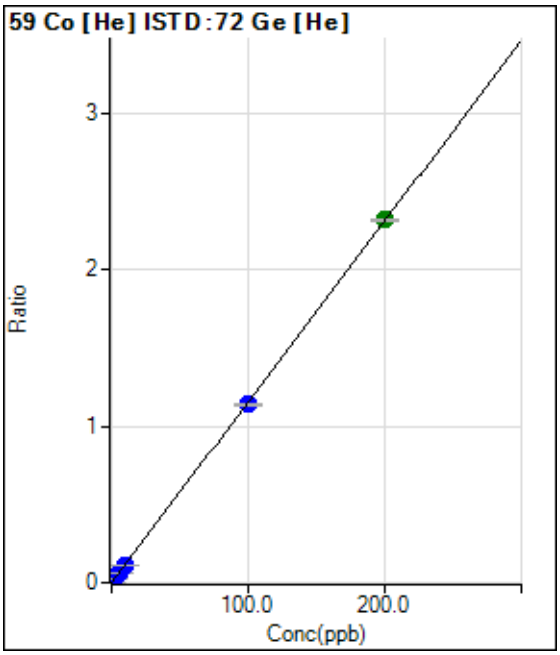


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24458.88	0.0372	P	4.8
2	☐	200.000	212.471	1062318.60	1.6471	A	2.3
3	☐	500.000	514.642	2529377.46	3.9367	A	1.4
4	☐	1000.000	1027.852	4986946.17	7.8254	A	0.6
5	☐	10000.000	10080.293	47580224.29	76.4165	A	1.0
6	☐	20000.000	19957.970	92158158.63	151.2605	A	0.6

y = 0.0076 * x + 0.0372
R = 1.0000
DL = 0.7116
BEC = 4.915

Weight: <None>
Min Conc: <None>

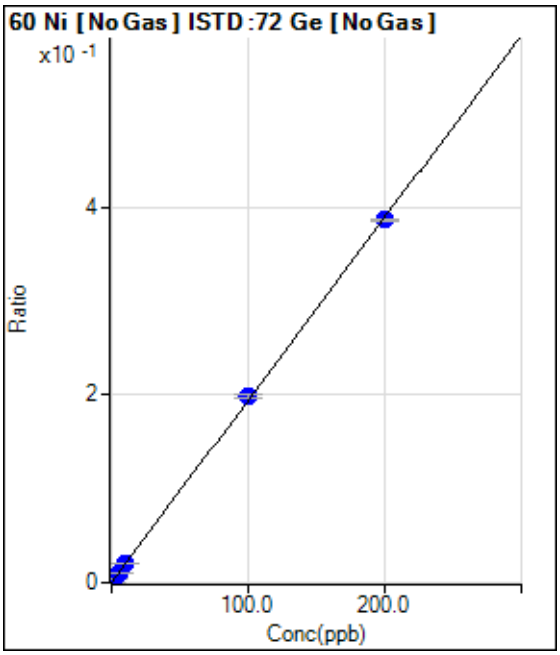
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.33	0.0001	P	25.1
2	☐	2.000	2.019	15101.92	0.0234	P	1.7
3	☐	5.000	5.084	37789.23	0.0588	P	0.6
4	☐	10.000	10.046	74010.39	0.1161	P	0.8
5	☐	100.000	98.471	708256.35	1.1375	P	0.6
6	☐	200.000	200.760	1412917.32	2.3190	A	0.8

y = 0.0116 * x + 9.6563E-005
R = 1.0000
DL = 0.0063
BEC = 0.00836

Weight: <None>
Min Conc: <None>

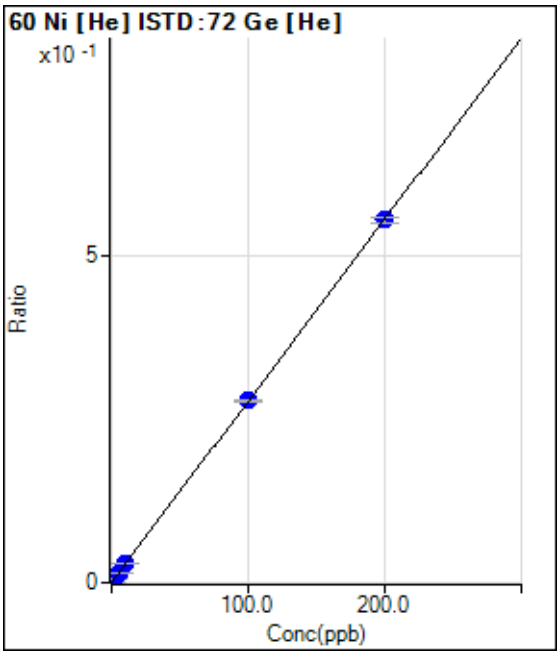


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	433.35	0.0002	P	4.4
2	☐	2.000	2.045	9566.86	0.0042	P	3.2
3	☐	5.000	5.197	23139.90	0.0103	P	1.9
4	☐	10.000	10.374	46265.46	0.0203	P	3.5
5	☐	100.000	102.191	437134.38	0.1986	P	2.0
6	☐	200.000	198.881	843215.17	0.3863	P	0.6

y = 0.0019 * x + 1.8777E-004
R = 0.9999
DL = 0.0127
BEC = 0.09672

Weight: <None>
Min Conc: <None>

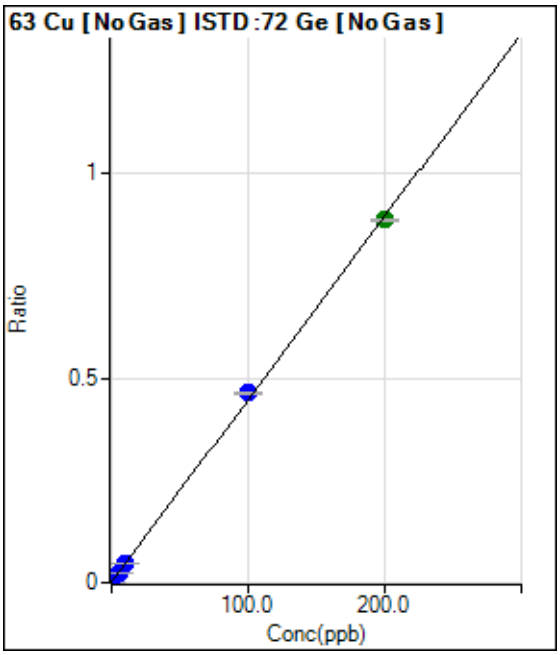
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	153.34	0.0002	P	23.2
2	☐	2.000	2.146	4000.66	0.0062	P	6.8
3	☐	5.000	4.907	8919.74	0.0139	P	4.8
4	☐	10.000	10.301	18409.33	0.0289	P	0.5
5	☐	100.000	100.208	173700.02	0.2790	P	0.4
6	☐	200.000	199.882	338884.59	0.5562	P	1.3

y = 0.0028 * x + 2.3357E-004
R = 1.0000
DL = 0.05851
BEC = 0.08397

Weight: <None>
Min Conc: <None>

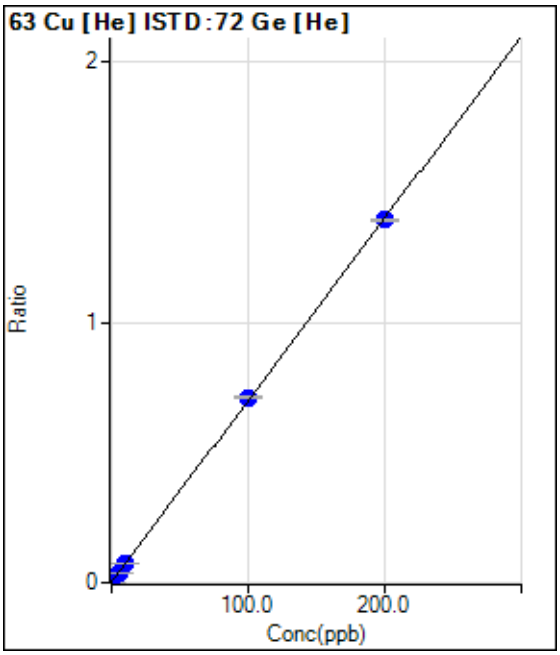


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2260.23	0.0010	P	4.7
2	☐	2.000	2.574	28737.45	0.0125	P	3.2
3	☐	5.000	5.243	54984.83	0.0244	P	1.1
4	☐	10.000	10.469	108755.61	0.0478	P	3.5
5	☐	100.000	103.470	1020576.44	0.4636	P	1.3
6	☐	200.000	198.230	1936710.65	0.8873	A	0.9

y = 0.0045 * x + 9.7964E-004
R = 0.9998
DL = 0.03059
BEC = 0.2191

Weight: <None>
Min Conc: <None>

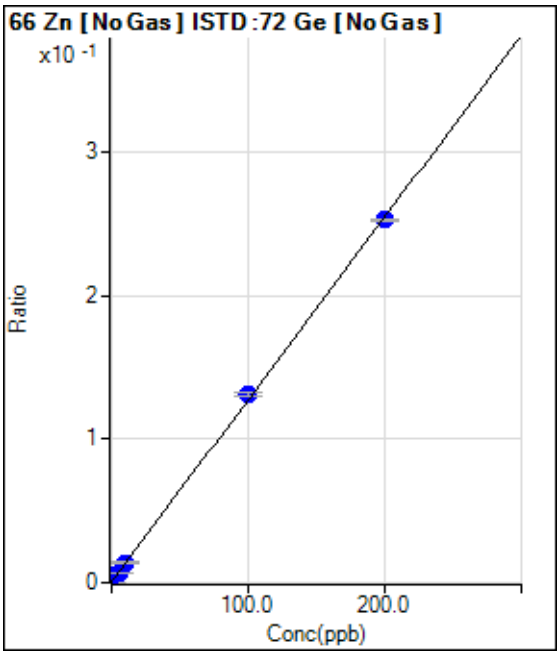
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	793.37	0.0012	P	3.3
2	☐	2.000	2.564	12342.51	0.0191	P	5.1
3	☐	5.000	5.106	23721.01	0.0369	P	1.9
4	☐	10.000	10.244	46429.57	0.0729	P	0.7
5	☐	100.000	101.476	442668.51	0.7109	P	0.7
6	☐	200.000	199.241	849757.56	1.3947	P	0.5

y = 0.0070 * x + 0.0012
R = 1.0000
DL = 0.01716
BEC = 0.1726

Weight: <None>
Min Conc: <None>

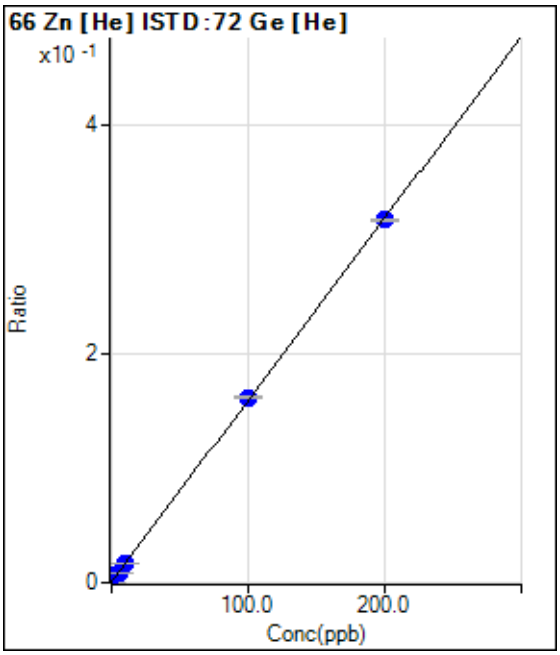


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1243.42	0.0005	P	9.7
2	☐	2.000	3.439	11278.19	0.0049	P	2.5
3	☐	5.000	5.182	16013.01	0.0071	P	1.4
4	☐	10.000	10.579	31774.26	0.0140	P	3.0
5	☐	100.000	102.635	287760.03	0.1307	P	2.2
6	☐	200.000	198.635	551164.09	0.2525	P	0.9

y = 0.0013 * x + 5.3888E-004
R = 0.9999
DL = 0.1235
BEC = 0.4248

Weight: <None>
Min Conc: <None>

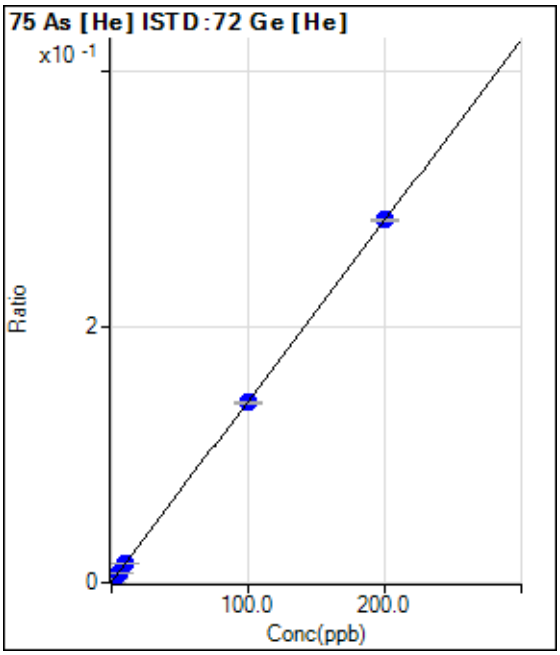
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	450.02	0.0007	P	2.9
2	☐	2.000	3.399	3917.31	0.0061	P	2.8
3	☐	5.000	4.886	5417.85	0.0084	P	6.5
4	☐	10.000	10.447	10991.30	0.0172	P	2.2
5	☐	100.000	101.510	100637.98	0.1616	P	0.8
6	☐	200.000	199.212	192848.63	0.3165	P	0.2

y = 0.0016 * x + 6.8510E-004
R = 0.9999
DL = 0.03728
BEC = 0.4321

Weight: <None>
Min Conc: <None>

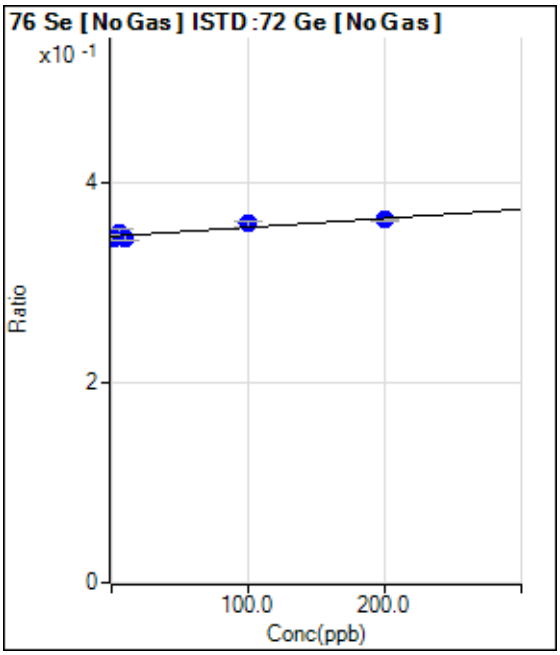


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	392.23	0.0006	P	6.1
2	☐	2.000	1.965	2177.96	0.0034	P	5.2
3	☐	5.000	5.018	4944.26	0.0077	P	2.2
4	☐	10.000	9.869	9276.55	0.0146	P	0.7
5	☐	100.000	99.297	87814.52	0.1410	P	0.7
6	☐	200.000	200.358	173009.58	0.2840	P	0.4

y = 0.0014 * x + 5.9713E-004
R = 1.0000
DL = 0.07739
BEC = 0.4222

Weight: <None>
Min Conc: <None>

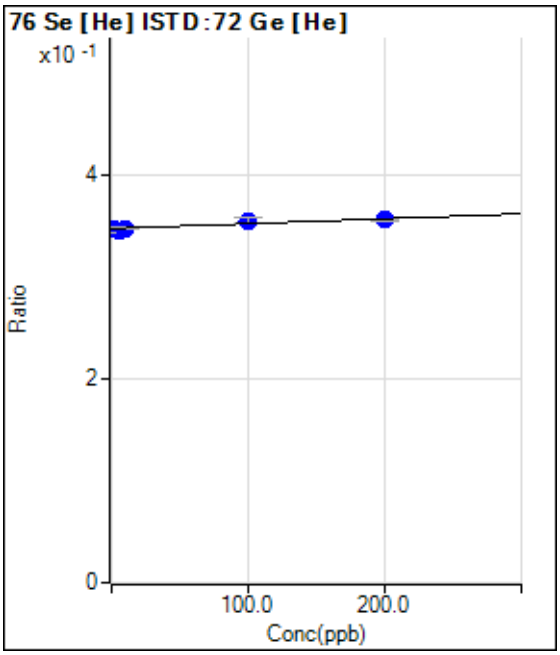
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	798130.41	0.3459	P	1.3
2	☐	2.000	-20.701	791688.89	0.3440	P	0.7
3	☐	5.000	38.323	786400.82	0.3493	P	2.2
4	☐	10.000	-15.878	784151.06	0.3445	P	2.1
5	☐	100.000	137.357	788481.60	0.3582	P	1.8
6	☐	200.000	182.009	790626.16	0.3622	P	0.7

y = 8.9606E-005 * x + 0.3459
R = 0.9442
DL = 146.4
BEC = 3860

Weight: <None>
Min Conc: <None>

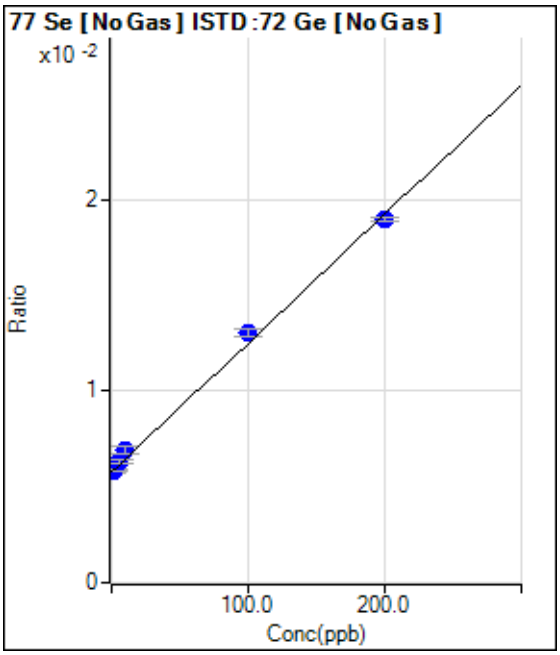


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	228248.21	0.3475	P	1.3
2	☐	2.000	-12.410	223703.73	0.3469	P	0.7
3	☐	5.000	-32.940	222225.73	0.3459	P	1.3
4	☐	10.000	10.371	221752.41	0.3480	P	0.3
5	☐	100.000	152.753	220910.16	0.3548	P	1.6
6	☐	200.000	174.697	216801.63	0.3559	P	0.8

y = 4.8113E-005 * x + 0.3475
R = 0.9380
DL = 285
BEC = 7222

Weight: <None>
Min Conc: <None>

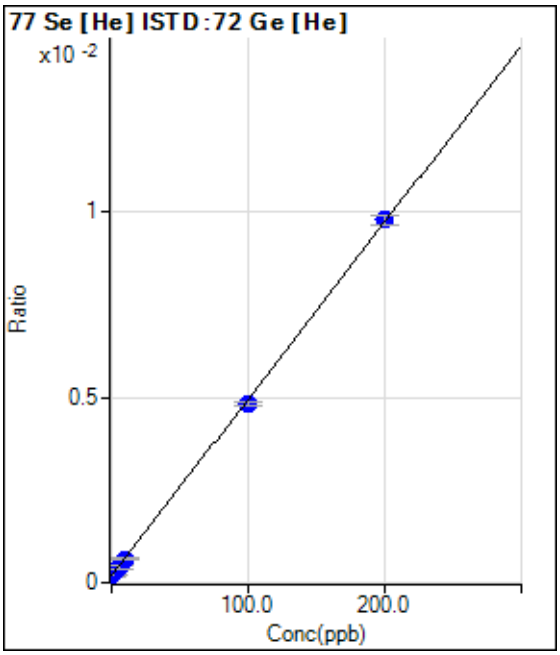
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13333.47	0.0058	P	0.9
2	☐	2.000	1.274	13493.68	0.0059	P	0.6
3	☐	5.000	8.114	14234.39	0.0063	P	3.8
4	☐	10.000	17.139	15769.45	0.0069	P	6.0
5	☐	100.000	108.144	28737.52	0.0131	P	2.6
6	☐	200.000	195.500	41316.84	0.0189	P	1.2

y = 6.7268E-005 * x + 0.0058
R = 0.9984
DL = 2.202
BEC = 85.9

Weight: <None>
Min Conc: <None>

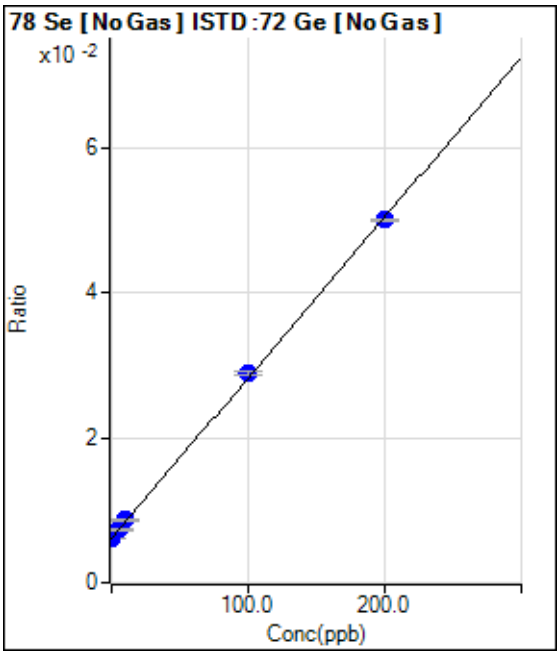


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.33	0.0002	P	31.9
2	☐	2.000	1.818	176.67	0.0003	P	41.7
3	☐	5.000	4.885	270.01	0.0004	P	30.0
4	☐	10.000	9.246	400.01	0.0006	P	8.8
5	☐	100.000	97.266	3000.39	0.0048	P	3.0
6	☐	200.000	201.409	5958.09	0.0098	P	2.4

y = 4.7617E-005 * x + 1.8734E-004
R = 0.9999
DL = 3.765
BEC = 3.934

Weight: <None>
Min Conc: <None>

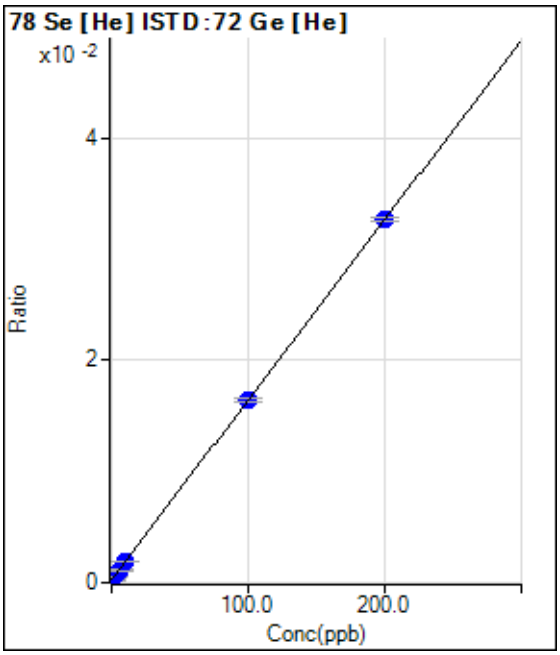
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14147.61	0.0061	P	1.0
2	☐	2.000	3.157	15716.10	0.0068	P	1.2
3	☐	5.000	5.543	16563.70	0.0074	P	2.4
4	☐	10.000	11.480	19734.75	0.0087	P	2.7
5	☐	100.000	102.954	63616.77	0.0289	P	2.0
6	☐	200.000	198.424	109176.45	0.0500	P	0.7

y = 2.2117E-004 * x + 0.0061
R = 0.9999
DL = 0.84
BEC = 27.72

Weight: <None>
Min Conc: <None>

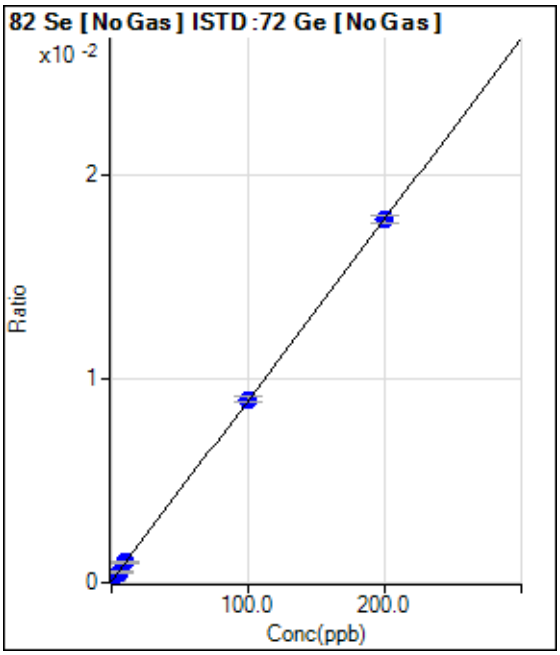


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	170.67	0.0003	P	11.9
2	☐	2.000	1.965	372.68	0.0006	P	5.1
3	☐	5.000	5.193	706.69	0.0011	P	4.8
4	☐	10.000	10.392	1236.73	0.0019	P	2.6
5	☐	100.000	99.690	10200.54	0.0164	P	2.0
6	☐	200.000	200.131	19877.97	0.0326	P	1.0

y = 1.6173E-004 * x + 2.5997E-004
R = 1.0000
DL = 0.5716
BEC = 1.607

Weight: <None>
Min Conc: <None>

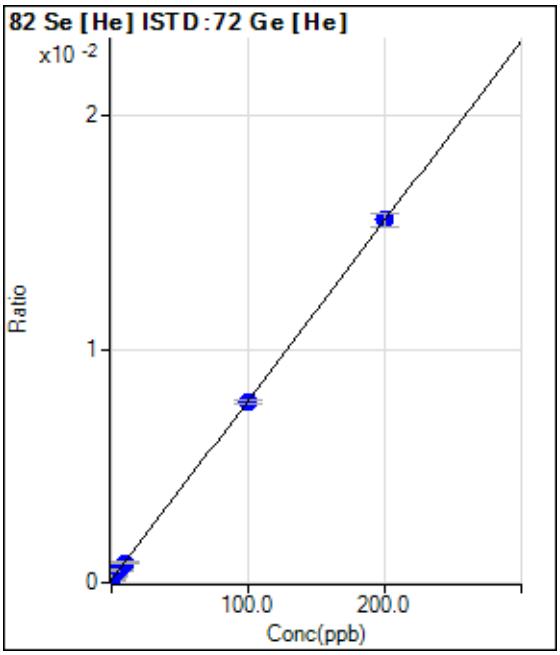
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	171.54	0.0001	P	29.3
2	☐	2.000	2.040	588.20	0.0003	P	4.8
3	☐	5.000	4.780	1121.41	0.0005	P	27.5
4	☐	10.000	10.477	2284.44	0.0010	P	11.5
5	☐	100.000	100.627	19839.77	0.0090	P	3.8
6	☐	200.000	199.668	38891.88	0.0178	P	2.1

y = 8.8849E-005 * x + 7.4350E-005
R = 1.0000
DL = 0.7368
BEC = 0.8368

Weight: <None>
Min Conc: <None>

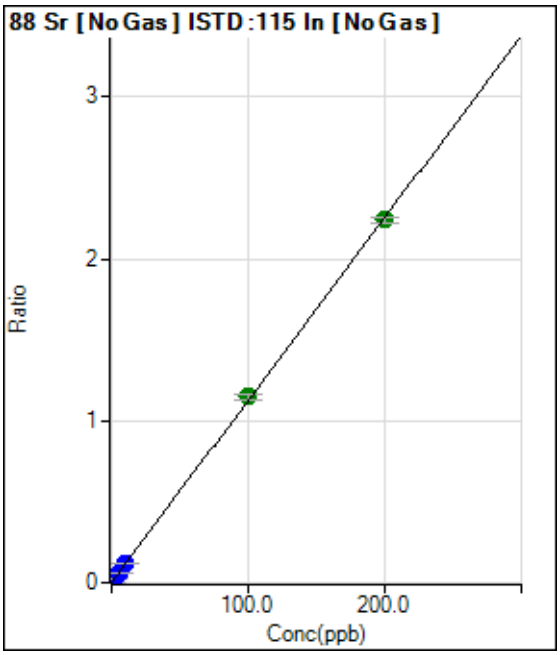


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	51.1
2	☐	2.000	2.512	193.34	0.0003	P	23.3
3	☐	5.000	5.829	356.68	0.0006	P	18.0
4	☐	10.000	9.766	546.69	0.0009	P	9.6
5	☐	100.000	99.065	4814.28	0.0077	P	2.8
6	☐	200.000	200.454	9466.83	0.0155	P	3.5

y = 7.6972E-005 * x + 1.0646E-004
R = 1.0000
DL = 2.122
BEC = 1.383

Weight: <None>
Min Conc: <None>

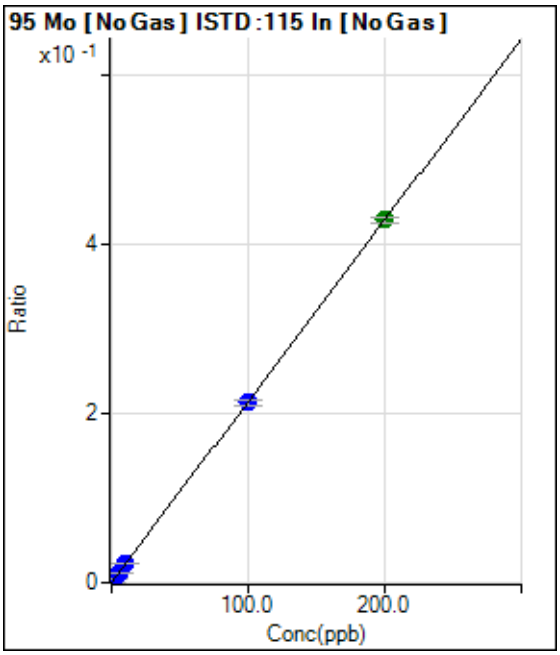
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2130.22	0.0008	P	7.6
2	☐	2.000	2.084	60603.72	0.0243	P	0.9
3	☐	5.000	5.099	147042.89	0.0582	P	1.5
4	☐	10.000	10.473	294907.15	0.1187	P	1.1
5	☐	100.000	102.000	2847461.73	1.1484	A	3.4
6	☐	200.000	198.973	5431626.38	2.2394	A	1.8

y = 0.0113 * x + 8.3542E-004
R = 0.9999
DL = 0.01697
BEC = 0.07425

Weight: <None>
Min Conc: <None>

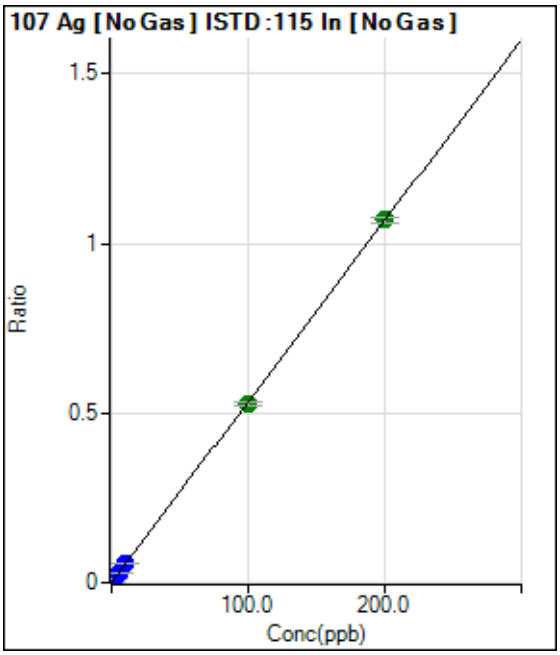


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	240.01	0.0001	P	11.4
2	☐	2.000	1.985	10847.94	0.0043	P	3.7
3	☐	5.000	4.837	26433.44	0.0105	P	3.8
4	☐	10.000	10.384	55539.08	0.0223	P	1.6
5	☐	100.000	99.463	528841.38	0.2133	P	2.9
6	☐	200.000	200.254	1041195.22	0.4293	A	1.8

y = 0.0021 * x + 9.4135E-005
R = 1.0000
DL = 0.01504
BEC = 0.04392

Weight: <None>
Min Conc: <None>

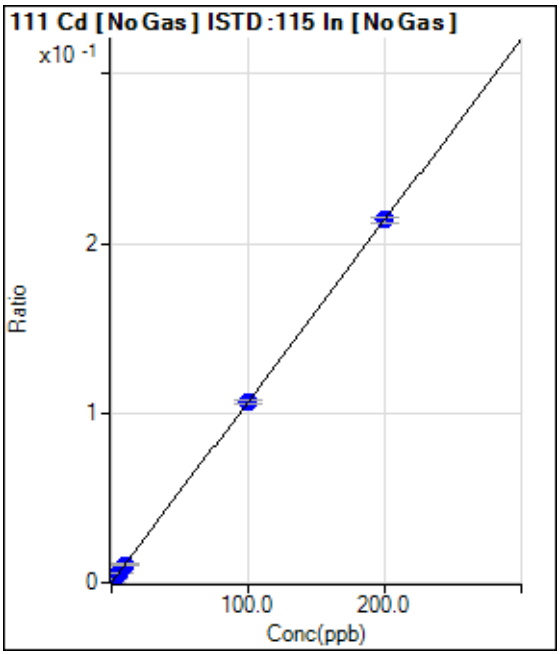
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	126.67	0.0000	P	39.5
2	☐	2.000	2.024	27037.94	0.0108	P	0.5
3	☐	5.000	5.048	68101.80	0.0270	P	0.6
4	☐	10.000	10.348	137175.64	0.0552	P	1.5
5	☐	100.000	98.816	1306211.55	0.5267	A	3.1
6	☐	200.000	200.573	2592984.44	1.0691	A	1.3

y = 0.0053 * x + 4.9650E-005
R = 1.0000
DL = 0.01105
BEC = 0.009316

Weight: <None>
Min Conc: <None>

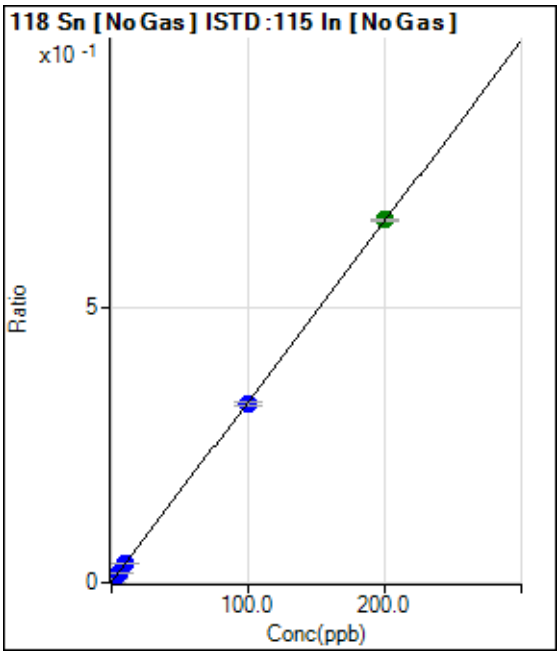


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	173.2
2	☐	2.000	1.954	5211.37	0.0021	P	8.8
3	☐	5.000	4.877	13168.66	0.0052	P	1.3
4	☐	10.000	10.046	26673.21	0.0107	P	2.4
5	☐	100.000	99.624	263914.65	0.1064	P	2.9
6	☐	200.000	200.189	518707.19	0.2139	P	1.5

y = 0.0011 * x + 2.6251E-006
R = 1.0000
DL = 0.01277
BEC = 0.002457

Weight: <None>
Min Conc: <None>

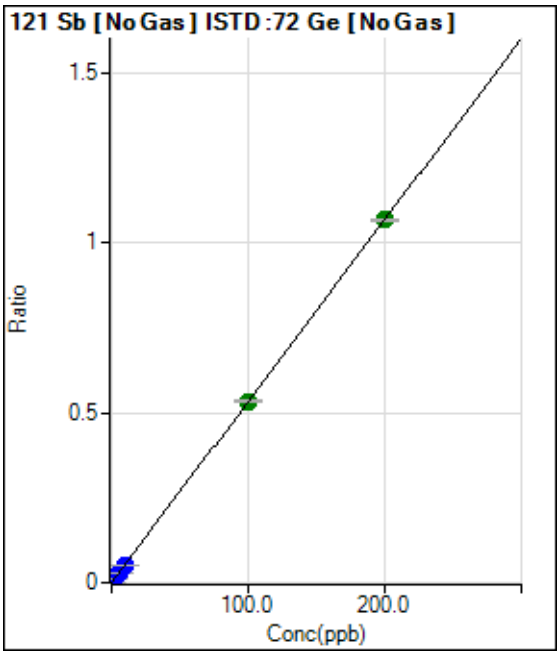
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1626.80	0.0006	P	7.4
2	☐	2.000	2.020	18192.86	0.0073	P	1.4
3	☐	5.000	4.868	42104.29	0.0167	P	1.2
4	☐	10.000	10.234	85319.07	0.0343	P	2.5
5	☐	100.000	98.515	806012.96	0.3250	P	2.4
6	☐	200.000	200.734	1604686.07	0.6616	A	0.3

y = 0.0033 * x + 6.3796E-004
R = 1.0000
DL = 0.04326
BEC = 0.1938

Weight: <None>
Min Conc: <None>

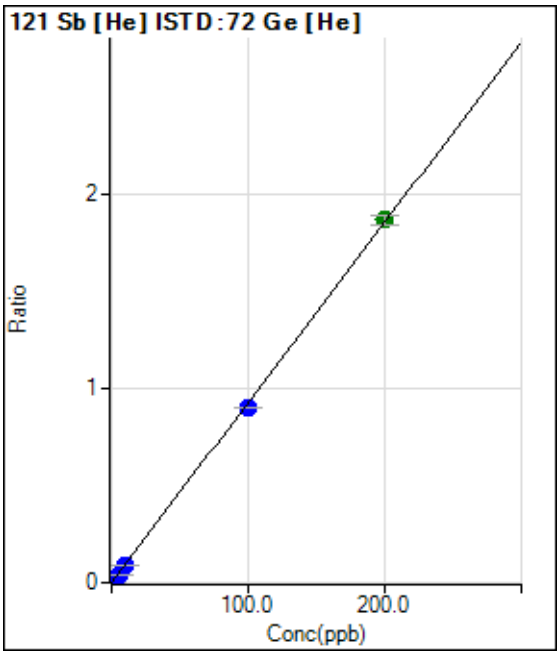


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	150.00	0.0001	P	22.9
2	☐	2.000	1.955	24122.47	0.0105	P	2.6
3	☐	5.000	4.827	58071.94	0.0258	P	1.8
4	☐	10.000	9.655	117250.93	0.0515	P	4.2
5	☐	100.000	99.876	1172276.94	0.5324	A	1.1
6	☐	200.000	200.084	2327878.98	1.0665	A	0.8

y = 0.0053 * x + 6.4986E-005
R = 1.0000
DL = 0.008364
BEC = 0.01219

Weight: <None>
Min Conc: <None>

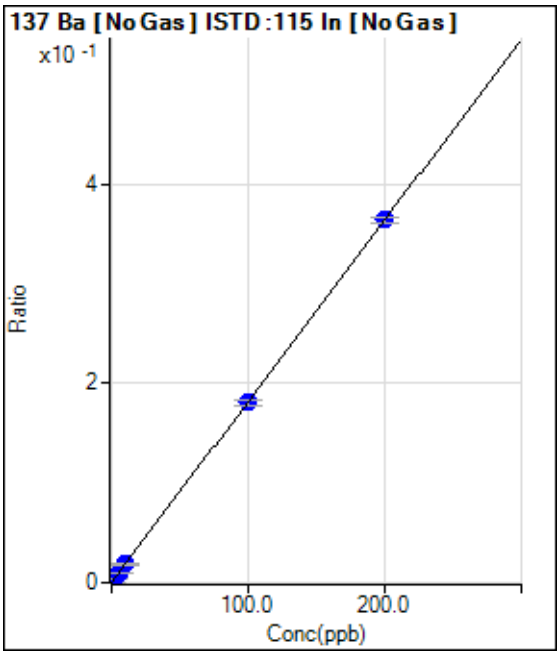
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	110.5
2	☐	2.000	1.808	10841.33	0.0168	P	2.6
3	☐	5.000	4.641	27639.34	0.0430	P	1.0
4	☐	10.000	9.426	55634.61	0.0873	P	1.0
5	☐	100.000	97.166	559796.75	0.8991	P	0.8
6	☐	200.000	201.456	1135558.45	1.8640	A	2.7

y = 0.0093 * x + 8.1749E-005
R = 0.9999
DL = 0.02928
BEC = 0.008836

Weight: <None>
Min Conc: <None>

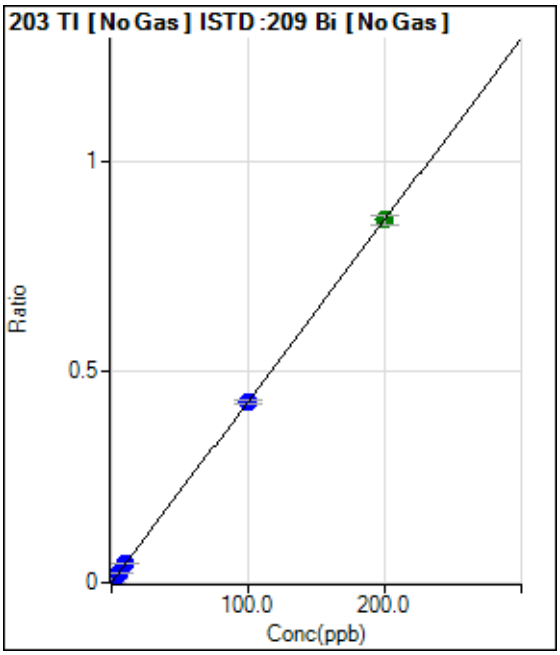


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	716.70	0.0003	P	6.8
2	☐	2.000	1.992	9737.15	0.0039	P	2.0
3	☐	5.000	5.010	23718.75	0.0094	P	1.6
4	☐	10.000	10.008	45898.09	0.0185	P	2.9
5	☐	100.000	99.363	448545.72	0.1809	P	2.7
6	☐	200.000	200.318	883729.78	0.3644	P	1.4

y = 0.0018 * x + 2.8097E-004
R = 1.0000
DL = 0.0315
BEC = 0.1546

Weight: <None>
Min Conc: <None>

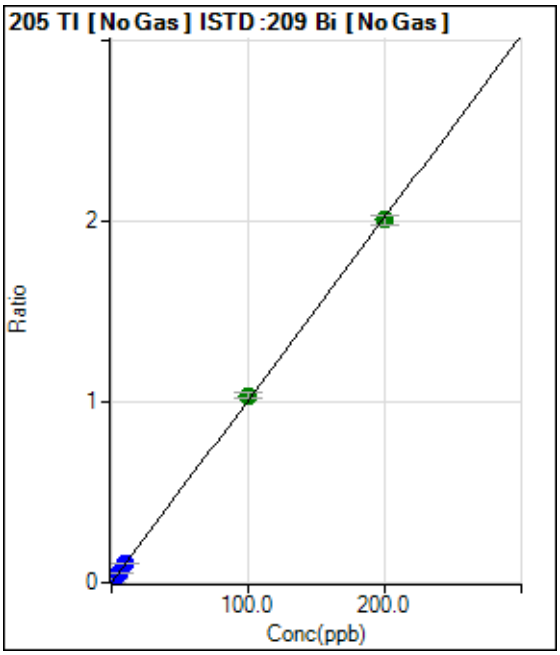
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40.00	0.0000	P	50.0
2	☐	2.000	2.160	17602.66	0.0093	P	7.1
3	☐	5.000	5.293	43379.14	0.0228	P	5.7
4	☐	10.000	10.581	86501.33	0.0456	P	3.1
5	☐	100.000	99.826	810320.98	0.4296	P	1.9
6	☐	200.000	200.049	1606674.40	0.8608	A	2.7

y = 0.0043 * x + 2.0790E-005
R = 1.0000
DL = 0.007252
BEC = 0.004831

Weight: <None>
Min Conc: <None>

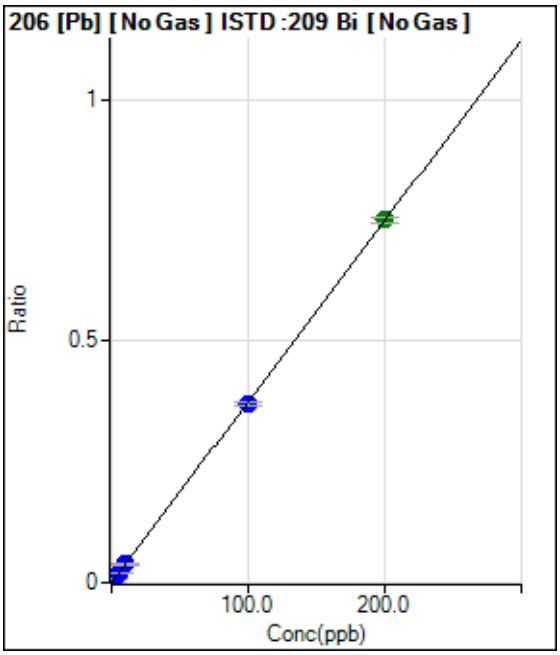


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0001	P	12.5
2	☐	2.000	2.158	41322.08	0.0218	P	3.4
3	☐	5.000	5.350	102878.83	0.0540	P	3.9
4	☐	10.000	10.829	207507.64	0.1093	P	3.7
5	☐	100.000	102.379	1947628.09	1.0326	A	2.7
6	☐	200.000	198.759	3741326.82	2.0046	A	2.8

y = 0.0101 * x + 8.4734E-005
R = 0.9999
DL = 0.003141
BEC = 0.008402

Weight: <None>
Min Conc: <None>

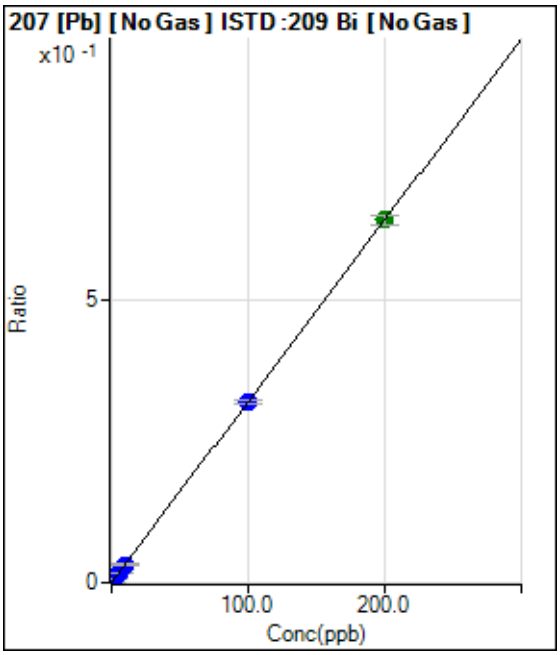
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.67	0.0001	P	46.3
2	☐	2.000	1.976	14118.21	0.0075	P	7.2
3	☐	5.000	5.032	35995.67	0.0189	P	5.1
4	☐	10.000	10.095	71897.25	0.0379	P	4.4
5	☐	100.000	98.683	697165.33	0.3696	P	2.5
6	☐	200.000	200.653	1402674.62	0.7515	A	1.7

y = 0.0037 * x + 7.0232E-005
R = 1.0000
DL = 0.02607
BEC = 0.01875

Weight: <None>
Min Conc: <None>

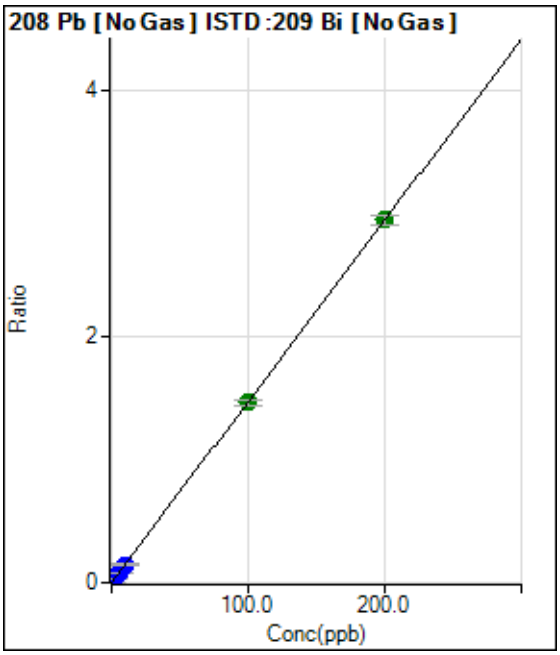


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0001	P	16.3
2	☐	2.000	2.036	12416.36	0.0066	P	7.7
3	☐	5.000	4.997	30527.96	0.0160	P	4.8
4	☐	10.000	10.005	60824.85	0.0321	P	6.3
5	☐	100.000	99.562	600619.70	0.3184	P	2.3
6	☐	200.000	200.219	1195060.50	0.6403	A	2.4

y = 0.0032 * x + 6.0587E-005
R = 1.0000
DL = 0.009255
BEC = 0.01895

Weight: <None>
Min Conc: <None>

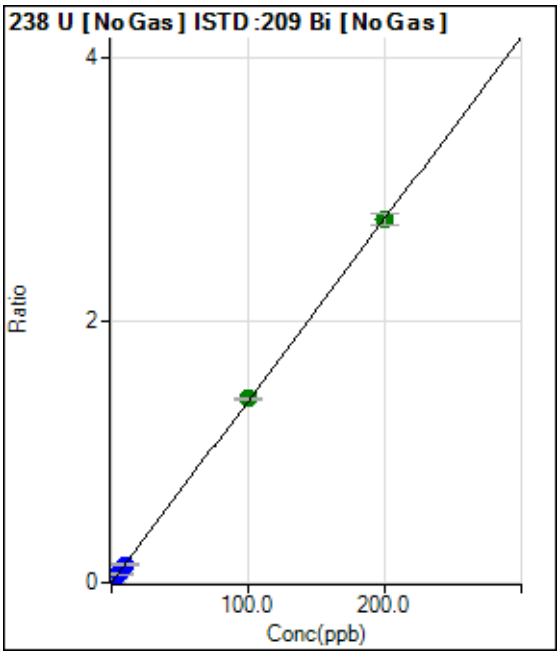
Calibration for 181_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	533.35	0.0003	P	25.5
2	☐	2.000	2.020	56698.25	0.0300	P	4.9
3	☐	5.000	4.976	139789.17	0.0735	P	5.4
4	☐	10.000	10.043	280902.83	0.1480	P	4.5
5	☐	100.000	99.329	2755940.32	1.4611	A	2.3
6	☐	200.000	200.334	5499371.33	2.9465	A	2.6

y = 0.0147 * x + 2.7534E-004
R = 1.0000
DL = 0.01431
BEC = 0.01872

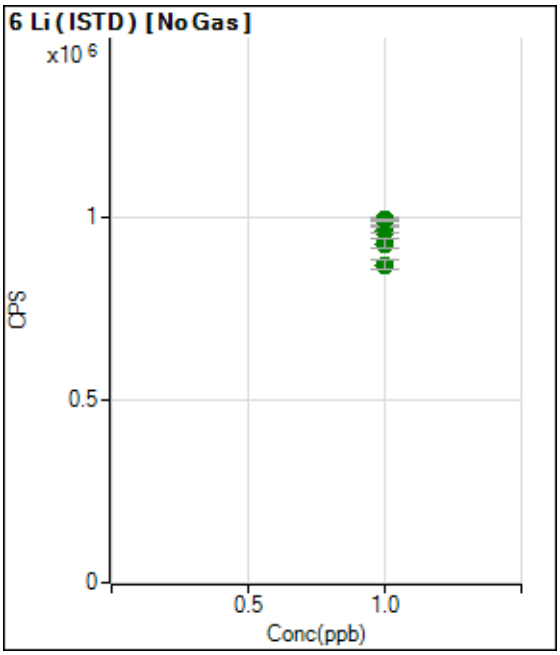
Weight: <None>
Min Conc: <None>



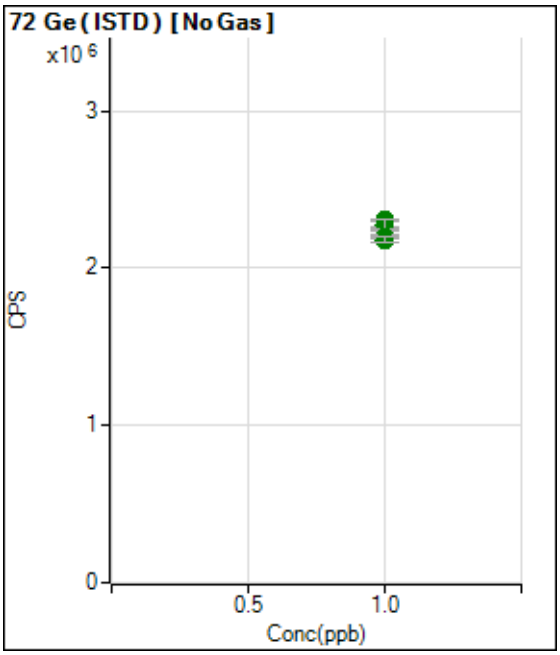
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	32.3
2	☐	2.000	1.943	50976.21	0.0269	P	3.7
3	☐	5.000	4.826	127405.62	0.0669	P	4.0
4	☐	10.000	9.861	259621.59	0.1368	P	4.1
5	☐	100.000	101.019	2642350.07	1.4008	A	1.7
6	☐	200.000	199.503	5163031.17	2.7664	A	3.1

y = 0.0139 * x + 8.5655E-006
R = 1.0000
DL = 0.0005981
BEC = 0.0006177

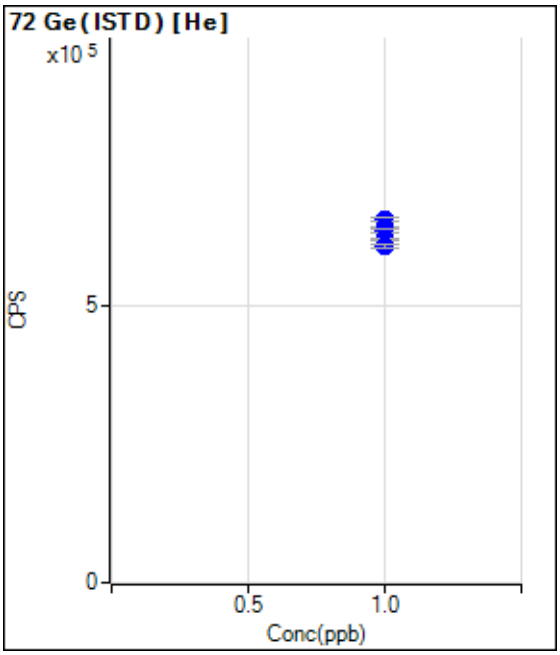
Weight: <None>
Min Conc: <None>



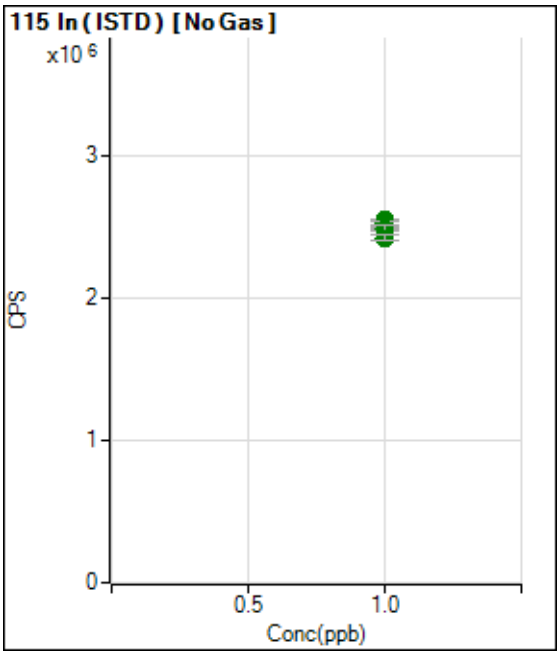
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		963756.99		A	1.7
2	☐	1.000		988744.31		A	2.4
3	☐	1.000		972440.25		A	0.7
4	☐	1.000		991126.47		A	0.8
5	☐	1.000		927167.33		A	3.0
6	☐	1.000		868919.88		A	2.7



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2307508.30		A	0.5
2	☐	1.000		2301191.06		A	0.5
3	☐	1.000		2251583.14		A	1.3
4	☐	1.000		2277238.61		A	2.7
5	☐	1.000		2201589.08		A	1.5
6	☐	1.000		2182815.33		A	1.5

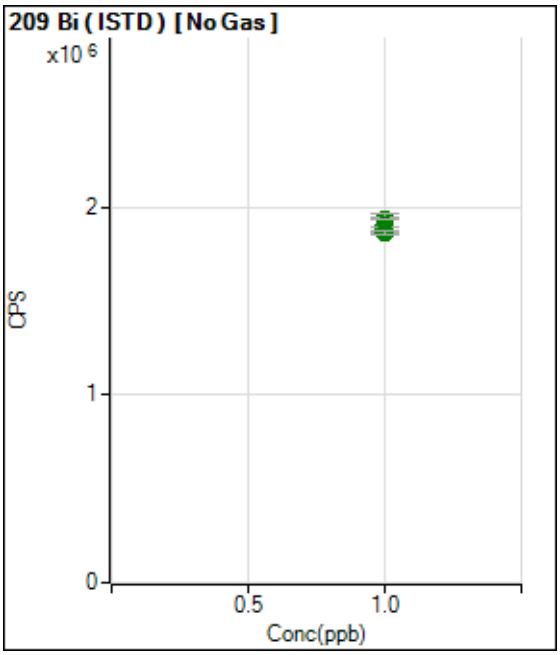


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		656963.81		P	1.0
2	☐	1.000		644940.95		P	0.1
3	☐	1.000		642514.20		P	0.4
4	☐	1.000		637297.26		P	0.7
5	☐	1.000		622650.28		P	0.4
6	☐	1.000		609259.10		P	0.8



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2550375.99		A	0.4
2	☐	1.000		2495437.29		A	1.0
3	☐	1.000		2526579.36		A	1.0
4	☐	1.000		2485412.53		A	1.3
5	☐	1.000		2481210.47		A	3.2
6	☐	1.000		2425504.10		A	1.4

Calibration for 181_ICV.d



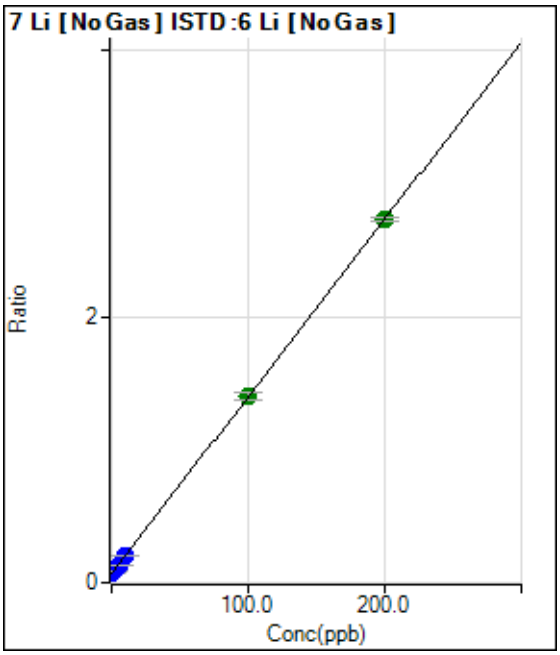
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1932505.18		A	3.4
2	☐	1.000		1893320.70		A	4.1
3	☐	1.000		1905732.42		A	4.2
4	☐	1.000		1900422.16		A	3.8
5	☐	1.000		1886619.61		A	1.3
6	☐	1.000		1866705.96		A	1.0

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071323A.b\
Analysis File: 071323A.batch.bin
DA Date-Time: 7/13/2023 8:18:40 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	014CALB.d	CAL BLK	7/13/2023 11:15:43 AM
2	015CALS.d	2/10/200	7/13/2023 11:17:53 AM
3	016CALS.d	5/25/500	7/13/2023 11:19:48 AM
4	017CALS.d	10/50/100	7/13/2023 11:21:46 AM
5	018CALS.d	100/500/10K	7/13/2023 11:23:41 AM
6	019CALS.d	200/1000/20K	7/13/2023 11:25:47 AM

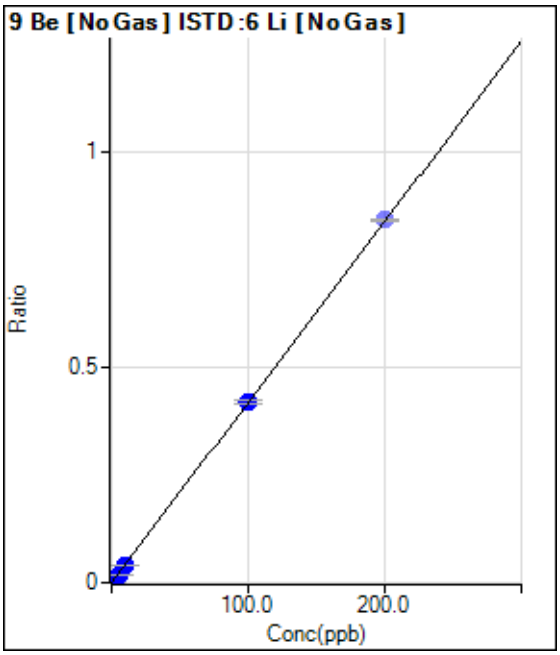
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63078.80	0.0673	P	0.2
2	☐	2.000	1.813	86268.82	0.0914	P	3.7
3	☐	5.000	4.744	121075.29	0.1305	P	1.9
4	☐	10.000	9.796	181607.49	0.1978	P	2.4
5	☐	100.000	100.429	1210546.21	1.4052	A	3.5
6	☐	200.000	199.804	2276068.77	2.7290	A	1.2

y = 0.0133 * x + 0.0673
R = 1.0000
DL = 0.03338
BEC = 5.052

Weight: <None>
Min Conc: <None>

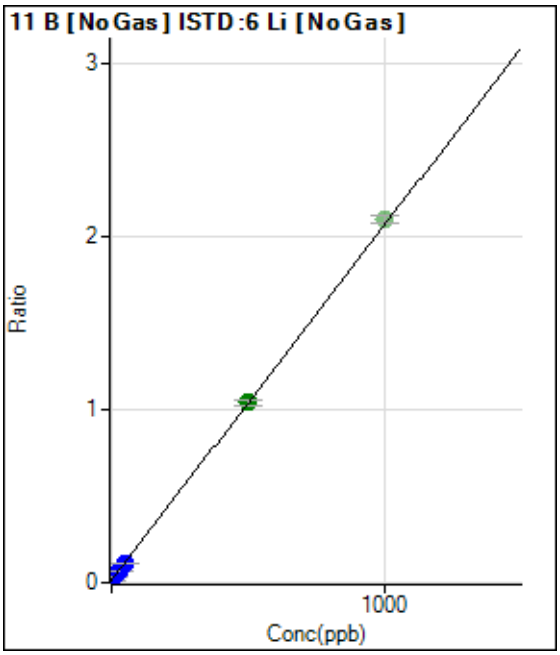


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	39.9
2	☐	2.000	1.903	7558.75	0.0080	P	3.8
3	☐	5.000	4.695	18301.98	0.0197	P	3.8
4	☐	10.000	9.570	36898.22	0.0402	P	2.0
5	☐	100.000	100.060	361802.22	0.4199	P	2.4
6	☑	200.000		703646.79	0.8436	P	0.6

y = 0.0042 * x + 2.6673E-005
R = 1.0000
DL = 0.007614
BEC = 0.006356

Weight: <None>
Min Conc: <None>

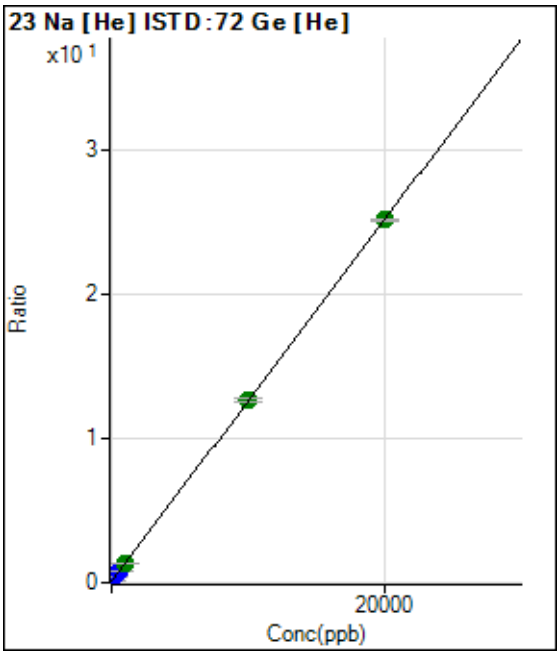
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13284.71	0.0142	P	2.7
2	☐	10.000	9.320	31381.71	0.0333	P	2.3
3	☐	25.000	24.458	59620.76	0.0643	P	1.4
4	☐	50.000	48.478	104154.16	0.1134	P	2.4
5	☐	500.000	500.193	894625.25	1.0384	A	3.0
6	☑	1000.000		1745142.21	2.0924	A	2.2

y = 0.0020 * x + 0.0142
R = 1.0000
DL = 0.5564
BEC = 6.922

Weight: <None>
Min Conc: <None>

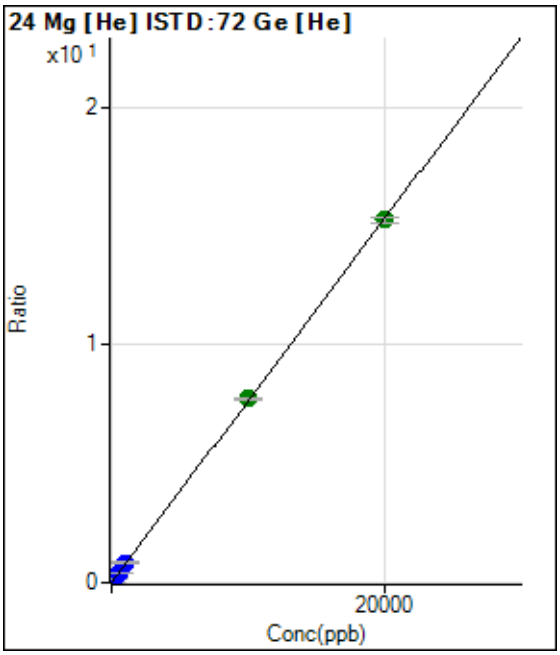


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53586.41	0.0770	P	1.3
2	☐	200.000	219.089	246955.73	0.3523	P	1.2
3	☐	500.000	546.710	523591.51	0.7639	P	1.4
4	☐	1000.000	1046.618	948446.63	1.3920	A	0.7
5	☐	10000.000	9996.304	8557522.37	12.6364	A	2.0
6	☐	20000.000	19998.158	16593810.59	25.2027	A	0.6

y = 0.0013 * x + 0.0770
R = 1.0000
DL = 2.33
BEC = 61.32

Weight: <None>
Min Conc: <None>

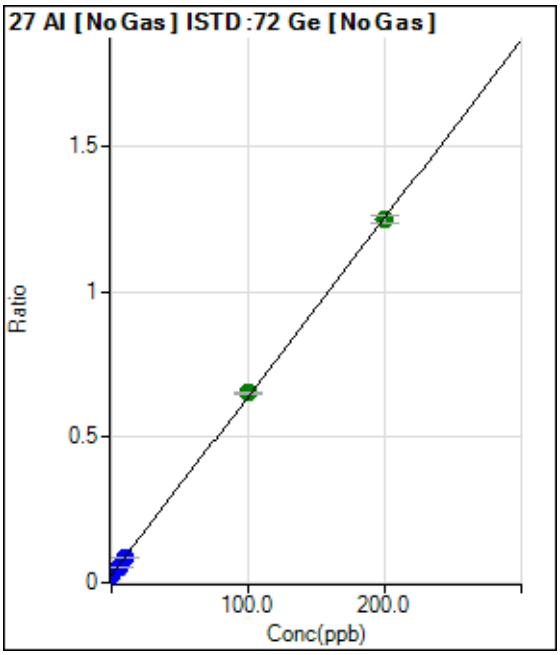
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	516.69	0.0007	P	15.2
2	☐	200.000	220.688	118833.40	0.1695	P	0.5
3	☐	500.000	559.887	293995.26	0.4290	P	1.7
4	☐	1000.000	1105.764	576692.93	0.8465	P	1.8
5	☐	10000.000	10105.389	5234989.09	7.7295	A	1.6
6	☐	20000.000	19940.313	10040672.35	15.2515	A	1.6

y = 7.6482E-004 * x + 7.4293E-004
R = 1.0000
DL = 0.4443
BEC = 0.9714

Weight: <None>
Min Conc: <None>

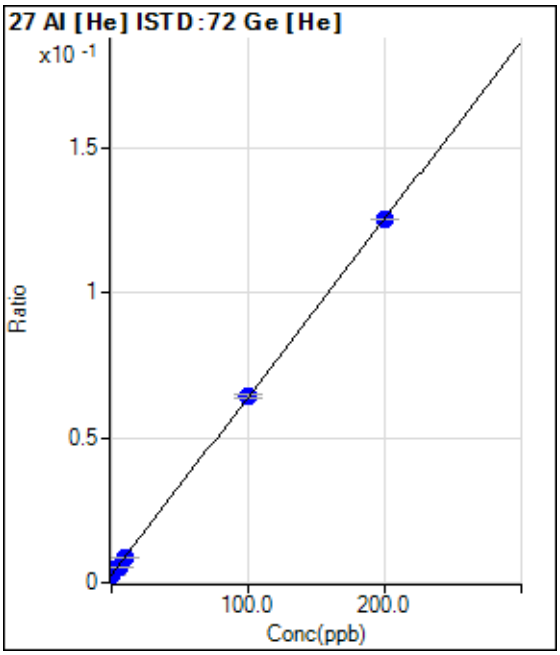


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61238.03	0.0267	P	1.3
2	☐	2.000	2.189	92711.35	0.0401	P	2.2
3	☐	5.000	4.581	122771.23	0.0548	P	0.5
4	☐	10.000	9.500	188959.39	0.0850	P	1.0
5	☐	100.000	102.042	1424318.26	0.6523	A	1.2
6	☐	200.000	199.012	2651431.68	1.2469	A	1.9

y = 0.0061 * x + 0.0267
R = 0.9999
DL = 0.1734
BEC = 4.356

Weight: <None>
Min Conc: <None>

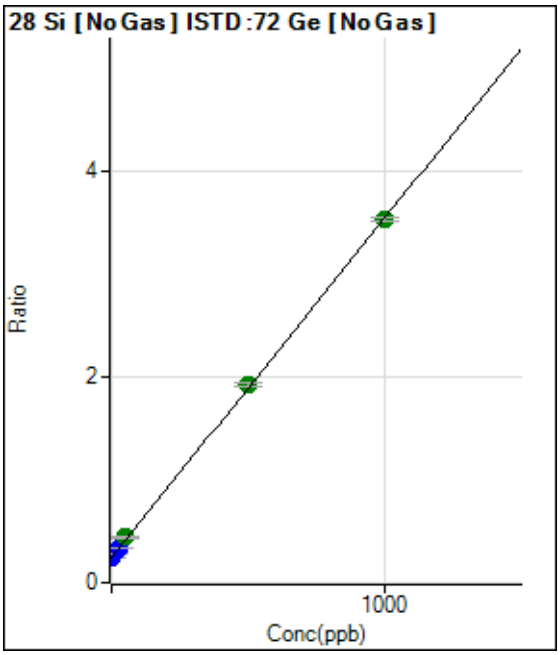
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1910.17	0.0027	P	3.0
2	☐	2.000	2.663	3070.39	0.0044	P	3.9
3	☐	5.000	4.599	3817.26	0.0056	P	1.6
4	☐	10.000	9.646	5904.69	0.0087	P	2.1
5	☐	100.000	100.850	43779.14	0.0646	P	2.0
6	☐	200.000	199.596	82466.89	0.1252	P	0.2

y = 6.1375E-004 * x + 0.0027
R = 1.0000
DL = 0.3983
BEC = 4.474

Weight: <None>
Min Conc: <None>

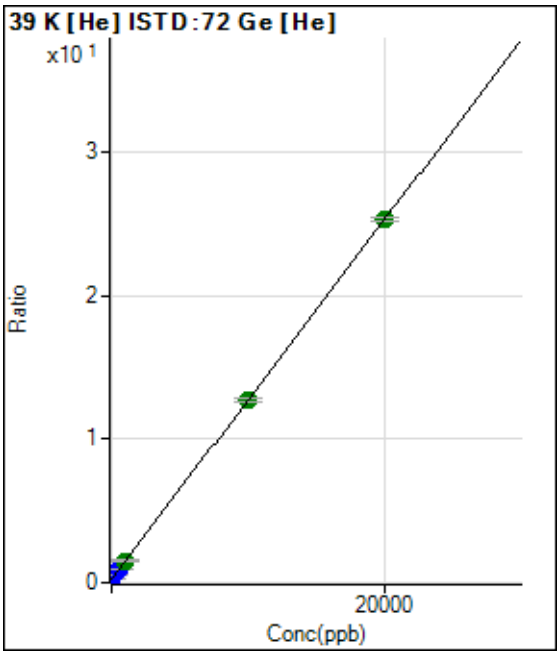


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	559990.16	0.2442	P	0.5
2	☐	10.000	10.270	642683.22	0.2782	P	0.6
3	☐	25.000	29.033	762007.51	0.3401	P	0.5
4	☐	50.000	60.832	989847.72	0.4451	A	2.8
5	☐	500.000	508.196	4196812.64	1.9223	A	2.2
6	☐	1000.000	995.257	7507763.84	3.5306	A	1.2

y = 0.0033 * x + 0.2442
R = 0.9999
DL = 1.057
BEC = 73.97

Weight: <None>
Min Conc: <None>

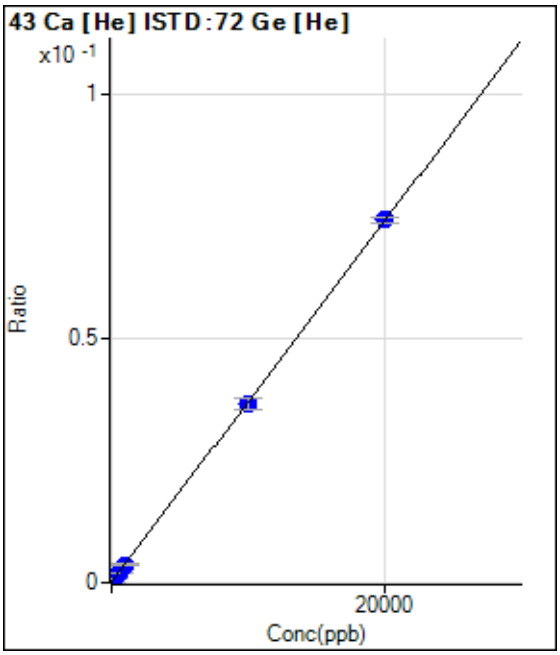
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156795.68	0.2254	P	0.3
2	☐	200.000	214.204	346010.01	0.4936	P	0.6
3	☐	500.000	546.408	623462.04	0.9096	P	0.5
4	☐	1000.000	1044.075	1044351.31	1.5327	A	1.2
5	☐	10000.000	10010.097	8640482.37	12.7594	A	2.4
6	☐	20000.000	19991.445	16628885.58	25.2574	A	1.1

y = 0.0013 * x + 0.2254
R = 1.0000
DL = 1.746
BEC = 180

Weight: <None>
Min Conc: <None>

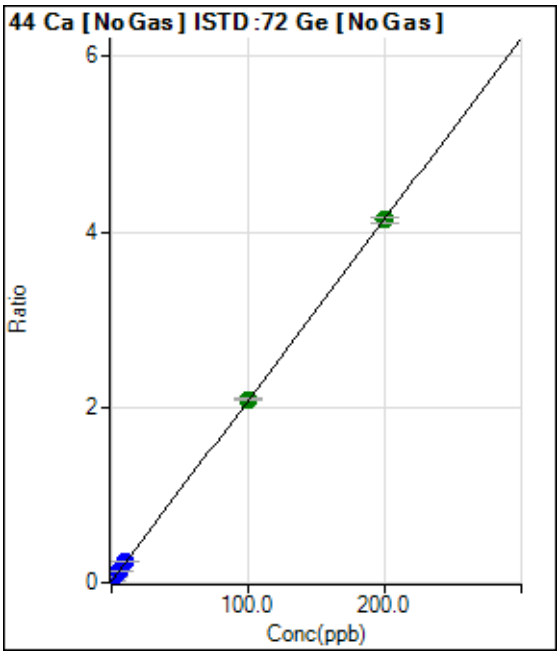


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	9.8
2	☐	200.000	165.570	483.35	0.0007	P	10.4
3	☐	500.000	498.090	1316.76	0.0019	P	10.3
4	☐	1000.000	969.102	2496.93	0.0037	P	5.3
5	☐	10000.000	9860.356	24759.22	0.0366	P	6.3
6	☐	20000.000	20071.759	48963.71	0.0744	P	1.7

y = 3.7017E-006 * x + 7.6623E-005
R = 1.0000
DL = 6.067
BEC = 20.7

Weight: <None>
Min Conc: <None>

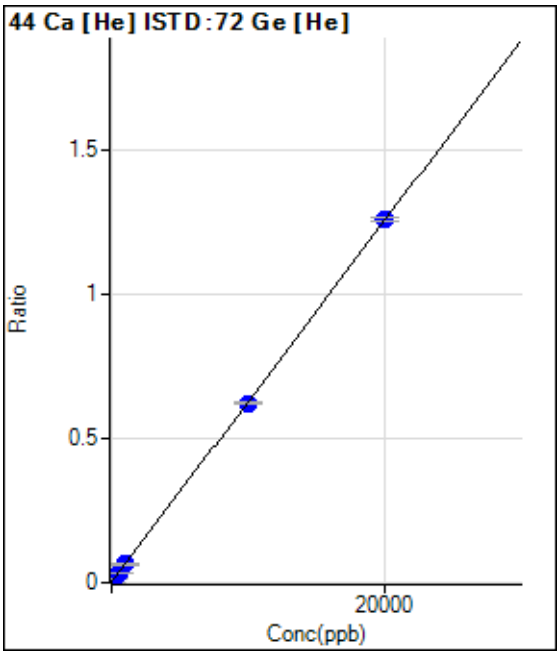
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35446.11	0.0155	P	1.6
2	☐	2.000	2.053	133619.87	0.0578	P	0.2
3	☐	5.000	5.242	276960.55	0.1236	P	0.9
4	☐	10.000	10.664	523790.45	0.2355	P	0.9
5	☐	100.000	100.581	4565369.83	2.0908	A	0.7
6	☐	200.000	199.670	8793813.20	4.1354	A	1.4

y = 0.0206 * x + 0.0155
R = 1.0000
DL = 0.03688
BEC = 0.7493

Weight: <None>
Min Conc: <None>

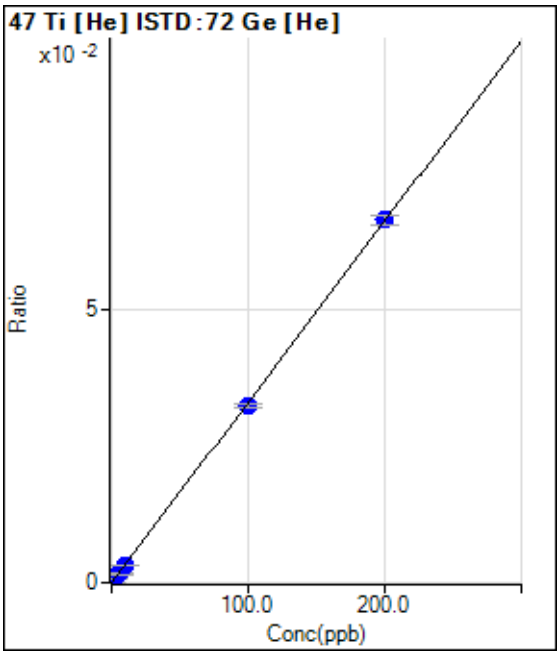


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1106.74	0.0016	P	7.8
2	☐	200.000	211.817	10414.09	0.0149	P	0.8
3	☐	500.000	503.068	22682.22	0.0331	P	2.3
4	☐	1000.000	987.580	43217.98	0.0634	P	1.2
5	☐	10000.000	9886.039	420361.89	0.6207	P	1.1
6	☐	20000.000	20057.406	827946.16	1.2576	P	1.2

y = 6.2620E-005 * x + 0.0016
R = 1.0000
DL = 5.918
BEC = 25.42

Weight: <None>
Min Conc: <None>

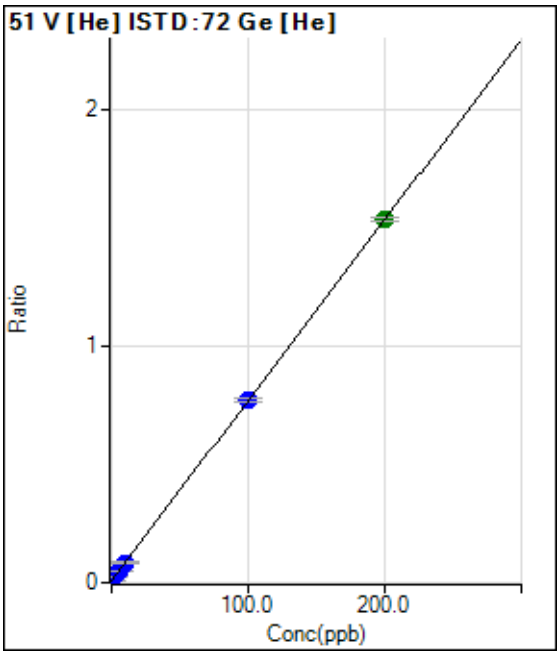
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	23.6
2	☐	2.000	1.914	466.69	0.0007	P	25.7
3	☐	5.000	4.961	1146.73	0.0017	P	10.7
4	☐	10.000	9.616	2190.21	0.0032	P	7.5
5	☐	100.000	98.131	22001.21	0.0325	P	2.8
6	☐	200.000	200.956	43773.09	0.0665	P	3.0

y = 3.3075E-004 * x + 3.3491E-005
R = 0.9999
DL = 0.0718
BEC = 0.1013

Weight: <None>
Min Conc: <None>

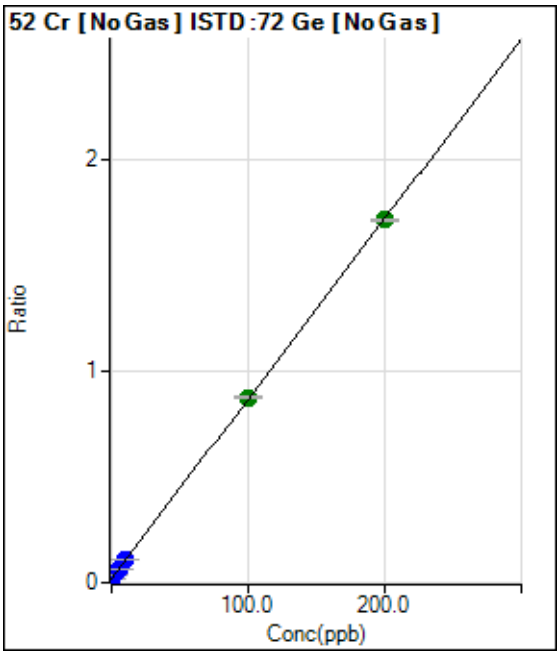


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5823.50	0.0084	P	2.2
2	☐	2.000	2.065	16902.67	0.0241	P	2.8
3	☐	5.000	5.109	32421.61	0.0473	P	1.6
4	☐	10.000	10.083	58047.68	0.0852	P	1.2
5	☐	100.000	99.786	520581.45	0.7687	P	2.2
6	☐	200.000	200.099	1009351.70	1.5331	A	1.1

y = 0.0076 * x + 0.0084
R = 1.0000
DL = 0.07295
BEC = 1.099

Weight: <None>
Min Conc: <None>

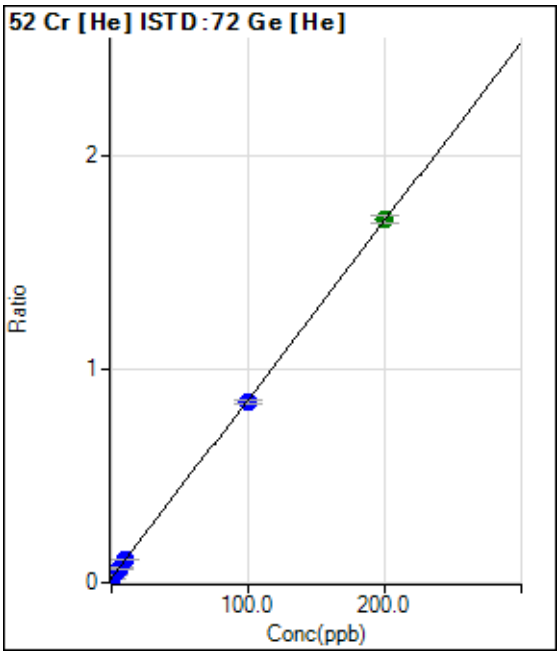
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42874.08	0.0187	P	0.7
2	☐	2.000	2.008	82557.56	0.0357	P	2.2
3	☐	5.000	5.224	141171.38	0.0630	P	1.2
4	☐	10.000	10.268	235308.96	0.1058	P	1.4
5	☐	100.000	100.844	1908588.93	0.8741	A	1.6
6	☐	200.000	199.559	3639957.86	1.7115	A	0.8

y = 0.0085 * x + 0.0187
R = 1.0000
DL = 0.04308
BEC = 2.204

Weight: <None>
Min Conc: <None>

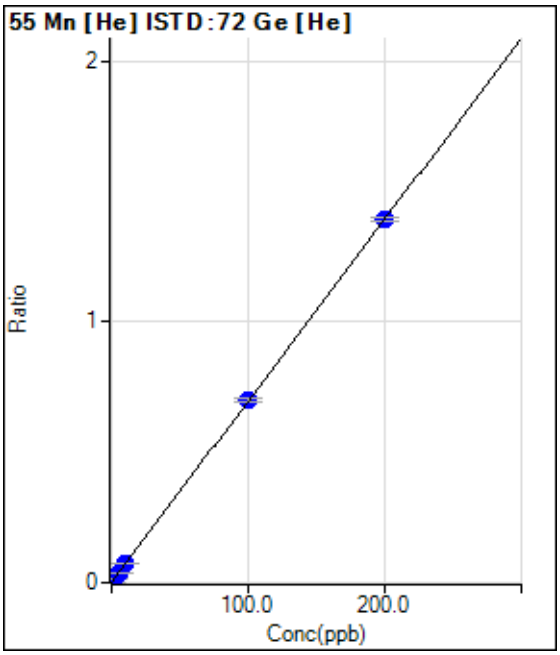


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15345.55	0.0221	P	2.1
2	☐	2.000	2.063	27581.35	0.0394	P	2.7
3	☐	5.000	5.331	45740.11	0.0667	P	3.0
4	☐	10.000	10.294	73825.10	0.1084	P	2.3
5	☐	100.000	98.837	576064.16	0.8506	P	1.7
6	☐	200.000	200.558	1121352.69	1.7033	A	2.3

y = 0.0084 * x + 0.0221
R = 1.0000
DL = 0.1645
BEC = 2.632

Weight: <None>
Min Conc: <None>

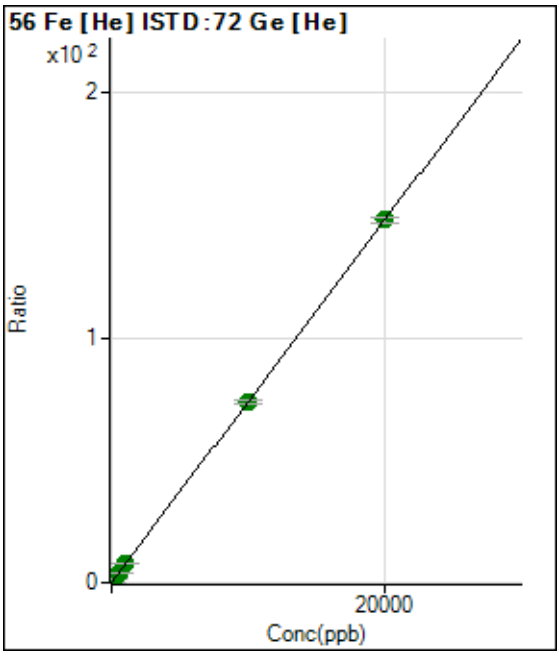
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	700.03	0.0010	P	4.8
2	☐	2.000	2.084	10867.82	0.0155	P	4.1
3	☐	5.000	5.232	25634.38	0.0374	P	1.0
4	☐	10.000	10.253	49269.03	0.0723	P	1.0
5	☐	100.000	100.175	472518.78	0.6977	P	2.0
6	☐	200.000	199.893	916014.08	1.3913	P	1.0

y = 0.0070 * x + 0.0010
R = 1.0000
DL = 0.02096
BEC = 0.1447

Weight: <None>
Min Conc: <None>

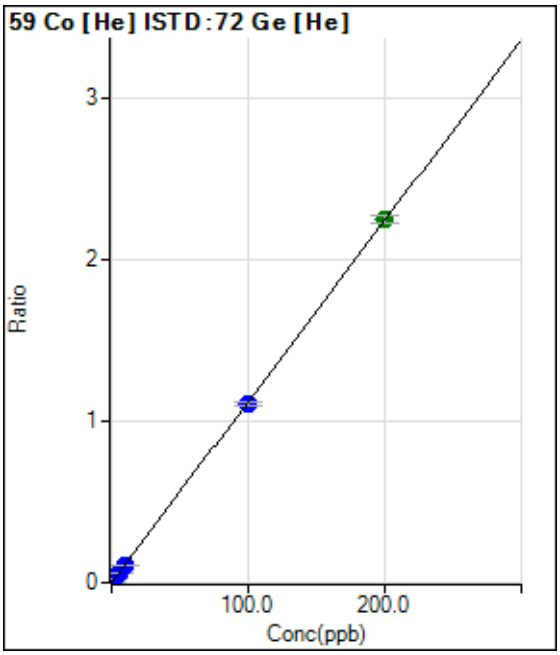


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23119.88	0.0332	P	0.4
2	☐	200.000	209.188	1106478.37	1.5787	A	2.2
3	☐	500.000	521.334	2662305.07	3.8847	A	2.3
4	☐	1000.000	1021.426	5164050.24	7.5793	A	1.4
5	☐	10000.000	9939.462	49751764.26	73.4634	A	1.9
6	☐	20000.000	20028.572	97438321.88	147.9991	A	1.7

y = 0.0074 * x + 0.0332
R = 1.0000
DL = 0.05498
BEC = 4.499

Weight: <None>
Min Conc: <None>

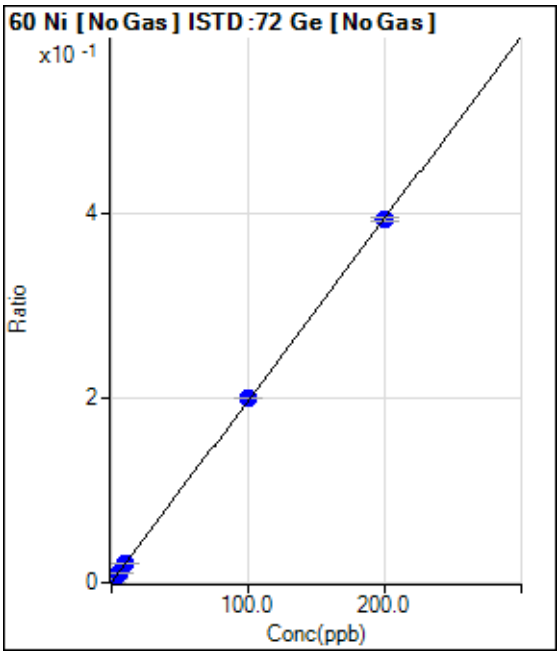
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0002	P	8.2
2	☐	2.000	1.988	15722.66	0.0224	P	0.8
3	☐	5.000	4.968	38220.71	0.0558	P	1.3
4	☐	10.000	10.036	76604.46	0.1124	P	0.6
5	☐	100.000	98.914	749238.56	1.1063	P	1.7
6	☐	200.000	200.542	1476640.81	2.2428	A	2.2

y = 0.0112 * x + 2.0138E-004
R = 1.0000
DL = 0.004429
BEC = 0.01801

Weight: <None>
Min Conc: <None>

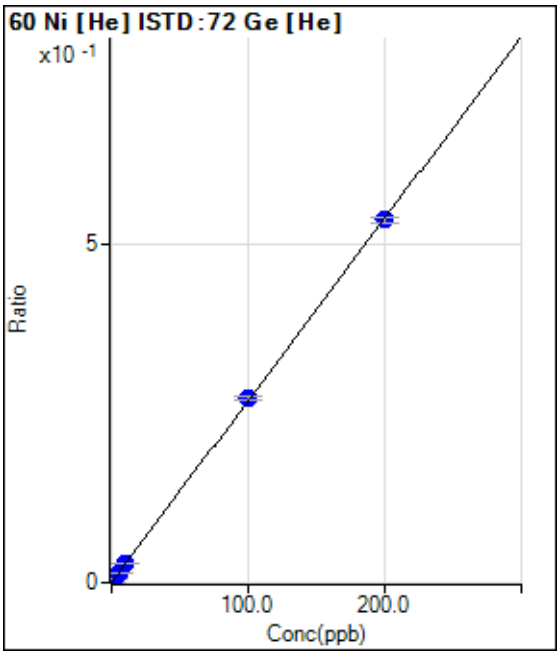


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	576.69	0.0003	P	13.0
2	☐	2.000	2.097	10113.90	0.0044	P	1.7
3	☐	5.000	5.227	23607.38	0.0105	P	1.5
4	☐	10.000	10.133	44914.23	0.0202	P	1.7
5	☐	100.000	101.421	436295.65	0.1998	P	0.6
6	☐	200.000	199.276	834352.30	0.3924	P	1.0

y = 0.0020 * x + 2.5161E-004
R = 1.0000
DL = 0.04968
BEC = 0.1279

Weight: <None>
Min Conc: <None>

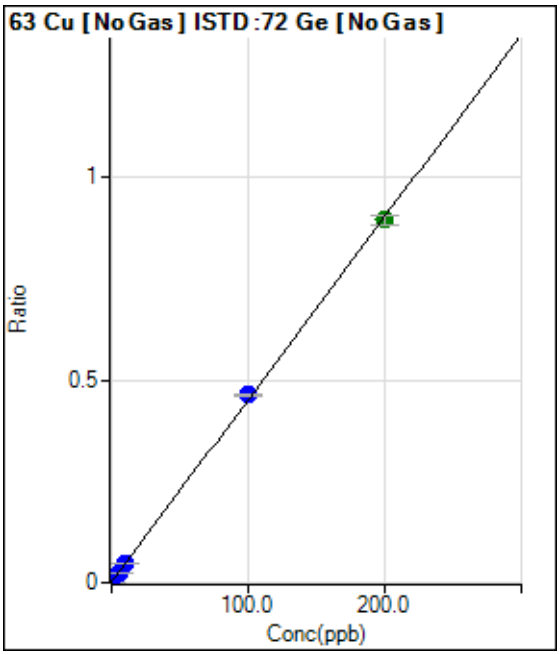
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190.00	0.0003	P	30.3
2	☐	2.000	2.169	4280.74	0.0061	P	3.1
3	☐	5.000	5.097	9580.20	0.0140	P	3.9
4	☐	10.000	10.129	18743.14	0.0275	P	2.9
5	☐	100.000	101.280	184633.98	0.2726	P	1.6
6	☐	200.000	199.350	353106.50	0.5363	P	1.6

y = 0.0027 * x + 2.7372E-004
R = 1.0000
DL = 0.09253
BEC = 0.1018

Weight: <None>
Min Conc: <None>

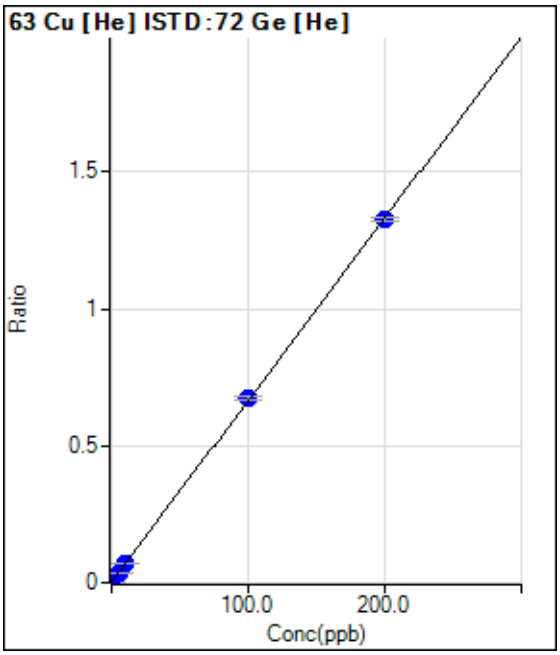


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2606.97	0.0011	P	6.4
2	☐	2.000	2.436	27962.37	0.0121	P	0.8
3	☐	5.000	5.250	55493.21	0.0248	P	1.9
4	☐	10.000	10.502	107673.70	0.0484	P	0.5
5	☐	100.000	102.916	1013918.40	0.4644	P	1.1
6	☐	200.000	198.506	1902099.40	0.8946	A	2.8

y = 0.0045 * x + 0.0011
R = 0.9999
DL = 0.04823
BEC = 0.2526

Weight: <None>
Min Conc: <None>

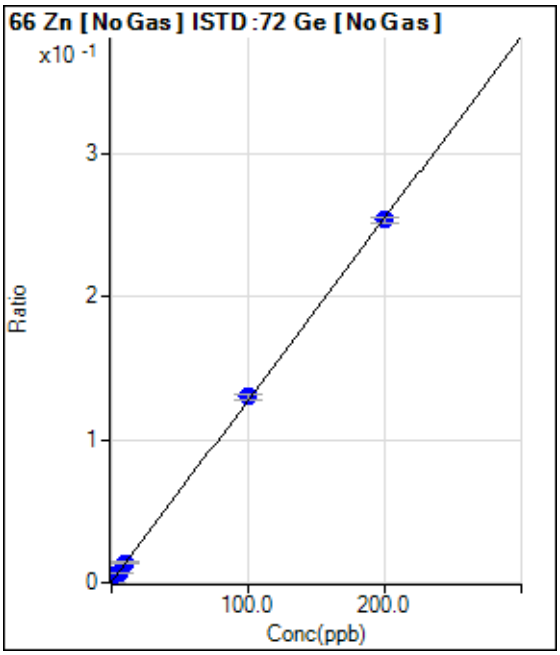
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1090.07	0.0016	P	18.4
2	☐	2.000	2.510	12776.20	0.0182	P	3.4
3	☐	5.000	5.145	24475.62	0.0357	P	2.8
4	☐	10.000	10.314	47710.44	0.0700	P	0.4
5	☐	100.000	101.296	456377.61	0.6739	P	1.7
6	☐	200.000	199.328	872070.15	1.3245	P	1.0

y = 0.0066 * x + 0.0016
R = 1.0000
DL = 0.1303
BEC = 0.2364

Weight: <None>
Min Conc: <None>

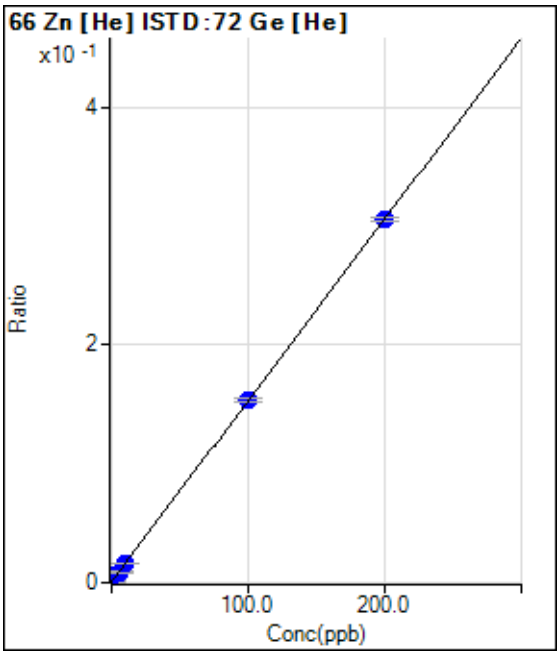


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1300.08	0.0006	P	10.2
2	☐	2.000	3.572	11801.99	0.0051	P	5.5
3	☐	5.000	5.192	16053.04	0.0072	P	3.7
4	☐	10.000	10.622	31283.12	0.0141	P	2.7
5	☐	100.000	101.642	283226.63	0.1297	P	2.2
6	☐	200.000	199.127	539281.08	0.2536	P	1.3

y = 0.0013 * x + 5.6720E-004
R = 0.9999
DL = 0.137
BEC = 0.4464

Weight: <None>
Min Conc: <None>

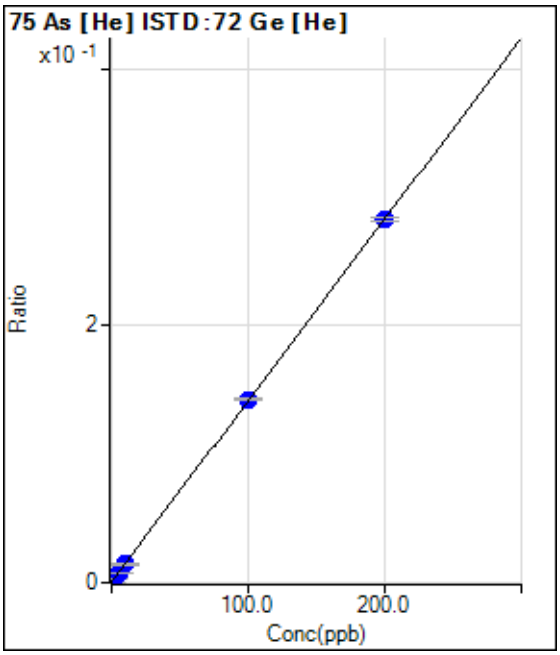
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	503.35	0.0007	P	25.7
2	☐	2.000	3.553	4304.08	0.0061	P	1.7
3	☐	5.000	5.245	5978.09	0.0087	P	4.3
4	☐	10.000	10.322	11214.79	0.0165	P	1.5
5	☐	100.000	100.517	104254.88	0.1539	P	1.9
6	☐	200.000	199.703	200893.04	0.3051	P	1.2

y = 0.0015 * x + 7.2493E-004
R = 1.0000
DL = 0.3669
BEC = 0.4756

Weight: <None>
Min Conc: <None>

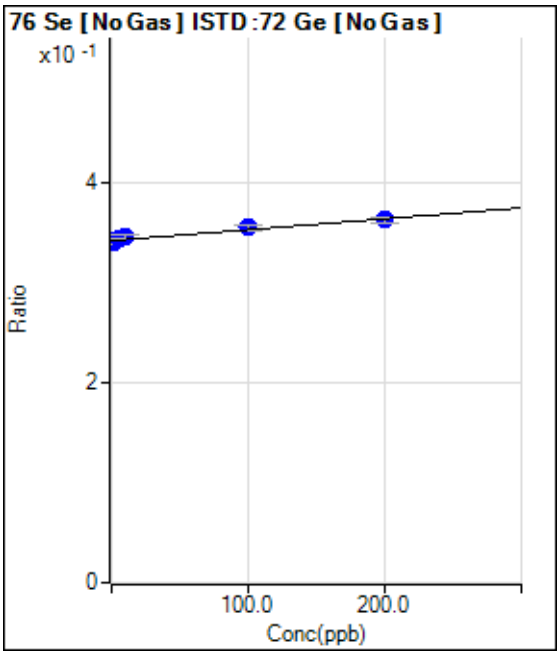


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	401.12	0.0006	P	9.1
2	☐	2.000	2.017	2398.00	0.0034	P	3.3
3	☐	5.000	5.016	5243.26	0.0076	P	3.5
4	☐	10.000	9.804	9812.49	0.0144	P	3.6
5	☐	100.000	100.594	96462.98	0.1424	P	1.5
6	☐	200.000	199.712	185796.08	0.2822	P	1.2

y = 0.0014 * x + 5.7635E-004
R = 1.0000
DL = 0.1117
BEC = 0.4087

Weight: <None>
Min Conc: <None>

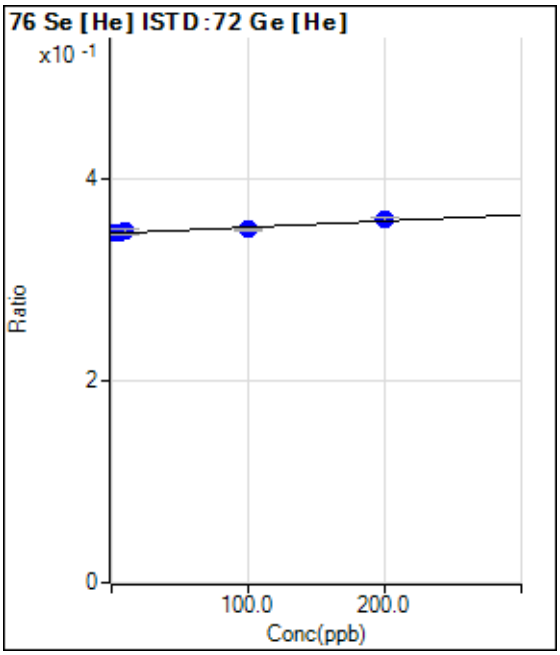
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	786163.95	0.3429	P	0.6
2	☐	2.000	-16.364	788104.05	0.3411	P	0.7
3	☐	5.000	20.715	773333.11	0.3452	P	0.5
4	☐	10.000	31.021	770192.72	0.3463	P	1.1
5	☐	100.000	119.078	777196.13	0.3560	P	1.5
6	☐	200.000	189.201	773308.82	0.3637	P	1.3

y = 1.0977E-004 * x + 0.3429
R = 0.9790
DL = 59.33
BEC = 3124

Weight: <None>
Min Conc: <None>

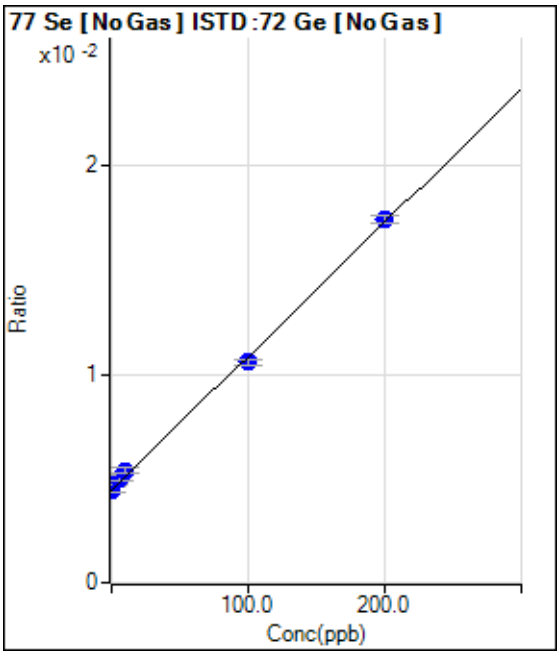


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	240572.72	0.3458	P	0.7
2	☐	2.000	17.684	243177.68	0.3469	P	0.7
3	☐	5.000	-2.951	236933.52	0.3457	P	0.3
4	☐	10.000	29.778	236860.92	0.3477	P	1.7
5	☐	100.000	64.183	236924.22	0.3498	P	0.4
6	☐	200.000	216.961	236480.30	0.3592	P	1.0

y = 6.1548E-005 * x + 0.3458
R = 0.9670
DL = 114.4
BEC = 5619

Weight: <None>
Min Conc: <None>

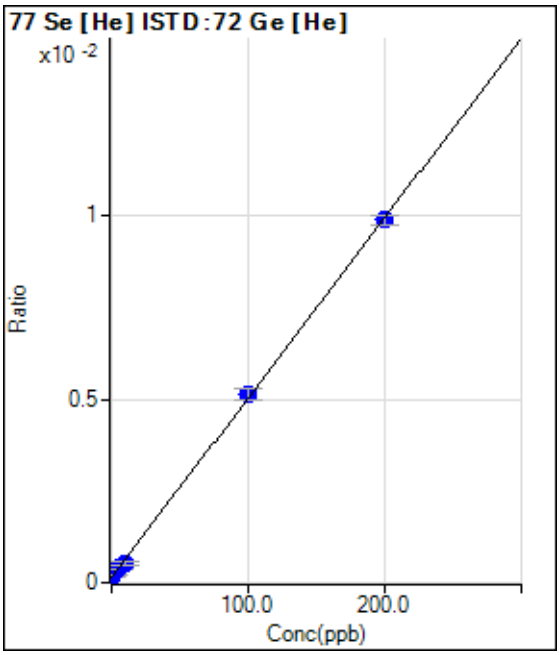
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10214.06	0.0045	P	7.4
2	☐	2.000	4.673	10984.65	0.0048	P	1.6
3	☐	5.000	8.528	11204.87	0.0050	P	4.9
4	☐	10.000	14.372	11962.19	0.0054	P	4.7
5	☐	100.000	95.417	23090.08	0.0106	P	2.0
6	☐	200.000	201.958	37004.51	0.0174	P	2.2

y = 6.4115E-005 * x + 0.0045
R = 0.9993
DL = 15.48
BEC = 69.48

Weight: <None>
Min Conc: <None>

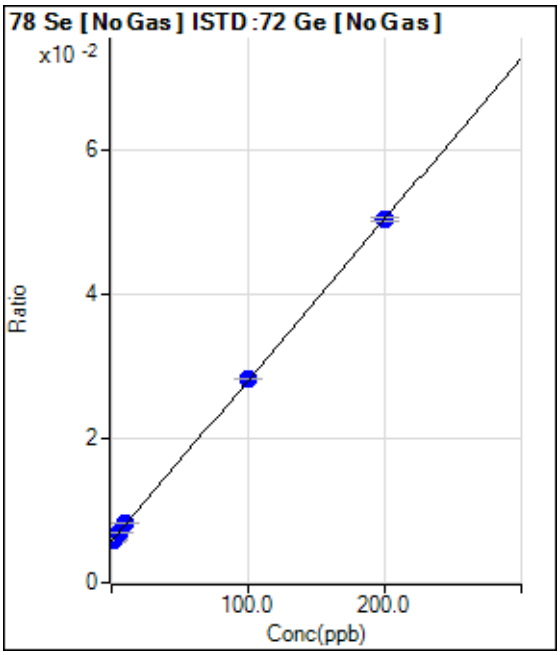


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	96.67	0.0001	P	7.0
2	☐	2.000	2.793	193.34	0.0003	P	30.8
3	☐	5.000	5.581	283.34	0.0004	P	28.8
4	☐	10.000	8.033	363.34	0.0005	P	17.5
5	☐	100.000	102.090	3483.85	0.0051	P	6.1
6	☐	200.000	199.031	6518.34	0.0099	P	2.8

y = 4.9054E-005 * x + 1.3903E-004
R = 0.9998
DL = 0.5912
BEC = 2.834

Weight: <None>
Min Conc: <None>

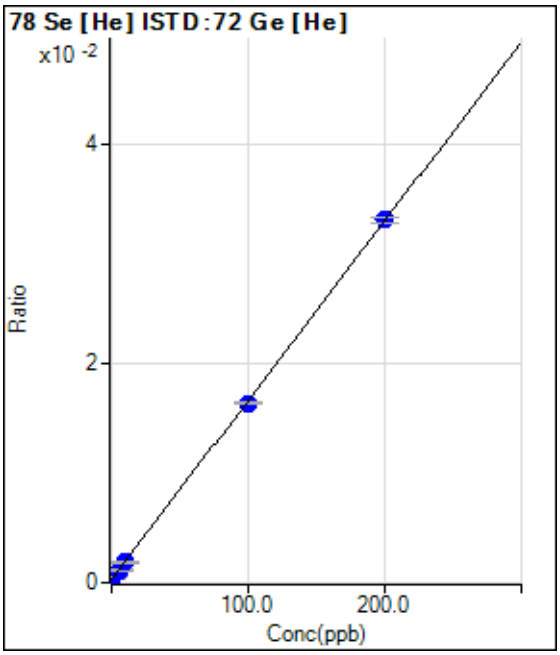
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13193.33	0.0058	P	6.7
2	☐	2.000	0.972	13797.26	0.0060	P	1.4
3	☐	5.000	5.324	15559.19	0.0069	P	1.0
4	☐	10.000	10.940	18239.24	0.0082	P	0.8
5	☐	100.000	100.858	61798.16	0.0283	P	0.6
6	☐	200.000	199.526	107089.85	0.0504	P	1.1

y = 2.2355E-004 * x + 0.0058
R = 1.0000
DL = 5.21
BEC = 25.74

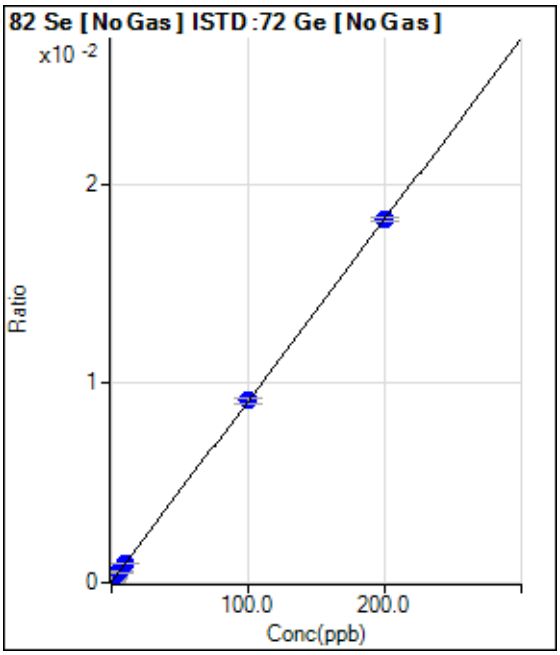
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	203.33	0.0003	P	5.8
2	☐	2.000	2.181	454.68	0.0006	P	11.8
3	☐	5.000	5.033	764.03	0.0011	P	6.4
4	☐	10.000	9.647	1273.40	0.0019	P	5.6
5	☐	100.000	98.532	11108.59	0.0164	P	1.6
6	☐	200.000	200.749	21800.27	0.0331	P	1.7

y = 1.6350E-004 * x + 2.9226E-004
R = 1.0000
DL = 0.3112
BEC = 1.788

Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74.48	0.0000	P	121.9
2	☐	2.000	2.566	615.03	0.0003	P	21.3
3	☐	5.000	5.783	1251.67	0.0006	P	14.0
4	☐	10.000	10.027	2101.89	0.0009	P	0.7
5	☐	100.000	100.225	19986.98	0.0092	P	3.3
6	☐	200.000	199.861	38748.20	0.0182	P	1.1

y = 9.0999E-005 * x + 3.2541E-005

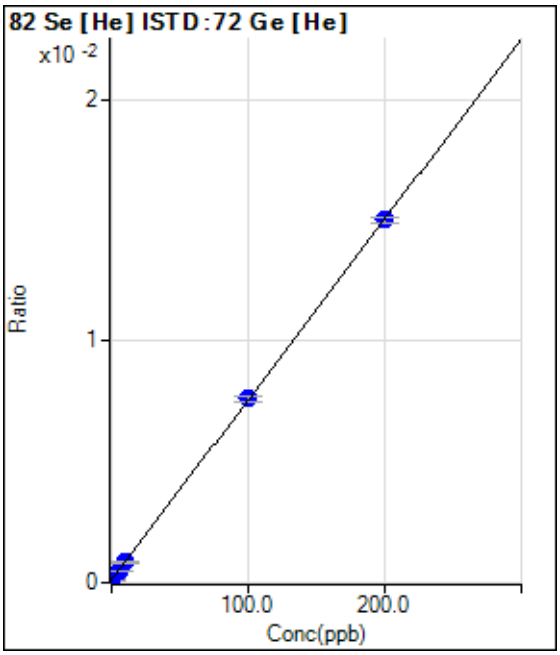
R = 1.0000

DL = 1.308

BEC = 0.3576

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0001	P	42.5
2	☐	2.000	2.406	203.34	0.0003	P	6.6
3	☐	5.000	4.972	330.01	0.0005	P	12.8
4	☐	10.000	10.124	590.02	0.0009	P	8.2
5	☐	100.000	100.498	5154.42	0.0076	P	3.8
6	☐	200.000	199.741	9883.80	0.0150	P	1.7

y = 7.4588E-005 * x + 1.1051E-004

R = 1.0000

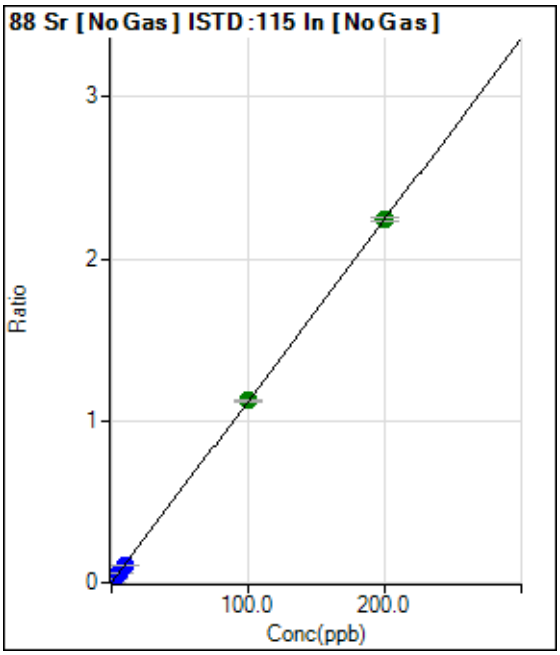
DL = 1.889

BEC = 1.482

Weight: <None>

Min Conc: <None>

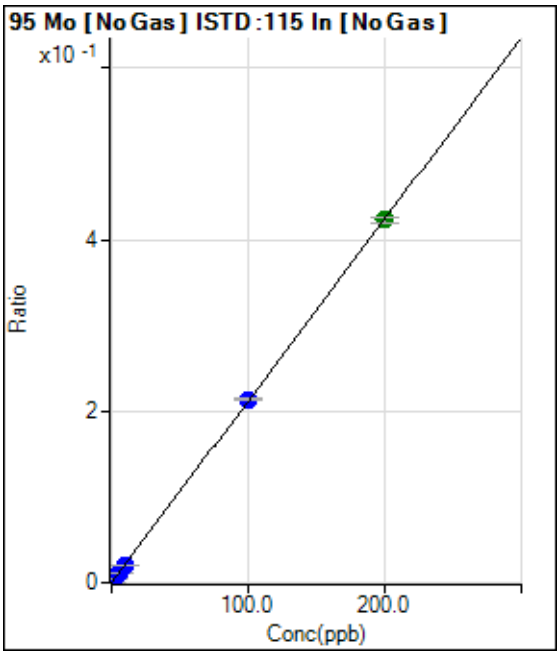
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2063.53	0.0008	P	1.5
2	☐	2.000	2.017	61069.08	0.0234	P	0.5
3	☐	5.000	5.031	145592.16	0.0571	P	1.2
4	☐	10.000	9.933	288544.70	0.1120	P	1.0
5	☐	100.000	100.148	2796544.75	1.1222	A	0.9
6	☐	200.000	199.929	5383500.96	2.2396	A	1.0

y = 0.0112 * x + 8.0004E-004
R = 1.0000
DL = 0.003112
BEC = 0.07145

Weight: <None>
Min Conc: <None>

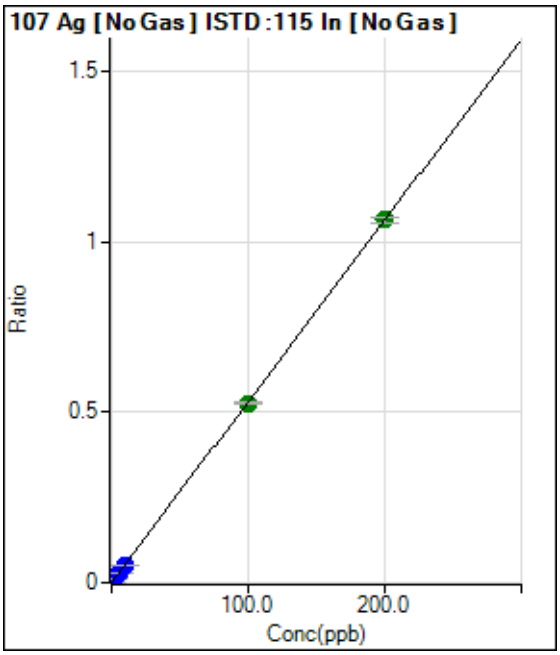


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	350.01	0.0001	P	12.5
2	☐	2.000	1.921	10981.33	0.0042	P	0.6
3	☐	5.000	4.853	26536.87	0.0104	P	2.7
4	☐	10.000	9.741	53490.85	0.0208	P	0.7
5	☐	100.000	100.653	531580.74	0.2133	P	1.2
6	☐	200.000	199.691	1016981.68	0.4231	A	1.4

y = 0.0021 * x + 1.3584E-004
R = 1.0000
DL = 0.02413
BEC = 0.06413

Weight: <None>
Min Conc: <None>

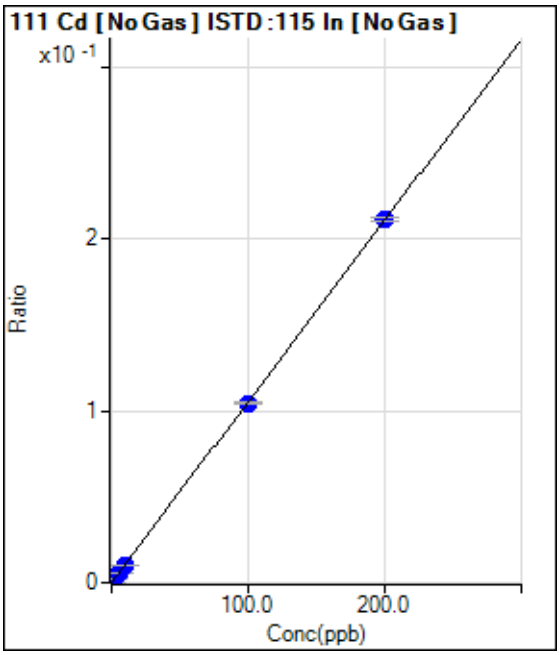
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.34	0.0000	P	79.0
2	☐	2.000	2.015	28073.41	0.0107	P	1.3
3	☐	5.000	5.015	67994.43	0.0267	P	1.6
4	☐	10.000	10.041	137513.47	0.0534	P	0.2
5	☐	100.000	99.279	1314444.15	0.5275	A	1.9
6	☐	200.000	200.358	2558622.93	1.0645	A	1.5

y = 0.0053 * x + 4.3686E-005
R = 1.0000
DL = 0.01948
BEC = 0.008223

Weight: <None>
Min Conc: <None>

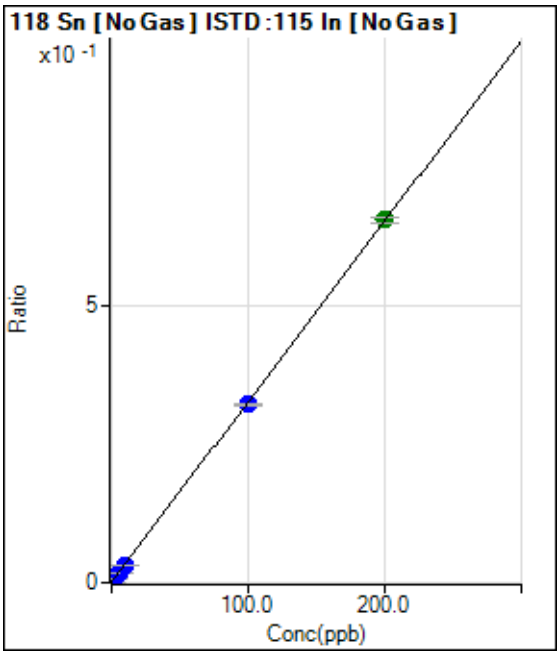


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9.51	0.0000	P	188.4
2	☐	2.000	1.938	5349.02	0.0020	P	2.2
3	☐	5.000	5.090	13686.15	0.0054	P	2.3
4	☐	10.000	9.828	26701.39	0.0104	P	3.6
5	☐	100.000	99.266	260874.07	0.1047	P	0.8
6	☐	200.000	200.374	507939.84	0.2113	P	1.1

y = 0.0011 * x + 3.7363E-006
R = 1.0000
DL = 0.02003
BEC = 0.003543

Weight: <None>
Min Conc: <None>

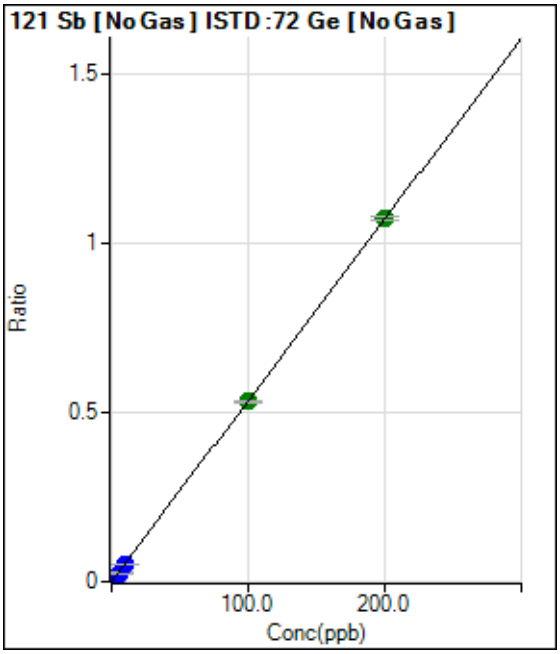
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2326.97	0.0009	P	54.2
2	☐	2.000	1.839	18052.72	0.0069	P	1.6
3	☐	5.000	4.751	41863.81	0.0164	P	0.4
4	☐	10.000	9.513	82387.37	0.0320	P	2.1
5	☐	100.000	98.367	803233.92	0.3223	P	1.3
6	☐	200.000	200.849	1579699.04	0.6572	A	1.7

y = 0.0033 * x + 9.0311E-004
R = 1.0000
DL = 0.449
BEC = 0.2764

Weight: <None>
Min Conc: <None>

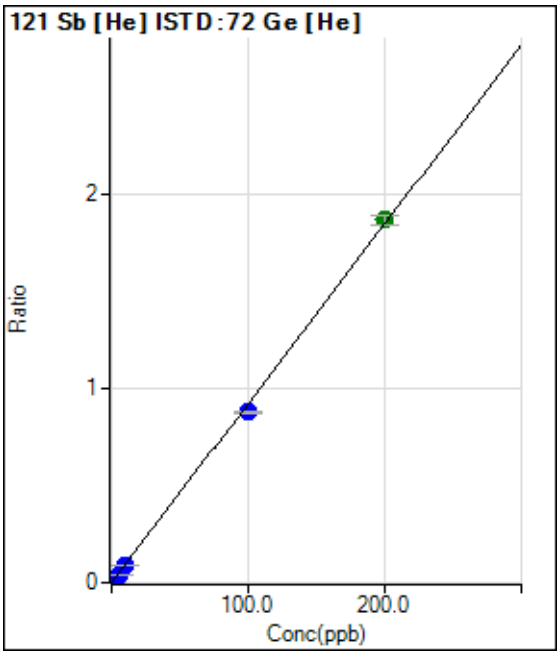


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	226.67	0.0001	P	17.9
2	☐	2.000	1.872	23387.84	0.0101	P	2.4
3	☐	5.000	4.708	56712.81	0.0253	P	2.7
4	☐	10.000	9.557	114059.28	0.0513	P	2.4
5	☐	100.000	99.382	1162485.89	0.5324	A	0.6
6	☐	200.000	200.340	2282055.33	1.0731	A	1.0

y = 0.0054 * x + 9.8878E-005
R = 1.0000
DL = 0.009916
BEC = 0.01846

Weight: <None>
Min Conc: <None>

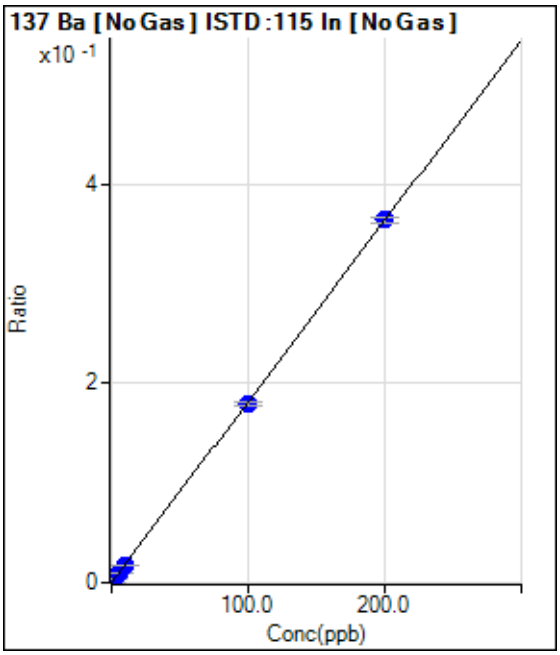
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	183.34	0.0003	P	30.6
2	☐	2.000	1.822	11945.62	0.0170	P	2.7
3	☐	5.000	4.692	29787.44	0.0435	P	1.7
4	☐	10.000	9.486	59672.32	0.0876	P	2.6
5	☐	100.000	95.132	593326.97	0.8760	P	1.1
6	☐	200.000	202.469	1227147.40	1.8642	A	2.5

y = 0.0092 * x + 2.6325E-004
R = 0.9996
DL = 0.02628
BEC = 0.0286

Weight: <None>
Min Conc: <None>

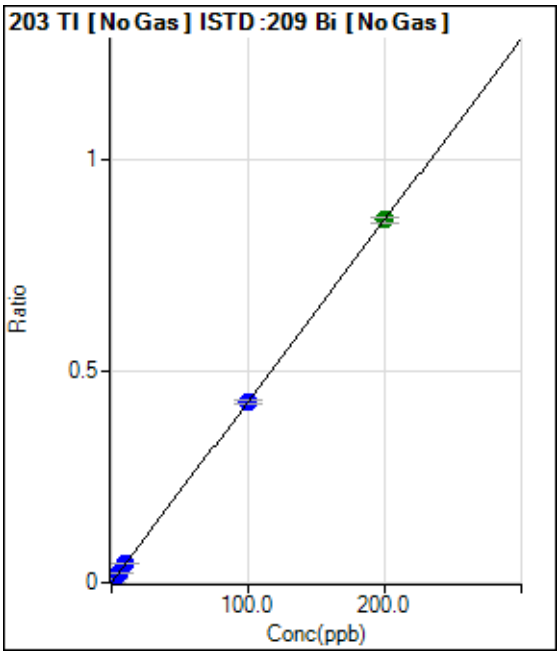


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	620.03	0.0002	P	4.7
2	☐	2.000	1.849	9400.24	0.0036	P	3.8
3	☐	5.000	4.888	23234.49	0.0091	P	1.0
4	☐	10.000	9.651	45757.50	0.0178	P	1.6
5	☐	100.000	98.919	448212.86	0.1799	P	2.0
6	☐	200.000	200.562	875973.45	0.3644	P	1.7

y = 0.0018 * x + 2.4034E-004
R = 1.0000
DL = 0.01874
BEC = 0.1323

Weight: <None>
Min Conc: <None>

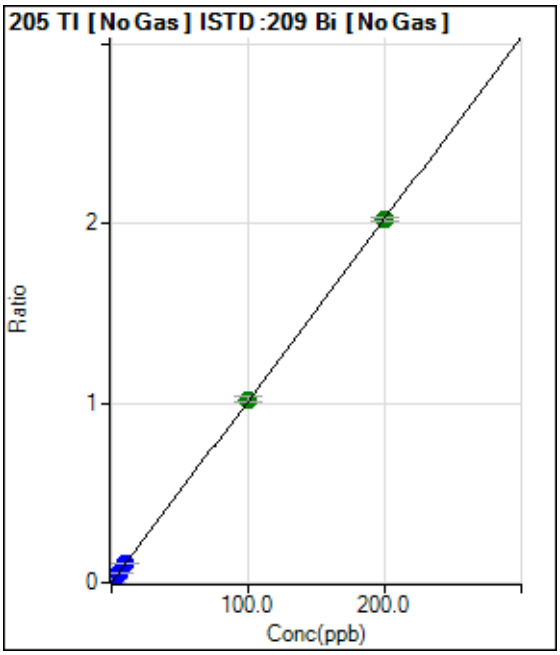
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	193.34	0.0001	P	31.1
2	☐	2.000	2.095	18193.55	0.0091	P	2.1
3	☐	5.000	5.303	43874.15	0.0228	P	1.3
4	☐	10.000	10.223	85938.17	0.0439	P	1.2
5	☐	100.000	99.773	821096.94	0.4274	P	2.4
6	☐	200.000	200.094	1590657.11	0.8571	A	1.3

y = 0.0043 * x + 9.8525E-005
R = 1.0000
DL = 0.02149
BEC = 0.023

Weight: <None>
Min Conc: <None>

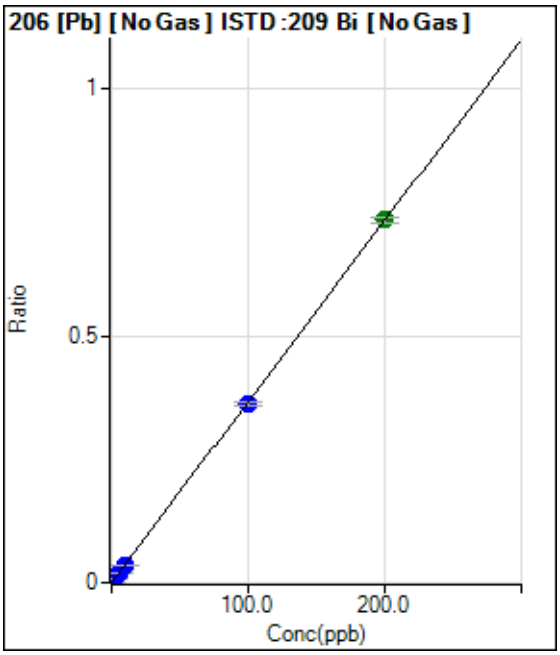


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	510.02	0.0003	P	6.9
2	☐	2.000	2.068	42469.49	0.0212	P	2.6
3	☐	5.000	5.330	104156.22	0.0542	P	3.1
4	☐	10.000	10.433	207139.90	0.1058	P	2.5
5	☐	100.000	100.810	1959430.13	1.0200	A	2.8
6	☐	200.000	199.564	3746714.11	2.0190	A	1.1

y = 0.0101 * x + 2.5865E-004
R = 1.0000
DL = 0.005264
BEC = 0.02557

Weight: <None>
Min Conc: <None>

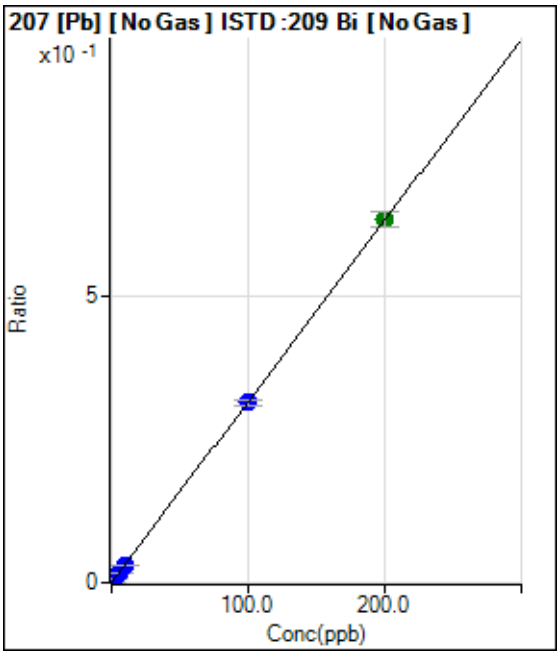
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	206.68	0.0001	P	16.1
2	☐	2.000	1.995	14879.13	0.0074	P	3.4
3	☐	5.000	5.052	35818.56	0.0186	P	2.4
4	☐	10.000	9.764	70311.56	0.0359	P	1.5
5	☐	100.000	98.952	697209.54	0.3629	P	2.5
6	☐	200.000	200.535	1364695.97	0.7354	A	1.3

y = 0.0037 * x + 1.0504E-004
R = 1.0000
DL = 0.01382
BEC = 0.02865

Weight: <None>
Min Conc: <None>

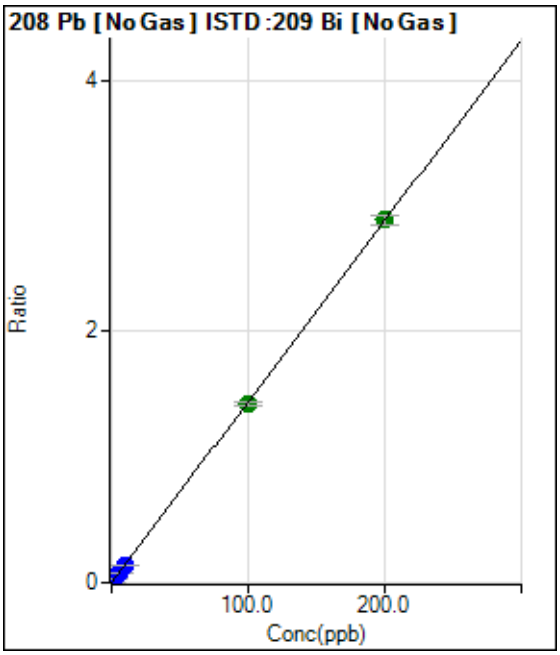


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	176.67	0.0001	P	43.5
2	☐	2.000	2.066	13290.64	0.0066	P	3.9
3	☐	5.000	4.975	30450.83	0.0158	P	1.3
4	☐	10.000	9.732	60486.96	0.0309	P	1.2
5	☐	100.000	99.290	603722.77	0.3143	P	3.2
6	☐	200.000	200.369	1176648.00	0.6342	A	4.1

y = 0.0032 * x + 8.8685E-005
R = 1.0000
DL = 0.03661
BEC = 0.02802

Weight: <None>
Min Conc: <None>

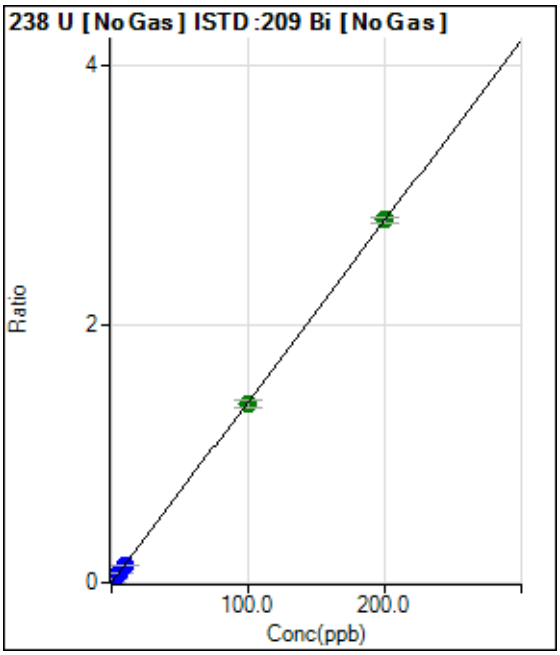
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	823.37	0.0004	P	9.0
2	☐	2.000	2.013	58965.01	0.0294	P	4.0
3	☐	5.000	5.087	141690.95	0.0737	P	2.5
4	☐	10.000	9.888	279708.48	0.1428	P	1.3
5	☐	100.000	98.708	2732027.08	1.4222	A	2.2
6	☐	200.000	200.649	5363498.30	2.8905	A	2.3

y = 0.0144 * x + 4.1672E-004
R = 1.0000
DL = 0.00783
BEC = 0.02893

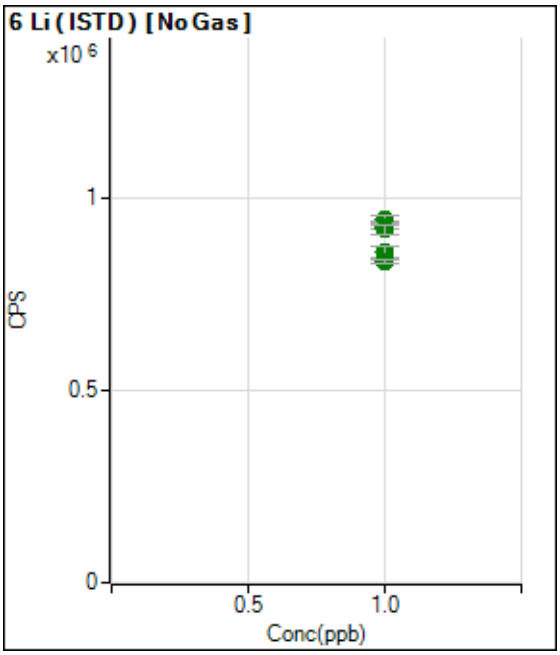
Weight: <None>
Min Conc: <None>



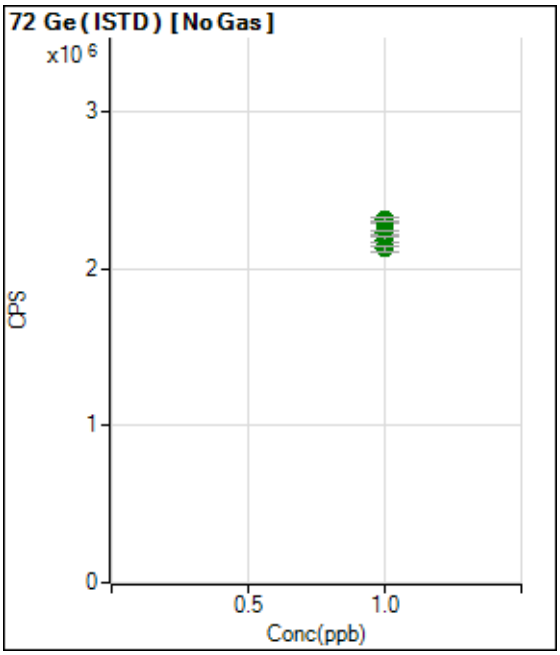
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0000	P	13.3
2	☐	2.000	1.943	54642.20	0.0273	P	3.7
3	☐	5.000	4.962	133706.43	0.0695	P	3.4
4	☐	10.000	9.712	266449.22	0.1361	P	3.0
5	☐	100.000	98.848	2659759.08	1.3849	A	3.4
6	☐	200.000	200.592	5214869.09	2.8102	A	1.6

y = 0.0140 * x + 2.8828E-005
R = 1.0000
DL = 0.0008215
BEC = 0.002058

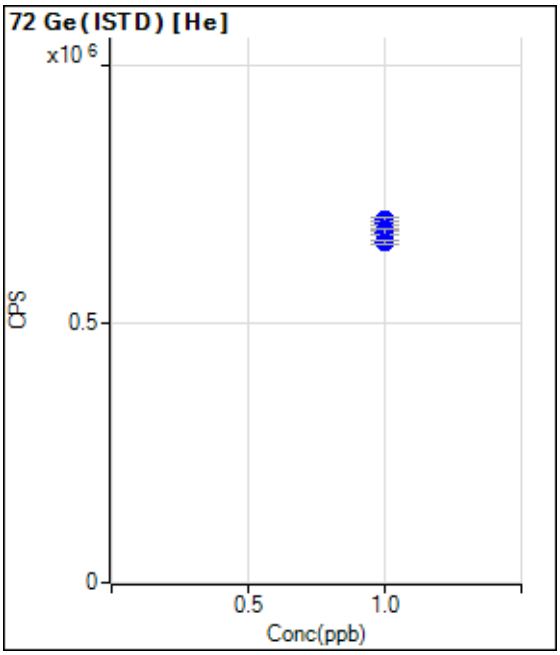
Weight: <None>
Min Conc: <None>



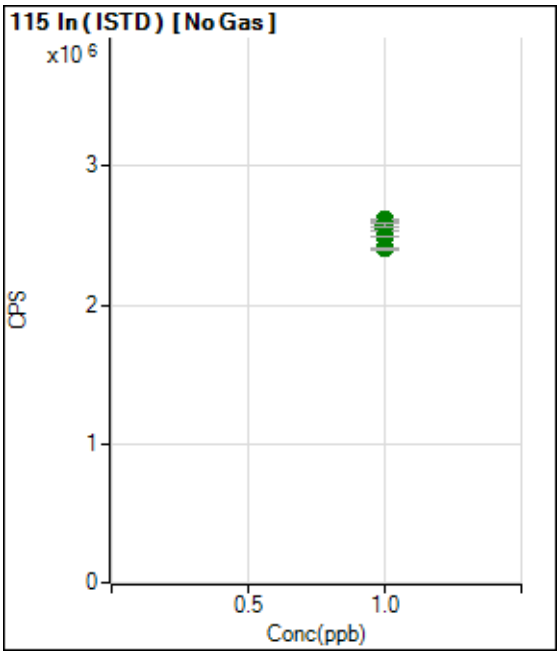
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		937352.59		A	0.4
2	☐	1.000		943893.75		A	2.1
3	☐	1.000		928015.29		A	1.5
4	☐	1.000		918557.10		A	2.8
5	☐	1.000		862100.76		A	3.3
6	☐	1.000		834092.42		A	1.1



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2292754.70		A	0.4
2	☐	1.000		2310627.36		A	0.9
3	☐	1.000		2240532.73		A	0.5
4	☐	1.000		2224293.88		A	1.2
5	☐	1.000		2183647.10		A	1.5
6	☐	1.000		2126741.59		A	1.6

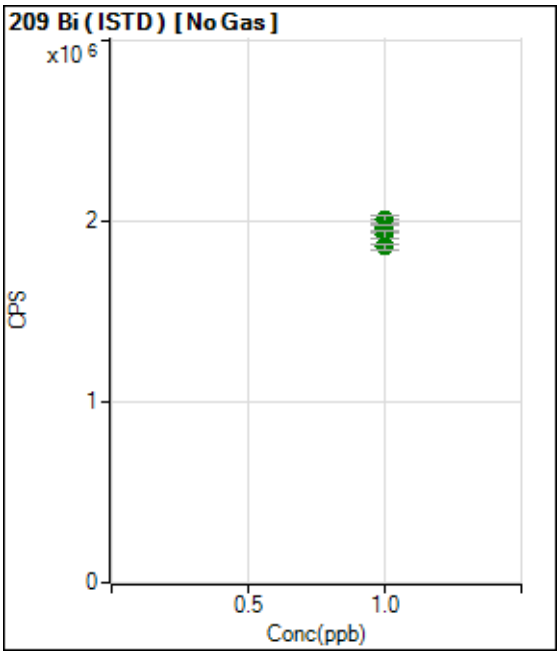


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		695601.19		P	1.1
2	☐	1.000		700979.65		P	1.0
3	☐	1.000		685462.36		P	1.3
4	☐	1.000		681341.11		P	0.8
5	☐	1.000		677376.08		P	1.9
6	☐	1.000		658437.48		P	1.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2579131.97		A	1.1
2	☐	1.000		2611940.82		A	0.4
3	☐	1.000		2548332.98		A	1.2
4	☐	1.000		2575869.25		A	1.4
5	☐	1.000		2491927.91		A	0.3
6	☐	1.000		2403824.33		A	0.9

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1971731.80		A	3.7
2	☐	1.000		2006185.54		A	2.3
3	☐	1.000		1923433.41		A	2.1
4	☐	1.000		1958550.96		A	2.0
5	☐	1.000		1921526.38		A	2.3
6	☐	1.000		1855903.67		A	1.3

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	014CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:15:43-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	63079	0.00
Be	9	1	No Gas	25	160.00
V	51	2	He	5823	0.02
Cr	52	2	He	15346	0.02
Fe	56	2	He	23120	0.00
Se	78	2	He	203	3.15
As	75	2	He	401	2.51
Ca	44	2	He	1107	0.62
Na	23	2	He	53586	0.00
Mg	24	2	He	517	2.91
K	39	2	He	156796	0.00
Mn	55	2	He	700	0.54
Co	59	2	He	140	5.10
Ni	60	2	He	190	15.42
Cu	63	2	He	1090	1.61
Zn	66	2	He	503	4.94
Al	27	2	He	1910	0.20
B	11	1	No Gas	13285	0.02
Al	27	1	No Gas	61238	0.00
Si	28	1	No Gas	559990	0.00
Ag	107	1	No Gas	113	70.21
Cd	111	1	No Gas	10	2006.93
Sr	88	1	No Gas	2064	0.11
Mo	95	1	No Gas	350	3.27
Sn	118	1	No Gas	2327	2.32
Sb	121	1	No Gas	227	7.87
Ba	137	1	No Gas	620	0.90
Tl	205	1	No Gas	510	1.54
Tl	203	1	No Gas	193	14.74
Pb	208	1	No Gas	823	1.54
U	238	1	No Gas	57	17.98
Ca	43	2	He	53	20.30
Sb	121	2	He	183	16.92
Ti	47	2	He	23	106.04
Cu	63	1	No Gas	2607	0.24

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	937353	0.41
Ge	72	2	He	695601	1.08
Ge	72	1	No Gas	2292755	0.41
In	115	1	No Gas	2579132	1.13

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	1971732	3.70

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	015CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:17:53-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	7559	0.02
V	51	2	He	16903	0.02
Cr	52	2	He	27581	0.01
Fe	56	2	He	1106478	0.00
Se	78	2	He	455	2.52
As	75	2	He	2398	0.16
Ca	44	2	He	10414	0.02
Na	23	2	He	246956	0.00
Mg	24	2	He	118833	0.00
K	39	2	He	346010	0.00
Mn	55	2	He	10868	0.05
Co	59	2	He	15723	0.01
Ni	60	2	He	4281	0.07
Cu	63	2	He	12776	0.03
Zn	66	2	He	4304	0.03
Al	27	2	He	3070	0.12
B	11	1	No Gas	31382	0.00
Al	27	1	No Gas	92711	0.00
Si	28	1	No Gas	642683	0.00
Ag	107	1	No Gas	28073	0.00
Cd	111	1	No Gas	5349	0.05
Sr	88	1	No Gas	61069	0.00
Mo	95	1	No Gas	10981	0.01
Sn	118	1	No Gas	18053	0.01
Sb	121	1	No Gas	23388	0.01
Ba	137	1	No Gas	9400	0.04
Tl	205	1	No Gas	42469	0.00
Tl	203	1	No Gas	18194	0.01
Pb	208	1	No Gas	58965	0.00
U	238	1	No Gas	54642	0.00
Ca	43	2	He	483	2.15
Sb	121	2	He	11946	0.03
Cu	63	1	No Gas	27962	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	943894	2.06	937353	100.70	70	120	
Ge	72	2	He	700980	0.95	695601	100.77	70	120	
Ge	72	1	No Gas	2310627	0.89	2292755	100.78	70	120	

Calibration Standard Report

In	115	1	No Gas	2611941	0.44	2579132	101.27	70	120	
Bi	209	1	No Gas	2006186	2.28	1971732	101.75	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	016CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:19:48-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	18302	0.01
V	51	2	He	32422	0.00
Cr	52	2	He	45740	0.00
Fe	56	2	He	2662305	0.00
Se	78	2	He	764	0.72
As	75	2	He	5243	0.07
Ca	44	2	He	22682	0.01
Na	23	2	He	523592	0.00
Mg	24	2	He	293995	0.00
K	39	2	He	623462	0.00
Mn	55	2	He	25634	0.01
Co	59	2	He	38221	0.01
Ni	60	2	He	9580	0.03
Cu	63	2	He	24476	0.01
Zn	66	2	He	5978	0.08
Al	27	2	He	3817	0.07
B	11	1	No Gas	59621	0.00
Al	27	1	No Gas	122771	0.00
Si	28	1	No Gas	762008	0.00
Ag	107	1	No Gas	67994	0.00
Cd	111	1	No Gas	13686	0.01
Sr	88	1	No Gas	145592	0.00
Mo	95	1	No Gas	26537	0.01
Sn	118	1	No Gas	41864	0.00
Sb	121	1	No Gas	56713	0.00
Ba	137	1	No Gas	23234	0.01
Tl	205	1	No Gas	104156	0.00
Tl	203	1	No Gas	43874	0.00
Pb	208	1	No Gas	141691	0.00
U	238	1	No Gas	133706	0.00
Ca	43	2	He	1317	0.83
Sb	121	2	He	29787	0.01
Cu	63	1	No Gas	55493	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	928015	1.51	937353	99.00	70	120	
Ge	72	2	He	685462	1.29	695601	98.54	70	120	
Ge	72	1	No Gas	2240533	0.48	2292755	97.72	70	120	

Calibration Standard Report

In	115	1	No Gas	2548333	1.15	2579132	98.81	70	120	
Bi	209	1	No Gas	1923433	2.06	1971732	97.55	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	017CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:21:46-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	36898	0.00
V	51	2	He	58048	0.00
Cr	52	2	He	73825	0.00
Fe	56	2	He	5164050	0.00
Se	78	2	He	1273	0.38
As	75	2	He	9812	0.04
Ca	44	2	He	43218	0.00
Na	23	2	He	948447	0.00
Mg	24	2	He	576693	0.00
K	39	2	He	1044351	0.00
Mn	55	2	He	49269	0.00
Co	59	2	He	76604	0.00
Ni	60	2	He	18743	0.01
Cu	63	2	He	47710	0.00
Zn	66	2	He	11215	0.02
Al	27	2	He	5905	0.04
B	11	1	No Gas	104154	0.00
Al	27	1	No Gas	188959	0.00
Si	28	1	No Gas	989848	0.00
Ag	107	1	No Gas	137513	0.00
Cd	111	1	No Gas	26701	0.01
Sr	88	1	No Gas	288545	0.00
Mo	95	1	No Gas	53491	0.00
Sn	118	1	No Gas	82387	0.00
Sb	121	1	No Gas	114059	0.00
Ba	137	1	No Gas	45758	0.00
Tl	205	1	No Gas	207140	0.00
Tl	203	1	No Gas	85938	0.00
Pb	208	1	No Gas	279708	0.00
U	238	1	No Gas	266449	0.00
Ca	43	2	He	2497	0.24
Sb	121	2	He	59672	0.00
Cu	63	1	No Gas	107674	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	918557	2.81	937353	97.99	70	120	
Ge	72	2	He	681341	0.82	695601	97.95	70	120	
Ge	72	1	No Gas	2224294	1.21	2292755	97.01	70	120	

Calibration Standard Report

In	115	1	No Gas	2575869	1.44	2579132	99.87	70	120	
Bi	209	1	No Gas	1958551	2.02	1971732	99.33	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	018CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:23:41-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	361802	0.00
V	51	2	He	520581	0.00
Cr	52	2	He	576064	0.00
Fe	56	2	He	49751764	0.00
Se	78	2	He	11109	0.01
As	75	2	He	96463	0.00
Ca	44	2	He	420362	0.00
Na	23	2	He	8557522	0.00
Mg	24	2	He	5234989	0.00
K	39	2	He	8640482	0.00
Mn	55	2	He	472519	0.00
Co	59	2	He	749239	0.00
Ni	60	2	He	184634	0.00
Cu	63	2	He	456378	0.00
Zn	66	2	He	104255	0.00
Al	27	2	He	43779	0.00
B	11	1	No Gas	894625	0.00
Al	27	1	No Gas	1424318	0.00
Si	28	1	No Gas	4196813	0.00
Ag	107	1	No Gas	1314444	0.00
Cd	111	1	No Gas	260874	0.00
Sr	88	1	No Gas	2796545	0.00
Mo	95	1	No Gas	531581	0.00
Sn	118	1	No Gas	803234	0.00
Sb	121	1	No Gas	1162486	0.00
Ba	137	1	No Gas	448213	0.00
Tl	205	1	No Gas	1959430	0.00
Tl	203	1	No Gas	821097	0.00
Pb	208	1	No Gas	2732027	0.00
U	238	1	No Gas	2659759	0.00
Ca	43	2	He	24759	0.02
Sb	121	2	He	593327	0.00
Cu	63	1	No Gas	1013918	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	862101	3.35	937353	91.97	70	120	
Ge	72	2	He	677376	1.86	695601	97.38	70	120	
Ge	72	1	No Gas	2183647	1.49	2292755	95.24	70	120	

Calibration Standard Report

In	115	1	No Gas	2491928	0.28	2579132	96.62	70	120	
Bi	209	1	No Gas	1921526	2.30	1971732	97.45	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	019CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:25:47-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	703647	0.00
V	51	2	He	1009352	0.00
Cr	52	2	He	1121353	0.00
Fe	56	2	He	97438322	0.00
Se	78	2	He	21800	0.00
As	75	2	He	185796	0.00
Ca	44	2	He	827946	0.00
Na	23	2	He	16593811	0.00
Mg	24	2	He	10040672	0.00
K	39	2	He	16628886	0.00
Mn	55	2	He	916014	0.00
Co	59	2	He	1476641	0.00
Ni	60	2	He	353107	0.00
Cu	63	2	He	872070	0.00
Zn	66	2	He	200893	0.00
Al	27	2	He	82467	0.00
B	11	1	No Gas	1745142	0.00
Al	27	1	No Gas	2651432	0.00
Si	28	1	No Gas	7507764	0.00
Ag	107	1	No Gas	2558623	0.00
Cd	111	1	No Gas	507940	0.00
Sr	88	1	No Gas	5383501	0.00
Mo	95	1	No Gas	1016982	0.00
Sn	118	1	No Gas	1579699	0.00
Sb	121	1	No Gas	2282055	0.00
Ba	137	1	No Gas	875973	0.00
Tl	205	1	No Gas	3746714	0.00
Tl	203	1	No Gas	1590657	0.00
Pb	208	1	No Gas	5363498	0.00
U	238	1	No Gas	5214869	0.00
Ca	43	2	He	48964	0.00
Sb	121	2	He	1227147	0.00
Cu	63	1	No Gas	1902099	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	834092	1.06	937353	88.98	70	120	
Ge	72	2	He	658437	1.43	695601	94.66	70	120	
Ge	72	1	No Gas	2126742	1.56	2292755	92.76	70	120	

Calibration Standard Report

In	115	1	No Gas	2403824	0.93	2579132	93.20	70	120	
Bi	209	1	No Gas	1855904	1.27	1971732	94.13	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	021_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:34:34-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	98.438	0.438	1232896	1.10	100	98.4	90	110	
Be	9	1	No Gas	97.446	0.714	367205	0.33	100	97.4	90	110	
V	51	2	He	100.861	0.794	527653	0.22	100	100.9	90	110	
Cr	52	2	He	99.824	1.277	583309	0.56	100	99.8	90	110	
Fe	56	2	He	10095.858	0.419	50680773	1.14	10000	101.0	90	110	
Se	78	2	He	101.726	2.184	11494	1.39	100	101.7	90	110	
As	75	2	He	102.471	0.618	98532	0.23	100	102.5	90	110	
Ca	44	2	He	10154.461	1.971	432917	1.37	10000	101.5	90	110	
Na	23	2	He	10235.753	0.403	8786849	1.05	10000	102.4	90	110	
Mg	24	2	He	10285.002	0.273	5343007	0.49	10000	102.9	90	110	
K	39	2	He	10133.790	0.395	8771100	0.69	10000	101.3	90	110	
Mn	55	2	He	101.832	0.322	481725	0.85	100	101.8	90	110	
Co	59	2	He	99.055	0.362	752474	1.03	100	99.1	90	110	
Ni	60	2	He	100.881	1.250	184432	1.33	100	100.9	90	110	
Cu	63	2	He	102.064	0.472	461138	0.46	100	102.1	90	110	
Zn	66	2	He	102.370	1.950	106465	1.20	100	102.4	90	110	
Al	27	2	He	99.665	1.169	43408	0.54	100	99.7	90	110	
B	11	1	No Gas	472.165	1.361	887603	1.61	500	94.4	90	110	
Al	27	1	No Gas	98.608	0.932	1394267	0.67	100	98.6	90	110	
Si	28	1	No Gas	502.816	1.997	4206363	1.48	500	100.6	90	110	
Ag	107	1	No Gas	99.757	2.533	1307391	0.86	100	99.8	90	110	
Cd	111	1	No Gas	99.916	2.790	259905	0.71	100	99.9	90	110	
Sr	88	1	No Gas	101.749	3.823	2811672	1.28	100	101.7	90	110	
Mo	95	1	No Gas	100.259	2.884	524081	0.18	100	100.3	90	110	
Sn	118	1	No Gas	99.169	2.048	801627	0.86	100	99.2	90	110	
Sb	121	1	No Gas	98.252	2.431	1162469	2.52	100	98.3	90	110	
Ba	137	1	No Gas	99.847	2.666	447819	0.71	100	99.8	90	110	
Tl	205	1	No Gas	102.941	5.177	1978737	2.49	100	102.9	90	110	
Tl	203	1	No Gas	102.411	3.378	833798	1.08	100	102.4	90	110	
Pb	208	1	No Gas	98.547	3.107	2698449	0.80	100	98.5	90	110	
U	238	1	No Gas	102.194	2.593	2721357	1.34	100	102.2	90	110	
Ca	43	2	He	9905.307	1.714	24953	0.95	10000	99.1	90	110	
Sb	121	2	He	97.555	1.157	610101	0.39	100	97.6	90	110	
Ti	47	2	He	103.395	2.111	23250	2.54	100	103.4	90	110	
Cu	63	1	No Gas	101.270	0.586	1009268	0.63	100	101.3	90	110	
Se	82	1	No Gas	97.857	0.216	19740	0.48	100	97.9	90	110	

QC ISTD Table

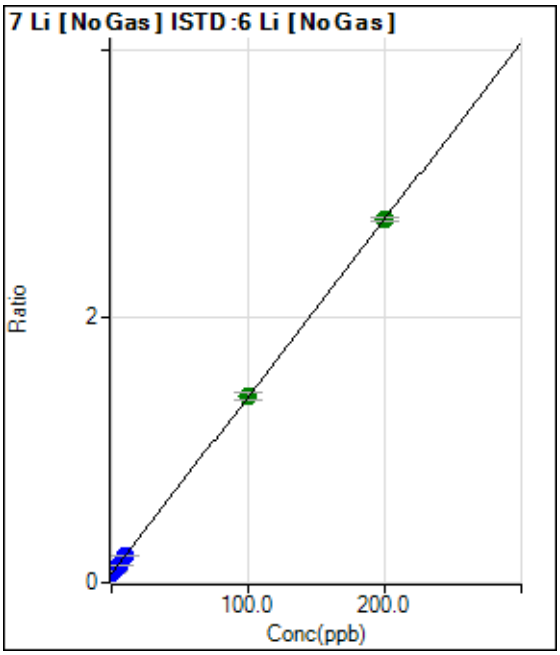
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	894284	0.92	937353	95.41	70	120	
Ge	72	2	He	679184	0.76	695601	97.64	70	120	
Ge	72	1	No Gas	2208659	0.27	2292755	96.33	70	120	
In	115	1	No Gas	2467737	2.77	2579132	95.68	70	120	
Bi	209	1	No Gas	1901528	2.73	1971732	96.44	70	120	

Calibration for 021_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071323A.b\
Analysis File: 071323A.batch.bin
DA Date-Time: 7/13/2023 8:18:40 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	014CALB.d	CAL BLK	7/13/2023 11:15:43 AM
2	015CALS.d	2/10/200	7/13/2023 11:17:53 AM
3	016CALS.d	5/25/500	7/13/2023 11:19:48 AM
4	017CALS.d	10/50/100	7/13/2023 11:21:46 AM
5	018CALS.d	100/500/10K	7/13/2023 11:23:41 AM
6	019CALS.d	200/1000/20K	7/13/2023 11:25:47 AM

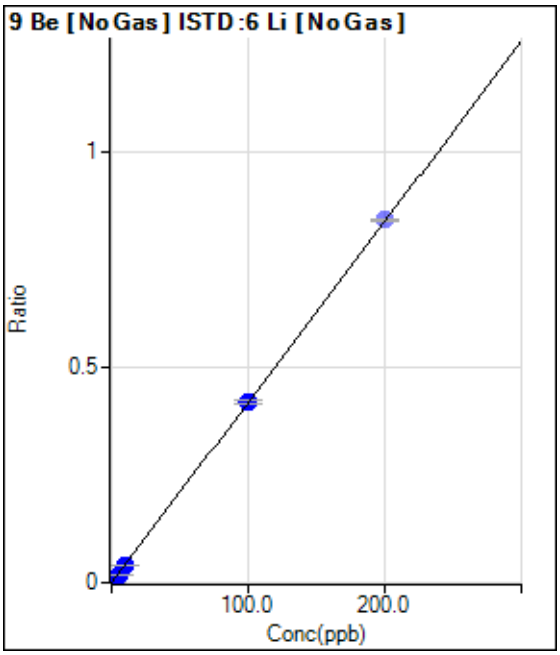
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63078.80	0.0673	P	0.2
2	☐	2.000	1.813	86268.82	0.0914	P	3.7
3	☐	5.000	4.744	121075.29	0.1305	P	1.9
4	☐	10.000	9.796	181607.49	0.1978	P	2.4
5	☐	100.000	100.429	1210546.21	1.4052	A	3.5
6	☐	200.000	199.804	2276068.77	2.7290	A	1.2

y = 0.0133 * x + 0.0673
R = 1.0000
DL = 0.03338
BEC = 5.052

Weight: <None>
Min Conc: <None>

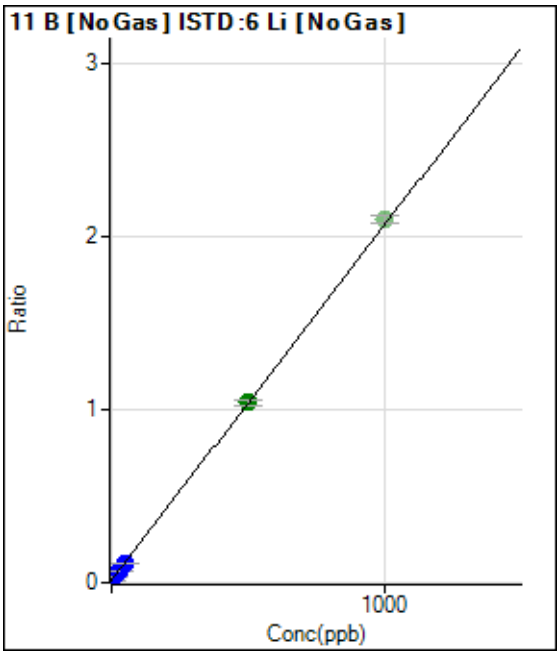


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	39.9
2	☐	2.000	1.903	7558.75	0.0080	P	3.8
3	☐	5.000	4.695	18301.98	0.0197	P	3.8
4	☐	10.000	9.570	36898.22	0.0402	P	2.0
5	☐	100.000	100.060	361802.22	0.4199	P	2.4
6	☑	200.000		703646.79	0.8436	P	0.6

y = 0.0042 * x + 2.6673E-005
R = 1.0000
DL = 0.007614
BEC = 0.006356

Weight: <None>
Min Conc: <None>

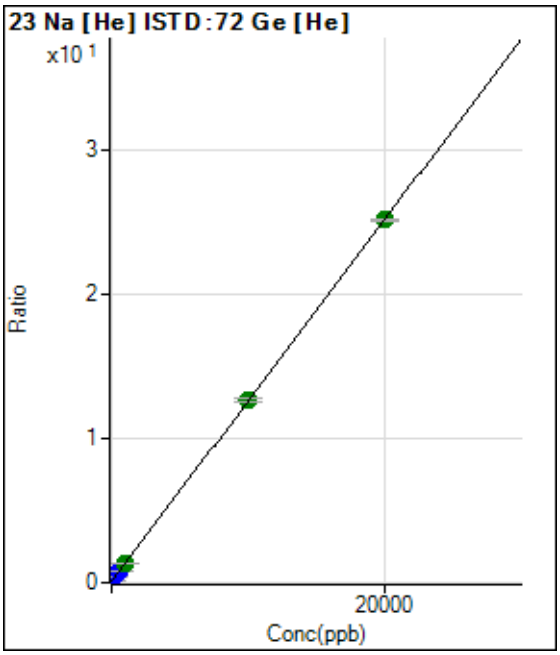
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13284.71	0.0142	P	2.7
2	☐	10.000	9.320	31381.71	0.0333	P	2.3
3	☐	25.000	24.458	59620.76	0.0643	P	1.4
4	☐	50.000	48.478	104154.16	0.1134	P	2.4
5	☐	500.000	500.193	894625.25	1.0384	A	3.0
6	☑	1000.000		1745142.21	2.0924	A	2.2

y = 0.0020 * x + 0.0142
R = 1.0000
DL = 0.5564
BEC = 6.922

Weight: <None>
Min Conc: <None>

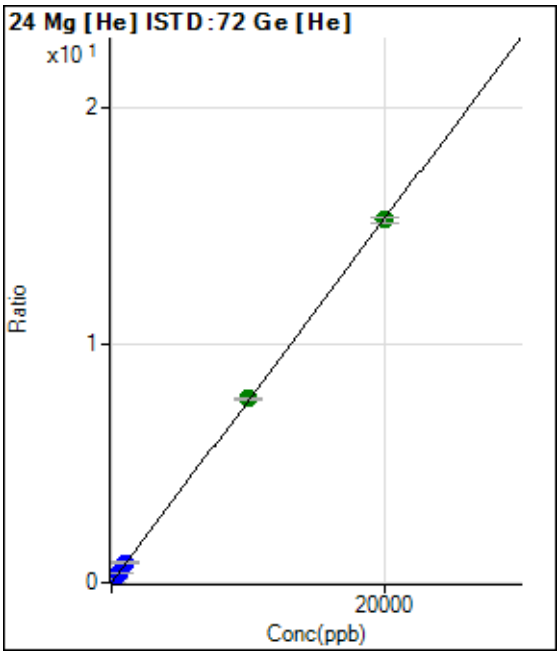


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53586.41	0.0770	P	1.3
2	☐	200.000	219.089	246955.73	0.3523	P	1.2
3	☐	500.000	546.710	523591.51	0.7639	P	1.4
4	☐	1000.000	1046.618	948446.63	1.3920	A	0.7
5	☐	10000.000	9996.304	8557522.37	12.6364	A	2.0
6	☐	20000.000	19998.158	16593810.59	25.2027	A	0.6

y = 0.0013 * x + 0.0770
R = 1.0000
DL = 2.33
BEC = 61.32

Weight: <None>
Min Conc: <None>

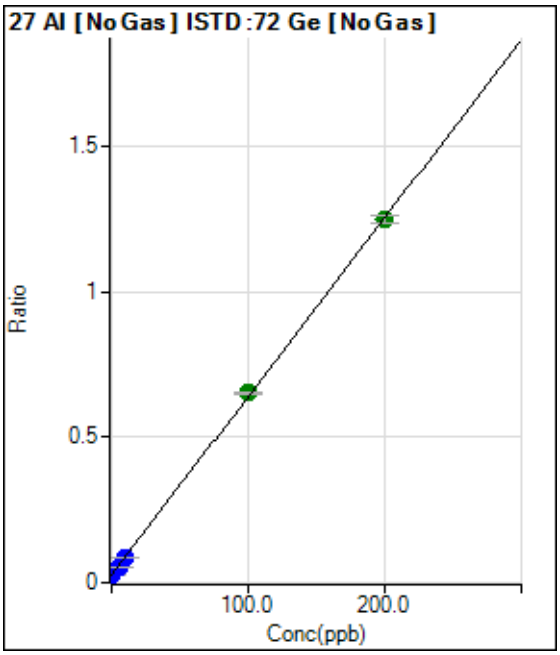
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	516.69	0.0007	P	15.2
2	☐	200.000	220.688	118833.40	0.1695	P	0.5
3	☐	500.000	559.887	293995.26	0.4290	P	1.7
4	☐	1000.000	1105.764	576692.93	0.8465	P	1.8
5	☐	10000.000	10105.389	5234989.09	7.7295	A	1.6
6	☐	20000.000	19940.313	10040672.35	15.2515	A	1.6

y = 7.6482E-004 * x + 7.4293E-004
R = 1.0000
DL = 0.4443
BEC = 0.9714

Weight: <None>
Min Conc: <None>

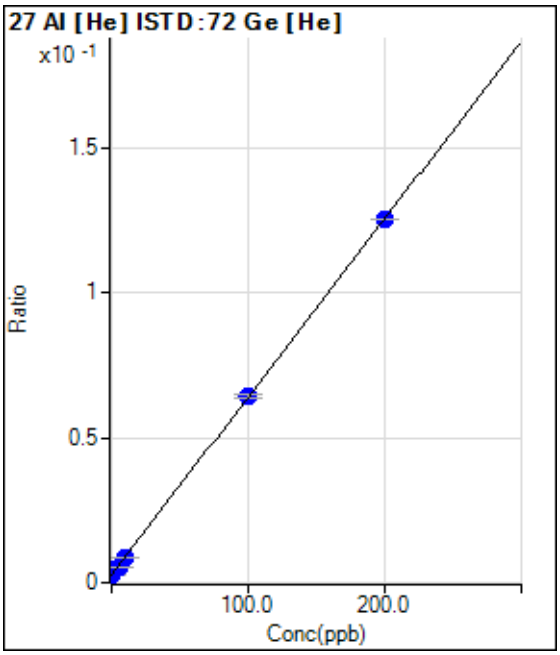


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61238.03	0.0267	P	1.3
2	☐	2.000	2.189	92711.35	0.0401	P	2.2
3	☐	5.000	4.581	122771.23	0.0548	P	0.5
4	☐	10.000	9.500	188959.39	0.0850	P	1.0
5	☐	100.000	102.042	1424318.26	0.6523	A	1.2
6	☐	200.000	199.012	2651431.68	1.2469	A	1.9

y = 0.0061 * x + 0.0267
R = 0.9999
DL = 0.1734
BEC = 4.356

Weight: <None>
Min Conc: <None>

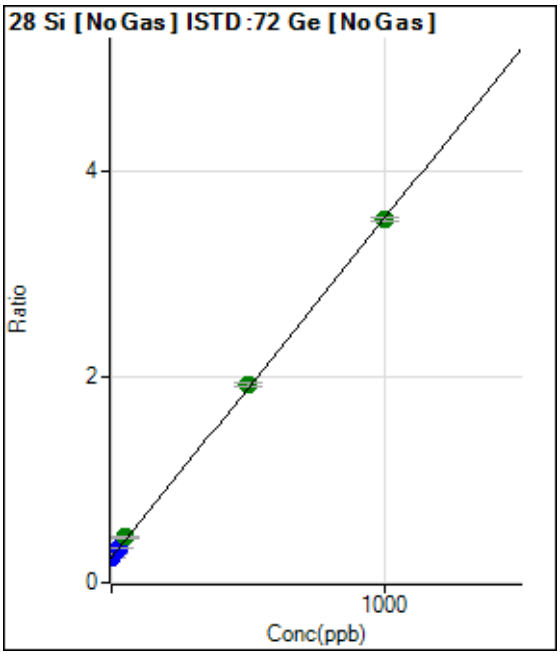
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1910.17	0.0027	P	3.0
2	☐	2.000	2.663	3070.39	0.0044	P	3.9
3	☐	5.000	4.599	3817.26	0.0056	P	1.6
4	☐	10.000	9.646	5904.69	0.0087	P	2.1
5	☐	100.000	100.850	43779.14	0.0646	P	2.0
6	☐	200.000	199.596	82466.89	0.1252	P	0.2

y = 6.1375E-004 * x + 0.0027
R = 1.0000
DL = 0.3983
BEC = 4.474

Weight: <None>
Min Conc: <None>

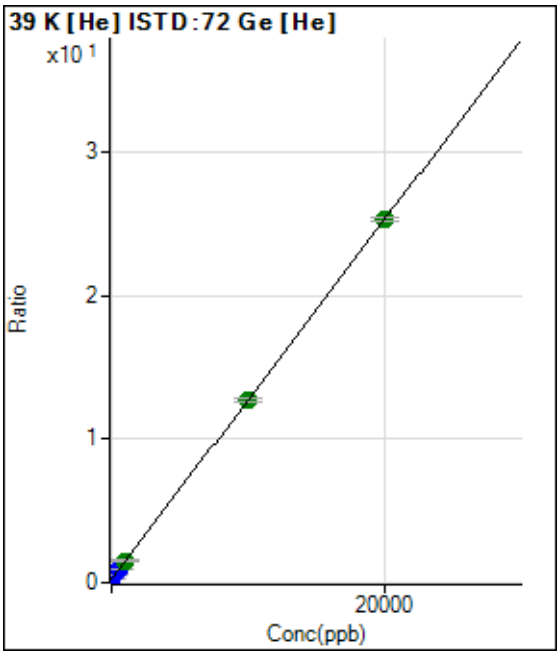


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	559990.16	0.2442	P	0.5
2	☐	10.000	10.270	642683.22	0.2782	P	0.6
3	☐	25.000	29.033	762007.51	0.3401	P	0.5
4	☐	50.000	60.832	989847.72	0.4451	A	2.8
5	☐	500.000	508.196	4196812.64	1.9223	A	2.2
6	☐	1000.000	995.257	7507763.84	3.5306	A	1.2

y = 0.0033 * x + 0.2442
R = 0.9999
DL = 1.057
BEC = 73.97

Weight: <None>
Min Conc: <None>

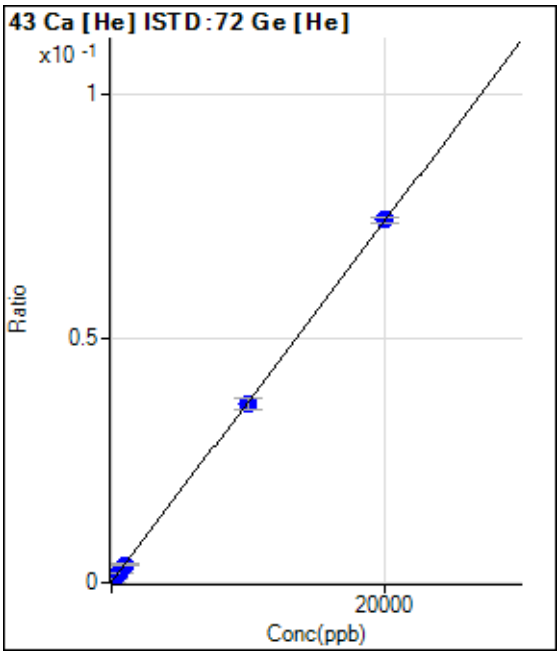
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156795.68	0.2254	P	0.3
2	☐	200.000	214.204	346010.01	0.4936	P	0.6
3	☐	500.000	546.408	623462.04	0.9096	P	0.5
4	☐	1000.000	1044.075	1044351.31	1.5327	A	1.2
5	☐	10000.000	10010.097	8640482.37	12.7594	A	2.4
6	☐	20000.000	19991.445	16628885.58	25.2574	A	1.1

y = 0.0013 * x + 0.2254
R = 1.0000
DL = 1.746
BEC = 180

Weight: <None>
Min Conc: <None>

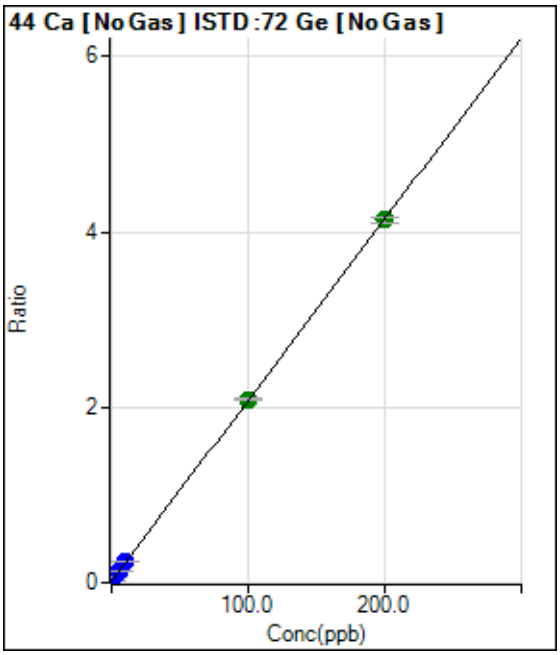


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0001	P	9.8
2	☐	200.000	165.570	483.35	0.0007	P	10.4
3	☐	500.000	498.090	1316.76	0.0019	P	10.3
4	☐	1000.000	969.102	2496.93	0.0037	P	5.3
5	☐	10000.000	9860.356	24759.22	0.0366	P	6.3
6	☐	20000.000	20071.759	48963.71	0.0744	P	1.7

y = 3.7017E-006 * x + 7.6623E-005
R = 1.0000
DL = 6.067
BEC = 20.7

Weight: <None>
Min Conc: <None>

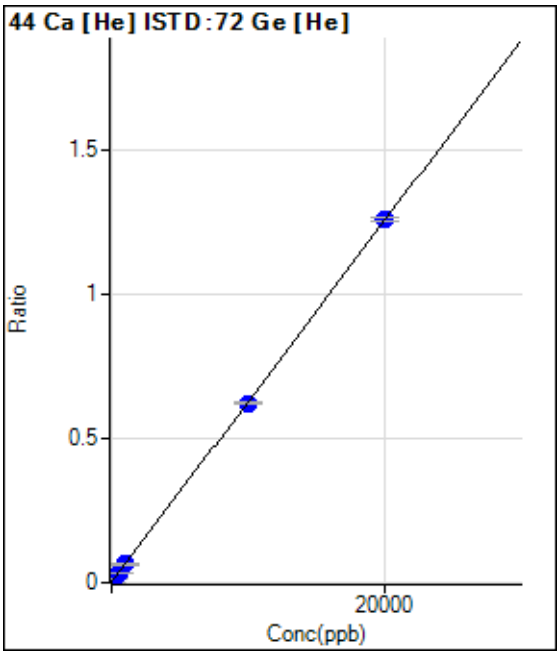
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35446.11	0.0155	P	1.6
2	☐	2.000	2.053	133619.87	0.0578	P	0.2
3	☐	5.000	5.242	276960.55	0.1236	P	0.9
4	☐	10.000	10.664	523790.45	0.2355	P	0.9
5	☐	100.000	100.581	4565369.83	2.0908	A	0.7
6	☐	200.000	199.670	8793813.20	4.1354	A	1.4

y = 0.0206 * x + 0.0155
R = 1.0000
DL = 0.03688
BEC = 0.7493

Weight: <None>
Min Conc: <None>

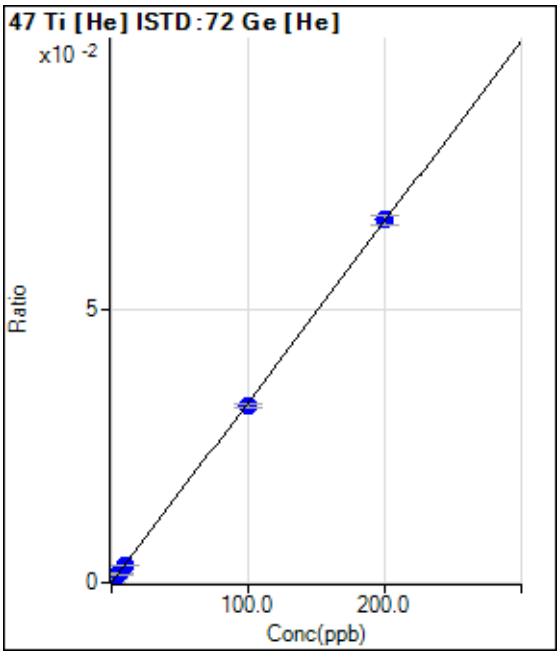


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1106.74	0.0016	P	7.8
2	☐	200.000	211.817	10414.09	0.0149	P	0.8
3	☐	500.000	503.068	22682.22	0.0331	P	2.3
4	☐	1000.000	987.580	43217.98	0.0634	P	1.2
5	☐	10000.000	9886.039	420361.89	0.6207	P	1.1
6	☐	20000.000	20057.406	827946.16	1.2576	P	1.2

y = 6.2620E-005 * x + 0.0016
R = 1.0000
DL = 5.918
BEC = 25.42

Weight: <None>
Min Conc: <None>

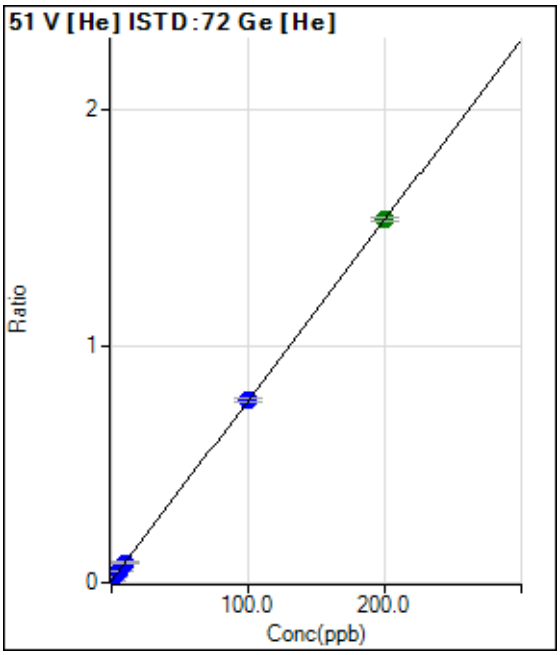
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	23.6
2	☐	2.000	1.914	466.69	0.0007	P	25.7
3	☐	5.000	4.961	1146.73	0.0017	P	10.7
4	☐	10.000	9.616	2190.21	0.0032	P	7.5
5	☐	100.000	98.131	22001.21	0.0325	P	2.8
6	☐	200.000	200.956	43773.09	0.0665	P	3.0

y = 3.3075E-004 * x + 3.3491E-005
R = 0.9999
DL = 0.0718
BEC = 0.1013

Weight: <None>
Min Conc: <None>

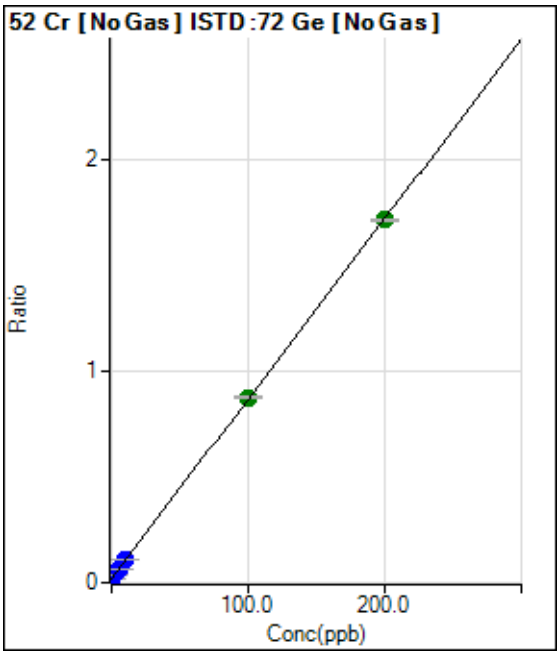


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5823.50	0.0084	P	2.2
2	☐	2.000	2.065	16902.67	0.0241	P	2.8
3	☐	5.000	5.109	32421.61	0.0473	P	1.6
4	☐	10.000	10.083	58047.68	0.0852	P	1.2
5	☐	100.000	99.786	520581.45	0.7687	P	2.2
6	☐	200.000	200.099	1009351.70	1.5331	A	1.1

y = 0.0076 * x + 0.0084
R = 1.0000
DL = 0.07295
BEC = 1.099

Weight: <None>
Min Conc: <None>

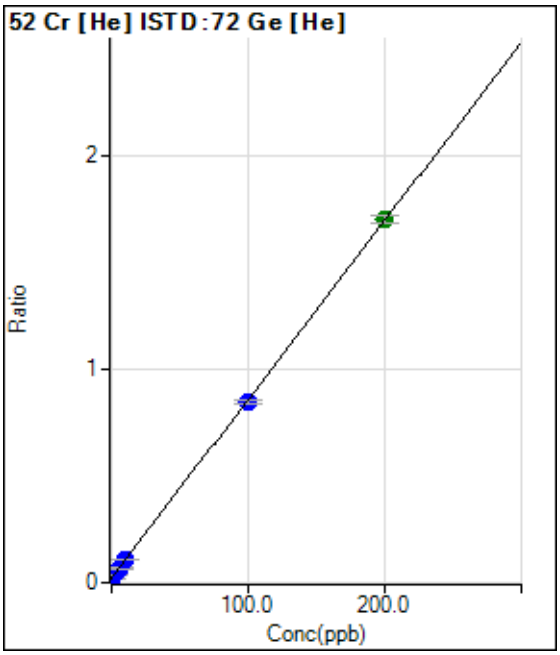
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42874.08	0.0187	P	0.7
2	☐	2.000	2.008	82557.56	0.0357	P	2.2
3	☐	5.000	5.224	141171.38	0.0630	P	1.2
4	☐	10.000	10.268	235308.96	0.1058	P	1.4
5	☐	100.000	100.844	1908588.93	0.8741	A	1.6
6	☐	200.000	199.559	3639957.86	1.7115	A	0.8

y = 0.0085 * x + 0.0187
R = 1.0000
DL = 0.04308
BEC = 2.204

Weight: <None>
Min Conc: <None>

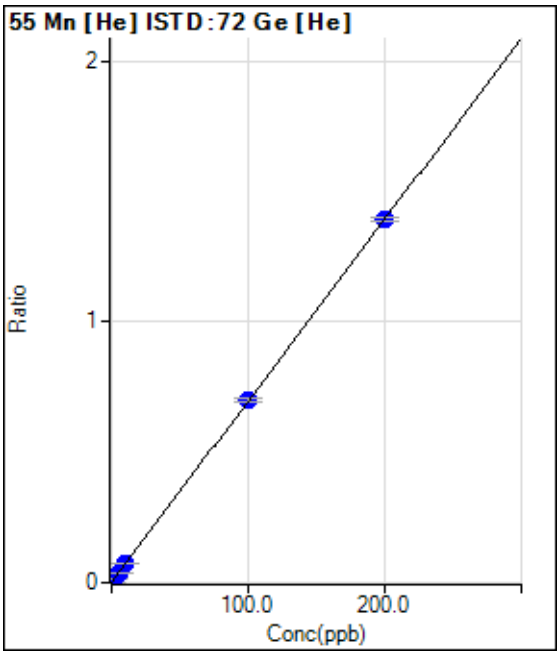


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15345.55	0.0221	P	2.1
2	☐	2.000	2.063	27581.35	0.0394	P	2.7
3	☐	5.000	5.331	45740.11	0.0667	P	3.0
4	☐	10.000	10.294	73825.10	0.1084	P	2.3
5	☐	100.000	98.837	576064.16	0.8506	P	1.7
6	☐	200.000	200.558	1121352.69	1.7033	A	2.3

y = 0.0084 * x + 0.0221
R = 1.0000
DL = 0.1645
BEC = 2.632

Weight: <None>
Min Conc: <None>

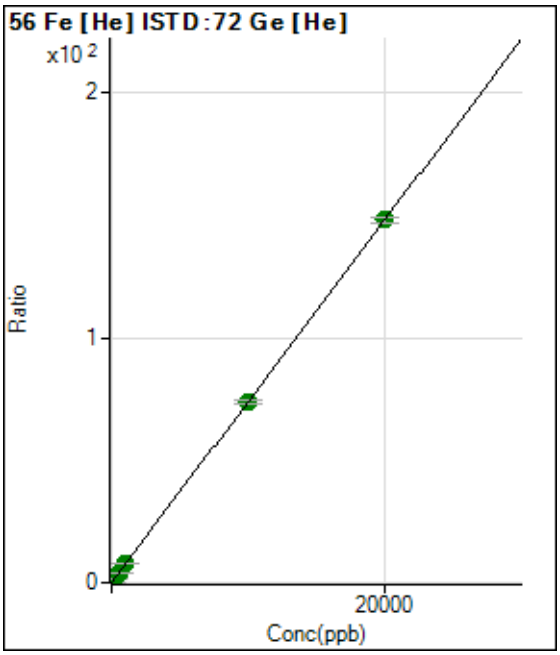
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	700.03	0.0010	P	4.8
2	☐	2.000	2.084	10867.82	0.0155	P	4.1
3	☐	5.000	5.232	25634.38	0.0374	P	1.0
4	☐	10.000	10.253	49269.03	0.0723	P	1.0
5	☐	100.000	100.175	472518.78	0.6977	P	2.0
6	☐	200.000	199.893	916014.08	1.3913	P	1.0

y = 0.0070 * x + 0.0010
R = 1.0000
DL = 0.02096
BEC = 0.1447

Weight: <None>
Min Conc: <None>

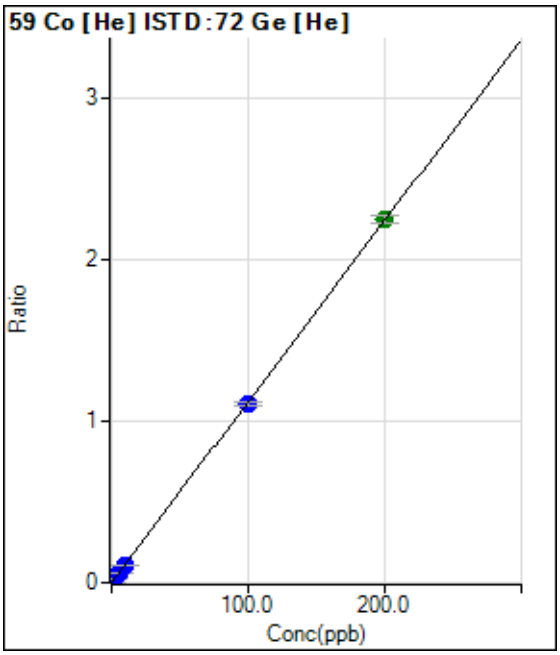


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23119.88	0.0332	P	0.4
2	☐	200.000	209.188	1106478.37	1.5787	A	2.2
3	☐	500.000	521.334	2662305.07	3.8847	A	2.3
4	☐	1000.000	1021.426	5164050.24	7.5793	A	1.4
5	☐	10000.000	9939.462	49751764.26	73.4634	A	1.9
6	☐	20000.000	20028.572	97438321.88	147.9991	A	1.7

y = 0.0074 * x + 0.0332
R = 1.0000
DL = 0.05498
BEC = 4.499

Weight: <None>
Min Conc: <None>

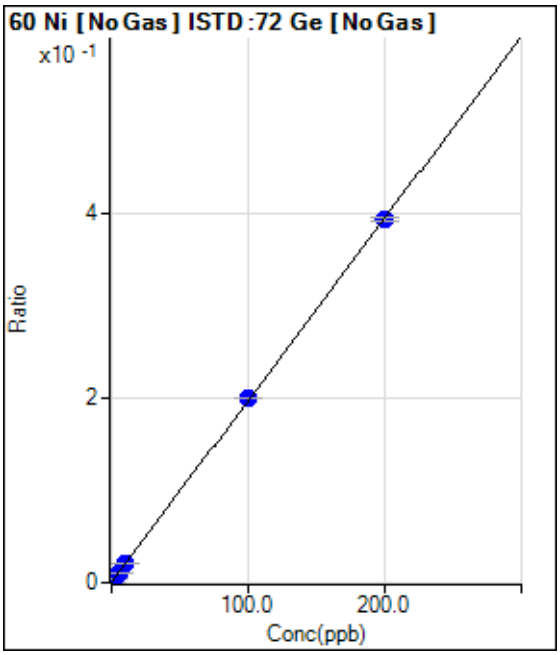
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0002	P	8.2
2	☐	2.000	1.988	15722.66	0.0224	P	0.8
3	☐	5.000	4.968	38220.71	0.0558	P	1.3
4	☐	10.000	10.036	76604.46	0.1124	P	0.6
5	☐	100.000	98.914	749238.56	1.1063	P	1.7
6	☐	200.000	200.542	1476640.81	2.2428	A	2.2

y = 0.0112 * x + 2.0138E-004
R = 1.0000
DL = 0.004429
BEC = 0.01801

Weight: <None>
Min Conc: <None>

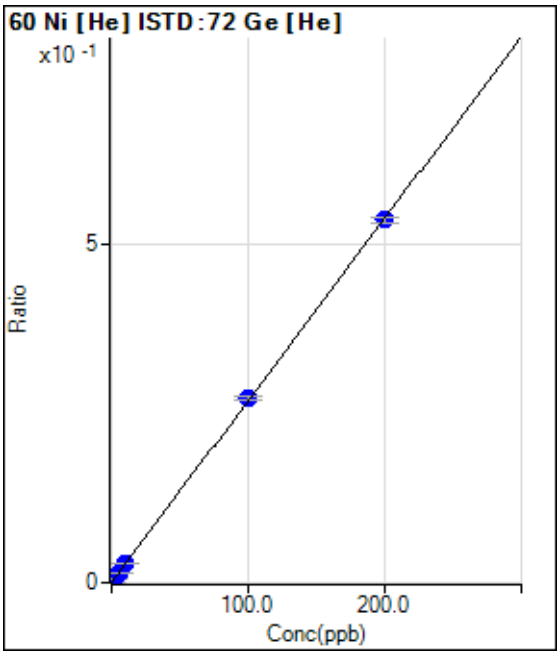


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	576.69	0.0003	P	13.0
2	☐	2.000	2.097	10113.90	0.0044	P	1.7
3	☐	5.000	5.227	23607.38	0.0105	P	1.5
4	☐	10.000	10.133	44914.23	0.0202	P	1.7
5	☐	100.000	101.421	436295.65	0.1998	P	0.6
6	☐	200.000	199.276	834352.30	0.3924	P	1.0

y = 0.0020 * x + 2.5161E-004
R = 1.0000
DL = 0.04968
BEC = 0.1279

Weight: <None>
Min Conc: <None>

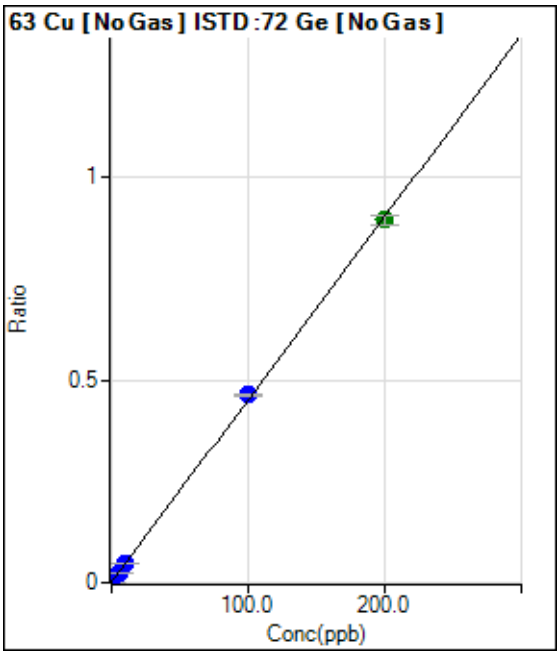
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190.00	0.0003	P	30.3
2	☐	2.000	2.169	4280.74	0.0061	P	3.1
3	☐	5.000	5.097	9580.20	0.0140	P	3.9
4	☐	10.000	10.129	18743.14	0.0275	P	2.9
5	☐	100.000	101.280	184633.98	0.2726	P	1.6
6	☐	200.000	199.350	353106.50	0.5363	P	1.6

y = 0.0027 * x + 2.7372E-004
R = 1.0000
DL = 0.09253
BEC = 0.1018

Weight: <None>
Min Conc: <None>

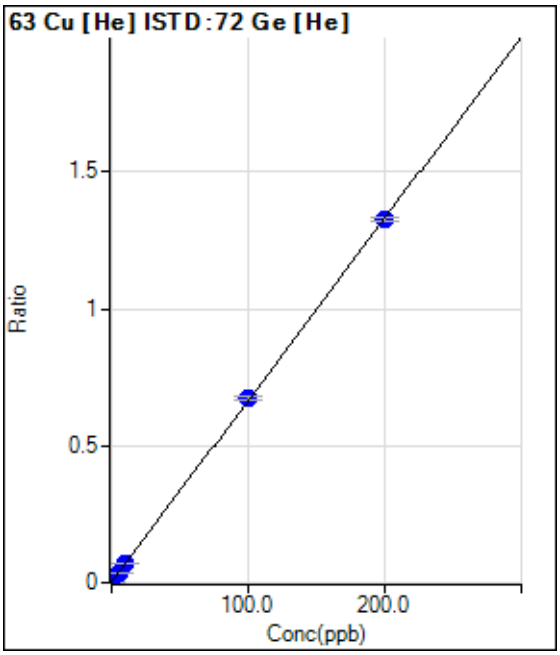


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2606.97	0.0011	P	6.4
2	☐	2.000	2.436	27962.37	0.0121	P	0.8
3	☐	5.000	5.250	55493.21	0.0248	P	1.9
4	☐	10.000	10.502	107673.70	0.0484	P	0.5
5	☐	100.000	102.916	1013918.40	0.4644	P	1.1
6	☐	200.000	198.506	1902099.40	0.8946	A	2.8

y = 0.0045 * x + 0.0011
R = 0.9999
DL = 0.04823
BEC = 0.2526

Weight: <None>
Min Conc: <None>

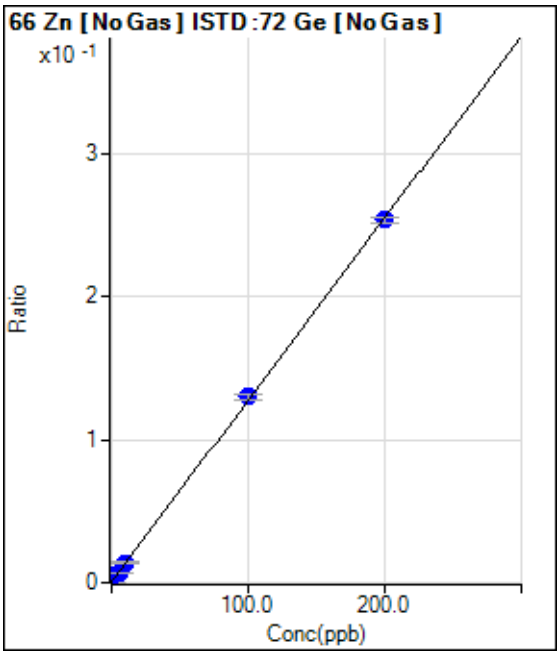
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1090.07	0.0016	P	18.4
2	☐	2.000	2.510	12776.20	0.0182	P	3.4
3	☐	5.000	5.145	24475.62	0.0357	P	2.8
4	☐	10.000	10.314	47710.44	0.0700	P	0.4
5	☐	100.000	101.296	456377.61	0.6739	P	1.7
6	☐	200.000	199.328	872070.15	1.3245	P	1.0

y = 0.0066 * x + 0.0016
R = 1.0000
DL = 0.1303
BEC = 0.2364

Weight: <None>
Min Conc: <None>

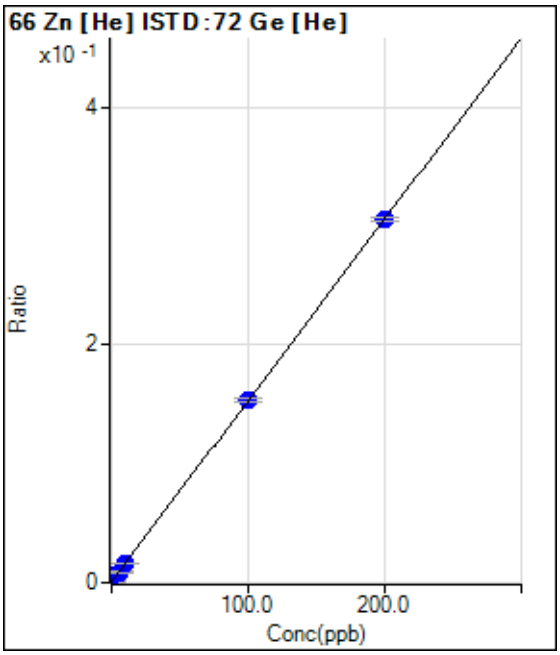


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1300.08	0.0006	P	10.2
2	☐	2.000	3.572	11801.99	0.0051	P	5.5
3	☐	5.000	5.192	16053.04	0.0072	P	3.7
4	☐	10.000	10.622	31283.12	0.0141	P	2.7
5	☐	100.000	101.642	283226.63	0.1297	P	2.2
6	☐	200.000	199.127	539281.08	0.2536	P	1.3

y = 0.0013 * x + 5.6720E-004
R = 0.9999
DL = 0.137
BEC = 0.4464

Weight: <None>
Min Conc: <None>

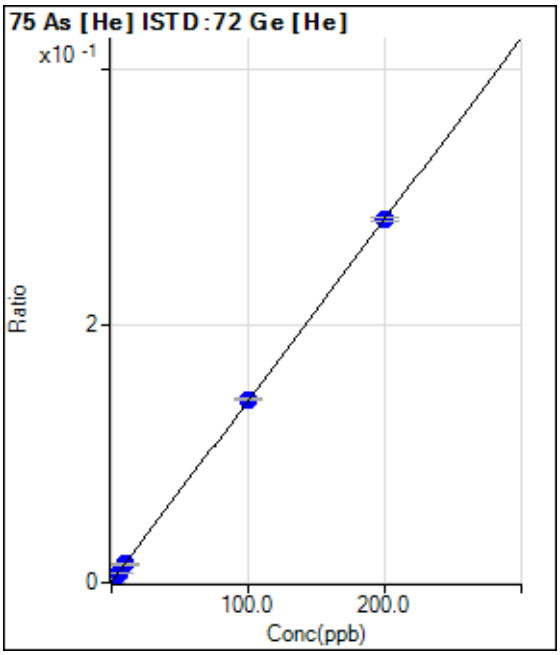
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	503.35	0.0007	P	25.7
2	☐	2.000	3.553	4304.08	0.0061	P	1.7
3	☐	5.000	5.245	5978.09	0.0087	P	4.3
4	☐	10.000	10.322	11214.79	0.0165	P	1.5
5	☐	100.000	100.517	104254.88	0.1539	P	1.9
6	☐	200.000	199.703	200893.04	0.3051	P	1.2

y = 0.0015 * x + 7.2493E-004
R = 1.0000
DL = 0.3669
BEC = 0.4756

Weight: <None>
Min Conc: <None>

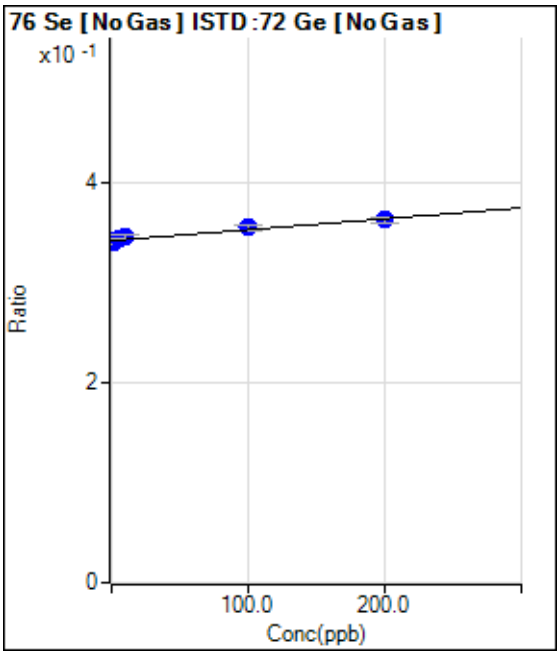


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	401.12	0.0006	P	9.1
2	☐	2.000	2.017	2398.00	0.0034	P	3.3
3	☐	5.000	5.016	5243.26	0.0076	P	3.5
4	☐	10.000	9.804	9812.49	0.0144	P	3.6
5	☐	100.000	100.594	96462.98	0.1424	P	1.5
6	☐	200.000	199.712	185796.08	0.2822	P	1.2

y = 0.0014 * x + 5.7635E-004
R = 1.0000
DL = 0.1117
BEC = 0.4087

Weight: <None>
Min Conc: <None>

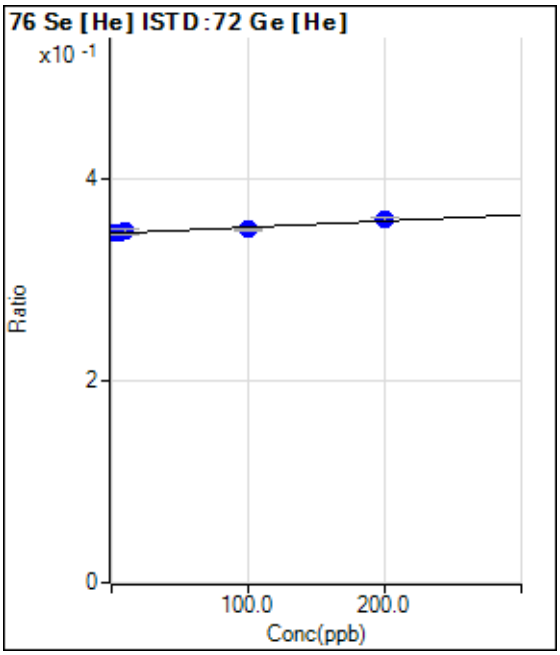
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	786163.95	0.3429	P	0.6
2	☐	2.000	-16.364	788104.05	0.3411	P	0.7
3	☐	5.000	20.715	773333.11	0.3452	P	0.5
4	☐	10.000	31.021	770192.72	0.3463	P	1.1
5	☐	100.000	119.078	777196.13	0.3560	P	1.5
6	☐	200.000	189.201	773308.82	0.3637	P	1.3

y = 1.0977E-004 * x + 0.3429
R = 0.9790
DL = 59.33
BEC = 3124

Weight: <None>
Min Conc: <None>

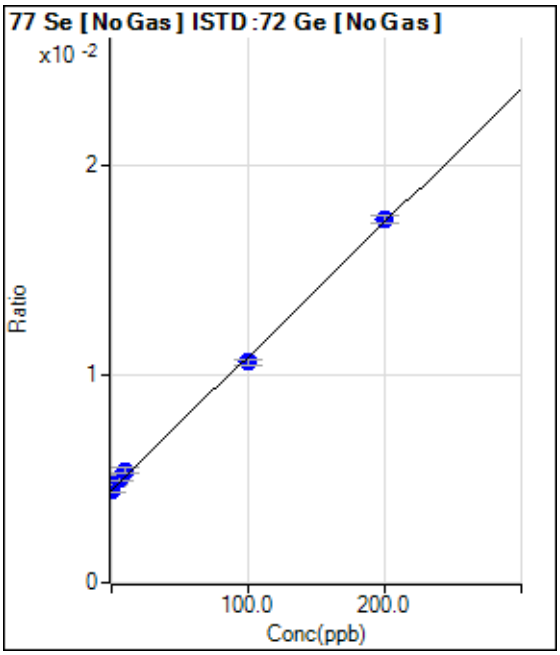


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	240572.72	0.3458	P	0.7
2	☐	2.000	17.684	243177.68	0.3469	P	0.7
3	☐	5.000	-2.951	236933.52	0.3457	P	0.3
4	☐	10.000	29.778	236860.92	0.3477	P	1.7
5	☐	100.000	64.183	236924.22	0.3498	P	0.4
6	☐	200.000	216.961	236480.30	0.3592	P	1.0

y = 6.1548E-005 * x + 0.3458
R = 0.9670
DL = 114.4
BEC = 5619

Weight: <None>
Min Conc: <None>

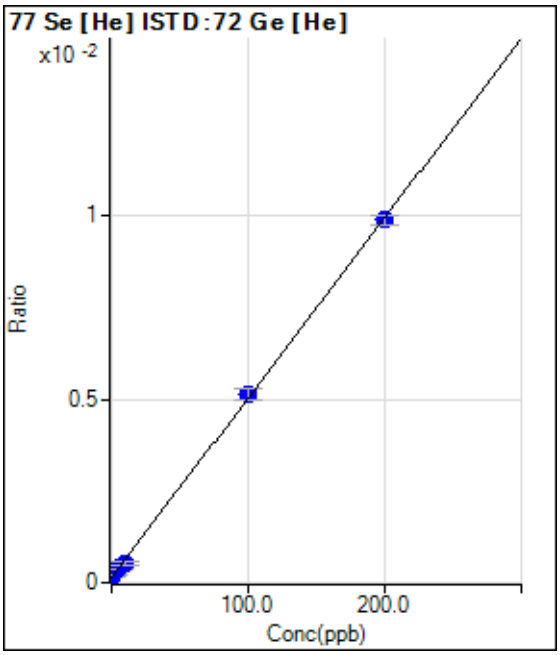
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10214.06	0.0045	P	7.4
2	☐	2.000	4.673	10984.65	0.0048	P	1.6
3	☐	5.000	8.528	11204.87	0.0050	P	4.9
4	☐	10.000	14.372	11962.19	0.0054	P	4.7
5	☐	100.000	95.417	23090.08	0.0106	P	2.0
6	☐	200.000	201.958	37004.51	0.0174	P	2.2

y = 6.4115E-005 * x + 0.0045
R = 0.9993
DL = 15.48
BEC = 69.48

Weight: <None>
Min Conc: <None>

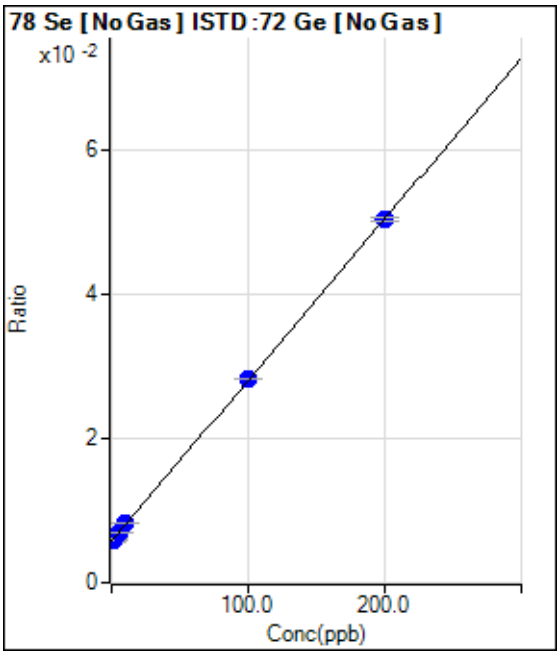


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	96.67	0.0001	P	7.0
2	☐	2.000	2.793	193.34	0.0003	P	30.8
3	☐	5.000	5.581	283.34	0.0004	P	28.8
4	☐	10.000	8.033	363.34	0.0005	P	17.5
5	☐	100.000	102.090	3483.85	0.0051	P	6.1
6	☐	200.000	199.031	6518.34	0.0099	P	2.8

y = 4.9054E-005 * x + 1.3903E-004
R = 0.9998
DL = 0.5912
BEC = 2.834

Weight: <None>
Min Conc: <None>

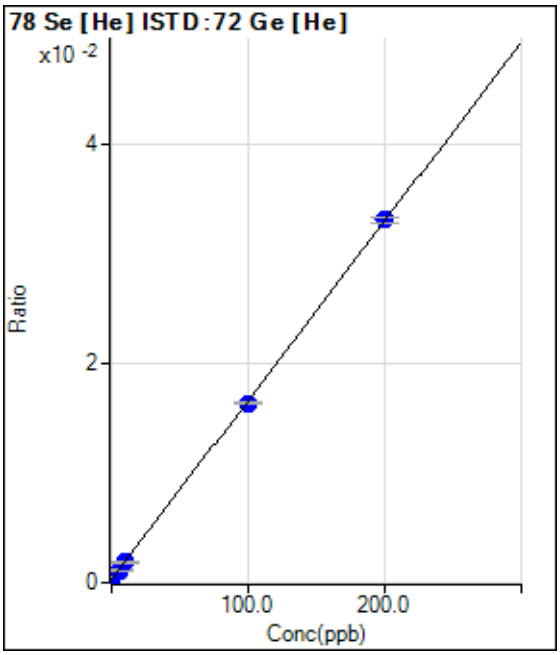
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13193.33	0.0058	P	6.7
2	☐	2.000	0.972	13797.26	0.0060	P	1.4
3	☐	5.000	5.324	15559.19	0.0069	P	1.0
4	☐	10.000	10.940	18239.24	0.0082	P	0.8
5	☐	100.000	100.858	61798.16	0.0283	P	0.6
6	☐	200.000	199.526	107089.85	0.0504	P	1.1

y = 2.2355E-004 * x + 0.0058
R = 1.0000
DL = 5.21
BEC = 25.74

Weight: <None>
Min Conc: <None>

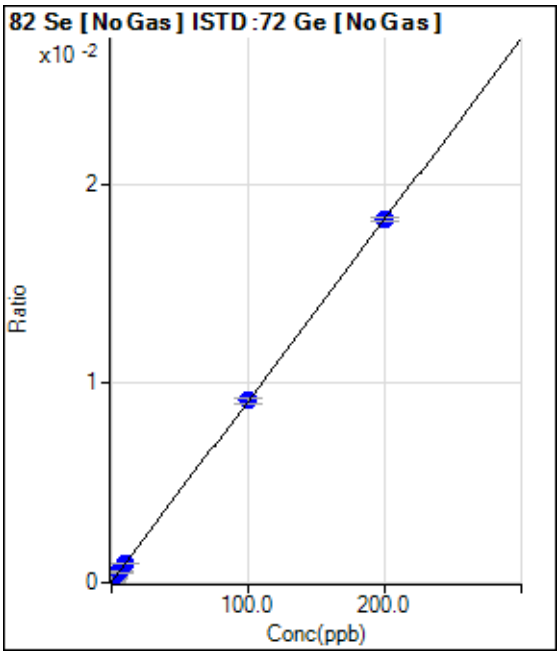


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	203.33	0.0003	P	5.8
2	☐	2.000	2.181	454.68	0.0006	P	11.8
3	☐	5.000	5.033	764.03	0.0011	P	6.4
4	☐	10.000	9.647	1273.40	0.0019	P	5.6
5	☐	100.000	98.532	11108.59	0.0164	P	1.6
6	☐	200.000	200.749	21800.27	0.0331	P	1.7

y = 1.6350E-004 * x + 2.9226E-004
R = 1.0000
DL = 0.3112
BEC = 1.788

Weight: <None>
Min Conc: <None>

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74.48	0.0000	P	121.9
2	☐	2.000	2.566	615.03	0.0003	P	21.3
3	☐	5.000	5.783	1251.67	0.0006	P	14.0
4	☐	10.000	10.027	2101.89	0.0009	P	0.7
5	☐	100.000	100.225	19986.98	0.0092	P	3.3
6	☐	200.000	199.861	38748.20	0.0182	P	1.1

y = 9.0999E-005 * x + 3.2541E-005

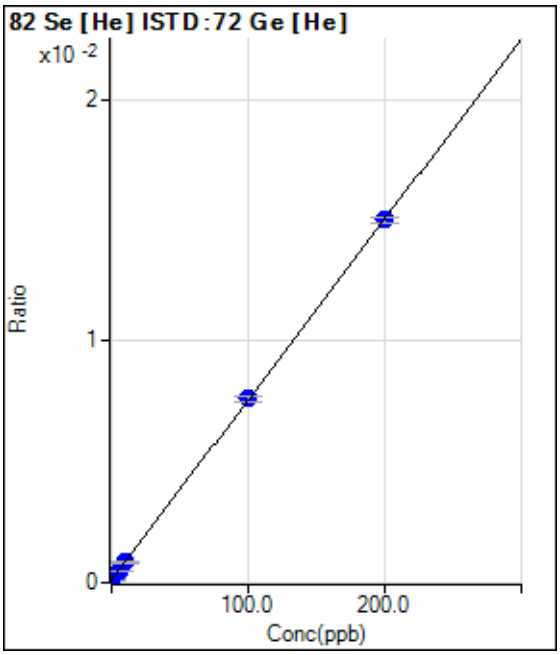
R = 1.0000

DL = 1.308

BEC = 0.3576

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.67	0.0001	P	42.5
2	☐	2.000	2.406	203.34	0.0003	P	6.6
3	☐	5.000	4.972	330.01	0.0005	P	12.8
4	☐	10.000	10.124	590.02	0.0009	P	8.2
5	☐	100.000	100.498	5154.42	0.0076	P	3.8
6	☐	200.000	199.741	9883.80	0.0150	P	1.7

y = 7.4588E-005 * x + 1.1051E-004

R = 1.0000

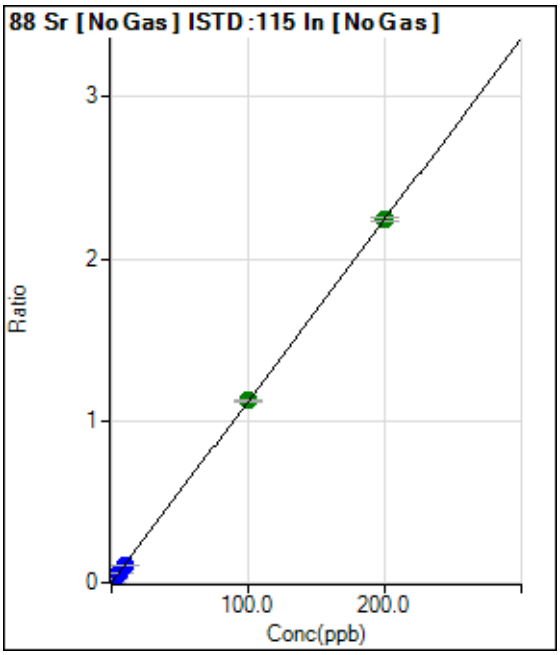
DL = 1.889

BEC = 1.482

Weight: <None>

Min Conc: <None>

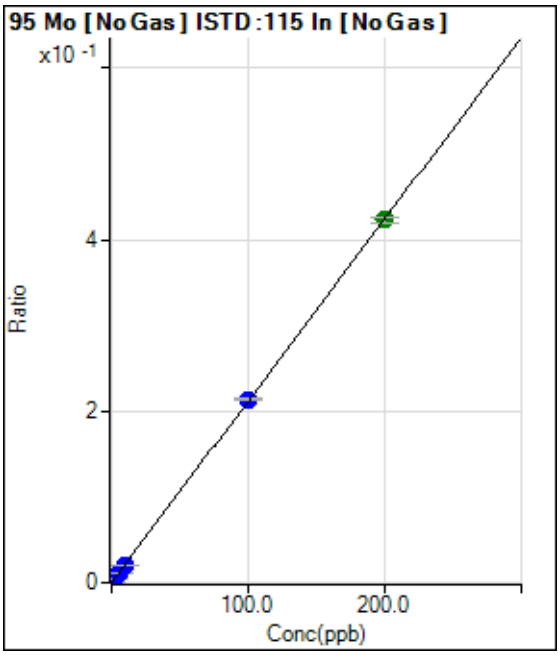
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2063.53	0.0008	P	1.5
2	☐	2.000	2.017	61069.08	0.0234	P	0.5
3	☐	5.000	5.031	145592.16	0.0571	P	1.2
4	☐	10.000	9.933	288544.70	0.1120	P	1.0
5	☐	100.000	100.148	2796544.75	1.1222	A	0.9
6	☐	200.000	199.929	5383500.96	2.2396	A	1.0

y = 0.0112 * x + 8.0004E-004
R = 1.0000
DL = 0.003112
BEC = 0.07145

Weight: <None>
Min Conc: <None>

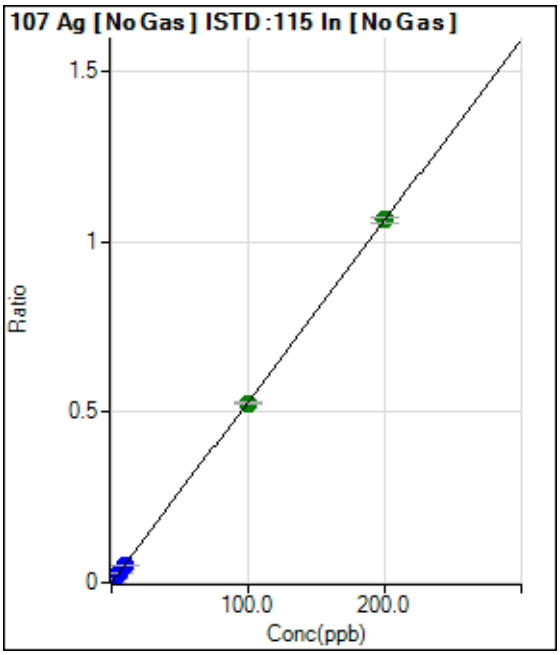


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	350.01	0.0001	P	12.5
2	☐	2.000	1.921	10981.33	0.0042	P	0.6
3	☐	5.000	4.853	26536.87	0.0104	P	2.7
4	☐	10.000	9.741	53490.85	0.0208	P	0.7
5	☐	100.000	100.653	531580.74	0.2133	P	1.2
6	☐	200.000	199.691	1016981.68	0.4231	A	1.4

y = 0.0021 * x + 1.3584E-004
R = 1.0000
DL = 0.02413
BEC = 0.06413

Weight: <None>
Min Conc: <None>

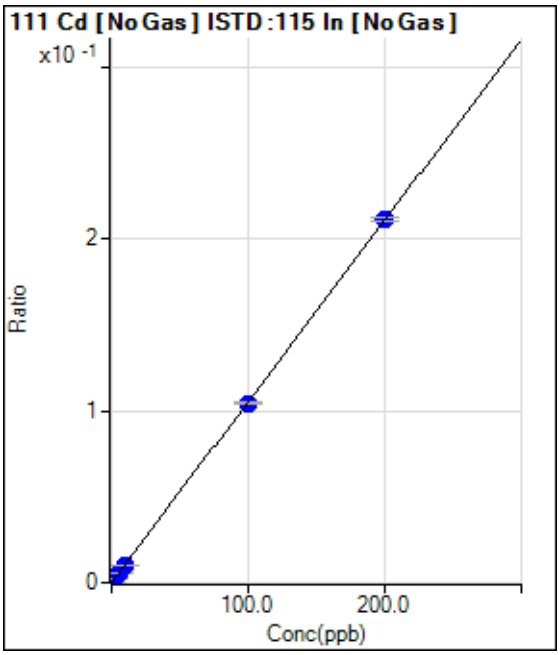
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.34	0.0000	P	79.0
2	☐	2.000	2.015	28073.41	0.0107	P	1.3
3	☐	5.000	5.015	67994.43	0.0267	P	1.6
4	☐	10.000	10.041	137513.47	0.0534	P	0.2
5	☐	100.000	99.279	1314444.15	0.5275	A	1.9
6	☐	200.000	200.358	2558622.93	1.0645	A	1.5

y = 0.0053 * x + 4.3686E-005
R = 1.0000
DL = 0.01948
BEC = 0.008223

Weight: <None>
Min Conc: <None>

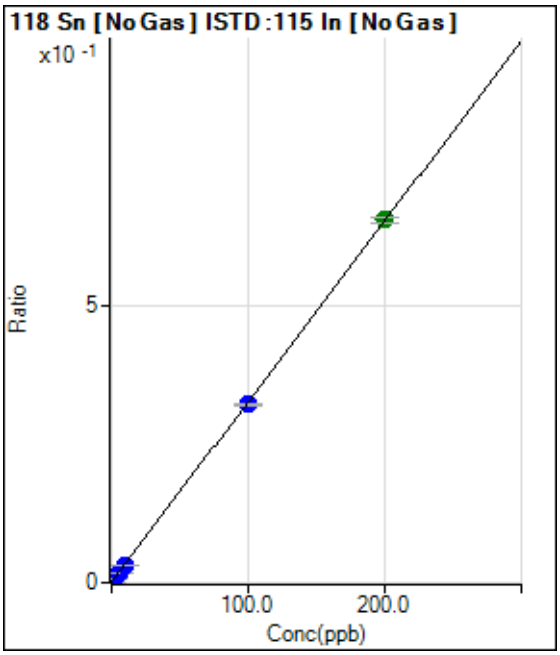


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9.51	0.0000	P	188.4
2	☐	2.000	1.938	5349.02	0.0020	P	2.2
3	☐	5.000	5.090	13686.15	0.0054	P	2.3
4	☐	10.000	9.828	26701.39	0.0104	P	3.6
5	☐	100.000	99.266	260874.07	0.1047	P	0.8
6	☐	200.000	200.374	507939.84	0.2113	P	1.1

y = 0.0011 * x + 3.7363E-006
R = 1.0000
DL = 0.02003
BEC = 0.003543

Weight: <None>
Min Conc: <None>

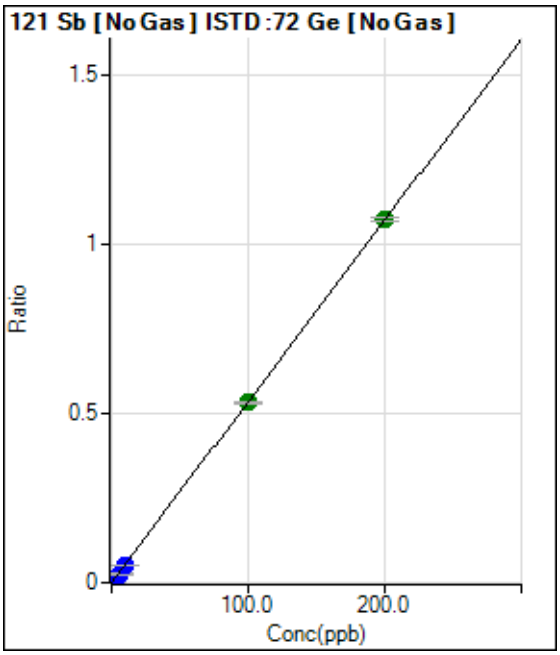
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2326.97	0.0009	P	54.2
2	☐	2.000	1.839	18052.72	0.0069	P	1.6
3	☐	5.000	4.751	41863.81	0.0164	P	0.4
4	☐	10.000	9.513	82387.37	0.0320	P	2.1
5	☐	100.000	98.367	803233.92	0.3223	P	1.3
6	☐	200.000	200.849	1579699.04	0.6572	A	1.7

y = 0.0033 * x + 9.0311E-004
R = 1.0000
DL = 0.449
BEC = 0.2764

Weight: <None>
Min Conc: <None>

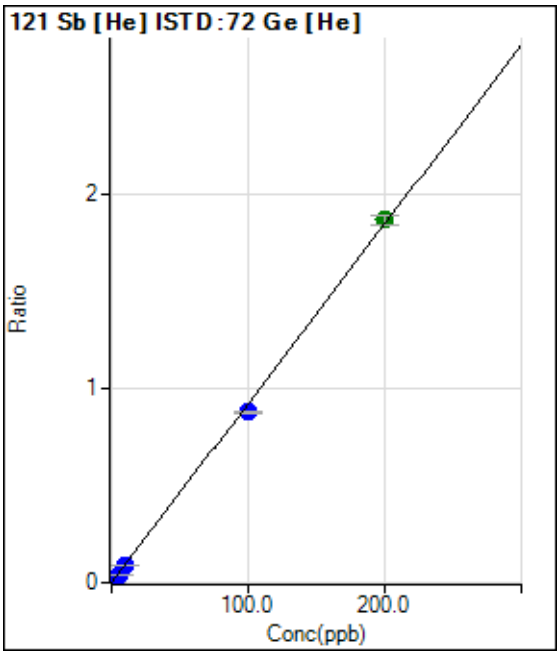


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	226.67	0.0001	P	17.9
2	☐	2.000	1.872	23387.84	0.0101	P	2.4
3	☐	5.000	4.708	56712.81	0.0253	P	2.7
4	☐	10.000	9.557	114059.28	0.0513	P	2.4
5	☐	100.000	99.382	1162485.89	0.5324	A	0.6
6	☐	200.000	200.340	2282055.33	1.0731	A	1.0

y = 0.0054 * x + 9.8878E-005
R = 1.0000
DL = 0.009916
BEC = 0.01846

Weight: <None>
Min Conc: <None>

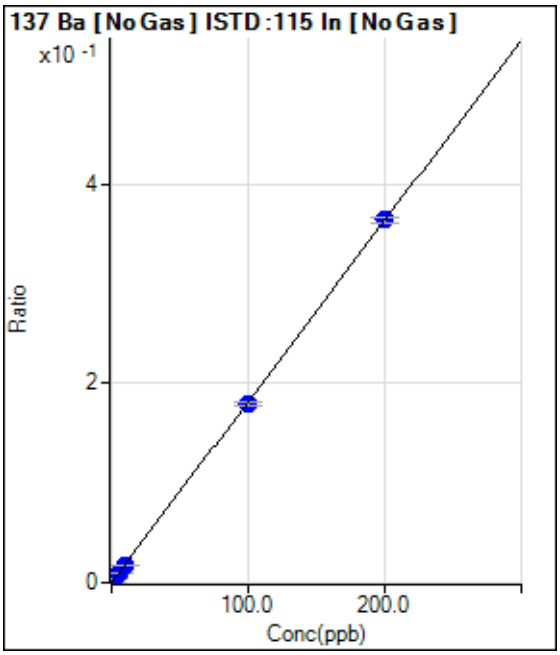
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	183.34	0.0003	P	30.6
2	☐	2.000	1.822	11945.62	0.0170	P	2.7
3	☐	5.000	4.692	29787.44	0.0435	P	1.7
4	☐	10.000	9.486	59672.32	0.0876	P	2.6
5	☐	100.000	95.132	593326.97	0.8760	P	1.1
6	☐	200.000	202.469	1227147.40	1.8642	A	2.5

y = 0.0092 * x + 2.6325E-004
R = 0.9996
DL = 0.02628
BEC = 0.0286

Weight: <None>
Min Conc: <None>

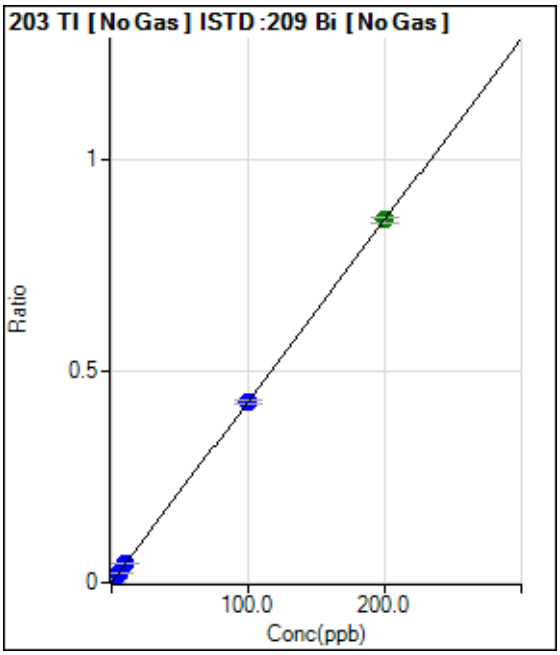


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	620.03	0.0002	P	4.7
2	☐	2.000	1.849	9400.24	0.0036	P	3.8
3	☐	5.000	4.888	23234.49	0.0091	P	1.0
4	☐	10.000	9.651	45757.50	0.0178	P	1.6
5	☐	100.000	98.919	448212.86	0.1799	P	2.0
6	☐	200.000	200.562	875973.45	0.3644	P	1.7

y = 0.0018 * x + 2.4034E-004
R = 1.0000
DL = 0.01874
BEC = 0.1323

Weight: <None>
Min Conc: <None>

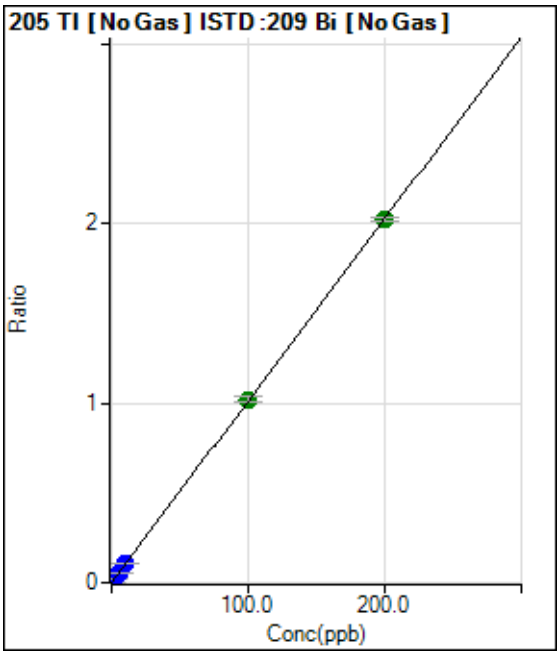
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	193.34	0.0001	P	31.1
2	☐	2.000	2.095	18193.55	0.0091	P	2.1
3	☐	5.000	5.303	43874.15	0.0228	P	1.3
4	☐	10.000	10.223	85938.17	0.0439	P	1.2
5	☐	100.000	99.773	821096.94	0.4274	P	2.4
6	☐	200.000	200.094	1590657.11	0.8571	A	1.3

y = 0.0043 * x + 9.8525E-005
R = 1.0000
DL = 0.02149
BEC = 0.023

Weight: <None>
Min Conc: <None>

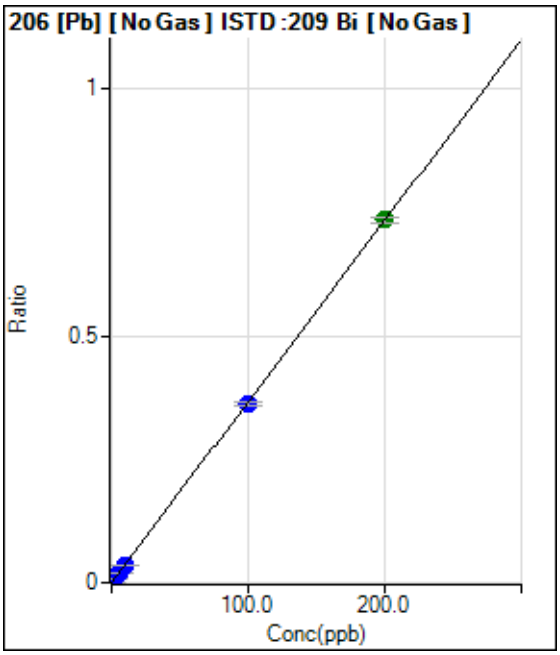


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	510.02	0.0003	P	6.9
2	☐	2.000	2.068	42469.49	0.0212	P	2.6
3	☐	5.000	5.330	104156.22	0.0542	P	3.1
4	☐	10.000	10.433	207139.90	0.1058	P	2.5
5	☐	100.000	100.810	1959430.13	1.0200	A	2.8
6	☐	200.000	199.564	3746714.11	2.0190	A	1.1

y = 0.0101 * x + 2.5865E-004
R = 1.0000
DL = 0.005264
BEC = 0.02557

Weight: <None>
Min Conc: <None>

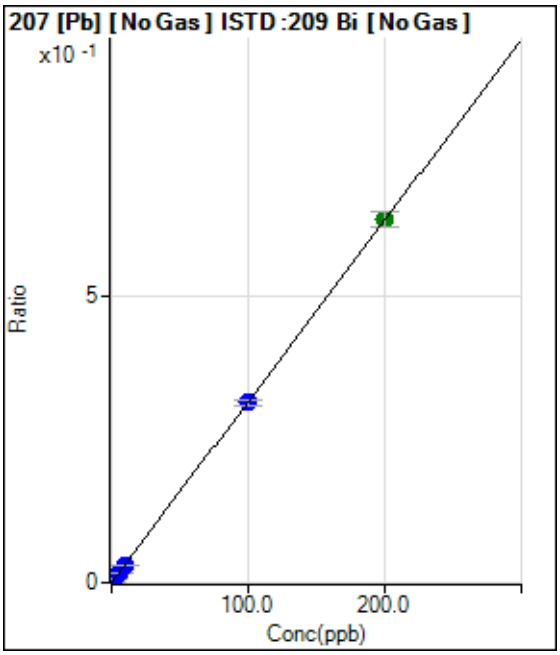
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	206.68	0.0001	P	16.1
2	☐	2.000	1.995	14879.13	0.0074	P	3.4
3	☐	5.000	5.052	35818.56	0.0186	P	2.4
4	☐	10.000	9.764	70311.56	0.0359	P	1.5
5	☐	100.000	98.952	697209.54	0.3629	P	2.5
6	☐	200.000	200.535	1364695.97	0.7354	A	1.3

y = 0.0037 * x + 1.0504E-004
R = 1.0000
DL = 0.01382
BEC = 0.02865

Weight: <None>
Min Conc: <None>

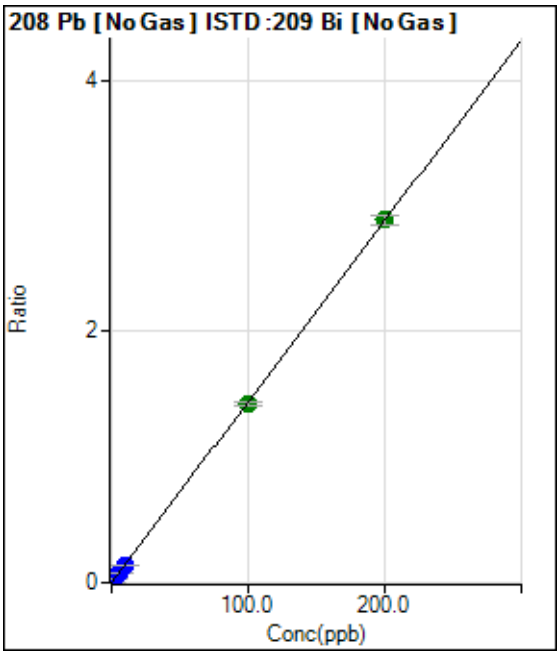


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	176.67	0.0001	P	43.5
2	☐	2.000	2.066	13290.64	0.0066	P	3.9
3	☐	5.000	4.975	30450.83	0.0158	P	1.3
4	☐	10.000	9.732	60486.96	0.0309	P	1.2
5	☐	100.000	99.290	603722.77	0.3143	P	3.2
6	☐	200.000	200.369	1176648.00	0.6342	A	4.1

y = 0.0032 * x + 8.8685E-005
R = 1.0000
DL = 0.03661
BEC = 0.02802

Weight: <None>
Min Conc: <None>

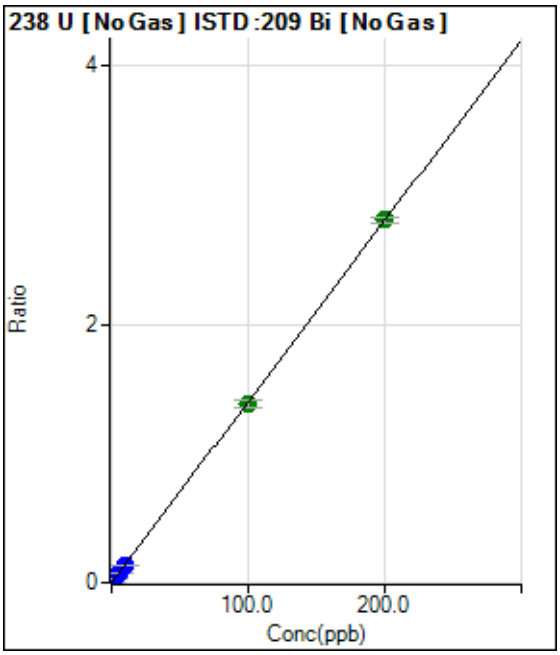
Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	823.37	0.0004	P	9.0
2	☐	2.000	2.013	58965.01	0.0294	P	4.0
3	☐	5.000	5.087	141690.95	0.0737	P	2.5
4	☐	10.000	9.888	279708.48	0.1428	P	1.3
5	☐	100.000	98.708	2732027.08	1.4222	A	2.2
6	☐	200.000	200.649	5363498.30	2.8905	A	2.3

y = 0.0144 * x + 4.1672E-004
R = 1.0000
DL = 0.00783
BEC = 0.02893

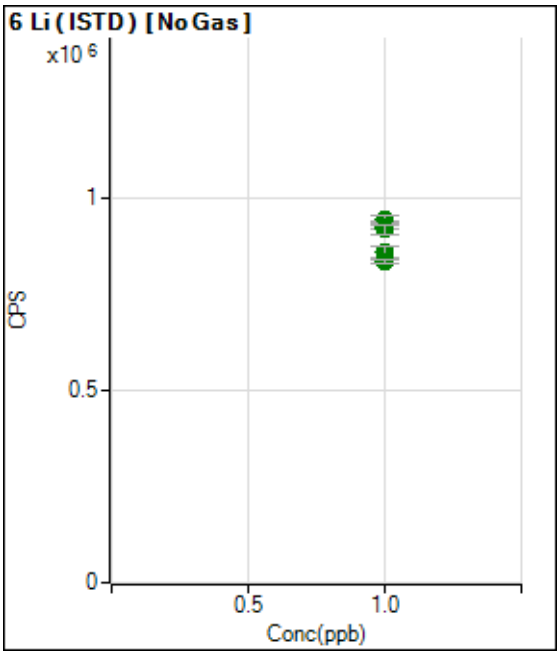
Weight: <None>
Min Conc: <None>



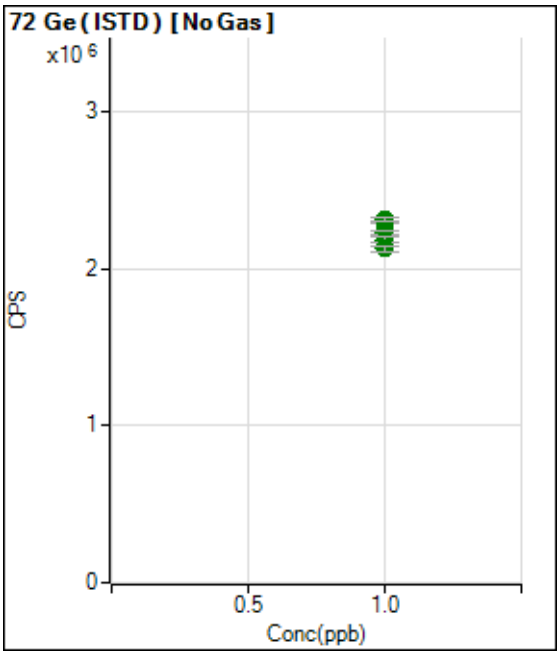
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0000	P	13.3
2	☐	2.000	1.943	54642.20	0.0273	P	3.7
3	☐	5.000	4.962	133706.43	0.0695	P	3.4
4	☐	10.000	9.712	266449.22	0.1361	P	3.0
5	☐	100.000	98.848	2659759.08	1.3849	A	3.4
6	☐	200.000	200.592	5214869.09	2.8102	A	1.6

y = 0.0140 * x + 2.8828E-005
R = 1.0000
DL = 0.0008215
BEC = 0.002058

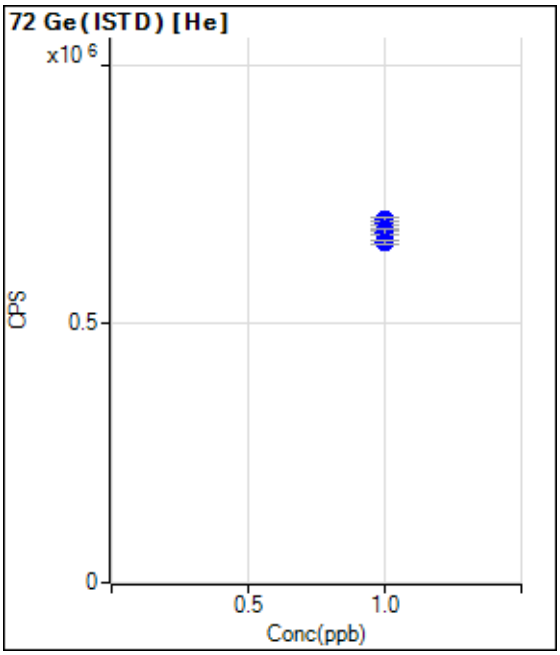
Weight: <None>
Min Conc: <None>



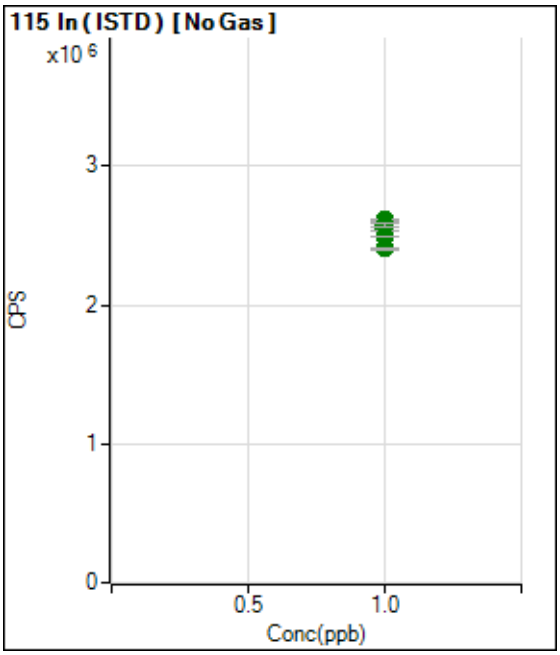
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		937352.59		A	0.4
2	☐	1.000		943893.75		A	2.1
3	☐	1.000		928015.29		A	1.5
4	☐	1.000		918557.10		A	2.8
5	☐	1.000		862100.76		A	3.3
6	☐	1.000		834092.42		A	1.1



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2292754.70		A	0.4
2	☐	1.000		2310627.36		A	0.9
3	☐	1.000		2240532.73		A	0.5
4	☐	1.000		2224293.88		A	1.2
5	☐	1.000		2183647.10		A	1.5
6	☐	1.000		2126741.59		A	1.6

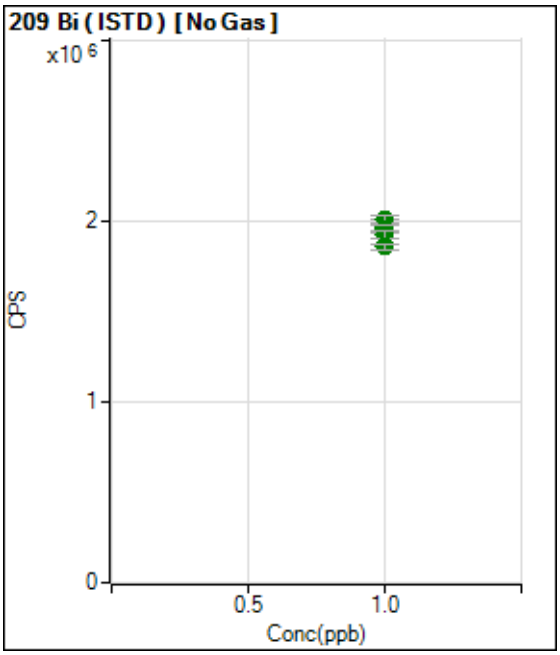


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		695601.19		P	1.1
2	☐	1.000		700979.65		P	1.0
3	☐	1.000		685462.36		P	1.3
4	☐	1.000		681341.11		P	0.8
5	☐	1.000		677376.08		P	1.9
6	☐	1.000		658437.48		P	1.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2579131.97		A	1.1
2	☐	1.000		2611940.82		A	0.4
3	☐	1.000		2548332.98		A	1.2
4	☐	1.000		2575869.25		A	1.4
5	☐	1.000		2491927.91		A	0.3
6	☐	1.000		2403824.33		A	0.9

Calibration for 021_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1971731.80		A	3.7
2	☐	1.000		2006185.54		A	2.3
3	☐	1.000		1923433.41		A	2.1
4	☐	1.000		1958550.96		A	2.0
5	☐	1.000		1921526.38		A	2.3
6	☐	1.000		1855903.67		A	1.3

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	023LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:38:35-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	014CALB.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	1.929	1.929	4.50	86513	0.00	2	
Be	9	1	No Gas	1.870	1.870	4.86	7355	0.03	2	
V	51	2	He	1.666	1.666	0.27	14425	0.01	2	
Cr	52	2	He	2.130	2.130	2.54	27334	0.01	2	
Fe	56	2	He	210.902	210.902	0.66	1089598	0.02	200	
Se	78	2	He	1.727	1.727	8.43	393	0.44	2	
As	75	2	He	1.878	1.878	3.19	2208	0.09	2	
Ca	44	2	He	191.719	191.719	4.38	9310	2.06	200	
Na	23	2	He	220.102	220.102	1.06	242092	0.09	200	
Mg	24	2	He	226.533	226.533	0.77	119139	0.19	200	
K	39	2	He	220.766	220.766	2.26	343602	0.06	200	
Mn	55	2	He	2.037	2.037	4.02	10394	0.02	2	
Co	59	2	He	2.011	2.011	2.19	15536	0.01	2	
Ni	60	2	He	2.182	2.182	6.92	4204	0.05	2	
Cu	63	2	He	2.396	2.396	1.23	11962	0.02	2	
Zn	66	2	He	3.526	3.526	8.56	4177	0.08	2	NewName Main CR1 Failed
Al	27	2	He	2.603	2.603	4.24	2974	0.09	2	NewName Main CR1 Failed
B	11	1	No Gas	13.466	13.466	1.91	39143	0.03	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.246	2.246	10.68	89990	0.00	2	
Si	28	1	No Gas	13.546	13.546	16.85	642582	0.00	10	NewName Main CR1 Failed
Ag	107	1	No Gas	2.019	2.019	4.44	27452	0.01	2	
Cd	111	1	No Gas	1.873	1.873	4.91	5053	0.04	2	
Sr	88	1	No Gas	1.980	1.980	5.49	58541	0.00	2	
Mo	95	1	No Gas	1.958	1.958	3.61	10921	0.02	2	
Sn	118	1	No Gas	1.887	1.887	5.50	18019	0.01	2	
Sb	121	1	No Gas	1.909	1.909	1.41	22964	0.01	2	
Ba	137	1	No Gas	1.965	1.965	2.25	9714	0.02	2	
Tl	205	1	No Gas	2.108	2.108	2.02	42145	0.01	2	
Tl	203	1	No Gas	2.120	2.120	2.24	17923	0.01	2	
Pb	208	1	No Gas	1.977	1.977	0.68	56421	0.00	2	
U	238	1	No Gas	1.954	1.954	2.13	53510	0.00	2	
Ca	43	2	He	200.140	200.140	10.11	560	35.74	200	
Sb	121	2	He	1.838	1.838	5.95	11772	0.02	2	
Ti	47	2	He	1.944	1.944	8.38	463	0.42	200	
Cu	63	1	No Gas	2.458	2.458	3.69	27124	0.01	2	
Se	82	1	No Gas	1.815	1.815	21.67	442	0.41	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	930387	1.31	937353	99.26	70	120	
Ge	72	2	He	684731	0.82	695601	98.44	70	120	
Ge	72	1	No Gas	2225046	3.50	2292755	97.05	70	120	
In	115	1	No Gas	2551781	4.11	2579132	98.94	70	120	
Bi	209	1	No Gas	1952335	0.33	1971732	99.02	70	120	

Sample Report

Sample Table

Sample Name	LLICV5
Data File Name	024LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:40:45-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	014CALB.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	4.965	4.965	0.55	123183	0.00	5	
Be	9	1	No Gas	4.725	4.725	1.16	18327	0.03	5	
V	51	2	He	4.581	4.581	1.41	29684	0.02	5	
Cr	52	2	He	5.175	5.175	1.01	44890	0.01	5	
Fe	56	2	He	516.090	516.090	2.03	2637952	0.02	500	
Se	78	2	He	4.687	4.687	4.79	726	0.65	5	
As	75	2	He	4.921	4.921	1.23	5155	0.10	5	
Ca	44	2	He	515.802	515.802	0.34	23247	2.22	500	
Na	23	2	He	544.617	544.617	1.15	522159	0.10	500	
Mg	24	2	He	556.150	556.150	1.54	292244	0.19	500	
K	39	2	He	538.122	538.122	1.40	616755	0.09	500	
Mn	55	2	He	5.092	5.092	4.40	24987	0.02	5	
Co	59	2	He	5.048	5.048	1.50	38855	0.01	5	
Ni	60	2	He	5.180	5.180	3.57	9740	0.05	5	
Cu	63	2	He	5.098	5.098	2.65	24282	0.02	5	
Zn	66	2	He	5.341	5.341	3.96	6081	0.09	5	
Al	27	2	He	4.271	4.271	7.22	3681	0.12	5	
B	11	1	No Gas	26.877	26.877	1.06	63884	0.04	25	
Al	27	1	No Gas	4.681	4.681	4.32	122609	0.00	5	
Si	28	1	No Gas	31.717	31.717	6.32	772433	0.00	25	
Ag	107	1	No Gas	5.021	5.021	3.01	68062	0.01	5	
Cd	111	1	No Gas	4.795	4.795	0.92	12891	0.04	5	
Sr	88	1	No Gas	4.981	4.981	1.03	144133	0.00	5	
Mo	95	1	No Gas	4.877	4.877	1.28	26664	0.02	5	
Sn	118	1	No Gas	4.751	4.751	3.53	41840	0.01	5	
Sb	121	1	No Gas	4.748	4.748	3.39	56478	0.01	5	
Ba	137	1	No Gas	4.589	4.589	1.50	21842	0.02	5	
Tl	205	1	No Gas	5.155	5.155	2.46	102301	0.01	5	
Tl	203	1	No Gas	5.200	5.200	2.99	43653	0.01	5	
Pb	208	1	No Gas	4.947	4.947	2.60	139891	0.00	5	
U	238	1	No Gas	4.872	4.872	1.37	133304	0.00	5	
Ca	43	2	He	470.634	470.634	12.92	1247	37.75	500	
Sb	121	2	He	4.717	4.717	1.60	29965	0.02	5	
Ti	47	2	He	4.969	4.969	11.20	1150	0.43	5	
Cu	63	1	No Gas	5.158	5.158	0.72	53907	0.01	5	
Se	82	1	No Gas	5.226	5.226	10.60	1125	0.46	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	923155	1.21	937353	98.49	70	120	
Ge	72	2	He	685915	0.76	695601	98.61	70	120	
Ge	72	1	No Gas	2213521	2.63	2292755	96.54	70	120	

Sample Report

In	115	1	No Gas	2547785	1.87	2579132	98.78	70	120	
Bi	209	1	No Gas	1952798	3.55	1971732	99.04	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	025_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:42:53-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	-0.047	-72.6	62525	0.3	0.5	
Be	9	1	No Gas	0.008	91.4	58	51.7	0.5	
V	51	2	He	-0.306	-7.9	4125	2.8	2.5	
Cr	52	2	He	0.246	75.0	16464	5.5	2.5	
Fe	56	2	He	-0.712	-27.4	19104	4.8	100	
Se	78	2	He	-0.239	-120.6	173	17.7	1	
As	75	2	He	-0.048	-139.7	347	17.8	2.5	
Ca	44	2	He	-7.953	-27.1	747	12.1	100	
Na	23	2	He	-9.577	-4.4	44387	0.7	100	
Mg	24	2	He	0.177	65.3	600	10.9	100	
K	39	2	He	6.049	13.4	159094	1.3	100	
Mn	55	2	He	0.038	4.0	867	1.3	2.5	
Co	59	2	He	-0.001	-286.8	130	15.4	2.5	
Ni	60	2	He	0.236	20.3	620	13.8	2.5	
Cu	63	2	He	0.131	10.4	1667	4.0	1	
Zn	66	2	He	0.085	74.4	583	11.4	2.5	
Al	27	2	He	-2.468	-13.3	840	16.0	5	
B	11	1	No Gas	2.100	3.7	17326	1.4	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-2.348	-0.8	27140	1.3	5	
Si	28	1	No Gas	3.573	9.4	564473	1.2	10	
Ag	107	1	No Gas	0.008	27.5	223	14.4	2.5	
Cd	111	1	No Gas	0.001	836.6	13	205.4	1	
Sr	88	1	No Gas	-0.042	-7.5	847	10.3	2.5	
Mo	95	1	No Gas	0.007	203.2	383	19.9	2.5	
Sn	118	1	No Gas	-0.050	-26.9	1887	6.8	5	
Sb	121	1	No Gas	0.052	26.4	833	18.7	2.5	
Ba	137	1	No Gas	-0.037	-59.9	440	24.1	2.5	
Tl	205	1	No Gas	0.006	85.1	617	15.1	1	
Tl	203	1	No Gas	0.016	37.8	323	14.6	1	
Pb	208	1	No Gas	0.005	109.2	963	18.1	2.5	
U	238	1	No Gas	0.007	22.8	253	18.2	2.5	
Ca	43	2	He	-7.475	-82.7	33	45.8	100	
Sb	121	2	He	0.038	23.0	420	12.6	2.5	
Ti	47	2	He	0.017	406.8	27	57.3	2.5	
Se	82	1	No Gas	0.068	237.8	85	37.6	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	937864	0.68	937353	100.05	70	120	
Ge	72	2	He	682848	0.90	695601	98.17	70	120	
Ge	72	1	No Gas	2204599	0.87	2292755	96.16	70	120	
In	115	1	No Gas	2544857	0.98	2579132	98.67	70	120	
Bi	209	1	No Gas	1941304	0.90	1971732	98.46	70	120	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	027ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:47:32-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	-0.035	-39.3	55967	1.2	0	ICSA Main CR1 Failed
Be	9	1	No Gas	0.002	63.3	30	16.7	0	ICSA Main CR1 Failed
V	51	2	He	0.032	6.6	5554	1.2	0	ICSA Main CR1 Failed
Cr	52	2	He	1.935	7.1	24676	3.5	0	ICSA Main CR1 Failed
Fe	56	2	He	100543.361	0.5	478729193	0.6	0	
Se	78	2	He	0.028	734.1	191	11.6	0	ICSA Main CR1 Failed
As	75	2	He	0.222	9.7	573	2.5	0	ICSA Main CR1 Failed
Ca	44	2	He	94202.888	0.8	3802694	0.5	0	
Na	23	2	He	100528.132	1.1	81445509	0.4	0	
Mg	24	2	He	100367.618	1.5	49469018	0.5	0	
K	39	2	He	100690.159	1.6	81392764	0.6	0	
Mn	55	2	He	1.416	3.2	6999	3.5	0	ICSA Main CR1 Failed
Co	59	2	He	0.569	5.1	4231	4.1	0	ICSA Main CR1 Failed
Ni	60	2	He	1.078	11.0	2044	9.1	0	ICSA Main CR1 Failed
Cu	63	2	He	0.351	24.2	2510	14.1	0	ICSA Main CR1 Failed
Zn	66	2	He	2.588	7.5	3010	6.6	0	ICSA Main CR1 Failed
Al	27	2	He	95554.022	1.8	37794242	0.9	0	
B	11	1	No Gas	3.341	3.4	17598	1.5	0	
Al	27	1	No Gas	92073.881	0.7	1168439209	0.5	0	
Si	28	1	No Gas	27.122	4.1	690857	0.8	0	
Ag	107	1	No Gas	0.157	5.5	1984	4.2	0	ICSA Main CR1 Failed
Cd	111	1	No Gas	0.444	13.3	1066	11.4	0	ICSA Main CR1 Failed
Sr	88	1	No Gas	4.621	1.4	118793	0.9	0	ICSA Main CR1 Failed
Mo	95	1	No Gas	1969.267	1.1	9429339	1.2	0	
Sn	118	1	No Gas	-0.057	-25.6	1623	7.3	0	ICSA Main CR1 Failed
Sb	121	1	No Gas	0.257	3.6	3054	3.8	0	ICSA Main CR1 Failed
Ba	137	1	No Gas	0.569	13.1	2877	8.9	0	ICSA Main CR1 Failed
Tl	205	1	No Gas	0.004	22.0	513	4.1	0	ICSA Main CR1 Failed
Tl	203	1	No Gas	0.006	129.4	210	26.5	0	ICSA Main CR1 Failed
Pb	208	1	No Gas	0.186	1.6	5247	0.3	0	ICSA Main CR1 Failed
U	238	1	No Gas	0.008	18.2	250	13.9	0	ICSA Main CR1 Failed
Ca	43	2	He	97285.501	1.3	232124	0.5	0	
Sb	121	2	He	0.231	5.1	1540	5.5	0	ICSA Main CR1 Failed
Ti	47	2	He	2044.673	1.4	435829	0.4	0	
Se	82	1	No Gas	0.747	25.2	208	17.4	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	837389	0.92	937353	89.34	70	120	
Ge	72	2	He	644496	1.05	695601	92.65	70	120	
Ge	72	1	No Gas	2069747	0.47	2292755	90.27	70	120	
In	115	1	No Gas	2260918	1.99	2579132	87.66	70	120	
Bi	209	1	No Gas	1691835	1.12	1971732	85.80	70	120	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	028ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:49:32-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	94.910	2.226	1163780	0.08	100	94.9	180	120	ICSB Main CR1 Failed
Be	9	1	No Gas	94.120	2.904	345154	1.10	100	94.1	80	120	
V	51	2	He	101.414	1.624	514781	0.86	100	101.4	80	120	
Cr	52	2	He	100.698	0.963	570864	0.14	100	100.7	80	120	
Fe	56	2	He	108949.041	1.127	530466872	0.38	100	108949.0	80	120	
Se	78	2	He	104.391	1.235	11441	0.72	100	104.4	80	120	
As	75	2	He	102.517	1.374	95654	0.69	100	102.5	80	120	
Ca	44	2	He	102698.857	0.407	4239487	0.78	100	102698.9	80	120	
Na	23	2	He	110722.918	1.603	91727292	0.80	100	110722.9	80	120	
Mg	24	2	He	109183.706	1.631	55031951	0.86	100	109183.7	80	120	
K	39	2	He	108932.534	0.478	90043245	0.67	100	108932.5	80	120	
Mn	55	2	He	100.360	1.733	460665	0.91	100	100.4	80	120	
Co	59	2	He	98.446	0.982	725672	0.95	100	98.4	80	120	
Ni	60	2	He	97.586	1.319	173132	1.48	100	97.6	80	120	
Cu	63	2	He	98.673	1.236	432633	0.80	100	98.7	80	120	
Zn	66	2	He	101.931	1.362	102878	1.27	100	101.9	80	120	
Al	27	2	He	94973.732	1.525	38416250	0.91	100	94973.7	80	120	ICSB Main CR1 Failed
B	11	1	No Gas	478.232	1.331	868311	1.21	100	478.2	80	120	
Al	27	1	No Gas	89918.836	3.028	1204871395	1.42	100	89918.8	80	120	ICSB Main CR1 Failed
Si	28	1	No Gas	506.556	2.821	4189396	0.65	100	506.6	80	120	
Ag	107	1	No Gas	96.539	2.679	1202359	1.81	100	96.5	80	120	
Cd	111	1	No Gas	99.501	3.432	245920	0.73	100	99.5	80	120	
Sr	88	1	No Gas	106.544	3.318	2797931	0.74	100	106.5	80	120	
Mo	95	1	No Gas	2082.416	2.345	10339055	1.00	100	2082.4	80	120	
Sn	118	1	No Gas	99.733	1.684	766137	1.23	100	99.7	80	120	
Sb	121	1	No Gas	95.551	1.905	1118747	0.67	100	95.6	80	120	
Ba	137	1	No Gas	101.352	1.665	432034	1.40	100	101.4	80	120	
Tl	205	1	No Gas	97.515	3.028	1705027	0.80	100	97.5	80	120	
Tl	203	1	No Gas	97.459	3.404	721444	0.75	100	97.5	80	120	
Pb	208	1	No Gas	100.543	3.729	2502907	1.22	100	100.5	80	120	
U	238	1	No Gas	106.582	3.334	2580087	0.64	100	106.6	80	120	
Ca	43	2	He	106325.444	2.094	259418	1.29	100	106325.4	80	120	
Sb	121	2	He	96.115	1.013	583302	0.29	100	96.1	80	120	
Ti	47	2	He	2144.670	0.903	467503	0.09	100	2144.7	80	120	
Cu	63	1	No Gas	97.473	3.135	961255	1.23	100	97.5	80	120	
Se	82	1	No Gas	97.529	2.209	19469	1.18	100	97.5	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	874199	2.02	937353	93.26	70	120	
Ge	72	2	He	659070	0.82	695601	94.75	70	120	
Ge	72	1	No Gas	2186172	1.86	2292755	95.35	70	120	
In	115	1	No Gas	2345028	2.82	2579132	90.92	70	120	
Bi	209	1	No Gas	1728941	2.74	1971732	87.69	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	031_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:57:06-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
n	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	99.747	2.509	1230150	2.04	100	99.7	90	110	
Be	9	1	No Gas	98.426	0.725	363966	0.31	100	98.4	90	110	
V	51	2	He	102.014	1.222	531949	0.49	100	102.0	90	110	
Cr	52	2	He	101.443	0.602	590704	0.22	100	101.4	90	110	
Fe	56	2	He	10267.140	1.259	51377594	1.11	10000	102.7	90	110	
Se	78	2	He	101.122	1.265	11391	0.48	100	101.1	90	110	
As	75	2	He	101.847	0.789	97630	0.13	100	101.8	90	110	
Ca	44	2	He	10086.273	0.401	428711	0.44	10000	100.9	90	110	
Na	23	2	He	10275.728	0.975	8793055	0.41	10000	102.8	90	110	
Mg	24	2	He	10276.340	1.549	5321587	0.80	10000	102.8	90	110	
K	39	2	He	10104.337	2.380	8718126	1.79	10000	101.0	90	110	
Mn	55	2	He	102.161	1.135	481749	0.47	100	102.2	90	110	
Co	59	2	He	100.847	0.868	763667	0.50	100	100.8	90	110	
Ni	60	2	He	103.441	1.811	188527	2.14	100	103.4	90	110	
Cu	63	2	He	103.167	0.980	464654	0.58	100	103.2	90	110	
Zn	66	2	He	102.871	1.088	106657	0.45	100	102.9	90	110	
Al	27	2	He	99.888	1.927	43365	1.35	100	99.9	90	110	
B	11	1	No Gas	497.730	3.041	910623	3.27	500	99.5	90	110	
Al	27	1	No Gas	100.441	1.777	1448863	1.27	100	100.4	90	110	
Si	28	1	No Gas	494.418	2.713	4231969	1.77	5000	9.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.753	1.964	1341586	0.32	100	98.8	90	110	
Cd	111	1	No Gas	98.975	1.043	266923	0.91	100	99.0	90	110	
Sr	88	1	No Gas	100.357	1.599	2875569	0.06	100	100.4	90	110	
Mo	95	1	No Gas	99.123	1.017	537216	0.78	100	99.1	90	110	
Sn	118	1	No Gas	98.316	1.537	823823	0.51	100	98.3	90	110	
Sb	121	1	No Gas	98.484	2.245	1189497	0.73	100	98.5	90	110	
Ba	137	1	No Gas	98.220	1.217	456717	1.09	100	98.2	90	110	
Tl	205	1	No Gas	102.706	1.084	2013137	0.68	100	102.7	90	110	
Tl	203	1	No Gas	101.228	2.160	840032	0.93	100	101.2	90	110	
Pb	208	1	No Gas	99.578	0.427	2779566	1.36	100	99.6	90	110	
U	238	1	No Gas	99.409	1.062	2697936	0.40	100	99.4	90	110	
Ca	43	2	He	10048.418	0.396	25237	1.15	10000	100.5	90	110	
Sb	121	2	He	97.615	1.041	608595	0.70	100	97.6	90	110	
Ti	47	2	He	100.948	0.316	22629	1.00	100	100.9	90	110	
Cu	63	1	No Gas	102.158	1.254	1039446	0.65	100	102.2	90	110	
Se	82	1	No Gas	96.003	5.920	19763	4.34	100	96.0	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	881202	0.43	937353	94.01	70	120	
Ge	72	2	He	677074	0.77	695601	97.34	70	120	
Ge	72	1	No Gas	2255237	1.59	2292755	98.36	70	120	
In	115	1	No Gas	2557460	1.66	2579132	99.16	70	120	
Bi	209	1	No Gas	1937352	1.28	1971732	98.26	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	032_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T11:58:58-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	0.149	61.1	64319	1.4	0.5	
Be	9	1	No Gas	0.095	6.4	393	3.9	0.5	
V	51	2	He	-0.238	-2.6	4494	0.5	2.5	
Cr	52	2	He	0.246	20.1	16527	1.5	2.5	
Fe	56	2	He	4.668	22.6	46396	11.5	100	
Se	78	2	He	-0.145	-118.6	184	10.4	2	
As	75	2	He	-0.004	-1084.8	391	10.5	2.5	
Ca	44	2	He	1.005	421.4	1133	15.8	100	
Na	23	2	He	-7.967	-13.6	45919	2.1	100	
Mg	24	2	He	6.271	14.8	3794	12.6	100	
K	39	2	He	16.223	28.5	168333	2.3	100	
Mn	55	2	He	0.106	29.7	1197	12.8	2.5	
Co	59	2	He	0.038	8.9	430	6.2	2.5	
Ni	60	2	He	0.193	23.9	543	15.7	2.5	
Cu	63	2	He	0.781	3.2	4628	2.3	2	
Zn	66	2	He	0.884	9.2	1420	6.1	2.5	
Al	27	2	He	-1.643	-2.1	1190	1.5	5	
B	11	1	No Gas	9.254	16.1	30719	7.2	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.547	-4.2	39122	1.3	5	
Si	28	1	No Gas	-0.020	-6590.3	554539	0.9	10	
Ag	107	1	No Gas	0.087	9.9	1337	9.4	2.5	
Cd	111	1	No Gas	0.088	16.5	255	16.2	1	
Sr	88	1	No Gas	0.054	3.9	3707	1.3	2.5	
Mo	95	1	No Gas	0.203	18.0	1490	13.4	2.5	
Sn	118	1	No Gas	0.365	113.0	5531	64.7	5	
Sb	121	1	No Gas	0.207	6.6	2737	6.0	2.5	
Ba	137	1	No Gas	-0.005	-181.7	607	7.8	2.5	
Tl	205	1	No Gas	0.492	27.9	10582	27.8	1	
Tl	203	1	No Gas	0.490	29.3	4444	29.2	1	
Pb	208	1	No Gas	0.093	4.2	3530	2.0	2.5	
U	238	1	No Gas	0.103	7.3	2980	7.6	2.5	
Ca	43	2	He	8.219	73.3	73	20.8	100	
Sb	121	2	He	0.113	2.7	890	1.9	2.5	
Ti	47	2	He	0.031	141.4	30	33.3	2.5	
Cu	63	1	No Gas	0.872	1.6	11495	1.2	2.5	
Se	82	1	No Gas	-0.188	-108.2	35	119.8	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	928600	2.09	937353	99.07	70	120	
Ge	72	2	He	685066	0.23	695601	98.49	70	120	
Ge	72	1	No Gas	2271377	1.11	2292755	99.07	70	120	
In	115	1	No Gas	2633711	0.36	2579132	102.12	70	120	
Bi	209	1	No Gas	2016416	1.28	1971732	102.27	70	120	

Sample Report

Sample Table

Sample Name	LCS-197423
Data File Name	033SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:01:24-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423Tl
ISTD Ref FileName	014CALB.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	93.009	93.009	2.19	1242636	0.01	2000	
Be	9	1	No Gas	49.815	49.815	2.78	198858	0.03	2000	
V	51	2	He	51.114	51.114	1.13	282130	0.02	2000	
Cr	52	2	He	51.102	51.102	0.56	319430	0.02	2000	
Fe	56	2	He	5289.865	5289.865	0.26	27736688	0.02	200000	
Se	78	2	He	51.560	51.560	2.15	6185	0.83	2000	
As	75	2	He	52.395	52.395	0.84	52805	0.10	2000	
Ca	44	2	He	5281.189	5281.189	1.21	235641	2.24	200000	
Na	23	2	He	5258.772	5258.772	1.27	4739819	0.11	200000	
Mg	24	2	He	5433.274	5433.274	1.48	2947267	0.18	200000	
K	39	2	He	5333.555	5333.555	0.61	4895805	0.11	200000	
Mn	55	2	He	52.247	52.247	0.99	258410	0.02	2000	
Co	59	2	He	51.696	51.696	0.88	410088	0.01	2000	
Ni	60	2	He	52.647	52.647	1.63	100586	0.05	2000	
Cu	63	2	He	52.990	52.990	1.20	250512	0.02	2000	
Zn	66	2	He	54.296	54.296	2.10	59206	0.09	2000	
Al	27	2	He	95.477	95.477	0.44	43502	0.22	2000	
B	11	1	No Gas	461.325	461.325	2.30	912049	0.05	2000	
Al	27	1	No Gas	96.223	96.223	3.10	1460668	0.01	2000	
Si	28	1	No Gas	529.109	529.109	1.12	4717413	0.01	2000	
Ag	107	1	No Gas	51.683	51.683	0.65	722880	0.01	2000	
Cd	111	1	No Gas	52.069	52.069	0.11	144552	0.04	2000	
Sr	88	1	No Gas	96.414	96.414	1.18	2843937	0.00	2000	
Mo	95	1	No Gas	51.020	51.020	0.55	284803	0.02	2000	
Sn	118	1	No Gas	92.412	92.412	0.74	797236	0.01	2000	
Sb	121	1	No Gas	50.360	50.360	0.71	639154	0.01	2000	
Ba	137	1	No Gas	51.026	51.026	0.64	244549	0.02	2000	
Tl	205	1	No Gas	44.833	44.833	4.31	939263	0.00	2000	
Tl	203	1	No Gas	44.427	44.427	3.73	394143	0.01	2000	
Pb	208	1	No Gas	50.198	50.198	4.36	1497439	0.00	2000	
U	238	1	No Gas	89.929	89.929	3.43	2608361	0.00	2000	
Ca	43	2	He	5332.408	5332.408	5.31	14054	37.94	200000	
Sb	121	2	He	49.982	49.982	0.81	326471	0.02	2000	
Ti	47	2	He	134.428	134.428	1.28	31553	0.43	2000	
Cu	63	1	No Gas	53.192	53.192	2.28	569763	0.01	2000	
Zn	66	1	No Gas	53.244	53.244	1.18	161612	0.03	2000	
Se	82	1	No Gas	50.240	50.240	4.96	10902	0.46	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	951479	1.64	937353	101.51	70	120	
Ge	72	2	He	709140	0.44	695601	101.95	70	120	
Ge	72	1	No Gas	2369028	1.51	2292755	103.33	70	120	
In	115	1	No Gas	2632292	1.07	2579132	102.06	70	120	

Sample Report

Bi	209	1	No Gas	2071827	3.31	1971732	105.08	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05MS
Data File Name	034SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:03:17-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	109.920	109.920	4.83	1424275	0.01	2000	
Be	9	1	No Gas	49.187	49.187	2.63	192017	0.03	2000	
V	51	2	He	52.328	52.328	1.25	281612	0.02	2000	
Cr	52	2	He	238.823	238.823	1.25	1400245	0.02	2000	
Fe	56	2	He	85537.773	85537.773	1.12	437154833	0.02	200000	
Se	78	2	He	50.760	50.760	1.10	5943	0.85	2000	
As	75	2	He	52.092	52.092	1.24	51213	0.10	2000	
Ca	44	2	He	25667.772	25667.772	1.62	1112928	2.31	200000	
Na	23	2	He	81450.163	81450.163	1.31	70840707	0.11	200000	
Mg	24	2	He	16187.582	16187.582	1.33	8564556	0.19	200000	
K	39	2	He	8058.504	8058.504	1.84	7135675	0.11	200000	
Mn	55	2	He	971.811	971.811	1.74	4676114	0.02	2000	
Co	59	2	He	51.537	51.537	1.84	398791	0.01	2000	
Ni	60	2	He	82.925	82.925	2.07	154441	0.05	2000	
Cu	63	2	He	54.964	54.964	0.93	253431	0.02	2000	
Zn	66	2	He	57.819	57.819	2.16	61466	0.09	2000	
Al	27	2	He	126.325	126.325	1.36	55536	0.23	2000	
B	11	1	No Gas	494.392	494.392	3.99	954650	0.05	2000	
Al	27	1	No Gas	124.129	124.129	1.55	1831510	0.01	2000	
Si	28	1	No Gas	17199.216	17199.216	2.74	132533018	0.01	2000	>LDR
Ag	107	1	No Gas	49.867	49.867	1.77	674723	0.01	2000	
Cd	111	1	No Gas	51.344	51.344	0.62	137914	0.04	2000	
Sr	88	1	No Gas	485.136	485.136	2.07	13834576	0.00	2000	
Mo	95	1	No Gas	51.924	51.924	1.87	280385	0.02	2000	
Sn	118	1	No Gas	88.507	88.507	1.59	738787	0.01	2000	
Sb	121	1	No Gas	49.196	49.196	3.27	612385	0.01	2000	
Ba	137	1	No Gas	424.258	424.258	2.99	1962084	0.02	2000	
Tl	205	1	No Gas	45.130	45.130	1.45	871289	0.01	2000	
Tl	203	1	No Gas	44.512	44.512	0.38	363847	0.01	2000	
Pb	208	1	No Gas	50.230	50.230	0.80	1380864	0.00	2000	
U	238	1	No Gas	91.735	91.735	2.40	2451270	0.00	2000	
Ca	43	2	He	26181.954	26181.954	1.48	67093	39.02	200000	
Sb	121	2	He	49.663	49.663	0.64	316455	0.02	2000	
Ti	47	2	He	135.086	135.086	1.65	30928	0.44	2000	
Cu	63	1	No Gas	54.396	54.396	2.35	571592	0.01	2000	
Zn	66	1	No Gas	55.774	55.774	3.50	165975	0.03	2000	
Se	82	1	No Gas	51.303	51.303	2.83	10923	0.47	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	930595	2.42	937353	99.28	70	120	
Ge	72	2	He	691775	0.73	695601	99.45	70	120	
Ge	72	1	No Gas	2324737	2.81	2292755	101.39	70	120	
In	115	1	No Gas	2546978	2.01	2579132	98.75	70	120	

Sample Report

Bi	209	1	No Gas	1907412	0.58	1971732	96.74	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05MSD
Data File Name	035SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:05:27-05:00
Sample Type	Sample
Dilution	1
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	110.511	110.511	0.88	1460719	0.01	2000	
Be	9	1	No Gas	48.644	48.644	0.88	193704	0.03	2000	
V	51	2	He	52.954	52.954	1.14	288361	0.02	2000	
Cr	52	2	He	235.593	235.593	0.75	1398194	0.02	2000	
Fe	56	2	He	85222.536	85222.536	0.20	440859767	0.02	200000	
Se	78	2	He	51.127	51.127	0.68	6057	0.84	2000	
As	75	2	He	52.823	52.823	0.96	52556	0.10	2000	
Ca	44	2	He	25968.813	25968.813	3.49	1139272	2.28	200000	
Na	23	2	He	80687.765	80687.765	2.06	71018647	0.11	200000	
Mg	24	2	He	16100.329	16100.329	1.74	8620899	0.19	200000	
K	39	2	He	8183.628	8183.628	2.35	7330783	0.11	200000	
Mn	55	2	He	974.713	974.713	2.06	4746423	0.02	2000	
Co	59	2	He	51.925	51.925	2.90	406570	0.01	2000	
Ni	60	2	He	83.281	83.281	2.24	156958	0.05	2000	
Cu	63	2	He	55.529	55.529	1.95	259091	0.02	2000	
Zn	66	2	He	57.535	57.535	2.04	61901	0.09	2000	
Al	27	2	He	128.321	128.321	3.06	57069	0.22	2000	
B	11	1	No Gas	495.400	495.400	0.67	975956	0.05	2000	
Al	27	1	No Gas	144.646	144.646	31.52	2147622	0.01	2000	
Si	28	1	No Gas	17143.627	17143.627	0.59	133953741	0.01	2000	>LDR
Ag	107	1	No Gas	49.994	49.994	0.91	681867	0.01	2000	
Cd	111	1	No Gas	50.757	50.757	0.76	137409	0.04	2000	
Sr	88	1	No Gas	493.830	493.830	1.80	14195044	0.00	2000	
Mo	95	1	No Gas	52.693	52.693	0.97	286829	0.02	2000	
Sn	118	1	No Gas	89.266	89.266	0.80	751063	0.01	2000	
Sb	121	1	No Gas	48.768	48.768	0.73	615620	0.01	2000	
Ba	137	1	No Gas	424.878	424.878	0.62	1981089	0.02	2000	
Tl	205	1	No Gas	46.137	46.137	1.54	868160	0.01	2000	
Tl	203	1	No Gas	45.419	45.419	1.66	361864	0.01	2000	
Pb	208	1	No Gas	50.950	50.950	1.28	1365190	0.00	2000	
U	238	1	No Gas	92.753	92.753	2.41	2415756	0.00	2000	
Ca	43	2	He	26185.781	26185.781	2.34	67904	38.56	200000	
Sb	121	2	He	49.545	49.545	2.70	319441	0.02	2000	
Ti	47	2	He	135.725	135.725	2.82	31446	0.43	2000	
Cu	63	1	No Gas	54.793	54.793	0.71	583758	0.01	2000	
Zn	66	1	No Gas	55.498	55.498	2.86	167467	0.03	2000	
Se	82	1	No Gas	51.997	51.997	1.05	11226	0.46	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	948868	0.41	937353	101.23	70	120	
Ge	72	2	He	700201	1.93	695601	100.66	70	120	
Ge	72	1	No Gas	2356215	1.18	2292755	102.77	70	120	
In	115	1	No Gas	2566984	1.18	2579132	99.53	70	120	

Sample Report

Bi	209	1	No Gas	1859362	1.14	1971732	94.30	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05
Data File Name	038SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:18:08-05:00
Sample Type	Sample
Dilution	5
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	5.524	27.620	2.92	139052	0.00	2000	
Be	9	1	No Gas	0.008	0.039	21.59	58	0.01	2000	
V	51	2	He	0.384	1.919	13.72	8187	0.00	2000	
Cr	52	2	He	45.330	226.650	0.67	291383	0.02	2000	
Fe	56	2	He	19434.061	97170.304	1.22	104069225	0.02	200000	
Se	78	2	He	-0.149	-0.747	-138.18	194	-0.08	2000	
As	75	2	He	0.039	0.196	95.35	458	0.01	2000	
Ca	44	2	He	4935.634	24678.171	1.16	225139	2.19	200000	
Na	23	2	He	18146.871	90734.355	2.37	16577180	0.11	200000	
Mg	24	2	He	2686.035	13430.177	1.20	1489278	0.18	200000	
K	39	2	He	726.000	3630.001	1.59	822122	0.09	200000	
Mn	55	2	He	229.118	1145.589	1.20	1155553	0.02	2000	
Co	59	2	He	0.091	0.455	13.68	883	0.01	2000	
Ni	60	2	He	7.608	38.038	3.13	15022	0.05	2000	
Cu	63	2	He	0.658	3.292	2.22	4304	0.02	2000	
Zn	66	2	He	1.099	5.495	11.67	1740	0.06	2000	
Al	27	2	He	4.751	23.757	6.44	4104	0.12	2000	
B	11	1	No Gas	13.384	66.918	2.93	41035	0.03	2000	
Al	27	1	No Gas	4.290	21.452	2.87	127627	0.00	2000	
Si	28	1	No Gas	3935.336	19676.680	1.11	31872114	0.01	2000	>LDR
Ag	107	1	No Gas	0.002	0.009	111.57	140	0.00	2000	
Cd	111	1	No Gas	0.013	0.065	100.93	46	0.03	2000	
Sr	88	1	No Gas	96.561	482.805	1.16	2860886	0.00	2000	
Mo	95	1	No Gas	0.285	1.423	6.22	1954	0.01	2000	
Sn	118	1	No Gas	-0.098	-0.490	-17.75	1540	-0.01	2000	
Sb	121	1	No Gas	0.043	0.217	8.35	797	0.01	2000	
Ba	137	1	No Gas	89.626	448.131	1.22	430920	0.02	2000	
Tl	205	1	No Gas	0.032	0.158	16.95	1150	0.00	2000	
Tl	203	1	No Gas	0.049	0.245	12.44	613	0.01	2000	
Pb	208	1	No Gas	0.013	0.063	26.18	1187	0.00	2000	
U	238	1	No Gas	0.003	0.013	16.34	130	0.00	2000	
Ca	43	2	He	5067.378	25336.892	1.53	13650	37.12	200000	
Sb	121	2	He	0.039	0.197	26.87	453	0.01	2000	
Ti	47	2	He	0.649	3.245	22.35	180	0.36	2000	
Cu	63	1	No Gas	0.776	3.879	3.65	11145	0.01	2000	
Zn	66	1	No Gas	1.046	5.228	1.99	4564	0.02	2000	
Se	82	1	No Gas	0.321	1.605	129.57	148	0.22	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	987190	1.91	937353	105.32	70	120	
Ge	72	2	He	724732	0.88	695601	104.19	70	120	
Ge	72	1	No Gas	2407576	0.78	2292755	105.01	70	120	
In	115	1	No Gas	2643939	0.82	2579132	102.51	70	120	

Sample Report

Bi	209	1	No Gas	1983301	3.68	1971732	100.59	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05SD
Data File Name	039SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:20:17-05:00
Sample Type	Sample
Dilution	25
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	1.317	32.914	16.00	83745	0.00	2000	
Be	9	1	No Gas	0.002	0.052	58.48	35	0.01	2000	
V	51	2	He	0.322	8.057	3.65	7942	0.00	2000	
Cr	52	2	He	9.266	231.656	1.05	73152	0.01	2000	
Fe	56	2	He	3902.554	97563.853	0.99	21170423	0.02	200000	
Se	78	2	He	-0.014	-0.343	-1167.49	213	-0.01	2000	
As	75	2	He	0.012	0.309	225.16	436	0.00	2000	
Ca	44	2	He	970.316	24257.902	1.82	45733	2.12	200000	
Na	23	2	He	3627.789	90694.729	1.18	3399449	0.11	200000	
Mg	24	2	He	565.037	14125.914	1.11	317498	0.18	200000	
K	39	2	He	144.963	3624.083	2.15	298446	0.05	200000	
Mn	55	2	He	46.599	1164.963	0.76	238450	0.02	2000	
Co	59	2	He	0.015	0.363	32.17	267	0.01	2000	
Ni	60	2	He	1.487	37.177	1.69	3134	0.05	2000	
Cu	63	2	He	0.011	0.272	257.83	1203	0.00	2000	
Zn	66	2	He	0.097	2.427	114.59	640	0.02	2000	
Al	27	2	He	-0.467	-11.677	-17.28	1803	-0.03	2000	
B	11	1	No Gas	4.868	121.711	15.09	23817	0.02	2000	
Al	27	1	No Gas	-0.449	-11.216	-18.60	57209	0.00	2000	
Si	28	1	No Gas	810.776	20269.394	2.03	6976353	0.01	2000	
Ag	107	1	No Gas	-0.001	-0.020	-180.70	107	0.00	2000	
Cd	111	1	No Gas	0.000	-0.006	-2780.79	10	0.00	2000	
Sr	88	1	No Gas	19.258	481.457	0.47	587278	0.00	2000	
Mo	95	1	No Gas	0.048	1.194	24.68	643	0.01	2000	
Sn	118	1	No Gas	-0.125	-3.121	-7.96	1343	-0.01	2000	
Sb	121	1	No Gas	0.031	0.771	17.84	630	0.00	2000	
Ba	137	1	No Gas	17.854	446.355	0.82	88621	0.02	2000	
Tl	205	1	No Gas	0.006	0.150	75.23	630	0.00	2000	
Tl	203	1	No Gas	0.009	0.225	95.84	270	0.00	2000	
Pb	208	1	No Gas	-0.006	-0.148	-32.93	653	0.00	2000	
U	238	1	No Gas	0.000	0.003	1222.87	60	0.00	2000	
Ca	43	2	He	977.579	24439.463	2.52	2710	36.07	200000	
Sb	121	2	He	0.014	0.359	36.21	290	0.00	2000	
Ti	47	2	He	0.091	2.275	68.64	47	0.20	2000	
Cu	63	1	No Gas	0.060	1.494	57.66	3357	0.00	2000	
Zn	66	1	No Gas	0.133	3.313	18.05	1757	0.01	2000	
Se	82	1	No Gas	-0.519	-12.972	-50.82	-36	1.45	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	987889	3.30	937353	105.39	70	120	
Ge	72	2	He	733439	0.33	695601	105.44	70	120	
Ge	72	1	No Gas	2388663	2.33	2292755	104.18	70	120	
In	115	1	No Gas	2713300	1.02	2579132	105.20	70	120	

Sample Report

Bi	209	1	No Gas	1971985	1.65	1971732	100.01	70	120	

Sample Report

Sample Table

Sample Name	HS23061825-05PDS
Data File Name	040SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:22:25-05:00
Sample Type	Sample
Dilution	5
Comment	TW DOD B 197423
ISTD Ref FileName	014CALB.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	5.442	27.211	2.60	134763	0.00	2000	
Be	9	1	No Gas	91.925	459.626	1.31	371888	0.02	2000	
V	51	2	He	99.545	497.723	0.86	549104	0.02	2000	
Cr	52	2	He	141.245	706.227	0.45	863605	0.02	2000	
Fe	56	2	He	28987.139	144935.694	1.05	153356374	0.02	200000	
Se	78	2	He	99.597	497.983	1.54	11869	0.84	2000	
As	75	2	He	99.573	497.867	1.17	100953	0.10	2000	
Ca	44	2	He	14878.020	74390.099	0.79	668228	2.23	200000	
Na	23	2	He	27611.290	138056.452	0.82	24894112	0.11	200000	
Mg	24	2	He	12678.270	63391.352	0.39	6943464	0.18	200000	
K	39	2	He	11002.109	55010.543	0.51	10025352	0.11	200000	
Mn	55	2	He	316.998	1584.990	1.76	1579335	0.02	2000	
Co	59	2	He	98.646	493.228	0.52	790001	0.01	2000	
Ni	60	2	He	107.262	536.310	1.75	206723	0.05	2000	
Cu	63	2	He	100.743	503.717	0.33	479884	0.02	2000	
Zn	66	2	He	99.897	499.486	1.14	109553	0.09	2000	
Al	27	2	He	100.888	504.438	1.30	46301	0.22	2000	
B	11	1	No Gas	12.020	60.102	2.76	37395	0.03	2000	
Al	27	1	No Gas	103.589	517.944	2.75	1576622	0.01	2000	
Si	28	1	No Gas	3958.512	19792.561	2.03	31723041	0.01	2000	>LDR
Ag	107	1	No Gas	99.704	498.522	2.13	1377208	0.01	2000	
Cd	111	1	No Gas	97.988	489.941	1.78	268674	0.04	2000	
Sr	88	1	No Gas	96.818	484.089	2.29	2820761	0.00	2000	
Mo	95	1	No Gas	100.423	502.117	0.27	553425	0.02	2000	
Sn	118	1	No Gas	-0.118	-0.591	-22.48	1343	-0.01	2000	
Sb	121	1	No Gas	91.775	458.874	4.47	1171036	0.01	2000	
Ba	137	1	No Gas	186.108	930.541	0.55	879358	0.02	2000	
Tl	205	1	No Gas	99.060	495.301	3.12	1933782	0.01	2000	
Tl	203	1	No Gas	100.332	501.660	3.51	829236	0.01	2000	
Pb	208	1	No Gas	94.913	474.564	1.89	2638685	0.00	2000	
U	238	1	No Gas	0.005	0.027	50.33	200	0.00	2000	
Ca	43	2	He	14907.249	74536.247	0.93	39567	37.68	200000	
Sb	121	2	He	92.474	462.372	0.91	609746	0.02	2000	
Ti	47	2	He	100.006	500.030	0.61	23707	0.42	2000	
Cu	63	1	No Gas	98.999	494.994	2.52	1064342	0.01	2000	
Zn	66	1	No Gas	98.760	493.800	2.23	300336	0.03	2000	
Se	82	1	No Gas	96.890	484.448	4.64	21078	0.46	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	964108	1.17	937353	102.85	70	120	
Ge	72	2	He	716024	0.34	695601	102.94	70	120	
Ge	72	1	No Gas	2383029	1.88	2292755	103.94	70	120	
In	115	1	No Gas	2600213	1.30	2579132	100.82	70	120	

Sample Report

Bi	209	1	No Gas	1929966	1.81	1971732	97.88	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	042_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:26:29-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
n	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	94.471	4.279	1264741	2.02	100	94.5	90	110	
Be	9	1	No Gas	93.057	2.614	372604	0.41	100	93.1	90	110	
V	51	2	He	103.092	0.545	561160	0.35	100	103.1	90	110	
Cr	52	2	He	102.192	0.844	621097	0.30	100	102.2	90	110	
Fe	56	2	He	10220.762	0.318	53394806	0.60	10000	102.2	90	110	
Se	78	2	He	102.120	0.511	12008	0.62	100	102.1	90	110	
As	75	2	He	102.709	1.100	102781	0.98	100	102.7	90	110	
Ca	44	2	He	10081.521	1.008	447331	0.38	10000	100.8	90	110	
Na	23	2	He	10197.110	1.420	9109485	0.62	10000	102.0	90	110	
Mg	24	2	He	10136.163	0.741	5479991	0.53	10000	101.4	90	110	
K	39	2	He	10230.742	1.564	9213313	0.68	10000	102.3	90	110	
Mn	55	2	He	102.906	0.696	506600	0.23	100	102.9	90	110	
Co	59	2	He	101.304	1.065	800835	0.58	100	101.3	90	110	
Ni	60	2	He	103.357	0.488	196655	1.19	100	103.4	90	110	
Cu	63	2	He	104.014	0.421	489062	0.58	100	104.0	90	110	
Zn	66	2	He	103.130	0.678	111626	0.49	100	103.1	90	110	
Al	27	2	He	98.880	3.883	44829	3.02	100	98.9	90	110	
B	11	1	No Gas	469.920	2.027	931704	0.41	500	94.0	90	110	
Al	27	1	No Gas	100.189	1.704	1514149	0.46	100	100.2	90	110	
Si	28	1	No Gas	495.208	2.626	4439275	0.47	5000	9.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	99.608	1.614	1399955	1.16	100	99.6	90	110	
Cd	111	1	No Gas	99.890	2.324	278636	0.86	100	99.9	90	110	
Sr	88	1	No Gas	99.728	1.781	2955978	0.42	100	99.7	90	110	
Mo	95	1	No Gas	101.135	1.920	566944	0.10	100	101.1	90	110	
Sn	118	1	No Gas	98.392	2.078	852837	1.02	100	98.4	90	110	
Sb	121	1	No Gas	98.237	3.732	1242761	1.83	100	98.2	90	110	
Ba	137	1	No Gas	98.667	1.930	474554	0.39	100	98.7	90	110	
Tl	205	1	No Gas	99.049	0.283	1981399	1.52	100	99.0	90	110	
Tl	203	1	No Gas	99.470	1.515	842379	0.26	100	99.5	90	110	
Pb	208	1	No Gas	96.711	1.660	2754405	0.29	100	96.7	90	110	
U	238	1	No Gas	97.200	1.633	2691894	1.02	100	97.2	90	110	
Ca	43	2	He	9968.369	2.067	26135	1.96	10000	99.7	90	110	
Sb	121	2	He	96.338	1.290	627020	0.49	100	96.3	90	110	
Ti	47	2	He	100.060	0.822	23417	1.58	100	100.1	90	110	
Cu	63	1	No Gas	101.395	0.452	1080969	1.69	100	101.4	90	110	
Se	82	1	No Gas	99.957	3.307	21560	1.68	100	100.0	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	954538	2.39	937353	101.83	70	120	
Ge	72	2	He	706839	0.87	695601	101.62	70	120	
Ge	72	1	No Gas	2362770	2.07	2292755	103.05	70	120	
In	115	1	No Gas	2645710	2.01	2579132	102.58	70	120	
Bi	209	1	No Gas	1977084	1.77	1971732	100.27	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	043_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:28:22-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	0.176	74.2	68301	0.6	0.5	
Be	9	1	No Gas	0.084	19.9	373	18.1	0.5	
V	51	2	He	-0.272	-1.8	4502	1.8	2.5	
Cr	52	2	He	0.282	18.7	17458	2.1	2.5	
Fe	56	2	He	3.956	22.3	44681	11.6	100	
Se	78	2	He	0.101	258.2	221	13.8	2	
As	75	2	He	-0.016	-180.2	396	5.4	2.5	
Ca	44	2	He	0.681	446.4	1167	10.0	100	
Na	23	2	He	-9.435	-9.2	46595	3.0	100	
Mg	24	2	He	4.977	20.9	3257	18.8	100	
K	39	2	He	13.509	8.9	173210	2.4	100	
Mn	55	2	He	0.121	9.0	1323	4.4	2.5	
Co	59	2	He	0.037	22.0	440	14.9	2.5	
Ni	60	2	He	0.178	28.5	537	17.3	2.5	
Cu	63	2	He	0.730	3.5	4584	2.6	2	
Zn	66	2	He	0.782	15.3	1370	9.7	2.5	
Al	27	2	He	-1.898	-1.8	1130	3.1	5	
B	11	1	No Gas	8.726	11.3	31407	4.3	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.592	-2.8	40081	2.1	5	
Si	28	1	No Gas	2.814	40.0	599534	0.3	10	
Ag	107	1	No Gas	0.093	10.2	1443	9.4	2.5	
Cd	111	1	No Gas	0.077	32.1	228	28.9	1	
Sr	88	1	No Gas	0.058	13.1	3901	6.2	2.5	
Mo	95	1	No Gas	0.166	15.4	1313	9.6	2.5	
Sn	118	1	No Gas	0.123	25.9	3517	7.1	5	
Sb	121	1	No Gas	0.255	7.0	3457	4.8	2.5	
Ba	137	1	No Gas	0.000	-2508.0	647	9.3	2.5	
Tl	205	1	No Gas	0.498	26.1	10618	25.2	1	
Tl	203	1	No Gas	0.507	25.0	4551	24.5	1	
Pb	208	1	No Gas	0.087	4.7	3354	3.1	2.5	
U	238	1	No Gas	0.094	7.9	2697	5.9	2.5	
Ca	43	2	He	9.649	122.8	80	37.5	100	
Sb	121	2	He	0.164	19.8	1270	17.8	2.5	
Ti	47	2	He	0.039	223.3	33	62.4	2.5	
Cu	63	1	No Gas	0.800	2.9	11201	2.2	2.5	
Se	82	1	No Gas	0.129	130.3	105	36.0	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	981098	2.26	937353	104.67	70	120	
Ge	72	2	He	714749	1.82	695601	102.75	70	120	
Ge	72	1	No Gas	2365127	1.72	2292755	103.16	70	120	
In	115	1	No Gas	2697479	1.79	2579132	104.59	70	120	
Bi	209	1	No Gas	2004268	1.99	1971732	101.65	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	051_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:45:07-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	014CALB.d
n	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	96.163	3.514	1261065	2.09	100	96.2	90	110	
Be	9	1	No Gas	95.225	0.830	373828	0.56	100	95.2	90	110	
V	51	2	He	101.494	1.079	555372	0.60	100	101.5	90	110	
Cr	52	2	He	100.786	0.565	615916	0.29	100	100.8	90	110	
Fe	56	2	He	10061.719	1.424	52831034	0.86	10000	100.6	90	110	
Se	78	2	He	99.745	1.700	11795	2.19	100	99.7	90	110	
As	75	2	He	101.384	1.265	101979	0.79	100	101.4	90	110	
Ca	44	2	He	9946.984	1.418	443633	0.85	10000	99.5	90	110	
Na	23	2	He	10086.877	0.789	9058232	0.69	10000	100.9	90	110	
Mg	24	2	He	10121.334	1.633	5499787	1.05	10000	101.2	90	110	
K	39	2	He	10058.464	1.042	9107598	0.39	10000	100.6	90	110	
Mn	55	2	He	101.457	0.860	502034	0.59	100	101.5	90	110	
Co	59	2	He	100.336	0.874	797256	0.27	100	100.3	90	110	
Ni	60	2	He	101.910	1.142	194885	0.61	100	101.9	90	110	
Cu	63	2	He	102.909	0.984	486357	0.99	100	102.9	90	110	
Zn	66	2	He	101.068	1.709	109960	1.12	100	101.1	90	110	
Al	27	2	He	98.732	3.454	45003	3.52	100	98.7	90	110	
B	11	1	No Gas	473.877	2.169	920879	1.01	500	94.8	90	110	
Al	27	1	No Gas	99.664	0.624	1503974	0.88	100	99.7	90	110	
Si	28	1	No Gas	493.448	1.122	4418292	0.86	5000	9.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.246	2.298	1406688	0.99	100	100.2	90	110	
Cd	111	1	No Gas	99.889	1.980	278230	0.69	100	99.9	90	110	
Sr	88	1	No Gas	101.944	1.630	3017192	0.61	100	101.9	90	110	
Mo	95	1	No Gas	101.717	1.346	569391	0.32	100	101.7	90	110	
Sn	118	1	No Gas	98.690	1.904	854134	0.50	100	98.7	90	110	
Sb	121	1	No Gas	96.368	2.274	1217312	1.98	100	96.4	90	110	
Ba	137	1	No Gas	98.649	1.815	473769	0.49	100	98.6	90	110	
Tl	205	1	No Gas	100.002	1.124	1978853	0.71	100	100.0	90	110	
Tl	203	1	No Gas	100.721	1.811	843815	0.18	100	100.7	90	110	
Pb	208	1	No Gas	99.209	1.257	2795421	0.61	100	99.2	90	110	
U	238	1	No Gas	99.149	2.282	2716277	1.19	100	99.1	90	110	
Ca	43	2	He	10056.716	5.174	26499	4.86	10000	100.6	90	110	
Sb	121	2	He	95.377	1.082	623960	0.51	100	95.4	90	110	
Ti	47	2	He	99.793	0.841	23474	1.45	100	99.8	90	110	
Cu	63	1	No Gas	101.054	1.464	1075275	1.16	100	101.1	90	110	
Se	82	1	No Gas	98.581	1.630	21232	1.79	100	98.6	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	935553	1.34	937353	99.81	70	120	
Ge	72	2	He	710454	0.66	695601	102.14	70	120	
Ge	72	1	No Gas	2358195	0.34	2292755	102.85	70	120	
In	115	1	No Gas	2641604	1.43	2579132	102.42	70	120	
Bi	209	1	No Gas	1955938	1.83	1971732	99.20	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	052_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T12:46:58-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	014CALB.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	0.062	116.0	66717	0.9	0.5	
Be	9	1	No Gas	0.079	22.1	350	19.2	0.5	
V	51	2	He	-0.222	-14.1	4804	3.6	2.5	
Cr	52	2	He	0.394	12.3	18229	1.2	2.5	
Fe	56	2	He	3.782	22.0	43988	10.6	100	
Se	78	2	He	-0.030	-988.5	207	17.4	2	
As	75	2	He	-0.039	-58.1	374	5.7	2.5	
Ca	44	2	He	-1.569	-143.4	1073	9.2	100	
Na	23	2	He	-5.918	-20.2	50033	2.6	100	
Mg	24	2	He	4.974	24.6	3270	21.0	100	
K	39	2	He	12.070	6.8	172888	1.1	100	
Mn	55	2	He	0.131	22.3	1377	10.9	2.5	
Co	59	2	He	0.031	24.4	393	15.5	2.5	
Ni	60	2	He	0.165	21.2	517	13.6	2.5	
Cu	63	2	He	0.821	1.1	5044	1.2	2	
Zn	66	2	He	0.769	27.7	1363	16.9	2.5	
Al	27	2	He	-1.799	-21.3	1180	14.4	5	
B	11	1	No Gas	8.939	10.1	31808	5.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.648	-4.1	40329	1.9	5	
Si	28	1	No Gas	1.280	84.9	603578	1.0	10	
Ag	107	1	No Gas	0.092	7.7	1447	6.9	2.5	
Cd	111	1	No Gas	0.088	40.7	262	39.0	1	
Sr	88	1	No Gas	0.059	6.6	3967	2.8	2.5	
Mo	95	1	No Gas	0.164	7.6	1310	5.3	2.5	
Sn	118	1	No Gas	0.124	66.0	3551	20.7	5	
Sb	121	1	No Gas	0.198	7.8	2820	7.4	2.5	
Ba	137	1	No Gas	-0.004	-534.9	633	15.8	2.5	
Tl	205	1	No Gas	0.527	29.1	11282	27.6	1	
Tl	203	1	No Gas	0.532	20.5	4804	19.4	1	
Pb	208	1	No Gas	0.091	7.0	3477	5.4	2.5	
U	238	1	No Gas	0.108	5.1	3114	5.3	2.5	
Ca	43	2	He	3.100	183.8	63	24.1	100	
Sb	121	2	He	0.113	7.4	940	5.5	2.5	
Ti	47	2	He	0.010	1004.8	27	94.4	2.5	
Cu	63	1	No Gas	0.804	4.7	11555	3.7	2.5	
Se	82	1	No Gas	-0.458	-94.5	-23	-425.1	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	979524	1.42	937353	104.50	70	120	
Ge	72	2	He	718797	0.65	695601	103.33	70	120	
Ge	72	1	No Gas	2429360	0.80	2292755	105.96	70	120	
In	115	1	No Gas	2712079	0.23	2579132	105.15	70	120	
Bi	209	1	No Gas	2019904	0.36	1971732	102.44	70	120	

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	206CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:36:49-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	7	1	No Gas	76302	0.00
Be	9	1	No Gas	23	322.52
V	51	2	He	3956	0.08
Cr	52	2	He	17318	0.01
Fe	56	2	He	25644	0.00
Se	78	2	He	174	3.43
As	75	2	He	332	2.01
Ca	44	2	He	1047	0.98
Na	23	2	He	56826	0.00
Mg	24	2	He	840	1.35
K	39	2	He	190313	0.00
Mn	55	2	He	630	2.91
Co	59	2	He	87	42.80
Ni	60	2	He	113	35.11
Cu	63	2	He	797	1.32
Zn	66	2	He	490	1.25
Al	27	2	He	1850	0.20
B	11	1	No Gas	8911	0.02
Al	27	1	No Gas	64161	0.00
Si	28	1	No Gas	535979	0.00
Ag	107	1	No Gas	143	20.27
Cd	111	1	No Gas	23	292.53
Sr	88	1	No Gas	2237	0.15
Mo	95	1	No Gas	333	6.81
Sn	118	1	No Gas	2375	1.57
Sb	121	1	No Gas	180	14.14
Ba	137	1	No Gas	703	0.58
Tl	205	1	No Gas	163	16.90
Tl	203	1	No Gas	107	22.12
Pb	208	1	No Gas	540	2.74
U	238	1	No Gas	23	280.57
Ca	43	2	He	80	27.06
Sb	121	2	He	107	10.15
Ti	47	2	He	23	106.04
Cu	63	1	No Gas	2790	0.14

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD

Calibration Blank Report

Li	6	1	No Gas	1120139	1.15
Ge	72	2	He	689983	1.30
Ge	72	1	No Gas	2486364	1.14
In	115	1	No Gas	2731714	0.39

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Bi	209	1	No Gas	1939318	4.67

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	207CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:38:59-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	8046	0.03
V	51	2	He	14742	0.01
Cr	52	2	He	29566	0.00
Fe	56	2	He	1119897	0.00
Se	78	2	He	425	2.48
As	75	2	He	2351	0.22
Ca	44	2	He	10047	0.05
Na	23	2	He	263265	0.00
Mg	24	2	He	126409	0.00
K	39	2	He	381320	0.00
Mn	55	2	He	10698	0.02
Co	59	2	He	16413	0.01
Ni	60	2	He	4141	0.12
Cu	63	2	He	13200	0.01
Zn	66	2	He	4204	0.10
Al	27	2	He	2817	0.27
B	11	1	No Gas	29673	0.00
Al	27	1	No Gas	100119	0.00
Si	28	1	No Gas	625070	0.00
Ag	107	1	No Gas	29750	0.01
Cd	111	1	No Gas	5876	0.04
Sr	88	1	No Gas	65768	0.00
Mo	95	1	No Gas	11465	0.03
Sn	118	1	No Gas	19485	0.01
Sb	121	1	No Gas	24206	0.00
Ba	137	1	No Gas	10314	0.01
Tl	205	1	No Gas	41349	0.00
Tl	203	1	No Gas	16805	0.00
Pb	208	1	No Gas	57763	0.00
U	238	1	No Gas	50585	0.00
Ca	43	2	He	610	1.42
Sb	121	2	He	11328	0.02
Cu	63	1	No Gas	31821	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	1092175	1.89	1120139	97.50	70	120	
Ge	72	2	He	689735	0.70	689983	99.96	70	120	
Ge	72	1	No Gas	2499642	1.97	2486364	100.53	70	120	

Calibration Standard Report

In	115	1	No Gas	2703982	0.73	2731714	98.98	70	120	
Bi	209	1	No Gas	1947951	4.68	1939318	100.45	70	120	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	208CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:41:07-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	19851	0.01
V	51	2	He	31334	0.00
Cr	52	2	He	48031	0.00
Fe	56	2	He	2752909	0.00
Se	78	2	He	706	0.31
As	75	2	He	5339	0.03
Ca	44	2	He	23223	0.01
Na	23	2	He	574558	0.00
Mg	24	2	He	318027	0.00
K	39	2	He	665744	0.00
Mn	55	2	He	26710	0.02
Co	59	2	He	40571	0.01
Ni	60	2	He	10217	0.04
Cu	63	2	He	25822	0.01
Zn	66	2	He	5735	0.02
Al	27	2	He	3814	0.05
B	11	1	No Gas	61907	0.00
Al	27	1	No Gas	135232	0.00
Si	28	1	No Gas	790684	0.00
Ag	107	1	No Gas	72193	0.00
Cd	111	1	No Gas	14041	0.02
Sr	88	1	No Gas	158702	0.00
Mo	95	1	No Gas	28785	0.00
Sn	118	1	No Gas	43884	0.01
Sb	121	1	No Gas	60064	0.00
Ba	137	1	No Gas	24310	0.00
Tl	205	1	No Gas	104142	0.00
Tl	203	1	No Gas	43416	0.00
Pb	208	1	No Gas	141393	0.00
U	238	1	No Gas	129554	0.00
Ca	43	2	He	1340	0.50
Sb	121	2	He	28675	0.01
Cu	63	1	No Gas	61094	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	1087572	1.59	1120139	97.09	70	120	
Ge	72	2	He	693132	0.75	689983	100.46	70	120	
Ge	72	1	No Gas	2473353	0.77	2486364	99.48	70	120	

Calibration Standard Report

In	115	1	No Gas	2626148	3.27	2731714	96.14	70	120	
Bi	209	1	No Gas	1983806	3.79	1939318	102.29	70	120	

Calibration Standard Report

Sample Table

Sample Name	10/50/100
Data File Name	209CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:43:17-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	39347	0.01
V	51	2	He	57433	0.00
Cr	52	2	He	78910	0.00
Fe	56	2	He	5212840	0.00
Se	78	2	He	1265	0.47
As	75	2	He	9920	0.01
Ca	44	2	He	43693	0.00
Na	23	2	He	1035183	0.00
Mg	24	2	He	616407	0.00
K	39	2	He	1119245	0.00
Mn	55	2	He	48647	0.00
Co	59	2	He	77979	0.00
Ni	60	2	He	19451	0.00
Cu	63	2	He	49403	0.00
Zn	66	2	He	11025	0.00
Al	27	2	He	6048	0.05
B	11	1	No Gas	113826	0.00
Al	27	1	No Gas	211958	0.00
Si	28	1	No Gas	1004805	0.00
Ag	107	1	No Gas	144898	0.00
Cd	111	1	No Gas	28363	0.00
Sr	88	1	No Gas	316268	0.00
Mo	95	1	No Gas	57588	0.00
Sn	118	1	No Gas	88917	0.00
Sb	121	1	No Gas	122448	0.00
Ba	137	1	No Gas	47373	0.00
Tl	205	1	No Gas	208329	0.00
Tl	203	1	No Gas	86831	0.00
Pb	208	1	No Gas	282227	0.00
U	238	1	No Gas	258942	0.00
Ca	43	2	He	2684	0.45
Sb	121	2	He	56562	0.00
Cu	63	1	No Gas	117464	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	1049993	1.47	1120139	93.74	70	120	
Ge	72	2	He	685234	1.74	689983	99.31	70	120	
Ge	72	1	No Gas	2452084	0.83	2486364	98.62	70	120	

Calibration Standard Report

In	115	1	No Gas	2672733	1.31	2731714	97.84	70	120	
Bi	209	1	No Gas	1970973	4.22	1939318	101.63	70	120	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	210CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:45:24-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	388150	0.00
V	51	2	He	532003	0.00
Cr	52	2	He	594514	0.00
Fe	56	2	He	51064894	0.00
Se	78	2	He	10810	0.02
As	75	2	He	94021	0.00
Ca	44	2	He	421082	0.00
Na	23	2	He	9145442	0.00
Mg	24	2	He	5482788	0.00
K	39	2	He	8848903	0.00
Mn	55	2	He	474283	0.00
Co	59	2	He	761399	0.00
Ni	60	2	He	186774	0.00
Cu	63	2	He	469361	0.00
Zn	66	2	He	105505	0.00
Al	27	2	He	43037	0.00
B	11	1	No Gas	1008581	0.00
Al	27	1	No Gas	1587381	0.00
Si	28	1	No Gas	4563837	0.00
Ag	107	1	No Gas	1414947	0.00
Cd	111	1	No Gas	279868	0.00
Sr	88	1	No Gas	3035804	0.00
Mo	95	1	No Gas	562564	0.00
Sn	118	1	No Gas	855914	0.00
Sb	121	1	No Gas	1232543	0.00
Ba	137	1	No Gas	467139	0.00
Tl	205	1	No Gas	1950034	0.00
Tl	203	1	No Gas	809333	0.00
Pb	208	1	No Gas	2751765	0.00
U	238	1	No Gas	2598039	0.00
Ca	43	2	He	24926	0.01
Sb	121	2	He	570973	0.00
Cu	63	1	No Gas	1120433	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	1055797	1.47	1120139	94.26	70	120	
Ge	72	2	He	673503	1.19	689983	97.61	70	120	
Ge	72	1	No Gas	2429983	0.96	2486364	97.73	70	120	

Calibration Standard Report

In	115	1	No Gas	2612504	0.55	2731714	95.64	70	120	
Bi	209	1	No Gas	1937362	3.10	1939318	99.90	70	120	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	211CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:47:27-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	No Gas	751270	0.00
V	51	2	He	1035426	0.00
Cr	52	2	He	1184523	0.00
Fe	56	2	He	99819555	0.00
Se	78	2	He	21139	0.00
As	75	2	He	184789	0.00
Ca	44	2	He	823111	0.00
Na	23	2	He	17874661	0.00
Mg	24	2	He	10701128	0.00
K	39	2	He	17071491	0.00
Mn	55	2	He	931276	0.00
Co	59	2	He	1546412	0.00
Ni	60	2	He	365128	0.00
Cu	63	2	He	918108	0.00
Zn	66	2	He	204926	0.00
Al	27	2	He	83335	0.00
B	11	1	No Gas	1964389	0.00
Al	27	1	No Gas	2973289	0.00
Si	28	1	No Gas	8339376	0.00
Ag	107	1	No Gas	2744235	0.00
Cd	111	1	No Gas	547062	0.00
Sr	88	1	No Gas	5837141	0.00
Mo	95	1	No Gas	1106888	0.00
Sn	118	1	No Gas	1678979	0.00
Sb	121	1	No Gas	2447798	0.00
Ba	137	1	No Gas	921082	0.00
Tl	205	1	No Gas	3748695	0.00
Tl	203	1	No Gas	1595802	0.00
Pb	208	1	No Gas	5432981	0.00
U	238	1	No Gas	5162591	0.00
Ca	43	2	He	49155	0.00
Sb	121	2	He	1158038	0.00
Cu	63	1	No Gas	2147359	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	1002299	1.42	1120139	89.48	70	120	
Ge	72	2	He	660124	0.42	689983	95.67	70	120	
Ge	72	1	No Gas	2366701	0.19	2486364	95.19	70	120	

Calibration Standard Report

In	115	1	No Gas	2539910	1.48	2731714	92.98	70	120	
Bi	209	1	No Gas	1919799	3.53	1939318	98.99	70	120	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICCV
Data File Name	213_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:51:37-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	97.610	3.205	1331540	0.45	100	97.6	90	110	
Be	9	1	No Gas	97.960	3.063	388020	0.42	100	98.0	90	110	
V	51	2	He	100.810	0.891	540791	0.47	100	100.8	90	110	
Cr	52	2	He	97.727	1.377	602366	0.92	100	97.7	90	110	
Fe	56	2	He	9995.046	1.041	51508493	0.66	10000	100.0	90	110	
Se	78	2	He	98.262	1.614	10791	1.38	100	98.3	90	110	
As	75	2	He	101.240	0.781	96593	0.36	100	101.2	90	110	
Ca	44	2	He	10102.046	1.181	429608	0.76	10000	101.0	90	110	
Na	23	2	He	10163.595	1.864	9401266	1.62	10000	101.6	90	110	
Mg	24	2	He	10036.734	0.827	5547493	0.41	10000	100.4	90	110	
K	39	2	He	10092.979	1.382	8993034	1.22	10000	100.9	90	110	
Mn	55	2	He	99.642	1.576	478799	1.17	100	99.6	90	110	
Co	59	2	He	98.030	0.423	776630	0.64	100	98.0	90	110	
Ni	60	2	He	101.771	1.132	191870	0.74	100	101.8	90	110	
Cu	63	2	He	100.446	0.495	476301	0.15	100	100.4	90	110	
Zn	66	2	He	99.067	1.390	105128	1.81	100	99.1	90	110	
Al	27	2	He	101.038	1.789	44264	1.95	100	101.0	90	110	
B	11	1	No Gas	489.299	4.558	1015523	1.46	500	97.9	90	110	
Al	27	1	No Gas	102.595	1.653	1614775	0.63	100	102.6	90	110	
Si	28	1	No Gas	503.263	1.862	4610552	1.47	500	100.7	90	110	
Ag	107	1	No Gas	100.030	1.841	1409369	1.41	100	100.0	90	110	
Cd	111	1	No Gas	99.608	1.310	279340	1.07	100	99.6	90	110	
Sr	88	1	No Gas	102.494	1.970	3077880	0.92	100	102.5	90	110	
Mo	95	1	No Gas	100.200	1.144	567981	1.07	100	100.2	90	110	
Sn	118	1	No Gas	99.486	2.071	856419	0.48	100	99.5	90	110	
Sb	121	1	No Gas	96.315	1.434	1214920	1.34	100	96.3	90	110	
Ba	137	1	No Gas	99.556	2.370	469451	0.27	100	99.6	90	110	
Tl	205	1	No Gas	101.390	2.994	1939358	0.79	100	101.4	90	110	
Tl	203	1	No Gas	100.382	3.287	813008	0.20	100	100.4	90	110	
Pb	208	1	No Gas	100.958	4.144	2783628	1.02	100	101.0	90	110	
U	238	1	No Gas	99.896	3.921	2613195	1.29	100	99.9	90	110	
Ca	43	2	He	10083.484	2.065	25571	2.02	10000	100.8	90	110	
Sb	121	2	He	98.063	1.058	581869	0.83	100	98.1	90	110	
Ti	47	2	He	100.834	1.618	22659	1.20	100	100.8	90	110	
Cu	63	1	No Gas	99.125	0.452	1106049	1.02	100	99.1	90	110	
Se	82	1	No Gas	101.211	2.087	21969	2.79	100	101.2	90	110	

QC ISTD Table

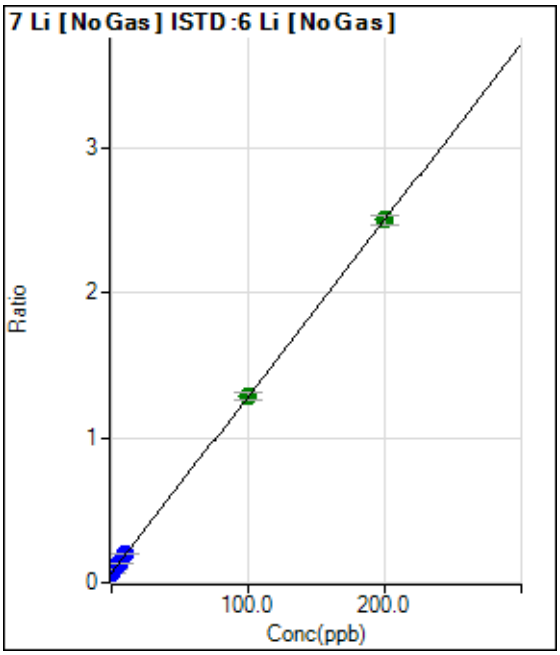
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	1061528	3.42	1120139	94.77	70	120	
Ge	72	2	He	681093	0.42	689983	98.71	70	120	
Ge	72	1	No Gas	2448747	0.96	2486364	98.49	70	120	
In	115	1	No Gas	2606826	2.13	2731714	95.43	70	120	
Bi	209	1	No Gas	1946540	3.19	1939318	100.37	70	120	

Calibration for 213_ICV.d

Batch Folder: C:\Agilent\ICPMH\1\DATA\071323A.b\
Analysis File: 071323A.batch.bin
DA Date-Time: 7/14/2023 8:11:04 AM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	206CALB.d	CAL BLK	7/13/2023 8:36:49 PM
2	207CALS.d	2/10/200	7/13/2023 8:38:59 PM
3	208CALS.d	5/25/500	7/13/2023 8:41:07 PM
4	209CALS.d	10/50/100	7/13/2023 8:43:17 PM
5	210CALS.d	100/500/10K	7/13/2023 8:45:24 PM
6	211CALS.d	200/1000/20K	7/13/2023 8:47:27 PM

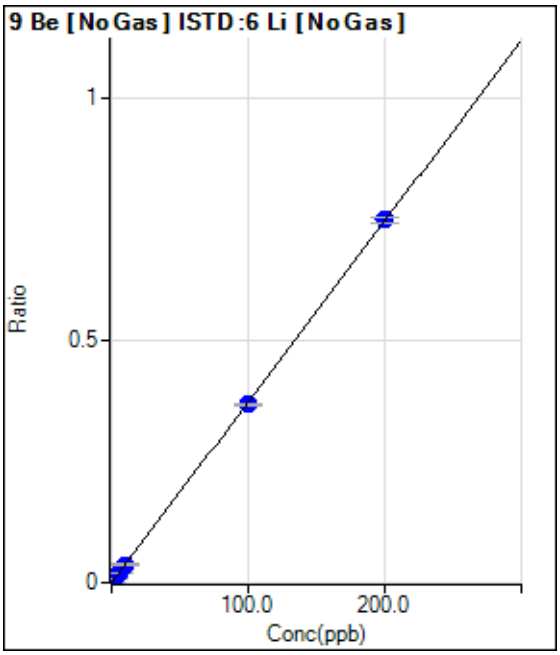
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76301.75	0.0681	P	1.6
2	☐	2.000	2.110	102403.87	0.0938	P	2.1
3	☐	5.000	5.165	142384.95	0.1309	P	1.1
4	☐	10.000	10.790	209294.88	0.1993	P	0.9
5	☐	100.000	99.712	1351784.20	1.2808	A	4.3
6	☐	200.000	200.100	2506917.10	2.5017	A	2.4

y = 0.0122 * x + 0.0681
R = 1.0000
DL = 0.2631
BEC = 5.602

Weight: <None>
Min Conc: <None>

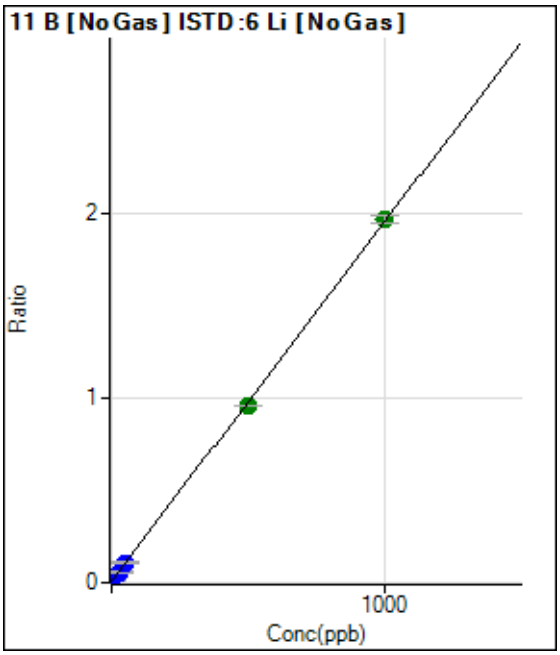


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	75.5
2	☐	2.000	1.968	8045.71	0.0074	P	3.7
3	☐	5.000	4.884	19850.74	0.0183	P	3.0
4	☐	10.000	10.032	39346.64	0.0375	P	2.9
5	☐	100.000	98.470	388150.12	0.3677	P	1.7
6	☐	200.000	200.766	751269.60	0.7496	P	1.6

y = 0.0037 * x + 2.0931E-005
R = 1.0000
DL = 0.01269
BEC = 0.005606

Weight: <None>
Min Conc: <None>

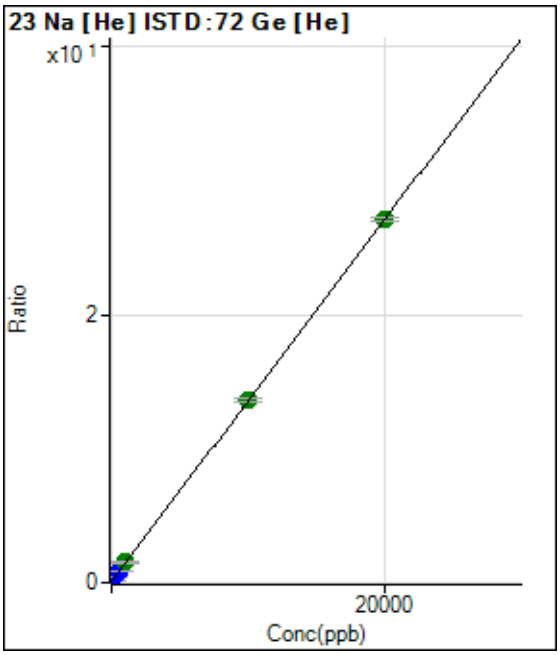
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8911.23	0.0080	P	1.6
2	☐	10.000	9.901	29673.02	0.0272	P	1.7
3	☐	25.000	25.233	61907.22	0.0569	P	1.3
4	☐	50.000	51.773	113826.48	0.1084	P	3.0
5	☐	500.000	488.089	1008580.79	0.9553	A	0.1
6	☐	1000.000	1005.862	1964389.29	1.9602	A	2.2

y = 0.0019 * x + 0.0080
R = 0.9999
DL = 0.1928
BEC = 4.099

Weight: <None>
Min Conc: <None>

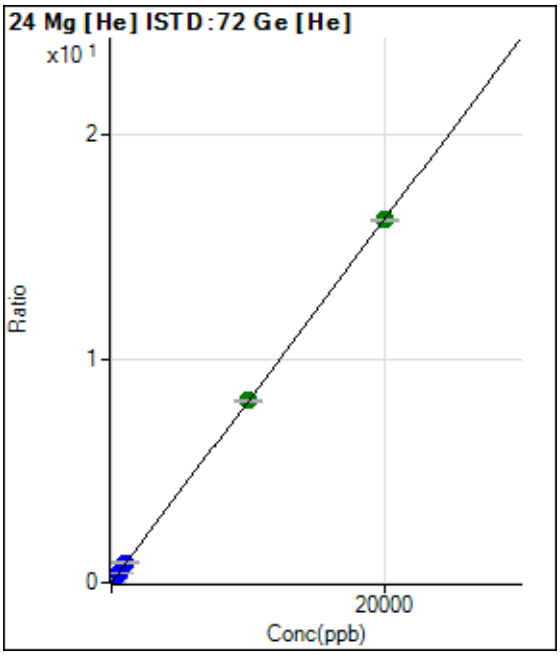


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56825.89	0.0824	P	0.8
2	☐	200.000	221.725	263264.68	0.3817	P	1.2
3	☐	500.000	553.025	574557.62	0.8290	P	1.0
4	☐	1000.000	1057.915	1035182.67	1.5106	A	1.3
5	☐	10000.000	9998.713	9145441.74	13.5811	A	2.0
6	☐	20000.000	19996.205	17874660.98	27.0781	A	1.0

y = 0.0014 * x + 0.0824
R = 1.0000
DL = 1.51
BEC = 61.01

Weight: <None>
Min Conc: <None>

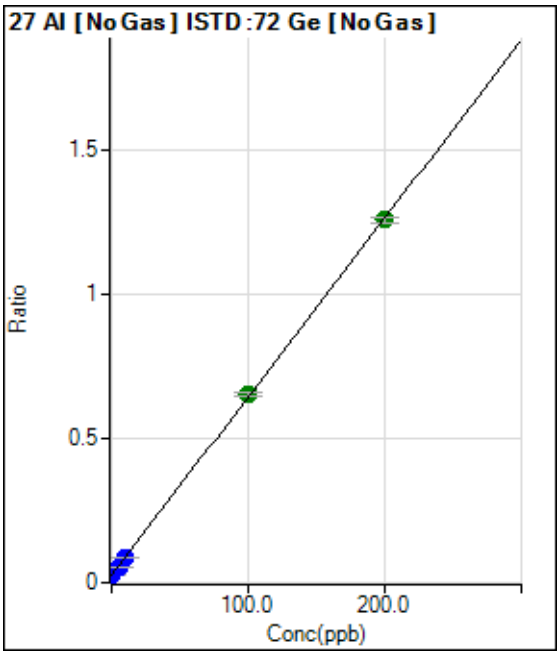
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	840.04	0.0012	P	10.0
2	☐	200.000	224.361	126408.94	0.1833	P	1.1
3	☐	500.000	563.970	318027.29	0.4588	P	0.2
4	☐	1000.000	1107.304	616407.05	0.8997	P	2.0
5	☐	10000.000	10032.099	5482787.84	8.1414	A	1.2
6	☐	20000.000	19976.743	10701127.76	16.2106	A	0.7

y = 8.1141E-004 * x + 0.0012
R = 1.0000
DL = 0.4503
BEC = 1.499

Weight: <None>
Min Conc: <None>

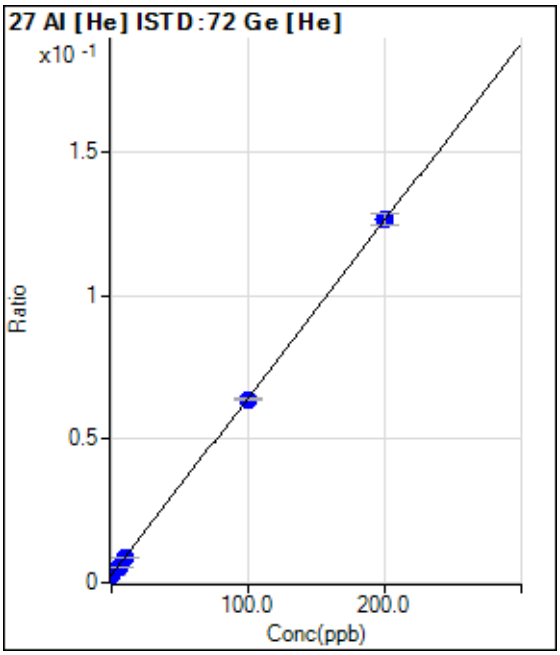


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	64161.30	0.0258	P	2.0
2	☐	2.000	2.308	100118.89	0.0401	P	1.6
3	☐	5.000	4.674	135231.53	0.0547	P	1.3
4	☐	10.000	9.817	211957.76	0.0864	P	0.8
5	☐	100.000	101.593	1587380.76	0.6533	A	1.5
6	☐	200.000	199.218	2973288.60	1.2563	A	1.3

y = 0.0062 * x + 0.0258
R = 1.0000
DL = 0.2501
BEC = 4.178

Weight: <None>
Min Conc: <None>

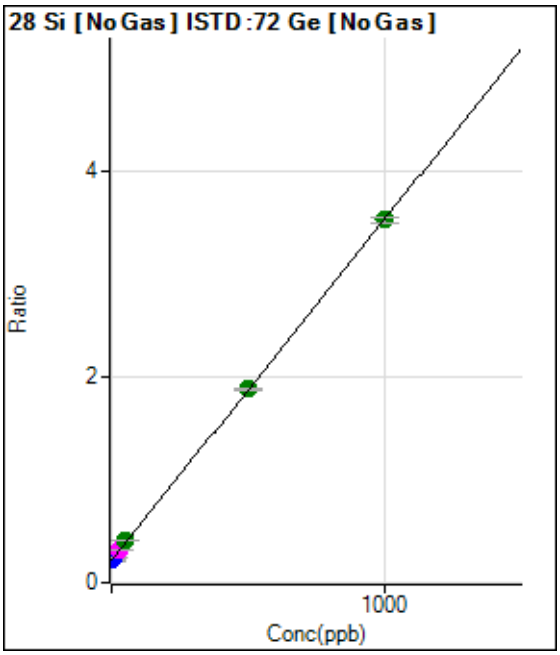
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1850.16	0.0027	P	3.7
2	☐	2.000	2.276	2817.00	0.0041	P	7.9
3	☐	5.000	4.576	3813.94	0.0055	P	2.6
4	☐	10.000	9.971	6048.07	0.0088	P	4.5
5	☐	100.000	99.271	43036.96	0.0639	P	0.9
6	☐	200.000	200.374	83335.43	0.1262	P	3.1

y = 6.1667E-004 * x + 0.0027
R = 1.0000
DL = 0.4806
BEC = 4.348

Weight: <None>
Min Conc: <None>

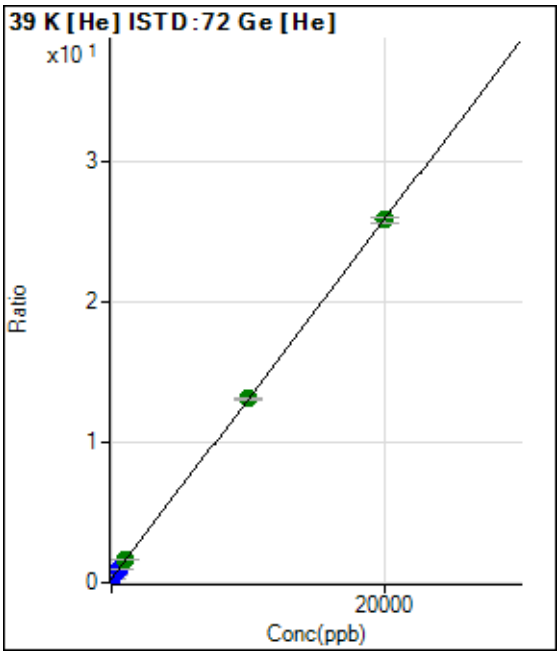


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	535979.17	0.2156	P	1.3
2	☐	10.000	10.419	625070.26	0.2501	P	1.5
3	☐	25.000	31.403	790683.79	0.3196	M	3.2
4	☐	50.000	58.617	1004805.35	0.4098	A	0.6
5	☐	500.000	501.851	4563836.91	1.8782	A	1.1
6	☐	1000.000	998.480	8339375.50	3.5236	A	1.3

y = 0.0033 * x + 0.2156
R = 1.0000
DL = 2.619
BEC = 65.07

Weight: <None>
Min Conc: <None>

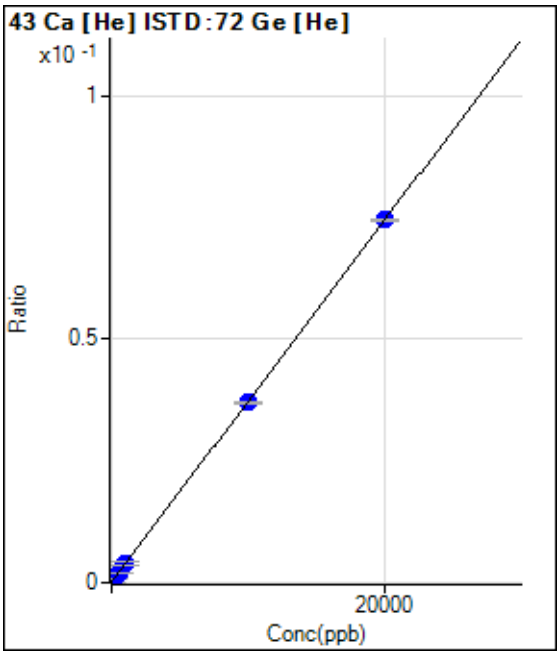
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190312.89	0.2758	P	1.1
2	☐	200.000	216.270	381319.93	0.5529	P	1.0
3	☐	500.000	534.512	665743.84	0.9605	P	0.9
4	☐	1000.000	1059.855	1119244.85	1.6334	A	3.4
5	☐	10000.000	10042.921	8848902.79	13.1399	A	1.3
6	☐	20000.000	19974.521	17071491.00	25.8614	A	1.4

y = 0.0013 * x + 0.2758
R = 1.0000
DL = 7.264
BEC = 215.4

Weight: <None>
Min Conc: <None>

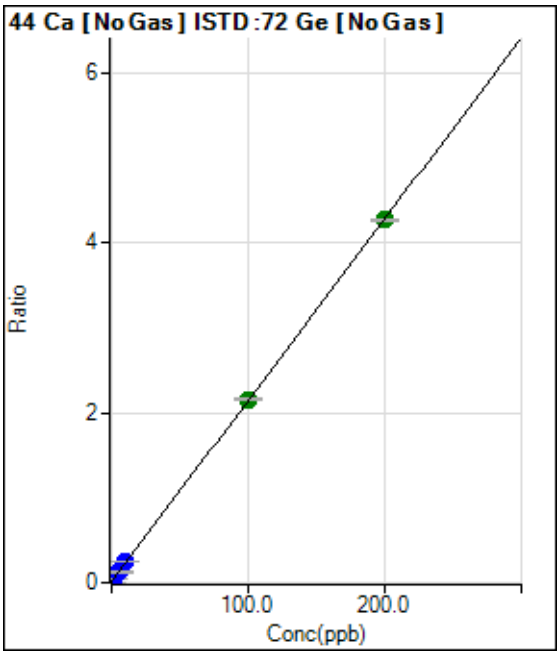


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	22.5
2	☐	200.000	207.073	610.03	0.0009	P	9.1
3	☐	500.000	489.639	1340.09	0.0019	P	6.8
4	☐	1000.000	1024.212	2683.65	0.0039	P	12.5
5	☐	10000.000	9938.863	24926.10	0.0370	P	1.1
6	☐	20000.000	20029.546	49154.61	0.0745	P	0.3

y = 3.7118E-006 * x + 1.1609E-004
R = 1.0000
DL = 21.12
BEC = 31.27

Weight: <None>
Min Conc: <None>

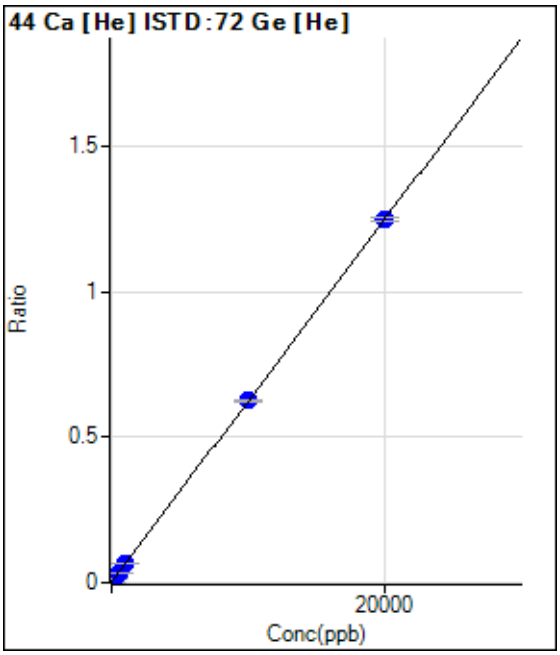
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27200.51	0.0109	P	3.0
2	☐	2.000	2.113	140126.82	0.0561	P	0.7
3	☐	5.000	5.324	308233.56	0.1246	P	0.8
4	☐	10.000	10.715	587894.44	0.2397	P	0.6
5	☐	100.000	100.614	5247175.23	2.1595	A	0.8
6	☐	200.000	199.648	10115830.89	4.2742	A	0.7

y = 0.0214 * x + 0.0109
R = 1.0000
DL = 0.04661
BEC = 0.5124

Weight: <None>
Min Conc: <None>

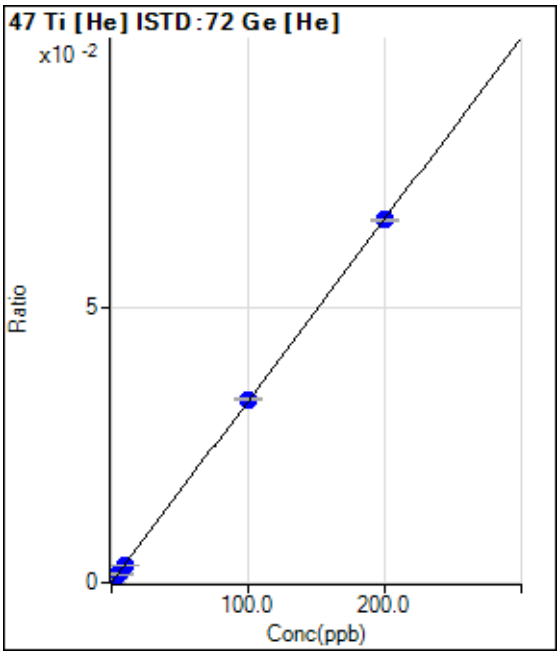


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1046.72	0.0015	P	10.0
2	☐	200.000	209.481	10047.15	0.0146	P	5.2
3	☐	500.000	513.533	23223.15	0.0335	P	3.5
4	☐	1000.000	999.370	43693.05	0.0638	P	0.7
5	☐	10000.000	10012.963	421081.75	0.6252	P	0.6
6	☐	20000.000	19993.117	823111.26	1.2469	P	0.9

y = 6.2291E-005 * x + 0.0015
R = 1.0000
DL = 7.296
BEC = 24.35

Weight: <None>
Min Conc: <None>

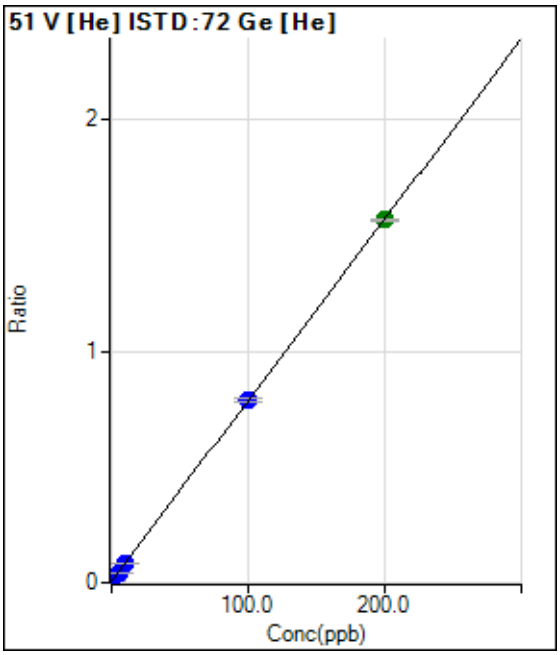
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	25.6
2	☐	2.000	1.879	450.01	0.0007	P	25.1
3	☐	5.000	4.842	1130.07	0.0016	P	8.6
4	☐	10.000	9.569	2183.55	0.0032	P	4.7
5	☐	100.000	100.756	22388.62	0.0332	P	1.5
6	☐	200.000	199.649	43462.30	0.0658	P	0.6

y = 3.2961E-004 * x + 3.3864E-005
R = 1.0000
DL = 0.07891
BEC = 0.1027

Weight: <None>
Min Conc: <None>

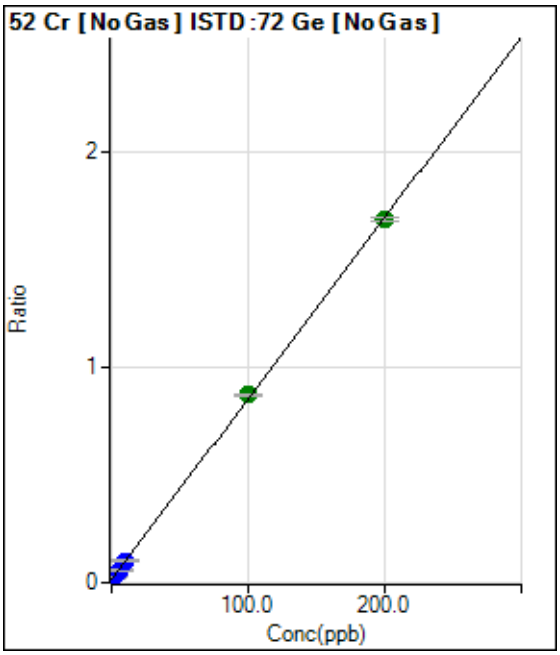


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3956.15	0.0057	P	3.0
2	☐	2.000	2.000	14742.42	0.0214	P	2.0
3	☐	5.000	5.048	31333.55	0.0452	P	0.8
4	☐	10.000	9.987	57432.96	0.0838	P	1.3
5	☐	100.000	100.291	532003.43	0.7900	P	1.2
6	☐	200.000	199.854	1035425.93	1.5685	A	0.8

y = 0.0078 * x + 0.0057
R = 1.0000
DL = 0.06655
BEC = 0.7332

Weight: <None>
Min Conc: <None>

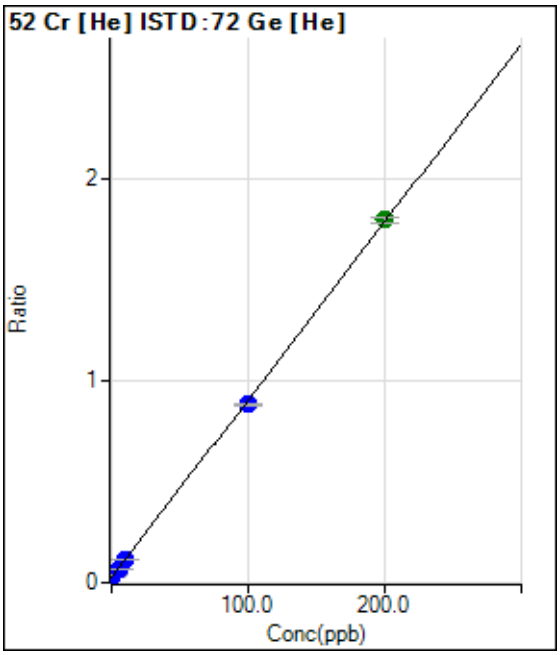
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	35459.54	0.0143	P	2.0
2	☐	2.000	2.019	77991.36	0.0312	P	1.4
3	☐	5.000	5.198	143142.23	0.0579	P	1.2
4	☐	10.000	10.462	250232.75	0.1020	P	1.2
5	☐	100.000	102.146	2117229.19	0.8713	A	0.4
6	☐	200.000	198.899	3983471.19	1.6831	A	1.2

y = 0.0084 * x + 0.0143
R = 0.9999
DL = 0.104
BEC = 1.7

Weight: <None>
Min Conc: <None>

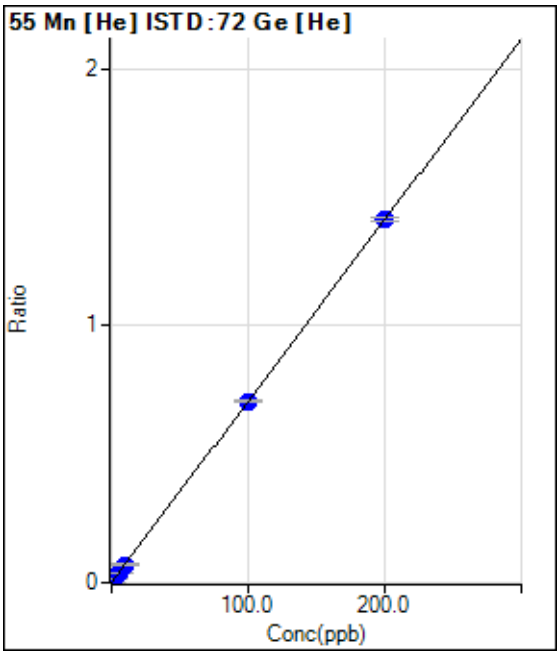


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17317.89	0.0251	P	3.1
2	☐	2.000	2.020	29565.62	0.0429	P	1.2
3	☐	5.000	5.026	48031.18	0.0693	P	0.7
4	☐	10.000	10.241	78909.82	0.1152	P	0.4
5	☐	100.000	97.540	594514.46	0.8828	P	1.1
6	☐	200.000	201.217	1184522.61	1.7945	A	1.8

y = 0.0088 * x + 0.0251
R = 0.9999
DL = 0.262
BEC = 2.855

Weight: <None>
Min Conc: <None>

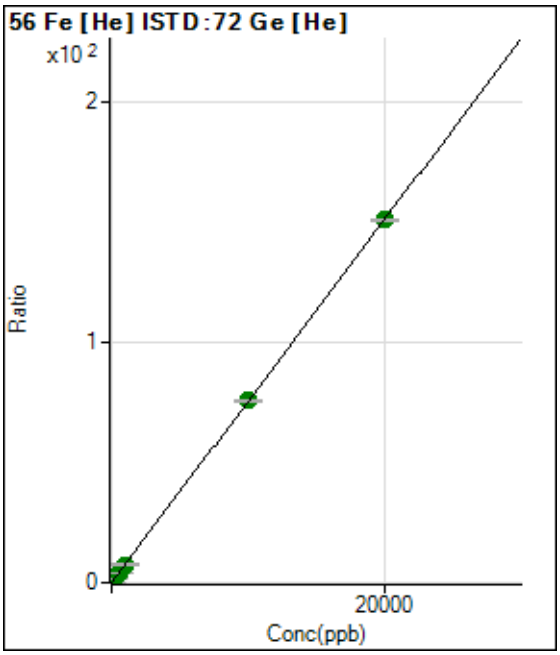
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	630.03	0.0009	P	19.4
2	☐	2.000	2.071	10697.70	0.0155	P	2.7
3	☐	5.000	5.339	26709.72	0.0385	P	4.5
4	☐	10.000	9.946	48646.75	0.0710	P	0.8
5	☐	100.000	99.818	474283.45	0.7043	P	0.9
6	☐	200.000	200.084	931275.82	1.4107	P	1.1

y = 0.0070 * x + 9.1456E-004
R = 1.0000
DL = 0.07563
BEC = 0.1298

Weight: <None>
Min Conc: <None>

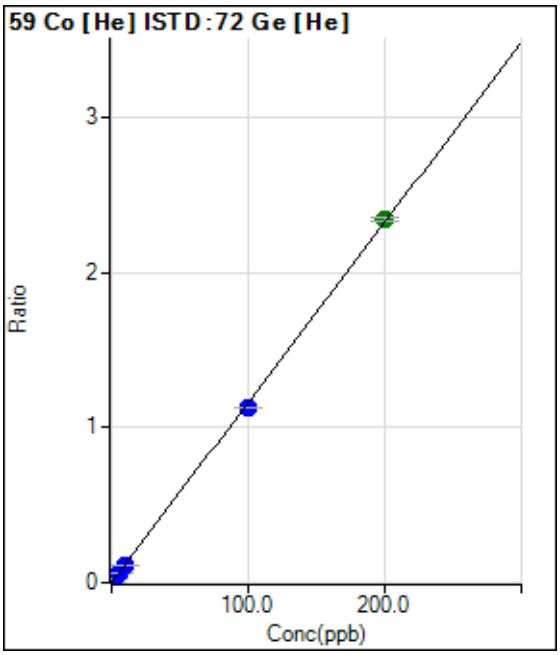


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25644.37	0.0372	P	0.7
2	☐	200.000	209.772	1119897.12	1.6236	A	1.8
3	☐	500.000	520.243	2752908.92	3.9717	A	0.8
4	☐	1000.000	1001.140	5212839.92	7.6087	A	1.7
5	☐	10000.000	10020.541	51064894.24	75.8211	A	0.6
6	☐	20000.000	19989.069	99819555.18	151.2117	A	0.6

y = 0.0076 * x + 0.0372
R = 1.0000
DL = 0.09783
BEC = 4.914

Weight: <None>
Min Conc: <None>

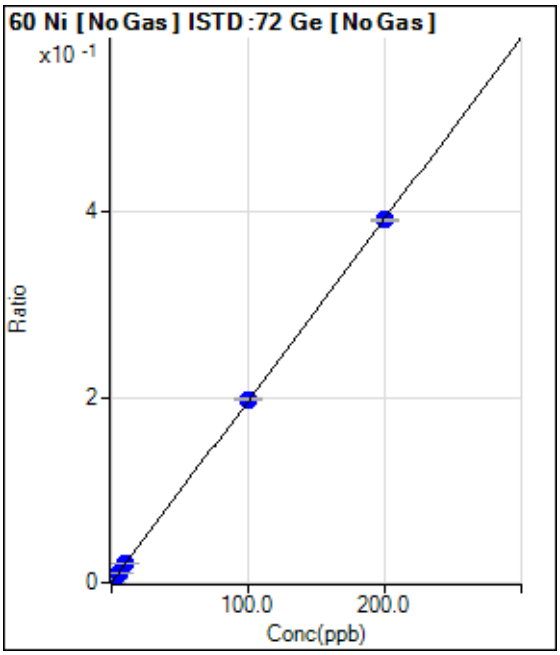
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0001	P	36.8
2	☐	2.000	2.035	16413.42	0.0238	P	1.3
3	☐	5.000	5.021	40570.60	0.0585	P	2.1
4	☐	10.000	9.774	77978.89	0.1138	P	1.2
5	☐	100.000	97.195	761399.39	1.1306	P	0.8
6	☐	200.000	201.413	1546412.17	2.3427	A	1.1

y = 0.0116 * x + 1.2544E-004
R = 0.9999
DL = 0.01191
BEC = 0.01079

Weight: <None>
Min Conc: <None>

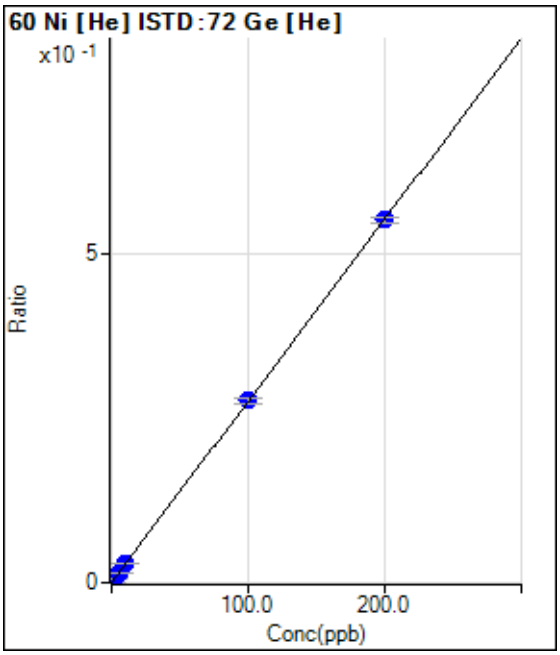


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	520.02	0.0002	P	6.6
2	☐	2.000	2.128	10937.87	0.0044	P	1.5
3	☐	5.000	5.118	25303.78	0.0102	P	0.9
4	☐	10.000	10.320	50065.52	0.0204	P	0.9
5	☐	100.000	100.778	479996.31	0.1975	P	1.1
6	☐	200.000	199.591	925443.76	0.3910	P	0.8

y = 0.0020 * x + 2.0905E-004
R = 1.0000
DL = 0.02117
BEC = 0.1068

Weight: <None>
Min Conc: <None>

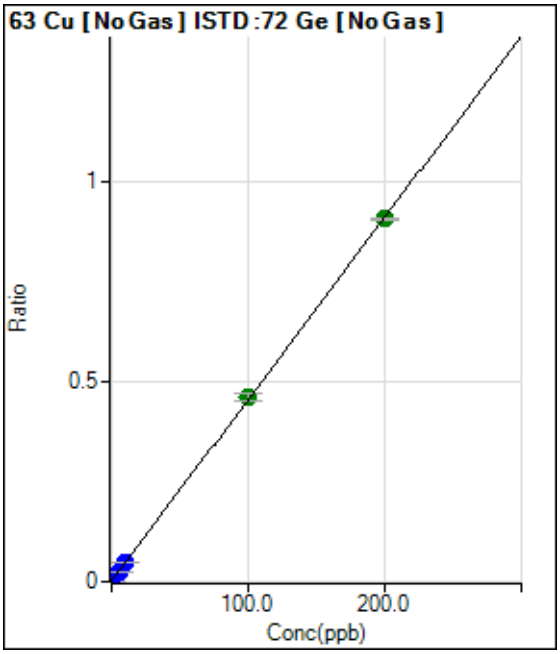
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.33	0.0002	P	40.0
2	☐	2.000	2.110	4140.71	0.0060	P	4.4
3	☐	5.000	5.270	10217.32	0.0147	P	4.1
4	☐	10.000	10.203	19450.75	0.0284	P	1.3
5	☐	100.000	100.197	186773.95	0.2774	P	2.5
6	☐	200.000	199.884	365127.65	0.5531	P	1.8

y = 0.0028 * x + 1.6425E-004
R = 1.0000
DL = 0.07131
BEC = 0.05937

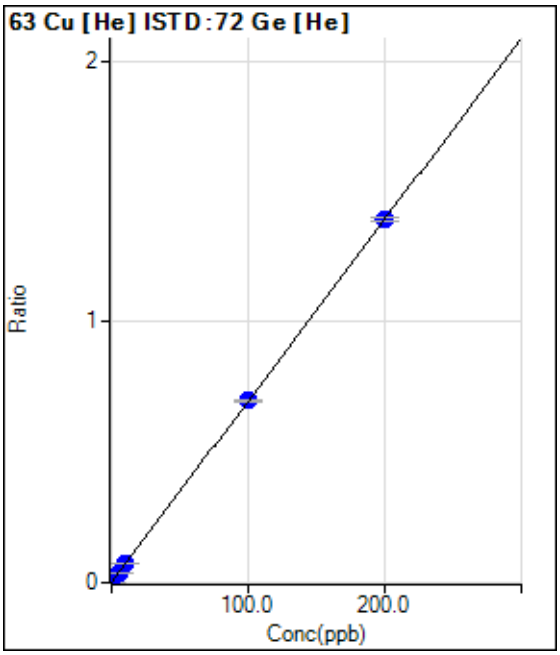
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2790.33	0.0011	P	4.4
2	☐	2.000	2.553	31820.92	0.0127	P	3.2
3	☐	5.000	5.188	61093.93	0.0247	P	1.2
4	☐	10.000	10.292	117464.14	0.0479	P	0.2
5	☐	100.000	101.218	1120432.98	0.4612	A	3.9
6	☐	200.000	199.366	2147359.08	0.9073	A	0.8

y = 0.0045 * x + 0.0011
R = 1.0000
DL = 0.0324
BEC = 0.2469

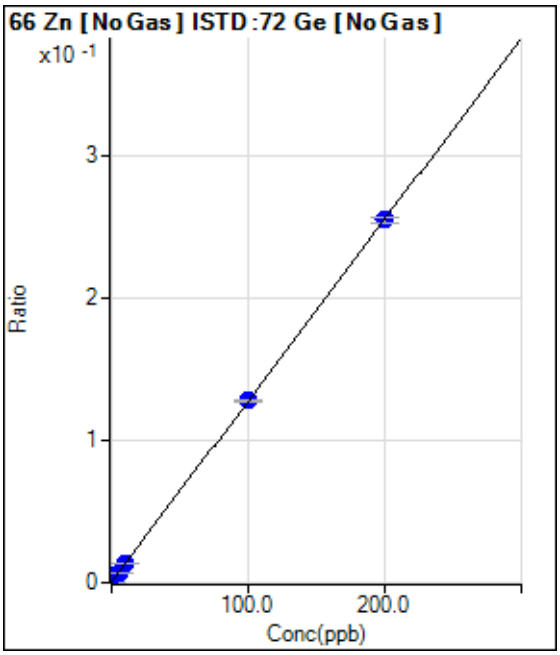
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	796.70	0.0012	P	11.7
2	☐	2.000	2.587	13199.93	0.0191	P	1.6
3	☐	5.000	5.194	25821.53	0.0373	P	2.2
4	☐	10.000	10.208	49403.29	0.0721	P	1.5
5	☐	100.000	100.095	469360.53	0.6969	P	0.7
6	☐	200.000	199.931	918107.77	1.3908	P	1.1

y = 0.0070 * x + 0.0012
R = 1.0000
DL = 0.05842
BEC = 0.1663

Weight: <None>
Min Conc: <None>

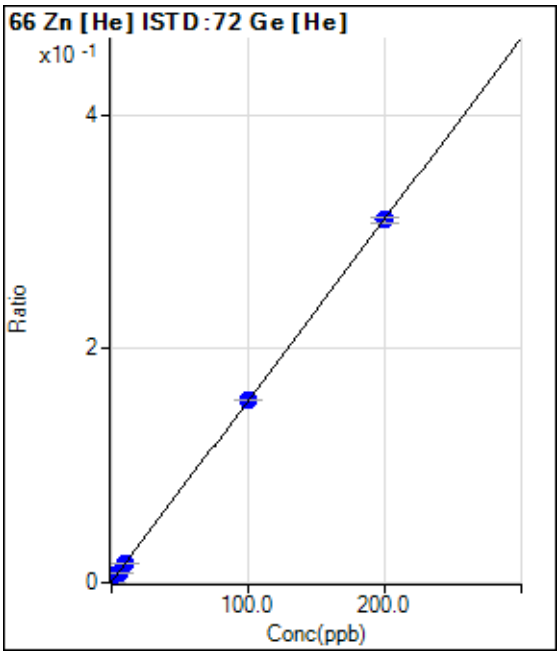


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1390.09	0.0006	P	14.0
2	☐	2.000	3.575	12786.27	0.0051	P	3.0
3	☐	5.000	5.049	17294.57	0.0070	P	1.9
4	☐	10.000	10.364	33755.64	0.0138	P	1.1
5	☐	100.000	100.121	311362.98	0.1281	P	1.2
6	☐	200.000	199.904	604218.65	0.2553	P	1.4

y = 0.0013 * x + 5.5961E-004
R = 1.0000
DL = 0.1839
BEC = 0.4392

Weight: <None>
Min Conc: <None>

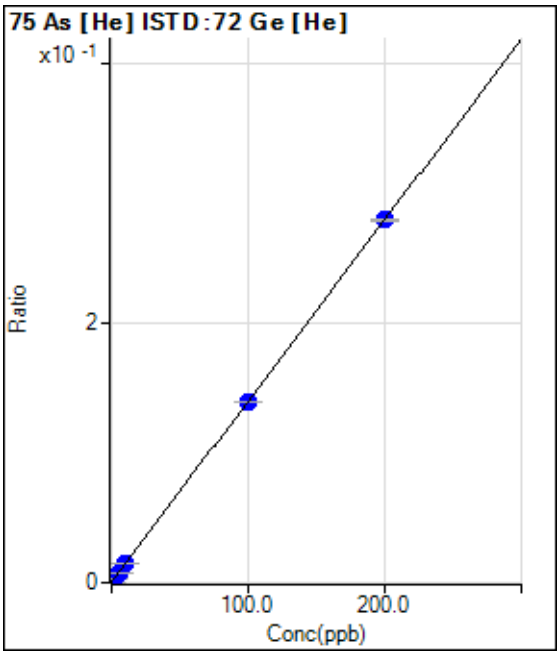
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	490.02	0.0007	P	7.3
2	☐	2.000	3.472	4204.08	0.0061	P	3.7
3	☐	5.000	4.877	5734.64	0.0083	P	1.7
4	☐	10.000	9.918	11024.67	0.0161	P	1.4
5	☐	100.000	100.556	105504.59	0.1567	P	0.5
6	☐	200.000	199.715	204926.01	0.3104	P	1.3

y = 0.0016 * x + 7.1061E-004
R = 1.0000
DL = 0.1003
BEC = 0.4582

Weight: <None>
Min Conc: <None>

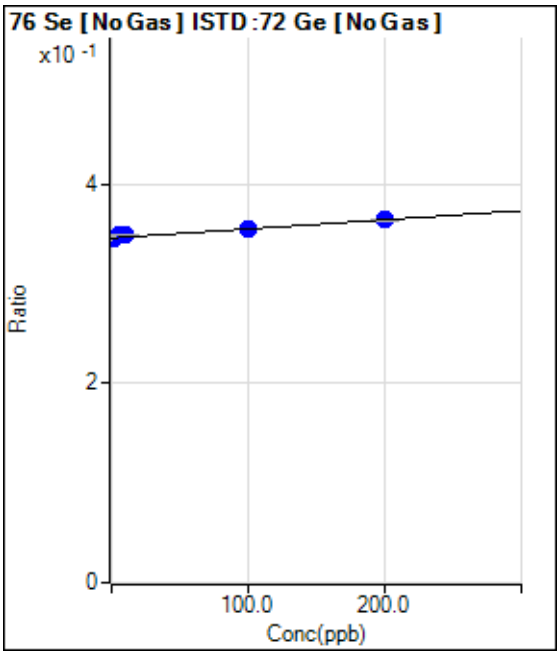


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	332.23	0.0005	P	7.6
2	☐	2.000	2.097	2351.33	0.0034	P	5.7
3	☐	5.000	5.173	5338.86	0.0077	P	2.1
4	☐	10.000	10.028	9920.36	0.0145	P	2.5
5	☐	100.000	99.653	94021.39	0.1396	P	0.8
6	☐	200.000	200.167	184789.33	0.2799	P	0.3

y = 0.0014 * x + 4.8174E-004
R = 1.0000
DL = 0.07837
BEC = 0.3451

Weight: <None>
Min Conc: <None>

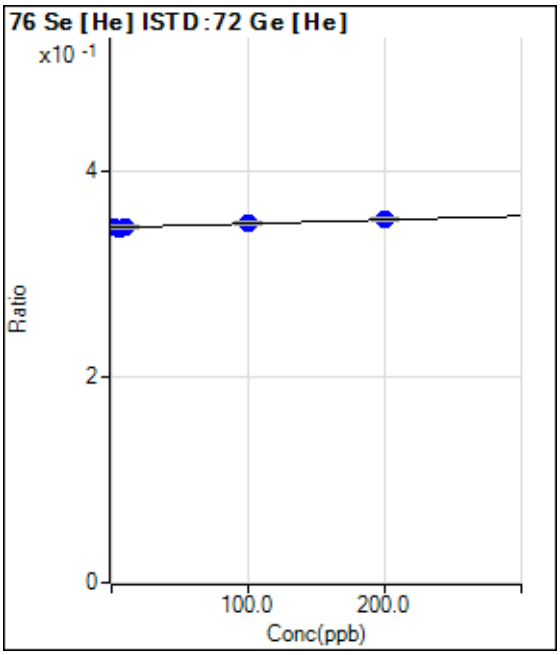
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	861054.34	0.3463	P	1.0
2	☐	2.000	-0.556	865445.79	0.3463	P	1.5
3	☐	5.000	30.570	863583.79	0.3491	P	0.4
4	☐	10.000	37.838	857804.39	0.3498	P	0.5
5	☐	100.000	100.451	864090.93	0.3556	P	0.3
6	☐	200.000	197.769	862813.66	0.3646	P	0.5

y = 9.2188E-005 * x + 0.3463
R = 0.9856
DL = 110
BEC = 3757

Weight: <None>
Min Conc: <None>

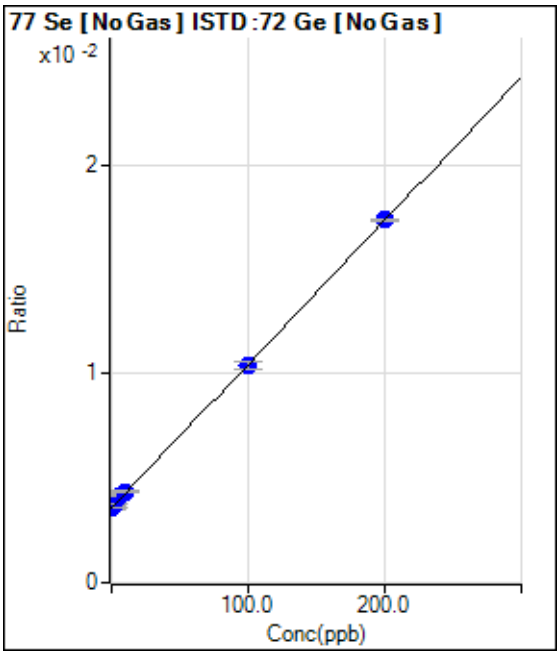


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	238564.49	0.3457	P	0.6
2	☐	2.000	-4.930	238337.92	0.3456	P	0.5
3	☐	5.000	-37.197	238684.19	0.3444	P	0.3
4	☐	10.000	16.957	237329.93	0.3464	P	0.8
5	☐	100.000	107.981	235580.32	0.3498	P	1.1
6	☐	200.000	196.786	233067.69	0.3531	P	1.0

y = 3.7276E-005 * x + 0.3457
R = 0.9793
DL = 162.3
BEC = 9275

Weight: <None>
Min Conc: <None>

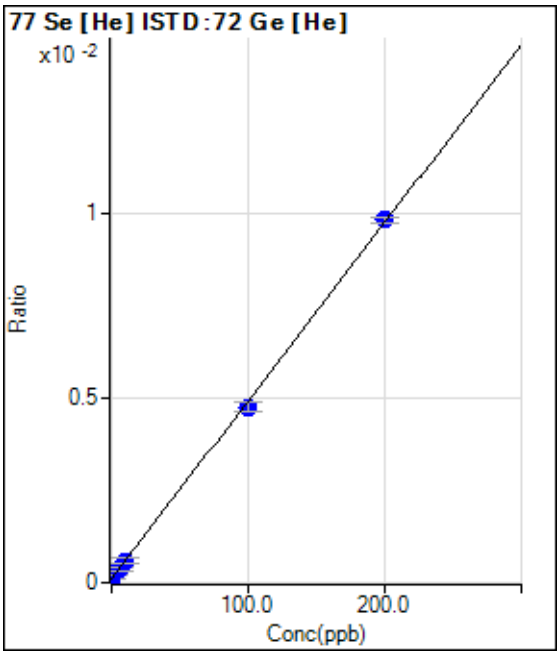
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8916.42	0.0036	P	5.5
2	☐	2.000	1.878	9280.03	0.0037	P	4.2
3	☐	5.000	8.570	10324.12	0.0042	P	1.5
4	☐	10.000	11.378	10707.78	0.0044	P	3.3
5	☐	100.000	98.850	25230.59	0.0104	P	3.3
6	☐	200.000	200.418	41109.65	0.0174	P	0.8

y = 6.8782E-005 * x + 0.0036
R = 0.9998
DL = 8.612
BEC = 52.12

Weight: <None>
Min Conc: <None>

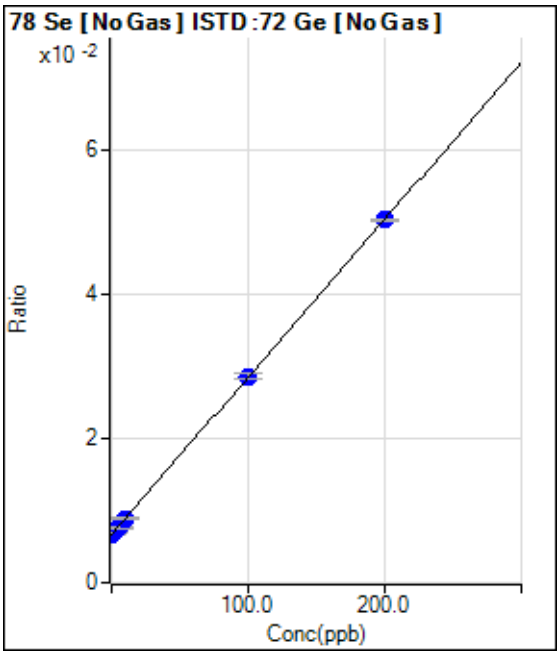


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0001	P	40.7
2	☐	2.000	2.927	170.00	0.0002	P	26.4
3	☐	5.000	5.486	256.68	0.0004	P	24.3
4	☐	10.000	10.215	410.02	0.0006	P	20.7
5	☐	100.000	96.601	3200.44	0.0048	P	4.8
6	☐	200.000	201.668	6475.00	0.0098	P	1.6

y = 4.8111E-005 * x + 1.0598E-004
R = 0.9998
DL = 2.691
BEC = 2.203

Weight: <None>
Min Conc: <None>

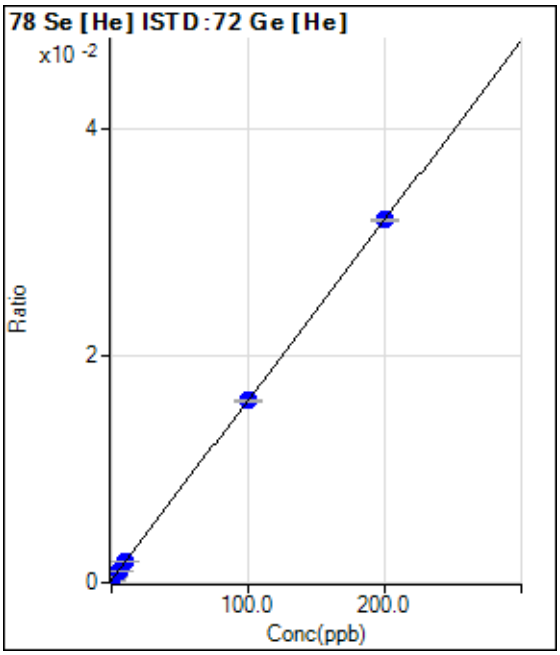
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16687.23	0.0067	P	2.9
2	☐	2.000	1.118	17384.81	0.0070	P	1.7
3	☐	5.000	4.382	18963.70	0.0077	P	3.4
4	☐	10.000	10.063	21841.33	0.0089	P	2.6
5	☐	100.000	100.427	69565.88	0.0286	P	2.4
6	☐	200.000	199.807	119092.94	0.0503	P	0.5

y = 2.1825E-004 * x + 0.0067
R = 1.0000
DL = 2.653
BEC = 30.76

Weight: <None>
Min Conc: <None>

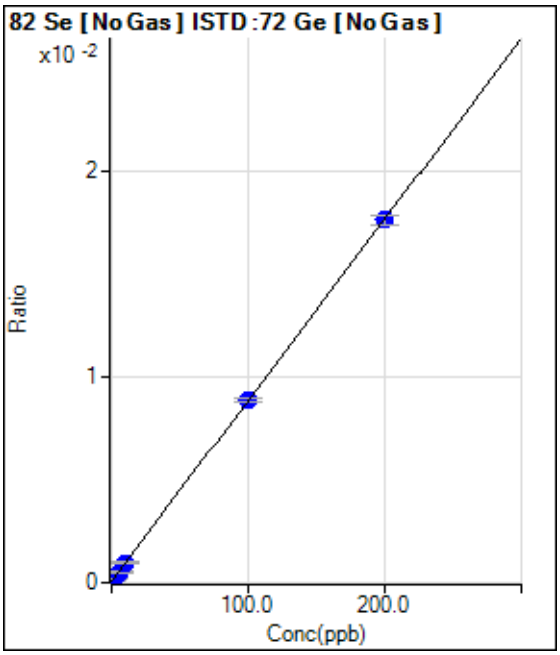


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	174.00	0.0003	P	6.8
2	☐	2.000	2.289	424.68	0.0006	P	10.1
3	☐	5.000	4.830	706.02	0.0010	P	2.8
4	☐	10.000	10.043	1264.73	0.0018	P	6.0
5	☐	100.000	99.566	10810.35	0.0161	P	1.8
6	☐	200.000	200.216	21138.53	0.0320	P	0.3

y = 1.5868E-004 * x + 2.5229E-004
R = 1.0000
DL = 0.3261
BEC = 1.59

Weight: <None>
Min Conc: <None>

Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	167.84	0.0001	P	45.7
2	☐	2.000	1.712	544.39	0.0002	P	12.9
3	☐	5.000	5.074	1271.25	0.0005	P	3.6
4	☐	10.000	10.365	2401.45	0.0010	P	2.1
5	☐	100.000	100.381	21619.22	0.0089	P	2.6
6	☐	200.000	199.792	41757.08	0.0176	P	2.8

y = 8.7969E-005 * x + 6.7539E-005

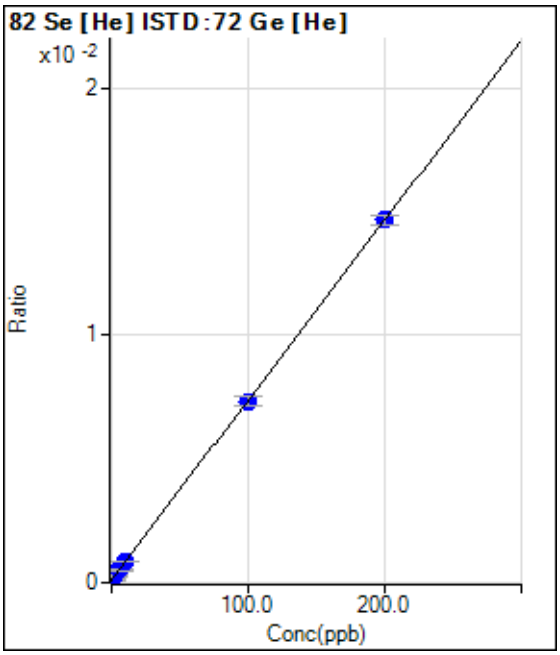
R = 1.0000

DL = 1.052

BEC = 0.7678

Weight: <None>

Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	34.0
2	☐	2.000	1.921	176.67	0.0003	P	40.5
3	☐	5.000	5.415	353.35	0.0005	P	9.3
4	☐	10.000	9.979	576.69	0.0008	P	5.8
5	☐	100.000	99.389	4944.35	0.0073	P	4.8
6	☐	200.000	200.297	9687.03	0.0147	P	2.5

y = 7.2682E-005 * x + 1.1627E-004

R = 1.0000

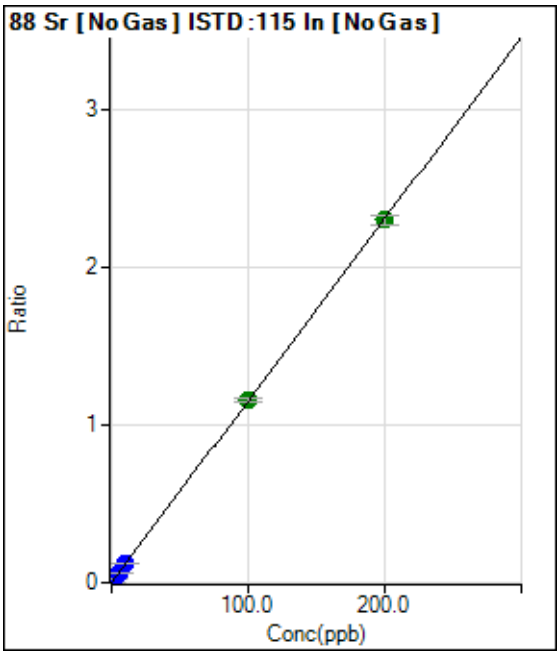
DL = 1.631

BEC = 1.6

Weight: <None>

Min Conc: <None>

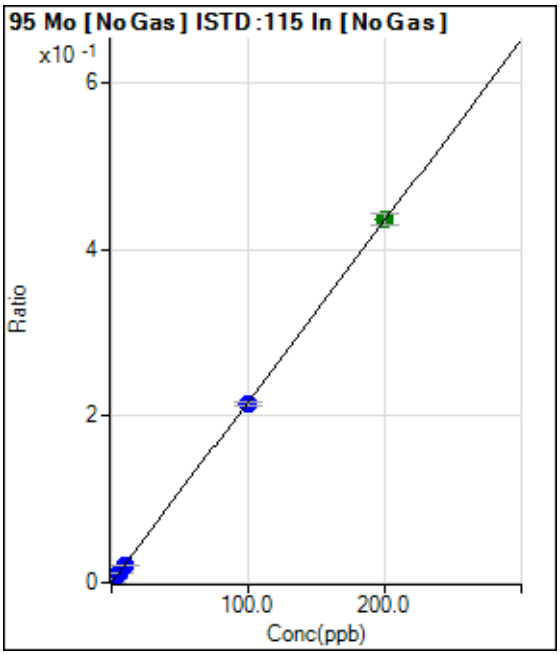
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2236.90	0.0008	P	3.2
2	☐	2.000	2.041	65768.39	0.0243	P	2.2
3	☐	5.000	5.179	158702.02	0.0605	P	2.3
4	☐	10.000	10.206	316267.59	0.1183	P	0.8
5	☐	100.000	100.849	3035804.22	1.1621	A	2.0
6	☐	200.000	199.560	5837140.54	2.2987	A	2.3

y = 0.0115 * x + 8.1883E-004
R = 1.0000
DL = 0.00684
BEC = 0.07111

Weight: <None>
Min Conc: <None>

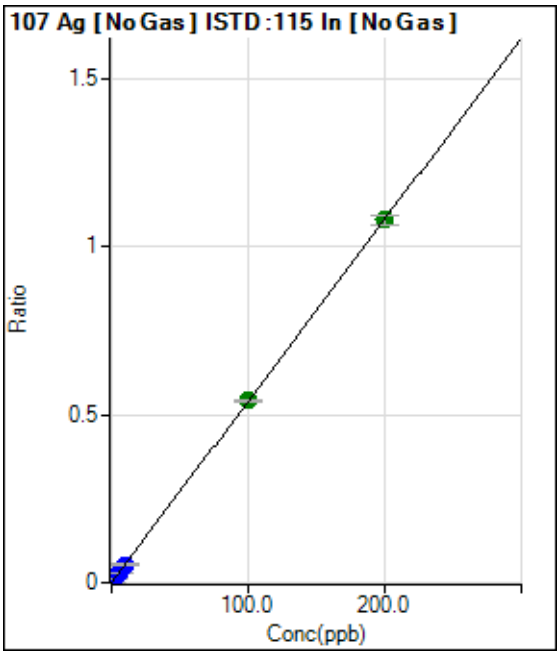


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	333.34	0.0001	P	22.8
2	☐	2.000	1.894	11465.14	0.0042	P	2.2
3	☐	5.000	4.989	28784.64	0.0110	P	2.7
4	☐	10.000	9.858	57587.77	0.0215	P	1.6
5	☐	100.000	99.017	562564.05	0.2153	P	1.7
6	☐	200.000	200.500	1106888.29	0.4359	A	3.1

y = 0.0022 * x + 1.2204E-004
R = 1.0000
DL = 0.03846
BEC = 0.05615

Weight: <None>
Min Conc: <None>

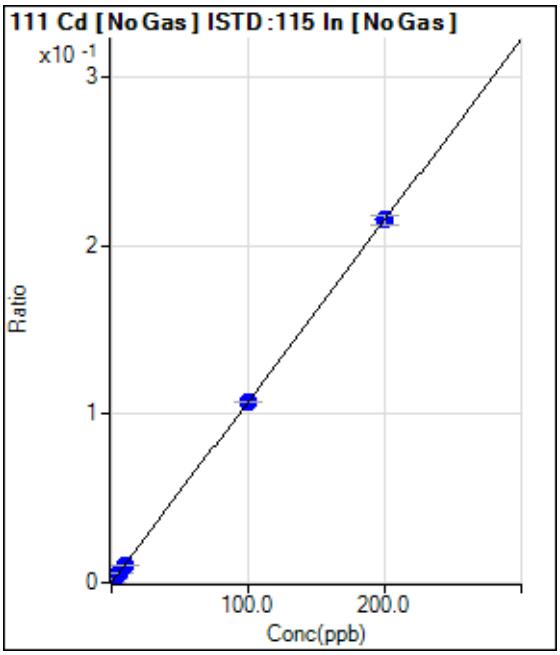
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	143.33	0.0001	P	28.7
2	☐	2.000	2.025	29750.42	0.0110	P	3.1
3	☐	5.000	5.081	72193.19	0.0275	P	4.2
4	☐	10.000	10.020	144897.57	0.0542	P	1.3
5	☐	100.000	100.186	1414946.75	0.5416	A	1.3
6	☐	200.000	199.904	2744235.37	1.0806	A	2.4

y = 0.0054 * x + 5.2435E-005
R = 1.0000
DL = 0.008338
BEC = 0.0097

Weight: <None>
Min Conc: <None>

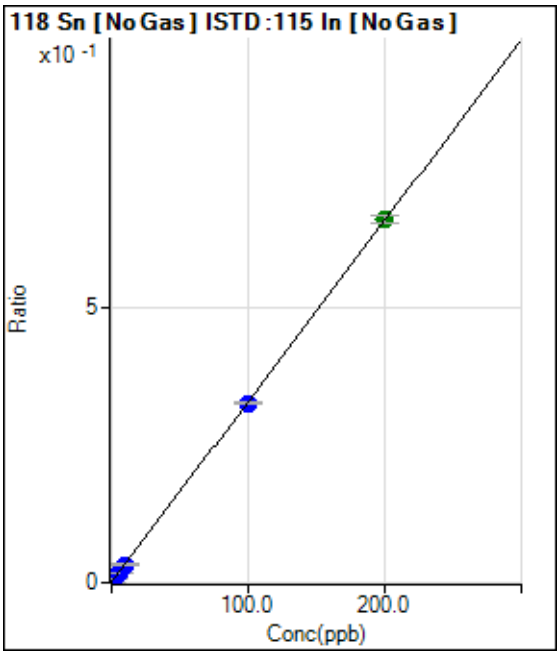


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.09	0.0000	P	67.2
2	☐	2.000	2.012	5875.75	0.0022	P	1.8
3	☐	5.000	4.963	14041.06	0.0053	P	1.5
4	☐	10.000	9.856	28363.06	0.0106	P	1.0
5	☐	100.000	99.564	279868.36	0.1071	P	0.3
6	☐	200.000	200.226	547062.41	0.2154	P	2.4

y = 0.0011 * x + 8.4398E-006
R = 1.0000
DL = 0.01581
BEC = 0.007845

Weight: <None>
Min Conc: <None>

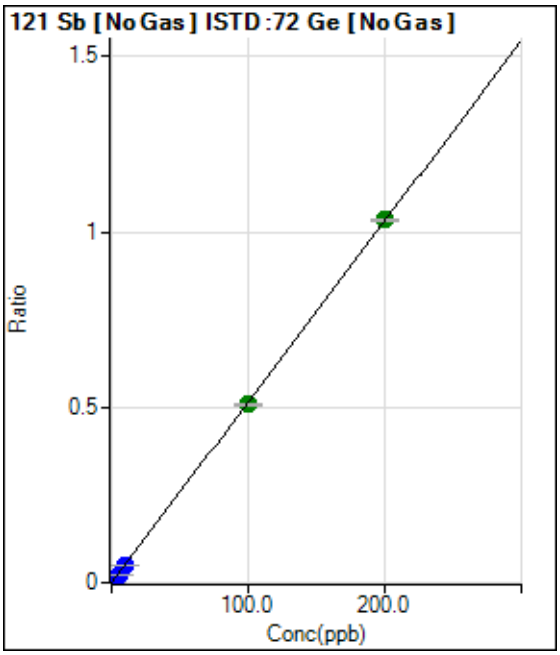
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2374.94	0.0009	P	37.5
2	☐	2.000	1.923	19485.44	0.0072	P	1.9
3	☐	5.000	4.812	43883.72	0.0167	P	4.0
4	☐	10.000	9.835	88916.94	0.0333	P	0.6
5	☐	100.000	99.182	855914.41	0.3276	P	0.8
6	☐	200.000	200.423	1678979.30	0.6612	A	2.1

y = 0.0033 * x + 8.6995E-004
R = 1.0000
DL = 0.2968
BEC = 0.2641

Weight: <None>
Min Conc: <None>

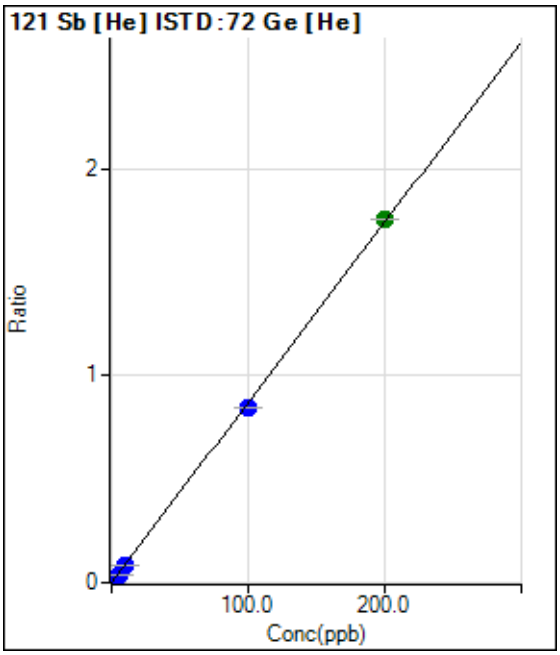


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	180.00	0.0001	P	25.6
2	☐	2.000	1.866	24206.05	0.0097	P	2.1
3	☐	5.000	4.701	60064.33	0.0243	P	2.5
4	☐	10.000	9.681	122448.08	0.0499	P	1.1
5	☐	100.000	98.474	1232542.74	0.5073	A	1.8
6	☐	200.000	200.788	2447798.19	1.0343	A	0.8

y = 0.0052 * x + 7.2396E-005
R = 1.0000
DL = 0.01078
BEC = 0.01406

Weight: <None>
Min Conc: <None>

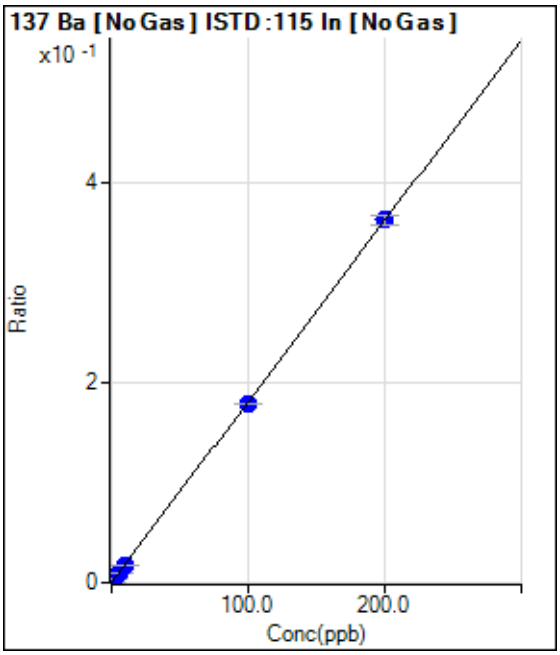
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0002	P	11.7
2	☐	2.000	1.868	11328.43	0.0164	P	1.3
3	☐	5.000	4.732	28675.17	0.0414	P	1.9
4	☐	10.000	9.459	56562.03	0.0825	P	0.9
5	☐	100.000	97.313	570973.27	0.8478	P	0.6
6	☐	200.000	201.379	1158038.42	1.7543	A	0.1

y = 0.0087 * x + 1.5470E-004
R = 0.9999
DL = 0.006219
BEC = 0.01776

Weight: <None>
Min Conc: <None>

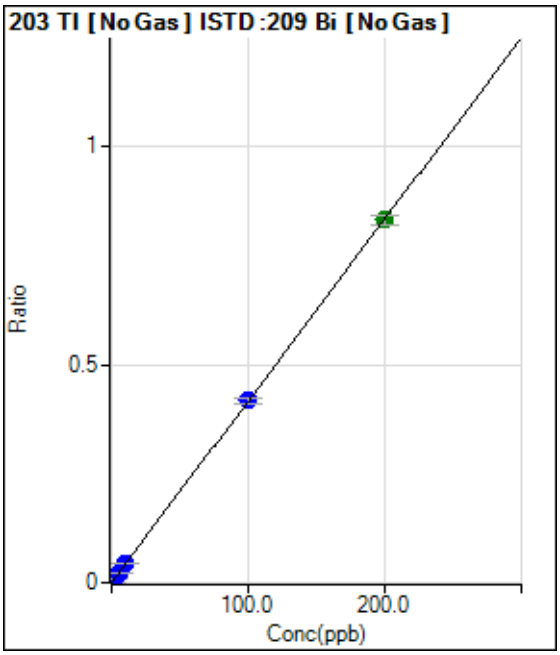


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	703.36	0.0003	P	4.5
2	☐	2.000	1.969	10314.25	0.0038	P	1.9
3	☐	5.000	4.984	24309.67	0.0093	P	3.2
4	☐	10.000	9.669	47373.37	0.0177	P	2.7
5	☐	100.000	98.815	467138.83	0.1788	P	0.8
6	☐	200.000	200.610	921082.23	0.3627	P	2.8

y = 0.0018 * x + 2.5751E-004
R = 1.0000
DL = 0.01914
BEC = 0.1425

Weight: <None>
Min Conc: <None>

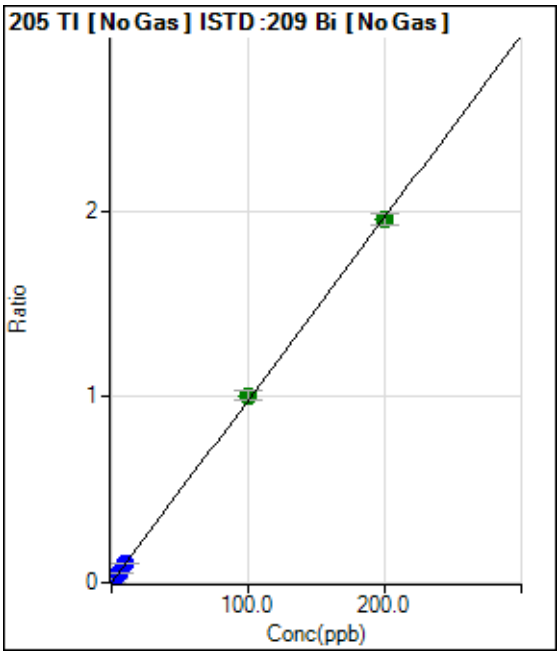
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0001	P	19.3
2	☐	2.000	2.062	16804.88	0.0086	P	5.0
3	☐	5.000	5.248	43415.84	0.0219	P	3.7
4	☐	10.000	10.578	86830.64	0.0441	P	3.2
5	☐	100.000	100.388	809332.54	0.4180	P	2.9
6	☐	200.000	199.770	1595801.80	0.8317	A	2.7

y = 0.0042 * x + 5.4675E-005
R = 1.0000
DL = 0.007585
BEC = 0.01313

Weight: <None>
Min Conc: <None>

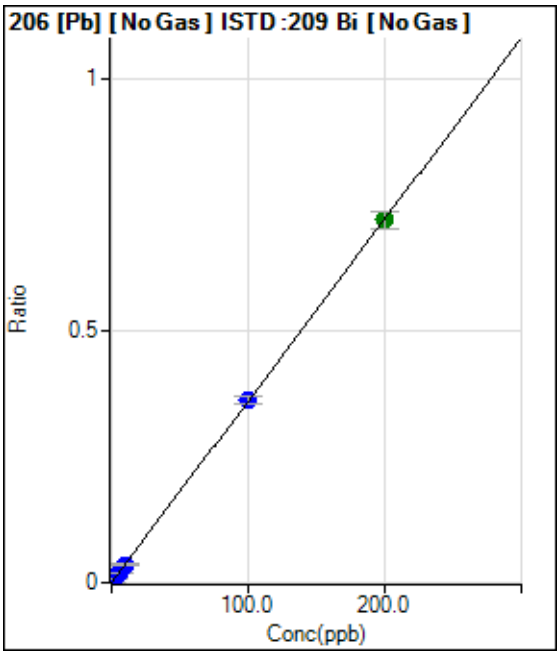


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0001	P	28.8
2	☐	2.000	2.154	41348.65	0.0213	P	4.9
3	☐	5.000	5.336	104142.33	0.0525	P	4.1
4	☐	10.000	10.754	208329.02	0.1058	P	4.0
5	☐	100.000	102.466	1950034.08	1.0075	A	5.1
6	☐	200.000	198.719	3748695.15	1.9538	A	3.3

y = 0.0098 * x + 8.4594E-005
R = 0.9999
DL = 0.007423
BEC = 0.008604

Weight: <None>
Min Conc: <None>

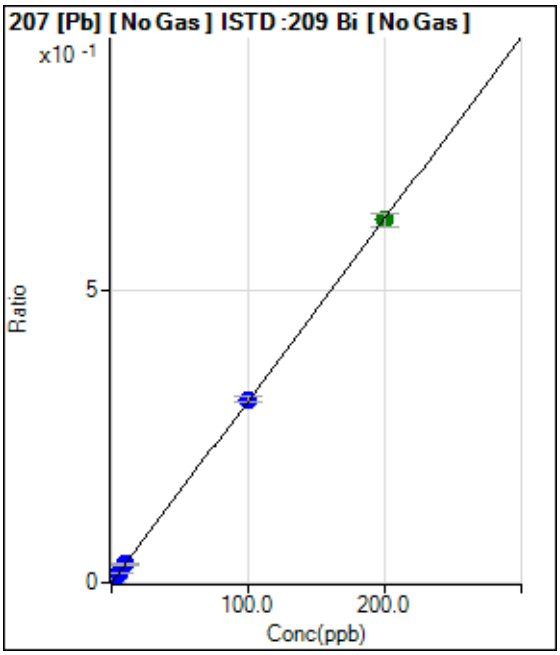
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.34	0.0001	P	43.6
2	☐	2.000	2.065	14612.06	0.0075	P	6.0
3	☐	5.000	5.018	36018.85	0.0182	P	3.4
4	☐	10.000	10.025	71354.05	0.0362	P	3.8
5	☐	100.000	100.419	701666.53	0.3625	P	3.7
6	☐	200.000	199.788	1382875.76	0.7211	A	4.5

y = 0.0036 * x + 6.3036E-005
R = 1.0000
DL = 0.02284
BEC = 0.01747

Weight: <None>
Min Conc: <None>

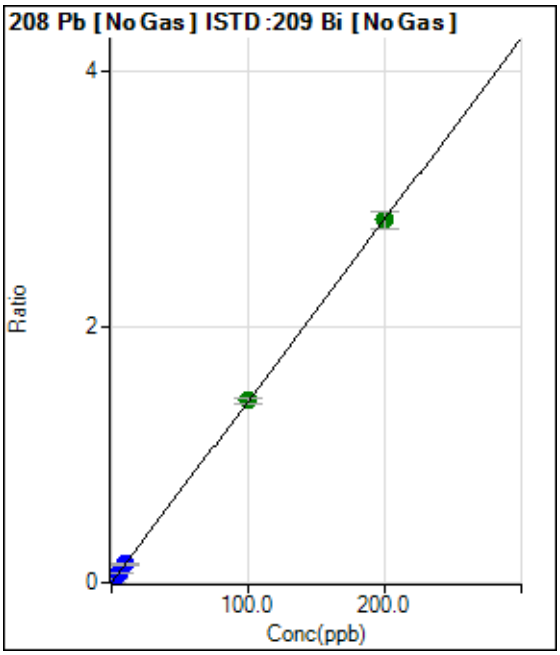


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0001	P	41.9
2	☐	2.000	2.037	12436.40	0.0064	P	3.9
3	☐	5.000	5.001	30871.93	0.0156	P	5.5
4	☐	10.000	10.074	61622.44	0.0313	P	5.5
5	☐	100.000	100.922	606109.55	0.3131	P	3.1
6	☐	200.000	199.535	1187120.69	0.6189	A	4.0

y = 0.0031 * x + 7.3072E-005
R = 1.0000
DL = 0.02965
BEC = 0.02356

Weight: <None>
Min Conc: <None>

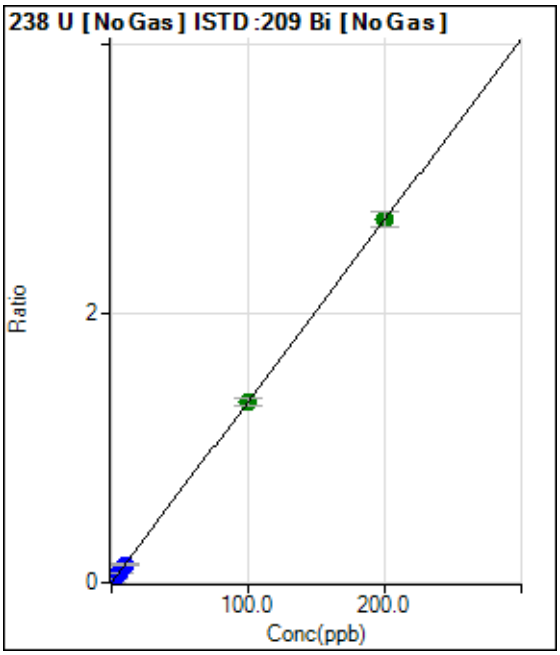
Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	540.02	0.0003	P	13.4
2	☐	2.000	2.074	57763.33	0.0297	P	3.1
3	☐	5.000	5.015	141392.70	0.0714	P	4.7
4	☐	10.000	10.096	282227.36	0.1434	P	5.0
5	☐	100.000	100.264	2751765.48	1.4215	A	3.7
6	☐	200.000	199.862	5432980.88	2.8332	A	5.1

y = 0.0142 * x + 2.7835E-004
R = 1.0000
DL = 0.00788
BEC = 0.01964

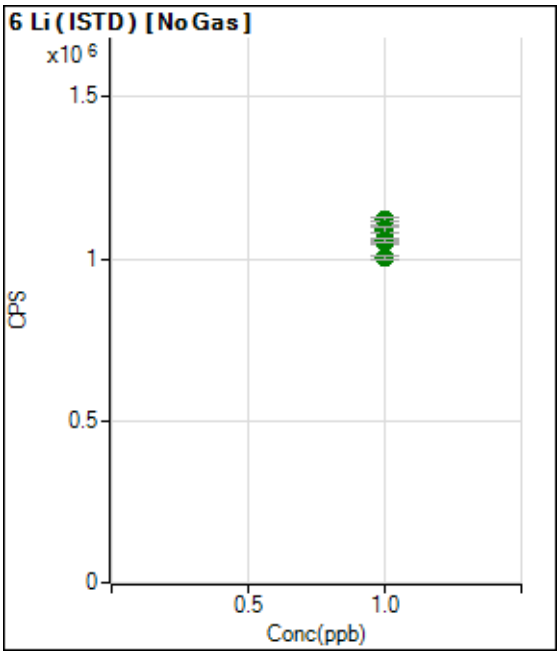
Weight: <None>
Min Conc: <None>



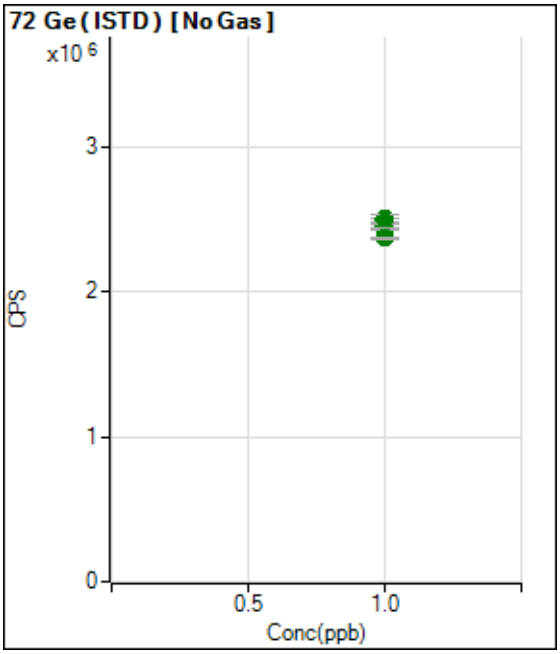
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	69.6
2	☐	2.000	1.933	50584.96	0.0260	P	4.7
3	☐	5.000	4.859	129553.71	0.0654	P	3.4
4	☐	10.000	9.784	258942.01	0.1316	P	6.0
5	☐	100.000	99.777	2598038.76	1.3419	A	3.7
6	☐	200.000	200.127	5162590.76	2.6916	A	4.3

y = 0.0134 * x + 1.2296E-005
R = 1.0000
DL = 0.001909
BEC = 0.0009143

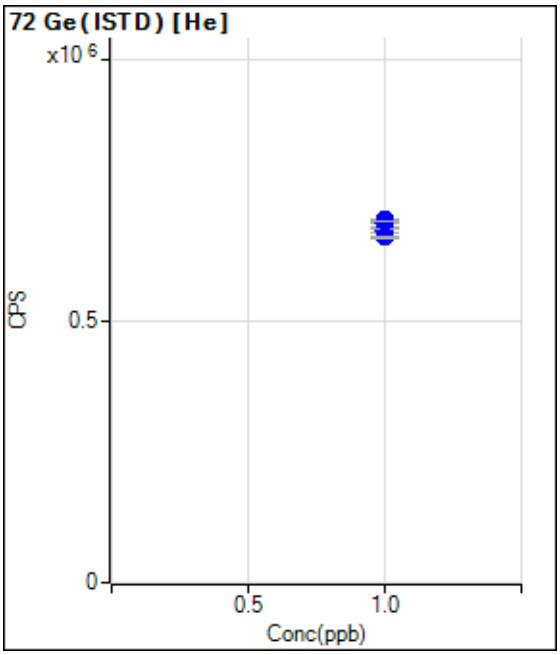
Weight: <None>
Min Conc: <None>



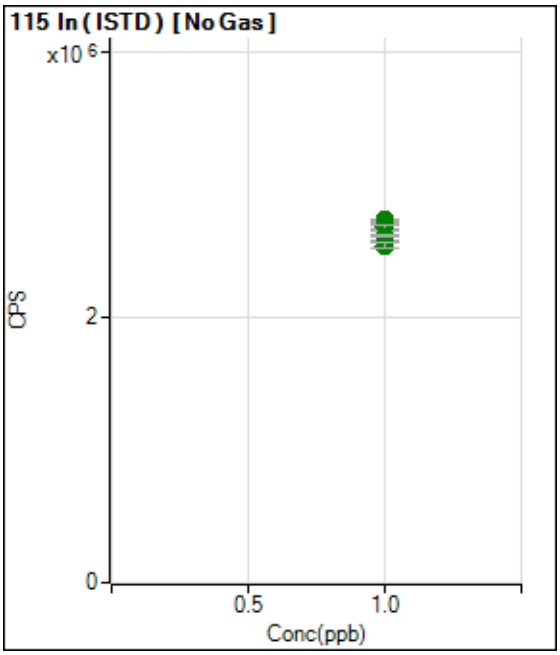
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1120139.33		A	1.2
2	☐	1.000		1092174.65		A	1.9
3	☐	1.000		1087572.34		A	1.6
4	☐	1.000		1049992.93		A	1.5
5	☐	1.000		1055797.43		A	1.5
6	☐	1.000		1002298.64		A	1.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2486363.97		A	1.1
2	☐	1.000		2499642.25		A	2.0
3	☐	1.000		2473353.03		A	0.8
4	☐	1.000		2452084.08		A	0.8
5	☐	1.000		2429983.30		A	1.0
6	☐	1.000		2366701.11		A	0.2

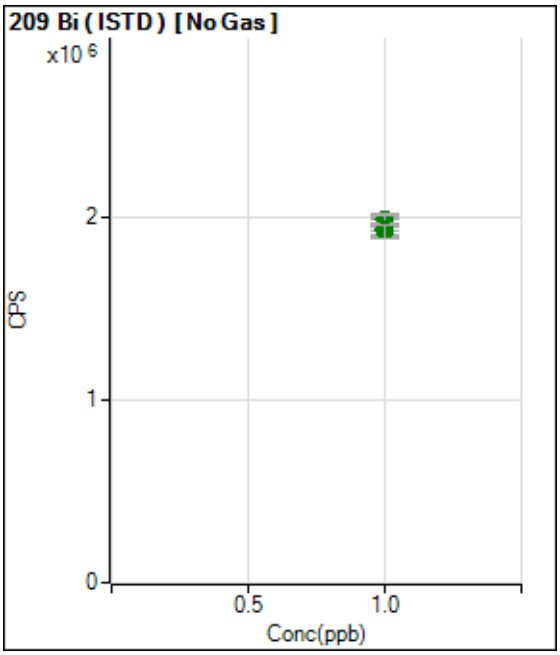


	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		689982.65		P	1.3
2	☐	1.000		689735.09		P	0.7
3	☐	1.000		693131.99		P	0.7
4	☐	1.000		685233.74		P	1.7
5	☐	1.000		673502.65		P	1.2
6	☐	1.000		660124.50		P	0.4



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2731714.21		A	0.4
2	☐	1.000		2703981.64		A	0.7
3	☐	1.000		2626148.35		A	3.3
4	☐	1.000		2672733.04		A	1.3
5	☐	1.000		2612503.52		A	0.6
6	☐	1.000		2539910.09		A	1.5

Calibration for 213_ICV.d



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1939317.89		A	4.7
2	☐	1.000		1947951.38		A	4.7
3	☐	1.000		1983806.48		A	3.8
4	☐	1.000		1970973.25		A	4.2
5	☐	1.000		1937362.42		A	3.1
6	☐	1.000		1919798.88		A	3.5

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	215LCV2.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:55:25-05:00
Sample Type	LLCCV2
Dilution	1
Comment	
ISTD Ref FileName	206CALB.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	1.980	1.980	8.75	100641	0.00	2	
Be	9	1	No Gas	1.915	1.915	1.97	7829	0.02	2	
V	51	2	He	1.899	1.899	0.67	14200	0.01	2	
Cr	52	2	He	1.928	1.928	7.22	29014	0.01	2	
Fe	56	2	He	205.609	205.609	1.13	1098471	0.02	200	
Se	78	2	He	2.363	2.363	10.35	433	0.55	2	
As	75	2	He	1.940	1.940	5.90	2201	0.09	2	
Ca	44	2	He	195.615	195.615	3.66	9453	2.07	200	
Na	23	2	He	212.925	212.925	0.46	255146	0.08	200	
Mg	24	2	He	220.206	220.206	0.96	124112	0.18	200	
K	39	2	He	200.947	200.947	3.03	367891	0.05	200	
Mn	55	2	He	1.988	1.988	1.98	10294	0.02	2	
Co	59	2	He	1.963	1.963	4.11	15833	0.01	2	
Ni	60	2	He	2.078	2.078	2.19	4081	0.05	2	
Cu	63	2	He	2.621	2.621	2.30	13367	0.02	2	NewName Main CR1 Failed
Zn	66	2	He	3.580	3.580	3.60	4321	0.08	2	NewName Main CR1 Failed
Al	27	2	He	2.360	2.360	24.57	2854	0.08	2	
B	11	1	No Gas	16.076	16.076	3.61	42738	0.04	10	NewName Main CR1 Failed
Al	27	1	No Gas	2.172	2.172	4.05	98789	0.00	2	
Si	28	1	No Gas	9.139	9.139	10.58	619300	0.00	10	
Ag	107	1	No Gas	2.004	2.004	0.80	28959	0.01	2	
Cd	111	1	No Gas	2.013	2.013	2.73	5789	0.03	2	
Sr	88	1	No Gas	2.023	2.023	4.04	64127	0.00	2	
Mo	95	1	No Gas	1.969	1.969	4.93	11705	0.02	2	
Sn	118	1	No Gas	1.937	1.937	6.23	19285	0.01	2	
Sb	121	1	No Gas	1.839	1.839	2.06	24039	0.01	2	
Ba	137	1	No Gas	2.035	2.035	7.03	10458	0.02	2	
Tl	205	1	No Gas	2.209	2.209	2.02	43349	0.01	2	
Tl	203	1	No Gas	2.198	2.198	0.63	18304	0.01	2	
Pb	208	1	No Gas	2.030	2.030	2.46	57750	0.00	2	
U	238	1	No Gas	1.911	1.911	3.51	51117	0.00	2	
Ca	43	2	He	200.494	200.494	15.17	593	33.79	200	
Sb	121	2	He	1.898	1.898	0.97	11515	0.02	2	
Ti	47	2	He	2.272	2.272	3.40	540	0.42	200	
Cu	63	1	No Gas	2.494	2.494	1.16	31380	0.01	2	
Se	82	1	No Gas	1.886	1.886	28.85	588	0.32	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	1092000	2.76	1120139	97.49	70	120	
Ge	72	2	He	689931	0.36	689983	99.99	70	120	
Ge	72	1	No Gas	2518881	0.67	2486364	101.31	70	120	
In	115	1	No Gas	2661136	2.76	2731714	97.42	70	120	
Bi	209	1	No Gas	1988674	2.49	1939318	102.55	70	120	

Sample Report

Sample Table

Sample Name	LLCCV5
Data File Name	216LCV5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:57:32-05:00
Sample Type	LLCCV5
Dilution	1
Comment	
ISTD Ref FileName	206CALB.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	5.104	5.104	5.10	139776	0.00	5	
Be	9	1	No Gas	4.727	4.727	2.86	18971	0.02	5	
V	51	2	He	4.825	4.825	1.27	30190	0.02	5	
Cr	52	2	He	4.839	4.839	2.35	46991	0.01	5	
Fe	56	2	He	514.271	514.271	1.19	2727315	0.02	500	
Se	78	2	He	4.943	4.943	7.43	720	0.69	5	
As	75	2	He	4.810	4.810	2.84	4999	0.10	5	
Ca	44	2	He	489.017	489.017	3.14	22212	2.20	500	
Na	23	2	He	536.136	536.136	0.14	559956	0.10	500	
Mg	24	2	He	547.853	547.853	0.93	309616	0.18	500	
K	39	2	He	509.794	509.794	0.34	645170	0.08	500	
Mn	55	2	He	5.102	5.102	0.74	25608	0.02	5	
Co	59	2	He	4.837	4.837	2.72	39167	0.01	5	
Ni	60	2	He	5.242	5.242	5.04	10187	0.05	5	
Cu	63	2	He	5.036	5.036	1.47	25114	0.02	5	
Zn	66	2	He	4.971	4.971	5.40	5848	0.08	5	
Al	27	2	He	3.855	3.855	14.21	3514	0.11	5	
B	11	1	No Gas	28.873	28.873	4.21	68680	0.04	25	
Al	27	1	No Gas	4.532	4.532	0.97	132651	0.00	5	
Si	28	1	No Gas	27.310	27.310	7.99	754614	0.00	25	
Ag	107	1	No Gas	5.020	5.020	1.46	72659	0.01	5	
Cd	111	1	No Gas	4.822	4.822	1.78	13893	0.03	5	
Sr	88	1	No Gas	5.092	5.092	2.31	158922	0.00	5	
Mo	95	1	No Gas	4.985	4.985	3.53	29286	0.02	5	
Sn	118	1	No Gas	4.767	4.767	0.89	44305	0.01	5	
Sb	121	1	No Gas	4.772	4.772	1.40	60781	0.01	5	
Ba	137	1	No Gas	4.814	4.814	3.59	23932	0.02	5	
Tl	205	1	No Gas	5.336	5.336	3.02	105141	0.01	5	
Tl	203	1	No Gas	5.258	5.258	1.16	43921	0.01	5	
Pb	208	1	No Gas	5.025	5.025	3.40	143078	0.00	5	
U	238	1	No Gas	4.811	4.811	3.04	129497	0.00	5	
Ca	43	2	He	489.824	489.824	8.79	1343	36.46	500	
Sb	121	2	He	4.641	4.641	2.15	28184	0.02	5	
Ti	47	2	He	5.095	5.095	7.42	1190	0.43	5	
Cu	63	1	No Gas	5.060	5.060	0.66	59473	0.01	5	
Se	82	1	No Gas	4.697	4.697	12.36	1185	0.40	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	1074189	3.60	1120139	95.90	70	120	
Ge	72	2	He	694591	0.09	689983	100.67	70	120	
Ge	72	1	No Gas	2465590	0.91	2486364	99.16	70	120	

Sample Report

In	115	1	No Gas	2673099	1.76	2731714	97.85	70	120	
Bi	209	1	No Gas	2001608	1.92	1939318	103.21	70	120	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICCB
Data File Name	217_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T20:59:30-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	-0.018	-482.9	73636	0.5	0.5	
Be	9	1	No Gas	0.005	40.6	42	18.3	0.5	
V	51	2	He	-0.008	-318.9	3877	2.6	2.5	
Cr	52	2	He	0.152	27.9	18096	2.4	2.5	
Fe	56	2	He	-0.805	-12.1	21267	1.8	100	
Se	78	2	He	0.044	684.4	177	18.0	1	
As	75	2	He	0.021	263.7	350	15.0	2.5	
Ca	44	2	He	-7.515	-39.5	717	16.6	100	
Na	23	2	He	-11.657	-13.8	45581	2.2	100	
Mg	24	2	He	-0.099	-203.7	777	13.4	100	
K	39	2	He	-11.672	-20.2	178526	0.6	100	
Mn	55	2	He	0.002	228.6	633	3.3	2.5	
Co	59	2	He	0.001	84.3	93	6.2	2.5	
Ni	60	2	He	0.275	6.8	633	6.4	2.5	
Cu	63	2	He	0.160	13.9	1550	6.2	1	
Zn	66	2	He	0.098	112.4	590	19.3	2.5	
Al	27	2	He	-2.690	-5.1	700	8.7	5	
B	11	1	No Gas	3.662	3.1	16335	1.1	0.5	ICB Main CR1 Failed
Al	27	1	No Gas	-2.522	-0.5	25427	1.4	5	
Si	28	1	No Gas	-0.049	-6146.9	535403	3.9	10	
Ag	107	1	No Gas	0.002	98.6	173	18.5	2.5	
Cd	111	1	No Gas	-0.007	-79.7	3	559.3	1	
Sr	88	1	No Gas	-0.041	-3.9	930	5.7	2.5	
Mo	95	1	No Gas	0.011	173.8	390	26.7	2.5	
Sn	118	1	No Gas	-0.014	-157.3	2217	8.0	5	
Sb	121	1	No Gas	0.063	13.7	980	10.8	2.5	
Ba	137	1	No Gas	-0.018	-99.2	607	14.9	2.5	
Tl	205	1	No Gas	0.019	39.1	533	26.3	1	
Tl	203	1	No Gas	0.017	34.4	247	19.2	1	
Pb	208	1	No Gas	0.004	50.1	673	8.2	2.5	
U	238	1	No Gas	0.006	61.6	180	53.0	2.5	
Ca	43	2	He	-18.170	-45.1	33	62.4	100	
Sb	121	2	He	0.043	44.3	360	30.9	2.5	
Ti	47	2	He	-0.073	-35.3	7	86.6	2.5	
Se	82	1	No Gas	-0.670	-34.5	21	237.2	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	1084553	1.56	1120139	96.82	70	120	
Ge	72	2	He	684328	1.13	689983	99.18	70	120	
Ge	72	1	No Gas	2485879	0.75	2486364	99.98	70	120	
In	115	1	No Gas	2692779	0.83	2731714	98.57	70	120	
Bi	209	1	No Gas	1973934	1.15	1939318	101.78	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	219_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:03:46-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
n	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	100.000	4.625	1330499	1.28	100	100.0	90	110	
Be	9	1	No Gas	98.578	4.368	381324	0.80	100	98.6	90	110	
V	51	2	He	99.316	1.864	535619	0.70	100	99.3	90	110	
Cr	52	2	He	96.424	1.324	597711	0.52	100	96.4	90	110	
Fe	56	2	He	9813.294	1.074	50840491	0.64	10000	98.1	90	110	
Se	78	2	He	97.814	2.315	10799	1.70	100	97.8	90	110	
As	75	2	He	98.394	1.596	94385	1.57	100	98.4	90	110	
Ca	44	2	He	9873.306	1.495	422113	0.24	10000	98.7	90	110	
Na	23	2	He	10050.804	1.185	9347889	1.94	10000	100.5	90	110	
Mg	24	2	He	9859.989	0.755	5479066	1.37	10000	98.6	90	110	
K	39	2	He	9887.603	1.440	8860235	0.54	10000	98.9	90	110	
Mn	55	2	He	98.219	1.067	474490	1.10	100	98.2	90	110	
Co	59	2	He	96.665	1.097	769849	0.40	100	96.7	90	110	
Ni	60	2	He	99.671	0.512	188916	0.91	100	99.7	90	110	
Cu	63	2	He	98.678	1.365	470390	0.07	100	98.7	90	110	
Zn	66	2	He	99.301	1.160	105931	1.33	100	99.3	90	110	
Al	27	2	He	97.252	3.533	42890	2.21	100	97.3	90	110	
B	11	1	No Gas	497.473	4.185	1008509	0.14	500	99.5	90	110	
Al	27	1	No Gas	98.332	2.513	1547691	0.55	100	98.3	90	110	
Si	28	1	No Gas	495.667	3.827	4540255	0.84	5000	9.9	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.387	2.627	1382747	1.73	100	98.4	90	110	
Cd	111	1	No Gas	97.751	1.641	273478	1.79	100	97.8	90	110	
Sr	88	1	No Gas	100.069	2.628	2997460	0.35	100	100.1	90	110	
Mo	95	1	No Gas	98.425	2.281	556479	0.26	100	98.4	90	110	
Sn	118	1	No Gas	96.125	1.747	825598	0.54	100	96.1	90	110	
Sb	121	1	No Gas	93.968	1.667	1183410	1.18	100	94.0	90	110	
Ba	137	1	No Gas	96.624	0.620	454661	1.64	100	96.6	90	110	
Tl	205	1	No Gas	99.044	2.507	1903774	1.89	100	99.0	90	110	
Tl	203	1	No Gas	97.108	3.267	790287	1.81	100	97.1	90	110	
Pb	208	1	No Gas	97.679	2.816	2706820	1.28	100	97.7	90	110	
U	238	1	No Gas	96.957	1.418	2549283	0.70	100	97.0	90	110	
Ca	43	2	He	9708.059	2.537	24749	1.58	10000	97.1	90	110	
Sb	121	2	He	95.377	1.368	568921	0.69	100	95.4	90	110	
Ti	47	2	He	99.395	3.136	22452	2.30	100	99.4	90	110	
Cu	63	1	No Gas	98.847	2.183	1101034	0.66	100	98.8	90	110	
Se	82	1	No Gas	98.419	2.649	21332	2.74	100	98.4	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	1037130	3.99	1120139	92.59	70	120	
Ge	72	2	He	684745	1.36	689983	99.24	70	120	
Ge	72	1	No Gas	2445460	2.78	2486364	98.35	70	120	
In	115	1	No Gas	2600563	2.25	2731714	95.20	70	120	
Bi	209	1	No Gas	1955211	1.58	1939318	100.82	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	220_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:05:37-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	0.008	849.8	74219	1.5	0.5	
Be	9	1	No Gas	0.022	21.9	112	17.0	0.5	
V	51	2	He	-0.058	-51.4	3696	4.5	2.5	
Cr	52	2	He	0.279	23.7	19301	2.0	2.5	
Fe	56	2	He	3.073	3.0	42309	0.9	100	
Se	78	2	He	0.006	2475.5	177	8.8	2	
As	75	2	He	-0.046	-47.2	292	7.4	2.5	
Ca	44	2	He	3.766	6.0	1227	0.5	100	
Na	23	2	He	-5.994	-24.4	52017	2.3	100	
Mg	24	2	He	1.392	14.9	1643	7.3	100	
K	39	2	He	-7.467	-22.2	186513	0.4	100	
Mn	55	2	He	0.269	16.0	1970	10.6	2.5	
Co	59	2	He	0.008	61.0	153	26.4	2.5	
Ni	60	2	He	0.297	12.4	690	10.0	2.5	
Cu	63	2	He	0.358	3.9	2554	2.8	2	
Zn	66	2	He	2.338	7.6	3037	6.4	2.5	
Al	27	2	He	-1.841	-13.4	1083	10.2	5	
B	11	1	No Gas	9.713	9.3	29154	5.7	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.578	-5.6	40162	3.3	5	
Si	28	1	No Gas	-1.952	-27.3	523015	0.5	10	
Ag	107	1	No Gas	0.015	12.8	360	7.4	2.5	
Cd	111	1	No Gas	-0.001	-539.8	19	107.2	1	
Sr	88	1	No Gas	-0.018	-32.2	1657	9.6	2.5	
Mo	95	1	No Gas	0.095	27.9	887	16.9	2.5	
Sn	118	1	No Gas	0.197	21.9	4087	8.0	5	
Sb	121	1	No Gas	0.164	20.4	2290	17.6	2.5	
Ba	137	1	No Gas	-0.053	-32.0	433	18.7	2.5	
Tl	205	1	No Gas	0.594	30.8	11750	31.8	1	
Tl	203	1	No Gas	0.611	27.2	5148	28.2	1	
Pb	208	1	No Gas	0.009	28.2	793	8.4	2.5	
U	238	1	No Gas	0.033	27.6	913	28.1	2.5	
Ca	43	2	He	11.006	125.1	110	32.8	100	
Sb	121	2	He	0.096	17.5	693	14.4	2.5	
Ti	47	2	He	0.028	568.3	30	120.2	2.5	
Cu	63	1	No Gas	0.332	8.9	6582	5.1	2.5	
Se	82	1	No Gas	-0.656	-45.7	24	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	1087959	0.81	1120139	97.13	70	120	
Ge	72	2	He	700444	0.39	689983	101.52	70	120	
Ge	72	1	No Gas	2501187	1.24	2486364	100.60	70	120	
In	115	1	No Gas	2692784	1.44	2731714	98.57	70	120	
Bi	209	1	No Gas	1975293	1.88	1939318	101.86	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	223_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:11:52-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
n	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	100.091	1.639	1338101	1.03	100	100.1	90	110	
Be	9	1	No Gas	99.066	1.997	385053	0.74	100	99.1	90	110	
V	51	2	He	100.065	0.474	539508	0.56	100	100.1	90	110	
Cr	52	2	He	96.958	0.589	600751	0.30	100	97.0	90	110	
Fe	56	2	He	9940.037	0.884	51482304	1.15	10000	99.4	90	110	
Se	78	2	He	99.974	1.635	11031	1.81	100	100.0	90	110	
As	75	2	He	100.387	0.967	96261	1.20	100	100.4	90	110	
Ca	44	2	He	10020.293	1.193	428268	1.01	10000	100.2	90	110	
Na	23	2	He	10030.986	0.610	9325842	0.71	10000	100.3	90	110	
Mg	24	2	He	9938.422	0.618	5520690	0.89	10000	99.4	90	110	
K	39	2	He	9910.088	0.151	8877600	0.32	10000	99.1	90	110	
Mn	55	2	He	99.273	0.589	479423	0.84	100	99.3	90	110	
Co	59	2	He	97.880	0.294	779304	0.53	100	97.9	90	110	
Ni	60	2	He	101.350	1.104	192037	1.36	100	101.4	90	110	
Cu	63	2	He	100.206	0.722	477537	0.81	100	100.2	90	110	
Zn	66	2	He	100.402	1.134	107063	0.97	100	100.4	90	110	
Al	27	2	He	97.140	2.175	42840	2.35	100	97.1	90	110	
B	11	1	No Gas	513.163	1.369	1045111	1.00	500	102.6	90	110	
Al	27	1	No Gas	100.720	1.555	1568000	0.43	100	100.7	90	110	
Si	28	1	No Gas	504.457	2.375	4565986	0.34	5000	10.1	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.187	0.548	1375787	1.48	100	98.2	90	110	
Cd	111	1	No Gas	98.301	1.239	274122	0.80	100	98.3	90	110	
Sr	88	1	No Gas	99.074	1.959	2958444	0.29	100	99.1	90	110	
Mo	95	1	No Gas	98.997	2.338	557914	0.42	100	99.0	90	110	
Sn	118	1	No Gas	97.267	1.146	832827	1.82	100	97.3	90	110	
Sb	121	1	No Gas	96.335	1.868	1201379	3.38	100	96.3	90	110	
Ba	137	1	No Gas	98.316	1.104	461097	1.24	100	98.3	90	110	
Tl	205	1	No Gas	99.353	3.911	1886588	1.45	100	99.4	90	110	
Tl	203	1	No Gas	99.429	3.463	799570	1.04	100	99.4	90	110	
Pb	208	1	No Gas	98.280	3.037	2691230	0.72	100	98.3	90	110	
U	238	1	No Gas	98.161	2.451	2550256	0.72	100	98.2	90	110	
Ca	43	2	He	10093.102	3.873	25721	3.60	10000	100.9	90	110	
Sb	121	2	He	96.044	0.849	572741	0.81	100	96.0	90	110	
Ti	47	2	He	102.399	2.579	23126	2.70	100	102.4	90	110	
Cu	63	1	No Gas	101.142	2.028	1115208	0.26	100	101.1	90	110	
Se	82	1	No Gas	99.437	4.294	21325	2.51	100	99.4	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	1041158	1.79	1120139	92.95	70	120	
Ge	72	2	He	684483	0.27	689983	99.20	70	120	
Ge	72	1	No Gas	2420478	1.77	2486364	97.35	70	120	
In	115	1	No Gas	2592132	2.02	2731714	94.89	70	120	
Bi	209	1	No Gas	1932463	2.50	1939318	99.65	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	224_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:13:44-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	-0.058	-102.0	73963	0.6	0.5	
Be	9	1	No Gas	0.026	16.7	130	13.9	0.5	
V	51	2	He	-0.060	-4.7	3661	0.7	2.5	
Cr	52	2	He	0.294	35.1	19260	3.6	2.5	
Fe	56	2	He	3.238	8.1	42881	3.5	100	
Se	78	2	He	0.023	863.3	178	12.4	2	
As	75	2	He	0.021	269.9	356	15.2	2.5	
Ca	44	2	He	4.349	34.4	1243	5.5	100	
Na	23	2	He	-4.977	-12.7	52606	1.0	100	
Mg	24	2	He	1.224	15.9	1537	7.5	100	
K	39	2	He	-2.252	-69.3	189838	0.3	100	
Mn	55	2	He	0.265	13.0	1934	8.3	2.5	
Co	59	2	He	0.015	20.4	207	12.2	2.5	
Ni	60	2	He	0.355	16.3	797	13.5	2.5	
Cu	63	2	He	0.375	6.6	2617	4.3	2	
Zn	66	2	He	2.188	7.5	2854	5.7	2.5	
Al	27	2	He	-1.527	-13.8	1210	7.2	5	
B	11	1	No Gas	13.228	7.8	36894	5.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.569	-3.7	40426	2.8	5	
Si	28	1	No Gas	-0.644	-75.6	535346	1.2	10	
Ag	107	1	No Gas	0.015	37.8	360	22.0	2.5	
Cd	111	1	No Gas	0.019	61.9	76	42.3	1	
Sr	88	1	No Gas	-0.016	-21.8	1693	8.7	2.5	
Mo	95	1	No Gas	0.121	25.2	1033	15.4	2.5	
Sn	118	1	No Gas	0.255	11.1	4598	3.5	5	
Sb	121	1	No Gas	0.164	19.1	2294	16.8	2.5	
Ba	137	1	No Gas	-0.058	-36.7	413	26.8	2.5	
Tl	205	1	No Gas	0.632	31.2	12467	33.3	1	
Tl	203	1	No Gas	0.588	33.0	4955	34.9	1	
Pb	208	1	No Gas	0.018	61.8	1053	28.2	2.5	
U	238	1	No Gas	0.035	13.2	960	15.4	2.5	
Ca	43	2	He	-8.043	-47.1	60	16.7	100	
Sb	121	2	He	0.132	1.4	907	1.7	2.5	
Ti	47	2	He	0.043	58.1	33	17.3	2.5	
Cu	63	1	No Gas	0.336	8.6	6648	5.9	2.5	
Se	82	1	No Gas	-0.657	-22.4	24	134.0	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	1097155	0.66	1120139	97.95	70	120	
Ge	72	2	He	695487	0.44	689983	100.80	70	120	
Ge	72	1	No Gas	2508029	1.17	2486364	100.87	70	120	
In	115	1	No Gas	2688969	2.09	2731714	98.44	70	120	
Bi	209	1	No Gas	1969983	2.53	1939318	101.58	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	230_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:25:50-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
n	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	94.376	1.226	1302720	1.97	100	94.4	90	110	
Be	9	1	No Gas	91.419	1.627	365675	0.15	100	91.4	90	110	
V	51	2	He	99.405	1.111	521116	0.56	100	99.4	90	110	
Cr	52	2	He	96.376	1.459	580681	0.61	100	96.4	90	110	
Fe	56	2	He	9963.948	0.925	50174696	0.14	10000	99.6	90	110	
Se	78	2	He	98.612	0.675	10581	0.33	100	98.6	90	110	
As	75	2	He	99.152	2.110	92438	1.33	100	99.2	90	110	
Ca	44	2	He	9910.961	2.001	411851	1.33	10000	99.1	90	110	
Na	23	2	He	10034.727	2.733	9070017	2.10	10000	100.3	90	110	
Mg	24	2	He	9825.638	0.140	5306955	0.85	10000	98.3	90	110	
K	39	2	He	10075.051	1.571	8771911	0.90	10000	100.8	90	110	
Mn	55	2	He	99.650	1.290	467894	0.77	100	99.7	90	110	
Co	59	2	He	97.358	1.596	753639	0.97	100	97.4	90	110	
Ni	60	2	He	99.743	1.718	183748	1.30	100	99.7	90	110	
Cu	63	2	He	99.399	1.129	460558	0.36	100	99.4	90	110	
Zn	66	2	He	99.495	2.269	103157	1.73	100	99.5	90	110	
Al	27	2	He	97.465	1.570	41783	0.92	100	97.5	90	110	
B	11	1	No Gas	464.608	2.372	974416	0.83	500	92.9	90	110	
Al	27	1	No Gas	101.402	5.340	1510467	2.09	100	101.4	90	110	
Si	28	1	No Gas	517.107	5.067	4467857	0.98	5000	10.3	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	98.023	1.803	1352059	1.84	100	98.0	90	110	
Cd	111	1	No Gas	97.659	0.835	268116	1.30	100	97.7	90	110	
Sr	88	1	No Gas	99.075	0.133	2913080	1.45	100	99.1	90	110	
Mo	95	1	No Gas	98.291	1.573	545387	0.49	100	98.3	90	110	
Sn	118	1	No Gas	96.856	1.879	816287	0.51	100	96.9	90	110	
Sb	121	1	No Gas	100.234	4.810	1196057	1.91	100	100.2	90	110	
Ba	137	1	No Gas	97.831	0.733	451696	0.86	100	97.8	90	110	
Tl	205	1	No Gas	103.363	1.632	1902810	1.04	100	103.4	90	110	
Tl	203	1	No Gas	102.396	1.237	798237	0.40	100	102.4	90	110	
Pb	208	1	No Gas	101.407	1.537	2691855	1.70	100	101.4	90	110	
U	238	1	No Gas	101.515	2.056	2556206	1.60	100	101.5	90	110	
Ca	43	2	He	9746.494	2.698	24158	3.51	10000	97.5	90	110	
Sb	121	2	He	96.062	0.595	556982	0.53	100	96.1	90	110	
Ti	47	2	He	98.115	1.125	21547	1.83	100	98.1	90	110	
Cu	63	1	No Gas	100.340	4.443	1059103	1.04	100	100.3	90	110	
Se	82	1	No Gas	102.193	3.692	20988	2.05	100	102.2	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	1071412	1.59	1120139	95.65	70	120	
Ge	72	2	He	665541	0.82	689983	96.46	70	120	
Ge	72	1	No Gas	2318935	3.62	2486364	93.27	70	120	
In	115	1	No Gas	2551677	1.41	2731714	93.41	70	120	
Bi	209	1	No Gas	1872448	1.22	1939318	96.55	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	231_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:27:55-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	1.158	13.1	92109	1.3	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.016	17.8	92	13.7	0.5	
V	51	2	He	-0.103	-13.0	3320	1.7	2.5	
Cr	52	2	He	0.295	18.7	18663	2.2	2.5	
Fe	56	2	He	6.158	1.2	56427	2.0	100	
Se	78	2	He	0.303	116.5	203	20.0	2	
As	75	2	He	0.027	116.6	350	9.1	2.5	
Ca	44	2	He	7.207	43.5	1323	8.8	100	
Na	23	2	He	50.749	2.6	101651	1.0	100	
Mg	24	2	He	3.350	5.2	2650	2.3	100	
K	39	2	He	-9.798	-15.7	177405	1.1	100	
Mn	55	2	He	0.350	19.0	2277	13.2	2.5	
Co	59	2	He	0.008	38.2	143	14.5	2.5	
Ni	60	2	He	0.286	7.9	643	5.5	2.5	
Cu	63	2	He	0.401	11.1	2657	9.1	2	
Zn	66	2	He	1.971	10.8	2537	7.5	2.5	
Al	27	2	He	-1.598	-27.2	1143	16.3	5	
B	11	1	No Gas	9.738	7.3	30096	5.5	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-1.641	-4.7	38250	1.9	5	
Si	28	1	No Gas	2.407	40.9	545719	0.4	10	
Ag	107	1	No Gas	0.010	32.7	280	15.6	2.5	
Cd	111	1	No Gas	-0.001	-903.2	20	99.4	1	
Sr	88	1	No Gas	0.048	20.2	3587	7.1	2.5	
Mo	95	1	No Gas	0.090	26.5	837	18.1	2.5	
Sn	118	1	No Gas	0.223	20.9	4211	8.6	5	
Sb	121	1	No Gas	0.193	9.1	2600	8.3	2.5	
Ba	137	1	No Gas	0.037	56.9	853	11.7	2.5	
Tl	205	1	No Gas	0.511	28.9	10098	30.7	1	
Tl	203	1	No Gas	0.477	29.2	4031	30.5	1	
Pb	208	1	No Gas	0.007	19.3	753	6.8	2.5	
U	238	1	No Gas	0.027	13.7	747	15.5	2.5	
Ca	43	2	He	11.434	104.1	107	27.1	100	
Sb	121	2	He	0.154	14.3	1007	14.1	2.5	
Ti	47	2	He	-0.013	-663.5	20	100.0	2.5	
Cu	63	1	No Gas	0.349	7.0	6608	2.9	2.5	
Se	82	1	No Gas	-0.891	-51.4	-26	-378.4	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	1120570	1.27	1120139	100.04	70	120	
Ge	72	2	He	673801	1.31	689983	97.65	70	120	
Ge	72	1	No Gas	2441301	1.24	2486364	98.19	70	120	
In	115	1	No Gas	2624158	1.68	2731714	96.06	70	120	
Bi	209	1	No Gas	1969751	2.63	1939318	101.57	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	238_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:42:11-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
n	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	99.806	1.984	1186781	1.94	100	99.8	90	110	
Be	9	1	No Gas	97.193	1.865	335959	1.18	100	97.2	90	110	
V	51	2	He	100.703	0.601	484406	0.50	100	100.7	90	110	
Cr	52	2	He	98.192	0.455	542637	0.17	100	98.2	90	110	
Fe	56	2	He	10062.501	0.623	46499194	0.88	10000	100.6	90	110	
Se	78	2	He	100.101	1.005	9854	0.78	100	100.1	90	110	
As	75	2	He	101.203	0.186	86581	0.23	100	101.2	90	110	
Ca	44	2	He	10026.124	1.363	382329	1.08	10000	100.3	90	110	
Na	23	2	He	10092.369	0.986	8371204	0.75	10000	100.9	90	110	
Mg	24	2	He	9895.310	1.279	4904168	1.02	10000	99.0	90	110	
K	39	2	He	9971.775	1.498	7968906	1.27	10000	99.7	90	110	
Mn	55	2	He	101.419	0.484	436989	0.72	100	101.4	90	110	
Co	59	2	He	98.932	0.386	702782	0.31	100	98.9	90	110	
Ni	60	2	He	101.695	0.174	171920	0.44	100	101.7	90	110	
Cu	63	2	He	101.193	1.208	430255	1.09	100	101.2	90	110	
Zn	66	2	He	103.241	2.166	98214	2.12	100	103.2	90	110	
Al	27	2	He	96.751	1.627	38076	1.83	100	96.8	90	110	
B	11	1	No Gas	483.428	2.057	875883	0.90	500	96.7	90	110	
Al	27	1	No Gas	95.055	1.128	1360980	2.20	100	95.1	90	110	
Si	28	1	No Gas	490.517	1.527	4086975	1.98	5000	9.8	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	97.726	1.719	1278922	2.40	100	97.7	90	110	
Cd	111	1	No Gas	97.405	0.594	253694	0.74	100	97.4	90	110	
Sr	88	1	No Gas	98.374	2.833	2743440	1.74	100	98.4	90	110	
Mo	95	1	No Gas	97.227	0.431	511879	1.45	100	97.2	90	110	
Sn	118	1	No Gas	97.429	0.350	779075	0.76	100	97.4	90	110	
Sb	121	1	No Gas	98.798	0.580	1130076	1.80	100	98.8	90	110	
Ba	137	1	No Gas	99.672	0.615	436568	0.60	100	99.7	90	110	
Tl	205	1	No Gas	101.997	2.919	1833138	1.31	100	102.0	90	110	
Tl	203	1	No Gas	100.460	1.866	764658	0.42	100	100.5	90	110	
Pb	208	1	No Gas	101.820	1.941	2638966	1.40	100	101.8	90	110	
U	238	1	No Gas	101.399	3.913	2492355	1.97	100	101.4	90	110	
Ca	43	2	He	10085.958	3.531	22933	3.24	10000	100.9	90	110	
Sb	121	2	He	98.912	1.004	526265	0.83	100	98.9	90	110	
Ti	47	2	He	98.926	1.045	19935	1.31	100	98.9	90	110	
Cu	63	1	No Gas	99.048	1.089	1002033	0.94	100	99.0	90	110	
Se	82	1	No Gas	100.872	1.452	19850	0.41	100	100.9	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	925872	1.82	1120139	82.66	70	120	
Ge	72	2	He	610713	0.28	689983	88.51	70	120	
Ge	72	1	No Gas	2220343	1.38	2486364	89.30	70	120	
In	115	1	No Gas	2420693	1.10	2731714	88.61	70	120	
Bi	209	1	No Gas	1828512	2.00	1939318	94.29	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	239_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:44:16-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	0.514	8.8	73852	1.1	0.5	CCB Main CR1 Failed
Be	9	1	No Gas	0.019	41.0	92	31.5	0.5	
V	51	2	He	0.029	10.4	3741	0.8	2.5	
Cr	52	2	He	0.279	13.8	17291	2.0	2.5	
Fe	56	2	He	3.218	9.0	38588	3.8	100	
Se	78	2	He	0.279	43.6	186	5.7	2	
As	75	2	He	0.024	83.5	323	5.7	2.5	
Ca	44	2	He	1.835	12.9	1023	1.5	100	
Na	23	2	He	19.773	3.0	68417	0.2	100	
Mg	24	2	He	0.696	38.3	1117	11.3	100	
K	39	2	He	-4.129	-26.8	169744	0.6	100	
Mn	55	2	He	0.217	6.6	1533	5.0	2.5	
Co	59	2	He	0.005	136.9	113	41.7	2.5	
Ni	60	2	He	0.204	6.0	457	5.5	2.5	
Cu	63	2	He	0.306	2.3	2060	1.8	2	
Zn	66	2	He	1.714	4.9	2114	3.2	2.5	
Al	27	2	He	-2.298	-5.1	793	5.8	5	
B	11	1	No Gas	8.792	7.6	24837	4.4	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-2.099	-3.4	29230	1.7	5	
Si	28	1	No Gas	2.634	53.3	510575	0.8	10	
Ag	107	1	No Gas	0.004	6.9	190	0.0	2.5	
Cd	111	1	No Gas	0.007	97.4	40	44.1	1	
Sr	88	1	No Gas	-0.014	-48.0	1653	9.5	2.5	
Mo	95	1	No Gas	0.066	29.7	663	16.1	2.5	
Sn	118	1	No Gas	0.153	9.4	3441	4.5	5	
Sb	121	1	No Gas	0.132	22.4	1703	17.7	2.5	
Ba	137	1	No Gas	-0.062	-24.4	363	18.7	2.5	
Tl	205	1	No Gas	0.475	32.5	8867	34.0	1	
Tl	203	1	No Gas	0.446	31.9	3564	33.1	1	
Pb	208	1	No Gas	0.007	82.3	710	22.0	2.5	
U	238	1	No Gas	0.020	27.9	527	28.5	2.5	
Ca	43	2	He	-15.465	-106.2	37	103.3	100	
Sb	121	2	He	0.101	24.8	650	21.7	2.5	
Ti	47	2	He	0.041	417.9	30	120.2	2.5	
Cu	63	1	No Gas	0.329	5.4	5958	1.1	2.5	
Se	82	1	No Gas	-0.909	-42.2	-29	-265.7	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	993006	0.84	1120139	88.65	70	120	
Ge	72	2	He	627399	0.94	689983	90.93	70	120	
Ge	72	1	No Gas	2276892	2.46	2486364	91.58	70	120	
In	115	1	No Gas	2503922	2.14	2731714	91.66	70	120	
Bi	209	1	No Gas	1857476	2.60	1939318	95.78	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	246_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T21:58:52-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
n	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	101.419	1.041	1235872	2.19	100	101.4	90	110	
Be	9	1	No Gas	97.946	1.484	347211	0.40	100	97.9	90	110	
V	51	2	He	102.028	0.507	491285	0.56	100	102.0	90	110	
Cr	52	2	He	99.719	0.443	551471	0.95	100	99.7	90	110	
Fe	56	2	He	10123.579	1.221	46831226	0.45	10000	101.2	90	110	
Se	78	2	He	101.130	2.957	9964	1.97	100	101.1	90	110	
As	75	2	He	100.543	0.910	86113	0.21	100	100.5	90	110	
Ca	44	2	He	10164.894	1.031	388041	0.40	10000	101.6	90	110	
Na	23	2	He	10272.319	1.991	8528683	1.39	10000	102.7	90	110	
Mg	24	2	He	10104.418	0.829	5013402	0.18	10000	101.0	90	110	
K	39	2	He	9972.094	0.458	7978308	0.65	10000	99.7	90	110	
Mn	55	2	He	100.992	1.076	435619	0.19	100	101.0	90	110	
Co	59	2	He	98.658	0.113	701644	0.86	100	98.7	90	110	
Ni	60	2	He	102.823	1.614	174007	0.72	100	102.8	90	110	
Cu	63	2	He	101.852	0.799	433538	0.59	100	101.9	90	110	
Zn	66	2	He	103.453	0.863	98526	0.73	100	103.5	90	110	
Al	27	2	He	97.726	0.780	38487	1.43	100	97.7	90	110	
B	11	1	No Gas	487.543	2.439	905803	1.16	500	97.5	90	110	
Al	27	1	No Gas	99.332	1.732	1408311	1.35	100	99.3	90	110	
Si	28	1	No Gas	500.950	1.172	4130697	0.48	5000	10.0	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	100.263	1.882	1283888	1.36	100	100.3	90	110	
Cd	111	1	No Gas	99.519	1.701	253653	1.52	100	99.5	90	110	
Sr	88	1	No Gas	101.794	2.615	2778180	1.79	100	101.8	90	110	
Mo	95	1	No Gas	99.952	3.488	514847	2.66	100	100.0	90	110	
Sn	118	1	No Gas	99.173	2.135	775965	1.53	100	99.2	90	110	
Sb	121	1	No Gas	96.841	2.108	1098795	1.17	100	96.8	90	110	
Ba	137	1	No Gas	100.108	1.320	429081	0.43	100	100.1	90	110	
Tl	205	1	No Gas	100.613	0.170	1800924	0.90	100	100.6	90	110	
Tl	203	1	No Gas	99.111	2.135	751138	1.18	100	99.1	90	110	
Pb	208	1	No Gas	100.761	1.927	2600262	1.41	100	100.8	90	110	
U	238	1	No Gas	100.556	2.751	2461582	1.86	100	100.6	90	110	
Ca	43	2	He	9901.875	0.642	22542	0.46	10000	99.0	90	110	
Sb	121	2	He	98.732	1.157	525879	0.23	100	98.7	90	110	
Ti	47	2	He	101.257	6.294	20419	5.37	100	101.3	90	110	
Cu	63	1	No Gas	101.660	0.855	1020330	0.36	100	101.7	90	110	
Se	82	1	No Gas	98.164	0.896	19172	1.66	100	98.2	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	949478	1.38	1120139	84.76	70	120	
Ge	72	2	He	611416	0.97	689983	88.61	70	120	
Ge	72	1	No Gas	2202886	1.03	2486364	88.60	70	120	
In	115	1	No Gas	2368927	0.91	2731714	86.72	70	120	
Bi	209	1	No Gas	1820436	0.96	1939318	93.87	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	247_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T22:00:46-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	0.332	34.5	69109	0.9	0.5	
Be	9	1	No Gas	0.021	39.6	93	30.5	0.5	
V	51	2	He	0.077	24.6	3925	1.7	2.5	
Cr	52	2	He	0.294	27.6	17148	2.6	2.5	
Fe	56	2	He	2.930	6.8	36733	1.8	100	
Se	78	2	He	0.189	95.8	175	9.2	2	
As	75	2	He	0.097	4.1	382	1.8	2.5	
Ca	44	2	He	0.732	392.5	967	10.5	100	
Na	23	2	He	46.567	7.7	89918	2.8	100	
Mg	24	2	He	2.490	11.8	2004	6.6	100	
K	39	2	He	10.119	25.3	178847	1.8	100	
Mn	55	2	He	0.180	21.3	1350	12.5	2.5	
Co	59	2	He	0.011	78.9	153	38.2	2.5	
Ni	60	2	He	0.224	34.0	487	28.0	2.5	
Cu	63	2	He	0.260	10.7	1837	7.1	2	
Zn	66	2	He	1.639	2.9	2014	2.0	2.5	
Al	27	2	He	-2.077	-9.5	867	7.7	5	
B	11	1	No Gas	8.512	9.9	23423	4.9	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-2.076	-2.5	29231	0.9	5	
Si	28	1	No Gas	1.261	44.5	494891	0.8	10	
Ag	107	1	No Gas	0.007	43.6	223	18.6	2.5	
Cd	111	1	No Gas	0.003	136.3	29	38.6	1	
Sr	88	1	No Gas	0.007	49.0	2157	2.8	2.5	
Mo	95	1	No Gas	0.067	17.0	647	7.9	2.5	
Sn	118	1	No Gas	0.133	12.0	3154	2.0	5	
Sb	121	1	No Gas	0.134	15.9	1713	12.9	2.5	
Ba	137	1	No Gas	-0.056	-34.6	380	24.1	2.5	
Tl	205	1	No Gas	0.580	31.8	10555	31.9	1	
Tl	203	1	No Gas	0.572	39.2	4441	38.9	1	
Pb	208	1	No Gas	0.012	19.9	810	8.1	2.5	
U	238	1	No Gas	0.028	27.1	703	26.8	2.5	
Ca	43	2	He	-11.006	-43.4	47	24.7	100	
Sb	121	2	He	0.109	5.2	683	3.7	2.5	
Ti	47	2	He	-0.070	-40.2	7	86.6	2.5	
Cu	63	1	No Gas	0.224	14.4	4821	6.1	2.5	
Se	82	1	No Gas	-0.757	-56.7	2	5504.1	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	957948	2.74	1120139	85.52	70	120	
Ge	72	2	He	619246	1.09	689983	89.75	70	120	
Ge	72	1	No Gas	2252088	1.61	2486364	90.58	70	120	
In	115	1	No Gas	2411120	2.09	2731714	88.26	70	120	
Bi	209	1	No Gas	1821338	0.67	1939318	93.92	70	120	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	255_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T22:17:25-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	206CALB.d
n	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	97.311	1.251	1190360	0.92	100	97.3	90	110	
Be	9	1	No Gas	95.294	2.294	338371	0.41	100	95.3	90	110	
V	51	2	He	96.177	0.544	473711	1.04	100	96.2	90	110	
Cr	52	2	He	93.321	0.439	528647	0.37	100	93.3	90	110	
Fe	56	2	He	9588.493	1.001	45351996	0.34	10000	95.9	90	110	
Se	78	2	He	95.056	2.501	9586	2.44	100	95.1	90	110	
As	75	2	He	95.515	1.236	83654	0.65	100	95.5	90	110	
Ca	44	2	He	9601.025	0.281	374798	0.61	10000	96.0	90	110	
Na	23	2	He	9730.643	1.517	8262864	0.82	10000	97.3	90	110	
Mg	24	2	He	9589.631	1.424	4864532	0.71	10000	95.9	90	110	
K	39	2	He	9653.028	1.862	7902009	2.21	10000	96.5	90	110	
Mn	55	2	He	95.956	2.261	423183	1.58	100	96.0	90	110	
Co	59	2	He	93.380	0.862	678964	0.37	100	93.4	90	110	
Ni	60	2	He	96.107	0.717	166306	0.65	100	96.1	90	110	
Cu	63	2	He	96.869	0.360	421621	1.07	100	96.9	90	110	
Zn	66	2	He	97.425	1.076	94897	1.79	100	97.4	90	110	
Al	27	2	He	93.071	2.211	37551	1.67	100	93.1	90	110	
B	11	1	No Gas	475.590	2.441	885312	0.55	500	95.1	90	110	
Al	27	1	No Gas	98.071	3.106	1398631	1.41	100	98.1	90	110	
Si	28	1	No Gas	484.316	4.594	4029812	1.29	5000	9.7	90	110	CCV Main CR1-2 Failed
Ag	107	1	No Gas	96.566	2.405	1260495	1.46	100	96.6	90	110	
Cd	111	1	No Gas	95.720	1.807	248690	0.49	100	95.7	90	110	
Sr	88	1	No Gas	98.371	2.684	2736708	0.64	100	98.4	90	110	
Mo	95	1	No Gas	95.252	1.526	500249	1.01	100	95.3	90	110	
Sn	118	1	No Gas	95.586	1.755	762491	0.51	100	95.6	90	110	
Sb	121	1	No Gas	95.317	2.184	1087521	1.06	100	95.3	90	110	
Ba	137	1	No Gas	96.792	1.768	422933	0.54	100	96.8	90	110	
Tl	205	1	No Gas	97.389	2.282	1753859	1.11	100	97.4	90	110	
Tl	203	1	No Gas	97.192	2.150	741200	1.04	100	97.2	90	110	
Pb	208	1	No Gas	98.608	0.720	2560780	0.53	100	98.6	90	110	
U	238	1	No Gas	98.920	2.709	2436687	1.81	100	98.9	90	110	
Ca	43	2	He	9455.383	4.441	22008	3.79	10000	94.6	90	110	
Sb	121	2	He	94.148	1.100	512716	0.55	100	94.1	90	110	
Ti	47	2	He	96.041	2.182	19808	1.47	100	96.0	90	110	
Cu	63	1	No Gas	98.086	2.743	989825	0.72	100	98.1	90	110	
Se	82	1	No Gas	98.989	2.114	19436	0.67	100	99.0	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	951215	1.94	1120139	84.92	70	120	
Ge	72	2	He	625112	0.72	689983	90.60	70	120	
Ge	72	1	No Gas	2215660	2.76	2486364	89.11	70	120	
In	115	1	No Gas	2415307	2.27	2731714	88.42	70	120	
Bi	209	1	No Gas	1831870	1.23	1939318	94.46	70	120	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	256_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq Date Time	2023-07-13T22:19:29-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	206CALB.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	0.266	11.8	68639	1.5	0.5	
Be	9	1	No Gas	0.019	44.1	88	34.1	0.5	
V	51	2	He	-0.131	-8.3	2976	1.5	2.5	
Cr	52	2	He	-0.074	-120.0	15449	3.4	2.5	
Fe	56	2	He	2.428	7.5	35075	2.5	100	
Se	78	2	He	0.299	80.1	189	12.7	2	
As	75	2	He	0.003	533.9	307	4.3	2.5	
Ca	44	2	He	-1.051	-346.3	917	15.6	100	
Na	23	2	He	31.826	7.7	79157	2.4	100	
Mg	24	2	He	2.300	10.2	1947	5.9	100	
K	39	2	He	-3.106	-111.4	171720	1.5	100	
Mn	55	2	He	0.201	18.2	1473	10.9	2.5	
Co	59	2	He	0.003	82.7	100	17.3	2.5	
Ni	60	2	He	0.242	21.5	527	17.1	2.5	
Cu	63	2	He	0.209	5.7	1647	3.5	2	
Zn	66	2	He	1.509	5.2	1927	3.8	2.5	
Al	27	2	He	-2.285	-18.6	803	20.5	5	
B	11	1	No Gas	6.495	11.0	19769	6.2	0.5	CCB Main CR1 Failed
Al	27	1	No Gas	-2.009	-7.7	30235	3.4	5	
Si	28	1	No Gas	-0.360	-714.2	484152	0.9	10	
Ag	107	1	No Gas	0.006	34.0	210	12.6	2.5	
Cd	111	1	No Gas	-0.003	-140.9	13	91.6	1	
Sr	88	1	No Gas	0.009	37.5	2277	4.3	2.5	
Mo	95	1	No Gas	0.057	9.3	610	4.9	2.5	
Sn	118	1	No Gas	0.087	11.0	2854	3.2	5	
Sb	121	1	No Gas	0.118	22.1	1533	16.7	2.5	
Ba	137	1	No Gas	-0.018	-106.4	557	15.7	2.5	
Tl	205	1	No Gas	0.507	25.9	9307	28.9	1	
Tl	203	1	No Gas	0.472	27.3	3714	29.9	1	
Pb	208	1	No Gas	0.006	86.0	653	17.7	2.5	
U	238	1	No Gas	0.019	14.1	497	16.4	2.5	
Ca	43	2	He	-11.385	-77.4	47	44.6	100	
Sb	121	2	He	0.077	13.2	523	10.9	2.5	
Ti	47	2	He	-0.071	-39.2	7	86.6	2.5	
Cu	63	1	No Gas	0.195	9.9	4541	2.9	2.5	
Se	82	1	No Gas	-0.446	-101.4	61	138.2	2	

QC ISTD Table

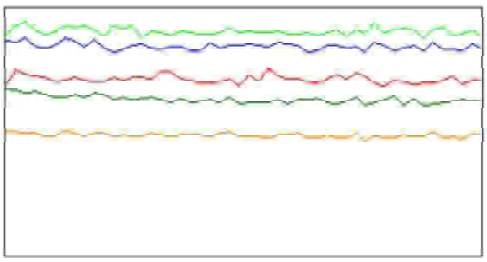
Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	No Gas	961837	1.52	1120139	85.87	70	120	
Ge	72	2	He	631636	0.29	689983	91.54	70	120	
Ge	72	1	No Gas	2260940	4.62	2486364	90.93	70	120	
In	115	1	No Gas	2470249	0.49	2731714	90.43	70	120	
Bi	209	1	No Gas	1827237	3.26	1939318	94.22	70	120	

Tune Check Report

Operator Name	ALSHS.NoUser
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\071323A.b
Acq. Date-Time	7/13/2023 10:12:28 AM
Report Comment	---
Instrument Name	G8421A SG18523544

[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	3580	35803.33		
24	10000	9084	90844.96		
59	20000	16984	169842.05		
115	50000	24505	245054.98		
208	20000	12693	126926.57		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	
115		-	
208		-	

Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	2.207	5.000	
24	1.722	5.000	
59	1.695	5.000	
115	1.685	5.000	
208	2.571	5.000	

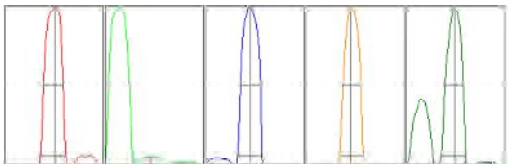
Mass	Background	Background (Required)	Background (Flag)
9	1.500		
24	2.400		
59	1.600		
115	2.200		
208	3.200		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.247 %
Doubly Charged	70 / 140 0.818 %

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	3548.83	9.05	8.90 - 9.10	
24	9308.95	23.90	23.90 - 24.10	
59	17462.95	58.90	58.90 - 59.10	
115	25110.23	114.90	114.90 - 115.10	
208	12495.29	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.61	0.774		
24	0.63	0.740		
59	0.60	0.734		
115	0.53	0.723		
208	0.57	0.738		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.55 L/min	Dilution Gas	0.52 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	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	9.7 V	Deflect	15.8 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-90 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	134	Axis Gain	1.0006	QP Bias	-3.0 V
Mass Offset	125	Axis Offset	0.05		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-0.8 mm

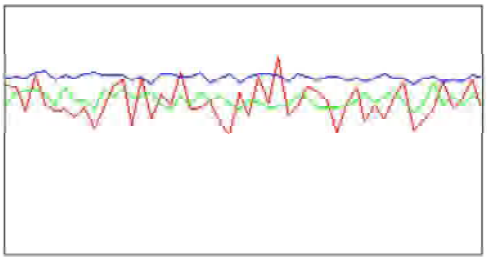
EM

Discriminator	4.5 mV	Analog HV	3004 V	Pulse HV	1633 V

[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	123	1231.25		
24	1000	625	6252.19		
59	10000	7162	71623.43		

Mass	Resp Ratio	Resp Ratio (Required)	Resp Ratio (Flag)
9		-	
24		-	
59		-	

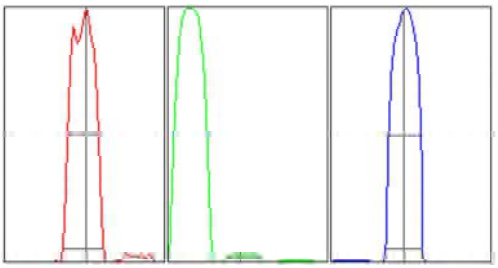
Mass	RSD%	RSD% (Required)	RSD% (Flag)
9	11.511	5.000	Fail
24	4.233	5.000	
59	1.693	5.000	

Mass	Background	Background (Required)	Background (Flag)
9	0.000		
24	0.400		
59	0.100		

Oxide/Doubly Charged Ratio

Oxide	156 / 140 2.747 %
Doubly Charged	70 / 140 0.759 %

Resolution/Axis



Integration Time [sec]	0.1
Acquisition Time [sec]	22.24
Y Axis	Linear

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	123.76	9.05	8.90 - 9.10	
24	618.91	23.90	23.90 - 24.10	
59	7165.72	58.90	58.90 - 59.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.59	0.769		
24	0.63	0.739		

Tune Check Report

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
59	0.60	0.694		

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.55 L/min	Dilution Gas	0.52 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	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.4 V	Deflect	0.9 V
Extract 2	-200.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-90 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	3.8 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	134	Axis Gain	1.0006	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	0.05		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-0.8 mm

EM

Discriminator	4.5 mV	Analog HV	3004 V	Pulse HV	1633 V

HS23061825- E2300614 Perchlorate Report IV

ALS WO# HS23061825

June 30, 2023 Service Request No:E2300614

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

Laboratory Results for: HS23061825

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory June 27, 2023
For your reference, these analyses have been assigned our service request number **E2300614.**

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

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

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

Certificate of Analysis

ALS Environmental - Houston 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	**Service Request No.:**	E2300614
Project:	HS23061825	**Date Received:**	06/27/23
Sample Matrix:	Water		

CASE NARRATIVE

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

Sample Receipt

Nine samples were received for analysis at ALS Environmental in Houston on 06/27/23.

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:

EQ2300317: 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 **Service Request:**E2300614
Project: HS23061825

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300614-001	125_062623	6/26/2023	0705
E2300614-002	MW3_062623	6/26/2023	0750
E2300614-003	MW23_062623	6/26/2023	0835
E2300614-004	MW9_062623	6/26/2023	0920
E2300614-005	MW13_062623	6/26/2023	1005
E2300614-006	CO2_062623	6/26/2023	1050
E2300614-007	18WW10_062623	6/26/2023	1135
E2300614-008	MW17_062623	6/26/2023	1220
E2300614-009	MW16_062623	6/26/2023	1305

Service Request Summary

Folder #: **E2300614**
Client Name: ALS Environmental - US
Project Name: HS23061825
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: 06/27/23
Internal Due Date: 7/12/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23061825
EDD: BASIC_WQC_CASNo_LOD

13 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300614-001	125_062623	Ground Water	06/26/23 0705	**IV**
E2300614-002	MW3_062623	Ground Water	06/26/23 0750	**IV**
E2300614-003	MW23_062623	Ground Water	06/26/23 0835	**IV**
E2300614-004	MW9_062623	Ground Water	06/26/23 0920	**IV**
E2300614-005	MW13_062623	Ground Water	06/26/23 1005	**IV**
E2300614-006	CO2_062623	Ground Water	06/26/23 1050	**IV**
E2300614-007	18WW10_062623	Ground Water	06/26/23 1135	**IV**
E2300614-008	MW17_062623	Ground Water	06/26/23 1220	**IV**
E2300614-009	MW16_062623	Ground Water	06/26/23 1305	**IV**

Service Request Summary

Folder #: **E2300614**
Client Name: ALS Environmental - US
Project Name: HS23061825
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: 06/27/23
Internal Due Date: 7/12/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23061825
EDD: BASIC_WQC_CASNo_LOD

13 120 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 >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

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

ALS Laboratory Group

Acronyms

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

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

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793_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
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
Louisiana Department of Health and Hospitals	LA028-2023	12/31/2023
Maine Department of Health and Human Services	2022017	6/5/2024
Michigan Depratment 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 Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	TN04016-2023	4/30/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

ALS

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

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

Subcontract Chain of Custody

SAMPLING STATE: Texas **COC ID:** 22172

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 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:	HS23061825
TSR:	Holly Tignac

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23061825-01**	**125_062623**	**Groundwater**	**26 Jun 2023 07:05**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
2.	**HS23061825-02**	**MW3_062623**	**Groundwater**	**26 Jun 2023 07:50**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
3.	**HS23061825-03**	**MW23_062623**	**Groundwater**	**26 Jun 2023 08:35**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
4.	**HS23061825-04**	**MW9_062623**	**Groundwater**	**26 Jun 2023 09:20**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
5.	**HS23061825-05**	**MW13_062623**	**Groundwater**	**26 Jun 2023 10:05**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
6.	**HS23061825-06**	**CO2_062623**	**Groundwater**	**26 Jun 2023 10:50**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
7.	**HS23061825-07**	**18WW10_062623**	**Groundwater**	**26 Jun 2023 11:35**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
8.	**HS23061825-08**	**MW17_062623**	**Groundwater**	**26 Jun 2023 12:20**

Subcontract Chain of Custody

SAMPLING STATE: Texas **COC ID:** 22172

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 2023
9.	**HS23061825-09**	**MW16_062623**	**Groundwater**	**26 Jun 2023 13:05**
	6850 DoD Level II and Level IV reports in separate pdf; DoD Excel EDD			12 Jul 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: NR Date/Time:

Received By: Date/Time: 6-27-23 1961

Cooler ID(s): Temperature(s):

ALS Environmental

Cooler Receipt Form

Project Chemist JL

Client/Project ALS

Thermometer ID IR31

Date/Time Received: 6-22-23 Initials: CG Date/Time Logged in: 6-22-23 Initials CG

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

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

3. Were custody seals on coolers? ○ Yes ☒ No
   Were they intact? ○ Yes ○ No ☒ N/A
   Were they signed and dated? ○ Yes ○ No ☒ N/A
   If yes, how many and where?

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

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

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
—		6-22-23	1500	CG	5.2	☒
						☐
						☐
						☐

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

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 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 sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

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

Sample Integrity (mandatory):

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

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

Temperature Requirement (varies by sample matrix):

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

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

Preparation Information Benchsheets

ALS Environmental - Houston 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#: 422284 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 6/28/23 11:04

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2300614-001	125_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
2	E2300614-002	MW3_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
3	E2300614-003	MW23_062623	.02	6850/ClO4 DOD			Ground Water	10mL	
4	E2300614-004	MW9_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
5	E2300614-005	MW13_062623	.02	6850/ClO4 DOD			Ground Water	10mL	
6	E2300614-006	CO2_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
7	E2300614-007	18WW10_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
8	E2300614-008	MW17_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
9	E2300614-009	MW16_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
10	E2300616-001	MW22_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
11	E2300616-002	18CPTMW06_062423	.01	6850/ClO4 DOD			Ground Water	10mL	
12	E2300616-003	129_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
13	E2300616-004	MW6_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
14	E2300616-005	MW21_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
15	E2300616-006	109_062623	.01	6850/ClO4 DOD			Ground Water	10mL	
16	E2300617-001	LH18/24-SP650_062723_AIX	.01	6850/ClO4 DOD			Water	10mL	
17	E2300617-002	LH18/24-SP650_062723_BIX	.01	6850/ClO4 DOD			Water	10mL	
18	EQ2300317-01	MB		6850/ClO4			Liquid	10mL	
19	EQ2300317-02	LCS		6850/ClO4			Liquid	10mL	
20	EQ2300317-03	DLCS		6850/ClO4			Liquid	10mL	
21	EQ2300317-04	MW23_062623 MS	.02	6850/ClO4 DOD			Liquid	10mL	
22	EQ2300317-05	MW23_062623 DMS	.02	6850/ClO4 DOD			Liquid	10mL	
23	EQ2300317-06	MW13_062623 MS	.02	6850/ClO4 DOD			Liquid	10mL	
24	EQ2300317-07	MW13_062623 DMS	.02	6850/ClO4 DOD			Liquid	10mL	
25	K2307221-001	LGAC-INF-062623	.01	6850/ClO4			Water	10mL	
26	K2307221-002	LGAC-INT1-062623	.01	6850/ClO4			Water	10mL	
27	K2307221-003	LGAC-INT2-062623	.01	6850/ClO4			Water	10mL	

Spiking Solutions

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

EQ2300317-02 1.00µL EQ2300317-02 1.00µL EQ2300317-03 1.00µL EQ2300317-03 1.00µL EQ2300317-04 1.00µL EQ2300317-05 1.00µL
EQ2300317-06 1.00µL EQ2300317-07 1.00µL

Preparation Information Benchsheet

Prep Run#: 422284 **Prep WorkFlow:** GenExt28Day **Status:** Prepped
Team: Semivoa GCMS/XMI **Prep Method:** Method **Prep Date/Time:** 6/28/23 11:04

Name:	Perchlorate Internal Standard 1ug/mL	Inventory ID	227244	Logbook Ref:	Perchlorate Internal Standard	Expires On:	07/31/2023

E2300614-001	100.00µL	E2300614-002	100.00µL	E2300614-003	100.00µL	E2300614-004	100.00µL	E2300614-005	100.00µL	E2300614-006	100.00µL
E2300614-007	100.00µL	E2300614-008	100.00µL	E2300614-009	100.00µL	E2300616-001	100.00µL	E2300616-002	100.00µL	E2300616-003	100.00µL
E2300616-004	100.00µL	E2300616-005	100.00µL	E2300616-006	100.00µL	E2300617-001	100.00µL	E2300617-002	100.00µL	EQ2300317-01	100.00µL
EQ2300317-01	100.00µL	EQ2300317-02	100.00µL	EQ2300317-02	100.00µL	EQ2300317-03	100.00µL	EQ2300317-03	100.00µL	EQ2300317-04	100.00µL
EQ2300317-05	100.00µL	EQ2300317-06	100.00µL	EQ2300317-07	100.00µL	K2307221-001	100.00µL	K2307221-002	100.00µL	K2307221-003	100.00µL

Preparation Steps

Step: Preparation
Started: 6/28/23 11:04
Finished: 6/28/23 12:02
By: XMI
Comments

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

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	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 0705
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	125_062623	**Units:**	µg/L
Lab Code:	E2300614-001	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**4680**		10.0	5.00	2.50	100	6/28/23	6/30/23 09:17	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 0750
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW3_062623	**Units:**	µg/L
Lab Code:	E2300614-002	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**2910**		10.0	5.00	2.50	100	6/28/23	6/30/23 09:23	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 0835
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW23_062623	**Units:**	µg/L
Lab Code:	E2300614-003	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**63500**		200	100	50.0	2000	6/28/23	6/30/23 11:19	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 0920
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW9_062623	**Units:**	µg/L
Lab Code:	E2300614-004	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**2490**		10.0	5.00	2.50	100	6/28/23	6/30/23 09:53	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1005
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW13_062623	**Units:**	µg/L
Lab Code:	E2300614-005	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0520**	J	0.100	0.0500	0.0250	1	6/28/23	6/30/23 11:24	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1050
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	CO2_062623	**Units:**	µg/L
Lab Code:	E2300614-006	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.0962**	J	0.100	0.0500	0.0250	1	6/28/23	6/30/23 10:15	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1135
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	18WW10_062623	**Units:**	µg/L
Lab Code:	E2300614-007	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/28/23	6/30/23 10:20	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1220
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW17_062623	**Units:**	µg/L
Lab Code:	E2300614-008	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/28/23	6/30/23 10:26	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1305
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW16_062623	**Units:**	µg/L
Lab Code:	E2300614-009	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/28/23	6/30/23 10:31	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	EQ2300317-01	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	ND	U	0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:19	422284	809096	

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	**Service Request:**	E2300614
Project:	HS23061825	**Date Analyzed:**	6/28/23
Sample Matrix:	Ground Water		

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

Analytical Method:	6850	**Units:**	µg/L
Prep Method:	Method	**Basis:**	NA
		Extraction Lot:	422284

	Lab Control Sample EQ2300317-02			Duplicate Lab Control Sample EQ2300317-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.110	0.100	110	0.104	0.100	104	84 - 119	5	15

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300317-02	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.110**		0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:24	422284	809096	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	NA
Sample Matrix:	Ground Water	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	µg/L
Lab Code:	EQ2300317-03	**Basis:**	NA

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.104**		0.100	0.0500	0.0250	1	6/28/23	6/28/23 14:30	422284	809096	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
		Date Analyzed:	6/30/23

Matrix Spike Summary

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

Sample Name:	MW23_062623	**Units:**	µg/L
Lab Code:	E2300614-003	**Basis:**	NA

Analytical Method: 6850
Prep Method: Method

		MW23_062623MS				MW23_062623DMS					
		Matrix Spike				**Duplicate Matrix Spike**					
		EQ2300317-04				EQ2300317-05					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	63500	66900	0.100	3417408#	66000	0.100	2558992#	84 - 119	1	15

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

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 0835
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW23_062623	**Units:**	µg/L
Lab Code:	EQ2300317-04	**Basis:**	NA
Run Type:	Matrix Spike		

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**66900**	E	0.100	0.0500	0.0250	1	6/28/23	6/30/23 09:34	422284	809342	*

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 0835
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW23_062623	**Units:**	µg/L
Lab Code:	EQ2300317-05	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**66000**	E	0.100	0.0500	0.0250	1	6/28/23	6/30/23 09:39	422284	809342	*

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
		Date Analyzed:	6/30/23

Matrix Spike Summary

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

Sample Name:	MW13_062623	**Units:**	µg/L
Lab Code:	E2300614-005	**Basis:**	NA

Analytical Method: 6850
Prep Method: Method

		MW13_062623MS				MW13_062623DMS					
		Matrix Spike				**Duplicate Matrix Spike**					
		EQ2300317-06				EQ2300317-07					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Perchlorate	0.0520	0.153	0.100	101	0.168	0.100	116	84 - 119	9	15

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

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

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

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1005
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW13_062623	**Units:**	µg/L
Lab Code:	EQ2300317-06	**Basis:**	NA
Run Type:	Matrix Spike		

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.153**		0.100	0.0500	0.0250	1	6/28/23	6/30/23 10:04	422284	809342	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Collected:**	6/26/23 1005
Sample Matrix:	Ground Water	**Date Received:**	6/27/23
Sample Name:	MW13_062623	**Units:**	µg/L
Lab Code:	EQ2300317-07	**Basis:**	NA
Run Type:	Duplicate Matrix Spike		

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

Analytical Method: 6850
Prep Method: Method

Analyte Name	Result	Q	LOQ	LOD	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Perchlorate	**0.168**		0.100	0.0500	0.0250	1	6/28/23	6/30/23 10:09	422284	809342	

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

20230629-809329

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/29/2023
Cal. Std. xp: 06/29/2023
ICAL ID: EC2300011

Mobile Phases : A:20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	PERCHLORATE1		20230629-001	Perchlorate6850c.lcm	1x	227245	6/29/2023 12:59
2	PERCHLORATE2		20230629-002	Perchlorate6850c.lcm	1x	227246	6/29/2023 13:05
3	PERCHLORATE3		20230629-003	Perchlorate6850c.lcm	1x	227247	6/29/2023 13:10
4	PERCHLORATE4		20230629-004	Perchlorate6850c.lcm	1x	227248	6/29/2023 13:16
5	PERCHLORATE5		20230629-005	Perchlorate6850c.lcm	1x	227249	6/29/2023 13:21
6	PERCHLORATE6		20230629-006	Perchlorate6850c.lcm	1x	227250	6/29/2023 13:27
7	PERCHLORATE7		20230629-007	Perchlorate6850c.lcm	1x	227251	6/29/2023 13:32
8	PERCHLORATE8		20230629-008	Perchlorate6850c.lcm	1x	227252	6/29/2023 13:38
9	PERCHLORATE9		20230629-009	Perchlorate6850c.lcm	1x	227253	6/29/2023 13:43
10	PERCHLORATE10		20230629-010	Perchlorate6850c.lcm	1x	227254	6/29/2023 13:49
11	PERCHLORATEICV		20230629-011	Perchlorate6850c.lcm	1x	227256	6/29/2023 13:55
12	IB		20230629-012	Perchlorate6850c.lcm	1x		6/29/2023 14:00
13	LODV		20230629-013	Perchlorate6850c.lcm	1x	227501	6/29/2023 14:06
14	ICS		20230629-014	Perchlorate6850c.lcm	1x	32103024	6/29/2023 14:11
15	CCV		20230629-015	Perchlorate6850c.lcm	1x	227251	6/29/2023 14:17
16	EQ2300312-01		20230629-016	Perchlorate6850c.lcm	1x		6/29/2023 14:22
17	EQ2300312-02		20230629-017	Perchlorate6850c.lcm	1x	DNU-RR	6/29/2023 14:28
18	EQ2300312-03		20230629-018	Perchlorate6850c.lcm	1x		6/29/2023 14:33
19	E2300606-001		20230629-019	Perchlorate6850c.lcm	10x		6/29/2023 14:39
20	EQ2300312-04		20230629-020	Perchlorate6850c.lcm	1x		6/29/2023 14:44
21	EQ2300312-05		20230629-021	Perchlorate6850c.lcm	1x		6/29/2023 14:50
22	E2300606-002		20230629-022	Perchlorate6850c.lcm	5x		6/29/2023 14:55
23	E2300606-003		20230629-023	Perchlorate6850c.lcm	10x		6/29/2023 15:01
24	E2300606-004		20230629-024	Perchlorate6850c.lcm	10x		6/29/2023 15:06
25	E2300606-005		20230629-025	Perchlorate6850c.lcm	1x		6/29/2023 15:12
26	CCV		20230629-026	Perchlorate6850c.lcm	1x	227251	6/29/2023 15:17
27	E2300606-006		20230629-027	Perchlorate6850c.lcm	1x		6/29/2023 15:23
28	E2300606-007		20230629-028	Perchlorate6850c.lcm	500x		6/29/2023 15:28
29	E2300606-008		20230629-029	Perchlorate6850c.lcm	100x		6/29/2023 15:34
30	EQ2300312-06		20230629-030	Perchlorate6850c.lcm	100x		6/29/2023 15:40
31	EQ2300312-07		20230629-031	Perchlorate6850c.lcm	100x		6/29/2023 15:45
32	E2300606-009		20230629-032	Perchlorate6850c.lcm	1x		6/29/2023 15:53
33	E2300610-001		20230629-033	Perchlorate6850c.lcm	10000x		6/29/2023 15:58
34	E2300610-002		20230629-034	Perchlorate6850c.lcm	1x		6/29/2023 16:04
35	E2300610-003		20230629-035	Perchlorate6850c.lcm	1x		6/29/2023 16:09
36	E2300610-004		20230629-036	Perchlorate6850c.lcm	1x		6/29/2023 16:15
37	CCV		20230629-037	Perchlorate6850c.lcm	1x	227251	6/29/2023 16:21

20230629-809329

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/29/2023
Cal. Std. xp: 06/29/2023
ICAL ID: EC2300011

Mobile Phases : A:20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
38	E2300610-005		20230629-038	Perchlorate6850c.lcm	1x		6/29/2023 16:26
39	E2300610-006		20230629-039	Perchlorate6850c.lcm	1x		6/29/2023 16:32
40	E2300610-007		20230629-040	Perchlorate6850c.lcm	1x		6/29/2023 16:37
41	E2300610-008		20230629-041	Perchlorate6850c.lcm	1x	DNU-D	6/29/2023 16:43
42	EQ2300312-08		20230629-042	Perchlorate6850c.lcm	1x		6/29/2023 16:48
43	EQ2300312-09		20230629-043	Perchlorate6850c.lcm	1x		6/29/2023 16:54
44	E2300611-001		20230629-044	Perchlorate6850c.lcm	1x		6/29/2023 16:59
45	E2300611-002		20230629-045	Perchlorate6850c.lcm	1x		6/29/2023 17:05
46	E2300611-003		20230629-046	Perchlorate6850c.lcm	1x		6/29/2023 17:10
47	E2300611-004		20230629-047	Perchlorate6850c.lcm	1x	DNU-D	6/29/2023 17:16
48	CCV		20230629-048	Perchlorate6850c.lcm	1x	227251	6/29/2023 17:21
49	E2300611-005		20230629-049	Perchlorate6850c.lcm	1x		6/29/2023 17:27
50	E2300611-006		20230629-050	Perchlorate6850c.lcm	1x	DNU-D	6/29/2023 17:32
51	E2300611-007		20230629-051	Perchlorate6850c.lcm	1x	DNU-D	6/29/2023 17:38
52	E2300611-008		20230629-052	Perchlorate6850c.lcm	1x		6/29/2023 17:43
53	E2300611-009		20230629-053	Perchlorate6850c.lcm	1x		6/29/2023 17:49
54	E2300611-010		20230629-054	Perchlorate6850c.lcm	1x		6/29/2023 17:55
55	CCV		20230629-055	Perchlorate6850c.lcm	1x	227251	6/29/2023 18:06

Initial Calibration - Detailed Report

Calibration ID: EC2300011 **Instrument ID:** E-LCMS-01
Column Name: 1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	EC2300011-01	PERCHLORATE1	20230629-001	06/29/2023 12:59
02	EC2300011-02	PERCHLORATE2	20230629-002	06/29/2023 13:05
03	EC2300011-03	PERCHLORATE3	20230629-003	06/29/2023 13:10
04	EC2300011-04	PERCHLORATE4	20230629-004	06/29/2023 13:16
05	EC2300011-05	PERCHLORATE5	20230629-005	06/29/2023 13:21
06	EC2300011-06	PERCHLORATE6	20230629-006	06/29/2023 13:27
07	EC2300011-07	PERCHLORATE7	20230629-007	06/29/2023 13:32
08	EC2300011-08	PERCHLORATE8	20230629-008	06/29/2023 13:38
09	EC2300011-09	PERCHLORATE9	20230629-009	06/29/2023 13:43
10	EC2300011-10	PERCHLORATE10	20230629-010	06/29/2023 13:49

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

Perchlorate **Average RF** **RSD = 2.809** **Average RF = 0.1625**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.1000	0.1678	02	0.5000	0.1574	03	0.7000	0.1599	04	1.0000	0.1567
05	2.0000	0.1596	06	5.0000	0.1641	07	10.0000	0.1704	08	20.0000	0.1667
09	30.0000	0.1608	10	50.0000	0.1619						

Analyte

Perchlorate RSE = 2.81

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	0.1000	0.103	3.2	02	0.5000	0.484	-3.1	03	0.7000	0.689	-1.6
04	1.0000	0.964	-3.6	05	2.0000	1.96	-1.8	06	5.0000	5.05	1.0
07	10.0000	10.5	4.8	08	20.0000	20.5	2.6	09	30.0000	29.7	-1.1
10	50.0000	49.8	-0.4								

Initial Calibration Verification Summary Report

Calibration ID:	EC2300011	**Instrument ID:**	E-LCMS-01
Datafile ID:	20230629-011	**Column Name:**	1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Perchlorate	EC2300011-11	T	Average RF	10	9.913	ng/mL	-0.9	<= 15

Insight Report

Printed at 6/29/2023 2:17:05 PM

Method File: I:\LCMS01\DATA\20230628\06282023.lcm
Project File: I:\LCMS01\DATA\20230628\06282023.damlp

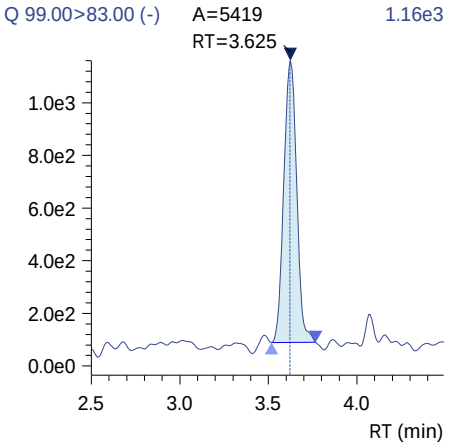
PERCHLORATE1

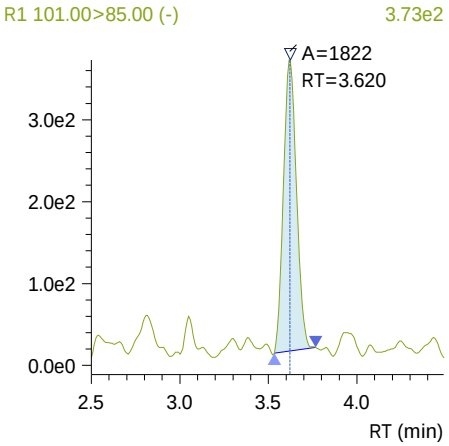
Sample ID: PERCHLORATE1
Date Acquired: 6/29/2023 12:59:40 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-001.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.625	5419	323018	0.1032	ng/mL	101.00 >85.00	33.63	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.617	323018	323018	1.0000	ng/mL	----	----	

Perchlorate

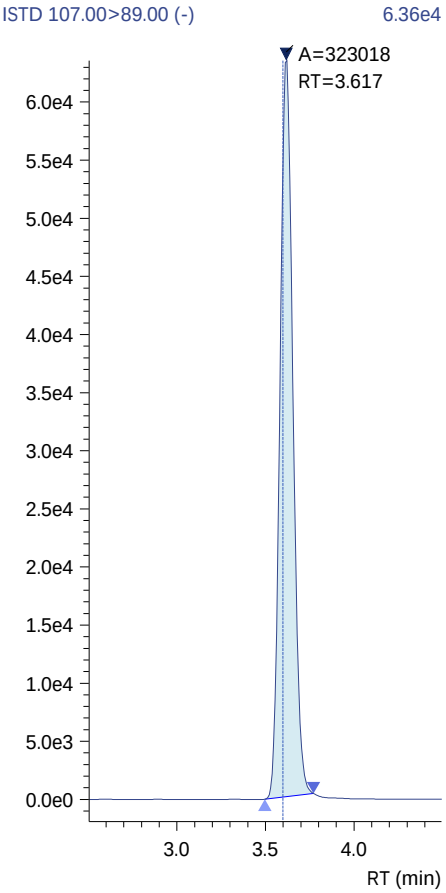
Conc 0.1032
R#1 33.63 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

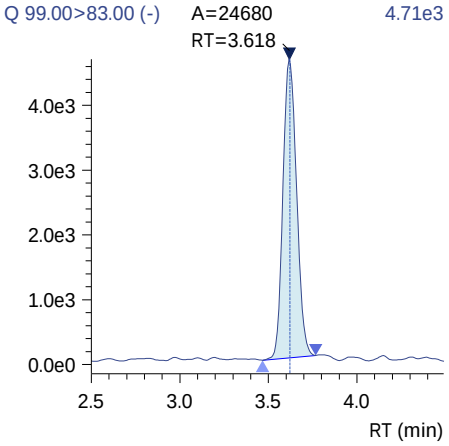
PERCHLORATE2

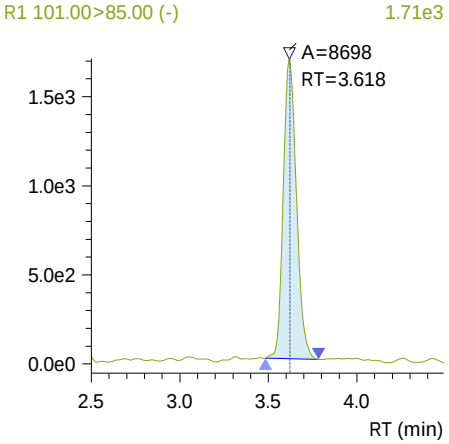
Sample ID: PERCHLORATE2
Date Acquired: 6/29/2023 1:05:11 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-002.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.618	24680	313519	0.4844	ng/mL	101.00 >85.00	35.24	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.618	313519	313519	1.0000	ng/mL	----	----	

Perchlorate

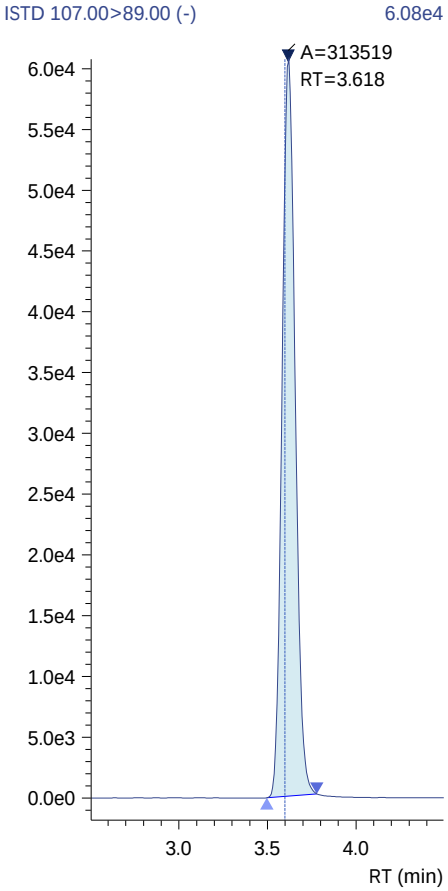
Conc 0.4844
R#1 35.24 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

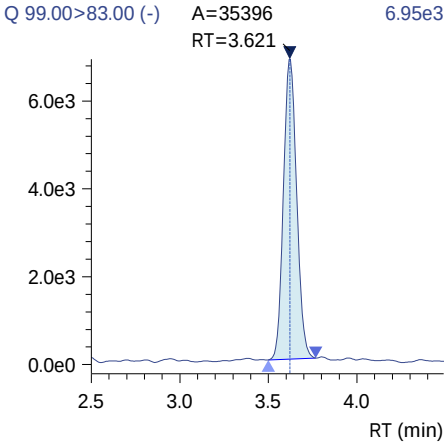
PERCHLORATE3

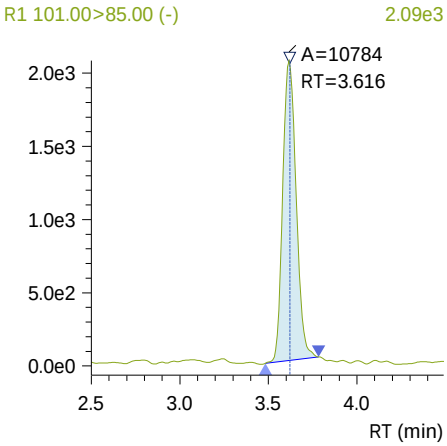
Sample ID: PERCHLORATE3
Date Acquired: 6/29/2023 1:10:46 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-003.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.621	35396	316311	0.6886	ng/mL	101.00 >85.00	30.47	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.618	316311	316311	1.0000	ng/mL	----	----	

Perchlorate

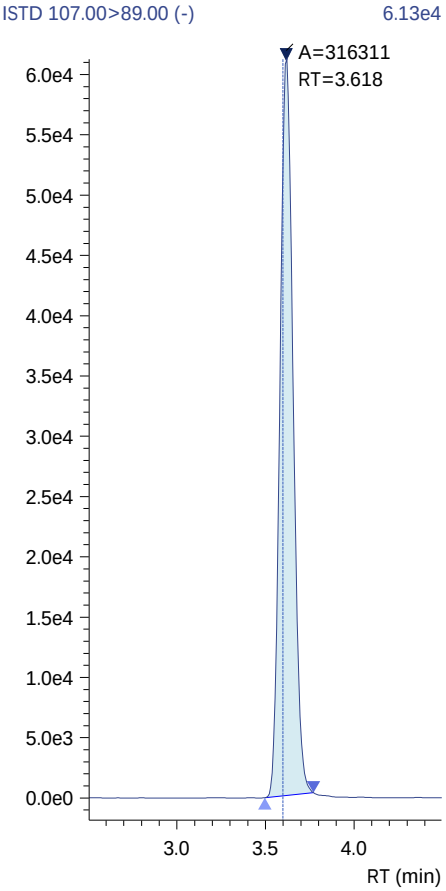
Conc 0.6886
R#1 30.47 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

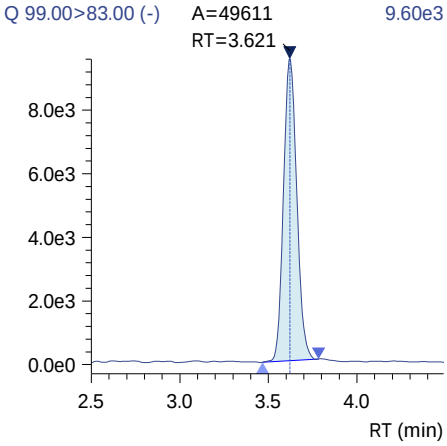
PERCHLORATE4

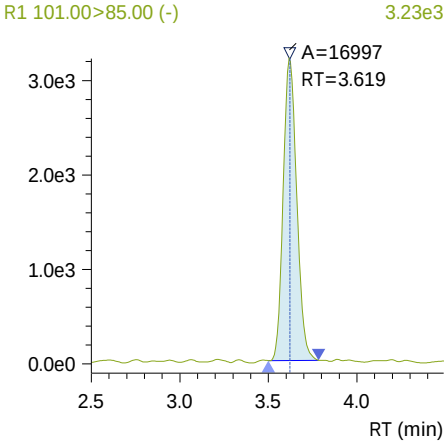
Sample ID: PERCHLORATE4
Date Acquired: 6/29/2023 1:16:19 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-004.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.621	49611	316580	0.9643	ng/mL	101.00 >85.00	34.26	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.618	316580	316580	1.0000	ng/mL	----	----	

Perchlorate

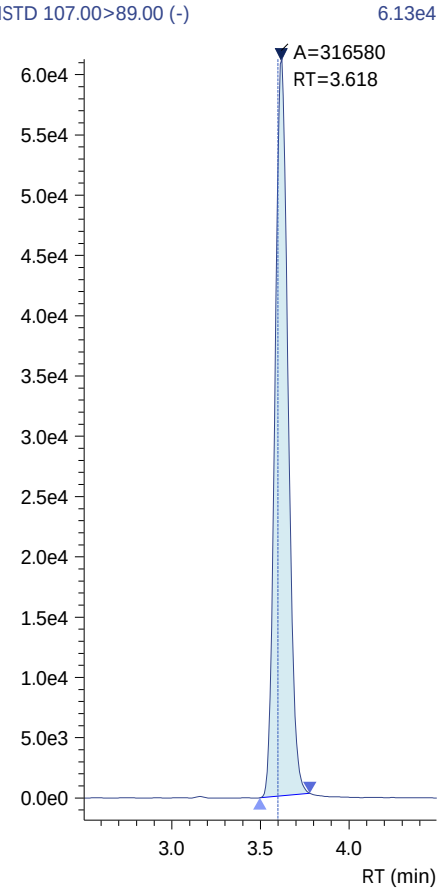
Conc 0.9643
R#1 34.26 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

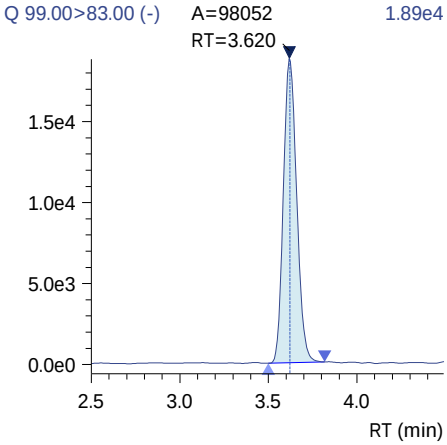
PERCHLORATE5

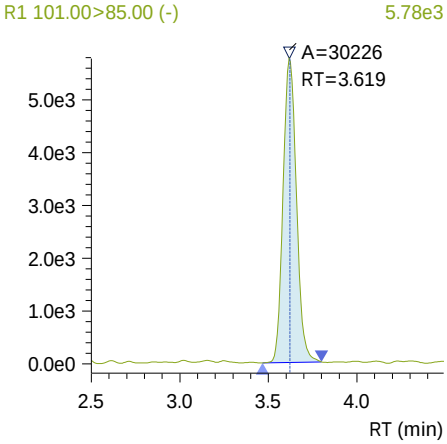
Sample ID: PERCHLORATE5
Date Acquired: 6/29/2023 1:21:50 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-005.lcd
Vial: 5 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.620	98052	307162	1.9642	ng/mL	101.00 >85.00	30.83	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.617	307162	307162	1.0000	ng/mL	----	----	

Perchlorate

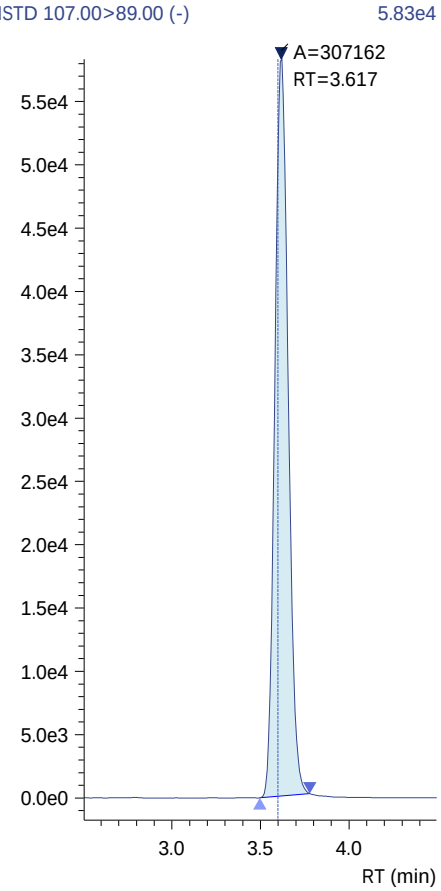
Conc 1.9642
R#1 30.83 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

PERCHLORATE6

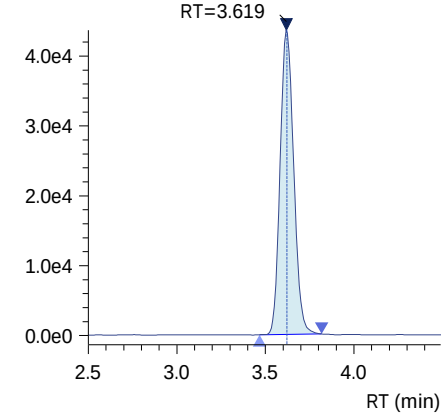
Sample ID: PERCHLORATE6
Date Acquired: 6/29/2023 1:27:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-006.lcd
Vial: 6 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.619	232011	282827	5.0477	ng/mL	101.00 >85.00	31.17	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.617	282827	282827	1.0000	ng/mL	----	----	

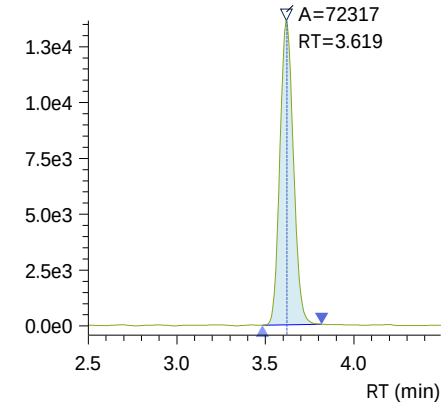
Perchlorate

Conc 5.0477
R#1 31.17 (32.02)

Q 99.00>83.00 (-) A=232011 RT=3.619 4.37e4



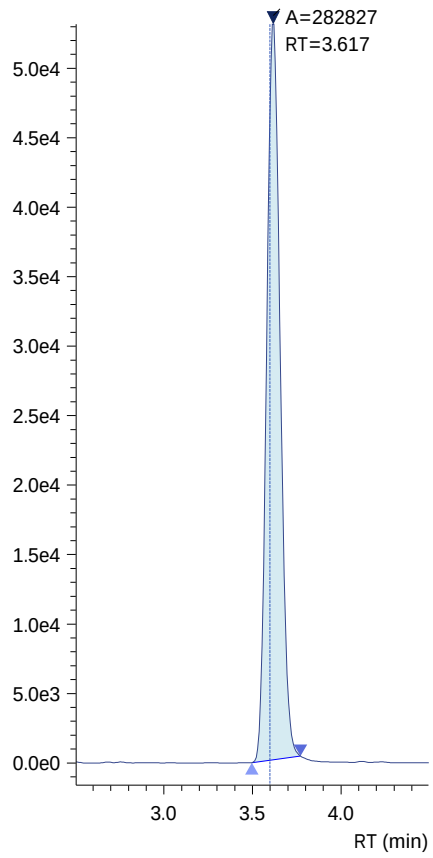
R1 101.00>85.00 (-) 1.37e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 5.32e4



Insight Report

Printed at 6/29/2023 2:17:05 PM

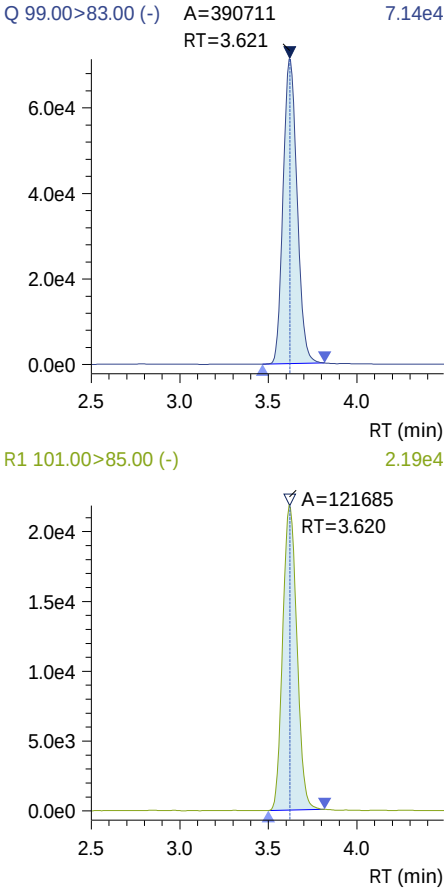
PERCHLORATE7

Sample ID: PERCHLORATE7
Date Acquired: 6/29/2023 1:32:51 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-007.lcd
Vial: 3 | 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	3.621	390711	229327	10.48 35	ng/mL	101.00 >85.00	31.14	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.616	229327	229327	1.0000	ng/mL	----	----	

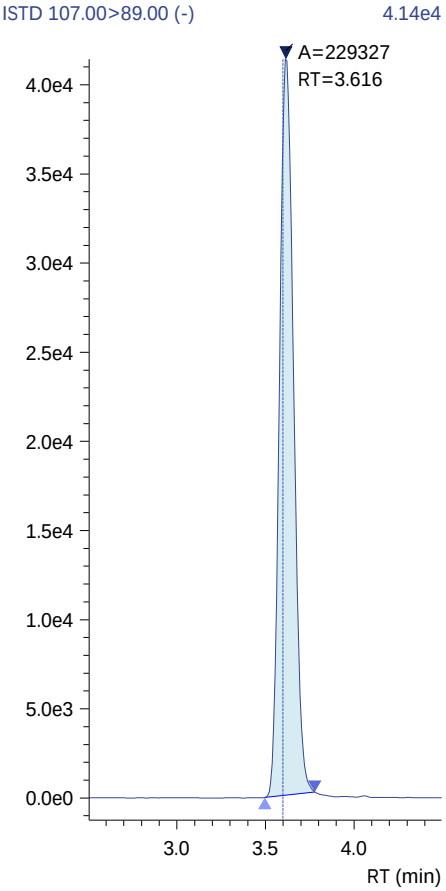
Perchlorate

Conc 10.4835
R#1 31.14 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

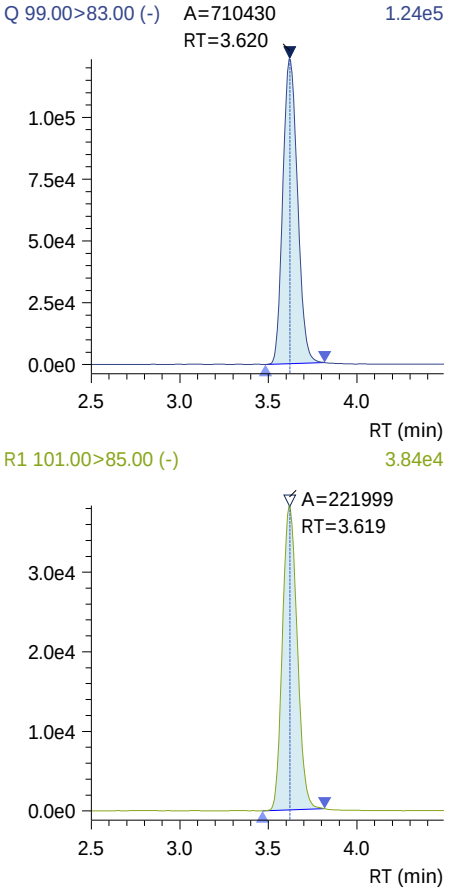
PERCHLORATE8

Sample ID: PERCHLORATE8
Date Acquired: 6/29/2023 1:38:22 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-008.lcd
Vial: 8 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.620	710430	213093	20.5144	ng/mL	101.00 >85.00	31.25	22.41-41.62
Sodium Perchlorate-18O4_IS	Auto	3.615	213093	213093	1.0000	ng/mL	----	----	

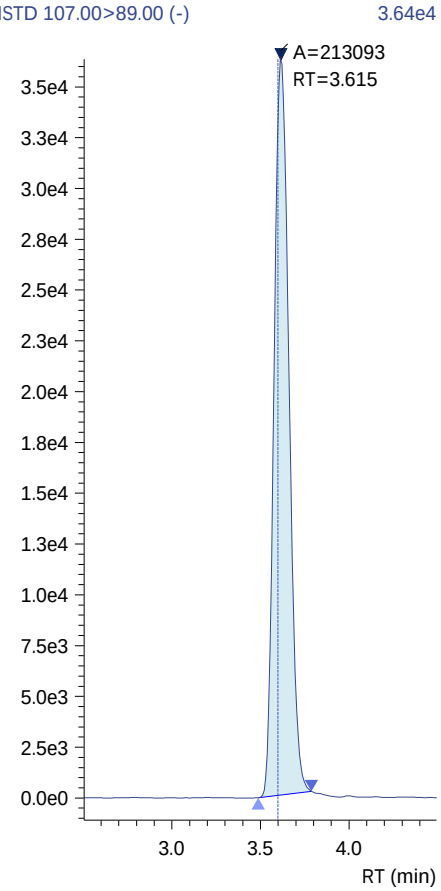
Perchlorate

Conc 20.5144
R#1 31.25 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/29/2023 2:17:05 PM

PERCHLORATE9

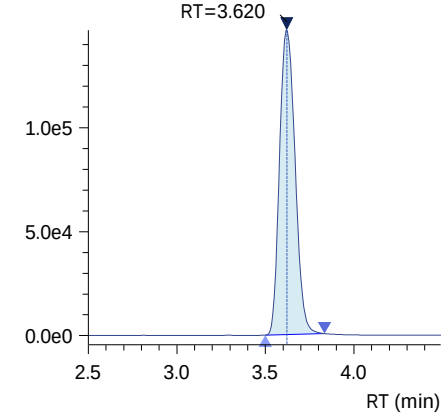
Sample ID: PERCHLORATE9
Date Acquired: 6/29/2023 1:43:53 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-009.lcd
Vial: 9 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.620	896468	185851	29.6808	ng/mL	101.00 >85.00	31.06	22.41-41.62
Sodium Perchlorate-18O4_IS	Auto	3.614	185851	185851	1.0000	ng/mL	----	----	

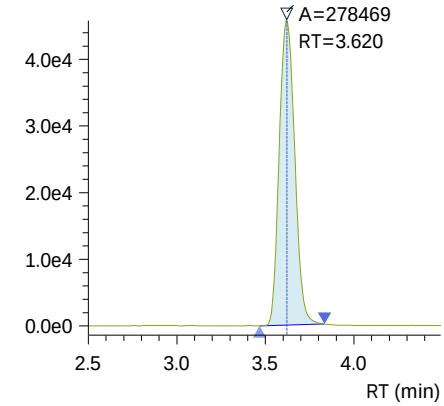
Perchlorate

Conc 29.6808
R#1 31.06 (32.02)

Q 99.00>83.00 (-) A=896468 1.47e5



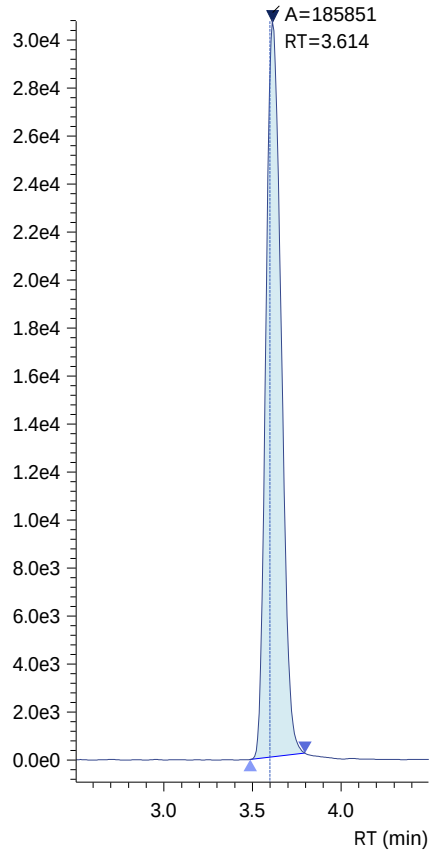
R1 101.00>85.00 (-) 4.58e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.08e4



Insight Report

Printed at 6/29/2023 2:17:05 PM

PERCHLORATE10

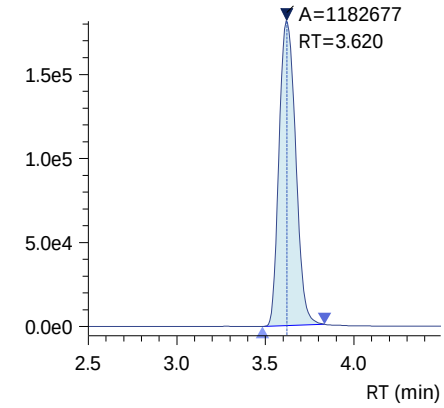
Sample ID: PERCHLORATE10
Date Acquired: 6/29/2023 1:49:27 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-010.lcd
Vial: 10 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.620	1182677	146135	49.79 86	ng/mL	101.00 >85.00	30.89	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.614	146135	146135	1.0000	ng/mL	----	----	

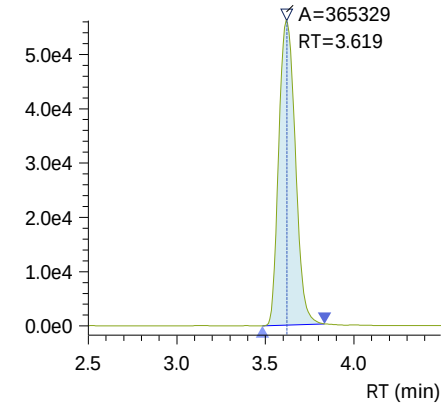
Perchlorate

Conc 49.7986
R#1 30.89 (32.02)

Q 99.00>83.00 (-) 1.82e5



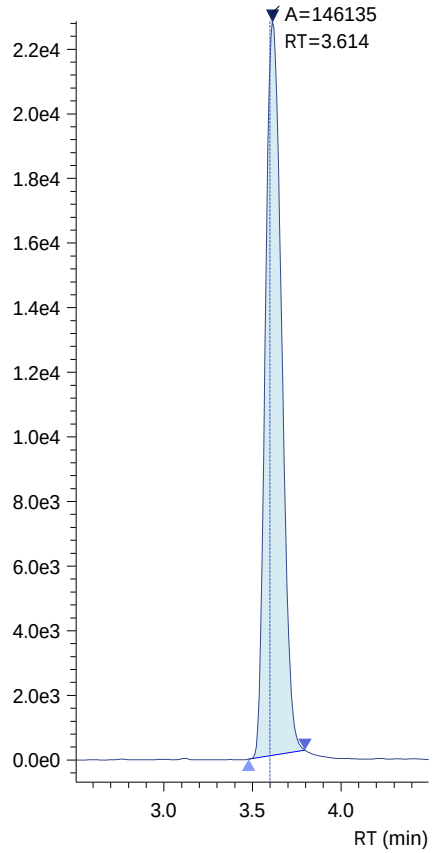
R1 101.00>85.00 (-) 5.62e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.29e4



Insight Report

Printed at 6/29/2023 2:17:05 PM

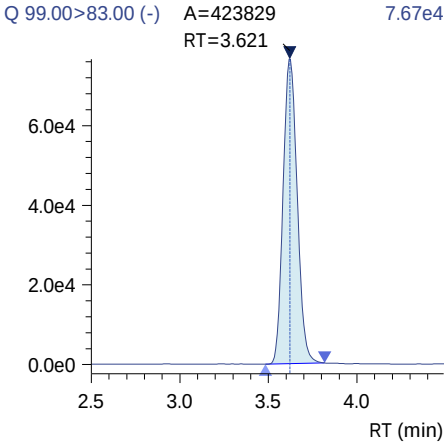
PERCHLORATEICV

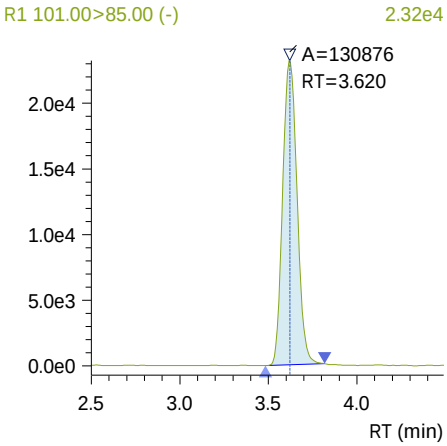
Sample ID: PERCHLORATEICV
Date Acquired: 6/29/2023 1:55:00 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230629\20230629-011.lcd
Vial: 11 | Inj. Volume: 10.0000uL | Tray: 2

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.621	423829	263091	9.9127	ng/mL	101.00 >85.00	30.88	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.617	263091	263091	1.0000	ng/mL	----	----	

Perchlorate

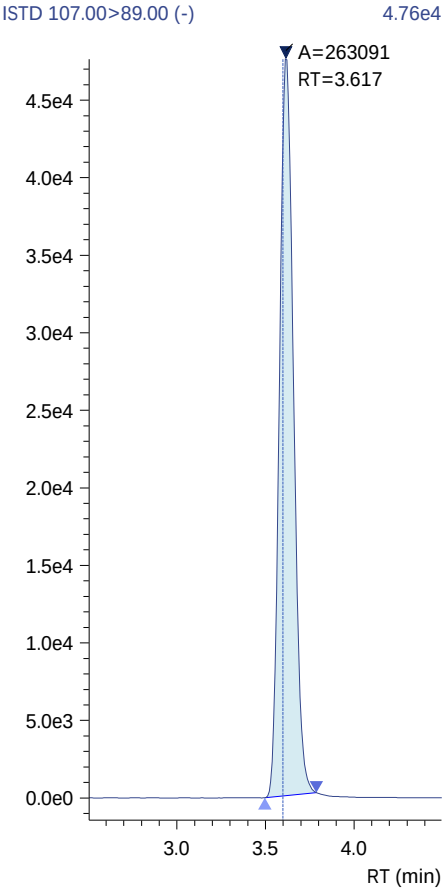
Conc 9.9127
R#1 30.88 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Chromatograms and Selected Ion Monitoring

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

20230628-809096

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/23/2023
Cal. Std. xp: 07/31/2023
ICAL ID: EC2300010

Mobile Phases : **A:**20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230628-001	Perchlorate6850c.lcm	1x		6/28/2023 11:41
2	LODV		20230628-002	Perchlorate6850c.lcm	1x	227501	6/28/2023 11:47
3	ICS		20230628-003	Perchlorate6850c.lcm	1x	32103024	6/28/2023 13:39
4	CCV		20230628-004	Perchlorate6850c.lcm	1x	227251	6/28/2023 13:45
5	EQ2300317-01		20230628-005	Perchlorate6850c.lcm	1x		6/28/2023 14:19
6	EQ2300317-02		20230628-006	Perchlorate6850c.lcm	1x		6/28/2023 14:24
7	EQ2300317-03		20230628-007	Perchlorate6850c.lcm	1x		6/28/2023 14:30
8	E2300617-001		20230628-008	Perchlorate6850c.lcm	1x		6/28/2023 14:36
9	E2300617-002		20230628-009	Perchlorate6850c.lcm	1x	DNU-D	6/28/2023 14:42
10	K2307221-001		20230628-010	Perchlorate6850c.lcm	1x		6/28/2023 14:47
11	K2307221-002		20230628-011	Perchlorate6850c.lcm	1x		6/28/2023 14:53
12	K2307221-003		20230628-012	Perchlorate6850c.lcm	1x		6/28/2023 15:04
13	E2300617-002X100		20230628-013	Perchlorate6850c.lcm	1x		6/28/2023 15:14
14	CCV		20230628-014	Perchlorate6850c.lcm	1x	227251	6/28/2023 15:20

20230630-809342

Injection Log

LCMS01 -Shimadzu 8050

1st Review: XM
2nd Review: GC

ICAL Date: 6/29/2023
Cal. Std. xp: 06/29/2023
ICAL ID: EC2300011

Mobile Phases : A:20mM ammonium acetate in water 32103046 **B:**Acetonitrile 226552

	Sample Name		File Name	Acquisition Method	Dilution	Comments	Date/Time
1	IB		20230630-001	Perchlorate6850c.lcm	1x		6/30/2023 8:18
2	LODV		20230630-002	Perchlorate6850c.lcm	1x	227501	6/30/2023 8:29
3	ICS		20230630-003	Perchlorate6850c.lcm	1x	32103024	6/30/2023 8:23
4	CCV		20230630-004	Perchlorate6850c.lcm	1x	227251	6/30/2023 8:34
5	E2300610-008		20230630-005	Perchlorate6850c.lcm	100x		6/30/2023 8:48
6	E2300611-004		20230630-006	Perchlorate6850c.lcm	1000x		6/30/2023 8:54
7	E2300611-006		20230630-007	Perchlorate6850c.lcm	2x		6/30/2023 8:59
8	E2300611-007		20230630-008	Perchlorate6850c.lcm	2x		6/30/2023 9:06
9	EQ2300312-02		20230630-009	Perchlorate6850c.lcm	1x		6/30/2023 9:12
10	E2300614-001		20230630-010	Perchlorate6850c.lcm	100x		6/30/2023 9:17
11	E2300614-002		20230630-011	Perchlorate6850c.lcm	100x		6/30/2023 9:23
12	E2300614-003		20230630-012	Perchlorate6850c.lcm	1000x	DNU-D	6/30/2023 9:28
13	EQ2300317-04		20230630-013	Perchlorate6850c.lcm	1x		6/30/2023 9:34
14	EQ2300317-05		20230630-014	Perchlorate6850c.lcm	1x		6/30/2023 9:39
15	CCV		20230630-015	Perchlorate6850c.lcm	1x	227251	6/30/2023 9:47
16	E2300614-004		20230630-016	Perchlorate6850c.lcm	100x		6/30/2023 9:53
17	E2300614-005		20230630-017	Perchlorate6850c.lcm	1x	DNU-RR	6/30/2023 9:58
18	EQ2300317-06		20230630-018	Perchlorate6850c.lcm	1x		6/30/2023 10:04
19	EQ2300317-07		20230630-019	Perchlorate6850c.lcm	1x		6/30/2023 10:09
20	E2300614-006		20230630-020	Perchlorate6850c.lcm	1x		6/30/2023 10:15
21	E2300614-007		20230630-021	Perchlorate6850c.lcm	1x		6/30/2023 10:20
22	E2300614-008		20230630-022	Perchlorate6850c.lcm	1x		6/30/2023 10:26
23	E2300614-009		20230630-023	Perchlorate6850c.lcm	1x		6/30/2023 10:31
24	E2300616-001		20230630-024	Perchlorate6850c.lcm	100x		6/30/2023 10:40
25	E2300616-002		20230630-025	Perchlorate6850c.lcm	1x		6/30/2023 10:46
26	CCV		20230630-026	Perchlorate6850c.lcm	1x	227251	6/30/2023 10:51
27	E2300616-003		20230630-027	Perchlorate6850c.lcm	100x		6/30/2023 10:57
28	E2300616-004		20230630-028	Perchlorate6850c.lcm	100x		6/30/2023 11:02
29	E2300616-005		20230630-029	Perchlorate6850c.lcm	100x		6/30/2023 11:08
30	E2300616-006		20230630-030	Perchlorate6850c.lcm	100x		6/30/2023 11:13
31	E2300614-003		20230630-031	Perchlorate6850c.lcm	2000x		6/30/2023 11:19
32	E2300614-005		20230630-032	Perchlorate6850c.lcm	1x		6/30/2023 11:24
33	CCV		20230630-033	Perchlorate6850c.lcm	1x	227251	6/30/2023 11:30

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061825

Service Request: E2300614
Date Analyzed: 6/28/23 13:45

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

File ID: I:\LCMS01\DATA\20230628\20230628-004
Instrument ID: E-LCMS-01
Analytical Method: 6850

Lab Code: EQ2300318-01
Analysis Lot: 809096
Signal ID: 1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	134,284	3.65
	Upper Limit ==>	201,426	5.65
	Lower Limit ==>	67,142	1.65
Associated Analyses			
Continuing Calibration Verification	EQ2300318-01	128,901	3.61
Method Blank	EQ2300317-01	189,749	3.60
Lab Control Sample	EQ2300317-02	188,582	3.61
Duplicate Lab Control Sample	EQ2300317-03	184,608	3.61

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Analyzed:**	6/28/23 15:20

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230628\20230628-014	**Lab Code:**	EQ2300318-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809096
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	134,284	3.65
	Upper Limit ==>	201,426	5.65
	Lower Limit ==>	67,142	1.65
Associated Analyses			
Continuing Calibration Verification	EQ2300318-02	148,210	3.62

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Analyzed:**	6/30/23 08:34

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230630\20230630-004	**Lab Code:**	EQ2300322-01
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809342
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300322-01	242,810	3.62
125_062623	E2300614-001	167,490	3.62
MW3_062623	E2300614-002	206,292	3.62
MW23_062623MS	EQ2300317-04	1,461*	3.60
MW23_062623DMS	EQ2300317-05	1,455*	3.60

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Analyzed:**	6/30/23 09:47

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230630\20230630-015	**Lab Code:**	EQ2300322-02
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809342
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300322-02	257,568	3.63
MW9_062623	E2300614-004	226,529	3.62
MW13_062623MS	EQ2300317-06	338,913	3.63
MW13_062623DMS	EQ2300317-07	337,461	3.62
CO2_062623	E2300614-006	329,139	3.63
18WW10_062623	E2300614-007	325,557	3.63
MW17_062623	E2300614-008	338,514	3.62
MW16_062623	E2300614-009	323,393	3.63

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Analyzed:**	6/30/23 10:51

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230630\20230630-026	**Lab Code:**	EQ2300322-03
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809342
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300322-03	239,697	3.62
MW23_062623	E2300614-003	195,413	3.62
MW13_062623	E2300614-005	323,461	3.62

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

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	E2300614
Project:	HS23061825	**Date Analyzed:**	6/30/23 11:30

Internal Standard Area and RT Summary

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

File ID:	I:\LCMS01\DATA\20230630\20230630-033	**Lab Code:**	EQ2300322-04
Instrument ID:	E-LCMS-01	**Analysis Lot:**	809342
Analytical Method:	6850	**Signal ID:**	1

		Sodium Perchlorate-18O4	
		Area	**RT**
	ICAL Average ==>	263,382	3.62
	Upper Limit ==>	395,073	5.62
	Lower Limit ==>	131,691	1.62
Associated Analyses			
Continuing Calibration Verification	EQ2300322-04	247,134	3.62

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: HS23061825

Service Request: E2300614
Date Analyzed: 6/28/23

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\20230628\20230628-004

Calibration Date: 6/23/23
Calibration ID: EC2300010
Analysis Lot: 809096
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	9.92	0.1579	0.1566	-0.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061825

Service Request: E2300614
Date Analyzed: 6/28/23

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\20230628\20230628-014

Calibration Date: 6/23/23
Calibration ID: EC2300010
Analysis Lot: 809096
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.5	0.1579	0.1665	5.4	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061825

Service Request: E2300614
Date Analyzed: 6/30/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230630\20230630-004

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809342
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.1	0.1625	0.1646	1.3	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061825

Service Request: E2300614
Date Analyzed: 6/30/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230630\20230630-015

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809342
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.5	0.1625	0.1707	5.0	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061825

Service Request: E2300614
Date Analyzed: 6/30/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230630\20230630-026

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809342
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.7	0.1625	0.1736	6.8	NA	± 15 %	Average RF

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: HS23061825

Service Request: E2300614
Date Analyzed: 6/30/23

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

Analytical Method: 6850
File ID: I:\LCMS01\DATA\20230630\20230630-033

Calibration Date: 6/29/23
Calibration ID: EC2300011
Analysis Lot: 809342
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Perchlorate	10.0	10.6	0.1625	0.1715	5.5	NA	± 15 %	Average RF

Insight Report

Printed at 6/28/2023 4:13:03 PM

Method File: I:\LCMS01\DATA\20230628\06282023.lcm
Project File: I:\LCMS01\DATA\20230628\06282023.damlp

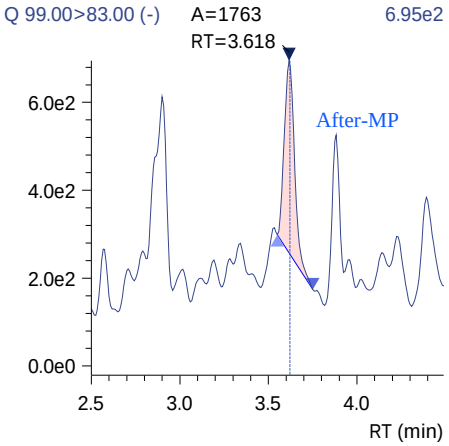
LODV

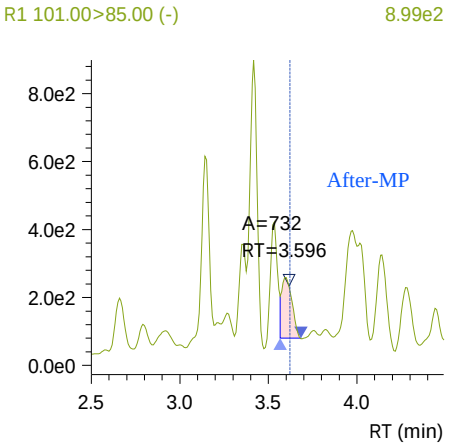
Sample ID: LODV
Date Acquired: 6/28/2023 11:47:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	M	3.618	1763	198982	0.0561	ng/mL	101.00 >85.00	41.50	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.608	198982	198982	1.0000	ng/mL	----	----	

Perchlorate

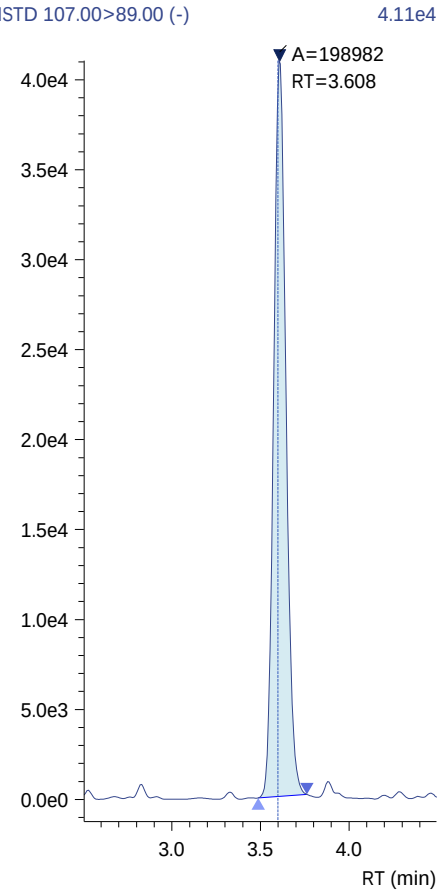
Conc 0.0561
R#1 41.50 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/28/2023 4:15:08 PM

Method File: I:\LCMS01\DATA\20230628\06282023.lcm
Project File: I:\LCMS01\DATA\20230628\06282023.damlp

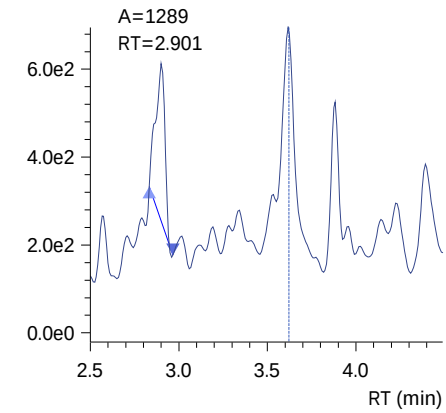
LODV

Sample ID: LODV
Date Acquired: 6/28/2023 11:47:23 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

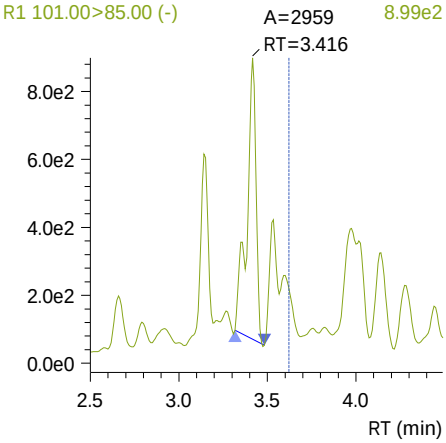
Perchlorate

Conc ----
R#1 0.00 (32.02)

Q 99.00>83.00 (-) 6.95e2



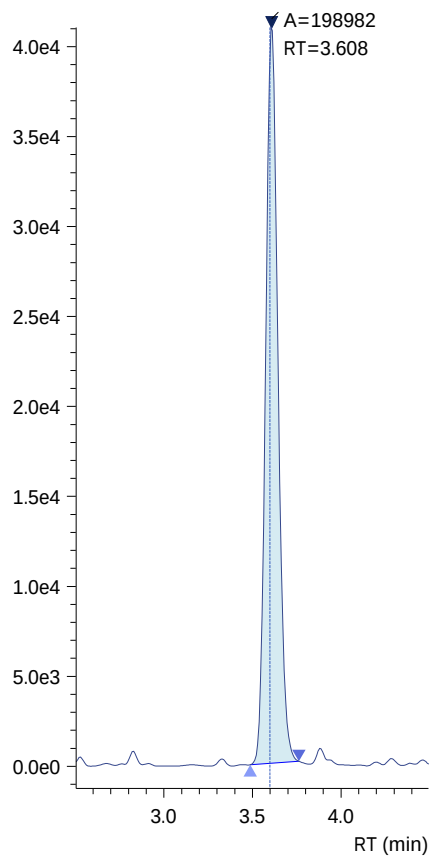
R1 101.00>85.00 (-) 8.99e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.11e4



Insight Report

Printed at 6/28/2023 4:13:03 PM

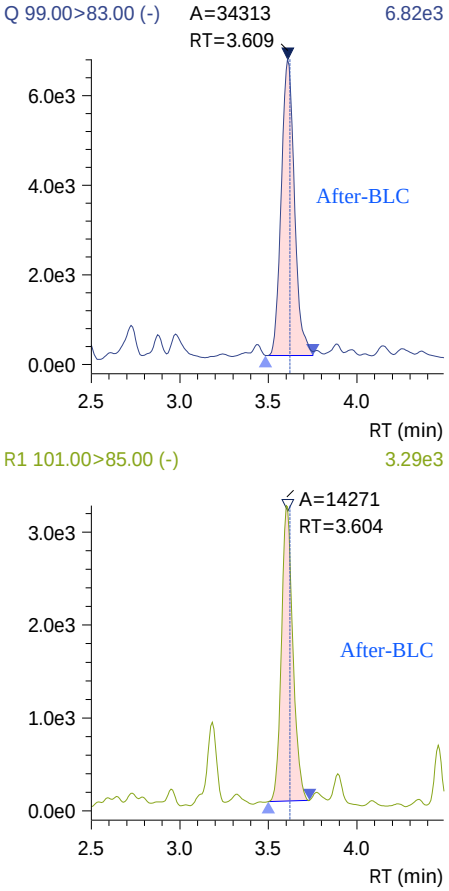
ICS

Sample ID: ICS
Date Acquired: 6/28/2023 1:39:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-003.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	M	3.609	34313	194688	1.1162	ng/mL	101.00 >85.00	41.59	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.606	194688	194688	1.0000	ng/mL	----	----	

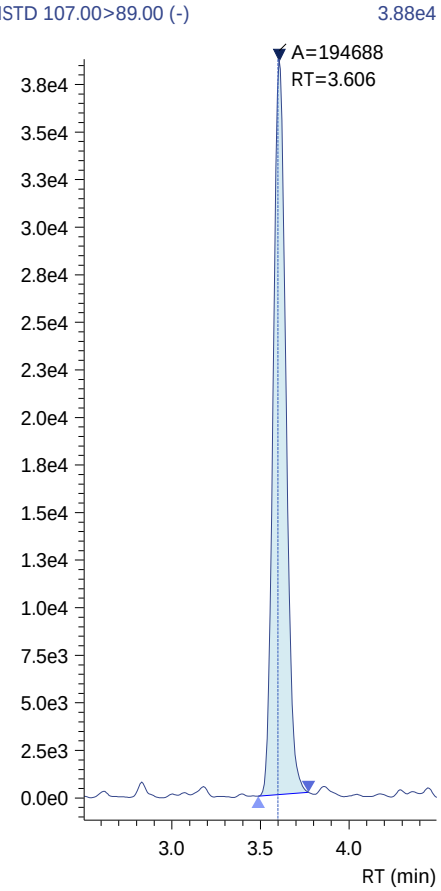
Perchlorate

Conc 1.1162
R#1 41.59 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/28/2023 4:15:08 PM

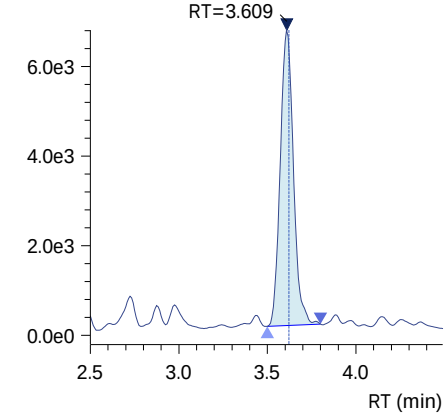
ICS

Sample ID: ICS
Date Acquired: 6/28/2023 1:39:45 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

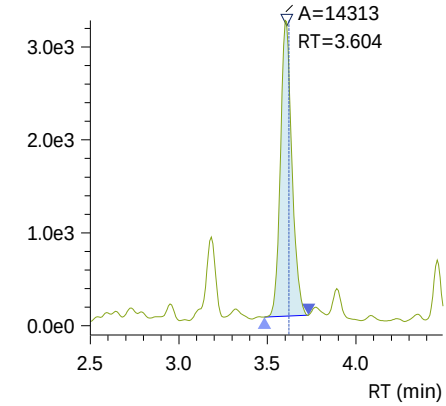
Perchlorate

Conc 1.1008
R#1 41.91 (32.02)

Q 99.00>83.00 (-) A=34151 6.82e3



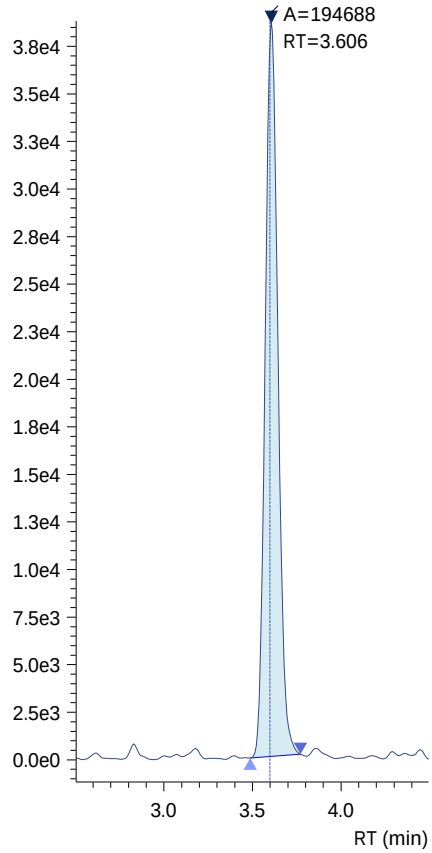
R1 101.00>85.00 (-) 3.29e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.88e4



Insight Report

Printed at 6/28/2023 4:13:03 PM

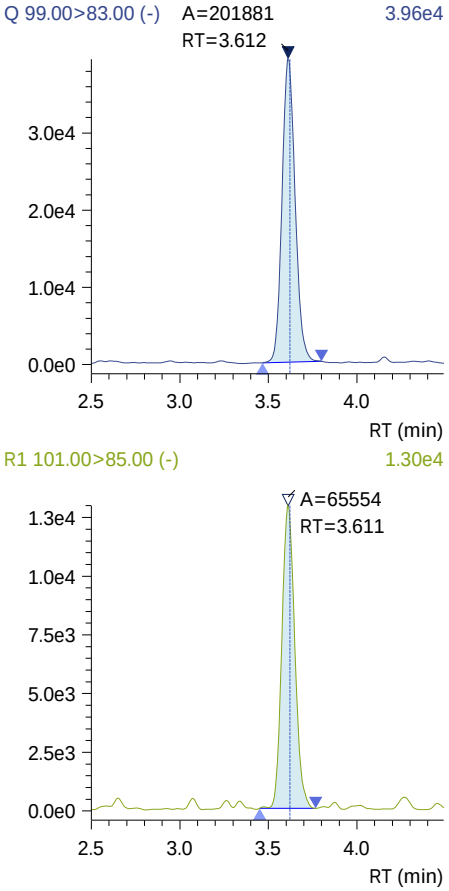
CCV

Sample ID: CCV
Date Acquired: 6/28/2023 1:45:16 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-004.lcd
Vial: 3 | 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	3.612	201881	128901	9.9186	ng/mL	101.00 >85.00	32.47	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.609	128901	128901	1.0000	ng/mL	----	----	

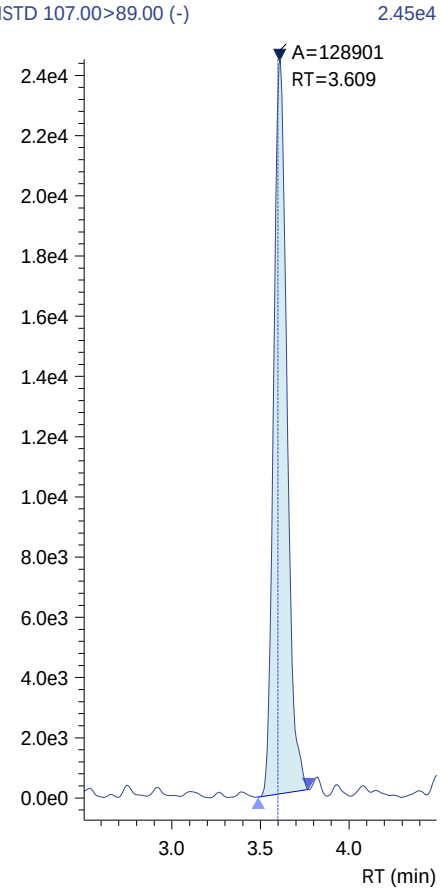
Perchlorate

Conc 9.9186
R#1 32.47 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/28/2023 4:13:03 PM

EQ2300317-01

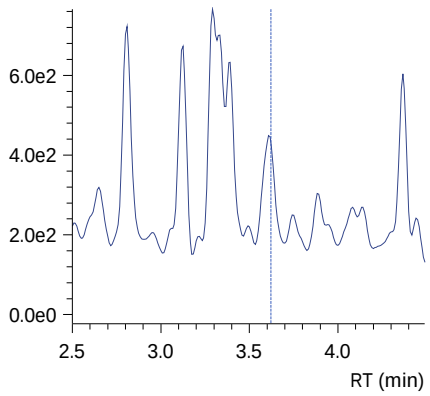
Sample ID: EQ2300317-01
Date Acquired: 6/28/2023 2:19:02 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-005.lcd
Vial: 22 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	189749	----	ng/mL	101.00 >85.00	0.00	22.41-41.62
Sodium Perchlorate-18O4_IS	Auto	3.595	189749	189749	1.0000	ng/mL	----	----	

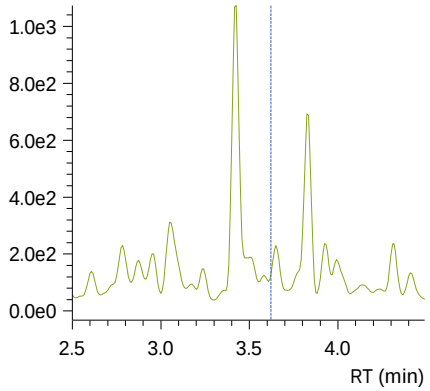
Perchlorate

Conc ----
R#1 0.00 (32.02)

Q 99.00>83.00 (-) 7.66e2



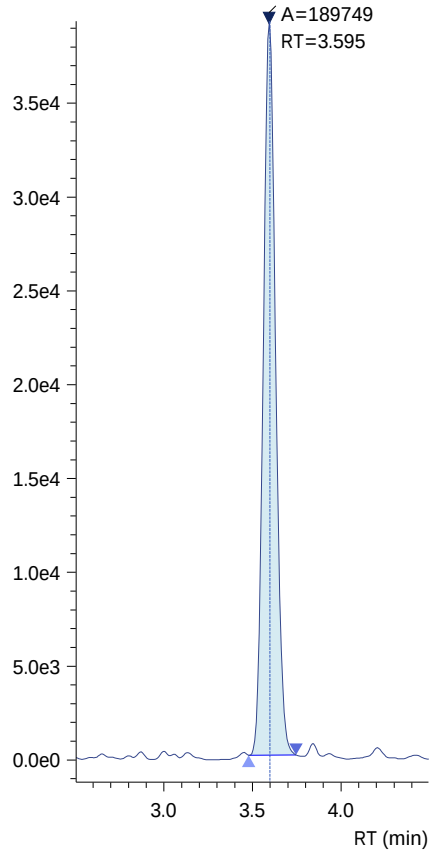
R1 101.00>85.00 (-) 1.07e3



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.94e4



Insight Report

Printed at 6/28/2023 4:13:03 PM

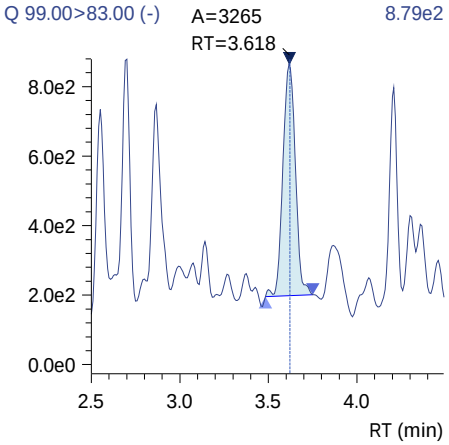
EQ2300317-02

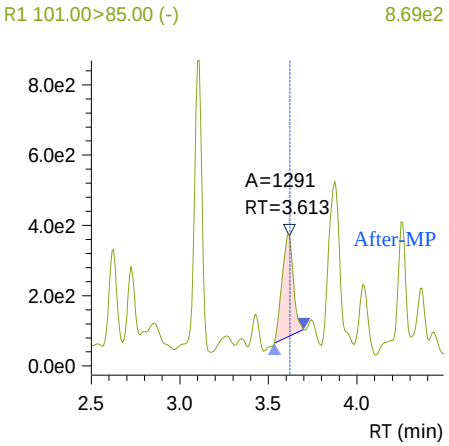
Sample ID: EQ2300317-02
Date Acquired: 6/28/2023 2:24:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-006.lcd
Vial: 23 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.618	3265	188582	0.1096	ng/mL	101.00 >85.00	39.54	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.612	188582	188582	1.0000	ng/mL	----	----	

Perchlorate

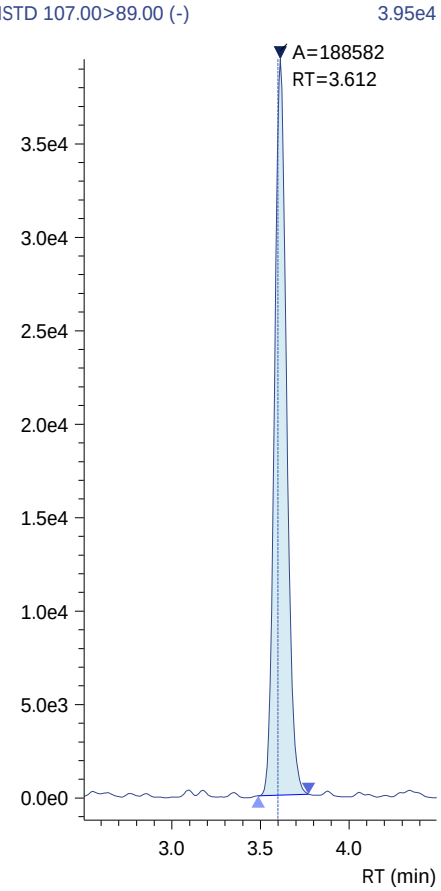
Conc 0.1096
R#1 39.54 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

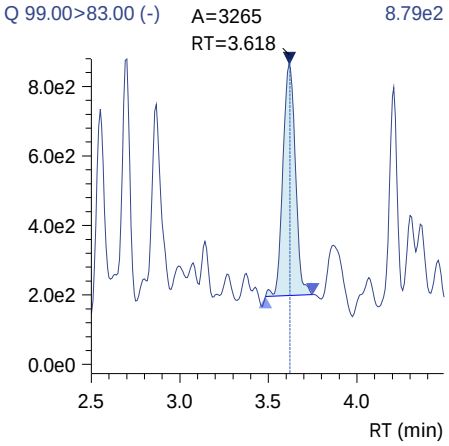
Printed at 6/28/2023 4:15:08 PM

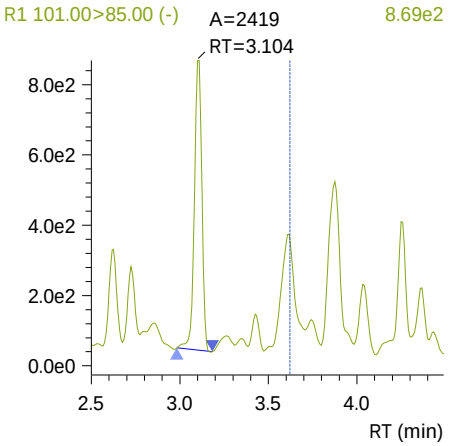
EQ2300317-02

Sample ID: EQ2300317-02
Date Acquired: 6/28/2023 2:24:32 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-006.lcd
Vial: 23 | Inj. Volume: 10.0000uL | Tray: 5

Perchlorate

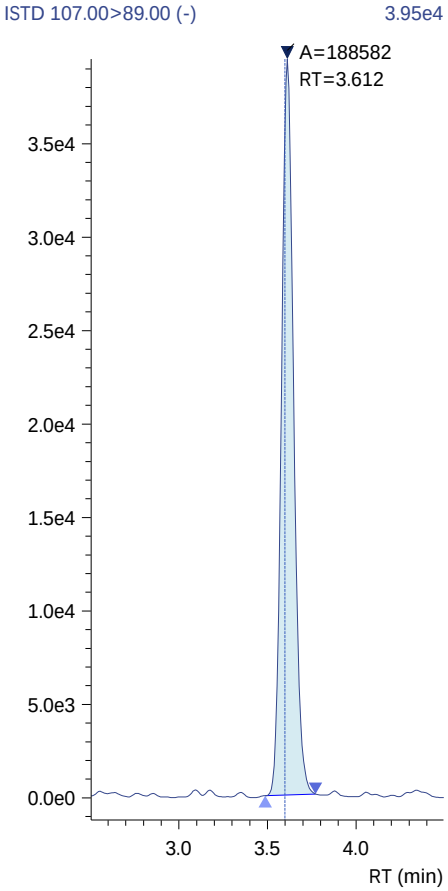
Conc 0.1086
R#1 0.00 (32.02)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/28/2023 4:13:03 PM

EQ2300317-03

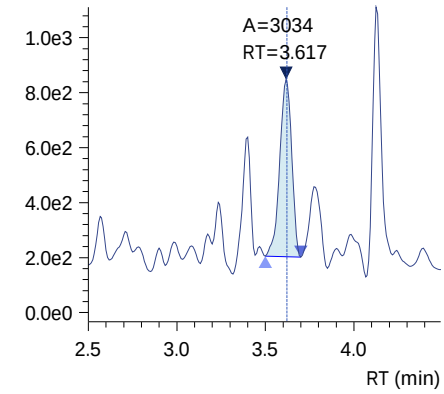
Sample ID: EQ2300317-03
Date Acquired: 6/28/2023 2:30:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-007.lcd
Vial: 24 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	MI R1	3.617	3034	184608	0.1041	ng/mL	101.00 >85.00	33.99	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.614	184608	184608	1.0000	ng/mL	----	----	

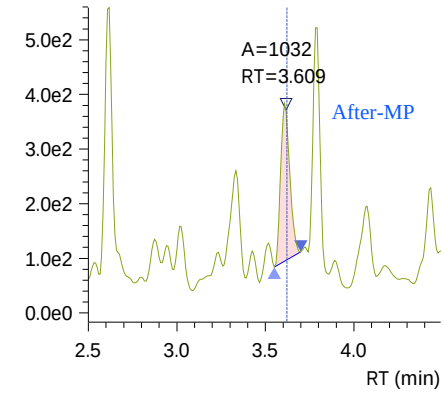
Perchlorate

Conc 0.1041
R#1 33.99 (32.02)

Q 99.00>83.00 (-) 1.11e3



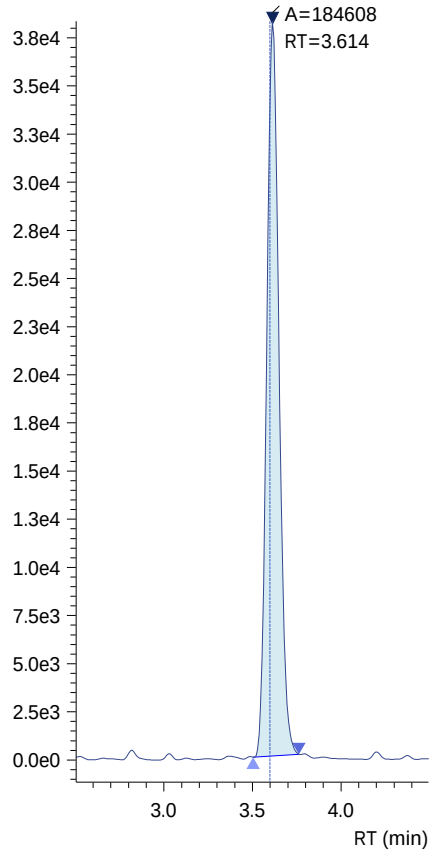
R1 101.00>85.00 (-) 5.59e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.84e4



Insight Report

Printed at 6/28/2023 4:15:08 PM

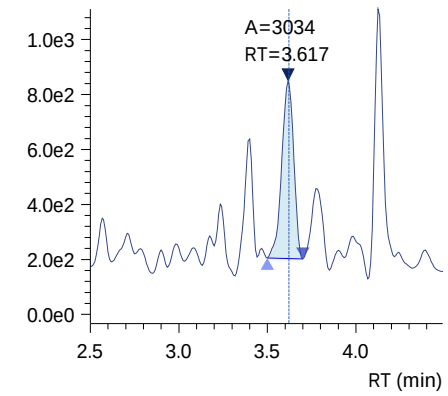
EQ2300317-03

Sample ID: EQ2300317-03
Date Acquired: 6/28/2023 2:30:03 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-007.lcd
Vial: 24 | Inj. Volume: 10.0000uL | Tray: 5

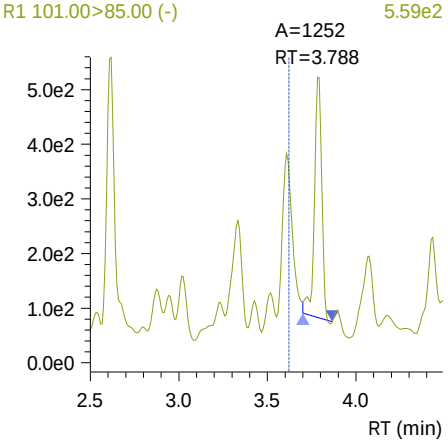
Perchlorate

Conc 0.1031
R#1 0.00 (32.02)

Q 99.00>83.00 (-) 1.11e3



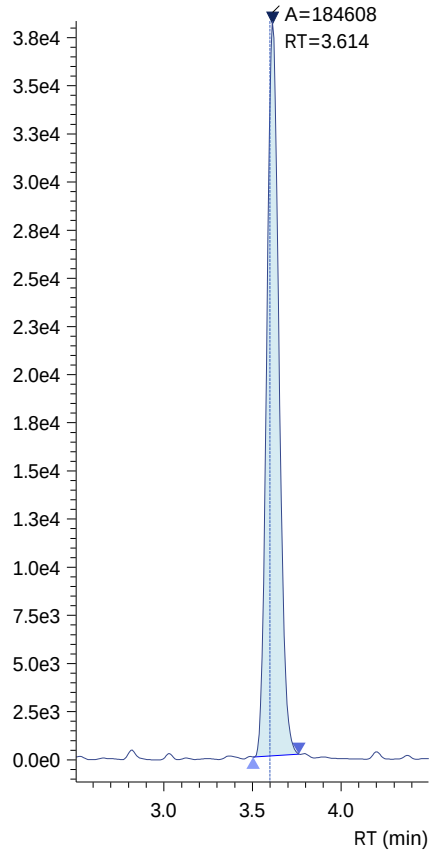
R1 101.00>85.00 (-) 5.59e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.84e4



Insight Report

Printed at 6/28/2023 4:13:03 PM

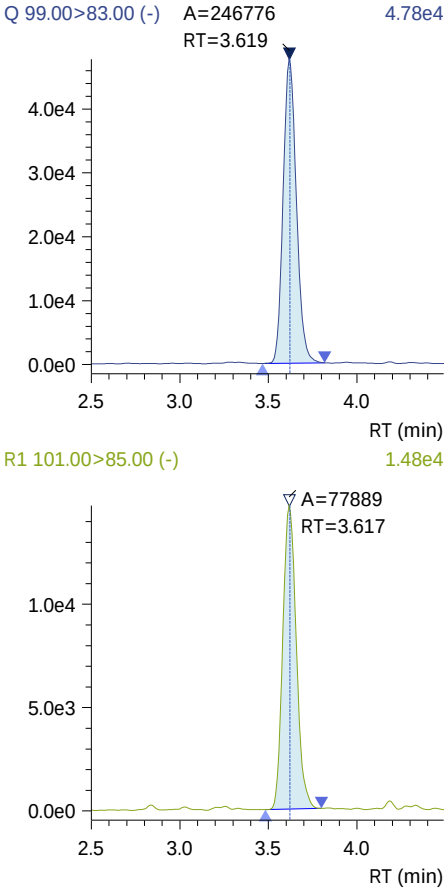
CCV

Sample ID: CCV
Date Acquired: 6/28/2023 3:20:23 PM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230628\20230628-014.lcd
Vial: 3 | 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	3.619	246776	148210	10.5447	ng/mL	101.00 >85.00	31.56	22.41-41.62
Sodium Perchlorate-18O4 _IS	Auto	3.615	148210	148210	1.0000	ng/mL	----	----	

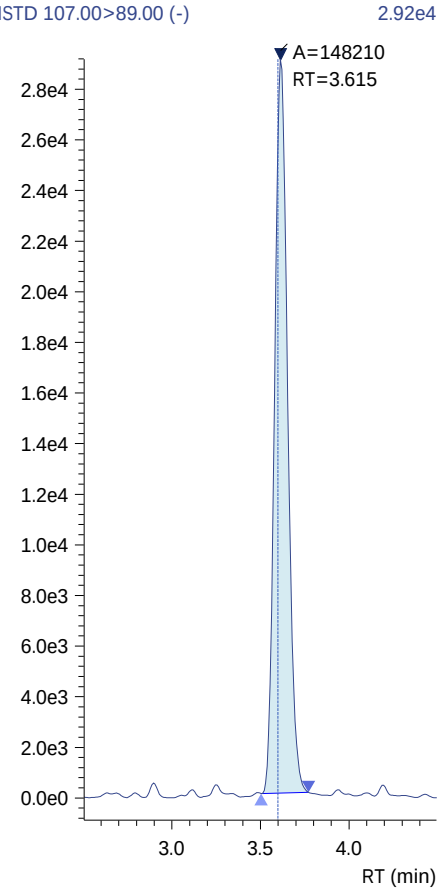
Perchlorate

Conc 10.5447
R#1 31.56 (32.02)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

Method File: I:\LCMS01\DATA\20230630\20230630.lcm
Project File: I:\LCMS01\DATA\20230630\20230630.damlp

IB

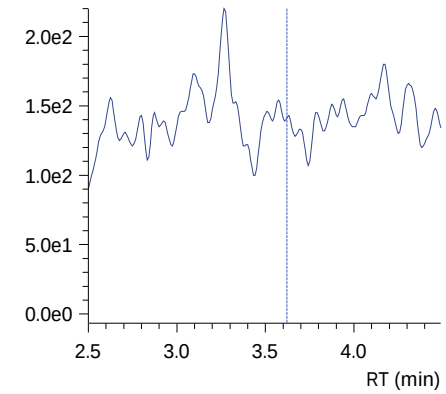
Sample ID: IB
Date Acquired: 6/30/2023 8:18:19 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-001.lcd
Vial: 4 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	338673	----	ng/mL	101.00 >85.00	0.00	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.626	338673	338673	1.0000	ng/mL	----	----	

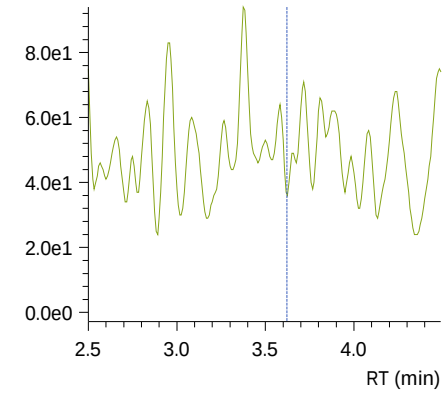
Perchlorate

Conc ----
R#1 0.00 (31.12)

Q 99.00>83.00 (-) 2.20e2



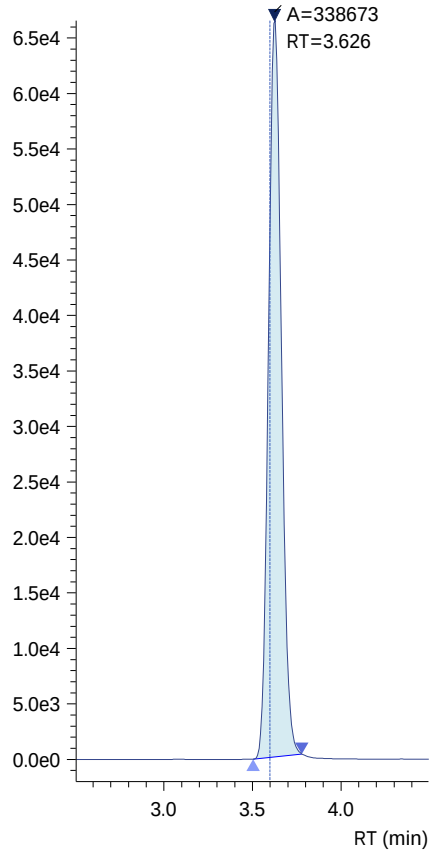
R1 101.00>85.00 (-) 9.40e1



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.66e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

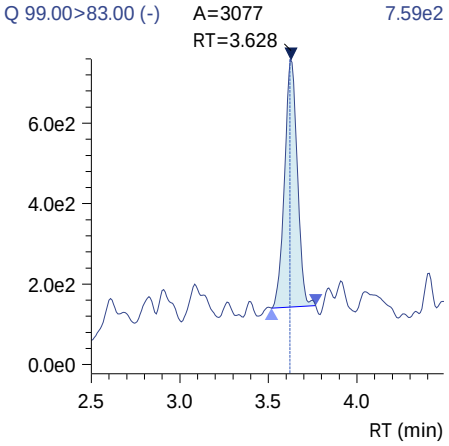
LODV

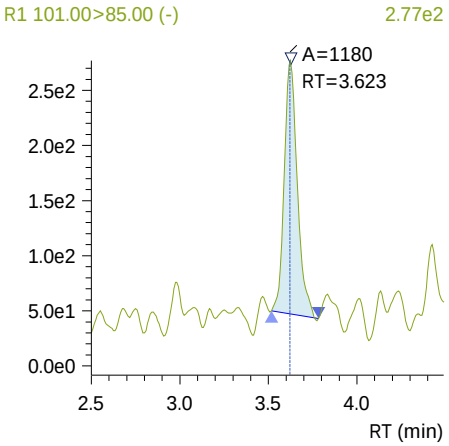
Sample ID: LODV
Date Acquired: 6/30/2023 8:29:21 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-002.lcd
Vial: 1 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.628	3077	325731	0.0581	ng /mL	101.00 >85.00	38.34	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.621	325731	325731	1.0000	ng /mL	----	----	

Perchlorate

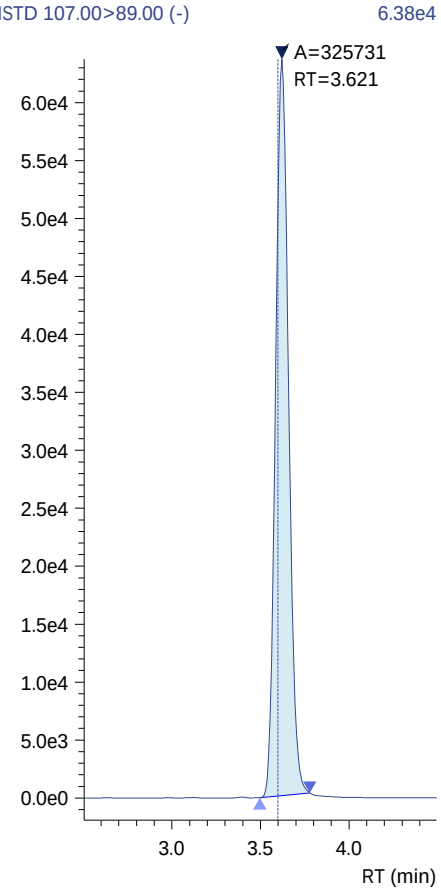
Conc 0.0581
R#1 38.34 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

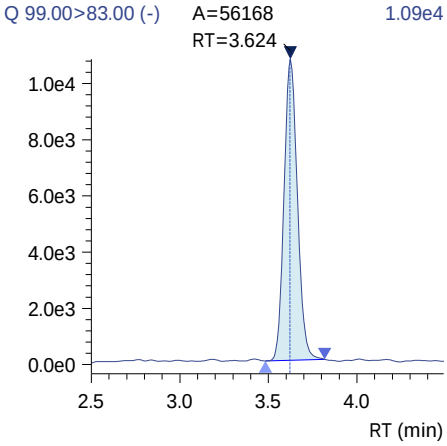
ICS

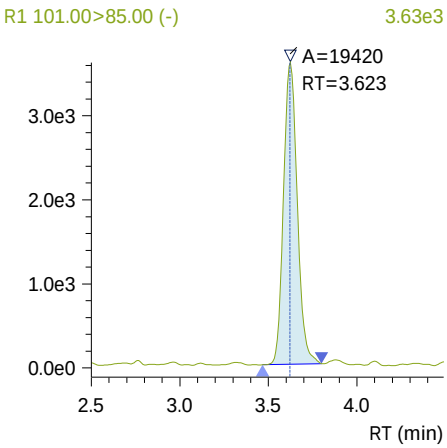
Sample ID: ICS
Date Acquired: 6/30/2023 8:23:50 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-003.lcd
Vial: 2 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.624	56168	340515	1.0150	ng /mL	101.00 >85.00	34.57	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.621	340515	340515	1.0000	ng /mL	----	----	

Perchlorate

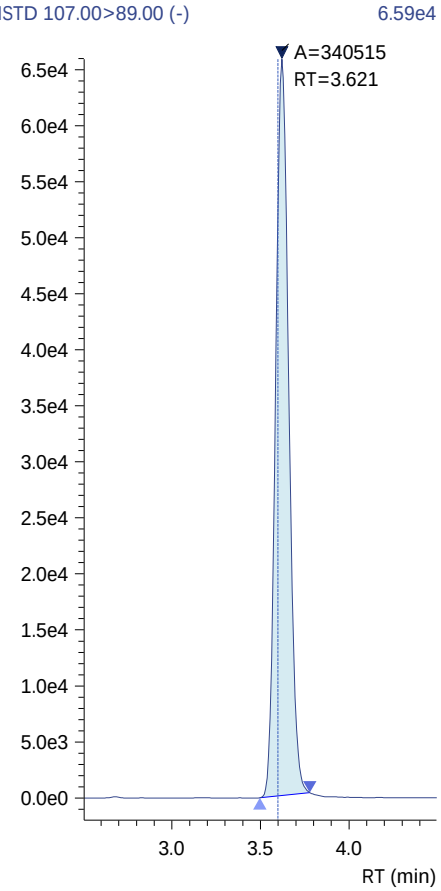
Conc 1.0150
R#1 34.57 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

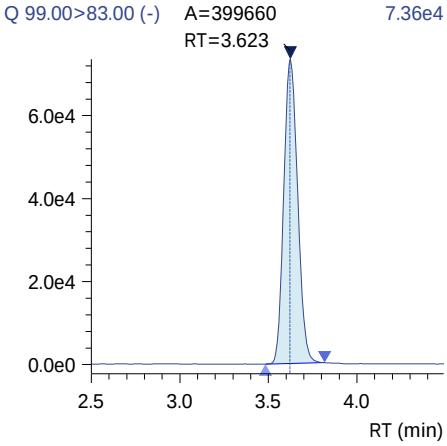
CCV

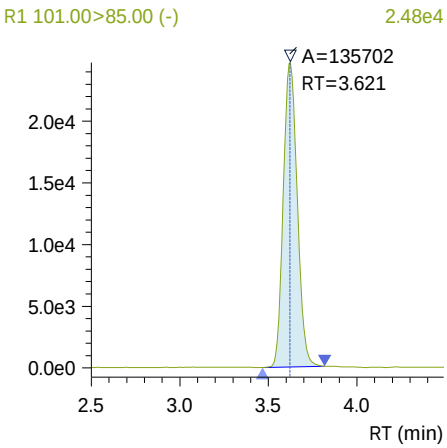
Sample ID: CCV
Date Acquired: 6/30/2023 8:34:53 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-004.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.623	399660	242810	10.1281	ng /mL	101.00 >85.00	33.95	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.621	242810	242810	1.0000	ng /mL	----	----	

Perchlorate

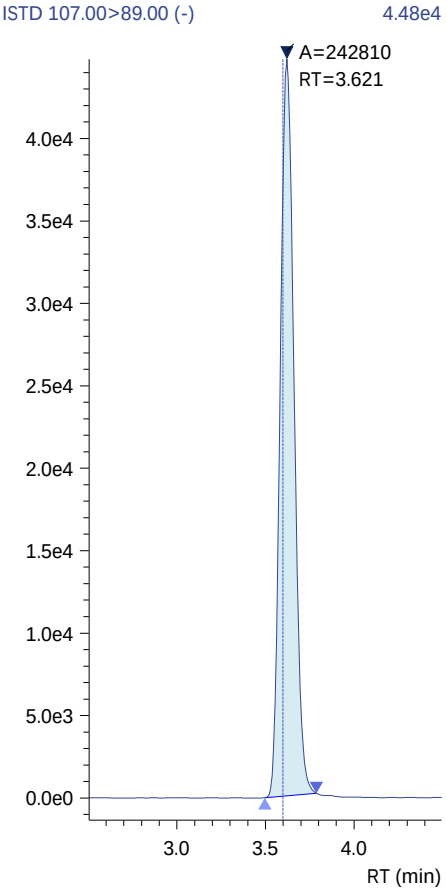
Conc 10.1281
R#1 33.95 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

E2300614-001x100

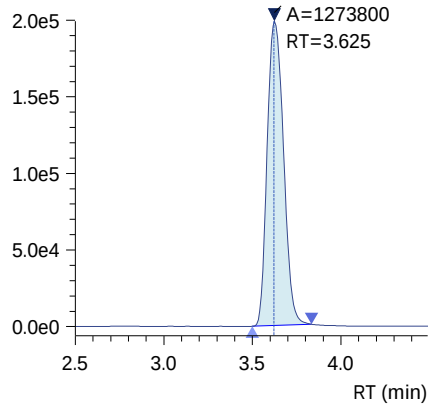
Sample ID: E2300614-001
Date Acquired: 6/30/2023 9:17:32 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-010.lcd
Vial: 29 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.625	1273800	167490	46.7970	ng /mL	101.00 >85.00	31.56	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.619	167490	167490	1.0000	ng /mL	----	----	

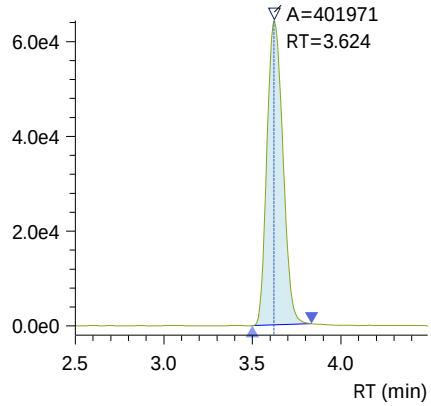
Perchlorate

Conc 46.7970
R#1 31.56 (31.12)

Q 99.00>83.00 (-) 1.99e5



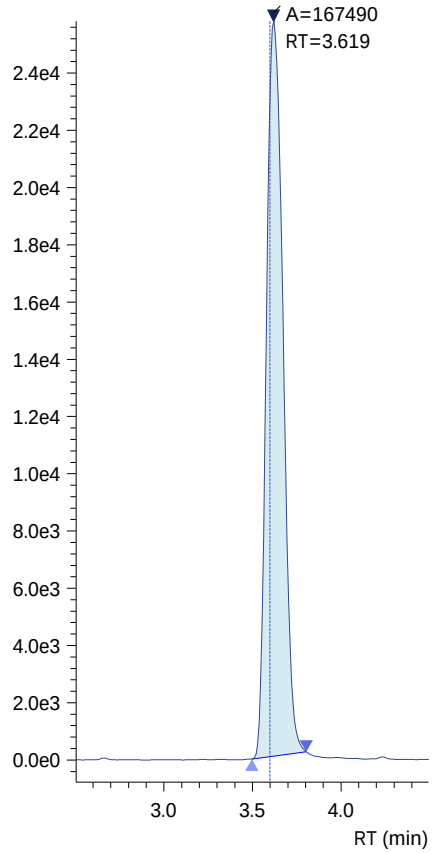
R1 101.00>85.00 (-) 6.44e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 2.58e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

E2300614-002x100

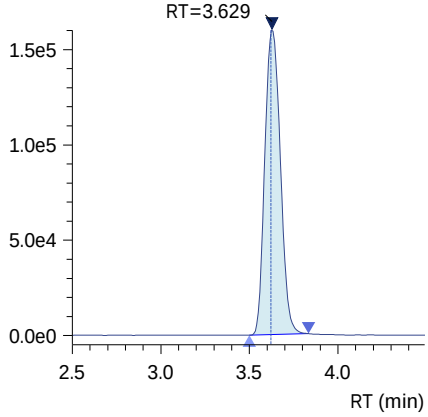
Sample ID: E2300614-002
Date Acquired: 6/30/2023 9:23:04 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-011.lcd
Vial: 30 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.629	976412	206292	29.1244	ng /mL	101.00 >85.00	31.67	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.622	206292	206292	1.0000	ng /mL	----	----	

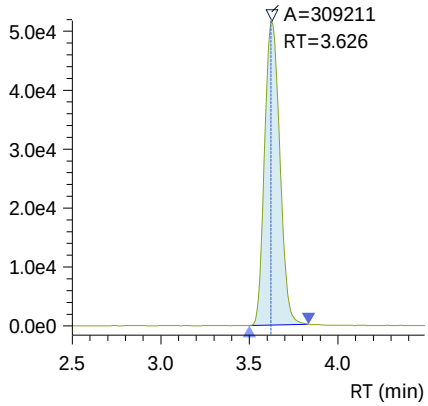
Perchlorate

Conc 29.1244
R#1 31.67 (31.12)

Q 99.00>83.00 (-) A=976412 1.60e5



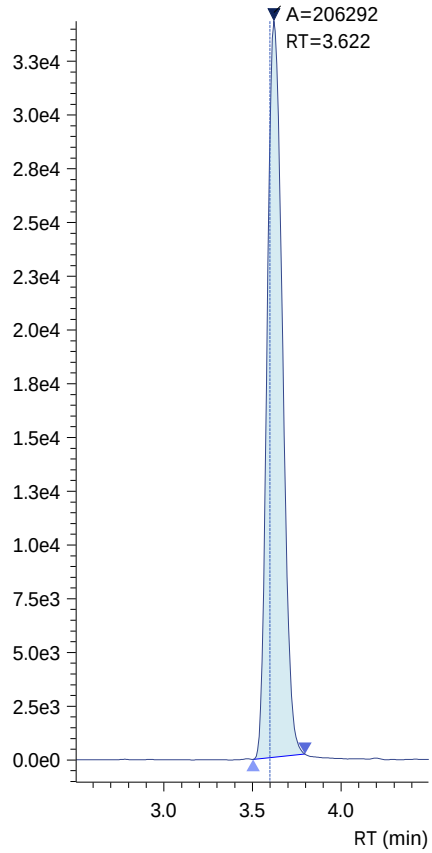
R1 101.00>85.00 (-) 5.18e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.44e4



Insight Report

Printed at 6/30/2023 2:28:51 PM

Method File: I:\LCMS01\DATA\20230630\20230630.lcm
Project File: I:\LCMS01\DATA\20230630\20230630.damlp

EQ2300317-04

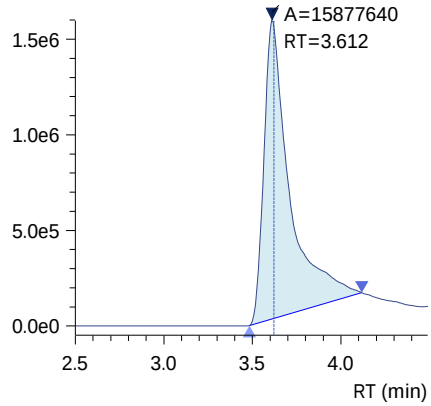
Sample ID: EQ2300317-04
Date Acquired: 6/30/2023 9:34:09 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-013.lcd
Vial: 25 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.612	15877640	1461	66894.4079	ng/mL	101.00 >85.00	29.94	21.78 -40.45
Sodium Perchlorate-18O4_IS	M	3.599	1461	1461	1.0000	ng/mL	----	----	

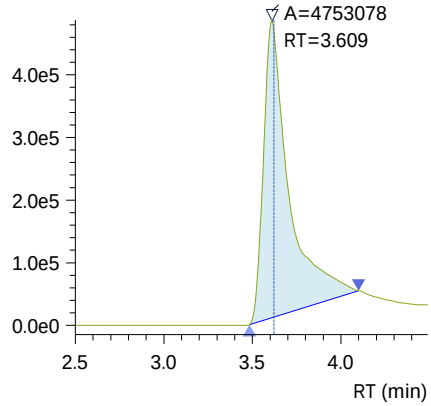
Perchlorate

Conc 66894.4079
R#1 29.94 (31.12)

Q 99.00>83.00 (-) 1.60e6



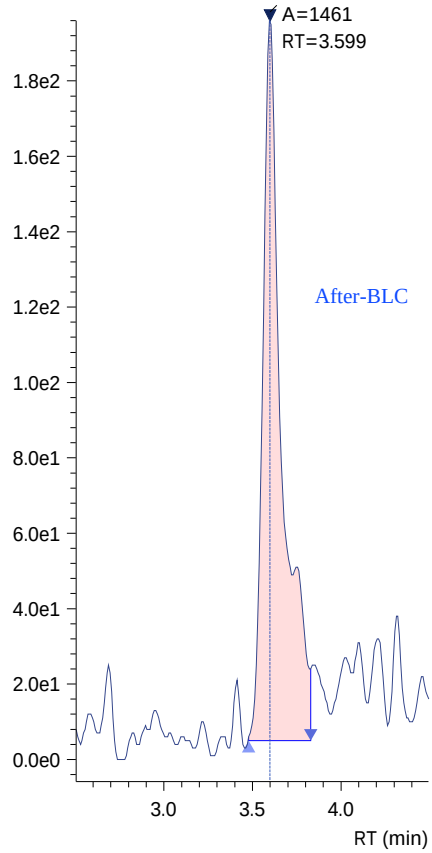
R1 101.00>85.00 (-) 4.87e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.96e2



Insight Report

Printed at 6/30/2023 2:29:35 PM

Method File: I:\LCMS01\DATA\20230630\20230630.lcm
Project File: I:\LCMS01\DATA\20230630\20230630.damlp

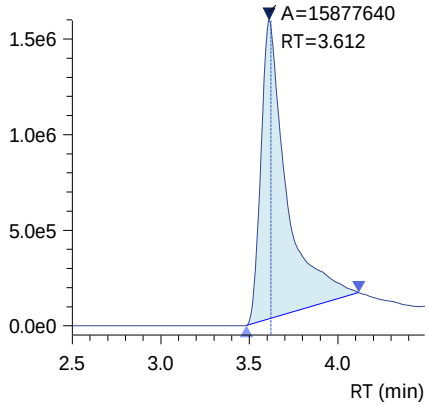
EQ2300317-04

Sample ID: EQ2300317-04
Date Acquired: 6/30/2023 9:34:09 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-013.lcd
Vial: 25 | Inj. Volume: 10.0000uL | Tray: 5

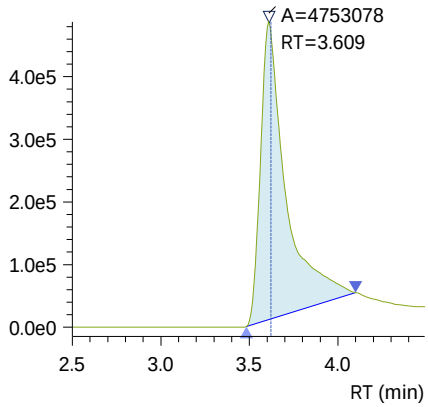
Perchlorate

Conc 110707.4026
R#1 29.94 (31.12)

Q 99.00>83.00 (-) 1.60e6



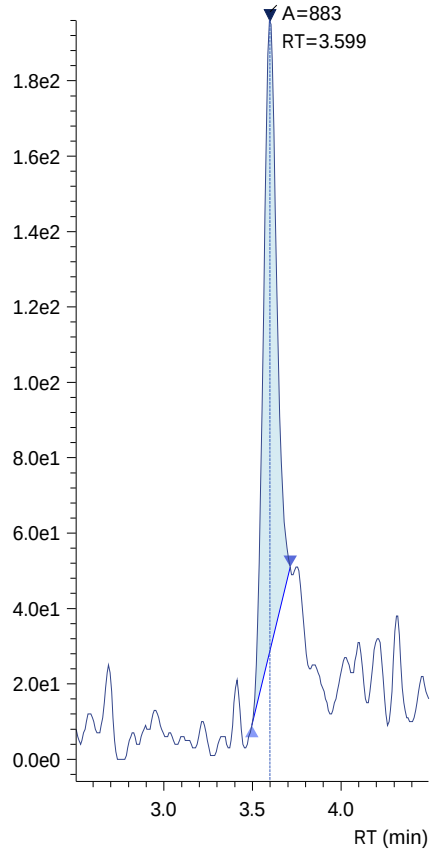
R1 101.00>85.00 (-) 4.87e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.96e2



Insight Report

Printed at 6/30/2023 2:28:51 PM

EQ2300317-05

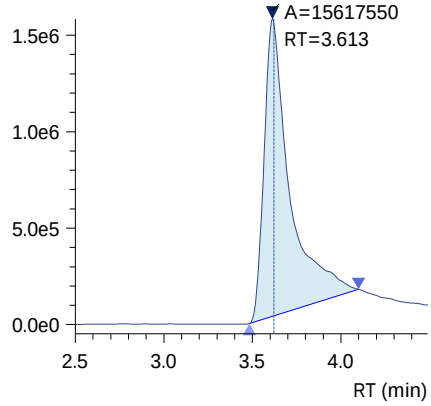
Sample ID: EQ2300317-05
Date Acquired: 6/30/2023 9:39:41 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-014.lcd
Vial: 26 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.613	15617550	1455	66035.9922	ng/mL	101.00 >85.00	32.01	21.78 -40.45
Sodium Perchlorate-18O4_IS	M	3.604	1455	1455	1.0000	ng/mL	----	----	

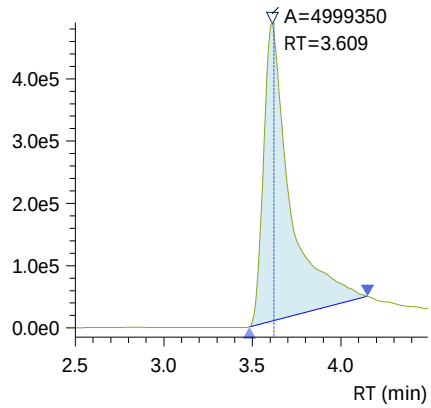
Perchlorate

Conc 66035.9922
R#1 32.01 (31.12)

Q 99.00>83.00 (-) 1.58e6



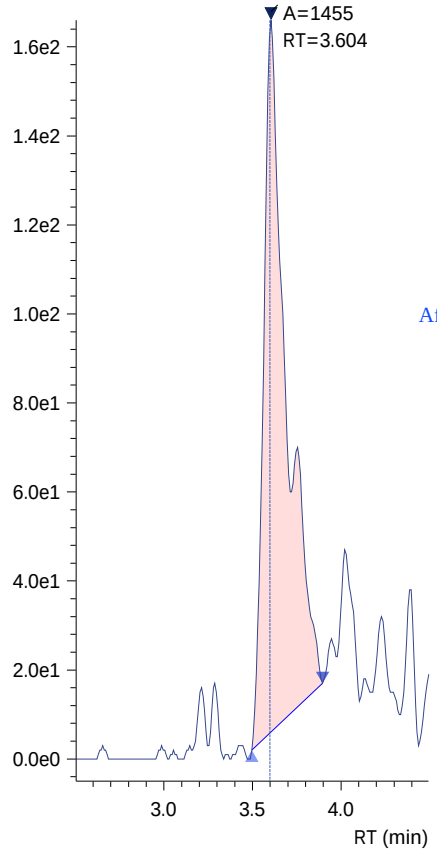
R1 101.00>85.00 (-) 4.90e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.66e2



After-BLC

Insight Report

Printed at 6/30/2023 2:29:35 PM

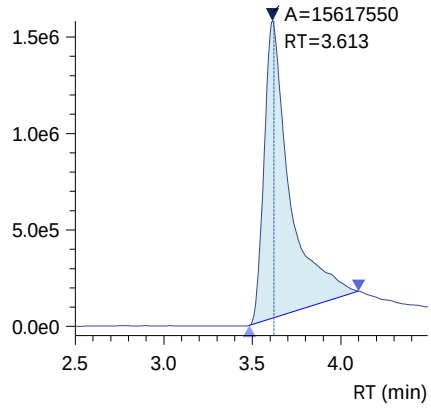
EQ2300317-05

Sample ID: EQ2300317-05
Date Acquired: 6/30/2023 9:39:41 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-014.lcd
Vial: 26 | Inj. Volume: 10.0000uL | Tray: 5

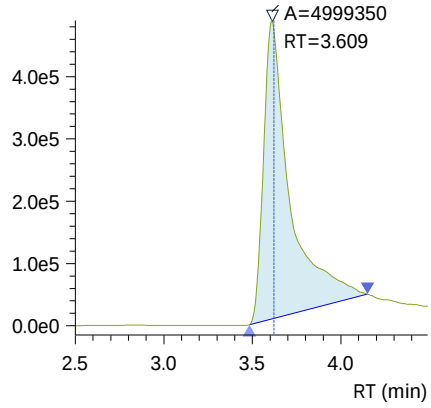
Perchlorate

Conc 120651.4472
R#1 32.01 (31.12)

Q 99.00>83.00 (-) 1.58e6



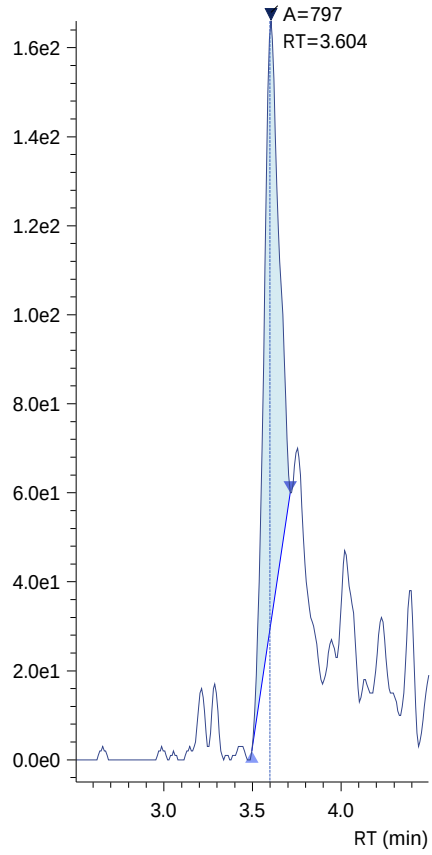
R1 101.00>85.00 (-) 4.90e5



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 1.66e2



Insight Report

Printed at 6/30/2023 1:10:51 PM

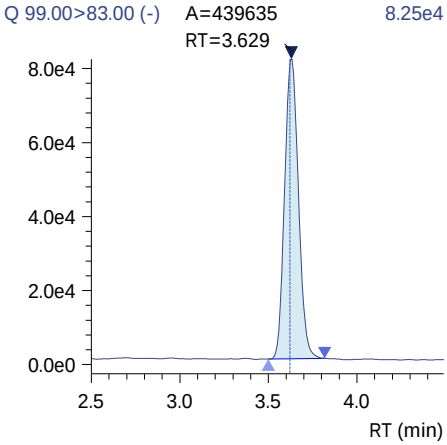
CCV

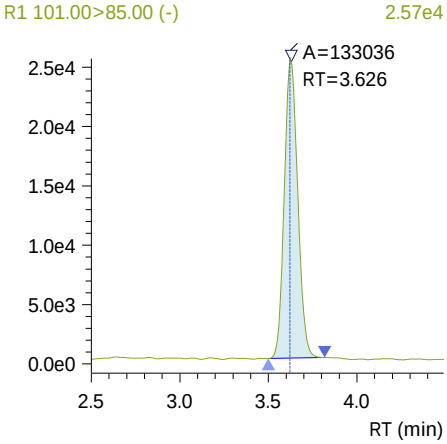
Sample ID: CCV
Date Acquired: 6/30/2023 9:47:37 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-015.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.629	439635	257568	10.5028	ng /mL	101.00 >85.00	30.26	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.625	257568	257568	1.0000	ng /mL	----	----	

Perchlorate

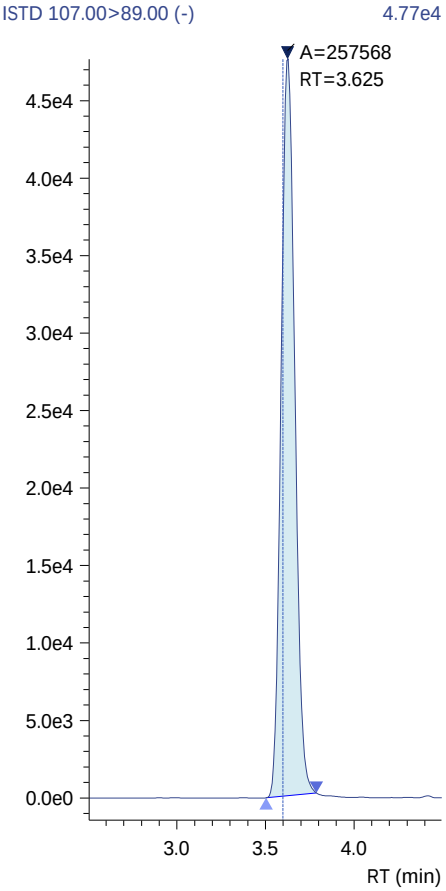
Conc 10.5028
R#1 30.26 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

E2300614-004x100

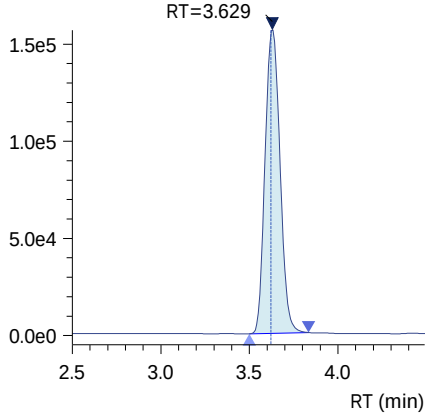
Sample ID: E2300614-004
Date Acquired: 6/30/2023 9:53:06 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-016.lcd
Vial: 32 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.629	917161	226529	24.9131	ng /mL	101.00 >85.00	30.57	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.622	226529	226529	1.0000	ng /mL	----	----	

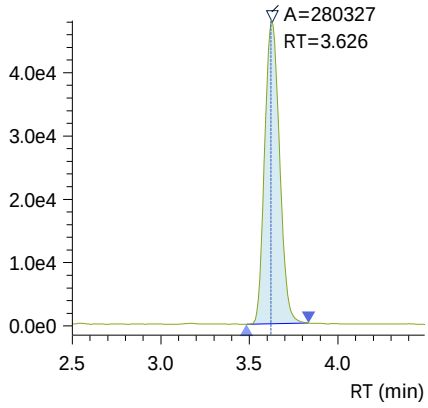
Perchlorate

Conc 24.9131
R#1 30.57 (31.12)

Q 99.00>83.00 (-) A=917161 1.57e5



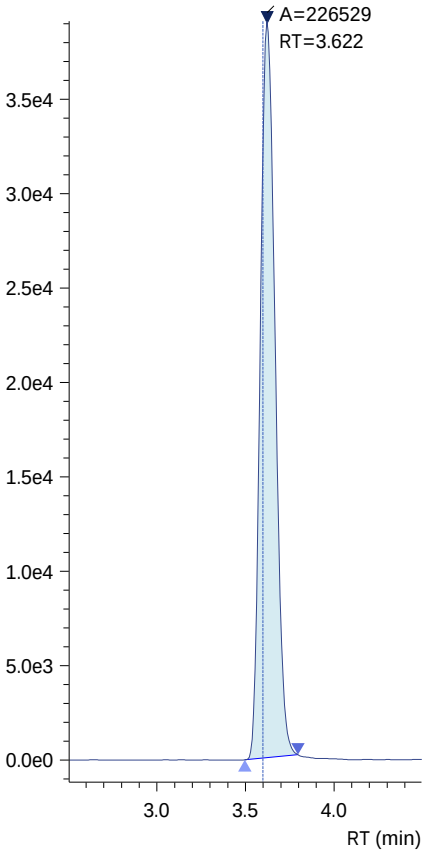
R1 101.00>85.00 (-) 4.82e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 3.91e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

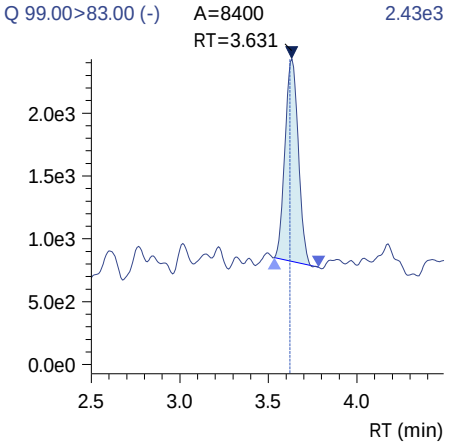
EQ2300317-06

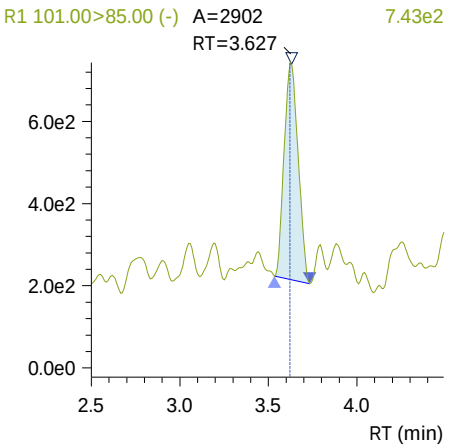
Sample ID: EQ2300317-06
Date Acquired: 6/30/2023 10:04:10 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-018.lcd
Vial: 27 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.631	8400	338913	0.1525	ng /mL	101.00 >85.00	34.55	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.625	338913	338913	1.0000	ng /mL	----	----	

Perchlorate

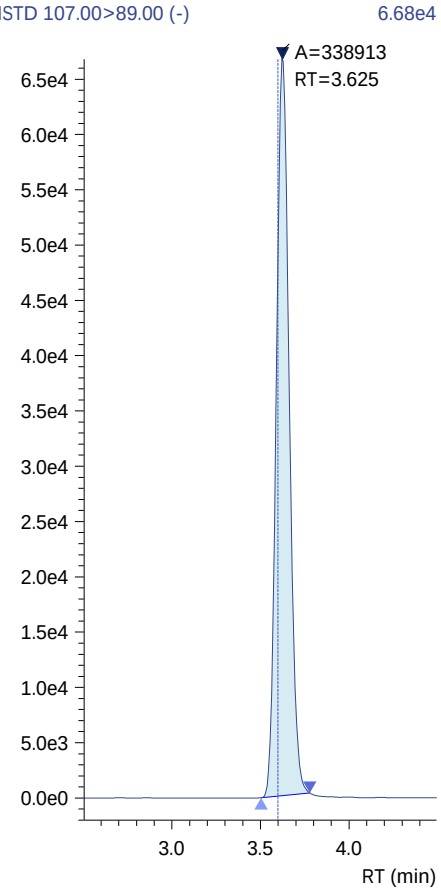
Conc 0.1525
R#1 34.55 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

EQ2300317-07

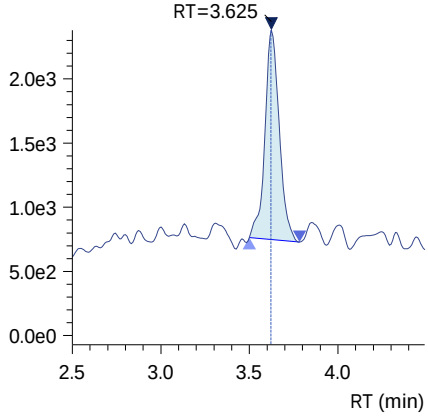
Sample ID: EQ2300317-07
Date Acquired: 6/30/2023 10:09:42 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-019.lcd
Vial: 28 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.625	9184	337461	0.1675	ng /mL	101.00 >85.00	26.99	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.624	337461	337461	1.0000	ng /mL	----	----	

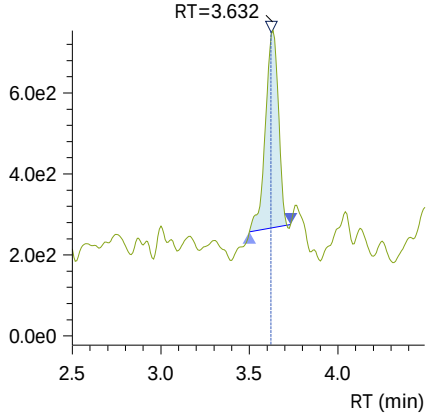
Perchlorate

Conc 0.1675
R#1 26.99 (31.12)

Q 99.00>83.00 (-) A=9184 2.38e3



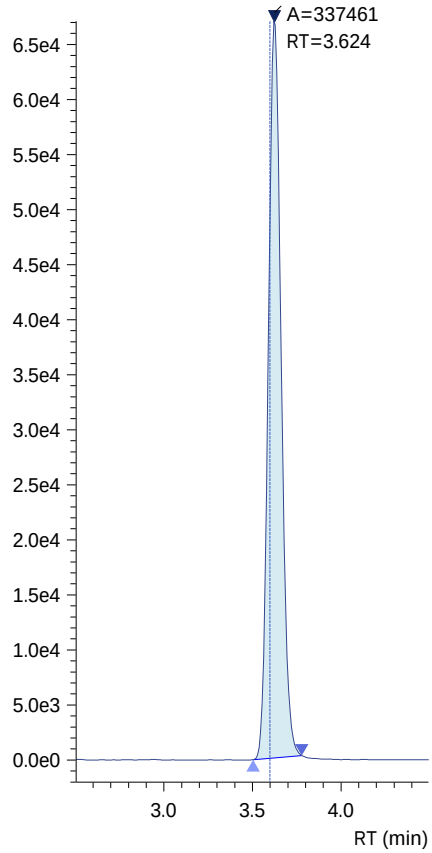
R1 101.00>85.00 (-) A=2479 7.54e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.71e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

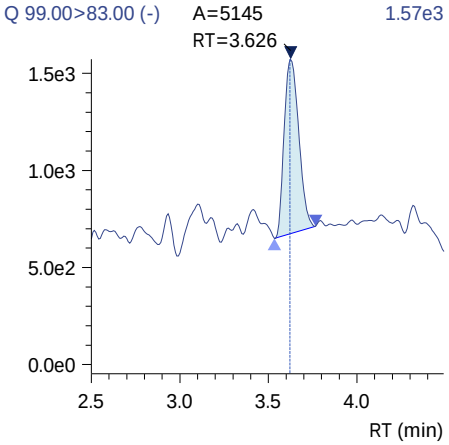
E2300614-006

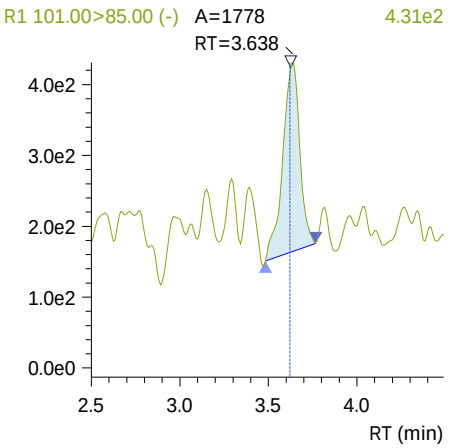
Sample ID: E2300614-006
Date Acquired: 6/30/2023 10:15:14 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-020.lcd
Vial: 34 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.626	5145	329139	0.0962	ng /mL	101.00 >85.00	34.55	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.625	329139	329139	1.0000	ng /mL	----	----	

Perchlorate

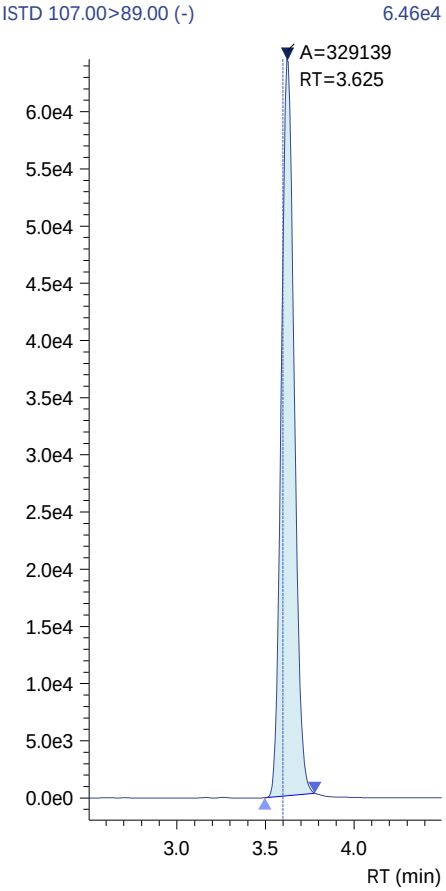
Conc 0.0962
R#1 34.55 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

E2300614-007

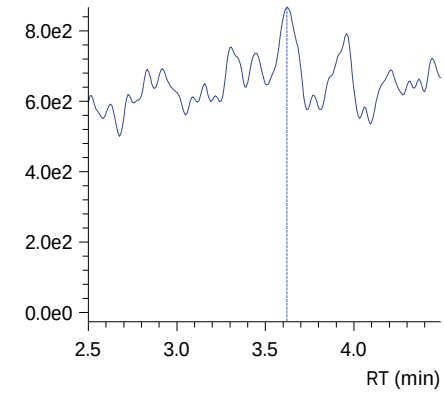
Sample ID: E2300614-007
Date Acquired: 6/30/2023 10:20:46 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-021.lcd
Vial: 35 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	325557	----	ng/mL	101.00 >85.00	0.00	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.625	325557	325557	1.0000	ng/mL	----	----	

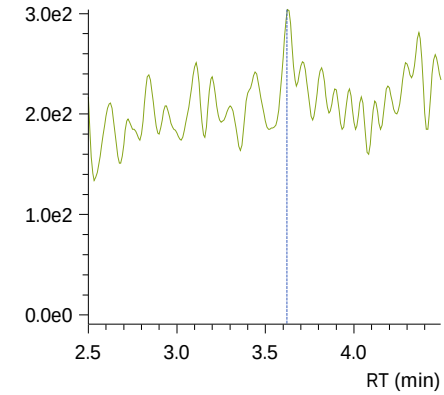
Perchlorate

Conc ----
R#1 0.00 (31.12)

Q 99.00>83.00 (-) 8.67e2



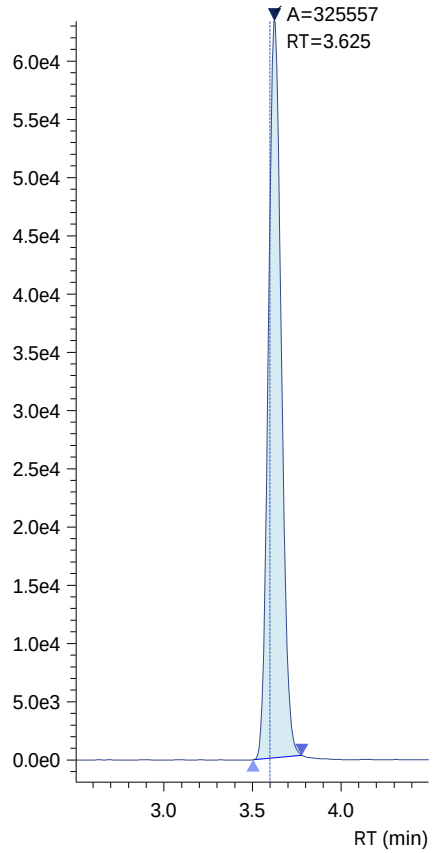
R1 101.00>85.00 (-) 3.04e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.34e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

E2300614-008

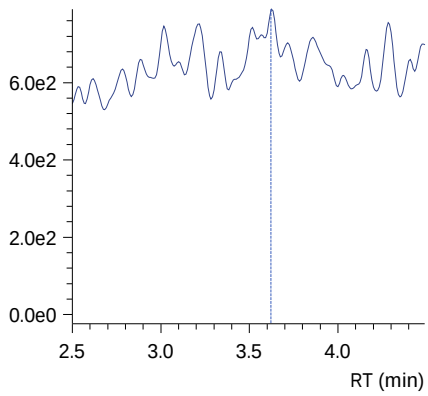
Sample ID: E2300614-008
Date Acquired: 6/30/2023 10:26:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-022.lcd
Vial: 36 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	338514	----	ng/mL	101.00 >85.00	0.00	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.623	338514	338514	1.0000	ng/mL	----	----	

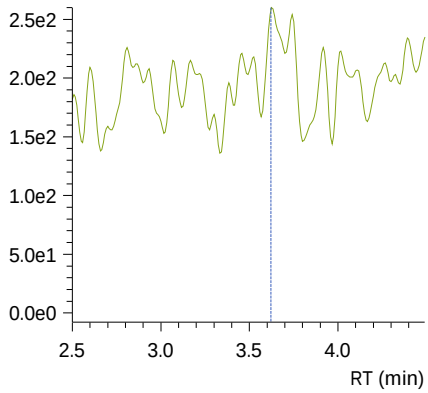
Perchlorate

Conc ----
R#1 0.00 (31.12)

Q 99.00>83.00 (-) 7.90e2



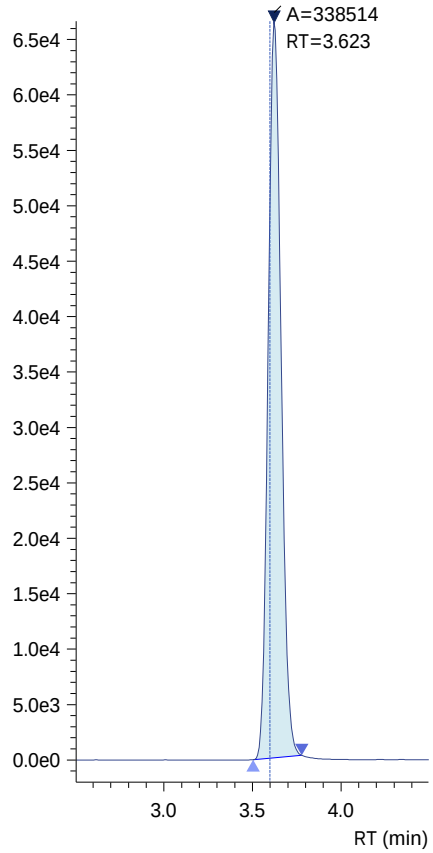
R1 101.00>85.00 (-) 2.60e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.67e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

E2300614-009

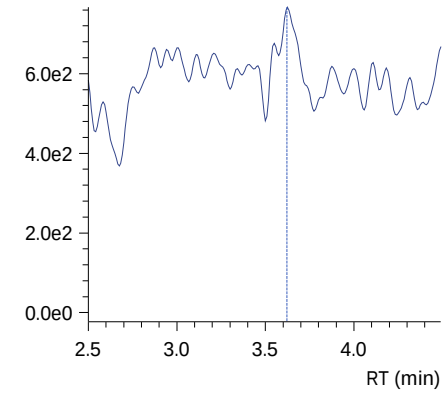
Sample ID: E2300614-009
Date Acquired: 6/30/2023 10:31:51 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-023.lcd
Vial: 37 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	ND(W/B)	----	----	323393	----	ng/mL	101.00 >85.00	0.00	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.627	323393	323393	1.0000	ng/mL	----	----	

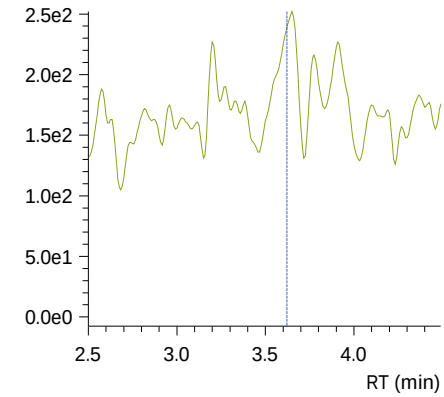
Perchlorate

Conc ----
R#1 0.00 (31.12)

Q 99.00>83.00 (-) 7.67e2



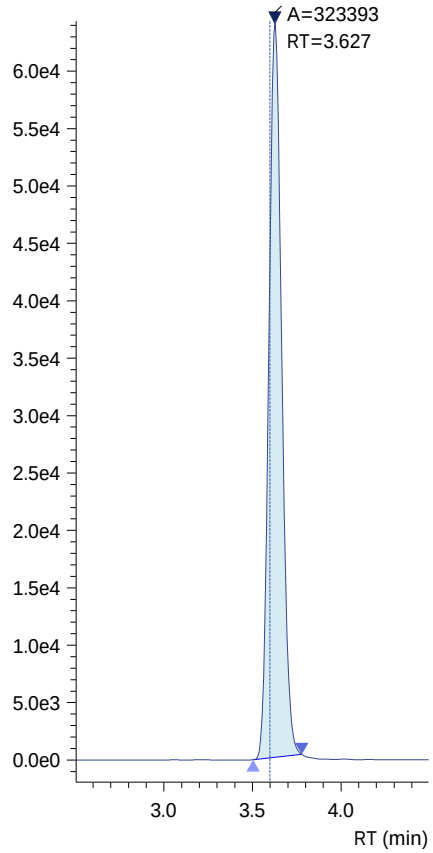
R1 101.00>85.00 (-) 2.52e2



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 6.44e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

CCV

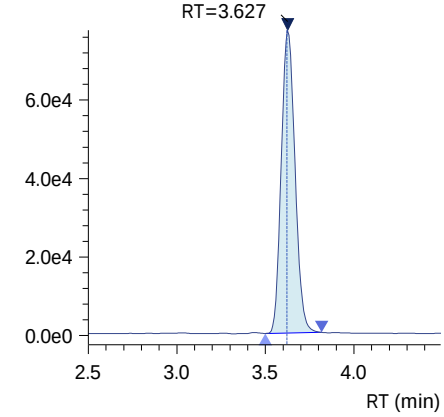
Sample ID: CCV
Date Acquired: 6/30/2023 10:51:41 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-026.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.627	416066	239697	10.6809	ng /mL	101.00 >85.00	30.43	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.623	239697	239697	1.0000	ng /mL	----	----	

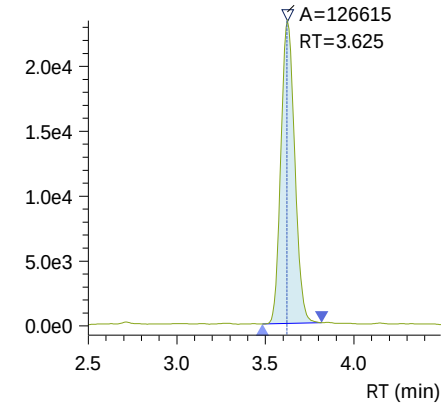
Perchlorate

Conc 10.6809
R#1 30.43 (31.12)

Q 99.00>83.00 (-) A=416066 RT=3.627 7.78e4



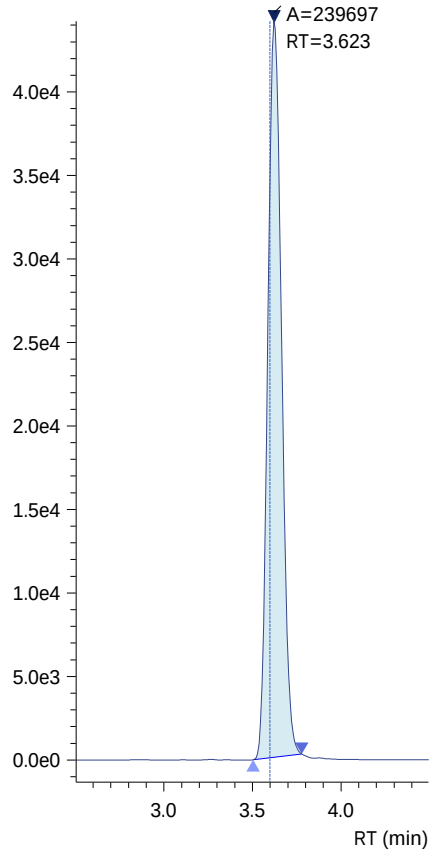
R1 101.00>85.00 (-) 2.35e4



Sodium Perchlorate-18O4_IS

Conc 1.0000

ISTD 107.00>89.00 (-) 4.42e4



Insight Report

Printed at 6/30/2023 1:10:51 PM

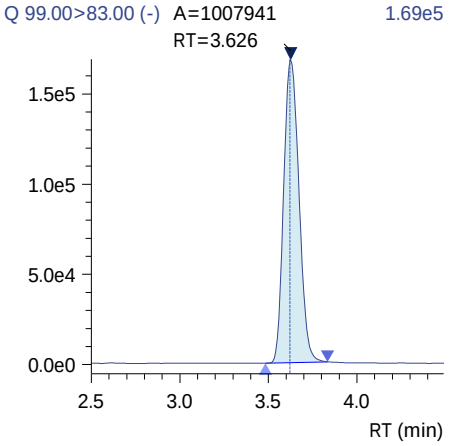
E2300614-003x2000

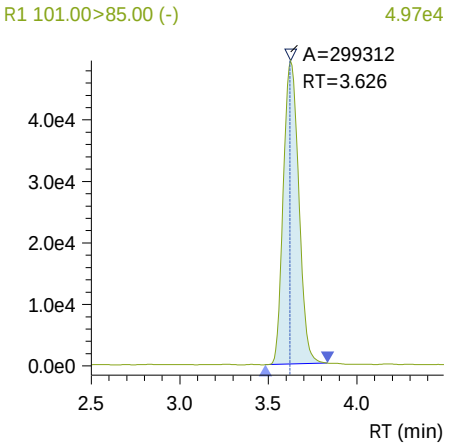
Sample ID: E2300614-003
Date Acquired: 6/30/2023 11:19:18 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-031.lcd
Vial: 31 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.626	1007941	195413	31.7385	ng /mL	101.00 >85.00	29.70	21.78 -40.45
Sodium Perchlorate-18O4_IS	Auto	3.622	195413	195413	1.0000	ng /mL	----	----	

Perchlorate

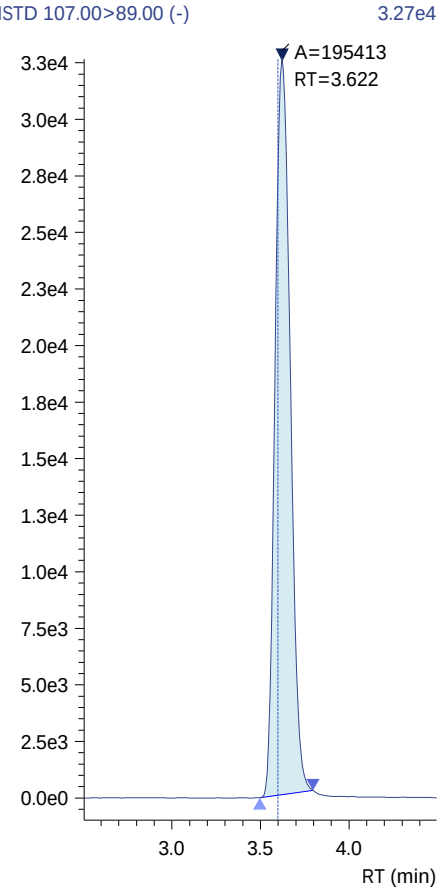
Conc 31.7385
R#1 29.70 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

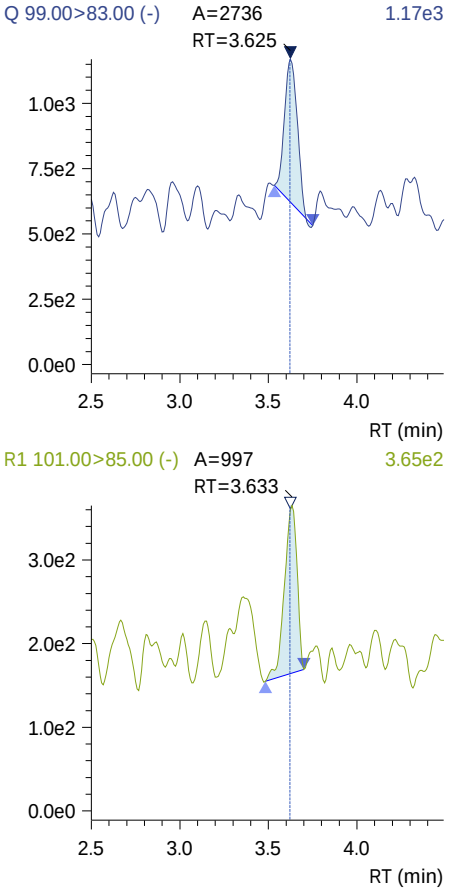
E2300614-005

Sample ID: E2300614-005
Date Acquired: 6/30/2023 11:24:49 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-032.lcd
Vial: 33 | Inj. Volume: 10.0000uL | Tray: 5

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.625	2736	323461	0.0520	ng /mL	101.00 >85.00	36.42	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.622	323461	323461	1.0000	ng /mL	----	----	

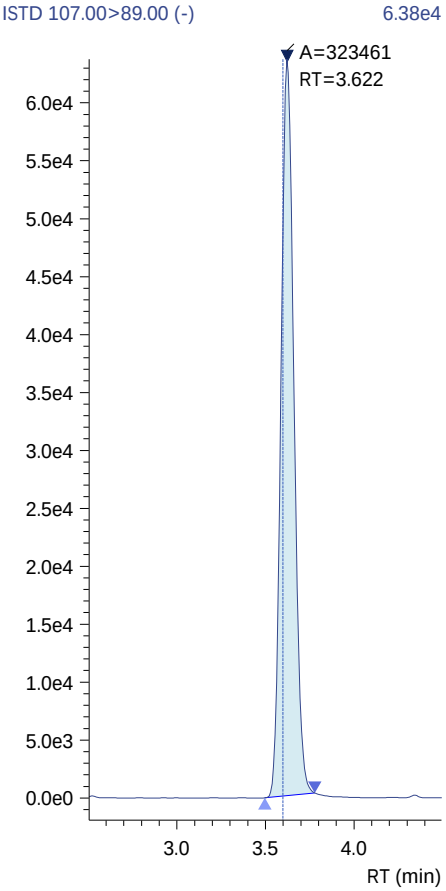
Perchlorate

Conc 0.0520
R#1 36.42 (31.12)



Sodium Perchlorate-18O4_IS

Conc 1.0000



Insight Report

Printed at 6/30/2023 1:10:51 PM

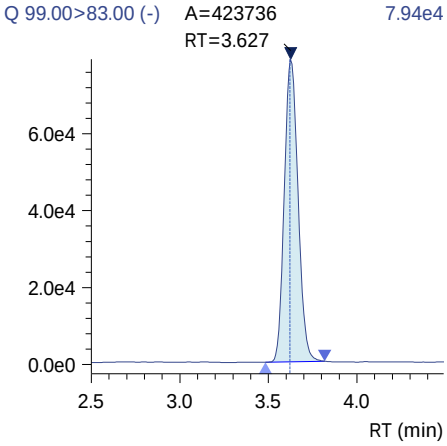
CCV

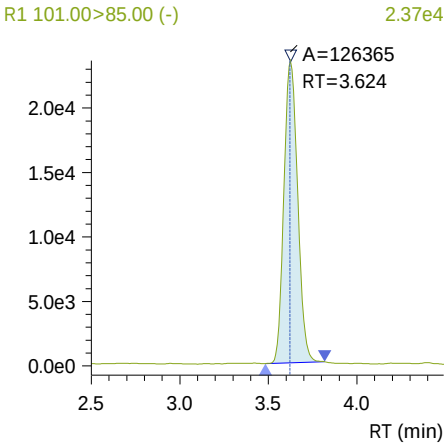
Sample ID: CCV
Date Acquired: 6/30/2023 11:30:22 AM
Acquired by: System Administrator
Data File: I:\LCMS01\DATA\20230630\20230630-033.lcd
Vial: 3 | Inj. Volume: 10.0000uL | Tray: 0

Name	Mode ID	Found RT	Area	ISTD Area	Conc.	Unit	Ref 1 m/z	Ref 1 Actual Ratio	Comment 1
Perchlorate	Auto	3.627	423736	247134	10.5504	ng /mL	101.00 >85.00	29.82	21.78 -40.45
Sodium Perchlorate-18O4 _IS	Auto	3.622	247134	247134	1.0000	ng /mL	----	----	

Perchlorate

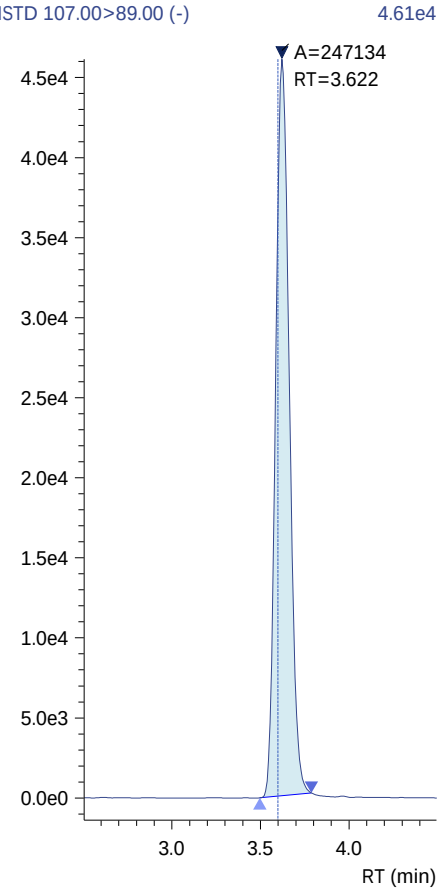
Conc 10.5504
R#1 29.82 (31.12)





Sodium Perchlorate-18O4_IS

Conc 1.0000



HS23061925 LHAAP ICT Wells Cover Page

ALS WO# HS23061925

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

Table of Contents

HS23061925 LHAAP ICT Wells Cover Page
- CoverPage
- HS23061925 LHAAP ICT Wells Final
  - CoverLetter
  - Sample Summary
  - CaseNarrative
  - ICT2_062723
  - ICT4_062723
  - ICT4_062723_a
  - ICT7_062723
  - ICT8_062723
  - ICT11_062723
  - ICT12A_062723
  - ICT12B_062723
  - ICT12C_062723
  - ICT12D_062723
  - ICT12E_062723
  - ICT13A_062723
  - ICT13B_062723
  - ICT13B_062723_a
  - ICT13C_062723
  - ICT13D_062723

Table of Contents (continued)

ICT13E_062723
ICT13F_062723
ICT14A_062723
ICT14B_062723
ICT14C_062723
ICT14D_062723
ICT14E_062723
Trip Blank
Weight/Volume Log
Dates Report
QC
Acronyms
Certifications
SampleReceiptCheckList
COC
HS23061925 -E2300618 Perchlorate Report-II
HS23061925-MSVOA-SW8260
Form 1 - Sample Results
Form 2 - Surrogates
Form 3A - MS/MSD
Form 3B - LCS/LCSD
Form 4 - MB Assoc
Form 5 - Tune
Form 6 - ICAL
Form 6I - ICV
Form 7 - CCV
Form 8 - ISTD
Run Log
Raw Data VOA9 437296
Raw Data VOA9 440137
Raw Data VOA9 440247
Raw Data VOA9 440378
Raw Data VOA9 440472
HS23061925 - ME - HG_W_DODICP_W_DOD
Form 11 - ICPMS06 Internal Standard Association

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

right solutions.
right partner.

WorkOrder: HS23061925

LHAAP ICT Wells

Bhate Environmental Associates, Inc.

Marcia Olive
445 Union Blvd Ste 129
Lakewood CO 80228

05-Jul-2023

HS23061925 LHAAP ICT Wells Final

ALS WO# HS23061925

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

July 17, 2023

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

Work Order: **HS23061925**

Laboratory Results for: **LHAAP ICT Wells**

Dear Marcia Olive,

ALS Environmental received 24 sample(s) on Jun 28, 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: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Work Order: HS23061925

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23061925-01	ICT2_062723	Groundwater		27-Jun-2023 07:35	28-Jun-2023 09:40	
HS23061925-02	ICT4_062723	Groundwater		27-Jun-2023 07:45	28-Jun-2023 09:40	
HS23061925-03	ICT4_062723_a	Groundwater		27-Jun-2023 07:45	28-Jun-2023 09:40	
HS23061925-04	ICT7_062723	Groundwater		27-Jun-2023 07:55	28-Jun-2023 09:40	
HS23061925-05	ICT8_062723	Groundwater		27-Jun-2023 08:10	28-Jun-2023 09:40	
HS23061925-06	ICT11_062723	Groundwater		27-Jun-2023 08:15	28-Jun-2023 09:40	
HS23061925-07	ICT12A_062723	Groundwater		27-Jun-2023 08:25	28-Jun-2023 09:40	
HS23061925-08	ICT12B_062723	Groundwater		27-Jun-2023 08:30	28-Jun-2023 09:40	
HS23061925-09	ICT12C_062723	Groundwater		27-Jun-2023 08:40	28-Jun-2023 09:40	
HS23061925-10	ICT12D_062723	Groundwater		27-Jun-2023 08:45	28-Jun-2023 09:40	
HS23061925-11	ICT12E_062723	Groundwater		27-Jun-2023 08:55	28-Jun-2023 09:40	
HS23061925-12	ICT13A_062723	Groundwater		27-Jun-2023 09:15	28-Jun-2023 09:40	
HS23061925-13	ICT13B_062723	Groundwater		27-Jun-2023 09:25	28-Jun-2023 09:40	
HS23061925-14	ICT13B_062723_a	Groundwater		27-Jun-2023 09:25	28-Jun-2023 09:40	
HS23061925-15	ICT13C_062723	Groundwater		27-Jun-2023 09:40	28-Jun-2023 09:40	
HS23061925-16	ICT13D_062723	Groundwater		27-Jun-2023 09:45	28-Jun-2023 09:40	
HS23061925-17	ICT13E_062723	Groundwater		27-Jun-2023 09:50	28-Jun-2023 09:40	
HS23061925-18	ICT13F_062723	Groundwater		27-Jun-2023 09:55	28-Jun-2023 09:40	
HS23061925-19	ICT14A_062723	Groundwater		27-Jun-2023 10:10	28-Jun-2023 09:40	
HS23061925-20	ICT14B_062723	Groundwater		27-Jun-2023 10:15	28-Jun-2023 09:40	
HS23061925-21	ICT14C_062723	Groundwater		27-Jun-2023 10:20	28-Jun-2023 09:40	
HS23061925-22	ICT14D_062723	Groundwater		27-Jun-2023 10:30	28-Jun-2023 09:40	
HS23061925-23	ICT14E_062723	Groundwater		27-Jun-2023 10:45	28-Jun-2023 09:40	
HS23061925-24	Trip Blank	Water	CG-041923-960	27-Jun-2023 00:00	28-Jun-2023 09:40	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc. **CASE NARRATIVE**
Project: LHAAP ICT Wells
Work Order: HS23061925

Work Order Comments

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

GCMS Volatiles by Method SW8260

Batch ID: R440378

Sample ID: ICT14E_062723 (HS23061925-23)

- Lowest practical dilution due to high concentration of non-target compound.

Sample ID: ICT14D_062723 (HS23061925-22MSD)

- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MSD may be due to sample matrix interference. cis-1,2-Dichloroethene

Batch ID: R440247

Sample ID: ICT12B_062723 (HS23061925-08)

- Lowest practical dilution due to high concentration of non-target compound.

Sample ID: ICT8_062723 (HS23061925-05)

- Lowest practical dilution due to high concentration of non-target compound.

Batch ID: R440137

Sample ID: ICT11_062723 (HS23061925-06)

- Lowest practical dilution due to matrix.

Sample ID: VLCSW-230628

- Styrene exceeded QC limits for LCS. Samples are ND for this compound.

Batch ID: R440472

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

Metals by Method SW6020A

Batch ID: 197423

Sample ID: HS23061825-05MS

- MS and MSD are for an unrelated sample

Sample ID: HS23061825-05PDS

- PDS is for an unrelated sample

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Work Order: HS23061925

CASE NARRATIVE

Metals by Method SW6020A

Batch ID: 197426

Sample ID: ICT14D_062723 (HS23061925-22MS)

- The MS and/or MSD recovery was outside of the control; however, the result in the parent sample is greater than 4x the spike amount. Barium,Calcium, Manganese, Nickel, Sodium.

Sample ID: ICT14D_062723 (HS23061925-22PDS)

- The PDS recovery was outside method control limits, however the result in the parent sample is greater than 4x the spike amount. Iron.

Metals by Method SW7470A

Batch ID: 197418,197421

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT2_062723
Collection Date: 27-Jun-2023 07:35

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-01
Matrix:Groundwater

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	28-Jun-2023 20:11
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,2-Dichloroethane	**4.5**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 20:11
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:11
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 20:11
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 20:11
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:11
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 20:11
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 20:11
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 20:11
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT2_062723
Collection Date: 27-Jun-2023 07:35

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-01
Matrix:Groundwater

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	28-Jun-2023 20:11
cis-1,2-Dichloroethene	**78**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 20:11
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 20:11
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 20:11
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:11
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
trans-1,2-Dichloroethene	**0.44**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 20:11
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Trichloroethene	**8.2**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 20:11
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:11
Vinyl chloride	**0.46**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 20:11
Surr: 1,2-Dichloroethane-d4	*104*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 20:11*
Surr: 4-Bromofluorobenzene	*91.9*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 20:11*
Surr: Dibromofluoromethane	*99.5*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 20:11*
Surr: Toluene-d8	*111*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 20:11*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT2_062723
Collection Date: 27-Jun-2023 07:35

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**1.01**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	12-Jul-2023 22:30
Antimony	**0.000580**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:30
Arsenic	**0.00359**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:30
Barium	**0.128**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:30
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:30
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:30
Calcium	**8.49**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	12-Jul-2023 22:30
Chromium	**0.0230**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:30
Cobalt	**0.0294**		**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	12-Jul-2023 22:30
Copper	**0.0422**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:30
Iron	**4.78**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:30
Lead	**0.00553**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:30
Magnesium	**8.17**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:30
Manganese	**0.586**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:30
Nickel	**0.0372**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:30
Potassium	**1.56**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	12-Jul-2023 22:30
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	12-Jul-2023 22:30
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	12-Jul-2023 22:30
Sodium	**83.3**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:30
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:30
Vanadium	**0.00275**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:30
Zinc	**0.0325**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:30
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 14:52
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT4_062723
Collection Date: 27-Jun-2023 07:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-02
Matrix:Groundwater

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	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,1,1-Trichloroethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,1,2,2-Tetrachloroethane	5.0	U	5.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,1,2-Trichloroethane	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,1-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,1-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,1-Dichloropropene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,2,3-Trichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,2,3-Trichloropropane	5.0	U	5.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,2,4-Trichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,2,4-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,2-Dibromo-3-chloropropane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,2-Dibromoethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,2-Dichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,2-Dichloroethane	**140**		**2.0**	**5.0**	**10**	**ug/L**	10	28-Jun-2023 21:19
1,2-Dichloropropane	5.0	U	5.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,3,5-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,3-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,3-Dichloropropane	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
1,4-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:19
2,2-Dichloropropane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
2-Butanone	5.0	U	5.0	5.0	20	ug/L	10	28-Jun-2023 21:19
2-Chlorotoluene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
2-Hexanone	5.0	U	10	5.0	20	ug/L	10	28-Jun-2023 21:19
4-Chlorotoluene	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:19
4-Isopropyltoluene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
4-Methyl-2-pentanone	5.0	U	7.0	5.0	20	ug/L	10	28-Jun-2023 21:19
Acetone	5.0	U	4.0	5.0	20	ug/L	10	28-Jun-2023 21:19
Benzene	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Bromobenzene	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Bromochloromethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Bromodichloromethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Bromoform	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Bromomethane	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Carbon disulfide	5.0	U	6.0	5.0	20	ug/L	10	28-Jun-2023 21:19
Carbon tetrachloride	5.0	U	5.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Chlorobenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Chloroethane	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Chloroform	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT4_062723
Collection Date: 27-Jun-2023 07:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
cis-1,2-Dichloroethene	**1,600**		**2.0**	**5.0**	**10**	**ug/L**	10	28-Jun-2023 21:19
cis-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Dibromochloromethane	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Dibromomethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Dichlorodifluoromethane	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Ethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Hexachlorobutadiene	5.0	U	10	5.0	10	ug/L	10	28-Jun-2023 21:19
Isopropylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
m,p-Xylene	10	U	5.0	10	20	ug/L	10	28-Jun-2023 21:19
Methylene chloride	5.0	U	4.0	5.0	20	ug/L	10	28-Jun-2023 21:19
n-Butylbenzene	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:19
n-Propylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Naphthalene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
o-Xylene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
sec-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Styrene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
tert-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Tetrachloroethene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Toluene	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
trans-1,2-Dichloroethene	**8.9**	J	**2.0**	**5.0**	**10**	**ug/L**	10	28-Jun-2023 21:19
trans-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Trichloroethene	**2,800**		**10**	**25**	**50**	**ug/L**	50	29-Jun-2023 18:09
Trichlorofluoromethane	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:19
Vinyl chloride	**8.4**	J	**2.0**	**5.0**	**10**	**ug/L**	10	28-Jun-2023 21:19
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*10*	*28-Jun-2023 21:19*
Surr: 1,2-Dichloroethane-d4	*105*			**0**	*81-118*	*%REC*	*50*	*29-Jun-2023 18:09*
Surr: 4-Bromofluorobenzene	*93.0*			**0**	*85-114*	*%REC*	*10*	*28-Jun-2023 21:19*
Surr: 4-Bromofluorobenzene	*93.1*			**0**	*85-114*	*%REC*	*50*	*29-Jun-2023 18:09*
Surr: Dibromofluoromethane	*99.9*			**0**	*80-119*	*%REC*	*10*	*28-Jun-2023 21:19*
Surr: Dibromofluoromethane	*97.8*			**0**	*80-119*	*%REC*	*50*	*29-Jun-2023 18:09*
Surr: Toluene-d8	*109*			**0**	*89-112*	*%REC*	*10*	*28-Jun-2023 21:19*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*50*	*29-Jun-2023 18:09*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT4_062723
Collection Date: 27-Jun-2023 07:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.0143**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	12-Jul-2023 22:33
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	12-Jul-2023 22:33
Arsenic	**0.00120**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:33
Barium	**0.114**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:33
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:33
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:33
Calcium	**22.3**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	12-Jul-2023 22:33
Chromium	**0.285**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:33
Cobalt	**0.00772**		**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	12-Jul-2023 22:33
Copper	**0.0187**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:33
Iron	**2.49**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:33
Lead	**0.000941**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:33
Magnesium	**19.2**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:33
Manganese	**0.154**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:33
Nickel	**0.686**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:33
Potassium	**1.59**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	12-Jul-2023 22:33
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	12-Jul-2023 22:33
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	12-Jul-2023 22:33
Sodium	**176**		**0.280**	**1.00**	**4.00**	**mg/L**	20	13-Jul-2023 12:42
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:33
Vanadium	**0.00264**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:33
Zinc	**0.147**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:33
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 14:54
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT4_062723_a
Collection Date: 27-Jun-2023 07:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-03
Matrix:Groundwater

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	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,1,1-Trichloroethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,1,2,2-Tetrachloroethane	5.0	U	5.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,1,2-Trichloroethane	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,1-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,1-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,1-Dichloropropene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,2,3-Trichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,2,3-Trichloropropane	5.0	U	5.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,2,4-Trichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,2,4-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,2-Dibromo-3-chloropropane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,2-Dibromoethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,2-Dichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,2-Dichloroethane	**330**		**2.0**	**5.0**	**10**	**ug/L**	10	28-Jun-2023 21:41
1,2-Dichloropropane	5.0	U	5.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,3,5-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,3-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,3-Dichloropropane	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
1,4-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:41
2,2-Dichloropropane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
2-Butanone	5.0	U	5.0	5.0	20	ug/L	10	28-Jun-2023 21:41
2-Chlorotoluene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
2-Hexanone	5.0	U	10	5.0	20	ug/L	10	28-Jun-2023 21:41
4-Chlorotoluene	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:41
4-Isopropyltoluene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
4-Methyl-2-pentanone	5.0	U	7.0	5.0	20	ug/L	10	28-Jun-2023 21:41
Acetone	5.0	U	4.0	5.0	20	ug/L	10	28-Jun-2023 21:41
Benzene	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Bromobenzene	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Bromochloromethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Bromodichloromethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Bromoform	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Bromomethane	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Carbon disulfide	5.0	U	6.0	5.0	20	ug/L	10	28-Jun-2023 21:41
Carbon tetrachloride	5.0	U	5.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Chlorobenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Chloroethane	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Chloroform	**11**		**2.0**	**5.0**	**10**	**ug/L**	10	28-Jun-2023 21:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT4_062723_a
Collection Date: 27-Jun-2023 07:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
cis-1,2-Dichloroethene	**3,600**		**20**	**50**	**100**	**ug/L**	100	29-Jun-2023 18:32
cis-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Dibromochloromethane	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Dibromomethane	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Dichlorodifluoromethane	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Ethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Hexachlorobutadiene	5.0	U	10	5.0	10	ug/L	10	28-Jun-2023 21:41
Isopropylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
m,p-Xylene	10	U	5.0	10	20	ug/L	10	28-Jun-2023 21:41
Methylene chloride	5.0	U	4.0	5.0	20	ug/L	10	28-Jun-2023 21:41
n-Butylbenzene	5.0	U	4.0	5.0	10	ug/L	10	28-Jun-2023 21:41
n-Propylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Naphthalene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
o-Xylene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
sec-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Styrene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
tert-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Tetrachloroethene	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Toluene	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
trans-1,2-Dichloroethene	**25**		**2.0**	**5.0**	**10**	**ug/L**	10	28-Jun-2023 21:41
trans-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Trichloroethene	**6,200**		**20**	**50**	**100**	**ug/L**	100	29-Jun-2023 18:32
Trichlorofluoromethane	5.0	U	3.0	5.0	10	ug/L	10	28-Jun-2023 21:41
Vinyl chloride	**55**		**2.0**	**5.0**	**10**	**ug/L**	10	28-Jun-2023 21:41
Surr: 1,2-Dichloroethane-d4	*108*			**0**	*81-118*	*%REC*	*10*	*28-Jun-2023 21:41*
Surr: 1,2-Dichloroethane-d4	*103*			**0**	*81-118*	*%REC*	*100*	*29-Jun-2023 18:32*
Surr: 4-Bromofluorobenzene	*93.9*			**0**	*85-114*	*%REC*	*10*	*28-Jun-2023 21:41*
Surr: 4-Bromofluorobenzene	*94.8*			**0**	*85-114*	*%REC*	*100*	*29-Jun-2023 18:32*
Surr: Dibromofluoromethane	*102*			**0**	*80-119*	*%REC*	*10*	*28-Jun-2023 21:41*
Surr: Dibromofluoromethane	*98.6*			**0**	*80-119*	*%REC*	*100*	*29-Jun-2023 18:32*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*10*	*28-Jun-2023 21:41*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*100*	*29-Jun-2023 18:32*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT4_062723_a
Collection Date: 27-Jun-2023 07:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.00573**	J	**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	12-Jul-2023 22:35
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	12-Jul-2023 22:35
Arsenic	**0.000451**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:35
Barium	**0.135**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:35
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:35
Cadmium	**0.000256**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	12-Jul-2023 22:35
Calcium	**28.4**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	12-Jul-2023 22:35
Chromium	**0.0402**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:35
Cobalt	**0.00534**		**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	12-Jul-2023 22:35
Copper	**0.00219**	J	**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:35
Iron	**0.696**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:35
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	12-Jul-2023 22:35
Magnesium	**24.1**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:35
Manganese	**0.200**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:35
Nickel	**0.252**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:35
Potassium	**1.54**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	12-Jul-2023 22:35
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	12-Jul-2023 22:35
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	12-Jul-2023 22:35
Sodium	**176**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:35
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:35
Vanadium	**0.000798**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:35
Zinc	**0.0611**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:35
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:03
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT7_062723
Collection Date: 27-Jun-2023 07:55

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-04
Matrix:Groundwater

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	28-Jun-2023 18:19
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:19
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 18:19
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 18:19
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:19
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 18:19
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 18:19
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 18:19
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT7_062723
Collection Date: 27-Jun-2023 07:55

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-04
Matrix:Groundwater

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	28-Jun-2023 18:19
cis-1,2-Dichloroethene	**2.7**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 18:19
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 18:19
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 18:19
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:19
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Trichloroethene	**13**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 18:19
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:19
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 18:19*
Surr: 4-Bromofluorobenzene	*93.0*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 18:19*
Surr: Dibromofluoromethane	*99.5*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 18:19*
Surr: Toluene-d8	*109*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 18:19*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT7_062723
Collection Date: 27-Jun-2023 07:55

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.151**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	12-Jul-2023 22:37
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	12-Jul-2023 22:37
Arsenic	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	12-Jul-2023 22:37
Barium	**0.205**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:37
Beryllium	**0.000219**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	12-Jul-2023 22:37
Cadmium	**0.000207**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	12-Jul-2023 22:37
Calcium	**13.0**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	12-Jul-2023 22:37
Chromium	**0.117**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:37
Cobalt	**0.0128**		**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	12-Jul-2023 22:37
Copper	**0.00517**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:37
Iron	**2.75**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:37
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	12-Jul-2023 22:37
Magnesium	**10.5**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:37
Manganese	**0.386**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:37
Nickel	**0.653**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	12-Jul-2023 22:37
Potassium	**1.23**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	12-Jul-2023 22:37
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	12-Jul-2023 22:37
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	12-Jul-2023 22:37
Sodium	**41.6**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	12-Jul-2023 22:37
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	12-Jul-2023 22:37
Vanadium	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	12-Jul-2023 22:37
Zinc	**0.0770**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	12-Jul-2023 22:37
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:05
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT8_062723
Collection Date: 27-Jun-2023 08:10

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-05
Matrix:Groundwater

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	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
1,1,1-Trichloroethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
1,1,2,2-Tetrachloroethane	12	U	12	12	25	ug/L	25	29-Jun-2023 19:17
1,1,2-Trichloroethane	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
1,1-Dichloroethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
1,1-Dichloroethene	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
1,1-Dichloropropene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
1,2,3-Trichlorobenzene	12	U	10	12	25	ug/L	25	29-Jun-2023 19:17
1,2,3-Trichloropropane	12	U	12	12	25	ug/L	25	29-Jun-2023 19:17
1,2,4-Trichlorobenzene	12	U	12	12	25	ug/L	25	29-Jun-2023 19:17
1,2,4-Trimethylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
1,2-Dibromo-3-chloropropane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
1,2-Dibromoethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
1,2-Dichlorobenzene	12	U	12	12	25	ug/L	25	29-Jun-2023 19:17
1,2-Dichloroethane	**28**		**5.0**	**12**	**25**	**ug/L**	25	29-Jun-2023 19:17
1,2-Dichloropropane	12	U	12	12	25	ug/L	25	29-Jun-2023 19:17
1,3,5-Trimethylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
1,3-Dichlorobenzene	12	U	10	12	25	ug/L	25	29-Jun-2023 19:17
1,3-Dichloropropane	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
1,4-Dichlorobenzene	12	U	10	12	25	ug/L	25	29-Jun-2023 19:17
2,2-Dichloropropane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
2-Butanone	12	U	12	12	50	ug/L	25	29-Jun-2023 19:17
2-Chlorotoluene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
2-Hexanone	12	U	25	12	50	ug/L	25	29-Jun-2023 19:17
4-Chlorotoluene	12	U	10	12	25	ug/L	25	29-Jun-2023 19:17
4-Isopropyltoluene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
4-Methyl-2-pentanone	12	U	18	12	50	ug/L	25	29-Jun-2023 19:17
Acetone	12	U	10	12	50	ug/L	25	29-Jun-2023 19:17
Benzene	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
Bromobenzene	12	U	10	12	25	ug/L	25	29-Jun-2023 19:17
Bromochloromethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
Bromodichloromethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
Bromoform	12	U	10	12	25	ug/L	25	29-Jun-2023 19:17
Bromomethane	12	U	10	12	25	ug/L	25	29-Jun-2023 19:17
Carbon disulfide	12	U	15	12	50	ug/L	25	29-Jun-2023 19:17
Carbon tetrachloride	12	U	12	12	25	ug/L	25	29-Jun-2023 19:17
Chlorobenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
Chloroethane	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
Chloroform	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT8_062723
Collection Date: 27-Jun-2023 08:10

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
cis-1,2-Dichloroethene	**1,000**		**5.0**	**12**	**25**	**ug/L**	25	29-Jun-2023 19:17
cis-1,3-Dichloropropene	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
Dibromochloromethane	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
Dibromomethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
Dichlorodifluoromethane	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
Ethylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
Hexachlorobutadiene	12	U	25	12	25	ug/L	25	29-Jun-2023 19:17
Isopropylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
m,p-Xylene	25	U	12	25	50	ug/L	25	29-Jun-2023 19:17
Methylene chloride	12	U	10	12	50	ug/L	25	29-Jun-2023 19:17
n-Butylbenzene	12	U	10	12	25	ug/L	25	29-Jun-2023 19:17
n-Propylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
Naphthalene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
o-Xylene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
sec-Butylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
Styrene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
tert-Butylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
Tetrachloroethene	**56**		**7.5**	**12**	**25**	**ug/L**	25	29-Jun-2023 19:17
Toluene	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
trans-1,2-Dichloroethene	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
trans-1,3-Dichloropropene	12	U	5.0	12	25	ug/L	25	29-Jun-2023 19:17
Trichloroethene	**1,500**		**5.0**	**12**	**25**	**ug/L**	25	29-Jun-2023 19:17
Trichlorofluoromethane	12	U	7.5	12	25	ug/L	25	29-Jun-2023 19:17
Vinyl chloride	**210**		**5.0**	**12**	**25**	**ug/L**	25	29-Jun-2023 19:17
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*25*	*29-Jun-2023 19:17*
Surr: 4-Bromofluorobenzene	*92.4*			**0**	*85-114*	*%REC*	*25*	*29-Jun-2023 19:17*
Surr: Dibromofluoromethane	*97.2*			**0**	*80-119*	*%REC*	*25*	*29-Jun-2023 19:17*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*25*	*29-Jun-2023 19:17*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT8_062723
Collection Date: 27-Jun-2023 08:10

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.212**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:29
Antimony	**0.000716**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:29
Arsenic	**0.00647**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:29
Barium	**0.402**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:29
Beryllium	**0.000343**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 21:29
Cadmium	**0.000681**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 21:29
Calcium	**12.0**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:29
Chromium	**0.673**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:29
Cobalt	**0.00167**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:29
Copper	**0.279**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:29
Iron	**16.6**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:29
Lead	**0.00157**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:29
Magnesium	**9.58**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:29
Manganese	**0.217**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:29
Nickel	**0.0508**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:29
Potassium	**1.10**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:29
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 21:29
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:29
Sodium	**59.4**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:29
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:29
Vanadium	**0.00919**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:29
Zinc	**1.06**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:29
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:07
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT11_062723
Collection Date: 27-Jun-2023 08:15

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-06
Matrix:Groundwater

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	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
1,1,1-Trichloroethane	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
1,1,2,2-Tetrachloroethane	10	U	10	10	20	ug/L	20	28-Jun-2023 20:56
1,1,2-Trichloroethane	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
1,1-Dichloroethane	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
1,1-Dichloroethene	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
1,1-Dichloropropene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
1,2,3-Trichlorobenzene	10	U	8.0	10	20	ug/L	20	28-Jun-2023 20:56
1,2,3-Trichloropropane	10	U	10	10	20	ug/L	20	28-Jun-2023 20:56
1,2,4-Trichlorobenzene	10	U	10	10	20	ug/L	20	28-Jun-2023 20:56
1,2,4-Trimethylbenzene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
1,2-Dibromo-3-chloropropane	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
1,2-Dibromoethane	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
1,2-Dichlorobenzene	10	U	10	10	20	ug/L	20	28-Jun-2023 20:56
1,2-Dichloroethane	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
1,2-Dichloropropane	10	U	10	10	20	ug/L	20	28-Jun-2023 20:56
1,3,5-Trimethylbenzene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
1,3-Dichlorobenzene	10	U	8.0	10	20	ug/L	20	28-Jun-2023 20:56
1,3-Dichloropropane	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
1,4-Dichlorobenzene	10	U	8.0	10	20	ug/L	20	28-Jun-2023 20:56
2,2-Dichloropropane	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
2-Butanone	10	U	10	10	40	ug/L	20	28-Jun-2023 20:56
2-Chlorotoluene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
2-Hexanone	10	U	20	10	40	ug/L	20	28-Jun-2023 20:56
4-Chlorotoluene	10	U	8.0	10	20	ug/L	20	28-Jun-2023 20:56
4-Isopropyltoluene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
4-Methyl-2-pentanone	10	U	14	10	40	ug/L	20	28-Jun-2023 20:56
Acetone	10	U	8.0	10	40	ug/L	20	28-Jun-2023 20:56
Benzene	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
Bromobenzene	10	U	8.0	10	20	ug/L	20	28-Jun-2023 20:56
Bromochloromethane	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
Bromodichloromethane	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
Bromoform	10	U	8.0	10	20	ug/L	20	28-Jun-2023 20:56
Bromomethane	10	U	8.0	10	20	ug/L	20	28-Jun-2023 20:56
Carbon disulfide	10	U	12	10	40	ug/L	20	28-Jun-2023 20:56
Carbon tetrachloride	10	U	10	10	20	ug/L	20	28-Jun-2023 20:56
Chlorobenzene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
Chloroethane	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
Chloroform	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT11_062723
Collection Date: 27-Jun-2023 08:15

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-06
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
cis-1,2-Dichloroethene	**59**		**4.0**	**10**	**20**	**ug/L**	20	28-Jun-2023 20:56
cis-1,3-Dichloropropene	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
Dibromochloromethane	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
Dibromomethane	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
Dichlorodifluoromethane	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
Ethylbenzene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
Hexachlorobutadiene	10	U	20	10	20	ug/L	20	28-Jun-2023 20:56
Isopropylbenzene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
m,p-Xylene	20	U	10	20	40	ug/L	20	28-Jun-2023 20:56
Methylene chloride	10	U	8.0	10	40	ug/L	20	28-Jun-2023 20:56
n-Butylbenzene	10	U	8.0	10	20	ug/L	20	28-Jun-2023 20:56
n-Propylbenzene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
Naphthalene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
o-Xylene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
sec-Butylbenzene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
Styrene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
tert-Butylbenzene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
Tetrachloroethene	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
Toluene	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
trans-1,2-Dichloroethene	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
trans-1,3-Dichloropropene	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
Trichloroethene	**250**		**4.0**	**10**	**20**	**ug/L**	20	28-Jun-2023 20:56
Trichlorofluoromethane	10	U	6.0	10	20	ug/L	20	28-Jun-2023 20:56
Vinyl chloride	10	U	4.0	10	20	ug/L	20	28-Jun-2023 20:56
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*20*	*28-Jun-2023 20:56*
Surr: 4-Bromofluorobenzene	*93.2*			**0**	*85-114*	*%REC*	*20*	*28-Jun-2023 20:56*
Surr: Dibromofluoromethane	*97.9*			**0**	*80-119*	*%REC*	*20*	*28-Jun-2023 20:56*
Surr: Toluene-d8	*109*			**0**	*89-112*	*%REC*	*20*	*28-Jun-2023 20:56*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT11_062723
Collection Date: 27-Jun-2023 08:15

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-06
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.00913**	J	**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:32
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 21:32
Arsenic	**0.000481**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:32
Barium	**0.157**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:32
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:32
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:32
Calcium	**6.57**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:32
Chromium	**0.0687**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:32
Cobalt	**0.000274**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:32
Copper	**0.0206**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:32
Iron	**0.532**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:32
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 21:32
Magnesium	**4.93**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:32
Manganese	**0.00996**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:32
Nickel	**0.0574**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:32
Potassium	**0.727**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:32
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 21:32
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:32
Sodium	**50.1**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:32
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:32
Vanadium	**0.00102**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:32
Zinc	**0.0961**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:32
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:09
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12A_062723
Collection Date: 27-Jun-2023 08:25

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-07
Matrix:Groundwater

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	30-Jun-2023 18:26
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,2-Dichloroethane	**1.8**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 18:26
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:26
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	30-Jun-2023 18:26
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	30-Jun-2023 18:26
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:26
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	30-Jun-2023 18:26
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	30-Jun-2023 18:26
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	30-Jun-2023 18:26
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Chloroform	**1.7**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 18:26

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12A_062723
Collection Date: 27-Jun-2023 08:25

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-07
Matrix:Groundwater

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	30-Jun-2023 18:26
cis-1,2-Dichloroethene	**4.9**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 18:26
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	30-Jun-2023 18:26
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	30-Jun-2023 18:26
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:26
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Trichloroethene	**360**		**1.0**	**2.5**	**5.0**	**ug/L**	5	29-Jun-2023 20:01
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:26
Surr: 1,2-Dichloroethane-d4	*105*			**0**	*81-118*	*%REC*	*5*	*29-Jun-2023 20:01*
Surr: 1,2-Dichloroethane-d4	*102*			**0**	*81-118*	*%REC*	*1*	*30-Jun-2023 18:26*
Surr: 4-Bromofluorobenzene	*90.5*			**0**	*85-114*	*%REC*	*5*	*29-Jun-2023 20:01*
Surr: 4-Bromofluorobenzene	*93.0*			**0**	*85-114*	*%REC*	*1*	*30-Jun-2023 18:26*
Surr: Dibromofluoromethane	*99.9*			**0**	*80-119*	*%REC*	*5*	*29-Jun-2023 20:01*
Surr: Dibromofluoromethane	*97.7*			**0**	*80-119*	*%REC*	*1*	*30-Jun-2023 18:26*
Surr: Toluene-d8	*110*			**0**	*89-112*	*%REC*	*5*	*29-Jun-2023 20:01*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*1*	*30-Jun-2023 18:26*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12A_062723
Collection Date: 27-Jun-2023 08:25

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-07
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.0673**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:34
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 21:34
Arsenic	**0.000455**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:34
Barium	**0.711**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:34
Beryllium	**0.00283**		**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 21:34
Cadmium	**0.00161**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 21:34
Calcium	**14.6**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:34
Chromium	**0.364**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:34
Cobalt	**0.0103**		**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:34
Copper	**0.0718**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:34
Iron	**2.98**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:34
Lead	**0.00891**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:34
Magnesium	**12.9**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:34
Manganese	**0.205**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:34
Nickel	**0.848**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:34
Potassium	**1.06**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:34
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 21:34
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:34
Sodium	**79.0**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:34
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:34
Vanadium	**0.00123**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:34
Zinc	**0.188**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:34
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:10
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12B_062723
Collection Date: 27-Jun-2023 08:30

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-08
Matrix:Groundwater

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	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
1,1,1-Trichloroethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
1,1,2,2-Tetrachloroethane	12	U	12	12	25	ug/L	25	29-Jun-2023 20:46
1,1,2-Trichloroethane	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
1,1-Dichloroethane	**10**	J	**5.0**	**12**	**25**	**ug/L**	25	29-Jun-2023 20:46
1,1-Dichloroethene	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
1,1-Dichloropropene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
1,2,3-Trichlorobenzene	12	U	10	12	25	ug/L	25	29-Jun-2023 20:46
1,2,3-Trichloropropane	12	U	12	12	25	ug/L	25	29-Jun-2023 20:46
1,2,4-Trichlorobenzene	12	U	12	12	25	ug/L	25	29-Jun-2023 20:46
1,2,4-Trimethylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
1,2-Dibromo-3-chloropropane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
1,2-Dibromoethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
1,2-Dichlorobenzene	12	U	12	12	25	ug/L	25	29-Jun-2023 20:46
1,2-Dichloroethane	**27**		**5.0**	**12**	**25**	**ug/L**	25	29-Jun-2023 20:46
1,2-Dichloropropane	12	U	12	12	25	ug/L	25	29-Jun-2023 20:46
1,3,5-Trimethylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
1,3-Dichlorobenzene	12	U	10	12	25	ug/L	25	29-Jun-2023 20:46
1,3-Dichloropropane	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
1,4-Dichlorobenzene	12	U	10	12	25	ug/L	25	29-Jun-2023 20:46
2,2-Dichloropropane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
2-Butanone	12	U	12	12	50	ug/L	25	29-Jun-2023 20:46
2-Chlorotoluene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
2-Hexanone	12	U	25	12	50	ug/L	25	29-Jun-2023 20:46
4-Chlorotoluene	12	U	10	12	25	ug/L	25	29-Jun-2023 20:46
4-Isopropyltoluene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
4-Methyl-2-pentanone	12	U	18	12	50	ug/L	25	29-Jun-2023 20:46
Acetone	12	U	10	12	50	ug/L	25	29-Jun-2023 20:46
Benzene	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
Bromobenzene	12	U	10	12	25	ug/L	25	29-Jun-2023 20:46
Bromochloromethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
Bromodichloromethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
Bromoform	12	U	10	12	25	ug/L	25	29-Jun-2023 20:46
Bromomethane	12	U	10	12	25	ug/L	25	29-Jun-2023 20:46
Carbon disulfide	12	U	15	12	50	ug/L	25	29-Jun-2023 20:46
Carbon tetrachloride	12	U	12	12	25	ug/L	25	29-Jun-2023 20:46
Chlorobenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
Chloroethane	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
Chloroform	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12B_062723
Collection Date: 27-Jun-2023 08:30

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-08
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
cis-1,2-Dichloroethene	**1,400**		**5.0**	**12**	**25**	**ug/L**	25	29-Jun-2023 20:46
cis-1,3-Dichloropropene	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
Dibromochloromethane	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
Dibromomethane	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
Dichlorodifluoromethane	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
Ethylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
Hexachlorobutadiene	12	U	25	12	25	ug/L	25	29-Jun-2023 20:46
Isopropylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
m,p-Xylene	25	U	12	25	50	ug/L	25	29-Jun-2023 20:46
Methylene chloride	12	U	10	12	50	ug/L	25	29-Jun-2023 20:46
n-Butylbenzene	12	U	10	12	25	ug/L	25	29-Jun-2023 20:46
n-Propylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
Naphthalene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
o-Xylene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
sec-Butylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
Styrene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
tert-Butylbenzene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
Tetrachloroethene	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
Toluene	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
trans-1,2-Dichloroethene	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
trans-1,3-Dichloropropene	12	U	5.0	12	25	ug/L	25	29-Jun-2023 20:46
Trichloroethene	**4,300**		**5.0**	**12**	**25**	**ug/L**	25	29-Jun-2023 20:46
Trichlorofluoromethane	12	U	7.5	12	25	ug/L	25	29-Jun-2023 20:46
Vinyl chloride	**48**		**5.0**	**12**	**25**	**ug/L**	25	29-Jun-2023 20:46
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*25*	*29-Jun-2023 20:46*
Surr: 4-Bromofluorobenzene	*94.6*			**0**	*85-114*	*%REC*	*25*	*29-Jun-2023 20:46*
Surr: Dibromofluoromethane	*98.8*			**0**	*80-119*	*%REC*	*25*	*29-Jun-2023 20:46*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*25*	*29-Jun-2023 20:46*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12B_062723
Collection Date: 27-Jun-2023 08:30

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-08
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.0119**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:36
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 21:36
Arsenic	**0.000873**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:36
Barium	**0.190**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:36
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:36
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:36
Calcium	**17.9**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:36
Chromium	**0.0832**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:36
Cobalt	**0.00151**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:36
Copper	**0.110**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:36
Iron	**1.55**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:36
Lead	**0.00108**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:36
Magnesium	**9.42**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:36
Manganese	**0.114**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:36
Nickel	**0.110**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:36
Potassium	**0.807**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:36
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 21:36
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:36
Sodium	**76.1**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:36
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:36
Vanadium	**0.00211**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:36
Zinc	**0.0219**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:36
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:12
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12C_062723
Collection Date: 27-Jun-2023 08:40

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-09
Matrix:Groundwater

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	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,1,1-Trichloroethane	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,1,2,2-Tetrachloroethane	2.5	U	2.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,1,2-Trichloroethane	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,1-Dichloroethane	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,1-Dichloroethene	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,1-Dichloropropene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,2,3-Trichlorobenzene	2.5	U	2.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,2,3-Trichloropropane	2.5	U	2.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,2,4-Trichlorobenzene	2.5	U	2.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,2,4-Trimethylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,2-Dibromo-3-chloropropane	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,2-Dibromoethane	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,2-Dichlorobenzene	2.5	U	2.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,2-Dichloroethane	**14**		**1.0**	**2.5**	**5.0**	**ug/L**	5	30-Jun-2023 14:20
1,2-Dichloropropane	2.5	U	2.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,3,5-Trimethylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,3-Dichlorobenzene	2.5	U	2.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,3-Dichloropropane	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
1,4-Dichlorobenzene	2.5	U	2.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
2,2-Dichloropropane	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
2-Butanone	2.5	U	2.5	2.5	10	ug/L	5	30-Jun-2023 14:20
2-Chlorotoluene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
2-Hexanone	2.5	U	5.0	2.5	10	ug/L	5	30-Jun-2023 14:20
4-Chlorotoluene	2.5	U	2.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
4-Isopropyltoluene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
4-Methyl-2-pentanone	2.5	U	3.5	2.5	10	ug/L	5	30-Jun-2023 14:20
Acetone	2.5	U	2.0	2.5	10	ug/L	5	30-Jun-2023 14:20
Benzene	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Bromobenzene	2.5	U	2.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Bromochloromethane	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Bromodichloromethane	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Bromoform	2.5	U	2.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Bromomethane	2.5	U	2.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Carbon disulfide	2.5	U	3.0	2.5	10	ug/L	5	30-Jun-2023 14:20
Carbon tetrachloride	2.5	U	2.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Chlorobenzene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Chloroethane	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Chloroform	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12C_062723
Collection Date: 27-Jun-2023 08:40

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-09
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
cis-1,2-Dichloroethene	**230**		**1.0**	**2.5**	**5.0**	**ug/L**	5	30-Jun-2023 14:20
cis-1,3-Dichloropropene	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Dibromochloromethane	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Dibromomethane	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Dichlorodifluoromethane	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Ethylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Hexachlorobutadiene	2.5	U	5.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Isopropylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
m,p-Xylene	5.0	U	2.5	5.0	10	ug/L	5	30-Jun-2023 14:20
Methylene chloride	2.5	U	2.0	2.5	10	ug/L	5	30-Jun-2023 14:20
n-Butylbenzene	2.5	U	2.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
n-Propylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Naphthalene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
o-Xylene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
sec-Butylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Styrene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
tert-Butylbenzene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Tetrachloroethene	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Toluene	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
trans-1,2-Dichloroethene	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
trans-1,3-Dichloropropene	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Trichloroethene	**930**		**5.0**	**12**	**25**	**ug/L**	25	30-Jun-2023 17:41
Trichlorofluoromethane	2.5	U	1.5	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Vinyl chloride	2.5	U	1.0	2.5	5.0	ug/L	5	30-Jun-2023 14:20
Surr: 1,2-Dichloroethane-d4	*99.7*			**0**	*81-118*	*%REC*	*25*	*30-Jun-2023 17:41*
Surr: 1,2-Dichloroethane-d4	*104*			**0**	*81-118*	*%REC*	*5*	*30-Jun-2023 14:20*
Surr: 4-Bromofluorobenzene	*94.4*			**0**	*85-114*	*%REC*	*5*	*30-Jun-2023 14:20*
Surr: 4-Bromofluorobenzene	*94.6*			**0**	*85-114*	*%REC*	*25*	*30-Jun-2023 17:41*
Surr: Dibromofluoromethane	*99.5*			**0**	*80-119*	*%REC*	*5*	*30-Jun-2023 14:20*
Surr: Dibromofluoromethane	*96.6*			**0**	*80-119*	*%REC*	*25*	*30-Jun-2023 17:41*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*5*	*30-Jun-2023 14:20*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*25*	*30-Jun-2023 17:41*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12C_062723
Collection Date: 27-Jun-2023 08:40

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-09
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.108**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:38
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 21:38
Arsenic	**0.00316**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:38
Barium	**0.0947**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:38
Beryllium	**0.000472**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 21:38
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:38
Calcium	**4.54**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:38
Chromium	**1.37**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:38
Cobalt	**0.00272**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:38
Copper	**0.144**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:38
Iron	**17.9**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:38
Lead	**0.00316**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:38
Magnesium	**3.12**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:38
Manganese	**0.111**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:38
Nickel	**0.175**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:38
Potassium	**0.404**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:38
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 21:38
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:38
Sodium	**50.1**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:38
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:38
Vanadium	**0.0131**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:38
Zinc	**0.180**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:38
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:14
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12D_062723
Collection Date: 27-Jun-2023 08:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-10
Matrix:Groundwater

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	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
1,1,1-Trichloroethane	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
1,1,2,2-Tetrachloroethane	25	U	25	25	50	ug/L	50	30-Jun-2023 15:49
1,1,2-Trichloroethane	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
1,1-Dichloroethane	**51**		**10**	**25**	**50**	**ug/L**	50	30-Jun-2023 15:49
1,1-Dichloroethene	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
1,1-Dichloropropene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
1,2,3-Trichlorobenzene	25	U	20	25	50	ug/L	50	30-Jun-2023 15:49
1,2,3-Trichloropropane	25	U	25	25	50	ug/L	50	30-Jun-2023 15:49
1,2,4-Trichlorobenzene	25	U	25	25	50	ug/L	50	30-Jun-2023 15:49
1,2,4-Trimethylbenzene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
1,2-Dibromo-3-chloropropane	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
1,2-Dibromoethane	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
1,2-Dichlorobenzene	25	U	25	25	50	ug/L	50	30-Jun-2023 15:49
1,2-Dichloroethane	**91**		**10**	**25**	**50**	**ug/L**	50	30-Jun-2023 15:49
1,2-Dichloropropane	25	U	25	25	50	ug/L	50	30-Jun-2023 15:49
1,3,5-Trimethylbenzene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
1,3-Dichlorobenzene	25	U	20	25	50	ug/L	50	30-Jun-2023 15:49
1,3-Dichloropropane	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
1,4-Dichlorobenzene	25	U	20	25	50	ug/L	50	30-Jun-2023 15:49
2,2-Dichloropropane	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
2-Butanone	25	U	25	25	100	ug/L	50	30-Jun-2023 15:49
2-Chlorotoluene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
2-Hexanone	25	U	50	25	100	ug/L	50	30-Jun-2023 15:49
4-Chlorotoluene	25	U	20	25	50	ug/L	50	30-Jun-2023 15:49
4-Isopropyltoluene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
4-Methyl-2-pentanone	25	U	35	25	100	ug/L	50	30-Jun-2023 15:49
Acetone	25	U	20	25	100	ug/L	50	30-Jun-2023 15:49
Benzene	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
Bromobenzene	25	U	20	25	50	ug/L	50	30-Jun-2023 15:49
Bromochloromethane	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
Bromodichloromethane	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
Bromoform	25	U	20	25	50	ug/L	50	30-Jun-2023 15:49
Bromomethane	25	U	20	25	50	ug/L	50	30-Jun-2023 15:49
Carbon disulfide	25	U	30	25	100	ug/L	50	30-Jun-2023 15:49
Carbon tetrachloride	25	U	25	25	50	ug/L	50	30-Jun-2023 15:49
Chlorobenzene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
Chloroethane	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
Chloroform	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12D_062723
Collection Date: 27-Jun-2023 08:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-10
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
cis-1,2-Dichloroethene	**12,000**		**100**	**250**	**500**	**ug/L**	500	03-Jul-2023 16:44
cis-1,3-Dichloropropene	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
Dibromochloromethane	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
Dibromomethane	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
Dichlorodifluoromethane	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
Ethylbenzene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
Hexachlorobutadiene	25	U	50	25	50	ug/L	50	30-Jun-2023 15:49
Isopropylbenzene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
m,p-Xylene	50	U	25	50	100	ug/L	50	30-Jun-2023 15:49
Methylene chloride	**420**		**20**	**25**	**100**	**ug/L**	50	30-Jun-2023 15:49
n-Butylbenzene	25	U	20	25	50	ug/L	50	30-Jun-2023 15:49
n-Propylbenzene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
Naphthalene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
o-Xylene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
sec-Butylbenzene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
Styrene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
tert-Butylbenzene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
Tetrachloroethene	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
Toluene	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
trans-1,2-Dichloroethene	**27**	J	**10**	**25**	**50**	**ug/L**	50	30-Jun-2023 15:49
trans-1,3-Dichloropropene	25	U	10	25	50	ug/L	50	30-Jun-2023 15:49
Trichloroethene	**24,000**		**100**	**250**	**500**	**ug/L**	500	03-Jul-2023 16:44
Trichlorofluoromethane	25	U	15	25	50	ug/L	50	30-Jun-2023 15:49
Vinyl chloride	**280**		**10**	**25**	**50**	**ug/L**	50	30-Jun-2023 15:49
Surr: 1,2-Dichloroethane-d4	*104*			**0**	*81-118*	*%REC*	*50*	*30-Jun-2023 15:49*
Surr: 1,2-Dichloroethane-d4	*97.6*			**0**	*81-118*	*%REC*	*500*	*03-Jul-2023 16:44*
Surr: 4-Bromofluorobenzene	*93.0*			**0**	*85-114*	*%REC*	*50*	*30-Jun-2023 15:49*
Surr: 4-Bromofluorobenzene	*95.2*			**0**	*85-114*	*%REC*	*500*	*03-Jul-2023 16:44*
Surr: Dibromofluoromethane	*98.6*			**0**	*80-119*	*%REC*	*50*	*30-Jun-2023 15:49*
Surr: Dibromofluoromethane	*96.0*			**0**	*80-119*	*%REC*	*500*	*03-Jul-2023 16:44*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*50*	*30-Jun-2023 15:49*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*500*	*03-Jul-2023 16:44*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12D_062723
Collection Date: 27-Jun-2023 08:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-10
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.0266**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:40
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 21:40
Arsenic	**0.00496**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:40
Barium	**0.0768**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:40
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:40
Cadmium	**0.000301**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 21:40
Calcium	**6.34**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:40
Chromium	**0.192**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:40
Cobalt	**0.0117**		**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:40
Copper	**2.23**		**0.0200**	**0.0500**	**0.100**	**mg/L**	20	14-Jul-2023 17:34
Iron	**36.2**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:40
Lead	**0.0281**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:40
Magnesium	**6.91**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:40
Manganese	**0.639**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:40
Nickel	**0.302**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:40
Potassium	**0.651**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:40
Selenium	**0.00188**	J	**0.00110**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:40
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:40
Sodium	**104**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:40
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:40
Vanadium	**0.000679**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:40
Zinc	**10.9**		**0.0400**	**0.0500**	**0.100**	**mg/L**	20	14-Jul-2023 17:34
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	**0.0000390**	J	**0.0000300**	**0.000100**	**0.000200**	**mg/L**	1	11-Jul-2023 15:15
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12E_062723
Collection Date: 27-Jun-2023 08:55

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-11
Matrix:Groundwater

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	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,1,1-Trichloroethane	5.0	U	2.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,1,2,2-Tetrachloroethane	5.0	U	5.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,1,2-Trichloroethane	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,1-Dichloroethane	**19**		**2.0**	**5.0**	**10**	**ug/L**	10	03-Jul-2023 14:30
1,1-Dichloroethene	**87**		**2.0**	**5.0**	**10**	**ug/L**	10	03-Jul-2023 14:30
1,1-Dichloropropene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,2,3-Trichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,2,3-Trichloropropane	5.0	U	5.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,2,4-Trichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,2,4-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,2-Dibromo-3-chloropropane	5.0	U	2.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,2-Dibromoethane	5.0	U	2.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,2-Dichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,2-Dichloroethane	**32**		**2.0**	**5.0**	**10**	**ug/L**	10	03-Jul-2023 14:30
1,2-Dichloropropane	5.0	U	5.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,3,5-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,3-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,3-Dichloropropane	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
1,4-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	03-Jul-2023 14:30
2,2-Dichloropropane	5.0	U	2.0	5.0	10	ug/L	10	03-Jul-2023 14:30
2-Butanone	5.0	U	5.0	5.0	20	ug/L	10	03-Jul-2023 14:30
2-Chlorotoluene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
2-Hexanone	5.0	U	10	5.0	20	ug/L	10	03-Jul-2023 14:30
4-Chlorotoluene	5.0	U	4.0	5.0	10	ug/L	10	03-Jul-2023 14:30
4-Isopropyltoluene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
4-Methyl-2-pentanone	5.0	U	7.0	5.0	20	ug/L	10	03-Jul-2023 14:30
Acetone	5.0	U	4.0	5.0	20	ug/L	10	03-Jul-2023 14:30
Benzene	5.0	U	2.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Bromobenzene	5.0	U	4.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Bromochloromethane	5.0	U	2.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Bromodichloromethane	5.0	U	2.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Bromoform	5.0	U	4.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Bromomethane	5.0	U	4.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Carbon disulfide	5.0	U	6.0	5.0	20	ug/L	10	03-Jul-2023 14:30
Carbon tetrachloride	5.0	U	5.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Chlorobenzene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Chloroethane	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Chloroform	**11**		**2.0**	**5.0**	**10**	**ug/L**	10	03-Jul-2023 14:30

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12E_062723
Collection Date: 27-Jun-2023 08:55

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-11
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	5.0	U	2.0	5.0	10	ug/L	10	03-Jul-2023 14:30
cis-1,2-Dichloroethene	**3,400**		**20**	**50**	**100**	**ug/L**	100	30-Jun-2023 16:12
cis-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Dibromochloromethane	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Dibromomethane	5.0	U	2.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Dichlorodifluoromethane	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Ethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Hexachlorobutadiene	5.0	U	10	5.0	10	ug/L	10	03-Jul-2023 14:30
Isopropylbenzene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
m,p-Xylene	10	U	5.0	10	20	ug/L	10	03-Jul-2023 14:30
Methylene chloride	5.0	U	4.0	5.0	20	ug/L	10	03-Jul-2023 14:30
n-Butylbenzene	5.0	U	4.0	5.0	10	ug/L	10	03-Jul-2023 14:30
n-Propylbenzene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Naphthalene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
o-Xylene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
sec-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Styrene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
tert-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Tetrachloroethene	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Toluene	5.0	U	2.0	5.0	10	ug/L	10	03-Jul-2023 14:30
trans-1,2-Dichloroethene	**9.5**	J	**2.0**	**5.0**	**10**	**ug/L**	10	03-Jul-2023 14:30
trans-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Trichloroethene	**7,500**		**20**	**50**	**100**	**ug/L**	100	30-Jun-2023 16:12
Trichlorofluoromethane	5.0	U	3.0	5.0	10	ug/L	10	03-Jul-2023 14:30
Vinyl chloride	**60**		**2.0**	**5.0**	**10**	**ug/L**	10	03-Jul-2023 14:30
Surr: 1,2-Dichloroethane-d4	*102*			**0**	*81-118*	*%REC*	*100*	*30-Jun-2023 16:12*
Surr: 1,2-Dichloroethane-d4	*98.5*			**0**	*81-118*	*%REC*	*10*	*03-Jul-2023 14:30*
Surr: 4-Bromofluorobenzene	*92.0*			**0**	*85-114*	*%REC*	*100*	*30-Jun-2023 16:12*
Surr: 4-Bromofluorobenzene	*96.4*			**0**	*85-114*	*%REC*	*10*	*03-Jul-2023 14:30*
Surr: Dibromofluoromethane	*98.4*			**0**	*80-119*	*%REC*	*100*	*30-Jun-2023 16:12*
Surr: Dibromofluoromethane	*95.0*			**0**	*80-119*	*%REC*	*10*	*03-Jul-2023 14:30*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*100*	*30-Jun-2023 16:12*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*10*	*03-Jul-2023 14:30*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT12E_062723
Collection Date: 27-Jun-2023 08:55

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-11
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.0753**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:46
Antimony	**0.00132**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:46
Arsenic	**0.00103**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:46
Barium	**0.0959**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:46
Beryllium	**0.000281**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 21:46
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:46
Calcium	**4.83**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:46
Chromium	**0.0351**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:46
Cobalt	**0.00810**		**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:46
Copper	**0.0226**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:46
Iron	**1.94**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:46
Lead	**0.00402**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:46
Magnesium	**4.12**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:46
Manganese	**0.217**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:46
Nickel	**0.0414**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:46
Potassium	**0.502**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:46
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 21:46
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:46
Sodium	**74.1**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:46
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:46
Vanadium	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 21:46
Zinc	**0.113**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:46
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:17
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13A_062723
Collection Date: 27-Jun-2023 09:15

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-12
Matrix:Groundwater

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	30-Jun-2023 19:33
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,1,2-Trichloroethane	**0.51**	J	**0.30**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:33
1,1-Dichloroethane	**4.3**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:33
1,1-Dichloroethene	**15**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:33
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,2-Dichloroethane	**55**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:33
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:33
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:33
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	30-Jun-2023 19:33
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	30-Jun-2023 19:33
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:33
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	30-Jun-2023 19:33
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	30-Jun-2023 19:33
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	30-Jun-2023 19:33
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Chloroform	**1.4**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:33

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13A_062723
Collection Date: 27-Jun-2023 09:15

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-12
Matrix:Groundwater

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	30-Jun-2023 19:33
cis-1,2-Dichloroethene	**330**		**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 14:42
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	30-Jun-2023 19:33
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	30-Jun-2023 19:33
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:33
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Tetrachloroethene	**2.4**		**0.30**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:33
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:33
trans-1,2-Dichloroethene	**2.7**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:33
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Trichloroethene	**1,100**		**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 14:42
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:33
Vinyl chloride	**13**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:33
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*10*	*30-Jun-2023 14:42*
Surr: 1,2-Dichloroethane-d4	*102*			**0**	*81-118*	*%REC*	*1*	*30-Jun-2023 19:33*
Surr: 4-Bromofluorobenzene	*95.8*			**0**	*85-114*	*%REC*	*10*	*30-Jun-2023 14:42*
Surr: 4-Bromofluorobenzene	*92.8*			**0**	*85-114*	*%REC*	*1*	*30-Jun-2023 19:33*
Surr: Dibromofluoromethane	*99.5*			**0**	*80-119*	*%REC*	*1*	*30-Jun-2023 19:33*
Surr: Dibromofluoromethane	*102*			**0**	*80-119*	*%REC*	*10*	*30-Jun-2023 14:42*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*10*	*30-Jun-2023 14:42*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*1*	*30-Jun-2023 19:33*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13A_062723
Collection Date: 27-Jun-2023 09:15

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-12
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.310**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:48
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 21:48
Arsenic	**0.00394**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:48
Barium	**0.0890**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:48
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:48
Cadmium	**0.000288**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 21:48
Calcium	**8.20**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:48
Chromium	**0.139**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:48
Cobalt	**0.0347**		**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:48
Copper	**0.0270**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:48
Iron	**24.5**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:48
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 21:48
Magnesium	**8.21**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:48
Manganese	**0.631**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:48
Nickel	**0.159**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:48
Potassium	**1.25**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:48
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 21:48
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:48
Sodium	**113**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:48
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:48
Vanadium	**0.00653**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:48
Zinc	**0.394**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:48
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:26
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13B_062723
Collection Date: 27-Jun-2023 09:25

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-13
Matrix:Groundwater

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	30-Jun-2023 18:49
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,2-Dichloroethane	**9.5**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 18:49
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:49
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	30-Jun-2023 18:49
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	30-Jun-2023 18:49
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:49
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	30-Jun-2023 18:49
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	30-Jun-2023 18:49
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	30-Jun-2023 18:49
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13B_062723
Collection Date: 27-Jun-2023 09:25

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-13
Matrix:Groundwater

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	30-Jun-2023 18:49
cis-1,2-Dichloroethene	**28**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 18:49
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	30-Jun-2023 18:49
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	30-Jun-2023 18:49
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 18:49
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
trans-1,2-Dichloroethene	**0.49**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 18:49
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Trichloroethene	**290**		**2.0**	**5.0**	**10**	**ug/L**	10	03-Jul-2023 17:07
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 18:49
Vinyl chloride	**0.50**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 18:49
Surr: 1,2-Dichloroethane-d4	*104*			**0**	*81-118*	*%REC*	*1*	*30-Jun-2023 18:49*
Surr: 1,2-Dichloroethane-d4	*102*			**0**	*81-118*	*%REC*	*10*	*03-Jul-2023 17:07*
Surr: 4-Bromofluorobenzene	*94.7*			**0**	*85-114*	*%REC*	*1*	*30-Jun-2023 18:49*
Surr: 4-Bromofluorobenzene	*95.1*			**0**	*85-114*	*%REC*	*10*	*03-Jul-2023 17:07*
Surr: Dibromofluoromethane	*99.8*			**0**	*80-119*	*%REC*	*1*	*30-Jun-2023 18:49*
Surr: Dibromofluoromethane	*96.4*			**0**	*80-119*	*%REC*	*10*	*03-Jul-2023 17:07*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*1*	*30-Jun-2023 18:49*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*10*	*03-Jul-2023 17:07*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13B_062723
Collection Date: 27-Jun-2023 09:25

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-13
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.00338**	J	**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:50
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 21:50
Arsenic	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 21:50
Barium	**0.103**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:50
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:50
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:50
Calcium	**8.86**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:50
Chromium	**0.000462**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:50
Cobalt	**0.00265**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:50
Copper	**0.00114**	J	**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:50
Iron	**0.154**	J	**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:50
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 21:50
Magnesium	**11.1**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:50
Manganese	**0.291**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:50
Nickel	**0.00579**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:50
Potassium	**1.72**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:50
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 21:50
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:50
Sodium	**52.0**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:50
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:50
Vanadium	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 21:50
Zinc	**0.0100**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:50
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:27
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13B_062723_a
Collection Date: 27-Jun-2023 09:25

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-14
Matrix:Groundwater

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	30-Jun-2023 19:11
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,2-Dichloroethane	**22**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:11
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:11
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	30-Jun-2023 19:11
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	30-Jun-2023 19:11
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:11
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	30-Jun-2023 19:11
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	30-Jun-2023 19:11
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	30-Jun-2023 19:11
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Chloroform	**0.62**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:11

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13B_062723_a
Collection Date: 27-Jun-2023 09:25

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-14
Matrix:Groundwater

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	30-Jun-2023 19:11
cis-1,2-Dichloroethene	**86**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:11
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	30-Jun-2023 19:11
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	30-Jun-2023 19:11
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	30-Jun-2023 19:11
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
trans-1,2-Dichloroethene	**0.92**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:11
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Trichloroethene	**570**		**2.0**	**5.0**	**10**	**ug/L**	10	03-Jul-2023 17:29
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	30-Jun-2023 19:11
Vinyl chloride	**1.1**		**0.20**	**0.50**	**1.0**	**ug/L**	1	30-Jun-2023 19:11
Surr: 1,2-Dichloroethane-d4	*103*			**0**	*81-118*	*%REC*	*1*	*30-Jun-2023 19:11*
Surr: 1,2-Dichloroethane-d4	*102*			**0**	*81-118*	*%REC*	*10*	*03-Jul-2023 17:29*
Surr: 4-Bromofluorobenzene	*93.9*			**0**	*85-114*	*%REC*	*1*	*30-Jun-2023 19:11*
Surr: 4-Bromofluorobenzene	*96.2*			**0**	*85-114*	*%REC*	*10*	*03-Jul-2023 17:29*
Surr: Dibromofluoromethane	*99.5*			**0**	*80-119*	*%REC*	*1*	*30-Jun-2023 19:11*
Surr: Dibromofluoromethane	*98.0*			**0**	*80-119*	*%REC*	*10*	*03-Jul-2023 17:29*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*1*	*30-Jun-2023 19:11*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*10*	*03-Jul-2023 17:29*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13B_062723_a
Collection Date: 27-Jun-2023 09:25

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-14
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.00678**	J	**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:52
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 21:52
Arsenic	**0.000495**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:52
Barium	**0.109**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:52
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:52
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:52
Calcium	**7.95**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:52
Chromium	**0.00136**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:52
Cobalt	**0.00162**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:52
Copper	**0.00537**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:52
Iron	**0.567**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:52
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 21:52
Magnesium	**9.79**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:52
Manganese	**0.174**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:52
Nickel	**0.0168**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:52
Potassium	**1.53**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:52
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 21:52
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:52
Sodium	**51.7**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:52
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:52
Vanadium	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 21:52
Zinc	**0.0176**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:52
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:29
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13C_062723
Collection Date: 27-Jun-2023 09:40

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-15
Matrix:Groundwater

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	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,1,1-Trichloroethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,1,2,2-Tetrachloroethane	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,1,2-Trichloroethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,1-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,1-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,1-Dichloropropene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,2,3-Trichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,2,3-Trichloropropane	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,2,4-Trichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,2,4-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,2-Dibromo-3-chloropropane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,2-Dibromoethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,2-Dichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,2-Dichloroethane	**19**		**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 15:05
1,2-Dichloropropane	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,3,5-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,3-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,3-Dichloropropane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
1,4-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:05
2,2-Dichloropropane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
2-Butanone	5.0	U	5.0	5.0	20	ug/L	10	30-Jun-2023 15:05
2-Chlorotoluene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
2-Hexanone	5.0	U	10	5.0	20	ug/L	10	30-Jun-2023 15:05
4-Chlorotoluene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:05
4-Isopropyltoluene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
4-Methyl-2-pentanone	5.0	U	7.0	5.0	20	ug/L	10	30-Jun-2023 15:05
Acetone	5.0	U	4.0	5.0	20	ug/L	10	30-Jun-2023 15:05
Benzene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Bromobenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Bromochloromethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Bromodichloromethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Bromoform	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Bromomethane	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Carbon disulfide	5.0	U	6.0	5.0	20	ug/L	10	30-Jun-2023 15:05
Carbon tetrachloride	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Chlorobenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Chloroethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Chloroform	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13C_062723
Collection Date: 27-Jun-2023 09:40

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-15
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
cis-1,2-Dichloroethene	**280**		**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 15:05
cis-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Dibromochloromethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Dibromomethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Dichlorodifluoromethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Ethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Hexachlorobutadiene	5.0	U	10	5.0	10	ug/L	10	30-Jun-2023 15:05
Isopropylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
m,p-Xylene	10	U	5.0	10	20	ug/L	10	30-Jun-2023 15:05
Methylene chloride	5.0	U	4.0	5.0	20	ug/L	10	30-Jun-2023 15:05
n-Butylbenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:05
n-Propylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Naphthalene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
o-Xylene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
sec-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Styrene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
tert-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Tetrachloroethene	**15**		**3.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 15:05
Toluene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
trans-1,2-Dichloroethene	**5.7**	J	**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 15:05
trans-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Trichloroethene	**1,900**		**5.0**	**12**	**25**	**ug/L**	25	03-Jul-2023 13:45
Trichlorofluoromethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:05
Vinyl chloride	**10**		**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 15:05
Surr: 1,2-Dichloroethane-d4	*105*			**0**	*81-118*	*%REC*	*10*	*30-Jun-2023 15:05*
Surr: 1,2-Dichloroethane-d4	*97.6*			**0**	*81-118*	*%REC*	*25*	*03-Jul-2023 13:45*
Surr: 4-Bromofluorobenzene	*95.1*			**0**	*85-114*	*%REC*	*10*	*30-Jun-2023 15:05*
Surr: 4-Bromofluorobenzene	*96.5*			**0**	*85-114*	*%REC*	*25*	*03-Jul-2023 13:45*
Surr: Dibromofluoromethane	*99.8*			**0**	*80-119*	*%REC*	*10*	*30-Jun-2023 15:05*
Surr: Dibromofluoromethane	*94.9*			**0**	*80-119*	*%REC*	*25*	*03-Jul-2023 13:45*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*10*	*30-Jun-2023 15:05*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*25*	*03-Jul-2023 13:45*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13C_062723
Collection Date: 27-Jun-2023 09:40

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-15
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.0138**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:54
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 21:54
Arsenic	**0.000657**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:54
Barium	**0.176**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:54
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:54
Cadmium	**0.000696**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 21:54
Calcium	**103**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:54
Chromium	**0.00441**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:54
Cobalt	**0.00304**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:54
Copper	**0.0158**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:54
Iron	**0.495**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:54
Lead	**0.00117**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:54
Magnesium	**96.4**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:54
Manganese	**0.700**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:54
Nickel	**0.0849**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:54
Potassium	**1.30**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:54
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 21:54
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:54
Sodium	**529**		**0.280**	**1.00**	**4.00**	**mg/L**	20	14-Jul-2023 17:36
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:54
Vanadium	**0.000694**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:54
Zinc	**0.0616**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:54
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:31
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13D_062723
Collection Date: 27-Jun-2023 09:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-16
Matrix:Groundwater

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	28-Jun-2023 18:42
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,2-Dichloroethane	**1.4**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 18:42
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:42
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 18:42
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 18:42
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:42
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 18:42
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 18:42
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 18:42
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13D_062723
Collection Date: 27-Jun-2023 09:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-16
Matrix:Groundwater

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	28-Jun-2023 18:42
cis-1,2-Dichloroethene	**13**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 18:42
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 18:42
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 18:42
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 18:42
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Trichloroethene	**31**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 18:42
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 18:42
Vinyl chloride	**0.41**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 18:42
Surr: 1,2-Dichloroethane-d4	*105*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 18:42*
Surr: 4-Bromofluorobenzene	*91.6*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 18:42*
Surr: Dibromofluoromethane	*101*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 18:42*
Surr: Toluene-d8	*110*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 18:42*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13D_062723
Collection Date: 27-Jun-2023 09:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-16
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.216**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:56
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 21:56
Arsenic	**0.000517**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:56
Barium	**0.0441**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:56
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:56
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:56
Calcium	**1.37**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:56
Chromium	**0.00442**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:56
Cobalt	**0.00410**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:56
Copper	**0.0474**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:56
Iron	**1.06**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:56
Lead	**0.0104**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:56
Magnesium	**1.51**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:56
Manganese	**0.0842**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:56
Nickel	**0.0137**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:56
Potassium	**0.497**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:56
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 21:56
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:56
Sodium	**19.0**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:56
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:56
Vanadium	**0.00161**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:56
Zinc	**0.0545**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:56
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:32
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13E_062723
Collection Date: 27-Jun-2023 09:50

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-17
Matrix:Groundwater

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	28-Jun-2023 19:04
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:04
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 19:04
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 19:04
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:04
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 19:04
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 19:04
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 19:04
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13E_062723
Collection Date: 27-Jun-2023 09:50

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-17
Matrix:Groundwater

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	28-Jun-2023 19:04
cis-1,2-Dichloroethene	**1.1**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 19:04
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 19:04
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 19:04
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:04
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Trichloroethene	**2.9**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 19:04
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:04
Surr: 1,2-Dichloroethane-d4	*104*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 19:04*
Surr: 4-Bromofluorobenzene	*93.3*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 19:04*
Surr: Dibromofluoromethane	*100*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 19:04*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 19:04*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13E_062723
Collection Date: 27-Jun-2023 09:50

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-17
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**1.14**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 22:02
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 22:02
Arsenic	**0.000407**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:02
Barium	**0.115**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:02
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:02
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:02
Calcium	**3.61**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 22:02
Chromium	**0.0618**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:02
Cobalt	**0.00281**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 22:02
Copper	**0.0106**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:02
Iron	**1.29**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:02
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 22:02
Magnesium	**3.99**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:02
Manganese	**0.0342**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:02
Nickel	**0.136**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:02
Potassium	**1.60**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 22:02
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 22:02
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 22:02
Sodium	**26.9**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:02
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:02
Vanadium	**0.00235**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:02
Zinc	**0.0682**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:02
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:34
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13F_062723
Collection Date: 27-Jun-2023 09:55

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-18
Matrix:Groundwater

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	28-Jun-2023 19:27
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:27
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 19:27
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 19:27
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:27
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 19:27
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 19:27
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 19:27
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13F_062723
Collection Date: 27-Jun-2023 09:55

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-18
Matrix:Groundwater

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	28-Jun-2023 19:27
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 19:27
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 19:27
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:27
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:27
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 19:27*
Surr: 4-Bromofluorobenzene	*93.0*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 19:27*
Surr: Dibromofluoromethane	*99.1*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 19:27*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 19:27*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT13F_062723
Collection Date: 27-Jun-2023 09:55

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-18
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.290**		**0.0360**	**0.100**	**0.200**	**mg/L**	20	14-Jul-2023 17:38
Antimony	**0.000423**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:04
Arsenic	**0.00110**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:04
Barium	**0.0719**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:04
Beryllium	**0.000240**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 22:04
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:04
Calcium	**1.14**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 22:04
Chromium	**0.00738**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:04
Cobalt	**0.00145**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 22:04
Copper	**0.00442**	J	**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:04
Iron	**2.19**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:04
Lead	**0.00198**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:04
Magnesium	**1.00**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:04
Manganese	**0.0170**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:04
Nickel	**0.00442**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:04
Potassium	**1.28**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 22:04
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 22:04
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 22:04
Sodium	**4.19**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:04
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:04
Vanadium	**0.00501**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:04
Zinc	**0.0535**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:04
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:36
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14A_062723
Collection Date: 27-Jun-2023 10:10

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-19
Matrix:Groundwater

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	28-Jun-2023 19:49
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:49
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 19:49
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 19:49
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:49
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 19:49
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 19:49
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 19:49
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14A_062723
Collection Date: 27-Jun-2023 10:10

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-19
Matrix:Groundwater

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	28-Jun-2023 19:49
cis-1,2-Dichloroethene	**23**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 19:49
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 19:49
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 19:49
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 19:49
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Trichloroethene	**14**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 19:49
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 19:49
Vinyl chloride	**0.44**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 19:49
Surr: 1,2-Dichloroethane-d4	*107*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 19:49*
Surr: 4-Bromofluorobenzene	*94.4*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 19:49*
Surr: Dibromofluoromethane	*102*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 19:49*
Surr: Toluene-d8	*109*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 19:49*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14A_062723
Collection Date: 27-Jun-2023 10:10

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-19
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.0189**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 22:06
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 22:06
Arsenic	**0.000463**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:06
Barium	**0.0623**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:06
Beryllium	**0.000271**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 22:06
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:06
Calcium	**1.85**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 22:06
Chromium	**0.00223**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:06
Cobalt	**0.00135**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 22:06
Copper	0.00250	U	0.00100	0.00250	0.00500	mg/L	1	13-Jul-2023 22:06
Iron	**1.10**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:06
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 22:06
Magnesium	**1.78**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:06
Manganese	**0.0377**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:06
Nickel	**0.00757**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:06
Potassium	**0.609**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 22:06
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 22:06
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 22:06
Sodium	**22.1**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:06
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:06
Vanadium	**0.00108**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:06
Zinc	**0.0140**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:06
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:38
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14B_062723
Collection Date: 27-Jun-2023 10:15

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-20
Matrix:Groundwater

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	28-Jun-2023 20:34
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,1-Dichloroethane	**0.87**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 20:34
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:34
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 20:34
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 20:34
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:34
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 20:34
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 20:34
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 20:34
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Chloroform	**0.71**	J	**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 20:34

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14B_062723
Collection Date: 27-Jun-2023 10:15

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-20
Matrix:Groundwater

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	28-Jun-2023 20:34
cis-1,2-Dichloroethene	**130**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 20:34
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 20:34
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 20:34
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 20:34
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
trans-1,2-Dichloroethene	**1.5**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 20:34
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Trichloroethene	**350**		**1.0**	**2.5**	**5.0**	**ug/L**	5	29-Jun-2023 18:54
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 20:34
Vinyl chloride	**1.9**		**0.20**	**0.50**	**1.0**	**ug/L**	1	28-Jun-2023 20:34
Surr: 1,2-Dichloroethane-d4	*104*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 20:34*
Surr: 1,2-Dichloroethane-d4	*106*			**0**	*81-118*	*%REC*	*5*	*29-Jun-2023 18:54*
Surr: 4-Bromofluorobenzene	*92.3*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 20:34*
Surr: 4-Bromofluorobenzene	*92.6*			**0**	*85-114*	*%REC*	*5*	*29-Jun-2023 18:54*
Surr: Dibromofluoromethane	*98.4*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 20:34*
Surr: Dibromofluoromethane	*100*			**0**	*80-119*	*%REC*	*5*	*29-Jun-2023 18:54*
Surr: Toluene-d8	*110*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 20:34*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*5*	*29-Jun-2023 18:54*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14B_062723
Collection Date: 27-Jun-2023 10:15

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-20
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.00787**	J	**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 22:08
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 22:08
Arsenic	**0.000873**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:08
Barium	**0.174**		**0.00190**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:08
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:08
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:08
Calcium	**7.48**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 22:08
Chromium	**0.0784**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:08
Cobalt	**0.00195**	J	**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 22:08
Copper	**0.0163**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:08
Iron	**2.01**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:08
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 22:08
Magnesium	**7.28**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:08
Manganese	**0.0487**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:08
Nickel	**0.133**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:08
Potassium	**0.379**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 22:08
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 22:08
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 22:08
Sodium	**69.9**		**0.0140**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:08
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:08
Vanadium	**0.00198**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:08
Zinc	**0.206**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:08
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:39
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14C_062723
Collection Date: 27-Jun-2023 10:20

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-21
Matrix:Groundwater

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	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,1,1-Trichloroethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,1,2,2-Tetrachloroethane	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,1,2-Trichloroethane	**6.3**	J	**3.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 15:27
1,1-Dichloroethane	**10**		**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 15:27
1,1-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,1-Dichloropropene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,2,3-Trichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,2,3-Trichloropropane	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,2,4-Trichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,2,4-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,2-Dibromo-3-chloropropane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,2-Dibromoethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,2-Dichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,2-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,2-Dichloropropane	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,3,5-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,3-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,3-Dichloropropane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
1,4-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:27
2,2-Dichloropropane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
2-Butanone	5.0	U	5.0	5.0	20	ug/L	10	30-Jun-2023 15:27
2-Chlorotoluene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
2-Hexanone	5.0	U	10	5.0	20	ug/L	10	30-Jun-2023 15:27
4-Chlorotoluene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:27
4-Isopropyltoluene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
4-Methyl-2-pentanone	5.0	U	7.0	5.0	20	ug/L	10	30-Jun-2023 15:27
Acetone	5.0	U	4.0	5.0	20	ug/L	10	30-Jun-2023 15:27
Benzene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Bromobenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Bromochloromethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Bromodichloromethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Bromoform	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Bromomethane	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Carbon disulfide	5.0	U	6.0	5.0	20	ug/L	10	30-Jun-2023 15:27
Carbon tetrachloride	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Chlorobenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Chloroethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Chloroform	**29**		**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 15:27

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14C_062723
Collection Date: 27-Jun-2023 10:20

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-21
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
cis-1,2-Dichloroethene	**9,000**		**40**	**100**	**200**	**ug/L**	200	03-Jul-2023 14:52
cis-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Dibromochloromethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Dibromomethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Dichlorodifluoromethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Ethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Hexachlorobutadiene	5.0	U	10	5.0	10	ug/L	10	30-Jun-2023 15:27
Isopropylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
m,p-Xylene	10	U	5.0	10	20	ug/L	10	30-Jun-2023 15:27
Methylene chloride	5.0	U	4.0	5.0	20	ug/L	10	30-Jun-2023 15:27
n-Butylbenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 15:27
n-Propylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Naphthalene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
o-Xylene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
sec-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Styrene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
tert-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Tetrachloroethene	**14**		**3.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 15:27
Toluene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
trans-1,2-Dichloroethene	**44**		**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 15:27
trans-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Trichloroethene	**9,300**		**40**	**100**	**200**	**ug/L**	200	03-Jul-2023 14:52
Trichlorofluoromethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 15:27
Vinyl chloride	**510**		**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 15:27
Surr: 1,2-Dichloroethane-d4	*104*			**0**	*81-118*	*%REC*	*10*	*30-Jun-2023 15:27*
Surr: 1,2-Dichloroethane-d4	*99.4*			**0**	*81-118*	*%REC*	*200*	*03-Jul-2023 14:52*
Surr: 4-Bromofluorobenzene	*93.4*			**0**	*85-114*	*%REC*	*10*	*30-Jun-2023 15:27*
Surr: 4-Bromofluorobenzene	*93.8*			**0**	*85-114*	*%REC*	*200*	*03-Jul-2023 14:52*
Surr: Dibromofluoromethane	*99.5*			**0**	*80-119*	*%REC*	*10*	*30-Jun-2023 15:27*
Surr: Dibromofluoromethane	*95.8*			**0**	*80-119*	*%REC*	*200*	*03-Jul-2023 14:52*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*10*	*30-Jun-2023 15:27*
Surr: Toluene-d8	*107*			**0**	*89-112*	*%REC*	*200*	*03-Jul-2023 14:52*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14C_062723
Collection Date: 27-Jun-2023 10:20

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-21
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.00889**	J	**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 22:11
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 22:11
Arsenic	**0.0105**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:11
Barium	**2.34**		**0.0380**	**0.0500**	**0.100**	**mg/L**	20	14-Jul-2023 17:39
Beryllium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:11
Cadmium	**0.000333**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 22:11
Calcium	**97.7**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 22:11
Chromium	**0.0365**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:11
Cobalt	**0.0507**		**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 22:11
Copper	**0.00251**	J	**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:11
Iron	**26.2**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:11
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 22:11
Magnesium	**77.6**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:11
Manganese	**2.56**		**0.0140**	**0.0500**	**0.100**	**mg/L**	20	14-Jul-2023 17:39
Nickel	**0.0831**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:11
Potassium	**1.01**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 22:11
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 22:11
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 22:11
Sodium	**208**		**0.280**	**1.00**	**4.00**	**mg/L**	20	14-Jul-2023 17:39
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:11
Vanadium	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 22:11
Zinc	**0.0213**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:11
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:50
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14D_062723
Collection Date: 27-Jun-2023 10:30

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-22
Matrix:Groundwater

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	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
1,1,1-Trichloroethane	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
1,1,2,2-Tetrachloroethane	12	U	12	12	25	ug/L	25	30-Jun-2023 13:58
1,1,2-Trichloroethane	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
1,1-Dichloroethane	**39**		**5.0**	**12**	**25**	**ug/L**	25	30-Jun-2023 13:58
1,1-Dichloroethene	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
1,1-Dichloropropene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
1,2,3-Trichlorobenzene	12	U	10	12	25	ug/L	25	30-Jun-2023 13:58
1,2,3-Trichloropropane	12	U	12	12	25	ug/L	25	30-Jun-2023 13:58
1,2,4-Trichlorobenzene	12	U	12	12	25	ug/L	25	30-Jun-2023 13:58
1,2,4-Trimethylbenzene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
1,2-Dibromo-3-chloropropane	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
1,2-Dibromoethane	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
1,2-Dichlorobenzene	12	U	12	12	25	ug/L	25	30-Jun-2023 13:58
1,2-Dichloroethane	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
1,2-Dichloropropane	12	U	12	12	25	ug/L	25	30-Jun-2023 13:58
1,3,5-Trimethylbenzene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
1,3-Dichlorobenzene	12	U	10	12	25	ug/L	25	30-Jun-2023 13:58
1,3-Dichloropropane	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
1,4-Dichlorobenzene	12	U	10	12	25	ug/L	25	30-Jun-2023 13:58
2,2-Dichloropropane	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
2-Butanone	12	U	12	12	50	ug/L	25	30-Jun-2023 13:58
2-Chlorotoluene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
2-Hexanone	12	U	25	12	50	ug/L	25	30-Jun-2023 13:58
4-Chlorotoluene	12	U	10	12	25	ug/L	25	30-Jun-2023 13:58
4-Isopropyltoluene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
4-Methyl-2-pentanone	12	U	18	12	50	ug/L	25	30-Jun-2023 13:58
Acetone	12	U	10	12	50	ug/L	25	30-Jun-2023 13:58
Benzene	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
Bromobenzene	12	U	10	12	25	ug/L	25	30-Jun-2023 13:58
Bromochloromethane	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
Bromodichloromethane	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
Bromoform	12	U	10	12	25	ug/L	25	30-Jun-2023 13:58
Bromomethane	12	U	10	12	25	ug/L	25	30-Jun-2023 13:58
Carbon disulfide	12	U	15	12	50	ug/L	25	30-Jun-2023 13:58
Carbon tetrachloride	12	U	12	12	25	ug/L	25	30-Jun-2023 13:58
Chlorobenzene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
Chloroethane	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
Chloroform	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14D_062723
Collection Date: 27-Jun-2023 10:30

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-22
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
cis-1,2-Dichloroethene	**20,000**		**50**	**120**	**250**	**ug/L**	250	30-Jun-2023 16:34
cis-1,3-Dichloropropene	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
Dibromochloromethane	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
Dibromomethane	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
Dichlorodifluoromethane	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
Ethylbenzene	**18**	J	**7.5**	**12**	**25**	**ug/L**	25	30-Jun-2023 13:58
Hexachlorobutadiene	12	U	25	12	25	ug/L	25	30-Jun-2023 13:58
Isopropylbenzene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
m,p-Xylene	25	U	12	25	50	ug/L	25	30-Jun-2023 13:58
Methylene chloride	**4,900**		**10**	**12**	**50**	**ug/L**	25	30-Jun-2023 13:58
n-Butylbenzene	12	U	10	12	25	ug/L	25	30-Jun-2023 13:58
n-Propylbenzene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
Naphthalene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
o-Xylene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
sec-Butylbenzene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
Styrene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
tert-Butylbenzene	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
Tetrachloroethene	**21**	J	**7.5**	**12**	**25**	**ug/L**	25	30-Jun-2023 13:58
Toluene	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
trans-1,2-Dichloroethene	**82**		**5.0**	**12**	**25**	**ug/L**	25	30-Jun-2023 13:58
trans-1,3-Dichloropropene	12	U	5.0	12	25	ug/L	25	30-Jun-2023 13:58
Trichloroethene	**980**		**5.0**	**12**	**25**	**ug/L**	25	30-Jun-2023 13:58
Trichlorofluoromethane	12	U	7.5	12	25	ug/L	25	30-Jun-2023 13:58
Vinyl chloride	**4,100**		**5.0**	**12**	**25**	**ug/L**	25	30-Jun-2023 13:58
Surr: 1,2-Dichloroethane-d4	*104*			**0**	*81-118*	*%REC*	*250*	*30-Jun-2023 16:34*
Surr: 1,2-Dichloroethane-d4	*105*			**0**	*81-118*	*%REC*	*25*	*30-Jun-2023 13:58*
Surr: 4-Bromofluorobenzene	*92.2*			**0**	*85-114*	*%REC*	*25*	*30-Jun-2023 13:58*
Surr: 4-Bromofluorobenzene	*92.9*			**0**	*85-114*	*%REC*	*250*	*30-Jun-2023 16:34*
Surr: Dibromofluoromethane	*98.9*			**0**	*80-119*	*%REC*	*250*	*30-Jun-2023 16:34*
Surr: Dibromofluoromethane	*98.7*			**0**	*80-119*	*%REC*	*25*	*30-Jun-2023 13:58*
Surr: Toluene-d8	*106*			**0**	*89-112*	*%REC*	*250*	*30-Jun-2023 16:34*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*25*	*30-Jun-2023 13:58*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14D_062723
Collection Date: 27-Jun-2023 10:30

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-22
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.0325**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 21:15
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 21:15
Arsenic	**0.0390**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:15
Barium	**2.97**		**0.0380**	**0.0500**	**0.100**	**mg/L**	20	14-Jul-2023 17:42
Beryllium	**0.000470**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 21:15
Cadmium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:15
Calcium	**103**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 21:15
Chromium	**0.0854**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:15
Cobalt	**0.0129**		**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 21:15
Copper	**0.0606**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:15
Iron	**70.3**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:15
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 21:15
Magnesium	**70.7**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 21:15
Manganese	**2.64**		**0.0140**	**0.0500**	**0.100**	**mg/L**	20	14-Jul-2023 17:42
Nickel	**0.216**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:15
Potassium	**0.951**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 21:15
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 21:15
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 21:15
Sodium	**318**		**0.280**	**1.00**	**4.00**	**mg/L**	20	14-Jul-2023 17:42
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 21:15
Vanadium	**0.000803**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 21:15
Zinc	**0.143**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 21:15
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:52
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14E_062723
Collection Date: 27-Jun-2023 10:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-23
Matrix:Groundwater

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	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,1,1-Trichloroethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,1,2,2-Tetrachloroethane	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,1,2-Trichloroethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,1-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,1-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,1-Dichloropropene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,2,3-Trichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,2,3-Trichloropropane	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,2,4-Trichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,2,4-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,2-Dibromo-3-chloropropane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,2-Dibromoethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,2-Dichlorobenzene	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,2-Dichloroethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,2-Dichloropropane	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,3,5-Trimethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,3-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,3-Dichloropropane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
1,4-Dichlorobenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 18:04
2,2-Dichloropropane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
2-Butanone	5.0	U	5.0	5.0	20	ug/L	10	30-Jun-2023 18:04
2-Chlorotoluene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
2-Hexanone	5.0	U	10	5.0	20	ug/L	10	30-Jun-2023 18:04
4-Chlorotoluene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 18:04
4-Isopropyltoluene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
4-Methyl-2-pentanone	5.0	U	7.0	5.0	20	ug/L	10	30-Jun-2023 18:04
Acetone	5.0	U	4.0	5.0	20	ug/L	10	30-Jun-2023 18:04
Benzene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Bromobenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Bromochloromethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Bromodichloromethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Bromoform	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Bromomethane	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Carbon disulfide	5.0	U	6.0	5.0	20	ug/L	10	30-Jun-2023 18:04
Carbon tetrachloride	5.0	U	5.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Chlorobenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Chloroethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Chloroform	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14E_062723
Collection Date: 27-Jun-2023 10:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-23
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES ORGANICS BY METHOD 8260C	**Method:SW8260**							Analyst: PC
Chloromethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
cis-1,2-Dichloroethene	**67**		**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 18:04
cis-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Dibromochloromethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Dibromomethane	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Dichlorodifluoromethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Ethylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Hexachlorobutadiene	5.0	U	10	5.0	10	ug/L	10	30-Jun-2023 18:04
Isopropylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
m,p-Xylene	10	U	5.0	10	20	ug/L	10	30-Jun-2023 18:04
Methylene chloride	5.0	U	4.0	5.0	20	ug/L	10	30-Jun-2023 18:04
n-Butylbenzene	5.0	U	4.0	5.0	10	ug/L	10	30-Jun-2023 18:04
n-Propylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Naphthalene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
o-Xylene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
sec-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Styrene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
tert-Butylbenzene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Tetrachloroethene	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Toluene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
trans-1,2-Dichloroethene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
trans-1,3-Dichloropropene	5.0	U	2.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Trichloroethene	**1,600**		**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 18:04
Trichlorofluoromethane	5.0	U	3.0	5.0	10	ug/L	10	30-Jun-2023 18:04
Vinyl chloride	**31**		**2.0**	**5.0**	**10**	**ug/L**	10	30-Jun-2023 18:04
Surr: 1,2-Dichloroethane-d4	*105*			**0**	*81-118*	*%REC*	*10*	*30-Jun-2023 18:04*
Surr: 4-Bromofluorobenzene	*96.4*			**0**	*85-114*	*%REC*	*10*	*30-Jun-2023 18:04*
Surr: Dibromofluoromethane	*99.5*			**0**	*80-119*	*%REC*	*10*	*30-Jun-2023 18:04*
Surr: Toluene-d8	*108*			**0**	*89-112*	*%REC*	*10*	*30-Jun-2023 18:04*

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: ICT14E_062723
Collection Date: 27-Jun-2023 10:45

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-23
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
METALS BY ICPMS BY SW6020A		**Method:SW6020A**				Prep:SW3010A / 11-Jul-2023		Analyst: JC
Aluminum	**0.0999**		**0.00180**	**0.00500**	**0.0100**	**mg/L**	1	13-Jul-2023 22:13
Antimony	0.00125	U	0.000400	0.00125	0.00500	mg/L	1	13-Jul-2023 22:13
Arsenic	**0.00200**	J	**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:13
Barium	**1.90**		**0.0380**	**0.0500**	**0.100**	**mg/L**	20	14-Jul-2023 17:48
Beryllium	**0.000208**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 22:13
Cadmium	**0.000701**	J	**0.000200**	**0.000500**	**0.00200**	**mg/L**	1	13-Jul-2023 22:13
Calcium	**70.5**		**0.0340**	**0.0500**	**0.500**	**mg/L**	1	13-Jul-2023 22:13
Chromium	**0.192**		**0.000400**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:13
Cobalt	**0.0180**		**0.000100**	**0.000500**	**0.00500**	**mg/L**	1	13-Jul-2023 22:13
Copper	**0.0652**		**0.00100**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:13
Iron	**17.1**		**0.0120**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:13
Lead	0.00125	U	0.000600	0.00125	0.00500	mg/L	1	13-Jul-2023 22:13
Magnesium	**57.7**		**0.0100**	**0.0500**	**0.200**	**mg/L**	1	13-Jul-2023 22:13
Manganese	**0.626**		**0.000700**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:13
Nickel	**0.339**		**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:13
Potassium	**1.23**		**0.0180**	**1.00**	**0.200**	**mg/L**	1	13-Jul-2023 22:13
Selenium	0.00250	U	0.00110	0.00250	0.00500	mg/L	1	13-Jul-2023 22:13
Silver	0.000500	U	0.000200	0.000500	0.00500	mg/L	1	13-Jul-2023 22:13
Sodium	**231**		**0.280**	**1.00**	**4.00**	**mg/L**	20	14-Jul-2023 17:48
Thallium	0.000500	U	0.000200	0.000500	0.00200	mg/L	1	13-Jul-2023 22:13
Vanadium	**0.00250**	J	**0.000600**	**0.00125**	**0.00500**	**mg/L**	1	13-Jul-2023 22:13
Zinc	**0.236**		**0.00200**	**0.00250**	**0.00500**	**mg/L**	1	13-Jul-2023 22:13
MERCURY BY SW7470A		**Method:SW7470A**				Prep:SW7470A / 11-Jul-2023		Analyst: JS
Mercury	0.000100	U	0.0000300	0.000100	0.000200	mg/L	1	11-Jul-2023 15:57
SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)		**Method:NA**						Analyst: KR
Subcontract Analysis	See Attached		0	0		NA	1	10-Jul-2023 10:41

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: Trip Blank
Collection Date: 27-Jun-2023 00:00

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-24
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	28-Jun-2023 17:57
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,2-Dibromo-3-chloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 17:57
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
2-Butanone	0.50	U	0.50	0.50	2.0	ug/L	1	28-Jun-2023 17:57
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
2-Hexanone	0.50	U	1.0	0.50	2.0	ug/L	1	28-Jun-2023 17:57
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 17:57
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
4-Methyl-2-pentanone	0.50	U	0.70	0.50	2.0	ug/L	1	28-Jun-2023 17:57
Acetone	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 17:57
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Carbon disulfide	0.50	U	0.60	0.50	2.0	ug/L	1	28-Jun-2023 17:57
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57

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

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
Sample ID: Trip Blank
Collection Date: 27-Jun-2023 00:00

ANALYTICAL REPORT
WorkOrder:HS23061925
Lab ID:HS23061925-24
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	28-Jun-2023 17:57
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
cis-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	28-Jun-2023 17:57
Methylene chloride	0.50	U	0.40	0.50	2.0	ug/L	1	28-Jun-2023 17:57
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	28-Jun-2023 17:57
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	28-Jun-2023 17:57
Surr: 1,2-Dichloroethane-d4	*107*			**0**	*81-118*	*%REC*	*1*	*28-Jun-2023 17:57*
Surr: 4-Bromofluorobenzene	*94.3*			**0**	*85-114*	*%REC*	*1*	*28-Jun-2023 17:57*
Surr: Dibromofluoromethane	*99.3*			**0**	*80-119*	*%REC*	*1*	*28-Jun-2023 17:57*
Surr: Toluene-d8	*109*			**0**	*89-112*	*%REC*	*1*	*28-Jun-2023 17:57*

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

Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

Batch ID: 197418 **Start Date:** 11 Jul 2023 09:00 **End Date:** 11 Jul 2023 09:00
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23061925-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-13		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-14		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-15		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-16		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-17		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-18		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-19		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-20		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 197421 **Start Date:** 11 Jul 2023 09:00 **End Date:** 11 Jul 2023 09:00
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23061925-21		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-22		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-23		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 197423 **Start Date:** 11 Jul 2023 14:00 **End Date:** 11 Jul 2023 14:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23061925-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-04		10 (mL)	10 (mL)	1	120 plastic HNO3

Weight / Prep Log

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

Batch ID: 197426 **Start Date:** 11 Jul 2023 16:30 **End Date:** 11 Jul 2023 16:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23061925-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-13		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-14		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-15		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-16		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-17		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-18		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-19		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-20		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-21		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-22		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23061925-23		10 (mL)	10 (mL)	1	120 plastic HNO3

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 197418 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Groundwater	
HS23061925-01	ICT2_062723	27 Jun 2023 07:35		11 Jul 2023 09:00	11 Jul 2023 14:52	1
HS23061925-02	ICT4_062723	27 Jun 2023 07:45		11 Jul 2023 09:00	11 Jul 2023 14:54	1
HS23061925-03	ICT4_062723_a	27 Jun 2023 07:45		11 Jul 2023 09:00	11 Jul 2023 15:03	1
HS23061925-04	ICT7_062723	27 Jun 2023 07:55		11 Jul 2023 09:00	11 Jul 2023 15:05	1
HS23061925-05	ICT8_062723	27 Jun 2023 08:10		11 Jul 2023 09:00	11 Jul 2023 15:07	1
HS23061925-06	ICT11_062723	27 Jun 2023 08:15		11 Jul 2023 09:00	11 Jul 2023 15:09	1
HS23061925-07	ICT12A_062723	27 Jun 2023 08:25		11 Jul 2023 09:00	11 Jul 2023 15:10	1
HS23061925-08	ICT12B_062723	27 Jun 2023 08:30		11 Jul 2023 09:00	11 Jul 2023 15:12	1
HS23061925-09	ICT12C_062723	27 Jun 2023 08:40		11 Jul 2023 09:00	11 Jul 2023 15:14	1
HS23061925-10	ICT12D_062723	27 Jun 2023 08:45		11 Jul 2023 09:00	11 Jul 2023 15:15	1
HS23061925-11	ICT12E_062723	27 Jun 2023 08:55		11 Jul 2023 09:00	11 Jul 2023 15:17	1
HS23061925-12	ICT13A_062723	27 Jun 2023 09:15		11 Jul 2023 09:00	11 Jul 2023 15:26	1
HS23061925-13	ICT13B_062723	27 Jun 2023 09:25		11 Jul 2023 09:00	11 Jul 2023 15:27	1
HS23061925-14	ICT13B_062723_a	27 Jun 2023 09:25		11 Jul 2023 09:00	11 Jul 2023 15:29	1
HS23061925-15	ICT13C_062723	27 Jun 2023 09:40		11 Jul 2023 09:00	11 Jul 2023 15:31	1
HS23061925-16	ICT13D_062723	27 Jun 2023 09:45		11 Jul 2023 09:00	11 Jul 2023 15:32	1
HS23061925-17	ICT13E_062723	27 Jun 2023 09:50		11 Jul 2023 09:00	11 Jul 2023 15:34	1
HS23061925-18	ICT13F_062723	27 Jun 2023 09:55		11 Jul 2023 09:00	11 Jul 2023 15:36	1
HS23061925-19	ICT14A_062723	27 Jun 2023 10:10		11 Jul 2023 09:00	11 Jul 2023 15:38	1
HS23061925-20	ICT14B_062723	27 Jun 2023 10:15		11 Jul 2023 09:00	11 Jul 2023 15:39	1
Batch ID: 197421 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Groundwater	
HS23061925-21	ICT14C_062723	27 Jun 2023 10:20		11 Jul 2023 09:00	11 Jul 2023 15:50	1
HS23061925-22	ICT14D_062723	27 Jun 2023 10:30		11 Jul 2023 09:00	11 Jul 2023 15:52	1
HS23061925-23	ICT14E_062723	27 Jun 2023 10:45		11 Jul 2023 09:00	11 Jul 2023 15:57	1
Batch ID: 197423 (0)	**Test Name :** METALS BY ICPMS BY SW6020A				**Matrix:** Groundwater	
HS23061925-01	ICT2_062723	27 Jun 2023 07:35		11 Jul 2023 14:00	12 Jul 2023 22:30	1
HS23061925-02	ICT4_062723	27 Jun 2023 07:45		11 Jul 2023 14:00	13 Jul 2023 12:42	20
HS23061925-02	ICT4_062723	27 Jun 2023 07:45		11 Jul 2023 14:00	12 Jul 2023 22:33	1
HS23061925-03	ICT4_062723_a	27 Jun 2023 07:45		11 Jul 2023 14:00	12 Jul 2023 22:35	1
HS23061925-04	ICT7_062723	27 Jun 2023 07:55		11 Jul 2023 14:00	12 Jul 2023 22:37	1

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 197426 (0)	**Test Name :** METALS BY ICPMS BY SW6020A				**Matrix:** Groundwater	
HS23061925-05	ICT8_062723	27 Jun 2023 08:10		11 Jul 2023 16:30	13 Jul 2023 21:29	1
HS23061925-06	ICT11_062723	27 Jun 2023 08:15		11 Jul 2023 16:30	13 Jul 2023 21:32	1
HS23061925-07	ICT12A_062723	27 Jun 2023 08:25		11 Jul 2023 16:30	13 Jul 2023 21:34	1
HS23061925-08	ICT12B_062723	27 Jun 2023 08:30		11 Jul 2023 16:30	13 Jul 2023 21:36	1
HS23061925-09	ICT12C_062723	27 Jun 2023 08:40		11 Jul 2023 16:30	13 Jul 2023 21:38	1
HS23061925-10	ICT12D_062723	27 Jun 2023 08:45		11 Jul 2023 16:30	14 Jul 2023 17:34	20
HS23061925-10	ICT12D_062723	27 Jun 2023 08:45		11 Jul 2023 16:30	13 Jul 2023 21:40	1
HS23061925-11	ICT12E_062723	27 Jun 2023 08:55		11 Jul 2023 16:30	13 Jul 2023 21:46	1
HS23061925-12	ICT13A_062723	27 Jun 2023 09:15		11 Jul 2023 16:30	13 Jul 2023 21:48	1
HS23061925-13	ICT13B_062723	27 Jun 2023 09:25		11 Jul 2023 16:30	13 Jul 2023 21:50	1
HS23061925-14	ICT13B_062723_a	27 Jun 2023 09:25		11 Jul 2023 16:30	13 Jul 2023 21:52	1
HS23061925-15	ICT13C_062723	27 Jun 2023 09:40		11 Jul 2023 16:30	14 Jul 2023 17:36	20
HS23061925-15	ICT13C_062723	27 Jun 2023 09:40		11 Jul 2023 16:30	13 Jul 2023 21:54	1
HS23061925-16	ICT13D_062723	27 Jun 2023 09:45		11 Jul 2023 16:30	13 Jul 2023 21:56	1
HS23061925-17	ICT13E_062723	27 Jun 2023 09:50		11 Jul 2023 16:30	13 Jul 2023 22:02	1
HS23061925-18	ICT13F_062723	27 Jun 2023 09:55		11 Jul 2023 16:30	14 Jul 2023 17:38	20
HS23061925-18	ICT13F_062723	27 Jun 2023 09:55		11 Jul 2023 16:30	13 Jul 2023 22:04	1
HS23061925-19	ICT14A_062723	27 Jun 2023 10:10		11 Jul 2023 16:30	13 Jul 2023 22:06	1
HS23061925-20	ICT14B_062723	27 Jun 2023 10:15		11 Jul 2023 16:30	13 Jul 2023 22:08	1
HS23061925-21	ICT14C_062723	27 Jun 2023 10:20		11 Jul 2023 16:30	14 Jul 2023 17:39	20
HS23061925-21	ICT14C_062723	27 Jun 2023 10:20		11 Jul 2023 16:30	13 Jul 2023 22:11	1
HS23061925-22	ICT14D_062723	27 Jun 2023 10:30		11 Jul 2023 16:30	14 Jul 2023 17:42	20
HS23061925-22	ICT14D_062723	27 Jun 2023 10:30		11 Jul 2023 16:30	13 Jul 2023 21:15	1
HS23061925-23	ICT14E_062723	27 Jun 2023 10:45		11 Jul 2023 16:30	14 Jul 2023 17:48	20
HS23061925-23	ICT14E_062723	27 Jun 2023 10:45		11 Jul 2023 16:30	13 Jul 2023 22:13	1
Batch ID: R440137 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Water	
HS23061925-24	Trip Blank	27 Jun 2023 00:00			28 Jun 2023 17:57	1
Batch ID: R440137 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS23061925-01	ICT2_062723	27 Jun 2023 07:35			28 Jun 2023 20:11	1
HS23061925-02	ICT4_062723	27 Jun 2023 07:45			28 Jun 2023 21:19	10
HS23061925-03	ICT4_062723_a	27 Jun 2023 07:45			28 Jun 2023 21:41	10
HS23061925-04	ICT7_062723	27 Jun 2023 07:55			28 Jun 2023 18:19	1
HS23061925-06	ICT11_062723	27 Jun 2023 08:15			28 Jun 2023 20:56	20
HS23061925-16	ICT13D_062723	27 Jun 2023 09:45			28 Jun 2023 18:42	1
HS23061925-17	ICT13E_062723	27 Jun 2023 09:50			28 Jun 2023 19:04	1
HS23061925-18	ICT13F_062723	27 Jun 2023 09:55			28 Jun 2023 19:27	1
HS23061925-19	ICT14A_062723	27 Jun 2023 10:10			28 Jun 2023 19:49	1
HS23061925-20	ICT14B_062723	27 Jun 2023 10:15			28 Jun 2023 20:34	1

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R440247 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS23061925-02	ICT4_062723	27 Jun 2023 07:45			29 Jun 2023 18:09	50
HS23061925-03	ICT4_062723_a	27 Jun 2023 07:45			29 Jun 2023 18:32	100
HS23061925-05	ICT8_062723	27 Jun 2023 08:10			29 Jun 2023 19:17	25
HS23061925-07	ICT12A_062723	27 Jun 2023 08:25			29 Jun 2023 20:01	5
HS23061925-08	ICT12B_062723	27 Jun 2023 08:30			29 Jun 2023 20:46	25
HS23061925-20	ICT14B_062723	27 Jun 2023 10:15			29 Jun 2023 18:54	5
Batch ID: R440378 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS23061925-07	ICT12A_062723	27 Jun 2023 08:25			30 Jun 2023 18:26	1
HS23061925-09	ICT12C_062723	27 Jun 2023 08:40			30 Jun 2023 17:41	25
HS23061925-09	ICT12C_062723	27 Jun 2023 08:40			30 Jun 2023 14:20	5
HS23061925-10	ICT12D_062723	27 Jun 2023 08:45			30 Jun 2023 15:49	50
HS23061925-11	ICT12E_062723	27 Jun 2023 08:55			30 Jun 2023 16:12	100
HS23061925-12	ICT13A_062723	27 Jun 2023 09:15			30 Jun 2023 19:33	1
HS23061925-12	ICT13A_062723	27 Jun 2023 09:15			30 Jun 2023 14:42	10
HS23061925-13	ICT13B_062723	27 Jun 2023 09:25			30 Jun 2023 18:49	1
HS23061925-14	ICT13B_062723_a	27 Jun 2023 09:25			30 Jun 2023 19:11	1
HS23061925-15	ICT13C_062723	27 Jun 2023 09:40			30 Jun 2023 15:05	10
HS23061925-21	ICT14C_062723	27 Jun 2023 10:20			30 Jun 2023 15:27	10
HS23061925-22	ICT14D_062723	27 Jun 2023 10:30			30 Jun 2023 16:34	250
HS23061925-22	ICT14D_062723	27 Jun 2023 10:30			30 Jun 2023 13:58	25
HS23061925-23	ICT14E_062723	27 Jun 2023 10:45			30 Jun 2023 18:04	10
Batch ID: R440472 (0)	**Test Name :** VOLATILES ORGANICS BY METHOD 8260C				**Matrix:** Groundwater	
HS23061925-10	ICT12D_062723	27 Jun 2023 08:45			03 Jul 2023 16:44	500
HS23061925-11	ICT12E_062723	27 Jun 2023 08:55			03 Jul 2023 14:30	10
HS23061925-13	ICT13B_062723	27 Jun 2023 09:25			03 Jul 2023 17:07	10
HS23061925-14	ICT13B_062723_a	27 Jun 2023 09:25			03 Jul 2023 17:29	10
HS23061925-15	ICT13C_062723	27 Jun 2023 09:40			03 Jul 2023 13:45	25
HS23061925-21	ICT14C_062723	27 Jun 2023 10:20			03 Jul 2023 14:52	200

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R440859 (0)	**Test Name :** SUBCONTRACT ANALYSIS - PERCHLORATE (EPA 6850)				**Matrix:** Groundwater	
HS23061925-01	ICT2_062723	27 Jun 2023 07:35			10 Jul 2023 10:41	1
HS23061925-02	ICT4_062723	27 Jun 2023 07:45			10 Jul 2023 10:41	1
HS23061925-03	ICT4_062723_a	27 Jun 2023 07:45			10 Jul 2023 10:41	1
HS23061925-04	ICT7_062723	27 Jun 2023 07:55			10 Jul 2023 10:41	1
HS23061925-05	ICT8_062723	27 Jun 2023 08:10			10 Jul 2023 10:41	1
HS23061925-06	ICT11_062723	27 Jun 2023 08:15			10 Jul 2023 10:41	1
HS23061925-07	ICT12A_062723	27 Jun 2023 08:25			10 Jul 2023 10:41	1
HS23061925-08	ICT12B_062723	27 Jun 2023 08:30			10 Jul 2023 10:41	1
HS23061925-09	ICT12C_062723	27 Jun 2023 08:40			10 Jul 2023 10:41	1
HS23061925-10	ICT12D_062723	27 Jun 2023 08:45			10 Jul 2023 10:41	1
HS23061925-11	ICT12E_062723	27 Jun 2023 08:55			10 Jul 2023 10:41	1
HS23061925-12	ICT13A_062723	27 Jun 2023 09:15			10 Jul 2023 10:41	1
HS23061925-13	ICT13B_062723	27 Jun 2023 09:25			10 Jul 2023 10:41	1
HS23061925-14	ICT13B_062723_a	27 Jun 2023 09:25			10 Jul 2023 10:41	1
HS23061925-15	ICT13C_062723	27 Jun 2023 09:40			10 Jul 2023 10:41	1
HS23061925-16	ICT13D_062723	27 Jun 2023 09:45			10 Jul 2023 10:41	1
HS23061925-17	ICT13E_062723	27 Jun 2023 09:50			10 Jul 2023 10:41	1
HS23061925-18	ICT13F_062723	27 Jun 2023 09:55			10 Jul 2023 10:41	1
HS23061925-19	ICT14A_062723	27 Jun 2023 10:10			10 Jul 2023 10:41	1
HS23061925-20	ICT14B_062723	27 Jun 2023 10:15			10 Jul 2023 10:41	1
HS23061925-21	ICT14C_062723	27 Jun 2023 10:20			10 Jul 2023 10:41	1
HS23061925-22	ICT14D_062723	27 Jun 2023 10:30			10 Jul 2023 10:41	1
HS23061925-23	ICT14E_062723	27 Jun 2023 10:45			10 Jul 2023 10:41	1

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197418 (0) **Instrument: HG04** **Method: MERCURY BY SW7470A**

MBLK Sample ID: **MBLK-197418** Units: **mg/L** Analysis Date: **11-Jul-2023 14:49**
Client ID: Run ID: **HG04_441015** SeqNo: **7419264** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.000100	0.000200								U

LCS Sample ID: **LCS-197418** Units: **mg/L** Analysis Date: **11-Jul-2023 14:50**
Client ID: Run ID: **HG04_441015** SeqNo: **7419265** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00491	0.000200	0.005	0	98.2	82 - 119				

MS Sample ID: **HS23061925-02MS** Units: **mg/L** Analysis Date: **11-Jul-2023 14:55**
Client ID: **ICT4_062723** Run ID: **HG04_441015** SeqNo: **7419268** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00464	0.000200	0.005	0.00001100	92.6	82 - 119				

MSD Sample ID: **HS23061925-02MSD** Units: **mg/L** Analysis Date: **11-Jul-2023 15:02**
Client ID: **ICT4_062723** Run ID: **HG04_441015** SeqNo: **7419271** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00492	0.000200	0.005	0.00001100	98.2	82 - 119	0.004640	5.86	20	

The following samples were analyzed in this batch:

HS23061925-01	HS23061925-02	HS23061925-03	HS23061925-04
HS23061925-05	HS23061925-06	HS23061925-07	HS23061925-08
HS23061925-09	HS23061925-10	HS23061925-11	HS23061925-12
HS23061925-13	HS23061925-14	HS23061925-15	HS23061925-16
HS23061925-17	HS23061925-18	HS23061925-19	HS23061925-20

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197421 (0) **Instrument: HG04** **Method: MERCURY BY SW7470A**

MBLK Sample ID: **MBLK-197421** Units: **mg/L** Analysis Date: **11-Jul-2023 15:41**
Client ID: Run ID: **HG04_441015** SeqNo: **7419740** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.000100	0.000200								U

LCS Sample ID: **LCS-197421** Units: **mg/L** Analysis Date: **11-Jul-2023 15:48**
Client ID: Run ID: **HG04_441015** SeqNo: **7419741** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00531	0.000200	0.005	0	106	82 - 119				

MS Sample ID: **HS23061925-22MS** Units: **mg/L** Analysis Date: **11-Jul-2023 15:53**
Client ID: **ICT14D_062723** Run ID: **HG04_441015** SeqNo: **7419744** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00494	0.000200	0.005	0.00002100	98.4	82 - 119				

MSD Sample ID: **HS23061925-22MSD** Units: **mg/L** Analysis Date: **11-Jul-2023 15:55**
Client ID: **ICT14D_062723** Run ID: **HG04_441015** SeqNo: **7419745** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00493	0.000200	0.005	0.00002100	98.2	82 - 119	0.004940	0.203	20	

The following samples were analyzed in this batch: HS23061925-21 HS23061925-22 HS23061925-23

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197423 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MBLK Sample ID: **MBLK-197423** Units: **mg/L** Analysis Date: **12-Jul-2023 21:27**
Client ID: Run ID: **ICPMS06_441153** SeqNo: **7423316** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.00500	0.0100								U
Antimony	0.00125	0.00500								U
Arsenic	0.00125	0.00500								U
Barium	0.00250	0.00500								U
Beryllium	0.000500	0.00200								U
Cadmium	0.000500	0.00200								U
Calcium	0.0500	0.500								U
Chromium	0.00125	0.00500								U
Cobalt	0.000500	0.00500								U
Copper	0.00250	0.00500								U
Iron	0.0500	0.200								U
Lead	0.00125	0.00500								U
Magnesium	0.0500	0.200								U
Manganese	0.00250	0.00500								U
Nickel	0.00125	0.00500								U
Potassium	1.00	0.200								U
Selenium	0.00250	0.00500								U
Silver	0.000500	0.00500								U
Sodium	0.0500	0.200								U
Thallium	0.000500	0.00200								U
Vanadium	0.00125	0.00500								U
Zinc	0.00250	0.00500								U

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197423 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

LCS Sample ID: **LCS-197423** Units: **mg/L** Analysis Date: **12-Jul-2023 21:29**
Client ID: Run ID: **ICPMS06_441153** SeqNo: **7423317** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09442	0.0100	0.1	0	94.4	84 - 117				
Antimony	0.04345	0.00500	0.05	0	86.9	85 - 117				
Arsenic	0.04574	0.00500	0.05	0	91.5	84 - 116				
Barium	0.04476	0.00500	0.05	0	89.5	86 - 114				
Beryllium	0.04593	0.00200	0.05	0	91.9	83 - 121				
Cadmium	0.04657	0.00200	0.05	0	93.1	87 - 115				
Calcium	4.729	0.500	5	0	94.6	87 - 118				
Chromium	0.04417	0.00500	0.05	0	88.3	85 - 116				
Cobalt	0.04393	0.00500	0.05	0	87.9	86 - 115				
Copper	0.04524	0.00500	0.05	0	90.5	85 - 118				
Iron	4.667	0.200	5	0	93.3	87 - 118				
Lead	0.04432	0.00500	0.05	0	88.6	88 - 115				
Magnesium	4.777	0.200	5	0	95.5	83 - 118				
Manganese	0.0444	0.00500	0.05	0	88.8	87 - 115				
Nickel	0.04546	0.00500	0.05	0	90.9	85 - 117				
Potassium	4.714	0.200	5	0	94.3	87 - 115				
Selenium	0.04589	0.00500	0.05	0	91.8	80 - 120				
Silver	0.04701	0.00500	0.05	0	94.0	85 - 116				
Sodium	4.681	0.200	5	0	93.6	85 - 117				
Vanadium	0.04437	0.00500	0.05	0	88.7	86 - 115				
Zinc	0.04763	0.00500	0.05	0	95.3	83 - 119				

LCS Sample ID: **LCS-197423** Units: **mg/L** Analysis Date: **13-Jul-2023 12:01**
Client ID: Run ID: **ICPMS06_441200** SeqNo: **7424663** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Thallium	0.04483	0.00200	0.05	0	89.7	82 - 116				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197423 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MS Sample ID: **HS23061825-05MS** Units: **mg/L** Analysis Date: **12-Jul-2023 21:35**
Client ID: Run ID: **ICPMS06_441153** SeqNo: **7423320** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1401	0.0100	0.1	0.03456	105	84 - 117				
Antimony	0.04229	0.00500	0.05	0.000131	84.3	85 - 117				S
Arsenic	0.04538	0.00500	0.05	0.000254	90.3	84 - 116				
Barium	0.4881	0.00500	0.05	0.4514	73.4	86 - 114				SO
Beryllium	0.04415	0.00200	0.05	0.000062	88.2	83 - 121				
Cadmium	0.04547	0.00200	0.05	0.000105	90.7	87 - 115				
Calcium	29.96	0.500	5	25.08	97.6	87 - 118				O
Chromium	0.2479	0.00500	0.05	0.2167	62.5	85 - 116				SO
Cobalt	0.04404	0.00500	0.05	0.000449	87.2	86 - 115				
Copper	0.04741	0.00500	0.05	0.003124	88.6	85 - 118				
Iron	95.74	0.200	5	93.27	49.3	87 - 118				SO
Lead	0.04436	0.00500	0.05	0.00011	88.5	88 - 115				
Magnesium	17	0.200	5	12.52	89.7	83 - 118				
Manganese	1.089	0.00500	0.05	1.071	34.9	87 - 115				SO
Nickel	0.08056	0.00500	0.05	0.03646	88.2	85 - 117				
Potassium	7.965	0.200	5	3.349	92.3	87 - 115				
Selenium	0.04459	0.00500	0.05	-0.000079	89.3	80 - 120				
Silver	0.04517	0.00500	0.05	0.000019	90.3	85 - 116				
Sodium	90.13	0.200	5	87.4	54.7	85 - 117				SO
Vanadium	0.04476	0.00500	0.05	0.000753	88.0	86 - 115				
Zinc	0.04994	0.00500	0.05	0.005191	89.5	83 - 119				

MS Sample ID: **HS23061825-05MS** Units: **mg/L** Analysis Date: **13-Jul-2023 12:03**
Client ID: Run ID: **ICPMS06_441200** SeqNo: **7424664** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Thallium	0.04513	0.00200	0.05	0.000522	89.2	82 - 116				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197423 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MSD Sample ID: **HS23061825-05MSD** Units: **mg/L** Analysis Date: **12-Jul-2023 21:38**
Client ID: Run ID: **ICPMS06_441153** SeqNo: **7423321** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1287	0.0100	0.1	0.03456	94.2	84 - 117	0.1401	8.42	20	
Antimony	0.04205	0.00500	0.05	0.000131	83.8	85 - 117	0.04229	0.567	20	S
Arsenic	0.04512	0.00500	0.05	0.000254	89.7	84 - 116	0.04538	0.594	20	
Barium	0.4909	0.00500	0.05	0.4514	78.9	86 - 114	0.4881	0.558	20	SO
Beryllium	0.04475	0.00200	0.05	0.000062	89.4	83 - 121	0.04415	1.35	20	
Cadmium	0.04584	0.00200	0.05	0.000105	91.5	87 - 115	0.04547	0.81	20	
Calcium	30.01	0.500	5	25.08	98.6	87 - 118	29.96	0.155	20	O
Chromium	0.2504	0.00500	0.05	0.2167	67.5	85 - 116	0.2479	1	20	SO
Cobalt	0.0436	0.00500	0.05	0.000449	86.3	86 - 115	0.04404	0.995	20	
Copper	0.04692	0.00500	0.05	0.003124	87.6	85 - 118	0.04741	1.03	20	
Iron	94.81	0.200	5	93.27	30.8	87 - 118	95.74	0.976	20	SO
Lead	0.04427	0.00500	0.05	0.00011	88.3	88 - 115	0.04436	0.214	20	
Magnesium	17.07	0.200	5	12.52	91.1	83 - 118	17	0.403	20	
Manganese	1.09	0.00500	0.05	1.071	37.2	87 - 115	1.089	0.104	20	SO
Nickel	0.0808	0.00500	0.05	0.03646	88.7	85 - 117	0.08056	0.307	20	
Potassium	7.885	0.200	5	3.349	90.7	87 - 115	7.965	1.01	20	
Selenium	0.04378	0.00500	0.05	-0.000079	87.7	80 - 120	0.04459	1.84	20	
Silver	0.04511	0.00500	0.05	0.000019	90.2	85 - 116	0.04517	0.14	20	
Sodium	90.52	0.200	5	87.4	62.6	85 - 117	90.13	0.435	20	SO
Vanadium	0.04492	0.00500	0.05	0.000753	88.3	86 - 115	0.04476	0.359	20	
Zinc	0.0503	0.00500	0.05	0.005191	90.2	83 - 119	0.04994	0.708	20	

MSD Sample ID: **HS23061825-05MSD** Units: **mg/L** Analysis Date: **13-Jul-2023 12:05**
Client ID: Run ID: **ICPMS06_441200** SeqNo: **7424665** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Thallium	0.04614	0.00200	0.05	0.000522	91.2	82 - 116	0.04513	2.21	20	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197423 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

PDS Sample ID: **HS23061825-05PDS** Units: **mg/L** Analysis Date: **12-Jul-2023 21:40**
Client ID: Run ID: **ICPMS06_441153** SeqNo: **7423322** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.132	0.0100	0.1	0.03456	97.4	80 - 120				
Antimony	0.08272	0.00500	0.1	0.000131	82.6	80 - 120				
Arsenic	0.09004	0.00500	0.1	0.000254	89.8	80 - 120				
Barium	0.5298	0.00500	0.1	0.4514	78.4	80 - 120				SO
Beryllium	0.08669	0.00200	0.1	0.000062	86.6	80 - 120				
Cadmium	0.0896	0.00200	0.1	0.000105	89.5	80 - 120				
Calcium	33.95	0.500	10	25.08	88.7	80 - 120				
Cobalt	0.08559	0.00500	0.1	0.000449	85.1	80 - 120				
Copper	0.08965	0.00500	0.1	0.003124	86.5	80 - 120				
Iron	99.41	0.200	10	93.27	61.4	80 - 120				SO
Lead	0.08849	0.00500	0.1	0.00011	88.4	80 - 120				
Magnesium	21.54	0.200	10	12.52	90.2	80 - 120				
Manganese	1.121	0.00500	0.1	1.071	49.6	80 - 120				SO
Nickel	0.1222	0.00500	0.1	0.03646	85.8	80 - 120				
Potassium	12.55	0.200	10	3.349	92.0	80 - 120				
Selenium	0.08771	0.00500	0.1	-0.000079	87.8	80 - 120				
Silver	0.09166	0.00500	0.1	0.000019	91.6	80 - 120				
Sodium	93.92	0.200	10	87.4	65.3	80 - 120				SO
Vanadium	0.08868	0.00500	0.1	0.000753	87.9	80 - 120				
Zinc	0.0942	0.00500	0.1	0.005191	89.0	80 - 120				

PDS Sample ID: **HS23061825-05PDS** Units: **mg/L** Analysis Date: **13-Jul-2023 12:22**
Client ID: Run ID: **ICPMS06_441200** SeqNo: **7424735** PrepDate: **11-Jul-2023** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.7062	0.0250	0.5	0.2266	95.9	80 - 120				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197423 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

SD Sample ID: **HS23061825-05SD** Units: **mg/L** Analysis Date: **12-Jul-2023 21:33**
Client ID: Run ID: **ICPMS06_441153** SeqNo: **7423319** PrepDate: **11-Jul-2023** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Aluminum	0.02606	0.0500					0.03456	0	10	J
Antimony	0.00625	0.0250					0.000131	0	10	U
Arsenic	0.00625	0.0250					0.000254	0	10	U
Barium	0.4538	0.0250					0.4514	0.529	10	
Beryllium	0.00250	0.0100					0.000062	0	10	U
Cadmium	0.00250	0.0100					0.000105	0	10	U
Chromium	0.2197	0.0250					0.2167	1.4	10	
Cobalt	0.000517	0.0250					0.000449	0	10	J
Copper	0.0125	0.0250					0.003124	0	10	U
Iron	96.63	1.00					93.27	3.6	10	
Lead	0.00625	0.0250					0.00011	0	10	U
Magnesium	13.28	1.00					12.52	6.09	10	
Manganese	1.135	0.0250					1.071	5.99	10	
Nickel	0.03818	0.0250					0.03646	4.73	10	
Potassium	3.385	1.00					3.349	1.08	10	
Selenium	0.0125	0.0250					-0.000079	0	10	U
Silver	0.00250	0.0250					0.000019	0	10	U
Sodium	88.55	1.00					87.4	1.32	10	
Thallium	0.00250	0.0100					0.000522	0	10	U
Vanadium	0.00625	0.0250					0.000753	0	10	U
Zinc	0.0125	0.0250					0.005191	0	10	U

SD Sample ID: **HS23061825-05SD** Units: **mg/L** Analysis Date: **13-Jul-2023 12:20**
Client ID: Run ID: **ICPMS06_441200** SeqNo: **7424734** PrepDate: **11-Jul-2023** DF: **25**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Chromium	0.2317	0.125					0.2266	2.21	10	

The following samples were analyzed in this batch: HS23061925-01 HS23061925-02 HS23061925-03 HS23061925-04

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197426 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MBLK Sample ID: **MBLK-197426** Units: **mg/L** Analysis Date: **14-Jul-2023 17:29**
Client ID: Run ID: **ICPMS06_441403** SeqNo: **7429619** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.00500	0.0100								U
Antimony	0.00125	0.00500								U
Arsenic	0.00125	0.00500								U
Barium	0.00250	0.00500								U
Beryllium	0.000500	0.00200								U
Cadmium	0.000500	0.00200								U
Calcium	0.0500	0.500								U
Chromium	0.00125	0.00500								U
Cobalt	0.000500	0.00500								U
Copper	0.00250	0.00500								U
Iron	0.0500	0.200								U
Lead	0.00125	0.00500								U
Magnesium	0.0500	0.200								U
Manganese	0.00250	0.00500								U
Nickel	0.00125	0.00500								U
Potassium	1.00	0.200								U
Selenium	0.00250	0.00500								U
Silver	0.000500	0.00500								U
Sodium	0.0500	0.200								U
Thallium	0.000500	0.00200								U
Vanadium	0.00125	0.00500								U
Zinc	0.00250	0.00500								U

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197426 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

LCS Sample ID: **LCS-197426** Units: **mg/L** Analysis Date: **13-Jul-2023 21:09**
Client ID: Run ID: **ICPMS06_441200** SeqNo: **7426628** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.09496	0.0100	0.1	0	95.0	84 - 117				
Arsenic	0.04421	0.00500	0.05	0	88.4	84 - 116				
Barium	0.04319	0.00500	0.05	0	86.4	86 - 114				
Beryllium	0.0441	0.00200	0.05	0	88.2	83 - 121				
Cadmium	0.04424	0.00200	0.05	0	88.5	87 - 115				
Calcium	4.586	0.500	5	0	91.7	87 - 118				
Copper	0.04446	0.00500	0.05	0	88.9	85 - 118				
Iron	4.462	0.200	5	0	89.2	87 - 118				
Lead	0.04427	0.00500	0.05	0	88.5	88 - 115				
Magnesium	4.615	0.200	5	0	92.3	83 - 118				
Manganese	0.04352	0.00500	0.05	0	87.0	87 - 115				
Nickel	0.0443	0.00500	0.05	0	88.6	85 - 117				
Potassium	4.545	0.200	5	0	90.9	87 - 115				
Selenium	0.04483	0.00500	0.05	0	89.7	80 - 120				
Silver	0.04409	0.00500	0.05	0	88.2	85 - 116				
Sodium	4.534	0.200	5	0	90.7	85 - 117				
Vanadium	0.04359	0.00500	0.05	0	87.2	86 - 115				
Zinc	0.0464	0.00500	0.05	0	92.8	83 - 119				

LCS Sample ID: **LCS-197426** Units: **mg/L** Analysis Date: **14-Jul-2023 17:31**
Client ID: Run ID: **ICPMS06_441403** SeqNo: **7429620** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04741	0.00500	0.05	0	94.8	85 - 117				
Chromium	0.04775	0.00500	0.05	0	95.5	85 - 116				
Cobalt	0.04637	0.00500	0.05	0	92.7	86 - 115				
Thallium	0.04471	0.00200	0.05	0	89.4	82 - 116				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197426 (0) **Instrument:** ICPMS06 **Method:** METALS BY ICPMS BY SW6020A

MS Sample ID: **HS23061925-22MS** Units: **mg/L** Analysis Date: **13-Jul-2023 21:19**
Client ID: **ICT14D_062723** Run ID: **ICPMS06_441200** SeqNo: **7426633** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Aluminum	0.1191	0.0100	0.1	0.03251	86.6	84 - 117			
Antimony	0.0453	0.00500	0.05	0.000196	90.2	85 - 117			
Arsenic	0.08793	0.00500	0.05	0.03903	97.8	84 - 116			
Barium	2.866	0.00500	0.05	2.771	190	86 - 114			SEO
Beryllium	0.04612	0.00200	0.05	0.00047	91.3	83 - 121			
Cadmium	0.04526	0.00200	0.05	0.000094	90.3	87 - 115			
Calcium	108.5	0.500	5	102.9	110	87 - 118			O
Chromium	0.1329	0.00500	0.05	0.08538	95.0	85 - 116			
Cobalt	0.05755	0.00500	0.05	0.01285	89.4	86 - 115			
Copper	0.1062	0.00500	0.05	0.06062	91.2	85 - 118			
Iron	76.15	0.200	5	70.28	118	87 - 118			O
Lead	0.04713	0.00500	0.05	0.000259	93.8	88 - 115			
Magnesium	76.42	0.200	5	70.66	115	83 - 118			O
Manganese	2.526	0.00500	0.05	2.458	137	87 - 115			SEO
Nickel	0.2659	0.00500	0.05	0.2161	99.5	85 - 117			O
Potassium	5.712	0.200	5	0.9508	95.2	87 - 115			
Selenium	0.04762	0.00500	0.05	0.000709	93.8	80 - 120			
Silver	0.04476	0.00500	0.05	0.00004	89.4	85 - 116			
Sodium	326.5	0.200	5	314.2	247	85 - 117			SEO
Thallium	0.04108	0.00200	0.05	0.000047	82.1	82 - 116			
Vanadium	0.04777	0.00500	0.05	0.000803	93.9	86 - 115			
Zinc	0.1902	0.00500	0.05	0.1433	93.8	83 - 119			

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197426 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

MSD Sample ID: **HS23061925-22MSD** Units: **mg/L** Analysis Date: **13-Jul-2023 21:21**
Client ID: **ICT14D_062723** Run ID: **ICPMS06_441200** SeqNo: **7426634** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1179	0.0100	0.1	0.03251	85.4	84 - 117	0.1191	1.02	20	
Antimony	0.04418	0.00500	0.05	0.000196	88.0	85 - 117	0.0453	2.48	20	
Arsenic	0.08715	0.00500	0.05	0.03903	96.2	84 - 116	0.08793	0.893	20	
Barium	2.905	0.00500	0.05	2.771	269	86 - 114	2.866	1.37	20	SEO
Beryllium	0.04659	0.00200	0.05	0.00047	92.2	83 - 121	0.04612	1.01	20	
Cadmium	0.04566	0.00200	0.05	0.000094	91.1	87 - 115	0.04526	0.871	20	
Calcium	106.6	0.500	5	102.9	73.1	87 - 118	108.5	1.73	20	SO
Chromium	0.1303	0.00500	0.05	0.08538	89.8	85 - 116	0.1329	1.96	20	
Cobalt	0.05653	0.00500	0.05	0.01285	87.4	86 - 115	0.05755	1.79	20	
Copper	0.1041	0.00500	0.05	0.06062	87.0	85 - 118	0.1062	1.99	20	
Iron	75.45	0.200	5	70.28	104	87 - 118	76.15	0.923	20	O
Lead	0.04848	0.00500	0.05	0.000259	96.4	88 - 115	0.04713	2.82	20	
Magnesium	75.15	0.200	5	70.66	89.7	83 - 118	76.42	1.68	20	O
Manganese	2.495	0.00500	0.05	2.458	74.1	87 - 115	2.526	1.26	20	SEO
Nickel	0.2586	0.00500	0.05	0.2161	84.8	85 - 117	0.2659	2.8	20	SO
Potassium	5.629	0.200	5	0.9508	93.6	87 - 115	5.712	1.46	20	
Selenium	0.04559	0.00500	0.05	0.000709	89.8	80 - 120	0.04762	4.35	20	
Silver	0.04503	0.00500	0.05	0.00004	90.0	85 - 116	0.04476	0.604	20	
Sodium	318.1	0.200	5	314.2	79.3	85 - 117	326.5	2.6	20	SEO
Thallium	0.04245	0.00200	0.05	0.000047	84.8	82 - 116	0.04108	3.27	20	
Vanadium	0.04726	0.00500	0.05	0.000803	92.9	86 - 115	0.04777	1.09	20	
Zinc	0.1879	0.00500	0.05	0.1433	89.2	83 - 119	0.1902	1.22	20	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197426 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

PDS Sample ID: **HS23061925-22PDS** Units: **mg/L** Analysis Date: **13-Jul-2023 21:23**
Client ID: **ICT14D_062723** Run ID: **ICPMS06_441200** SeqNo: **7426635** PrepDate: **11-Jul-2023** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aluminum	0.1198	0.0100	0.1	0.03251	87.3	80 - 120				
Antimony	0.09223	0.00500	0.1	0.000196	92.0	80 - 120				
Arsenic	0.1369	0.00500	0.1	0.03903	97.8	80 - 120				
Beryllium	0.09294	0.00200	0.1	0.00047	92.5	80 - 120				
Cadmium	0.09306	0.00200	0.1	0.000094	93.0	80 - 120				
Calcium	114	0.500	10	102.9	111	80 - 120				O
Chromium	0.1792	0.00500	0.1	0.08538	93.8	80 - 120				
Cobalt	0.1038	0.00500	0.1	0.01285	90.9	80 - 120				
Copper	0.1578	0.00500	0.1	0.06062	97.1	80 - 120				
Iron	82.35	0.200	10	70.28	121	80 - 120				SO
Lead	0.09494	0.00500	0.1	0.000259	94.7	80 - 120				
Magnesium	81.94	0.200	10	70.66	113	80 - 120				O
Nickel	0.312	0.00500	0.1	0.2161	95.9	80 - 120				
Potassium	10.74	0.200	10	0.9508	97.9	80 - 120				
Selenium	0.09478	0.00500	0.1	0.000709	94.1	80 - 120				
Silver	0.09156	0.00500	0.1	0.00004	91.5	80 - 120				
Thallium	0.08616	0.00200	0.1	0.000047	86.1	80 - 120				
Vanadium	0.09663	0.00500	0.1	0.000803	95.8	80 - 120				
Zinc	0.2393	0.00500	0.1	0.1433	96.0	80 - 120				

PDS Sample ID: **HS23061925-22PDS** Units: **mg/L** Analysis Date: **14-Jul-2023 17:46**
Client ID: **ICT14D_062723** Run ID: **ICPMS06_441403** SeqNo: **7429645** PrepDate: **11-Jul-2023** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Barium	4.749	0.100	2	2.975	88.7	80 - 120				
Manganese	4.286	0.100	2	2.64	82.3	80 - 120				
Sodium	507.2	4.00	200	317.5	94.8	80 - 120				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: 197426 (0) **Instrument: ICPMS06** **Method: METALS BY ICPMS BY SW6020A**

SD Sample ID: **HS23061925-22SD** Units: **mg/L** Analysis Date: **13-Jul-2023 21:17**
Client ID: **ICT14D_062723** Run ID: **ICPMS06_441200** SeqNo: **7426632** PrepDate: **11-Jul-2023** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Aluminum	0.03258	0.0500					0.03251	0	10	J
Antimony	0.00625	0.0250					0.000196	0	10	U
Arsenic	0.03998	0.0250					0.03903	2.41	10	
Beryllium	0.00250	0.0100					0.00047	0	10	U
Cadmium	0.00250	0.0100					0.000094	0	10	U
Calcium	107.2	2.50					102.9	4.15	10	
Chromium	0.09029	0.0250					0.08538	5.75	10	
Cobalt	0.01306	0.0250					0.01285	0	10	J
Copper	0.06335	0.0250					0.06062	4.52	10	
Iron	73.46	1.00					70.28	4.53	10	
Lead	0.00625	0.0250					0.000259	0	10	U
Manganese	2.635	0.0250					2.458	7.23	10	
Nickel	0.2292	0.0250					0.2161	6.02	10	
Potassium	0.9314	1.00					0.9508	0	10	J
Selenium	0.0125	0.0250					0.000709	0	10	U
Silver	0.00250	0.0250					0.00004	0	10	U
Thallium	0.00250	0.0100					0.000047	0	10	U
Vanadium	0.00625	0.0250					0.000803	0	10	U
Zinc	0.1546	0.0250					0.1433	7.91	10	

SD Sample ID: **HS23061925-22SD** Units: **mg/L** Analysis Date: **14-Jul-2023 17:44**
Client ID: **ICT14D_062723** Run ID: **ICPMS06_441403** SeqNo: **7429644** PrepDate: **11-Jul-2023** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Barium	2.979	0.500					2.975	0.129	10	
Manganese	2.647	0.500					2.64	0.282	10	
Sodium	324	20.0					317.5	2.04	10	

The following samples were analyzed in this batch:

HS23061925-05	HS23061925-06	HS23061925-07	HS23061925-08
HS23061925-09	HS23061925-10	HS23061925-11	HS23061925-12
HS23061925-13	HS23061925-14	HS23061925-15	HS23061925-16
HS23061925-17	HS23061925-18	HS23061925-19	HS23061925-20
HS23061925-21	HS23061925-22	HS23061925-23	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230628** Units: **ug/L** Analysis Date: **28-Jun-2023 13:28**
Client ID: Run ID: **VOA9_440137** SeqNo: **7391394** 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	0.50	2.0								U
4-Chlorotoluene	0.50	1.0								U
4-Isopropyltoluene	0.50	1.0								U
4-Methyl-2-pentanone	0.50	2.0								U
Acetone	0.50	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: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230628** Units: **ug/L** Analysis Date: **28-Jun-2023 13:28**
Client ID: Run ID: **VOA9_440137** SeqNo: **7391394** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	0.50	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	0.50	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	*53.18*	*1.0*	*50*	*0*	*106*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*46.93*	*1.0*	*50*	*0*	*93.9*	*85 - 114*				
Surr: Dibromofluoromethane	*49.81*	*1.0*	*50*	*0*	*99.6*	*80 - 119*				
Surr: Toluene-d8	*53.83*	*1.0*	*50*	*0*	*108*	*89 - 112*				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230628** Units: **ug/L** Analysis Date: **28-Jun-2023 12:44**
Client ID: Run ID: **VOA9_440137** SeqNo: **7391393** 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	23.53	1.0	20	0	118	78 - 124				
1,1,1-Trichloroethane	23.03	1.0	20	0	115	74 - 131				
1,1,2,2-Tetrachloroethane	19.96	1.0	20	0	99.8	71 - 121				
1,1,2-Trichloroethane	21.66	1.0	20	0	108	80 - 119				
1,1-Dichloroethane	21.78	1.0	20	0	109	77 - 125				
1,1-Dichloroethene	23.52	1.0	20	0	118	71 - 131				
1,1-Dichloropropene	24.09	1.0	20	0	120	78 - 125				
1,2,3-Trichlorobenzene	21.36	1.0	20	0	107	69 - 129				
1,2,3-Trichloropropane	20.55	1.0	20	0	103	73 - 122				
1,2,4-Trichlorobenzene	21.27	1.0	20	0	106	69 - 130				
1,2,4-Trimethylbenzene	24.59	1.0	20	0	123	76 - 124				
1,2-Dibromo-3-chloropropane	19.52	1.0	20	0	97.6	62 - 128				
1,2-Dibromoethane	21.83	1.0	20	0	109	77 - 121				
1,2-Dichlorobenzene	22.32	1.0	20	0	112	80 - 119				
1,2-Dichloroethane	23.52	1.0	20	0	118	73 - 128				
1,2-Dichloropropane	21.71	1.0	20	0	109	78 - 122				
1,3,5-Trimethylbenzene	24.59	1.0	20	0	123	75 - 124				
1,3-Dichlorobenzene	22.42	1.0	20	0	112	80 - 119				
1,3-Dichloropropane	21.93	1.0	20	0	110	80 - 119				
1,4-Dichlorobenzene	22.08	1.0	20	0	110	79 - 118				
2,2-Dichloropropane	25.25	1.0	20	0	126	60 - 139				
2-Butanone	39.98	2.0	40	0	100.0	56 - 143				
2-Chlorotoluene	22.92	1.0	20	0	115	79 - 122				
2-Hexanone	38.97	2.0	40	0	97.4	57 - 139				
4-Chlorotoluene	23.66	1.0	20	0	118	78 - 122				
4-Isopropyltoluene	25.32	1.0	20	0	127	77 - 127				
4-Methyl-2-pentanone	41.39	2.0	40	0	103	67 - 130				
Acetone	49.97	2.0	40	0	125	39 - 160				
Benzene	22.53	1.0	20	0	113	79 - 120				
Bromobenzene	22.22	1.0	20	0	111	80 - 120				
Bromochloromethane	21.51	1.0	20	0	108	78 - 123				
Bromodichloromethane	23.12	1.0	20	0	116	79 - 125				
Bromoform	22.08	1.0	20	0	110	66 - 130				
Bromomethane	22.88	1.0	20	0	114	53 - 141				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument: VOA9** **Method: VOLATILES ORGANICS BY METHOD 8260C**

LCS Sample ID: **VLCSW-230628** Units: **ug/L** Analysis Date: **28-Jun-2023 12:44**
Client ID: Run ID: **VOA9_440137** SeqNo: **7391393** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	52.28	2.0	40	0	131	64 - 133				
Carbon tetrachloride	24.19	1.0	20	0	121	72 - 136				
Chlorobenzene	22.61	1.0	20	0	113	82 - 118				
Chloroethane	21.93	1.0	20	0	110	60 - 138				
Chloroform	21.68	1.0	20	0	108	79 - 124				
Chloromethane	19.11	1.0	20	0	95.5	50 - 139				
cis-1,2-Dichloroethene	22	1.0	20	0	110	78 - 123				
cis-1,3-Dichloropropene	21.4	1.0	20	0	107	75 - 124				
Dibromochloromethane	23.27	1.0	20	0	116	74 - 126				
Dibromomethane	22.31	1.0	20	0	112	79 - 123				
Dichlorodifluoromethane	22.86	1.0	20	0	114	32 - 152				
Ethylbenzene	23.65	1.0	20	0	118	79 - 121				
Hexachlorobutadiene	24.12	1.0	20	0	121	66 - 134				
Isopropylbenzene	25.22	1.0	20	0	126	72 - 131				
m,p-Xylene	48.4	2.0	40	0	121	80 - 121				
Methylene chloride	23.16	2.0	20	0	116	74 - 124				
Naphthalene	21.77	1.0	20	0	109	61 - 128				
n-Butylbenzene	24.63	1.0	20	0	123	75 - 128				
n-Propylbenzene	24.07	1.0	20	0	120	76 - 126				
o-Xylene	23.86	1.0	20	0	119	78 - 122				
sec-Butylbenzene	24.81	1.0	20	0	124	77 - 126				
Styrene	24.88	1.0	20	0	124	78 - 123				S
tert-Butylbenzene	24.15	1.0	20	0	121	78 - 124				
Tetrachloroethene	24.39	1.0	20	0	122	74 - 129				
Toluene	23.15	1.0	20	0	116	80 - 121				
trans-1,2-Dichloroethene	22.77	1.0	20	0	114	75 - 124				
trans-1,3-Dichloropropene	20.9	1.0	20	0	105	73 - 127				
Trichloroethene	22.1	1.0	20	0	111	79 - 123				
Trichlorofluoromethane	24.86	1.0	20	0	124	65 - 141				
Vinyl chloride	21.69	1.0	20	0	108	58 - 137				
Surr: 1,2-Dichloroethane-d4	*51.67*	*1.0*	*50*	*0*	*103*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*52.69*	*1.0*	*50*	*0*	*105*	*85 - 114*				
Surr: Dibromofluoromethane	*50.09*	*1.0*	*50*	*0*	*100*	*80 - 119*				
Surr: Toluene-d8	*50.69*	*1.0*	*50*	*0*	*101*	*89 - 112*				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061825-05MS** Units: **ug/L** Analysis Date: **28-Jun-2023 14:58**
Client ID: Run ID: **VOA9_440137** SeqNo: **7391398** 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	21.88	1.0	20	0	109	78 - 124				
1,1,1-Trichloroethane	21.98	1.0	20	0	110	74 - 131				
1,1,2,2-Tetrachloroethane	17.91	1.0	20	0	89.5	71 - 121				
1,1,2-Trichloroethane	19.47	1.0	20	0	97.4	80 - 119				
1,1-Dichloroethane	18.9	1.0	20	0	94.5	77 - 125				
1,1-Dichloroethene	21.03	1.0	20	0	105	71 - 131				
1,1-Dichloropropene	23.1	1.0	20	0	115	78 - 125				
1,2,3-Trichlorobenzene	18.05	1.0	20	0	90.3	69 - 129				
1,2,3-Trichloropropane	18.74	1.0	20	0	93.7	73 - 122				
1,2,4-Trichlorobenzene	18.85	1.0	20	0	94.2	69 - 130				
1,2,4-Trimethylbenzene	22.01	1.0	20	0	110	76 - 124				
1,2-Dibromo-3-chloropropane	16.44	1.0	20	0	82.2	62 - 128				
1,2-Dibromoethane	20.1	1.0	20	0	101	77 - 121				
1,2-Dichlorobenzene	20.16	1.0	20	0	101	80 - 119				
1,2-Dichloroethane	21.45	1.0	20	0	107	73 - 128				
1,2-Dichloropropane	20.27	1.0	20	0	101	78 - 122				
1,3,5-Trimethylbenzene	22.92	1.0	20	0	115	75 - 124				
1,3-Dichlorobenzene	20.87	1.0	20	0	104	80 - 119				
1,3-Dichloropropane	20.4	1.0	20	0	102	80 - 119				
1,4-Dichlorobenzene	19.83	1.0	20	0	99.2	79 - 118				
2,2-Dichloropropane	22.91	1.0	20	0	115	60 - 139				
2-Butanone	33.32	2.0	40	0	83.3	56 - 143				
2-Chlorotoluene	21.98	1.0	20	0	110	79 - 122				
2-Hexanone	34.37	2.0	40	0	85.9	57 - 139				
4-Chlorotoluene	22.26	1.0	20	0	111	78 - 122				
4-Isopropyltoluene	23.96	1.0	20	0	120	77 - 127				
4-Methyl-2-pentanone	36.2	2.0	40	0	90.5	67 - 130				
Acetone	32.94	2.0	40	0	82.4	39 - 160				
Benzene	20.89	1.0	20	0	104	79 - 120				
Bromobenzene	20.44	1.0	20	0	102	80 - 120				
Bromochloromethane	18.8	1.0	20	0	94.0	78 - 123				
Bromodichloromethane	21.3	1.0	20	0	107	79 - 125				
Bromoform	20.36	1.0	20	0	102	66 - 130				
Bromomethane	21.1	1.0	20	0	105	53 - 141				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061825-05MS** Units: **ug/L** Analysis Date: **28-Jun-2023 14:58**
Client ID: Run ID: **VOA9_440137** SeqNo: **7391398** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	42.38	2.0	40	0	106	64 - 133				
Carbon tetrachloride	24.82	1.0	20	0	124	72 - 136				
Chlorobenzene	21.33	1.0	20	0	107	82 - 118				
Chloroethane	19.38	1.0	20	0	96.9	60 - 138				
Chloroform	19.38	1.0	20	0	96.9	79 - 124				
Chloromethane	16.67	1.0	20	0	83.3	50 - 139				
cis-1,2-Dichloroethene	19.76	1.0	20	0	98.8	78 - 123				
cis-1,3-Dichloropropene	19.14	1.0	20	0	95.7	75 - 124				
Dibromochloromethane	21.3	1.0	20	0	107	74 - 126				
Dibromomethane	20.5	1.0	20	0	103	79 - 123				
Dichlorodifluoromethane	17.58	1.0	20	0	87.9	32 - 152				
Ethylbenzene	22.76	1.0	20	0	114	79 - 121				
Hexachlorobutadiene	22.72	1.0	20	0	114	66 - 134				
Isopropylbenzene	24.51	1.0	20	0	123	72 - 131				
m,p-Xylene	47.23	2.0	40	0	118	80 - 121				
Methylene chloride	19.17	2.0	20	0	95.8	74 - 124				
Naphthalene	17.09	1.0	20	0	85.4	61 - 128				
n-Butylbenzene	23.49	1.0	20	0	117	75 - 128				
n-Propylbenzene	23.65	1.0	20	0	118	76 - 126				
o-Xylene	22.57	1.0	20	0	113	78 - 122				
sec-Butylbenzene	23.62	1.0	20	0	118	77 - 126				
Styrene	23.1	1.0	20	0	115	78 - 123				
tert-Butylbenzene	23.19	1.0	20	0	116	78 - 124				
Tetrachloroethene	23.74	1.0	20	0	119	74 - 129				
Toluene	22.28	1.0	20	0	111	80 - 121				
trans-1,2-Dichloroethene	20.38	1.0	20	0	102	75 - 124				
trans-1,3-Dichloropropene	19.68	1.0	20	0	98.4	73 - 127				
Trichloroethene	23.9	1.0	20	0	120	79 - 123				
Trichlorofluoromethane	23.8	1.0	20	0	119	65 - 141				
Vinyl chloride	19.58	1.0	20	0	97.9	58 - 137				
Surr: 1,2-Dichloroethane-d4	*52.06*	*1.0*	*50*	*0*	*104*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.85*	*1.0*	*50*	*0*	*102*	*85 - 114*				
Surr: Dibromofluoromethane	*50.57*	*1.0*	*50*	*0*	*101*	*80 - 119*				
Surr: Toluene-d8	*54.6*	*1.0*	*50*	*0*	*109*	*89 - 112*				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061825-05MSD** Units: **ug/L** Analysis Date: **28-Jun-2023 15:20**
Client ID: Run ID: **VOA9_440137** SeqNo: **7391399** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.32	1.0	20	0	107	78 - 124	21.88	2.61	20	
1,1,1-Trichloroethane	20.93	1.0	20	0	105	74 - 131	21.98	4.89	20	
1,1,2,2-Tetrachloroethane	17.83	1.0	20	0	89.1	71 - 121	17.91	0.457	20	
1,1,2-Trichloroethane	19.24	1.0	20	0	96.2	80 - 119	19.47	1.19	20	
1,1-Dichloroethane	18.58	1.0	20	0	92.9	77 - 125	18.9	1.72	20	
1,1-Dichloroethene	20.12	1.0	20	0	101	71 - 131	21.03	4.45	20	
1,1-Dichloropropene	22.48	1.0	20	0	112	78 - 125	23.1	2.71	20	
1,2,3-Trichlorobenzene	17.8	1.0	20	0	89.0	69 - 129	18.05	1.41	20	
1,2,3-Trichloropropane	18.53	1.0	20	0	92.6	73 - 122	18.74	1.11	20	
1,2,4-Trichlorobenzene	18.32	1.0	20	0	91.6	69 - 130	18.85	2.8	20	
1,2,4-Trimethylbenzene	21.25	1.0	20	0	106	76 - 124	22.01	3.55	20	
1,2-Dibromo-3-chloropropane	16.2	1.0	20	0	81.0	62 - 128	16.44	1.5	20	
1,2-Dibromoethane	19.92	1.0	20	0	99.6	77 - 121	20.1	0.938	20	
1,2-Dichlorobenzene	19.4	1.0	20	0	97.0	80 - 119	20.16	3.86	20	
1,2-Dichloroethane	21.2	1.0	20	0	106	73 - 128	21.45	1.18	20	
1,2-Dichloropropane	19.63	1.0	20	0	98.2	78 - 122	20.27	3.18	20	
1,3,5-Trimethylbenzene	22.02	1.0	20	0	110	75 - 124	22.92	4.04	20	
1,3-Dichlorobenzene	19.94	1.0	20	0	99.7	80 - 119	20.87	4.55	20	
1,3-Dichloropropane	19.59	1.0	20	0	98.0	80 - 119	20.4	4.05	20	
1,4-Dichlorobenzene	19.52	1.0	20	0	97.6	79 - 118	19.83	1.61	20	
2,2-Dichloropropane	22.5	1.0	20	0	112	60 - 139	22.91	1.81	20	
2-Butanone	33.35	2.0	40	0	83.4	56 - 143	33.32	0.0976	20	
2-Chlorotoluene	20.75	1.0	20	0	104	79 - 122	21.98	5.73	20	
2-Hexanone	35.44	2.0	40	0	88.6	57 - 139	34.37	3.08	20	
4-Chlorotoluene	21.2	1.0	20	0	106	78 - 122	22.26	4.88	20	
4-Isopropyltoluene	22.63	1.0	20	0	113	77 - 127	23.96	5.71	20	
4-Methyl-2-pentanone	37.75	2.0	40	0	94.4	67 - 130	36.2	4.19	20	
Acetone	34.34	2.0	40	0	85.9	39 - 160	32.94	4.17	20	
Benzene	20.38	1.0	20	0	102	79 - 120	20.89	2.46	20	
Bromobenzene	19.93	1.0	20	0	99.6	80 - 120	20.44	2.53	20	
Bromochloromethane	17.85	1.0	20	0	89.3	78 - 123	18.8	5.16	20	
Bromodichloromethane	20.75	1.0	20	0	104	79 - 125	21.3	2.61	20	
Bromoform	20.36	1.0	20	0	102	66 - 130	20.36	0.00181	20	
Bromomethane	20.29	1.0	20	0	101	53 - 141	21.1	3.88	20	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440137 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061825-05MSD** Units: **ug/L** Analysis Date: **28-Jun-2023 15:20**
Client ID: Run ID: **VOA9_440137** SeqNo: **7391399** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	40.65	2.0	40	0	102	64 - 133	42.38	4.17	20	
Carbon tetrachloride	23.91	1.0	20	0	120	72 - 136	24.82	3.71	20	
Chlorobenzene	20.77	1.0	20	0	104	82 - 118	21.33	2.63	20	
Chloroethane	18.55	1.0	20	0	92.7	60 - 138	19.38	4.38	20	
Chloroform	18.48	1.0	20	0	92.4	79 - 124	19.38	4.75	20	
Chloromethane	16.62	1.0	20	0	83.1	50 - 139	16.67	0.302	20	
cis-1,2-Dichloroethene	18.77	1.0	20	0	93.9	78 - 123	19.76	5.11	20	
cis-1,3-Dichloropropene	18.98	1.0	20	0	94.9	75 - 124	19.14	0.833	20	
Dibromochloromethane	21.16	1.0	20	0	106	74 - 126	21.3	0.675	20	
Dibromomethane	20.7	1.0	20	0	104	79 - 123	20.5	0.965	20	
Dichlorodifluoromethane	16.58	1.0	20	0	82.9	32 - 152	17.58	5.87	20	
Ethylbenzene	22.08	1.0	20	0	110	79 - 121	22.76	3.02	20	
Hexachlorobutadiene	21.22	1.0	20	0	106	66 - 134	22.72	6.79	20	
Isopropylbenzene	23.85	1.0	20	0	119	72 - 131	24.51	2.75	20	
m,p-Xylene	45.59	2.0	40	0	114	80 - 121	47.23	3.53	20	
Methylene chloride	18.53	2.0	20	0	92.7	74 - 124	19.17	3.38	20	
Naphthalene	18.13	1.0	20	0	90.6	61 - 128	17.09	5.89	20	
n-Butylbenzene	22.66	1.0	20	0	113	75 - 128	23.49	3.61	20	
n-Propylbenzene	22.68	1.0	20	0	113	76 - 126	23.65	4.17	20	
o-Xylene	22.21	1.0	20	0	111	78 - 122	22.57	1.58	20	
sec-Butylbenzene	22.51	1.0	20	0	113	77 - 126	23.62	4.81	20	
Styrene	23.07	1.0	20	0	115	78 - 123	23.1	0.134	20	
tert-Butylbenzene	22.41	1.0	20	0	112	78 - 124	23.19	3.41	20	
Tetrachloroethene	22.49	1.0	20	0	112	74 - 129	23.74	5.41	20	
Toluene	21.1	1.0	20	0	106	80 - 121	22.28	5.44	20	
trans-1,2-Dichloroethene	19.57	1.0	20	0	97.9	75 - 124	20.38	4.05	20	
trans-1,3-Dichloropropene	18.91	1.0	20	0	94.5	73 - 127	19.68	4.02	20	
Trichloroethene	22.16	1.0	20	0	111	79 - 123	23.9	7.56	20	
Trichlorofluoromethane	22.8	1.0	20	0	114	65 - 141	23.8	4.26	20	
Vinyl chloride	18.62	1.0	20	0	93.1	58 - 137	19.58	5.04	20	
Surr: 1,2-Dichloroethane-d4	*51.81*	*1.0*	*50*	*0*	*104*	*81 - 118*	*52.06*	*0.47*	*20*	
Surr: 4-Bromofluorobenzene	*51.63*	*1.0*	*50*	*0*	*103*	*85 - 114*	*50.85*	*1.52*	*20*	
Surr: Dibromofluoromethane	*49.91*	*1.0*	*50*	*0*	*99.8*	*80 - 119*	*50.57*	*1.3*	*20*	
Surr: Toluene-d8	*53.97*	*1.0*	*50*	*0*	*108*	*89 - 112*	*54.6*	*1.15*	*20*	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440137 (0)	Instrument: VOA9	Method: VOLATILES ORGANICS BY METHOD 8260C

The following samples were analyzed in this batch:

HS23061925-01	HS23061925-02	HS23061925-03	HS23061925-04
HS23061925-06	HS23061925-16	HS23061925-17	HS23061925-18
HS23061925-19	HS23061925-20	HS23061925-24	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230629** Units: **ug/L** Analysis Date: **29-Jun-2023 12:39**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394054** 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	0.50	2.0								U
4-Chlorotoluene	0.50	1.0								U
4-Isopropyltoluene	0.50	1.0								U
4-Methyl-2-pentanone	0.50	2.0								U
Acetone	0.50	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: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230629** Units: **ug/L** Analysis Date: **29-Jun-2023 12:39**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394054** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	0.50	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	0.50	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	*51.09*	*1.0*	*50*	*0*	*102*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*47.17*	*1.0*	*50*	*0*	*94.3*	*85 - 114*				
Surr: Dibromofluoromethane	*48.53*	*1.0*	*50*	*0*	*97.1*	*80 - 119*				
Surr: Toluene-d8	*53.86*	*1.0*	*50*	*0*	*108*	*89 - 112*				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230629** Units: **ug/L** Analysis Date: **29-Jun-2023 11:54**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394053** 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	21.59	1.0	20	0	108	78 - 124				
1,1,1-Trichloroethane	22.86	1.0	20	0	114	74 - 131				
1,1,2,2-Tetrachloroethane	19.35	1.0	20	0	96.7	71 - 121				
1,1,2-Trichloroethane	20	1.0	20	0	100.0	80 - 119				
1,1-Dichloroethane	20.52	1.0	20	0	103	77 - 125				
1,1-Dichloroethene	21.67	1.0	20	0	108	71 - 131				
1,1-Dichloropropene	22.59	1.0	20	0	113	78 - 125				
1,2,3-Trichlorobenzene	19.49	1.0	20	0	97.5	69 - 129				
1,2,3-Trichloropropane	19.52	1.0	20	0	97.6	73 - 122				
1,2,4-Trichlorobenzene	19.84	1.0	20	0	99.2	69 - 130				
1,2,4-Trimethylbenzene	22.33	1.0	20	0	112	76 - 124				
1,2-Dibromo-3-chloropropane	17.04	1.0	20	0	85.2	62 - 128				
1,2-Dibromoethane	20.74	1.0	20	0	104	77 - 121				
1,2-Dichlorobenzene	20.88	1.0	20	0	104	80 - 119				
1,2-Dichloroethane	22.57	1.0	20	0	113	73 - 128				
1,2-Dichloropropane	20.74	1.0	20	0	104	78 - 122				
1,3,5-Trimethylbenzene	22.6	1.0	20	0	113	75 - 124				
1,3-Dichlorobenzene	21.22	1.0	20	0	106	80 - 119				
1,3-Dichloropropane	20.44	1.0	20	0	102	80 - 119				
1,4-Dichlorobenzene	20.89	1.0	20	0	104	79 - 118				
2,2-Dichloropropane	23.48	1.0	20	0	117	60 - 139				
2-Butanone	37.08	2.0	40	0	92.7	56 - 143				
2-Chlorotoluene	21.88	1.0	20	0	109	79 - 122				
2-Hexanone	36.36	2.0	40	0	90.9	57 - 139				
4-Chlorotoluene	22.27	1.0	20	0	111	78 - 122				
4-Isopropyltoluene	23.07	1.0	20	0	115	77 - 127				
4-Methyl-2-pentanone	37.75	2.0	40	0	94.4	67 - 130				
Acetone	42.4	2.0	40	0	106	39 - 160				
Benzene	21.21	1.0	20	0	106	79 - 120				
Bromobenzene	21.18	1.0	20	0	106	80 - 120				
Bromochloromethane	20.54	1.0	20	0	103	78 - 123				
Bromodichloromethane	21.72	1.0	20	0	109	79 - 125				
Bromoform	21.08	1.0	20	0	105	66 - 130				
Bromomethane	25.7	1.0	20	0	129	53 - 141				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument: VOA9** **Method: VOLATILES ORGANICS BY METHOD 8260C**

LCS Sample ID: **VLCSW-230629** Units: **ug/L** Analysis Date: **29-Jun-2023 11:54**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394053** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	48.71	2.0	40	0	122	64 - 133				
Carbon tetrachloride	23.67	1.0	20	0	118	72 - 136				
Chlorobenzene	21.57	1.0	20	0	108	82 - 118				
Chloroethane	20.34	1.0	20	0	102	60 - 138				
Chloroform	21.4	1.0	20	0	107	79 - 124				
Chloromethane	17.48	1.0	20	0	87.4	50 - 139				
cis-1,2-Dichloroethene	21.04	1.0	20	0	105	78 - 123				
cis-1,3-Dichloropropene	20.56	1.0	20	0	103	75 - 124				
Dibromochloromethane	21.84	1.0	20	0	109	74 - 126				
Dibromomethane	21.48	1.0	20	0	107	79 - 123				
Dichlorodifluoromethane	20.59	1.0	20	0	103	32 - 152				
Ethylbenzene	22.09	1.0	20	0	110	79 - 121				
Hexachlorobutadiene	22.26	1.0	20	0	111	66 - 134				
Isopropylbenzene	23.27	1.0	20	0	116	72 - 131				
m,p-Xylene	45.97	2.0	40	0	115	80 - 121				
Methylene chloride	22.25	2.0	20	0	111	74 - 124				
Naphthalene	19.43	1.0	20	0	97.1	61 - 128				
n-Butylbenzene	22.71	1.0	20	0	114	75 - 128				
n-Propylbenzene	23.01	1.0	20	0	115	76 - 126				
o-Xylene	22.16	1.0	20	0	111	78 - 122				
sec-Butylbenzene	22.88	1.0	20	0	114	77 - 126				
Styrene	23.28	1.0	20	0	116	78 - 123				
tert-Butylbenzene	22.7	1.0	20	0	113	78 - 124				
Tetrachloroethene	22	1.0	20	0	110	74 - 129				
Toluene	21.55	1.0	20	0	108	80 - 121				
trans-1,2-Dichloroethene	21.91	1.0	20	0	110	75 - 124				
trans-1,3-Dichloropropene	19.62	1.0	20	0	98.1	73 - 127				
Trichloroethene	20.98	1.0	20	0	105	79 - 123				
Trichlorofluoromethane	24.07	1.0	20	0	120	65 - 141				
Vinyl chloride	20.84	1.0	20	0	104	58 - 137				
Surr: 1,2-Dichloroethane-d4	*51.69*	*1.0*	*50*	*0*	*103*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*51.6*	*1.0*	*50*	*0*	*103*	*85 - 114*				
Surr: Dibromofluoromethane	*50.54*	*1.0*	*50*	*0*	*101*	*80 - 119*				
Surr: Toluene-d8	*48.55*	*1.0*	*50*	*0*	*97.1*	*89 - 112*				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061825-03MS** Units: **ug/L** Analysis Date: **29-Jun-2023 15:10**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394059** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1105	50	1000	0	110	78 - 124				
1,1,1-Trichloroethane	1081	50	1000	0	108	74 - 131				
1,1,2,2-Tetrachloroethane	901.2	50	1000	0	90.1	71 - 121				
1,1,2-Trichloroethane	973.3	50	1000	0	97.3	80 - 119				
1,1-Dichloroethane	956	50	1000	0	95.6	77 - 125				
1,1-Dichloroethene	1081	50	1000	0	108	71 - 131				
1,1-Dichloropropene	1153	50	1000	0	115	78 - 125				
1,2,3-Trichlorobenzene	868.2	50	1000	0	86.8	69 - 129				
1,2,3-Trichloropropane	902.8	50	1000	0	90.3	73 - 122				
1,2,4-Trichlorobenzene	905.1	50	1000	0	90.5	69 - 130				
1,2,4-Trimethylbenzene	1094	50	1000	0	109	76 - 124				
1,2-Dibromo-3-chloropropane	804.1	50	1000	0	80.4	62 - 128				
1,2-Dibromoethane	990.6	50	1000	0	99.1	77 - 121				
1,2-Dichlorobenzene	999.5	50	1000	0	100.0	80 - 119				
1,2-Dichloroethane	1151	50	1000	79.85	107	73 - 128				
1,2-Dichloropropane	1005	50	1000	0	101	78 - 122				
1,3,5-Trimethylbenzene	1141	50	1000	0	114	75 - 124				
1,3-Dichlorobenzene	1032	50	1000	0	103	80 - 119				
1,3-Dichloropropane	1004	50	1000	0	100	80 - 119				
1,4-Dichlorobenzene	1006	50	1000	0	101	79 - 118				
2,2-Dichloropropane	1121	50	1000	0	112	60 - 139				
2-Butanone	1574	100	2000	0	78.7	56 - 143				
2-Chlorotoluene	1086	50	1000	0	109	79 - 122				
2-Hexanone	1690	100	2000	0	84.5	57 - 139				
4-Chlorotoluene	1108	50	1000	0	111	78 - 122				
4-Isopropyltoluene	1177	50	1000	0	118	77 - 127				
4-Methyl-2-pentanone	1774	100	2000	0	88.7	67 - 130				
Acetone	1515	100	2000	0	75.7	39 - 160				
Benzene	1054	50	1000	0	105	79 - 120				
Bromobenzene	1003	50	1000	0	100	80 - 120				
Bromochloromethane	921.2	50	1000	0	92.1	78 - 123				
Bromodichloromethane	1063	50	1000	0	106	79 - 125				
Bromoform	1061	50	1000	0	106	66 - 130				
Bromomethane	1185	50	1000	0	118	53 - 141				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument: VOA9** **Method: VOLATILES ORGANICS BY METHOD 8260C**

MS Sample ID: **HS23061825-03MS** Units: **ug/L** Analysis Date: **29-Jun-2023 15:10**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394059** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	2138	100	2000	0	107	64 - 133				
Carbon tetrachloride	1245	50	1000	0	124	72 - 136				
Chlorobenzene	1083	50	1000	0	108	82 - 118				
Chloroethane	998.3	50	1000	0	99.8	60 - 138				
Chloroform	967.2	50	1000	0	96.7	79 - 124				
Chloromethane	779.4	50	1000	0	77.9	50 - 139				
cis-1,2-Dichloroethene	994	50	1000	0	99.4	78 - 123				
cis-1,3-Dichloropropene	959.1	50	1000	0	95.9	75 - 124				
Dibromochloromethane	1097	50	1000	0	110	74 - 126				
Dibromomethane	1047	50	1000	0	105	79 - 123				
Dichlorodifluoromethane	893.1	50	1000	0	89.3	32 - 152				
Ethylbenzene	1129	50	1000	0	113	79 - 121				
Hexachlorobutadiene	1075	50	1000	0	107	66 - 134				
Isopropylbenzene	1215	50	1000	0	122	72 - 131				
m,p-Xylene	2376	100	2000	0	119	80 - 121				
Methylene chloride	994.4	100	1000	0	99.4	74 - 124				
Naphthalene	811.7	50	1000	0	81.2	61 - 128				
n-Butylbenzene	1159	50	1000	0	116	75 - 128				
n-Propylbenzene	1139	50	1000	0	114	76 - 126				
o-Xylene	1142	50	1000	0	114	78 - 122				
sec-Butylbenzene	1171	50	1000	0	117	77 - 126				
Styrene	1161	50	1000	0	116	78 - 123				
tert-Butylbenzene	1150	50	1000	0	115	78 - 124				
Tetrachloroethene	1207	50	1000	0	121	74 - 129				
Toluene	1085	50	1000	0	109	80 - 121				
trans-1,2-Dichloroethene	1027	50	1000	0	103	75 - 124				
trans-1,3-Dichloropropene	947	50	1000	0	94.7	73 - 127				
Trichloroethene	3625	50	1000	2606	102	79 - 123				
Trichlorofluoromethane	1188	50	1000	0	119	65 - 141				
Vinyl chloride	990.6	50	1000	0	99.1	58 - 137				
Surr: 1,2-Dichloroethane-d4	*2589*	*50*	*2500*	*0*	*104*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*2564*	*50*	*2500*	*0*	*103*	*85 - 114*				
Surr: Dibromofluoromethane	*2493*	*50*	*2500*	*0*	*99.7*	*80 - 119*				
Surr: Toluene-d8	*2704*	*50*	*2500*	*0*	*108*	*89 - 112*				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061825-03MSD** Units: **ug/L** Analysis Date: **29-Jun-2023 15:33**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394060** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	1098	50	1000	0	110	78 - 124	1105	0.62	20	
1,1,1-Trichloroethane	1069	50	1000	0	107	74 - 131	1081	1.1	20	
1,1,2,2-Tetrachloroethane	947.9	50	1000	0	94.8	71 - 121	901.2	5.05	20	
1,1,2-Trichloroethane	995.5	50	1000	0	99.5	80 - 119	973.3	2.25	20	
1,1-Dichloroethane	933.7	50	1000	0	93.4	77 - 125	956	2.36	20	
1,1-Dichloroethene	1058	50	1000	0	106	71 - 131	1081	2.15	20	
1,1-Dichloropropene	1153	50	1000	0	115	78 - 125	1153	0.0741	20	
1,2,3-Trichlorobenzene	937.2	50	1000	0	93.7	69 - 129	868.2	7.65	20	
1,2,3-Trichloropropane	937.5	50	1000	0	93.7	73 - 122	902.8	3.76	20	
1,2,4-Trichlorobenzene	956.4	50	1000	0	95.6	69 - 130	905.1	5.51	20	
1,2,4-Trimethylbenzene	1143	50	1000	0	114	76 - 124	1094	4.42	20	
1,2-Dibromo-3-chloropropane	843.7	50	1000	0	84.4	62 - 128	804.1	4.8	20	
1,2-Dibromoethane	1012	50	1000	0	101	77 - 121	990.6	2.15	20	
1,2-Dichlorobenzene	1040	50	1000	0	104	80 - 119	999.5	3.95	20	
1,2-Dichloroethane	1133	50	1000	79.85	105	73 - 128	1151	1.57	20	
1,2-Dichloropropane	1019	50	1000	0	102	78 - 122	1005	1.31	20	
1,3,5-Trimethylbenzene	1175	50	1000	0	118	75 - 124	1141	2.99	20	
1,3-Dichlorobenzene	1073	50	1000	0	107	80 - 119	1032	3.88	20	
1,3-Dichloropropane	1034	50	1000	0	103	80 - 119	1004	2.94	20	
1,4-Dichlorobenzene	1053	50	1000	0	105	79 - 118	1006	4.57	20	
2,2-Dichloropropane	1073	50	1000	0	107	60 - 139	1121	4.38	20	
2-Butanone	1649	100	2000	0	82.5	56 - 143	1574	4.7	20	
2-Chlorotoluene	1101	50	1000	0	110	79 - 122	1086	1.32	20	
2-Hexanone	1768	100	2000	0	88.4	57 - 139	1690	4.52	20	
4-Chlorotoluene	1127	50	1000	0	113	78 - 122	1108	1.64	20	
4-Isopropyltoluene	1222	50	1000	0	122	77 - 127	1177	3.78	20	
4-Methyl-2-pentanone	1856	100	2000	0	92.8	67 - 130	1774	4.55	20	
Acetone	1688	100	2000	0	84.4	39 - 160	1515	10.8	20	
Benzene	1048	50	1000	0	105	79 - 120	1054	0.589	20	
Bromobenzene	1049	50	1000	0	105	80 - 120	1003	4.48	20	
Bromochloromethane	923.9	50	1000	0	92.4	78 - 123	921.2	0.287	20	
Bromodichloromethane	1083	50	1000	0	108	79 - 125	1063	1.83	20	
Bromoform	1064	50	1000	0	106	66 - 130	1061	0.238	20	
Bromomethane	1113	50	1000	0	111	53 - 141	1185	6.24	20	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440247 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061825-03MSD** Units: **ug/L** Analysis Date: **29-Jun-2023 15:33**
Client ID: Run ID: **VOA9_440247** SeqNo: **7394060** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	2097	100	2000	0	105	64 - 133	2138	1.93	20	
Carbon tetrachloride	1203	50	1000	0	120	72 - 136	1245	3.42	20	
Chlorobenzene	1084	50	1000	0	108	82 - 118	1083	0.0917	20	
Chloroethane	948.5	50	1000	0	94.9	60 - 138	998.3	5.11	20	
Chloroform	982.2	50	1000	0	98.2	79 - 124	967.2	1.53	20	
Chloromethane	792.8	50	1000	0	79.3	50 - 139	779.4	1.71	20	
cis-1,2-Dichloroethene	966.5	50	1000	0	96.6	78 - 123	994	2.81	20	
cis-1,3-Dichloropropene	966.1	50	1000	0	96.6	75 - 124	959.1	0.728	20	
Dibromochloromethane	1082	50	1000	0	108	74 - 126	1097	1.42	20	
Dibromomethane	1017	50	1000	0	102	79 - 123	1047	2.96	20	
Dichlorodifluoromethane	878.6	50	1000	0	87.9	32 - 152	893.1	1.63	20	
Ethylbenzene	1139	50	1000	0	114	79 - 121	1129	0.875	20	
Hexachlorobutadiene	1124	50	1000	0	112	66 - 134	1075	4.45	20	
Isopropylbenzene	1231	50	1000	0	123	72 - 131	1215	1.24	20	
m,p-Xylene	2372	100	2000	0	119	80 - 121	2376	0.163	20	
Methylene chloride	1005	100	1000	0	101	74 - 124	994.4	1.09	20	
Naphthalene	925.4	50	1000	0	92.5	61 - 128	811.7	13.1	20	
n-Butylbenzene	1203	50	1000	0	120	75 - 128	1159	3.7	20	
n-Propylbenzene	1192	50	1000	0	119	76 - 126	1139	4.58	20	
o-Xylene	1143	50	1000	0	114	78 - 122	1142	0.134	20	
sec-Butylbenzene	1217	50	1000	0	122	77 - 126	1171	3.83	20	
Styrene	1171	50	1000	0	117	78 - 123	1161	0.854	20	
tert-Butylbenzene	1200	50	1000	0	120	78 - 124	1150	4.23	20	
Tetrachloroethene	1199	50	1000	0	120	74 - 129	1207	0.625	20	
Toluene	1109	50	1000	0	111	80 - 121	1085	2.12	20	
trans-1,2-Dichloroethene	1033	50	1000	0	103	75 - 124	1027	0.615	20	
trans-1,3-Dichloropropene	971.1	50	1000	0	97.1	73 - 127	947	2.51	20	
Trichloroethene	3563	50	1000	2606	95.8	79 - 123	3625	1.72	20	
Trichlorofluoromethane	1167	50	1000	0	117	65 - 141	1188	1.81	20	
Vinyl chloride	966.4	50	1000	0	96.6	58 - 137	990.6	2.47	20	
Surr: 1,2-Dichloroethane-d4	*2532*	*50*	*2500*	*0*	*101*	*81 - 118*	*2589*	*2.23*	*20*	
Surr: 4-Bromofluorobenzene	*2523*	*50*	*2500*	*0*	*101*	*85 - 114*	*2564*	*1.59*	*20*	
Surr: Dibromofluoromethane	*2493*	*50*	*2500*	*0*	*99.7*	*80 - 119*	*2493*	*0.0188*	*20*	
Surr: Toluene-d8	*2723*	*50*	*2500*	*0*	*109*	*89 - 112*	*2704*	*0.711*	*20*	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440247 (0)	Instrument: VOA9	Method: VOLATILES ORGANICS BY METHOD 8260C

The following samples were analyzed in this batch:				
HS23061925-02	HS23061925-03	HS23061925-05	HS23061925-07	
HS23061925-08	HS23061925-20			

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230630** Units: **ug/L** Analysis Date: **30-Jun-2023 12:50**
Client ID: Run ID: **VOA9_440378** SeqNo: **7397576** 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	0.50	2.0								U
4-Chlorotoluene	0.50	1.0								U
4-Isopropyltoluene	0.50	1.0								U
4-Methyl-2-pentanone	0.50	2.0								U
Acetone	0.50	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: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230630** Units: **ug/L** Analysis Date: **30-Jun-2023 12:50**
Client ID: Run ID: **VOA9_440378** SeqNo: **7397576** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	0.50	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	0.50	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	*50.45*	*1.0*	*50*	*0*	*101*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*47.72*	*1.0*	*50*	*0*	*95.4*	*85 - 114*				
Surr: Dibromofluoromethane	*48.46*	*1.0*	*50*	*0*	*96.9*	*80 - 119*				
Surr: Toluene-d8	*53.62*	*1.0*	*50*	*0*	*107*	*89 - 112*				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230629** Units: **ug/L** Analysis Date: **30-Jun-2023 12:06**
Client ID: Run ID: **VOA9_440378** SeqNo: **7397575** 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	22.49	1.0	20	0	112	78 - 124				
1,1,1-Trichloroethane	19.94	1.0	20	0	99.7	74 - 131				
1,1,2,2-Tetrachloroethane	20.19	1.0	20	0	101	71 - 121				
1,1,2-Trichloroethane	20.96	1.0	20	0	105	80 - 119				
1,1-Dichloroethane	19.35	1.0	20	0	96.7	77 - 125				
1,1-Dichloroethene	20.03	1.0	20	0	100	71 - 131				
1,1-Dichloropropene	20.76	1.0	20	0	104	78 - 125				
1,2,3-Trichlorobenzene	19.76	1.0	20	0	98.8	69 - 129				
1,2,3-Trichloropropane	20.18	1.0	20	0	101	73 - 122				
1,2,4-Trichlorobenzene	19.86	1.0	20	0	99.3	69 - 130				
1,2,4-Trimethylbenzene	21.36	1.0	20	0	107	76 - 124				
1,2-Dibromo-3-chloropropane	18.51	1.0	20	0	92.5	62 - 128				
1,2-Dibromoethane	21.72	1.0	20	0	109	77 - 121				
1,2-Dichlorobenzene	21.03	1.0	20	0	105	80 - 119				
1,2-Dichloroethane	22.54	1.0	20	0	113	73 - 128				
1,2-Dichloropropane	21.11	1.0	20	0	106	78 - 122				
1,3,5-Trimethylbenzene	21.21	1.0	20	0	106	75 - 124				
1,3-Dichlorobenzene	21.17	1.0	20	0	106	80 - 119				
1,3-Dichloropropane	21.71	1.0	20	0	109	80 - 119				
1,4-Dichlorobenzene	20.64	1.0	20	0	103	79 - 118				
2,2-Dichloropropane	21.53	1.0	20	0	108	60 - 139				
2-Butanone	39.78	2.0	40	0	99.4	56 - 143				
2-Chlorotoluene	20.83	1.0	20	0	104	79 - 122				
2-Hexanone	39.71	2.0	40	0	99.3	57 - 139				
4-Chlorotoluene	21.38	1.0	20	0	107	78 - 122				
4-Isopropyltoluene	20.25	1.0	20	0	101	77 - 127				
4-Methyl-2-pentanone	40.58	2.0	40	0	101	67 - 130				
Acetone	50.79	2.0	40	0	127	39 - 160				
Benzene	21.54	1.0	20	0	108	79 - 120				
Bromobenzene	21	1.0	20	0	105	80 - 120				
Bromochloromethane	20.02	1.0	20	0	100	78 - 123				
Bromodichloromethane	22.65	1.0	20	0	113	79 - 125				
Bromoform	22.28	1.0	20	0	111	66 - 130				
Bromomethane	23.3	1.0	20	0	117	53 - 141				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230629** Units: **ug/L** Analysis Date: **30-Jun-2023 12:06**
Client ID: Run ID: **VOA9_440378** SeqNo: **7397575** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	45.42	2.0	40	0	114	64 - 133				
Carbon tetrachloride	21.15	1.0	20	0	106	72 - 136				
Chlorobenzene	21.49	1.0	20	0	107	82 - 118				
Chloroethane	19.47	1.0	20	0	97.3	60 - 138				
Chloroform	20.8	1.0	20	0	104	79 - 124				
Chloromethane	17.15	1.0	20	0	85.8	50 - 139				
cis-1,2-Dichloroethene	20.52	1.0	20	0	103	78 - 123				
cis-1,3-Dichloropropene	20.63	1.0	20	0	103	75 - 124				
Dibromochloromethane	23.49	1.0	20	0	117	74 - 126				
Dibromomethane	22.05	1.0	20	0	110	79 - 123				
Dichlorodifluoromethane	18.31	1.0	20	0	91.6	32 - 152				
Ethylbenzene	21.37	1.0	20	0	107	79 - 121				
Hexachlorobutadiene	18.33	1.0	20	0	91.6	66 - 134				
Isopropylbenzene	21.18	1.0	20	0	106	72 - 131				
m,p-Xylene	44.58	2.0	40	0	111	80 - 121				
Methylene chloride	21.87	2.0	20	0	109	74 - 124				
Naphthalene	20.22	1.0	20	0	101	61 - 128				
n-Butylbenzene	19.35	1.0	20	0	96.7	75 - 128				
n-Propylbenzene	20.98	1.0	20	0	105	76 - 126				
o-Xylene	21.83	1.0	20	0	109	78 - 122				
sec-Butylbenzene	19.4	1.0	20	0	97.0	77 - 126				
Styrene	22.97	1.0	20	0	115	78 - 123				
tert-Butylbenzene	20.17	1.0	20	0	101	78 - 124				
Tetrachloroethene	21.09	1.0	20	0	105	74 - 129				
Toluene	22.25	1.0	20	0	111	80 - 121				
trans-1,2-Dichloroethene	20.82	1.0	20	0	104	75 - 124				
trans-1,3-Dichloropropene	20.2	1.0	20	0	101	73 - 127				
Trichloroethene	21.2	1.0	20	0	106	79 - 123				
Trichlorofluoromethane	20.43	1.0	20	0	102	65 - 141				
Vinyl chloride	19	1.0	20	0	95.0	58 - 137				
Surr: 1,2-Dichloroethane-d4	*48.68*	*1.0*	*50*	*0*	*97.4*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*52.02*	*1.0*	*50*	*0*	*104*	*85 - 114*				
Surr: Dibromofluoromethane	*48.87*	*1.0*	*50*	*0*	*97.7*	*80 - 119*				
Surr: Toluene-d8	*51.75*	*1.0*	*50*	*0*	*104*	*89 - 112*				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061925-22MS** Units: **ug/L** Analysis Date: **30-Jun-2023 16:57**
Client ID: **ICT14D_062723** Run ID: **VOA9_440378** SeqNo: **7397587** PrepDate: DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	5439	250	5000	0	109	78 - 124				
1,1,1-Trichloroethane	5240	250	5000	0	105	74 - 131				
1,1,2,2-Tetrachloroethane	4550	250	5000	0	91.0	71 - 121				
1,1,2-Trichloroethane	4918	250	5000	0	98.4	80 - 119				
1,1-Dichloroethane	4587	250	5000	0	91.7	77 - 125				
1,1-Dichloroethene	5369	250	5000	0	107	71 - 131				
1,1-Dichloropropene	5596	250	5000	0	112	78 - 125				
1,2,3-Trichlorobenzene	4268	250	5000	0	85.4	69 - 129				
1,2,3-Trichloropropane	4638	250	5000	0	92.8	73 - 122				
1,2,4-Trichlorobenzene	4441	250	5000	0	88.8	69 - 130				
1,2,4-Trimethylbenzene	5157	250	5000	0	103	76 - 124				
1,2-Dibromo-3-chloropropane	3900	250	5000	0	78.0	62 - 128				
1,2-Dibromoethane	4879	250	5000	0	97.6	77 - 121				
1,2-Dichlorobenzene	4993	250	5000	0	99.9	80 - 119				
1,2-Dichloroethane	5180	250	5000	0	104	73 - 128				
1,2-Dichloropropane	4986	250	5000	0	99.7	78 - 122				
1,3,5-Trimethylbenzene	5333	250	5000	0	107	75 - 124				
1,3-Dichlorobenzene	5114	250	5000	0	102	80 - 119				
1,3-Dichloropropane	5051	250	5000	0	101	80 - 119				
1,4-Dichlorobenzene	5014	250	5000	0	100	79 - 118				
2,2-Dichloropropane	5280	250	5000	0	106	60 - 139				
2-Butanone	7745	500	10000	0	77.4	56 - 143				
2-Chlorotoluene	5223	250	5000	0	104	79 - 122				
2-Hexanone	8477	500	10000	0	84.8	57 - 139				
4-Chlorotoluene	5340	250	5000	0	107	78 - 122				
4-Isopropyltoluene	5323	250	5000	0	106	77 - 127				
4-Methyl-2-pentanone	8835	500	10000	0	88.4	67 - 130				
Acetone	8244	500	10000	0	82.4	39 - 160				
Benzene	5163	250	5000	0	103	79 - 120				
Bromobenzene	5016	250	5000	0	100	80 - 120				
Bromochloromethane	4522	250	5000	0	90.4	78 - 123				
Bromodichloromethane	5136	250	5000	0	103	79 - 125				
Bromoform	5223	250	5000	0	104	66 - 130				
Bromomethane	5581	250	5000	0	112	53 - 141				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23061925-22MS** Units: **ug/L** Analysis Date: **30-Jun-2023 16:57**
Client ID: **ICT14D_062723** Run ID: **VOA9_440378** SeqNo: **7397587** PrepDate: DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	10300	500	10000	0	103	64 - 133				
Carbon tetrachloride	6134	250	5000	0	123	72 - 136				
Chlorobenzene	5307	250	5000	0	106	82 - 118				
Chloroethane	4623	250	5000	0	92.5	60 - 138				
Chloroform	4759	250	5000	0	95.2	79 - 124				
Chloromethane	4211	250	5000	0	84.2	50 - 139				
cis-1,2-Dichloroethene	23980	250	5000	19860	82.4	78 - 123				
cis-1,3-Dichloropropene	4698	250	5000	0	94.0	75 - 124				
Dibromochloromethane	5318	250	5000	0	106	74 - 126				
Dibromomethane	5076	250	5000	0	102	79 - 123				
Dichlorodifluoromethane	3989	250	5000	0	79.8	32 - 152				
Ethylbenzene	5635	250	5000	0	113	79 - 121				
Hexachlorobutadiene	5441	250	5000	0	109	66 - 134				
Isopropylbenzene	5924	250	5000	0	118	72 - 131				
m,p-Xylene	11570	500	10000	0	116	80 - 121				
Methylene chloride	9778	500	5000	5198	91.6	74 - 124				
Naphthalene	3968	250	5000	0	79.4	61 - 128				
n-Butylbenzene	5519	250	5000	0	110	75 - 128				
n-Propylbenzene	5590	250	5000	0	112	76 - 126				
o-Xylene	5594	250	5000	0	112	78 - 122				
sec-Butylbenzene	5613	250	5000	0	112	77 - 126				
Styrene	5413	250	5000	0	108	78 - 123				
tert-Butylbenzene	5641	250	5000	0	113	78 - 124				
Tetrachloroethene	5800	250	5000	0	116	74 - 129				
Toluene	5465	250	5000	0	109	80 - 121				
trans-1,2-Dichloroethene	4994	250	5000	0	99.9	75 - 124				
trans-1,3-Dichloropropene	4620	250	5000	0	92.4	73 - 127				
Trichloroethene	6386	250	5000	1320	101	79 - 123				
Trichlorofluoromethane	5593	250	5000	0	112	65 - 141				
Vinyl chloride	8810	250	5000	4471	86.8	58 - 137				
Surr: 1,2-Dichloroethane-d4	*12520*	*250*	*12500*	*0*	*100*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*12720*	*250*	*12500*	*0*	*102*	*85 - 114*				
Surr: Dibromofluoromethane	*12310*	*250*	*12500*	*0*	*98.5*	*80 - 119*				
Surr: Toluene-d8	*13620*	*250*	*12500*	*0*	*109*	*89 - 112*				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061925-22MSD** Units: **ug/L** Analysis Date: **30-Jun-2023 17:19**
Client ID: **ICT14D_062723** Run ID: **VOA9_440378** SeqNo: **7397588** PrepDate: DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	5261	250	5000	0	105	78 - 124	5439	3.34	20	
1,1,1-Trichloroethane	5040	250	5000	0	101	74 - 131	5240	3.9	20	
1,1,2,2-Tetrachloroethane	4470	250	5000	0	89.4	71 - 121	4550	1.78	20	
1,1,2-Trichloroethane	4718	250	5000	0	94.4	80 - 119	4918	4.14	20	
1,1-Dichloroethane	4547	250	5000	0	90.9	77 - 125	4587	0.883	20	
1,1-Dichloroethene	5156	250	5000	0	103	71 - 131	5369	4.06	20	
1,1-Dichloropropene	5600	250	5000	0	112	78 - 125	5596	0.0786	20	
1,2,3-Trichlorobenzene	4265	250	5000	0	85.3	69 - 129	4268	0.068	20	
1,2,3-Trichloropropane	4543	250	5000	0	90.9	73 - 122	4638	2.06	20	
1,2,4-Trichlorobenzene	4420	250	5000	0	88.4	69 - 130	4441	0.484	20	
1,2,4-Trimethylbenzene	5211	250	5000	0	104	76 - 124	5157	1.02	20	
1,2-Dibromo-3-chloropropane	3914	250	5000	0	78.3	62 - 128	3900	0.34	20	
1,2-Dibromoethane	4866	250	5000	0	97.3	77 - 121	4879	0.272	20	
1,2-Dichlorobenzene	4887	250	5000	0	97.7	80 - 119	4993	2.15	20	
1,2-Dichloroethane	4930	250	5000	0	98.6	73 - 128	5180	4.95	20	
1,2-Dichloropropane	4822	250	5000	0	96.4	78 - 122	4986	3.36	20	
1,3,5-Trimethylbenzene	5259	250	5000	0	105	75 - 124	5333	1.4	20	
1,3-Dichlorobenzene	4971	250	5000	0	99.4	80 - 119	5114	2.85	20	
1,3-Dichloropropane	4860	250	5000	0	97.2	80 - 119	5051	3.87	20	
1,4-Dichlorobenzene	4934	250	5000	0	98.7	79 - 118	5014	1.61	20	
2,2-Dichloropropane	5048	250	5000	0	101	60 - 139	5280	4.5	20	
2-Butanone	7924	500	10000	0	79.2	56 - 143	7745	2.28	20	
2-Chlorotoluene	5172	250	5000	0	103	79 - 122	5223	0.984	20	
2-Hexanone	8589	500	10000	0	85.9	57 - 139	8477	1.31	20	
4-Chlorotoluene	5253	250	5000	0	105	78 - 122	5340	1.65	20	
4-Isopropyltoluene	5417	250	5000	0	108	77 - 127	5323	1.76	20	
4-Methyl-2-pentanone	8755	500	10000	0	87.5	67 - 130	8835	0.918	20	
Acetone	8466	500	10000	0	84.7	39 - 160	8244	2.65	20	
Benzene	5054	250	5000	0	101	79 - 120	5163	2.13	20	
Bromobenzene	4974	250	5000	0	99.5	80 - 120	5016	0.832	20	
Bromochloromethane	4507	250	5000	0	90.1	78 - 123	4522	0.329	20	
Bromodichloromethane	5152	250	5000	0	103	79 - 125	5136	0.322	20	
Bromoform	5097	250	5000	0	102	66 - 130	5223	2.44	20	
Bromomethane	5276	250	5000	0	106	53 - 141	5581	5.61	20	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440378 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23061925-22MSD** Units: **ug/L** Analysis Date: **30-Jun-2023 17:19**
Client ID: **ICT14D_062723** Run ID: **VOA9_440378** SeqNo: **7397588** PrepDate: DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	10000	500	10000	0	100	64 - 133	10300	2.96	20	
Carbon tetrachloride	5871	250	5000	0	117	72 - 136	6134	4.39	20	
Chlorobenzene	5160	250	5000	0	103	82 - 118	5307	2.81	20	
Chloroethane	4591	250	5000	0	91.8	60 - 138	4623	0.677	20	
Chloroform	4625	250	5000	0	92.5	79 - 124	4759	2.86	20	
Chloromethane	3957	250	5000	0	79.1	50 - 139	4211	6.23	20	
cis-1,2-Dichloroethene	23130	250	5000	19860	65.3	78 - 123	23980	3.62	20	S
cis-1,3-Dichloropropene	4597	250	5000	0	91.9	75 - 124	4698	2.18	20	
Dibromochloromethane	5104	250	5000	0	102	74 - 126	5318	4.11	20	
Dibromomethane	5026	250	5000	0	101	79 - 123	5076	0.983	20	
Dichlorodifluoromethane	4083	250	5000	0	81.7	32 - 152	3989	2.33	20	
Ethylbenzene	5472	250	5000	0	109	79 - 121	5635	2.94	20	
Hexachlorobutadiene	5181	250	5000	0	104	66 - 134	5441	4.9	20	
Isopropylbenzene	5807	250	5000	0	116	72 - 131	5924	2	20	
m,p-Xylene	11410	500	10000	0	114	80 - 121	11570	1.44	20	
Methylene chloride	9777	500	5000	5198	91.6	74 - 124	9778	0.0141	20	
Naphthalene	4304	250	5000	0	86.1	61 - 128	3968	8.12	20	
n-Butylbenzene	5429	250	5000	0	109	75 - 128	5519	1.64	20	
n-Propylbenzene	5501	250	5000	0	110	76 - 126	5590	1.6	20	
o-Xylene	5407	250	5000	0	108	78 - 122	5594	3.4	20	
sec-Butylbenzene	5578	250	5000	0	112	77 - 126	5613	0.638	20	
Styrene	5511	250	5000	0	110	78 - 123	5413	1.79	20	
tert-Butylbenzene	5571	250	5000	0	111	78 - 124	5641	1.25	20	
Tetrachloroethene	5540	250	5000	0	111	74 - 129	5800	4.58	20	
Toluene	5270	250	5000	0	105	80 - 121	5465	3.64	20	
trans-1,2-Dichloroethene	5009	250	5000	0	100	75 - 124	4994	0.309	20	
trans-1,3-Dichloropropene	4600	250	5000	0	92.0	73 - 127	4620	0.437	20	
Trichloroethene	6275	250	5000	1320	99.1	79 - 123	6386	1.76	20	
Trichlorofluoromethane	5561	250	5000	0	111	65 - 141	5593	0.574	20	
Vinyl chloride	8674	250	5000	4471	84.1	58 - 137	8810	1.55	20	
Surr: 1,2-Dichloroethane-d4	*12480*	*250*	*12500*	*0*	*99.8*	*81 - 118*	*12520*	*0.363*	*20*	
Surr: 4-Bromofluorobenzene	*12850*	*250*	*12500*	*0*	*103*	*85 - 114*	*12720*	*1.02*	*20*	
Surr: Dibromofluoromethane	*12510*	*250*	*12500*	*0*	*100*	*80 - 119*	*12310*	*1.54*	*20*	
Surr: Toluene-d8	*13520*	*250*	*12500*	*0*	*108*	*89 - 112*	*13620*	*0.749*	*20*	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440378 (0)	Instrument: VOA9	Method: VOLATILES ORGANICS BY METHOD 8260C

The following samples were analyzed in this batch:

HS23061925-07	HS23061925-09	HS23061925-10	HS23061925-11
HS23061925-12	HS23061925-13	HS23061925-14	HS23061925-15
HS23061925-21	HS23061925-22	HS23061925-23	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440472 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230703** Units: **ug/L** Analysis Date: **03-Jul-2023 13:00**
Client ID: Run ID: **VOA9_440472** SeqNo: **7400118** 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	0.50	2.0								U
4-Chlorotoluene	0.50	1.0								U
4-Isopropyltoluene	0.50	1.0								U
4-Methyl-2-pentanone	0.50	2.0								U
Acetone	0.50	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: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440472 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MBLK Sample ID: **VBLKW-230703** Units: **ug/L** Analysis Date: **03-Jul-2023 13:00**
Client ID: Run ID: **VOA9_440472** SeqNo: **7400118** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	0.50	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	0.50	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	*49.16*	*1.0*	*50*	*0*	*98.3*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*48.34*	*1.0*	*50*	*0*	*96.7*	*85 - 114*				
Surr: Dibromofluoromethane	*47.24*	*1.0*	*50*	*0*	*94.5*	*80 - 119*				
Surr: Toluene-d8	*53.42*	*1.0*	*50*	*0*	*107*	*89 - 112*				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440472 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230703** Units: **ug/L** Analysis Date: **03-Jul-2023 13:23**
Client ID: Run ID: **VOA9_440472** SeqNo: **7400119** 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	22.27	1.0	20	0	111	78 - 124				
1,1,1-Trichloroethane	22.6	1.0	20	0	113	74 - 131				
1,1,2,2-Tetrachloroethane	20.29	1.0	20	0	101	71 - 121				
1,1,2-Trichloroethane	20.3	1.0	20	0	102	80 - 119				
1,1-Dichloroethane	20.46	1.0	20	0	102	77 - 125				
1,1-Dichloroethene	22.64	1.0	20	0	113	71 - 131				
1,1-Dichloropropene	23.35	1.0	20	0	117	78 - 125				
1,2,3-Trichlorobenzene	20.27	1.0	20	0	101	69 - 129				
1,2,3-Trichloropropane	20.44	1.0	20	0	102	73 - 122				
1,2,4-Trichlorobenzene	21.4	1.0	20	0	107	69 - 130				
1,2,4-Trimethylbenzene	22.9	1.0	20	0	115	76 - 124				
1,2-Dibromo-3-chloropropane	19.51	1.0	20	0	97.5	62 - 128				
1,2-Dibromoethane	20.88	1.0	20	0	104	77 - 121				
1,2-Dichlorobenzene	21.62	1.0	20	0	108	80 - 119				
1,2-Dichloroethane	21.57	1.0	20	0	108	73 - 128				
1,2-Dichloropropane	21.32	1.0	20	0	107	78 - 122				
1,3,5-Trimethylbenzene	23.4	1.0	20	0	117	75 - 124				
1,3-Dichlorobenzene	21.97	1.0	20	0	110	80 - 119				
1,3-Dichloropropane	21.04	1.0	20	0	105	80 - 119				
1,4-Dichlorobenzene	21.86	1.0	20	0	109	79 - 118				
2,2-Dichloropropane	23.53	1.0	20	0	118	60 - 139				
2-Butanone	40.53	2.0	40	0	101	56 - 143				
2-Chlorotoluene	22.47	1.0	20	0	112	79 - 122				
2-Hexanone	39.67	2.0	40	0	99.2	57 - 139				
4-Chlorotoluene	22.52	1.0	20	0	113	78 - 122				
4-Isopropyltoluene	24.14	1.0	20	0	121	77 - 127				
4-Methyl-2-pentanone	39.51	2.0	40	0	98.8	67 - 130				
Acetone	51.05	2.0	40	0	128	39 - 160				
Benzene	21.71	1.0	20	0	109	79 - 120				
Bromobenzene	21.89	1.0	20	0	109	80 - 120				
Bromochloromethane	20.98	1.0	20	0	105	78 - 123				
Bromodichloromethane	22.16	1.0	20	0	111	79 - 125				
Bromoform	21.8	1.0	20	0	109	66 - 130				
Bromomethane	25.02	1.0	20	0	125	53 - 141				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440472 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

LCS Sample ID: **VLCSW-230703** Units: **ug/L** Analysis Date: **03-Jul-2023 13:23**
Client ID: Run ID: **VOA9_440472** SeqNo: **7400119** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	49.12	2.0	40	0	123	64 - 133				
Carbon tetrachloride	24.13	1.0	20	0	121	72 - 136				
Chlorobenzene	21.75	1.0	20	0	109	82 - 118				
Chloroethane	20.57	1.0	20	0	103	60 - 138				
Chloroform	21.05	1.0	20	0	105	79 - 124				
Chloromethane	17.09	1.0	20	0	85.4	50 - 139				
cis-1,2-Dichloroethene	21.21	1.0	20	0	106	78 - 123				
cis-1,3-Dichloropropene	20.54	1.0	20	0	103	75 - 124				
Dibromochloromethane	22.38	1.0	20	0	112	74 - 126				
Dibromomethane	21.41	1.0	20	0	107	79 - 123				
Dichlorodifluoromethane	20.27	1.0	20	0	101	32 - 152				
Ethylbenzene	22.83	1.0	20	0	114	79 - 121				
Hexachlorobutadiene	24.58	1.0	20	0	123	66 - 134				
Isopropylbenzene	24.48	1.0	20	0	122	72 - 131				
m,p-Xylene	48.15	2.0	40	0	120	80 - 121				
Methylene chloride	21.69	2.0	20	0	108	74 - 124				
Naphthalene	19.5	1.0	20	0	97.5	61 - 128				
n-Butylbenzene	24.03	1.0	20	0	120	75 - 128				
n-Propylbenzene	23.65	1.0	20	0	118	76 - 126				
o-Xylene	23.45	1.0	20	0	117	78 - 122				
sec-Butylbenzene	24.08	1.0	20	0	120	77 - 126				
Styrene	23.96	1.0	20	0	120	78 - 123				
tert-Butylbenzene	23.73	1.0	20	0	119	78 - 124				
Tetrachloroethene	22.8	1.0	20	0	114	74 - 129				
Toluene	22.23	1.0	20	0	111	80 - 121				
trans-1,2-Dichloroethene	22.6	1.0	20	0	113	75 - 124				
trans-1,3-Dichloropropene	20.15	1.0	20	0	101	73 - 127				
Trichloroethene	22.13	1.0	20	0	111	79 - 123				
Trichlorofluoromethane	23.52	1.0	20	0	118	65 - 141				
Vinyl chloride	20.75	1.0	20	0	104	58 - 137				
Surr: 1,2-Dichloroethane-d4	*47.3*	*1.0*	*50*	*0*	*94.6*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*49.42*	*1.0*	*50*	*0*	*98.8*	*85 - 114*				
Surr: Dibromofluoromethane	*47.46*	*1.0*	*50*	*0*	*94.9*	*80 - 119*				
Surr: Toluene-d8	*47.45*	*1.0*	*50*	*0*	*94.9*	*89 - 112*				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440472 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23062157-01MS** Units: **ug/L** Analysis Date: **03-Jul-2023 15:59**
Client ID: Run ID: **VOA9_440472** SeqNo: **7400124** 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	22.21	1.0	20	0	111	78 - 124				
1,1,1-Trichloroethane	21.28	1.0	20	0	106	74 - 131				
1,1,2,2-Tetrachloroethane	19.25	1.0	20	0	96.3	71 - 121				
1,1,2-Trichloroethane	19.74	1.0	20	0	98.7	80 - 119				
1,1-Dichloroethane	18.98	1.0	20	0	94.9	77 - 125				
1,1-Dichloroethene	20.86	1.0	20	0	104	71 - 131				
1,1-Dichloropropene	22.85	1.0	20	0	114	78 - 125				
1,2,3-Trichlorobenzene	18.27	1.0	20	0	91.3	69 - 129				
1,2,3-Trichloropropane	19.01	1.0	20	0	95.1	73 - 122				
1,2,4-Trichlorobenzene	18.96	1.0	20	0	94.8	69 - 130				
1,2,4-Trimethylbenzene	21.08	1.0	20	0	105	76 - 124				
1,2-Dibromo-3-chloropropane	17.21	1.0	20	0	86.1	62 - 128				
1,2-Dibromoethane	20.5	1.0	20	0	103	77 - 121				
1,2-Dichlorobenzene	20.5	1.0	20	0	103	80 - 119				
1,2-Dichloroethane	21.46	1.0	20	0	107	73 - 128				
1,2-Dichloropropane	20.46	1.0	20	0	102	78 - 122				
1,3,5-Trimethylbenzene	22.01	1.0	20	0	110	75 - 124				
1,3-Dichlorobenzene	20.94	1.0	20	0	105	80 - 119				
1,3-Dichloropropane	20.7	1.0	20	0	104	80 - 119				
1,4-Dichlorobenzene	20.42	1.0	20	0	102	79 - 118				
2,2-Dichloropropane	21.53	1.0	20	0	108	60 - 139				
2-Butanone	33.31	2.0	40	0	83.3	56 - 143				
2-Chlorotoluene	20.83	1.0	20	0	104	79 - 122				
2-Hexanone	36.24	2.0	40	0	90.6	57 - 139				
4-Chlorotoluene	21.41	1.0	20	0	107	78 - 122				
4-Isopropyltoluene	22.4	1.0	20	0	112	77 - 127				
4-Methyl-2-pentanone	38.19	2.0	40	0	95.5	67 - 130				
Acetone	31.99	2.0	40	0	80.0	39 - 160				
Benzene	21.16	1.0	20	0	106	79 - 120				
Bromobenzene	20.08	1.0	20	0	100	80 - 120				
Bromochloromethane	19.21	1.0	20	0	96.1	78 - 123				
Bromodichloromethane	21.59	1.0	20	0	108	79 - 125				
Bromoform	21.47	1.0	20	0	107	66 - 130				
Bromomethane	22.53	1.0	20	0	113	53 - 141				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440472 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MS Sample ID: **HS23062157-01MS** Units: **ug/L** Analysis Date: **03-Jul-2023 15:59**
Client ID: Run ID: **VOA9_440472** SeqNo: **7400124** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Carbon disulfide	40.31	2.0	40	0	101	64 - 133				
Carbon tetrachloride	24.45	1.0	20	0	122	72 - 136				
Chlorobenzene	21.57	1.0	20	0	108	82 - 118				
Chloroethane	18.67	1.0	20	0	93.4	60 - 138				
Chloroform	19.63	1.0	20	0	98.2	79 - 124				
Chloromethane	15.46	1.0	20	0	77.3	50 - 139				
cis-1,2-Dichloroethene	19.83	1.0	20	0	99.2	78 - 123				
cis-1,3-Dichloropropene	19.64	1.0	20	0	98.2	75 - 124				
Dibromochloromethane	21.82	1.0	20	0	109	74 - 126				
Dibromomethane	20.38	1.0	20	0	102	79 - 123				
Dichlorodifluoromethane	14.79	1.0	20	0	74.0	32 - 152				
Ethylbenzene	22.19	1.0	20	0	111	79 - 121				
Hexachlorobutadiene	22.69	1.0	20	0	113	66 - 134				
Isopropylbenzene	24.27	1.0	20	0	121	72 - 131				
m,p-Xylene	46.24	2.0	40	0	116	80 - 121				
Methylene chloride	19.46	2.0	20	0	97.3	74 - 124				
Naphthalene	17.29	1.0	20	0	86.5	61 - 128				
n-Butylbenzene	22.45	1.0	20	0	112	75 - 128				
n-Propylbenzene	22.83	1.0	20	0	114	76 - 126				
o-Xylene	22.97	1.0	20	0	115	78 - 122				
sec-Butylbenzene	23.02	1.0	20	0	115	77 - 126				
Styrene	22.73	1.0	20	0	114	78 - 123				
tert-Butylbenzene	22.67	1.0	20	0	113	78 - 124				
Tetrachloroethene	22.25	1.0	20	0	111	74 - 129				
Toluene	21.92	1.0	20	0	110	80 - 121				
trans-1,2-Dichloroethene	20.25	1.0	20	0	101	75 - 124				
trans-1,3-Dichloropropene	19.32	1.0	20	0	96.6	73 - 127				
Trichloroethene	22.04	1.0	20	0	110	79 - 123				
Trichlorofluoromethane	22.01	1.0	20	0	110	65 - 141				
Vinyl chloride	18.89	1.0	20	0	94.5	58 - 137				
Surr: 1,2-Dichloroethane-d4	*51.28*	*1.0*	*50*	*0*	*103*	*81 - 118*				
Surr: 4-Bromofluorobenzene	*50.55*	*1.0*	*50*	*0*	*101*	*85 - 114*				
Surr: Dibromofluoromethane	*49.78*	*1.0*	*50*	*0*	*99.6*	*80 - 119*				
Surr: Toluene-d8	*53.91*	*1.0*	*50*	*0*	*108*	*89 - 112*				

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440472 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23062157-01MSD** Units: **ug/L** Analysis Date: **03-Jul-2023 16:22**
Client ID: Run ID: **VOA9_440472** SeqNo: **7400125** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	21.13	1.0	20	0	106	78 - 124	22.21	4.99	20	
1,1,1-Trichloroethane	19.99	1.0	20	0	100.0	74 - 131	21.28	6.24	20	
1,1,2,2-Tetrachloroethane	19.19	1.0	20	0	95.9	71 - 121	19.25	0.328	20	
1,1,2-Trichloroethane	19.64	1.0	20	0	98.2	80 - 119	19.74	0.492	20	
1,1-Dichloroethane	17.48	1.0	20	0	87.4	77 - 125	18.98	8.25	20	
1,1-Dichloroethene	19.06	1.0	20	0	95.3	71 - 131	20.86	8.99	20	
1,1-Dichloropropene	21.57	1.0	20	0	108	78 - 125	22.85	5.76	20	
1,2,3-Trichlorobenzene	18.91	1.0	20	0	94.5	69 - 129	18.27	3.45	20	
1,2,3-Trichloropropane	18.96	1.0	20	0	94.8	73 - 122	19.01	0.289	20	
1,2,4-Trichlorobenzene	19.25	1.0	20	0	96.3	69 - 130	18.96	1.52	20	
1,2,4-Trimethylbenzene	21.37	1.0	20	0	107	76 - 124	21.08	1.36	20	
1,2-Dibromo-3-chloropropane	17.55	1.0	20	0	87.7	62 - 128	17.21	1.94	20	
1,2-Dibromoethane	19.86	1.0	20	0	99.3	77 - 121	20.5	3.2	20	
1,2-Dichlorobenzene	20.63	1.0	20	0	103	80 - 119	20.5	0.628	20	
1,2-Dichloroethane	20.56	1.0	20	0	103	73 - 128	21.46	4.28	20	
1,2-Dichloropropane	19.55	1.0	20	0	97.7	78 - 122	20.46	4.56	20	
1,3,5-Trimethylbenzene	21.75	1.0	20	0	109	75 - 124	22.01	1.18	20	
1,3-Dichlorobenzene	20.74	1.0	20	0	104	80 - 119	20.94	0.937	20	
1,3-Dichloropropane	20.19	1.0	20	0	101	80 - 119	20.7	2.51	20	
1,4-Dichlorobenzene	20.11	1.0	20	0	101	79 - 118	20.42	1.57	20	
2,2-Dichloropropane	19.73	1.0	20	0	98.6	60 - 139	21.53	8.76	20	
2-Butanone	32.03	2.0	40	0	80.1	56 - 143	33.31	3.92	20	
2-Chlorotoluene	21.04	1.0	20	0	105	79 - 122	20.83	1.02	20	
2-Hexanone	36.47	2.0	40	0	91.2	57 - 139	36.24	0.627	20	
4-Chlorotoluene	21.21	1.0	20	0	106	78 - 122	21.41	0.952	20	
4-Isopropyltoluene	22.49	1.0	20	0	112	77 - 127	22.4	0.399	20	
4-Methyl-2-pentanone	37.43	2.0	40	0	93.6	67 - 130	38.19	2.01	20	
Acetone	30.82	2.0	40	0	77.0	39 - 160	31.99	3.73	20	
Benzene	20.17	1.0	20	0	101	79 - 120	21.16	4.81	20	
Bromobenzene	20.1	1.0	20	0	101	80 - 120	20.08	0.0973	20	
Bromochloromethane	18.36	1.0	20	0	91.8	78 - 123	19.21	4.55	20	
Bromodichloromethane	20.28	1.0	20	0	101	79 - 125	21.59	6.22	20	
Bromoform	20.89	1.0	20	0	104	66 - 130	21.47	2.71	20	
Bromomethane	19.78	1.0	20	0	98.9	53 - 141	22.53	13	20	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID: R440472 (0) **Instrument:** VOA9 **Method:** VOLATILES ORGANICS BY METHOD 8260C

MSD Sample ID: **HS23062157-01MSD** Units: **ug/L** Analysis Date: **03-Jul-2023 16:22**
Client ID: Run ID: **VOA9_440472** SeqNo: **7400125** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Carbon disulfide	37.88	2.0	40	0	94.7	64 - 133	40.31	6.21	20	
Carbon tetrachloride	22.73	1.0	20	0	114	72 - 136	24.45	7.32	20	
Chlorobenzene	20.72	1.0	20	0	104	82 - 118	21.57	4.01	20	
Chloroethane	17.4	1.0	20	0	87.0	60 - 138	18.67	7.05	20	
Chloroform	18.29	1.0	20	0	91.5	79 - 124	19.63	7.06	20	
Chloromethane	14.39	1.0	20	0	72.0	50 - 139	15.46	7.18	20	
cis-1,2-Dichloroethene	18.32	1.0	20	0	91.6	78 - 123	19.83	7.9	20	
cis-1,3-Dichloropropene	18.87	1.0	20	0	94.4	75 - 124	19.64	3.99	20	
Dibromochloromethane	20.91	1.0	20	0	105	74 - 126	21.82	4.28	20	
Dibromomethane	19.6	1.0	20	0	98.0	79 - 123	20.38	3.87	20	
Dichlorodifluoromethane	13.83	1.0	20	0	69.2	32 - 152	14.79	6.7	20	
Ethylbenzene	21.56	1.0	20	0	108	79 - 121	22.19	2.88	20	
Hexachlorobutadiene	21.98	1.0	20	0	110	66 - 134	22.69	3.18	20	
Isopropylbenzene	23.24	1.0	20	0	116	72 - 131	24.27	4.32	20	
m,p-Xylene	44.49	2.0	40	0	111	80 - 121	46.24	3.87	20	
Methylene chloride	18.62	2.0	20	0	93.1	74 - 124	19.46	4.43	20	
Naphthalene	18.91	1.0	20	0	94.5	61 - 128	17.29	8.91	20	
n-Butylbenzene	22.3	1.0	20	0	111	75 - 128	22.45	0.665	20	
n-Propylbenzene	21.92	1.0	20	0	110	76 - 126	22.83	4.07	20	
o-Xylene	21.85	1.0	20	0	109	78 - 122	22.97	4.97	20	
sec-Butylbenzene	22.69	1.0	20	0	113	77 - 126	23.02	1.43	20	
Styrene	22.43	1.0	20	0	112	78 - 123	22.73	1.31	20	
tert-Butylbenzene	22.22	1.0	20	0	111	78 - 124	22.67	2.02	20	
Tetrachloroethene	21.63	1.0	20	0	108	74 - 129	22.25	2.82	20	
Toluene	20.75	1.0	20	0	104	80 - 121	21.92	5.47	20	
trans-1,2-Dichloroethene	19.19	1.0	20	0	95.9	75 - 124	20.25	5.4	20	
trans-1,3-Dichloropropene	18.69	1.0	20	0	93.4	73 - 127	19.32	3.34	20	
Trichloroethene	20.38	1.0	20	0	102	79 - 123	22.04	7.83	20	
Trichlorofluoromethane	20.3	1.0	20	0	101	65 - 141	22.01	8.08	20	
Vinyl chloride	17.32	1.0	20	0	86.6	58 - 137	18.89	8.71	20	
Surr: 1,2-Dichloroethane-d4	*49.17*	*1.0*	*50*	*0*	*98.3*	*81 - 118*	*51.28*	*4.21*	*20*	
Surr: 4-Bromofluorobenzene	*50.24*	*1.0*	*50*	*0*	*100*	*85 - 114*	*50.55*	*0.62*	*20*	
Surr: Dibromofluoromethane	*48.82*	*1.0*	*50*	*0*	*97.6*	*80 - 119*	*49.78*	*1.96*	*20*	
Surr: Toluene-d8	*53.89*	*1.0*	*50*	*0*	*108*	*89 - 112*	*53.91*	*0.0457*	*20*	

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: HS23061925

QC BATCH REPORT

Batch ID:	R440472 (0)	Instrument:	VOA9	Method:	VOLATILES ORGANICS BY METHOD 8260C

The following samples were analyzed in this batch:				
	HS23061925-10	HS23061925-11	HS23061925-13	HS23061925-14
	HS23061925-15	HS23061925-21		

ALS Houston, US Date: 17-Jul-23

Client: Bhate Environmental Associates, Inc.
Project: LHAAP ICT Wells
WorkOrder: **HS23061925**

QUALIFIERS, ACRONYMS, UNITS

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

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

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	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; 2022-2023	31-Jul-2023
Louisiana	03087-2023	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	TX026932022-13	31-Jul-2023

ALS Houston, US Date: 17-Jul-23

Sample Receipt Checklist

Work Order ID: HS23061925 **Date/Time Received:** 28-Jun-2023 09:40

Client Name: Bhate Environmental **Received by:** Corey Grandits

Completed By: /S/ Corey Grandits (eSignature) 28-Jun-2023 13:12 (Date/Time) **Reviewed by:** /S/ James Guin (eSignature) 29-Jun-2023 17:08 (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 ☐	3 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):	4.0UC/3.9C	IR31
Cooler(s)/Kit(s):	51159	
Date/Time sample(s) sent to storage:	6/28/23	

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: ICT12C_062723 2 vials broken

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

bhate

1608 13th Avenue South, Suite 300
Birmingham Alabama 35205
Tel: 205-918-4000
Fax: 205-918-4050

Chain of Custody and Analytical Request

Page: _____ of _____

Project/Phase No: JVPCIBH.0001

COC Number(1): _____

LIMS Number: _____

Facility/Base I.D.: LHAAP

Project/Site Name: LHAAP / ICT Wells

Client Name:

Collected by: Scott Beesinger

Field Sample ID (30 Characters Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOC	PERCHLORATE	TOTAL METALS								Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
							Sample Analysis Requested (5)											Quality Assurance Samples (6)			
ICT13A_062723	27 Jun 2023	09:15	-	N		WG	5	X	X	X											
ICT13B_062723	27 Jun 2023	09:25	-	N		WG	5	X	X	X											
ICT13B_062723_a	27 Jun 2023	09:25	-	FD		WG	5	X	X	X											
ICT13C_062723	27 Jun 2023	09:40		N		WG	5	X	X	X											
ICT13D_062723	27 Jun 2023	09:45		N		WG	5	X	X	X											
ICT13E_062723	27 Jun 2023	09:50	-	N		WG	5	X	X	X											
ICT13F_062723	27 Jun 2023	09:55	-	N		WG	5	X	X	X											
ICT14A_062723	27 Jun 2023	10:10	-	N		WG	5	X	X	X											
ICT14B_062723	27 Jun 2023	10:15	-	N		WG	5	X	X	X											
ICT14C_062723	27 Jun 2023	10:20	-	N		WG	5	X	X	X											
ICT14D_062723	27 Jun 2023	10:30	-	N		WG	5	X	X	X											

HS23061925

Bhate Environmental Associates, Inc.

LHAAP ICT Wells

COMMENTS: Standard TAT

Custody Transfers Prior to Receipt by Laboratory

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1. Scott Beesinger	6/27/23	1330	1.		
2.			2.		
3.			3.		

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped No.:

_____ Method of Shipment: _____

_____ Fed Ex _____ Airbill Number:

_____ Analytical Lab: ALS 10450 Stancliff Rd. Suite 210 Houston, TX 77099 (281) 530-5656

ATTN SONIA WEST Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date collected + custody number (e.g. 09-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 10109901 in the Equipment Blank Lot Control

bhate

1608 13th Avenue South, Suite 300
Birmingham Alabama 35205
Tel: 205-918-4000
Fax: 205-918-4050

Chain of Custody and Analytical Request

Page: _____ of _____

Project/Phase No: JVPCIBH.0001

COC Number(1): _____

LIMS Number: _____

Facility/Base I.D.: LHAAP

Project/Site Name: LHAAP / ICT Wells

Client Name:

Collected by: Scott Beesinger

Field Sample ID (30 Characters Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOC	PERCHLORATE	TOTAL METALS			Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
							Sample Analysis Requested (5)						Quality Assurance Samples (6)			
ICT2_062723	27 Jun 2023	07:35	-	N		WG	5	X	X	X						
ICT4_062723	27 Jun 2023	07:45	-	N		WG	5	X	X	X						
ICT4_062723_a	27 Jun 2023	07:45	-	FD		WG	5	X	X	X						
ICT7_062723	27 Jun 2023	07:55		N		WG	5	X	X	X						
ICT8_062723	27 Jun 2023	08:10		N		WG	5	X	X	X						
ICT11_062723	27 Jun 2023	08:15	-	N		WG	5	X	X	X						
ICT12A_062723	27 Jun 2023	08:25	-	N		WG	5	X	X	X						
ICT12B_062723	27 Jun 2023	08:30	-	N		WG	5	X	X	X						
ICT12C_062723	27 Jun 2023	08:40	-	N		WG	5	X	X	X						
ICT12D_062723	27 Jun 2023	08:45	-	N		WG	5	X	X	X						
ICT12E_062723	27 Jun 2023	08:55	-	N		WG	5	X	X	X						

HS23061925
Bhate Environmental Associates, Inc.
LHAAP ICT Wells

COMMENTS: Standard TAT 5115g iR31 9.0°

Custody Transfers Prior to Receipt by Laboratory

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1. Scott Beesinger	6/27/23	1330	1. [illegible]	6-28-23	0740
2.			2.		
3.			3.		

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: _____ Shipped No.:

_____ Method of Shipment: _____

_____ Fed Ex _____ Airbill Number:

_____ Analytical Lab: ALS 10450 Stanciff Rd. Suite 210 Houston, TX 77099 (281) 530-5656

ATTN: SONIA WEST Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date collected + custody number (e.g. 09-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 10109901 in the Equipment Blank Lot Control

bhate

1608 13th Avenue South, Suite 300
Birmingham Alabama 35205
Tel: 205-918-4000
Fax: 205-918-4050

Chain of Custody and Analytical Request

Page: ____ of ____

Project/Phase No: JVPCIBH.0001

COC Number(1): ____

LIMS Number: ____

Facility/Base I.D.: LHAAP

Project/Site Name: LHAAP / ICT Wells

Client Name:

Collected by: Scott Beesinger

Field Sample ID (30 Characters Max)	Date Collected (dd-mmm-yyyy)	Time Collected (Military) (hhmm)	Sample Depth (beginning - ending)	SA Code (2)	Sample Number (3)	Sample Matrix (4)	Number of containers	VOC	PERCHLORATE	TOTAL METALS			Ambient Blank Lot Control Number	Equipment Blank Lot Control Number	Trip Blank Lot Control Number	Cooler ID
ICT14D_062723_MS	27 Jun 2023	10:30	-	MS		WG	5	X	X	X						
ICT14D_062723_MSD	27 Jun 2023	10:30	-	SD		WG	5	X	X	X						
ICT14E_062723	27 Jun 2023	10:45	-	N		WG	5	X	X	X						
Trip Blank	27 Jun 2023			TB		W	2	X								
			-													
			-													
			-													
			-													
			-													
			-													

Sample Analysis Requested (5) | Quality Assurance Samples (6)

HS23061925

Bhate Environmental Associates, Inc.
LHAAP ICT Wells

COMMENTS: Standard TAT

Custody Transfers Prior to Receipt by Laboratory

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1.	Scott Beesinger	6/27/23	1330			
2.						
3.						

Sample Delivery Details / Laboratory Receipt

Delivered Directly to Lab: ____ Shipped No.: ____

____ Method of Shipment: ____

____ Fed Ex ____ Airbill Number: ____

____ Analytical Lab: ALS 10450 Stanchiff Rd. Suite 210 Houston, TX 77099 (281) 530-5656

ATTN: SONIA WEST Lab Recipient: Delivery Date/Time:

1.) Chain of Custody Number = date collected + custody number (e.g. 09-02-1999-01)

2.) Sample Type (SA) Codes: N = Normal Sample, TB = Trip Blank (-c) Sample, FD = Field Duplicate (-a) Samples, FR = Field Replicate (-b) Samples, EB = Equipment Blank (-d) Samples, MS = Matrix Spike, SD = Matrix Spike Duplicate, AB = Ambient Blank (-e)

3.) Sample Number: Unique sample number collected from a particular location per day. (e.g. Groundwater sample collected from MW-1 on 10/10/99 = 01, if sampled again on 10/10/99 = 02, etc.)

4.) Matrix Codes: GS = Soil Gas, WG = Groundwater, WS = Surface Water, SO = Soil, SE = Sediment, SL = Sludge, SS = Surface Soil Samples, WQ = Aqueous Blank Samples (trip, equipment, ambient, etc), SQ = Soil Blanks

5.) Sample Analysis Requested: Analytical method requested and number of containers provided for each.

6.) Quality assurance samples are assigned by date (ddmmyy) and the sample number associated with the sample (01, 02, etc) (e.g. Equipment blank collected in association with MW-1 on 10/10/99 will be designated 10109901 in the Equipment Blank Lot Control

ALS

ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
C
Date: 6/27/12
Name:
Company:
USTODY SEAL
Time: 1330
Seal Broken By:
Date:
WED - 28 JUN AA
PRIORITY OVERNIGHT
77099
TX-US
IAH
redEX.
TRK# 0221 6230 3001 0582
XA SGRA

July 06, 2023 Service Request No:E2300618

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

Laboratory Results for: HS23061925

Dear James,

Enclosed are the results of the sample(s) submitted to our laboratory June 28, 2023
For your reference, these analyses have been assigned our service request number **E2300618.**

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

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

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

James Guin

Certificate of Analysis

ALS Environmental - Houston 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	**Service Request No.:**	E2300618
Project:	HS23061925	**Date Received:**	06/28/23
Sample Matrix:	Ground Water		

CASE NARRATIVE

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

Sample Receipt

Sixteen samples were received for analysis at ALS Environmental in Houston on 06/28/23.

The samples were 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:

EQ2300320: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in addition to MS/MSD for this extraction batch.

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

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

Client: ALS Environmental - US **Service Request:**E2300618
Project: HS23061925

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
E2300618-001	ICT2_062723	6/27/2023	0735
E2300618-002	ICT4_062723	6/27/2023	0745
E2300618-003	ICT4_062723_a	6/27/2023	0745
E2300618-004	ICT7_062723	6/27/2023	0755
E2300618-005	ICT8_062723	6/27/2023	0810
E2300618-006	ICT11_062723	6/27/2023	0815
E2300618-007	ICT12A_062723	6/27/2023	0825
E2300618-008	ICT12B_062723	6/27/2023	0830
E2300618-009	ICT12C_062723	6/27/2023	0840
E2300618-010	ICT12D_062723	6/27/2023	0845
E2300618-011	ICT12E_062723	6/27/2023	0855
E2300618-012	ICT13A_062723	6/27/2023	0915
E2300618-013	ICT13B_062723	6/27/2023	0925
E2300618-014	ICT13B_062723_a	6/27/2023	0925
E2300618-015	ICT13C_062723	6/27/2023	0940
E2300618-016	ICT13D_062723	6/27/2023	0945
E2300618-017	ICT13E_062723	6/27/2023	0950
E2300618-018	ICT13F_062723	6/27/2023	0955
E2300618-019	ICT14A_062723	6/27/2023	1010
E2300618-020	ICT14B_062723	6/27/2023	1015
E2300618-021	ICT14C_062723	6/27/2023	1020
E2300618-022	ICT14D_062723	6/27/2023	1030
E2300618-023	ICT14E_062723	6/27/2023	1045

Service Request Summary

Folder #: **E2300618**
Client Name: ALS Environmental - US
Project Name: HS23061925
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: 06/28/23
Internal Due Date: 7/13/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23061925
EDD: BASIC_WQC_CASNo_LOD

25 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300618-001	ICT2_062723	Ground Water	06/27/23 0735	**IV**
E2300618-002	ICT4_062723	Ground Water	06/27/23 0745	**IV**
E2300618-003	ICT4_062723_a	Ground Water	06/27/23 0745	**IV**
E2300618-004	ICT7_062723	Ground Water	06/27/23 0755	**IV**
E2300618-005	ICT8_062723	Ground Water	06/27/23 0810	**IV**
E2300618-006	ICT11_062723	Ground Water	06/27/23 0815	**IV**
E2300618-007	ICT12A_062723	Ground Water	06/27/23 0825	**IV**
E2300618-008	ICT12B_062723	Ground Water	06/27/23 0830	**IV**
E2300618-009	ICT12C_062723	Ground Water	06/27/23 0840	**IV**
E2300618-010	ICT12D_062723	Ground Water	06/27/23 0845	**IV**
E2300618-011	ICT12E_062723	Ground Water	06/27/23 0855	**IV**
E2300618-012	ICT13A_062723	Ground Water	06/27/23 0915	**IV**
E2300618-013	ICT13B_062723	Ground Water	06/27/23 0925	**IV**
E2300618-014	ICT13B_062723_a	Ground Water	06/27/23 0925	**IV**
E2300618-015	ICT13C_062723	Ground Water	06/27/23 0940	**IV**
E2300618-016	ICT13D_062723	Ground Water	06/27/23 0945	**IV**

Service Request Summary

Folder #: **E2300618**
Client Name: ALS Environmental - US
Project Name: HS23061925
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: 06/28/23
Internal Due Date: 7/13/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23061925
EDD: BASIC_WQC_CASNo_LOD

25 120 mL-Plastic Bottle Natural WM Unpreserved
Location: EHRMS-AirArch 1
Pressure Gas:

Lab Samp No.	Client Samp No	Matrix	Collected	HOUSTON ClO4 DOD/6850
E2300618-017	ICT13E_062723	Ground Water	06/27/23 0950	**IV**
E2300618-018	ICT13F_062723	Ground Water	06/27/23 0955	**IV**
E2300618-019	ICT14A_062723	Ground Water	06/27/23 1010	**IV**
E2300618-020	ICT14B_062723	Ground Water	06/27/23 1015	**IV**
E2300618-021	ICT14C_062723	Ground Water	06/27/23 1020	**IV**
E2300618-022	ICT14D_062723	Ground Water	06/27/23 1030	**IV**
E2300618-023	ICT14E_062723	Ground Water	06/27/23 1045	**IV**

Service Request Summary

Folder #: **E2300618**
Client Name: ALS Environmental - US
Project Name: HS23061925
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: 06/28/23
Internal Due Date: 7/13/2023
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Merged?: Y
Report to MDL?: Y
P.O. Number: HS23061925
EDD: BASIC_WQC_CASNo_LOD

25 120 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 >=10% front section.
C	Result identification confirmed.
D	Compound identified in an analysis at a secondary dilution factor
D	Spike was diluted out
DE	Reported results are corrected for desorption efficiency.
E	Estimated value. Concentration above calibration range
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
H1	Sample analysis performed past holding time. See case narrative.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
H3	Sample was received and analyzed past holding time.
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
I	(Auto) The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
I	Internal standard not within the specified limits. See case narrative.
I	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
J	Estimated Value. Concentration found below MRL.
K	A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
K	Analyte was detected above the method reporting limit prior to normalization.
K	The reference ion ratio was outside acceptance criteria, which may indicate a potential bias to this result.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
L1	Laboratory control sample recovery outside the specified limits; results may be biased high.
L2	Laboratory control sample recovery outside the specified limits; results may be biased low.
L3	Laboratory control sample recovery outside the specified limits.
M	Matrix interference; results may be biased high.
M	The duplicate injection precision not met.

Data Qualifiers

Lab Standard

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

ALS Laboratory Group

Acronyms

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

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

ALS Environmental

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Arizona Department of Health Services	AZ0793_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
Illinois Environmental Protection Agency	2000322023-11	6/30/2024
Kansas Department of Health and Environment	E-10352 2022-2023	7/31/2023
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	7/31/2023
Michigan Depratment 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 Department of Conservation and Natural Resources	TX026932023-1	7/31/2023
New Hampshire Environmental Laboratory Accreditation Program	209423	4/24/2024
New Jersey Department of Environmental Protection	TX008-2024	6/30/2024
New York Department of Health	11707	3/31/2024
Oklahoma Department of Environmental Quality	2022-141	8/31/2023
Pennsylvania Department of Environmental Protection	68-03441-017	6/30/2024
Perry Johnson Laboratory Accreditation	L22-91	3/31/2024
Tennessee Department of Environment and Concervation	TN04016-2023	4/30/2024
Texas Commision on Environmental Quality	T104704231-23-30	4/30/2024
Utah Department of Health Environmental Laboratory Certification	TX026932022-13	7/31/2023
Washington Department of Ecology	C819-22	11/14/2023

ALS

Chain of Custody

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com

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

Subcontract Chain of Custody

SAMPLING STATE: Texas **COC ID:** 22180

SUBCONTRACT TO:

ALS Environmental
10450 Stancliff RoadSuite 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:	HS23061925
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS23061925-01**	**ICT2_062723**	**Groundwater**	**27 Jun 2023 07:35**
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
2.	**HS23061925-02**	**ICT4_062723**	**Groundwater**	**27 Jun 2023 07:45**
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
3.	**HS23061925-03**	**ICT4_062723_a**	**Groundwater**	**27 Jun 2023 07:45**
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
4.	**HS23061925-04**	**ICT7_062723**	**Groundwater**	**27 Jun 2023 07:55**
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
5.	**HS23061925-05**	**ICT8_062723**	**Groundwater**	**27 Jun 2023 08:10**
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
6.	**HS23061925-06**	**ICT11_062723**	**Groundwater**	**27 Jun 2023 08:15**
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
7.	**HS23061925-07**	**ICT12A_062723**	**Groundwater**	**27 Jun 2023 08:25**
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
8.	**HS23061925-08**	**ICT12B_062723**	**Groundwater**	**27 Jun 2023 08:30**
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
9.	**HS23061925-09**	**ICT12C_062723**	**Groundwater**	**27 Jun 2023 08:40**

Subcontract Chain of Custody

SAMPLING STATE: Texas **COC ID:** 22180

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
10.	HS23061925-10	ICT12D_062723	Groundwater	27 Jun 2023 08:45
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
11.	HS23061925-11	ICT12E_062723	Groundwater	27 Jun 2023 08:55
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
12.	HS23061925-12	ICT13A_062723	Groundwater	27 Jun 2023 09:15
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
13.	HS23061925-13	ICT13B_062723	Groundwater	27 Jun 2023 09:25
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
14.	HS23061925-14	ICT13B_062723_a	Groundwater	27 Jun 2023 09:25
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
15.	HS23061925-15	ICT13C_062723	Groundwater	27 Jun 2023 09:40
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
16.	HS23061925-16	ICT13D_062723	Groundwater	27 Jun 2023 09:45
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
17.	HS23061925-17	ICT13E_062723	Groundwater	27 Jun 2023 09:50
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
18.	HS23061925-18	ICT13F_062723	Groundwater	27 Jun 2023 09:55
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
19.	HS23061925-19	ICT14A_062723	Groundwater	27 Jun 2023 10:10
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
20.	HS23061925-20	ICT14B_062723	Groundwater	27 Jun 2023 10:15
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
21.	HS23061925-21	ICT14C_062723	Groundwater	27 Jun 2023 10:20
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
22.	HS23061925-22	ICT14D_062723	Groundwater	27 Jun 2023 10:30
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023
23.	HS23061925-23	ICT14E_062723	Groundwater	27 Jun 2023 10:45
	Provide Level II and Level IV reports in separate pdf			13 Jul 2023

Subcontract Chain of Custody

SAMPLING STATE: Texas **COC ID:** 22180

Comments: ICT14D_062723 MS/MSD

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

QC Level: DOD IV (DoD Data Package)

Relinquished By: _____ Date/Time: _____

Received By: CODEY GRAMMIS Date/Time: 6-28-24 1515

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

Cooler Receipt Form

ALS Environmental

Project Chemist JG

Client/Project ALS

Thermometer ID IR21

Date/Time Received: 6-28-23 Initials: JG

Date/Time Logged in: 6-28-23 Initials JG

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

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

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

If yes, how many and where?

Were they intact? ○ Yes ○ No ☒ N/A

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

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

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

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?
NA		6-28-23	1315	JG	4.9	☑
						☐
						☐
						☐

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

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

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

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

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

Notes, Discrepancies, & Resolutions:

Service request Label:

10450 Stancliff Rd., Suite 210
Houston, TX 77099
T: +1 281 530 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 sampleThe COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

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

Sample Integrity (mandatory):

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

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

Temperature Requirement (varies by sample matrix):

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

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

Preparation Information Benchsheets

ALS Environmental - Houston Specialties Laboratory
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (281)530-5656 Fax (281)530-5887
www.alsglobal.com