LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 3

2019

Bate Stamp Numbers
00917761 – 00919349

Prepared for

Department of the Army
Longhorn Army Ammunition Plant

1976 – 2019

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

VOLUME 3

2019

A. Title: Report (cont'd) – Draft Final Fourth Annual Remedial Action Operation Report, LHAAP-46, (Plant 2 Area), Longhorn Army Ammunition Plant, Karnack, Texas, March 2019
Author(s): Department of the Army
Recipient: Environmental Protection Agency
Date: March 19, 2019
Bate Stamp: 00917761 – 00919349

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	214_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\083
Acq Date Time	2018-08-31T00:20:30-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	172CALB.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
Be	9	1	nogas	0.123	25.7	533	19.0	1	
Na	23	1	nogas	-30.105	-12.8	2307388	1.1	100	
Mg	24	1	nogas	12.355	3.8	201125	7.2	100	
Al	27	1	nogas	2.415	4.6	68435	1.6	5	
K	39	1	nogas	-13.875	-63.5	7855780	1.6	100	
Ti	47	1	nogas	0.115	70.3	410	42.5	2.5	
V	51	1	nogas	-16.525	-7.9	1352562	2.1	2.5	
Cr	52	1	nogas	-0.717	-2.3	60873	0.8	2.5	
Mn	55	1	nogas	0.226	7.6	24216	3.1	2.5	
Co	59	1	nogas	0.062	21.2	2330	15.7	2.5	
Ni	60	1	nogas	-0.085	-24.1	4464	3.9	2.5	
Cu	63	1	nogas	-0.236	-6.4	6508	3.4	2.5	
Zn	66	1	nogas	-0.085	-67.2	2490	11.7	2.5	
As	75	1	nogas	-6.809	-8.1	139035	3.6	2.5	
Sr	88	1	nogas	0.088	20.5	9459	7.2	2.5	
Ag	107	1	nogas	0.038	18.1	1287	10.6	2.5	
Cd	111	1	nogas	0.046	30.9	243	27.4	1	
Sb	121	1	nogas	0.063	17.8	1910	12.0	2.5	
Tl	205	1	nogas	0.309	55.4	10438	55.3	1	
Pb	208	1	nogas	0.082	35.2	4004	29.4	2.5	
U	238	1	nogas	0.072	33.9	3197	34.7	2.5	
[Pb]	206	1	nogas	0.071	41.4	1007	34.6	2.5	
[Pb]	207	1	nogas	0.081	28.2	937	26.4	2.5	
Na	23	2	He	-24.293	-7.3	202383	1.0	100	
Mg	24	2	He	11.767	3.7	12898	2.4	100	
Al	27	2	He	1.789	15.5	2050	6.0	5	
K	39	2	He	1.921	90.9	233056	0.8	100	
Ca	43	2	He	24.432	101.2	117	68.7	100	
Ca	44	2	He	21.147	22.4	2203	11.3	100	
V	51	2	He	-0.342	-8.1	21014	1.6	2.5	
Cr	52	2	He	-0.047	-47.4	3384	5.3	2.5	
Mn	55	2	He	0.359	13.7	2684	11.3	2.5	
Fe	56	2	He	8.016	3.3	86270	3.2	100	
Co	59	2	He	0.040	16.8	633	12.7	2.5	
Ni	60	2	He	-0.242	-25.2	1740	10.1	2.5	
Cu	63	2	He	-0.422	-5.7	2624	7.2	2.5	
Zn	66	2	He	-0.377	-4.8	687	5.1	2.5	
As	75	2	He	-0.070	-23.7	733	4.3	2.5	
Se	78	2	He	0.171	84.1	296	7.3	2.5	
B	11	1	nogas	5.299	17.1	34962	4.4	10	

Continuing Calibration Blank (CCB) Report

Si	28	1	nogas	0.737	333.0	1029517	1.3	5	
Ca	43	1	nogas	24.667	16.9	1867	8.6	100	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ca	44	1	nogas	19.369	13.3	46194	3.2	100	
Fe	56	1	nogas	-7.444	-28.3	3310041	1.0	100	
Se	77	1	nogas	-65.063	-5.3	44328	2.5	2.5	
Se	82	1	nogas	-0.196	-24.7	367	5.7	2.5	
Mo	95	1	nogas	0.043	93.9	1743	18.8	2.5	
Sn	118	1	nogas	0.138	30.4	2937	18.9	5	
Ba	137	1	nogas	0.086	28.3	1203	13.1	2.5	
Sb	121	2	He	0.072	26.7	683	21.7	2.5	
P	31	1	nogas	-9.232	-4.5	53907	0.6	10	
La	139	1	nogas	-31.057	-20.1	350	12.5	2.5	
Au	197	1	nogas	-12.738	-1.8	10	0.0	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	384856	2.27	410295	93.80	70	125	
Ge	72	1	nogas	4404568	1.04	4203247	104.79	70	125	
In	115	1	nogas	4440420	0.44	4030824	110.16	70	125	
Bi	209	1	nogas	3419469	2.15	3148067	108.62	70	125	
Ge	72	2	He	1149744	0.69	1112674	103.33	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	223_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\083
Acq Date Time	2018-08-31T00:38:16-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	172CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	99.038	3.587	329767	0.27	100	99.0	90	110	
Na	23	1	nogas	9975.270	1.642	195494400	2.57	10000	99.8	90	110	
Mg	24	1	nogas	9895.647	2.180	127734807	0.67	10000	99.0	90	110	
Al	27	1	nogas	103.571	3.386	1706814	1.95	100	103.6	90	110	
K	39	1	nogas	10333.923	0.491	238673980	1.01	10000	103.3	90	110	
Ti	47	1	nogas	101.340	2.386	215931	0.94	100	101.3	90	110	
V	51	1	nogas	99.654	2.716	4620470	0.90	100	99.7	90	110	
Cr	52	1	nogas	100.924	2.395	2778015	2.40	100	100.9	90	110	
Mn	55	1	nogas	101.893	1.171	3615060	2.55	100	101.9	90	110	
Co	59	1	nogas	102.623	2.840	2981359	4.17	100	102.6	90	110	
Ni	60	1	nogas	102.078	0.702	648984	0.76	100	102.1	90	110	
Cu	63	1	nogas	102.050	2.039	1606195	3.08	100	102.1	90	110	
Zn	66	1	nogas	100.900	1.517	556245	0.18	100	100.9	90	110	
As	75	1	nogas	98.195	0.921	874697	0.73	100	98.2	90	110	
Sr	88	1	nogas	100.532	0.379	4192266	1.68	100	100.5	90	110	
Ag	107	1	nogas	99.559	0.831	2113386	1.69	100	99.6	90	110	
Cd	111	1	nogas	99.292	2.159	441357	2.14	100	99.3	90	110	
Sb	121	1	nogas	99.802	3.749	2060407	4.31	100	99.8	90	110	
Tl	205	1	nogas	102.176	2.055	3150643	1.58	100	102.2	90	110	
Pb	208	1	nogas	102.344	3.809	4172420	3.81	100	102.3	90	110	
U	238	1	nogas	102.211	1.279	4151021	0.81	100	102.2	90	110	
[Pb]	206	1	nogas	96.744	1.292	1020764	2.46	100	96.7	90	110	
[Pb]	207	1	nogas	95.516	1.202	900019	3.13	100	95.5	90	110	
Na	23	2	He	10037.309	1.874	15391420	0.86	10000	100.4	90	110	
Mg	24	2	He	10096.904	0.610	8667213	0.88	10000	101.0	90	110	
Al	27	2	He	99.414	0.897	49294	1.37	100	99.4	90	110	
K	39	2	He	10473.978	0.356	11318166	0.35	10000	104.7	90	110	
Ca	43	2	He	10253.365	1.649	32389	0.35	10000	102.5	90	110	
Ca	44	2	He	10124.279	1.307	547666	0.54	10000	101.2	90	110	
V	51	2	He	96.987	1.887	822960	0.89	100	97.0	90	110	
Cr	52	2	He	98.701	0.947	862204	0.41	100	98.7	90	110	
Mn	55	2	He	101.726	1.467	627670	0.21	100	101.7	90	110	
Fe	56	2	He	9957.406	1.763	78874580	0.57	10000	99.6	90	110	
Co	59	2	He	98.981	1.578	1227590	0.26	100	99.0	90	110	
Ni	60	2	He	102.293	3.165	310641	2.03	100	102.3	90	110	
Cu	63	2	He	99.394	3.003	789198	1.69	100	99.4	90	110	
Zn	66	2	He	101.079	2.815	195237	1.50	100	101.1	90	110	
As	75	2	He	100.798	1.454	198603	0.50	100	100.8	90	110	
Se	78	2	He	100.311	2.230	16196	1.67	100	100.3	90	110	
B	11	1	nogas	480.010	2.790	1132045	1.32	500	96.0	90	110	
Si	28	1	nogas	5135.144	2.030	50396721	0.60	5000	102.7	90	110	
Ca	43	1	nogas	10497.516	1.875	442904	0.44	10000	105.0	90	110	
Ca	44	1	nogas	10300.757	3.607	7245064	2.15	10000	103.0	90	110	
Fe	56	1	nogas	10256.397	2.037	321210141	1.40	10000	102.6	90	110	
Se	77	1	nogas	93.337	8.158	85497	1.49	100	93.3	90	110	
Se	82	1	nogas	100.413	1.598	40673	0.23	100	100.4	90	110	
Mo	95	1	nogas	103.904	2.925	874308	2.59	100	103.9	90	110	
Sn	118	1	nogas	96.717	2.036	1192380	2.18	100	96.7	90	110	
Ba	137	1	nogas	104.953	3.656	630802	1.10	100	105.0	90	110	
Sb	121	2	He	98.946	1.319	766945	0.23	100	98.9	90	110	
Li	7	1	nogas	101.364	3.770	605694	1.79	100	101.4	90	110	
P	31	1	nogas	510.593	1.626	843179	0.43	500	102.1	90	110	
La	139	1	nogas	140.492	56.067	1454	31.25	100	140.5	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	139.761	17.116	143	16.11	100	139.8	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	351664	3.44	410295	85.71	70	125	
Ge	72	1	nogas	4317991	1.46	4203247	102.73	70	125	
In	115	1	nogas	4211455	4.12	4030824	104.48	70	125	
Bi	209	1	nogas	3277619	2.07	3148067	104.12	70	125	

Ge	72	2	He	1131256	1.31	1112674	101.67	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	224_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\083
Acq Date Time	2018-08-31T00:40:15-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	172CALB.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
Be	9	1	nogas	0.116	36.2	513	29.8	1	
Na	23	1	nogas	-46.217	-13.1	2040136	6.2	100	
Mg	24	1	nogas	7.798	15.2	144740	11.5	100	
Al	27	1	nogas	1.289	8.0	49853	2.3	5	
K	39	1	nogas	-3.492	-187.9	8100433	1.0	100	
Ti	47	1	nogas	0.114	22.8	410	14.8	2.5	
V	51	1	nogas	-17.151	-11.9	1335720	3.9	2.5	
Cr	52	1	nogas	-0.663	-6.3	62425	1.9	2.5	
Mn	55	1	nogas	0.108	6.3	19991	0.9	2.5	
Co	59	1	nogas	0.072	27.2	2637	20.8	2.5	
Ni	60	1	nogas	-0.305	-2.7	3050	0.7	2.5	
Cu	63	1	nogas	-0.272	-10.6	5938	6.5	2.5	
Zn	66	1	nogas	-0.096	-29.2	2430	5.3	2.5	
As	75	1	nogas	-6.890	-4.4	138588	2.8	2.5	
Sr	88	1	nogas	0.082	16.6	9192	5.3	2.5	
Ag	107	1	nogas	0.044	34.8	1413	22.7	2.5	
Cd	111	1	nogas	0.059	18.0	313	19.5	1	
Sb	121	1	nogas	0.089	18.5	2460	13.1	2.5	
Tl	205	1	nogas	0.324	56.4	10738	53.9	1	
Pb	208	1	nogas	0.085	33.5	4107	28.1	2.5	
U	238	1	nogas	0.084	33.6	3677	32.2	2.5	
[Pb]	206	1	nogas	0.066	47.5	937	36.4	2.5	
[Pb]	207	1	nogas	0.087	49.6	973	42.6	2.5	
Na	23	2	He	-39.600	-5.6	178014	1.6	100	
Mg	24	2	He	7.497	4.3	9129	2.8	100	
Al	27	2	He	0.659	37.4	1487	7.4	5	
K	39	2	He	6.367	29.6	237762	0.8	100	
Ca	43	2	He	18.446	54.8	97	33.3	100	
Ca	44	2	He	15.653	2.8	1893	0.6	100	
V	51	2	He	-0.399	-7.6	20432	0.9	2.5	
Cr	52	2	He	-0.040	-80.1	3430	8.9	2.5	
Mn	55	2	He	0.212	11.6	1757	8.1	2.5	
Fe	56	2	He	5.580	5.5	66316	3.1	100	
Co	59	2	He	0.054	7.0	813	6.2	2.5	
Ni	60	2	He	-0.423	-12.0	1180	12.5	2.5	
Cu	63	2	He	-0.443	-2.7	2444	3.9	2.5	
Zn	66	2	He	-0.354	-9.9	727	8.7	2.5	
As	75	2	He	-0.059	-35.4	751	5.9	2.5	
Se	78	2	He	-0.008	-734.8	266	3.8	2.5	
B	11	1	nogas	5.029	12.5	34432	5.0	10	

Continuing Calibration Blank (CCB) Report

Si	28	1	nogas	-3.200	-69.4	991850	1.0	5	
Ca	43	1	nogas	18.482	4.6	1603	1.6	100	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ca	44	1	nogas	16.690	15.4	44319	3.0	100	
Fe	56	1	nogas	-15.198	-18.9	3068333	3.0	100	
Se	77	1	nogas	-61.081	-6.7	45444	1.9	2.5	
Se	82	1	nogas	-0.245	-25.2	347	6.0	2.5	
Mo	95	1	nogas	1.008	58.8	10027	50.8	2.5	
Sn	118	1	nogas	0.156	29.1	3244	21.9	5	
Ba	137	1	nogas	0.065	46.6	1090	20.7	2.5	
Sb	121	2	He	0.080	3.0	740	2.7	2.5	
P	31	1	nogas	-5.653	-5.3	59517	0.5	10	
La	139	1	nogas	-37.298	-38.6	310	31.1	2.5	
Au	197	1	nogas	-5.198	-446.1	17	124.9	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	386180	0.65	410295	94.12	70	125	
Ge	72	1	nogas	4408934	1.26	4203247	104.89	70	125	
In	115	1	nogas	4510131	3.21	4030824	111.89	70	125	
Bi	209	1	nogas	3383991	0.85	3148067	107.49	70	125	
Ge	72	2	He	1144130	0.70	1112674	102.83	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	232_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\083
Acq Date Time	2018-08-31T00:56:07-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	172CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	99.433	0.737	334164	0.81	100	99.4	90	110	
Na	23	1	nogas	10450.400	3.763	200869621	2.30	10000	104.5	90	110	
Mg	24	1	nogas	10495.779	4.148	132973990	1.54	10000	105.0	90	110	
Al	27	1	nogas	108.038	4.081	1773676	4.63	100	108.0	90	110	
K	39	1	nogas	10138.491	3.924	233370197	0.27	10000	101.4	90	110	
Ti	47	1	nogas	103.876	3.861	220487	1.23	100	103.9	90	110	
V	51	1	nogas	95.717	6.453	4491054	0.71	100	95.7	90	110	
Cr	52	1	nogas	102.633	5.642	2811498	2.40	100	102.6	90	110	
Mn	55	1	nogas	101.189	3.913	3575190	0.53	100	101.2	90	110	
Co	59	1	nogas	100.686	6.510	2910667	2.96	100	100.7	90	110	
Ni	60	1	nogas	100.222	5.790	634408	1.80	100	100.2	90	110	
Cu	63	1	nogas	101.913	6.023	1596477	2.14	100	101.9	90	110	
Zn	66	1	nogas	100.168	3.275	550156	1.03	100	100.2	90	110	
As	75	1	nogas	95.784	2.532	854735	2.09	100	95.8	90	110	
Sr	88	1	nogas	98.568	5.049	4092456	1.47	100	98.6	90	110	
Ag	107	1	nogas	100.991	6.928	2133350	2.98	100	101.0	90	110	
Cd	111	1	nogas	100.059	3.163	430457	2.34	100	100.1	90	110	
Sb	121	1	nogas	99.450	1.134	2046034	2.79	100	99.4	90	110	
Tl	205	1	nogas	103.639	5.092	3045950	0.75	100	103.6	90	110	
Pb	208	1	nogas	97.350	1.195	3968831	1.19	100	97.3	90	110	
U	238	1	nogas	104.180	1.496	4037611	3.80	100	104.2	90	110	
[Pb]	206	1	nogas	97.165	4.757	977054	0.46	100	97.2	90	110	
[Pb]	207	1	nogas	96.054	3.804	862690	0.67	100	96.1	90	110	
Na	23	2	He	9989.669	0.839	15098421	0.83	10000	99.9	90	110	
Mg	24	2	He	9955.962	1.954	8421251	0.95	10000	99.6	90	110	
Al	27	2	He	103.038	0.596	50307	0.90	100	103.0	90	110	
K	39	2	He	10502.683	0.732	11348552	0.72	10000	105.0	90	110	
Ca	43	2	He	10308.173	4.742	32081	3.61	10000	103.1	90	110	
Ca	44	2	He	10151.068	1.675	541120	0.55	10000	101.5	90	110	
V	51	2	He	97.344	2.037	813935	1.51	100	97.3	90	110	
Cr	52	2	He	99.924	1.268	860147	0.06	100	99.9	90	110	
Mn	55	2	He	103.312	1.792	628209	1.30	100	103.3	90	110	
Fe	56	2	He	10120.217	2.129	79005469	1.95	10000	101.2	90	110	
Co	59	2	He	98.304	2.661	1201452	1.89	100	98.3	90	110	
Ni	60	2	He	101.258	2.756	303076	1.85	100	101.3	90	110	
Cu	63	2	He	98.068	1.325	767604	1.49	100	98.1	90	110	
Zn	66	2	He	100.523	1.841	191397	2.14	100	100.5	90	110	
As	75	2	He	100.841	1.496	195803	0.79	100	100.8	90	110	
Se	78	2	He	99.999	1.559	15914	2.23	100	100.0	90	110	
B	11	1	nogas	489.732	5.533	1164790	4.80	500	97.9	90	110	
Si	28	1	nogas	5260.371	5.562	51380548	1.76	5000	105.2	90	110	
Ca	43	1	nogas	10238.647	5.436	430157	1.83	10000	102.4	90	110	
Ca	44	1	nogas	10346.767	5.173	7247695	1.18	10000	103.5	90	110	
Fe	56	1	nogas	9974.921	2.041	311414565	2.09	10000	99.7	90	110	
Se	77	1	nogas	75.273	10.945	80410	1.22	100	75.3	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	97.011	4.570	39166	3.86	100	97.0	90	110	
Mo	95	1	nogas	96.631	2.251	810338	1.81	100	96.6	90	110	
Sn	118	1	nogas	97.715	1.675	1166029	1.44	100	97.7	90	110	
Ba	137	1	nogas	104.932	2.073	610645	0.79	100	104.9	90	110	
Sb	121	2	He	98.584	1.148	753090	1.29	100	98.6	90	110	
Li	7	1	nogas	100.028	1.285	603734	2.20	100	100.0	90	110	
P	31	1	nogas	508.129	5.545	835872	1.44	500	101.6	90	110	
La	139	1	nogas	104.411	29.082	1187	15.29	100	104.4	90	110	
Au	197	1	nogas	99.287	31.379	103	27.94	100	99.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	354668	1.29	410295	86.44	70	125	
Ge	72	1	nogas	4304653	3.87	4203247	102.41	70	125	
In	115	1	nogas	4074484	1.38	4030824	101.08	70	125	
Bi	209	1	nogas	3128000	4.39	3148067	99.36	70	125	

Ge	72	2	He	1114822	1.21	1112674	100.19	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	233_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\083
Acq Date Time	2018-08-31T00:58:08-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	172CALB.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
Be	9	1	nogas	0.103	17.0	487	13.2	1	
Na	23	1	nogas	-26.588	-18.2	2438249	1.9	100	
Mg	24	1	nogas	7.961	16.3	147091	9.9	100	
Al	27	1	nogas	1.192	5.4	49546	1.2	5	
K	39	1	nogas	-14.925	-17.0	8050799	0.4	100	
Ti	47	1	nogas	0.095	24.1	377	14.6	2.5	
V	51	1	nogas	-23.602	-2.4	1180093	2.5	2.5	
Cr	52	1	nogas	-0.914	-3.2	57041	0.6	2.5	
Mn	55	1	nogas	0.060	4.2	18746	1.1	2.5	
Co	59	1	nogas	0.074	17.0	2780	13.8	2.5	
Ni	60	1	nogas	-0.237	-23.7	3580	10.3	2.5	
Cu	63	1	nogas	-0.244	-13.3	6558	8.0	2.5	
Zn	66	1	nogas	-0.124	-9.7	2337	2.4	2.5	
As	75	1	nogas	-9.101	-5.8	125992	3.5	2.5	
Sr	88	1	nogas	0.044	21.8	7788	5.3	2.5	
Ag	107	1	nogas	0.040	25.0	1360	16.4	2.5	
Cd	111	1	nogas	0.056	2.7	297	5.1	1	
Sb	121	1	nogas	0.218	8.4	5324	6.7	2.5	
Tl	205	1	nogas	0.335	52.6	10724	50.8	1	
Pb	208	1	nogas	0.084	27.5	4097	23.1	2.5	
U	238	1	nogas	0.085	32.1	3567	31.2	2.5	
[Pb]	206	1	nogas	0.075	30.6	993	24.6	2.5	
[Pb]	207	1	nogas	0.090	35.0	973	30.7	2.5	
Na	23	2	He	-18.218	-9.9	209210	1.3	100	
Mg	24	2	He	7.805	4.4	9332	3.4	100	
Al	27	2	He	1.335	60.0	1804	20.8	5	
K	39	2	He	3.485	68.9	234711	1.1	100	
Ca	43	2	He	30.189	39.0	133	28.4	100	
Ca	44	2	He	15.163	9.9	1853	3.7	100	
V	51	2	He	-0.751	-3.9	17375	1.2	2.5	
Cr	52	2	He	-0.046	-111.6	3354	13.6	2.5	
Mn	55	2	He	0.176	2.5	1517	1.4	2.5	
Fe	56	2	He	5.388	3.7	64339	3.1	100	
Co	59	2	He	0.049	8.1	747	6.9	2.5	
Ni	60	2	He	-0.430	-4.8	1153	5.1	2.5	
Cu	63	2	He	-0.409	-6.9	2697	7.8	2.5	
Zn	66	2	He	-0.392	-5.4	650	7.1	2.5	
As	75	2	He	-0.083	-42.6	700	10.5	2.5	
Se	78	2	He	0.198	130.3	297	13.0	2.5	
B	11	1	nogas	5.482	15.0	37293	4.7	10	

Continuing Calibration Blank (CCB) Report

Si	28	1	nogas	-5.242	-45.7	997921	1.9	5	
Ca	43	1	nogas	18.118	8.5	1630	3.1	100	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ca	44	1	nogas	13.885	10.2	43461	2.4	100	
Fe	56	1	nogas	-16.692	-15.6	3101819	2.1	100	
Se	77	1	nogas	-83.780	-3.1	40348	1.8	2.5	
Se	82	1	nogas	-0.155	-93.6	393	14.5	2.5	
Mo	95	1	nogas	0.131	33.4	2570	14.1	2.5	
Sn	118	1	nogas	0.157	16.4	3234	7.6	5	
Ba	137	1	nogas	0.050	7.9	997	4.5	2.5	
Sb	121	2	He	0.206	8.6	1713	8.9	2.5	
P	31	1	nogas	-5.165	-25.3	61881	2.4	10	
La	139	1	nogas	-44.841	-19.0	257	20.0	2.5	
Au	197	1	nogas	-0.807	-1405.8	20	50.0	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	404966	1.70	410295	98.70	70	125	
Ge	72	1	nogas	4527202	1.15	4203247	107.71	70	125	
In	115	1	nogas	4515058	4.04	4030824	112.01	70	125	
Bi	209	1	nogas	3265212	0.60	3148067	103.72	70	125	
Ge	72	2	He	1136169	0.90	1112674	102.11	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	240_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\083
Acq Date Time	2018-08-31T01:12:00-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	172CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	101.499	1.270	379348	2.23	100	101.5	90	110	
Na	23	1	nogas	10598.161	0.386	226949363	1.49	10000	106.0	90	110	
Mg	24	1	nogas	10244.822	2.288	144630512	1.12	10000	102.4	90	110	
Al	27	1	nogas	105.636	4.470	1888786	2.93	100	105.6	90	110	
K	39	1	nogas	10155.527	1.964	254723864	1.15	10000	101.6	90	110	
Ti	47	1	nogas	102.585	1.965	237286	1.45	100	102.6	90	110	
V	51	1	nogas	89.647	3.502	4707300	1.44	100	89.6	90	110	CCV Main CR1-2 Failed
Cr	52	1	nogas	101.384	3.746	3029637	4.69	100	101.4	90	110	
Mn	55	1	nogas	99.431	1.422	3829780	2.91	100	99.4	90	110	
Co	59	1	nogas	100.509	2.034	3168345	1.43	100	100.5	90	110	
Ni	60	1	nogas	99.836	2.419	688997	1.21	100	99.8	90	110	
Cu	63	1	nogas	100.688	2.605	1719796	1.56	100	100.7	90	110	
Zn	66	1	nogas	96.304	1.190	576461	0.95	100	96.3	90	110	
As	75	1	nogas	89.514	2.684	883089	1.05	100	89.5	90	110	CCV Main CR1-2 Failed
Sr	88	1	nogas	96.598	2.798	4371456	1.45	100	96.6	90	110	
Ag	107	1	nogas	95.426	2.097	2199219	3.49	100	95.4	90	110	
Cd	111	1	nogas	98.163	0.372	452068	1.15	100	98.2	90	110	
Sb	121	1	nogas	94.762	3.033	2122888	1.99	100	94.8	90	110	
Tl	205	1	nogas	103.063	1.737	3126114	1.91	100	103.1	90	110	
Pb	208	1	nogas	102.615	2.407	4183451	2.41	100	102.6	90	110	
U	238	1	nogas	104.052	0.906	4157479	2.63	100	104.1	90	110	
[Pb]	206	1	nogas	97.071	1.612	1007263	1.57	100	97.1	90	110	
[Pb]	207	1	nogas	96.573	1.661	894732	0.80	100	96.6	90	110	
Na	23	2	He	10265.787	3.649	16663909	2.43	10000	102.7	90	110	
Mg	24	2	He	10034.879	2.629	9121490	1.51	10000	100.3	90	110	
Al	27	2	He	103.831	2.366	54469	1.98	100	103.8	90	110	
K	39	2	He	11361.996	0.653	12258171	0.64	10000	113.6	90	110	CCV Main CR1-2 Failed
Ca	43	2	He	9938.261	0.647	33253	1.15	10000	99.4	90	110	
Ca	44	2	He	9953.366	2.441	570217	1.57	10000	99.5	90	110	
V	51	2	He	96.696	1.599	869076	0.88	100	96.7	90	110	
Cr	52	2	He	99.474	2.388	920180	1.23	100	99.5	90	110	
Mn	55	2	He	101.726	1.665	664757	0.51	100	101.7	90	110	
Fe	56	2	He	9755.801	1.222	81848567	0.33	10000	97.6	90	110	
Co	59	2	He	98.716	2.940	1296533	1.80	100	98.7	90	110	
Ni	60	2	He	98.000	2.345	315321	1.32	100	98.0	90	110	
Cu	63	2	He	96.894	2.476	815015	1.29	100	96.9	90	110	
Zn	66	2	He	96.731	1.876	197962	0.70	100	96.7	90	110	
As	75	2	He	97.203	1.286	202874	0.53	100	97.2	90	110	
Se	78	2	He	97.474	2.569	16674	1.37	100	97.5	90	110	
B	11	1	nogas	687.493	5.193	1809948	5.38	500	137.5	90	110	CCV Main CR1-2 Failed
Si	28	1	nogas	5163.755	2.341	55001239	0.98	5000	103.3	90	110	
Ca	43	1	nogas	10318.199	1.849	472566	0.70	10000	103.2	90	110	
Ca	44	1	nogas	10311.127	2.300	7873210	1.00	10000	103.1	90	110	
Fe	56	1	nogas	9898.383	2.050	336613816	1.07	10000	99.0	90	110	
Se	77	1	nogas	57.793	15.342	82557	2.14	100	57.8	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	94.795	3.244	41702	2.28	100	94.8	90	110	
Mo	95	1	nogas	93.095	2.736	850341	1.26	100	93.1	90	110	
Sn	118	1	nogas	98.805	5.520	1261616	4.81	100	98.8	90	110	
Ba	137	1	nogas	101.582	1.300	632842	1.99	100	101.6	90	110	
Sb	121	2	He	94.591	2.253	776466	1.18	100	94.6	90	110	
Li	7	1	nogas	105.237	2.676	704258	2.53	100	105.2	90	110	
P	31	1	nogas	498.461	1.465	895230	0.39	500	99.7	90	110	
La	139	1	nogas	99.461	23.889	1237	12.17	100	99.5	90	110	
Au	197	1	nogas	138.205	27.788	140	25.75	100	138.2	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	394378	0.99	410295	96.12	70	125	
Ge	72	1	nogas	4687045	1.51	4203247	111.51	70	125	
In	115	1	nogas	4360765	1.21	4030824	108.19	70	125	
Bi	209	1	nogas	3224038	2.44	3148067	102.41	70	125	

Ge	72	2	He	1198094	1.18	1112674	107.68	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	241_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\083
Acq Date Time	2018-08-31T01:14:01-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	172CALB.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
Be	9	1	nogas	0.115	22.8	573	18.5	1	
Na	23	1	nogas	173.318	4.7	6814385	2.2	100	CCB Main CR1 Failed
Mg	24	1	nogas	8.701	10.1	166211	7.2	100	
Al	27	1	nogas	1.548	10.4	56563	4.0	5	
K	39	1	nogas	5.649	67.8	8681225	1.3	100	
Ti	47	1	nogas	0.114	36.5	427	21.0	2.5	
V	51	1	nogas	-20.902	-7.3	1281912	2.6	2.5	
Cr	52	1	nogas	-0.685	-12.6	64573	3.6	2.5	
Mn	55	1	nogas	0.543	2.2	37271	2.2	2.5	
Co	59	1	nogas	0.069	17.7	2654	14.6	2.5	
Ni	60	1	nogas	-0.069	-42.8	4771	4.2	2.5	
Cu	63	1	nogas	0.499	15.5	19057	5.7	2.5	
Zn	66	1	nogas	-0.049	-53.4	2817	4.4	2.5	
As	75	1	nogas	-7.544	-6.1	139838	1.4	2.5	
Sr	88	1	nogas	0.040	45.8	7738	11.3	2.5	
Ag	107	1	nogas	0.044	32.8	1487	23.1	2.5	
Cd	111	1	nogas	0.066	20.6	350	18.7	1	
Sb	121	1	nogas	0.099	10.1	2797	8.5	2.5	
Tl	205	1	nogas	0.349	58.6	11362	55.6	1	
Pb	208	1	nogas	0.076	14.4	3747	11.8	2.5	
U	238	1	nogas	0.084	36.1	3601	33.9	2.5	
[Pb]	206	1	nogas	0.066	11.9	917	8.2	2.5	
[Pb]	207	1	nogas	0.074	2.6	840	1.2	2.5	
Na	23	2	He	172.082	8.2	530815	1.7	100	CCB Main CR1 Failed
Mg	24	2	He	7.983	4.2	10116	1.2	100	
Al	27	2	He	1.168	26.0	1843	11.5	5	
K	39	2	He	17.229	7.5	249260	0.5	100	
Ca	43	2	He	16.665	38.3	97	23.9	100	
Ca	44	2	He	13.985	21.2	1907	6.3	100	
V	51	2	He	-0.669	-12.3	19259	2.4	2.5	
Cr	52	2	He	-0.049	-95.4	3554	10.6	2.5	
Mn	55	2	He	0.642	6.0	4704	8.1	2.5	
Fe	56	2	He	5.029	7.6	65546	2.5	100	
Co	59	2	He	0.052	20.3	833	20.0	2.5	
Ni	60	2	He	-0.427	-11.2	1237	10.1	2.5	
Cu	63	2	He	0.350	14.5	9279	1.8	2.5	
Zn	66	2	He	-0.291	-33.5	900	21.2	2.5	
As	75	2	He	-0.057	-56.2	799	5.7	2.5	
Se	78	2	He	0.180	52.9	314	8.0	2.5	
B	11	1	nogas	128.000	2.7	392006	2.8	10	CCB Main CR1 Failed
Si	28	1	nogas	35.406	15.7	1432463	3.9	5	CCB Main CR1 Failed
Ca	43	1	nogas	85.617	7.7	4694	7.3	100	
Ca	44	1	nogas	30.671	8.5	56769	4.1	100	
Fe	56	1	nogas	-13.557	-9.9	3260027	2.0	100	
Se	77	1	nogas	-74.223	-12.5	43743	5.0	2.5	
Se	82	1	nogas	-0.242	-63.3	363	17.7	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.781	54.7	8436	45.4	2.5	
Sn	118	1	nogas	0.177	33.8	3527	20.7	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.050	82.8	1000	25.2	2.5	
Sb	121	2	He	0.096	11.5	917	7.3	2.5	
P	31	1	nogas	-3.330	-7.0	65948	0.5	10	
La	139	1	nogas	-38.960	-9.1	303	10.1	2.5	
Au	197	1	nogas	-8.718	-197.9	13	114.6	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	435584	1.50	410295	106.16	70	125	
Ge	72	1	nogas	4606041	1.05	4203247	109.58	70	125	
In	115	1	nogas	4564193	2.50	4030824	113.23	70	125	
Bi	209	1	nogas	3342960	1.09	3148067	106.19	70	125	
Ge	72	2	He	1212396	2.96	1112674	108.96	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	LLCCV5
Data File Name	242LICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\083
Acq Date Time	2018-08-31T01:16:02-05:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	172CALB.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
Be	9	1	nogas	4.689	2.968	18442	1.90	5	93.8	70	130	
Na	23	1	nogas	634.250	2.646	15654451	2.20	500	126.8	70	130	
Mg	24	1	nogas	547.384	1.248	7359936	1.91	500	109.5	70	130	
Al	27	1	nogas	7.226	30.919	151862	27.10	5	144.5	70	130	LLICV Main CR1 Failed
K	39	1	nogas	533.957	5.557	20782512	0.74	500	106.8	70	130	
Ti	47	1	nogas	5.791	7.710	13034	8.68	5	115.8	70	130	
V	51	1	nogas	-8.244	-5.401	1628669	2.86	5	-164.9	70	130	LLICV Main CR1 Failed
Cr	52	1	nogas	4.727	3.357	214107	0.89	5	94.5	70	130	
Mn	55	1	nogas	5.516	2.335	219630	0.98	5	110.3	70	130	
Co	59	1	nogas	5.197	2.210	157924	1.63	5	103.9	70	130	
Ni	60	1	nogas	5.122	1.382	38842	2.52	5	102.4	70	130	
Cu	63	1	nogas	5.796	4.305	105014	1.50	5	115.9	70	130	
Zn	66	1	nogas	4.869	5.689	30873	2.96	5	97.4	70	130	
As	75	1	nogas	0.790	53.959	197894	1.40	5	15.8	70	130	LLICV Main CR1 Failed
Sr	88	1	nogas	4.835	4.547	215725	1.61	5	96.7	70	130	
Ag	107	1	nogas	4.902	0.374	109011	2.44	5	98.0	70	130	
Cd	111	1	nogas	5.107	2.679	23132	2.63	5	102.1	70	130	
Sb	121	1	nogas	4.746	3.519	102717	1.09	5	94.9	70	130	
Tl	205	1	nogas	4.935	3.197	153597	2.22	5	98.7	70	130	
Pb	208	1	nogas	5.145	0.762	210398	0.76	5	102.9	70	130	
U	238	1	nogas	4.945	3.164	202296	1.88	5	98.9	70	130	
[Pb]	206	1	nogas	4.832	1.348	51518	1.30	5	96.6	70	130	
[Pb]	207	1	nogas	4.816	1.417	45795	1.00	5	96.3	70	130	
Na	23	2	He	645.257	4.163	1256068	3.88	500	129.1	70	130	
Mg	24	2	He	521.289	2.886	466980	3.41	500	104.3	70	130	
Al	27	2	He	5.518	10.699	3967	7.07	5	110.4	70	130	
K	39	2	He	577.593	0.751	842429	0.55	500	115.5	70	130	
Ca	43	2	He	535.090	14.859	1790	14.06	500	107.0	70	130	
Ca	44	2	He	523.890	4.762	30419	4.20	500	104.8	70	130	
V	51	2	He	4.570	1.492	63481	1.00	5	91.4	70	130	
Cr	52	2	He	5.079	5.330	49727	4.80	5	101.6	70	130	
Mn	55	2	He	5.879	0.204	38066	0.45	5	117.6	70	130	
Fe	56	2	He	525.110	2.672	4337696	2.14	500	105.0	70	130	
Co	59	2	He	4.985	2.065	64302	2.08	5	99.7	70	130	
Ni	60	2	He	4.708	6.240	17262	5.83	5	94.2	70	130	
Cu	63	2	He	5.553	1.566	51552	1.07	5	111.1	70	130	
Zn	66	2	He	4.892	7.985	11190	7.11	5	97.8	70	130	
As	75	2	He	4.999	3.120	11068	2.35	5	100.0	70	130	
Se	78	2	He	4.914	7.500	1084	5.48	5	98.3	70	130	
B	11	1	nogas	122.978	5.819	357797	2.81	25	491.9	70	130	LLICV Main CR1 Failed
Si	28	1	nogas	296.985	4.319	4024481	0.58	25	1187.9	70	130	LLICV Main CR1 Failed
Ca	43	1	nogas	604.445	4.200	27380	3.57	500	120.9	70	130	
Ca	44	1	nogas	538.535	4.115	426410	1.12	500	107.7	70	130	
Fe	56	1	nogas	501.617	2.869	19834563	1.32	500	100.3	70	130	
Se	77	1	nogas	-33.163	-8.627	54167	2.32	5	-663.3	70	130	LLICV Main CR1 Failed
Se	82	1	nogas	4.719	2.010	2430	3.93	5	94.4	70	130	
Mo	95	1	nogas	4.827	3.747	43712	3.33	5	96.5	70	130	
Sn	118	1	nogas	4.960	6.779	63248	4.99	5	99.2	70	130	
Ba	137	1	nogas	5.199	1.408	32424	2.19	5	104.0	70	130	
Sb	121	2	He	5.001	1.706	40343	1.58	5	100.0	70	130	
Li	7	1	nogas	4.778	3.750	71373	1.64	5	95.6	70	130	
P	31	1	nogas	27.925	7.493	114032	0.69	25	111.7	70	130	
La	139	1	nogas	-26.664	-34.829	367	15.51	5	-533.3	70	130	LLICV Main CR1 Failed
Au	197	1	nogas	-8.323	-212.233	13	114.56	5	-166.5	70	130	LLICV 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	nogas	413205	3.30	410295	100.71	70	125	
Ge	72	1	nogas	4505123	2.77	4203247	107.18	70	125	
In	115	1	nogas	4284307	1.69	4030824	106.29	70	125	
Bi	209	1	nogas	3300045	2.31	3148067	104.83	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Ge	72	2	He	1173938	0.54	1112674	105.51	70	125	

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	243SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\083
Acq Date Time	2018-08-31T01:17:59-05:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	172CALB.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
Be	9	1	nogas	1.927	1.927	10.26	7385	0.03	2000	
Na	23	1	nogas	280.582	280.582	9.31	8214950	0.00	200000	
Mg	24	1	nogas	231.706	231.706	5.16	3006337	0.01	200000	
Al	27	1	nogas	3.519	3.519	27.99	85917	0.00	2000	
K	39	1	nogas	227.565	227.565	11.52	13264465	0.00	200000	
Ti	47	1	nogas	2.445	2.445	9.52	5431	0.05	2000	
V	51	1	nogas	-11.587	-11.587	-11.26	1486015	0.00	2000	
Cr	52	1	nogas	1.828	1.828	17.87	129400	0.00	2000	
Mn	55	1	nogas	2.411	2.411	3.67	102271	0.00	2000	
Co	59	1	nogas	2.160	2.160	1.76	64085	0.00	2000	
Ni	60	1	nogas	1.921	1.921	5.26	17258	0.01	2000	
Cu	63	1	nogas	2.477	2.477	5.38	49457	0.01	2000	
Zn	66	1	nogas	1.985	1.985	7.06	13979	0.01	2000	
As	75	1	nogas	-2.032	-2.032	-28.01	172180	0.00	2000	
Sr	88	1	nogas	1.988	1.988	4.40	89539	0.00	2000	
Ag	107	1	nogas	1.991	1.991	4.31	43280	0.00	2000	
Cd	111	1	nogas	2.070	2.070	9.40	9116	0.02	2000	
Sb	121	1	nogas	2.329	2.329	3.84	49290	0.00	2000	
Tl	205	1	nogas	2.115	2.115	4.11	62705	0.00	2000	
Pb	208	1	nogas	2.041	2.041	0.73	83858	0.00	2000	
U	238	1	nogas	2.031	2.031	7.04	78810	0.00	2000	
[Pb]	206	1	nogas	2.054	2.054	3.13	20907	0.01	2000	
[Pb]	207	1	nogas	2.110	2.110	11.56	19045	0.01	2000	
Na	23	2	He	274.791	274.791	2.79	665037	0.04	200000	
Mg	24	2	He	214.603	214.603	2.20	190834	0.11	200000	
Al	27	2	He	2.101	2.101	5.72	2217	0.09	2000	
K	39	2	He	229.833	229.833	1.69	474310	0.05	200000	
Ca	43	2	He	200.073	200.073	12.59	683	29.28	200000	
Ca	44	2	He	202.087	202.087	4.32	12201	1.66	200000	
V	51	2	He	1.696	1.696	6.47	38291	0.00	2000	
Cr	52	2	He	2.019	2.019	1.52	21773	0.01	2000	
Mn	55	2	He	2.556	2.556	4.53	16544	0.02	2000	
Fe	56	2	He	215.225	215.225	2.97	1763712	0.01	200000	
Co	59	2	He	2.040	2.040	2.72	25989	0.01	2000	
Ni	60	2	He	1.609	1.609	2.33	7452	0.02	2000	
Cu	63	2	He	2.212	2.212	0.91	23852	0.01	2000	
Zn	66	2	He	1.685	1.685	11.41	4731	0.04	2000	
As	75	2	He	1.968	1.968	3.79	4823	0.04	2000	
Se	78	2	He	2.242	2.242	10.07	634	0.35	2000	
B	11	1	nogas	93.678	93.678	1.91	269579	0.03	2000	
Si	28	1	nogas	167.841	167.841	29.86	2647016	0.01	2000	
Ca	43	1	nogas	273.733	273.733	5.22	12484	2.19	200000	

Sample Report

Ca	44	1	nogas	237.617	237.617	5.47	200807	0.12	200000	
Fe	56	1	nogas	201.200	201.200	4.64	9840297	0.00	200000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Se	77	1	nogas	-40.418	-40.418	-7.88	50681	-0.08	2000	
Se	82	1	nogas	1.795	1.795	5.07	1173	0.15	2000	
Mo	95	1	nogas	4.662	4.662	72.25	40700	0.01	2000	
Sn	118	1	nogas	2.176	2.176	15.62	27455	0.01	2000	
Ba	137	1	nogas	2.261	2.261	11.74	14019	0.02	2000	
Sb	121	2	He	2.349	2.349	2.05	18724	0.01	2000	
La	139	1	nogas	-31.757	-31.757	-13.35	323	-9.82	2000	
Au	197	1	nogas	-3.491	-3.491	-517.34	17	-20.95	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	400239	2.68	410295	97.55	70	125	
Ge	72	1	nogas	4378061	2.45	4203247	104.16	70	125	
In	115	1	nogas	4181505	9.09	4030824	103.74	70	125	
Bi	209	1	nogas	3135679	6.47	3148067	99.61	70	125	
Ge	72	2	He	1156080	1.02	1112674	103.90	70	125	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	244ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\083
Acq Date Time	2018-08-31T01:19:58-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	172CALB.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
Be	9	1	nogas	0.007	126.8	103	29.6	0	ICSA Main CR1 Failed
Na	23	1	nogas	96637.089	2.0	1801561640	0.5	0	
Mg	24	1	nogas	98105.820	3.5	1220873694	3.7	0	
Al	27	1	nogas	98429.326	2.3	1520273471	2.0	0	
K	39	1	nogas	100803.671	2.1	2150702181	0.5	0	
Ti	47	1	nogas	2174.548	1.6	4411667	1.8	0	
V	51	1	nogas	-20.249	-4.2	1162623	1.8	0	ICSA Main CR1 Failed
Cr	52	1	nogas	0.529	26.8	88573	2.9	0	ICSA Main CR1 Failed
Mn	55	1	nogas	0.380	11.5	27798	3.7	0	ICSA Main CR1 Failed
Co	59	1	nogas	0.181	5.3	5461	3.7	0	ICSA Main CR1 Failed
Ni	60	1	nogas	0.666	9.4	8685	5.5	0	ICSA Main CR1 Failed
Cu	63	1	nogas	1.787	4.4	36236	4.8	0	ICSA Main CR1 Failed
Zn	66	1	nogas	1.410	4.0	10143	4.5	0	ICSA Main CR1 Failed
As	75	1	nogas	-3.410	-12.7	152571	0.8	0	ICSA Main CR1 Failed
Sr	88	1	nogas	0.864	2.5	39621	3.6	0	ICSA Main CR1 Failed
Ag	107	1	nogas	0.062	8.1	1683	5.8	0	ICSA Main CR1 Failed
Cd	111	1	nogas	1.972	6.2	8099	7.9	0	ICSA Main CR1 Failed
Sb	121	1	nogas	0.073	3.0	1977	0.8	0	ICSA Main CR1 Failed
Tl	205	1	nogas	0.017	36.2	843	21.3	0	ICSA Main CR1 Failed
Pb	208	1	nogas	0.070	6.3	3517	5.1	0	ICSA Main CR1 Failed
[Pb]	206	1	nogas	0.086	18.1	990	14.1	0	ICSA Main CR1 Failed
[Pb]	207	1	nogas	0.077	6.2	757	7.7	0	ICSA Main CR1 Failed
Na	23	2	He	97114.562	1.1	140290575	0.3	0	
Mg	24	2	He	97496.436	1.4	79912449	1.1	0	
Al	27	2	He	98176.612	2.4	45403893	1.1	0	
K	39	2	He	101059.131	1.3	107206348	1.3	0	
Ca	43	2	He	96910.837	0.2	292132	1.4	0	
Ca	44	2	He	100419.790	0.8	5179896	0.6	0	
V	51	2	He	-0.479	-9.1	18670	0.7	0	ICSA Main CR1 Failed
Cr	52	2	He	0.248	20.0	5634	6.4	0	ICSA Main CR1 Failed
Mn	55	2	He	0.530	6.4	3534	7.0	0	ICSA Main CR1 Failed
Fe	56	2	He	100153.478	0.3	757663429	1.2	0	
Co	59	2	He	0.016	24.3	313	14.4	0	ICSA Main CR1 Failed
Ni	60	2	He	-0.280	-18.8	1527	8.4	0	ICSA Main CR1 Failed
Cu	63	2	He	0.893	3.3	12361	1.3	0	ICSA Main CR1 Failed
Zn	66	2	He	0.227	51.4	1753	13.1	0	ICSA Main CR1 Failed
As	75	2	He	0.044	123.7	901	10.5	0	ICSA Main CR1 Failed
Se	78	2	He	0.238	175.7	288	20.7	0	ICSA Main CR1 Failed
B	11	1	nogas	76.558	3.3	193149	3.1	0	
Si	28	1	nogas	80.477	0.6	1692463	1.7	0	
Ca	43	1	nogas	100536.405	2.7	4033983	1.2	0	
Ca	44	1	nogas	100819.564	2.3	67301549	1.9	0	
Fe	56	1	nogas	98536.520	1.3	2911650532	1.9	0	
Se	77	1	nogas	-32.285	-11.8	49678	0.5	0	ICSA Main CR1 Failed
Se	82	1	nogas	-0.201	-46.3	340	8.8	0	ICSA Main CR1 Failed
Mo	95	1	nogas	1904.310	1.7	15245489	2.7	0	
Sn	118	1	nogas	0.086	13.0	1980	7.9	0	ICSA Main CR1 Failed
Ba	137	1	nogas	0.079	36.2	1010	14.0	0	ICSA Main CR1 Failed
Sb	121	2	He	0.097	17.1	827	13.8	0	ICSA Main CR1 Failed

Interference Check Solution A (ICS-A) Report

P	31	1	nogas	102715.515	1.8	148843868	1.9	0	
La	139	1	nogas	30.959	47.5	683	14.1	0	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	344415	0.21	410295	83.94	70	125	
Ge	72	1	nogas	4113493	1.63	4203247	97.86	70	125	
In	115	1	nogas	3873685	1.74	4030824	96.10	70	125	
Bi	209	1	nogas	2917633	2.88	3148067	92.68	70	125	
Ge	72	2	He	1080514	1.39	1112674	97.11	70	125	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	245ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\083
Acq Date Time	2018-08-31T01:22:01-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	172CALB.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
Be	9	1	nogas	108.071	11.258	299874	1.49	100	108.1	80	120	
Na	23	1	nogas	128248.707	18.753	2023066512	1.55	100	128248.7	80	120	ICSB Main CR1 Failed
Mg	24	1	nogas	127265.118	17.743	1341839930	0.21	100	127265.1	80	120	ICSB Main CR1 Failed
Al	27	1	nogas	110258.948	13.732	1563506857	0.92	100	110258.9	80	120	ICSB Main CR1 Failed
K	39	1	nogas	127348.839	15.344	2489816056	2.47	100	127348.8	80	120	ICSB Main CR1 Failed
Ti	47	1	nogas	2559.736	15.099	4761849	2.06	100	2559.7	80	120	ICSB Main CR1 Failed
V	51	1	nogas	109.022	20.070	4277045	0.65	100	109.0	80	120	ICSB Main CR1 Failed
Cr	52	1	nogas	110.294	13.615	2649609	0.09	100	110.3	80	120	
Mn	55	1	nogas	107.838	15.796	3339129	2.43	100	107.8	80	120	
Co	59	1	nogas	109.596	14.120	2782715	0.82	100	109.6	80	120	
Ni	60	1	nogas	108.726	14.301	604011	1.39	100	108.7	80	120	
Cu	63	1	nogas	108.997	14.969	1498169	3.02	100	109.0	80	120	
Zn	66	1	nogas	107.916	15.435	519432	2.08	100	107.9	80	120	
As	75	1	nogas	109.268	15.287	834047	1.25	100	109.3	80	120	
Sr	88	1	nogas	108.683	15.475	3957045	2.17	100	108.7	80	120	
Ag	107	1	nogas	101.387	11.842	1885505	3.22	100	101.4	80	120	
Cd	111	1	nogas	113.727	18.619	412984	2.26	100	113.7	80	120	
Sb	121	1	nogas	106.528	12.371	1925180	1.08	100	106.5	80	120	
Tl	205	1	nogas	116.562	20.236	2676132	2.31	100	116.6	80	120	
Pb	208	1	nogas	87.754	1.695	3577675	1.69	100	87.8	80	120	
U	238	1	nogas	120.190	17.626	3644692	0.27	100	120.2	80	120	ICSB Main CR1 Failed
[Pb]	206	1	nogas	110.891	20.962	870264	2.88	100	110.9	80	120	
[Pb]	207	1	nogas	109.426	19.998	767668	2.54	100	109.4	80	120	
Na	23	2	He	109422.625	1.561	159994298	1.92	100	109422.6	80	120	ICSB Main CR1 Failed
Mg	24	2	He	110331.443	1.742	91538205	1.05	100	110331.4	80	120	ICSB Main CR1 Failed
Al	27	2	He	100897.560	2.608	47239476	2.35	100	100897.6	80	120	ICSB Main CR1 Failed
K	39	2	He	116509.390	1.864	123561095	1.86	100	116509.4	80	120	ICSB Main CR1 Failed
Ca	43	2	He	109425.289	2.078	333836	0.70	100	109425.3	80	120	ICSB Main CR1 Failed
Ca	44	2	He	110091.211	2.040	5747815	1.02	100	110091.2	80	120	
V	51	2	He	96.541	1.365	792159	0.60	100	96.5	80	120	
Cr	52	2	He	96.177	1.929	812326	0.08	100	96.2	80	120	
Mn	55	2	He	98.981	1.717	590491	0.21	100	99.0	80	120	
Fe	56	2	He	108916.852	2.554	833884201	1.05	100	108916.9	80	120	
Co	59	2	He	96.961	5.661	1162158	3.90	100	97.0	80	120	
Ni	60	2	He	98.337	1.760	288851	0.49	100	98.3	80	120	
Cu	63	2	He	95.990	3.252	737120	2.27	100	96.0	80	120	
Zn	66	2	He	97.877	1.332	182867	1.42	100	97.9	80	120	
As	75	2	He	100.756	2.318	191921	0.59	100	100.8	80	120	
Se	78	2	He	100.907	4.039	15746	2.22	100	100.9	80	120	
B	11	1	nogas	587.973	11.277	1151799	1.93	100	588.0	80	120	
Si	28	1	nogas	5655.656	13.923	48460148	0.38	100	5655.7	80	120	ICSB Main CR1 Failed
Ca	43	1	nogas	123616.118	14.159	4553320	3.02	100	123616.1	80	120	ICSB Main CR1 Failed
Ca	44	1	nogas	123220.834	13.891	75505857	2.07	100	123220.8	80	120	ICSB Main CR1 Failed
Fe	56	1	nogas	121193.952	15.028	3283161540	1.60	100	121194.0	80	120	ICSB Main CR1 Failed
Se	77	1	nogas	137.507	31.319	85175	1.63	100	137.5	80	120	ICSB Main CR1 Failed
Se	82	1	nogas	108.384	12.330	38424	3.47	100	108.4	80	120	
Mo	95	1	nogas	2329.467	16.889	17072748	3.61	100	2329.5	80	120	ICSB Main CR1 Failed
Sn	118	1	nogas	112.033	19.289	1126994	0.45	100	112.0	80	120	
Ba	137	1	nogas	113.808	21.323	557016	1.53	100	113.8	80	120	
Sb	121	2	He	95.138	1.264	713006	0.66	100	95.1	80	120	
La	139	1	nogas	280.319	40.366	1923	11.22	100	280.3	80	120	ICSB 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	nogas	295160	10.59	410295	71.94	70	125	
Ge	72	1	nogas	3819338	12.41	4203247	90.87	70	125	
In	115	1	nogas	3516636	18.13	4030824	87.24	70	125	
Bi	209	1	nogas	2494349	16.19	3148067	79.23	70	125	
Ge	72	2	He	1093838	1.91	1112674	98.31	70	125	

Tune Report

Batch Folder C:\Agilent\ICPMH\1\DATA\083018A.b
Report Comment
Instrument Name G3281A JP11080910

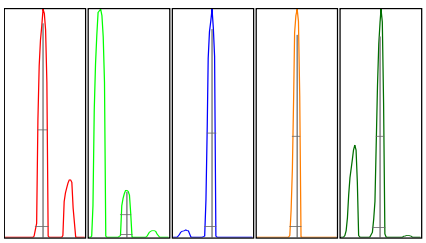
[nogas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
9		14320				NaN	-	
24		43381				NaN	-	
59		63585				NaN	-	
115		65803				NaN	-	
208		34786				NaN	-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)	Background (Actual)	Background (Required)	Background (Flag)
9	1.09	5.00				
24	0.98	5.00				
59	0.78	5.00				
115	1.02	5.00				
208	0.97	5.00				

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	14486	14370	14414	14091	14238
24	43099	42845	43940	43448	43575
59	62901	63220	63837	63971	63994
115	65874	65518	66902	65610	65110
208	34579	35106	34951	34993	34300

Integration Time [sec] 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-X% (Actual)	W-X% (Required)	W-X% (Flag)
9	4003.77	8.95	8.9 - 9.1		0.37	0.458	0.750	
24	12165.27	23.95	23.9 - 24.1		0.37	0.444	0.750	
59	19315.53	59.00	58.9 - 59.1		0.33	0.435	0.750	
115	21317.76	115.05	114.9 - 115.1		0.29	0.430	0.750	
208	10792.09	208.00	207.9 - 208.1		0.31	0.478	0.750	

X = 5 **Integration Time [sec]** 0.1 **Acquisition Time [sec]** 168.5 **Y Axis** Linear

Tune Parameters

Plasma Paramters

RF Power	1600 W	Carrier Gas	0.45 L/min	S/C Temp	2 ℃
RF Matching	1.70 V	Option Gas	0.0 %	Makeup/Dilution Gas	0.40 L/min
Smpl Depth	8.0 mm	Nebulizer Pump	0.10 rps	Gas Switch	Dilution Gas

Lenses Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	15.0 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-100 V	Cell Exit	-58 V		

Cell Parameters

OctP Bias	-8.0 V	He Flow	0.0 mL/min	Energy Discrimination	5.0 V
OctP RF	190 V	H2 Flow	0.0 mL/min		
Use Gas	true	3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
9		273				NaN	-	
24		2853				NaN	-	
59		25916				NaN	-	

Tune Report

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)	Background (Actual)	Background (Required)	Background (Flag)
9	2.07	5.00				
24	2.41	5.00				
59	2.34	5.00				

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	279	280	267	272	270
24	2789	2776	2885	2876	2939
59	25473	25382	25716	26151	26859

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-X% (Actual)	W-X% (Required)	W-X% (Flag)
9	77.08	8.95	8.9 - 9.1		0.36	0.483	0.750	
24	793.58	23.95	23.9 - 24.1		0.37	0.444	0.750	
59	8133.36	58.95	58.9 - 59.1		0.31	0.427	0.750	

X = 5 **Integration Time [sec]** 0.1 **Acquisition Time [sec]** 100.6 **Y Axis** Linear

Tune Parameters

Plasma Paramters

RF Power	1600 W	Carrier Gas	0.45 L/min	S/C Temp	2 ℃
RF Matching	1.70 V	Option Gas	0.0 %	Makeup/Dilution Gas	0.40 L/min
Smpl Depth	8.0 mm	Nebulizer Pump	0.10 rps	Gas Switch	Dilution Gas

Lenses Parameters

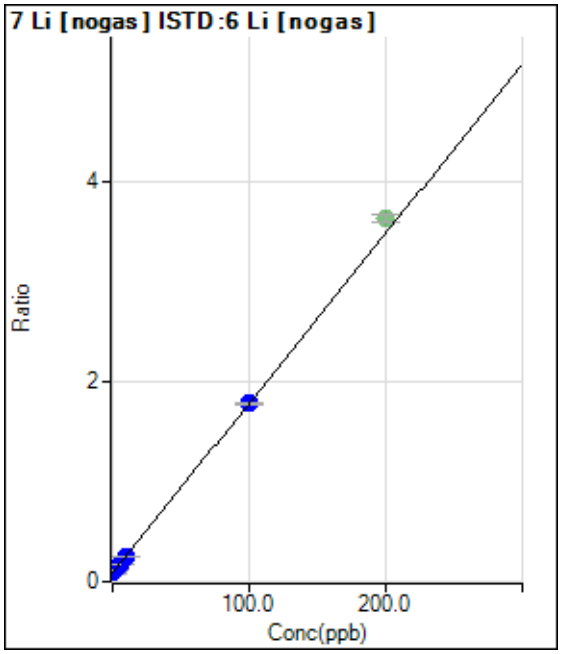
Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	2.0 V
Extract 2	-200.0 V	Cell Entrance	-32 V	Plate Bias	-60 V
Omega Bias	-100 V	Cell Exit	-70 V		

Cell Parameters

OctP Bias	-18.0 V	He Flow	4.0 mL/min	Energy Discrimination	5.0 V
OctP RF	190 V	H2 Flow	0.0 mL/min		
Use Gas	true	3rd Gas Flow	0 %		

Batch Folder: C:\Agilent\ICPMH\1\DATA\083118A.b\
Analysis File: 083118A.batch.bin
DA Date-Time: 2018-08-31 14:55:18
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

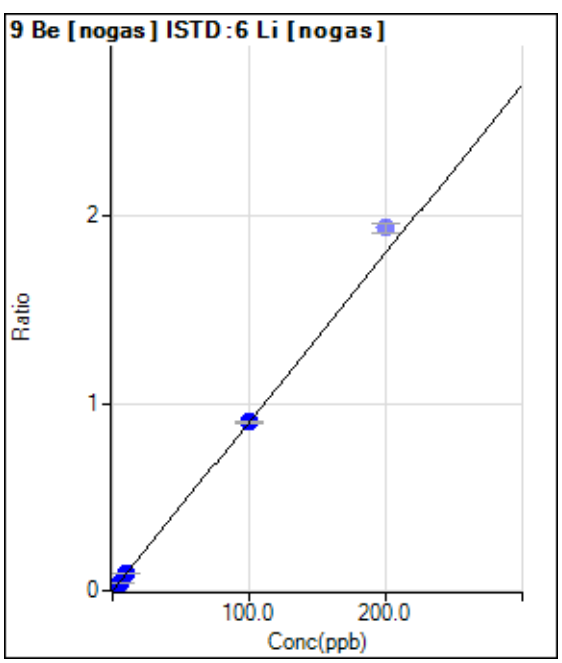
Level	Standard Data File	Sample Name	Acq. Date-Time
1	005CALB.d	CAL BLK	2018-08-31 11:10:39
2	006CALS.d	2/10/200	2018-08-31 11:12:40
3	007CALS.d	5/25/500	2018-08-31 11:14:39
4	008CALS.d	10/50/1000	2018-08-31 11:16:39
5	009CALS.d	100/500/10K	2018-08-31 11:18:38
6	010CALS.d	200/1000/20K	2018-08-31 11:20:38
7			



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46272.74	0.0879	P	5.3
2	☐	2.000	1.926	64340.80	0.1205	P	1.0
3	☐	5.000	4.855	88941.76	0.1701	P	0.6
4	☐	10.000	9.868	131345.76	0.2550	P	3.2
5	☐	100.000	100.022	860009.26	1.7812	P	1.0
6	☑	200.000		1610095.13	3.6212	A	2.2
7	☐	1.000					

y = 0.0169 * x + 0.0879
R = 1.0000
DL = 0.8272
BEC = 5.193

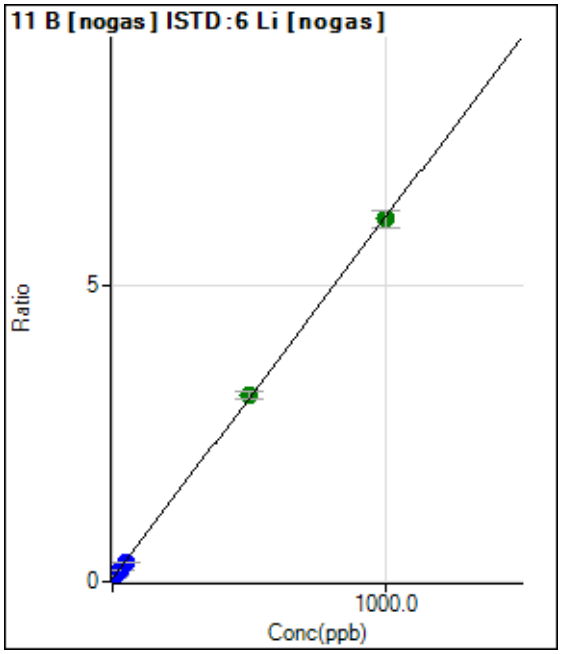
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	99.1
2	☐	2.000	1.851	8915.54	0.0167	P	1.1
3	☐	5.000	4.823	22706.99	0.0434	P	1.5
4	☐	10.000	9.904	45945.22	0.0891	P	2.6
5	☐	100.000	100.021	434475.26	0.8999	P	1.0
6	☑	200.000		860403.87	1.9353	P	2.9
7	☐	1.000					

y = 0.0090 * x + 4.4400E-005
R = 1.0000
DL = 0.01468
BEC = 0.004935

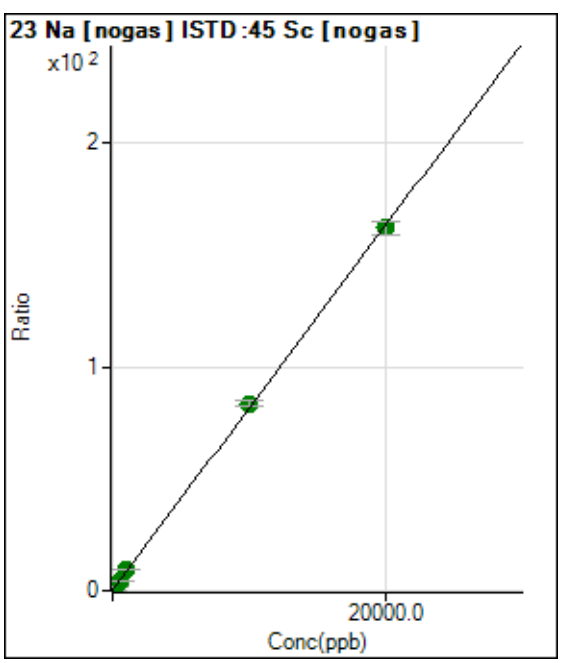
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27266.30	0.0519	P	5.4
2	☐	10.000	7.933	53558.23	0.1003	P	2.2
3	☐	25.000	21.545	95914.90	0.1835	P	3.2
4	☐	50.000	46.320	172579.89	0.3349	P	1.1
5	☐	500.000	509.296	1528006.33	3.1641	A	4.5
6	☐	1000.000	995.643	2727338.08	6.1362	A	4.5
7	☐	5.000					

y = 0.0061 * x + 0.0519
R = 0.9999
DL = 1.374
BEC = 8.485

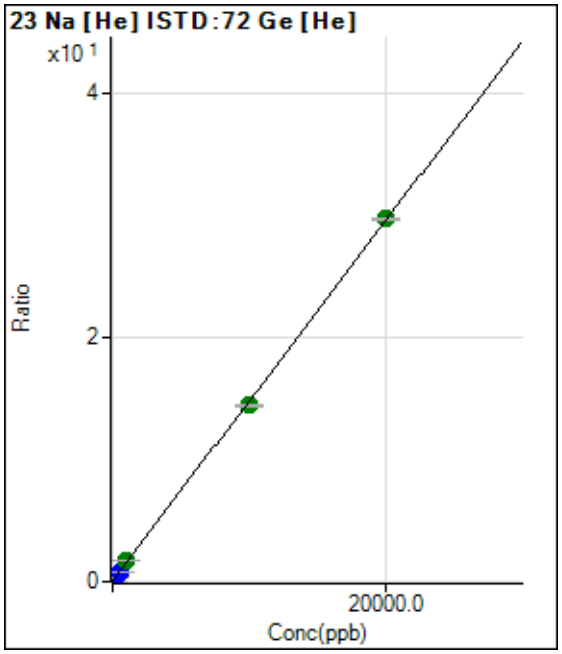
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	512526.13	0.2139	P	6.2
2	☐	200.000	209.637	4825518.21	1.9232	A	7.2
3	☐	500.000	508.629	11233113.27	4.3610	A	1.2
4	☐	1000.000	1109.836	22772388.53	9.2628	A	1.8
5	☐	10000.00	10247.793	199949004.4	83.7674	A	2.8
6	☐	20000.00	19870.299	390237625.3	162.222	A	3.4
7	☐	100.000					

y = 0.0082 * x + 0.2139
R = 0.9999
DL = 4.899
BEC = 26.24

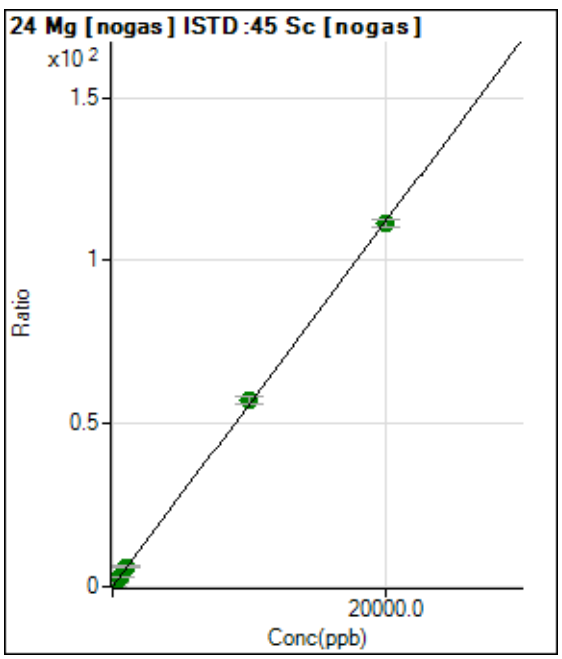
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	62693.03	0.0632	P	1.5
2	☐	200.000	214.061	384800.80	0.3792	P	1.0
3	☐	500.000	522.582	853994.96	0.8347	P	3.0
4	☐	1000.000	1106.335	1720321.17	1.6964	A	1.2
5	☐	10000.00	9740.991	14590409.78	14.4431	A	1.2
6	☐	20000.00	20123.483	29093183.73	29.7699	A	0.2
7	☐	100.000					

y = 0.0015 * x + 0.0632
R = 0.9999
DL = 1.957
BEC = 42.84

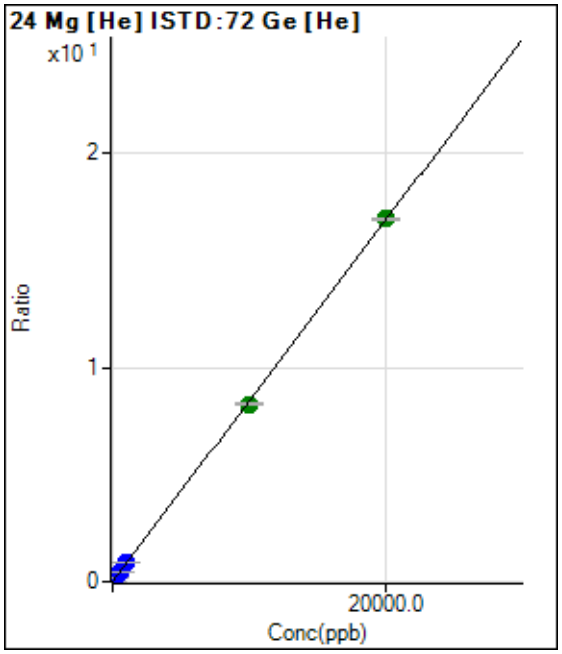
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14408.81	0.0060	P	12.3
2	☐	200.000	206.723	2914710.94	1.1625	A	9.3
3	☐	500.000	503.844	7274200.42	2.8247	A	1.8
4	☐	1000.000	1099.482	15132398.77	6.1570	A	4.4
5	☐	10000.00	10219.799	136440615.5	57.1797	A	4.1
6	☐	20000.00	19884.963	267683980.9	111.250	A	2.0
7	☐	100.000					

y = 0.0056 * x + 0.0060
R = 0.9999
DL = 0.398
BEC = 1.077

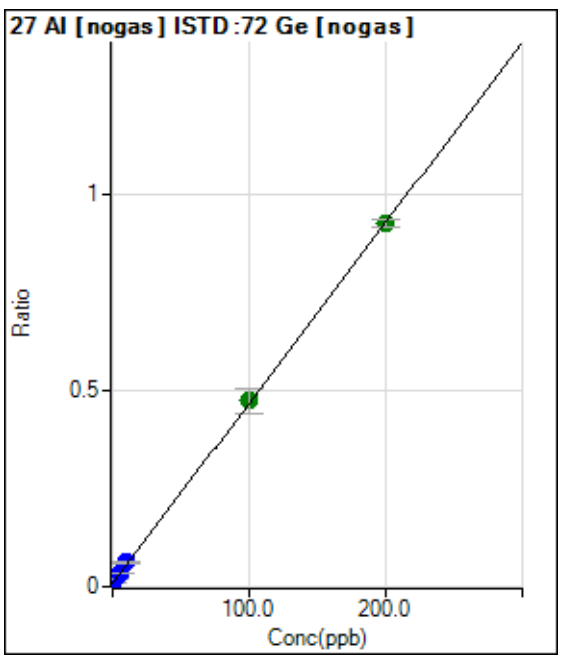
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1323.40	0.0013	P	10.1
2	☐	200.000	213.256	183904.36	0.1812	P	2.4
3	☐	500.000	520.833	450899.86	0.4407	P	2.9
4	☐	1000.000	1065.901	913256.91	0.9005	P	0.7
5	☐	10000.00	9838.322	8385806.96	8.3011	A	0.8
6	☐	20000.00	20076.891	16553266.83	16.9385	A	0.8
7	☐	100.000					

y = 8.4361E-004 * x + 0.0013
R = 0.9999
DL = 0.4776
BEC = 1.582

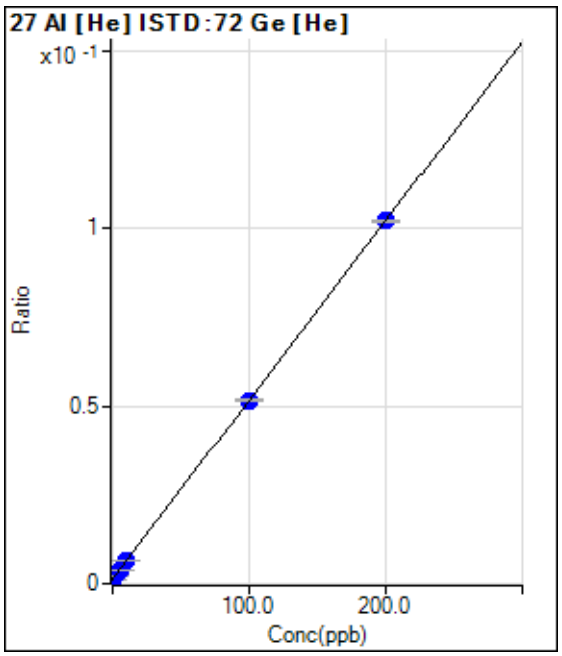
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31808.94	0.0087	P	5.3
2	☐	2.000	2.408	74427.90	0.0198	P	9.5
3	☐	5.000	5.563	130093.54	0.0343	P	2.9
4	☐	10.000	11.630	228665.75	0.0623	P	2.8
5	☐	100.000	101.188	1819173.98	0.4749	A	13.8
6	☐	200.000	199.306	3353533.39	0.9270	A	2.0
7	☐	1.000					

y = 0.0046 * x + 0.0087
R = 1.0000
DL = 0.3017
BEC = 1.88

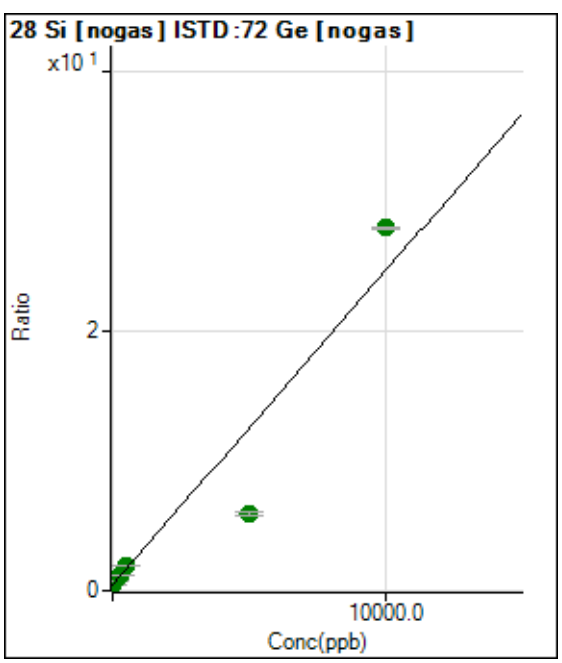
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.375	1090.05	0.0011	P	13.1
2	☐	2.000	1.836	2246.84	0.0022	P	6.4
3	☐	5.000	4.937	3863.79	0.0038	P	3.8
4	☐	10.000	10.686	6767.95	0.0067	P	2.1
5	☐	100.000	99.895	52155.04	0.0516	P	1.6
6	☐	200.000	200.021	99768.13	0.1021	P	0.5
7	☐	1.000					

y = 5.0395E-004 * x + 0.0013
R = 1.0000
DL = 0.8582
BEC = 2.557

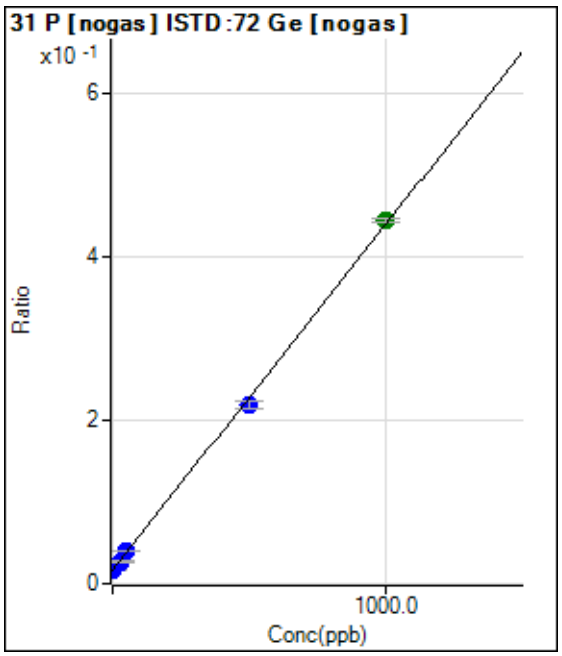
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1658869.97	0.4515	A	2.5
2	☐	100.000	102.791	2638510.90	0.7000	A	1.3
3	☐	250.000	281.040	4289963.68	1.1308	A	1.0
4	☐	500.000	597.027	6960191.57	1.8946	A	1.7
5	☐	5000.000	2265.799	22717970.50	5.9281	A	5.2
6	☐	10000.00	11361.445	100987741.8	27.9130	A	0.5
7	☐	5.000					

y = 0.0024 * x + 0.4515
R = 0.9538
DL = 14.21
BEC = 186.8

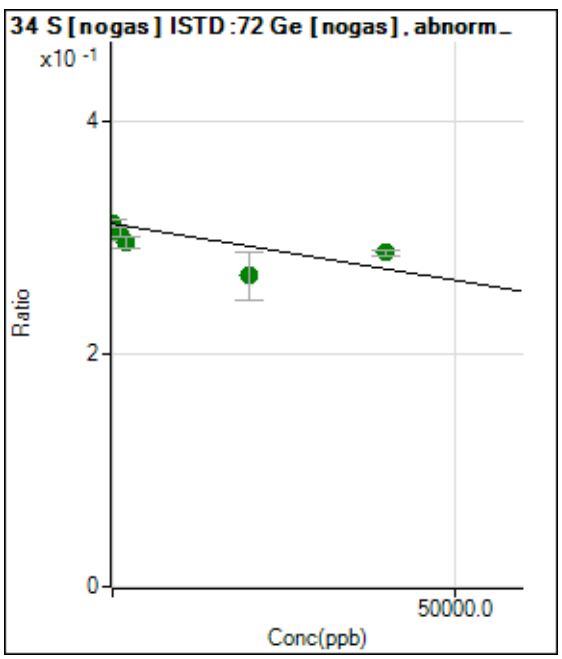
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60981.35	0.0166	P	4.4
2	☐	10.000	9.578	77890.28	0.0207	P	0.8
3	☐	25.000	24.694	102663.87	0.0271	P	1.2
4	☐	50.000	56.321	148635.24	0.0405	P	1.4
5	☐	500.000	477.370	838427.44	0.2187	P	4.0
6	☐	1000.000	1011.011	1608920.91	0.4447	A	1.1
7	☐	5.000					

y = 4.2342E-004 * x + 0.0166
R = 0.9996
DL = 5.21
BEC = 39.23

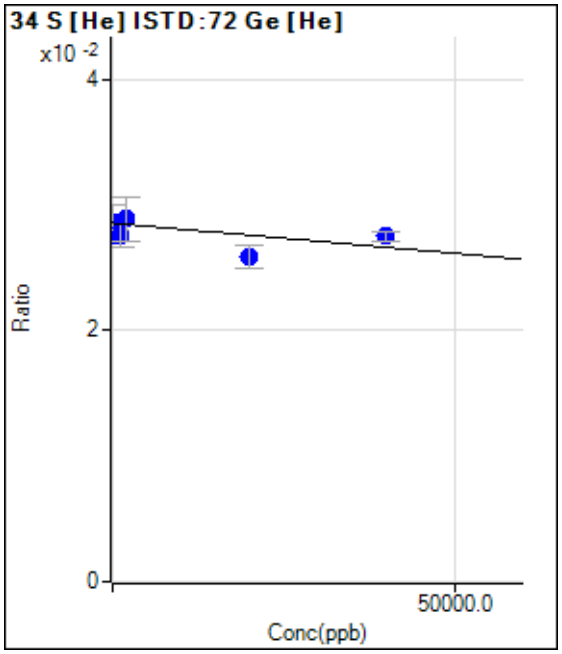
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1146630.49	0.3122	A	2.6
2	☐	400.000	3803.377	1162890.68	0.3085	A	1.4
3	☐	1000.000	9384.235	1149471.64	0.3031	A	3.9
4	☐	2000.000	15963.242	1090307.19	0.2967	A	3.5
5	☐	20000.00	46366.589	1022540.36	0.2672	A	15.7
6	☐	40000.00	25874.904	1038592.18	0.2871	A	2.2
7	☐	100.000					

y = -9.6911E-007 * x + 0.3122
R = -0.6680
DL = -2.56E+04
BEC = -3.221E+05

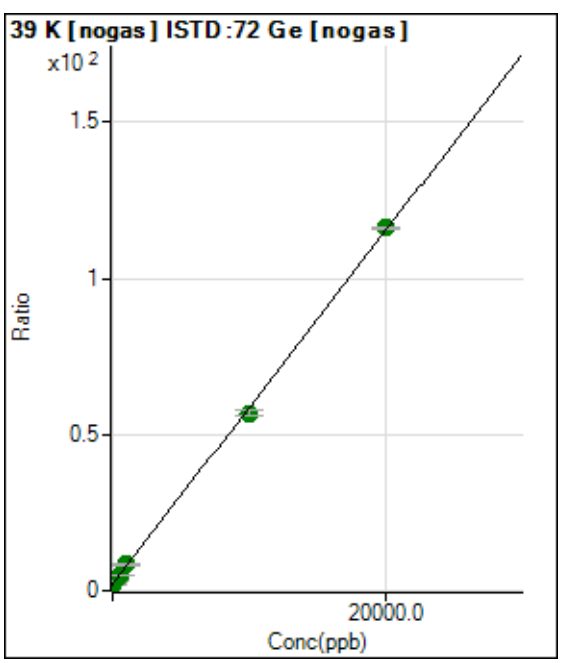
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	28292.25	0.0285	P	10.6
2	☐	400.000	20281.497	27959.67	0.0276	P	3.5
3	☐	1000.000	21671.201	28158.82	0.0275	P	6.6
4	☐	2000.000	-6904.295	29295.00	0.0289	P	11.9
5	☐	20000.00	55740.840	26122.61	0.0259	P	6.8
6	☐	40000.00	21859.200	26856.97	0.0275	P	2.6
7	☐	100.000					

y = -4.7944E-008 * x + 0.0285
R = -0.4553
DL = -1.887E+05
BEC = -5.95E+05

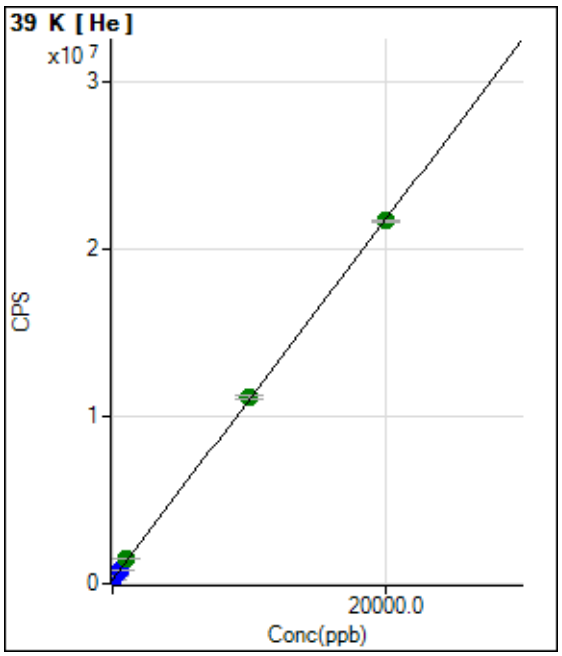
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7822791.32	2.1304	A	3.5
2	☐	200.000	203.423	12364534.39	3.2803	A	0.6
3	☐	500.000	505.297	18916647.82	4.9868	A	0.8
4	☐	1000.000	1103.699	30743007.98	8.3695	A	2.9
5	☐	10000.00	9657.774	217504704.8	56.7246	A	3.0
6	☐	20000.00	20165.761	420138351.0	116.125	A	0.5
7	☐	100.000					

y = 0.0057 * x + 2.1304
R = 0.9998
DL = 40.14
BEC = 376.9

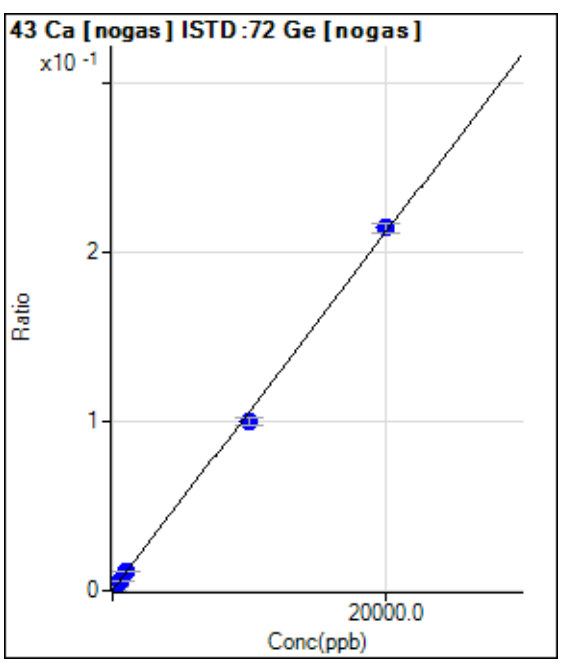
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	231894.23		P	1.5
2	☐	200.000	214.275	462554.61		P	0.7
3	☐	500.000	534.155	806895.95		P	0.4
4	☐	1000.000	1172.596	1494157.53		A	0.6
5	☐	10000.00	10126.429	11132681.50		A	1.5
6	☐	20000.00	19927.159	21682864.68		A	0.7
7	☐	100.000					

y = 1076.4691 * x + 231894.2333
R = 0.9999
DL = 9.823
BEC = 215.4

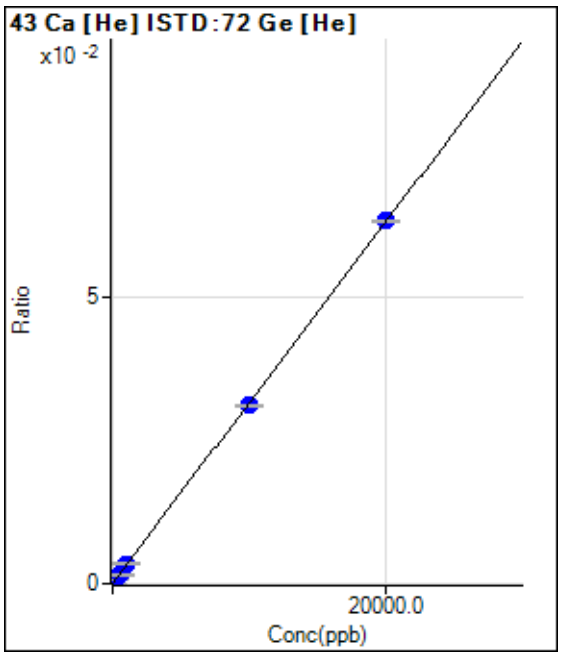
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	760.03	0.0002	P	6.9
2	☐	200.000	211.432	9215.76	0.0024	P	5.2
3	☐	500.000	510.301	21262.44	0.0056	P	1.7
4	☐	1000.000	1090.777	43153.57	0.0117	P	1.9
5	☐	10000.00	9439.141	383575.16	0.1001	P	3.9
6	☐	20000.00	20275.519	776659.47	0.2147	P	2.5
7	☐	100.000					

y = 1.0579E-005 * x + 2.0678E-004
R = 0.9994
DL = 4.068
BEC = 19.55

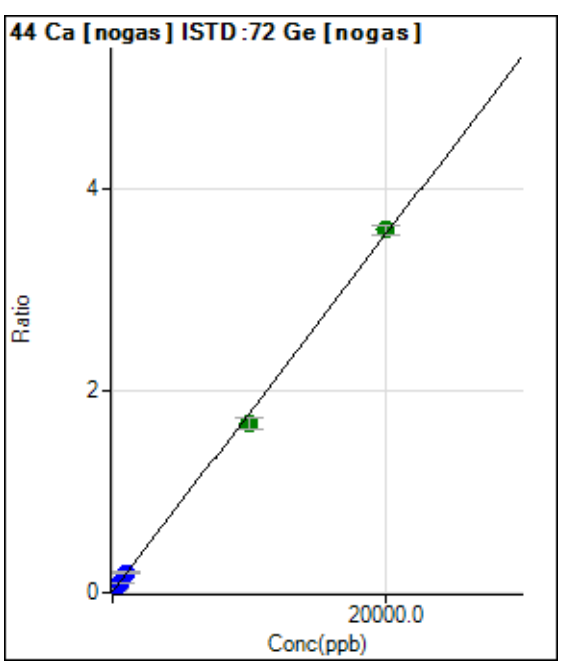
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0000	P	31.5
2	☐	200.000	213.981	720.03	0.0007	P	5.1
3	☐	500.000	481.085	1586.76	0.0015	P	8.6
4	☐	1000.000	1094.177	3527.06	0.0035	P	8.3
5	☐	10000.00	9845.457	31296.46	0.0310	P	0.8
6	☐	20000.00	20072.896	61688.39	0.0631	P	0.3
7	☐	100.000					

y = 3.1429E-006 * x + 3.6986E-005
R = 0.9999
DL = 11.12
BEC = 11.77

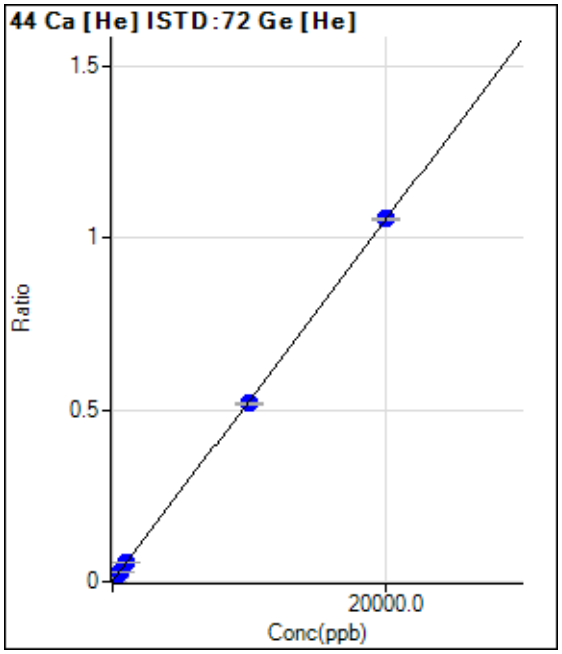
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37928.70	0.0103	P	5.0
2	☐	200.000	200.164	172205.47	0.0457	P	3.2
3	☐	500.000	502.940	376246.79	0.0992	P	2.5
4	☐	1000.000	1061.836	727160.92	0.1979	P	2.1
5	☐	10000.00	9439.159	6431912.82	1.6781	A	6.3
6	☐	20000.00	20277.254	12996964.39	3.5931	A	2.8
7	☐	100.000					

y = 1.7669E-004 * x + 0.0103
R = 0.9994
DL = 8.781
BEC = 58.47

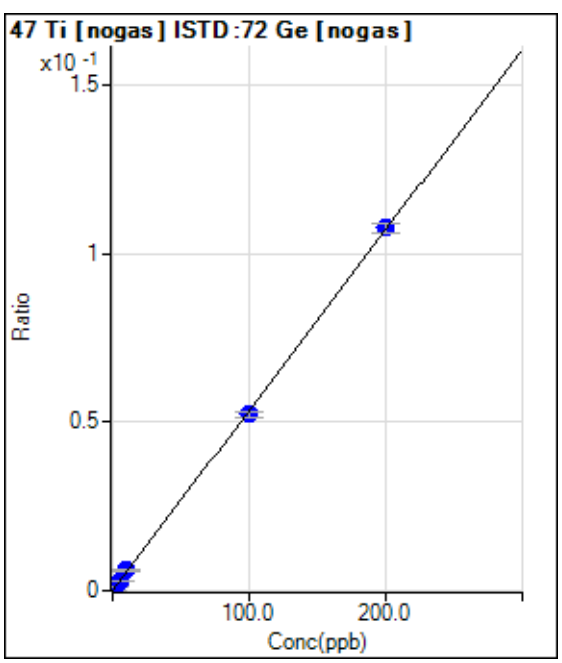
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1063.38	0.0011	P	9.4
2	☐	200.000	214.285	12527.67	0.0123	P	0.7
3	☐	500.000	523.763	29290.00	0.0286	P	3.0
4	☐	1000.000	1075.696	58481.64	0.0577	P	1.5
5	☐	10000.00	9858.623	525028.77	0.5197	P	1.1
6	☐	20000.00	20066.167	1032756.05	1.0568	P	0.7
7	☐	100.000					

y = 5.2611E-005 * x + 0.0011
R = 1.0000
DL = 5.725
BEC = 20.39

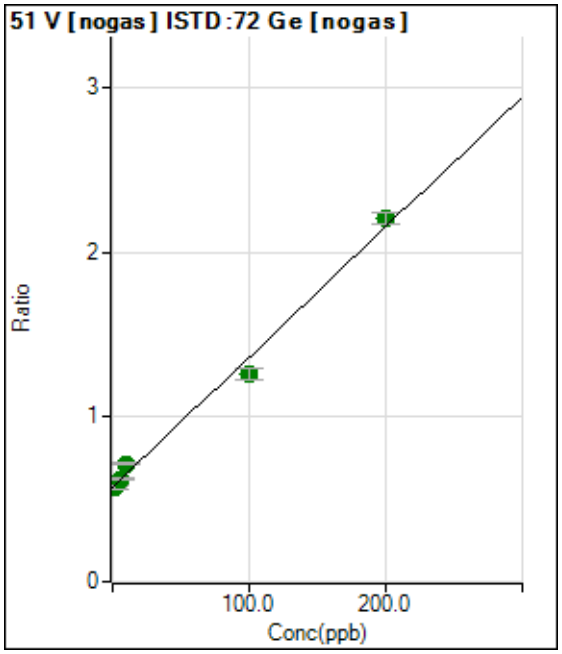
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	213.34	0.0001	P	24.5
2	☐	2.000	1.945	4147.20	0.0011	P	2.3
3	☐	5.000	5.259	10910.05	0.0029	P	2.3
4	☐	10.000	11.168	22203.42	0.0060	P	2.8
5	☐	100.000	97.742	201032.46	0.0524	P	3.6
6	☐	200.000	201.064	389958.99	0.1078	P	2.6
7	☐	1.000					

y = 5.3589E-004 * x + 5.7992E-005
R = 0.9999
DL = 0.07963
BEC = 0.1082

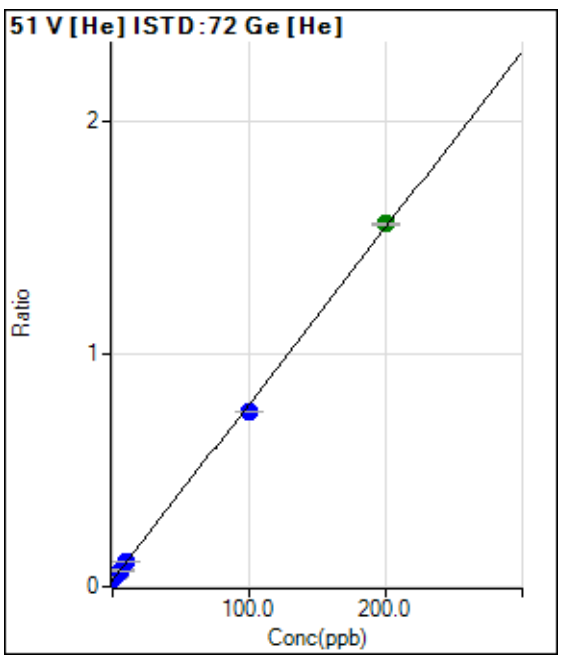
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2109631.88	0.5743	A	2.4
2	☐	2.000	0.209	2170211.77	0.5759	A	3.2
3	☐	5.000	5.956	2357072.45	0.6214	A	1.9
4	☐	10.000	18.117	2637264.51	0.7176	A	2.6
5	☐	100.000	87.003	4840361.31	1.2629	A	5.3
6	☐	200.000	206.087	7977056.17	2.2054	A	3.1
7	☐	1.000					

y = 0.0079 * x + 0.5743
R = 0.9959
DL = 5.142
BEC = 72.55

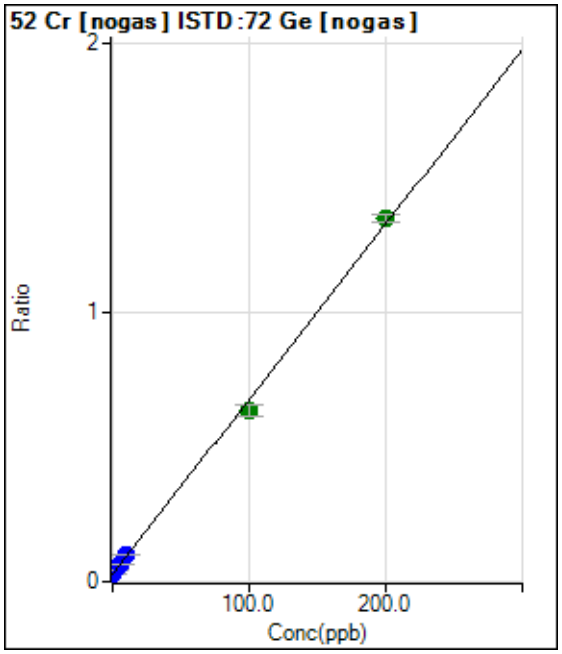
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.460	30719.86	0.0310	P	0.7
2	☐	2.000	2.355	46001.02	0.0453	P	1.1
3	☐	5.000	5.503	70773.21	0.0692	P	3.1
4	☐	10.000	10.984	112235.87	0.1107	P	1.2
5	☐	100.000	95.528	758560.13	0.7509	P	0.5
6	☐	200.000	202.171	1523023.87	1.5585	A	0.4
7	☐	1.000					

y = 0.0076 * x + 0.0275
R = 0.9996
DL = 0.09015
BEC = 3.632

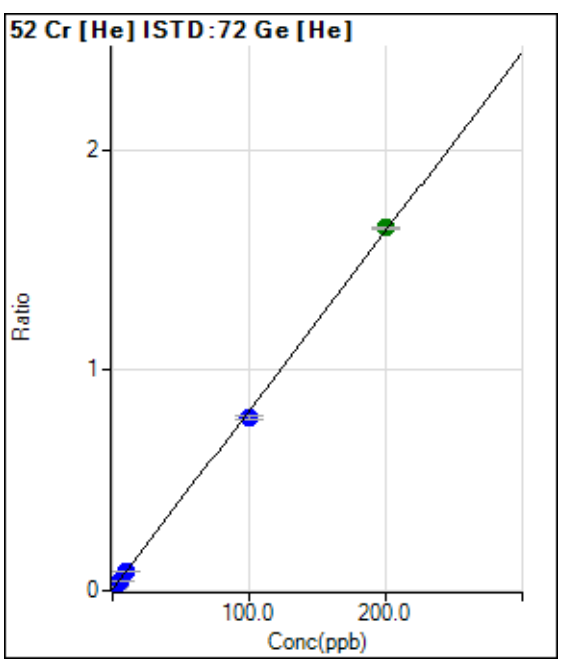
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	101608.92	0.0277	P	2.5
2	☐	2.000	1.879	150331.96	0.0399	P	1.6
3	☐	5.000	5.222	233814.55	0.0616	P	0.1
4	☐	10.000	11.335	372539.54	0.1014	P	1.4
5	☐	100.000	93.537	2437486.84	0.6361	A	6.4
6	☐	200.000	203.160	4880833.37	1.3493	A	2.0
7	☐	1.000					

y = 0.0065 * x + 0.0277
R = 0.9992
DL = 0.3159
BEC = 4.253

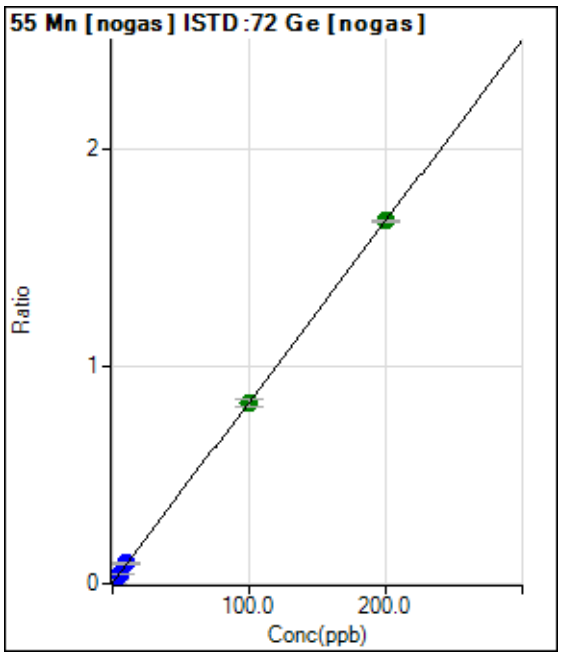
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5017.42	0.0051	P	10.3
2	☐	2.000	2.033	21889.88	0.0216	P	0.8
3	☐	5.000	5.041	47053.17	0.0460	P	3.7
4	☐	10.000	10.326	90158.57	0.0889	P	0.5
5	☐	100.000	95.970	792287.39	0.7843	P	2.7
6	☐	200.000	201.997	1607744.61	1.6451	A	0.7
7	☐	1.000					

y = 0.0081 * x + 0.0051
R = 0.9997
DL = 0.1928
BEC = 0.6236

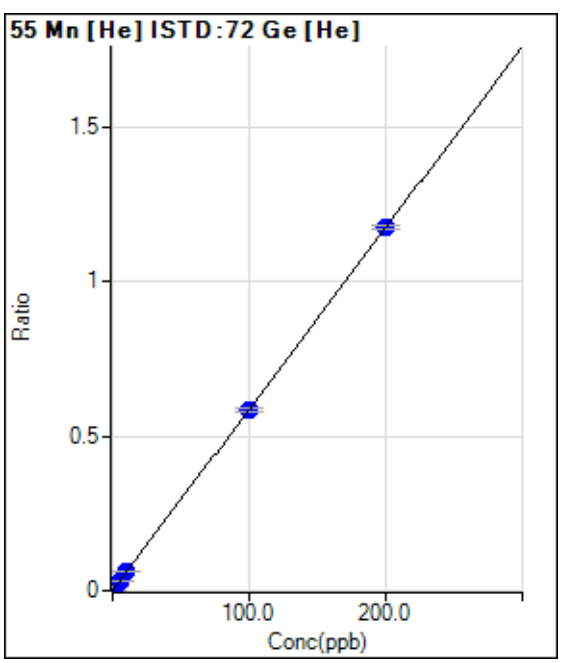
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11650.47	0.0032	P	5.5
2	☐	2.000	2.052	76394.18	0.0203	P	2.8
3	☐	5.000	5.164	175241.09	0.0462	P	1.5
4	☐	10.000	10.918	345774.21	0.0941	P	2.6
5	☐	100.000	99.580	3194290.68	0.8328	A	3.3
6	☐	200.000	200.160	6044243.66	1.6707	A	0.7
7	☐	1.000					

y = 0.0083 * x + 0.0032
R = 1.0000
DL = 0.06276
BEC = 0.381

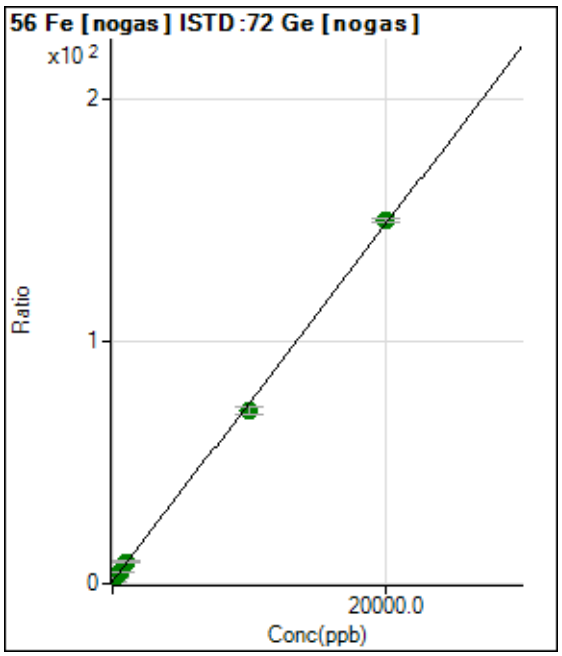
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	440.01	0.0004	P	10.7
2	☐	2.000	2.149	13254.91	0.0131	P	2.3
3	☐	5.000	5.308	32328.56	0.0316	P	4.4
4	☐	10.000	10.783	64656.19	0.0638	P	1.1
5	☐	100.000	99.854	592647.94	0.5867	P	1.8
6	☐	200.000	200.025	1148032.04	1.1748	P	0.9
7	☐	1.000					

y = 0.0059 * x + 4.4396E-004
R = 1.0000
DL = 0.02438
BEC = 0.07562

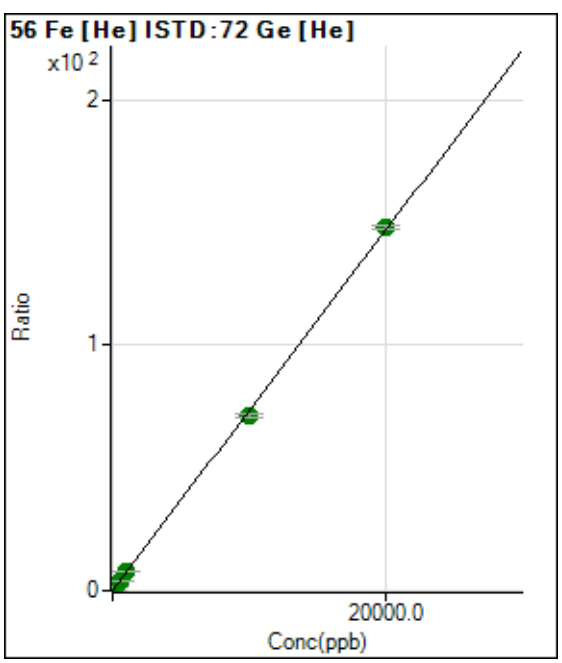
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3546321.69	0.9656	A	3.5
2	☐	200.000	206.307	9368068.96	2.4856	A	1.5
3	☐	500.000	512.886	17998821.24	4.7443	A	1.7
4	☐	1000.000	1099.603	33305773.66	9.0669	A	2.6
5	☐	10000.00	9581.838	274330406.1	71.5594	A	3.7
6	☐	20000.00	20203.716	541996428.7	149.815	A	0.9
7	☐	100.000					

y = 0.0074 * x + 0.9656
R = 0.9997
DL = 13.83
BEC = 131.1

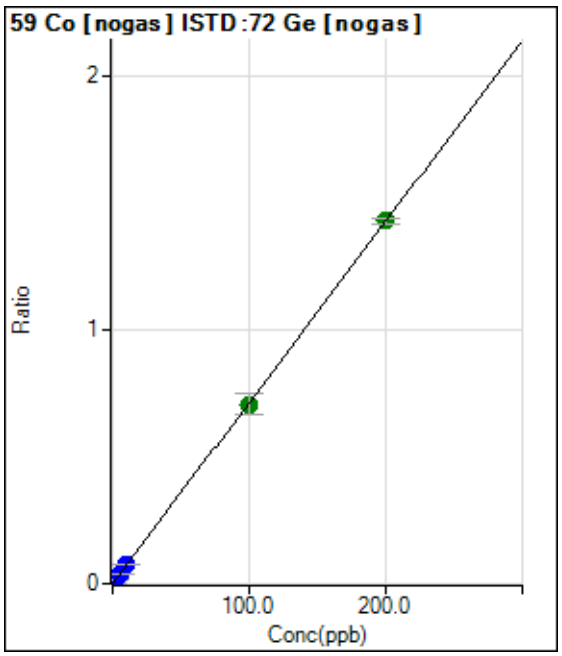
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24447.47	0.0247	P	4.3
2	☐	200.000	214.127	1620773.15	1.5974	A	2.2
3	☐	500.000	519.352	3927737.02	3.8393	A	3.6
4	☐	1000.000	1083.869	8098705.92	7.9858	A	0.9
5	☐	10000.00	9714.257	72103260.59	71.3768	A	2.0
6	☐	20000.00	20138.053	144577291.1	147.940	A	1.0
7	☐	100.000					

y = 0.0073 * x + 0.0247
R = 0.9998
DL = 0.434
BEC = 3.357

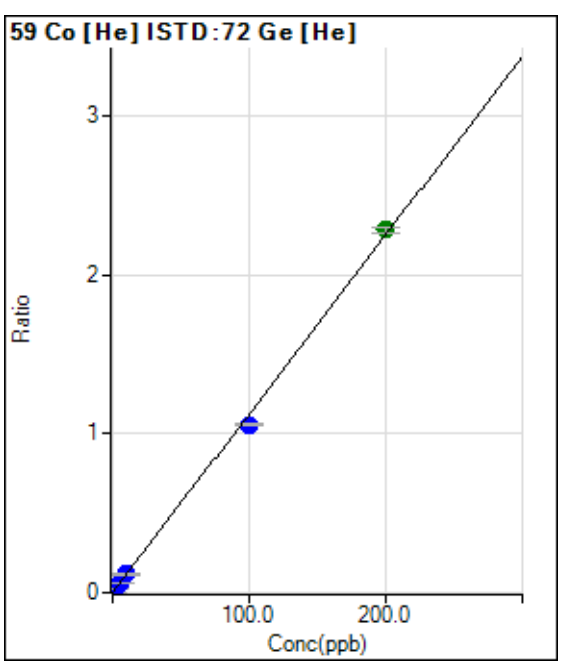
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	440.01	0.0001	P	13.2
2	☐	2.000	2.075	56266.43	0.0149	P	1.6
3	☐	5.000	5.096	138411.38	0.0365	P	0.4
4	☐	10.000	10.834	284441.31	0.0774	P	2.3
5	☐	100.000	99.088	2712979.91	0.7072	A	12.1
6	☐	200.000	200.411	5173848.36	1.4302	A	1.9
7	☐	1.000					

y = 0.0071 * x + 1.1957E-004
R = 1.0000
DL = 0.006629
BEC = 0.01676

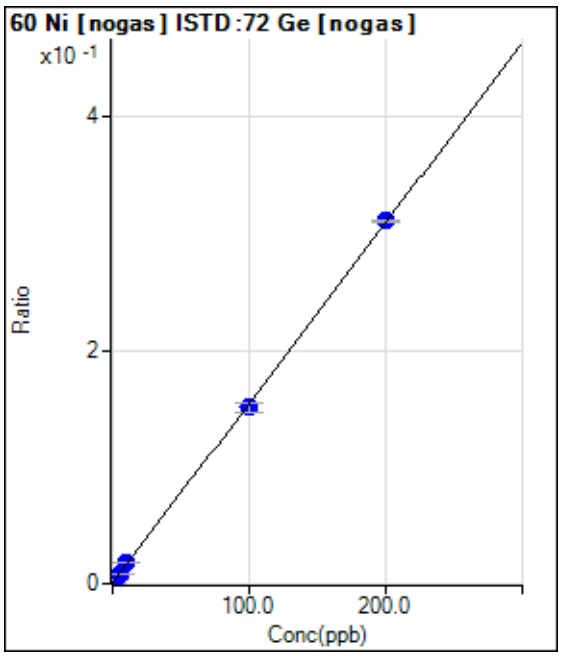
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	110.00	0.0001	P	31.1
2	☐	2.000	2.060	23628.79	0.0233	P	4.6
3	☐	5.000	4.988	57526.68	0.0562	P	4.2
4	☐	10.000	10.292	117523.22	0.1159	P	2.0
5	☐	100.000	93.926	1067540.63	1.0568	P	1.1
6	☐	200.000	203.022	2232172.10	2.2842	A	1.3
7	☐	1.000					

y = 0.0113 * x + 1.1085E-004
R = 0.9993
DL = 0.009202
BEC = 0.009853

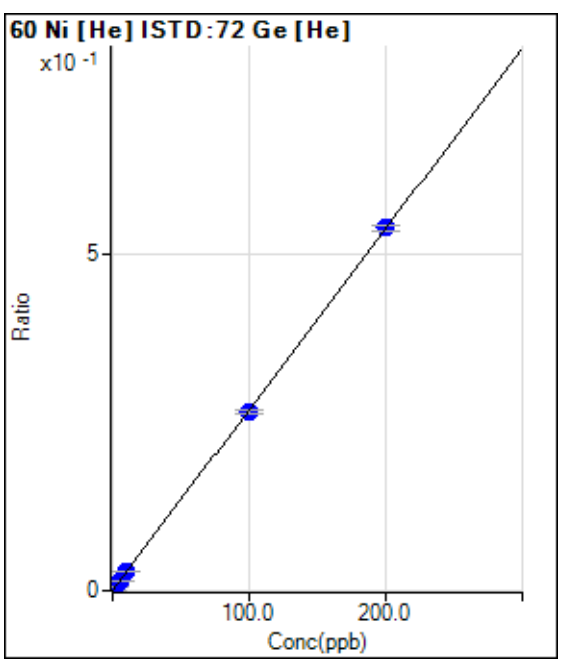
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.092	890.03	0.0002	P	17.3
2	☐	2.000	2.121	13785.40	0.0037	P	2.9
3	☐	5.000	5.122	31433.76	0.0083	P	4.7
4	☐	10.000	11.155	64623.47	0.0176	P	3.1
5	☐	100.000	97.512	578059.30	0.1508	P	5.0
6	☐	200.000	201.182	1124194.25	0.3107	P	0.6
7	☐	1.000					

y = 0.0015 * x + 3.8541E-004
R = 0.9999
DL = 0.08167
BEC = 0.2498

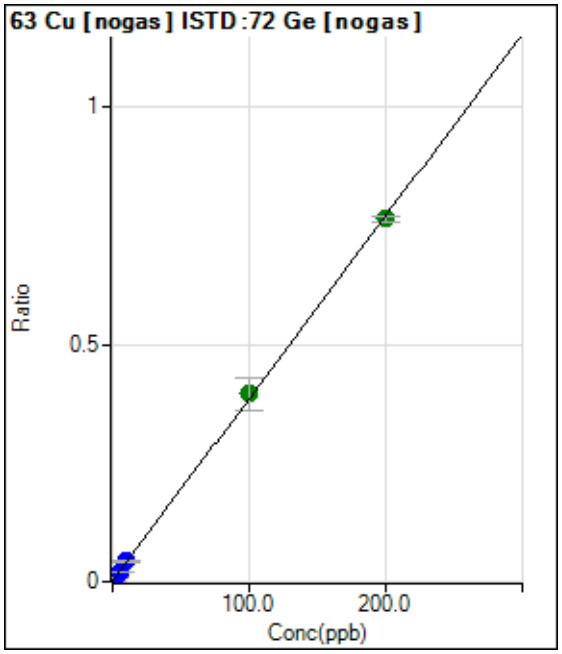
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.005	413.35	0.0004	P	15.4
2	☐	2.000	2.185	6364.55	0.0063	P	0.5
3	☐	5.000	5.162	14602.58	0.0143	P	1.5
4	☐	10.000	10.363	28642.56	0.0282	P	0.5
5	☐	100.000	98.619	268027.05	0.2653	P	1.6
6	☐	200.000	200.666	527198.03	0.5395	P	1.4
7	☐	1.000					

y = 0.0027 * x + 4.0360E-004
R = 1.0000
DL = 0.07176
BEC = 0.1502

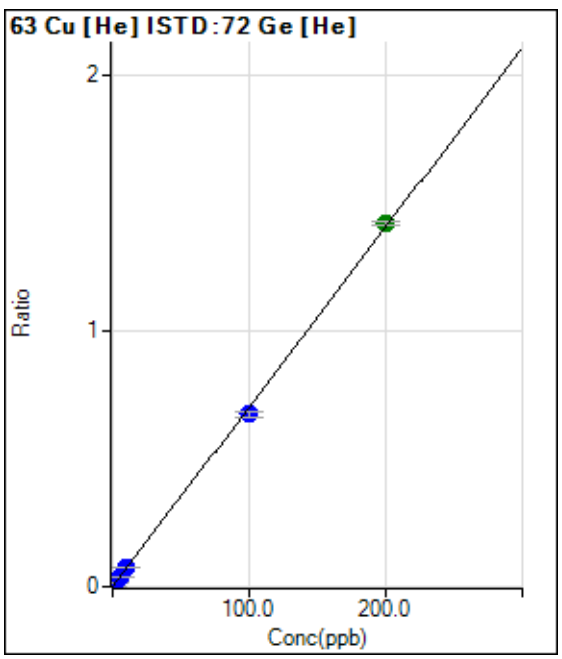
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6741.37	0.0018	P	7.4
2	☐	2.000	2.028	36262.59	0.0096	P	2.6
3	☐	5.000	5.041	80375.65	0.0212	P	2.4
4	☐	10.000	10.666	157170.81	0.0428	P	1.9
5	☐	100.000	102.822	1521955.03	0.3966	A	17.5
6	☐	200.000	198.554	2764247.25	0.7641	A	1.6
7	☐	1.000					

y = 0.0038 * x + 0.0018
R = 0.9999
DL = 0.1069
BEC = 0.4785

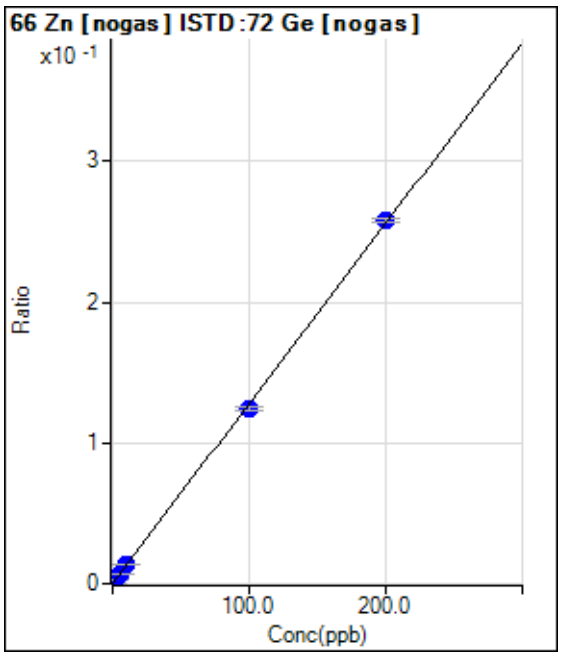
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.384	2750.25	0.0028	P	2.5
2	☐	2.000	2.384	17054.79	0.0168	P	2.7
3	☐	5.000	5.433	39098.51	0.0382	P	1.0
4	☐	10.000	10.880	77496.34	0.0764	P	1.5
5	☐	100.000	95.955	680188.30	0.6734	P	2.9
6	☐	200.000	201.964	1385003.16	1.4172	A	0.9
7	☐	1.000					

y = 0.0070 * x + 8.0763E-005
R = 0.9997
DL = 0.02993
BEC = 0.01151

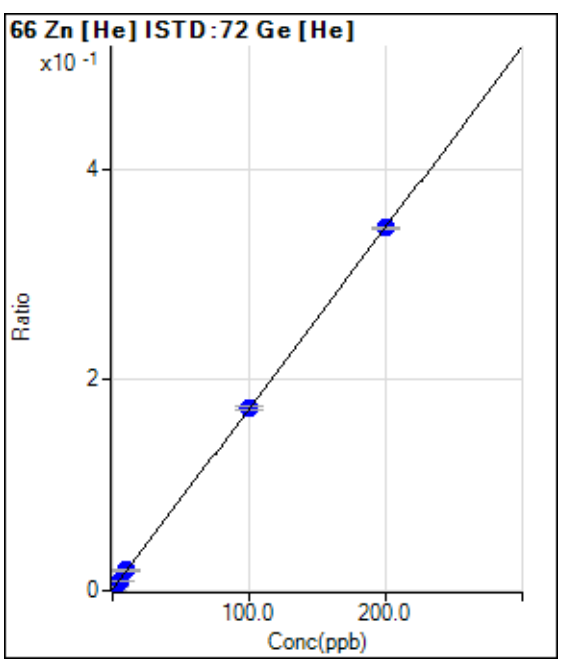
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.134	1053.38	0.0003	P	1.1
2	☐	2.000	2.194	11006.79	0.0029	P	3.4
3	☐	5.000	5.343	26365.86	0.0069	P	2.0
4	☐	10.000	10.913	51696.48	0.0141	P	2.6
5	☐	100.000	96.944	475900.86	0.1241	P	2.7
6	☐	200.000	201.472	932674.62	0.2578	P	1.2
7	☐	1.000					

y = 0.0013 * x + 1.1501E-004
R = 0.9998
DL = 0.007358
BEC = 0.08992

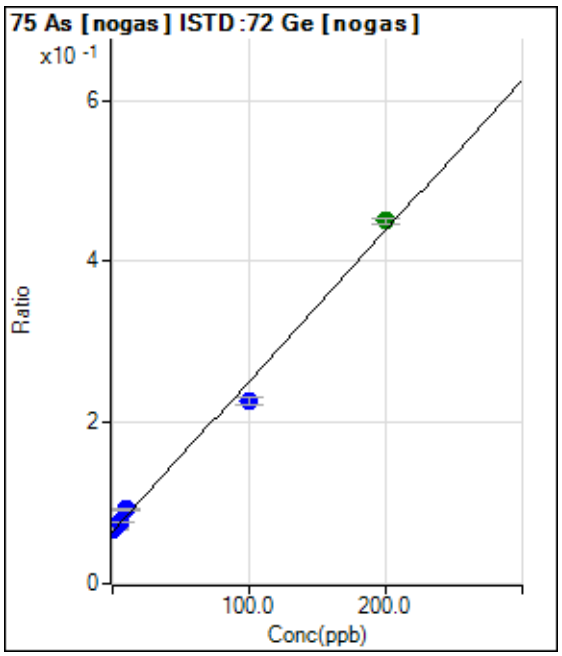
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.374	300.01	0.0003	P	18.1
2	☐	2.000	1.661	3853.80	0.0038	P	5.2
3	☐	5.000	4.976	9719.37	0.0095	P	2.7
4	☐	10.000	10.613	19443.87	0.0192	P	3.0
5	☐	100.000	100.301	175004.87	0.1732	P	2.0
6	☐	200.000	199.823	336390.57	0.3442	P	0.3
7	☐	1.000					

y = 0.0017 * x + 9.4482E-004
R = 1.0000
DL = 0.09575
BEC = 0.55

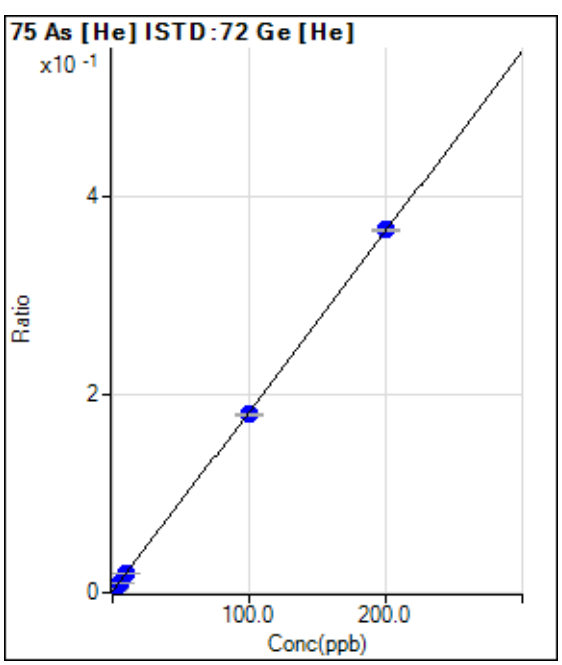
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	1.113	245354.47	0.0668	P	1.8
2	☐	2.000	2.141	258933.83	0.0687	P	3.1
3	☐	5.000	5.910	287385.09	0.0758	P	0.8
4	☐	10.000	14.695	338640.62	0.0922	P	2.1
5	☐	100.000	86.799	870086.63	0.2270	P	3.7
6	☐	200.000	206.342	1629536.69	0.4504	A	1.5
7	☐	1.000					

y = 0.0019 * x + 0.0647
R = 0.9964
DL = 1.9
BEC = 34.61

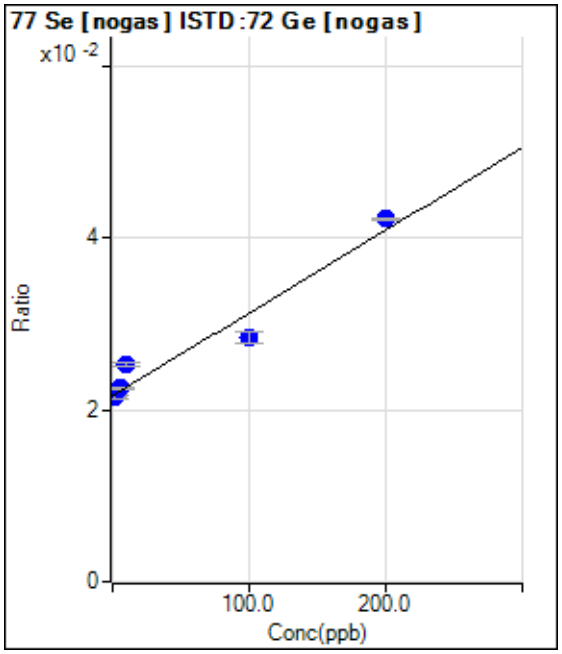
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1054.48	0.0011	P	4.6
2	☐	2.000	2.041	4847.33	0.0048	P	0.8
3	☐	5.000	4.988	10372.99	0.0101	P	1.7
4	☐	10.000	10.544	20528.25	0.0202	P	1.2
5	☐	100.000	98.207	181526.68	0.1797	P	0.7
6	☐	200.000	200.869	358104.19	0.3664	P	0.6
7	☐	1.000					

y = 0.0018 * x + 0.0011
R = 0.9999
DL = 0.07987
BEC = 0.5849

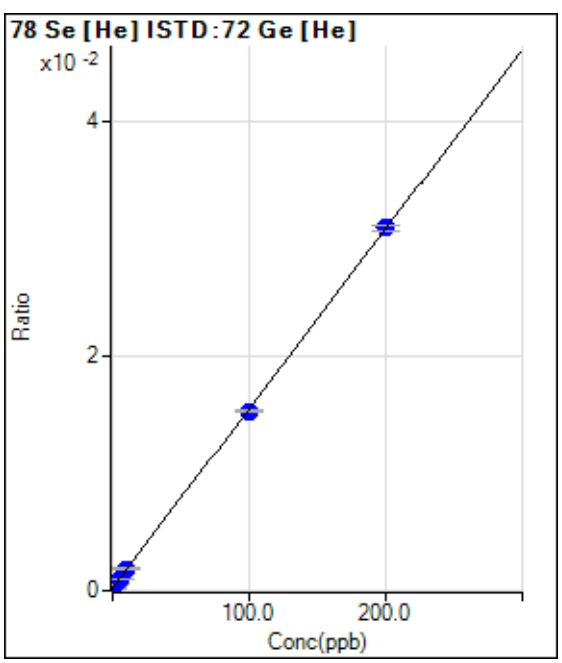
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	79530.30	0.0216	P	1.8
2	☐	2.000	-1.414	81036.50	0.0215	P	2.6
3	☐	5.000	8.700	85269.01	0.0225	P	1.3
4	☐	10.000	38.040	92936.80	0.0253	P	2.2
5	☐	100.000	69.935	108712.12	0.0284	P	4.9
6	☐	200.000	213.572	152629.93	0.0422	P	0.6
7	☐	1.000					

y = 9.6215E-005 * x + 0.0216
R = 0.9722
DL = 12.32
BEC = 224.9

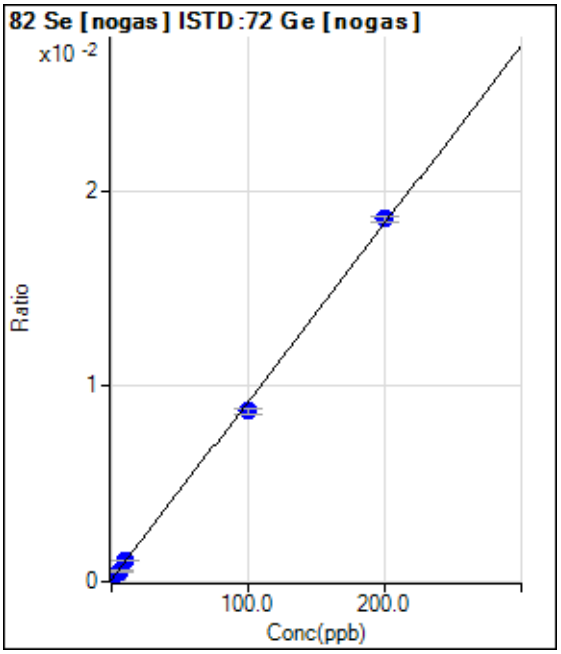
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.055	243.33	0.0002	P	16.4
2	☐	2.000	2.062	560.68	0.0006	P	5.5
3	☐	5.000	5.147	1048.03	0.0010	P	7.4
4	☐	10.000	10.505	1870.10	0.0018	P	5.5
5	☐	100.000	98.523	15471.23	0.0153	P	1.7
6	☐	200.000	200.709	30250.36	0.0310	P	1.3
7	☐	1.000					

y = 1.5305E-004 * x + 2.3694E-004
R = 1.0000
DL = 0.787
BEC = 1.548

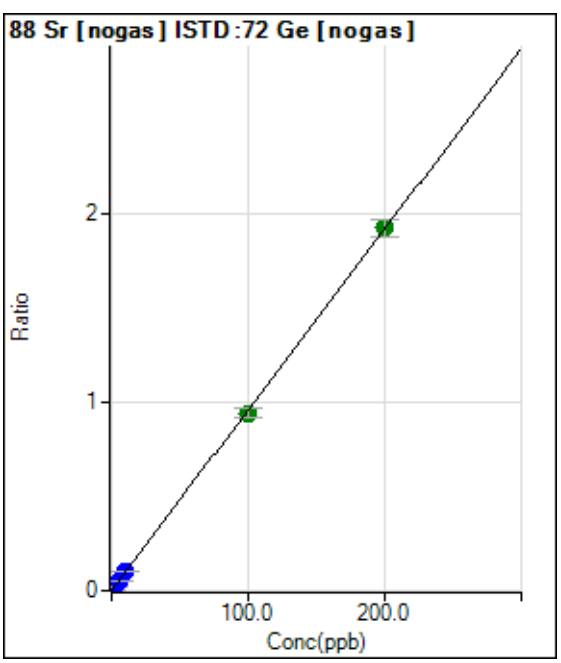
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	386.68	0.0001	P	44.5
2	☐	2.000	2.066	1110.05	0.0003	P	7.4
3	☐	5.000	4.695	2026.81	0.0005	P	7.4
4	☐	10.000	10.903	4040.52	0.0011	P	4.4
5	☐	100.000	94.601	33457.98	0.0087	P	3.5
6	☐	200.000	202.661	67191.27	0.0186	P	1.4
7	☐	1.000					

y = 9.1123E-005 * x + 1.0626E-004
R = 0.9995
DL = 1.557
BEC = 1.166

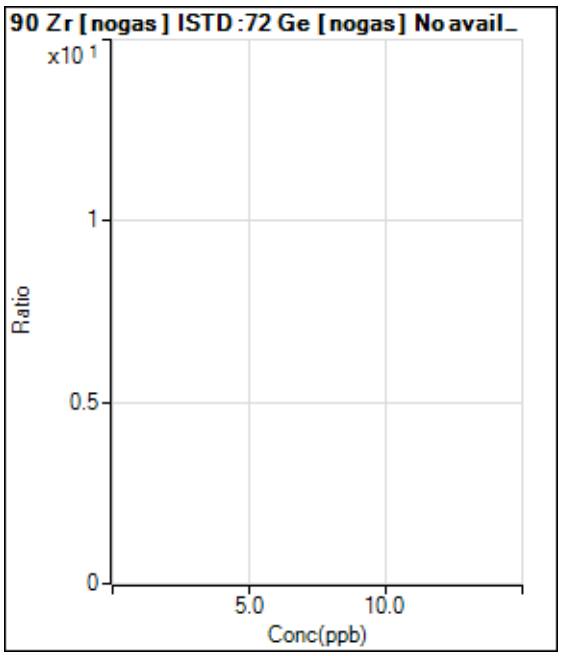
Weight: <None>
Min Conc: <None>



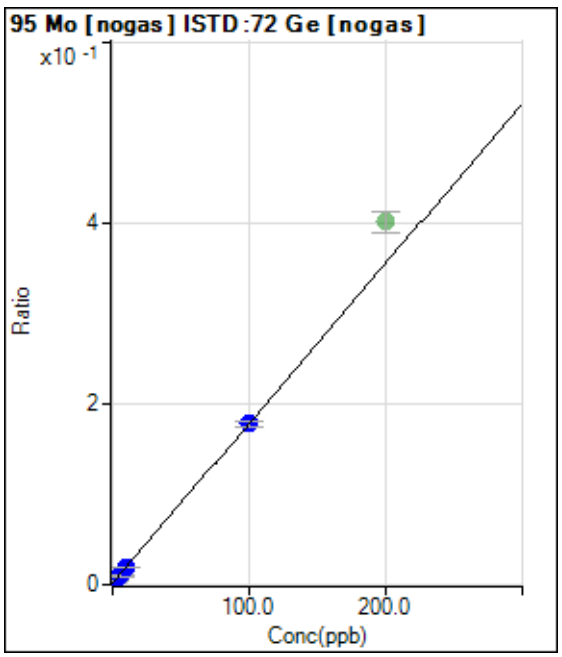
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3173.66	0.0009	P	8.1
2	☐	2.000	1.996	75417.94	0.0200	P	3.1
3	☐	5.000	4.968	184083.63	0.0485	P	1.8
4	☐	10.000	10.438	371033.12	0.1010	P	2.6
5	☐	100.000	98.391	3624638.07	0.9448	A	4.5
6	☐	200.000	200.784	6969431.35	1.9271	A	4.7
7	☐	1.000					

y = 0.0096 * x + 8.6485E-004
R = 0.9999
DL = 0.02192
BEC = 0.09015

Weight: <None>
Min Conc: <None>



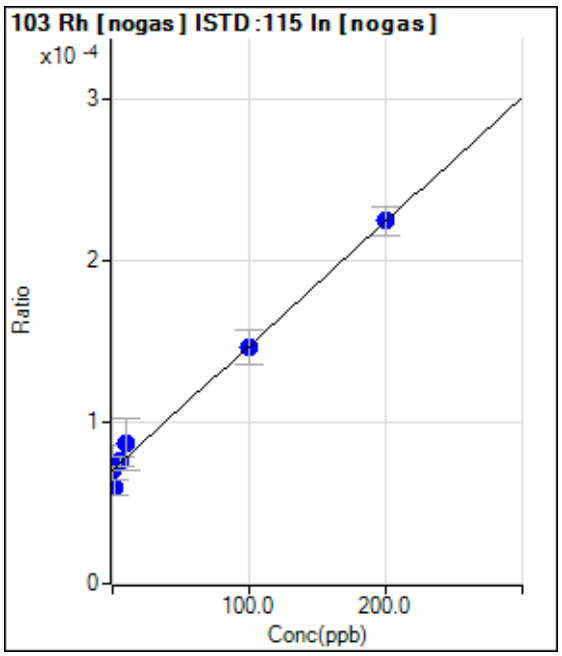
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6803.65	0.0019	P	40.7
2	☐	2.000	1.272	15441.11	0.0041	P	9.1
3	☐	5.000	4.410	36571.43	0.0096	P	1.8
4	☐	10.000	10.167	72785.23	0.0198	P	2.1
5	☐	100.000	100.027	684371.27	0.1785	P	3.6
6	☑	200.000		1450282.16	0.4010	A	5.7
7	☐	1.000					

y = 0.0018 * x + 0.0019
R = 1.0000
DL = 1.281
BEC = 1.049

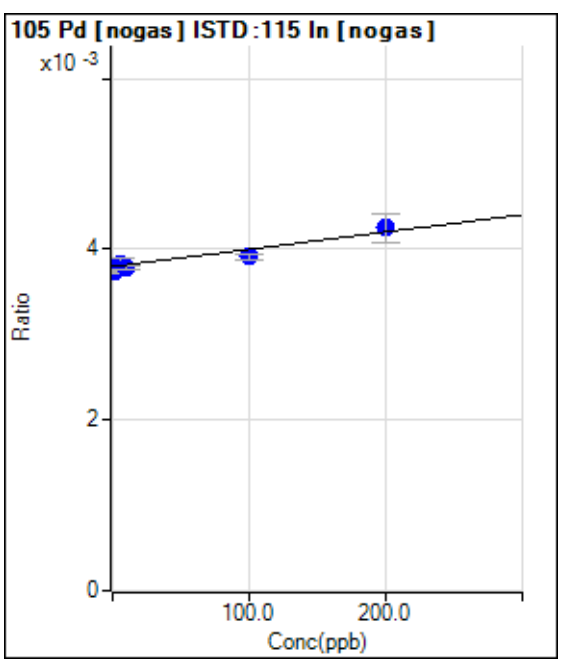
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	243.34	0.0001	P	44.6
2	☐	2.000	-14.217	220.00	0.0001	P	17.3
3	☐	5.000	6.884	273.34	0.0001	P	8.7
4	☐	10.000	21.142	306.67	0.0001	P	37.4
5	☐	100.000	98.454	516.68	0.0001	P	14.2
6	☐	200.000	200.331	753.36	0.0002	P	7.8
7	☐	1.000					

y = 7.7080E-007 * x + 7.0428E-005
R = 0.9943
DL = 122.2
BEC = 91.37

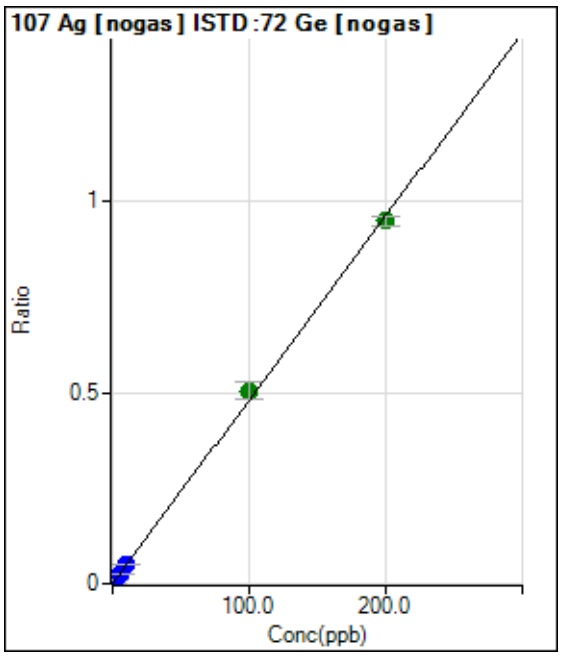
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13255.18	0.0038	P	4.5
2	☐	2.000	-33.513	13688.85	0.0037	P	1.2
3	☐	5.000	14.474	13815.65	0.0038	P	4.2
4	☐	10.000	-6.356	13318.53	0.0038	P	1.2
5	☐	100.000	55.783	13862.35	0.0039	P	2.1
6	☐	200.000	223.044	14222.64	0.0042	P	7.7
7	☐	1.000					

y = 2.0276E-006 * x + 0.0038
R = 0.9638
DL = 254.3
BEC = 1872

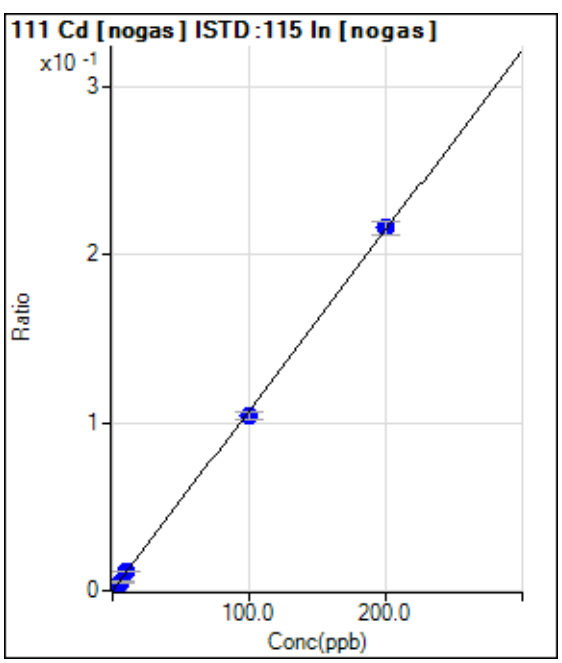
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	380.01	0.0001	P	2.4
2	☐	2.000	1.961	35920.07	0.0095	P	0.4
3	☐	5.000	4.940	90447.13	0.0238	P	1.6
4	☐	10.000	10.532	186305.73	0.0507	P	2.5
5	☐	100.000	104.939	1936293.15	0.5044	A	9.3
6	☐	200.000	197.506	3433723.59	0.9492	A	2.4
7	☐	1.000					

y = 0.0048 * x + 1.0344E-004
R = 0.9996
DL = 0.001564
BEC = 0.02153

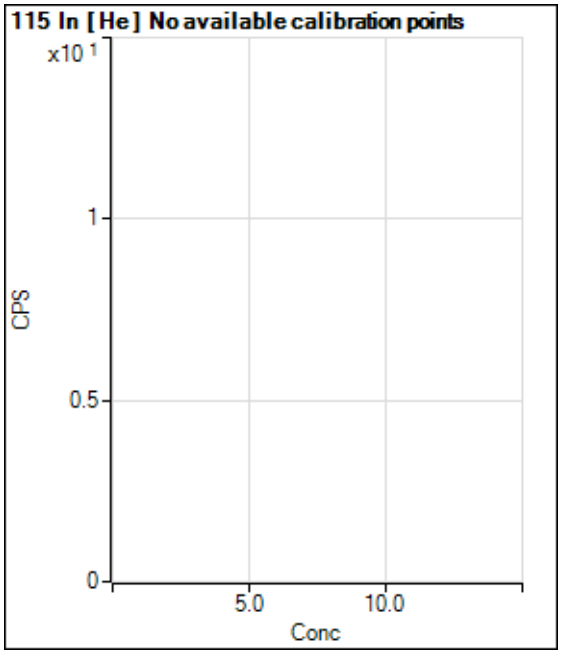
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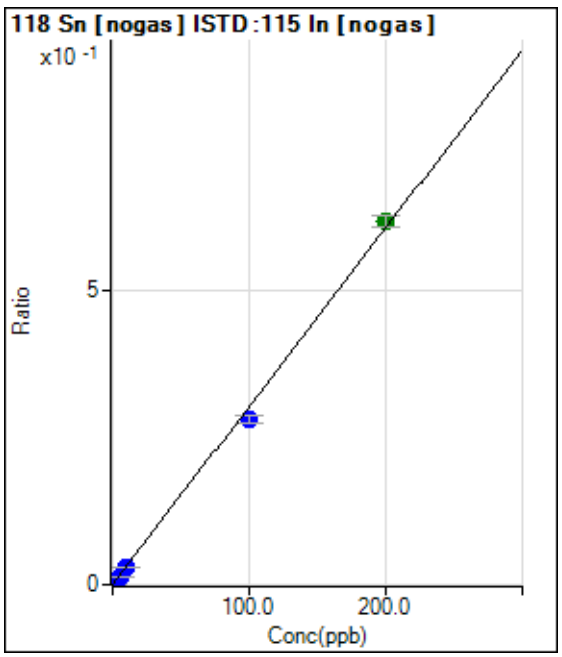
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	86.7
2	☐	2.000	1.889	7398.35	0.0020	P	16.8
3	☐	5.000	4.800	18613.35	0.0052	P	3.9
4	☐	10.000	10.604	40065.58	0.0114	P	2.4
5	☐	100.000	97.267	369909.56	0.1044	P	4.8
6	☐	200.000	201.342	723123.45	0.2161	P	3.8
7	☐	1.000					

y = 0.0011 * x + 1.9376E-006
R = 0.9999
DL = 0.004696
BEC = 0.001805

Weight: <None>
Min Conc: <None>



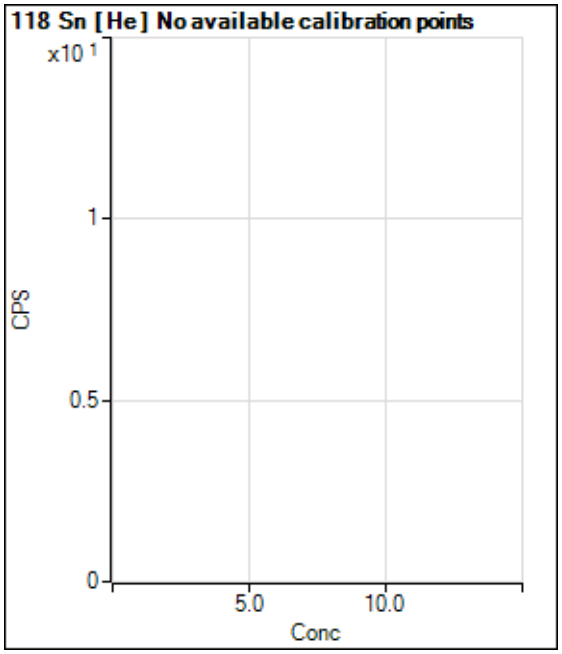
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1373845.92		A	4.1
2	☐			1413762.57		A	3.3
3	☐			1441470.08		A	3.7
4	☐			1364378.43		A	1.6
5	☐			1358630.51		A	0.4
6	☐			1272342.20		M	3.7
7	☐						



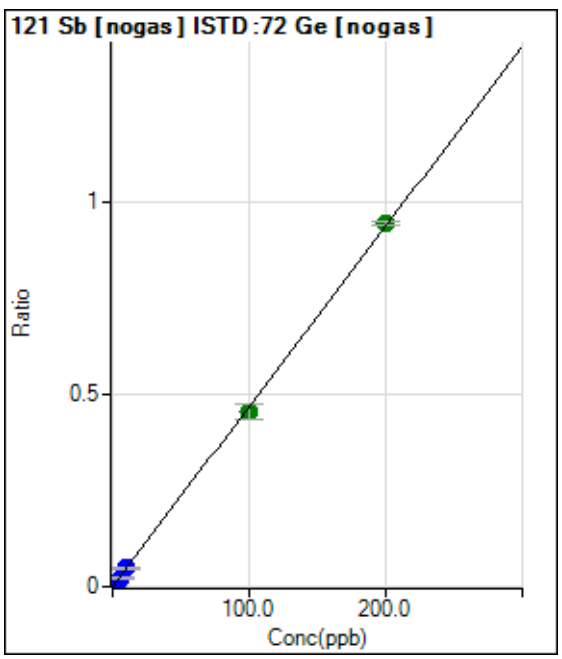
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1083.39	0.0003	P	13.4
2	☐	2.000	1.846	21590.25	0.0059	P	8.9
3	☐	5.000	4.647	51957.12	0.0144	P	1.3
4	☐	10.000	10.046	108178.21	0.0307	P	1.7
5	☐	100.000	92.818	996872.98	0.2814	P	5.0
6	☐	200.000	203.599	2065106.95	0.6169	A	3.3
7	☐	1.000					

y = 0.0030 * x + 3.1119E-004
R = 0.9991
DL = 0.04119
BEC = 0.1027

Weight: <None>
Min Conc: <None>



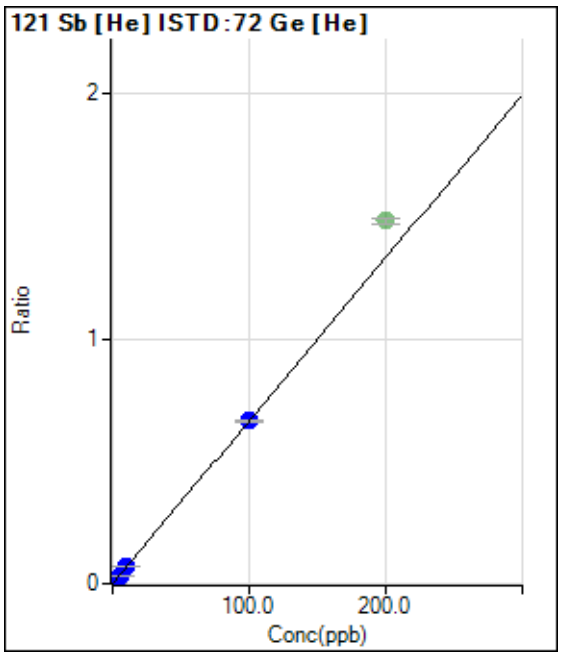
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			446.68		P	10.1
2	☐			8985.76		P	1.9
3	☐			22608.17		P	1.2
4	☐			46081.75		P	0.8
5	☐			420501.33		P	1.8
6	☐			835090.74		P	0.7
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	443.35	0.0001	P	29.3
2	☐	2.000	2.277	40704.49	0.0108	P	3.4
3	☐	5.000	4.742	84808.38	0.0224	P	2.2
4	☐	10.000	10.150	175301.65	0.0477	P	3.3
5	☐	100.000	97.096	1746643.05	0.4555	A	9.7
6	☐	200.000	201.448	3418721.83	0.9449	A	0.9
7	☐	1.000					

y = 0.0047 * x + 1.2146E-004
R = 0.9998
DL = 0.02279
BEC = 0.0259

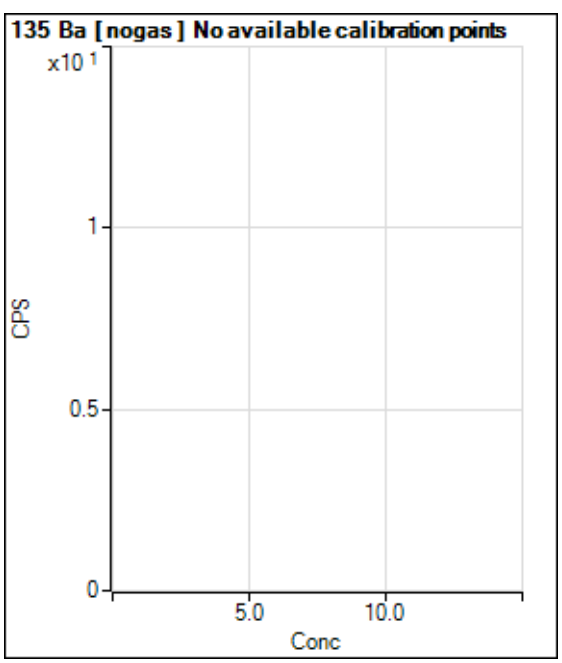
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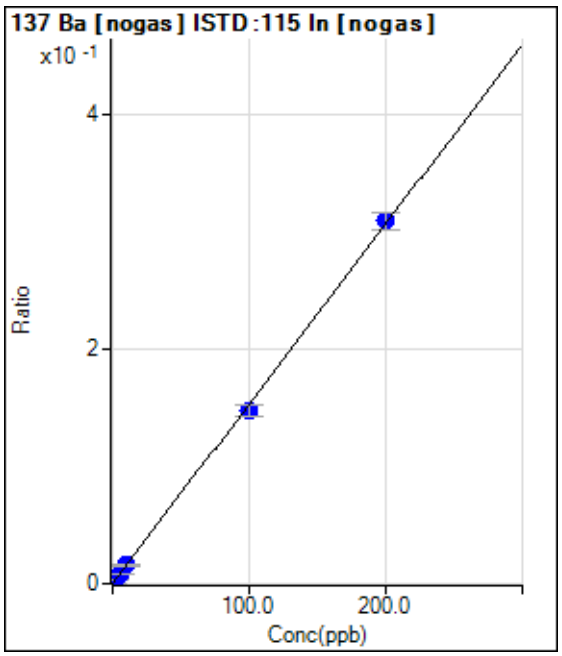
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	156.67	0.0002	P	30.7
2	☐	2.000	2.497	17018.43	0.0168	P	2.9
3	☐	5.000	5.162	35329.46	0.0345	P	1.7
4	☐	10.000	10.818	73169.54	0.0722	P	1.1
5	☐	100.000	99.900	671795.25	0.6650	P	1.1
6	☑	200.000		1448335.03	1.4820	A	1.3
7	☐	1.000					

y = 0.0067 * x + 1.5820E-004
R = 1.0000
DL = 0.02191
BEC = 0.02377

Weight: <None>
Min Conc: <None>



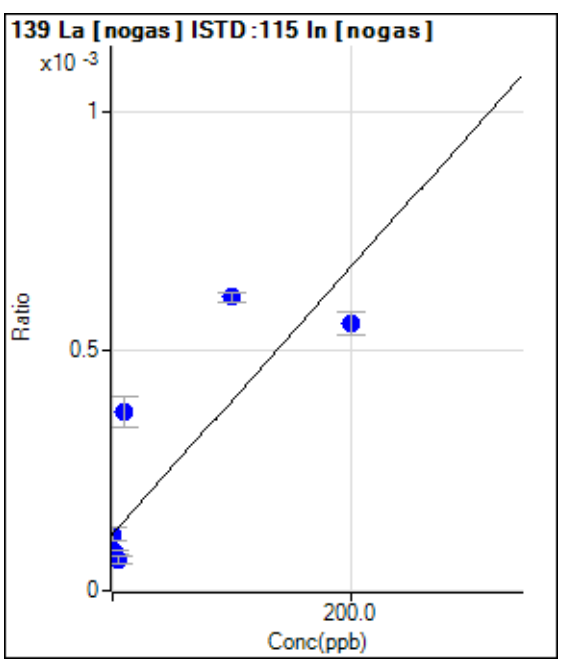
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			296.68		P	9.7
2	☐			6584.72		P	1.1
3	☐			15447.16		P	1.3
4	☐			31900.00		P	3.5
5	☐			294723.16		P	1.0
6	☐			587797.54		P	2.2
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	420.01	0.0001	P	8.5
2	☐	2.000	2.013	11700.81	0.0032	P	7.9
3	☐	5.000	5.005	28053.14	0.0078	P	5.0
4	☐	10.000	10.158	55068.18	0.0156	P	2.2
5	☐	100.000	96.198	521069.34	0.1472	P	6.2
6	☐	200.000	201.893	1032582.28	0.3087	P	4.7
7	☐	1.000					

y = 0.0015 * x + 1.2053E-004
R = 0.9997
DL = 0.02022
BEC = 0.07885

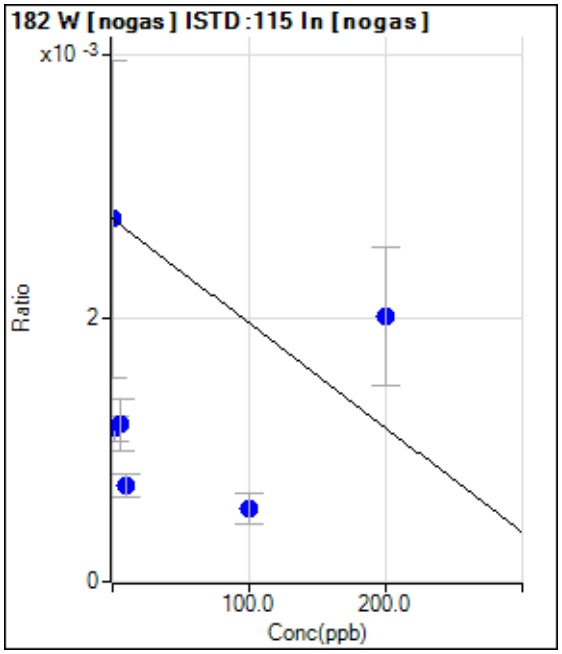
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	413.35	0.0001	P	25.5
2	☐	2.000	-14.142	290.01	0.0001	P	9.1
3	☐	5.000	-19.797	226.67	0.0001	P	26.8
4	☐	10.000	91.675	1313.41	0.0004	P	17.5
5	☐	100.000	177.842	2173.50	0.0006	P	3.2
6	☐	200.000	157.777	1860.13	0.0006	P	8.8
7	☐	1.000					

y = 2.7802E-006 * x + 1.1798E-004
R = 0.8059
DL = 32.46
BEC = 42.43

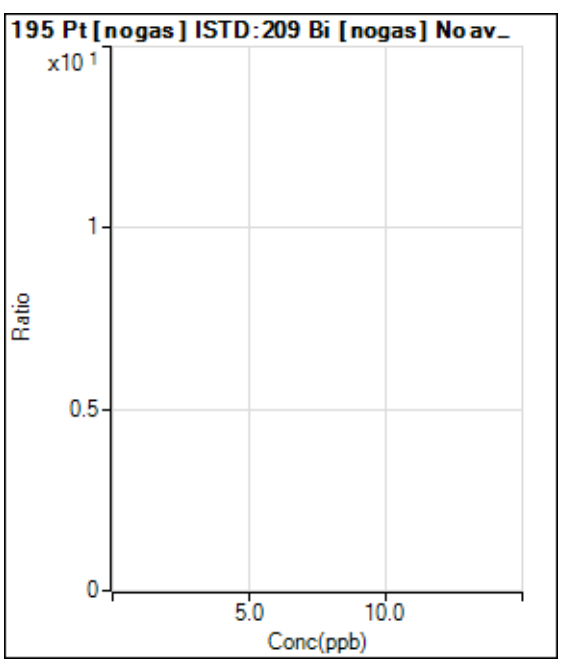
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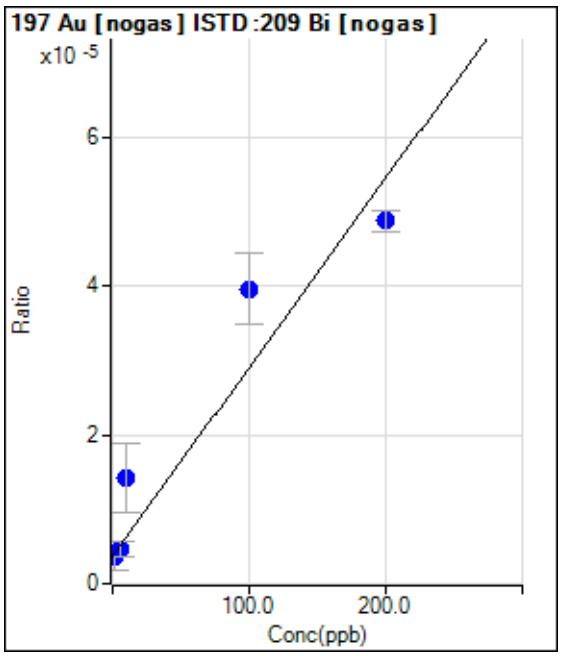
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9417.24	0.0028	P	87.6
2	☐	2.000	200.940	4276.24	0.0012	P	15.7
3	☐	5.000	197.024	4323.37	0.0012	P	32.9
4	☐	10.000	254.709	2589.32	0.0007	P	23.3
5	☐	100.000	276.767	1984.00	0.0006	P	41.4
6	☐	200.000	92.591	6698.10	0.0020	P	51.9
7	☐	1.000					

y = -7.9382E-006 * x + 0.0028
R = 0.0902
DL = -912.2
BEC = -347.3

Weight: <None>
Min Conc: <None>



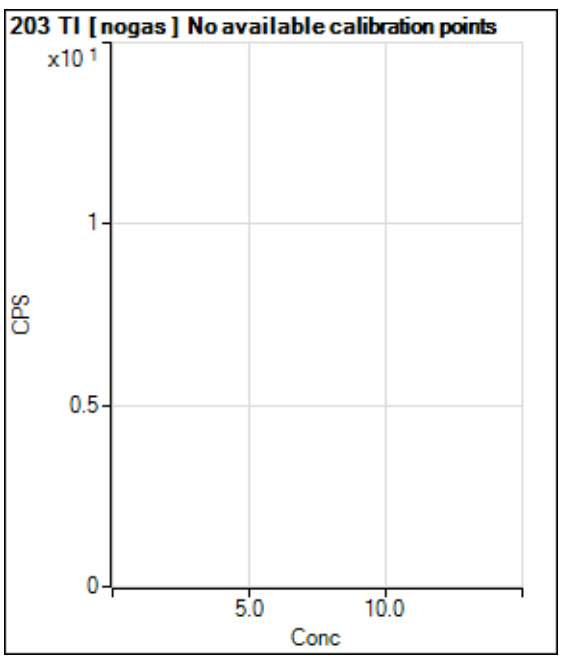
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



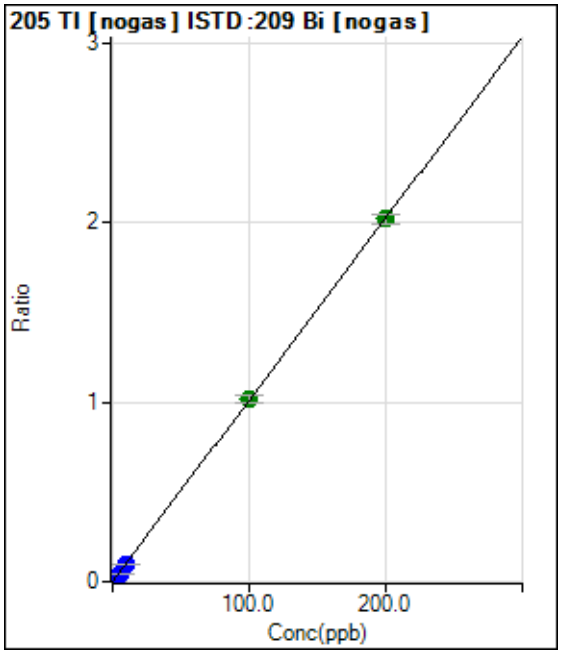
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	4.5
2	☐	2.000	0.251	10.00	0.0000	P	100.
3	☐	5.000	3.849	13.33	0.0000	P	41.3
4	☐	10.000	41.436	40.00	0.0000	P	64.6
5	☐	100.000	141.718	113.33	0.0000	P	23.7
6	☐	200.000	177.616	126.67	0.0000	P	6.2
7	☐	1.000					

y = 2.5396E-007 * x + 3.6671E-006
R = 0.9564
DL = 1.97
BEC = 14.44

Weight: <None>
Min Conc: <None>



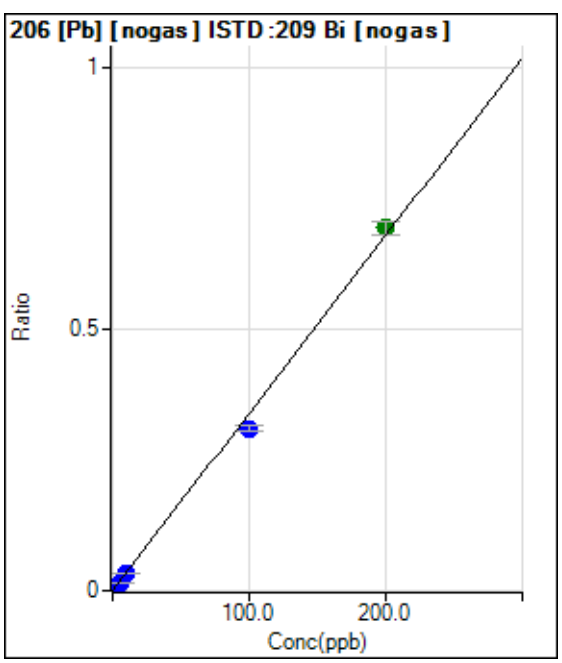
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			100.00		P	78.1
2	☐			22602.53		P	2.7
3	☐			55169.94		P	1.7
4	☐			112712.67		P	1.4
5	☐			1079450.43		P	1.0
6	☐			2257303.56		A	1.2
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	236.67	0.0001	P	14.5
2	☐	2.000	1.936	54601.50	0.0197	P	8.1
3	☐	5.000	4.638	134080.70	0.0470	P	2.8
4	☐	10.000	9.479	269304.57	0.0959	P	3.0
5	☐	100.000	100.518	2893314.85	1.0158	A	4.3
6	☐	200.000	199.777	5246961.59	2.0189	A	2.7
7	☐	1.000					

y = 0.0101 * x + 8.6483E-005
R = 1.0000
DL = 0.003716
BEC = 0.008558

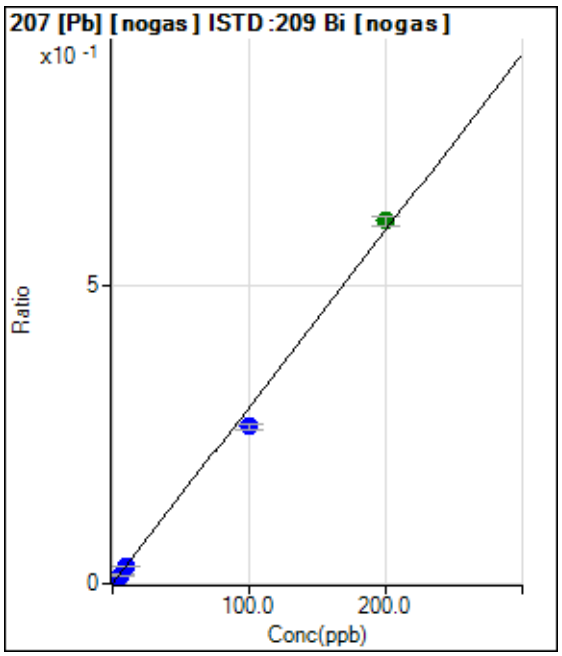
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	260.01	0.0001	P	20.0
2	☐	2.000	1.915	18347.14	0.0066	P	6.3
3	☐	5.000	4.716	46011.91	0.0161	P	2.7
4	☐	10.000	9.700	92792.81	0.0330	P	3.4
5	☐	100.000	91.133	881155.33	0.3096	P	3.7
6	☐	200.000	204.456	1804590.75	0.6944	A	3.6
7	☐	1.000					

y = 0.0034 * x + 9.5163E-005
R = 0.9986
DL = 0.01681
BEC = 0.02802

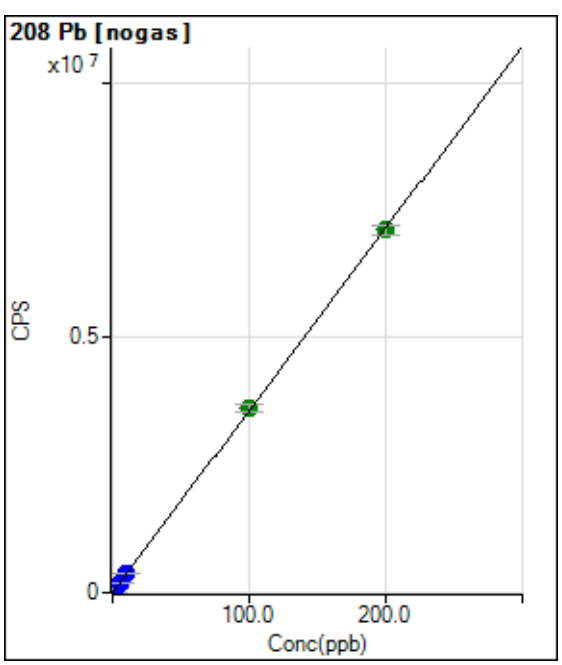
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	240.01	0.0001	P	43.3
2	☐	2.000	1.920	16031.43	0.0058	P	5.2
3	☐	5.000	4.818	40921.63	0.0143	P	2.2
4	☐	10.000	9.863	82096.05	0.0292	P	4.8
5	☐	100.000	89.105	749862.72	0.2634	P	3.5
6	☐	200.000	205.459	1578191.70	0.6073	A	2.6
7	☐	1.000					

y = 0.0030 * x + 8.8090E-005
R = 0.9979
DL = 0.03869
BEC = 0.0298

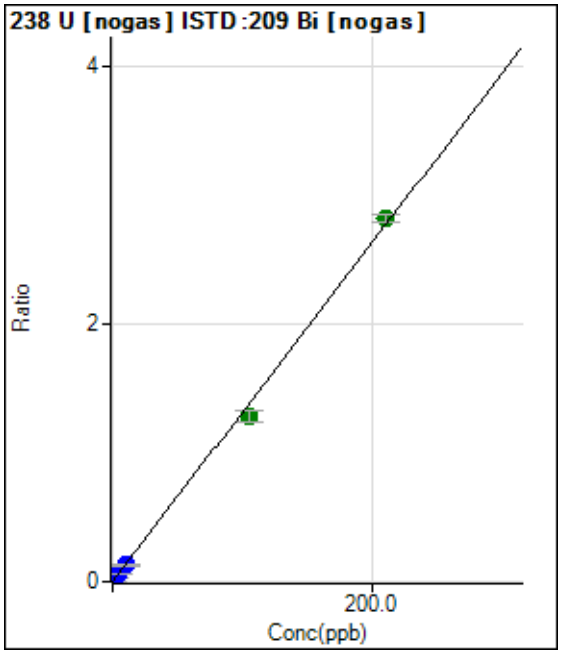
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1016.70		P	4.9
2	☐	2.000	2.024	73225.48		P	1.4
3	☐	5.000	5.157	184997.30		P	0.4
4	☐	10.000	10.440	373446.77		P	0.4
5	☐	100.000	101.549	3623752.24		A	3.7
6	☐	200.000	199.199	7107404.69		A	2.6
7	☐	1.000					

y = 35674.7546 * x + 1016.7033
R = 1.0000
DL = 0.004149
BEC = 0.0285

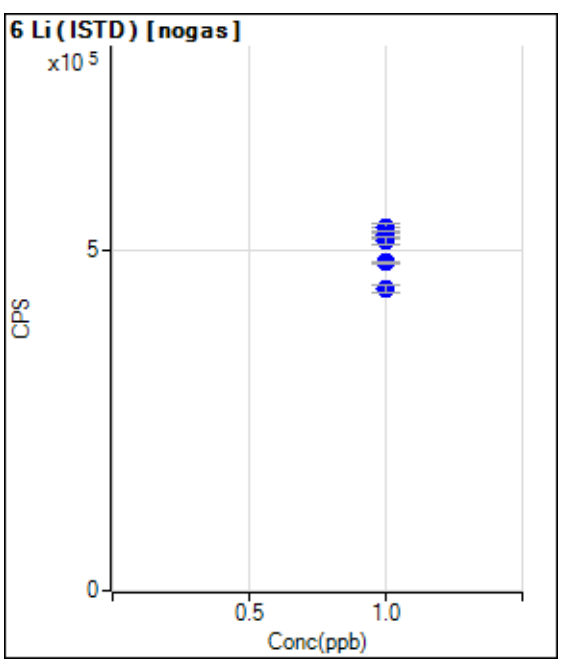
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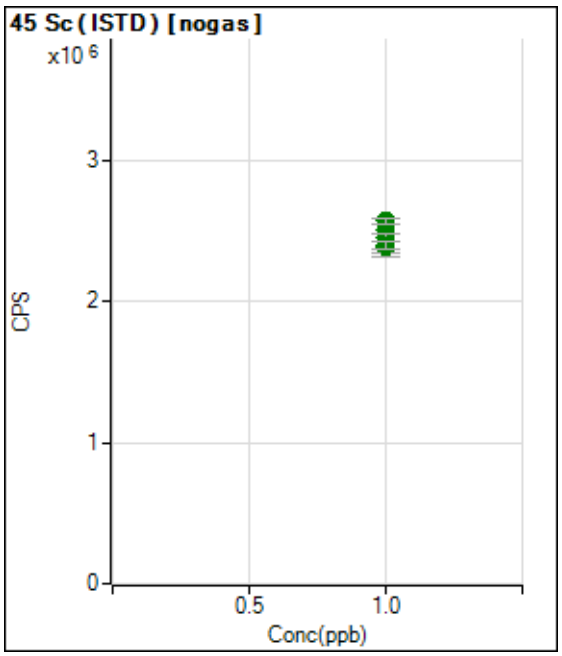
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	223.34	0.0001	P	10.8
2	☐	2.000	1.876	68990.05	0.0248	P	5.7
3	☐	5.000	4.712	177649.68	0.0622	P	0.2
4	☐	10.000	9.902	366586.03	0.1306	P	5.8
5	☐	105.000	97.728	3663634.63	1.2882	A	6.7
6	☐	210.000	213.649	7316853.64	2.8161	A	2.0
7	☐	1.000					

y = 0.0132 * x + 8.1931E-005
R = 0.9992
DL = 0.002013
BEC = 0.006216

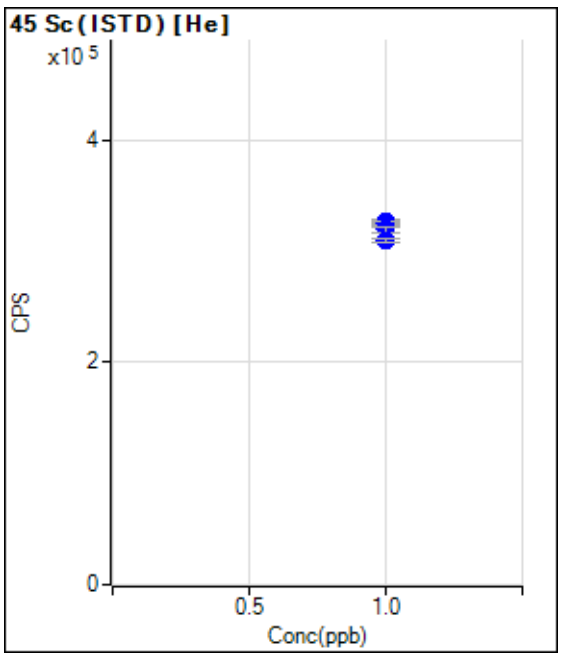
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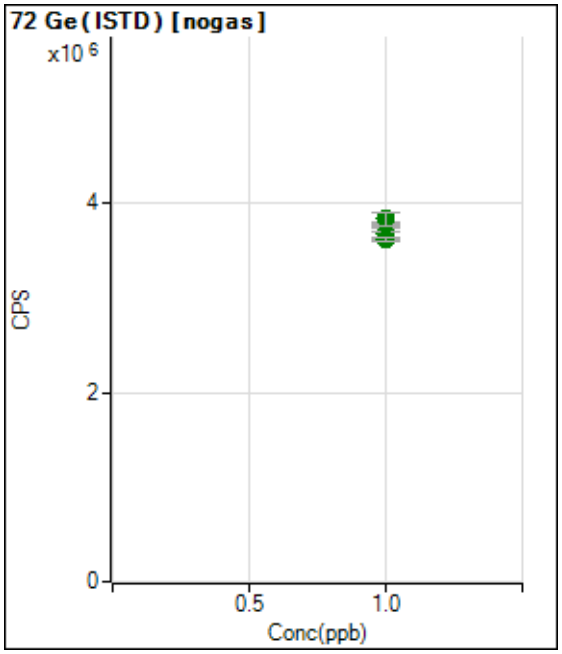
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		526456.27		P	3.5
2	☐	1.000		534007.74		P	2.5
3	☐	1.000		522888.14		P	2.1
4	☐	1.000		515375.69		P	2.1
5	☐	1.000		482843.40		P	0.5
6	☐	1.000		444778.65		P	2.3
7	☐	1.000					



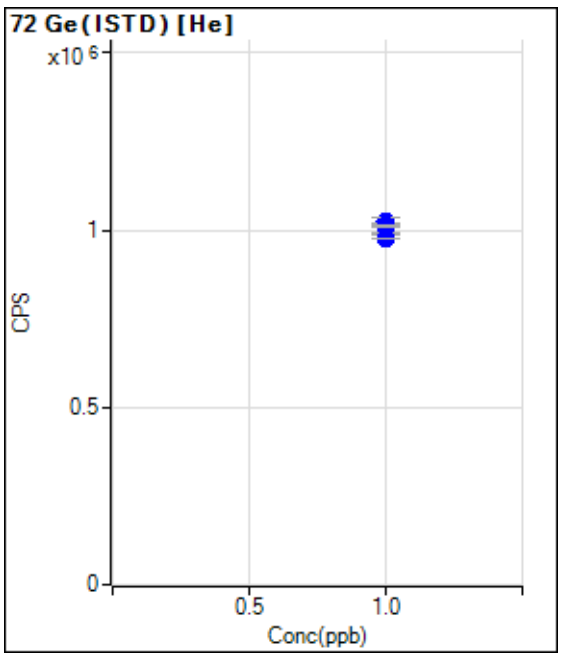
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1	☐	1.000		2401937.72		A	7.1
2	☐	1.000		2517070.79		A	6.5
3	☐	1.000		2575626.32		A	1.4
4	☐	1.000		2459163.50		A	2.4
5	☐	1.000		2388706.58		A	3.9
6	☐	1.000		2406693.25		A	2.2
7	☐	1.000					



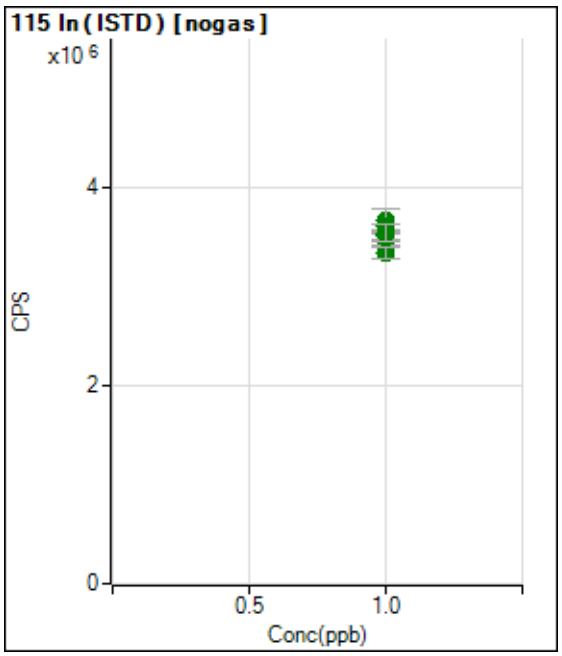
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1	☐	1.000		323470.09		P	0.8
2	☐	1.000		322338.08		P	0.7
3	☐	1.000		326153.31		P	1.8
4	☐	1.000		324293.03		P	1.6
5	☐	1.000		319098.41		P	2.0
6	☐	1.000		309176.19		P	1.1
7	☐	1.000					



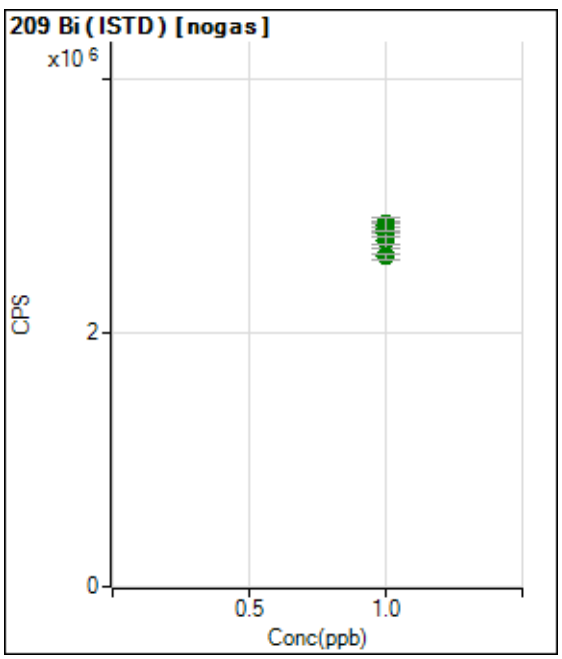
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1	☐	1.000		3674980.05		A	3.4
2	☐	1.000		3769517.65		A	1.4
3	☐	1.000		3793505.05		A	0.8
4	☐	1.000		3674430.05		A	1.7
5	☐	1.000		3837085.99		A	3.9
6	☐	1.000		3618034.11		A	1.3
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		991372.38		P	0.6
2	☐	1.000		1014685.06		P	0.6
3	☐	1.000		1023490.53		P	1.9
4	☐	1.000		1014175.77		P	1.3
5	☐	1.000		1010197.41		P	0.5
6	☐	1.000		977266.52		P	0.3
7	☐	1.000					



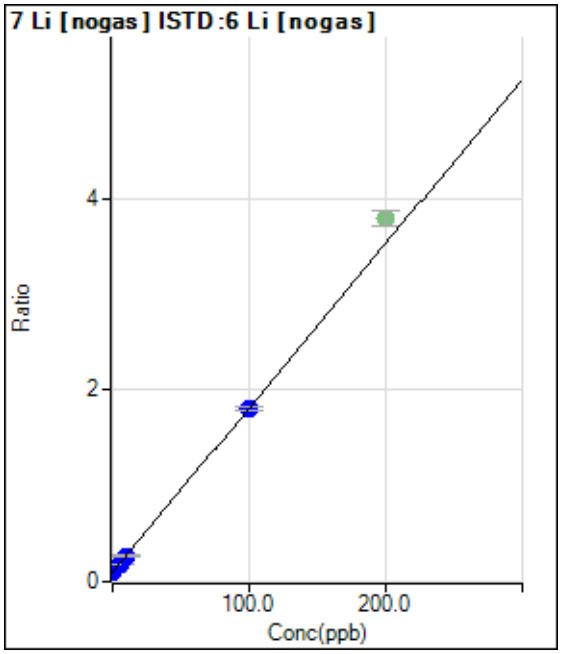
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3492053.74		A	3.8
2	☐	1.000		3672322.58		A	6.5
3	☐	1.000		3611685.15		A	1.7
4	☐	1.000		3520059.21		A	1.9
5	☐	1.000		3548321.64		A	5.2
6	☐	1.000		3348278.56		A	3.7
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2730616.31		A	4.4
2	☐	1.000		2787543.08		A	6.4
3	☐	1.000		2856517.04		A	1.9
4	☐	1.000		2810821.31		A	3.5
5	☐	1.000		2848874.23		A	3.9
6	☐	1.000		2598884.86		A	1.9
7	☐	1.000					

Batch Folder: C:\Agilent\ICPMH\1\DATA\083118A.b\
Analysis File: 083118A.batch.bin
DA Date-Time: 2018-08-31 14:55:18
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

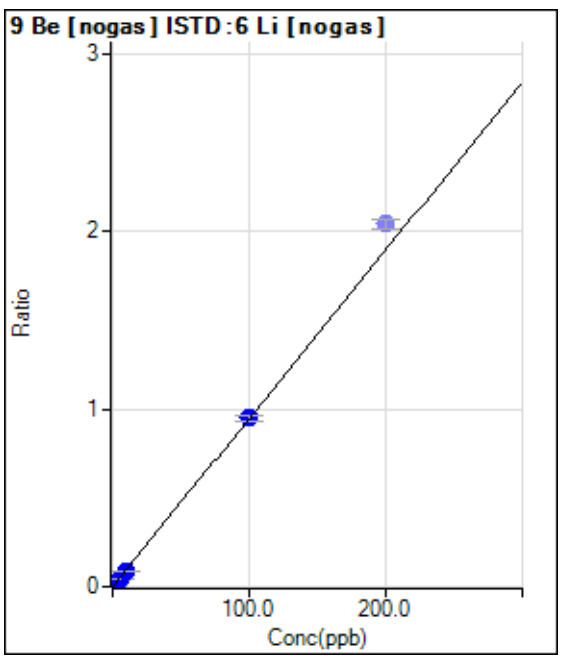
Level	Standard Data File	Sample Name	Acq. Date-Time
1	069CALB.d	CAL BLK	2018-08-31 13:50:55
2	070CALS.d	2/10/200	2018-08-31 13:52:54
3	071CALS.d	5/25/500	2018-08-31 13:54:53
4	072CALS.d	10/50/1000	2018-08-31 13:56:53
5	073CALS.d	100/500/10K	2018-08-31 13:58:53
6	074CALS.d	200/1000/20K	2018-08-31 14:00:53
7			



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46971.27	0.1000	P	3.4
2	☐	2.000	1.953	62452.26	0.1334	P	2.8
3	☐	5.000	4.928	83874.18	0.1844	P	1.7
4	☐	10.000	9.929	125434.69	0.2701	P	1.8
5	☐	100.000	100.012	753594.18	1.8139	P	2.3
6	☑	200.000		1438224.36	3.7867	A	4.1
7	☐	1.000					

y = 0.0171 * x + 0.1000
R = 1.0000
DL = 0.5924
BEC = 5.833

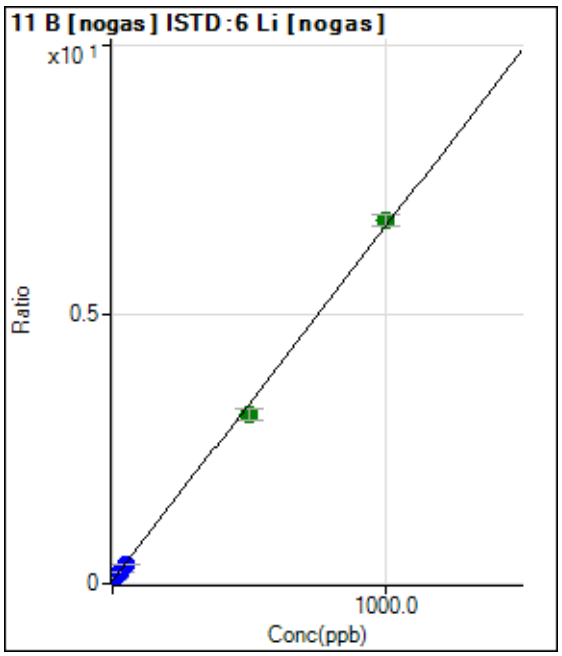
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60.00	0.0001	P	75.5
2	☐	2.000	1.794	7998.46	0.0171	P	4.6
3	☐	5.000	4.684	20194.33	0.0444	P	1.9
4	☐	10.000	9.415	41398.52	0.0892	P	2.0
5	☐	100.000	100.078	393102.00	0.9464	P	3.4
6	☑	200.000		774911.76	2.0398	P	2.6
7	☐	1.000					

y = 0.0095 * x + 1.2952E-004
R = 1.0000
DL = 0.03104
BEC = 0.0137

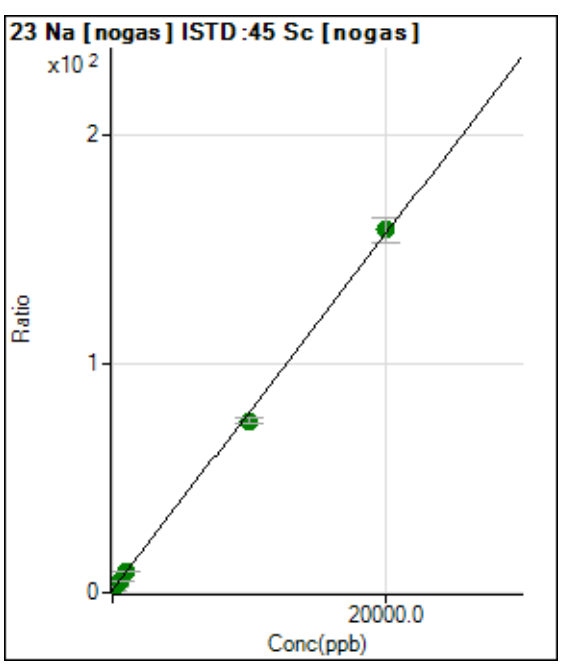
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26365.19	0.0561	P	3.9
2	☐	10.000	7.806	50320.12	0.1075	P	5.0
3	☐	25.000	21.934	91176.34	0.2005	P	1.5
4	☐	50.000	44.296	161453.55	0.3478	P	2.2
5	☐	500.000	468.181	1303564.88	3.1384	A	6.3
6	☐	1000.000	1016.293	2562763.97	6.7468	A	3.1
7	☐	5.000					

y = 0.0066 * x + 0.0561
R = 0.9993
DL = 1.008
BEC = 8.527

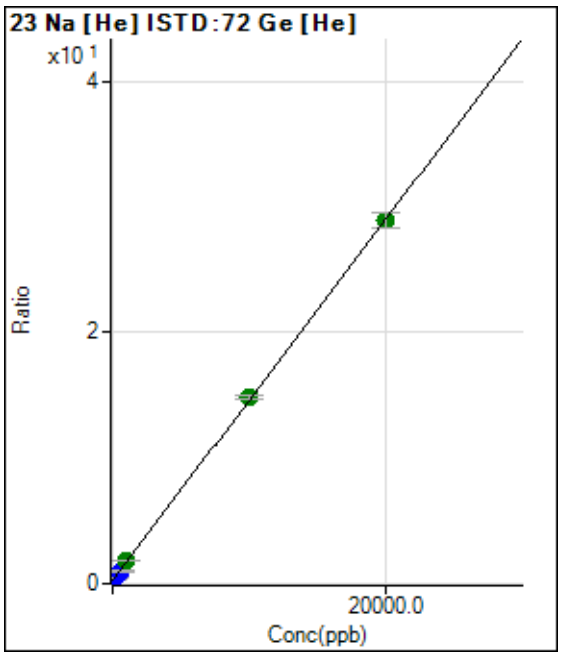
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3471912.58	1.1901	A	5.2
2	☐	200.000	185.542	7536766.31	2.6307	A	2.6
3	☐	500.000	486.597	13990060.73	4.9683	A	7.7
4	☐	1000.000	1000.896	25186672.44	8.9617	A	2.8
5	☐	10000.00	9520.129	211341171.3	75.1106	A	4.0
6	☐	20000.00	20240.370	408292017.4	158.349	A	7.0
7	☐	100.000					

y = 0.0078 * x + 1.1901
R = 0.9996
DL = 24.11
BEC = 153.3

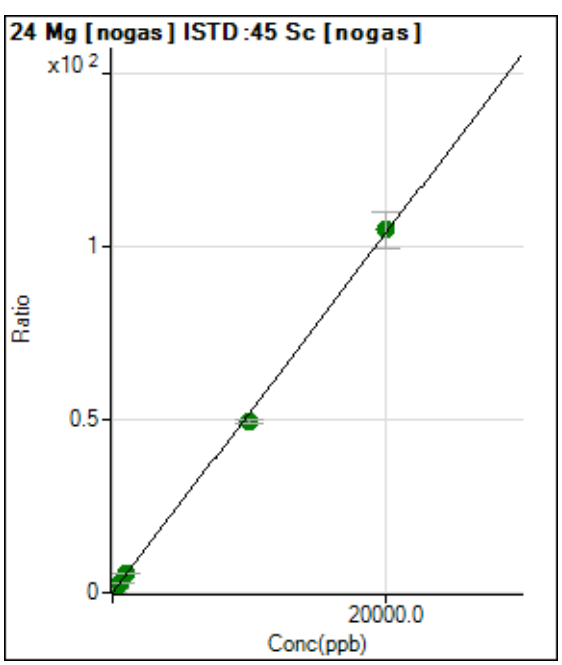
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	281978.53	0.2563	P	0.9
2	☐	200.000	192.728	587051.81	0.5330	P	1.3
3	☐	500.000	508.574	1079552.85	0.9864	P	1.9
4	☐	1000.000	1077.996	1947950.85	1.8038	A	3.0
5	☐	10000.00	10141.609	15914399.76	14.8152	A	1.9
6	☐	20000.00	19925.154	30155918.72	28.8601	A	4.3
7	☐	100.000					

y = 0.0014 * x + 0.2563
R = 1.0000
DL = 4.929
BEC = 178.5

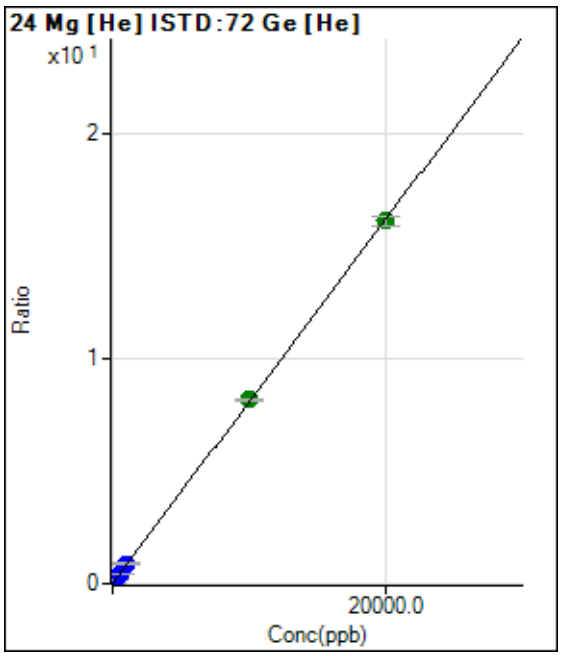
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60706.32	0.0208	P	6.0
2	☐	200.000	205.256	3102917.13	1.0831	A	2.1
3	☐	500.000	524.286	7701061.37	2.7343	A	6.8
4	☐	1000.000	1054.562	15398675.87	5.4788	A	2.0
5	☐	10000.00	9566.438	139437769.7	49.5326	A	2.1
6	☐	20000.00	20213.393	269351331.0	104.636	A	10.4
7	☐	100.000					

y = 0.0052 * x + 0.0208
R = 0.9997
DL = 0.7236
BEC = 4.02

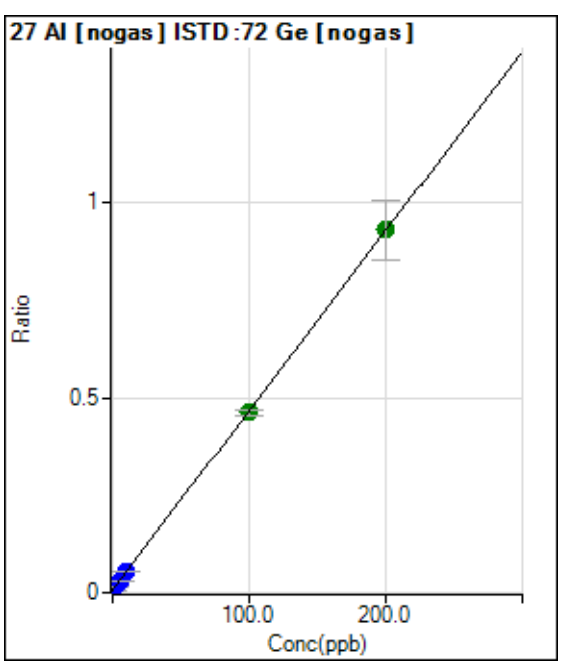
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3940.47	0.0036	P	8.2
2	☐	200.000	213.511	194164.47	0.1763	P	1.6
3	☐	500.000	544.056	485578.40	0.4436	P	0.2
4	☐	1000.000	1099.566	964383.09	0.8929	P	1.8
5	☐	10000.00	10121.956	8798483.83	8.1903	A	1.0
6	☐	20000.00	19932.807	16856297.66	16.1254	A	2.9
7	☐	100.000					

y = 8.0881E-004 * x + 0.0036
R = 1.0000
DL = 1.093
BEC = 4.429

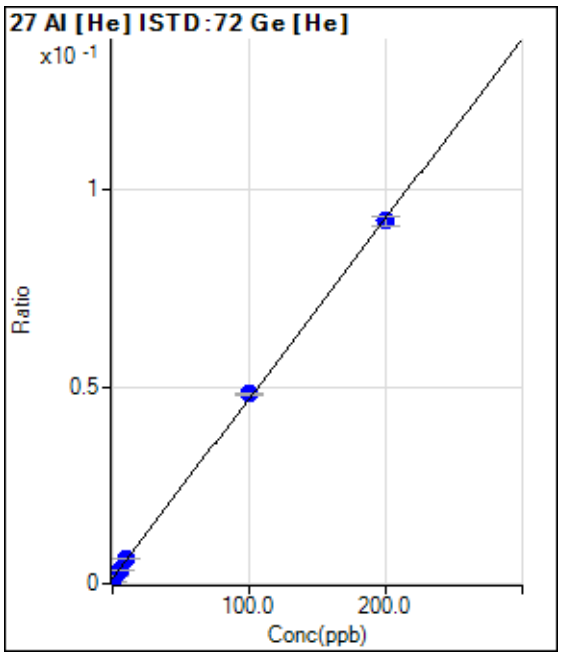
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30401.37	0.0071	P	5.8
2	☐	2.000	2.106	72780.35	0.0168	P	2.7
3	☐	5.000	5.154	130991.09	0.0308	P	4.9
4	☐	10.000	10.295	235393.13	0.0545	P	0.9
5	☐	100.000	98.720	1901364.29	0.4618	A	2.9
6	☐	200.000	200.621	3646913.38	0.9312	A	16.2
7	☐	1.000					

y = 0.0046 * x + 0.0071
R = 1.0000
DL = 0.2653
BEC = 1.534

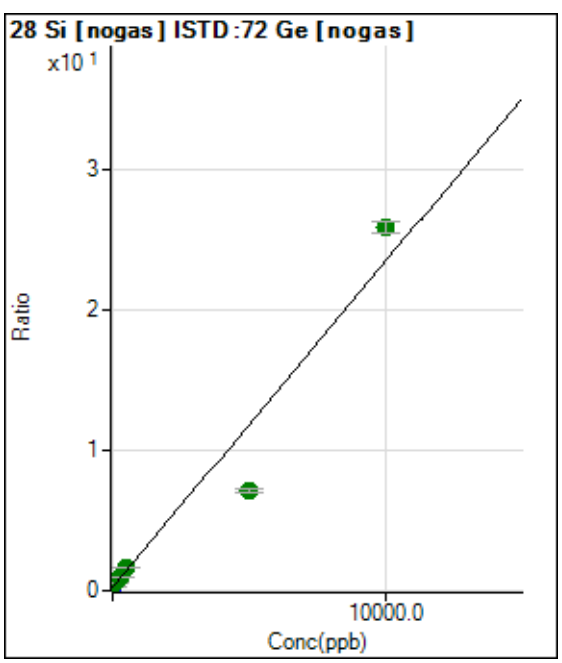
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-1.460	733.36	0.0007	P	8.6
2	☐	2.000	1.332	2140.15	0.0019	P	8.7
3	☐	5.000	4.599	3760.45	0.0034	P	7.0
4	☐	10.000	11.367	7048.08	0.0065	P	1.6
5	☐	100.000	102.426	51691.00	0.0481	P	1.2
6	☐	200.000	198.735	96290.71	0.0921	P	2.6
7	☐	1.000					

y = 4.5676E-004 * x + 0.0013
R = 0.9998
DL = 0.3744
BEC = 2.919

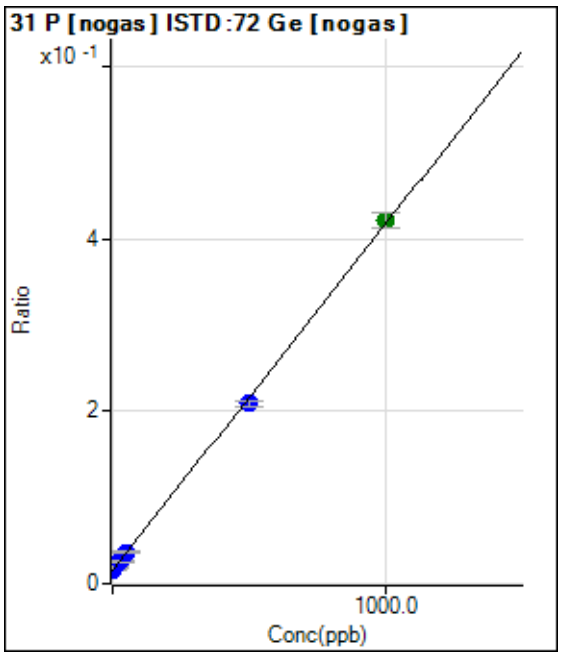
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1042733.29	0.2423	P	2.9
2	☐	100.000	127.133	2336021.84	0.5382	A	1.2
3	☐	250.000	296.325	3963639.94	0.9320	A	3.6
4	☐	500.000	584.319	6921334.48	1.6024	A	1.9
5	☐	5000.000	2938.714	29153356.23	7.0824	A	3.6
6	☐	10000.00	11024.998	101729328.4	25.9037	A	3.2
7	☐	5.000					

y = 0.0023 * x + 0.2423
R = 0.9722
DL = 9.145
BEC = 104.1

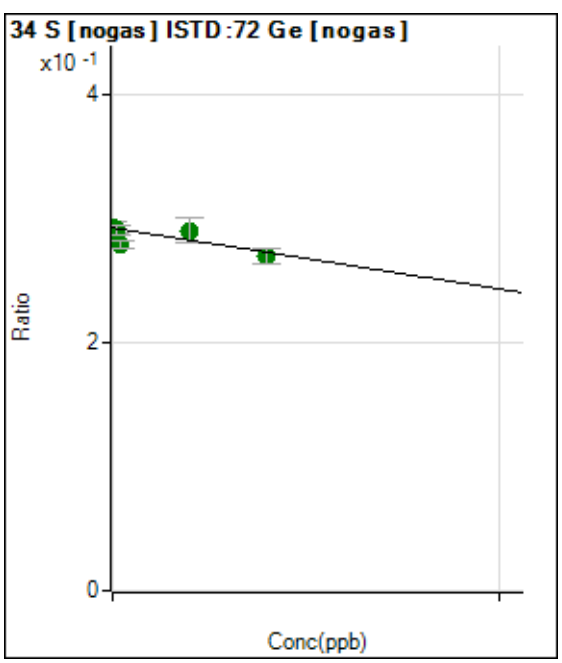
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66590.74	0.0155	P	1.4
2	☐	10.000	9.085	82985.06	0.0191	P	2.4
3	☐	25.000	25.726	109766.82	0.0258	P	1.5
4	☐	50.000	52.257	157500.13	0.0365	P	2.0
5	☐	500.000	481.205	859501.55	0.2088	P	2.6
6	☐	1000.000	1009.276	1652552.84	0.4209	A	4.4
7	☐	5.000					

y = 4.0171E-004 * x + 0.0155
R = 0.9997
DL = 1.639
BEC = 38.51

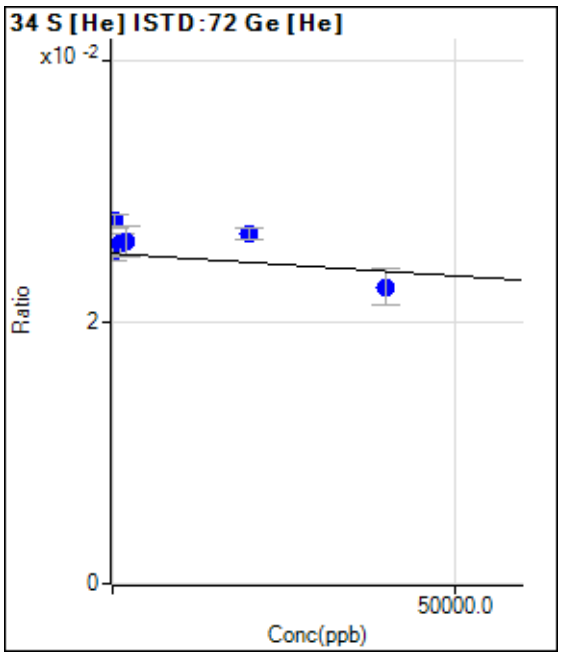
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1256597.62	0.2920	A	3.5
2	☐	400.000	15584.055	1234112.82	0.2844	A	2.8
3	☐	1000.000	3311.351	1235143.68	0.2904	A	2.5
4	☐	2000.000	27376.973	1203302.17	0.2786	A	2.0
5	☐	20000.00	4227.709	1193219.95	0.2899	A	6.7
6	☐	40000.00	46407.672	1057061.32	0.2692	A	4.4
7	☐	100.000					

y = -4.9120E-007 * x + 0.2920
R = -0.6693
DL = -6.224E+04
BEC = -5.945E+05

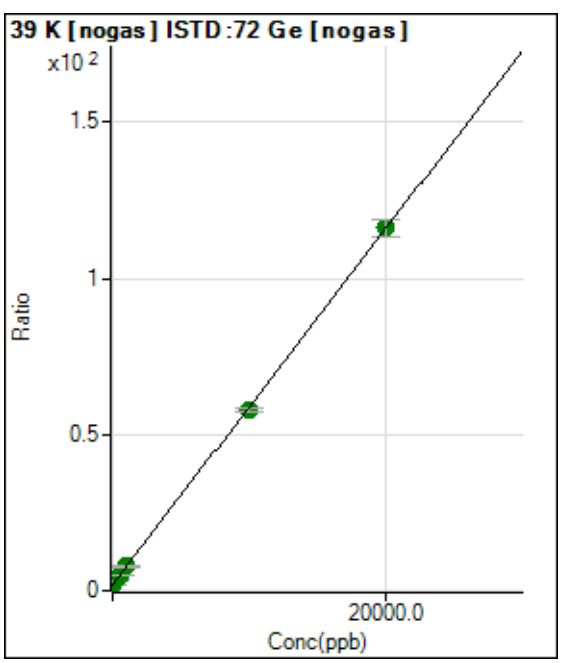
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27759.35	0.0252	P	4.4
2	☐	400.000	-73194.93	30529.62	0.0277	P	3.5
3	☐	1000.000	-21204.05	28392.91	0.0260	P	6.6
4	☐	2000.000	-27793.32	28260.76	0.0262	P	9.0
5	☐	20000.00	-44523.84	28726.94	0.0267	P	3.5
6	☐	40000.00	75042.641	23652.69	0.0227	P	12.6
7	☐	100.000					

y = -3.3990E-008 * x + 0.0252
R = -0.7195
DL = -9.712E+04
BEC = -7.423E+05

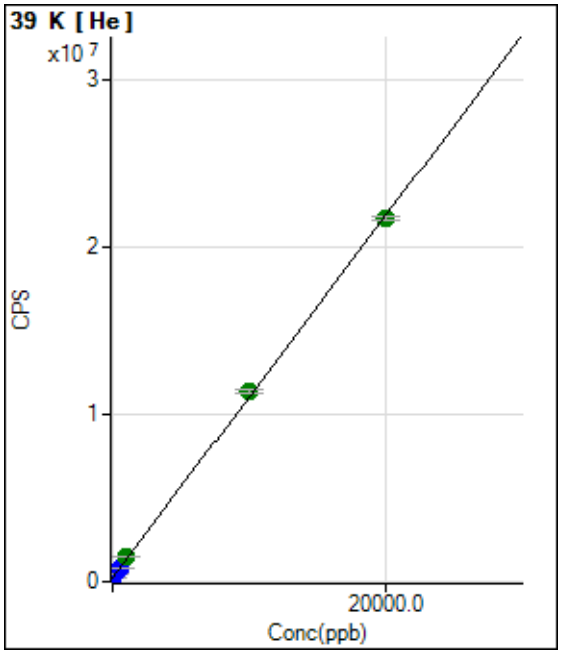
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8317795.76	1.9328	A	2.7
2	☐	200.000	199.359	13314159.15	3.0677	A	2.0
3	☐	500.000	505.443	20458683.79	4.8102	A	2.7
4	☐	1000.000	1019.336	33416154.91	7.7357	A	1.8
5	☐	10000.00	9871.435	239334938.6	58.1283	A	2.1
6	☐	20000.00	20063.186	456040176.8	116.147	A	4.9
7	☐	100.000					

y = 0.0057 * x + 1.9328
R = 1.0000
DL = 27.96
BEC = 339.5

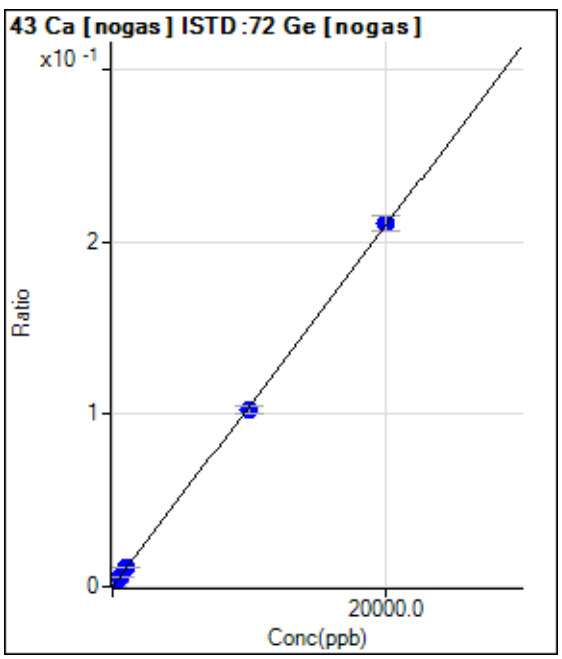
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	235584.30		P	0.6
2	☐	200.000	220.329	473856.14		P	1.2
3	☐	500.000	541.255	820917.17		P	1.6
4	☐	1000.000	1174.013	1505204.15		A	0.6
5	☐	10000.00	10302.437	11377007.75		A	2.3
6	☐	20000.00	19838.846	21690020.51		A	1.2
7	☐	100.000					

y = 1081.4357 * x + 235584.3000
R = 0.9998
DL = 3.814
BEC = 217.8

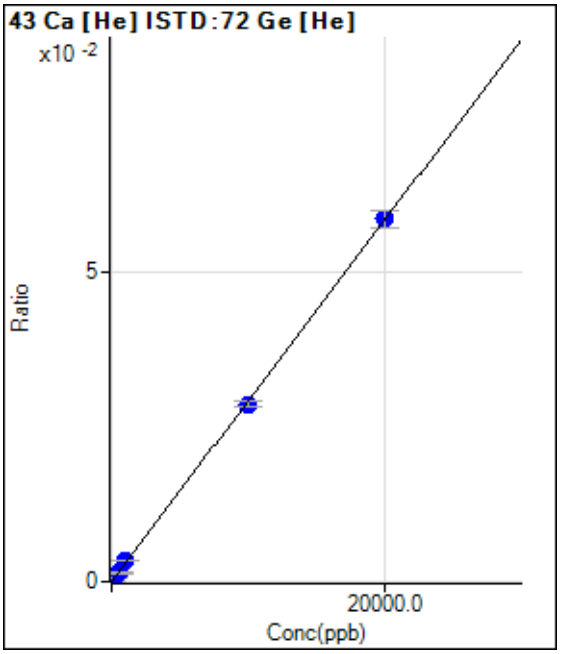
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	670.02	0.0002	P	13.5
2	☐	200.000	206.514	10049.52	0.0023	P	2.0
3	☐	500.000	527.689	24149.19	0.0057	P	3.8
4	☐	1000.000	1051.127	48149.21	0.0111	P	3.6
5	☐	10000.00	9767.216	421106.32	0.1023	P	4.5
6	☐	20000.00	20113.078	826605.82	0.2105	P	4.1
7	☐	100.000					

y = 1.0458E-005 * x + 1.5566E-004
R = 0.9999
DL = 6.049
BEC = 14.88

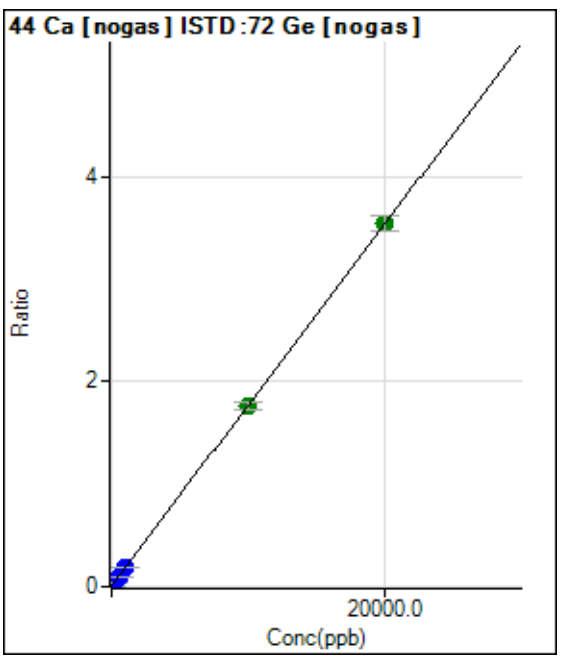
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26.67	0.0000	P	57.0
2	☐	200.000	249.895	830.03	0.0008	P	12.3
3	☐	500.000	472.620	1533.42	0.0014	P	11.2
4	☐	1000.000	1162.895	3687.08	0.0034	P	4.2
5	☐	10000.00	9821.111	30782.63	0.0287	P	3.6
6	☐	20000.00	20081.485	61203.86	0.0586	P	4.5
7	☐	100.000					

y = 2.9153E-006 * x + 2.4206E-005
R = 0.9999
DL = 14.21
BEC = 8.303

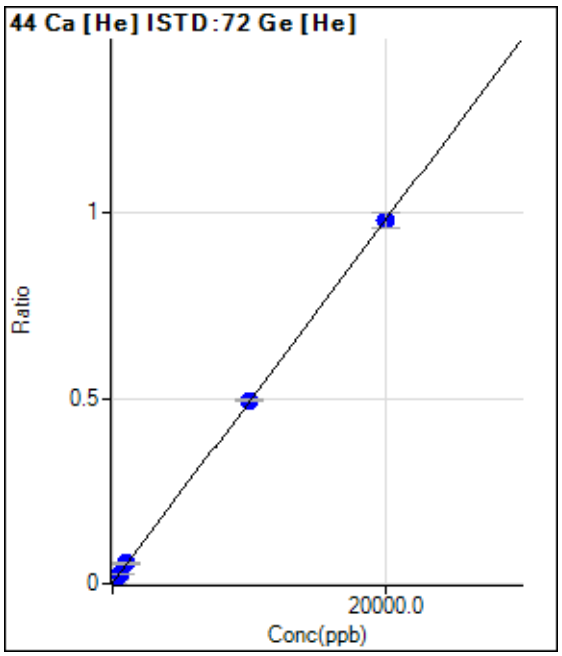
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31847.42	0.0074	P	5.1
2	☐	200.000	198.222	183653.83	0.0423	P	2.8
3	☐	500.000	506.486	411128.47	0.0966	P	1.8
4	☐	1000.000	1014.055	803565.12	0.1860	P	1.7
5	☐	10000.00	9931.185	7231116.56	1.7567	A	4.7
6	☐	20000.00	20033.560	13886497.71	3.5362	A	4.4
7	☐	100.000					

y = 1.7614E-004 * x + 0.0074
R = 1.0000
DL = 6.395
BEC = 42.03

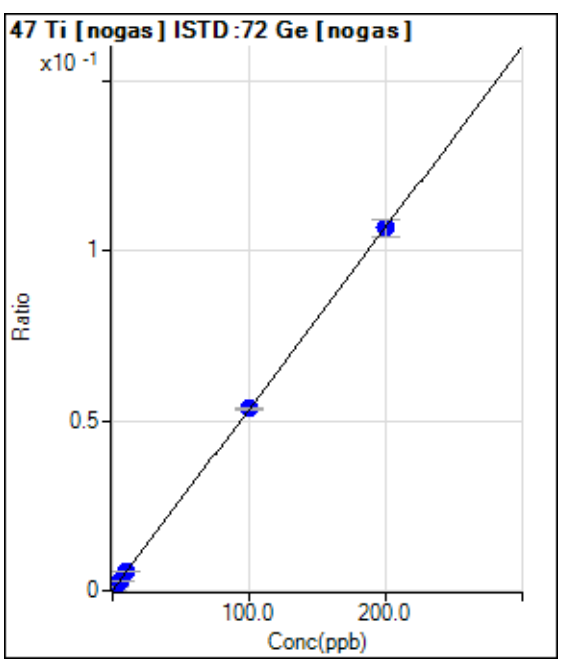
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1133.39	0.0010	P	3.0
2	☐	200.000	203.179	12110.73	0.0110	P	2.1
3	☐	500.000	532.849	29727.39	0.0272	P	1.7
4	☐	1000.000	1111.819	59976.51	0.0555	P	3.8
5	☐	10000.00	10067.588	531389.95	0.4946	P	0.9
6	☐	20000.00	19959.762	1023737.12	0.9797	P	4.2
7	☐	100.000					

y = 4.9030E-005 * x + 0.0010
R = 1.0000
DL = 1.919
BEC = 21.01

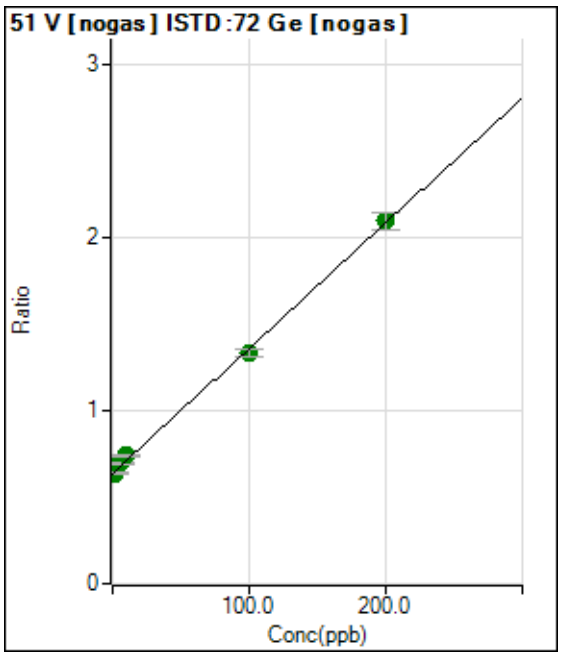
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	283.34	0.0001	P	23.9
2	☐	2.000	2.354	5748.49	0.0013	P	32.5
3	☐	5.000	5.183	12037.42	0.0028	P	3.1
4	☐	10.000	10.335	24102.55	0.0056	P	2.6
5	☐	100.000	100.213	220366.12	0.0535	P	1.6
6	☐	200.000	199.869	418743.78	0.1067	P	5.1
7	☐	1.000					

y = 5.3338E-004 * x + 6.6094E-005
R = 1.0000
DL = 0.0889
BEC = 0.1239

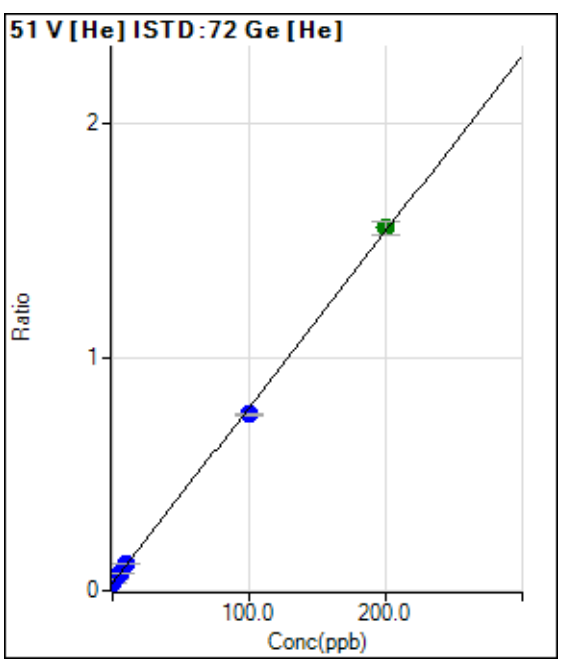
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2749343.16	0.6389	A	3.3
2	☐	2.000	-0.232	2765845.76	0.6373	A	2.2
3	☐	5.000	7.881	2961237.17	0.6960	A	0.9
4	☐	10.000	14.022	3198276.57	0.7404	A	2.2
5	☐	100.000	96.187	5496063.41	1.3350	A	2.6
6	☐	200.000	201.655	8237262.68	2.0982	A	4.8
7	☐	1.000					

y = 0.0072 * x + 0.6389
R = 0.9993
DL = 8.683
BEC = 88.29

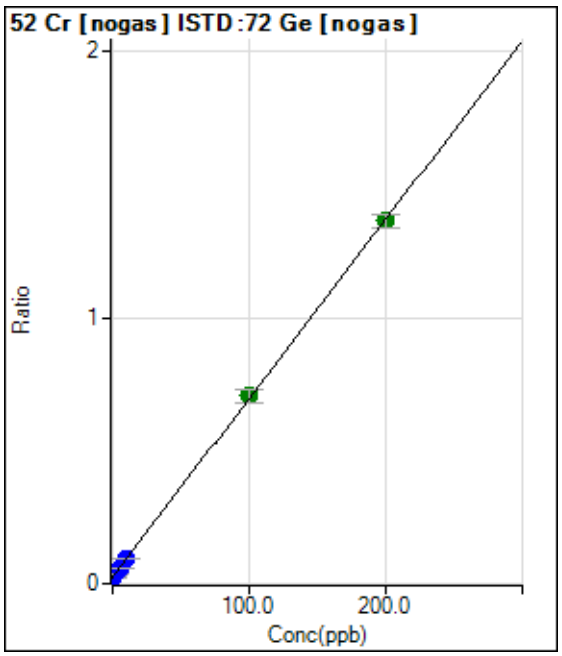
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.447	39597.80	0.0360	P	1.0
2	☐	2.000	2.323	55215.81	0.0501	P	0.8
3	☐	5.000	5.417	80389.78	0.0734	P	1.6
4	☐	10.000	10.977	124587.01	0.1154	P	0.7
5	☐	100.000	95.797	810573.19	0.7546	P	1.1
6	☐	200.000	202.039	1625307.71	1.5552	A	3.7
7	☐	1.000					

y = 0.0075 * x + 0.0326
R = 0.9997
DL = 0.1415
BEC = 4.329

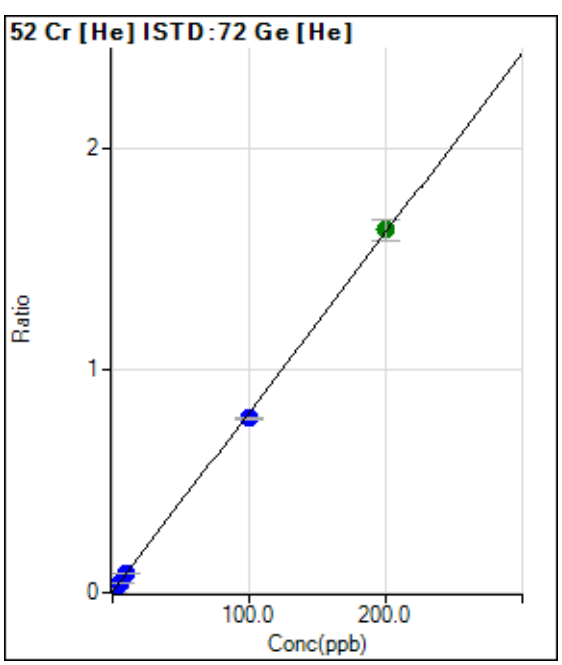
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	107203.80	0.0249	P	4.2
2	☐	2.000	1.862	162443.19	0.0374	P	0.7
3	☐	5.000	4.989	248496.03	0.0584	P	3.3
4	☐	10.000	9.960	396578.30	0.0918	P	3.1
5	☐	100.000	101.441	2906106.10	0.7063	A	6.8
6	☐	200.000	199.283	5354762.84	1.3636	A	3.6
7	☐	1.000					

y = 0.0067 * x + 0.0249
R = 1.0000
DL = 0.4635
BEC = 3.709

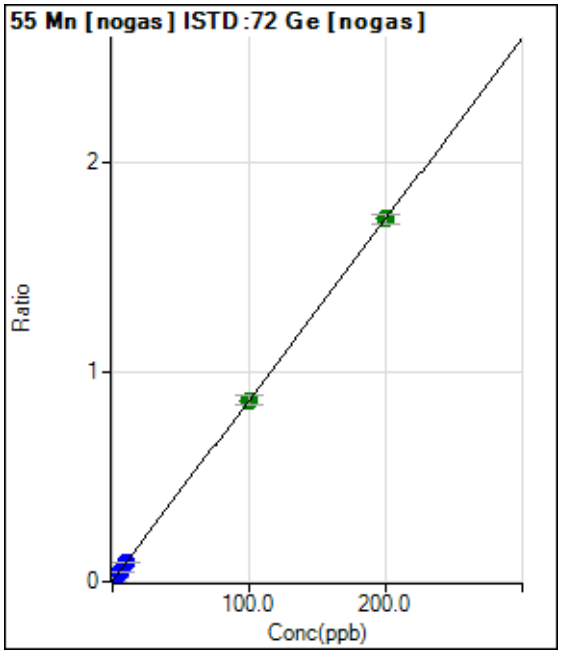
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3713.76	0.0034	P	3.5
2	☐	2.000	2.018	21656.22	0.0197	P	2.2
3	☐	5.000	5.090	48654.32	0.0445	P	2.0
4	☐	10.000	10.515	95297.63	0.0882	P	1.4
5	☐	100.000	96.662	841688.24	0.7835	P	0.7
6	☐	200.000	201.641	1703121.33	1.6307	A	5.9
7	☐	1.000					

y = 0.0081 * x + 0.0034
R = 0.9998
DL = 0.0438
BEC = 0.4182

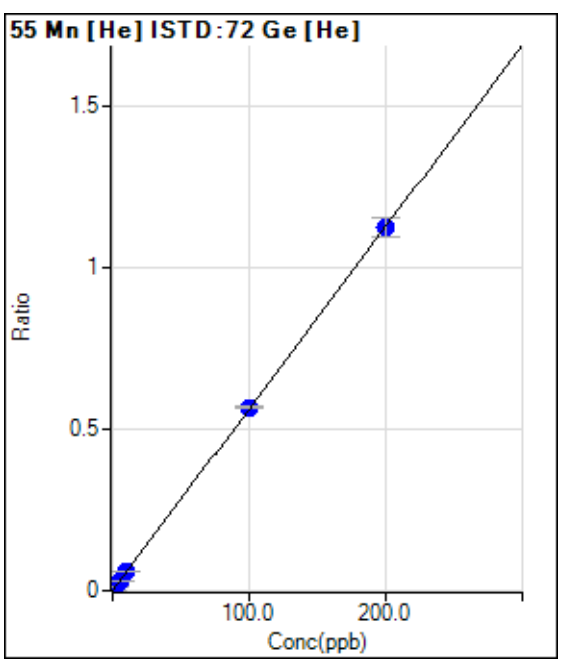
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16907.89	0.0039	P	7.2
2	☐	2.000	1.948	89868.48	0.0207	P	1.4
3	☐	5.000	5.015	200461.08	0.0471	P	2.2
4	☐	10.000	10.134	393906.27	0.0912	P	4.1
5	☐	100.000	99.828	3554739.43	0.8637	A	4.8
6	☐	200.000	200.080	6784316.15	1.7272	A	2.8
7	☐	1.000					

y = 0.0086 * x + 0.0039
R = 1.0000
DL = 0.09915
BEC = 0.4565

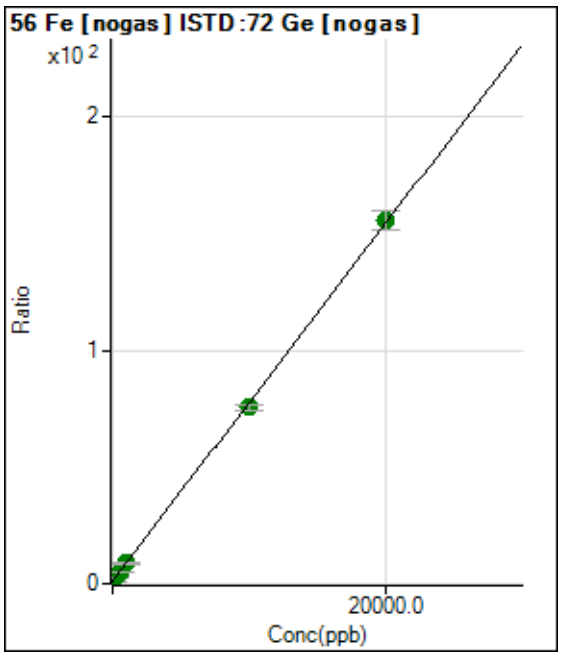
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	310.01	0.0003	P	6.2
2	☐	2.000	2.140	13595.22	0.0123	P	2.3
3	☐	5.000	5.390	33553.94	0.0307	P	3.9
4	☐	10.000	10.949	66951.49	0.0620	P	1.4
5	☐	100.000	100.873	611035.25	0.5688	P	1.5
6	☐	200.000	199.505	1174923.89	1.1247	P	5.5
7	☐	1.000					

y = 0.0056 * x + 2.8173E-004
R = 1.0000
DL = 0.009338
BEC = 0.04999

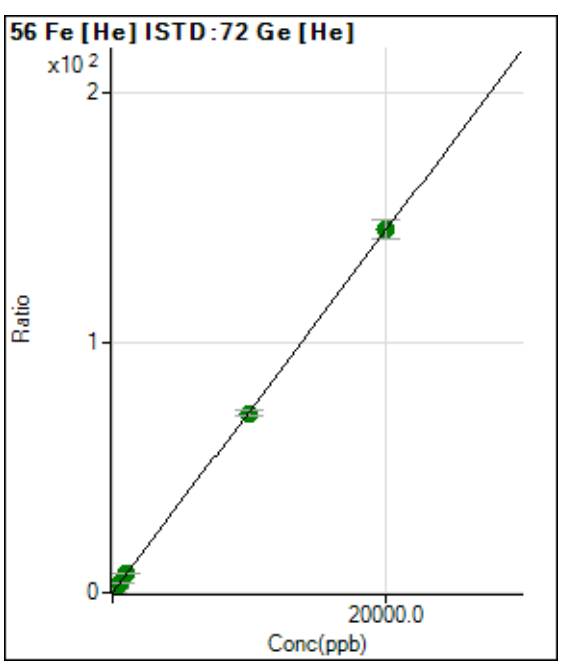
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4427380.70	1.0285	A	1.3
2	☐	200.000	195.141	10955222.38	2.5241	A	1.2
3	☐	500.000	505.552	20856818.18	4.9031	A	1.4
4	☐	1000.000	1008.484	37825332.10	8.7576	A	2.7
5	☐	10000.00	9703.505	310414023.6	75.3962	A	2.2
6	☐	20000.00	20147.733	610300663.6	155.440	A	5.3
7	☐	100.000					

y = 0.0077 * x + 1.0285
R = 0.9998
DL = 5.242
BEC = 134.2

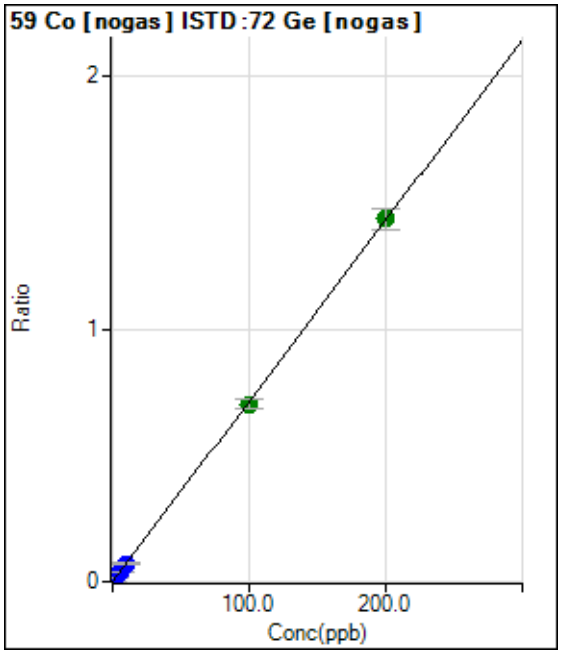
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24486.41	0.0223	P	0.8
2	☐	200.000	216.841	1755275.45	1.5936	A	1.3
3	☐	500.000	528.080	4211811.71	3.8489	A	3.8
4	☐	1000.000	1096.732	8607036.33	7.9695	A	1.9
5	☐	10000.00	9898.396	77067550.52	71.7494	A	3.0
6	☐	20000.00	20045.095	151758501.0	145.275	A	5.4
7	☐	100.000					

y = 0.0072 * x + 0.0223
R = 1.0000
DL = 0.07645
BEC = 3.071

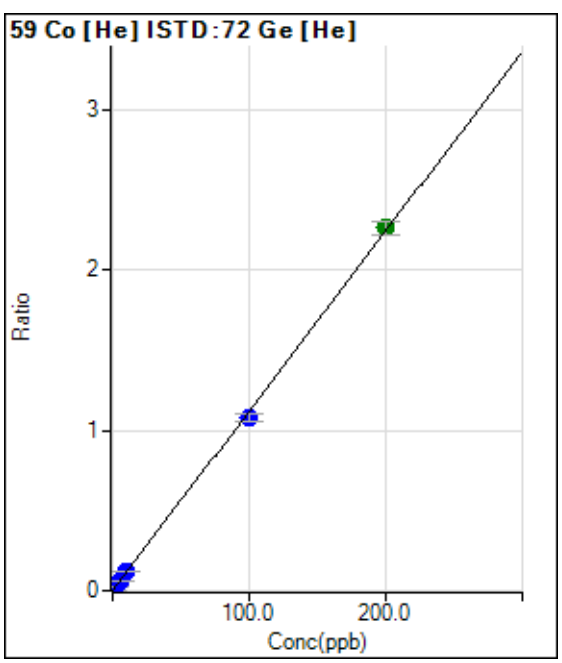
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	370.01	0.0001	P	6.6
2	☐	2.000	1.973	61579.55	0.0142	P	0.7
3	☐	5.000	4.998	152349.55	0.0358	P	2.3
4	☐	10.000	10.098	312196.32	0.0723	P	1.8
5	☐	100.000	98.098	2886304.23	0.7014	A	5.4
6	☐	200.000	200.946	5638554.71	1.4366	A	5.9
7	☐	1.000					

y = 0.0071 * x + 8.5893E-005
R = 0.9999
DL = 0.002369
BEC = 0.01201

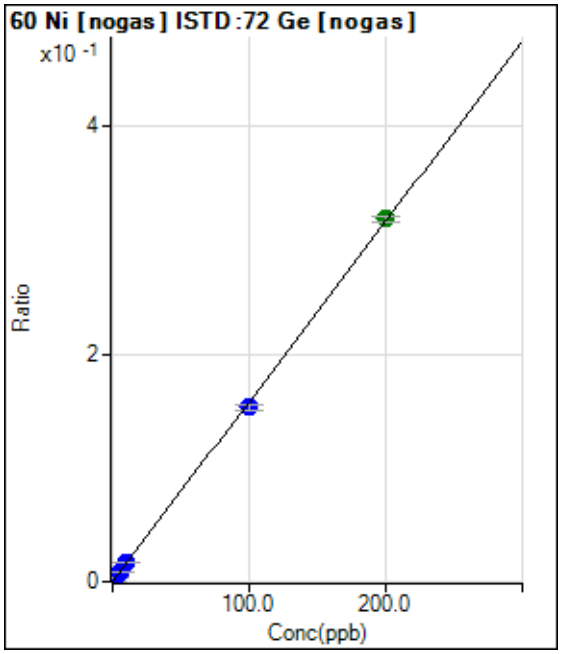
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.33	0.0001	P	18.0
2	☐	2.000	2.051	25387.87	0.0230	P	1.9
3	☐	5.000	5.200	63821.09	0.0583	P	2.5
4	☐	10.000	10.669	129134.26	0.1196	P	0.9
5	☐	100.000	96.153	1156689.54	1.0769	P	4.0
6	☐	200.000	201.885	2362880.80	2.2610	A	3.8
7	☐	1.000					

y = 0.0112 * x + 7.5707E-005
R = 0.9997
DL = 0.003644
BEC = 0.00676

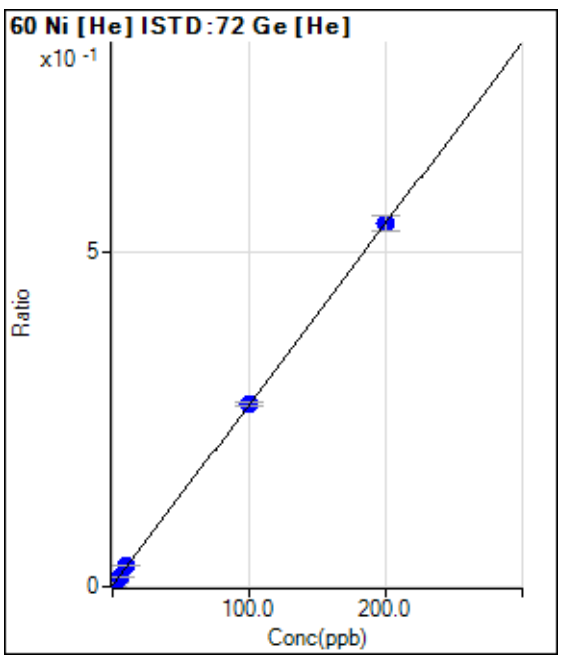
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.269	1106.72	0.0003	P	6.2
2	☐	2.000	2.226	14559.31	0.0034	P	2.3
3	☐	5.000	5.418	35771.88	0.0084	P	3.3
4	☐	10.000	10.608	71826.97	0.0166	P	0.4
5	☐	100.000	97.045	631823.10	0.1535	P	3.3
6	☐	200.000	201.435	1252266.65	0.3187	A	1.5
7	☐	1.000					

y = 0.0016 * x - 1.6930E-004
R = 0.9998
DL = 0.03016
BEC = -0.1069

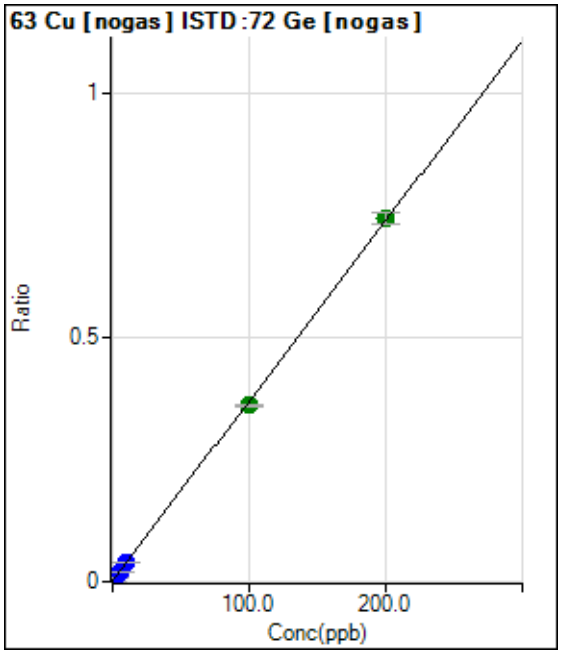
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.511	226.67	0.0002	P	8.8
2	☐	2.000	1.640	6621.30	0.0060	P	4.9
3	☐	5.000	4.898	16200.64	0.0148	P	7.3
4	☐	10.000	10.945	33617.89	0.0311	P	2.4
5	☐	100.000	100.140	292060.21	0.2719	P	2.7
6	☐	200.000	199.889	565432.08	0.5411	P	4.3
7	☐	1.000					

y = 0.0027 * x + 0.0016
R = 1.0000
DL = 0.0202
BEC = 0.5877

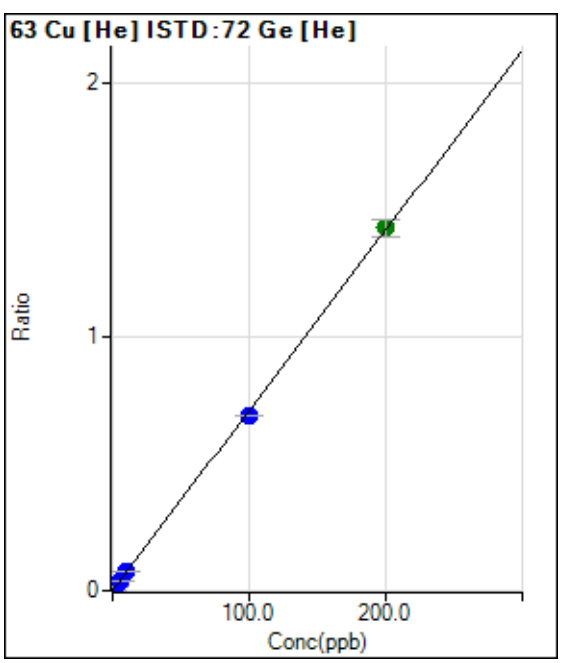
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5640.95	0.0013	P	0.6
2	☐	2.000	1.993	37575.38	0.0087	P	5.3
3	☐	5.000	5.213	87335.06	0.0205	P	0.5
4	☐	10.000	10.551	173721.11	0.0402	P	0.9
5	☐	100.000	97.556	1486640.03	0.3610	A	1.6
6	☐	200.000	201.189	2918275.06	0.7431	A	3.1
7	☐	1.000					

y = 0.0037 * x + 0.0013
R = 0.9999
DL = 0.00675
BEC = 0.3553

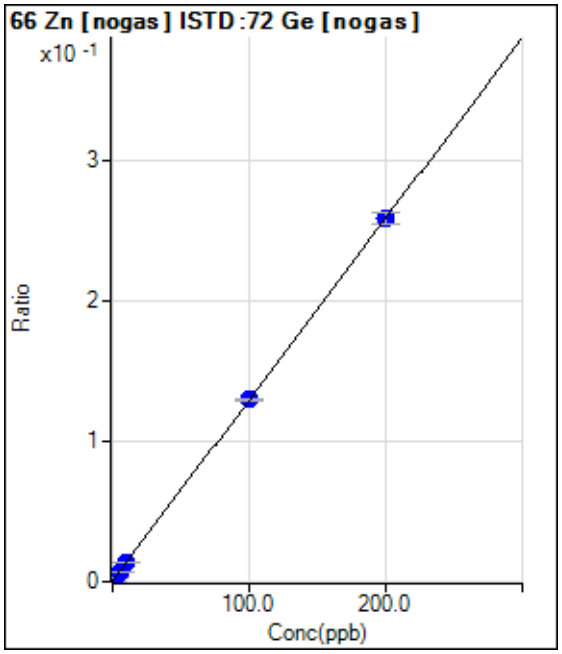
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.104	2240.17	0.0020	P	7.5
2	☐	2.000	2.143	18182.60	0.0165	P	3.6
3	☐	5.000	5.376	43197.85	0.0395	P	1.5
4	☐	10.000	10.855	84641.66	0.0784	P	0.7
5	☐	100.000	97.150	742356.89	0.6910	P	0.2
6	☐	200.000	201.371	1495028.05	1.4309	A	4.5
7	☐	1.000					

y = 0.0071 * x + 0.0013
R = 0.9998
DL = 0.06418
BEC = 0.1828

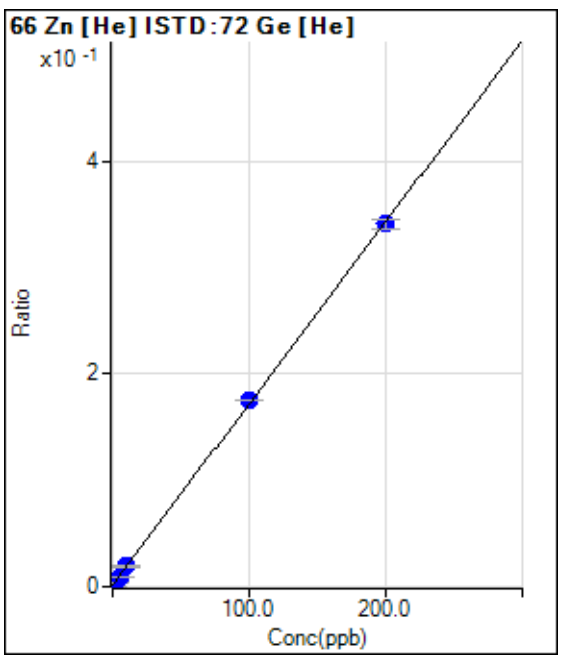
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.287	1046.72	0.0002	P	4.4
2	☐	2.000	1.838	12931.40	0.0030	P	3.0
3	☐	5.000	5.024	30128.48	0.0071	P	1.2
4	☐	10.000	10.352	60232.57	0.0139	P	1.3
5	☐	100.000	100.178	533755.59	0.1296	P	1.4
6	☐	200.000	199.894	1013268.99	0.2580	P	3.2
7	☐	1.000					

y = 0.0013 * x + 6.1218E-004
R = 1.0000
DL = 0.02472
BEC = 0.4754

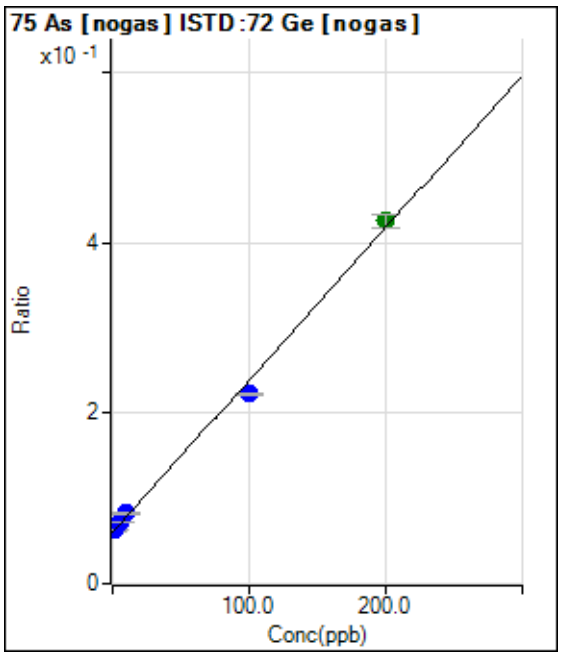
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.693	283.34	0.0003	P	16.3
2	☐	2.000	1.503	4410.60	0.0040	P	8.5
3	☐	5.000	4.810	10563.19	0.0097	P	5.3
4	☐	10.000	10.428	20785.39	0.0192	P	3.0
5	☐	100.000	101.926	188493.19	0.1755	P	0.6
6	☐	200.000	199.025	356768.81	0.3412	P	2.4
7	☐	1.000					

y = 0.0017 * x + 0.0014
R = 0.9999
DL = 0.07356
BEC = 0.8435

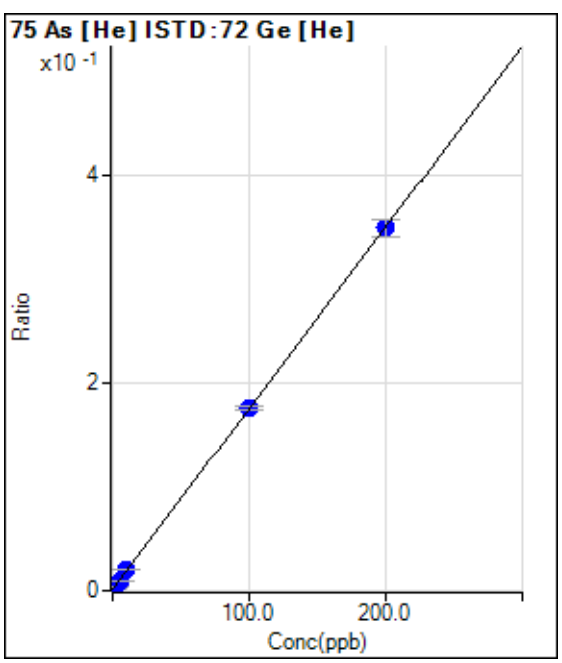
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	1.083	267493.53	0.0622	P	5.2
2	☐	2.000	1.542	273460.02	0.0630	P	1.6
3	☐	5.000	6.441	305316.62	0.0718	P	0.8
4	☐	10.000	12.735	358606.97	0.0830	P	1.6
5	☐	100.000	90.735	916089.31	0.2225	P	1.5
6	☐	200.000	204.464	1672393.72	0.4258	A	3.8
7	☐	1.000					

y = 0.0018 * x + 0.0602
R = 0.9983
DL = 5.384
BEC = 33.7

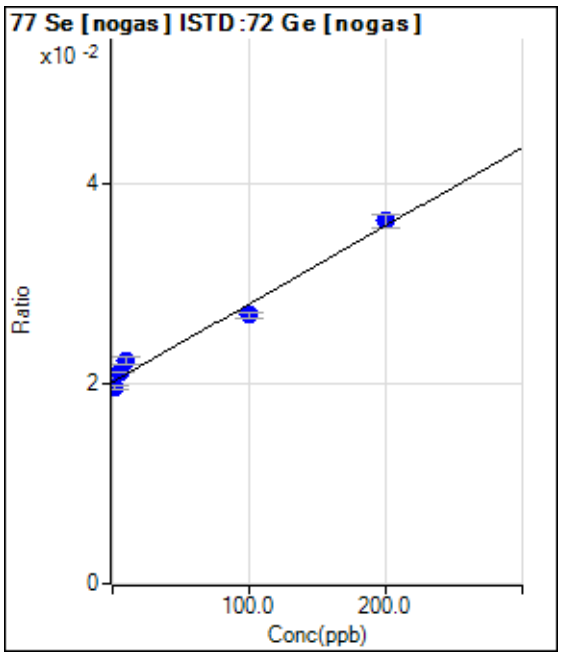
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1145.60	0.0010	P	4.0
2	☐	2.000	2.023	5034.05	0.0046	P	1.2
3	☐	5.000	5.104	10883.28	0.0099	P	2.4
4	☐	10.000	10.755	21384.75	0.0198	P	1.0
5	☐	100.000	100.450	189320.08	0.1762	P	1.8
6	☐	200.000	199.734	365031.40	0.3494	P	4.9
7	☐	1.000					

y = 0.0017 * x + 0.0010
R = 1.0000
DL = 0.07119
BEC = 0.597

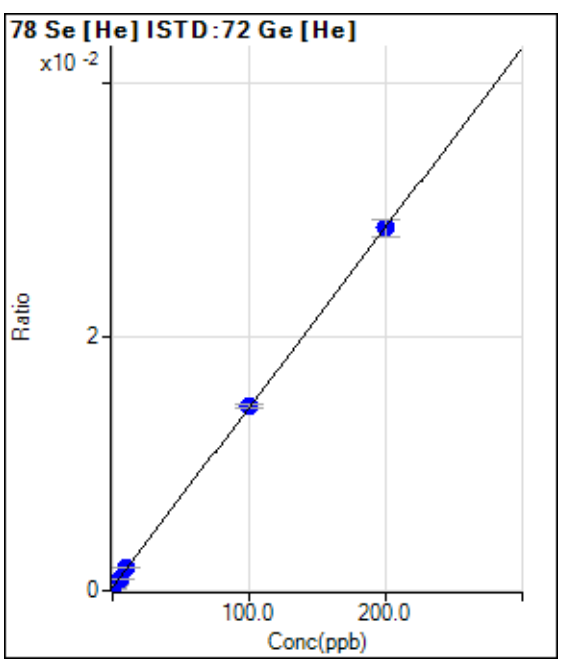
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86886.33	0.0202	P	4.2
2	☐	2.000	-6.599	85419.15	0.0197	P	2.0
3	☐	5.000	12.788	90175.53	0.0212	P	0.7
4	☐	10.000	28.009	96688.55	0.0224	P	3.4
5	☐	100.000	85.803	110794.30	0.0269	P	2.0
6	☐	200.000	206.089	142629.73	0.0363	P	3.9
7	☐	1.000					

y = 7.8255E-005 * x + 0.0202
R = 0.9897
DL = 32.39
BEC = 258.1

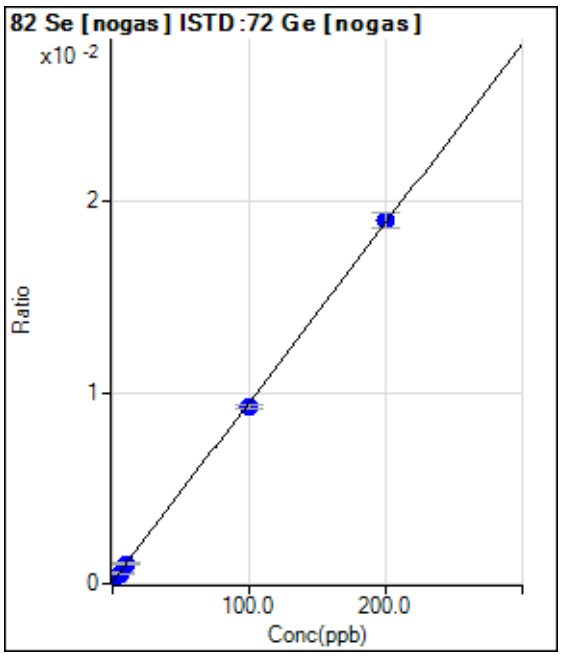
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.304	246.67	0.0002	P	9.0
2	☐	2.000	2.013	608.68	0.0006	P	8.2
3	☐	5.000	4.371	970.03	0.0009	P	4.6
4	☐	10.000	10.737	1931.44	0.0018	P	1.7
5	☐	100.000	100.407	15565.99	0.0145	P	1.7
6	☐	200.000	199.775	29847.70	0.0286	P	4.7
7	☐	1.000					

y = 1.4166E-004 * x + 2.6722E-004
R = 1.0000
DL = 0.4284
BEC = 1.886

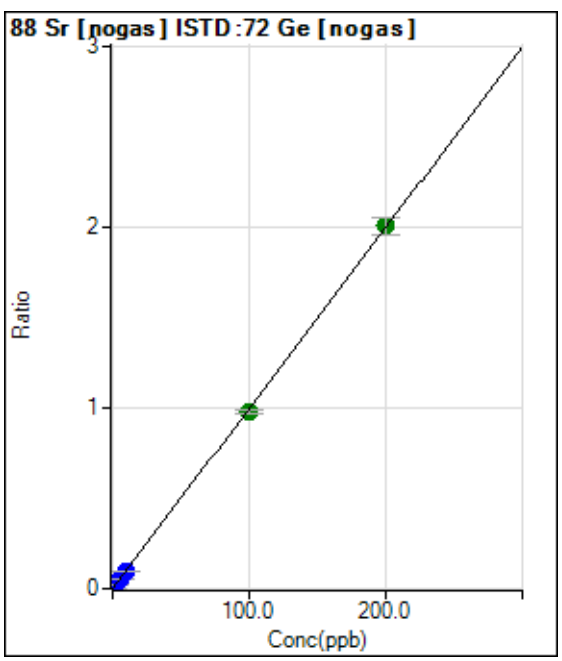
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	430.02	0.0001	P	17.0
2	☐	2.000	2.024	1256.73	0.0003	P	13.1
3	☐	5.000	4.827	2353.52	0.0006	P	3.9
4	☐	10.000	10.063	4513.97	0.0010	P	2.8
5	☐	100.000	97.525	38113.70	0.0093	P	2.5
6	☐	200.000	201.239	74586.90	0.0190	P	4.3
7	☐	1.000					

y = 9.3903E-005 * x + 9.9686E-005
R = 0.9999
DL = 0.5422
BEC = 1.062

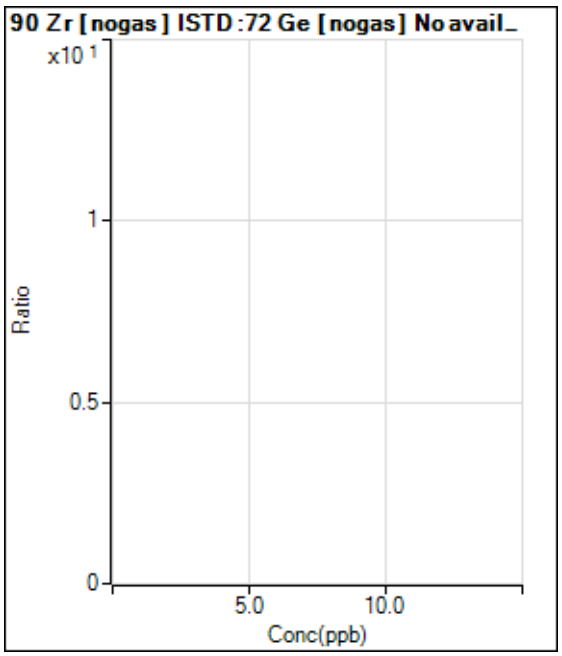
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Min Conc: <None>



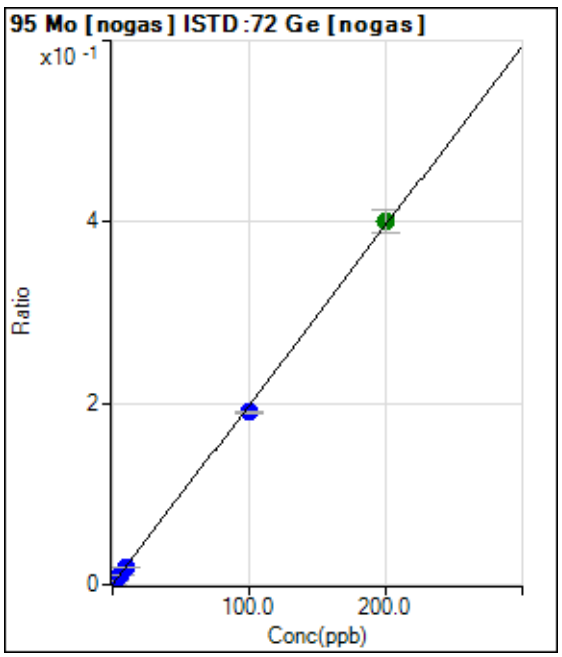
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2496.89	0.0006	P	4.2
2	☐	2.000	1.914	85288.63	0.0197	P	1.2
3	☐	5.000	4.862	208526.37	0.0490	P	3.2
4	☐	10.000	9.749	422072.42	0.0977	P	2.8
5	☐	100.000	97.981	4022604.00	0.9769	A	2.4
6	☐	200.000	201.026	7866675.09	2.0037	A	4.6
7	☐	1.000					

y = 0.0100 * x + 5.7947E-004
R = 0.9999
DL = 0.007408
BEC = 0.05815

Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	326.69	0.0001	P	20.9
2	☐	2.000	1.847	16200.96	0.0037	P	3.3
3	☐	5.000	4.916	41733.00	0.0098	P	1.1
4	☐	10.000	9.808	84192.20	0.0195	P	3.0
5	☐	100.000	95.891	782015.80	0.1899	P	1.6
6	☐	200.000	202.068	1570225.65	0.4001	A	6.5
7	☐	1.000					

y = 0.0020 * x + 7.5919E-005

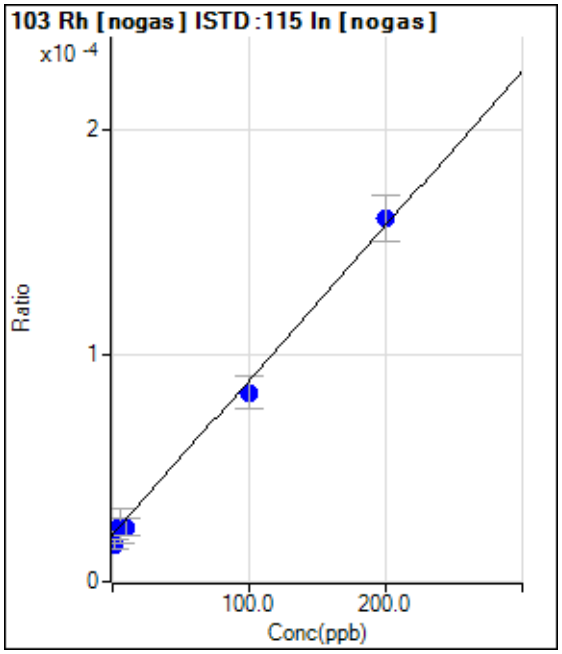
R = 0.9997

DL = 0.02402

BEC = 0.03835

Weight: <None>

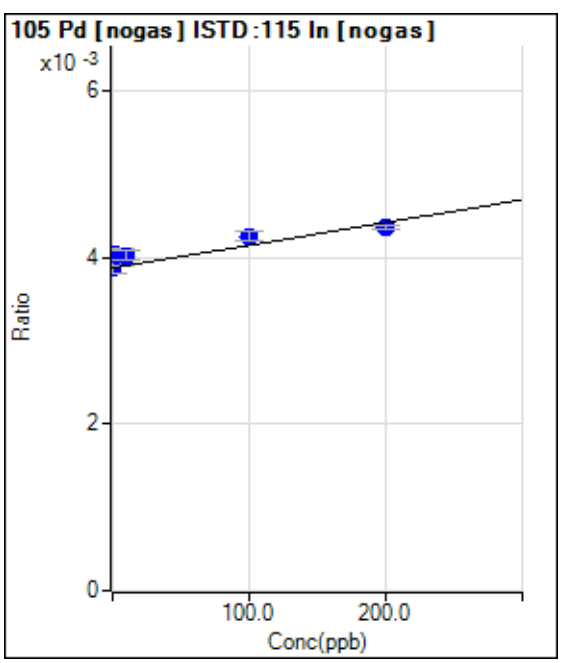
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	90.00	0.0000	P	19.9
2	☐	2.000	-6.515	70.00	0.0000	P	25.1
3	☐	5.000	5.597	100.00	0.0000	P	63.4
4	☐	10.000	4.984	100.00	0.0000	P	34.3
5	☐	100.000	91.983	333.34	0.0001	P	17.8
6	☐	200.000	204.330	610.02	0.0002	P	12.7
7	☐	1.000					

y = 6.8430E-007 * x + 2.0727E-005
R = 0.9984
DL = 18.05
BEC = 30.29

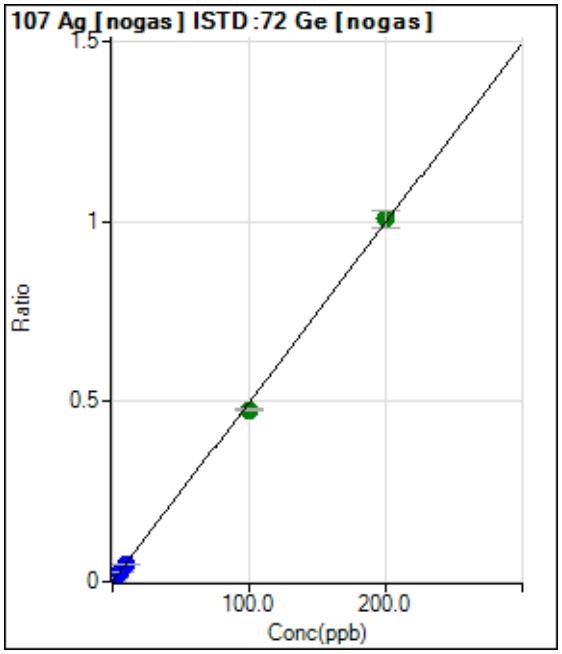
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16851.67	0.0039	P	3.3
2	☐	2.000	64.639	17462.20	0.0041	P	1.2
3	☐	5.000	46.738	16491.47	0.0040	P	5.1
4	☐	10.000	55.798	16691.54	0.0040	P	2.6
5	☐	100.000	140.172	16998.47	0.0043	P	2.3
6	☐	200.000	175.954	16631.49	0.0044	P	1.1
7	☐	1.000					

y = 2.7372E-006 * x + 0.0039
R = 0.9255
DL = 138.6
BEC = 1417

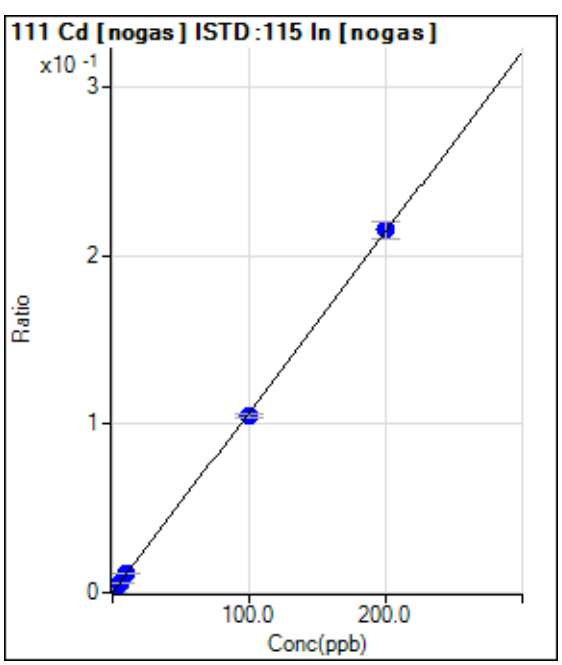
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	453.35	0.0001	P	27.0
2	☐	2.000	1.948	42551.39	0.0098	P	2.0
3	☐	5.000	4.897	104148.45	0.0245	P	1.6
4	☐	10.000	10.020	215946.03	0.0500	P	1.3
5	☐	100.000	95.682	1962066.48	0.4764	A	1.1
6	☐	200.000	202.161	3952807.96	1.0065	A	4.5
7	☐	1.000					

y = 0.0050 * x + 1.0581E-004
R = 0.9997
DL = 0.0172
BEC = 0.02126

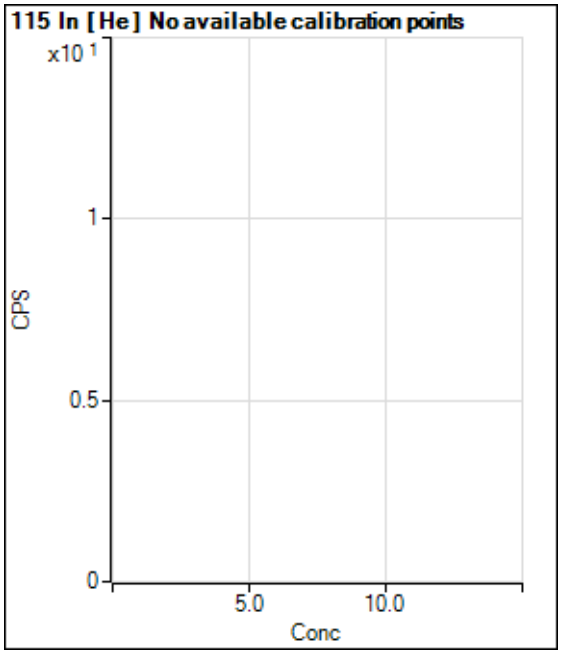
Weight: <None>
Min Conc: <None>



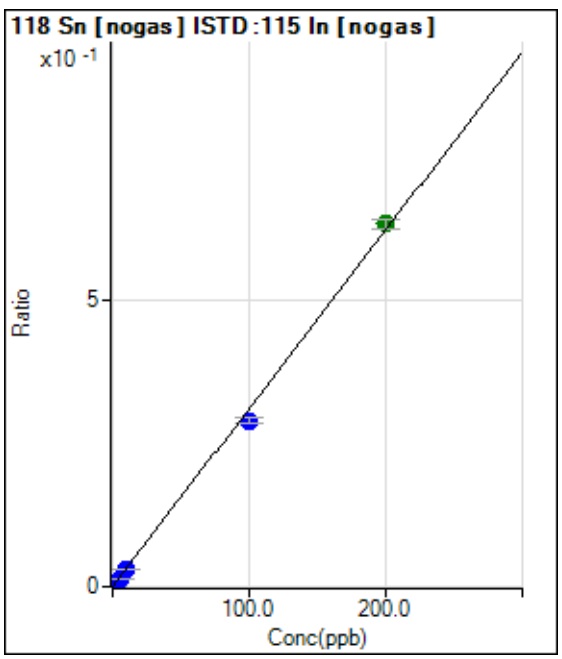
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	34.2
2	☐	2.000	1.929	8905.70	0.0021	P	5.9
3	☐	5.000	4.893	21560.06	0.0052	P	2.1
4	☐	10.000	10.233	45382.10	0.0110	P	0.6
5	☐	100.000	97.765	417416.75	0.1047	P	1.7
6	☐	200.000	201.109	820447.96	0.2154	P	4.9
7	☐	1.000					

y = 0.0011 * x + 3.8307E-006
R = 0.9999
DL = 0.003675
BEC = 0.003577

Weight: <None>
Min Conc: <None>



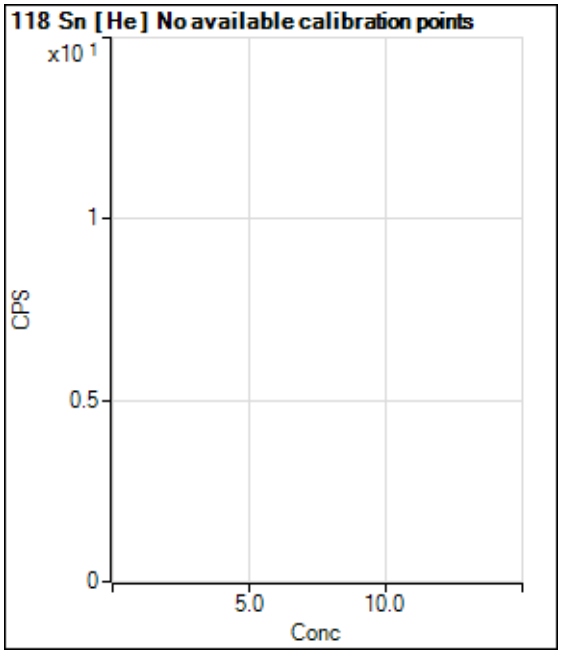
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1496894.07		A	0.5
2	☐			1516100.39		A	1.2
3	☐			1506789.31		A	2.1
4	☐			1494279.09		A	0.5
5	☐			1418329.04		A	2.2
6	☐			1422193.56		A	5.6
7	☐						



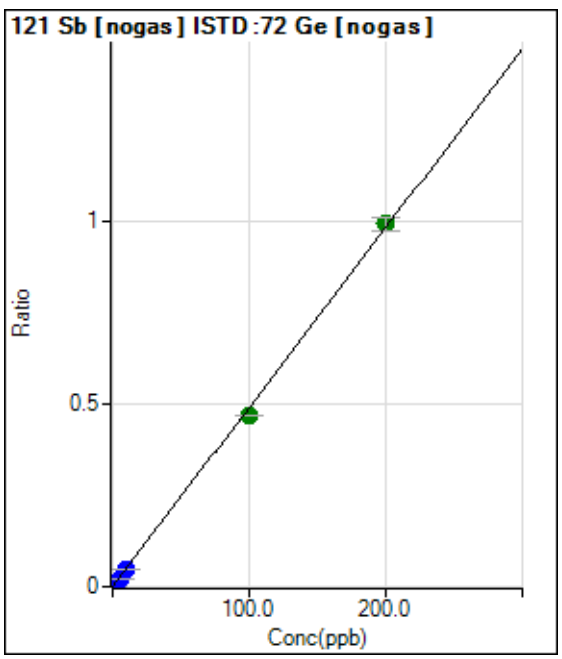
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1210.06	0.0003	P	10.5
2	☐	2.000	1.738	24520.80	0.0057	P	2.8
3	☐	5.000	4.551	59451.50	0.0145	P	2.8
4	☐	10.000	9.597	124964.33	0.0302	P	1.0
5	☐	100.000	92.859	1154740.35	0.2897	P	3.4
6	☐	200.000	203.605	2420136.94	0.6348	A	2.6
7	☐	1.000					

y = 0.0031 * x + 2.7843E-004
R = 0.9991
DL = 0.0282
BEC = 0.08935

Weight: <None>
Min Conc: <None>



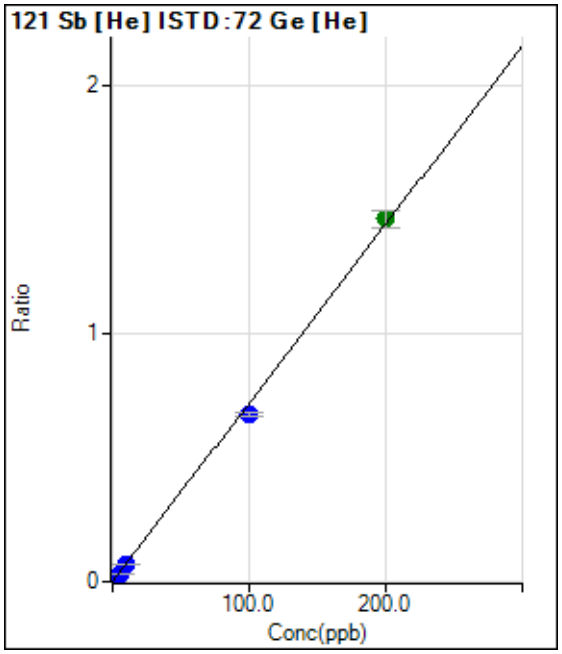
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			466.68		P	25.1
2	☐			9412.65		P	6.7
3	☐			23753.07		P	5.6
4	☐			48731.42		P	4.1
5	☐			446521.80		P	0.8
6	☐			879647.57		P	1.5
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	226.67	0.0001	P	27.4
2	☐	2.000	2.163	46412.06	0.0107	P	1.9
3	☐	5.000	4.686	98284.81	0.0231	P	1.7
4	☐	10.000	9.621	204701.56	0.0474	P	1.7
5	☐	100.000	95.381	1932643.30	0.4693	A	0.8
6	☐	200.000	202.335	3909140.77	0.9955	A	3.9
7	☐	1.000					

y = 0.0049 * x + 5.2609E-005
R = 0.9996
DL = 0.008788
BEC = 0.01069

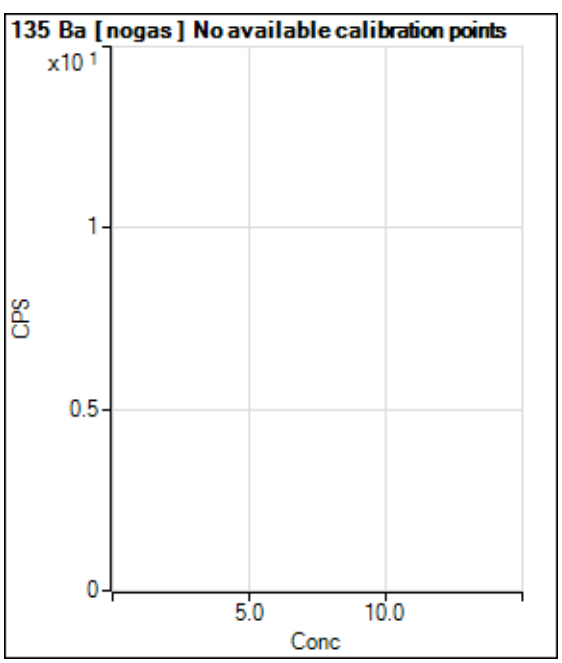
Weight: <None>
Min Conc: <None>



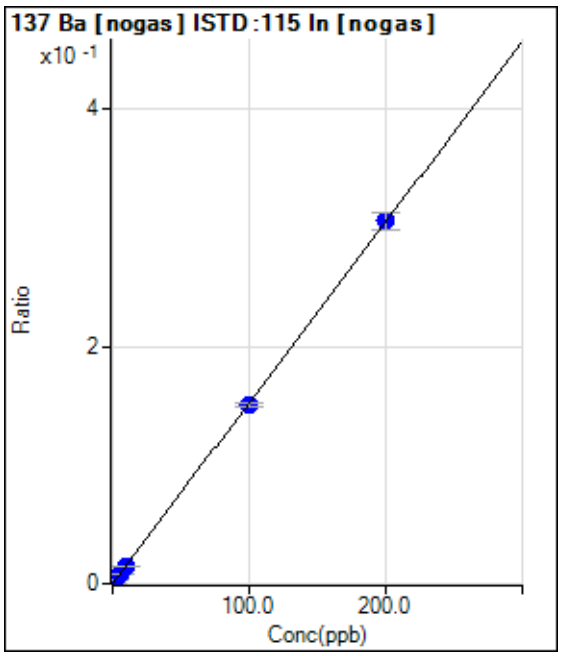
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.00	0.0001	P	46.1
2	☐	2.000	2.300	18373.23	0.0167	P	5.6
3	☐	5.000	4.629	36625.22	0.0335	P	3.1
4	☐	10.000	9.947	77531.57	0.0718	P	0.1
5	☐	100.000	93.656	724916.40	0.6749	P	2.4
6	☐	200.000	203.181	1529549.30	1.4639	A	4.5
7	☐	1.000					

y = 0.0072 * x + 1.1811E-004
R = 0.9993
DL = 0.02269
BEC = 0.01639

Weight: <None>
Min Conc: <None>



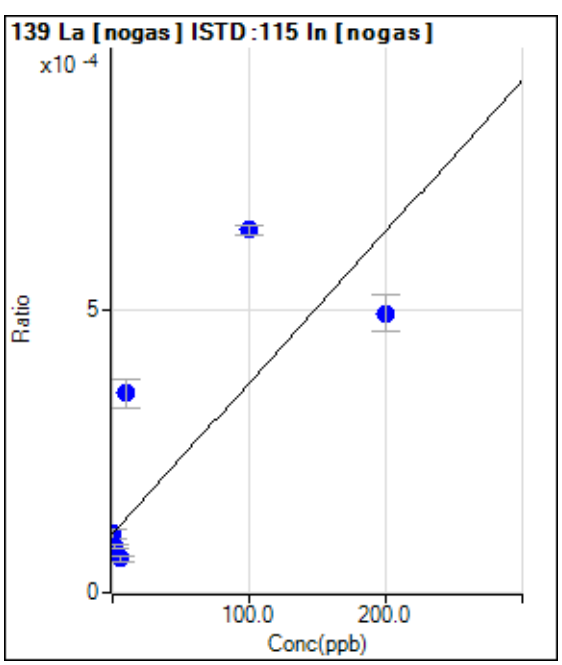
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			356.68		P	22.5
2	☐			7518.42		P	3.2
3	☐			17859.49		P	1.5
4	☐			38316.22		P	1.4
5	☐			345163.37		P	1.6
6	☐			665389.57		P	0.3
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	520.02	0.0001	P	6.5
2	☐	2.000	1.904	13011.83	0.0030	P	4.3
3	☐	5.000	5.002	31839.64	0.0077	P	2.7
4	☐	10.000	9.949	63272.92	0.0153	P	1.1
5	☐	100.000	98.545	599266.37	0.1503	P	2.1
6	☐	200.000	200.731	1166058.52	0.3061	P	4.5
7	☐	1.000					

y = 0.0015 * x + 1.1966E-004
R = 1.0000
DL = 0.01527
BEC = 0.07851

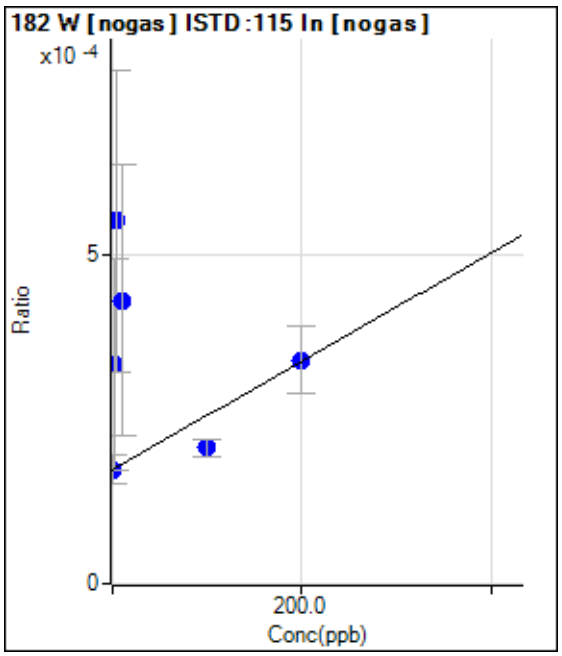
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	453.34	0.0001	P	13.5
2	☐	2.000	-8.263	353.34	0.0001	P	9.5
3	☐	5.000	-16.447	246.67	0.0001	P	18.8
4	☐	10.000	92.768	1463.42	0.0004	P	14.9
5	☐	100.000	201.014	2566.90	0.0006	P	2.6
6	☐	200.000	145.994	1886.80	0.0005	P	13.5
7	☐	1.000					

y = 2.6837E-006 * x + 1.0428E-004
R = 0.7536
DL = 15.76
BEC = 38.86

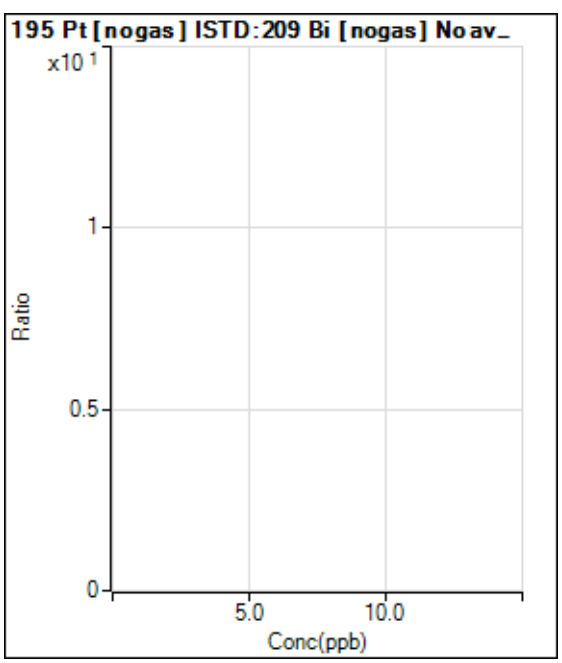
Weight: <None>
Min Conc: <None>



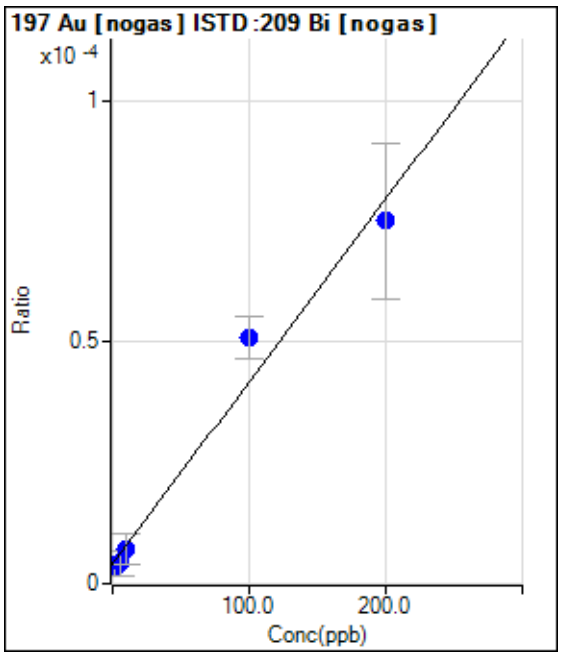
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	756.73	0.0002	P	26.0
2	☐	2.000	194.137	1429.55	0.0003	P	96.9
3	☐	5.000	458.908	2287.66	0.0006	P	83.2
4	☐	10.000	311.860	1790.35	0.0004	P	95.6
5	☐	100.000	39.515	823.37	0.0002	P	13.8
6	☐	200.000	201.881	1303.58	0.0003	P	29.7
7	☐	1.000					

y = 8.2592E-007 * x + 1.7411E-004
R = -0.1953
DL = 164.4
BEC = 210.8

Weight: <None>
Min Conc: <None>



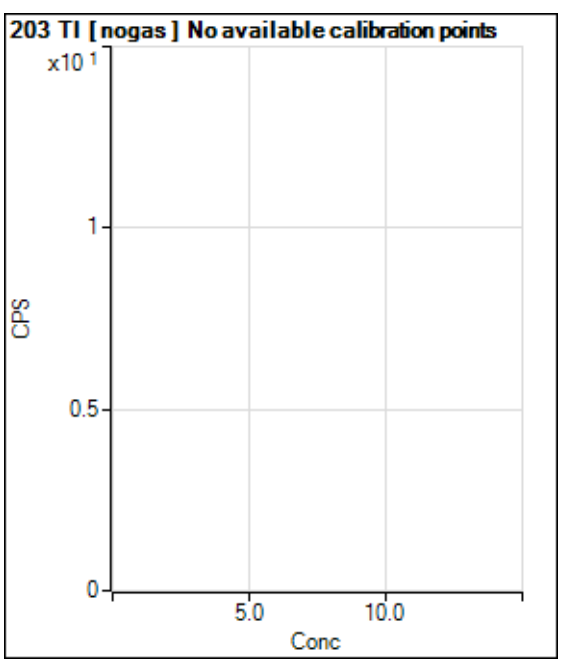
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



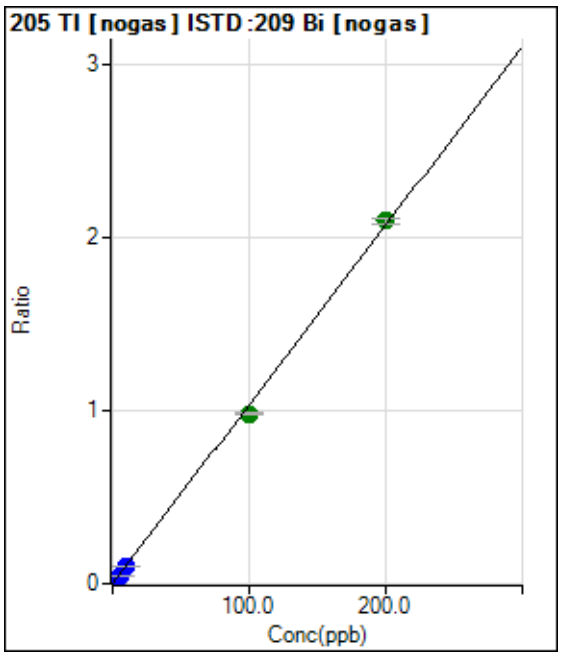
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.33	0.0000	P	43.9
2	☐	2.000	-2.771	10.00	0.0000	P	100.
3	☐	5.000	0.487	13.33	0.0000	P	117.
4	☐	10.000	8.135	23.33	0.0000	P	88.4
5	☐	100.000	124.044	156.67	0.0001	P	17.0
6	☐	200.000	188.232	220.00	0.0001	P	43.1
7	☐	1.000					

y = 3.7749E-007 * x + 4.0561E-006
R = 0.9887
DL = 14.16
BEC = 10.74

Weight: <None>
Min Conc: <None>



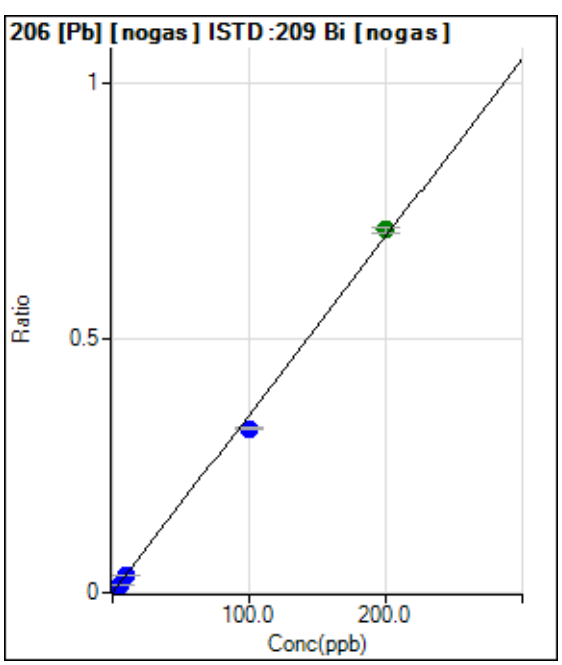
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			116.67		P	13.1
2	☐			24558.92		P	1.3
3	☐			62489.71		P	1.7
4	☐			130352.20		P	0.3
5	☐			1288766.73		M	5.7
6	☐			2610695.69		A	1.8
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	273.34	0.0001	P	12.0
2	☐	2.000	1.725	59542.35	0.0179	P	1.4
3	☐	5.000	4.572	151524.00	0.0474	P	6.5
4	☐	10.000	9.374	316324.73	0.0972	P	2.3
5	☐	100.000	94.891	3028836.62	0.9826	A	1.5
6	☐	200.000	202.599	6187825.53	2.0979	A	1.9
7	☐	1.000					

y = 0.0104 * x + 8.2960E-005
R = 0.9996
DL = 0.002882
BEC = 0.008012

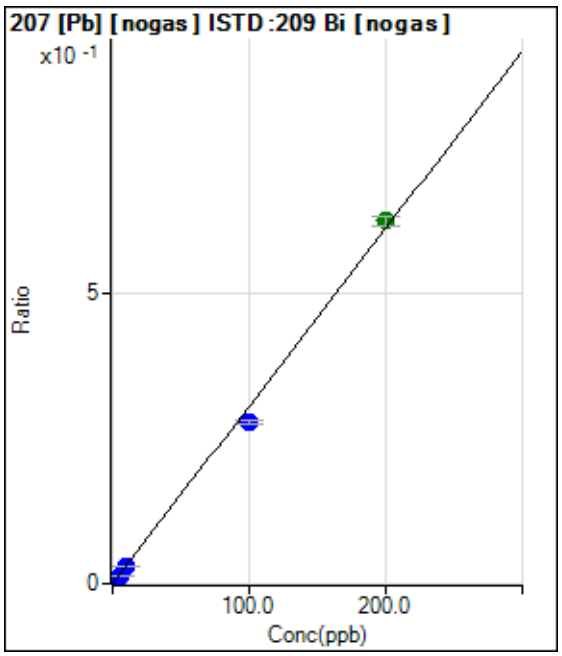
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	153.34	0.0000	P	22.0
2	☐	2.000	1.786	20863.64	0.0063	P	4.4
3	☐	5.000	4.681	52411.40	0.0164	P	4.7
4	☐	10.000	9.516	108384.04	0.0333	P	2.6
5	☐	100.000	92.176	992557.69	0.3220	P	1.3
6	☐	200.000	203.946	2101360.80	0.7125	A	1.5
7	☐	1.000					

y = 0.0035 * x + 4.6512E-005
R = 0.9990
DL = 0.008798
BEC = 0.01331

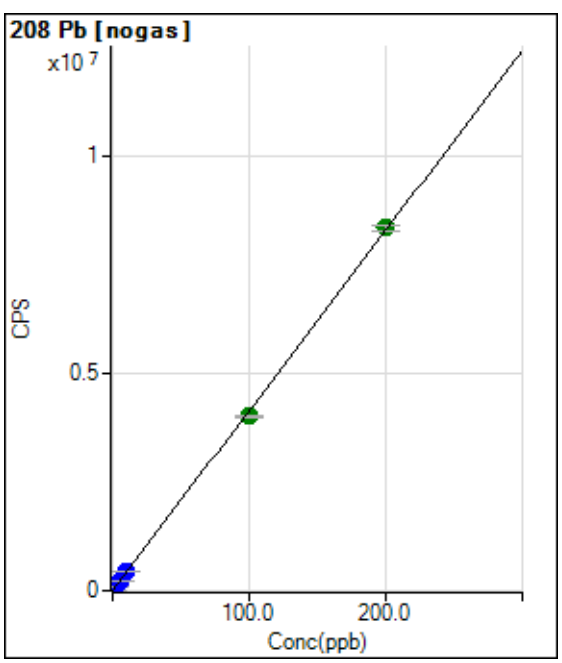
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0000	P	63.0
2	☐	2.000	1.820	18610.95	0.0056	P	3.7
3	☐	5.000	4.759	46720.68	0.0146	P	3.0
4	☐	10.000	9.336	93256.95	0.0286	P	0.4
5	☐	100.000	91.300	861890.85	0.2797	P	2.5
6	☐	200.000	204.391	1846303.41	0.6261	A	2.3
7	☐	1.000					

y = 0.0031 * x + 3.2500E-005
R = 0.9987
DL = 0.02005
BEC = 0.01061

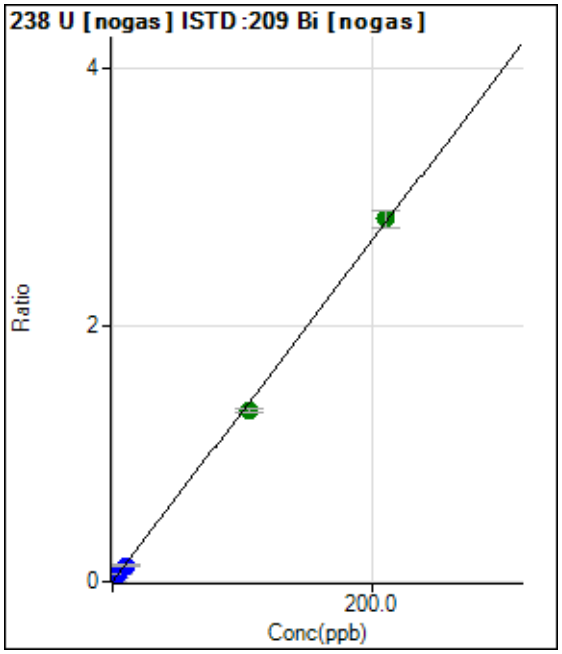
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1	☐	0.000	0.000	566.68		P	9.1
2	☐	2.000	2.033	84798.16		P	1.6
3	☐	5.000	5.099	211810.27		P	1.2
4	☐	10.000	10.302	427339.98		P	1.8
5	☐	100.000	96.879	4014054.65		A	1.5
6	☐	200.000	201.543	8350078.32		A	1.7
7	☐	1.000					

y = 41427.9866 * x + 566.6767
R = 0.9998
DL = 0.003717
BEC = 0.01368

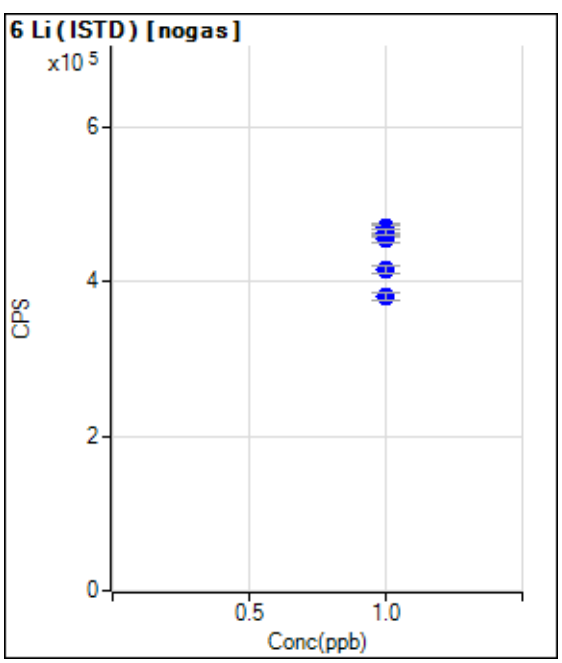
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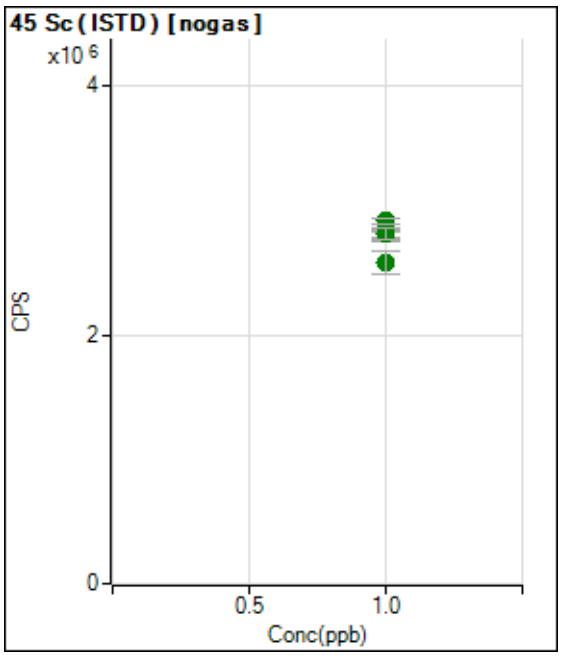
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1	☐	0.000	0.000	103.33	0.0000	P	64.9
2	☐	2.000	1.816	80350.49	0.0242	P	2.6
3	☐	5.000	4.664	198668.92	0.0621	P	3.7
4	☐	10.000	9.505	412180.05	0.1266	P	2.1
5	☐	105.000	100.418	4122241.50	1.3372	A	2.2
6	☐	210.000	212.324	8333837.58	2.8273	A	5.0
7	☐	1.000					

y = 0.0133 * x + 3.1252E-005
R = 0.9997
DL = 0.004568
BEC = 0.002347

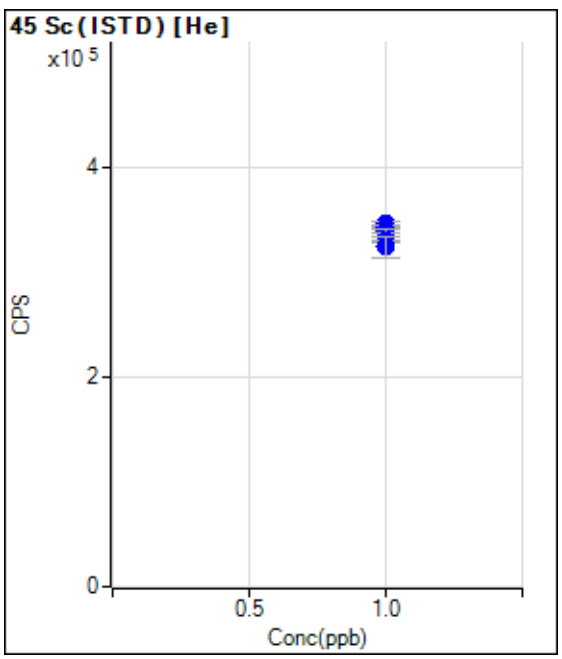
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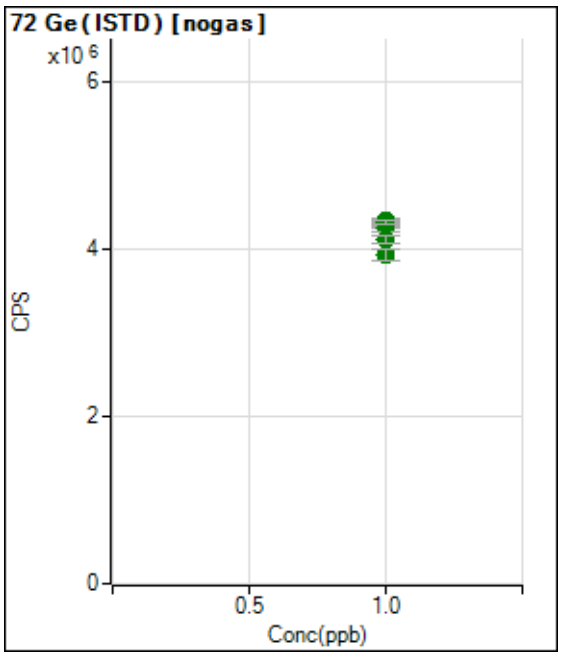
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐	1.000		468239.64		P	2.5
3	☐	1.000		454726.32		P	2.1
4	☐	1.000		464355.34		P	1.4
5	☐	1.000		415618.98		P	2.7
6	☐	1.000		380057.17		P	2.6
7	☐	1.000					



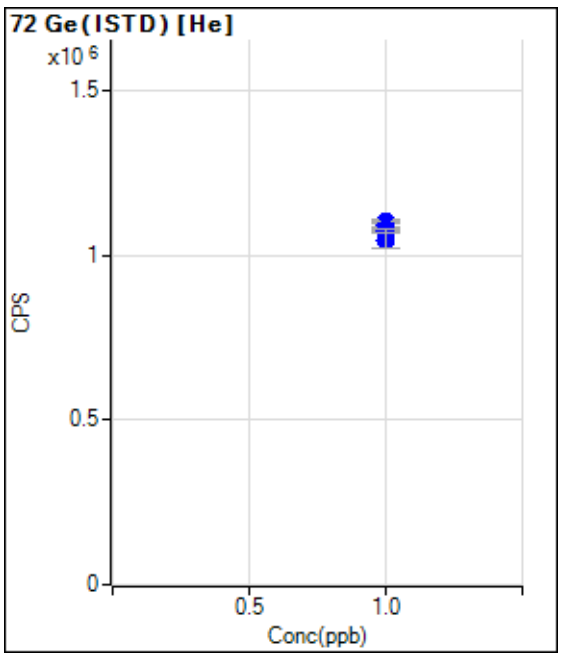
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2	☐	1.000		2864532.15		A	1.7
3	☐	1.000		2823205.89		A	5.4
4	☐	1.000		2811245.79		A	1.9
5	☐	1.000		2816430.27		A	3.6
6	☐	1.000		2587452.04		A	7.4
7	☐	1.000					



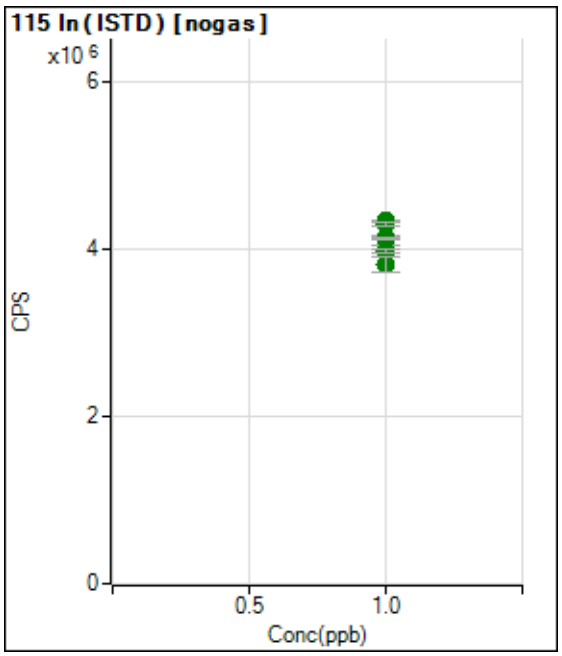
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3	☐	1.000		344168.20		P	1.3
4	☐	1.000		340579.15		P	1.1
5	☐	1.000		330205.61		P	1.0
6	☐	1.000		324577.18		P	6.4
7	☐	1.000					



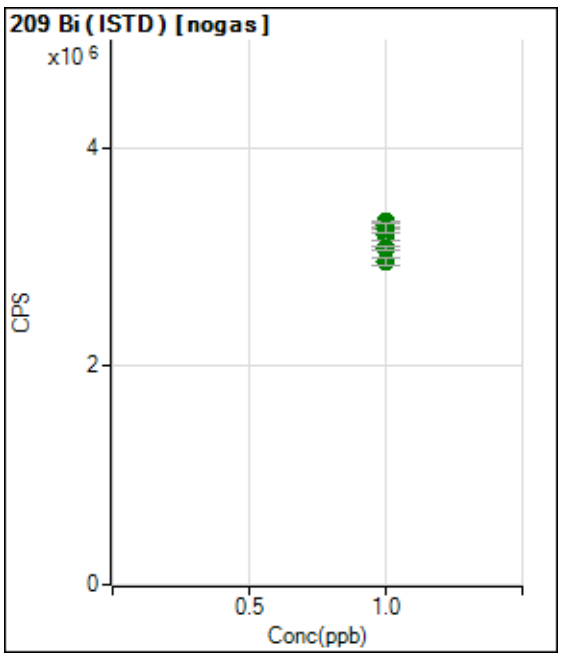
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4305584.94		A	2.8
2	☐	1.000		4340576.08		A	0.9
3	☐	1.000		4254407.02		A	1.6
4	☐	1.000		4320200.98		A	1.3
5	☐	1.000		4118444.73		A	2.2
6	☐	1.000		3930159.21		A	3.5
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1100274.31		P	0.4
2	☐	1.000		1101594.67		P	1.2
3	☐	1.000		1094598.47		P	1.1
4	☐	1.000		1080121.65		P	1.1
5	☐	1.000		1074315.04		P	0.9
6	☐	1.000		1046203.35		P	4.4
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4345387.89		A	0.8
2	☐	1.000		4305991.23		A	1.1
3	☐	1.000		4113172.83		A	2.4
4	☐	1.000		4139947.94		A	0.7
5	☐	1.000		3987491.49		A	1.3
6	☐	1.000		3815637.92		A	5.0
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐	1.000		3318766.20		A	0.3
3	☐	1.000		3199934.22		A	3.7
4	☐	1.000		3257067.35		A	2.7
5	☐	1.000		3082286.41		A	1.3
6	☐	1.000		2950043.29		A	2.5
7	☐	1.000					

Tune Report

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Report Comment
Instrument Name G3281A JP11080910

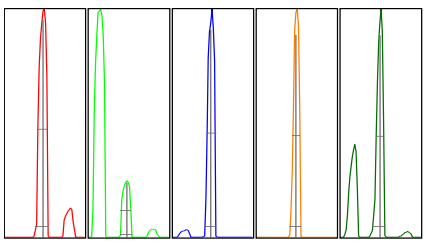
[nogas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
9		12526				NaN	-	
24		39368				NaN	-	
59		58666				NaN	-	
115		63333				NaN	-	
208		33848				NaN	-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)	Background (Actual)	Background (Required)	Background (Flag)
9	0.51	5.00				
24	0.79	5.00				
59	0.73	5.00				
115	1.34	5.00				
208	0.96	5.00				

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	12485	12513	12636	12517	12478
24	38953	39501	39204	39406	39777
59	58543	59003	58491	58111	59185
115	62434	62487	64088	63455	64201
208	34059	33484	33501	34053	34141

Integration Time [sec] 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-X% (Actual)	W-X% (Required)	W-X% (Flag)
9	3518.09	8.95	8.9 - 9.1		0.37	0.455	0.750	
24	11021.62	23.95	23.9 - 24.1		0.37	0.444	0.750	
59	17819.42	58.95	58.9 - 59.1		0.33	0.435	0.750	
115	20613.16	115.00	114.9 - 115.1		0.29	0.431	0.750	
208	10536.18	208.00	207.9 - 208.1		0.31	0.485	0.750	

X = 5 **Integration Time [sec]** 0.1 **Acquisition Time [sec]** 168.5 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1600 W	Carrier Gas	0.45 L/min	S/C Temp	2 ℃
RF Matching	1.70 V	Option Gas	0.0 %	Makeup/Dilution Gas	0.40 L/min
Smpl Depth	8.0 mm	Nebulizer Pump	0.10 rps	Gas Switch	Dilution Gas

Lenses Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	15.0 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-100 V	Cell Exit	-58 V		

Cell Parameters

OctP Bias	-8.0 V	He Flow	0.0 mL/min	Energy Discrimination	5.0 V
OctP RF	190 V	H2 Flow	0.0 mL/min		
Use Gas	true	3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
9		236				NaN	-	
24		2613				NaN	-	
59		24547				NaN	-	

Tune Report

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)	Background (Actual)	Background (Required)	Background (Flag)
9	8.55	5.00	[F]			
24	2.35	5.00				
59	2.52	5.00				

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	206	258	230	236	249
24	2511	2649	2599	2645	2660
59	23950	24039	24388	25389	24967

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-X% (Actual)	W-X% (Required)	W-X% (Flag)
9	65.32	8.95	8.9 - 9.1		0.37	0.477	0.750	
24	730.31	23.95	23.9 - 24.1		0.37	0.443	0.750	
59	7689.34	58.95	58.9 - 59.1		0.31	0.428	0.750	

X = 5 **Integration Time [sec]** 0.1 **Acquisition Time [sec]** 100.6 **Y Axis** Linear

Tune Parameters

Plasma Paramters

RF Power	1600 W	Carrier Gas	0.45 L/min	S/C Temp	2 ℃
RF Matching	1.70 V	Option Gas	0.0 %	Makeup/Dilution Gas	0.40 L/min
Smpl Depth	8.0 mm	Nebulizer Pump	0.10 rps	Gas Switch	Dilution Gas

Lenses Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	2.0 V
Extract 2	-200.0 V	Cell Entrance	-32 V	Plate Bias	-60 V
Omega Bias	-100 V	Cell Exit	-70 V		

Cell Parameters

OctP Bias	-18.0 V	He Flow	4.0 mL/min	Energy Discrimination	5.0 V
OctP RF	190 V	H2 Flow	0.0 mL/min		
Use Gas	true	3rd Gas Flow	0 %		

Wet Chemistry Data Package

Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
ALS WO#HS18081428

Sequence: 082918
Operator: ALSHS.NoUser

HS18081428

Printed: 9/4/2018 12:18:04 PM

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

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3	STD3		Standard	3	1.0000	10.0	1.00	1.00
4	STD4		Standard	4	1.0000	10.0	1.00	1.00
5	STD5		Standard	5	1.0000	10.0	1.00	1.00
6	STD6		Standard	6	1.0000	10.0	1.00	1.00
7	ICV		Unknown	7	1.0000	10.0	1.00	1.00
8	ICB		Unknown	8	1.0000	10.0	1.00	1.00
9	CCV		Unknown	1	1.0000	10.0	1.00	1.00
10	CCB		Unknown	2	1.0000	10.0	1.00	1.00
11	WBLKW1-082918	300_W/9056_W	Unknown	5	1.0000	10.0	1.00	1.00
12	WLCSW1-082918		Unknown	6	1.0000	10.0	1.00	1.00
13	WLCSDW1-082918		Unknown	7	1.0000	10.0	1.00	1.00
14	HS18081362-01		Unknown	11	1.0000	10.0	1.00	1.00
15	HS18081363-01		Unknown	12	1.0000	10.0	1.00	1.00
16	HS18081363-02		Unknown	13	1.0000	10.0	1.00	1.00
17	HS18081252-01		Unknown	14	1.0000	10.0	1.00	1.00
18	HS18081252-01MS		Unknown	15	1.0000	10.0	1.00	1.00
19	HS18081252-01MSD		Unknown	16	1.0000	10.0	1.00	1.00
20	HS18081252-01DF20		Unknown	17	20.0000	10.0	1.00	1.00
21	CCV1		Unknown	3	1.0000	10.0	1.00	1.00
22	CCB		Unknown	4	1.0000	10.0	1.00	1.00
23	HS18081253-01		Unknown	18	1.0000	10.0	1.00	1.00
24	HS18081253-01DF10		Unknown	19	10.0000	10.0	1.00	1.00
25	HS18081343-01DF5		Unknown	20	5.0000	10.0	1.00	1.00
26	HS18081343-02DF5		Unknown	21	5.0000	10.0	1.00	1.00
27	HS18081343-03DF5		Unknown	22	5.0000	10.0	1.00	1.00
28	DI H2O		Unknown	10	1.0000	10.0	1.00	1.00
29	HS18081259-03		Unknown	23	1.0000	10.0	1.00	1.00
30	HS18081259-04		Unknown	24	1.0000	10.0	1.00	1.00
31	HS18081259-02DF50		Unknown	25	50.0000	10.0	1.00	1.00
32	HS18081259-05DF50		Unknown	26	50.0000	10.0	1.00	1.00
33	CCV		Unknown	1	1.0000	10.0	1.00	1.00
34	CCB		Unknown	2	1.0000	10.0	1.00	1.00
35	HS18081259-06DF500		Unknown	27	500.0000	10.0	1.00	1.00
36	HS18081259-06MSDF500		Unknown	28	500.0000	10.0	1.00	1.00
37	HS18081259-06MSDDF500		Unknown	29	500.0000	10.0	1.00	1.00
38	HS18081259-07DF500		Unknown	30	500.0000	10.0	1.00	1.00
39	HS18081259-08DF50		Unknown	31	50.0000	10.0	1.00	1.00
40	HS18081259-09DF500		Unknown	32	500.0000	10.0	1.00	1.00
41	HS18081428-07DF100	9056_W SO4	Unknown	38	100.0000	10.0	1.00	1.00
42	HS18081259-06DF10		Unknown	33	10.0000	10.0	1.00	1.00

Sequence: 082918
Operator: ALSHS.NoUser

Title:
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Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

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3	STD3	081518	Finished	8/16/2018 1:55:28 AM	Anions Gradient Program
4	STD4	081518	Finished	8/16/2018 2:10:01 AM	Anions Gradient Program
5	STD5	081518	Finished	8/16/2018 2:24:34 AM	Anions Gradient Program
6	STD6	081518	Finished	8/16/2018 2:39:07 AM	Anions Gradient Program
7	ICV	081518	Finished	8/16/2018 2:53:40 AM	Anions Gradient Program
8	ICB	081518	Finished	8/16/2018 3:08:13 AM	Anions Gradient Program
9	CCV	081518	Finished	8/29/2018 12:42:31 PM	Anions Gradient Program
10	CCB	081518	Finished	8/29/2018 12:57:04 PM	Anions Gradient Program
11	WBLKW1-082918	081518	Finished	8/29/2018 1:11:36 PM	Anions Gradient Program
12	WLCSW1-082918	081518	Finished	8/29/2018 1:26:09 PM	Anions Gradient Program
13	WLCSDW1-082918	081518	Finished	8/29/2018 1:40:42 PM	Anions Gradient Program
14	HS18081362-01	081518	Finished	8/29/2018 1:55:15 PM	Anions Gradient Program
15	HS18081363-01	081518	Finished	8/29/2018 2:09:48 PM	Anions Gradient Program
16	HS18081363-02	081518	Finished	8/29/2018 2:24:21 PM	Anions Gradient Program
17	HS18081252-01	081518	Finished	8/29/2018 2:38:53 PM	Anions Gradient Program
18	HS18081252-01MS	081518	Finished	8/29/2018 2:53:26 PM	Anions Gradient Program
19	HS18081252-01MSD	081518	Finished	8/29/2018 3:07:59 PM	Anions Gradient Program
20	HS18081252-01DF20	081518	Finished	8/29/2018 3:22:32 PM	Anions Gradient Program
21	CCV1	081518	Finished	8/29/2018 3:37:06 PM	Anions Gradient Program
22	CCB	081518	Finished	8/29/2018 3:51:38 PM	Anions Gradient Program
23	HS18081253-01	081518	Finished	8/29/2018 4:06:11 PM	Anions Gradient Program
24	HS18081253-01DF10	081518	Finished	8/29/2018 4:20:44 PM	Anions Gradient Program
25	HS18081343-01DF5	081518	Finished	8/29/2018 4:35:17 PM	Anions Gradient Program
26	HS18081343-02DF5	081518	Finished	8/29/2018 4:49:50 PM	Anions Gradient Program
27	HS18081343-03DF5	081518	Finished	8/29/2018 5:04:23 PM	Anions Gradient Program
28	DI H2O	081518	Finished	8/29/2018 5:18:55 PM	Anions Gradient Program
29	HS18081259-03	081518	Finished	8/29/2018 6:14:45 PM	Anions Gradient Program
30	HS18081259-04	081518	Finished	8/29/2018 6:29:18 PM	Anions Gradient Program
31	HS18081259-02DF50	081518	Finished	8/29/2018 6:43:51 PM	Anions Gradient Program
32	HS18081259-05DF50	081518	Finished	8/29/2018 6:58:24 PM	Anions Gradient Program
33	CCV	081518	Finished	8/29/2018 7:12:57 PM	Anions Gradient Program
34	CCB	081518	Finished	8/29/2018 7:27:30 PM	Anions Gradient Program
35	HS18081259-06DF500	081518	Finished	8/29/2018 7:42:03 PM	Anions Gradient Program
36	HS18081259-06MSDF500	081518	Finished	8/29/2018 7:56:35 PM	Anions Gradient Program
37	HS18081259-06MSDDF500	081518	Finished	8/29/2018 8:11:08 PM	Anions Gradient Program
38	HS18081259-07DF500	081518	Finished	8/29/2018 8:25:41 PM	Anions Gradient Program
39	HS18081259-08DF50	081518	Finished	8/29/2018 8:40:13 PM	Anions Gradient Program
40	HS18081259-09DF500	081518	Finished	8/29/2018 8:54:46 PM	Anions Gradient Program
41	HS18081428-07DF100	081518	Finished	8/29/2018 9:37:18 PM	Anions Gradient Program
42	HS18081259-06DF10	081518	Finished	8/29/2018 9:51:50 PM	Anions Gradient Program

Sequence: 082918 Page 3 of 12
Operator: ALSHS.NoUser Printed: 9/4/2018 12:18:04 PM

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4	STD4	429beeb1-a123-11e8-b6d9-ac2a724b15e4
5	STD5	4ae75c9d-a125-11e8-b6d9-ac2a724b15e4
6	STD6	53411887-a127-11e8-b6d9-ac2a724b15e4
7	ICV	5b87c1c9-a129-11e8-b6d9-ac2a724b15e4
8	ICB	6402de59-a12b-11e8-b6d9-ac2a724b15e4
9	CCV	6692c14d-abb2-11e8-b6d9-ac2a724b15e4
10	CCB	ce45008d-abb4-11e8-b6d9-ac2a724b15e4
11	WBLKW1-082918	d67d5bd1-abb6-11e8-b6d9-ac2a724b15e4
12	WLCSW1-082918	dec40513-abb8-11e8-b6d9-ac2a724b15e4
13	WLCSDW1-082918	e70f72ff-abba-11e8-b6d9-ac2a724b15e4
14	HS18081362-01	ef47ce43-abbc-11e8-b6d9-ac2a724b15e4
15	HS18081363-01	f7828bdc-abbe-11e8-b6d9-ac2a724b15e4
16	HS18081363-02	ffc6d2c9-abc0-11e8-b6d9-ac2a724b15e4
17	HS18081252-01	07ff2e0d-abc3-11e8-b6d9-ac2a724b15e4
18	HS18081252-01MS	104839a4-abc5-11e8-b6d9-ac2a724b15e4
19	HS18081252-01MSD	18b9cce0-abc7-11e8-b6d9-ac2a724b15e4
20	HS18081252-01DF20	20d7ee7d-abc9-11e8-b6d9-ac2a724b15e4
21	CCV1	295a320c-abcb-11e8-b6d9-ac2a724b15e4
22	CCB	31bb14f5-abcd-11e8-b6d9-ac2a724b15e4
23	HS18081253-01	3a14d0df-abcf-11e8-b6d9-ac2a724b15e4
24	HS18081253-01DF10	424d2c23-abd1-11e8-b6d9-ac2a724b15e4
25	HS18081343-01DF5	4a8a4c11-abd3-11e8-b6d9-ac2a724b15e4
26	HS18081343-02DF5	52dc8203-abd5-11e8-b6d9-ac2a724b15e4
27	HS18081343-03DF5	5b48d8f7-abd7-11e8-b6d9-ac2a724b15e4
28	DI H2O	634fa4e3-abd9-11e8-b6d9-ac2a724b15e4
29	HS18081259-03	d09eabb9-abe0-11e8-b6d9-ac2a724b15e4
30	HS18081259-04	3844ff50-abe3-11e8-b6d9-ac2a724b15e4
31	HS18081259-02DF50	407895ea-abe5-11e8-b6d9-ac2a724b15e4
32	HS18081259-05DF50	48c403d6-abe7-11e8-b6d9-ac2a724b15e4
33	CCV	510aad18-abe9-11e8-b6d9-ac2a724b15e4
34	CCB	5953b8af-abeb-11e8-b6d9-ac2a724b15e4
35	HS18081259-06DF500	619a61f1-abed-11e8-b6d9-ac2a724b15e4
36	HS18081259-06MSDF500	69d781df-abef-11e8-b6d9-ac2a724b15e4
37	HS18081259-06MSDDF500	71cab982-abf1-11e8-b6d9-ac2a724b15e4
38	HS18081259-07DF500	7a3525bf-abf3-11e8-b6d9-ac2a724b15e4
39	HS18081259-08DF50	8263f7af-abf5-11e8-b6d9-ac2a724b15e4
40	HS18081259-09DF500	8a99f09e-abf7-11e8-b6d9-ac2a724b15e4
41	HS18081428-07DF100	1bf6aaaa-abfd-11e8-b6d9-ac2a724b15e4
42	HS18081259-06DF10	837dfff0-abff-11e8-b6d9-ac2a724b15e4

Sequence: 082918
Operator: ALSHS.NoUser

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	Comment	Type	Pos.	Dil. Factor	Inj. Vol.	*Initial_Vol_Wt	*Final_Volume
43	HS18081259-06MSDF10		Unknown	34	10.0000	10.0	1.00	1.00
44	HS18081259-06MSDDF10		Unknown	35	10.0000	10.0	1.00	1.00
45	CCV1		Unknown	3	1.0000	10.0	1.00	1.00
46	CCB		Unknown	4	1.0000	10.0	1.00	1.00
47	HS18081428-07	9056_W CL NO2/3 SO4	Unknown	36	1.0000	10.0	1.00	1.00
48	HS18081428-07DF10		Unknown	37	10.0000	10.0	1.00	1.00
49	HS18081428-08		Unknown	39	1.0000	10.0	1.00	1.00
50	HS18081428-08DF10		Unknown	40	10.0000	10.0	1.00	1.00
51	HS18081428-09		Unknown	41	1.0000	10.0	1.00	1.00
52	HS18081428-09DF10		Unknown	42	10.0000	10.0	1.00	1.00
53	HS18081428-09DF100		Unknown	43	100.0000	10.0	1.00	1.00
54	HS18081428-10		Unknown	44	1.0000	10.0	1.00	1.00
55	HS18081428-10DF10	DONE	Unknown	45	10.0000	10.0	1.00	1.00
56	DI H2O		Unknown	10	1.0000	10.0	1.00	1.00
57	CCV		Unknown	1	1.0000	10.0	1.00	1.00
58	CCB		Unknown	2	1.0000	10.0	1.00	1.00
59	MBLK-131989		Unknown	46	1.0000	10.0	1.00	1.00
60	LCS-131989		Unknown	47	1.0000	10.0	1.00	1.00
61	LCSD-131989		Unknown	48	1.0000	10.0	1.00	1.00
62	HS18081284-01		Unknown	49	1.0000	10.0	1.00	1.00
63	HS18081284-02		Unknown	50	1.0000	10.0	1.00	1.00
64	HS18081284-03		Unknown	51	1.0000	10.0	1.00	1.00
65	HS18081284-04		Unknown	52	1.0000	10.0	1.00	1.00
66	HS18081284-04MS		Unknown	53	1.0000	10.0	1.00	1.00
67	HS18081284-04MSD		Unknown	54	1.0000	10.0	1.00	1.00
68	HS18081284-05		Unknown	55	1.0000	10.0	1.00	1.00
69	CCV1		Unknown	3	1.0000	10.0	1.00	1.00
70	CCB		Unknown	4	1.0000	10.0	1.00	1.00
71	HS18081284-06		Unknown	56	1.0000	10.0	1.00	1.00
72	HS18081284-07		Unknown	57	1.0000	10.0	1.00	1.00
73	HS18081284-08		Unknown	58	1.0000	10.0	1.00	1.00
74	HS18081285-01		Unknown	59	1.0000	10.0	1.00	1.00
75	HS18081285-01MS		Unknown	60	1.0000	10.0	1.00	1.00
76	HS18081285-01MSD		Unknown	61	1.0000	10.0	1.00	1.00
77	HS18081285-02		Unknown	62	1.0000	10.0	1.00	1.00
78	HS18081285-03		Unknown	63	1.0000	10.0	1.00	1.00
79	HS18081285-04		Unknown	64	1.0000	10.0	1.00	1.00
80	HS18081285-05		Unknown	65	1.0000	10.0	1.00	1.00
81	CCV		Unknown	1	1.0000	10.0	1.00	1.00
82	CCB		Unknown	2	1.0000	10.0	1.00	1.00
83	HS18081285-06		Unknown	66	1.0000	10.0	1.00	1.00
84	HS18081285-07		Unknown	67	1.0000	10.0	1.00	1.00

Sequence: 082918
Operator: ALSHS.NoUser

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	Method	Status	Inj. Date/Time	Program
43	HS18081259-06MSDF10	081518	Finished	8/29/2018 10:06:23 PM	Anions Gradient Program
44	HS18081259-06MSDDF10	081518	Finished	8/29/2018 10:20:56 PM	Anions Gradient Program
45	CCV1	081518	Finished	8/29/2018 10:35:29 PM	Anions Gradient Program
46	CCB	081518	Finished	8/29/2018 10:50:02 PM	Anions Gradient Program
47	HS18081428-07	081518	Finished	8/29/2018 11:04:35 PM	Anions Gradient Program
48	HS18081428-07DF10	081518	Finished	8/29/2018 11:19:08 PM	Anions Gradient Program
49	HS18081428-08	081518	Finished	8/29/2018 11:33:41 PM	Anions Gradient Program
50	HS18081428-08DF10	081518	Finished	8/29/2018 11:48:14 PM	Anions Gradient Program
51	HS18081428-09	081518	Finished	8/30/2018 12:02:47 AM	Anions Gradient Program
52	HS18081428-09DF10	081518	Finished	8/30/2018 12:17:20 AM	Anions Gradient Program
53	HS18081428-09DF100	081518	Finished	8/30/2018 12:31:53 AM	Anions Gradient Program
54	HS18081428-10	081518	Finished	8/30/2018 12:46:25 AM	Anions Gradient Program
55	HS18081428-10DF10	081518	Finished	8/30/2018 1:00:58 AM	Anions Gradient Program
56	DI H2O	081518	Finished	8/30/2018 1:15:31 AM	Anions Gradient Program
57	CCV	081518	Finished	8/30/2018 1:30:04 AM	Anions Gradient Program
58	CCB	081518	Finished	8/30/2018 1:44:37 AM	Anions Gradient Program
59	MBLK-131989	081518	Finished	8/30/2018 1:59:10 AM	Anions Gradient Program
60	LCS-131989	081518	Finished	8/30/2018 2:13:43 AM	Anions Gradient Program
61	LCSD-131989	081518	Finished	8/30/2018 2:28:15 AM	Anions Gradient Program
62	HS18081284-01	081518	Finished	8/30/2018 2:42:49 AM	Anions Gradient Program
63	HS18081284-02	081518	Finished	8/30/2018 2:57:21 AM	Anions Gradient Program
64	HS18081284-03	081518	Finished	8/30/2018 3:11:54 AM	Anions Gradient Program
65	HS18081284-04	081518	Finished	8/30/2018 3:26:27 AM	Anions Gradient Program
66	HS18081284-04MS	081518	Finished	8/30/2018 3:41:00 AM	Anions Gradient Program
67	HS18081284-04MSD	081518	Finished	8/30/2018 3:55:33 AM	Anions Gradient Program
68	HS18081284-05	081518	Finished	8/30/2018 4:10:05 AM	Anions Gradient Program
69	CCV1	081518	Finished	8/30/2018 4:24:38 AM	Anions Gradient Program
70	CCB	081518	Finished	8/30/2018 4:39:11 AM	Anions Gradient Program
71	HS18081284-06	081518	Finished	8/30/2018 4:53:44 AM	Anions Gradient Program
72	HS18081284-07	081518	Finished	8/30/2018 5:08:17 AM	Anions Gradient Program
73	HS18081284-08	081518	Finished	8/30/2018 5:22:50 AM	Anions Gradient Program
74	HS18081285-01	081518	Finished	8/30/2018 5:37:23 AM	Anions Gradient Program
75	HS18081285-01MS	081518	Finished	8/30/2018 5:51:56 AM	Anions Gradient Program
76	HS18081285-01MSD	081518	Finished	8/30/2018 6:06:29 AM	Anions Gradient Program
77	HS18081285-02	081518	Finished	8/30/2018 6:21:01 AM	Anions Gradient Program
78	HS18081285-03	081518	Finished	8/30/2018 6:35:35 AM	Anions Gradient Program
79	HS18081285-04	081518	Finished	8/30/2018 6:50:08 AM	Anions Gradient Program
80	HS18081285-05	081518	Finished	8/30/2018 7:04:40 AM	Anions Gradient Program
81	CCV	081518	Finished	8/30/2018 7:19:13 AM	Anions Gradient Program
82	CCB	081518	Finished	8/30/2018 7:33:46 AM	Anions Gradient Program
83	HS18081285-06	081518	Finished	8/30/2018 7:48:19 AM	Anions Gradient Program
84	HS18081285-07	081518	Finished	8/30/2018 8:02:52 AM	Anions Gradient Program

Sequence: 082918
Operator: ALSHS.NoUser
Page 6 of 12
Printed: 9/4/2018 12:18:04 PM

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140
Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	GUID
43	HS18081259-06MSDF10	8bc96ddc-ac01-11e8-b6d9-ac2a724b15e4
44	HS18081259-06MSDDF10	94127973-ac03-11e8-b6d9-ac2a724b15e4
45	CCV1	9c4d370c-ac05-11e8-b6d9-ac2a724b15e4
46	CCB	a4917df9-ac07-11e8-b6d9-ac2a724b15e4
47	HS18081428-07	aceffe8d-ac09-11e8-b6d9-ac2a724b15e4
48	HS18081428-07DF10	b534457a-ac0b-11e8-b6d9-ac2a724b15e4
49	HS18081428-08	bd716568-ac0d-11e8-b6d9-ac2a724b15e4
50	HS18081428-08DF10	c5ba70ff-ac0f-11e8-b6d9-ac2a724b15e4
51	HS18081428-09	cdfeb7ec-ac11-11e8-b6d9-ac2a724b15e4
52	HS18081428-09DF10	d69d9777-ac13-11e8-b6d9-ac2a724b15e4
53	HS18081428-09DF100	dee6a30e-ac15-11e8-b6d9-ac2a724b15e4
54	HS18081428-10	e71c9bfd-ac17-11e8-b6d9-ac2a724b15e4
55	HS18081428-10DF10	ef6a6c3e-ac19-11e8-b6d9-ac2a724b15e4
56	DI H2O	f79ba083-ac1b-11e8-b6d9-ac2a724b15e4
57	CCV	00086f15-ac1e-11e8-b6d9-ac2a724b15e4
58	CCB	0840ca59-ac20-11e8-b6d9-ac2a724b15e4
59	MBLK-131989	10b2ee7d-ac22-11e8-b6d9-ac2a724b15e4
60	LCS-131989	18969dcb-ac24-11e8-b6d9-ac2a724b15e4
61	LCSD-131989	20ecdf2e-ac26-11e8-b6d9-ac2a724b15e4
62	HS18081284-01	2931261b-ac28-11e8-b6d9-ac2a724b15e4
63	HS18081284-02	316be3b4-ac2a-11e8-b6d9-ac2a724b15e4
64	HS18081284-03	39d64ff1-ac2c-11e8-b6d9-ac2a724b15e4
65	HS18081284-04	421f5b88-ac2e-11e8-b6d9-ac2a724b15e4
66	HS18081284-04MS	4a4e2d78-ac30-11e8-b6d9-ac2a724b15e4
67	HS18081284-04MSD	528dafbb-ac32-11e8-b6d9-ac2a724b15e4
68	HS18081284-05	5acf9453-ac34-11e8-b6d9-ac2a724b15e4
69	CCV1	62f4dcef-ac36-11e8-b6d9-ac2a724b15e4
70	CCB	6b4c3684-ac38-11e8-b6d9-ac2a724b15e4
71	HS18081284-06	7395421b-ac3a-11e8-b6d9-ac2a724b15e4
72	HS18081284-07	7bcd9d5f-ac3c-11e8-b6d9-ac2a724b15e4
73	HS18081284-08	84524343-ac3e-11e8-b6d9-ac2a724b15e4
74	HS18081285-01	8c98ec85-ac40-11e8-b6d9-ac2a724b15e4
75	HS18081285-01MS	94dd3372-ac42-11e8-b6d9-ac2a724b15e4
76	HS18081285-01MSD	9d0c0562-ac44-11e8-b6d9-ac2a724b15e4
77	HS18081285-02	a571acf5-ac46-11e8-b6d9-ac2a724b15e4
78	HS18081285-03	adcb68df-ac48-11e8-b6d9-ac2a724b15e4
79	HS18081285-04	b62eae1d-ac4a-11e8-b6d9-ac2a724b15e4
80	HS18081285-05	be72f50a-ac4c-11e8-b6d9-ac2a724b15e4
81	CCV	c6b2774d-ac4e-11e8-b6d9-ac2a724b15e4
82	CCB	cef45be5-ac50-11e8-b6d9-ac2a724b15e4
83	HS18081285-06	d72cb729-ac52-11e8-b6d9-ac2a724b15e4
84	HS18081285-07	df73606b-ac54-11e8-b6d9-ac2a724b15e4

Sequence: 082918
Operator: ALSHS.NoUser

Printed: 9/4/2018 12:18:04 PM

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	Comment	Type	Pos.	Dil. Factor	Inj. Vol.	*Initial_Vol_Wt	*Final_Volume
85	HS18081285-08		Unknown	68	1.0000	10.0	1.00	1.00
86	HS18081285-09		Unknown	69	1.0000	10.0	1.00	1.00
87	CCV1		Unknown	3	1.0000	10.0	1.00	1.00
88	CCB		Unknown	4	1.0000	10.0	1.00	1.00
89	DI H2O		Unknown	10	1.0000	10.0	1.00	1.00
90	HS18081259-09DF50		Unknown	70	50.0000	10.0	1.00	1.00
91	CCV		Unknown	1	1.0000	10.0	1.00	1.00
92	CCB		Unknown	2	1.0000	10.0	1.00	1.00
93	WBLKW1-083018	300_W/9056_W	Unknown	5	1.0000	10.0	1.00	1.00
94	WLCSW1-083018		Unknown	6	1.0000	10.0	1.00	1.00
95	WLCSDW1-083018		Unknown	7	1.0000	10.0	1.00	1.00
96	HS18081444-01		Unknown	11	1.0000	10.0	1.00	1.00
97	HS18081445-01		Unknown	13	1.0000	10.0	1.00	1.00
98	DI H2O		Unknown	10	1.0000	10.0	1.00	1.00
99	HS18081473-02		Unknown	14	1.0000	10.0	1.00	1.00
100	HS18081473-02MS		Unknown	15	1.0000	10.0	1.00	1.00
101	HS18081473-02MSD		Unknown	16	1.0000	10.0	1.00	1.00
102	HS18081473-02DF10		Unknown	17	10.0000	10.0	1.00	1.00
103	CCV1		Unknown	3	1.0000	10.0	1.00	1.00
104	CCB		Unknown	4	1.0000	10.0	1.00	1.00
105	HS18081473-03		Unknown	18	1.0000	10.0	1.00	1.00
106	HS18081473-03DF10		Unknown	19	10.0000	10.0	1.00	1.00
107	HS18081463-01		Unknown	20	1.0000	10.0	1.00	1.00
108	HS18081463-02		Unknown	21	1.0000	10.0	1.00	1.00
109	HS18081463-03		Unknown	22	1.0000	10.0	1.00	1.00
110	HS18081463-03DF10		Unknown	23	10.0000	10.0	1.00	1.00
111	DI H2O		Unknown	10	1.0000	10.0	1.00	1.00
112	HS18081351-01DF10		Unknown	24	10.0000	10.0	1.00	1.00
113	HS18081351-02DF10		Unknown	25	10.0000	10.0	1.00	1.00
114	HS18081351-03DF10		Unknown	26	10.0000	10.0	1.00	1.00
115	CCV		Unknown	1	1.0000	10.0	1.00	1.00
116	CCB		Unknown	2	1.0000	10.0	1.00	1.00
117	HS18081351-04DF10		Unknown	27	10.0000	10.0	1.00	1.00
118	HS18081351-04MSDF10		Unknown	28	10.0000	10.0	1.00	1.00
119	HS18081351-04MSDDF10		Unknown	29	10.0000	10.0	1.00	1.00
120	HS18081500-01DF2		Unknown	56	2.0000	10.0	1.00	1.00
121	HS18081500-01DF10		Unknown	57	10.0000	10.0	1.00	1.00
122	HS18081500-01DF100		Unknown	58	100.0000	10.0	1.00	1.00
123	HS18081521-01DF10		Unknown	61	10.0000	10.0	1.00	1.00
124	HS18081504-01	9056_W	Unknown	64	1.0000	10.0	1.00	1.00
125	HS18081504-01MS		Unknown	65	1.0000	10.0	1.00	1.00
126	HS18081504-01MSD		Unknown	66	1.0000	10.0	1.00	1.00

Sequence: 082918
Operator: ALSHS.NoUser

Printed: 9/4/2018 12:18:04 PM

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	Method	Status	Inj. Date/Time	Program
85	HS18081285-08	081518	Finished	8/30/2018 8:17:25 AM	Anions Gradient Program
86	HS18081285-09	081518	Finished	8/30/2018 8:31:58 AM	Anions Gradient Program
87	CCV1	081518	Finished	8/30/2018 8:46:31 AM	Anions Gradient Program
88	CCB	081518	Finished	8/30/2018 9:01:04 AM	Anions Gradient Program
89	DI H2O	081518	Finished	8/30/2018 9:15:37 AM	Anions Gradient Program
90	HS18081259-09DF50	081518	Finished	8/30/2018 10:44:51 AM	Anions Gradient Program
91	CCV	081518	Finished	8/30/2018 11:02:04 AM	Anions Gradient Program
92	CCB	081518	Finished	8/30/2018 11:16:37 AM	Anions Gradient Program
93	WBLKW1-083018	081518	Finished	8/30/2018 11:31:10 AM	Anions Gradient Program
94	WLCSW1-083018	081518	Finished	8/30/2018 11:45:43 AM	Anions Gradient Program
95	WLCSDW1-083018	081518	Finished	8/30/2018 12:00:15 PM	Anions Gradient Program
96	HS18081444-01	081518	Finished	8/30/2018 12:14:48 PM	Anions Gradient Program
97	HS18081445-01	081518	Finished	8/30/2018 12:29:21 PM	Anions Gradient Program
98	DI H2O	081518	Finished	8/30/2018 12:43:54 PM	Anions Gradient Program
99	HS18081473-02	081518	Finished	8/30/2018 12:58:26 PM	Anions Gradient Program
100	HS18081473-02MS	081518	Finished	8/30/2018 1:13:00 PM	Anions Gradient Program
101	HS18081473-02MSD	081518	Finished	8/30/2018 1:27:33 PM	Anions Gradient Program
102	HS18081473-02DF10	081518	Finished	8/30/2018 1:42:05 PM	Anions Gradient Program
103	CCV1	081518	Finished	8/30/2018 1:56:38 PM	Anions Gradient Program
104	CCB	081518	Finished	8/30/2018 2:11:11 PM	Anions Gradient Program
105	HS18081473-03	081518	Finished	8/30/2018 2:25:44 PM	Anions Gradient Program
106	HS18081473-03DF10	081518	Finished	8/30/2018 2:45:23 PM	Anions Gradient Program
107	HS18081463-01	081518	Finished	8/30/2018 2:59:57 PM	Anions Gradient Program
108	HS18081463-02	081518	Finished	8/30/2018 3:14:30 PM	Anions Gradient Program
109	HS18081463-03	081518	Finished	8/30/2018 3:29:03 PM	Anions Gradient Program
110	HS18081463-03DF10	081518	Finished	8/30/2018 3:43:36 PM	Anions Gradient Program
111	DI H2O	081518	Finished	8/30/2018 3:58:09 PM	Anions Gradient Program
112	HS18081351-01DF10	081518	Finished	8/30/2018 4:12:41 PM	Anions Gradient Program
113	HS18081351-02DF10	081518	Finished	8/30/2018 4:27:14 PM	Anions Gradient Program
114	HS18081351-03DF10	081518	Finished	8/30/2018 4:41:47 PM	Anions Gradient Program
115	CCV	081518	Finished	8/30/2018 4:56:19 PM	Anions Gradient Program
116	CCB	081518	Finished	8/30/2018 5:10:52 PM	Anions Gradient Program
117	HS18081351-04DF10	081518	Finished	8/30/2018 5:25:25 PM	Anions Gradient Program
118	HS18081351-04MSDF10	081518	Finished	8/30/2018 5:39:58 PM	Anions Gradient Program
119	HS18081351-04MSDDF10	081518	Finished	8/30/2018 5:54:31 PM	Anions Gradient Program
120	HS18081500-01DF2	081518	Finished	8/30/2018 6:09:04 PM	Anions Gradient Program
121	HS18081500-01DF10	081518	Finished	8/30/2018 6:23:36 PM	Anions Gradient Program
122	HS18081500-01DF100	081518	Finished	8/30/2018 6:38:09 PM	Anions Gradient Program
123	HS18081521-01DF10	081518	Finished	8/30/2018 7:05:33 PM	Anions Gradient Program
124	HS18081504-01	081518	Finished	8/30/2018 7:41:47 PM	Anions Gradient Program
125	HS18081504-01MS	081518	Finished	8/30/2018 8:09:15 PM	Anions Gradient Program
126	HS18081504-01MSD	081518	Finished	8/30/2018 8:23:48 PM	Anions Gradient Program

Sequence: 082918
Operator: ALSHS.NoUser

Title:
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Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100 Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
#Samples: 140 (Modified, not saved)

No.	Name	GUID
85	HS18081285-08	e7e9b851-ac56-11e8-b6d9-ac2a724b15e4
86	HS18081285-09	f058e938-ac58-11e8-b6d9-ac2a724b15e4
87	CCV1	f8986b7b-ac5a-11e8-b6d9-ac2a724b15e4
88	CCB	00dcb268-ac5d-11e8-b6d9-ac2a724b15e4
89	DI H2O	0920f955-ac5f-11e8-b6d9-ac2a724b15e4
90	HS18081259-09DF50	21362d1f-ac6b-11e8-b6d9-ac2a724b15e4
91	CCV	88c2470f-ac6d-11e8-b6d9-ac2a724b15e4
92	CCB	f0bd8a82-ac6f-11e8-b6d9-ac2a724b15e4
93	WBLKW1-083018	f8c91e44-ac71-11e8-b6d9-ac2a724b15e4
94	WLCSW1-083018	0108a087-ac74-11e8-b6d9-ac2a724b15e4
95	WLCSDW1-083018	095d97c7-ac76-11e8-b6d9-ac2a724b15e4
96	HS18081444-01	1142816c-ac78-11e8-b6d9-ac2a724b15e4
97	HS18081445-01	19951657-ac7a-11e8-b6d9-ac2a724b15e4
98	DI H2O	21c64a9c-ac7c-11e8-b6d9-ac2a724b15e4
99	HS18081473-02	2a010835-ac7e-11e8-b6d9-ac2a724b15e4
100	HS18081473-02MS	323bc5ce-ac80-11e8-b6d9-ac2a724b15e4
101	HS18081473-02MSD	3ae42ead-ac82-11e8-b6d9-ac2a724b15e4
102	HS18081473-02DF10	42dc2afa-ac84-11e8-b6d9-ac2a724b15e4
103	CCV1	4b5c0c34-ac86-11e8-b6d9-ac2a724b15e4
104	CCB	53946778-ac88-11e8-b6d9-ac2a724b15e4
105	HS18081473-03	5bccc2bc-ac8a-11e8-b6d9-ac2a724b15e4
106	HS18081473-03DF10	bb96e617-ac8c-11e8-b6d9-ac2a724b15e4
107	HS18081463-01	232a2706-ac8f-11e8-b6d9-ac2a724b15e4
108	HS18081463-02	2ba54396-ac91-11e8-b6d9-ac2a724b15e4
109	HS18081463-03	342eae24-ac93-11e8-b6d9-ac2a724b15e4
110	HS18081463-03DF10	3c755766-ac95-11e8-b6d9-ac2a724b15e4
111	DI H2O	44be62fd-ac97-11e8-b6d9-ac2a724b15e4
112	HS18081351-01DF10	4cf6be41-ac99-11e8-b6d9-ac2a724b15e4
113	HS18081351-02DF10	54fd088c-ac9b-11e8-b6d9-ac2a724b15e4
114	HS18081351-03DF10	5d3563d0-ac9d-11e8-b6d9-ac2a724b15e4
115	CCV	65702169-ac9f-11e8-b6d9-ac2a724b15e4
116	CCB	6da87cad-aca1-11e8-b6d9-ac2a724b15e4
117	HS18081351-04DF10	75f3ea99-aca3-11e8-b6d9-ac2a724b15e4
118	HS18081351-04MSDF10	7e29e388-aca5-11e8-b6d9-ac2a724b15e4
119	HS18081351-04MSDDF10	86623ecc-aca7-11e8-b6d9-ac2a724b15e4
120	HS18081500-01DF2	8eab4a63-aca9-11e8-b6d9-ac2a724b15e4
121	HS18081500-01DF10	9713544b-acab-11e8-b6d9-ac2a724b15e4
122	HS18081500-01DF100	9f3fc3e6-acad-11e8-b6d9-ac2a724b15e4
123	HS18081521-01DF10	13b5073d-acb1-11e8-b6d9-ac2a724b15e4
124	HS18081504-01	23761a68-acb6-11e8-b6d9-ac2a724b15e4
125	HS18081504-01MS	f94b9d77-acb9-11e8-b6d9-ac2a724b15e4
126	HS18081504-01MSD	6153aada-acbc-11e8-b6d9-ac2a724b15e4

Sequence: 082918
Operator: ALSHS.NoUser

Printed: 9/4/2018 12:18:04 PM

Title:
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Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	Comment	Type	Pos.	Dil. Factor	Inj. Vol.	*Initial_Vol_Wt	*Final_Volume
127	CCV1		Unknown	3	1.0000	10.0	1.00	1.00
128	CCB		Unknown	4	1.0000	10.0	1.00	1.00
129	HS18081504-01DF10	9056_W	Unknown	30	10.0000	10.0	1.00	1.00
130	HS18081504-02		Unknown	67	1.0000	10.0	1.00	1.00
131	HS18081504-02DF10		Unknown	68	10.0000	10.0	1.00	1.00
132	HS18081504-03		Unknown	69	1.0000	10.0	1.00	1.00
133	HS18081504-03DF10		Unknown	70	10.0000	10.0	1.00	1.00
134	HS18081521-02DF5		Unknown	62	5.0000	10.0	1.00	1.00
135	HS18081521-07DF5		Unknown	63	5.0000	10.0	1.00	1.00
136	HS18081491-01DF5		Unknown	59	5.0000	10.0	1.00	1.00
137	HS18081491-06DF5		Unknown	60	5.0000	10.0	1.00	1.00
138	DI H2O		Unknown	10	1.0000	10.0	1.00	1.00
139	CCV		Unknown	1	1.0000	10.0	1.00	1.00
140	CCB		Unknown	2	1.0000	10.0	1.00	1.00

Sequence: 082918
Operator: ALSHS.NoUser

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100 Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
#Samples: 140 (Modified, not saved)

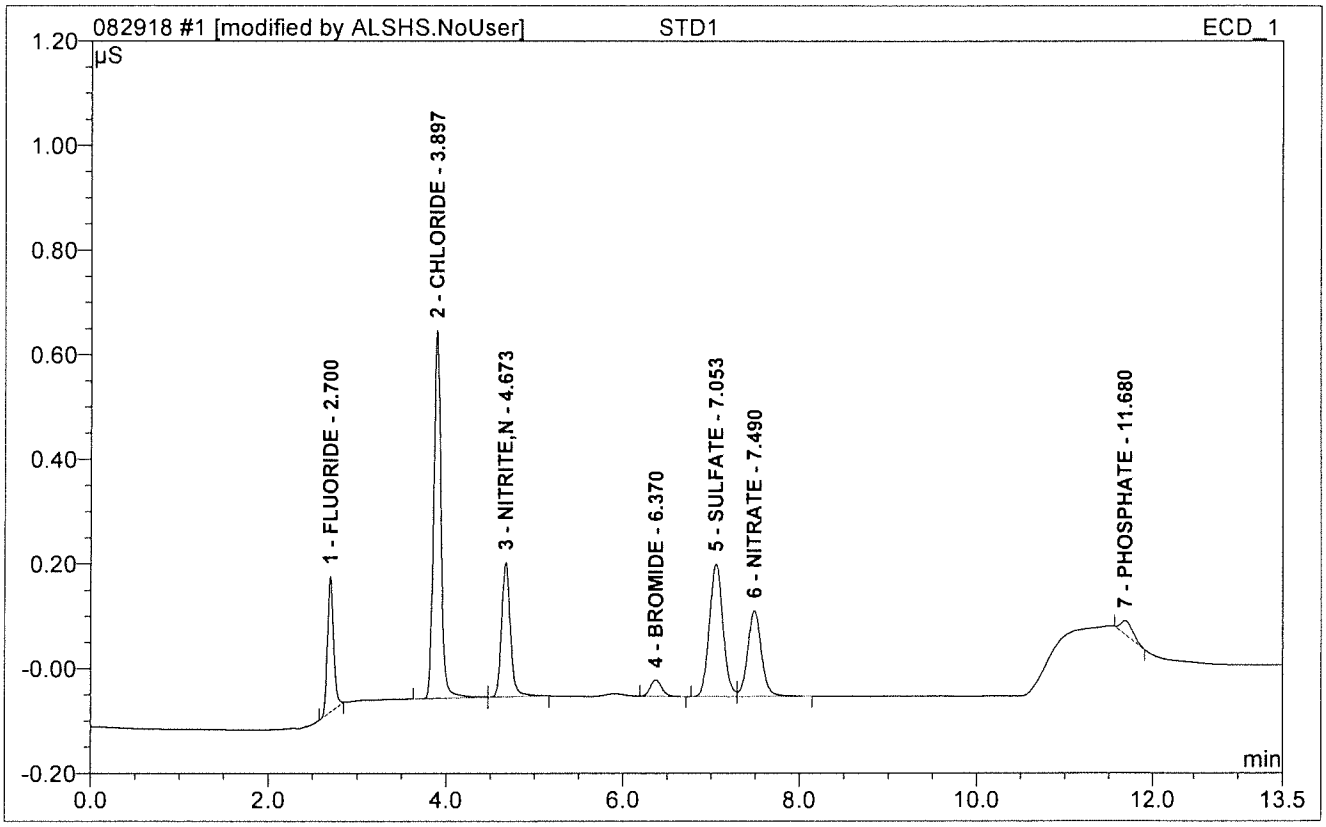
No.	Name	Method	Status	Inj. Date/Time	Program
127	CCV1	081518	Finished	8/30/2018 8:38:21 PM	Anions Gradient Program
128	CCB	081518	Finished	8/30/2018 8:52:54 PM	Anions Gradient Program
129	HS18081504-01DF10	081518	Finished	8/30/2018 9:07:28 PM	Anions Gradient Program
130	HS18081504-02	081518	Finished	8/30/2018 9:28:25 PM	Anions Gradient Program
131	HS18081504-02DF10	081518	Finished	8/30/2018 9:42:58 PM	Anions Gradient Program
132	HS18081504-03	081518	Finished	8/30/2018 9:57:31 PM	Anions Gradient Program
133	HS18081504-03DF10	081518	Finished	8/30/2018 10:12:04 PM	Anions Gradient Program
134	HS18081521-02DF5	081518	Finished	8/30/2018 10:26:38 PM	Anions Gradient Program
135	HS18081521-07DF5	081518	Finished	8/30/2018 10:41:11 PM	Anions Gradient Program
136	HS18081491-01DF5	081518	Finished	8/30/2018 10:55:44 PM	Anions Gradient Program
137	HS18081491-06DF5	081518	Finished	8/30/2018 11:10:17 PM	Anions Gradient Program
138	DI H2O	081518	Finished	8/30/2018 11:24:50 PM	Anions Gradient Program
139	CCV	081518	Finished	8/30/2018 11:39:23 PM	Anions Gradient Program
140	CCB	081518	Finished	8/30/2018 11:53:56 PM	Anions Gradient Program

Sequence:	082918		Page 12 of 12
Operator:	ALSHS.NoUser		Printed: 9/4/2018 12:18:04 PM
Title:			
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Location:	ICS2100\Sequences and Data\01-2018		
Timebase:	ICS2100	Created:	8/29/2018 12:36:04 PM by ALSHS.NoUser
#Samples:	140		(Modified, not saved)

No.	Name	GUID
127	CCV1	698278a5-acbe-11e8-b6d9-ac2a724b15e4
128	CCB	71b14a95-acc0-11e8-b6d9-ac2a724b15e4
129	HS18081504-01DF10	7a338e24-acc2-11e8-b6d9-ac2a724b15e4
130	HS18081504-02	089a2950-acc5-11e8-b6d9-ac2a724b15e4
131	HS18081504-02DF10	7080dbde-acc7-11e8-b6d9-ac2a724b15e4
132	HS18081504-03	78edaa70-acc9-11e8-b6d9-ac2a724b15e4
133	HS18081504-03DF10	8131f15d-accb-11e8-b6d9-ac2a724b15e4
134	HS18081521-02DF5	8a112fdf-accd-11e8-b6d9-ac2a724b15e4
135	HS18081521-07DF5	9266271f-accf-11e8-b6d9-ac2a724b15e4
136	HS18081491-01DF5	9a9e8263-acd1-11e8-b6d9-ac2a724b15e4
137	HS18081491-06DF5	a3494d97-acd3-11e8-b6d9-ac2a724b15e4
138	DI H2O	ab99802d-acd5-11e8-b6d9-ac2a724b15e4
139	CCV	b3cf791c-acd7-11e8-b6d9-ac2a724b15e4
140	CCB	bc6bf652-acd9-11e8-b6d9-ac2a724b15e4

1 STD1

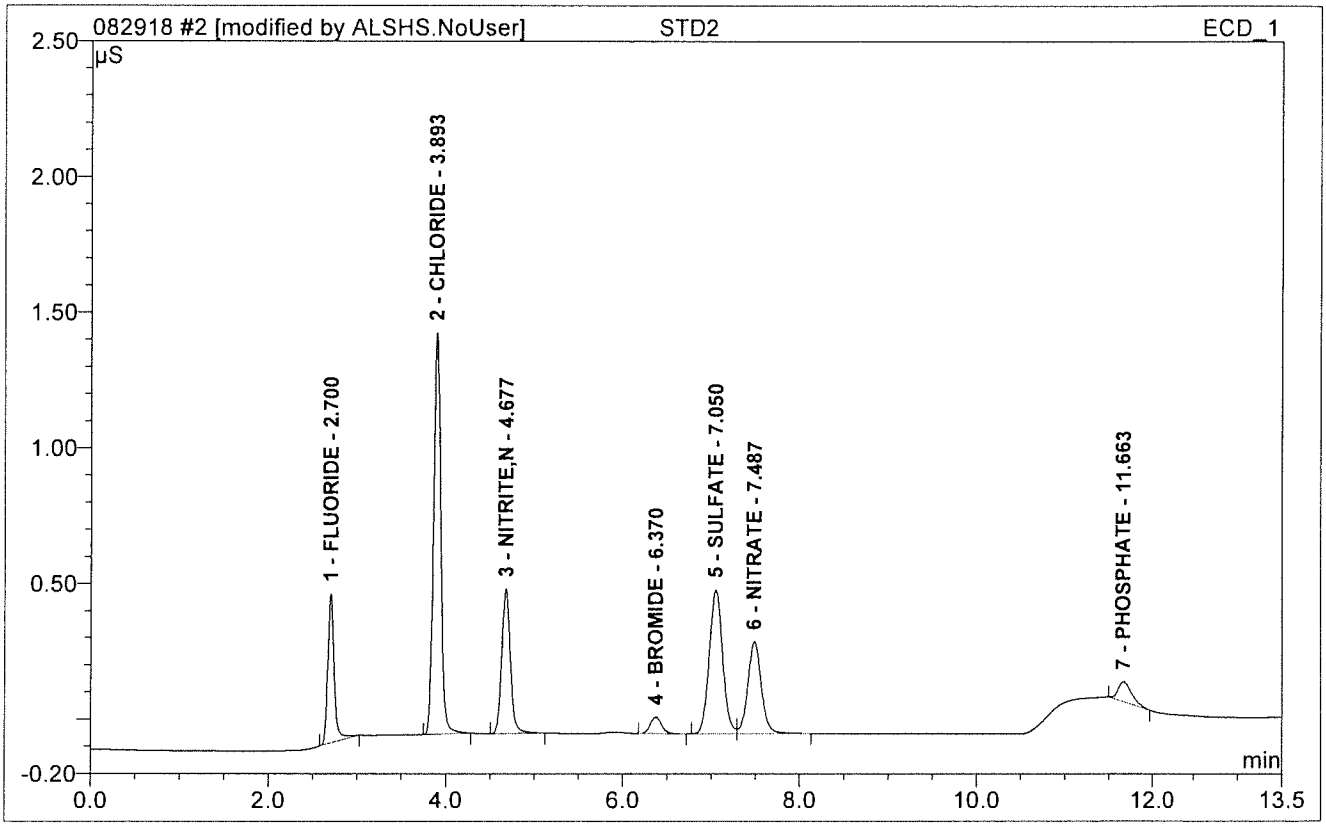
Sample Name:	**STD1**	*Injection Volume:*	**10.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 1:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	0.259	0.021	10.10	0.113	1.
2	3.90	CHLORIDE	0.704	0.068	33.53	0.635	1.
3	4.67	NITRITE,N	0.257	0.030	14.77	0.119	1.
4	6.37	BROMIDE	0.032	0.005	2.36	0.155	1.
5	7.05	SULFATE	0.254	0.046	22.37	0.666	1.
6	7.49	NITRATE	0.166	0.030	14.74	0.138	1.
7	11.68	PHOSPHATE	0.027	0.004	2.14	0.157	1.
Total:			1.698	0.204	100.00	1.984	

2 STD2

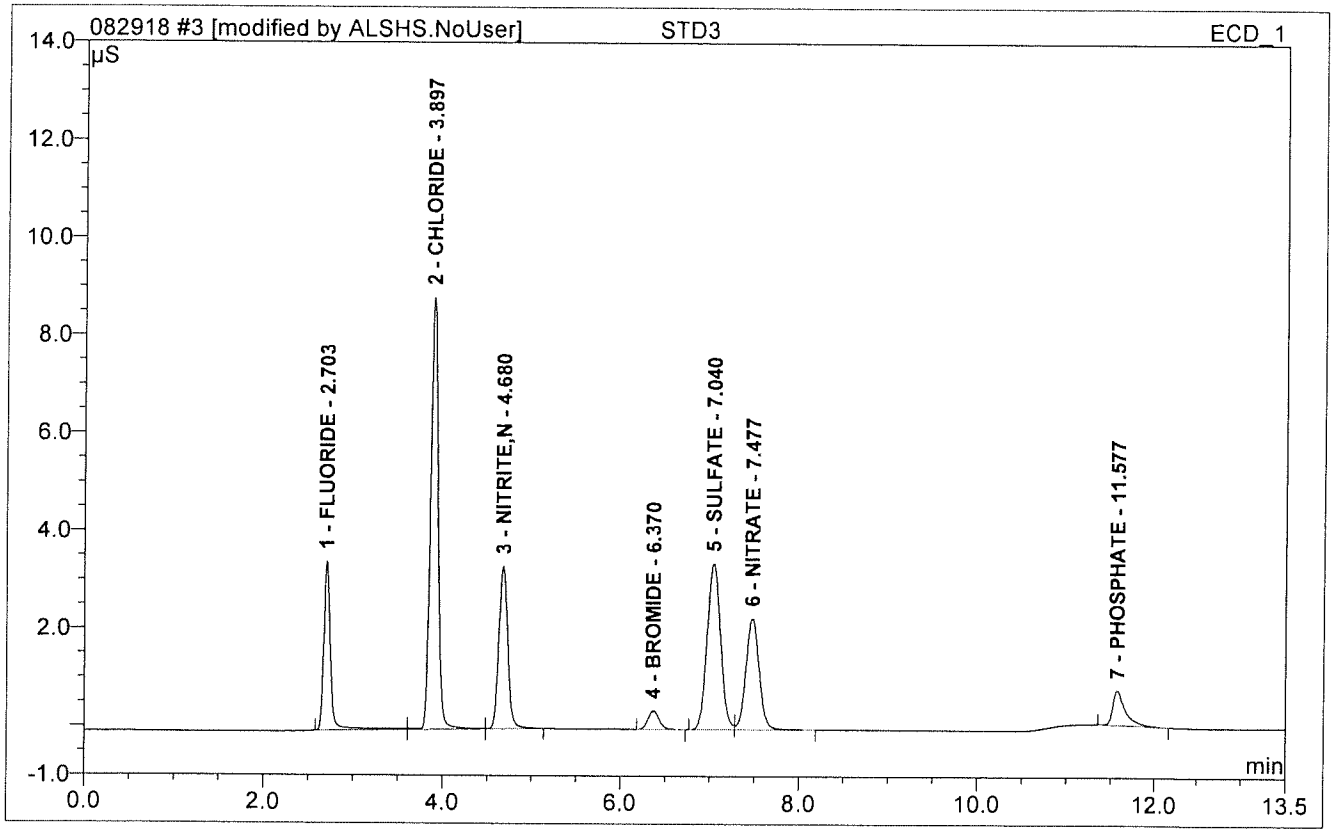
Sample Name:	**STD2**	*Injection Volume:*	**10.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 1:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	0.551	0.045	10.77	0.292	1.
2	3.89	CHLORIDE	1.478	0.140	33.22	1.455	1.
3	4.68	NITRITE,N	0.533	0.060	14.34	0.283	1.
4	6.37	BROMIDE	0.062	0.009	2.17	0.280	1.
5	7.05	SULFATE	0.530	0.093	22.07	1.415	1.
6	7.49	NITRATE	0.339	0.060	14.27	0.277	1.
7	11.66	PHOSPHATE	0.074	0.013	3.16	0.271	1.
Total:			3.567	0.421	100.00	4.274	

3 STD3

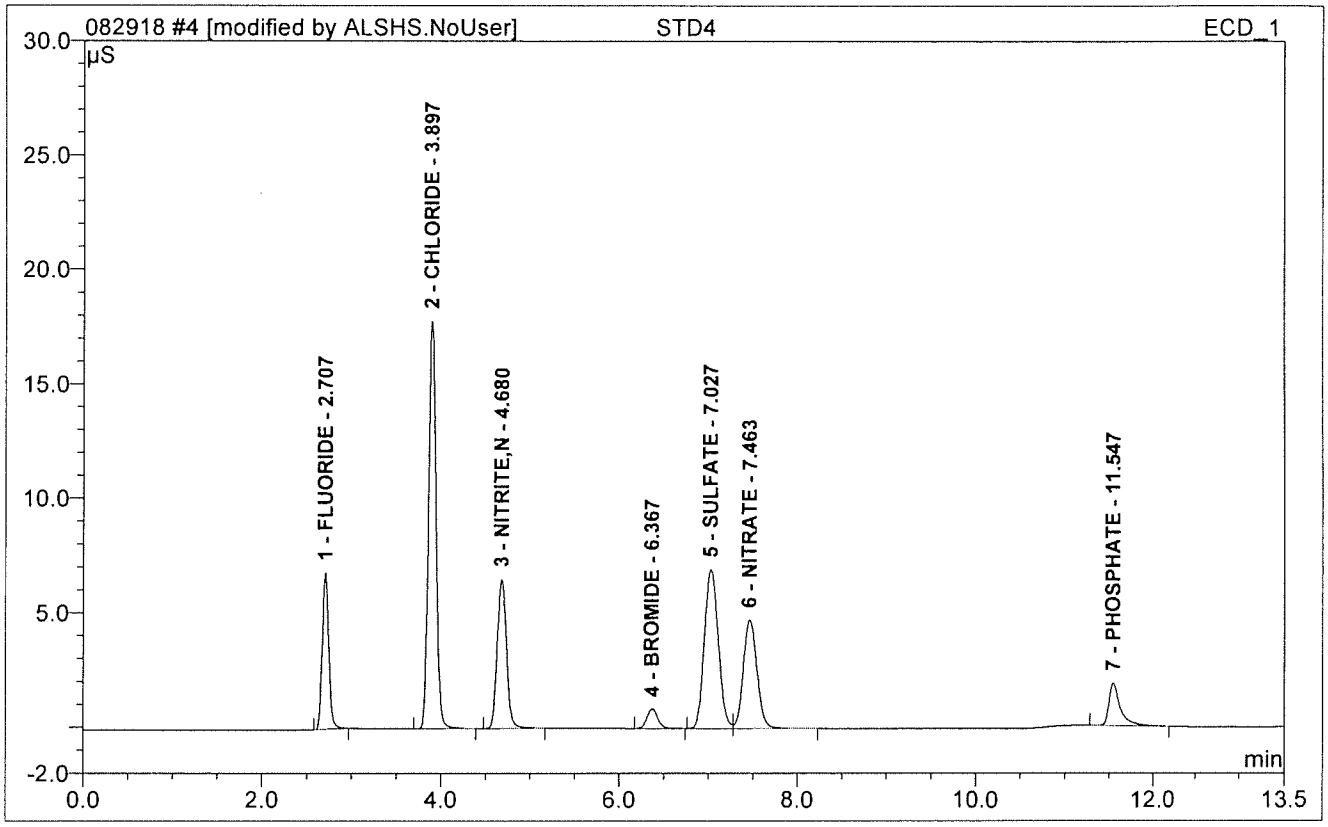
Sample Name:	**STD3**	*Injection Volume:*	**10.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 1:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	3.466	0.308	11.24	2.185	1.
2	3.90	CHLORIDE	8.847	0.874	31.85	9.841	1.
3	4.68	NITRITE,N	3.342	0.390	14.20	2.065	1.
4	6.37	BROMIDE	0.385	0.056	2.02	1.619	1.
5	7.04	SULFATE	3.408	0.602	21.95	9.446	1.
6	7.48	NITRATE	2.287	0.398	14.50	1.837	1.
7	11.58	PHOSPHATE	0.713	0.117	4.25	1.594	1.
Total:			22.447	2.745	100.00	28.589	

4 STD4

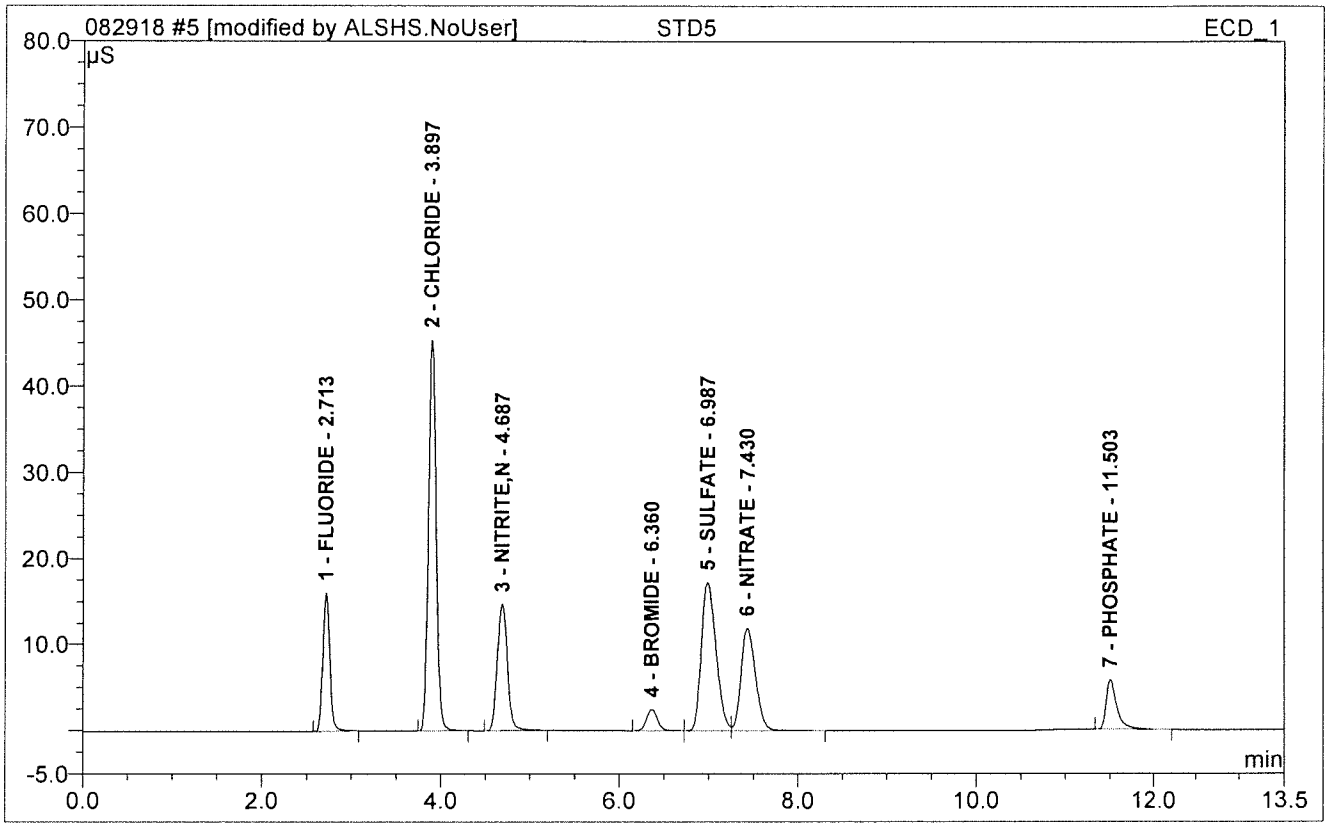
Sample Name:	**STD4**	*Injection Volume:*	**10.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 2:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.71	FLUORIDE	6.828	0.577	10.27	4.118	1.
2	3.90	CHLORIDE	17.800	1.757	31.29	19.929	1.
3	4.68	NITRITE,N	6.508	0.790	14.07	4.233	1.
4	6.37	BROMIDE	0.860	0.122	2.17	3.538	1.
5	7.03	SULFATE	6.929	1.254	22.33	19.719	1.
6	7.46	NITRATE	4.728	0.843	15.01	3.889	1.
7	11.55	PHOSPHATE	1.854	0.273	4.85	3.587	1.
Total:			45.507	5.615	100.00	59.014	

5 STD5

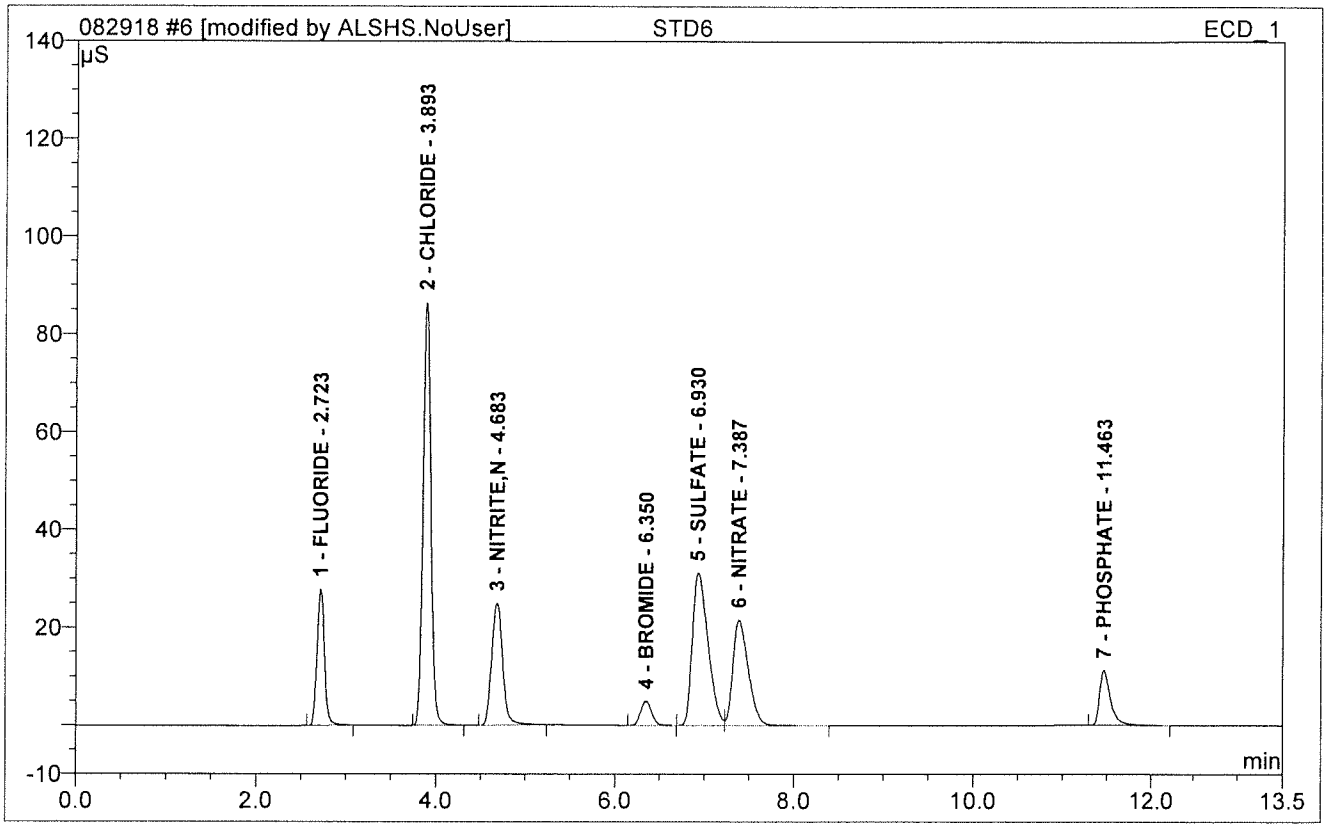
Sample Name:	**STD5**	*Injection Volume:*	**10.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 2:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.71	FLUORIDE	16.099	1.459	10.00	10.469	1.
2	3.90	CHLORIDE	45.369	4.522	31.00	51.517	1.
3	4.69	NITRITE,N	14.743	1.946	13.34	10.488	1.
4	6.36	BROMIDE	2.497	0.353	2.42	10.196	1.
5	6.99	SULFATE	17.297	3.282	22.49	51.691	1.
6	7.43	NITRATE	11.893	2.233	15.31	10.309	1.
7	11.50	PHOSPHATE	5.737	0.795	5.45	10.269	1.
Total:			113.635	14.590	100.00	154.938	

6 STD6

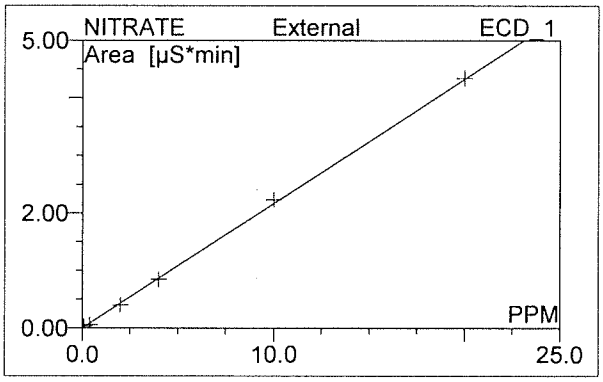
Sample Name:	**STD6**	*Injection Volume:*	**10.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 2:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**

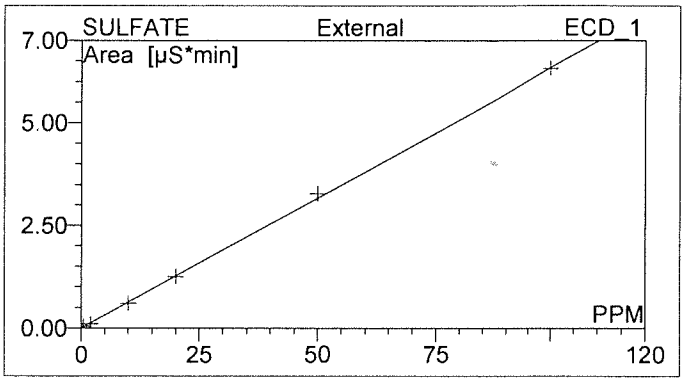


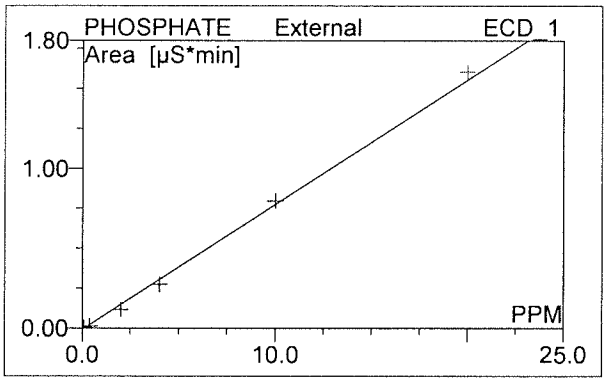
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.72	FLUORIDE	27.911	2.689	9.63	19.323	1.
2	3.89	CHLORIDE	86.494	8.689	31.10	99.122	1.
3	4.68	NITRITE,N	24.975	3.576	12.80	19.312	1.
4	6.35	BROMIDE	5.034	0.717	2.57	20.712	1.
5	6.93	SULFATE	31.177	6.318	22.61	99.562	1.
6	7.39	NITRATE	21.618	4.344	15.55	20.049	1.
7	11.46	PHOSPHATE	11.257	1.604	5.74	20.621	1.
Total:			208.465	27.938	100.00	298.702	

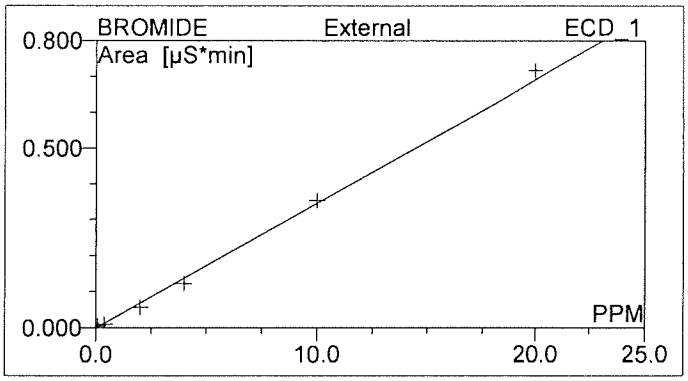
6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**10.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 2:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**









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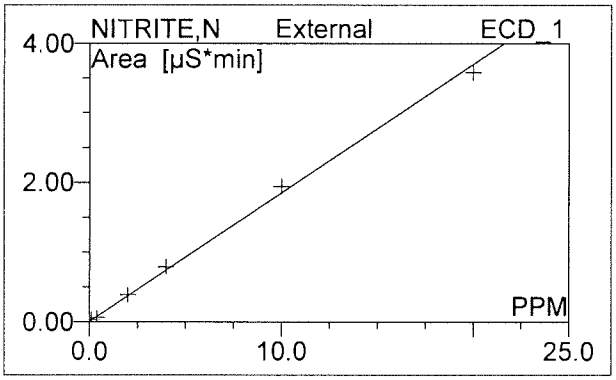
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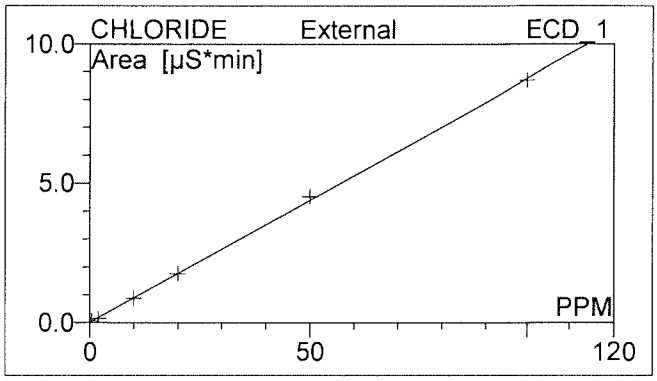
No.	Ret.Time min	Peak Name	Cal.Type	Points	Coeff.Det. %	Offset	Slope	Curve
1	2.72	FLUORIDE	XLOff	6	99.715	0.0048	0.1389	0.000
2	3.89	CHLORIDE	XLOff	6	99.857	0.0127	0.0875	0.000
3	4.68	NITRITE,N	XLOff	6	99.703	0.0081	0.1848	0.000
4	6.35	BROMIDE	XLOff	6	99.350	-0.0006	0.0347	0.000
5	6.93	SULFATE	XLOff	6	99.811	0.0033	0.0634	0.000
6	7.39	NITRATE	XLOff	6	99.769	0.0001	0.2166	0.000
7	11.46	PHOSPHATE	XLOff	6	99.338	-0.0079	0.0782	0.000
Average:					99.6491	0.0029	0.1149	0.0000

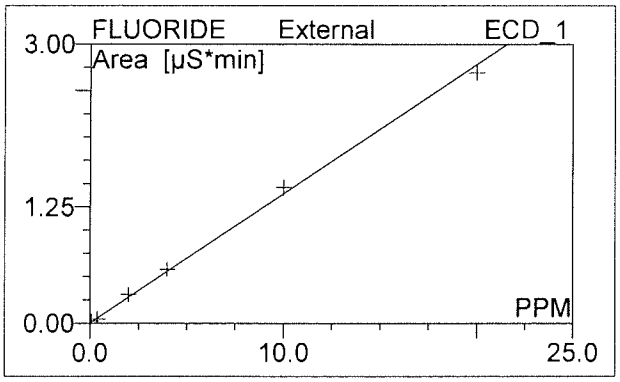
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	RF-Value	Std.Dev.	RSD %
1	2.72	FLUORIDE	XLOff	6	99.858	7.197	0.014	21.547
2	3.89	CHLORIDE	XLOff	6	99.929	11.424	0.032	15.434
3	4.68	NITRITE,N	XLOff	6	99.851	5.412	0.020	21.594
4	6.35	BROMIDE	XLOff	6	99.675	28.846	0.005	36.463
5	6.93	SULFATE	XLOff	6	99.905	15.767	0.027	18.479
6	7.39	NITRATE	XLOff	6	99.884	4.616	0.020	20.892
7	11.46	PHOSPHATE	XLOff	6	99.668	12.792	0.012	45.845
Average:					99.8244	12.2936	0.0188	25.7505

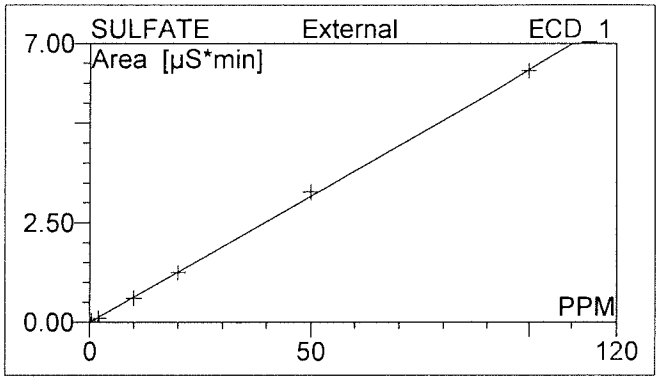
6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**10.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.000**
Recording Time:	**8/16/2018 2:39**	*Sample Weight/Volume:*	**1.000**
Run Time (min):	**13.50**	*Final Volume:*	**1.000**









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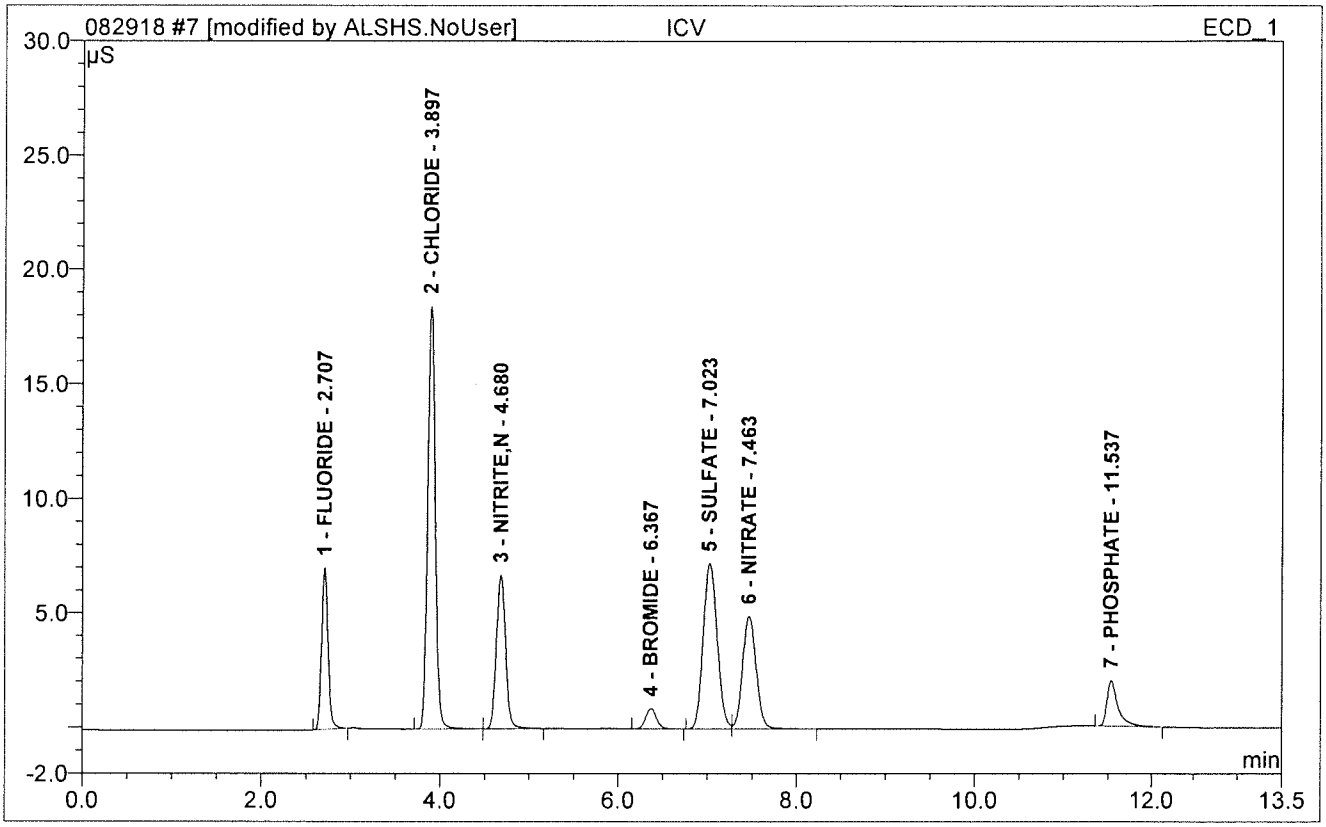
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No.	Ret.Time min	Peak Name	Cal.Type	Points	Coeff.Det. %	Offset	Slope	Curve
1	2.72	FLUORIDE	XLOff	6	99.7155	0.0048	0.1389	0.000
2	3.89	CHLORIDE	XLOff	6	99.8572	0.0127	0.0875	0.000
3	4.68	NITRITE,N	XLOff	6	99.7029	0.0081	0.1848	0.000
4	6.35	BROMIDE	XLOff	6	99.3504	-0.0006	0.0347	0.000
5	6.93	SULFATE	XLOff	6	99.8110	0.0033	0.0634	0.000
6	7.39	NITRATE	XLOff	6	99.7691	0.0001	0.2166	0.000
7	11.46	PHOSPHATE	XLOff	6	99.3377	-0.0079	0.0782	0.000
Average:					99.6491	0.0029	0.1149	0.000

No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	RF-Value	Std.Dev.	RSD %
1	2.72	FLUORIDE	XLOff	6	99.858	7.197	0.014	21.547
2	3.89	CHLORIDE	XLOff	6	99.929	11.424	0.032	15.434
3	4.68	NITRITE,N	XLOff	6	99.851	5.412	0.020	21.594
4	6.35	BROMIDE	XLOff	6	99.675	28.846	0.005	36.463
5	6.93	SULFATE	XLOff	6	99.905	15.767	0.027	18.479
6	7.39	NITRATE	XLOff	6	99.884	4.616	0.020	20.892
7	11.46	PHOSPHATE	XLOff	6	99.668	12.792	0.012	45.845
Average:					99.8244	12.294	0.019	25.751

7 ICV

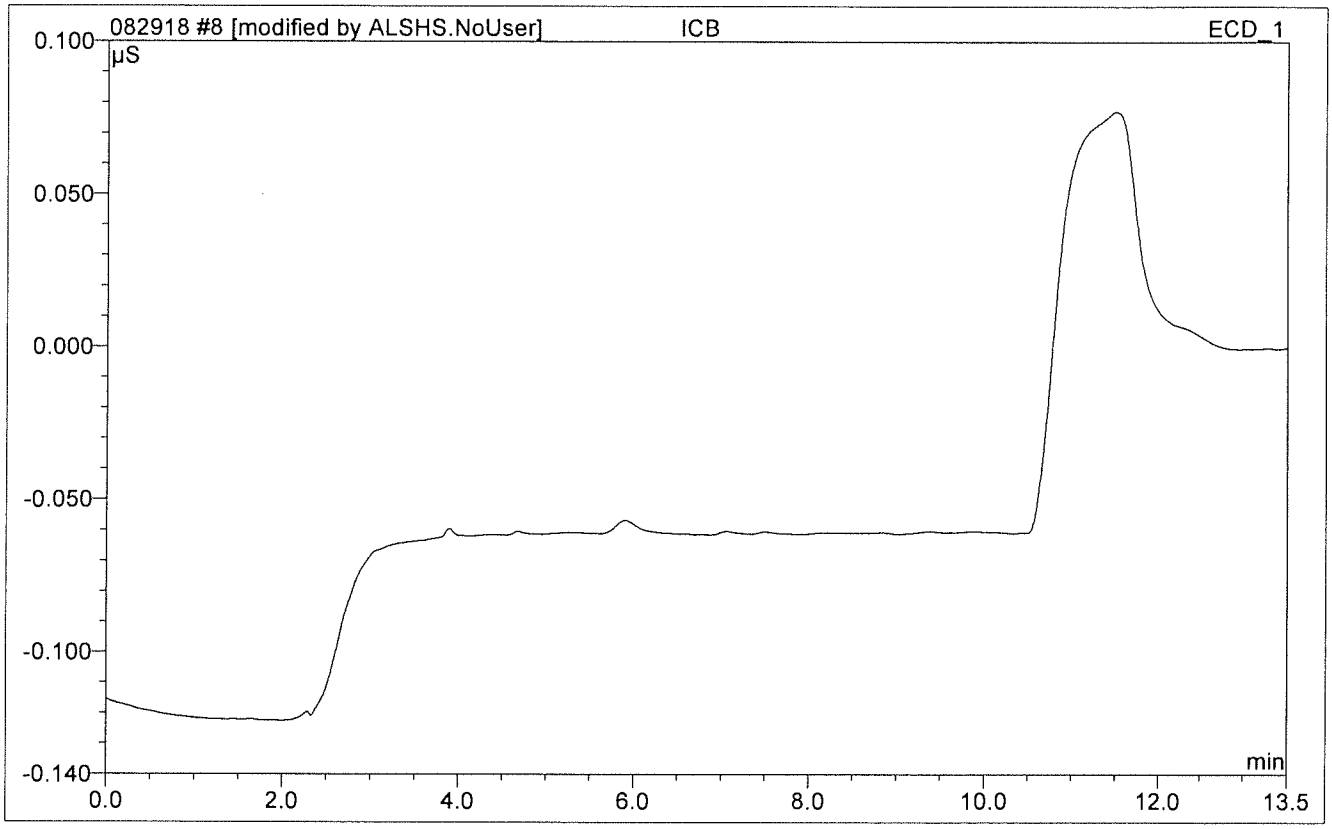
Sample Name:	**ICV**	*Injection Volume:*	**10.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 2:53**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.71	FLUORIDE	7.064	0.598	10.25	4.273	1.
2	3.90	CHLORIDE	18.444	1.823	31.24	20.681	1.
3	4.68	NITRITE,N	6.720	0.814	13.94	4.360	1.
4	6.37	BROMIDE	0.901	0.128	2.20	3.713	1.
5	7.02	SULFATE	7.222	1.307	22.39	20.555	1.
6	7.46	NITRATE	4.934	0.880	15.08	4.062	1.
7	11.54	PHOSPHATE	1.981	0.286	4.90	3.763	1.
Total:			47.265	5.837	100.00	61.407	

8 ICB

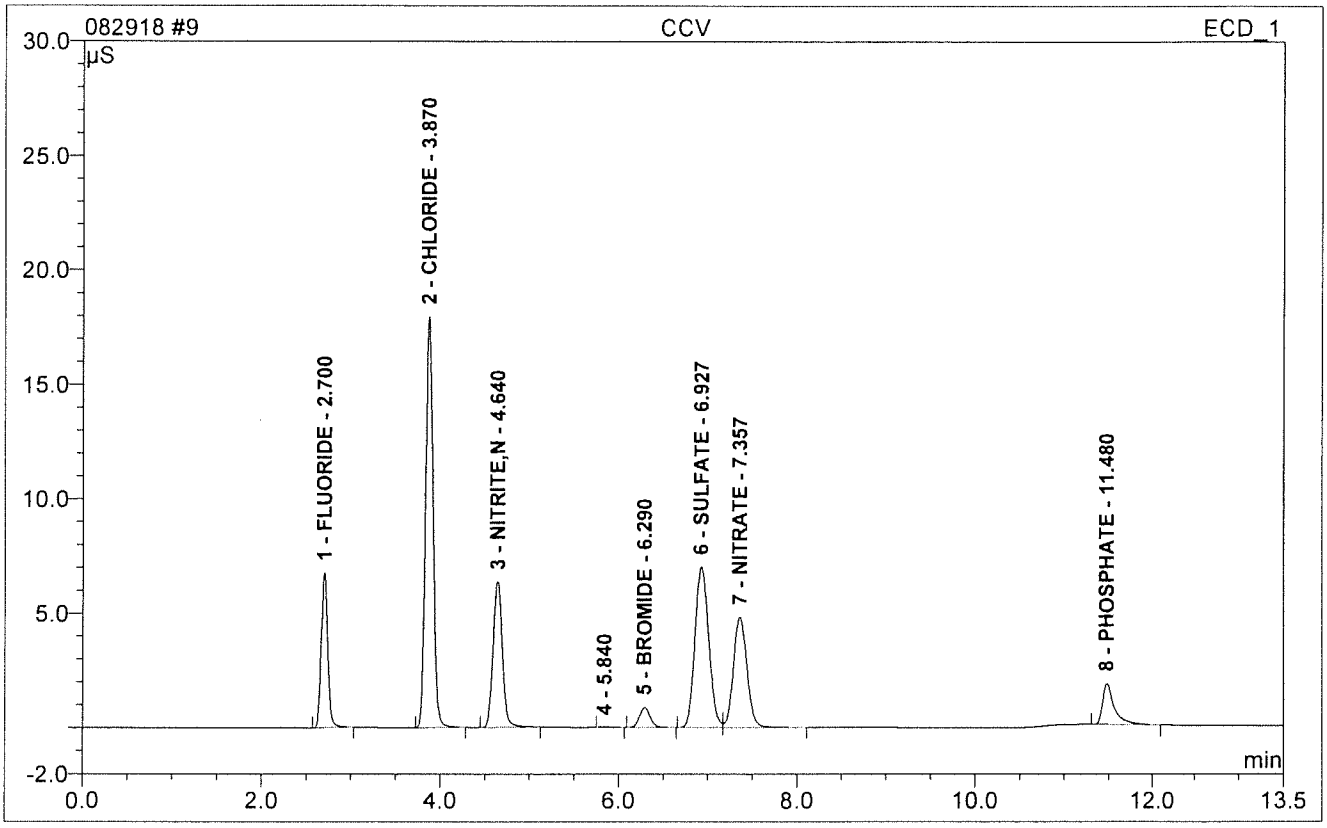
Sample Name:	**ICB**	*Injection Volume:*	**10.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 3:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
Total:			0.000	0.000	0.00	0.000	

9 CCV

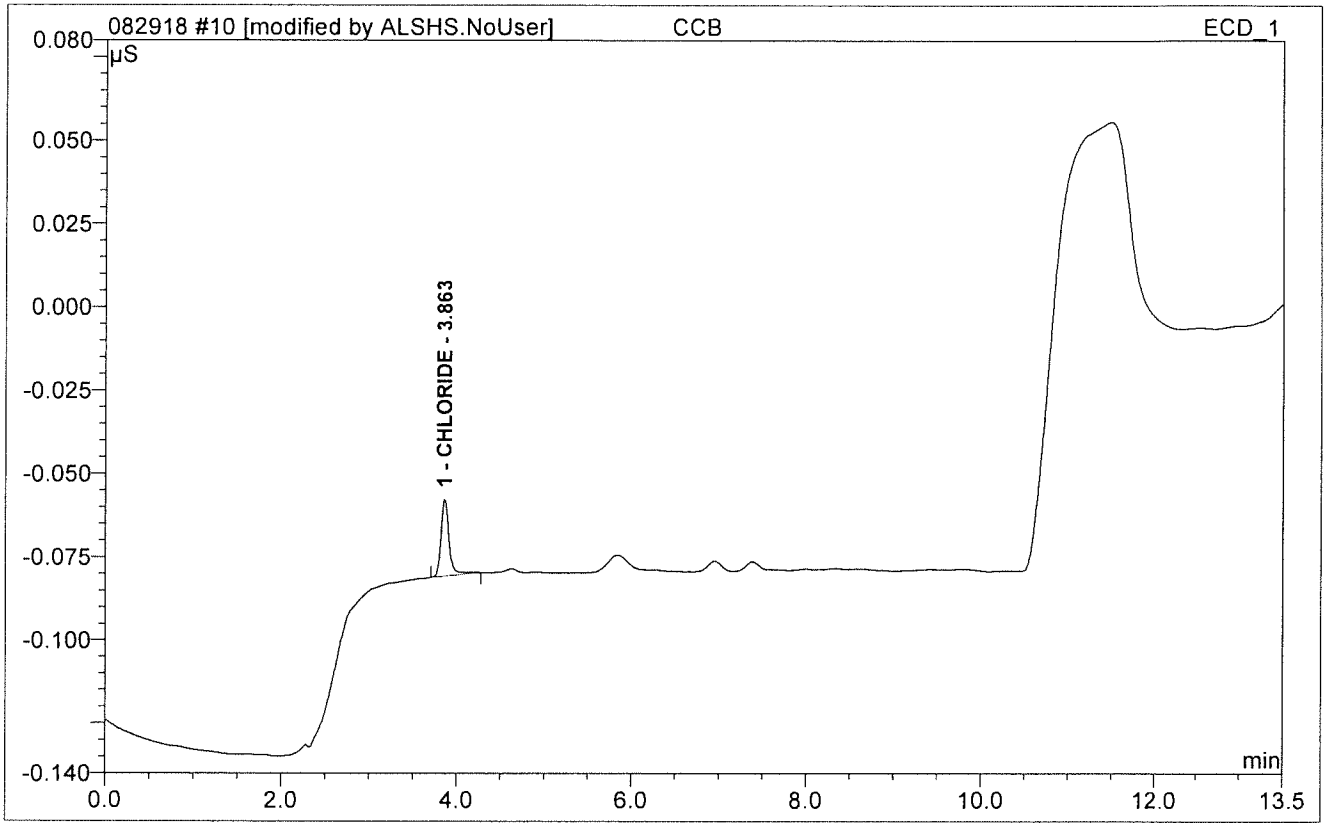
Sample Name:	**CCV**	*Injection Volume:*	**10.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 12:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	6.762	0.573	10.20	4.087	1.
2	3.87	CHLORIDE	17.941	1.764	31.40	20.001	1.
3	4.64	NITRITE,N	6.357	0.775	13.80	4.152	1.
5	6.29	BROMIDE	0.865	0.121	2.16	3.516	1.
6	6.93	SULFATE	7.015	1.262	22.47	19.844	1.
7	7.36	NITRATE	4.835	0.853	15.18	3.936	1.
8	11.48	PHOSPHATE	1.774	0.267	4.76	3.518	1.
Total:			45.549	5.615	99.96	59.054	

10 CCB

Sample Name:	**CCB**	*Injection Volume:*	**10.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 12:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**

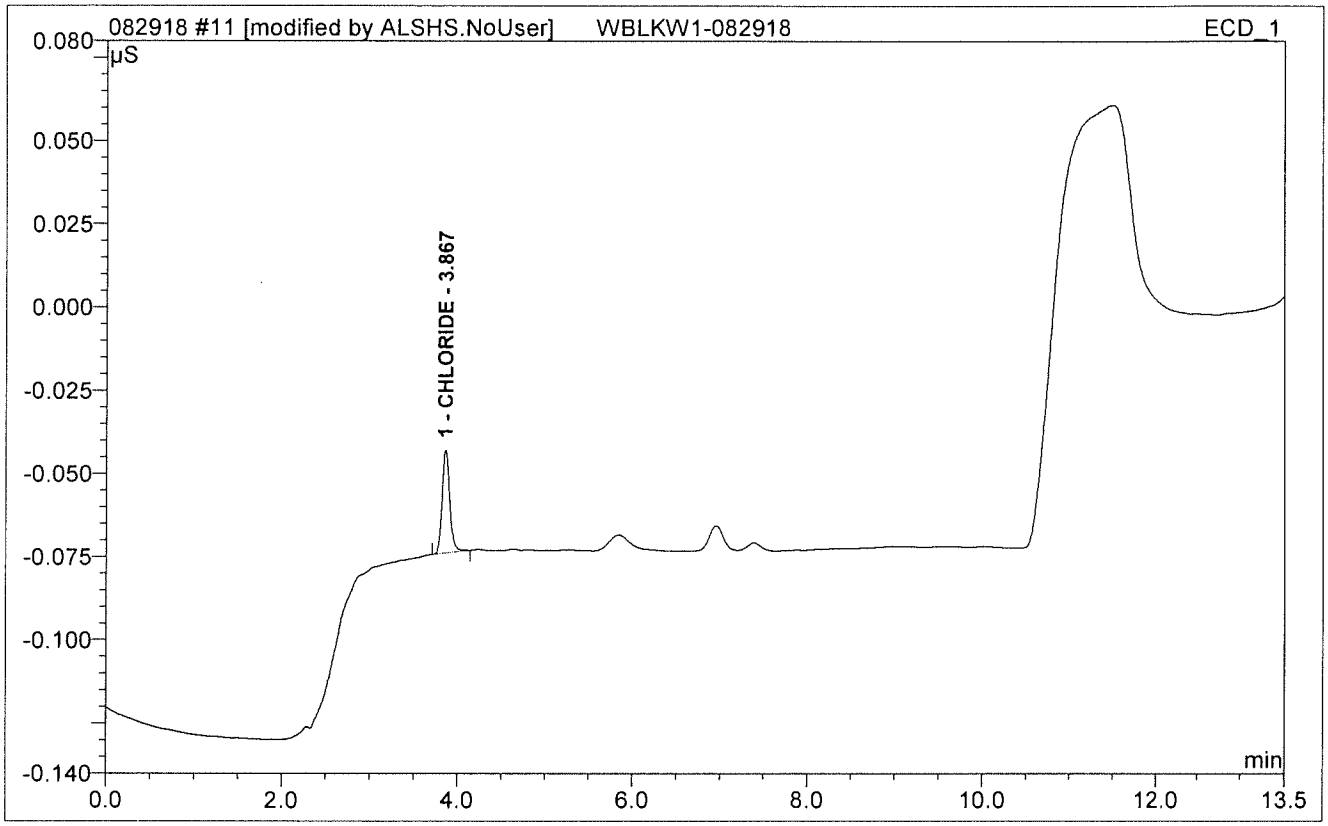


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.86	CHLORIDE	0.023	0.002	100.00	-0.117	1.
Total:			0.023	0.002	100.00	-0.117	

11 WBLKW1-082918

300_W/9056_W

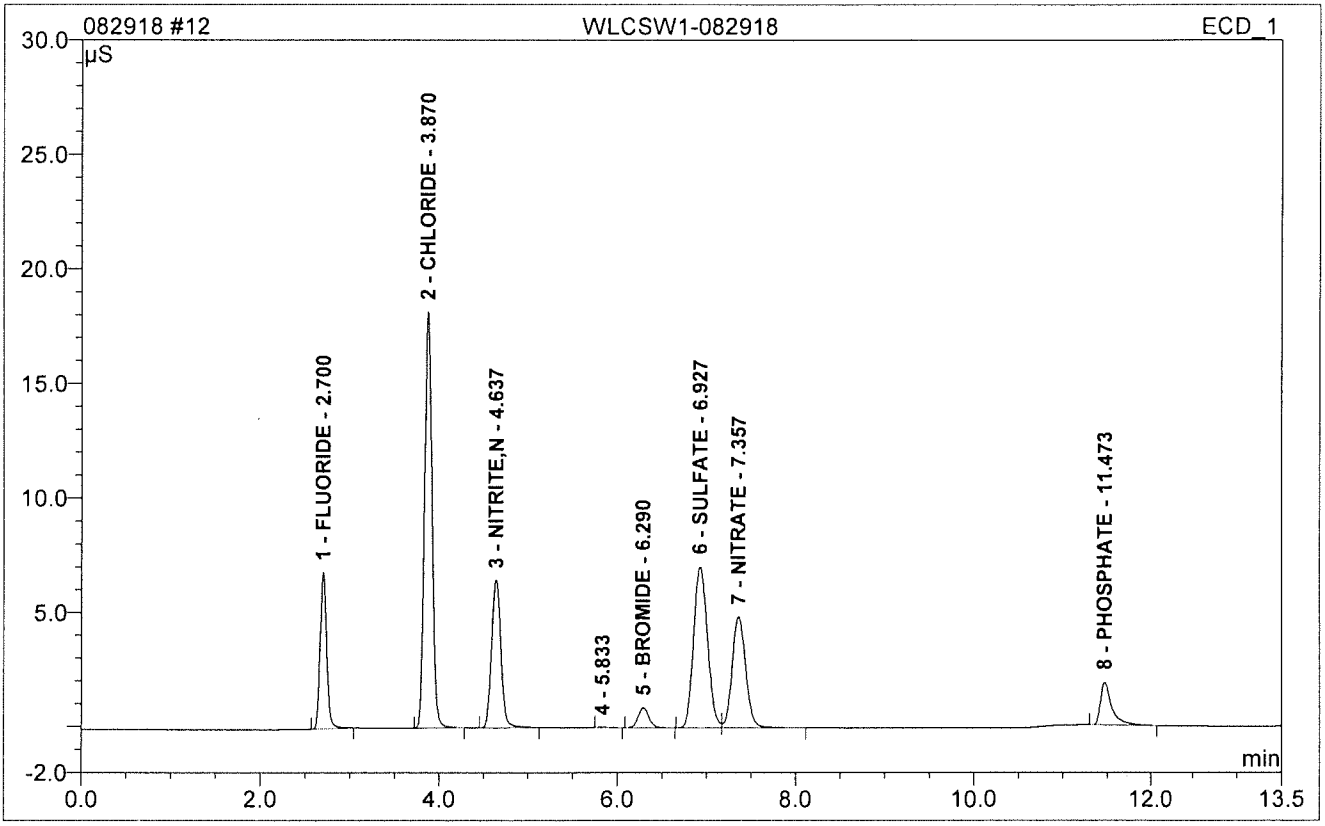
Sample Name:	**WBLKW1-082918**	*Injection Volume:*	**10.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 13:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.87	CHLORIDE	0.031	0.003	100.00	-0.109	1.
Total:			0.031	0.003	100.00	-0.109	

12 WLCSW1-082918

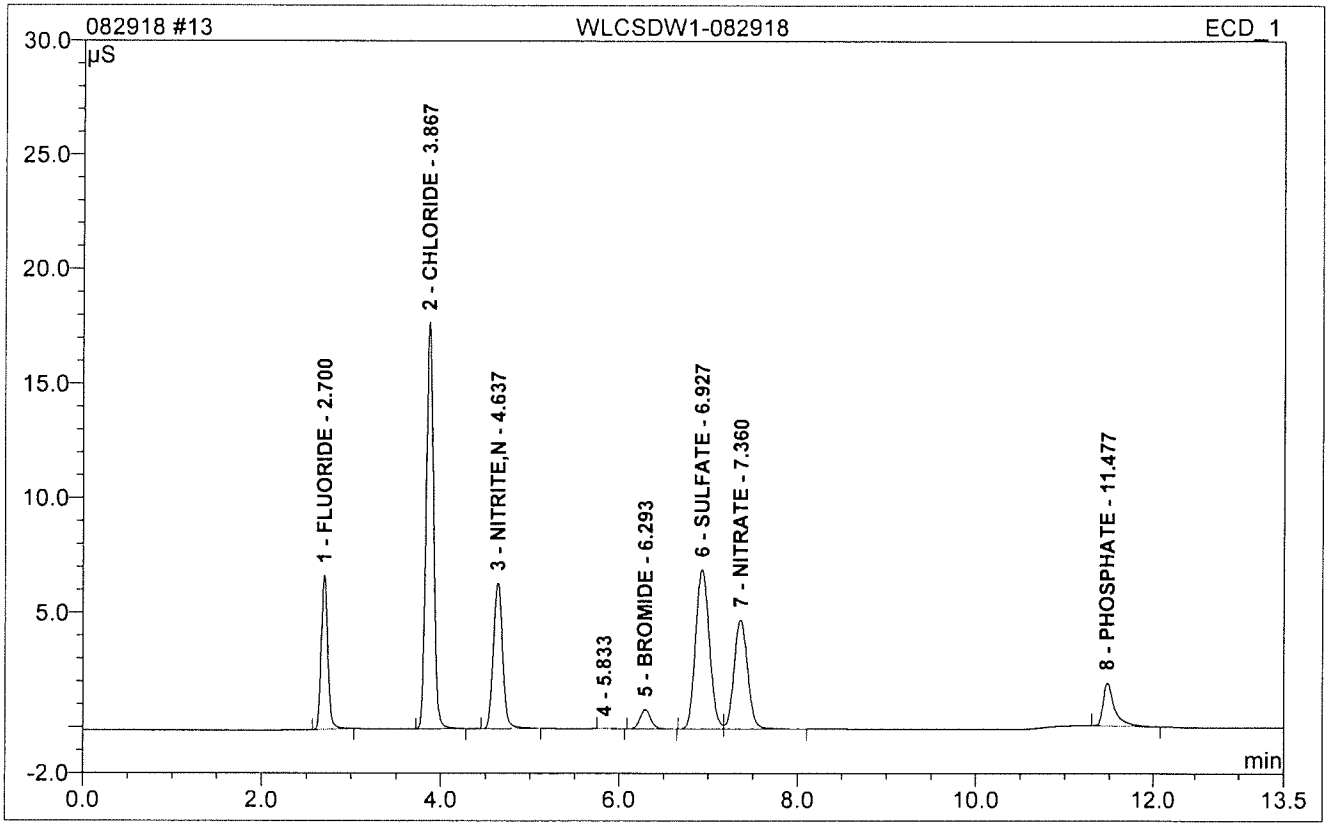
Sample Name:	**WLCSW1-082918**	*Injection Volume:*	**10.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 13:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	6.859	0.583	10.24	4.164	1.
2	3.87	CHLORIDE	18.176	1.785	31.33	20.248	1.
3	4.64	NITRITE,N	6.485	0.789	13.85	4.227	1.
5	6.29	BROMIDE	0.874	0.123	2.16	3.560	1.
6	6.93	SULFATE	7.087	1.277	22.41	20.078	1.
7	7.36	NITRATE	4.892	0.865	15.18	3.992	1.
8	11.47	PHOSPHATE	1.874	0.273	4.80	3.599	1.
Total:			46.248	5.695	99.97	59.868	

13 WLCSDW1-082918

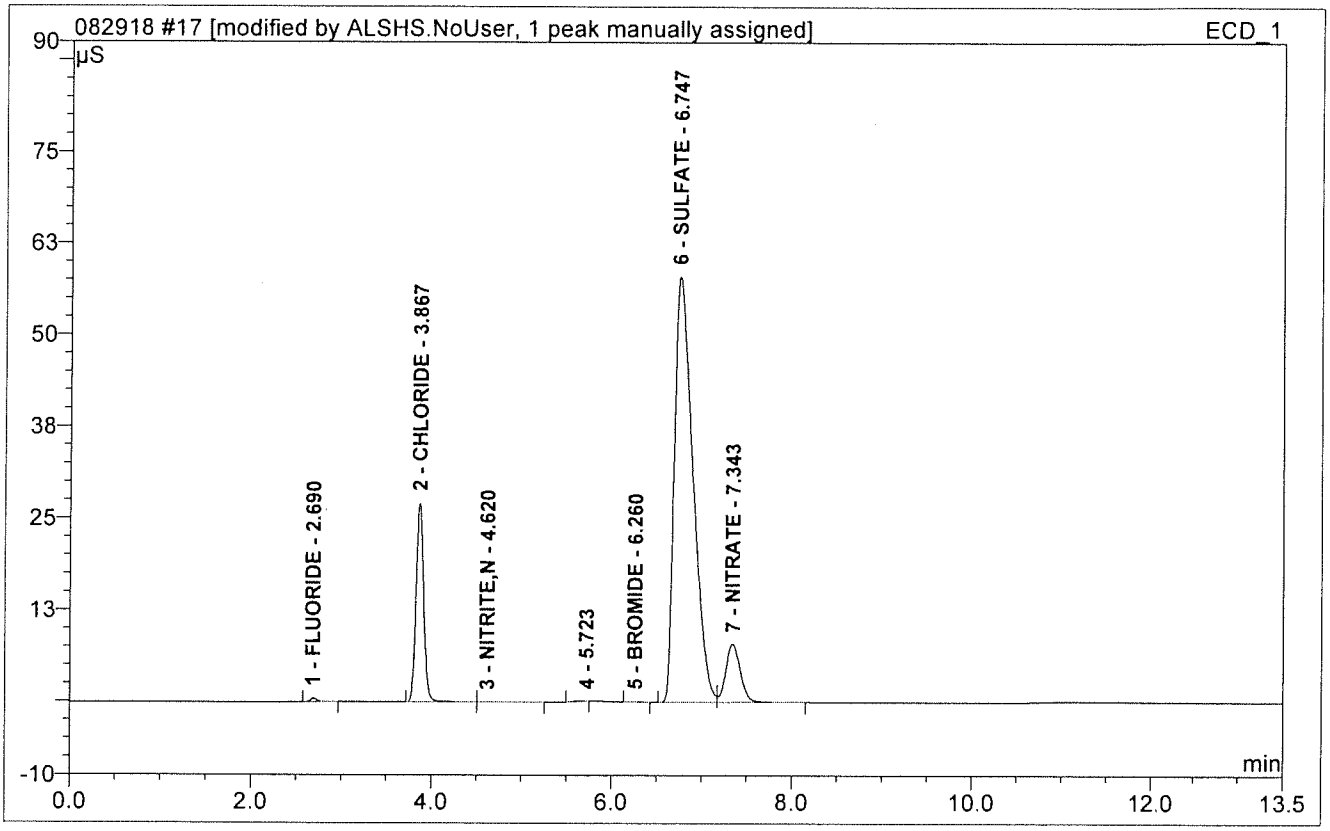
Sample Name:	**WLCSDW1-082918**	*Injection Volume:*	**10.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 13:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	6.716	0.568	10.21	4.057	1.
2	3.87	CHLORIDE	17.734	1.742	31.30	19.753	1.
3	4.64	NITRITE,N	6.350	0.772	13.87	4.134	1.
5	6.29	BROMIDE	0.851	0.120	2.15	3.468	1.
6	6.93	SULFATE	6.964	1.246	22.38	19.587	1.
7	7.36	NITRATE	4.775	0.841	15.12	3.883	1.
8	11.48	PHOSPHATE	1.867	0.275	4.94	3.618	1.
Total:			45.257	5.564	99.97	58.500	

17 HS18081252-01

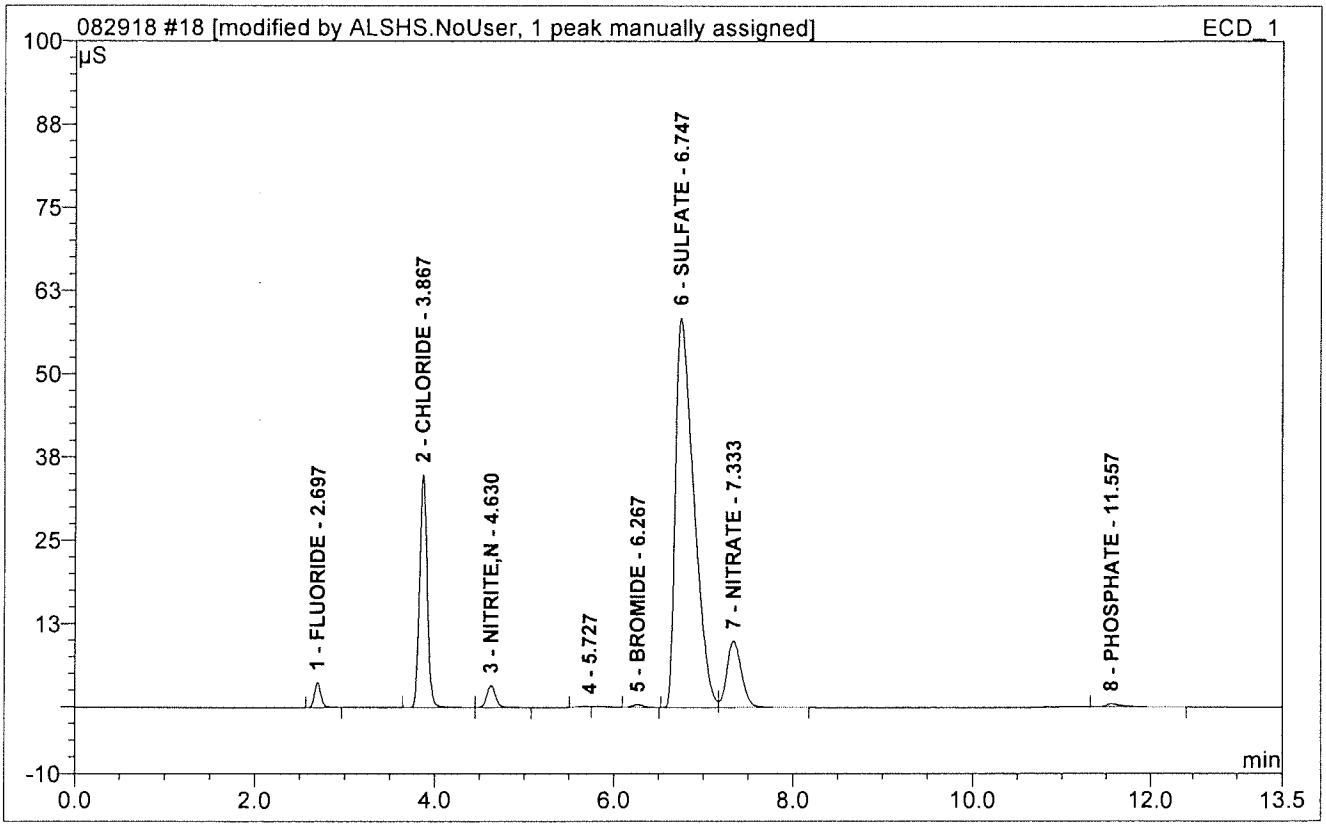
Sample Name:	**HS18081252-01**	*Injection Volume:*	**10.0**
Vial Number:	**14**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 14:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	0.512	0.043	0.24	0.275	1.
2	3.87	CHLORIDE	27.112	2.671	14.80	30.373	1.
3	4.62	NITRITE,N	0.028	0.006	0.03	-0.013	1.
5	6.26	BROMIDE	0.030	0.004	0.02	0.126	1.
6	6.75	SULFATE	58.129	13.821	76.55	217.870	1.
7	7.34	NITRATE	7.993	1.504	8.33	6.941	1.
Total:			93.804	18.049	99.96	255.572	

18 HS18081252-01MS

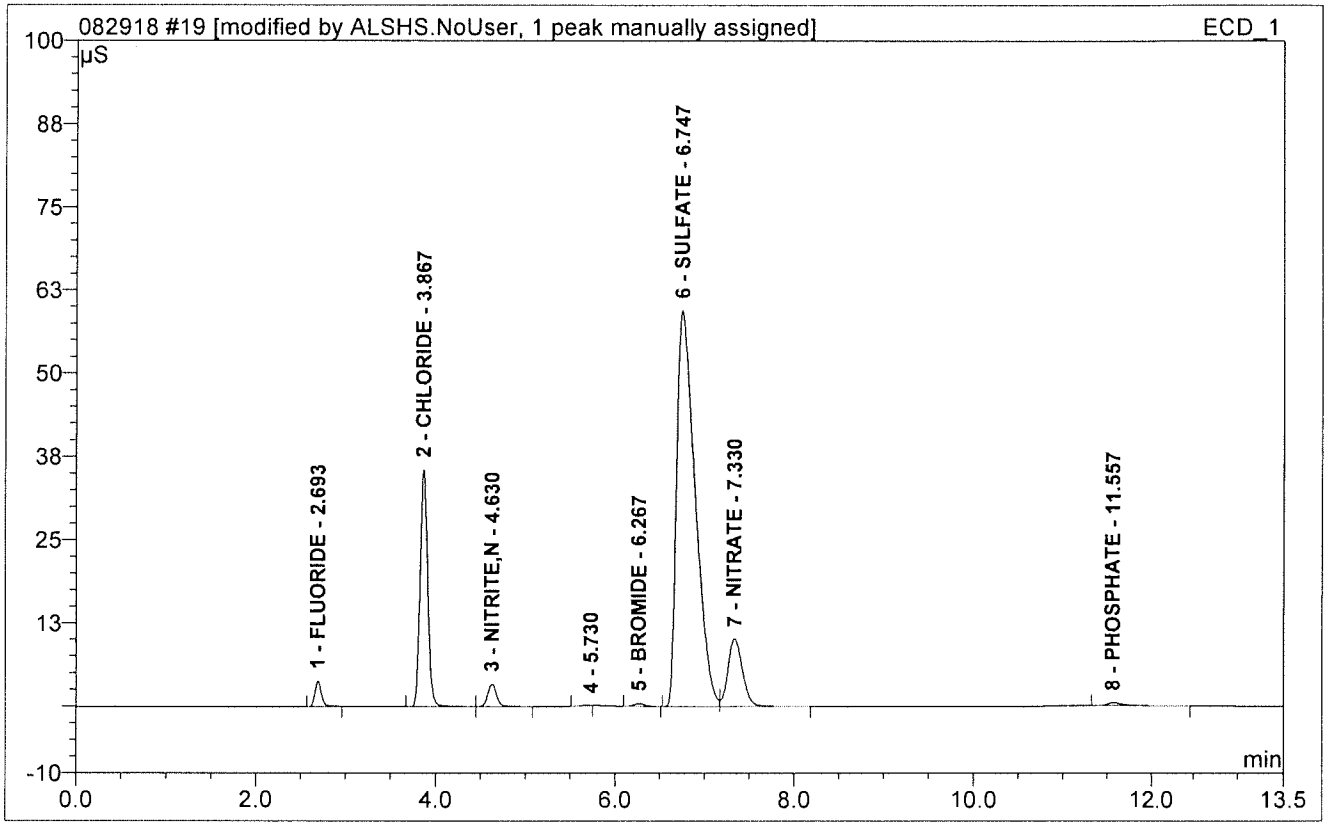
Sample Name:	**HS18081252-01MS**	*Injection Volume:*	**10.0**
Vial Number:	**15**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 14:53**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	3.791	0.317	1.57	2.244	1.
2	3.87	CHLORIDE	34.910	3.451	17.15	39.283	1.
3	4.63	NITRITE,N	3.315	0.379	1.88	2.007	1.
5	6.27	BROMIDE	0.412	0.055	0.28	1.615	1.
6	6.75	SULFATE	58.454	13.932	69.23	219.616	1.
7	7.33	NITRATE	9.974	1.895	9.42	8.746	1.
8	11.56	PHOSPHATE	0.464	0.090	0.45	1.250	1.
Total:			111.321	20.119	99.97	274.761	

19 HS18081252-01MSD

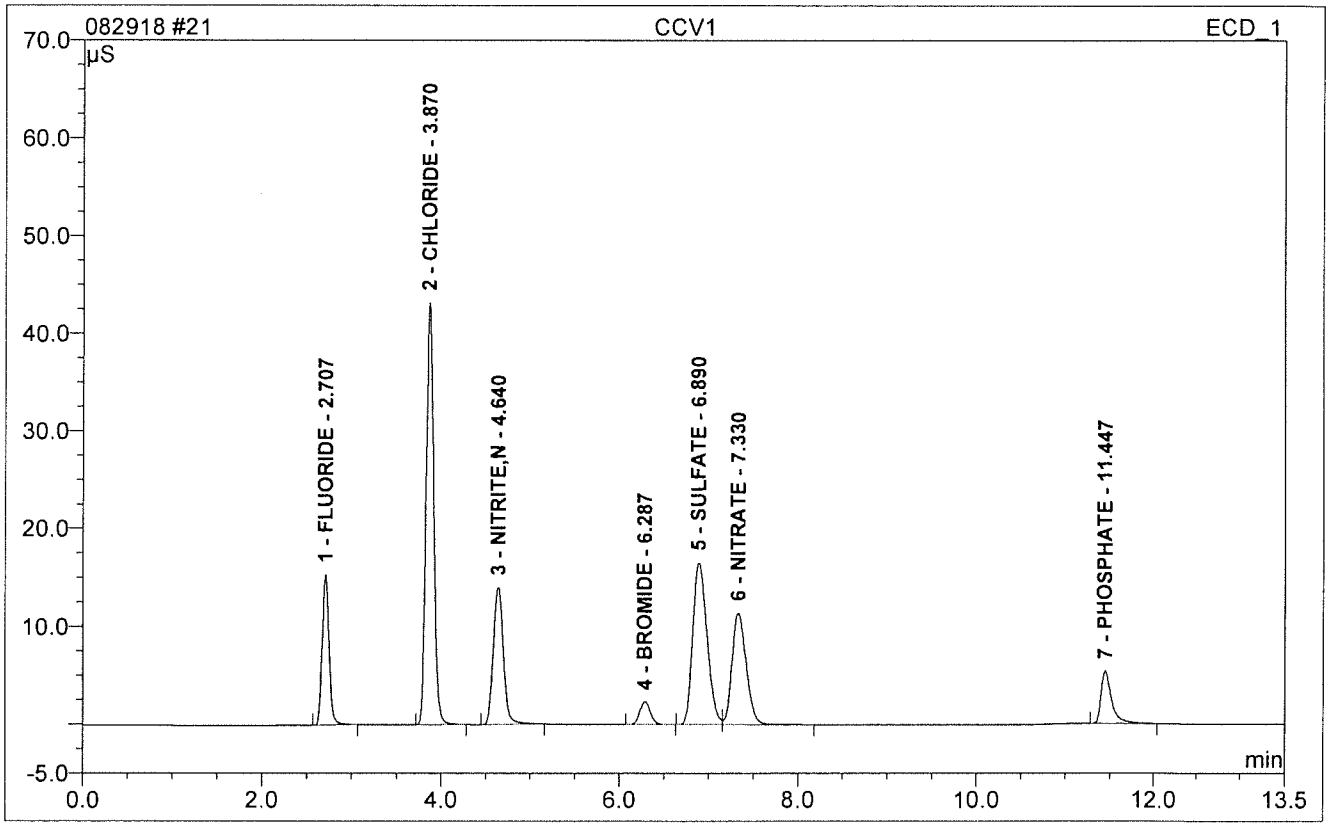
Sample Name:	**HS18081252-01MSD**	*Injection Volume:*	**10.0**
Vial Number:	**16**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 15:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	3.826	0.320	1.56	2.266	1.
2	3.87	CHLORIDE	35.596	3.528	17.19	40.159	1.
3	4.63	NITRITE,N	3.381	0.388	1.89	2.055	1.
5	6.27	BROMIDE	0.422	0.057	0.28	1.654	1.
6	6.75	SULFATE	59.465	14.205	69.21	223.924	1.
7	7.33	NITRATE	10.182	1.932	9.42	8.920	1.
8	11.56	PHOSPHATE	0.449	0.088	0.43	1.232	1.
Total:			113.320	20.518	99.97	280.210	

21 CCV1

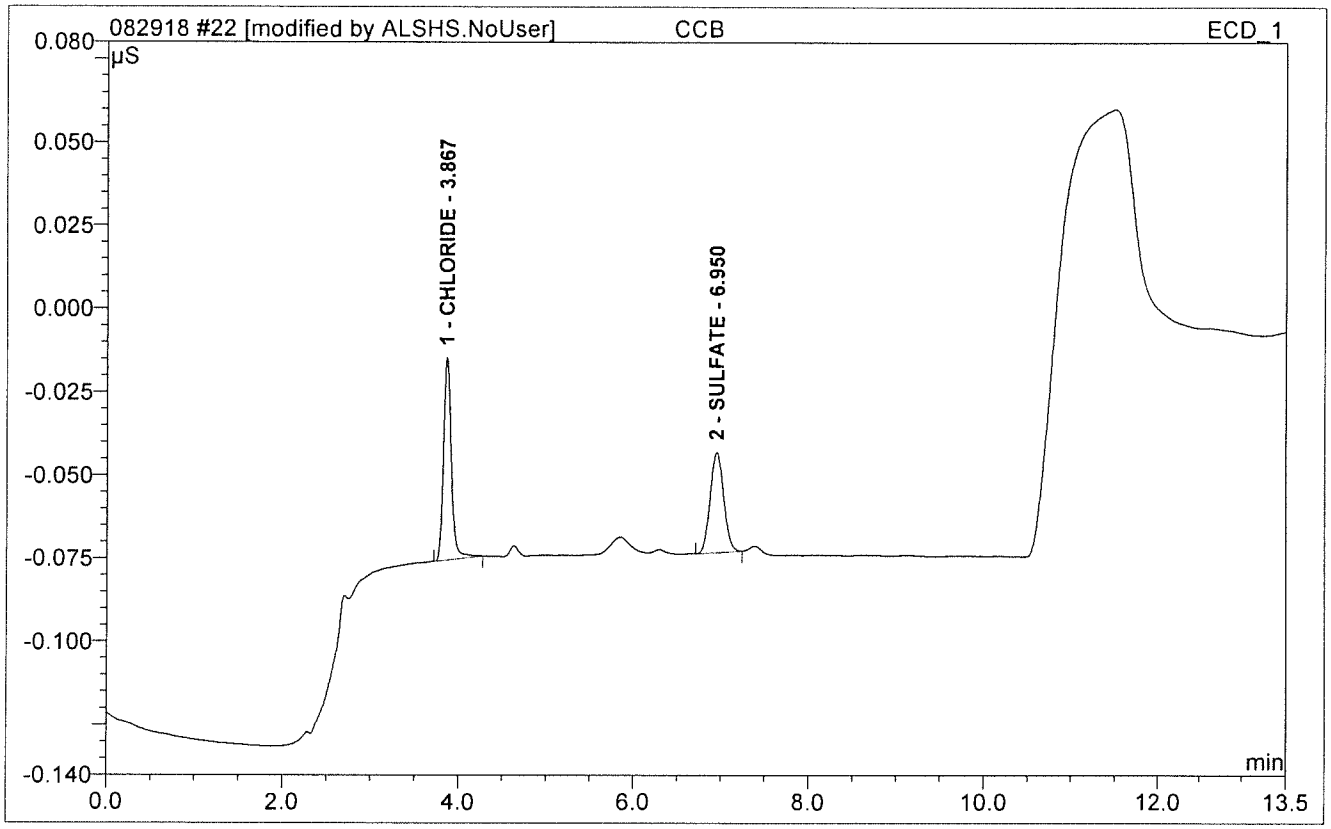
Sample Name:	**CCV1**	*Injection Volume:*	**10.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 15:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.71	FLUORIDE	15.373	1.384	10.01	9.930	1.
2	3.87	CHLORIDE	43.219	4.290	31.02	48.867	1.
3	4.64	NITRITE,N	14.042	1.853	13.40	9.988	1.
4	6.29	BROMIDE	2.355	0.331	2.39	9.550	1.
5	6.89	SULFATE	16.541	3.108	22.47	48.954	1.
6	7.33	NITRATE	11.433	2.122	15.34	9.796	1.
7	11.45	PHOSPHATE	5.402	0.742	5.36	9.587	1.
Total:			108.364	13.831	100.00	146.672	

22 CCB

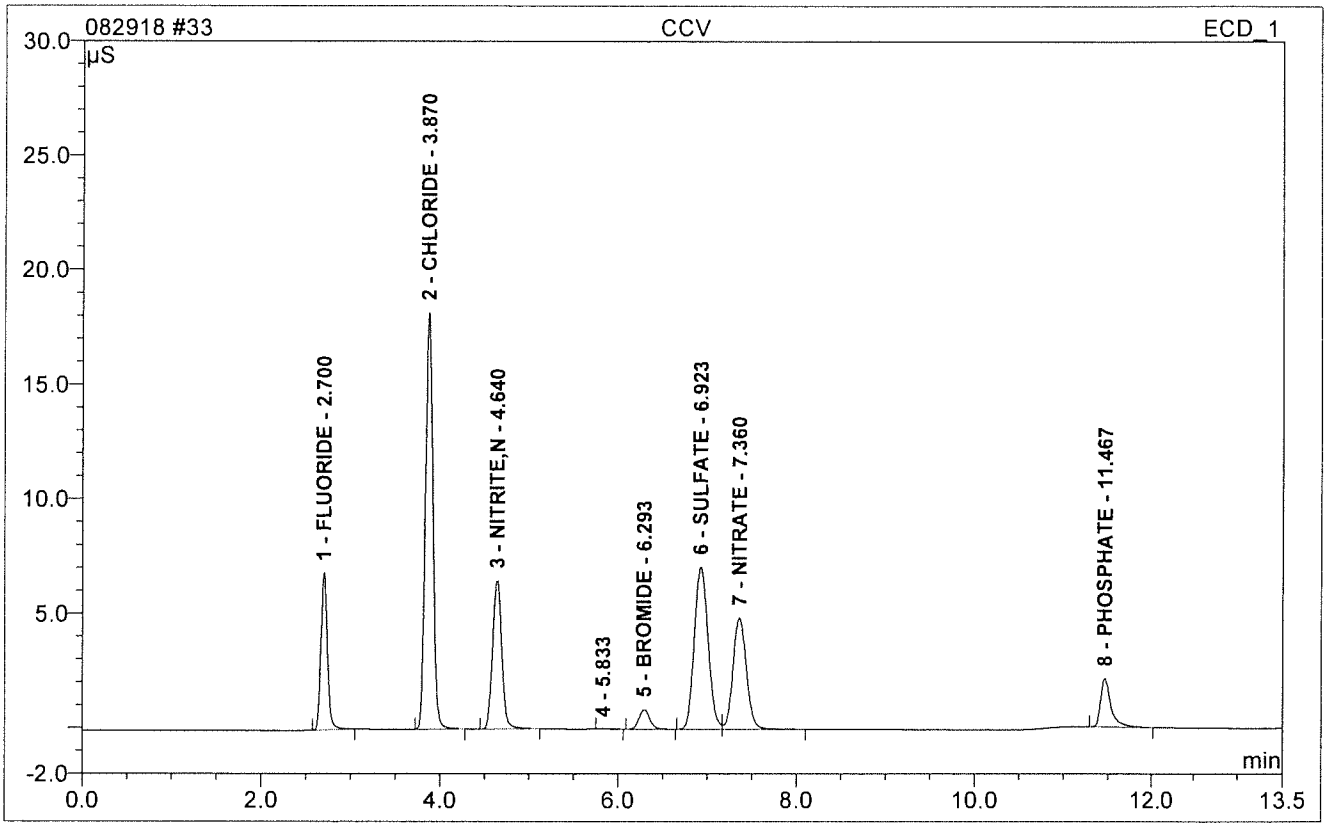
Sample Name:	**CCB**	*Injection Volume:*	**10.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 15:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.87	CHLORIDE	0.061	0.006	53.41	-0.073	1.
2	6.95	SULFATE	0.030	0.005	46.59	0.034	1.
Total:			0.091	0.012	100.00	-0.040	

33 CCV

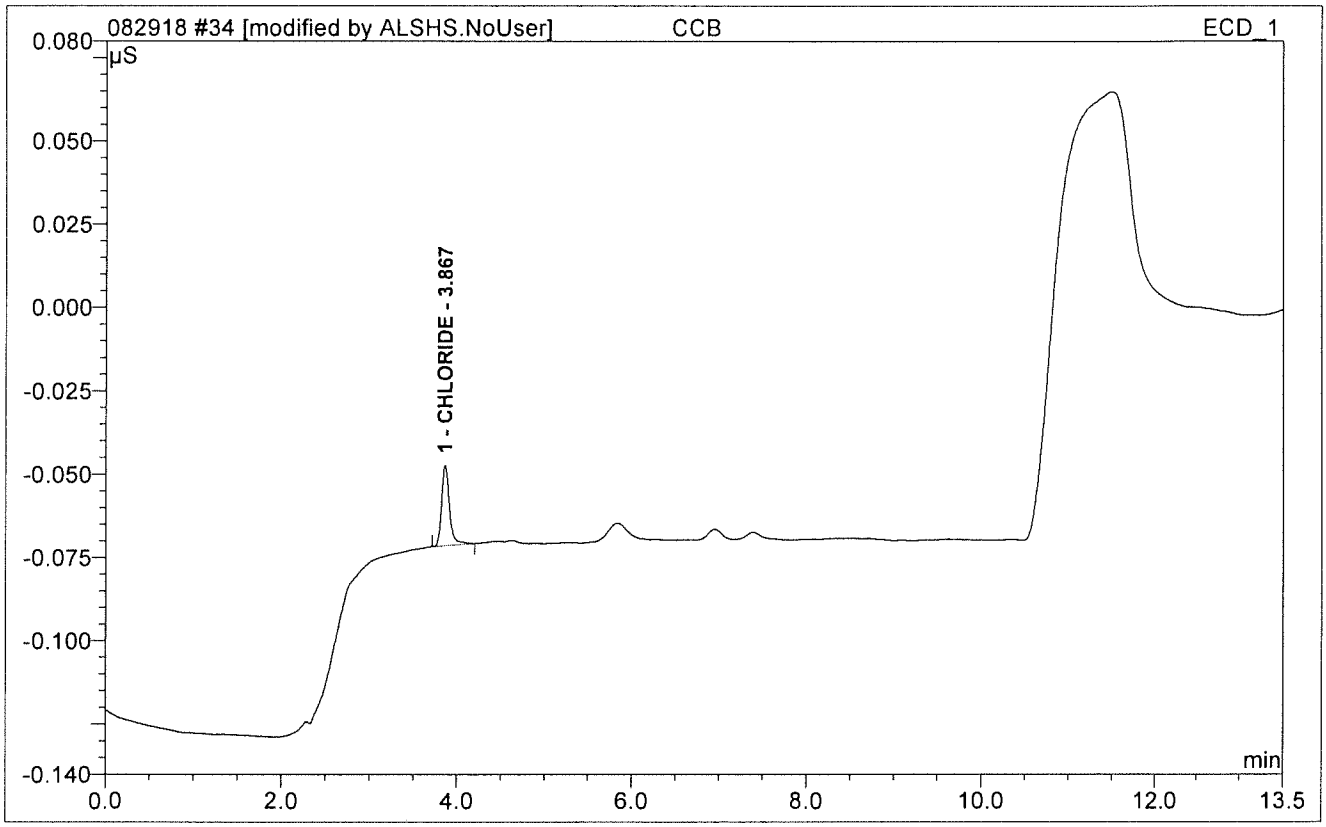
Sample Name:	**CCV**	*Injection Volume:*	**10.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 19:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	6.854	0.582	10.21	4.157	1.
2	3.87	CHLORIDE	18.181	1.789	31.36	20.292	1.
3	4.64	NITRITE,N	6.483	0.788	13.81	4.221	1.
5	6.29	BROMIDE	0.870	0.122	2.14	3.536	1.
6	6.92	SULFATE	7.098	1.274	22.33	20.038	1.
7	7.36	NITRATE	4.881	0.863	15.13	3.984	1.
8	11.47	PHOSPHATE	2.126	0.284	4.98	3.738	1.
Total:			46.493	5.703	99.97	59.966	

34 CCB

Sample Name:	**CCB**	*Injection Volume:*	**10.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 19:27**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**

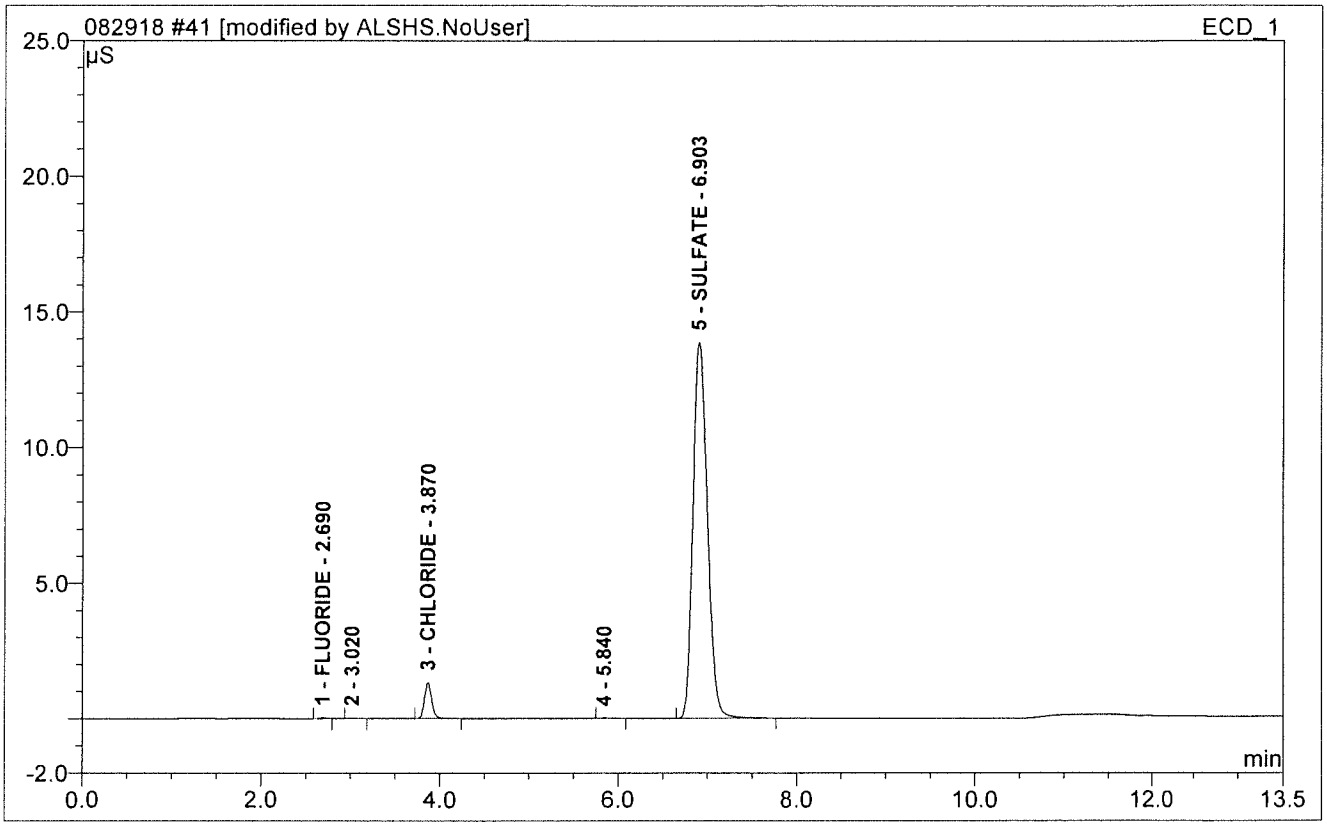


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.87	CHLORIDE	0.024	0.003	100.00	-0.116	1.
Total:			0.024	0.003	100.00	-0.116	

41 HS18081428-07DF100

9056_W SO4

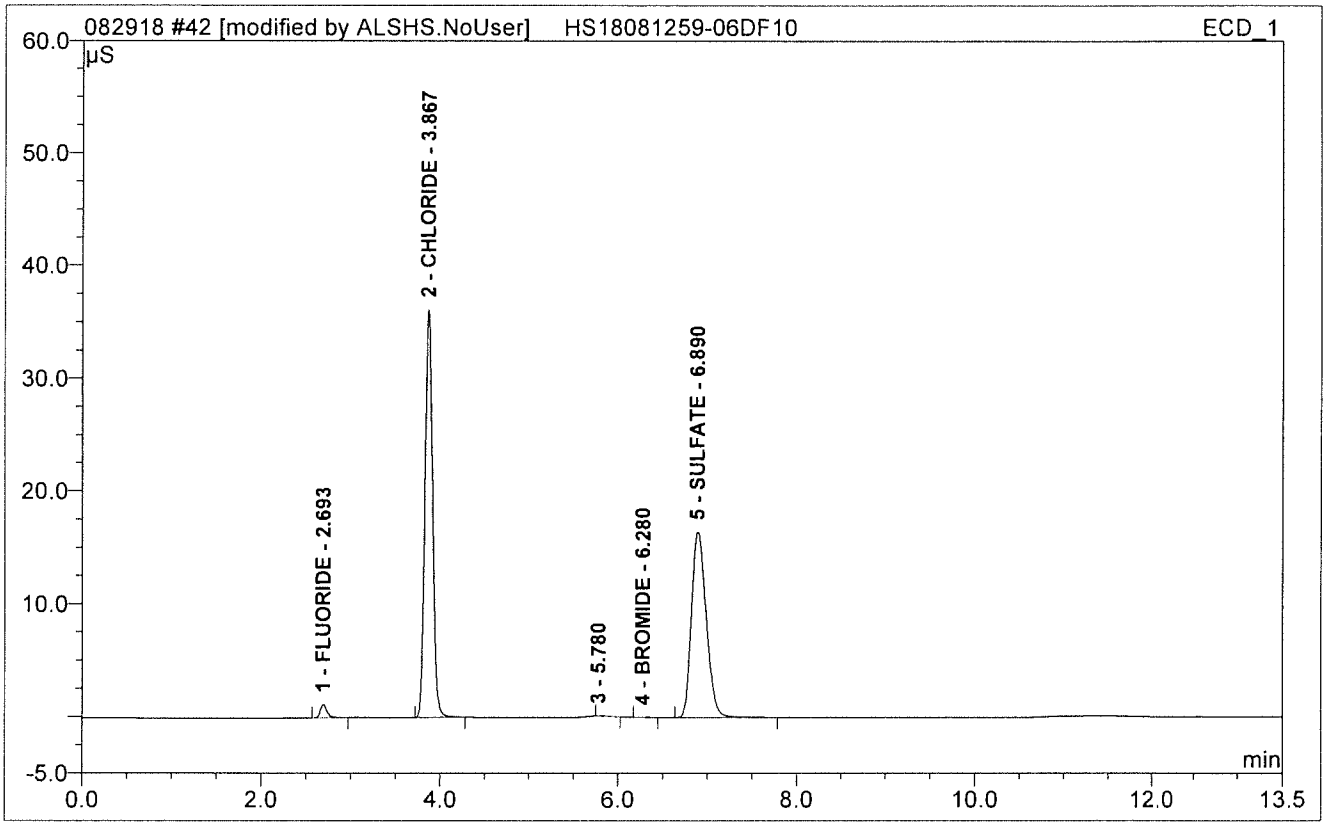
Sample Name:	**HS18081428-07DF100**	*Injection Volume:*	**10.0**
Vial Number:	**38**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**100.**
Recording Time:	**8/29/2018 21:37**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	0.035	0.003	0.10	-1.570	100.
3	3.87	CHLORIDE	1.336	0.126	4.61	129.965	100.
5	6.90	SULFATE	13.880	2.610	95.17	4109.873	100.
Total:			15.251	2.739	99.88	4238.268	

42 HS18081259-06DF10

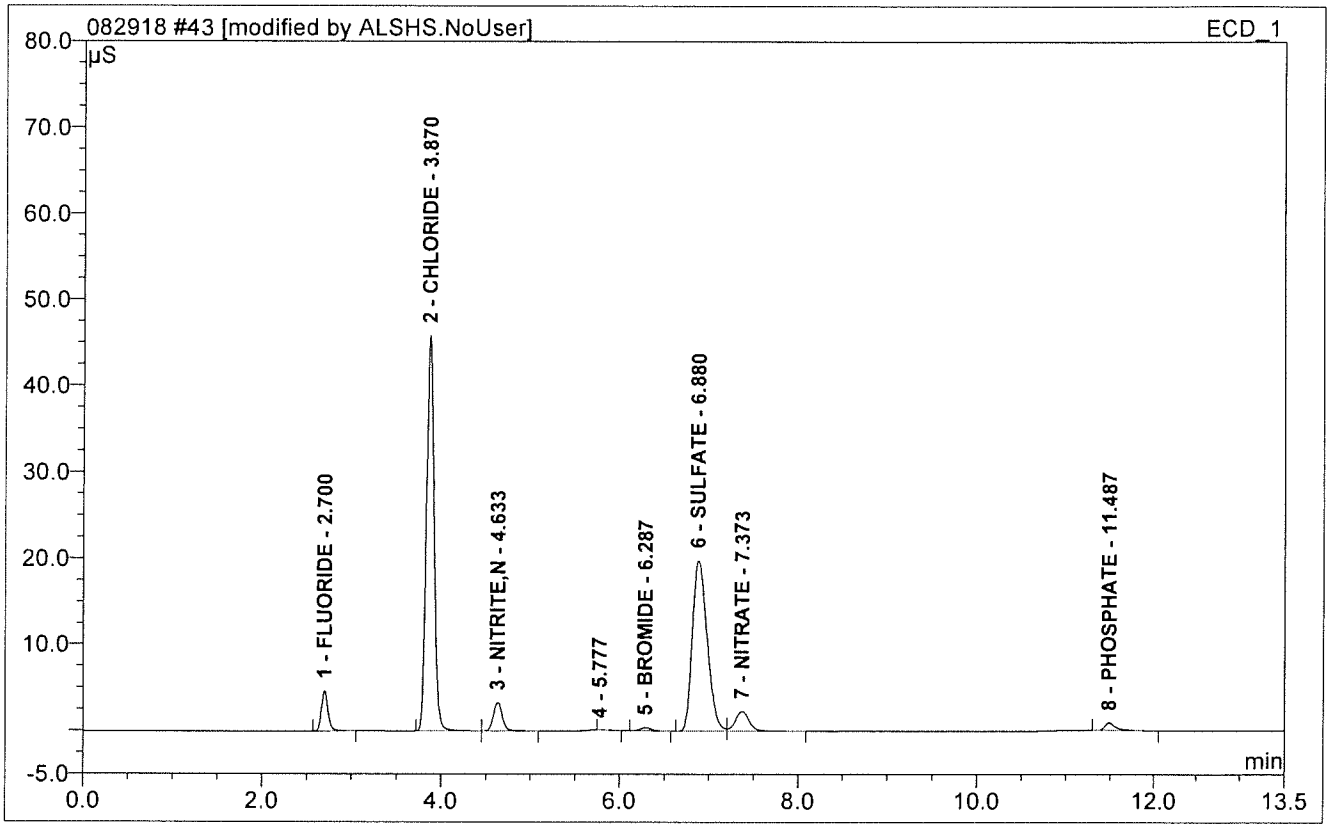
Sample Name:	**HS18081259-06DF10**	*Injection Volume:*	**10.0**
Vial Number:	**33**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**10.**
Recording Time:	**8/29/2018 21:51**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	1.187	0.101	1.48	6.938	10.
2	3.87	CHLORIDE	36.123	3.581	52.36	407.680	10.
4	6.28	BROMIDE	0.017	0.002	0.03	0.795	10.
5	6.89	SULFATE	16.443	3.151	46.08	496.390	10.
Total:			53.770	6.836	99.95	911.803	

43 HS18081259-06MSDF10

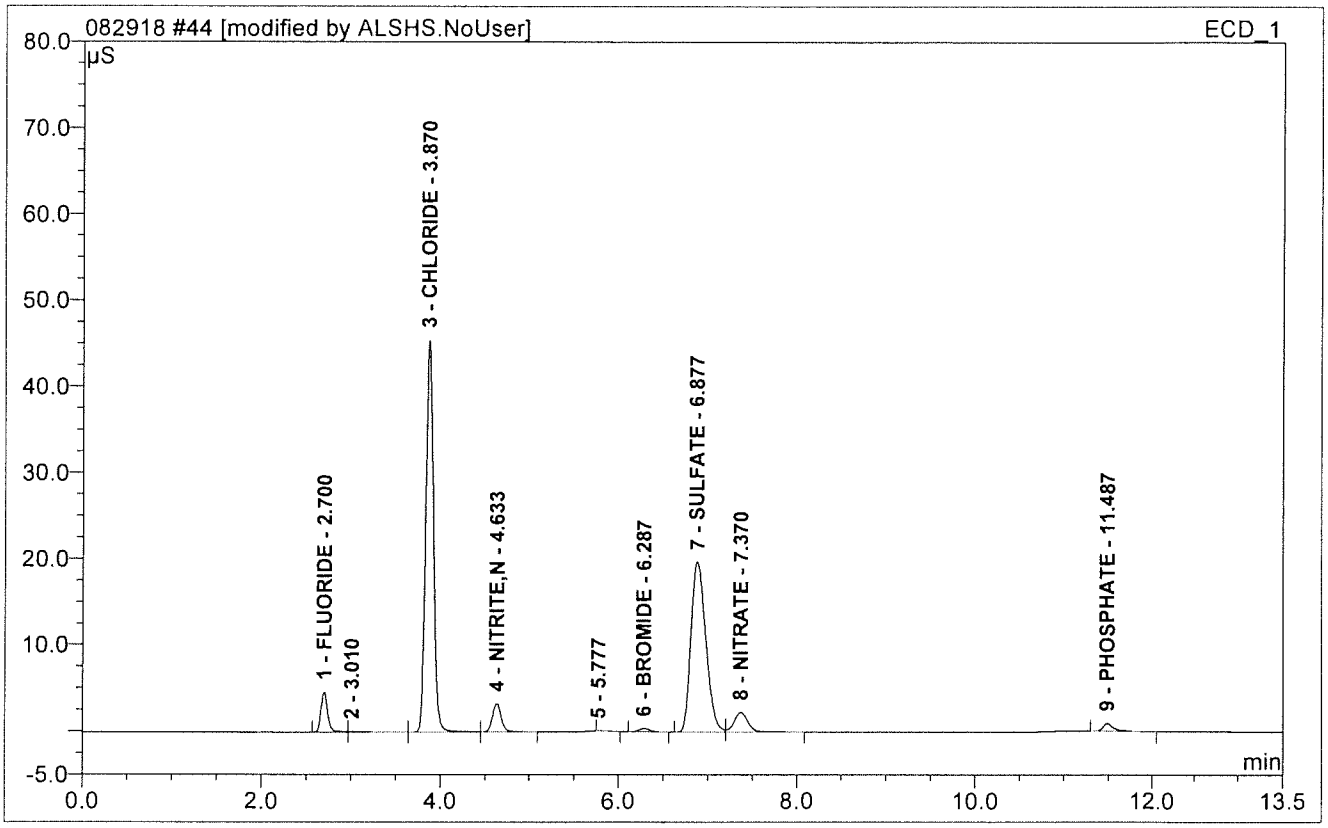
Sample Name:	**HS18081259-06MSDF10**	*Injection Volume:*	**10.0**
Vial Number:	**34**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**10.**
Recording Time:	**8/29/2018 22:06**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	4.680	0.399	4.08	28.367	10.
2	3.87	CHLORIDE	45.845	4.563	46.64	519.863	10.
3	4.63	NITRITE,N	3.299	0.382	3.90	20.208	10.
5	6.29	BROMIDE	0.394	0.055	0.56	15.969	10.
6	6.88	SULFATE	19.915	3.838	39.22	604.583	10.
7	7.37	NITRATE	2.311	0.419	4.29	19.352	10.
8	11.49	PHOSPHATE	0.891	0.125	1.28	17.055	10.
Total:			77.335	9.781	99.97	1225.397	

44 HS18081259-06MSDDF10

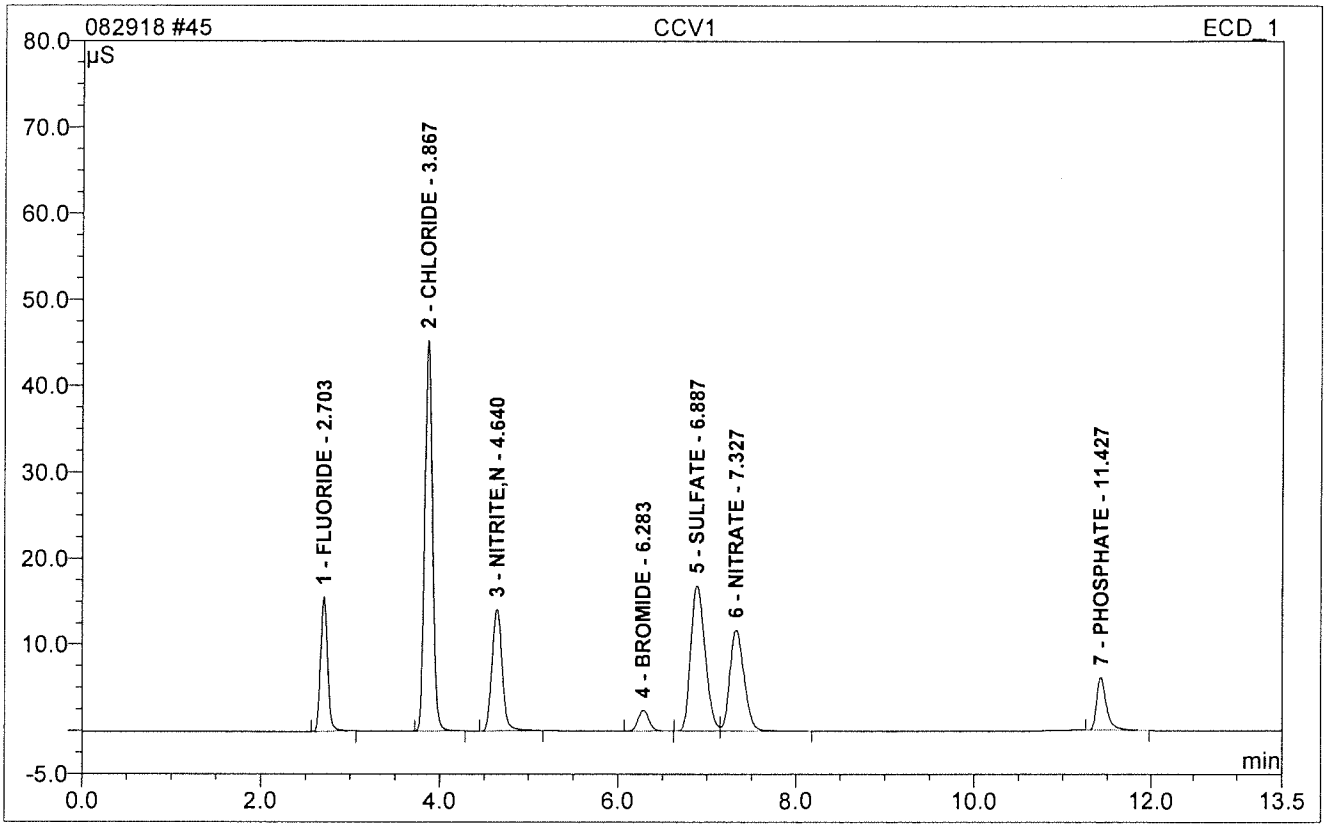
Sample Name:	**HS18081259-06MSDDF10**	*Injection Volume:*	**10.0**
Vial Number:	**35**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**10.**
Recording Time:	**8/29/2018 22:20**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	4.647	0.402	4.14	28.600	10.
3	3.87	CHLORIDE	45.422	4.533	46.62	516.361	10.
4	4.63	NITRITE,N	3.270	0.380	3.90	20.101	10.
6	6.29	BROMIDE	0.388	0.054	0.56	15.758	10.
7	6.88	SULFATE	19.730	3.797	39.05	598.125	10.
8	7.37	NITRATE	2.276	0.412	4.24	19.027	10.
9	11.49	PHOSPHATE	0.879	0.124	1.28	16.917	10.
Total:			76.613	9.702	99.79	1214.890	

45 CCV1

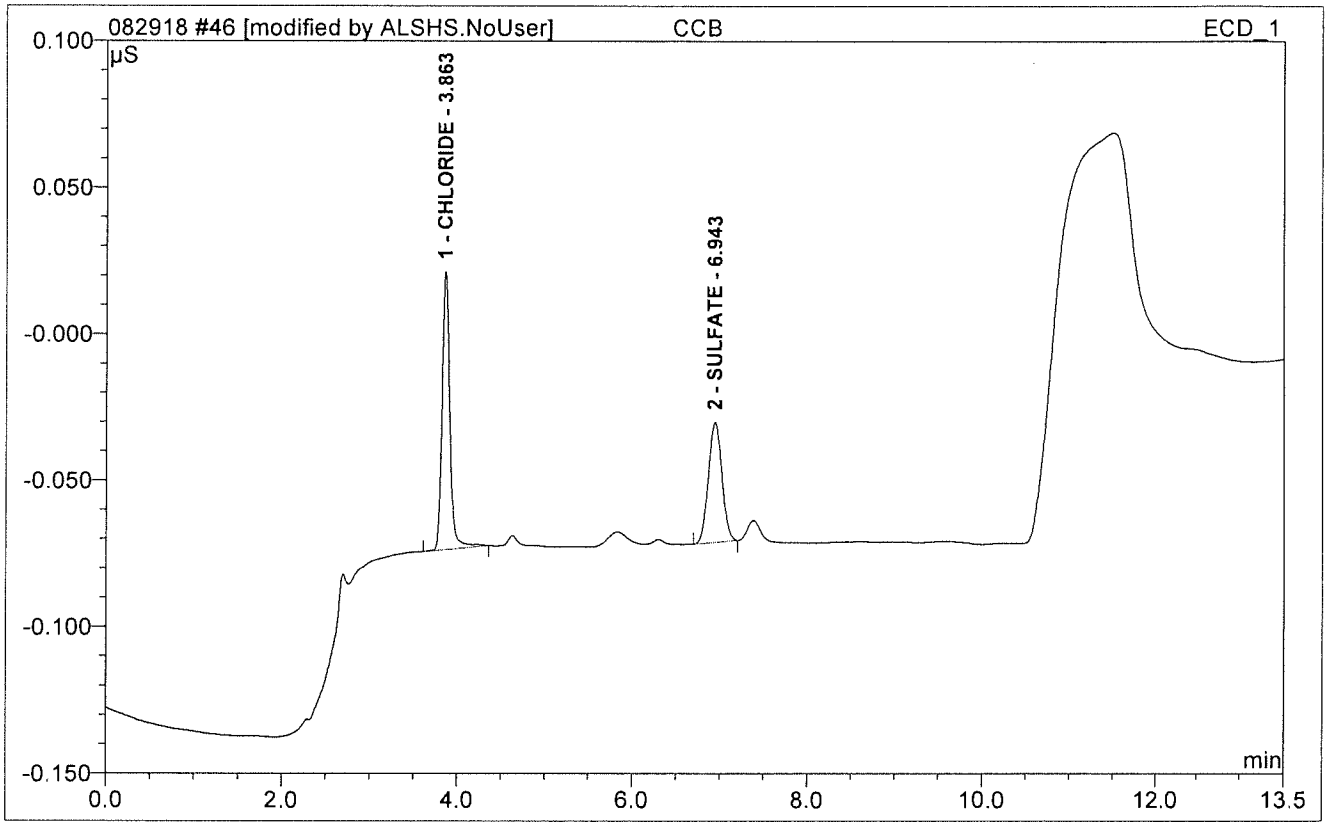
Sample Name:	**CCV1**	*Injection Volume:*	**10.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 22:35**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	15.613	1.409	9.87	10.108	1.
2	3.87	CHLORIDE	45.263	4.514	31.61	51.423	1.
3	4.64	NITRITE,N	14.127	1.872	13.11	10.089	1.
4	6.28	BROMIDE	2.445	0.343	2.40	9.923	1.
5	6.89	SULFATE	16.926	3.167	22.18	49.887	1.
6	7.33	NITRATE	11.751	2.191	15.34	10.111	1.
7	11.43	PHOSPHATE	6.106	0.785	5.49	10.137	1.
Total:			112.232	14.281	100.00	151.678	

46 CCB

Sample Name:	**CCB**	*Injection Volume:*	**10.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 22:50**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**

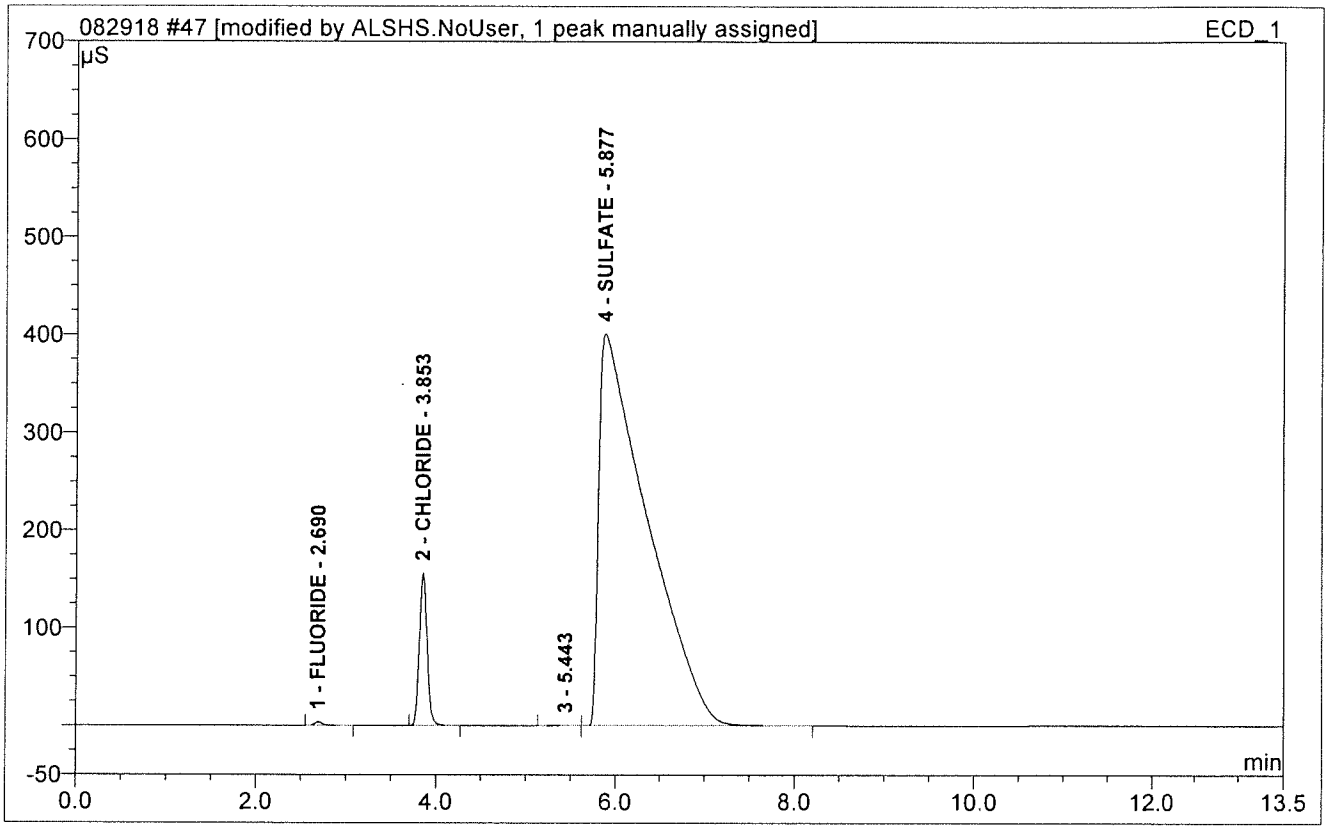


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.86	CHLORIDE	0.095	0.010	57.07	-0.033	1.
2	6.94	SULFATE	0.041	0.007	42.93	0.065	1.
Total:			0.136	0.017	100.00	0.032	

47 HS18081428-07

9056_W CL NO2/3 SO4

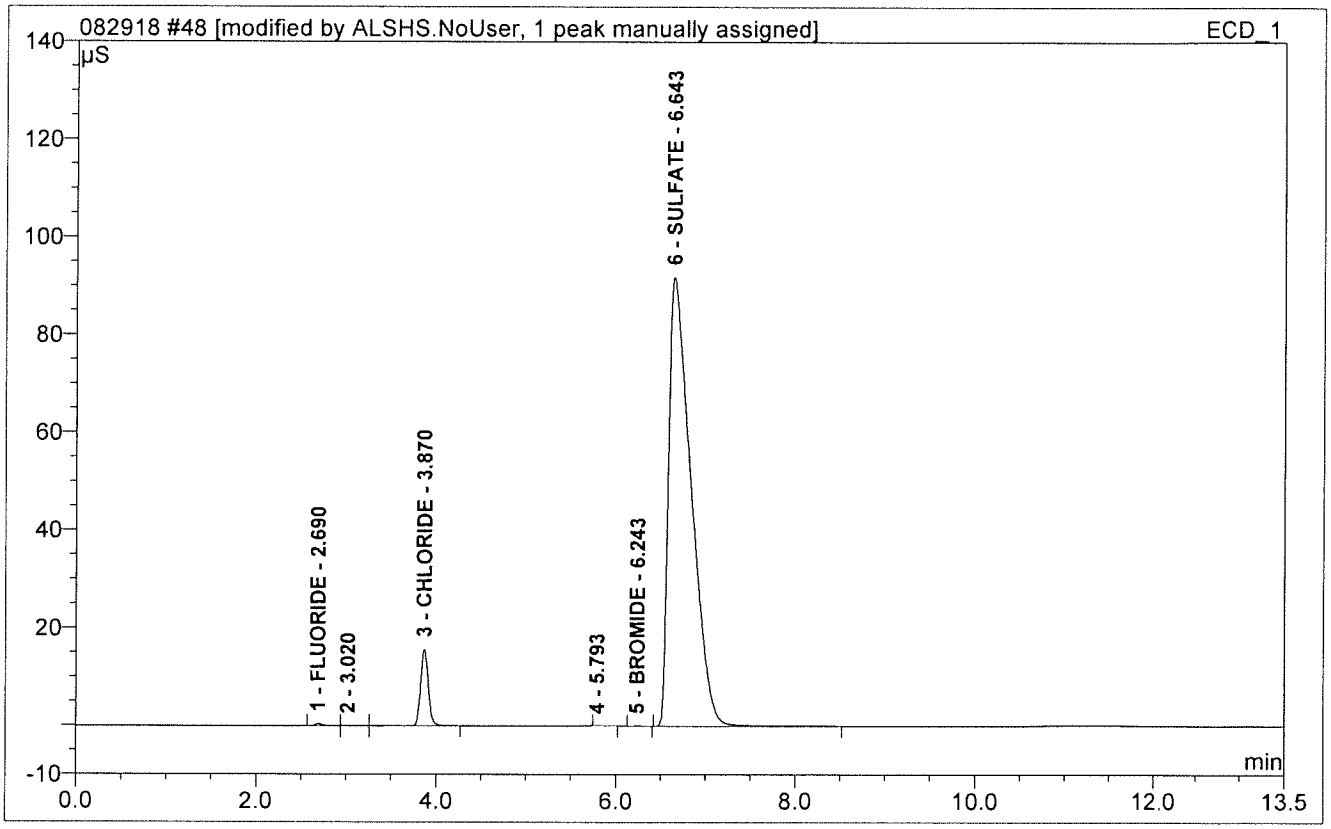
Sample Name:	**HS18081428-07**	*Injection Volume:*	**10.0**
Vial Number:	**36**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 23:04**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	3.747	0.370	0.14	2.631	1.
2	3.85	CHLORIDE	156.284	15.632	5.85	178.435	1.
4	5.88	SULFATE	401.252	251.091	93.99	3959.021	1.
Total:			561.282	267.094	99.98	4140.087	

48 HS18081428-07DF10

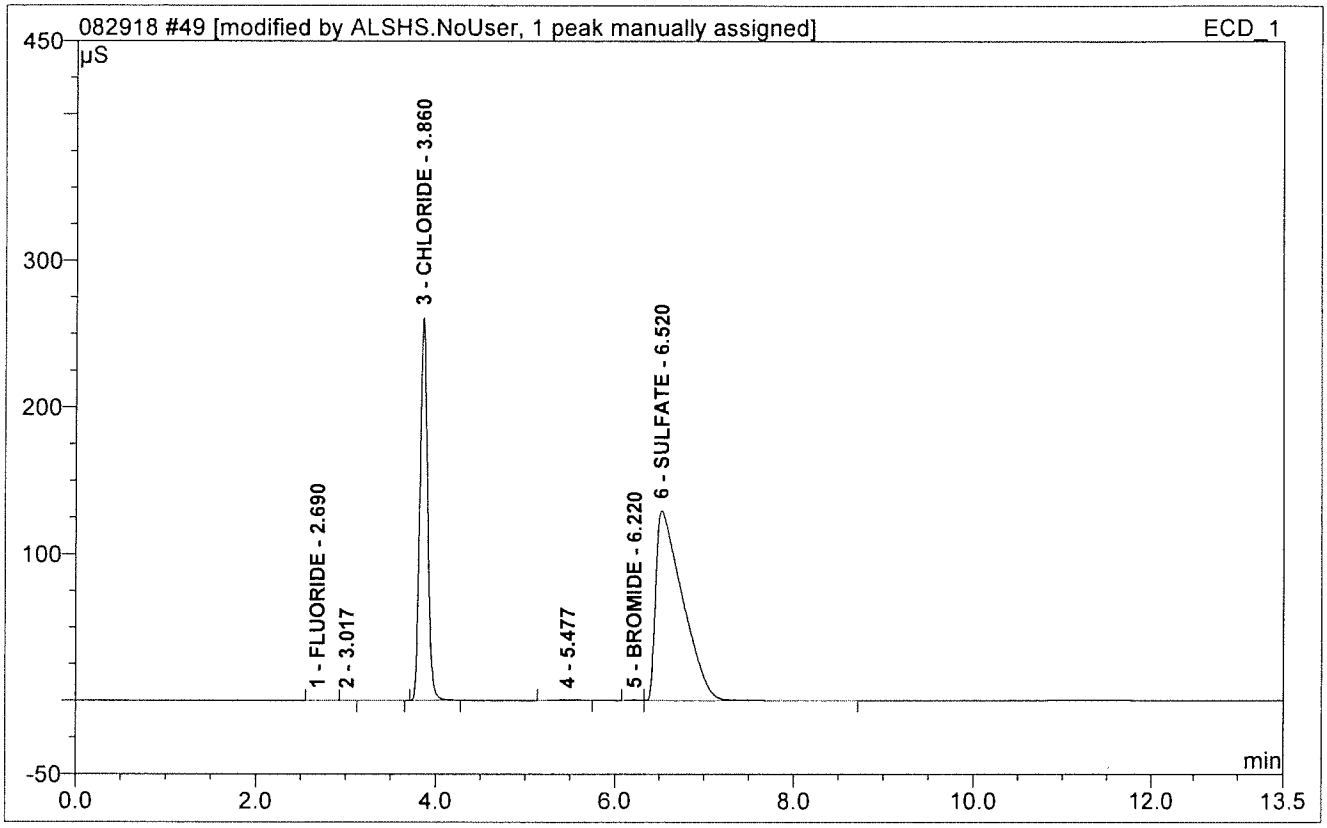
Sample Name:	**HS18081428-07DF10**	*Injection Volume:*	**10.0**
Vial Number:	**37**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**10.**
Recording Time:	**8/29/2018 23:19**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	0.457	0.043	0.15	2.753	10.
3	3.87	CHLORIDE	15.690	1.540	5.45	174.468	10.
5	6.24	BROMIDE	0.018	0.002	0.01	0.803	10.
6	6.64	SULFATE	92.021	26.637	94.35	4199.455	10.
Total:			108.187	28.222	99.97	4377.478	

49 HS18081428-08

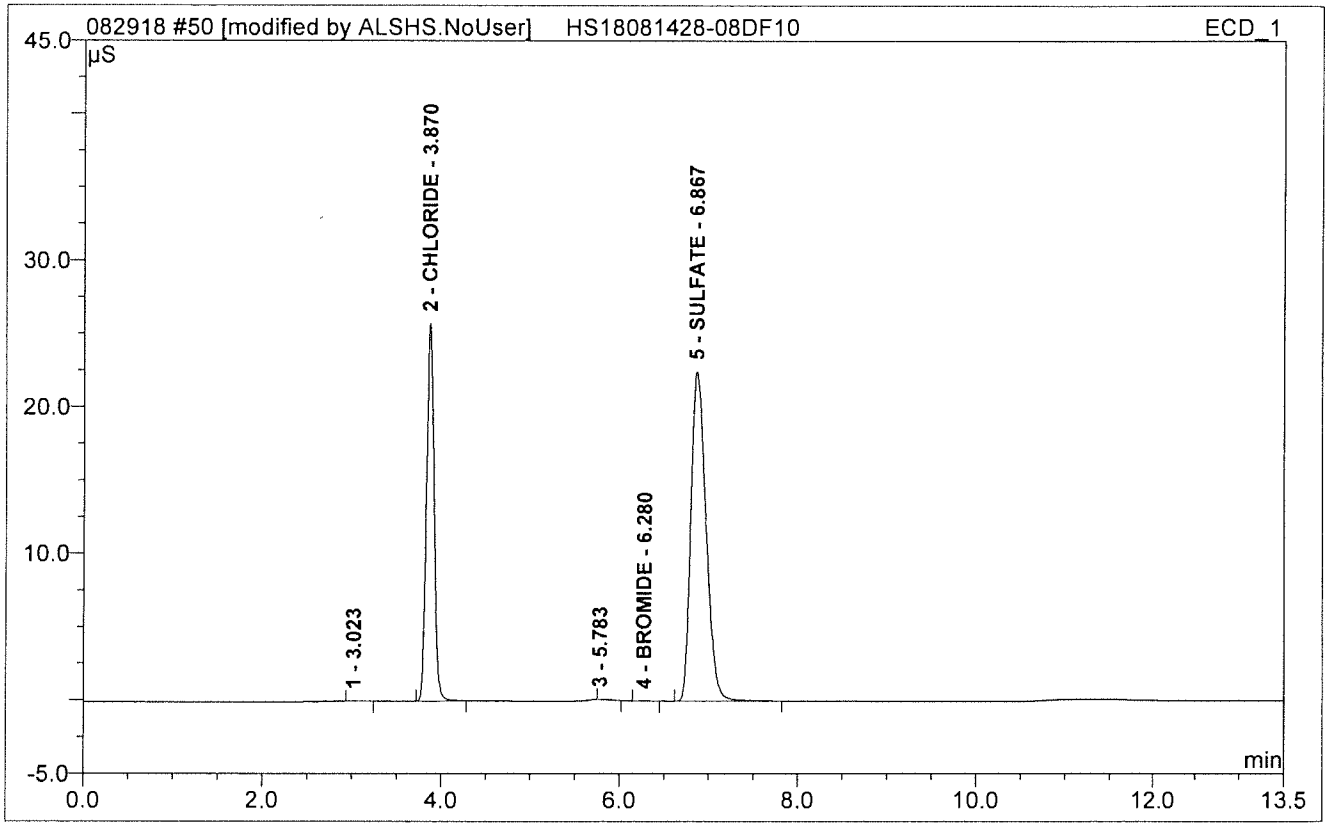
Sample Name:	**HS18081428-08**	*Injection Volume:*	**10.0**
Vial Number:	**39**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/29/2018 23:33**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	0.175	0.030	0.04	0.179	1.
3	3.86	CHLORIDE	261.160	26.214	36.77	299.317	1.
5	6.22	BROMIDE	0.250	0.030	0.04	0.887	1.
6	6.52	SULFATE	129.793	44.949	63.04	708.685	1.
Total:			391.378	71.223	99.89	1009.068	

50 HS18081428-08DF10

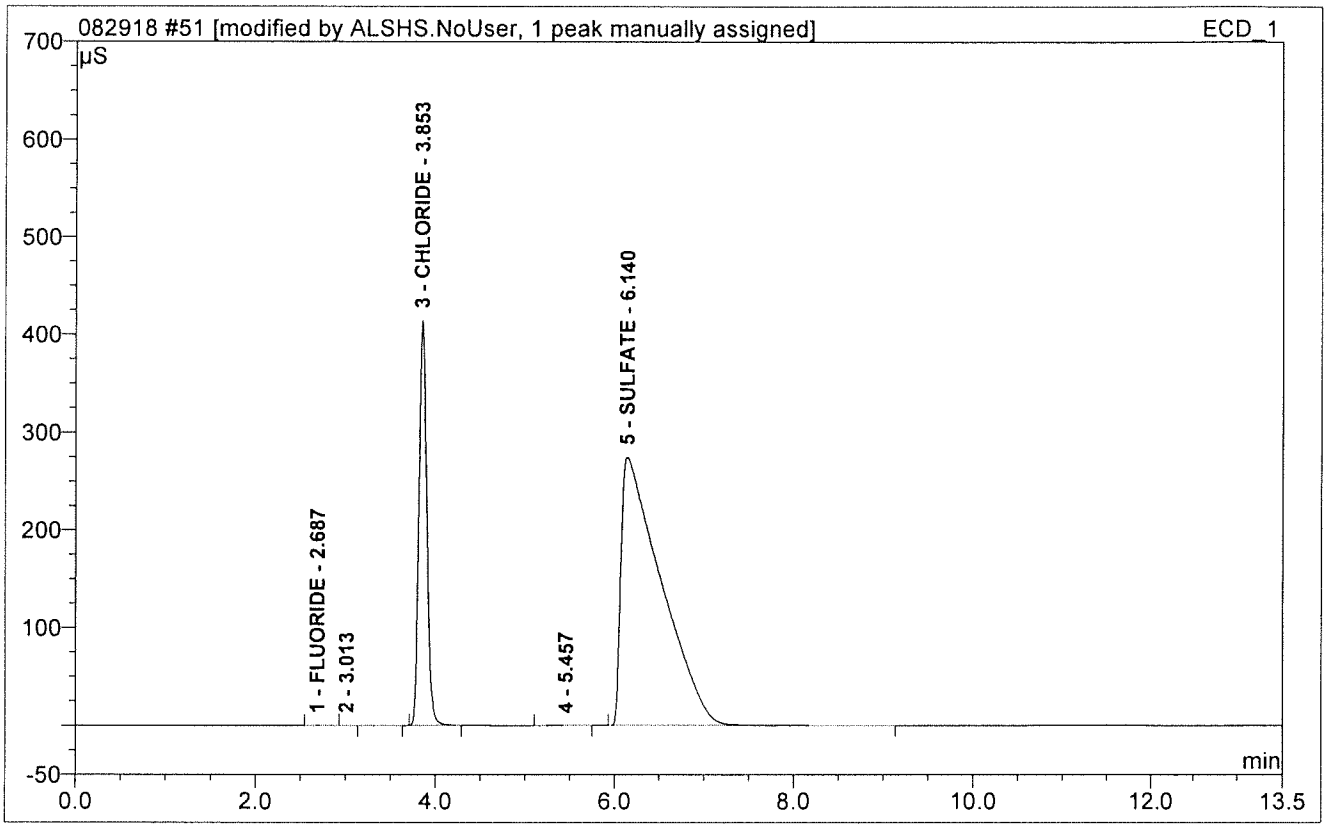
Sample Name:	**HS18081428-08DF10**	*Injection Volume:*	**10.0**
Vial Number:	**40**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**10.**
Recording Time:	**8/29/2018 23:48**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
2	3.87	CHLORIDE	25.755	2.547	36.34	289.520	10.
4	6.28	BROMIDE	0.020	0.003	0.04	0.915	10.
5	6.87	SULFATE	22.471	4.455	63.55	701.932	10.
Total:			48.245	7.005	99.93	992.367	

51 HS18081428-09

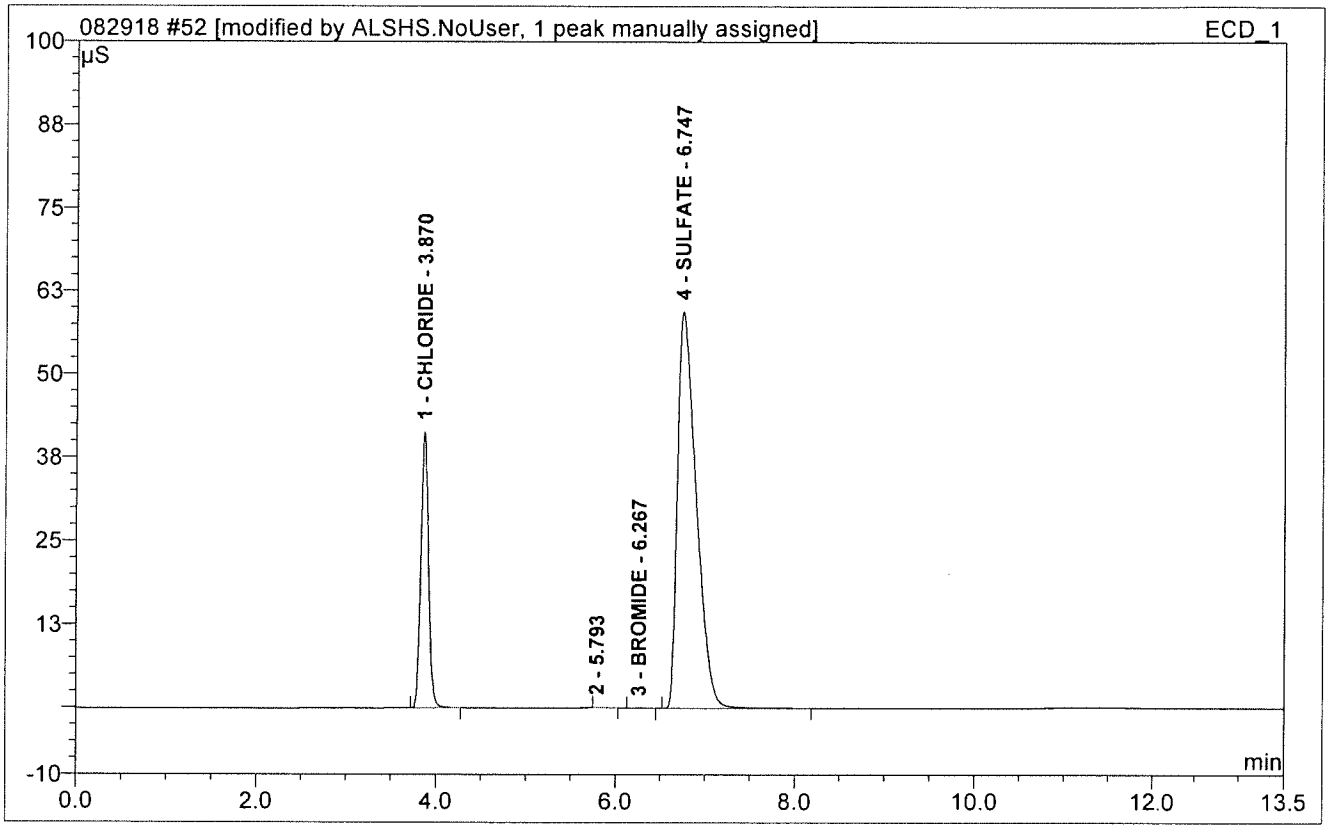
Sample Name:	**HS18081428-09**	*Injection Volume:*	**10.0**
Vial Number:	**41**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 0:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	0.172	0.031	0.02	0.186	1.
3	3.85	CHLORIDE	414.453	41.939	22.73	478.954	1.
5	6.14	SULFATE	275.035	142.479	77.21	2246.483	1.
Total:			689.661	184.448	99.96	2725.623	

52 HS18081428-09DF10

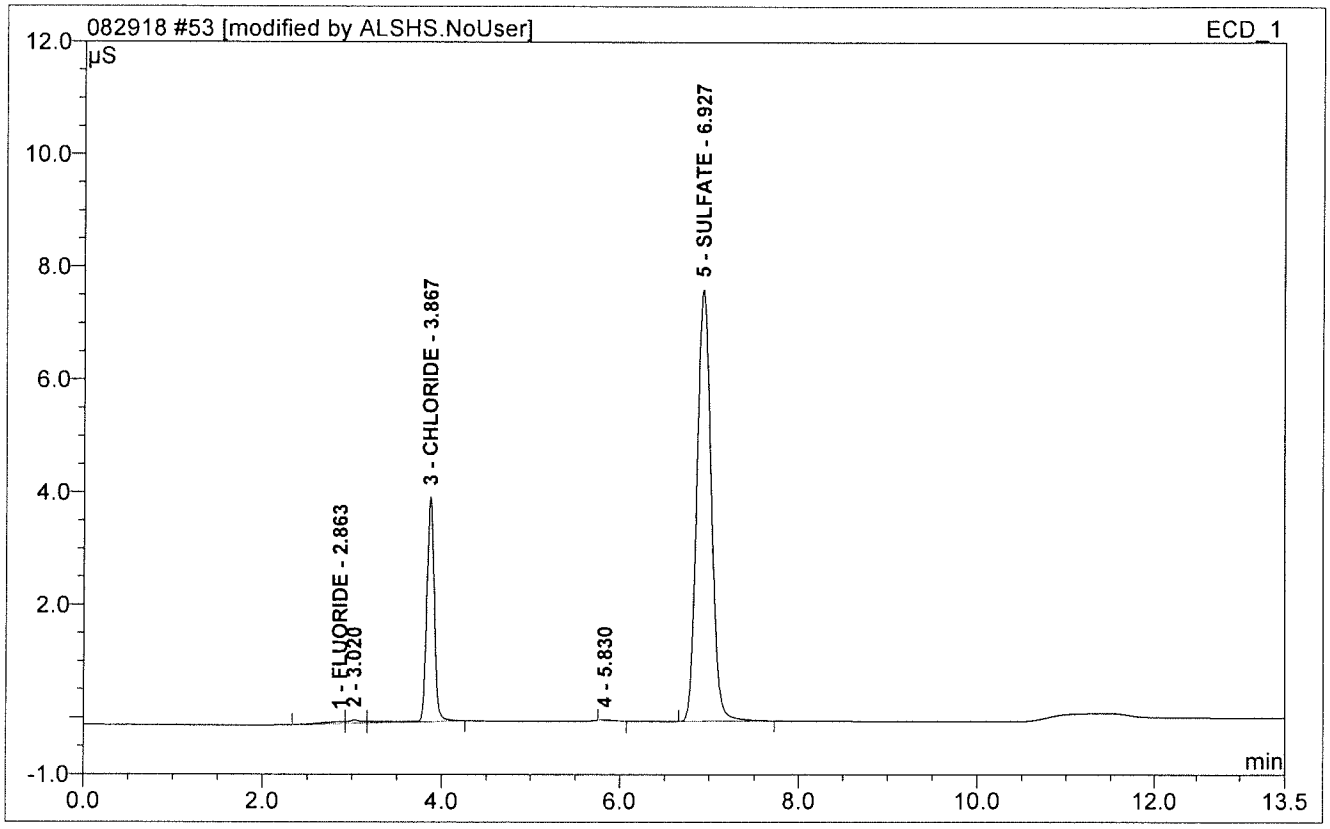
Sample Name:	**HS18081428-09DF10**	*Injection Volume:*	**10.0**
Vial Number:	**42**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**10.**
Recording Time:	**8/30/2018 0:17**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.87	CHLORIDE	41.365	4.119	22.16	469.070	10.
3	6.27	BROMIDE	0.031	0.004	0.02	1.338	10.
4	6.75	SULFATE	59.578	14.457	77.79	2278.919	10.
Total:			100.974	18.579	99.98	2749.326	

53 HS18081428-09DF100

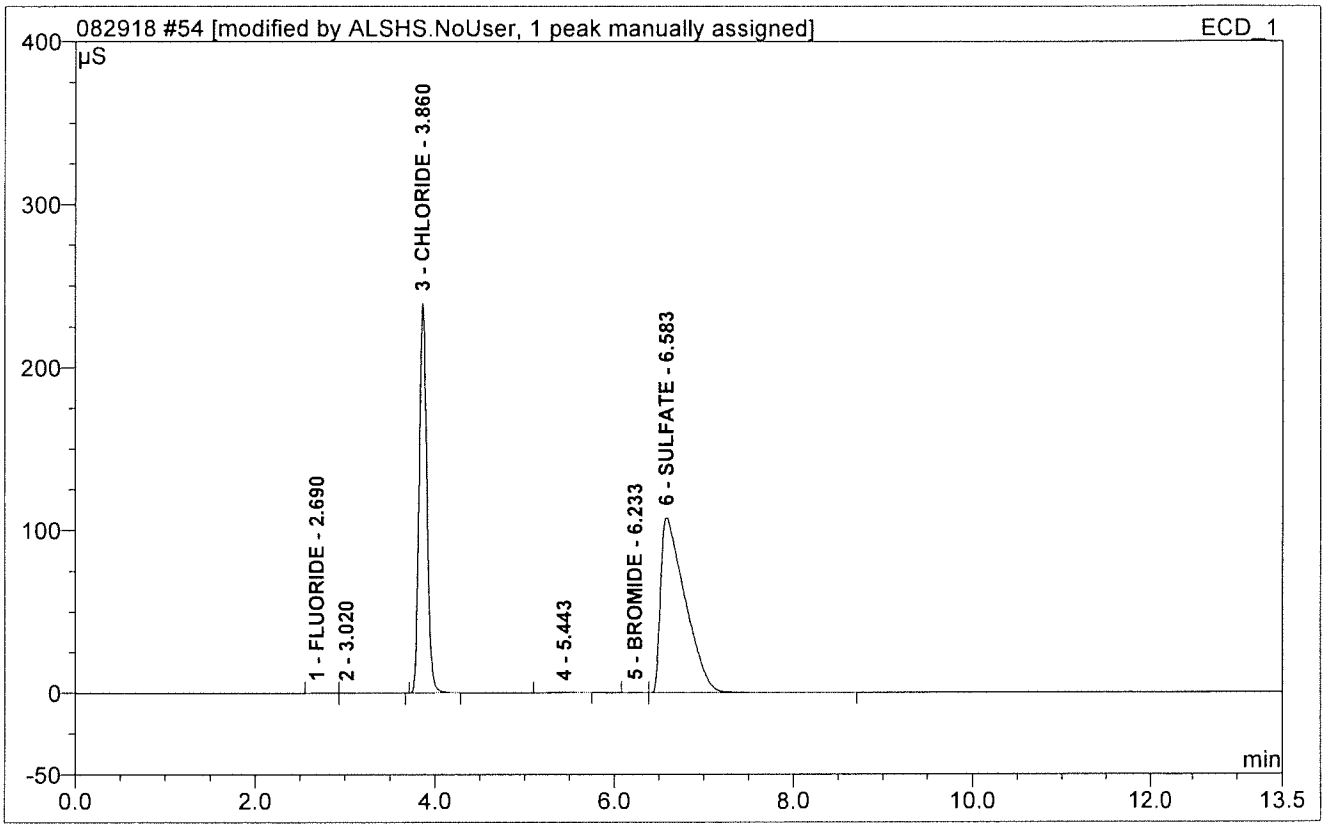
Sample Name:	**HS18081428-09DF100**	*Injection Volume:*	**10.0**
Vial Number:	**43**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**100.**
Recording Time:	**8/30/2018 0:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.86	FLUORIDE	0.037	0.011	0.59	4.341	100.
3	3.87	CHLORIDE	3.979	0.393	21.42	434.668	100.
5	6.93	SULFATE	7.661	1.420	77.36	2233.408	100.
Total:			11.676	1.824	99.37	2672.418	

54 HS18081428-10

Sample Name:	**HS18081428-10**	*Injection Volume:*	**10.0**
Vial Number:	**44**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 0:46**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**

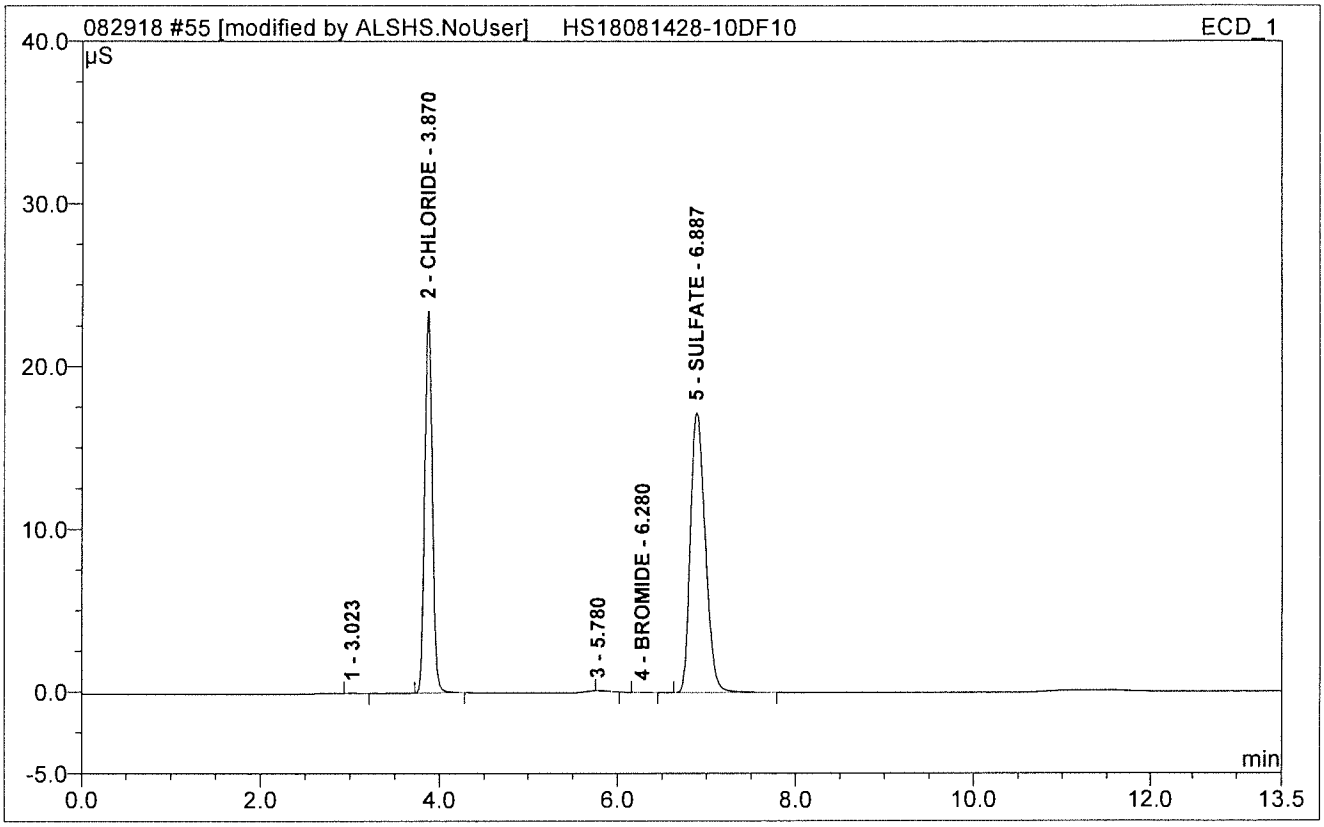


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	0.194	0.023	0.04	0.129	1.
3	3.86	CHLORIDE	239.383	23.944	41.26	273.391	1.
5	6.23	BROMIDE	0.245	0.031	0.05	0.922	1.
6	6.58	SULFATE	107.618	33.941	58.48	535.110	1.
Total:			347.440	57.939	99.83	809.553	

55 HS18081428-10DF10

DONE

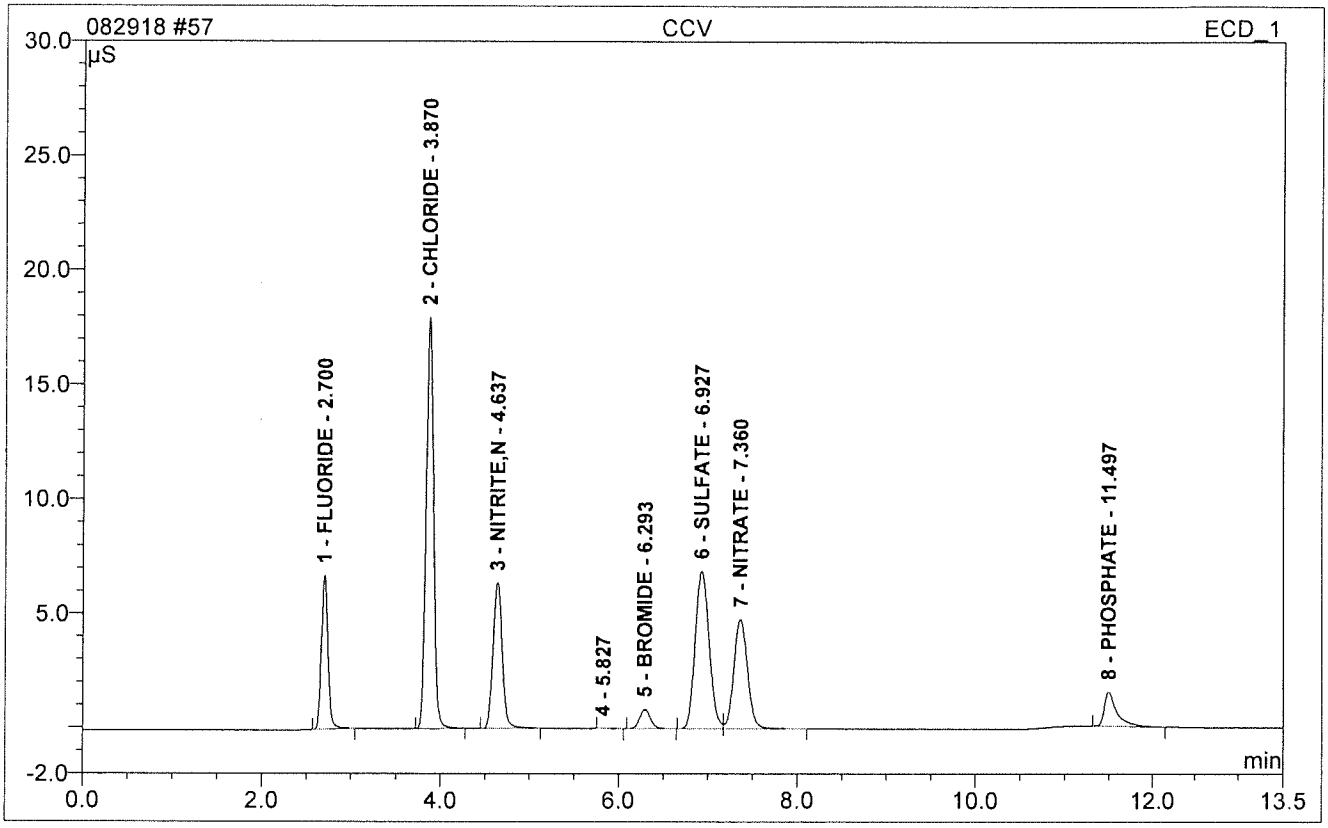
Sample Name:	**HS18081428-10DF10**	*Injection Volume:*	**10.0**
Vial Number:	**45**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**10.**
Recording Time:	**8/30/2018 1:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
2	3.87	CHLORIDE	23.476	2.317	40.97	263.234	10.
4	6.28	BROMIDE	0.018	0.002	0.04	0.841	10.
5	6.89	SULFATE	17.230	3.332	58.91	524.830	10.
Total:			40.724	5.651	99.92	788.905	

57 CCV

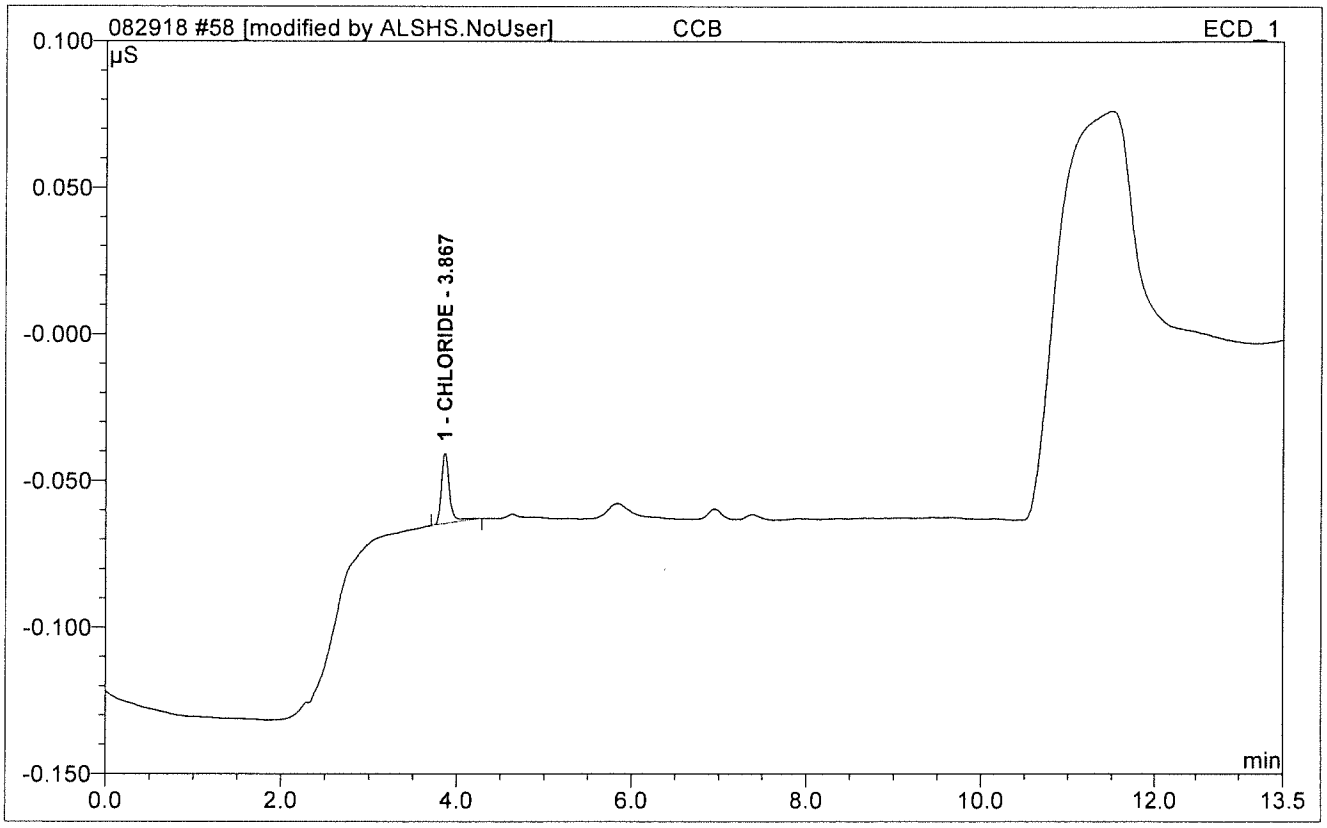
Sample Name:	**CCV**	*Injection Volume:*	**10.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 1:30**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	6.757	0.575	10.29	4.107	1.
2	3.87	CHLORIDE	17.969	1.770	31.65	20.077	1.
3	4.64	NITRITE,N	6.393	0.777	13.89	4.162	1.
5	6.29	BROMIDE	0.848	0.120	2.14	3.467	1.
6	6.93	SULFATE	6.934	1.254	22.42	19.720	1.
7	7.36	NITRATE	4.821	0.856	15.30	3.949	1.
8	11.50	PHOSPHATE	1.493	0.239	4.28	3.161	1.
Total:			45.216	5.591	99.97	58.642	

58 CCB

Sample Name:	**CCB**	*Injection Volume:*	**10.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 1:44**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.87	CHLORIDE	0.024	0.003	100.00	-0.115	1.
Total:			0.024	0.003	100.00	-0.115	

Report Date: 09/18/2018 : 10:40

PC-TitratION PLUS
Calibration Report

H5180814 28

Calibration Record # 2001

Calibration Settings

Calibration ID	PH CAL 4-7-10	Date	08/30/2018
Channel	1	Time	9:50 PM
Probe Type	pH	Temperature	295.55 K 22.40 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-58.512	CorrCoeff	0.9998
Intercept	-2.560	Equation: Y = (-58.512) X + (-2.560)	

Calibration Validity True Operator

	Result	Minimum	Maximum
Slope	-58.512	-65.00	-53.00
Intercept	-2.560	-100.00	100.00
Correlation Coefficient	0.9998	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	4.00	175.17
	7.00	-6.95
	10.00	-175.90

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PC-TitratION PLUS
Water Analysis Historical Data Report

Run Number 3317 **Order Number** 20180830-4

SampleID	Schedule Name	RunDate	RunTime	cond (uS)	Temp	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
ICV-PH	PH ONLY 35ML	08/30/2018	10:03 PM	-1.00	22.54	6.04	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
TAP WATER	PH ALKALINITY 35ML	08/30/2018	10:09 PM	-1.00	22.92	7.42	.00	244.38	244.38	.00	.00	.00	2.33	2.33
WBLKW1-180830	PH ALKALINITY 35ML	08/30/2018	10:14 PM	-1.00	23.04	5.01	.00	.09	.09	.00	.00	.00	.01	.01
WLCS1-180830	PH ALKALINITY 35ML	08/30/2018	10:22 PM	-1.00	23.23	10.77	542.78	1,062.17	.00	1,038.78	23.39	5.17	10.12	10.12
WLCSD1-180830	PH ALKALINITY 35ML	08/30/2018	10:31 PM	-1.00	22.86	10.77	541.21	1,059.62	.00	1,036.83	22.79	5.15	10.09	10.09
HS18081444-01	PH ALKALINITY 35ML	08/30/2018	10:35 PM	-1.00	22.07	4.96	.00	.04	.04	.00	.00	.00	.01	.01
HS18081121-02DF5	PH ALKALINITY 35ML	08/30/2018	10:43 PM	-1.00	22.16	8.25	.00	595.28	595.28	.00	.00	.00	5.67	5.67
HS18081121-03DF5	PH ALKALINITY 35ML	08/30/2018	10:51 PM	-1.00	22.07	7.88	.00	700.73	700.73	.00	.00	.00	6.67	6.67
HS18081249-08	PH ALKALINITY 35ML	08/30/2018	10:57 PM	-1.00	21.80	7.69	.00	279.96	279.96	.00	.00	.00	2.67	2.67
HS18081249-08DUP	PH ALKALINITY 35ML	08/30/2018	11:04 PM	-1.00	21.80	7.69	.00	277.95	277.95	.00	.00	.00	2.65	2.65
HS18081249-09	PH ALKALINITY 35ML	08/30/2018	11:10 PM	-1.00	21.93	7.62	.00	281.94	281.94	.00	.00	.00	2.69	2.69
CCV-PH	PH ONLY 35ML	08/30/2018	11:13 PM	-1.00	22.49	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	PH ALKALINITY 35ML	08/30/2018	11:22 PM	-1.00	22.43	10.78	544.84	1,071.93	.00	1,054.18	17.74	5.19	10.21	10.21
DI RINSE	PH ALKALINITY 35ML	08/30/2018	11:26 PM	-1.00	22.20	5.29	.00	.25	.25	.00	.00	.00	.01	.01
HS18081249-10	PH ALKALINITY 35ML	08/30/2018	11:32 PM	-1.00	22.11	7.61	.00	281.49	281.49	.00	.00	.00	2.68	2.68
HS18081249-11	PH ALKALINITY 35ML	08/30/2018	11:39 PM	-1.00	21.98	7.52	.00	290.72	290.72	.00	.00	.00	2.77	2.77
HS18081249-12	PH ALKALINITY 35ML	08/30/2018	11:45 PM	-1.00	21.96	7.55	.00	335.87	335.87	.00	.00	.00	3.20	3.20
HS18081249-13	PH ALKALINITY 35ML	08/30/2018	11:52 PM	-1.00	21.86	7.73	.00	147.71	147.71	.00	.00	.00	1.41	1.41
HS18081249-14	PH ALKALINITY 35ML	08/30/2018	11:58 PM	-1.00	21.86	7.70	.00	242.67	242.67	.00	.00	.00	2.31	2.31
HS18081249-15	PH ALKALINITY 35ML	08/31/2018	12:05 AM	-1.00	21.83	7.75	.00	210.83	210.83	.00	.00	.00	2.01	2.01
HS18081249-16	PH ALKALINITY 35ML	08/31/2018	12:11 AM	-1.00	21.98	7.76	.00	276.59	276.59	.00	.00	.00	2.63	2.63
HS18081249-17	PH ALKALINITY 35ML	08/31/2018	12:19 AM	-1.00	22.08	7.87	.00	409.58	409.58	.00	.00	.00	3.90	3.90
HS18081468-01	PH ALKALINITY 35ML	08/31/2018	12:26 AM	-1.00	22.31	7.29	.00	513.00	513.00	.00	.00	.00	4.89	4.89
CCV-PH	PH ONLY 35ML	08/31/2018	12:28 AM	-1.00	22.16	7.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	PH ALKALINITY 35ML	08/31/2018	12:36 AM	-1.00	22.03	10.75	537.66	1,062.29	.00	1,049.25	13.04	5.12	10.12	10.12
DI RINSE	PH ALKALINITY 35ML	08/31/2018	12:41 AM	-1.00	21.98	5.24	.00	.13	.13	.00	.00	.00	.01	.01
HS18081468-02	PH ALKALINITY 35ML	08/31/2018	12:47 AM	-1.00	21.90	7.41	.00	465.14	465.14	.00	.00	.00	4.43	4.43

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Run Number 3317 **Order Number** 20180830-4

SampleID	Schedule Name	RunDate	RunTime	cond (uS)	Temp	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
HS18081468-03	PH ALKALINITY 35ML	08/31/2018	12:56 AM	-1.00	21.95	7.53	.00	696.30	696.30	.00	.00	.00	6.63	6.63
HS18081468-04	PH ALKALINITY 35ML	08/31/2018	1:04 AM	-1.00	22.35	7.49	.00	811.75	811.75	.00	.00	.00	7.73	7.73
HS18081445-01	PH ALKALINITY 35ML	08/31/2018	1:12 AM	-1.00	22.54	8.71	1.62	15.78	12.53	3.25	.00	.02	.18	.18
HS18081248-01	PH ALKALINITY 35ML	08/31/2018	1:18 AM	-1.00	22.29	6.56	.00	452.59	452.59	.00	.00	.00	4.31	4.31
HS18081428-07	PH ALKALINITY 35ML	08/31/2018	1:22 AM	-1.00	22.03	4.20	.00	-.98	-.98	.00	.00	.00	.00	.00
CCV-PH	PH ONLY 35ML	08/31/2018	1:25 AM	-1.00	22.08	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	PH ALKALINITY 35ML	08/31/2018	1:34 AM	-1.00	21.95	10.74	538.25	1,073.01	.00	1,069.52	3.49	5.13	10.22	10.22
DI RINSE	PH ALKALINITY 35ML	08/31/2018	1:38 AM	-1.00	21.99	5.32	.00	.40	.40	.00	.00	.00	.01	.01

PC-TitratION PLUS by Man-Tech Associates, Inc.

WATER ANALYSIS HISTORICAL REPORT.SRW

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Report Date: 09/18/2018 : 10:38

PC-TitratION PLUS

Calibration Report

HS1808/428

Calibration Record # 2005

Calibration Settings

Calibration ID	PH CAL 4-7-10	Date	09/04/2018
Channel	1	Time	4:28 PM
Probe Type	pH	Temperature	295.70 K 22.55 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-58.490	CorrCoeff	0.9997
Intercept	-4.597	Equation:	Y = (-58.490) X + (-4.597)

Calibration Validity True Operator

	Result	Minimum	Maximum
Slope	-58.490	-65.00	-53.00
Intercept	-4.597	-100.00	100.00
Correlation Coefficient	0.9997	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	4.00	173.21
	7.00	-9.27
	10.00	-177.73

PC-TitratION PLUS by Man-Tech Associates, Inc.

CALRPRTLive1.SRW

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00917918

Report Date: 09/18/2018 : 10:37 AM

PC-TitratION PLUS
Water Analysis Historical Data Report

Run Number 3326 **Order Number** 20180904-2

SampleID	Schedule Name	RunDate	RunTime	cond (uS)	Temp	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
ICV-PH	PH ONLY 35ML	09/04/2018	4:57 PM	-1.00	22.07	6.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
TAP WATER	PH ALKALINITY 35ML	09/04/2018	5:04 PM	-1.00	22.19	7.41	.00	305.82	305.82	.00	.00	.00	2.91	2.91
WBLKW1-180904	PH ALKALINITY 35ML	09/04/2018	5:08 PM	-1.00	22.90	4.96	.00	.00	.00	.00	.00	.00	.01	.01
WLCS1-180904	PH ALKALINITY 35ML	09/04/2018	5:17 PM	-1.00	23.23	10.78	548.60	1,071.69	.00	1,046.18	25.51	5.22	10.21	10.21
WLCSD1-180904	PH ALKALINITY 35ML	09/04/2018	5:25 PM	-1.00	23.20	10.78	546.12	1,069.99	.00	1,047.75	22.24	5.20	10.19	10.19
HS18080295-32	PH ALKALINITY 35ML	09/04/2018	5:33 PM	-1.00	22.87	9.93	22.11	53.63	9.40	44.22	.00	.21	.51	.51
HS18080296-32	PH ALKALINITY 35ML	09/04/2018	5:41 PM	-1.00	22.57	10.20	51.74	106.97	3.49	103.48	.00	.49	1.02	1.02
HS18081428-09	PH ALKALINITY 35ML	09/04/2018	5:47 PM	-1.00	21.92	5.88	.00	203.51	203.51	.00	.00	.00	1.94	1.94
HS18081428-10	PH ALKALINITY 35ML	09/04/2018	5:53 PM	-1.00	21.69	6.25	.00	507.77	507.77	.00	.00	.00	4.84	4.84
HS18081473-02	PH ALKALINITY 35ML	09/04/2018	5:59 PM	-1.00	21.69	7.36	.00	282.07	282.07	.00	.00	.00	2.69	2.69
HS18081473-02	PH ALKALINITY 35ML	09/04/2018	6:06 PM	-1.00	21.92	7.50	.00	263.21	263.21	.00	.00	.00	2.51	2.51
CCV-PH	PH ONLY 35ML	09/04/2018	6:08 PM	-1.00	22.75	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	PH ALKALINITY 35ML	09/04/2018	6:17 PM	-1.00	22.67	10.77	544.93	1,070.84	.00	1,051.82	19.02	5.19	10.20	10.20
DI RINSE	PH ALKALINITY 35ML	09/04/2018	6:21 PM	-1.00	22.57	5.14	.00	.03	.03	.00	.00	.00	.01	.01
HS18081504-01	PH ALKALINITY 35ML	09/04/2018	6:25 PM	-1.00	22.16	4.50	.00	-4.71	-4.71	.00	.00	.00	.01	.01
HS18081504-01DUP	PH ALKALINITY 35ML	09/04/2018	6:30 PM	-1.00	22.05	4.49	.00	-4.81	-4.81	.00	.00	.00	.01	.01
HS18081504-02	PH ALKALINITY 35ML	09/04/2018	6:35 PM	-1.00	21.92	5.00	.00	32.41	32.41	.00	.00	.00	.31	.31
HS18081504-03	PH ALKALINITY 35ML	09/04/2018	6:40 PM	-1.00	21.89	5.04	.00	34.89	34.89	.00	.00	.00	.33	.33
HS18081571-01	PH ALKALINITY 35ML	09/04/2018	6:47 PM	-1.00	22.03	7.08	.00	373.80	373.80	.00	.00	.00	3.56	3.56
HS18081571-02	PH ALKALINITY 35ML	09/04/2018	6:54 PM	-1.00	22.29	7.72	.00	613.34	613.34	.00	.00	.00	5.84	5.84
HS18081571-03	PH ALKALINITY 35ML	09/04/2018	7:01 PM	-1.00	22.66	7.01	.00	645.92	645.92	.00	.00	.00	6.15	6.15
HS18081571-04	PH ALKALINITY 35ML	09/04/2018	7:08 PM	-1.00	22.51	7.03	.00	623.07	623.07	.00	.00	.00	5.93	5.93
HS18081500-01	PH ALKALINITY 35ML	09/04/2018	7:15 PM	-1.00	22.35	7.28	.00	70.75	70.75	.00	.00	.00	.67	.67
CCV-PH	PH ONLY 35ML	09/04/2018	7:17 PM	-1.00	22.37	7.06	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	PH ALKALINITY 35ML	09/04/2018	7:26 PM	-1.00	22.20	10.75	541.07	1,067.36	.00	1,052.58	14.78	5.15	10.17	10.17
DI RINSE	PH ALKALINITY 35ML	09/04/2018	7:31 PM	-1.00	22.28	5.16	.00	.14	.14	.00	.00	.00	.01	.01
HS18081428-08	PH ALKALINITY 35ML	09/04/2018	7:37 PM	-1.00	22.14	6.07	.00	321.62	321.62	.00	.00	.00	3.06	3.06

PC-TitratION PLUS by Man-Tech Associates, Inc.

WATER ANALYSIS HISTORICAL REPORT.SRW

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11 of 359

00917919

Run Number 3326 **Order Number** 20180904-2

SampleID	Schedule Name	RunDate	RunTime	cond (uS)	Temp	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
CCV-PH	PH ONLY 35ML	09/04/2018	7:39 PM	-1.00	22.26	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	PH ALKALINITY 35ML	09/04/2018	7:47 PM	-1.00	22.54	10.72	537.63	1,069.17	.00	1,063.07	6.10	5.12	10.18	10.18
DI RINSE	PH ALKALINITY 35ML	09/04/2018	7:52 PM	-1.00	22.55	5.15	.00	.11	.11	.00	.00	.00	.01	.01

1169 of 1359

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Sub Contract Data

Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
ALS WO#HS18081428

ALS Environmental
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September 19, 2018 **Analytical Report for Service Request No:** K1808655

RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

RE: ALS-Houston Environmental / HS18081428

Dear RJ,

Enclosed are the results of the sample(s) submitted to our laboratory September 11, 2018
For your reference, these analyses have been assigned our service request number **K1808655.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3350. You may also contact me via email at Kelley.Lovejoy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Kelley Lovejoy

Kelley Lovejoy
Project Manager

RIGHT SOLUTIONS | RIGHT PARTNER

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Table of Contents

Acronyms
Qualifiers
State Certifications, Accreditations, And Licenses
Case Narrative
Chain of Custody
General Chemistry
Raw Data
    General Chemistry

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
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.
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.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

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

Service Request: K1808655
Date Received: 09/11/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt:

Four water samples were received for analysis at ALS Environmental on 09/11/2018. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4ºC upon receipt at the laboratory.

General Chemistry:

No significant anomalies were noted with this analysis.

Approved by Kelley Lovejoy Date 09/19/2018

Chain of Custody

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K1808655

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Subcontract Chain of Custody

COC ID: 9782

SUBCONTRACT TO:

ALS Environmental Kelso
1317 S. 13th Avenue
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Phone: +1 360 501 3312

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	RJ Modashia
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RJ.Modashia@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:	HS18081428
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS18081428-07**	**46WW05-180828**	**Groundwater**	**28 Aug 2018 08:50**
	DOD Level IV			11 Sep 2018
2.	**HS18081428-08**	**46WW16-180828**	**Groundwater**	**28 Aug 2018 10:30**
	DOD Level IV			11 Sep 2018
3.	**HS18081428-09**	**46WW09-180828**	**Groundwater**	**28 Aug 2018 11:35**
	DOD Level IV			11 Sep 2018
4.	**HS18081428-10**	**LHSMW19--180828**	**Groundwater**	**28 Aug 2018 13:05**
	DOD Level IV			11 Sep 2018

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

DOD IV

QC Level: DOD IV (DoD Data Package)

Relinquished By: J. Nguyen Date/Time: 9/10/18 18:00

Received By: Date/Time: 9/11/18 0940

Cooler ID(s): Temperature(s):

PC CL

Cooler Receipt and Preservation Form

Client ALS / Houston Service Request K18 08655

Received: 9/11/18 Opened: 9/11/18 By: Unloaded: 9/11/18 By:

1. Samples were received via? *USPS* (*Fed Ex*) *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 2, front
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
0.3	0.3	1.6	1.6	0	390	9781	4380 9532 4629	
						9782		
						9780		
						9783		

4. Packing material: *Inserts* (*Baggies*) (*Bubble Wrap*) *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA (Y) N
   If applicable, tissue samples were received: ***Frozen*** ***Partially Thawed*** ***Thawed***
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* (NA) Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* (NA) Y N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: RUSH

General Chemistry

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	K1808655
Project:	ALS-Houston Environmental/HS18081428	**Date Collected:**	08/28/18
Sample Matrix:	Water	**Date Received:**	09/11/18
Analysis Method:	SM 5310 C	**Units:**	mg/L
Prep Method:	None	**Basis:**	NA

Carbon, Total Organic

Sample Name	Lab Code	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
46WW05-180828	K1808655-001	**9.1**	2.0	0.8	0.3	4	09/18/18 20:00	
46WW16-180828	K1808655-002	**5.99**	0.50	0.20	0.07	1	09/12/18 23:28	
46WW09-180828	K1808655-003	**6.2**	2.0	0.8	0.3	4	09/13/18 00:00	
LHSMW19-180828	K1808655-004	**3.65**	0.50	0.20	0.07	1	09/13/18 01:54	
Method Blank	K1808655-MB1	ND U	0.50	0.20	0.07	1	09/12/18 16:14	
Method Blank	K1808655-MB2	ND U	0.50	0.20	0.07	1	09/13/18 01:05	
Method Blank	K1808655-MB3	ND U	0.50	0.20	0.07	1	09/18/18 18:55	

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	K1808655
Project	ALS-Houston Environmental/HS18081428	**Date Collected:**	08/28/18
Sample Matrix:	Water	**Date Received:**	09/11/18
Analysis Method:	SM 5310 C	**Units:**	mg/L
Prep Method:	None	**Basis:**	NA

Replicate Sample Summary
Carbon, Total Organic

Sample Name:	Lab Code:	MRL	LOQ	MDL	Sample Result	Duplicate Result	Average	RPD	RPD Limit	Date Analyzed
46WW05-180828	K1808655-001DUP2	2.0	0.8	0.3	9.1	8.4	8.73	8	10	09/18/18
46WW16-180828	K1808655-002DUP	0.50	0.20	0.07	5.99	5.88	5.93	2	10	09/12/18
46WW09-180828	K1808655-003DUP	2.0	0.8	0.3	6.2	6.3	6.26	<1	10	09/13/18
LHSMW19-180828	K1808655-004DUP	0.50	0.20	0.07	3.65	3.90	3.77	7	10	09/13/18

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

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	K1808655
Project:	ALS-Houston Environmental/HS18081428	**Date Collected:**	08/28/18
Sample Matrix:	Water	**Date Received:**	09/11/18
		Date Analyzed:	09/18/18
		Date Extracted:	NA

Matrix Spike Summary
Carbon, Total Organic

Sample Name:	46WW05-180828	**Units:**	mg/L
Lab Code:	K1808655-001	**Basis:**	NA
Analysis Method:	SM 5310 C		
Prep Method:	None		

Matrix Spike
K1808655-001MS2

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic	9.1	113	100	104	83-117

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

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	K1808655
Project:	ALS-Houston Environmental/HS18081428	**Date Analyzed:**	09/12/18
Sample Matrix:	Water	**Date Extracted:**	NA

Lab Control Sample Summary
Carbon, Total Organic

Analysis Method:	SM 5310 C	**Units:**	mg/L
Prep Method:	None	**Basis:**	NA
		Analysis Lot:	606439

Sample Name	Lab Code	Result	Spike Amount	% Rec	% Rec Limits
Lab Control Sample	K1808655-LCS1	21.3	21.9	97	83-117
Lab Control Sample	K1808655-LCS2	21.2	21.9	97	83-117

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	K1808655
Project:	ALS-Houston Environmental/HS18081428	**Date Analyzed:**	09/18/18
Sample Matrix:	Water	**Date Extracted:**	NA

Lab Control Sample Summary
Carbon, Total Organic

Analysis Method:	SM 5310 C	**Units:**	mg/L
Prep Method:	None	**Basis:**	NA
		Analysis Lot:	607294

Sample Name	Lab Code	Result	Spike Amount	% Rec	% Rec Limits
Lab Control Sample	K1808655-LCS3	21.5	21.9	98	83-117

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US **Service Request:** K1808655
Project: ALS-Houston Environmental/HS18081428

Continuing Calibration Verification (CCV) Summary

Carbon, Total Organic

Analysis Method: SM 5310 C **Units:** mg/L

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	606439	KQ1812842-60	09/12/18 15:41	25.0	24.6	98	90-110
CCV2	606439	KQ1812842-61	09/12/18 19:28	25.0	24.8	99	90-110
CCV3	606439	KQ1812842-62	09/13/18 00:32	25.0	24.2	97	90-110
CCV4	606439	KQ1812842-63	09/13/18 05:05	25.0	24.2	97	90-110
CCV5	606439	KQ1812842-64	09/13/18 13:00	25.0	24.4	97	90-110
CCV6	606439	KQ1812842-65	09/13/18 21:42	25.0	24.6	99	90-110
CCV7	607294	KQ1813084-05	09/18/18 18:22	25.0	24.4	98	90-110
CCV8	607294	KQ1813084-06	09/18/18 20:49	25.0	25.0	100	90-110

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US **Service Request:**K1808655
Project: ALS-Houston Environmental/HS18081428

Continuing Calibration Blank (CCB) Summary
Carbon, Total Organic

Analysis Method: SM 5310 C **Units:**mg/L

	Analysis Lot	Lab Code	Date Analyzed	LOQ	LOD	MDL	Result	Q
CCB1	606439	KQ1812842-66	09/12/18 15:58	0.50	0.20	0.07	ND	U
CCB2	606439	KQ1812842-67	09/12/18 19:44	0.50	0.20	0.07	ND	U
CCB3	606439	KQ1812842-68	09/13/18 00:48	0.50	0.20	0.07	ND	U
CCB4	606439	KQ1812842-69	09/13/18 05:21	0.50	0.20	0.07	ND	U
CCB5	606439	KQ1812842-70	09/13/18 13:17	0.50	0.20	0.07	ND	U
CCB6	606439	KQ1812842-71	09/13/18 21:59	0.50	0.20	0.07	ND	U
CCB7	607294	KQ1813084-07	09/18/18 18:38	0.50	0.20	0.07	ND	U
CCB8	607294	KQ1813084-08	09/18/18 21:05	0.50	0.20	0.07	ND	U

Raw Data

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General Chemistry

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Work Request # Original ( ) K1808312, 8313, 8654, 8655, 8656, 8659, 8383, 8391,

Tier: II II IV IV IV IV IV IV

8464, 8468, 8454, 8474

Date Analyzed: 9/12/18 IV IV II II

Analyst: CES Run # 606439, 606442, 606448

Analysis: TOC

DATA QUALITY REPORT
INORGANICS

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1.	Is the method name and number correct and appropriate?	(yes)/no/NA
2.	Holding times met for all analyses and for all samples?	(yes)/no/NA
3.	Are calculations correct?	(yes)/no/NA
4.	Is the reporting basis correct? (Dry Weight)	(yes)/no/NA
5.	All quality control criteria met?	yes/(no)
6.	Is the calibration curve correlation coefficient ≥ 0.995?	(yes)/no/NA
7.	MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency?	(yes)/no/NA
8.	Are ICVs, CCVs, and CCBs all within acceptance limits?	(yes)/no/NA
9.	Are results for methods blanks all ND?	(yes)/no/NA
10.	Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.)	yes/(no)/NA
11.	Are all exceptions explained?	(yes)/no/NA
12.	Have all applicable service requests been reviewed?	(yes)/no/NA
13.	Are all samples labeled correctly?	(yes)/no/NA
14.	Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample, Form V)	(yes)/no/NA
15.	Are detection limits and units reported correctly?	(yes)/no/NA
16.	Is the unused space on the benchsheet crossed out?	(yes)/no/NA
17.	Was analysis turned in by the due date? (n-2) (If not record SR#)	yes/(no)/NA

COMMENTS: ↳ 8312, 8313

8391-4, 8464-3, 8468-2 RPD not within acceptance limits. The sample results are less than 5x the MRL.

RA 8655-1 RPD not within acceptance limits.

Final Approved by: [signature] Date: 09/18/18

DQREPORT

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606439 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
K1808312-001	Carbon, Total Organic	N/A		Water	8.80 mg/L	10 ml	17.6 mg/L	2	0.2	1.0			9/12/18 17:03	N	II
K1808313-001	Carbon, Total Organic	N/A		Water	4.18 mg/L	10 ml	4.18 mg/L	1	0.07	0.50			9/12/18 18:23	N	II
K1808383-001	Carbon, Total Organic	N/A		Ground Water	0.88 mg/L	10 ml	0.88 mg/L	1	0.07	0.50			9/13/18 05:38	N	IV
K1808383-002	Carbon, Total Organic	N/A		Ground Water	0.83 mg/L	10 ml	0.83 mg/L	1	0.07	0.50			9/13/18 07:13	N	IV
K1808383-004	Carbon, Total Organic	N/A		Ground Water	1.39 mg/L	10 ml	1.39 mg/L	1	0.07	0.50			9/13/18 08:16	N	IV
K1808383-005	Carbon, Total Organic	N/A		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 09:19	N	IV
K1808383-006	Carbon, Total Organic	N/A		Ground Water	0.67 mg/L	10 ml	0.67 mg/L	1	0.07	0.50			9/13/18 10:22	N	IV
K1808391-003	Carbon, Total Organic	N/A		Ground Water	0.53 mg/L	10 ml	0.53 mg/L	1	0.07	0.50			9/13/18 11:25	N	IV
K1808391-004	Carbon, Total Organic	N/A		Ground Water	0.28 mg/L	10 ml	0.28 mg/L J	1	0.07	0.50			9/13/18 14:23	N	IV
K1808391-005	Carbon, Total Organic	N/A		Ground Water	0.36 mg/L	10 ml	0.36 mg/L J	1	0.07	0.50			9/13/18 15:25	N	IV
K1808391-006	Carbon, Total Organic	N/A		Ground Water	0.46 mg/L	10 ml	0.46 mg/L J	1	0.07	0.50			9/13/18 16:28	N	IV
K1808654-001	Carbon, Total Organic	N/A		Water	10.28 mg/L	10 ml	10.3 mg/L	1	0.07	0.50			9/12/18 20:01	Y	IV
K1808654-002	Carbon, Total Organic	N/A		Water	4.07 mg/L	10 ml	4.07 mg/L	1	0.07	0.50			9/12/18 21:05	N	IV
K1808654-003	Carbon, Total Organic	N/A		Water	5.69 mg/L	10 ml	5.69 mg/L	1	0.07	0.50			9/12/18 21:37	N	IV
K1808655-001	Carbon, Total Organic	N/A		Water	3.23 mg/L	10 ml	12.9 mg/L	4	0.3	2.0			9/12/18 22:09	N	IV
K1808655-002	Carbon, Total Organic	N/A		Water	5.99 mg/L	10 ml	5.99 mg/L	1	0.07	0.50			9/12/18 23:28	N	IV
K1808655-003	Carbon, Total Organic	N/A		Water	1.56 mg/L	10 ml	6.2 mg/L	4	0.3	2.0			9/13/18 00:00	N	IV
K1808655-004	Carbon, Total Organic	N/A		Water	3.65 mg/L	10 ml	3.65 mg/L	1	0.07	0.50			9/13/18 01:54	N	IV
K1808656-001	Carbon, Total Organic	N/A		Water	17.98 mg/L	10 ml	18.0 mg/L	1	0.07	0.50			9/13/18 02:26	N	IV
K1808659-001	Carbon, Total Organic	N/A		Water	20.38 mg/L	10 ml	20.4 mg/L	1	0.07	0.50			9/13/18 03:45	N	IV
KQ1812842-01	Carbon, Total Organic	MS	K1808312-001	Water	34.94 mg/L	10 ml	69.9 mg/L	2	0.2	1.0	105		9/12/18 17:35	N	II
KQ1812842-02	Carbon, Total Organic	DUP	K1808312-001	Water	8.70 mg/L	10 ml	17.4 mg/L	2	0.2	1.0		1	9/12/18 17:03	N	II
KQ1812842-03	Carbon, Total Organic	MS	K1808313-001	Water	29.41 mg/L	10 ml	29.4 mg/L	1	0.07	0.50	101		9/12/18 18:54	N	II
KQ1812842-04	Carbon, Total Organic	DUP	K1808313-001	Water	4.09 mg/L	10 ml	4.09 mg/L	1	0.07	0.50		2	9/12/18 18:23	N	II
KQ1812842-05	Carbon, Total Organic	MS	K1808654-001	Water	35.52 mg/L	10 ml	35.5 mg/L	1	0.07	0.50	101		9/12/18 20:32	N	IV
KQ1812842-06	Carbon, Total Organic	DUP	K1808654-001	Water	9.80 mg/L	10 ml	9.80 mg/L	1	0.07	0.50		5	9/12/18 20:01	N	IV
KQ1812842-07	Carbon, Total Organic	DUP	K1808654-002	Water	4.22 mg/L	10 ml	4.22 mg/L	1	0.07	0.50		4	9/12/18 21:05	N	IV
KQ1812842-08	Carbon, Total Organic	DUP	K1808654-003	Water	5.60 mg/L	10 ml	5.60 mg/L	1	0.07	0.50		2	9/12/18 21:37	N	IV
KQ1812842-09	Carbon, Total Organic	MS	K1808655-001	Water	28.51 mg/L	10 ml	114 mg/L	4	0.3	2.0	101		9/12/18 22:40	N	IV
KQ1812842-10	Carbon, Total Organic	DUP	K1808655-001	Water	2.53 mg/L	10 ml	10.1 mg/L	4	0.3	2.0		24*	9/12/18 22:09	N	IV
KQ1812842-11	Carbon, Total Organic	DUP	K1808655-002	Water	5.88 mg/L	10 ml	5.88 mg/L	1	0.07	0.50		2	9/12/18 23:28	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

CES 9/18/18

09/18/18

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606439 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
KQ1812842-12	Carbon, Total Organic	DUP	K1808655-003	Water	1.57 mg/L	10 ml	6.3 mg/L	4	0.3	2.0		<1	9/13/18 00:00	N	IV
KQ1812842-13	Carbon, Total Organic	DUP	K1808655-004	Water	3.90 mg/L	10 ml	3.90 mg/L	1	0.07	0.50		7	9/13/18 01:54	N	IV
KQ1812842-14	Carbon, Total Organic	MS	K1808656-001	Water	38.99 mg/L	10 ml	39.0 mg/L	1	0.07	0.50	84		9/13/18 02:57	N	IV
KQ1812842-15	Carbon, Total Organic	DUP	K1808656-001	Water	17.34 mg/L	10 ml	17.3 mg/L	1	0.07	0.50		4	9/13/18 02:26	N	IV
KQ1812842-16	Carbon, Total Organic	MS	K1808659-001	Water	42.11 mg/L	10 ml	42.1 mg/L	1	0.07	0.50	87		9/13/18 04:17	N	IV
KQ1812842-17	Carbon, Total Organic	DUP	K1808659-001	Water	19.39 mg/L	10 ml	19.4 mg/L	1	0.07	0.50		5	9/13/18 03:45	N	IV
KQ1812842-18	Carbon, Total Organic	MS	K1808383-001	Ground Water	26.18 mg/L	10 ml	26.2 mg/L	1	0.07	0.50	101		9/13/18 06:41	N	IV
KQ1812842-24	Carbon, Total Organic	MS	K1808391-003	Ground Water	25.69 mg/L	10 ml	25.7 mg/L	1	0.07	0.50	101		9/13/18 12:28	N	IV
KQ1812842-29	Carbon, Total Organic	MB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/12/18 16:14	N	II
KQ1812842-29	Carbon, Total Organic	MB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/12/18 16:14	N	II
KQ1812842-30	Carbon, Total Organic	MB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 01:05	N	II
KQ1812842-30	Carbon, Total Organic	MB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 01:05	N	II
KQ1812842-31	Carbon, Total Organic	LCS		Water	21.29 mg/L	10 ml	21.3 mg/L	1	0.07	0.50	97		9/12/18 16:31	N	II
KQ1812842-31	Carbon, Total Organic	LCS		Water	21.29 mg/L	10 ml	21.3 mg/L	1	0.07	0.50	97		9/12/18 16:31	N	II
KQ1812842-32	Carbon, Total Organic	LCS		Water	21.21 mg/L	10 ml	21.2 mg/L	1	0.07	0.50	97		9/13/18 01:21	N	II
KQ1812842-32	Carbon, Total Organic	LCS		Water	21.21 mg/L	10 ml	21.2 mg/L	1	0.07	0.50	97		9/13/18 01:21	N	II
KQ1812842-33	Carbon, Total Organic	DUP	K1808383-001	Ground Water	0.78 mg/L	10 ml	0.78 mg/L	1	0.07	0.50		13	9/13/18 05:38	N	IV
KQ1812842-34	Carbon, Total Organic	TRP	K1808383-001	Ground Water	0.81 mg/L	10 ml	0.81 mg/L	1	0.07	0.50		7	9/13/18 05:38	N	IV
KQ1812842-35	Carbon, Total Organic	QUAD	K1808383-001	Ground Water	0.87 mg/L	10 ml	0.87 mg/L	1	0.07	0.50		6	9/13/18 05:38	N	IV
KQ1812842-36	Carbon, Total Organic	DUP	K1808383-002	Ground Water	0.79 mg/L	10 ml	0.79 mg/L	1	0.07	0.50		5	9/13/18 07:13	N	IV
KQ1812842-37	Carbon, Total Organic	TRP	K1808383-002	Ground Water	0.82 mg/L	10 ml	0.82 mg/L	1	0.07	0.50		3	9/13/18 07:13	N	IV
KQ1812842-38	Carbon, Total Organic	QUAD	K1808383-002	Ground Water	0.79 mg/L	10 ml	0.79 mg/L	1	0.07	0.50		3	9/13/18 07:13	N	IV
KQ1812842-39	Carbon, Total Organic	DUP	K1808383-004	Ground Water	1.34 mg/L	10 ml	1.34 mg/L	1	0.07	0.50		4	9/13/18 08:16	N	IV
KQ1812842-40	Carbon, Total Organic	TRP	K1808383-004	Ground Water	1.31 mg/L	10 ml	1.31 mg/L	1	0.07	0.50		3	9/13/18 08:16	N	IV
KQ1812842-41	Carbon, Total Organic	QUAD	K1808383-004	Ground Water	1.30 mg/L	10 ml	1.30 mg/L	1	0.07	0.50		3	9/13/18 08:16	N	IV
KQ1812842-42	Carbon, Total Organic	DUP	K1808383-005	Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50		NC	9/13/18 09:19	N	IV
KQ1812842-43	Carbon, Total Organic	TRP	K1808383-005	Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50		NC	9/13/18 09:19	N	IV
KQ1812842-44	Carbon, Total Organic	QUAD	K1808383-005	Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50		NC	9/13/18 09:19	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606439 **Method/Testcode:** 9060/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
KQ1812842-45	Carbon, Total Organic	DUP	K1808383-006	Ground Water	0.58 mg/L	10 ml	0.58 mg/L	1	0.07	0.50		14	9/13/18 10:22	N	IV
KQ1812842-46	Carbon, Total Organic	TRP	K1808383-006	Ground Water	0.66 mg/L	10 ml	0.66 mg/L	1	0.07	0.50		8	9/13/18 10:22	N	IV
KQ1812842-47	Carbon, Total Organic	QUAD	K1808383-006	Ground Water	0.61 mg/L	10 ml	0.61 mg/L	1	0.07	0.50		7	9/13/18 10:22	N	IV
KQ1812842-48	Carbon, Total Organic	DUP	K1808391-003	Ground Water	0.52 mg/L	10 ml	0.52 mg/L	1	0.07	0.50		2	9/13/18 11:25	N	IV
KQ1812842-49	Carbon, Total Organic	TRP	K1808391-003	Ground Water	0.46 mg/L	10 ml	0.46 mg/L J	1	0.07	0.50		8	9/13/18 11:25	N	IV
KQ1812842-50	Carbon, Total Organic	QUAD	K1808391-003	Ground Water	0.53 mg/L	10 ml	0.53 mg/L	1	0.07	0.50		7	9/13/18 11:25	N	IV
KQ1812842-51	Carbon, Total Organic	DUP	K1808391-004	Ground Water	0.20 mg/L	10 ml	0.20 mg/L J	1	0.07	0.50		30*	9/13/18 14:23	N	IV
KQ1812842-52	Carbon, Total Organic	TRP	K1808391-004	Ground Water	0.26 mg/L	10 ml	0.26 mg/L J	1	0.07	0.50		15	9/13/18 14:23	N	IV
KQ1812842-53	Carbon, Total Organic	QUAD	K1808391-004	Ground Water	0.22 mg/L	10 ml	0.22 mg/L J	1	0.07	0.50		14	9/13/18 14:23	N	IV
KQ1812842-54	Carbon, Total Organic	DUP	K1808391-005	Ground Water	0.34 mg/L	10 ml	0.34 mg/L J	1	0.07	0.50		6	9/13/18 15:25	N	IV
KQ1812842-55	Carbon, Total Organic	TRP	K1808391-005	Ground Water	0.31 mg/L	10 ml	0.31 mg/L J	1	0.07	0.50		7	9/13/18 15:25	N	IV
KQ1812842-56	Carbon, Total Organic	QUAD	K1808391-005	Ground Water	0.32 mg/L	10 ml	0.32 mg/L J	1	0.07	0.50		6	9/13/18 15:25	N	IV
KQ1812842-57	Carbon, Total Organic	DUP	K1808391-006	Ground Water	0.42 mg/L	10 mL	0.42 mg/L J	1	0.07	0.50		9	9/13/18 16:28:00	N	IV
KQ1812842-58	Carbon, Total Organic	TRP	K1808391-006	Ground Water	0.39 mg/L	10 mL	0.39 mg/L J	1	0.07	0.50		8	9/13/18 16:28:00	N	IV
KQ1812842-59	Carbon, Total Organic	QUAD	K1808391-006	Ground Water	0.36 mg/L	10 mL	0.36 mg/L J	1	0.07	0.50		10	9/13/18 16:28:00	N	IV
KQ1812842-60	Carbon, Total Organic	CCV		Water	24.56 mg/L	10 ml	24.6 mg/L	1			98		9/12/18 15:41	N	II
KQ1812842-60	Carbon, Total Organic	CCV		Water	24.56 mg/L	10 ml	24.6 mg/L	1			98		9/12/18 15:41	N	II
KQ1812842-61	Carbon, Total Organic	CCV		Water	24.84 mg/L	10 ml	24.8 mg/L	1			99		9/12/18 19:28	N	II
KQ1812842-61	Carbon, Total Organic	CCV		Water	24.84 mg/L	10 ml	24.8 mg/L	1			99		9/12/18 19:28	N	II
KQ1812842-62	Carbon, Total Organic	CCV		Water	24.24 mg/L	10 ml	24.2 mg/L	1			97		9/13/18 00:32	N	II
KQ1812842-62	Carbon, Total Organic	CCV		Water	24.24 mg/L	10 ml	24.2 mg/L	1			97		9/13/18 00:32	N	II
KQ1812842-63	Carbon, Total Organic	CCV		Water	24.21 mg/L	10 ml	24.2 mg/L	1			97		9/13/18 05:05	N	II
KQ1812842-63	Carbon, Total Organic	CCV		Water	24.21 mg/L	10 ml	24.2 mg/L	1			97		9/13/18 05:05	N	II
KQ1812842-64	Carbon, Total Organic	CCV		Water	24.37 mg/L	10 ml	24.4 mg/L	1			98		9/13/18 13:00	N	II
KQ1812842-64	Carbon, Total Organic	CCV		Water	24.37 mg/L	10 ml	24.4 mg/L	1			98		9/13/18 13:00	N	II
KQ1812842-65	Carbon, Total Organic	CCV		Water	24.63 mg/L	10 ml	24.6 mg/L	1			98		9/13/18 21:42	N	II
KQ1812842-65	Carbon, Total Organic	CCV		Water	24.63 mg/L	10 ml	24.6 mg/L	1			98		9/13/18 21:42	N	II
KQ1812842-66	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/12/18 15:58	N	II

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606439 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
KQ1812842-66	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/12/18 15:58	N	II
KQ1812842-67	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/12/18 19:44	N	II
KQ1812842-67	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/12/18 19:44	N	II
KQ1812842-68	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 00:48	N	II
KQ1812842-68	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 00:48	N	II
KQ1812842-69	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 05:21	N	II
KQ1812842-69	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 05:21	N	II
KQ1812842-70	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 13:17	N	II
KQ1812842-70	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 13:17	N	II
KQ1812842-71	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 21:59	N	II
KQ1812842-71	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 21:59	N	II

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606442 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
K1808454-001	Carbon, Total Organic	N/A		Water	3.32 mg/L	10 ml	3.32 mg/L	1	0.07	0.50			9/14/18 04:35	N	II
K1808454-003	Carbon, Total Organic	N/A		Water	2.47 mg/L	10 ml	2.47 mg/L	1	0.07	0.50			9/14/18 06:45	N	II
K1808464-001	Carbon, Total Organic	N/A		Ground Water	0.58 mg/L	10 ml	0.58 mg/L	1	0.07	0.50			9/13/18 17:31	N	IV
K1808464-002	Carbon, Total Organic	N/A		Ground Water	0.24 mg/L	10 ml	0.24 mg/L J	1	0.07	0.50			9/13/18 18:34	N	IV
K1808464-003	Carbon, Total Organic	N/A		Ground Water	0.19 mg/L	10 ml	0.19 mg/L J	1	0.07	0.50			9/13/18 19:37	N	IV
K1808464-005	Carbon, Total Organic	N/A		Ground Water	3.46 mg/L	10 ml	3.46 mg/L	1	0.07	0.50			9/13/18 20:40	Y	IV
K1808464-006	Carbon, Total Organic	N/A		Ground Water	3.48 mg/L	10 ml	3.48 mg/L	1	0.07	0.50			9/13/18 22:48	N	IV
K1808468-001	Carbon, Total Organic	N/A		Ground Water	0.20 mg/L	10 ml	0.20 mg/L J	1	0.07	0.50			9/13/18 23:51	N	IV
K1808468-002	Carbon, Total Organic	N/A		Ground Water	0.29 mg/L	10 ml	0.29 mg/L J	1	0.07	0.50			9/14/18 00:54	N	IV
K1808468-003	Carbon, Total Organic	N/A		Ground Water	0.92 mg/L	10 ml	0.92 mg/L	1	0.07	0.50			9/14/18 01:57	Y	IV
K1808468-004	Carbon, Total Organic	N/A		Ground Water	0.16 mg/L	10 ml	0.16 mg/L J	1	0.07	0.50			9/14/18 03:32	N	IV
KQ1812845-01	Carbon, Total Organic	DUP	K1808464-001	Ground Water	0.54 mg/L	10 ml	0.54 mg/L	1	0.07	0.50		8	9/13/18 17:31	N	IV
KQ1812845-02	Carbon, Total Organic	TRP	K1808464-001	Ground Water	0.59 mg/L	10 ml	0.59 mg/L	1	0.07	0.50		5	9/13/18 17:31	N	IV
KQ1812845-03	Carbon, Total Organic	QUAD	K1808464-001	Ground Water	0.58 mg/L	10 ml	0.58 mg/L	1	0.07	0.50		4	9/13/18 17:31	N	IV
KQ1812845-04	Carbon, Total Organic	DUP	K1808464-002	Ground Water	0.23 mg/L	10 ml	0.23 mg/L J	1	0.07	0.50		7	9/13/18 18:34	N	IV
KQ1812845-05	Carbon, Total Organic	TRP	K1808464-002	Ground Water	0.28 mg/L	10 ml	0.28 mg/L J	1	0.07	0.50		11	9/13/18 18:34	N	IV
KQ1812845-06	Carbon, Total Organic	QUAD	K1808464-002	Ground Water	0.26 mg/L	10 ml	0.26 mg/L J	1	0.07	0.50		9	9/13/18 18:34	N	IV
KQ1812845-07	Carbon, Total Organic	DUP	K1808464-003	Ground Water	0.15 mg/L	10 ml	0.15 mg/L J	1	0.07	0.50		21*	9/13/18 19:37	N	IV
KQ1812845-08	Carbon, Total Organic	TRP	K1808464-003	Ground Water	0.17 mg/L	10 ml	0.17 mg/L J	1	0.07	0.50		10	9/13/18 19:37	N	IV
KQ1812845-09	Carbon, Total Organic	QUAD	K1808464-003	Ground Water	0.16 mg/L	10 ml	0.16 mg/L J	1	0.07	0.50		9	9/13/18 19:37	N	IV
KQ1812845-10	Carbon, Total Organic	MS	K1808464-005	Ground Water	28.93 mg/L	10 ml	28.9 mg/L	1	0.07	0.50	102		9/13/18 22:16	N	IV
KQ1812845-11	Carbon, Total Organic	DUP	K1808464-005	Ground Water	3.33 mg/L	10 ml	3.33 mg/L	1	0.07	0.50		4	9/13/18 20:40	N	IV
KQ1812845-12	Carbon, Total Organic	TRP	K1808464-005	Ground Water	3.28 mg/L	10 ml	3.28 mg/L	1	0.07	0.50		3	9/13/18 20:40	N	IV
KQ1812845-13	Carbon, Total Organic	QUAD	K1808464-005	Ground Water	3.32 mg/L	10 ml	3.32 mg/L	1	0.07	0.50		2	9/13/18 20:40	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

CES 9/18/18 09/18/18

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606442 **Method/Testcode:** 9060/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
KQ1812845-14	Carbon, Total Organic	DUP	K1808464-006	Ground Water	3.34 mg/L	10 ml	3.34 mg/L	1	0.07	0.50		4	9/13/18 22:48	N	IV
KQ1812845-15	Carbon, Total Organic	TRP	K1808464-006	Ground Water	3.47 mg/L	10 ml	3.47 mg/L	1	0.07	0.50		2	9/13/18 22:48	N	IV
KQ1812845-16	Carbon, Total Organic	QUAD	K1808464-006	Ground Water	3.48 mg/L	10 ml	3.48 mg/L	1	0.07	0.50		2	9/13/18 22:48	N	IV
KQ1812845-17	Carbon, Total Organic	DUP	K1808468-001	Ground Water	0.20 mg/L	10 ml	0.20 mg/L J	1	0.07	0.50		<1	9/13/18 23:51	N	IV
KQ1812845-18	Carbon, Total Organic	TRP	K1808468-001	Ground Water	0.19 mg/L	10 ml	0.19 mg/L J	1	0.07	0.50		3	9/13/18 23:51	N	IV
KQ1812845-19	Carbon, Total Organic	QUAD	K1808468-001	Ground Water	0.15 mg/L	10 ml	0.15 mg/L J	1	0.07	0.50		13	9/13/18 23:51	N	IV
KQ1812845-20	Carbon, Total Organic	DUP	K1808468-002	Ground Water	0.17 mg/L	10 ml	0.17 mg/L J	1	0.07	0.50		51*	9/14/18 00:54	N	IV
KQ1812845-21	Carbon, Total Organic	TRP	K1808468-002	Ground Water	0.22 mg/L	10 ml	0.22 mg/L J	1	0.07	0.50		26*	9/14/18 00:54	N	IV
KQ1812845-22	Carbon, Total Organic	QUAD	K1808468-002	Ground Water	0.18 mg/L	10 ml	0.18 mg/L J	1	0.07	0.50		25*	9/14/18 00:54	N	IV
KQ1812845-23	Carbon, Total Organic	MS	K1808468-003	Ground Water	26.65 mg/L	10 ml	26.6 mg/L	1	0.07	0.50	103		9/14/18 03:00	N	IV
KQ1812845-24	Carbon, Total Organic	DUP	K1808468-003	Ground Water	0.83 mg/L	10 ml	0.83 mg/L	1	0.07	0.50		10	9/14/18 01:57	N	IV
KQ1812845-25	Carbon, Total Organic	TRP	K1808468-003	Ground Water	0.87 mg/L	10 ml	0.87 mg/L	1	0.07	0.50		5	9/14/18 01:57	N	IV
KQ1812845-26	Carbon, Total Organic	QUAD	K1808468-003	Ground Water	0.82 mg/L	10 ml	0.82 mg/L	1	0.07	0.50		5	9/14/18 01:57	N	IV
KQ1812845-27	Carbon, Total Organic	DUP	K1808468-004	Ground Water	0.13 mg/L	10 ml	0.13 mg/L J	1	0.07	0.50		20	9/14/18 03:32	N	IV
KQ1812845-28	Carbon, Total Organic	TRP	K1808468-004	Ground Water	0.14 mg/L	10 ml	0.14 mg/L J	1	0.07	0.50		11	9/14/18 03:32	N	IV
KQ1812845-29	Carbon, Total Organic	QUAD	K1808468-004	Ground Water	0.12 mg/L	10 ml	0.12 mg/L J	1	0.07	0.50		11	9/14/18 03:32	N	IV
KQ1812845-30	Carbon, Total Organic	MS	K1808454-001	Water	29.16 mg/L	10 ml	29.2 mg/L	1	0.07	0.50	103		9/14/18 06:13	N	II
KQ1812845-31	Carbon, Total Organic	DUP	K1808454-001	Water	3.24 mg/L	10 ml	3.24 mg/L	1	0.07	0.50		2	9/14/18 04:35	N	II
KQ1812845-32	Carbon, Total Organic	DUP	K1808454-003	Water	2.36 mg/L	10 ml	2.36 mg/L	1	0.07	0.50		4	9/14/18 06:45	N	II
KQ1812845-33	Carbon, Total Organic	MB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 13:33	N	IV
KQ1812845-33	Carbon, Total Organic	MB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 13:33	N	IV
KQ1812845-34	Carbon, Total Organic	LCS		Ground Water	21.18 mg/L	10 ml	21.2 mg/L	1	0.07	0.50	97		9/13/18 13:50	N	IV
KQ1812845-34	Carbon, Total Organic	LCS		Ground Water	21.18 mg/L	10 ml	21.2 mg/L	1	0.07	0.50	97		9/13/18 13:50	N	IV
KQ1812845-35	Carbon, Total Organic	CCV		Ground Water	24.37 mg/L	10 ml	24.4 mg/L	1			98		9/13/18 13:00	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606442 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
KQ1812845-35	Carbon, Total Organic	CCV		Ground Water	24.37 mg/L	10 ml	24.4 mg/L	1			98		9/13/18 13:00	N	IV
KQ1812845-36	Carbon, Total Organic	CCV		Ground Water	24.63 mg/L	10 ml	24.6 mg/L	1			98		9/13/18 21:42	N	IV
KQ1812845-36	Carbon, Total Organic	CCV		Ground Water	24.63 mg/L	10 ml	24.6 mg/L	1			98		9/13/18 21:42	N	IV
KQ1812845-37	Carbon, Total Organic	CCV		Ground Water	24.42 mg/L	10 ml	24.4 mg/L	1			98		9/14/18 05:07	N	IV
KQ1812845-37	Carbon, Total Organic	CCV		Ground Water	24.42 mg/L	10 ml	24.4 mg/L	1			98		9/14/18 05:07	N	IV
KQ1812845-38	Carbon, Total Organic	CCV		Ground Water	24.38 mg/L	10 ml	24.4 mg/L	1			98		9/14/18 09:25	N	IV
KQ1812845-38	Carbon, Total Organic	CCV		Ground Water	24.38 mg/L	10 ml	24.4 mg/L	1			98		9/14/18 09:25	N	IV
KQ1812845-39	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 13:17	N	IV
KQ1812845-39	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 13:17	N	IV
KQ1812845-40	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 21:59	N	IV
KQ1812845-40	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 21:59	N	IV
KQ1812845-41	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 05:23	N	IV
KQ1812845-41	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 05:23	N	IV
KQ1812845-42	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 09:42	N	IV
KQ1812845-42	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 09:42	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

00917949

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606448 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
K1808474-001	Carbon, Total Organic	N/A		Water	4.18 mg/L	10 ml	4.18 mg/L	1	0.07	0.50			9/14/18 07:18	N	II
K1808474-002	Carbon, Total Organic	N/A		Water	3.02 mg/L	10 ml	3.02 mg/L	1	0.07	0.50			9/14/18 08:22	N	II
K1808474-003	Carbon, Total Organic	N/A		Water	3.83 mg/L	10 ml	3.83 mg/L	1	0.07	0.50			9/14/18 08:54	N	II
K1808474-004	Carbon, Total Organic	N/A		Water	2.54 mg/L	10 ml	2.54 mg/L	1	0.07	0.50			9/14/18 09:58	N	II
K1808474-005	Carbon, Total Organic	N/A		Water	2.56 mg/L	10 ml	2.56 mg/L	1	0.07	0.50			9/14/18 10:30	N	II
K1808474-006	Carbon, Total Organic	N/A		Water	0.27 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 11:02	N	II
K1808474-007	Carbon, Total Organic	N/A		Water	0.59 mg/L	10 ml	0.59 mg/L	1	0.07	0.50			9/14/18 11:34	N	II
K1808474-008	Carbon, Total Organic	N/A		Water	3.24 mg/L	10 ml	3.24 mg/L	1	0.07	0.50			9/14/18 12:05	N	II
K1808474-009	Carbon, Total Organic	N/A		Water	2.68 mg/L	10 ml	2.68 mg/L	1	0.07	0.50			9/14/18 12:37	N	II
K1808474-010	Carbon, Total Organic	N/A		Water	4.30 mg/L	10 ml	17.2 mg/L	4	0.3	2.0			9/14/18 13:09	N	II
K1808474-011	Carbon, Total Organic	N/A		Water	6.15 mg/L	10 ml	24.6 mg/L	4	0.3	2.0			9/14/18 13:40	N	II
K1808474-012	Carbon, Total Organic	N/A		Water	3.37 mg/L	10 ml	3.37 mg/L	1	0.07	0.50			9/14/18 14:12	N	II
K1808474-013	Carbon, Total Organic	N/A		Water	5.35 mg/L	10 ml	5.35 mg/L	1	0.07	0.50			9/14/18 14:44	N	II
K1808474-014	Carbon, Total Organic	N/A		Water	1.12 mg/L	10 ml	4.5 mg/L	4	0.3	2.0			9/14/18 15:49	N	II
KQ1812847-01	Carbon, Total Organic	MS	K1808474-001	Water	31.00 mg/L	10 ml	31.0 mg/L	1	0.07	0.50	107		9/14/18 07:49	N	II
KQ1812847-02	Carbon, Total Organic	DUP	K1808474-001	Water	4.37 mg/L	10 ml	4.37 mg/L	1	0.07	0.50		4	9/14/18 07:18	N	II
KQ1812847-03	Carbon, Total Organic	DUP	K1808474-002	Water	2.79 mg/L	10 ml	2.79 mg/L	1	0.07	0.50		8	9/14/18 08:22	N	II
KQ1812847-04	Carbon, Total Organic	DUP	K1808474-003	Water	3.62 mg/L	10 ml	3.62 mg/L	1	0.07	0.50		6	9/14/18 08:54	N	II
KQ1812847-05	Carbon, Total Organic	DUP	K1808474-004	Water	2.34 mg/L	10 ml	2.34 mg/L	1	0.07	0.50		8	9/14/18 09:58	N	II
KQ1812847-06	Carbon, Total Organic	DUP	K1808474-005	Water	2.44 mg/L	10 ml	2.44 mg/L	1	0.07	0.50		5	9/14/18 10:30	N	II
KQ1812847-07	Carbon, Total Organic	DUP	K1808474-006	Water	0.21 mg/L	10 ml	0.21 mg/L J	1	0.07	0.50		NC	9/14/18 11:02	N	II
KQ1812847-08	Carbon, Total Organic	DUP	K1808474-007	Water	0.56 mg/L	10 ml	0.56 mg/L	1	0.07	0.50		5	9/14/18 11:34	N	II
KQ1812847-09	Carbon, Total Organic	DUP	K1808474-008	Water	3.14 mg/L	10 ml	3.14 mg/L	1	0.07	0.50		3	9/14/18 12:05	N	II
KQ1812847-10	Carbon, Total Organic	DUP	K1808474-009	Water	2.57 mg/L	10 ml	2.57 mg/L	1	0.07	0.50		4	9/14/18 12:37	N	II
KQ1812847-11	Carbon, Total Organic	DUP	K1808474-010	Water	4.15 mg/L	10 ml	16.6 mg/L	4	0.3	2.0		3	9/14/18 13:09	N	II
KQ1812847-12	Carbon, Total Organic	DUP	K1808474-011	Water	5.94 mg/L	10 ml	23.7 mg/L	4	0.3	2.0		3	9/14/18 13:40	N	II
KQ1812847-13	Carbon, Total Organic	DUP	K1808474-012	Water	3.10 mg/L	10 ml	3.10 mg/L	1	0.07	0.50		8	9/14/18 14:12	N	II
KQ1812847-14	Carbon, Total Organic	DUP	K1808474-013	Water	5.15 mg/L	10 ml	5.15 mg/L	1	0.07	0.50		4	9/14/18 14:44	N	II
KQ1812847-15	Carbon, Total Organic	DUP	K1808474-014	Water	1.06 mg/L	10 ml	4.3 mg/L	4	0.3	2.0		5	9/14/18 15:49	N	II
KQ1812847-16	Carbon, Total Organic	MB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 05:40	N	II
KQ1812847-17	Carbon, Total Organic	LCS		Water	21.35 mg/L	10 ml	21.3 mg/L	1	0.07	0.50	97		9/14/18 05:56	N	II
KQ1812847-18	Carbon, Total Organic	CCV		Water	24.42 mg/L	10 ml	24.4 mg/L	1			98		9/14/18 05:07	N	II
KQ1812847-19	Carbon, Total Organic	CCV		Water	24.38 mg/L	10 ml	24.4 mg/L	1			98		9/14/18 09:25	N	II
KQ1812847-20	Carbon, Total Organic	CCV		Water	24.51 mg/L	10 ml	24.5 mg/L	1			98		9/14/18 15:16	N	II
KQ1812847-21	Carbon, Total Organic	CCV		Water	24.57 mg/L	10 ml	24.6 mg/L	1			98		9/14/18 16:20	N	II
KQ1812847-22	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 05:23	N	II

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

09/18/18 Reviewed CES 9/18/18

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606448 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
KQ1812847-23	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 09:42	N	II
KQ1812847-24	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 15:32	N	II
KQ1812847-25	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 16:37	N	II

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

StarLIMS Run: K1808312, 8313, 8654, 8655, 8656, 8659, 8383, 8391, 8464, 8468, 8454, 8474

Analysis: DOC

Method: SM 5310 C

CCV: 11-GEN-05-69E 50 ppm LCS: 11-GEN-05-68N 21.9 ppm

ICAL Date: 3/13/18

ICAL ID: 11-GEN-05-65A

ICS ID: 11-GEN-05-67D

ICS TV: 25.0 ppm ICS % R = 1

Spike ID: 11-GEN-05-65K 0.05 ml of 5000 ppm stock ---> 10.0 ml = 25.0 ppm x dilution factor

Sodium Persulfate: 11-GEN-05-69F

21 % H3PO4: 11-GEN-05-69G

Equipment ID: K-TOC-03

PIPETTE ID: 124276B, N11314F, 129001F

FILTER ID: NA

Analyzed By: CES	Date Analyzed: 9/12/18
Reviewed By: [signature]	Date Reviewed: 09/18/18

TOC: 606439, 606442, 606448

Schedule: 09122018

Version: 7
Instrument: Fusion1
Last Saved by: Fusion1 (Fusion1)
Last Saved on: 2018/09/12 18:25 - Wednesday

Position	Sample Type	Sample ID	Method ID (Calibration ID)	Reps
(Clean)	Clean	Clean		1
(Clean)	Clean	Clean		1
(Clean)	Clean	Clean		1
(Blank)	Blank	Reagent/Acid Blank		1
D	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
1	Sample	MB1	Extended Reaction 021711 (Extended Reaction 021711)	1
2	Check Standard	[TOC] LCS ER [21.9 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
3	Sample	ICS	Extended Reaction 021711 (Extended Reaction 021711)	1
4	Sample	K1808312-001.04 2x	Extended Reaction 021711 (Extended Reaction 021711)	2
5	Sample	K1808312-001.04 ms 2x	Extended Reaction 021711 (Extended Reaction 021711)	1
6	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	2
7	Sample	K1808313-001.18	Extended Reaction 021711 (Extended Reaction 021711)	2
8	Sample	K1808313-001.18 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
9	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
10	Sample	K1808654-001.01	Extended Reaction 021711 (Extended Reaction 021711)	2
11	Sample	K1808654-001.01 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
12	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
13	Sample	K1808654-002.01	Extended Reaction 021711 (Extended Reaction 021711)	2
14	Sample	K1808654-003.01	Extended Reaction 021711 (Extended Reaction 021711)	2
15	Sample	K1808655-001.01 4x	Extended Reaction 021711 (Extended Reaction 021711)	2
16	Sample	K1808655-001.01 ms 4x	Extended Reaction 021711 (Extended Reaction 021711)	1
17	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	2
18	Sample	K1808655-002.01	Extended Reaction 021711 (Extended Reaction 021711)	2
19	Sample	K1808655-003.01 4x	Extended Reaction 021711 (Extended Reaction 021711)	2
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
20	Sample	MB2	Extended Reaction 021711 (Extended Reaction 021711)	1
2	Check Standard	[TOC] LCS ER [21.9 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
21	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
22	Sample	K1808655-004.01	Extended Reaction 021711 (Extended Reaction 021711)	2
23	Sample	K1808656-001.01	Extended Reaction 021711 (Extended Reaction 021711)	2
24	Sample	K1808656-001.01 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
25	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	2
26	Sample	K1808659-001.01	Extended Reaction 021711 (Extended Reaction 021711)	2
27	Sample	K1808659-001.01 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
28	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	2
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
29	Sample	K1808383-001.07	Extended Reaction 021711 (Extended Reaction 021711)	4
30	Sample	K1808383-001.07 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
31	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
32	Sample	K1808383-002.07	Extended Reaction 021711 (Extended Reaction 021711)	4
33	Sample	K1808383-004.07	Extended Reaction 021711 (Extended Reaction 021711)	4
34	Sample	K1808383-005.07	Extended Reaction 021711 (Extended Reaction 021711)	4
35	Sample	K1808383-006.07	Extended Reaction 021711 (Extended Reaction 021711)	4
36	Sample	K1808391-003.07	Extended Reaction 021711 (Extended Reaction 021711)	4
37	Sample	K1808391-003.07 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
38	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1

Schedule: 09122018

Position	Sample Type	Sample ID	Method ID (Calibration ID)	Reps
39	Sample	MB3	Extended Reaction 021711 (Extended Reaction 021711)	1
2	Check Standard	[TOC] LCS ER [21.9 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
40	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
41	Sample	K1808391-004.07	Extended Reaction 021711 (Extended Reaction 021711)	4
42	Sample	K1808391-005.07	Extended Reaction 021711 (Extended Reaction 021711)	4
43	Sample	K1808391-006.07	Extended Reaction 021711 (Extended Reaction 021711)	4
44	Sample	K1808464-001.07	Extended Reaction 021711 (Extended Reaction 021711)	4
45	Sample	K1808464-002.07	Extended Reaction 021711 (Extended Reaction 021711)	4
46	Sample	K1808464-003.07	Extended Reaction 021711 (Extended Reaction 021711)	4
47	Sample	K1808464-005.07	Extended Reaction 021711 (Extended Reaction 021711)	4
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
48	Sample	K1808464-005.07 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
49	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
50	Sample	K1808464-006.07	Extended Reaction 021711 (Extended Reaction 021711)	4
51	Sample	K1808468-001.07	Extended Reaction 021711 (Extended Reaction 021711)	4
52	Sample	K1808468-002.07	Extended Reaction 021711 (Extended Reaction 021711)	4
53	Sample	K1808468-003.07	Extended Reaction 021711 (Extended Reaction 021711)	4
54	Sample	K1808468-003.07 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
55	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
56	Sample	K1808468-004.07	Extended Reaction 021711 (Extended Reaction 021711)	4
57	Sample	K1808454-001.01	Extended Reaction 021711 (Extended Reaction 021711)	2
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
58	Sample	MB4	Extended Reaction 021711 (Extended Reaction 021711)	1
2	Check Standard	[TOC] LCS ER [21.9 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
59	Sample	K1808454-001.01 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
60	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
61	Sample	K1808454-003.01	Extended Reaction 021711 (Extended Reaction 021711)	2
62	Sample	K1808474-001.01	Extended Reaction 021711 (Extended Reaction 021711)	2
63	Sample	K1808474-001.01 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
64	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
65	Sample	K1808474-002.01	Extended Reaction 021711 (Extended Reaction 021711)	2
66	Sample	K1808474-003.01	Extended Reaction 021711 (Extended Reaction 021711)	2
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
67	Sample	K1808474-004.01	Extended Reaction 021711 (Extended Reaction 021711)	2
68	Sample	K1808474-005.01	Extended Reaction 021711 (Extended Reaction 021711)	2
69	Sample	K1808474-006.01	Extended Reaction 021711 (Extended Reaction 021711)	2
70	Sample	K1808474-007.01	Extended Reaction 021711 (Extended Reaction 021711)	2
71	Sample	K1808474-008.01	Extended Reaction 021711 (Extended Reaction 021711)	2
72	Sample	K1808474-009.01	Extended Reaction 021711 (Extended Reaction 021711)	2
73	Sample	K1808474-010.01 4x	Extended Reaction 021711 (Extended Reaction 021711)	2
74	Sample	K1808474-011.01 4x	Extended Reaction 021711 (Extended Reaction 021711)	2
75	Sample	K1808474-012.01	Extended Reaction 021711 (Extended Reaction 021711)	2
1	Sample	K1808474-013.01	Extended Reaction 021711 (Extended Reaction 021711)	2
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
3	Sample	K1808474-014.01 4x	Extended Reaction 021711 (Extended Reaction 021711)	2
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1

Fusion Report - 09122018
Wednesday, September 12, 2018 12:55 PM

(View - Reps, Unused Reps, Meta-Data, Signature, History)
Printed on 2018/09/17 13:11 - Monday

Report Summary Information

Company Location:	Gen Chem Lab		
Schedule Name:	09122018	Engine Version:	1.1.5.1
Instrument Name:	Fusion1	Firmware Version:	1.2.0696
Report Version:	1 of 1	Connection:	RS232 COM1
Report Creation by Operators (schedule version):	Fusion1 (Fusion1) (v1) Fusion1 (Fusion1) (v2) Fusion1 (Fusion1) (v3) Fusion1 (Fusion1) (v4) Fusion1 (Fusion1) (v5) Fusion1 (Fusion1) (v6) Fusion1 (Fusion1) (v7)		
Comment:			

Report Results

09/18/18

Sample Type: Clean — From Schedule Version 1

	Pos	Analysis Type	Sample ID	Start Time
◈	(clean)		Clean	2018/09/12 12:55

Rep #	Base Analysis Type	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	IC Clean	12.48	18.96	6.47	49.25	05:31
2	TC Clean	8.49	12.24	3.75	49.76	07:15
3	TC Clean	2.22	6.09	3.88	49.72	07:01
4	TC Clean	1.52	5.40	3.88	49.70	07:00

Sample Type: Clean — From Schedule Version 1

	Pos	Analysis Type	Sample ID	Start Time
◈	(clean)		Clean	2018/09/12 13:27

Rep #	Base Analysis Type	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	IC Clean	0.98	4.64	3.67	49.32	05:24

2	TC Clean	4.19	7.85	3.66	49.69	07:18
3	TC Clean	1.96	5.77	3.81	49.69	07:01
4	TC Clean	1.52	5.27	3.74	49.71	07:00

Sample Type: Clean From Schedule Version 2

	Pos	Analysis Type	Sample ID	Start Time
◉	(clean)		Clean	2018/09/12 13:59

Rep #	Base Analysis Type	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	IC Clean	1.08	4.59	3.51	49.09	07:58
2	TC Clean	4.46	8.06	3.60	49.72	07:15
3	TC Clean	1.77	5.53	3.75	49.70	07:03
4	TC Clean	1.78	5.42	3.64	49.69	07:02

Sample Type: Blank (Creating v1150) From Schedule Version 2

	Pos	Analysis Type	Sample ID	Start Time
◉	(blank)		Reagent/Acid Blank	2018/09/12 14:33

Rep #	Base Analysis Type	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	IC Clean	0.83	4.49	3.67	49.07	07:59
2	TC Clean	4.70	8.27	3.58	49.71	07:17
3	TC Clean	1.81	5.64	3.83	49.72	07:03
4	TC Clean	1.86	5.54	3.68	49.76	07:02
5	Reagent Blank	6.21	9.87	3.65	49.75	08:12
6	Acid Blank	1.50	4.94	3.45	49.15	08:04

Sample Type: Sample From Schedule Version 2

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◉	D	TOC	RB	0.3728 ppm	0.0000 ppm	0.0000%	2018/09/12 15:24

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.3728	3.7276	16.86	20.44	3.58	49.90	12:28

Dilution **Blank Contribution** **Method** **Calibration**

1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 2

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.5635 ppm (PASS)	0.0000 ppm	0%	2018/09/12 15:41

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.5635	245.6351	190.37	194.16	3.80	49.91	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 2

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/12 15:58

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	14.24	17.83	3.60	49.97	12:28

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 2

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	1	TOC	MB1	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/12 16:14

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.17	17.11	3.94	50.00	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> LCS ER From Schedule Version 2

	Pos	BAT	Concentration	Dil	Sample ID	Min / Max	Result	Std. Dev.	RSD	Start Time

			(ppm)			(% dev)				
◈	2	TOC	21.9000	1:1	[TOC] LCS ER [21.9 ppm]	0 / infinity (NA / NA)	21.2939 ppm (PASS)	0.0000 ppm	0%	2018/09/12 16:31

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
2	TOC	21.9 ppm	1	21.2939	212.9387	167.07	170.93	3.87	49.99	12:29

Completion State	Success Action	Method	Calibration	STD Conc - Pos 2
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	21.9 ppmC

Sample Type: Sample — From Schedule Version 3

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	3	TOC	ICS	0.3357 ppm	0.0000 ppm	0.0000%	2018/09/12 16:47

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.3357	3.3571	16.60	20.19	3.59	49.98	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Sample — From Schedule Version 4

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	4	TOC	K1808312-001.04 2x	8.7523 ppm	0.0730 ppm	0.8300%	2018/09/12 17:03

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	8.8040	88.0396	76.94	80.47	3.53	49.96	12:27
2	TOC	8.7007	87.0068	76.21	79.90	3.69	49.94	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Sample — From Schedule Version 5

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	5	TOC	K1808312-001.04 ms 2x	34.9398 ppm	0.0000 ppm	0.0000%	2018/09/12 17:35

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	34.9398	349.3983	263.19	266.81	3.61	49.96	12:27

Dilution	Blank Contribution	Method	Calibration

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	6	TOC	RB	0.1560 ppm	0.2206 ppm	141.4200%	2018/09/12 17:51

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.3120	3.1199	16.43	20.24	3.82	49.96	12:23
2	TOC	0.0000	0.0000	13.87	17.77	3.90	49.94	12:23

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Sample — From Schedule Version 6

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	7	TOC	K1808313-001.18	4.1323 ppm	0.0621 ppm	1.5000%	2018/09/12 18:23

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	4.1762	41.7621	43.97	47.77	3.81	49.93	12:27
2	TOC	4.0884	40.8837	43.34	47.09	3.75	49.95	12:28

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Sample — From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	8	TOC	K1808313-001.18 ms	29.4054 ppm	0.0000 ppm	0.0000%	2018/09/12 18:54

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	29.4054	294.0542	223.75	227.61	3.85	49.98	12:32

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	9	TOC	RB	0.0145 ppm	0.0000 ppm	0.0000%	2018/09/12 19:11

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0145	0.1450	14.31	18.05	3.74	49.96	12:32

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.8367 ppm (PASS)	0.0000 ppm	0%	2018/09/12 19:28

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.8367	248.3673	192.31	196.02	3.71	50.01	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/12 19:44

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	13.86	17.59	3.73	50.01	12:33

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	10	TOC	K1808654-001.01	10.0384 ppm	0.3351 ppm	3.3400%	2018/09/12 20:01

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	10.2753	102.7530	87.43	91.21	3.78	50.04	12:26
2	TOC	9.8014	98.0141	84.05	87.77	3.72	50.08	12:28

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	11	TOC	K1808654-001.01 ms	35.5247 ppm	0.0000 ppm	0.0000%	2018/09/12 20:32

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	35.5247	355.2471	267.36	271.07	3.71	50.09	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	12	TOC	RB	0.1155 ppm	0.0000 ppm	0.0000%	2018/09/12 20:49

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.1155	1.1553	15.03	18.90	3.87	50.10	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	13	TOC	K1808654-002.01	4.1425 ppm	0.1041 ppm	2.5100%	2018/09/12 21:05

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	4.0689	40.6886	43.20	47.04	3.84	50.11	12:27
2	TOC	4.2161	42.1607	44.25	48.10	3.85	50.11	12:21

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	14	TOC	K1808654-003.01	5.6453 ppm	0.0645 ppm	1.1400%	2018/09/12 21:37

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	5.6909	56.9092	54.76	58.51	3.75	50.14	12:27
2	TOC	5.5997	55.9970	54.11	57.99	3.88	50.11	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	15	TOC	K1808655-001.01 4x	2.8789 ppm	0.4980 ppm	17.3000%	2018/09/12 22:09

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.2311	32.3110	37.23	40.94	3.71	50.15	12:24
2	TOC	2.5268	25.2680	32.21	36.16	3.95	50.17	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	16	TOC	K1808655-001.01 ms 4x	28.5052 ppm	0.0000 ppm	0.0000%	2018/09/12 22:40

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	28.5052	285.0521	217.34	221.05	3.71	50.19	12:34

Dilution 1:10 **Blank Contribution** (TC) 14.2057 (IC) (v1150) **Method** Extended Reaction 021711 (v3) **Calibration** Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	17	TOC	RB	0.0231 ppm	0.0327 ppm	141.4200%	2018/09/12 22:56

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0462	0.4621	14.54	18.35	3.81	50.19	12:24
2	TOC	0.0000	0.0000	13.41	17.23	3.81	50.19	12:28

Dilution 1:10 **Blank Contribution** (TC) 14.2057 (IC) (v1150) **Method** Extended Reaction 021711 (v3) **Calibration** Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	18	TOC	K1808655-002.01	5.9341 ppm	0.0740 ppm	1.2500%	2018/09/12 23:28

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	5.9864	59.8645	56.87	60.64	3.77	50.22	12:27
2	TOC	5.8818	58.8176	56.12	59.82	3.70	50.23	12:24

Dilution 1:10 **Blank Contribution** (TC) 14.2057 (IC) (v1150) **Method** Extended Reaction 021711 (v3) **Calibration** Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	19	TOC	K1808655-003.01 4x	1.5651 ppm	0.0065 ppm	0.4200%	2018/09/13 00:00

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	1.5605	15.6049	25.33	29.06	3.74	50.28	12:28
2	TOC	1.5698	15.6976	25.39	29.17	3.77	50.25	12:25

Dilution 1:10 **Blank Contribution** (TC) 14.2057 (IC) (v1150) **Method** Extended Reaction 021711 (v3) **Calibration** Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.2430 ppm (PASS)	0.0000 ppm	0%	2018/09/13 00:32

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time

B	TOC	25 ppm	1	24.2430	242.4300	188.08	191.76	3.67	50.30	12:34

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◆	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/13 00:48

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	13.29	16.99	3.70	50.32	12:29

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	20	TOC	MB2	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 01:05

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	12.48	16.19	3.71	50.28	12:30

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> LCS ER From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◆	2	TOC	21.9000	1:1	[TOC] LCS ER [21.9 ppm]	0 / infinity (NA / NA)	21.2092 ppm (PASS)	0.0000 ppm	0%	2018/09/13 01:21

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
2	TOC	21.9 ppm	1	21.2092	212.0925	166.46	170.15	3.68	50.31	12:31

Completion State	Success Action	Method	Calibration	STD Conc - Pos 2
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	21.9 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	21	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 01:37

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.30	17.06	3.76	50.32	12:33

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	22	TOC	K1808655-004.01	3.7734 ppm	0.1773 ppm	4.7000%	2018/09/13 01:54

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.6480	36.4802	40.20	43.92	3.72	50.32	12:28
2	TOC	3.8988	38.9878	41.99	45.78	3.79	50.33	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	23	TOC	K1808656-001.01	17.6592 ppm	0.4559 ppm	2.5800%	2018/09/13 02:26

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	17.9816	179.8157	142.34	146.10	3.76	50.34	12:28
2	TOC	17.3368	173.3676	137.75	141.67	3.92	50.35	12:22

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	24	TOC	K1808656-001.01 ms	38.9876 ppm	0.0000 ppm	0.0000%	2018/09/13 02:57

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	38.9876	389.8760	292.04	295.80	3.76	50.35	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	25	TOC	RB	0.1261 ppm	0.1783 ppm	141.4200%	2018/09/13 03:14

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.2522	2.5221	16.00	19.98	3.97	50.35	12:28
2	TOC	0.0000	0.0000	14.07	18.05	3.99	50.38	12:26

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	26	TOC	K1808659-001.01	19.8843 ppm	0.7049 ppm	3.5500%	2018/09/13 03:45

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	20.3827	203.8273	159.46	163.17	3.71	50.40	12:25
2	TOC	19.3858	193.8584	152.35	156.38	4.03	50.36	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	27	TOC	K1808659-001.01 ms	42.1061 ppm	0.0000 ppm	0.0000%	2018/09/13 04:17

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	42.1061	421.0611	314.26	318.08	3.82	50.39	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	28	TOC	RB	0.0700 ppm	0.0990 ppm	141.4200%	2018/09/13 04:33

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.1400	1.3995	15.20	19.12	3.91	50.35	12:24
2	TOC	0.0000	0.0000	13.05	17.08	4.02	50.38	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.2109 ppm (PASS)	0.0000 ppm	0%	2018/09/13 05:05

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.2109	242.1087	187.85	191.80	3.94	50.36	12:31

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711

From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/13 05:21

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	13.88	17.85	3.98	50.36	12:32

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample

From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	29	TOC	K1808383-001.07	0.8358 ppm	0.0489 ppm	5.8500%	2018/09/13 05:38

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.8831	8.8313	20.50	24.25	3.75	50.37	12:28
2	TOC	0.7773	7.7732	19.74	23.69	3.95	50.36	12:24
3	TOC	0.8145	8.1451	20.01	24.01	4.00	50.35	12:24
4	TOC	0.8683	8.6825	20.39	24.15	3.76	50.33	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	30	TOC	K1808383-001.07 ms	26.1800 ppm	0.0000 ppm	0.0000%	2018/09/13 06:41

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	26.1800	261.7997	200.77	204.45	3.68	50.33	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	31	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 06:57

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.77	17.70	3.93	50.32	12:32

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	32	TOC	K1808383-002.07	0.8061 ppm	0.0218 ppm	2.7100%	2018/09/13 07:13

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.8308	8.3079	20.13	23.93	3.81	50.32	12:26
2	TOC	0.7904	7.9037	19.84	23.63	3.79	50.33	12:25
3	TOC	0.8179	8.1788	20.03	23.88	3.84	50.33	12:26
4	TOC	0.7853	7.8532	19.80	23.75	3.95	50.31	12:23

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	33	TOC	K1808383-004.07	1.3351 ppm	0.0411 ppm	3.0800%	2018/09/13 08:16

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	1.3924	13.9238	24.13	28.06	3.93	50.32	12:27
2	TOC	1.3371	13.3709	23.73	27.59	3.86	50.32	12:26
3	TOC	1.3097	13.0973	23.54	27.44	3.90	50.30	12:26
4	TOC	1.3013	13.0131	23.48	27.33	3.85	50.28	12:28

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	34	TOC	K1808383-005.07	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 09:19

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.57	17.33	3.76	50.28	12:23
2	TOC	0.0000	0.0000	13.02	16.93	3.91	50.32	12:24
3	TOC	0.0000	0.0000	13.72	17.52	3.80	50.27	12:25
4	TOC	0.0000	0.0000	13.78	17.69	3.91	50.26	12:28

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	35	TOC	K1808383-006.07	0.6270 ppm	0.0427 ppm	6.8100%	2018/09/13 10:22

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.6652	6.6520	18.95	22.86	3.91	50.27	12:26
2	TOC	0.5765	5.7651	18.31	22.17	3.86	50.24	12:24
3	TOC	0.6594	6.5945	18.90	22.70	3.79	50.25	12:28
4	TOC	0.6070	6.0696	18.53	22.48	3.95	50.26	12:24

Dilution	Blank Contribution	Method	Calibration

1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	36	TOC	K1808391-003.07	0.5097 ppm	0.0354 ppm	6.9500%	2018/09/13 11:25

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.5301	5.3006	17.98	21.97	3.98	50.25	12:26
2	TOC	0.5173	5.1729	17.89	21.84	3.95	50.22	12:26
3	TOC	0.4577	4.5765	17.47	21.27	3.81	50.22	12:24
4	TOC	0.5339	5.3385	18.01	21.67	3.66	50.21	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	37	TOC	K1808391-003.07 ms	25.6919 ppm	0.0000 ppm	0.0000%	2018/09/13 12:28

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	25.6919	256.9191	197.29	200.93	3.64	50.22	12:29

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	38	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 12:44

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.58	17.42	3.84	50.19	12:30

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◆	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.3724 ppm (PASS)	0.0000 ppm	0%	2018/09/13 13:00

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.3724	243.7239	189.00	192.83	3.82	50.17	12:27

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/13 13:17

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	12.75	16.61	3.86	50.14	12:29

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	39	TOC	MB3	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 13:33

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	12.62	16.19	3.57	50.09	12:32

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> LCS ER From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	2	TOC	21.9000	1:1	[TOC] LCS ER [21.9 ppm]	0 / infinity (NA / NA)	21.1750 ppm (PASS)	0.0000 ppm	0%	2018/09/13 13:50

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
2	TOC	21.9 ppm	1	21.1750	211.7501	166.22	169.80	3.58	50.06	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos 2
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	21.9 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	40	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 14:06

Rep	Base			Adjusted		Baseline	Pressure	Run

#	Analysis Type	ppm	µg	(Abs)	NDIR (Abs)	(Abs)	(psig)	Time
1	TOC	0.0000	0.0000	12.99	16.63	3.64	50.03	12:29

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	41	TOC	K1808391-004.07	0.2390 ppm	0.0328 ppm	13.7100%	2018/09/13 14:23

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.2762	2.7621	16.17	19.93	3.75	49.99	12:25
2	TOC	0.2034	2.0338	15.66	19.46	3.80	49.95	12:26
3	TOC	0.2550	2.5502	16.02	19.74	3.72	49.91	12:25
4	TOC	0.2213	2.2134	15.78	19.46	3.68	49.88	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	42	TOC	K1808391-005.07	0.3332 ppm	0.0208 ppm	6.2300%	2018/09/13 15:25

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.3593	3.5928	16.77	20.44	3.67	49.89	12:24
2	TOC	0.3382	3.3823	16.62	20.25	3.63	49.91	12:25
3	TOC	0.3104	3.1045	16.42	20.15	3.73	49.88	12:24
4	TOC	0.3249	3.2490	16.52	20.28	3.76	49.86	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	43	TOC	K1808391-006.07	0.4072 ppm	0.0396 ppm	9.7300%	2018/09/13 16:28

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.4575	4.5751	17.47	21.10	3.63	49.88	12:28
2	TOC	0.4163	4.1626	17.17	20.94	3.77	49.85	12:26
3	TOC	0.3902	3.9016	16.99	20.61	3.63	49.88	12:25
4	TOC	0.3648	3.6476	16.80	20.58	3.78	49.94	12:26

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	44	TOC	K1808464-001.07	0.5715 ppm	0.0229 ppm	4.0100%	2018/09/13 17:31

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time

1	TOC	0.5803	5.8030	18.34	22.16	3.82	49.93	12:25
2	TOC	0.5372	5.3722	18.03	21.74	3.70	49.93	12:23
3	TOC	0.5855	5.8549	18.38	22.30	3.92	49.94	12:24
4	TOC	0.5828	5.8283	18.36	22.07	3.71	49.95	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	45	TOC	K1808464-002.07	0.2525 ppm	0.0225 ppm	8.9300%	2018/09/13 18:34

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.2445	2.4450	15.95	19.62	3.67	49.98	12:24
2	TOC	0.2275	2.2752	15.83	19.59	3.76	49.97	12:27
3	TOC	0.2811	2.8112	16.21	20.09	3.88	49.96	12:24
4	TOC	0.2567	2.5670	16.04	19.81	3.78	49.99	12:26

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	46	TOC	K1808464-003.07	0.1696 ppm	0.0153 ppm	9.0100%	2018/09/13 19:37

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.1881	1.8808	15.55	19.33	3.78	50.00	12:25
2	TOC	0.1527	1.5272	15.29	18.95	3.66	49.96	12:25
3	TOC	0.1748	1.7475	15.45	19.25	3.79	49.99	12:22
4	TOC	0.1627	1.6268	15.36	19.16	3.79	49.98	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	47	TOC	K1808464-005.07	3.3499 ppm	0.0789 ppm	2.3500%	2018/09/13 20:40

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.4625	34.6250	38.88	42.56	3.68	49.99	12:27
2	TOC	3.3348	33.3481	37.97	41.85	3.88	50.04	12:26
3	TOC	3.2788	32.7881	37.57	41.46	3.89	50.04	12:27
4	TOC	3.3236	33.2358	37.89	41.79	3.90	50.04	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◆	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.6275 ppm (PASS)	0.0000 ppm	0%	2018/09/13 21:42

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.6275	246.2750	190.82	194.43	3.61	50.03	12:27

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◆	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/13 21:59

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	13.35	17.18	3.83	50.05	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	48	TOC	K1808464-005.07 ms	28.9262 ppm	0.0000 ppm	0.0000%	2018/09/13 22:16

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	28.9262	289.2620	220.34	224.01	3.68	50.03	12:29

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	49	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 22:32

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.49	17.36	3.87	50.00	12:30

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	50	TOC	K1808464-006.07	3.4443 ppm	0.0681 ppm	1.9800%	2018/09/13 22:48

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.4765	34.7654	38.98	42.82	3.84	50.00	12:23
2	TOC	3.3424	33.4238	38.02	41.96	3.93	49.98	12:23
3	TOC	3.4743	34.7429	38.96	42.84	3.88	49.95	12:25
4	TOC	3.4840	34.8397	39.03	42.97	3.94	49.98	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	51	TOC	K1808468-001.07	0.1848 ppm	0.0232 ppm	12.5400%	2018/09/13 23:51

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.1997	1.9973	15.63	19.54	3.91	49.95	12:24
2	TOC	0.1992	1.9917	15.62	19.45	3.82	49.94	12:28
3	TOC	0.1893	1.8935	15.56	19.12	3.57	49.96	12:27
4	TOC	0.1508	1.5076	15.28	19.14	3.86	49.96	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	52	TOC	K1808468-002.07	0.2151 ppm	0.0546 ppm	25.3800%	2018/09/14 00:54

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.2901	2.9010	16.27	19.79	3.52	49.97	12:30
2	TOC	0.1721	1.7209	15.43	19.23	3.80	49.96	12:22
3	TOC	0.2209	2.2092	15.78	19.44	3.66	49.95	12:23
4	TOC	0.1773	1.7728	15.47	19.24	3.77	49.93	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	53	TOC	K1808468-003.07	0.8575 ppm	0.0440 ppm	5.1400%	2018/09/14 01:57

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.9160	9.1597	20.73	24.32	3.58	49.93	12:27
2	TOC	0.8277	8.2770	20.10	23.75	3.64	49.93	12:24
3	TOC	0.8666	8.6657	20.38	24.07	3.69	49.92	12:25
4	TOC	0.8197	8.1970	20.05	23.67	3.62	49.94	12:23

Dilution	Blank Contribution	Method	Calibration

1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	54	TOC	K1808468-003.07 ms	26.6452 ppm	0.0000 ppm	0.0000%	2018/09/14 03:00

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	26.6452	266.4516	204.08	207.70	3.62	49.91	12:34

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	55	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/14 03:16

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.81	17.50	3.69	49.93	12:29

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	56	TOC	K1808468-004.07	0.1361 ppm	0.0145 ppm	10.6500%	2018/09/14 03:32

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.1564	1.5637	15.32	19.09	3.77	49.95	12:26
2	TOC	0.1276	1.2760	15.12	18.81	3.69	49.93	12:23
3	TOC	0.1364	1.3644	15.18	18.95	3.77	49.92	12:24
4	TOC	0.1240	1.2395	15.09	18.84	3.75	49.93	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	57	TOC	K1808454-001.01	3.2799 ppm	0.0551 ppm	1.6800%	2018/09/14 04:35

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.3188	33.1881	37.86	41.67	3.82	49.89	12:26
2	TOC	3.2409	32.4093	37.30	41.12	3.82	49.92	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

			Concentration			Min / Max				

	Pos	BAT	(ppm)	Dil	Sample ID	(% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.4184 ppm (PASS)	0.0000 ppm	0%	2018/09/14 05:07

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.4184	244.1842	189.33	193.09	3.76	49.93	12:34

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/14 05:23

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	13.32	17.07	3.75	49.91	12:29

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	58	TOC	MB4	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/14 05:40

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	12.08	15.95	3.87	49.88	12:32

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> LCS ER From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	2	TOC	21.9000	1:1	[TOC] LCS ER [21.9 ppm]	0 / infinity (NA / NA)	21.3482 ppm (PASS)	0.0000 ppm	0%	2018/09/14 05:56

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time

2	TOC	21.9 ppm	1	21.3482	213.4817	167.45	171.22	3.77	49.92	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos 2
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	21.9 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	59	TOC	K1808454-001.01 ms	29.1555 ppm	0.0000 ppm	0.0000%	2018/09/14 06:13

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	29.1555	291.5549	221.97	225.78	3.81	49.88	12:28

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	60	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/14 06:29

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.32	17.13	3.81	49.87	12:30

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	61	TOC	K1808454-003.01	2.4164 ppm	0.0742 ppm	3.0700%	2018/09/14 06:45

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	2.4688	24.6884	31.80	35.54	3.74	49.89	12:23
2	TOC	2.3639	23.6387	31.05	34.79	3.74	49.88	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	62	TOC	K1808474-001.01	4.2765 ppm	0.1319 ppm	3.0800%	2018/09/14 07:18

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	4.1832	41.8323	44.02	47.82	3.81	49.87	12:26
2	TOC	4.3697	43.6973	45.34	49.08	3.73	49.90	12:26

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	63	TOC	K1808474-001.01 ms	31.0033 ppm	0.0000 ppm	0.0000%	2018/09/14 07:49

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	31.0033	310.0334	235.14	238.88	3.74	49.87	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	64	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/14 08:06

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	14.11	17.92	3.81	49.88	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	65	TOC	K1808474-002.01	2.9077 ppm	0.1608 ppm	5.5300%	2018/09/14 08:22

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.0215	30.2145	35.74	39.37	3.64	50.00	12:26
2	TOC	2.7940	27.9398	34.12	37.92	3.81	50.07	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	66	TOC	K1808474-003.01	3.7238 ppm	0.1508 ppm	4.0500%	2018/09/14 08:54

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.8304	38.3044	41.50	45.30	3.80	50.13	12:27
2	TOC	3.6171	36.1715	39.98	43.72	3.74	50.20	12:23

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.3779 ppm (PASS)	0.0000 ppm	0%	2018/09/14 09:25

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.3779	243.7786	189.04	192.81	3.77	50.10	12:35

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/14 09:42

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	12.67	16.44	3.77	50.10	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	67	TOC	K1808474-004.01	2.4386 ppm	0.1406 ppm	5.7700%	2018/09/14 09:58

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	2.5380	25.3802	32.29	35.78	3.49	50.08	12:27
2	TOC	2.3392	23.3918	30.87	34.69	3.81	50.09	12:26

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	68	TOC	K1808474-005.01	2.5022 ppm	0.0815 ppm	3.2600%	2018/09/14 10:30

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	2.5598	25.5977	32.45	36.09	3.64	50.09	12:27
2	TOC	2.4446	24.4456	31.63	35.34	3.72	50.08	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	69	TOC	K1808474-006.01	0.2415 ppm	0.0402 ppm	16.6400%	2018/09/14 11:02

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.2699	2.6990	16.13	19.84	3.71	50.06	12:23
2	TOC	0.2131	2.1306	15.72	19.72	3.99	50.03	12:23

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	70	TOC	K1808474-007.01	0.5776 ppm	0.0203 ppm	3.5200%	2018/09/14 11:34

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.5919	5.9195	18.42	22.15	3.73	50.03	12:22
2	TOC	0.5632	5.6318	18.22	22.10	3.88	50.01	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	71	TOC	K1808474-008.01	3.1931 ppm	0.0681 ppm	2.1300%	2018/09/14 12:05

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.2412	32.4121	37.30	41.11	3.80	50.00	12:27
2	TOC	3.1449	31.4494	36.62	40.37	3.75	49.97	12:26

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	72	TOC	K1808474-009.01	2.6221 ppm	0.0805 ppm	3.0700%	2018/09/14 12:37

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	2.6791	26.7905	33.30	36.97	3.68	49.97	12:26
2	TOC	2.5652	25.6525	32.49	36.28	3.79	49.93	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	73	TOC	K1808474-010.01 4x	4.2259 ppm	0.1042 ppm	2.4700%	2018/09/14 13:09

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	4.2996	42.9956	44.84	48.74	3.89	49.91	12:23
2	TOC	4.1522	41.5222	43.79	47.56	3.76	49.92	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC)	Extended Reaction	Extended Reaction

(v1150) 021711 (v3) 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	74	TOC	K1808474-011.01 4x	6.0416 ppm	0.1492 ppm	2.4700%	2018/09/14 13:40

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	6.1471	61.4712	58.01	61.80	3.78	49.91	12:24
2	TOC	5.9361	59.3607	56.51	60.11	3.60	49.90	12:27

Dilution: 1:10
Blank Contribution: (TC) 14.2057 (IC) (v1150)
Method: Extended Reaction 021711 (v3)
Calibration: Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	75	TOC	K1808474-012.01	3.2345 ppm	0.1939 ppm	5.9900%	2018/09/14 14:12

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.3716	33.7157	38.23	41.93	3.70	49.89	12:22
2	TOC	3.0974	30.9737	36.28	40.00	3.72	49.90	12:25

Dilution: 1:10
Blank Contribution: (TC) 14.2057 (IC) (v1150)
Method: Extended Reaction 021711 (v3)
Calibration: Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	1	TOC	K1808474-013.01	5.2499 ppm	0.1437 ppm	2.7400%	2018/09/14 14:44

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	5.3515	53.5146	52.34	56.18	3.84	49.86	12:27
2	TOC	5.1483	51.4827	50.89	54.51	3.61	49.95	12:24

Dilution: 1:10
Blank Contribution: (TC) 14.2057 (IC) (v1150)
Method: Extended Reaction 021711 (v3)
Calibration: Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.5077 ppm (PASS)	0.0000 ppm	0%	2018/09/14 15:16

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.5077	245.0766	189.97	193.67	3.71	49.94	12:29

Completion State: Success - Criteria met.
Success Action: Do Nothing
Method: Extended Reaction 021711 (v3)
Calibration: Extended Reaction 021711 (v17)
STD Conc - Pos B: 50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/14 15:32

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	12.78	16.62	3.84	49.90	12:27

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	3	TOC	K1808474-014.01 4x	1.0940 ppm	0.0420 ppm	3.8400%	2018/09/14 15:49

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	1.1237	11.2365	22.21	26.11	3.90	49.86	12:26
2	TOC	1.0643	10.6429	21.79	25.65	3.86	49.96	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.5662 ppm (PASS)	0.0000 ppm	0%	2018/09/14 16:20

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.5662	245.6618	190.39	194.30	3.92	49.87	12:29

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB	0 / infinity	0.0000	0.0000	0%	2018/09/14 16:37

					021711 [0.0 ppm]	(NA / NA)	ppm (PASS)	ppm		

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	13.00	16.82	3.82	49.96	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Meta Data Used in this Report

Blanks

Version	Reagent (Abs)	Acid (Abs)	DI IC (Abs)	DI TC (Abs)	DI TOC (Abs)	Save Time	Operator
v1149	2.1430	1.7060	0.0000	0.0000	0.0000	2018/09/07 11:57	Fusion1 (Fusion1)
v1150	2.0713	1.4970	0.0000	0.0000	0.0000	2018/09/12 15:24	Fusion1 (Fusion1)

Calibrations

Name: Extended Reaction 021711 (TOC)

Version:	v17	Calibration curve formula:	TOC: y = 7.126x + 15.324
Ver Creation:	2018/03/13 21:33	r^2 value:	TOC: r^2 = 0.99994
Comment:			
Operator:	Fusion1 (Fusion1)		
Basic Analysis Type	TOC		

Basic Analysis Type: TOC

Sample ID	Y Raw Value	X Expected	Message	End Time
0.0 ppm	15.2500	0.0000		2018/03/13 19:55
0.50 ppm	18.8060	0.5000		2018/03/13 20:12
1.00 ppm	21.6980	1.0000		2018/03/13 20:28
5.00 ppm	50.8680	5.0000		2018/03/13 20:43
10.0 ppm	88.5720	10.0000		2018/03/13 21:00
25.0 ppm	192.2360	25.0000		2018/03/13 21:16
50.0 ppm	371.8790	50.0000		2018/03/13 21:32

Methods

Name: Extended Reaction 021711 (TOC)

Version: v3 Operator: Gen Chem Lab (Fusion1)
Ver Creation: 2013/02/04 11:44
Comment:

Parameter	Value
SampleVolume	10.0 mL
Dilution	1:10
AcidVolume	0.5 ml
ReagentVolume	2.0 ml
UVReactorPrerinse	Off
UVReactorPrerinseVolume	5.0
NumberOfUVReactorPrerinses	1
ICSpargeTime	1.00 mins
DetectorSweepFlow	500 ml/min
PreSpargeTime	4.00 mins
SystemFlow	500 ml/min

Advanced Parameter	Value
NeedleRinseVolume	5.0 ml
VialPrimeVolume	2.0 ml
ICSamplePrimeVolume	2.0 ml
ICSpargeRinseVolume	12.0 ml
BaselineStabilizeTime	0.70 min
DetectorPressureFlow	150 ml/min
SyringeSpeedWaste	10
SyringeSpeedAcid	7
SyringeSpeedReagent	7
SyringeSpeedDIWater	7
NDIRPressurization	60 psig
SyringeSpeedSampleDispense	5
SyringeSpeedSampleAspirate	4
SyringeSpeedUVDispense	7
SyringeSpeedUVAspirate	5
SyringeSpeedICDispense	7
SyringeSpeedICAspirate	5
NDIRPressureStabilize	1.75 min
SampleMixing	Off
SampleMixingCycles	1
SampleMixingVolume	10.0
LowLevelFilterNDIR	Off

Acceptance / Approval

Electronic Signatures

Report Version	User Name	Acceptance	Reason	Date

Report History

Report History

Report Version	User Name	System Reason	User Reason	Date
1	Fusion1 (Fusion1)	Schedule completed	Schedule completed	2018/09/14 17:00

Work Request # (Original) K1808655

Tier: IV

Date Analyzed: 9/18/18

Analyst: CES Run # 607294

Analysis: TOC

DATA QUALITY REPORT
INORGANICS

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1.	Is the method name and number correct and appropriate?	yes/no/NA
2.	Holding times met for all analyses and for all samples?	yes/no/NA
3.	Are calculations correct?	yes/no/NA
4.	Is the reporting basis correct? (Dry Weight)	yes/no/NA
5.	All quality control criteria met?	yes/no
6.	Is the calibration curve correlation coefficient ≥ 0.995?	yes/no/NA
7.	MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency?	yes/no/NA
8.	Are ICVs, CCVs, and CCBs all within acceptance limits?	yes/no/NA
9.	Are results for methods blanks all ND?	yes/no/NA
10.	Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.)	yes/no/NA
11.	Are all exceptions explained?	yes/no/NA
12.	Have all applicable service requests been reviewed?	yes/no/NA
13.	Are all samples labeled correctly?	yes/no/NA
14.	Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample, Form V)	yes/no/NA
15.	Are detection limits and units reported correctly?	yes/no/NA
16.	Is the unused space on the benchsheet crossed out?	yes/no/NA
17.	Was analysis turned in by the due date? (n-2) (If not record SR#)	yes/no/NA

COMMENTS:

Final Approved by: _____ Date: 09/19/18

DQREPORT

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 607294 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
K1808655-001	Carbon, Total Organic	N/A		Water	2.27 mg/L	10 ml	9.1 mg/L	4	0.3	2.0			9/18/18 20:00	N	IV
KQ1813084-01	Carbon, Total Organic	MS	K1808655-001	Water	28.17 mg/L	10 ml	113 mg/L	4	0.3	2.0	104		9/18/18 20:32	N	IV
KQ1813084-02	Carbon, Total Organic	DUP	K1808655-001	Water	2.10 mg/L	10 ml	8.4 mg/L	4	0.3	2.0		8	9/18/18 20:00	N	IV
KQ1813084-03	Carbon, Total Organic	MB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/18/18 18:55	N	IV
KQ1813084-04	Carbon, Total Organic	LCS		Water	21.51 mg/L	10 ml	21.5 mg/L	1	0.07	0.50	98		9/18/18 19:11	N	IV
KQ1813084-05	Carbon, Total Organic	CCV		Water	24.38 mg/L	10 ml	24.4 mg/L	1			98		9/18/18 18:22	N	IV
KQ1813084-06	Carbon, Total Organic	CCV		Water	25.03 mg/L	10 ml	25.0 mg/L	1			100		9/18/18 20:49	N	IV
KQ1813084-07	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/18/18 18:38	N	IV
KQ1813084-08	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/18/18 21:05	N	IV

CES 9/19/18

09/19/18

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

StarLIMS Run: K1808655

Analysis: DOC

Method: SM 5310 C

CCV: 11-GEN-05-69E 50 ppm LCS: 11-GEN-05-68N 21.9 ppm

ICAL Date: 3/13/18

ICAL ID: 11-GEN-05-65A

ICS ID: 11-GEN-05-67D

ICS TV: 25.0 ppm ICS % R = 1

Spike ID: 11-GEN-05-65K 0.05 ml of 5000 ppm stock ---> 10.0 ml = 25.0 ppm x dilution factor

Sodium Persulfate: 11-GEN-05-69H

21 % H3PO4: 11-GEN-05-69G

Equipment ID: K-TOC-03

PIPETTE ID: 124276B, N11314F, 129001F

FILTER ID: NA

Analyzed By: CES	Date Analyzed: 9/18/18
Reviewed By: [signature]	Date Reviewed: 09/19/18

TOC: 607294

Schedule: 09182018

Version: 3
Instrument: Fusion1
Last Saved by: Fusion1 (Fusion1)
Last Saved on: 2018/09/18 15:41 - Tuesday

Position	Sample Type	Sample ID	Method ID (Calibration ID)	Reps
(Clean)	Clean	Clean		1
(Clean)	Clean	Clean		1
(Clean)	Clean	Clean		1
(Blank)	Blank	Reagent/Acid Blank		1
D	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
1	Sample	MB1	Extended Reaction 021711 (Extended Reaction 021711)	1
2	Check Standard	[TOC] LCS ER [21.9 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
3	Sample	ICS	Extended Reaction 021711 (Extended Reaction 021711)	1
4	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
5	Sample	K1808655-001.01 4x	Extended Reaction 021711 (Extended Reaction 021711)	2
6	Sample	K1808655-001.01 ms 4x	Extended Reaction 021711 (Extended Reaction 021711)	1
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1

09/19/18

Fusion Report - 09182018
Tuesday, September 18, 2018 03:36 PM

(View - Reps, Unused Reps, Meta-Data, Signature, History)
Printed on 2018/09/19 09:42 - Wednesday

Report Summary Information

Company Location:	Gen Chem Lab		
Schedule Name:	09182018	Engine Version:	1.1.5.1
Instrument Name:	Fusion1	Firmware Version:	1.2.0696
Report Version:	1 of 1	Connection:	RS232 COM1
Report Creation by Operators (schedule version):	Fusion1 (Fusion1) (v2) Fusion1 (Fusion1) (v3)		
Comment:			

Report Results

09/19/18

Sample Type: Clean — From Schedule Version 2

	Pos	Analysis Type	Sample ID	Start Time
◆	(clean)		Clean	2018/09/18 15:36

Rep #	Base Analysis Type	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	IC Clean	13.44	17.28	3.83	49.24	08:00
2	TC Clean	9.60	13.37	3.77	49.66	07:17
3	TC Clean	2.55	6.37	3.81	49.79	07:00
4	TC Clean	2.10	5.91	3.80	49.72	07:00

Sample Type: Clean — From Schedule Version 3

	Pos	Analysis Type	Sample ID	Start Time
◆	(clean)		Clean	2018/09/18 16:10

Rep #	Base Analysis Type	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	IC Clean	1.03	4.79	3.76	49.25	07:58
2	TC Clean	4.82	8.60	3.79	49.84	07:18
3	TC Clean	2.09	5.99	3.89	49.71	07:00
4	TC Clean	1.68	5.61	3.93	49.80	07:01

Sample Type: Clean From Schedule Version 3

	Pos	Analysis Type	Sample ID	Start Time
◆	(clean)		Clean	2018/09/18 16:44

Rep #	Base Analysis Type	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	IC Clean	1.01	4.74	3.73	49.31	07:58
2	TC Clean	4.86	8.74	3.88	49.76	07:18
3	TC Clean	2.33	6.35	4.02	49.84	07:01
4	TC Clean	1.62	5.58	3.96	49.77	07:02

Sample Type: Blank (Creating v1151) From Schedule Version 3

	Pos	Analysis Type	Sample ID	Start Time
◆	(blank)		Reagent/Acid Blank	2018/09/18 17:19

Rep #	Base Analysis Type	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	IC Clean	0.90	4.71	3.82	49.37	05:23
2	TC Clean	4.68	8.55	3.86	49.92	07:13
3	TC Clean	2.13	6.05	3.92	49.79	07:00
4	TC Clean	1.70	5.52	3.81	49.86	07:01
5	Reagent Blank	6.14	10.11	3.96	49.95	08:10
6	Acid Blank	1.56	5.27	3.70	49.36	05:34

Sample Type: Sample From Schedule Version 3

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	D	TOC	RB	0.2965 ppm	0.0000 ppm	0.0000%	2018/09/18 18:05

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.2965	2.9650	16.31	20.11	3.79	50.13	12:34

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2011 (IC) (v1151)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 3

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.3795 ppm (PASS)	0.0000 ppm	0%	2018/09/18 18:22

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.3795	243.7954	189.06	192.95	3.89	50.14	12:31

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 3

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/18 18:38

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	14.34	18.25	3.91	50.06	12:31

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 3

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	1	TOC	MB1	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/18 18:55

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.23	17.10	3.87	50.12	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2011 (IC) (v1151)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> LCS ER From Schedule Version 3

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	2	TOC	21.9000	1:1	[TOC] LCS ER [21.9 ppm]	0 / infinity (NA / NA)	21.5126 ppm (PASS)	0.0000 ppm	0%	2018/09/18 19:11

Pos	Base Analysis	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time

	Type									
2	TOC	21.9 ppm	1	21.5126	215.1264	168.63	172.63	4.01	50.12	12:31

Completion State	Success Action	Method	Calibration	STD Conc - Pos 2
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	21.9 ppmC

Sample Type: Sample From Schedule Version 3

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	3	TOC	ICS	0.2407 ppm	0.0000 ppm	0.0000%	2018/09/18 19:28

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.2407	2.4065	15.92	19.73	3.81	50.12	12:32

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2011 (IC) (v1151)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	4	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/18 19:44

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	14.01	17.69	3.68	50.12	12:32

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2011 (IC) (v1151)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	5	TOC	K1808655-001.01 4x	2.1829 ppm	0.1193 ppm	5.4600%	2018/09/18 20:00

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	2.2673	22.6727	30.36	34.35	3.99	50.12	12:28
2	TOC	2.0986	20.9860	29.16	33.28	4.12	50.09	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2011 (IC) (v1151)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	6	TOC	K1808655-001.01 ms 4x	28.1675 ppm	0.0000 ppm	0.0000%	2018/09/18 20:32

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	28.1675	281.6753	214.93	218.82	3.89	50.11	12:32

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2011 (IC) (v1151)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 3

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	25.0326 ppm (PASS)	0.0000 ppm	0%	2018/09/18 20:49

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	25.0326	250.3263	193.71	197.52	3.81	50.11	12:29

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 3

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/18 21:05

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	14.48	18.35	3.87	50.13	12:29

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Meta Data Used in this Report

Blanks

Version	Reagent (Abs)	Acid (Abs)	DI IC (Abs)	DI TC (Abs)	DI TOC (Abs)	Save Time	Operator
v1150	2.0713	1.4970	0.0000	0.0000	0.0000	2018/09/12 15:24	Fusion1 (Fusion1)
v1151	2.0483	1.5640	0.0000	0.0000	0.0000	2018/09/18 18:05	Fusion1 (Fusion1)

Calibrations

Name: Extended Reaction 021711 (TOC)

Version: v17 Calibration curve formula: TOC: y = 7.126x + 15.324

Ver Creation: 2018/03/13 21:33 r^2 value: TOC: r^2 = 0.99994

Comment:

Operator: Fusion1 (Fusion1)

Basic Analysis Type: TOC

Basic Analysis Type: TOC

Sample ID	Y Raw Value	X Expected	Message	End Time
0.0 ppm	15.2500	0.0000		2018/03/13 19:55
0.50 ppm	18.8060	0.5000		2018/03/13 20:12
1.00 ppm	21.6980	1.0000		2018/03/13 20:28
5.00 ppm	50.8680	5.0000		2018/03/13 20:43
10.0 ppm	88.5720	10.0000		2018/03/13 21:00
25.0 ppm	192.2360	25.0000		2018/03/13 21:16
50.0 ppm	371.8790	50.0000		2018/03/13 21:32

Methods

Name: Extended Reaction 021711 (TOC)

Version: v3 Operator: Gen Chem Lab (Fusion1)

Ver Creation: 2013/02/04 11:44

Comment:

Parameter	Value
SampleVolume	10.0 mL
Dilution	1:10
AcidVolume	0.5 ml
ReagentVolume	2.0 ml
UVReactorPrerinse	Off
UVReactorPrerinseVolume	5.0
NumberOfUVReactorPrerinses	1
ICSpargeTime	1.00 mins
DetectorSweepFlow	500 ml/min
PreSpargeTime	4.00 mins
SystemFlow	500 ml/min

Advanced Parameter	Value
NeedleRinseVolume	5.0 ml
VialPrimeVolume	2.0 ml
ICSamplePrimeVolume	2.0 ml
ICSpargeRinseVolume	12.0 ml
BaselineStabilizeTime	0.70 min
DetectorPressureFlow	150 ml/min
SyringeSpeedWaste	10
SyringeSpeedAcid	7
SyringeSpeedReagent	7
SyringeSpeedDIWater	7
NDIRPressurization	60 psig
SyringeSpeedSampleDispense	5
SyringeSpeedSampleAspirate	4
SyringeSpeedUVDispense	7
SyringeSpeedUVAspirate	5
SyringeSpeedICDispense	7
SyringeSpeedICAspirate	5
NDIRPressureStabilize	1.75 min
SampleMixing	Off
SampleMixingCycles	1
SampleMixingVolume	10.0
LowLevelFilterNDIR	Off

Acceptance / Approval

Electronic Signatures

Report Version	User Name	Acceptance	Reason	Date

Report History

Report History

Report Version	User Name	System Reason	User Reason	Date
1	Fusion1 (Fusion1)	Schedule completed	Schedule completed	2018/09/18 21:22

LABORATORY REPORT

September 10, 2018

RJ Modashia
ALS Laboratory Group
10450 Stancliff Road Suite 210
Houston, TX 77099-4338

RE: HS18081428

Dear RJ:

Enclosed are the results of the samples submitted to our laboratory on August 31, 2018. For your reference, these analyses have been assigned our service request number P1804548.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

Kate Kaneko
By Kate Kaneko at 5:01 pm, 09/10/18

Kate Kaneko
Project Manager

Client: ALS Laboratory Group Service Request No: P1804548
Project: HS18081428

CASE NARRATIVE

The samples were received intact under chain of custody on August 31, 2018 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Carbon Dioxide Analysis

The samples were analyzed for carbon dioxide using a gas chromatograph equipped with a thermal conductivity detector (TCD). A known amount of liquid was displaced by injecting 8.0 milliliters of helium creating a headspace in the sample vial. Each sample vial was agitated using a sonic disrupter for fifteen minutes and then allowed to equilibrate for at least four hours. A volume of the headspace was withdrawn using a gas-tight syringe and analyzed using a manual injection technique. The amount of dissolved gases (carbon dioxide) in the original sample was calculated using Henry's Law. This method was performed with guidance from RSK 175 as described in laboratory SOP VOA-DISGAS. This analyte is included on the laboratory's NELAP and DoD-ELAP scope of accreditation.

The sample labeled "46WW05-18028" had a pH of 5 which may give a high bias to the carbon dioxide results. In addition the sample was run at the furthest dilution possible and still was slightly above the calibration curve. The data is flagged accordingly.

Methane, Ethene and Ethane Analysis

The samples were also analyzed for methane, ethene and ethane using a gas chromatograph equipped with a flame ionization detector (FID). A known amount of liquid was displaced by injecting 8.0 milliliters of helium creating a headspace in the sample vial. Each sample vial was agitated using a sonic disrupter for fifteen minutes and then allowed to equilibrate for at least two hours. A volume of the headspace was withdrawn using a gas-tight syringe and analyzed using a manual injection technique. The amount of dissolved gases (methane, ethene and ethane) in the original sample was calculated using Henry's Law. This method was performed with guidance from RSK 175. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the laboratory's NELAP or DoD-ELAP accreditation.

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 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.

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2016036
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1347317
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-005
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-18-9
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272018-9
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: ALS Laboratory Group
Project ID: HS18081428

Service Request: P1804548

Date Received: 8/31/2018
Time Received: 09:30

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	RSK 175 - CO2	RSK 175 - Gases
46WW05-180828	P1804548-001	Water	8/28/2018	08:50	X	X
46WW16-180828	P1804548-002	Water	8/28/2018	10:30	X	X
46WW09-180828	P1804548-003	Water	8/28/2018	11:35	X	X
LHSMW19-180828	P1804548-004	Water	8/28/2018	13:05	X	X

P1804548

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

COC ID: 9718

SUBCONTRACT TO:

ALS Environmental
2655 Park Center Drive, Suite A
Simi Valley, CA 93065

Phone: +1 805 526 7161

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	RJ Modashia
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RJ.Modashia@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:	HS18081428
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS18081428-07**	**46WW05-180828**	**Groundwater**	**28 Aug 2018 08:50**
	MEE + CO2, DOD IV, Equis EDD			07 Sep 2018
2.	**HS18081428-08**	**46WW16-180828**	**Groundwater**	**28 Aug 2018 10:30**
	MEE + CO2, DOD IV, Equis EDD			07 Sep 2018
3.	**HS18081428-09**	**46WW09-180828**	**Groundwater**	**28 Aug 2018 11:35**
	MEE + CO2, DOD IV, Equis EDD			07 Sep 2018
4.	**HS18081428-10**	**LH5MW19--180828**	**Groundwater**	**28 Aug 2018 13:05**
	MEE + CO2, DOD IV, Equis EDD			07 Sep 2018

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

QC Level: DOD IV (DoD Data Package)

Relinquished By: [signature] Date/Time: 8/30/18 18:00

Received By: [signature] Date/Time: 8/31/18 0930

Cooler ID(s): Temperature(s): /°C

cust
1 cu

Each set contains
2 x neat Vials
3 x HCL Vials

ALS Environmental
Sample Acceptance Check Form

Client: ALS Laboratory Group Work order: P1804548

Project: HS18081428

Sample(s) received on: 8/31/18 Date opened: 8/31/18 by: ADAVID

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☒	☐	☐
	Cooler Temperature: ° C Blank Temperature: 1° C Thermometer ID CO907034581 Wet Ice			
8	Were **custody seals** on outside of cooler/Box/Container?	☒	☐	☐
	Location of seal(s)? Cooler lid. Sealing Lid?	☒	☐	☐
	Were signature and date included?	☒	☐	☐
	Were seals intact?	☒	☐	☐
9	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☒	☐	☐
	Is there a client indication that the submitted samples are **pH** preserved?	☒	☐	☐
	Were **VOA vials** checked for presence/absence of air bubbles?	☒	☐	☐
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☒	☐
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1804548-001.01	40mL VOA NP		5		A	MR 09/04/18
P1804548-001.02	40mL VOA NP				A	
P1804548-001.04	40ml VOA HCL		1		A	MR 09/01/18
P1804548-001.05	40ml VOA HCL				A	
P1804548-001.06	40ml VOA HCL				A	
P1804548-002.01	40mL VOA NP		6		A	MR 09/04/18
P1804548-002.02	40mL VOA NP				A	
P1804548-002.04	40ml VOA HCL		1		A	MR 09/01/18
P1804548-002.05	40ml VOA HCL				A	
P1804548-002.06	40ml VOA HCL				A	
P1804548-003.01	40mL VOA NP		6		A	MR 09/04/18
P1804548-003.02	40mL VOA NP				A	
P1804548-003.04	40ml VOA HCL		1		A	MR 09/01/18
P1804548-003.05	40ml VOA HCL				A	
P1804548-003.06	40ml VOA HCL				A	

Explain any discrepancies: (include lab sample ID numbers):

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS Environmental
Sample Acceptance Check Form

Client: ALS Laboratory Group Work order: P1804548

Project: HS18081428

Sample(s) received on: 8/31/18 Date opened: 8/31/18 by: ADAVID

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1804548-004.01	40mL VOA NP		6		A	Mr 09/04/18
P1804548-004.02	40mL VOA NP				A	
P1804548-004.04	40ml VOA HCL		1		A	MR 09/01/18
P1804548-004.05	40ml VOA HCL				A	
P1804548-004.06	40ml VOA HCL				A	

Explain any discrepancies: (include lab sample ID numbers):

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **ALS Laboratory Group**
Client Project ID: **HS18081428** ALS Project ID: P1804548

Carbon Dioxide

Test Code: RSK 175
Instrument ID: HP5890A/GC10/TCD
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date(s) Collected: 8/28/18
Date Received: 8/31/18
Date Analyzed: 9/6/18

Client Sample ID	ALS Sample ID	Injection Volume ml(s)	Result µg/L	LOQ µg/L	LOD µg/L	MDL µg/L	Data Qualifier
46WW05-180828	P1804548-001	0.050	**1,200,000**	2,000	1,700	740	**E**
46WW16-180828	P1804548-002	0.050	**840,000**	2,000	1,700	740	
46WW09-180828	P1804548-003	0.050	**900,000**	2,000	1,700	740	
LHSMW19-180828	P1804548-004	0.050	**890,000**	2,000	1,700	740	
Method Control Sample	P180906-MB	0.10	860	1,000	860	370	**U**

The Method Control Sample is laboratory water carried through the entire analytical process.
U = Compound was analyzed for, but not detected above the laboratory detection limit.
LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
E = Estimated; concentration exceeded calibration range.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Client: **ALS Laboratory Group**
Client Sample ID: **Duplicate Lab Control Sample**
Client Project ID: **HS18081428**

ALS Project ID: P1804548
ALS Sample ID: P180906-DLCS

Test Code: RSK 175
Instrument ID: HP5890A/GC10/TCD
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/06/18
Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount LCS / DLCS ug/L	Result[1] LCS ug/L	Result[1] DLCS ug/L	% Recovery LCS	% Recovery DLCS	DOD Acceptance Limits	RPD	RPD Limit	Data Qualifier
124-38-9	Carbon Dioxide	22,900	18,500	18,900	**81**	**83**	80-122	2	15	

[1] = The concentration shown includes a subtraction of the Method Control Sample value, even if the result is less than the MRL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **ALS Laboratory Group**
Client Sample ID: **46WW05-180828**
Client Project ID: **HS18081428**

ALS Project ID: P1804548
ALS Sample ID: P1804548-001

Test Code: RSK 175
Instrument ID: HP5890A/GC10/FID
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: 8/28/18
Date Received: 8/31/18
Date Analyzed: 9/1/18
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result µg/L	LOQ µg/L	LOD µg/L	MDL µg/L	Data Qualifier
74-82-8	Methane	**2.1**	1.3	1.0	0.51	
74-85-1	Ethene	0.55	1.0	0.55	0.24	**U**
74-84-0	Ethane	0.47	0.60	0.47	0.16	**U**

U = Compound was analyzed for, but not detected above the laboratory detection limit.
LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **ALS Laboratory Group**
Client Sample ID: **46WW16-180828**
Client Project ID: **HS18081428**

ALS Project ID: P1804548
ALS Sample ID: P1804548-002

Test Code: RSK 175
Instrument ID: HP5890A/GC10/FID
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: 8/28/18
Date Received: 8/31/18
Date Analyzed: 9/1/18
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result µg/L	LOQ µg/L	LOD µg/L	MDL µg/L	Data Qualifier
74-82-8	Methane	1.0	1.3	1.0	0.51	**U**
74-85-1	Ethene	0.55	1.0	0.55	0.24	**U**
74-84-0	Ethane	0.47	0.60	0.47	0.16	**U**

U = Compound was analyzed for, but not detected above the laboratory detection limit.
LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **ALS Laboratory Group**
Client Sample ID: **46WW09-180828**
Client Project ID: **HS18081428**

ALS Project ID: P1804548
ALS Sample ID: P1804548-003

Test Code: RSK 175
Instrument ID: HP5890A/GC10/FID
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: 8/28/18
Date Received: 8/31/18
Date Analyzed: 9/1/18
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result µg/L	LOQ µg/L	LOD µg/L	MDL µg/L	Data Qualifier
74-82-8	Methane	1.0	1.3	1.0	0.51	**U**
74-85-1	Ethene	0.55	1.0	0.55	0.24	**U**
74-84-0	Ethane	0.47	0.60	0.47	0.16	**U**

U = Compound was analyzed for, but not detected above the laboratory detection limit.
LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **ALS Laboratory Group**
Client Sample ID: **LHSMW19-180828**
Client Project ID: **HS18081428**

ALS Project ID: P1804548
ALS Sample ID: P1804548-004

Test Code: RSK 175
Instrument ID: HP5890A/GC10/FID
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: 8/28/18
Date Received: 8/31/18
Date Analyzed: 9/1/18
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result µg/L	LOQ µg/L	LOD µg/L	MDL µg/L	Data Qualifier
74-82-8	Methane	1.0	1.3	1.0	0.51	**U**
74-85-1	Ethene	0.55	1.0	0.55	0.24	**U**
74-84-0	Ethane	0.47	0.60	0.47	0.16	**U**

U = Compound was analyzed for, but not detected above the laboratory detection limit.
LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **ALS Laboratory Group**
Client Sample ID: **Method Control Sample**
Client Project ID: **HS18081428**

ALS Project ID: P1804548
ALS Sample ID: P180901-MB

Test Code: RSK 175
Instrument ID: HP5890A/GC10/FID
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/01/18
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result µg/L	LOQ µg/L	LOD µg/L	MDL µg/L	Data Qualifier
74-82-8	Methane	1.0	1.3	1.0	0.51	**U**
74-85-1	Ethene	0.55	1.0	0.55	0.24	**U**
74-84-0	Ethane	0.47	0.60	0.47	0.16	**U**

The Method Control Sample is laboratory water carried through the entire analytical process.
U = Compound was analyzed for, but not detected above the laboratory detection limit.
LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Client: **ALS Laboratory Group**
Client Sample ID: **Duplicate Lab Control Sample**
Client Project ID: **HS18081428**

ALS Project ID: P1804548
ALS Sample ID: P180901-LCS

Test Code: RSK 175
Instrument ID: HP5890A/GC10/FID
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/01/18
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Spike Amount LCS / DLCS µg/L	Result$_1$ LCS µg/L	Result$_1$ DLCS µg/L	% Recovery LCS	% Recovery DLCS	DOD Acceptance Limits	RPD	RPD Limit	Data Qualifier
74-82-8	Methane	2.50	2.48	2.74	**99**	**110**	73-125	11	12	
74-85-1	Ethene	4.37	4.33	4.49	**99**	**103**	72-133	4	7	
74-84-0	Ethane	4.69	4.58	4.66	**98**	**99**	74-131	1	6	

$_1$ = The concentration shown includes a subtraction of the Method Control Sample value, even if the result is less than the MRL.

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061809.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 12:29:12
Operator : WH
Sample : P1804548-001 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 13:35:37 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.963f	496050	0.104	ppm
2)	Carbon monoxide	1.963f	496050	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	5.985	6287986	26788.258	ppm
6)	Methane (FID)	1.110	4356	0.461	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

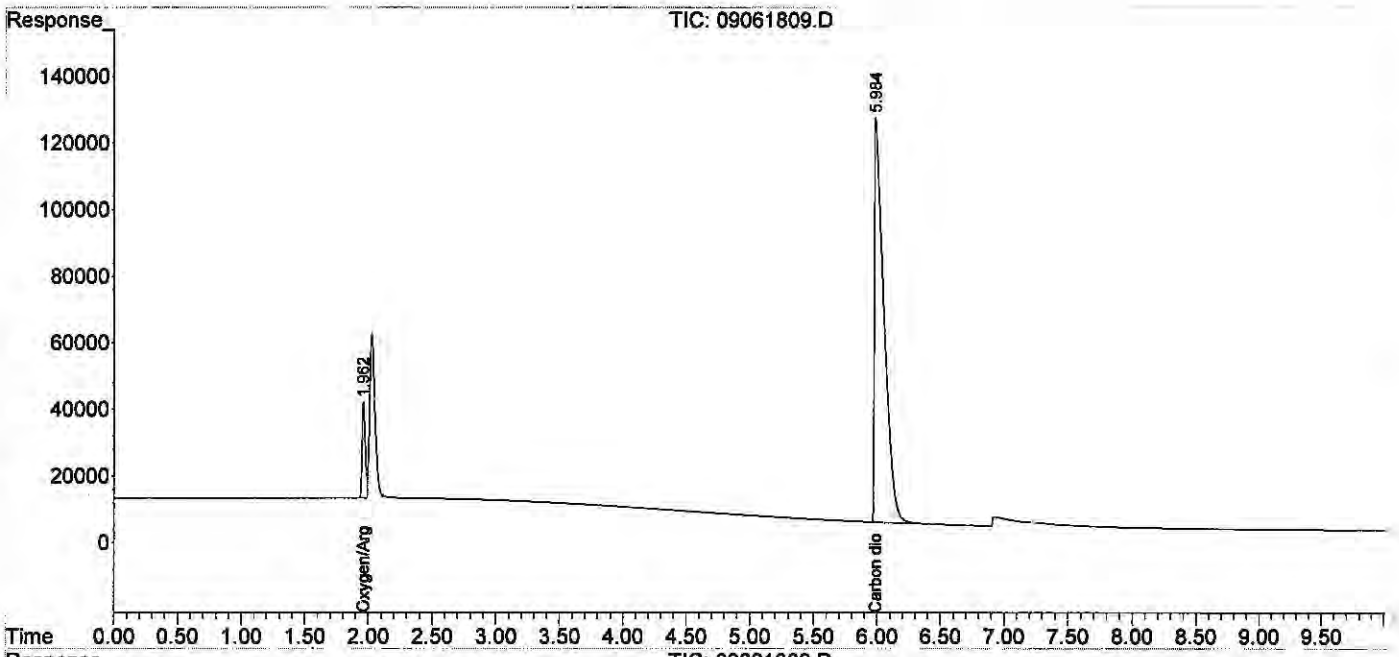
(f)=RT Delta > 1/2 Window (m)=manual int.

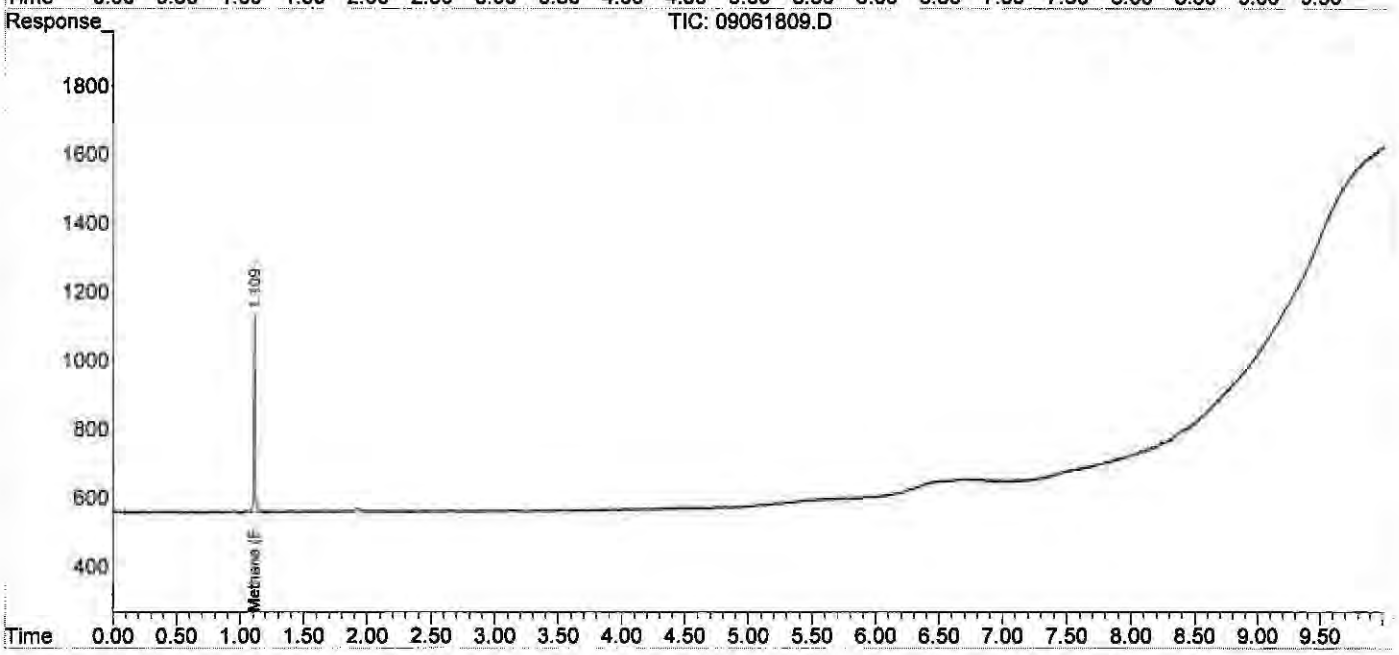
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061809.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 12:29:12
Operator : WH
Sample : P1804548-001 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 13:35:37 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061810.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 13:33:43
Operator : WH
Sample : P1804548-002 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 14:32:10 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.968f	100404	0.021	ppm
2)	Carbon monoxide	1.968f	100404	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.005	4510208	19214.517	ppm
6)	Methane (FID)	1.104	1076	0.114	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

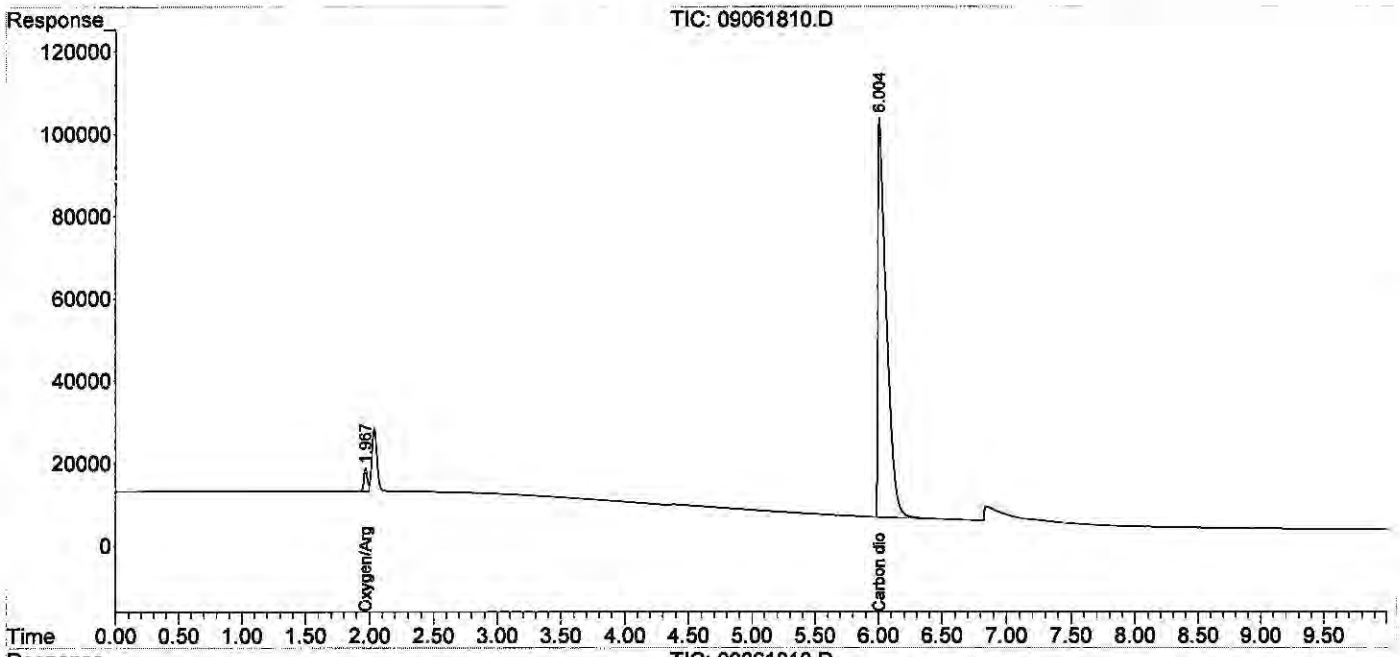
(f)=RT Delta > 1/2 Window (m)=manual int.

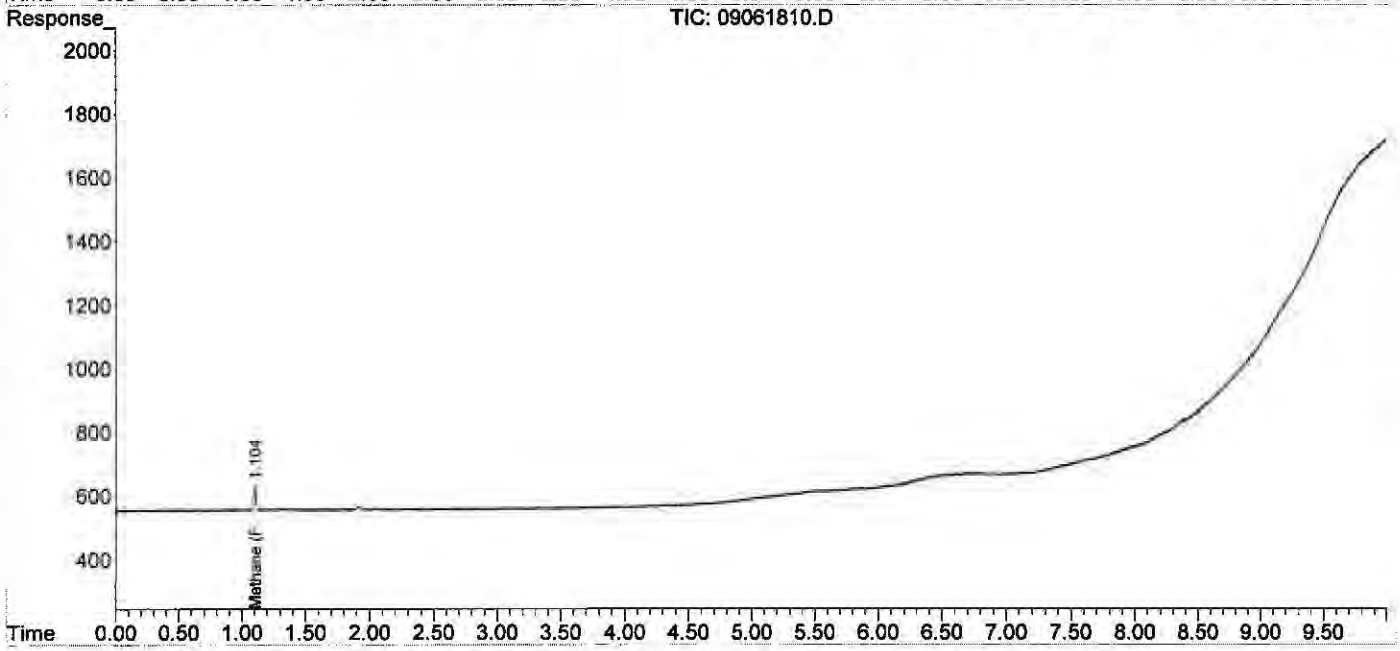
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061810.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 13:33:43
Operator : WH
Sample : P1804548-002 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 14:32:10 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061811.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 13:55:28
Operator : WH
Sample : P1804548-003 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 14:32:23 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.972f	155721	0.033	ppm
2)	Carbon monoxide	1.972f	155721	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.001	4835330	20599.612	ppm
6)	Methane (FID)	0.000	0	N.D.	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

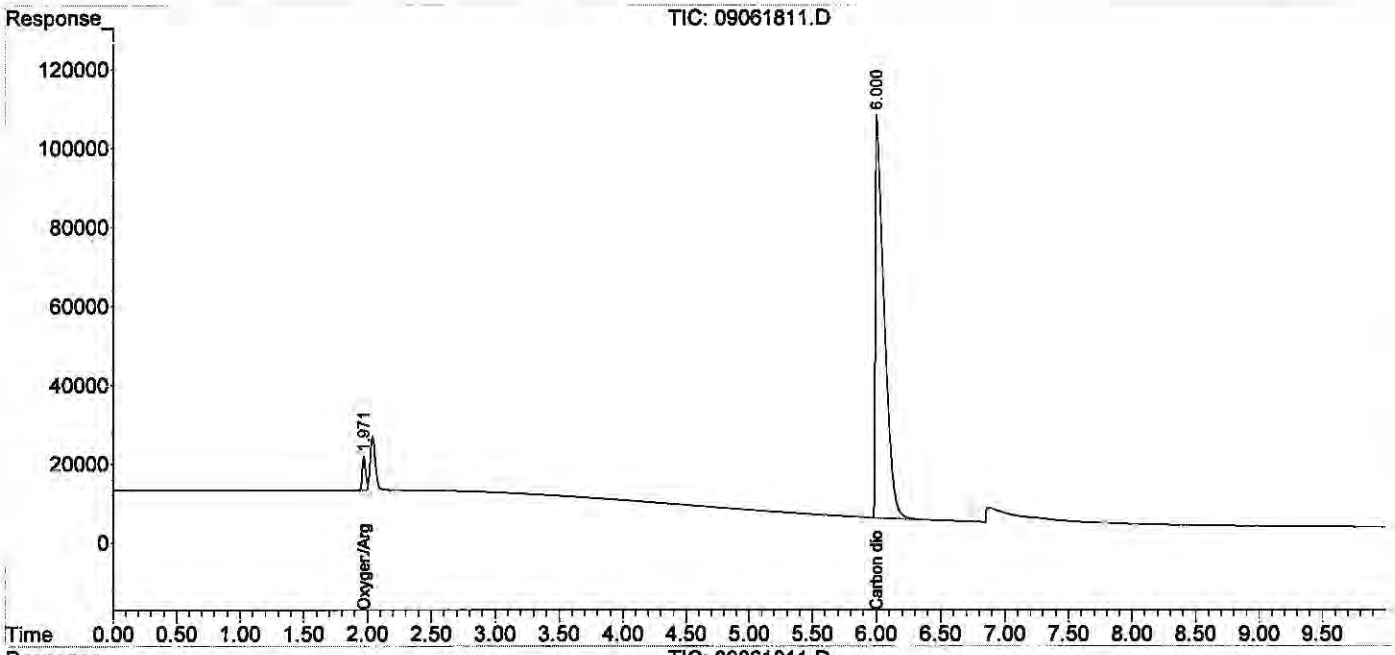
(f)=RT Delta > 1/2 Window (m)=manual int.

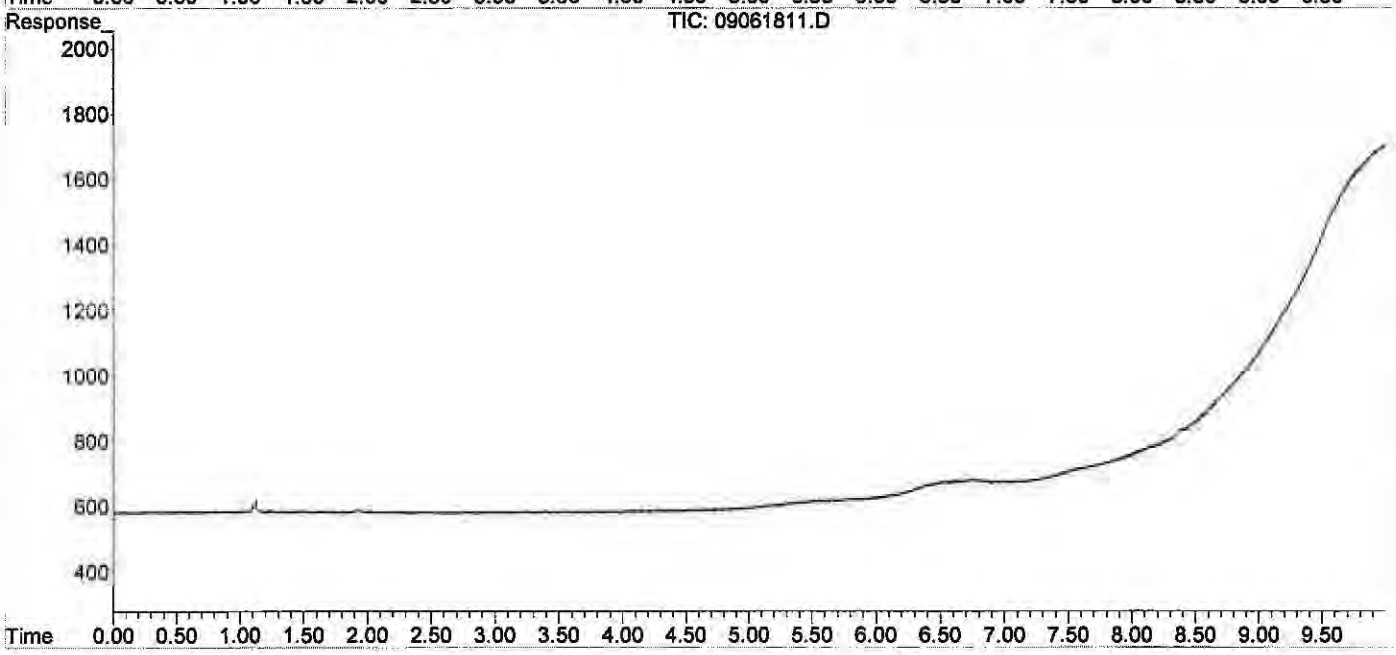
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061811.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 13:55:28
Operator : WH
Sample : P1804548-003 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 14:32:23 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061812.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 14:09:47
Operator : WH
Sample : P1804548-004 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 14:32:35 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.971f	136155	0.029	ppm
2)	Carbon monoxide	1.971f	136155	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	5.998	4799443	20446.723	ppm
6)	Methane (FID)	0.000	0	N.D.	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

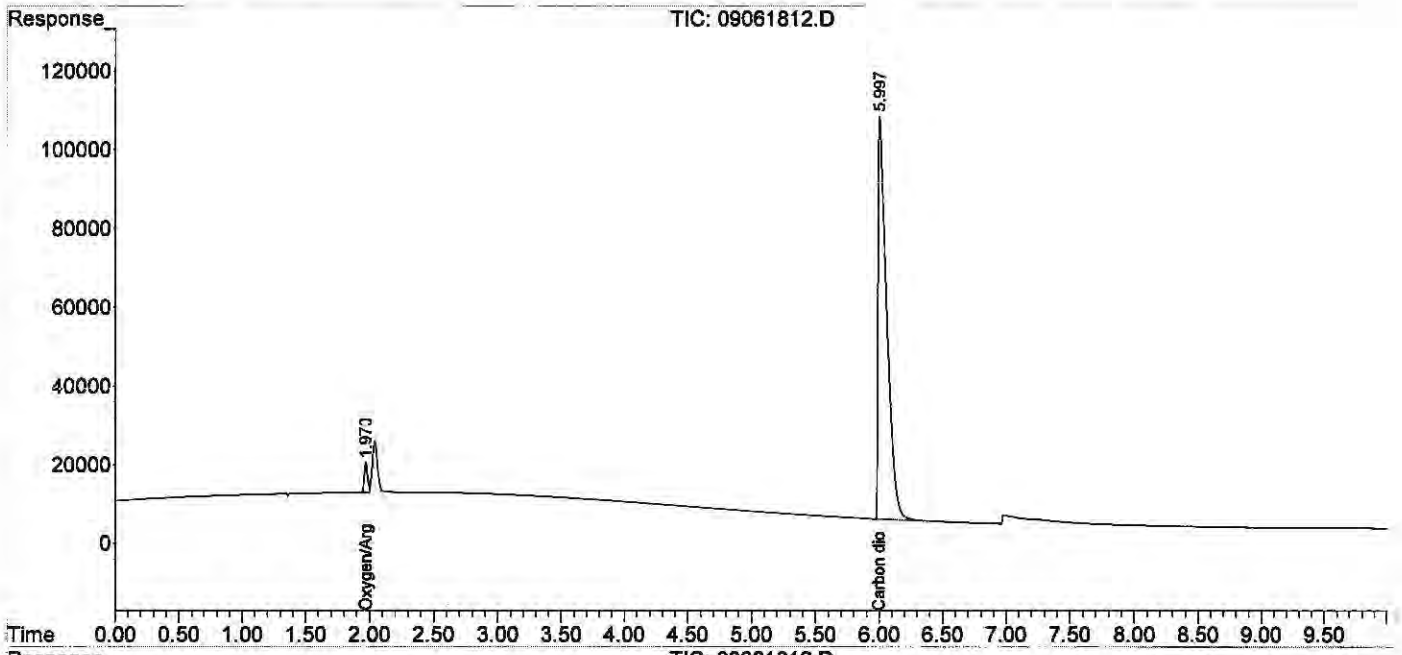
(f)=RT Delta > 1/2 Window (m)=manual int.

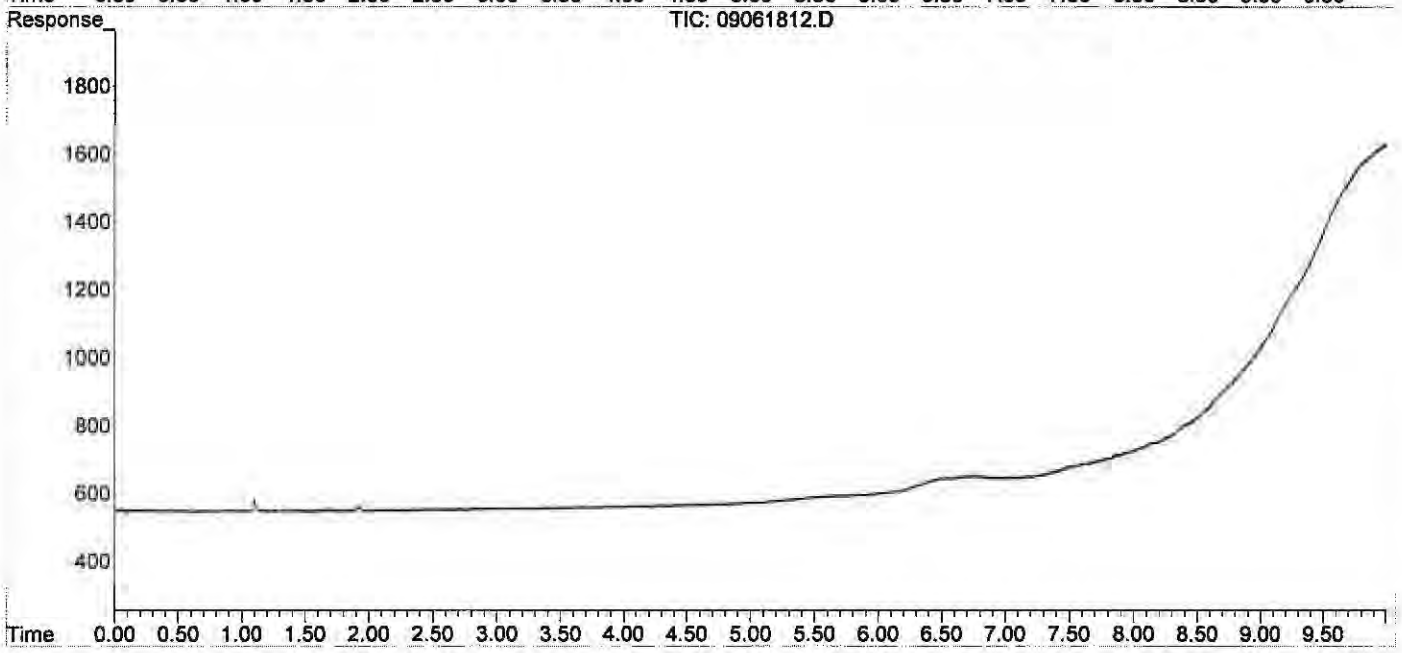
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061812.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 14:09:47
Operator : WH
Sample : P1804548-004 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 14:32:35 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 10:40:22
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 17:19:22 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.960f	441655	0.093	ppm	
2)	Carbon monoxide	1.960f	441655	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	6.070	1644	7.003	ppm	m
6)	Methane (FID)	0.000	0	N.D.	ppm	
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

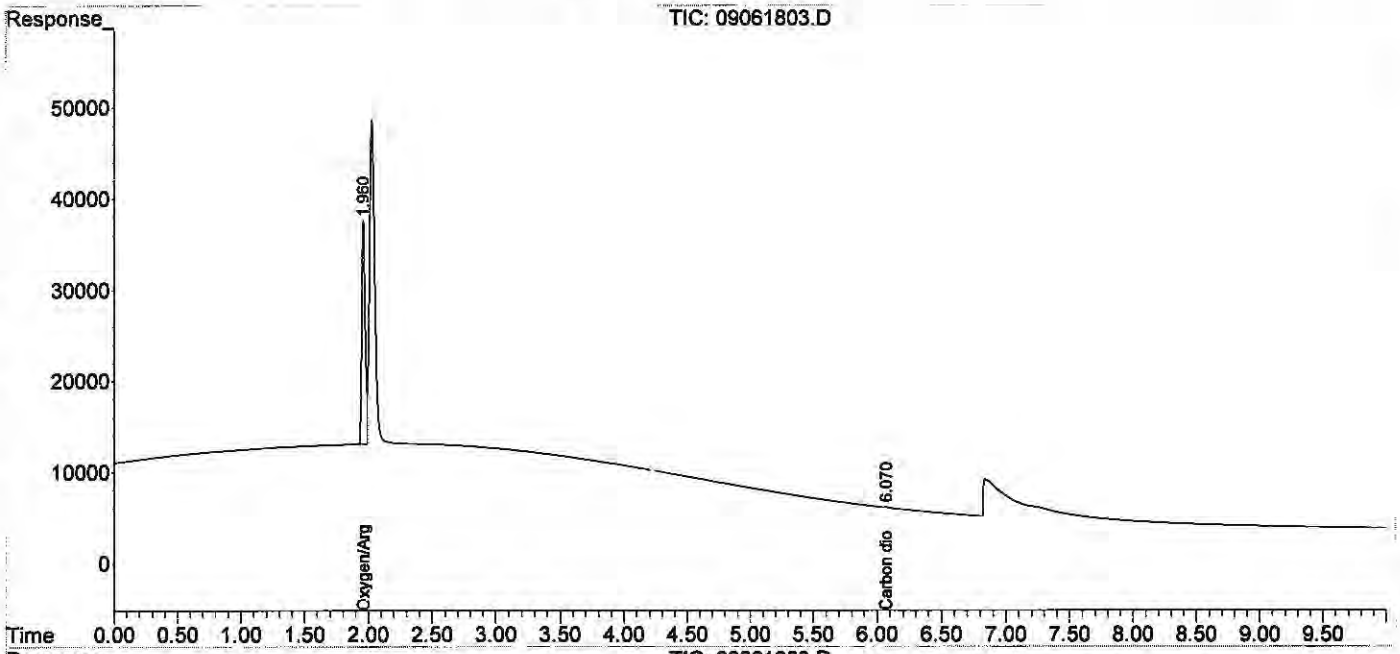
(f)=RT Delta > 1/2 Window (m)=manual int.

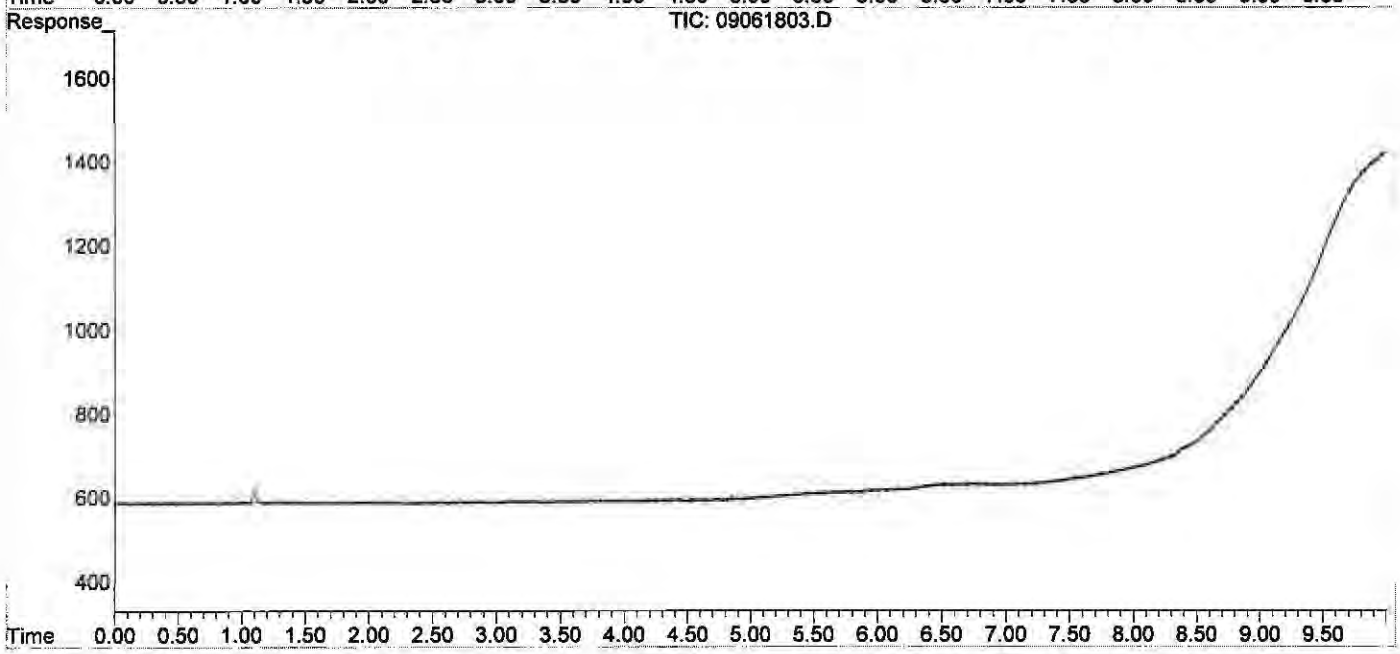
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 10:40:22
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 17:19:22 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



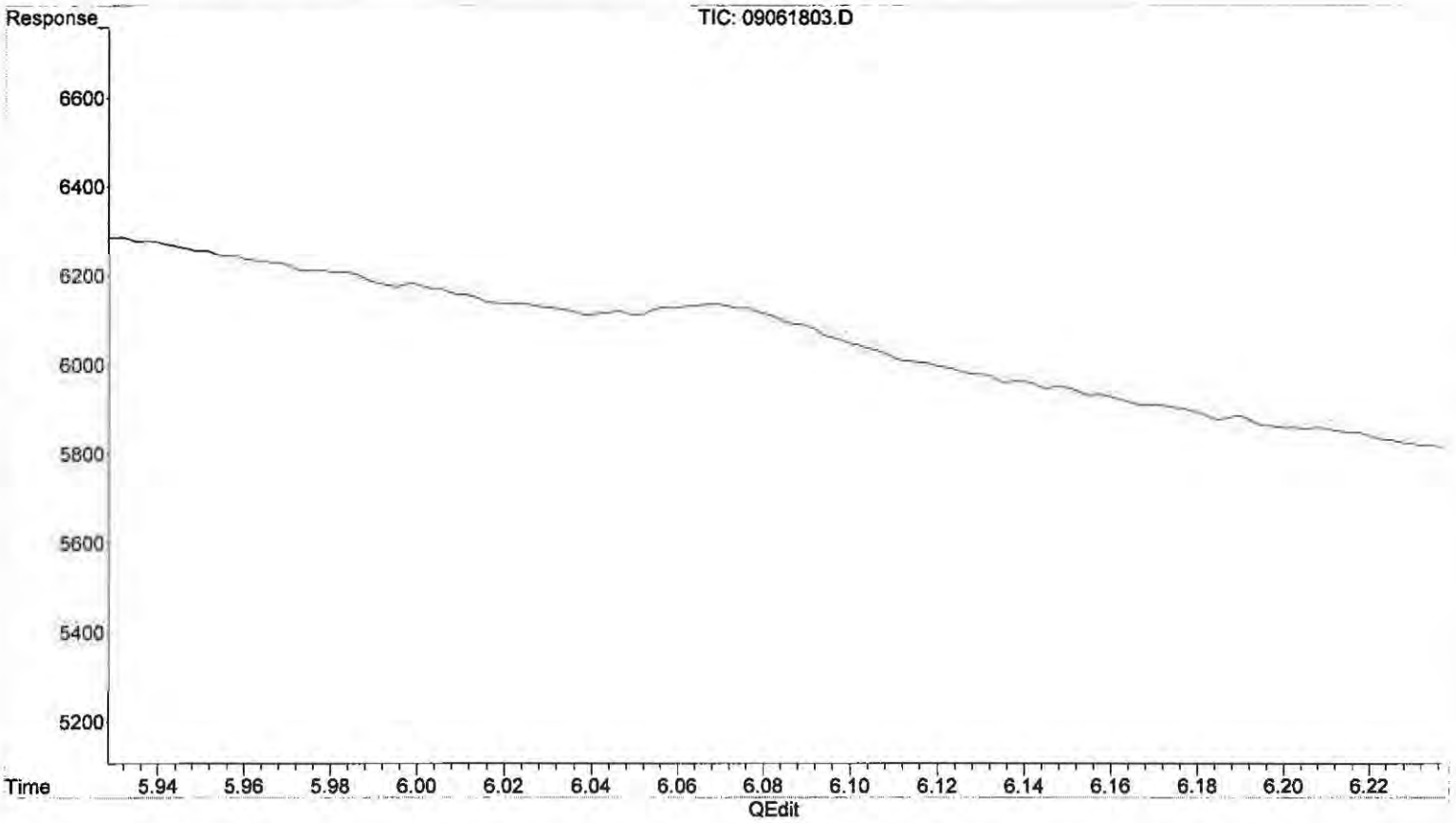


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 10:40:22
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 17:19:22 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(4) Carbon dioxide

6.039min 0.000 ppm

response 0

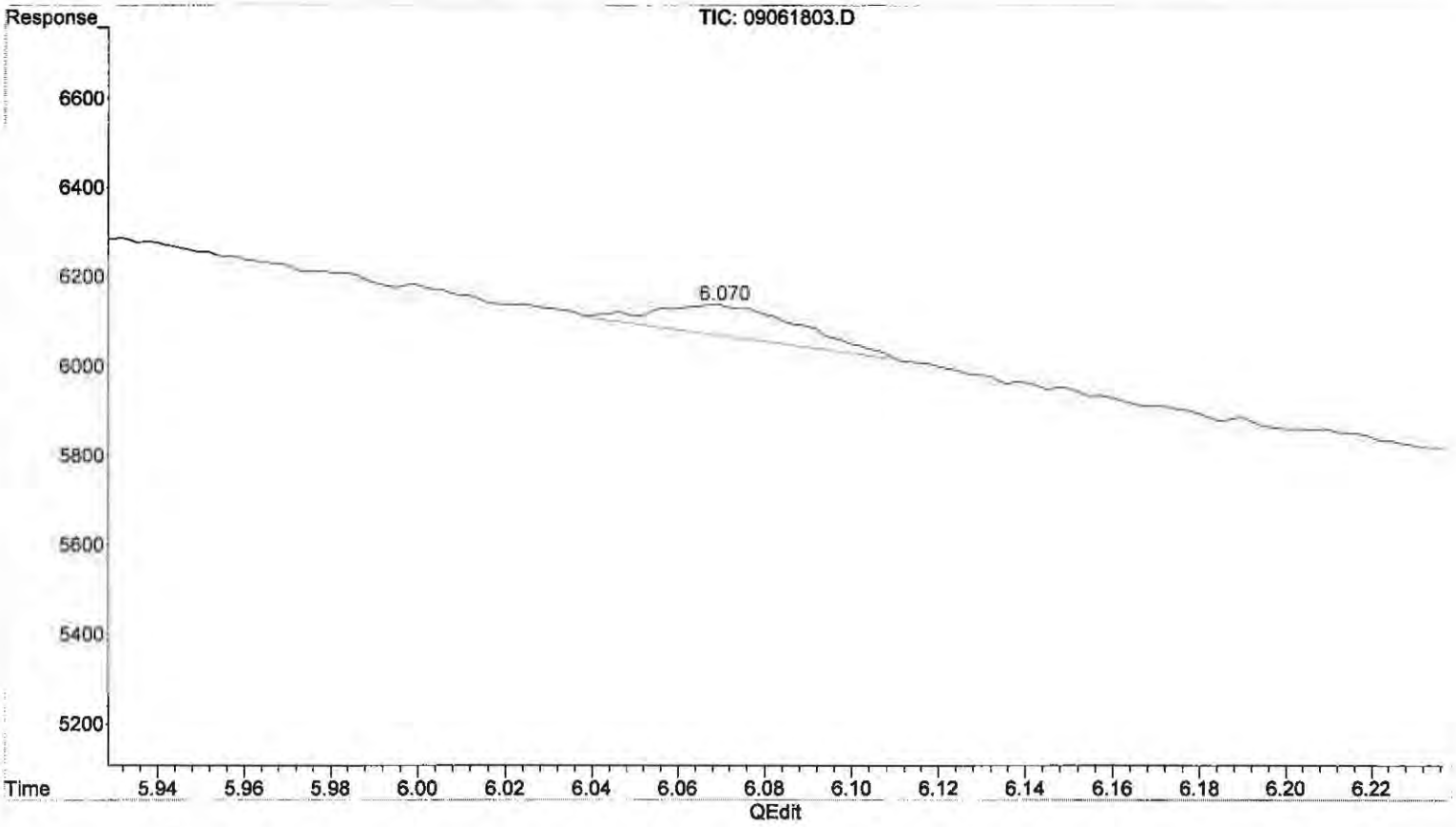
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 10:40:22
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 17:19:22 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(4) Carbon dioxide

6.070min 7.003 ppm m

response 1644

MR 9/7/18

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061806.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 11:28:50
Operator : WH
Sample : tcd lcs s32-07241801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 11:40:46 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.951f	931414	0.196	ppm
2)	Carbon monoxide	1.951f	931414	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.073	199052	848.008	ppm
6)	Methane (FID)	1.103	31025360	3283.866	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

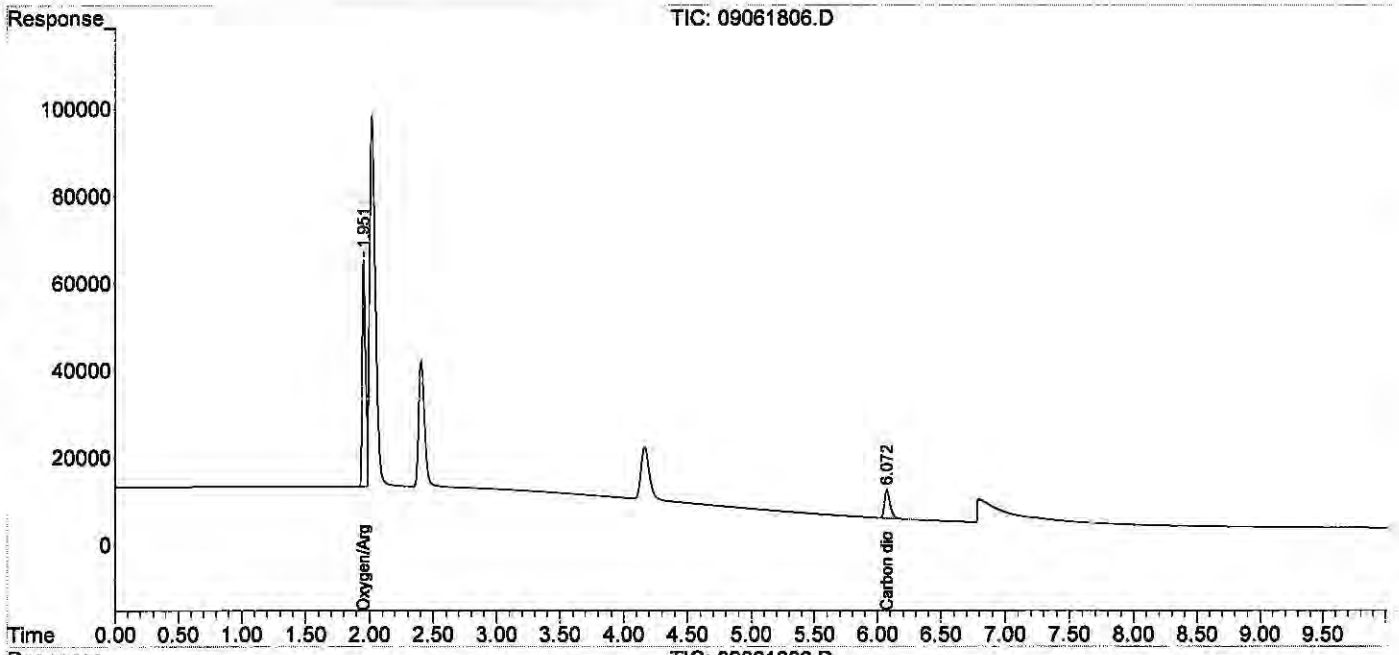
(f)=RT Delta > 1/2 Window (m)=manual int.

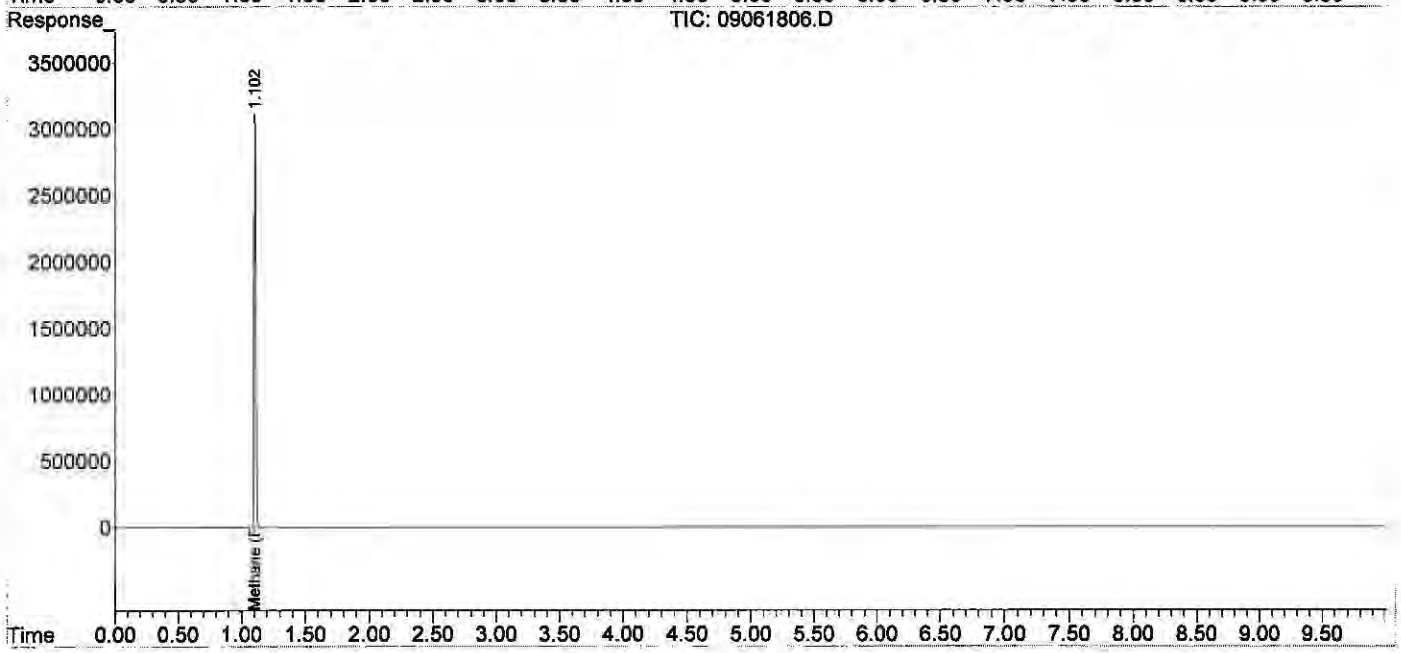
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061806.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 11:28:50
Operator : WH
Sample : tcd lcs s32-07241801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 11:40:46 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061807.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 11:45:20
Operator : WH
Sample : tcd lcsd s32-07241801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 12:09:30 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.948f	991136	0.208	ppm
2)	Carbon monoxide	1.948f	991136	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.072	203064	865.100	ppm
6)	Methane (FID)	1.102	31280762	3310.899	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

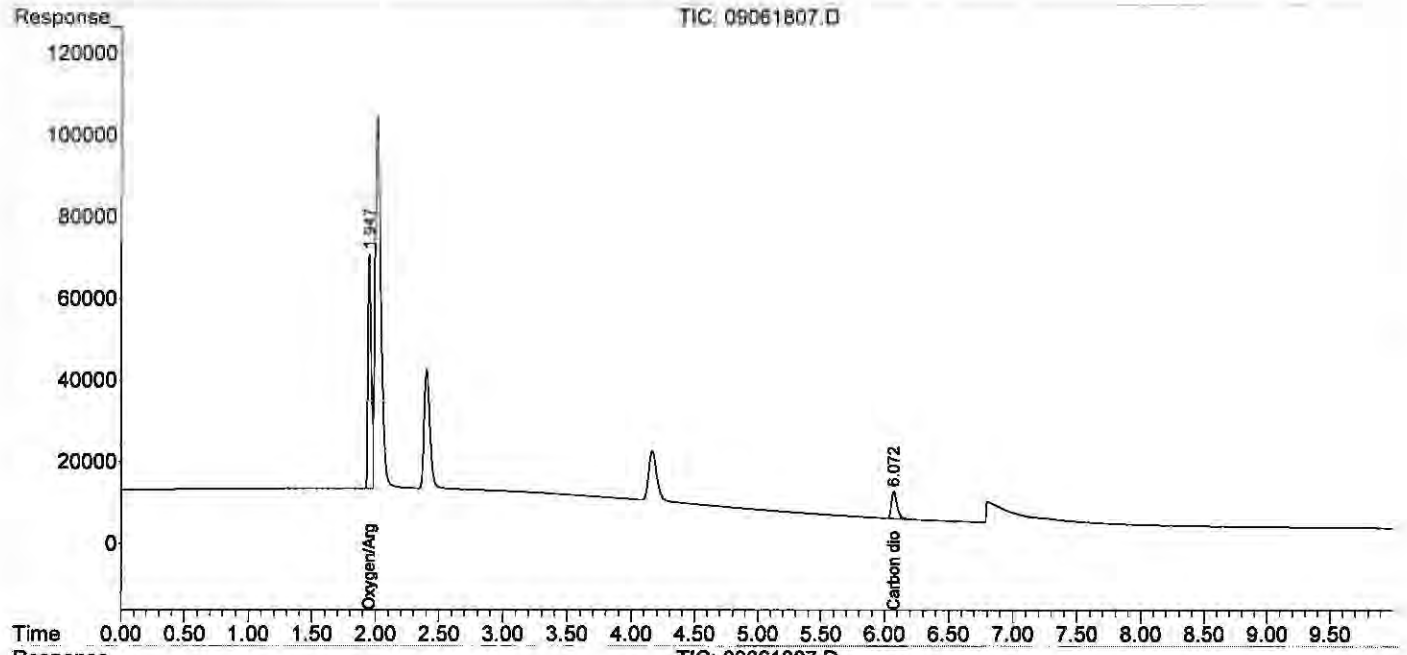
(f)=RT Delta > 1/2 Window (m)=manual int.

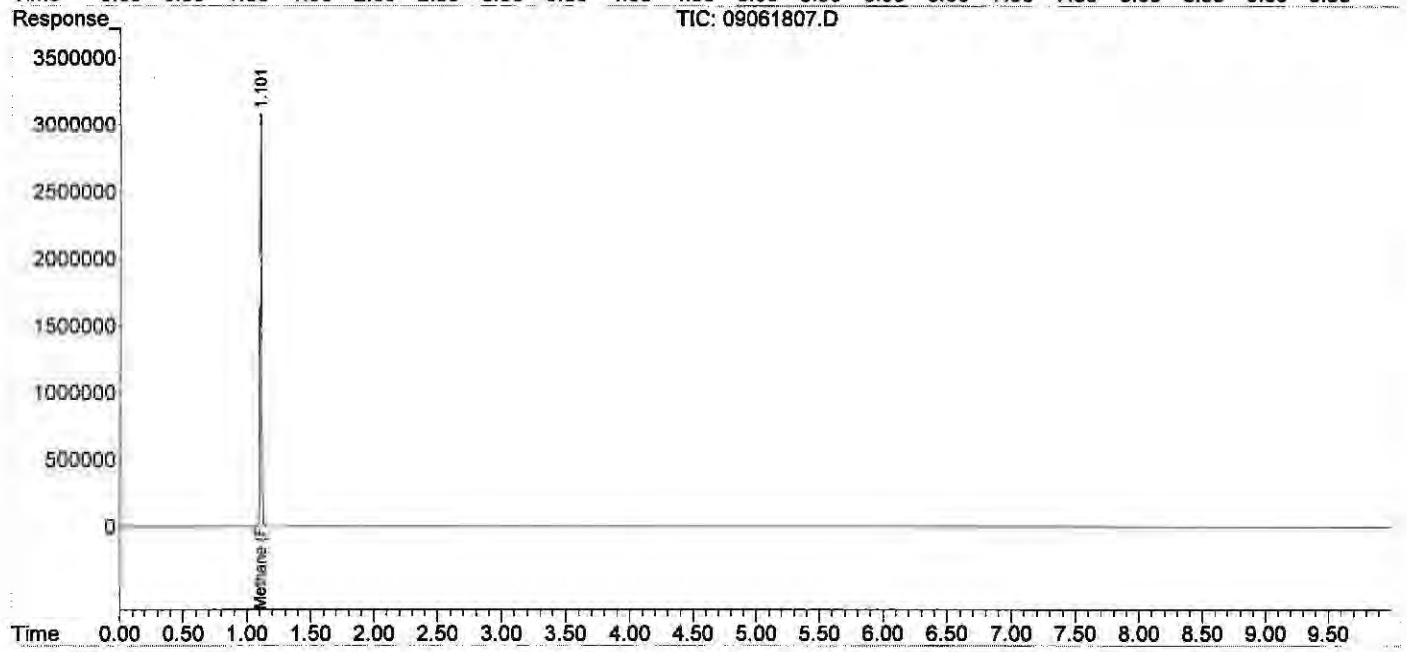
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061807.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 11:45:20
Operator : WH
Sample : tcd lcsd s32-07241801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 12:09:30 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Dissolved Gases by RSK175

ALS Environmental

Method : RSK175 Headspace Method for Dissolved Hydrocarbon in Water by FID/TCD
Client : ALS Laboratory Group
Service Request: P1804548
Sample Vol. (ml) : 32.00 ml
Analyst : WH
Date Analysis : 09/06/18
Head Space Vol.(ml) : 8.00 ml
Instrument : GC#10
Detector : FID#10, TCD#10
Gas Constant : 24.05684 (20°C)

HEAD SPACE RESULT (ppm)

Sample ID	Inj. Vol.	Carbon Dioxide
std s32-08311801	0.100	4841.021
ACTUAL		5000.00
%Difference		3.2%
mcs 0.1ml	0.100	7.003
rb 0.1ml	0.100	0.000
tcd lcs s32-07241801	0.100	848.008
tcd lcsd s32-07241801	0.100	865.100
P1804548-001 50ul	0.050	26788.26
P1804548-002 50ul	0.050	19214.52
P1804548-003 50ul	0.050	20599.61
P1804548-004 50ul	0.050	20446.72

FINAL HEAD SPACE RESULT (ppm)

	Carbon Dioxide
WWt.	44.10
HENRY'S CONSTANT	1.42E+03
RL	100.00
mcs 0.1ml	70.030
tcd lcs s32-07241801	8480.080
tcd lcsd s32-07241801	8651.000
P1804548-001 50ul	535765.16
P1804548-002 50ul	384290.34
P1804548-003 50ul	411992.24
P1804548-004 50ul	408934.46

std s32-08311801	4756.194
ACTUAL	5000.00
%Difference	4.9%

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061801.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 10:06:46
Operator : WH
Sample : std s32-08311801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 10:17:51 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.948f	641752	0.135	ppm
2)	Carbon monoxide	1.948f	641752	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.045	1136329	4841.021	ppm
6)	Methane (FID)	1.040	1184	0.125	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

(f)=RT Delta > 1/2 Window (m)=manual int.

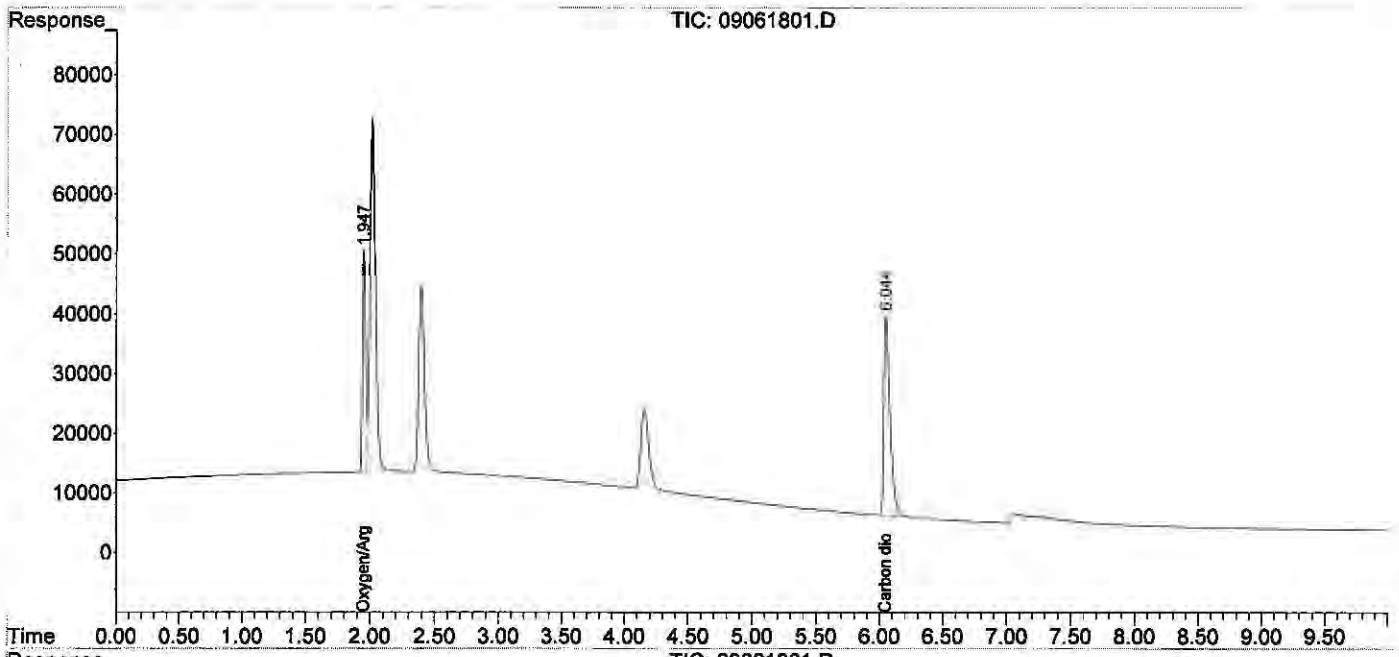
MR 9/7/18

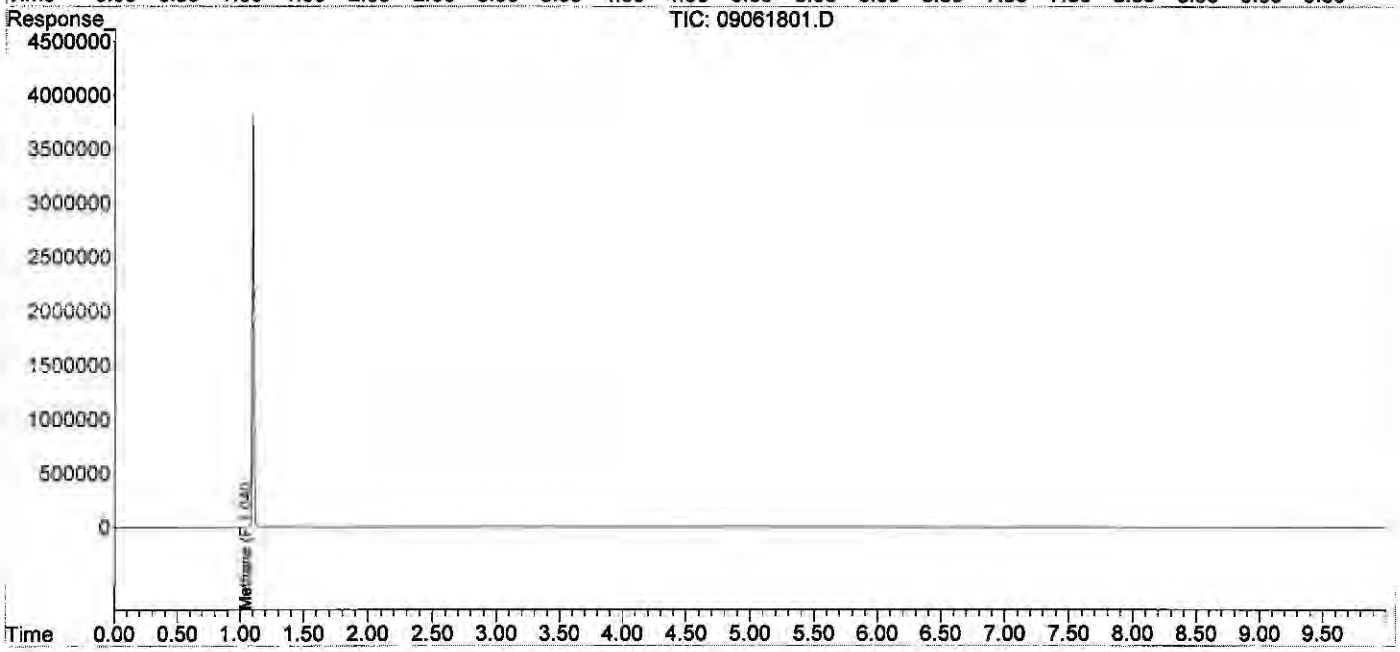
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061801.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 10:06:46
Operator : WH
Sample : std s32-08311801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 10:17:51 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061815.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 15:04:46
Operator : WH
Sample : std s32-08311801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 17:16:17 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.959f	1200114	0.252	ppm
2)	Carbon monoxide	1.959f	1200114	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.048	1116418	4756.194	ppm
6)	Methane (FID)	1.102	34476484	3649.149	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

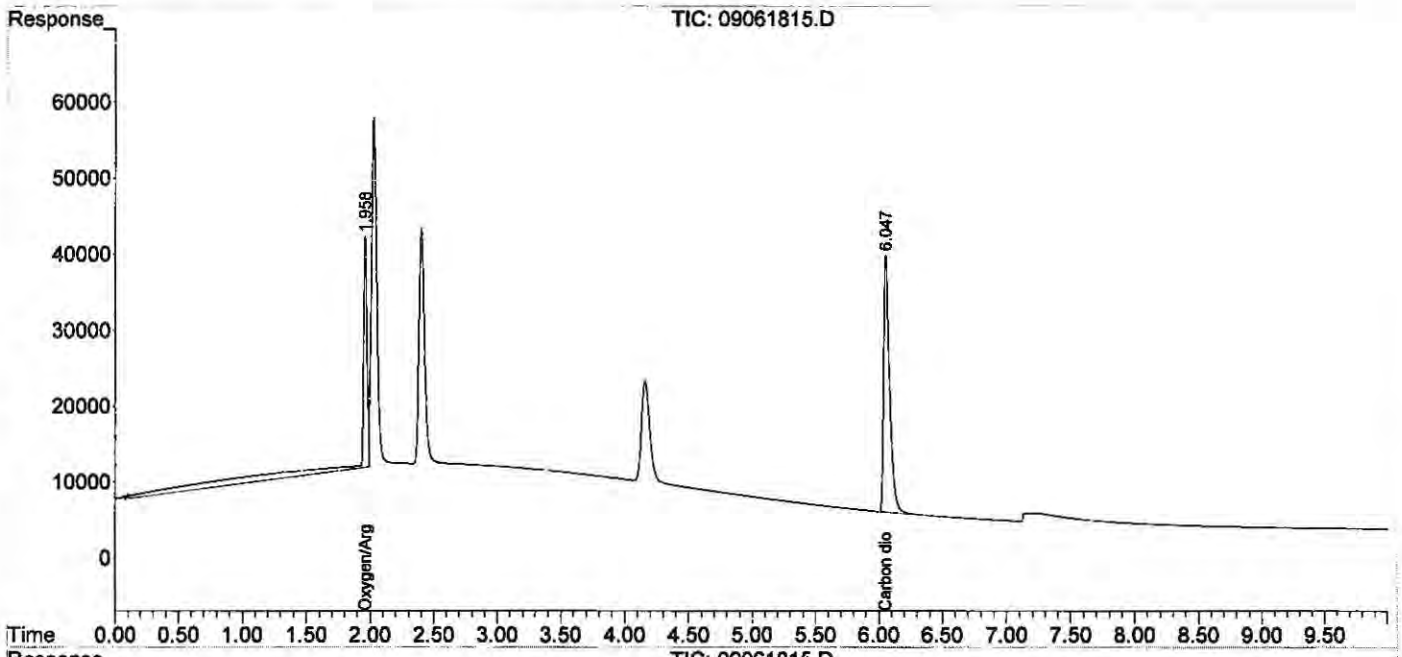
(f)=RT Delta > 1/2 Window (m)=manual int.

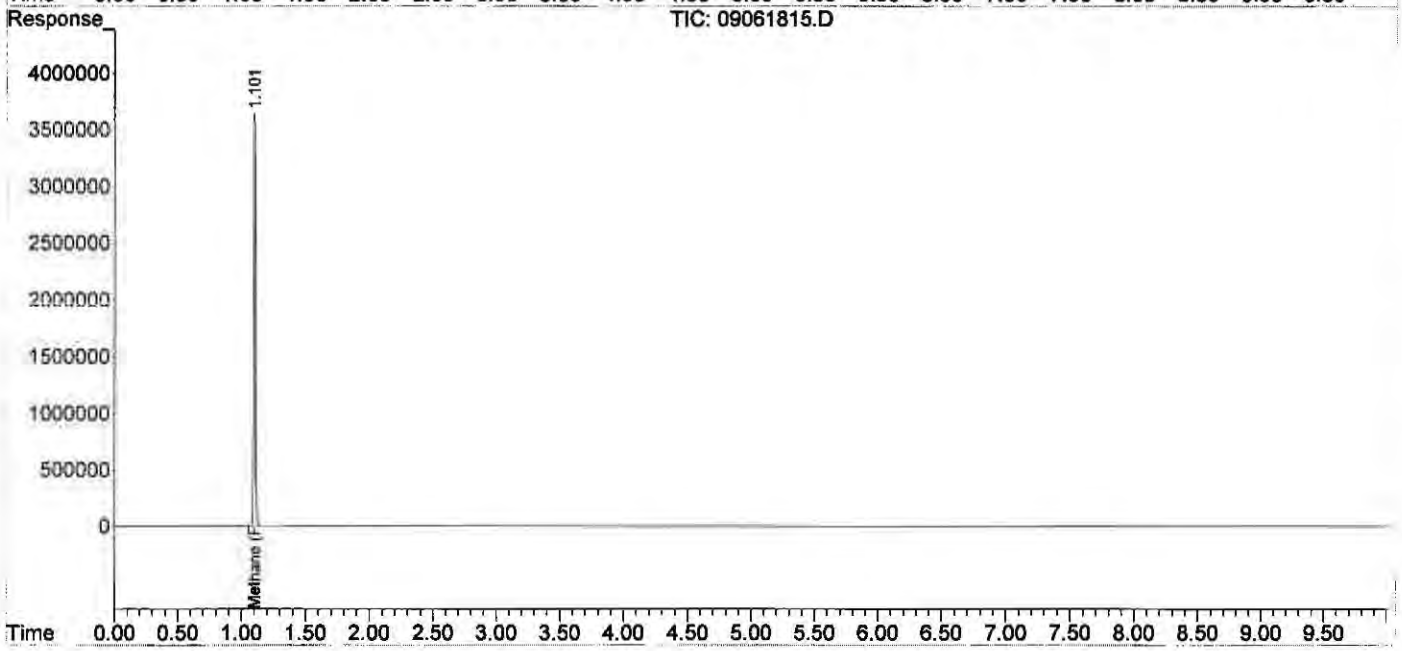
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\06\
Data File : 09061815.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 06-Sep-2018, 15:04:46
Operator : WH
Sample : std s32-08311801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 17:16:17 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Response Factor Report HP5890

Method Path : I:\GC10\METHODS\
Method File : RS082817_CO2.M
Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
Last Update : Tue Aug 29 16:13:13 2017
Response Via : Initial Calibration

Calibration Files
1 =08291715.D 2 =08291716.D 3 =08291717.D
4 =08291719.D 5 =08291720.D 6 =08291721.D

	Compound	1	2	3	4	5	6	Avg		%RSD
1)	Oxygen/Argon	4.760						4.760	E6	0.00
2)	Carbon monoxide	2.775		1.066	0.043	0.033	0.027	0.657	E6	170.12
3)	Methane (TCD)							9.457		0.00
4)	Carbon dioxide	2.717	2.193	2.338	2.272	2.265	2.298	2.347	E2	7.99

Signal #2 Calibration Files
1 =08291715.D 2 =08291716.D 3 =08291717.D
4 =08291719.D 5 =08291720.D 6 =08291721.D

	Compound	1	2	3	4	5	6	Avg		%RSD
6)	Methane (FID)	1.253	1.160	1.005	0.927	0.848	0.848	0.945	E4	15.85
7)	Ethylene	1.677	1.605	1.900	1.749	1.597	1.579	1.684	E4	7.30
8)	Ethane	1.769	1.631	1.866	1.767	1.639	1.667	1.723	E4	5.40
9)	Propylene	2.402	2.309	2.767	2.551	2.331	2.333	2.449	E4	7.32
10)	Propane	2.906	2.737	2.817	2.639	2.410	2.420	2.655	E4	7.75
11)	Isobutylene							0.000		-1.00
12)	Isobutane							0.000		-1.00
13)	n-Butane							0.000		-1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

RS082817_CO2.M Wed Aug 30 13:24:19 2017

dit Compounds -- Compound #4 -- Carbon dioxide

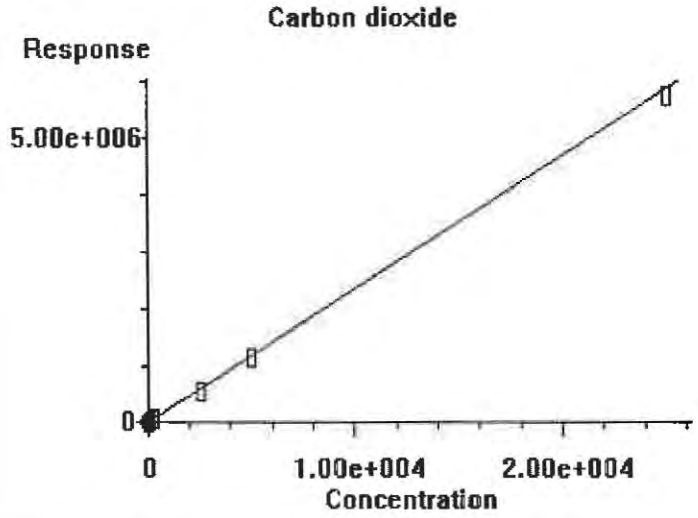
Search by: Ret Time | Name | Index | Find Compound

- Compound Database
- External Standard Compoun
  - Oxygen/Argon
  - Carbon monoxide
  - Methane (TCD)
  - Carbon dioxide
  - Signal #2
  - Methane (FID)
  - Ethylene
  - Ethane
  - Propylene
  - Propane
  - Isobutylene
  - Isobutane
  - n-Butane

Identification | Calibration | User-Defined | Advanced | Reporting

Lvl ID	Concentration	Response
1	25.000000	6793.665186
2	100.000000	21932.418000
3	250.000000	58460.642510
4	2500.000000	568043.388750
5	5000.000000	1132363.215937
6	25000.000000	5744294.891563
7	25000.000000	
8	25000.000000	
9	2000.000000	
10	30000.000000	

Lvl ID	Concentration	Response



0.000e+000	Quadratic term
2.347e+002	Linear term
0.000e+000	Constant term
7.987%	RF Rel Std Dev

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

Calibration Status Report HP5890

Method Path : I:\GC10\METHODS\
Method File : RS082817_CO2.M
Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
Last Update : Tue Aug 29 16:13:13 2017
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	1	0	0	J:\GC10\DATA\RSK_FID\2017_08\29\08291715.D
2	2	0	0	J:\GC10\DATA\RSK_FID\2017_08\29\08291716.D
3	3	3	0	J:\GC10\DATA\RSK_FID\2017_08\29\08291717.D
4	4	10	0	J:\GC10\DATA\RSK_FID\2017_08\29\08291719.D
5	5	25	0	J:\GC10\DATA\RSK_FID\2017_08\29\08291720.D
6	6	125	0	J:\GC10\DATA\RSK_FID\2017_08\29\08291721.D
7	7	5000	0	J:\GC10\DATA\RSK_FID\2017_08\24\08241708.D
8	8	25000	0	J:\GC10\DATA\RSK_FID\2017_08\24\08241709.D
9	9	2000	0	J:\GC10\DATA\RSK_FID\2017_08\24\08241710.D
10	10	30000	0	J:\GC10\DATA\RSK_FID\2017_08\24\08241711.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Aug 29 14:21 2017	Aug 29 14:20 2017	29-Aug-2017, 14:07
2	2	Aug 29 14:52 2017	Aug 29 14:51 2017	29-Aug-2017, 14:22
3	3	Aug 29 15:04 2017	Aug 29 15:04 2017	29-Aug-2017, 14:53
4	4	Aug 29 15:36 2017	Aug 29 15:36 2017	29-Aug-2017, 15:23
5	5	Aug 29 15:57 2017	Aug 29 15:57 2017	29-Aug-2017, 15:44
6	6	Aug 29 16:13 2017	Aug 29 16:13 2017	29-Aug-2017, 16:00
7	7	Aug 25 09:05 2017	Aug 24 16:00 2017	24-Aug-2017, 15:44
8	8	Aug 25 09:06 2017	Aug 24 16:13 2017	24-Aug-2017, 16:02
9	9	Aug 25 09:06 2017	Aug 24 16:31 2017	24-Aug-2017, 16:16
10	10	Aug 25 09:07 2017	Aug 24 16:42 2017	24-Aug-2017, 16:33

RS082817_CO2.M Wed Aug 30 13:24:30 2017

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291715.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:07
Operator : MC
Sample : 25ppm s32-08291701 0.25ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 14:20:06 2017
Quant Method : I:\GC10\METHODS\RS082417.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Fri Aug 25 09:19:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	d
2)	Carbon monoxide	1.776	277465	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	5.978	6794	27.870	ppm	m
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

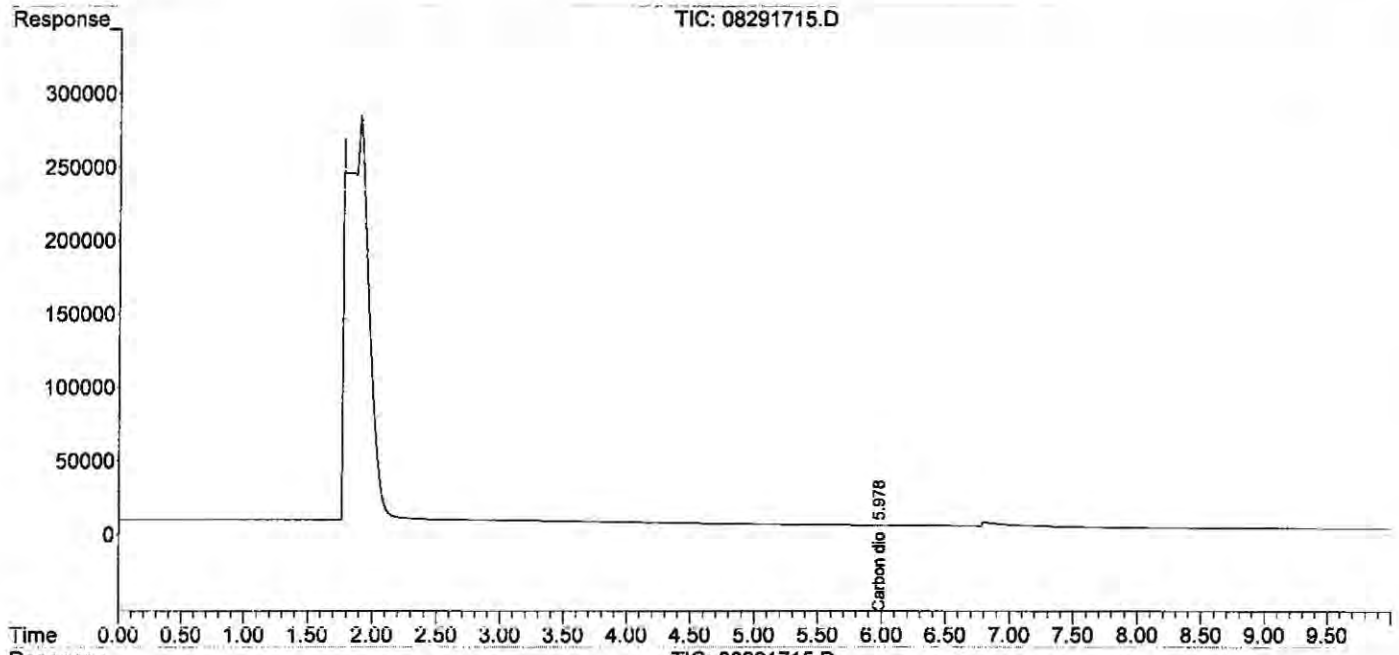
(f)=RT Delta > 1/2 Window (m)=manual int.

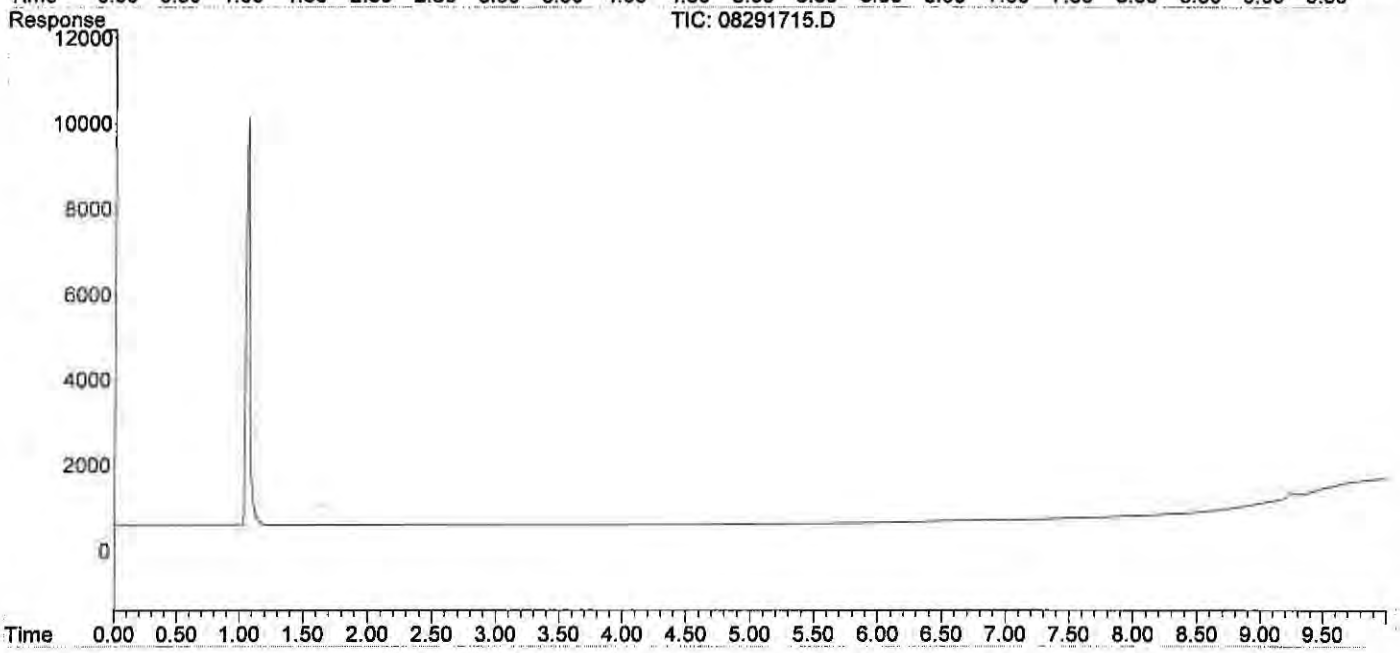
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291715.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:07
Operator : MC
Sample : 25ppm s32-08291701 0.25ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 14:20:06 2017
Quant Method : I:\GC10\METHODS\RS082417.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Fri Aug 25 09:19:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



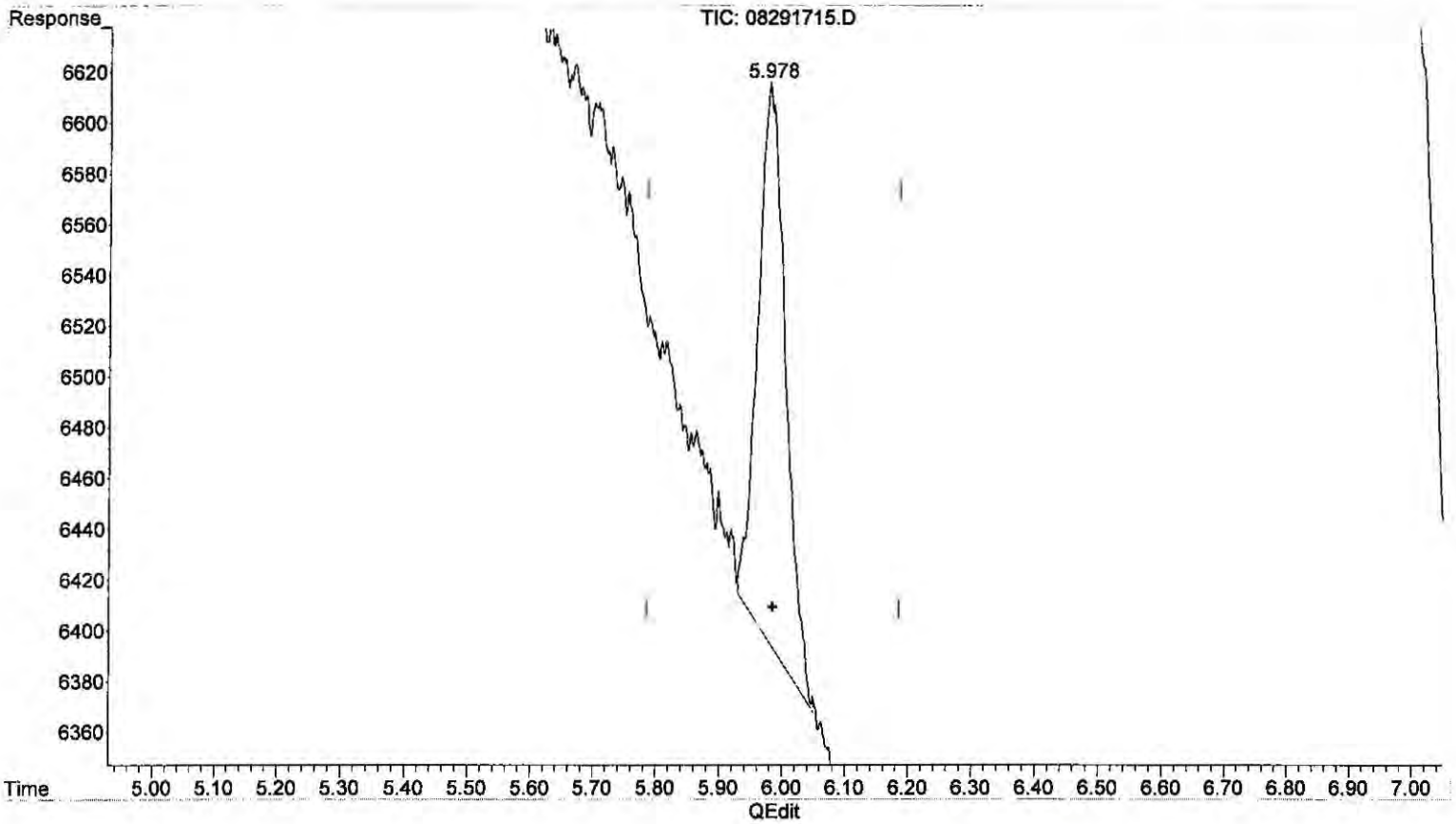


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291715.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:07
Operator : MC
Sample : 25ppm s32-08291701 0.25ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 14:20:06 2017
Quant Method : I:\GC10\METHODS\RS082417.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Fri Aug 25 09:19:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(4) Carbon dioxide

5.978min 27.870 ppm m

response 6794

(+) = Expected Retention Time

RS082817_CO2.M Wed Aug 30 13:17:47 2017

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291716.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:22
Operator : MC
Sample : 100ppm s32-08291702 0.2ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 14:51:38 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 14:21:08 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

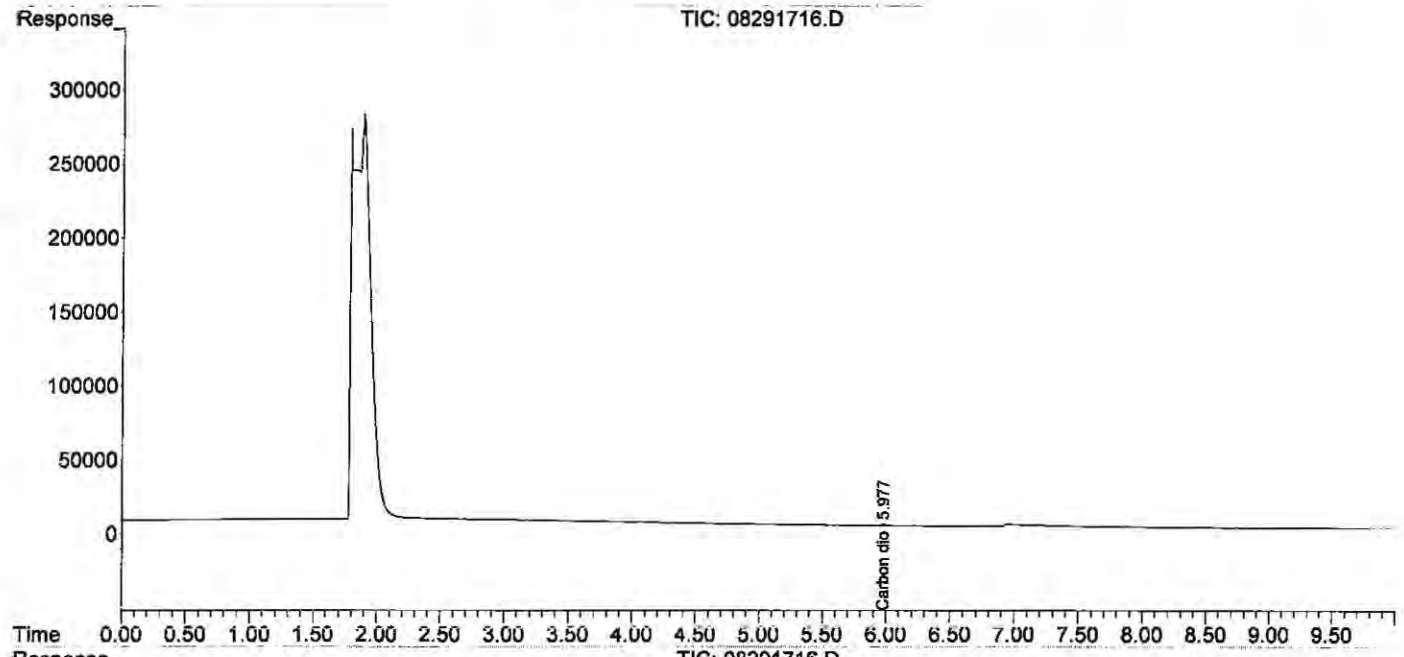
	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.790	-598962	N.D.	ppm	
2)	Carbon monoxide	0.000	0	N.D.	ppm	d
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	5.978	21932	87.858	ppm	
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

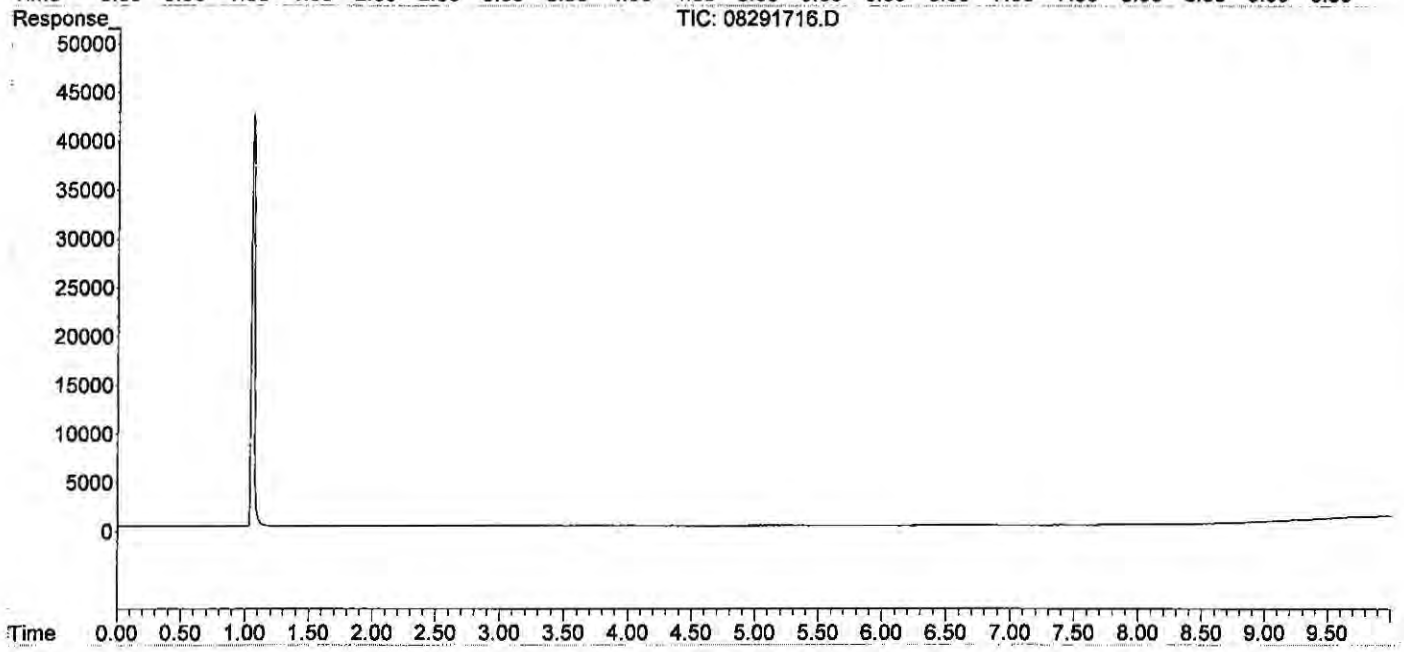
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291716.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:22
Operator : MC
Sample : 100ppm s32-08291702 0.2ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 14:51:38 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 14:21:08 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291717.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:53
Operator : MC
Sample : 250ppm s32-08291702 0.5ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:03:42 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 14:52:06 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

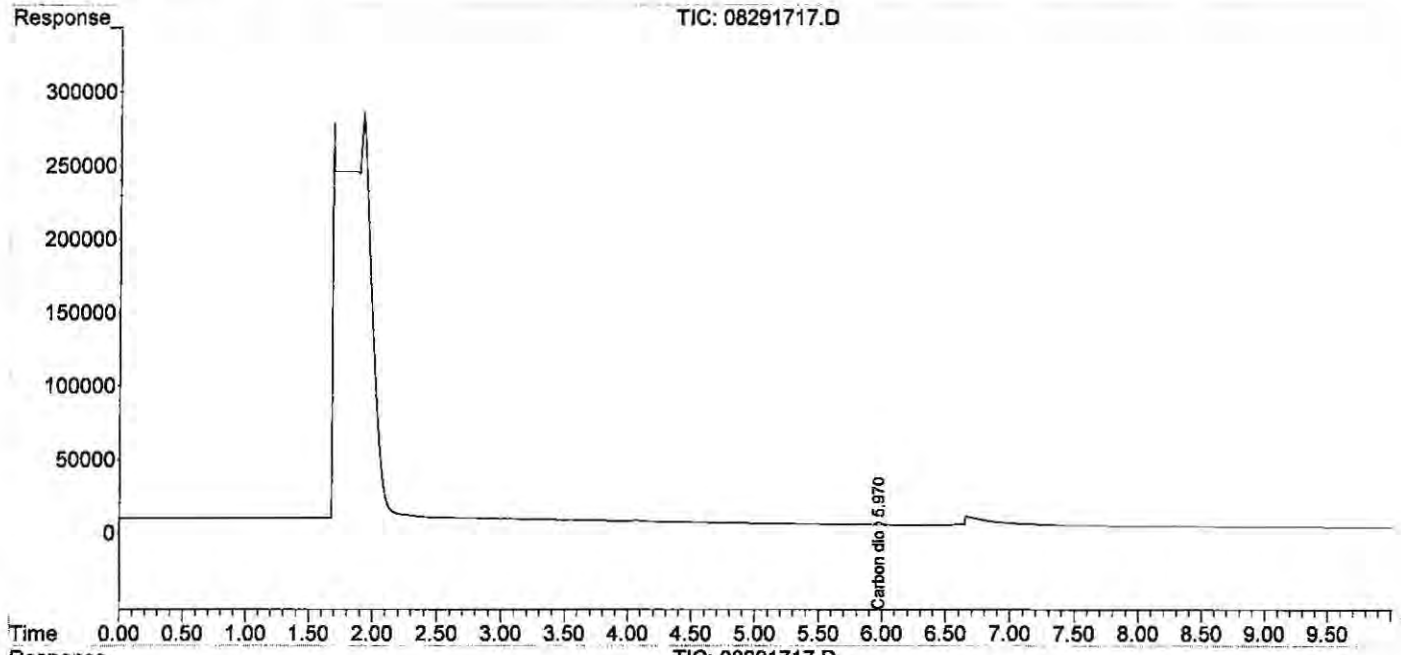
	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.920f	-30716454	N.D.	ppm	
2)	Carbon monoxide	0.000	0	N.D.	ppm	d
3)	Methane (TCD)	0.000	0	N.D.	ppm	d
4)	Carbon dioxide	5.970	58461	240.204	ppm	m
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

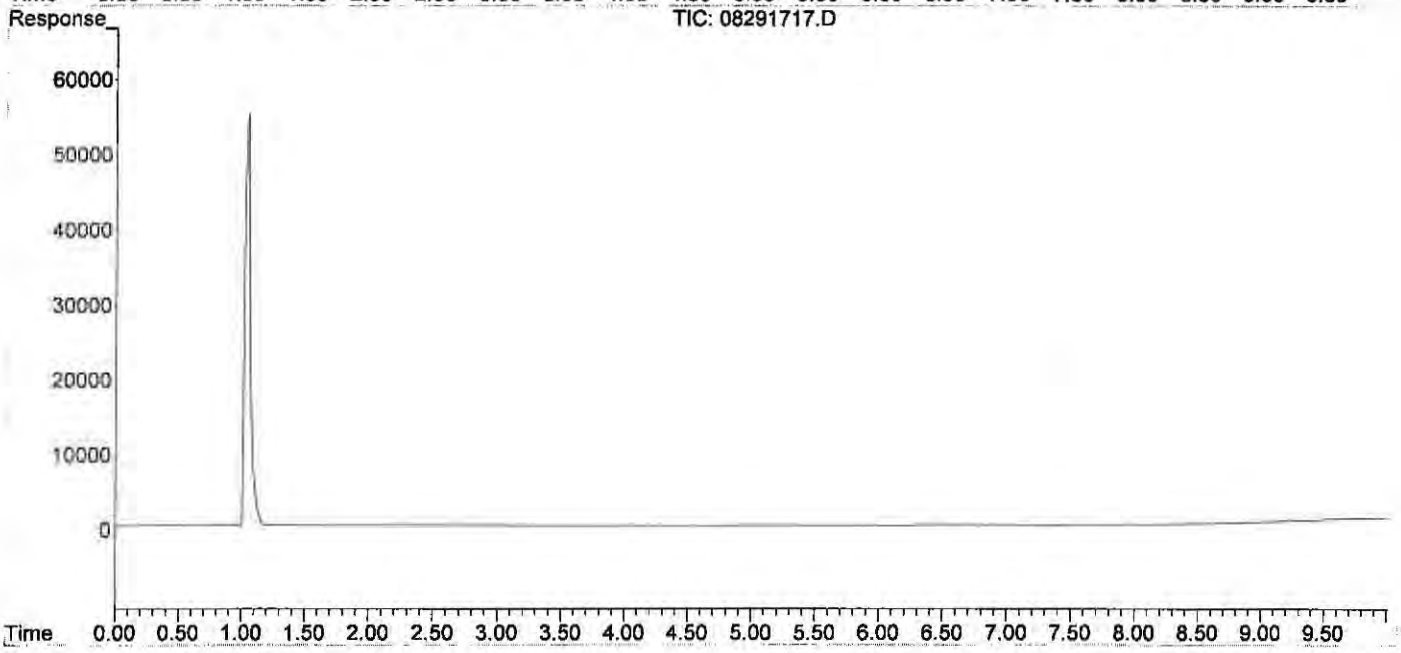
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291717.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:53
Operator : MC
Sample : 250ppm s32-08291702 0.5ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:03:42 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 14:52:06 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



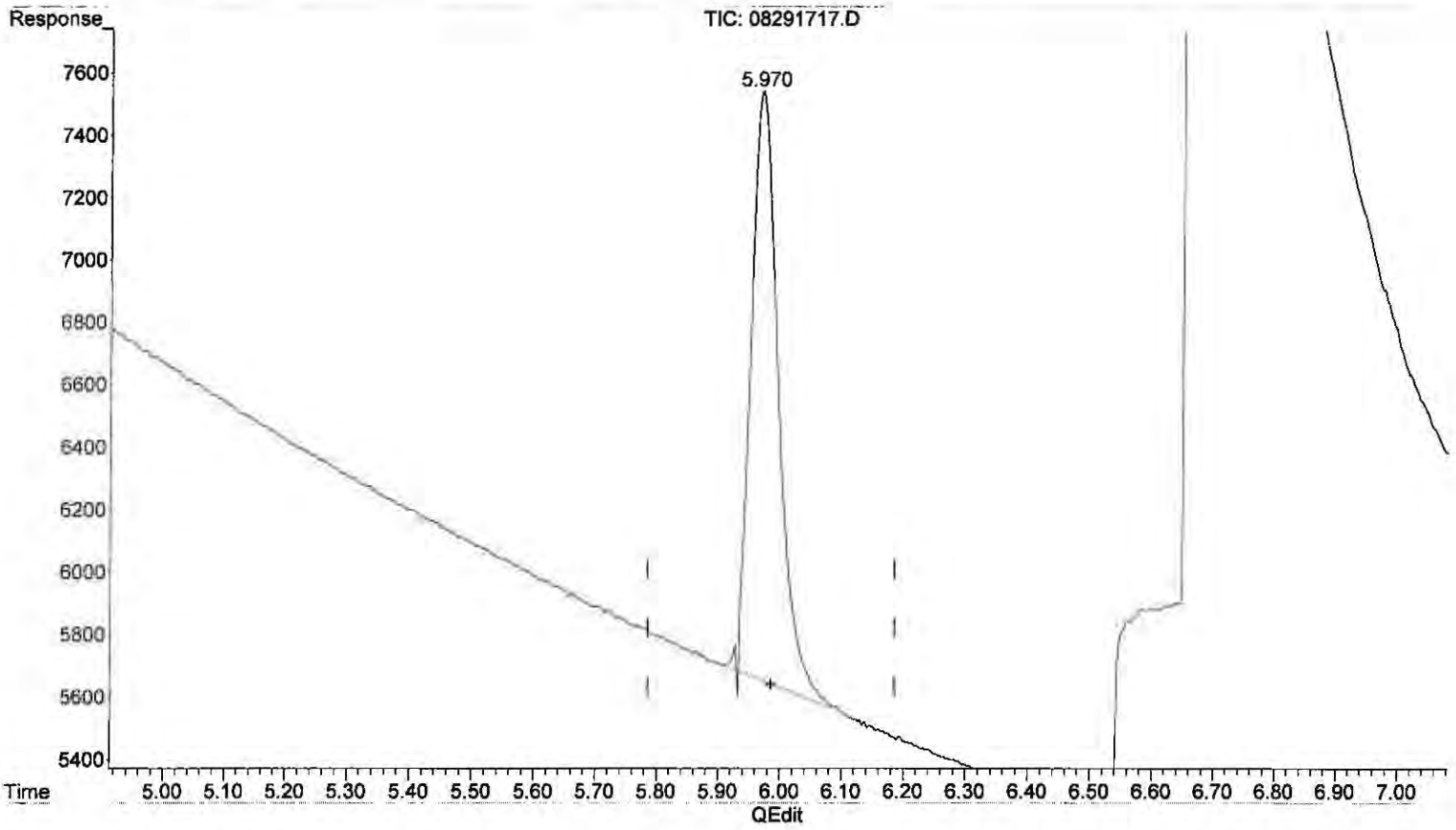


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291717.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:53
Operator : MC
Sample : 250ppm s32-08291702 0.5ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:03:42 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 14:52:06 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



(4) Carbon dioxide

5.970min 240.204 ppm m

response 58461

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291719.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 15:23
Operator : MC
Sample : 2500ppm s32-08231701 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:35:50 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 15:04:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	d
2)	Carbon monoxide	1.891	425113	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	d
4)	Carbon dioxide	5.962	568043	2369.673	ppm	
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

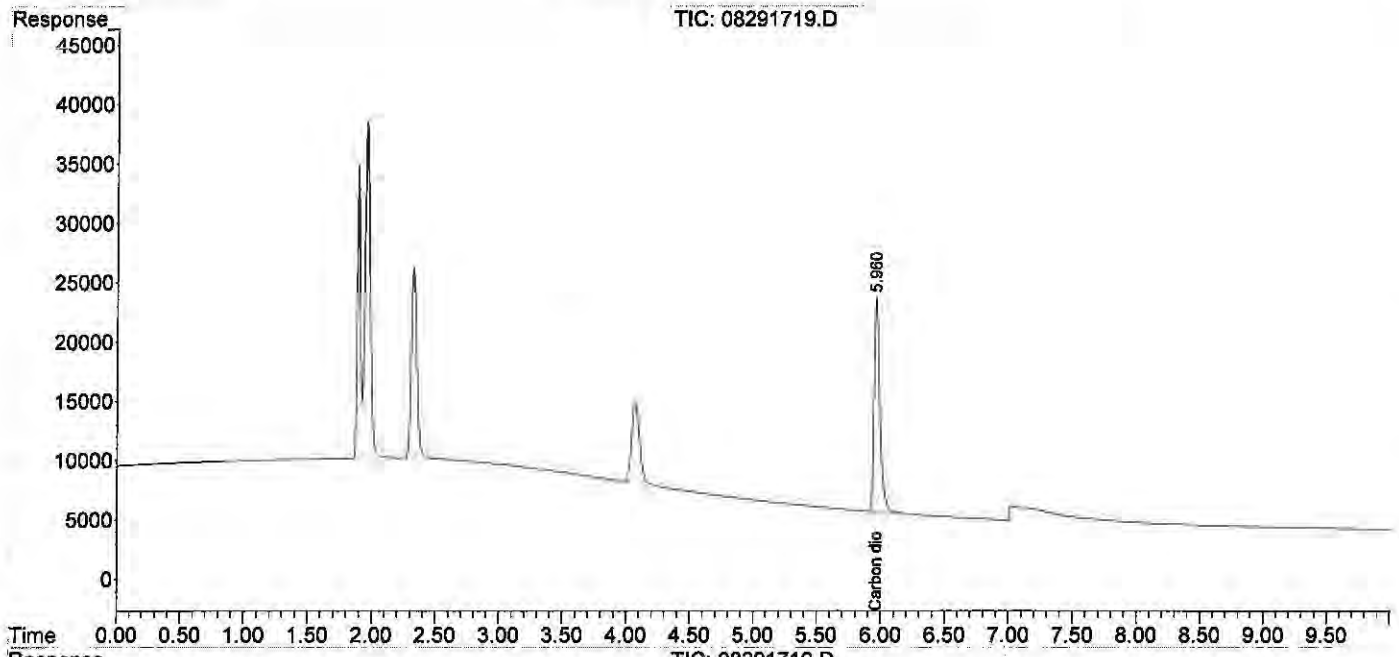
(f)=RT Delta > 1/2 Window (m)=manual int.

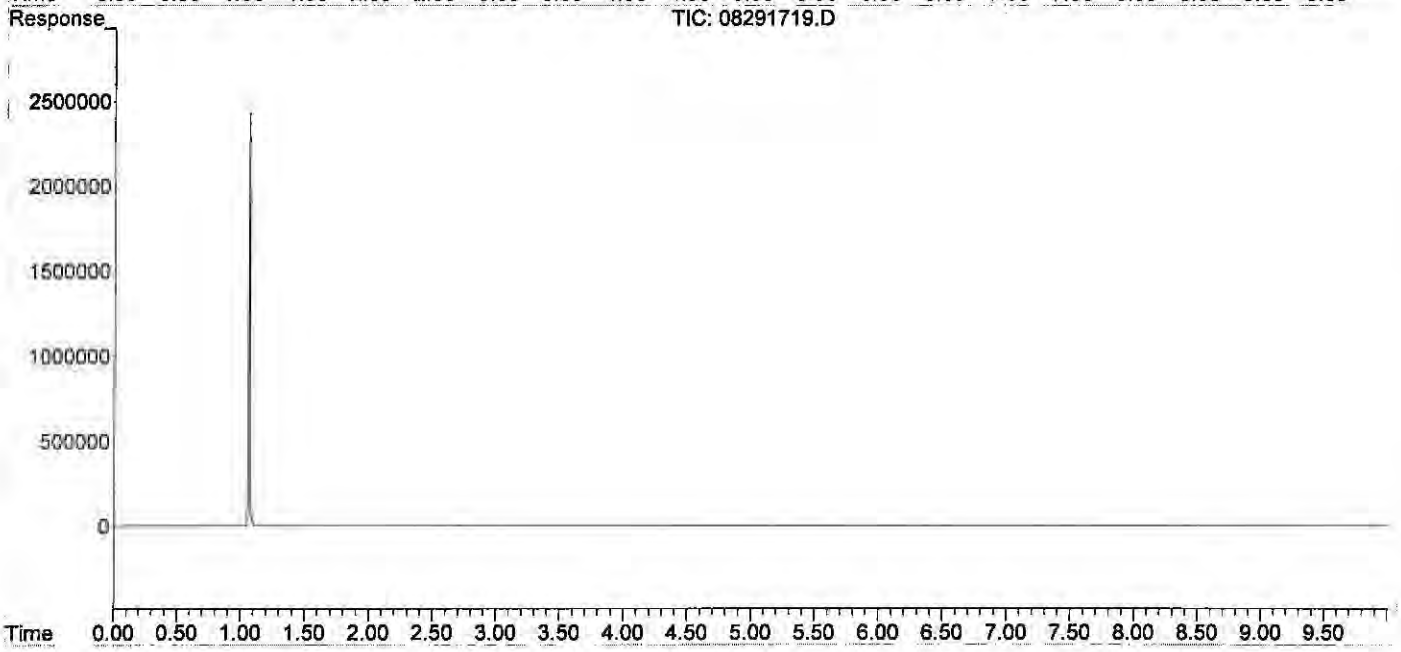
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291719.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 15:23
Operator : MC
Sample : 2500ppm s32-08231701 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:35:50 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 15:04:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291720.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 15:44
Operator : MC
Sample : 5000ppm s32-08231701 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:57:17 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 15:36:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	d
2)	Carbon monoxide	1.880	819221	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	d
4)	Carbon dioxide	5.948	1132363	4753.126	ppm	
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

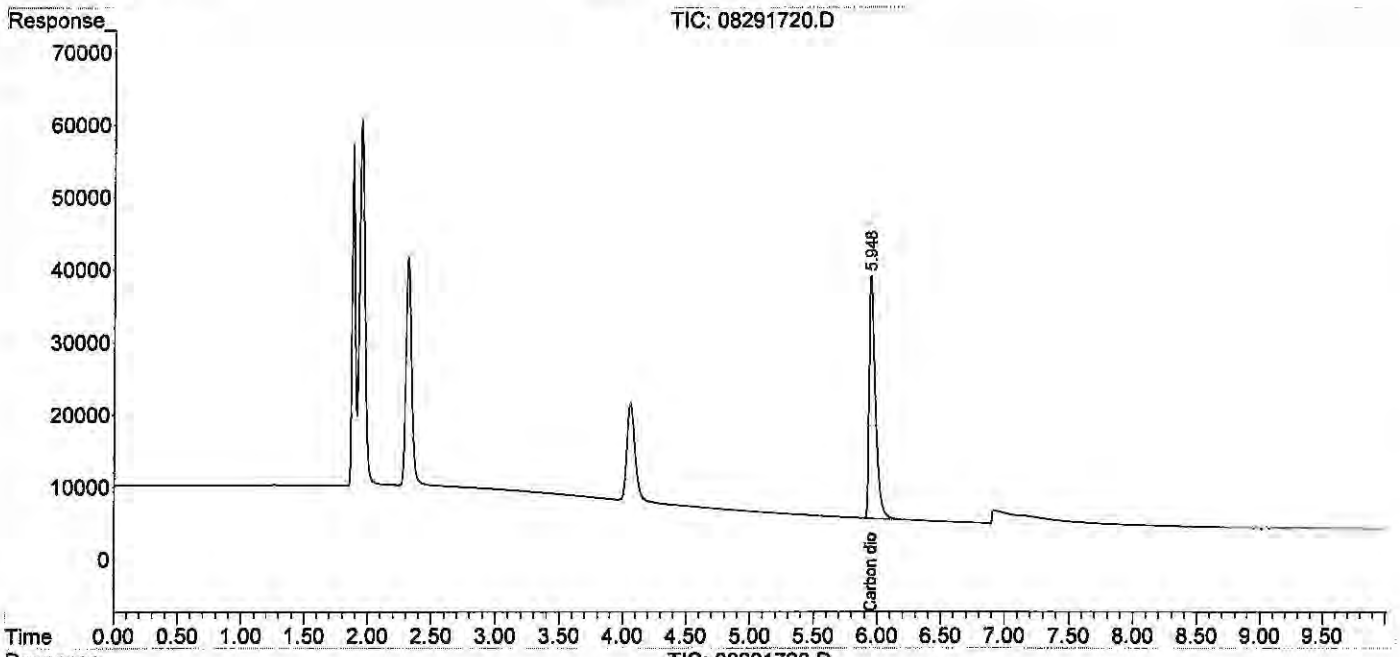
(f)=RT Delta > 1/2 Window (m)=manual int.

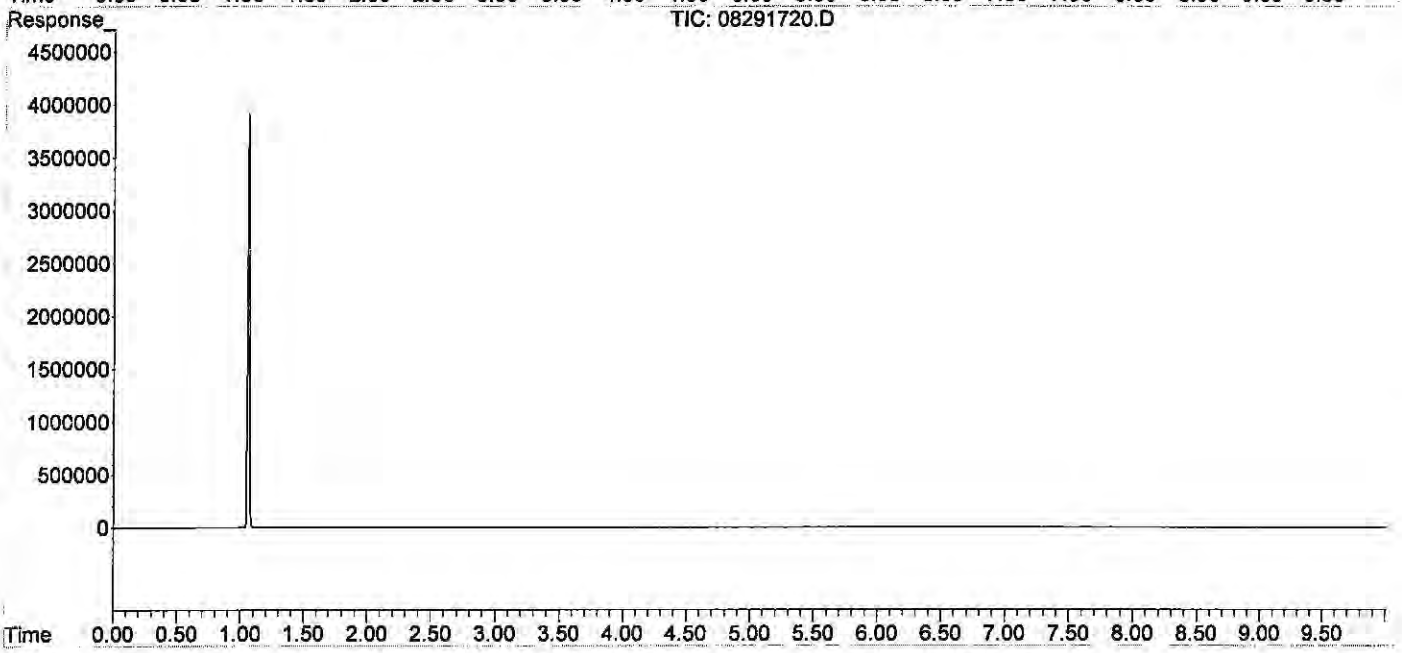
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291720.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 15:44
Operator : MC
Sample : 5000ppm s32-08231701 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:57:17 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 15:36:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291721.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 16:00
Operator : MC
Sample : 25000ppm s32-08231701 0.5ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 16:12:53 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 15:57:37 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	d
2)	Carbon monoxide	1.827	3325463	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	d
4)	Carbon dioxide	5.879f	5744295	24443.288	ppm	
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

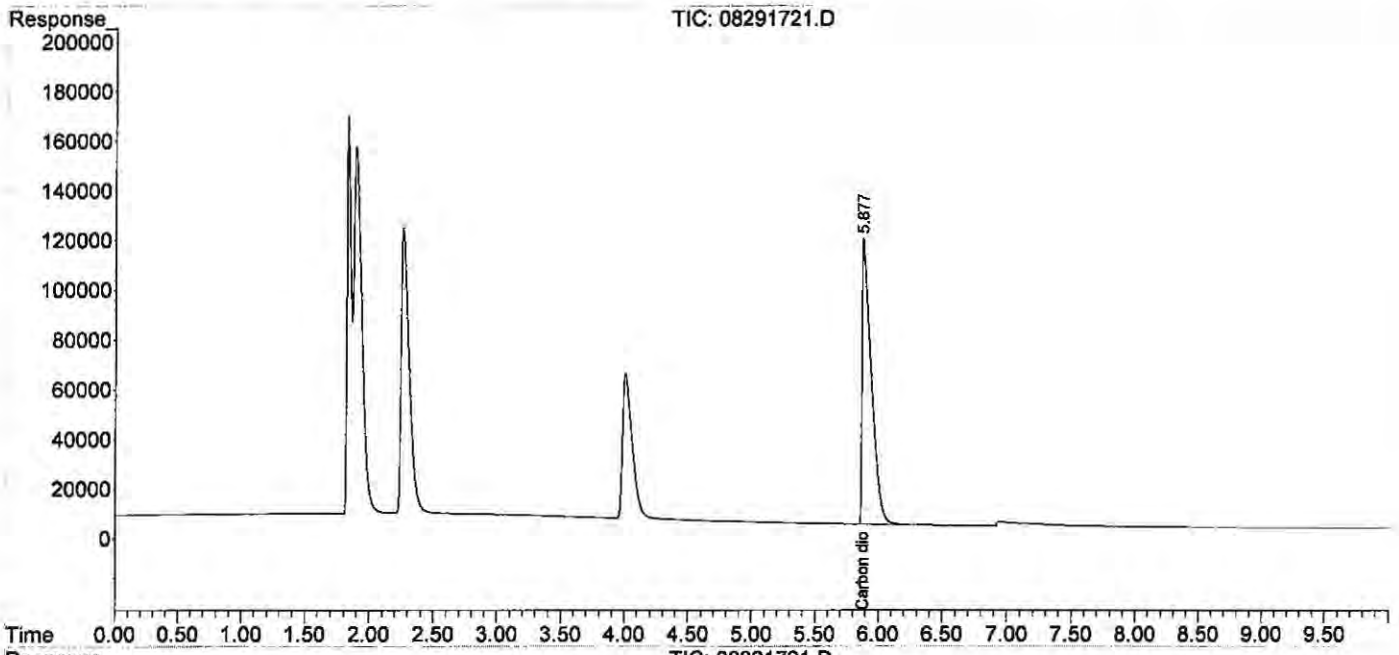
(f)=RT Delta > 1/2 Window (m)=manual int.

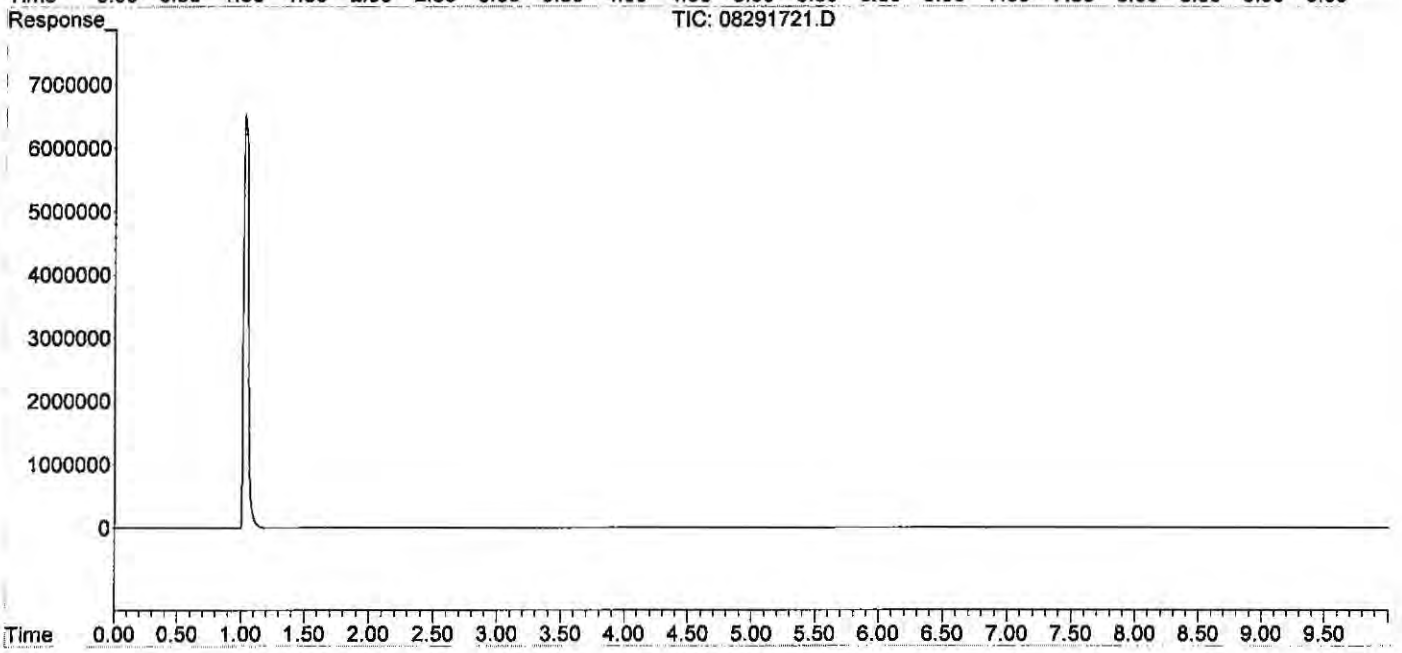
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291721.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 16:00
Operator : MC
Sample : 25000ppm s32-08231701 0.5ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 16:12:53 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 15:57:37 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291723.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 16:35
Operator : MC
Sample : icv s30-07071701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 16:54:07 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.886	536422	0.113	ppm	Actual %D
2)	Carbon monoxide	1.886	536422	N.D.	ppm	
3)	Methane (TCD)	4.059f	626500	66244.710	ppm	
4)	Carbon dioxide	5.947	1163775	4957.948	ppm	5000 99.16
6)	Methane (FID)	1.062	37290742	3947.023	ppm	
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

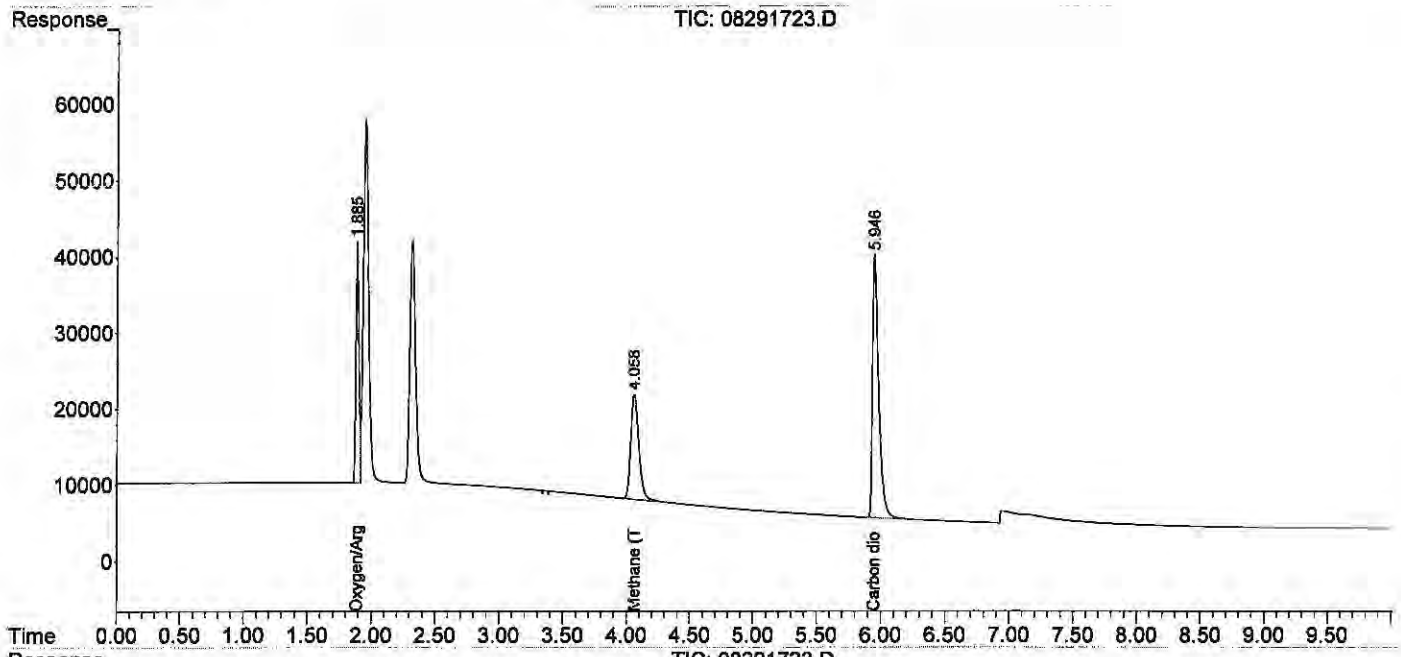
(f)=RT Delta > 1/2 Window (m)=manual int.

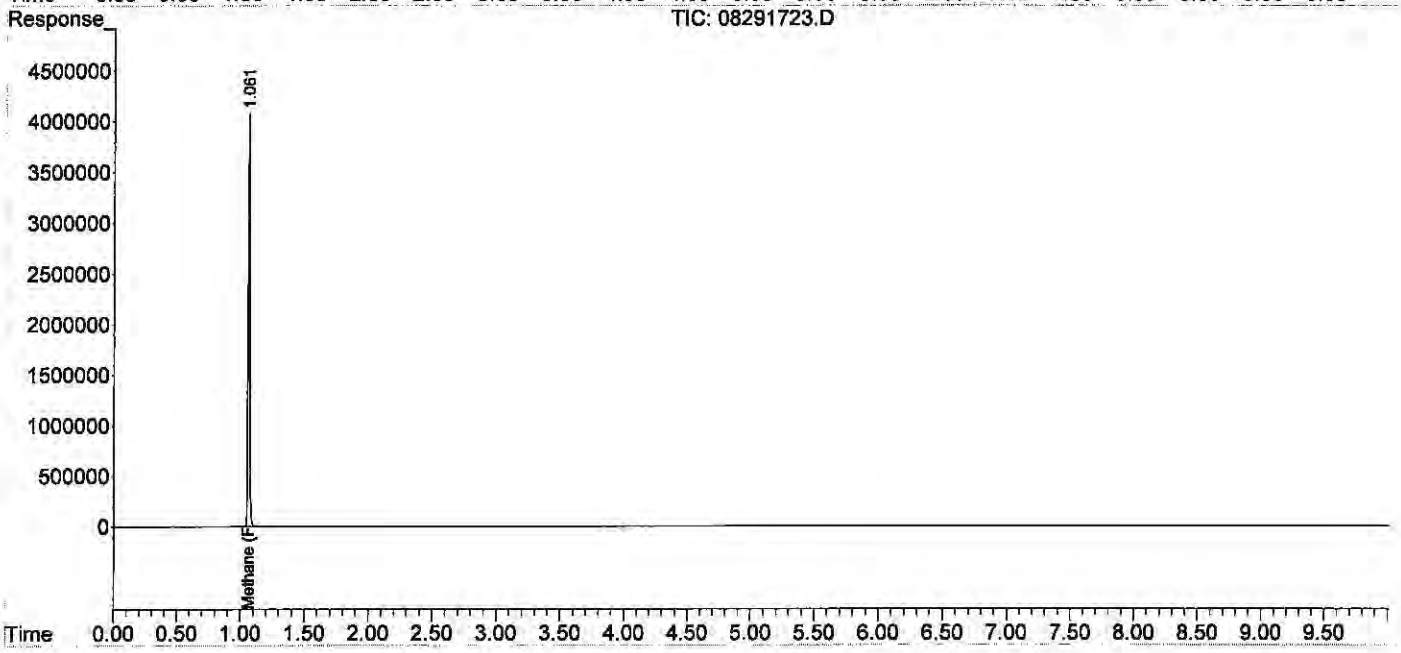
W 9/4/17

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291723.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 16:35
Operator : MC
Sample : icv s30-07071701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 16:54:07 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Injection Log

Directory: I:\GC10\DATA\RSK_FID\2017_08\29\

	Date/Time	File Name	Sample ID	Misc Info	Operator	Acquisition Method	Comments
1	29-Aug-17, 07:58:00	08291701.D	std s30-06161601		MC	RSKBOTH.M	Pass
2	29-Aug-17, 08:11:02	08291702.D	mb 0.5ml		MC	RSKBOTH.M	Pass
3	29-Aug-17, 08:24:13	08291703.D	4089-001 0.5ml		MC	RSKBOTH.M	
4	29-Aug-17, 08:39:29	08291704.D	4089-002 0.5ml		MC	RSKBOTH.M	
5	29-Aug-17, 08:53:38	08291705.D	4089-003 0.5ml		MC	RSKBOTH.M	
6	29-Aug-17, 09:33:52	08291706.D	4089-004 0.5ml		MC	RSKBOTH.M	
7	29-Aug-17, 09:50:51	08291707.D	4089-005 0.5ml		MC	RSKBOTH.M	
8	29-Aug-17, 10:07:54	08291708.D	4089-006 0.5ml		MC	RSKBOTH.M	
9	29-Aug-17, 10:42:34	08291709.D	4089-007 0.5ml		MC	RSKBOTH.M	
10	29-Aug-17, 11:06:01	08291710.D	4089-008 0.5ml		MC	RSKBOTH.M	
11	29-Aug-17, 11:23:53	08291711.D	4089-009 0.5ml		MC	RSKBOTH.M	
12	29-Aug-17, 11:37:17	08291712.D	lcs s30-05241604		MC	RSKBOTH.M	Pass
13	29-Aug-17, 11:50:31	08291713.D	lcs s30-05241604		MC	RSKBOTH.M	Pass
14	29-Aug-17, 12:29:45	08291714.D	std s30-06161601		MC	RSKBOTH.M	Pass
15	29-Aug-17, 14:07:01	08291715.D	25ppm s32-08291701 0.25ml		MC	RSKBOTH.M	Curve
16	29-Aug-17, 14:22:12	08291716.D	100ppm s32-08291702 0.2ml		MC	RSKBOTH.M	Curve
17	29-Aug-17, 14:53:00	08291717.D	250ppm s32-08291702 0.5ml		MC	RSKBOTH.M	Curve
18	29-Aug-17, 15:07:43	08291718.D	mls inject		MC	RSKBOTH.M	
19	29-Aug-17, 15:23:21	08291719.D	2500ppm s32-08231701 50ul		MC	RSKBOTH.M	Curve
20	29-Aug-17, 15:44:54	08291720.D	5000ppm s32-08231701 0.1ml		MC	RSKBOTH.M	Curve
21	29-Aug-17, 16:00:09	08291721.D	25000ppm s32-08231701 0.5ml		MC	RSKBOTH.M	Curve
22	29-Aug-17, 16:15:43	08291722.D	mb 0.1ml		MC	RSKBOTH.M	Pass
23	29-Aug-17, 16:35:37	08291723.D	lcv s30-07071701		MC	RSKBOTH.M	Pass

Injection Log

Directory: I:\GC10\DATA\RSK_TCD\2018_09\06\

	Date/Time	File Name	Sample ID	Misc Info	Operator	Acquisition Method	Comments
1	06-Sep-18, 10:06:46	09061801.D	std s32-08311801		WH	RSKBOTH.M	pass
2	06-Sep-18, 10:25:55	09061802.D	rb 0.1ml		WH	RSKBOTH.M	pass
3	06-Sep-18, 10:40:22	09061803.D	mcs 0.1ml		WH	RSKBOTH.M	pass
4	06-Sep-18, 10:54:13	09061804.D	x		WH	RSKBOTH.M	
5	06-Sep-18, 11:12:24	09061805.D	x		WH	RSKBOTH.M	
6	06-Sep-18, 11:28:50	09061806.D	tcd lcs s32-07241801		WH	RSKBOTH.M	pass
7	06-Sep-18, 11:45:20	09061807.D	tcd lcsd s32-07241801		WH	RSKBOTH.M	pass
8	06-Sep-18, 12:10:37	09061808.D	x		WH	RSKBOTH.M	
9	06-Sep-18, 12:29:12	09061809.D	P1804548-001 50ul		WH	RSKBOTH.M	
10	06-Sep-18, 13:33:43	09061810.D	P1804548-002 50ul		WH	RSKBOTH.M	
11	06-Sep-18, 13:55:28	09061811.D	P1804548-003 50ul		WH	RSKBOTH.M	
12	06-Sep-18, 14:09:47	09061812.D	P1804548-004 50ul		WH	RSKBOTH.M	
13	06-Sep-18, 14:33:31	09061813.D	xtcd lcs		WH	RSKBOTH.M	
14	06-Sep-18, 14:51:31	09061814.D	xtcd lcsd		WH	RSKBOTH.M	
15	06-Sep-18, 15:04:46	09061815.D	std s32-08311801		WH	RSKBOTH.M	pass
16	06-Sep-18, 17:18:28	09061816.D	tcd lcs		WH	RSKBOTH.M	pass

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011811.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 12:40:25
Operator : WH
Sample : P1804548-001 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 13:24:16 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.105	9798	1.080	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

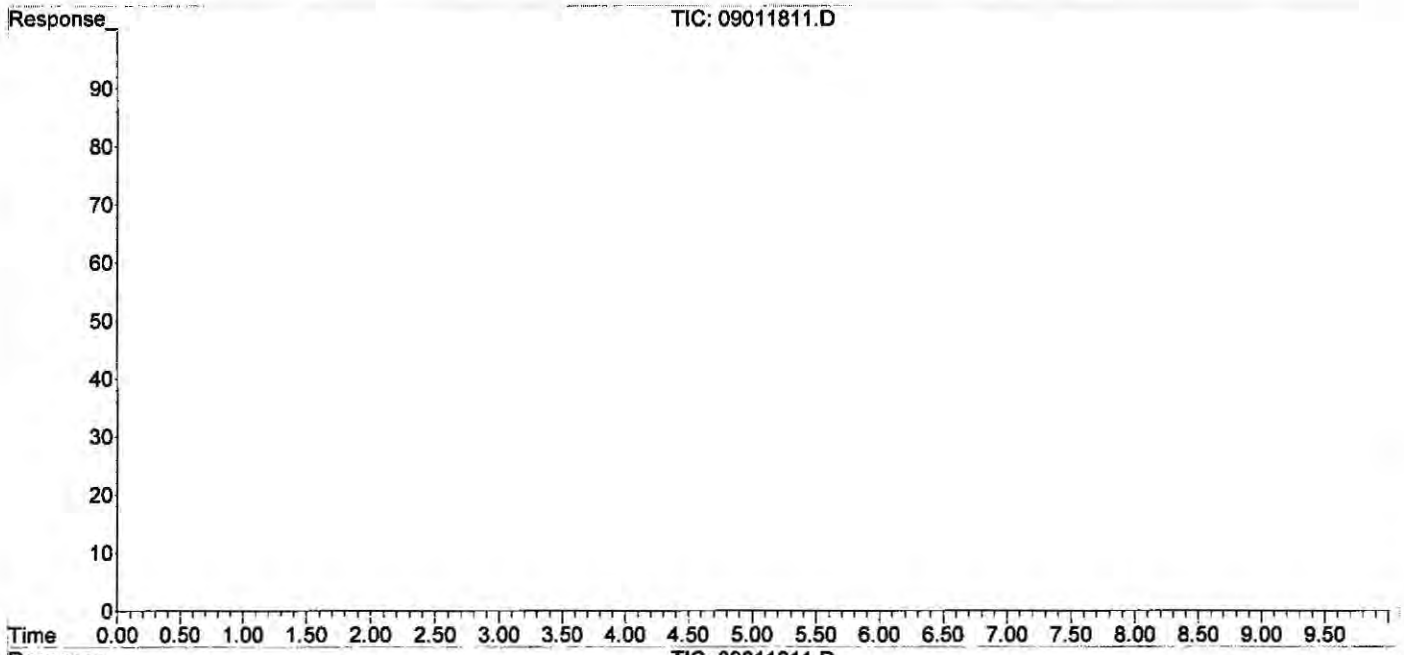
(f)=RT Delta > 1/2 Window (m)=manual int.

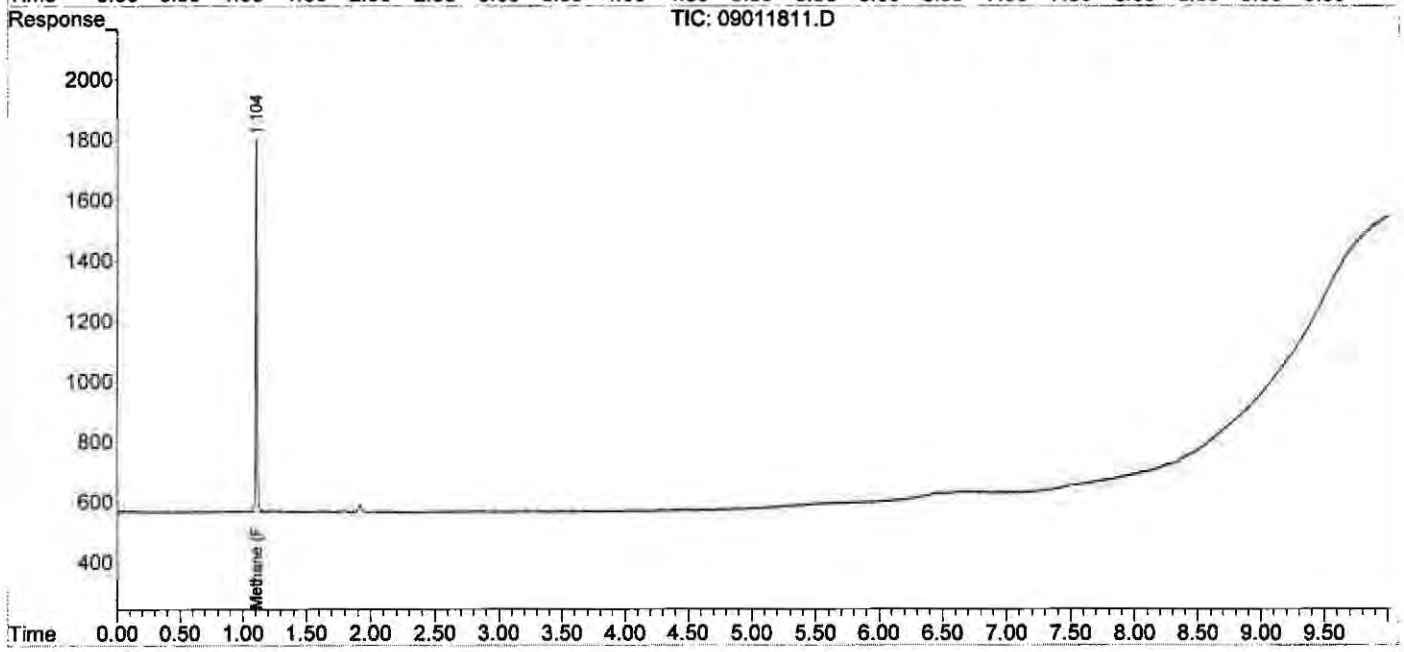
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011811.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 12:40:25
Operator : WH
Sample : P1804548-001 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 13:24:16 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011812.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 12:54:38
Operator : WH
Sample : P1804548-002 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 13:24:30 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.105	1355	0.149	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

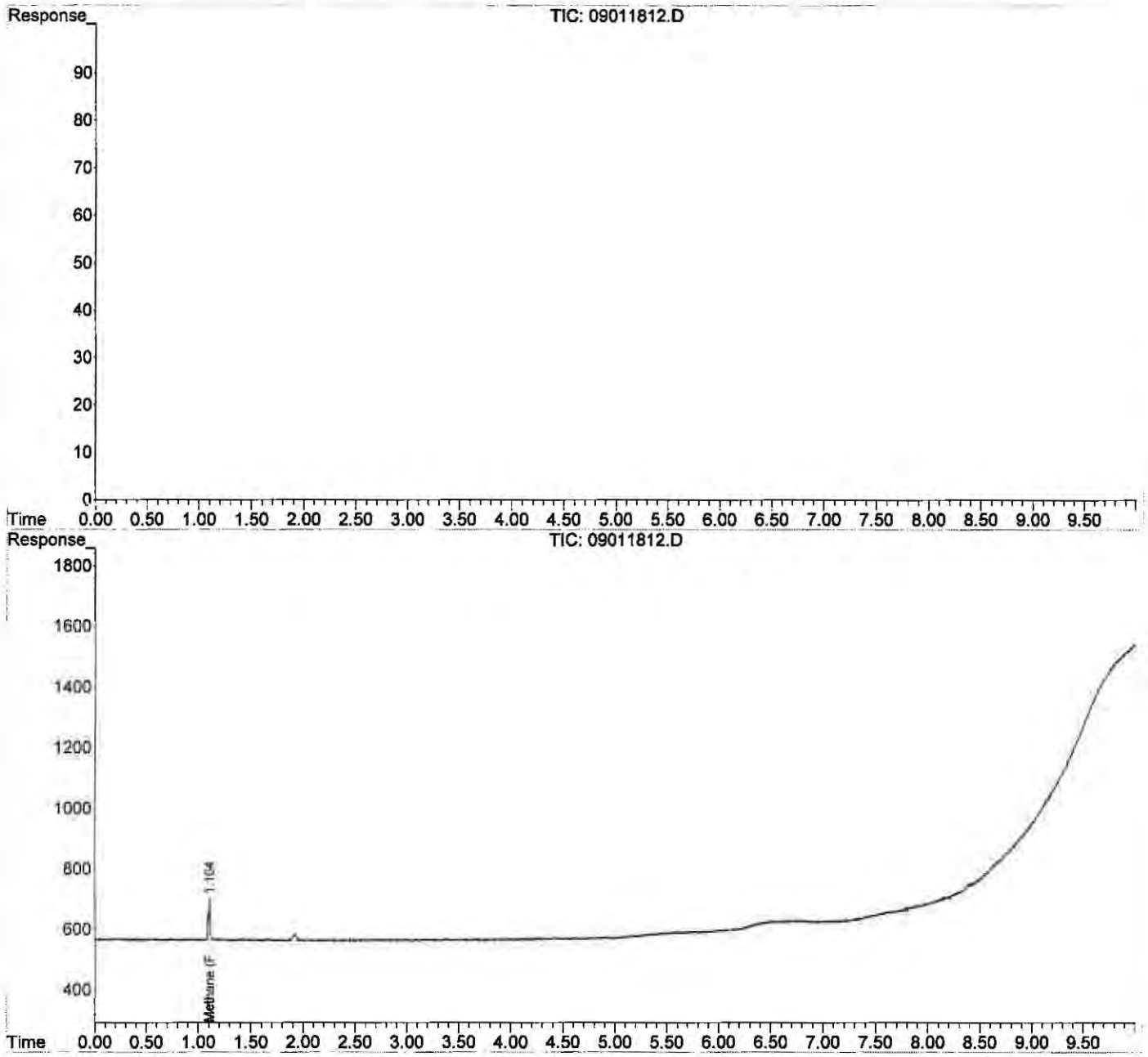
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011812.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 12:54:38
Operator : WH
Sample : P1804548-002 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 13:24:30 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011813.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 13:07:49
Operator : WH
Sample : P1804548-003 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 13:24:42 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	0.000	0	N.D.	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

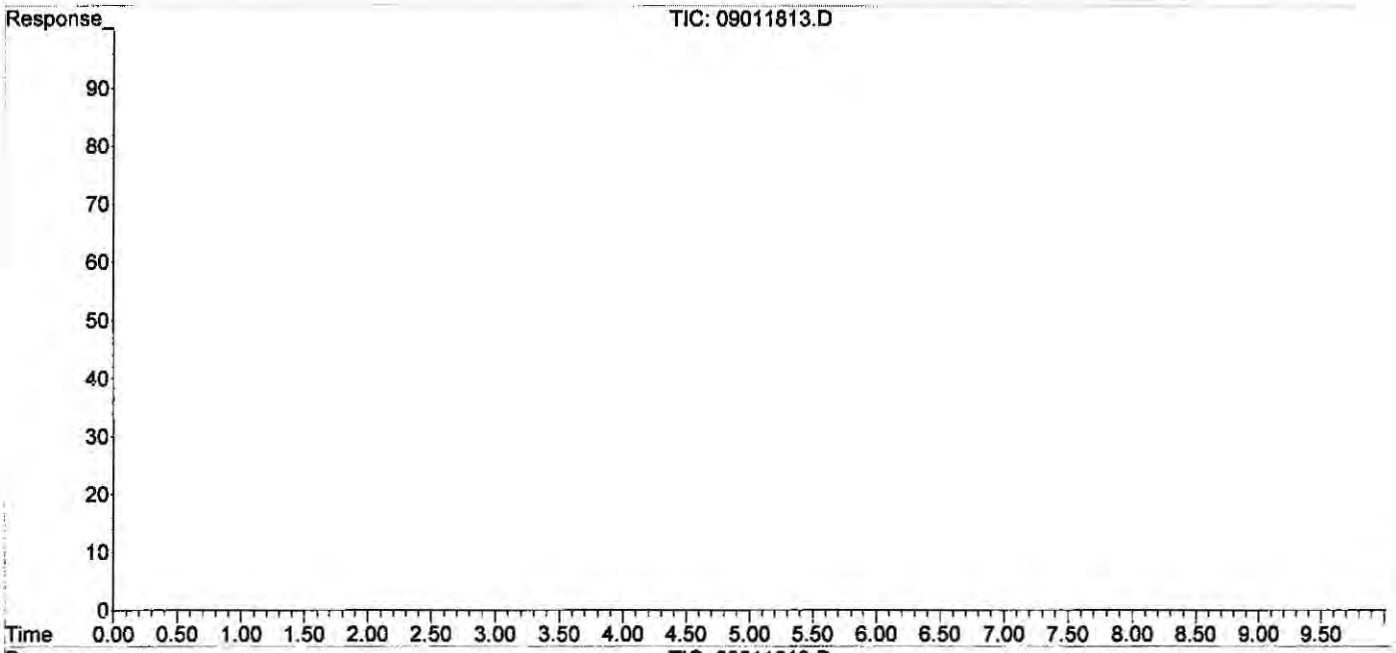
(f)=RT Delta > 1/2 Window (m)=manual int.

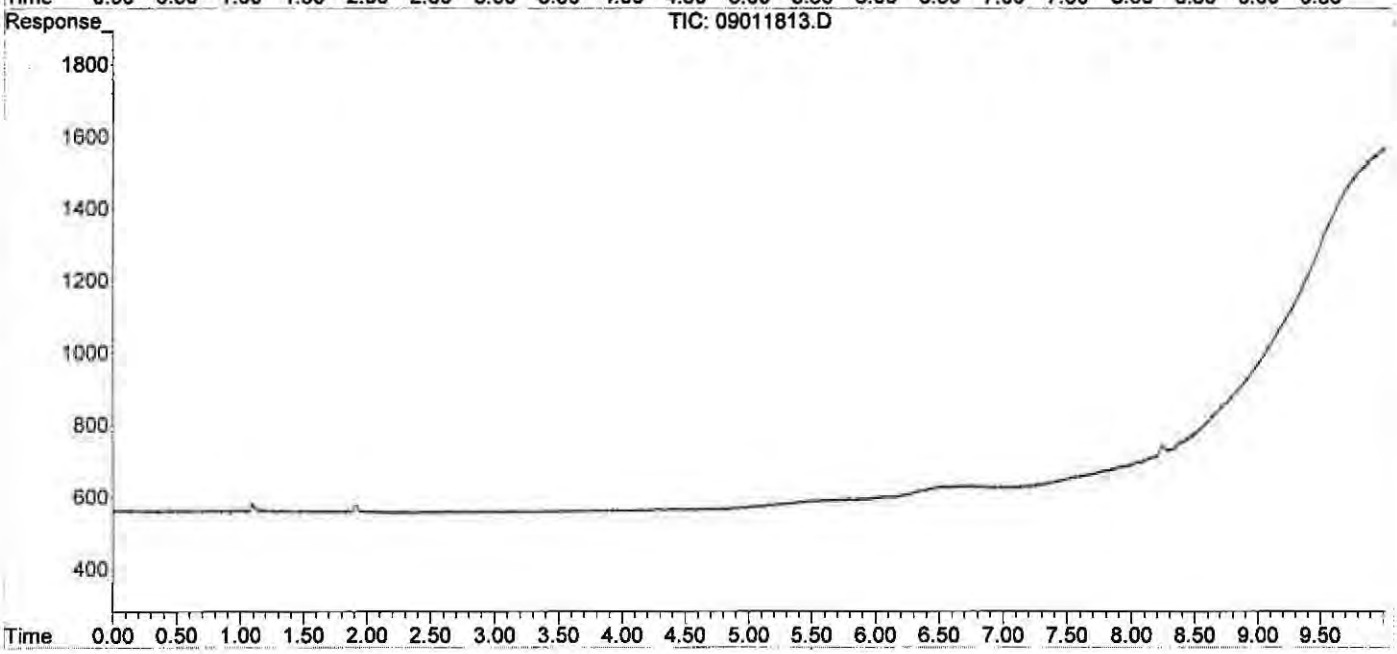
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011813.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 13:07:49
Operator : WH
Sample : P1804548-003 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 13:24:42 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011814.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 13:22:56
Operator : WH
Sample : P1804548-004 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 04 10:25:16 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	
2)	Carbon monoxide	0.000	0	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	0.000	0	N.D.	ppm	
6)	Methane (FID)	1.088	579	0.064	ppm	m
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

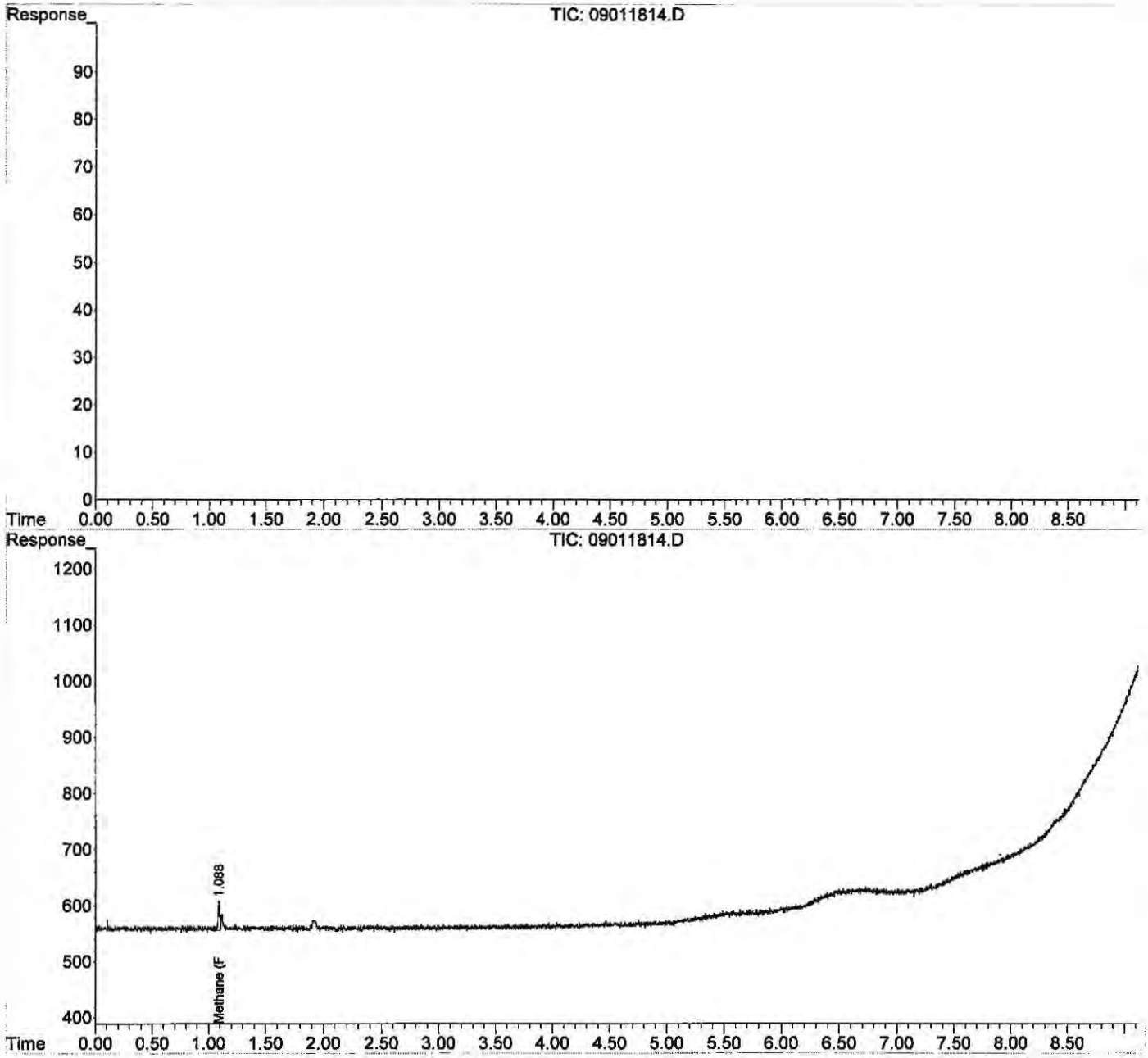
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011814.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 13:22:56
Operator : WH
Sample : P1804548-004 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 04 10:25:16 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

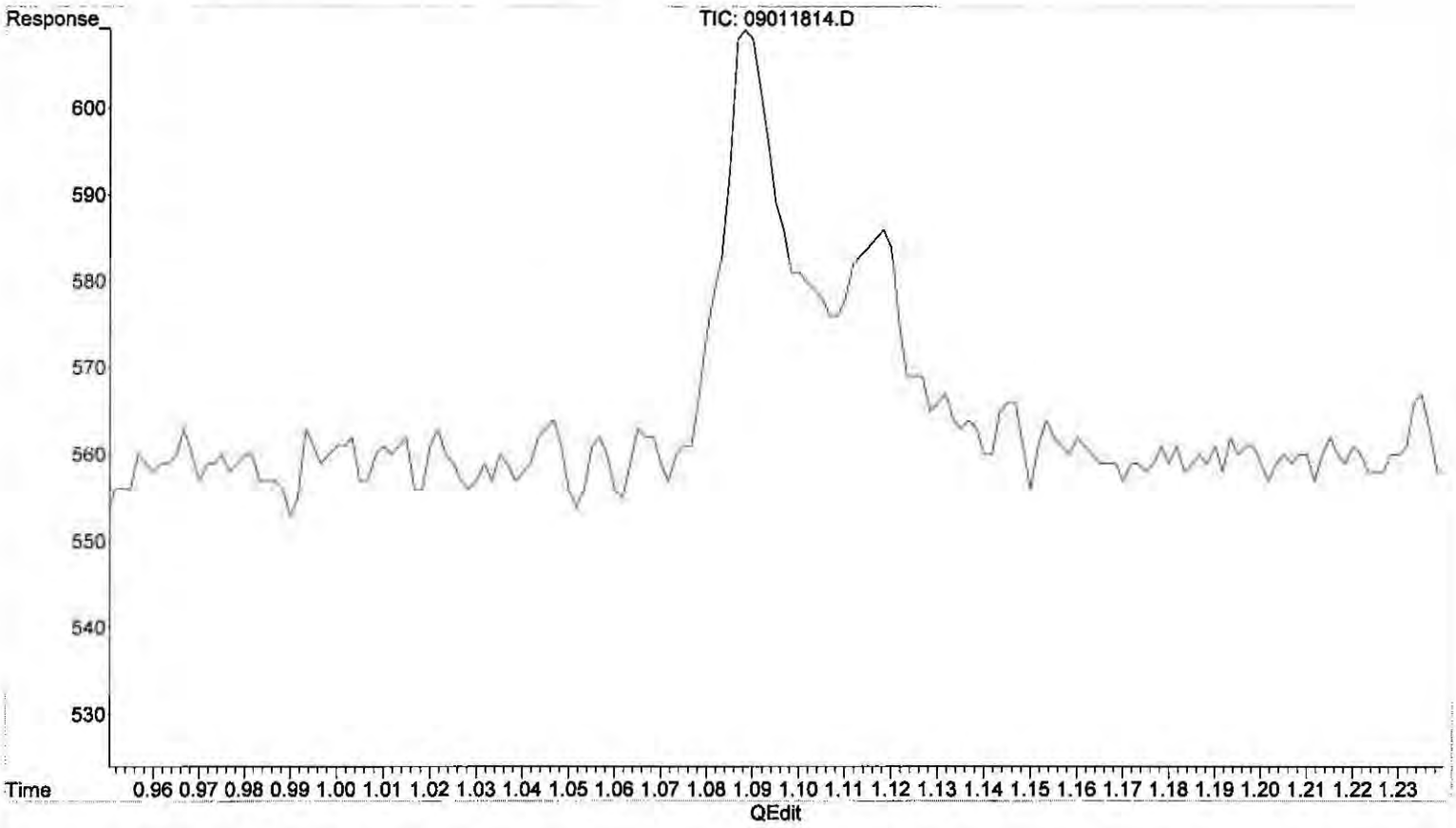


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011814.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 13:22:56
Operator : WH
Sample : P1804548-004 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 04 10:25:16 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



(6) Methane (FID)

1.115min 0.000 ppm

response 0

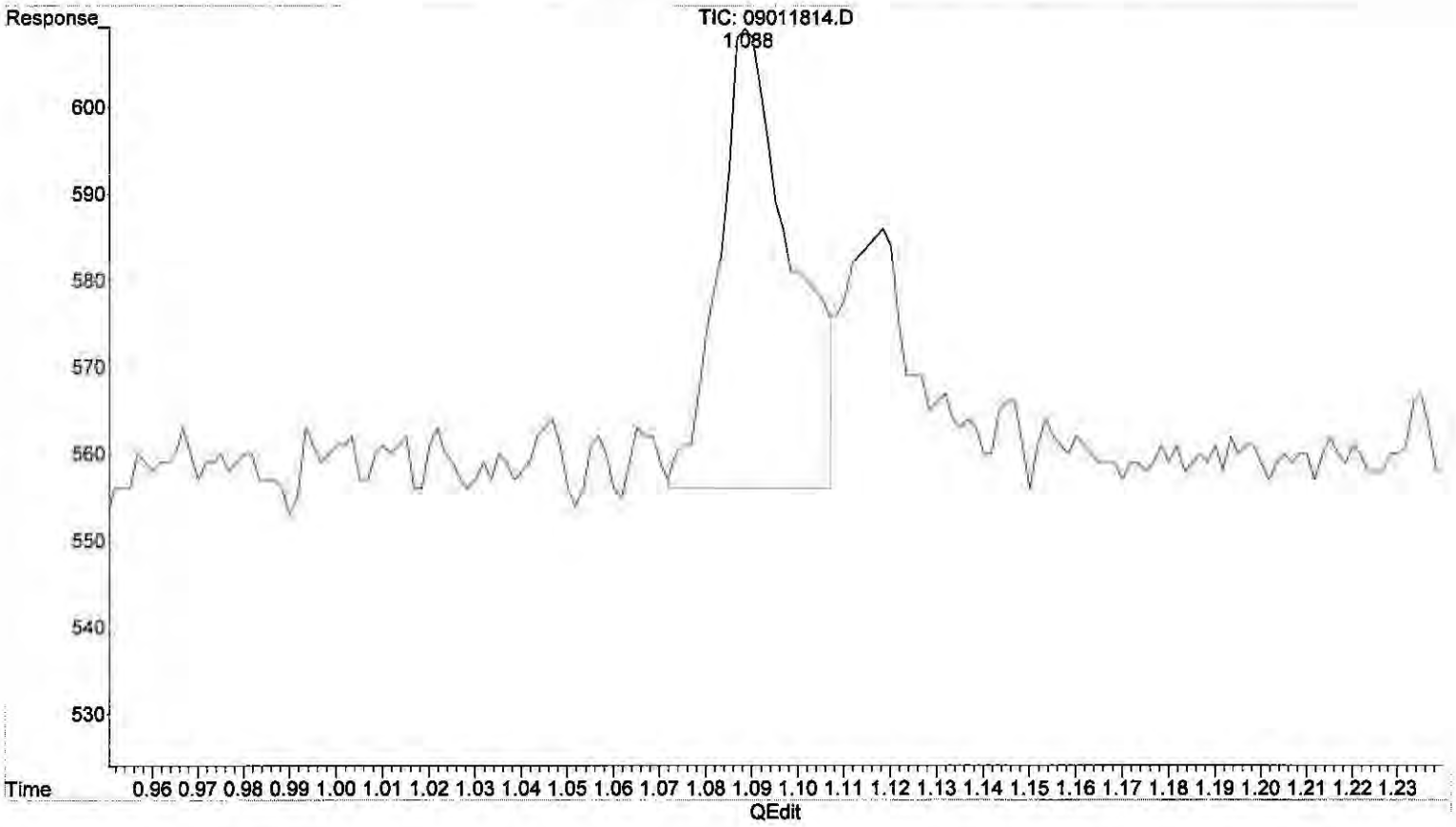
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011814.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 13:22:56
Operator : WH
Sample : P1804548-004 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 04 10:25:16 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(6) Methane (FID)

1.088min 0.064 ppm m

response 579

MK 9/4/18
MP

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 10:45:52
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 04 10:27:22 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	
2)	Carbon monoxide	0.000	0	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	0.000	0	N.D.	ppm	
6)	Methane (FID)	1.108	1592	0.175	ppm	m
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

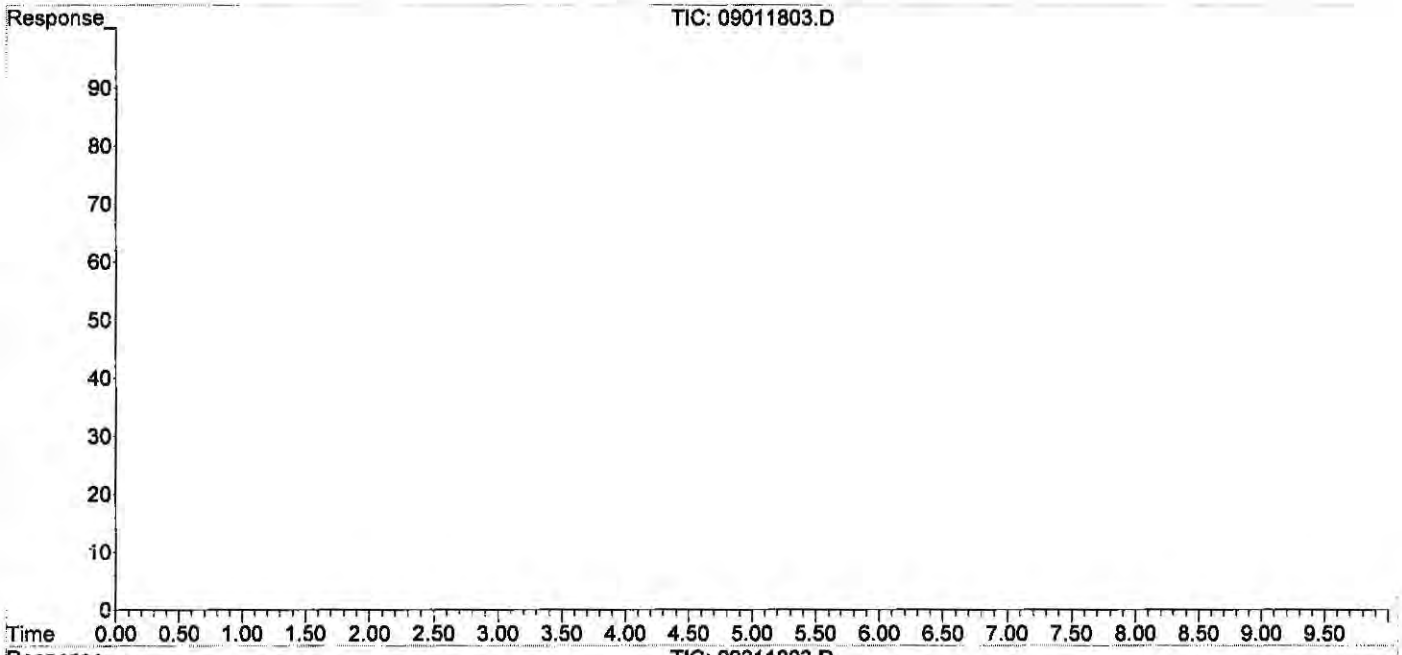
(f)=RT Delta > 1/2 Window (m)=manual int.

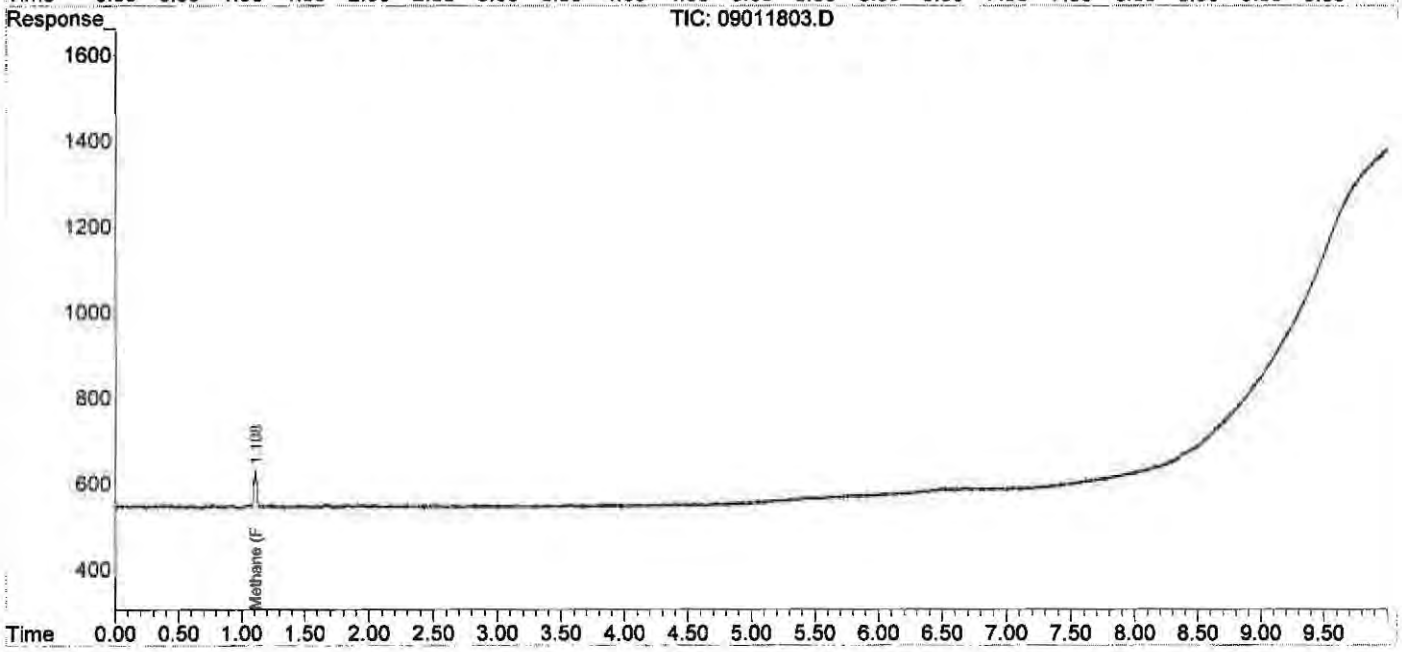
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 10:45:52
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 04 10:27:22 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



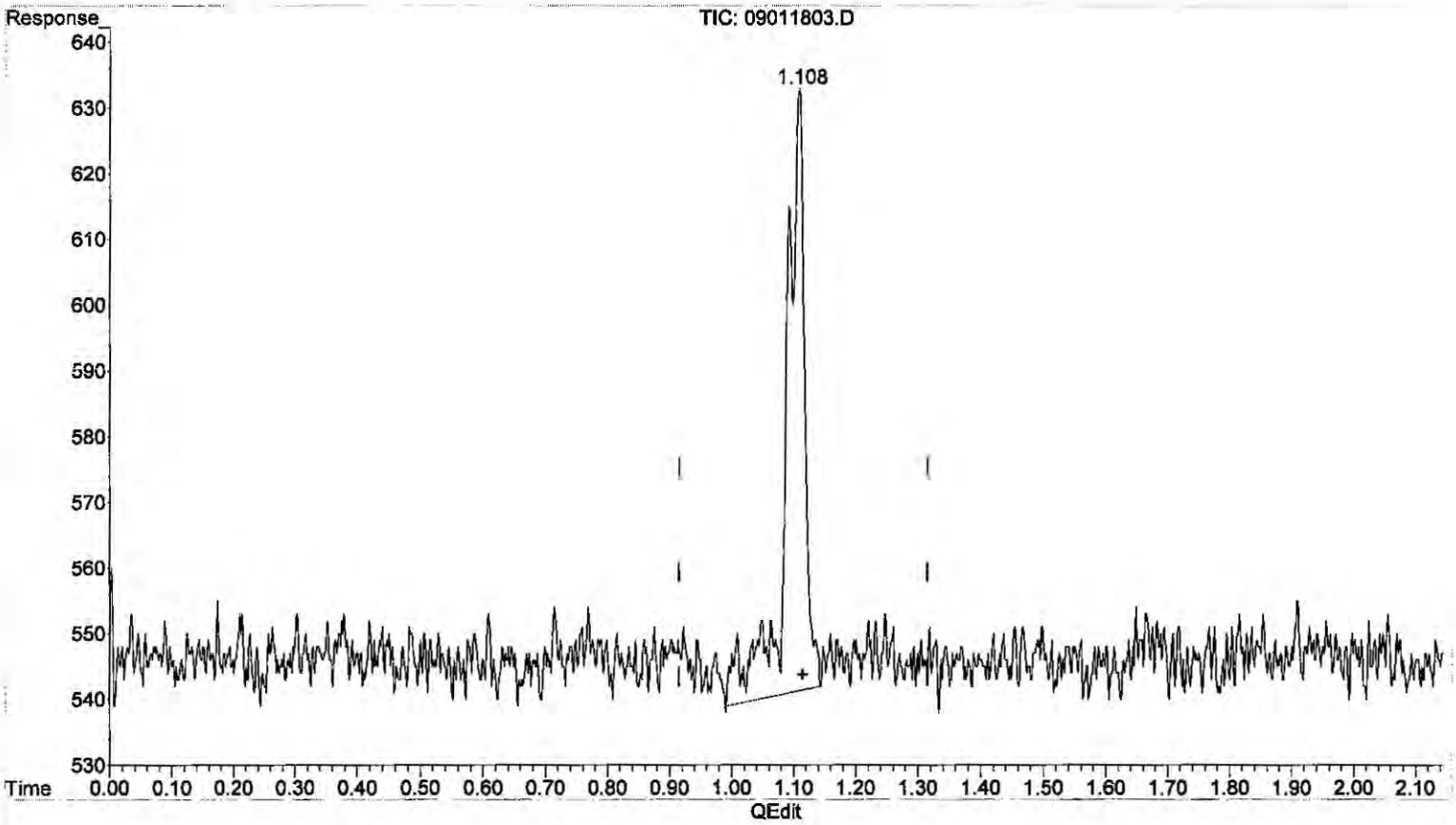


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 10:45:52
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 04 10:27:22 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(6) Methane (FID)

1.109min 0.219 ppm

response 1984

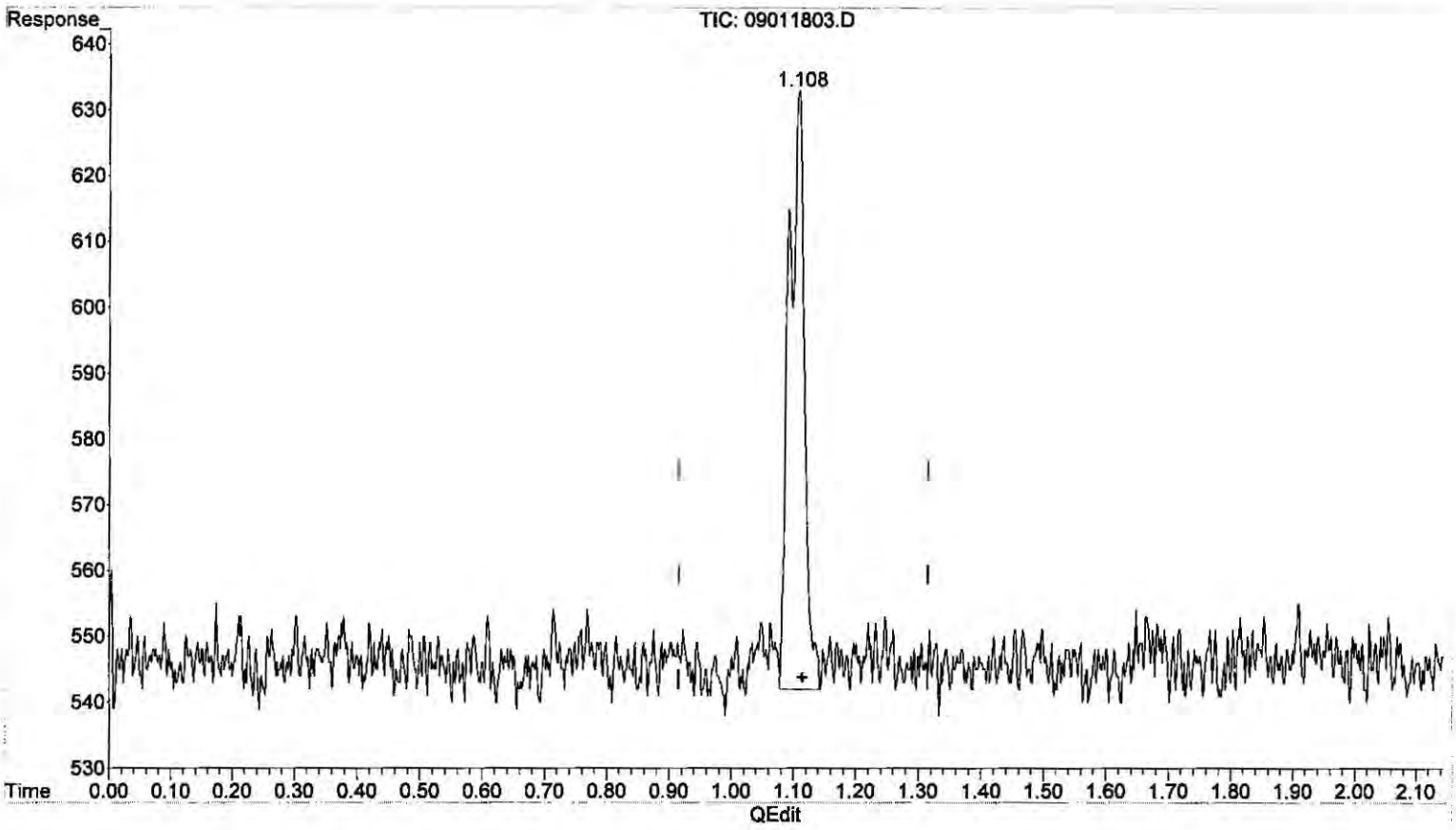
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 10:45:52
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 04 10:27:22 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(6) Methane (FID)

1.108min 0.175 ppm m

response 1592

MR 9/4/18
BLC

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011804.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:05:40
Operator : WH
Sample : fid lcs s30-05241604
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 11:30:08 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.101	13386	1.476	ppm
7)	Ethylene	1.656	16297	0.974	ppm
8)	Ethane	1.916	20646	1.218	ppm
9)	Propylene	4.292	23032	0.983	ppm
10)	Propane	4.415	32181	1.293	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.635f	41948	1.576	ppm
13)	n-Butane	6.635f	41948	1.576	ppm

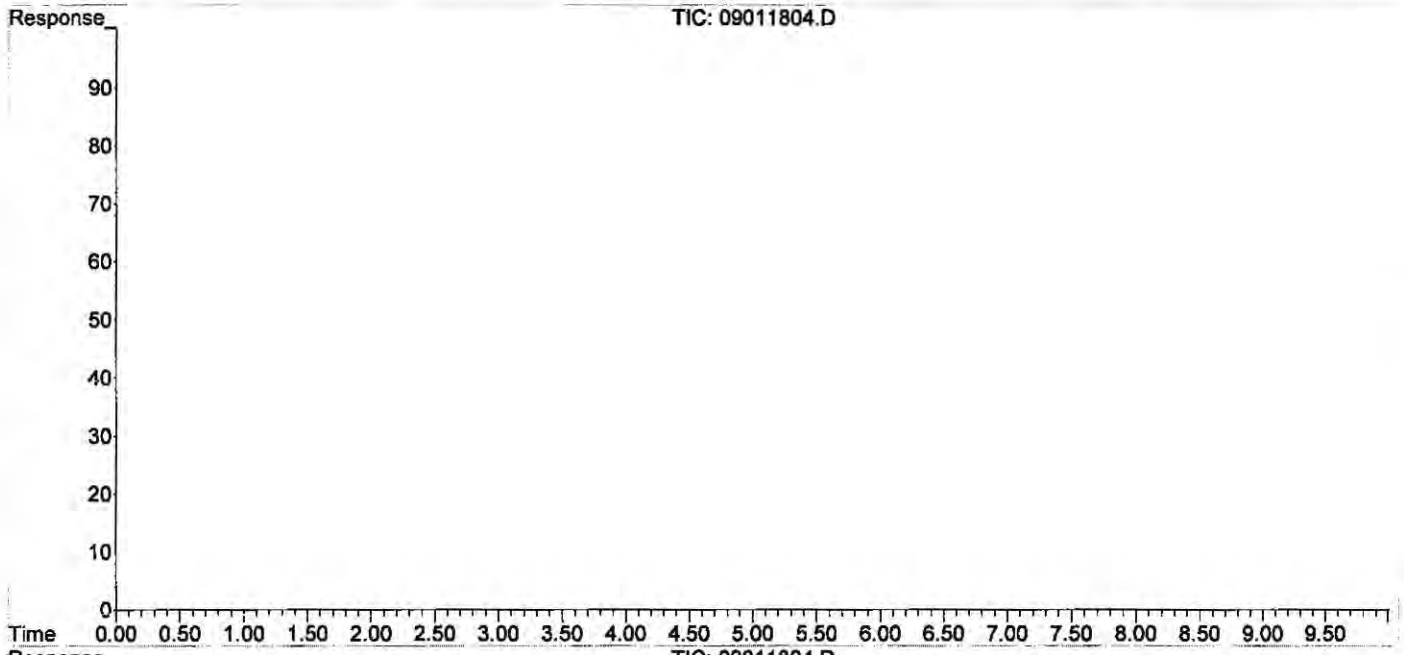
(f)=RT Delta > 1/2 Window (m)=manual int.

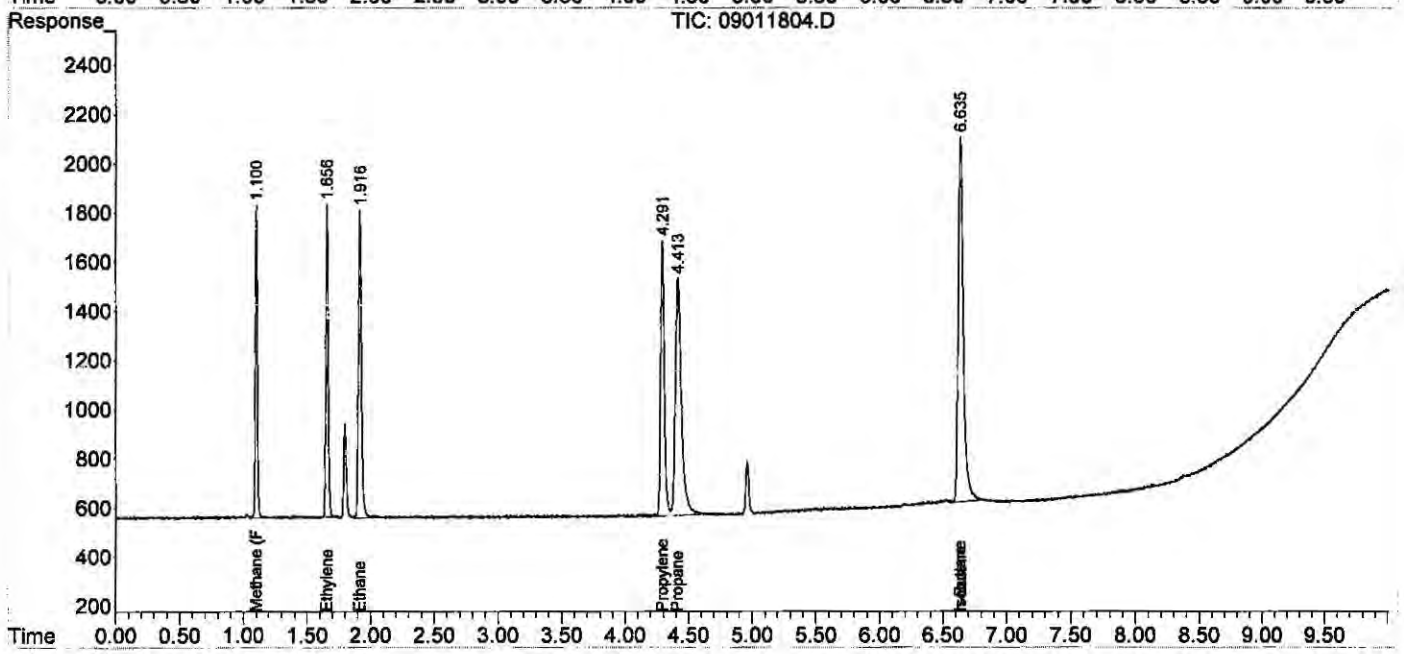
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011804.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:05:40
Operator : WH
Sample : fid lcs s30-05241604
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 11:30:08 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011805.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:19:15
Operator : WH
Sample : fid lcsd s30-05241604
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 11:30:41 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.102	14652	1.615	ppm
7)	Ethylene	1.655	16916	1.011	ppm
8)	Ethane	1.914	21007	1.239	ppm
9)	Propylene	4.292	23059	0.984	ppm
10)	Propane	4.415	32845	1.320	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.636f	43529	1.635	ppm
13)	n-Butane	6.636f	43529	1.635	ppm

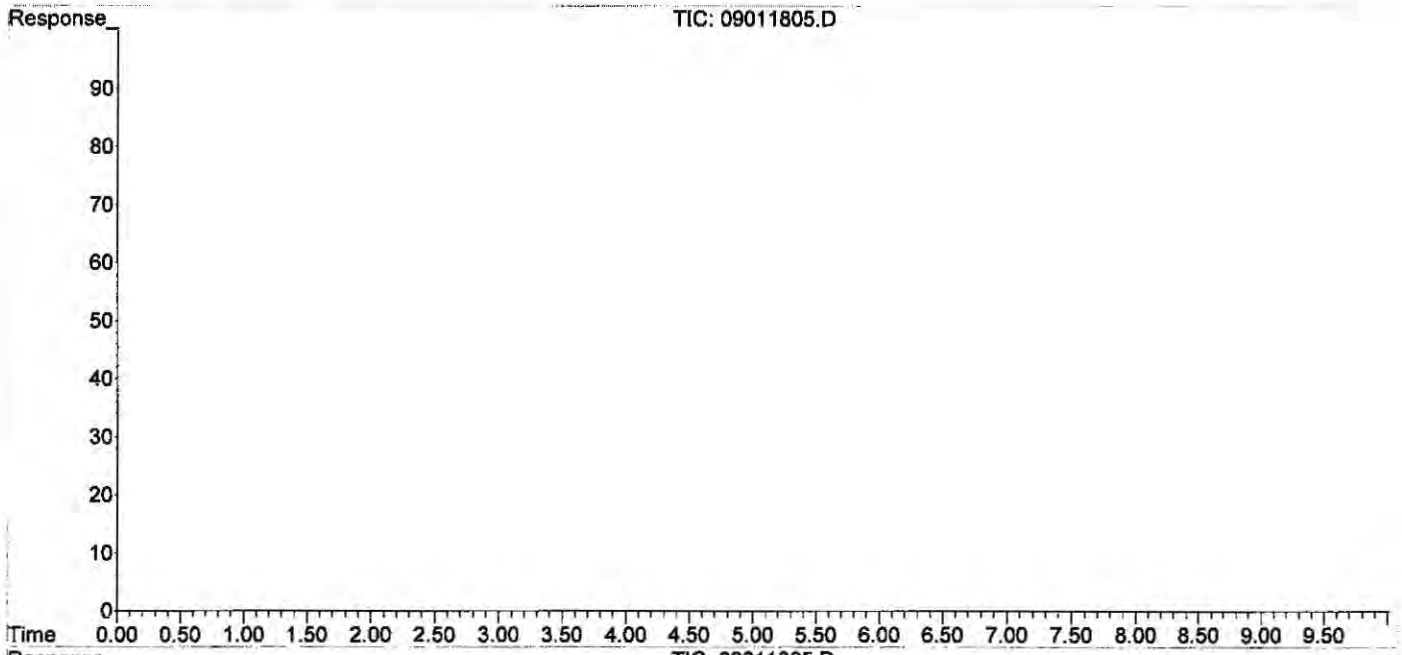
(f)=RT Delta > 1/2 Window (m)=manual int

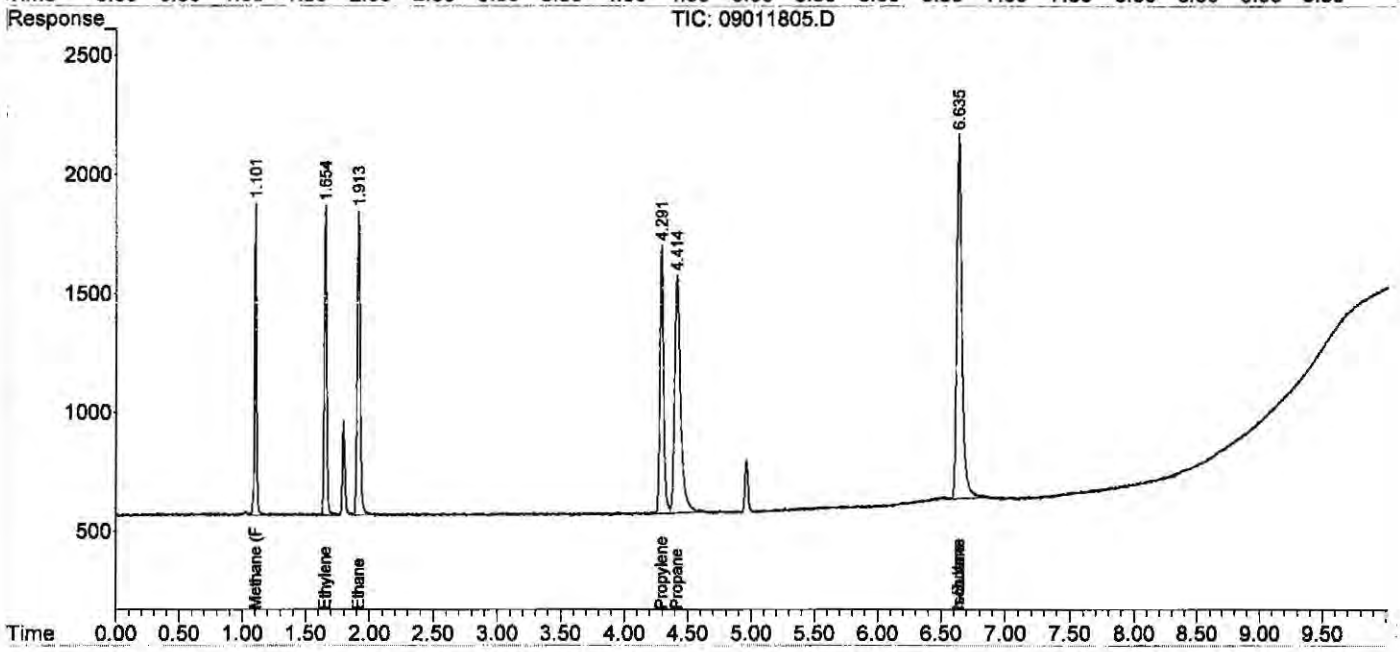
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011805.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:19:15
Operator : WH
Sample : fid lcsd s30-05241604
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 11:30:41 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Dissolved Gases by RSK175

ALS Environmental

Method : RSK175 Headspace Method for Dissolved Hydrocarbon in Water by FID/TCD
Client : ALS Laboratory Group
Service Request: P1804548
Sample Vol. (ml) : 32.00 ml

Analyst : WH
Date Analysis : 09/01/18
Head Space Vol.(ml) : 8.00 ml

Instrument : GC#10
Detector : FID#10, TCD#10
Gas Constant : 24.05684 (20°C)

HEAD SPACE RESULT (ppm)

Sample ID	Inj. Vol.	Methane	Ethylene	Ethane
std s32-07231801	0.100	1.553	1.593	1.549
ACTUAL		1.51	1.51	1.51
%Difference		2.8%	5.5%	2.6%
mcs 0.1ml	0.100	0.175	0.000	0.000
rb 0.1ml	0.100	0.000	0.000	0.000
fid lcs s30-05241604	0.100	1.476	0.974	1.216
fid lcsd s30-05241604	0.100	1.615	1.011	1.239
P1804548-001 0.1ml	0.100	1.080	0.000	0.000
P1804548-002 0.1ml	0.100	0.149	0.000	0.000
P1804548-003 0.1ml	0.100	0.000	0.000	0.000
P1804548-004 0.1ml	0.100	0.064	0.000	0.000

FINAL HEAD SPACE RESULT (ppm)

	Methane	Ethylene	Ethane
WWt.	16.04	28.05	30.07
HENRY'S CONSTANT	3.76E+04	1.02E+04	2.63E+04
RL	1.30	1.00	0.60
mcs 0.1ml	1.750	0.000	0.000
fid lcs s30-05241604	14.760	9.740	12.180
fid lcsd s30-05241604	16.150	10.110	12.390
P1804548-001 0.1ml	10.800	0.000	0.000
P1804548-002 0.1ml	1.490	0.000	0.000
P1804548-003 0.1ml	0.000	0.000	0.000
P1804548-004 0.1ml	0.640	0.000	0.000

std s32-07231801	1.476	1.536	1.506
ACTUAL	1.51	1.51	1.51
%Difference	2.3%	1.7%	0.3%

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011801.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 10:11:03
Operator : WH
Sample : std s32-07231801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 10:26:59 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.101	14089	1.553	ppm
7)	Ethylene	1.656	26662	1.593	ppm
8)	Ethane	1.915	26261	1.549	ppm
9)	Propylene	4.290	37535	1.602	ppm
10)	Propane	4.415	39111	1.572	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.630f	49412	1.856	ppm
13)	n-Butane	6.630f	49412	1.856	ppm

(f)=RT Delta > 1/2 Window (m)=manual int.

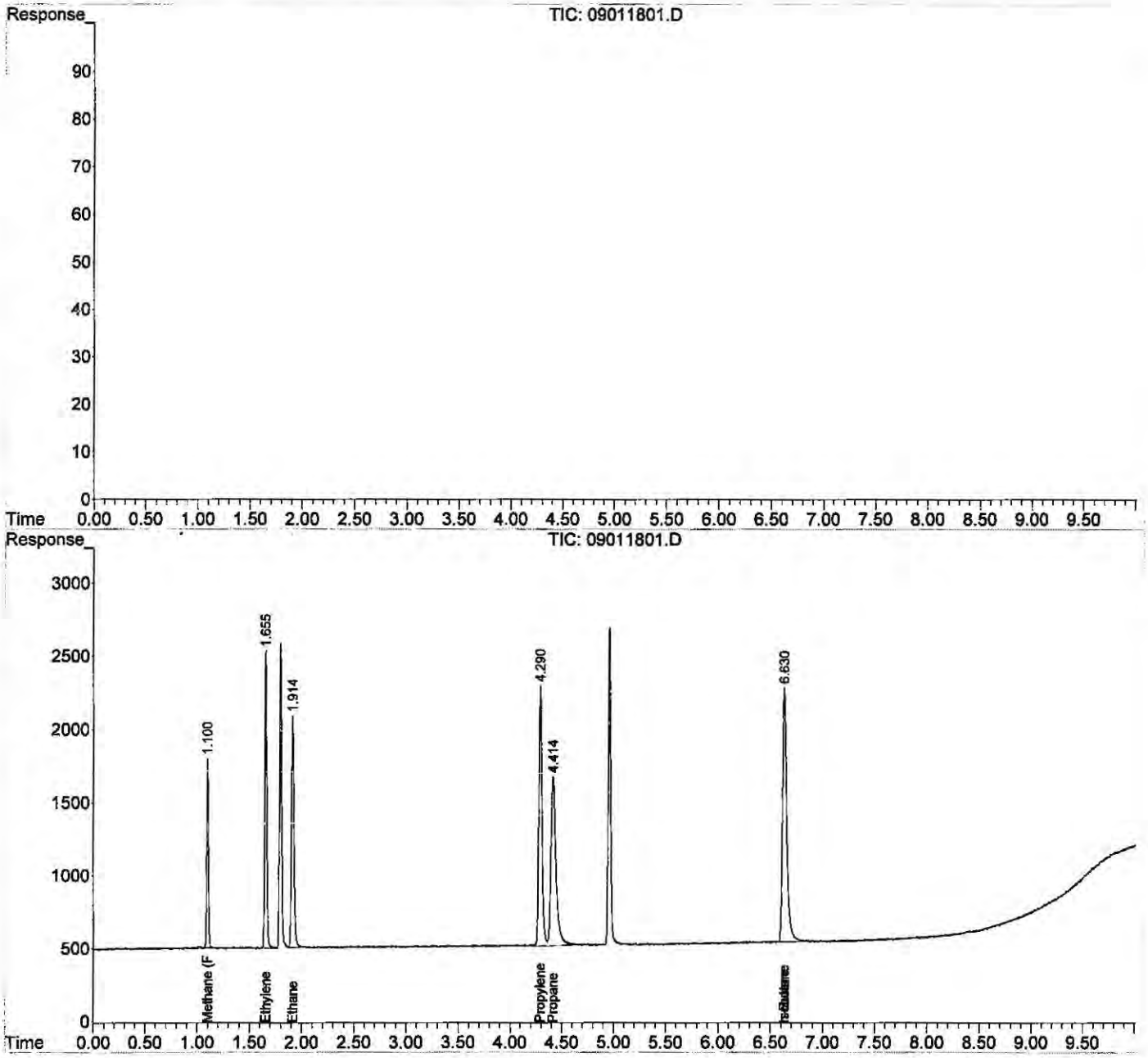
MR 9/14/18

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011801.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 10:11:03
Operator : WH
Sample : std s32-07231801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 10:26:59 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011815.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 13:35:07
Operator : WH
Sample : std s32-07231801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 13:40:09 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.103	13389	1.476	ppm
7)	Ethylene	1.653	25707	1.536	ppm
8)	Ethane	1.911	25534	1.506	ppm
9)	Propylene	4.288	36959	1.577	ppm
10)	Propane	4.413	37703	1.515	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

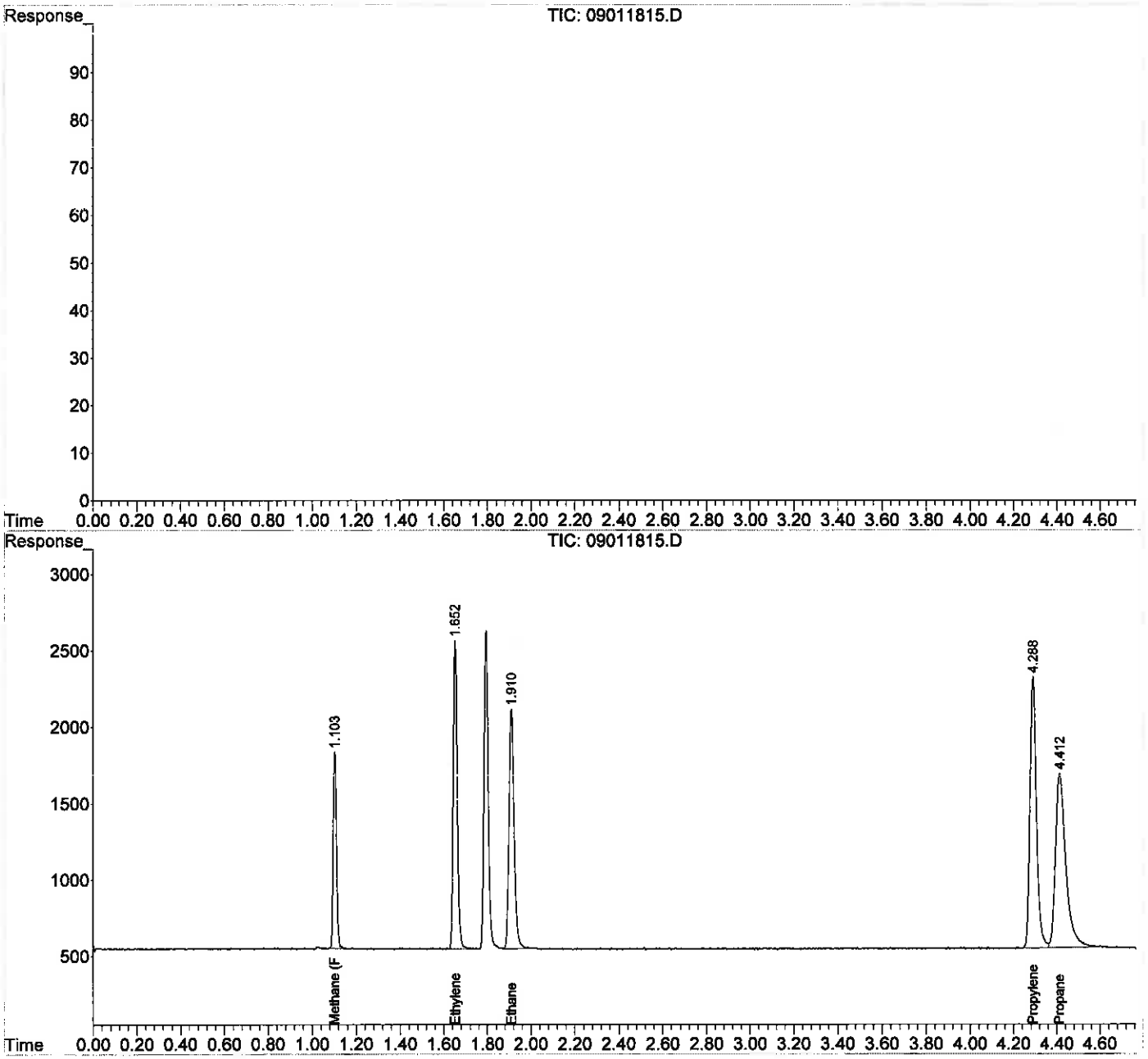
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011815.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 13:35:07
Operator : WH
Sample : std s32-07231801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 13:40:09 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Response Factor Report HP5890

Method Path : J:\GC10\METHODS\
Method File : RS091217_R.M
Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
Last Update : Wed Sep 13 11:14:47 2017
Response Via : Initial Calibration

Calibration Files
1 =09121702.D 2 =09121703.D 3 =09121704.D
4 =09121705.D 5 =09121706.D 6 =09121707.D

	Compound	1	2	3	4	5	6	Avg		%RSD
1)	Oxygen/Argon	3.739		1.014			0.001	0.793	E6	189.17
2)	Carbon monoxide	3.739		1.014			0.001	0.594	E6	221.92
3)	Methane (TCD)						2.161	0.951	E2	106.37
4)	Carbon dioxide	2.365	2.569	2.558	2.361	2.459	2.314	2.438	E2	4.44

Signal #2 Calibration Files
1 =09121702.D 2 =09121703.D 3 =09121704.D
4 =09121705.D 5 =09121706.D 6 =09121707.D

	Compound	1	2	3	4	5	6	Avg		%RSD
6)	Methane (FID)		1.180	0.975	0.908	0.870	0.868	0.907	E4	11.66
7)	Ethylene	1.736	1.638	1.780	1.720	1.628	1.670	1.673	E4	3.90
8)	Ethane	1.781	1.676	1.784	1.730	1.692	1.675	1.695	E4	3.83
9)	Propylene	2.505	2.296	2.592	2.480	2.346	2.252	2.343	E4	6.56
10)	Propane	2.439	2.283	2.645	2.555	2.433	2.522	2.488	E4	4.20
11)	Isobutylene							0.652	E1	138.46
12)	Isobutane	6.058	4.793	2.214	1.553	1.353		2.662	E4	86.17
13)	n-Butane	6.058	4.793	2.214	1.553	1.353		2.662	E4	86.17

(#) = Out of Range ### Number of calibration levels exceeded format ###

RS091217_R.M Wed Sep 13 15:11:48 2017

Edit Compounds -- Compound #6 -- Methane (FID)

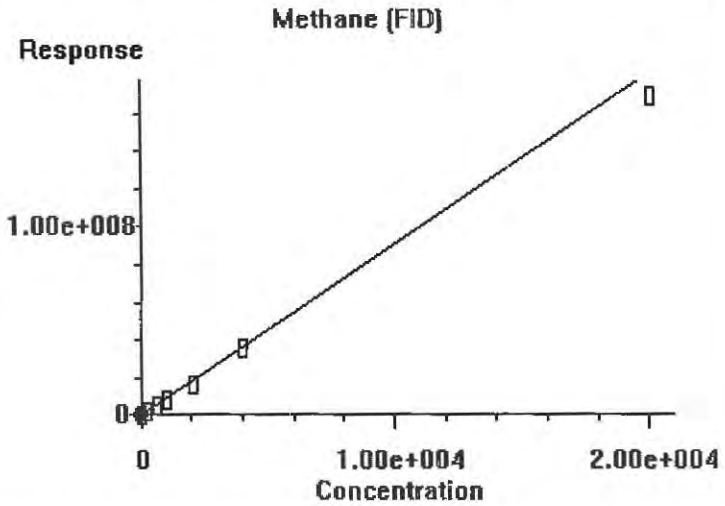
Search by: Ret Time | Name | Index | Find Compound

- Compound Database
- External Standard Compoun
  - Oxygen/Argon
  - Carbon monoxide
  - Methane (TCD)
  - Carbon dioxide
  - Signal #2
  - Methane (FID)
  - Ethylene
  - Ethane
  - Propylene
  - Propane
  - Isobutylene
  - Isobutane
  - n-Butane

Identification | Calibration | User-Defined | Advanced | Reporting

Lvl ID	Concentration	Response
1	0.151000	
2	0.302000	3564.400000
3	1.510000	14725.268625
4	4.530000	41128.575000
5	10.570000	91966.784531
6	200.000000	1735997.497500
7	600.000000	5189848.900000
8	1000.000000	8598533.570000
9	2000.000000	16098209.390000
10	4000.000000	35776839.311362

Lvl ID	Concentration	Response
11	20000.000000	169009160.49199



0.000e+000	Quadratic term
9.071e+003	Linear term
0.000e+000	Constant term
11.657%	RF Rel Std Dev

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

Edit Compounds -- Compound #7 -- Ethylene

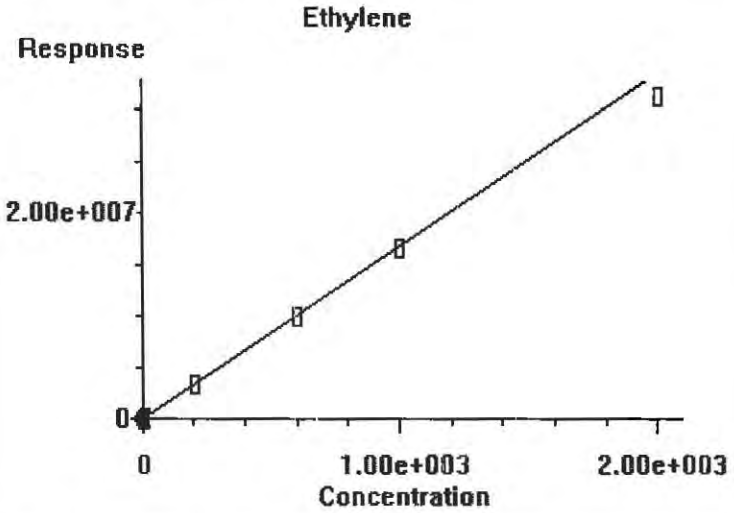
Search by: Ret Time | Name | Index | Find Compound

Compound Database
External Standard Compoun
- Oxygen/Argon
- Carbon monoxide
- Methane (TCD)
- Carbon dioxide
- Signal #2
- Methane (FID)
- Ethylene
- Ethane
- Propylene
- Propane
- Isobutylene
- Isobutane
- n-Butane

Identification | Calibration | User-Defined | Advanced | Reporting

Lvl ID	Concentration	Response
1	0.151000	2621.970000
2	0.302000	4946.731301
3	1.510000	26884.746847
4	4.530000	77902.721497
5	10.570000	172085.529560
6	200.000000	3339702.313219
7	600.000000	10007758.776971
8	1000.000000	16608503.805988
9	2000.000000	31192443.898600
10	4000.000000	

Lvl ID	Concentration	Response
11	20000.000000	



0.000e+000	Quadratic term
1.673e+004	Linear term
0.000e+000	Constant term
3.897%	RF Rel Std Dev

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

00918077

Edit Compounds -- Compound #8 -- Ethane

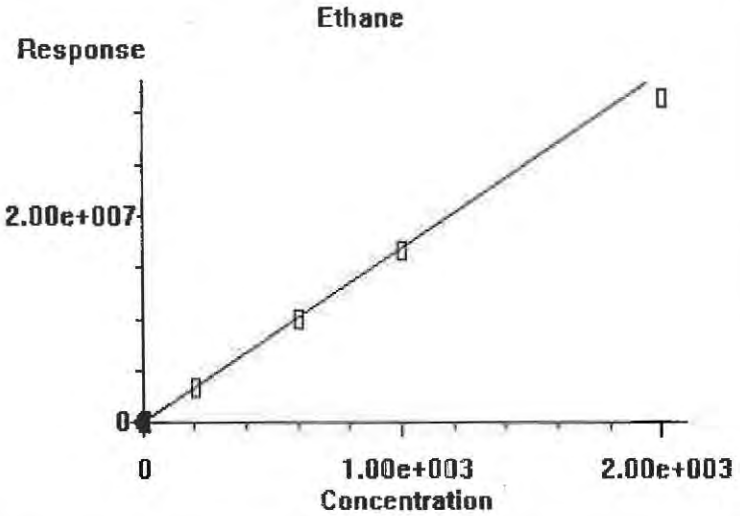
Search by ◉ Ret Time ○ Name ○ Index [ ] Find Compound

- Compound Database
- External Standard Compoun
  - Oxygen/Argon
  - Carbon monoxide
  - Methane (TCD)
  - Carbon dioxide
  - Signal #2
  - Methane (FID)
  - Ethylene
  - Ethane
  - Propylene
  - Propane
  - Isobutylene
  - Isobutane
  - n-Butane

Identification | Calibration | User-Defined | Advanced | Reporting

Lvl ID	Concentration	Response
1	0.151000	2689.928008
2	0.302000	5060.331943
3	1.510000	26943.667500
4	4.530000	78353.525045
5	10.570000	178840.731148
6	200.000000	3350442.319129
7	600.000000	10048964.218029
8	1000.000000	16703164.879012
9	2000.000000	31424217.938900
10	4000.000000	

Lvl ID	Concentration	Response
11	20000.000000	



0.000e+000	Quadratic term
1.695e+004	Linear term
0.000e+000	Constant term
3.831%	RF Rel Std Dev

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

00918078

Edit Compounds -- Compound #9 -- Propylene

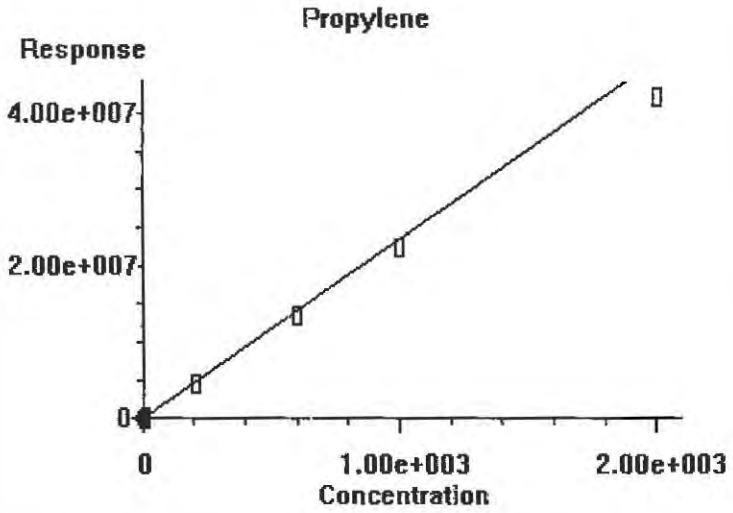
Search by: Ret Time | Name | Index | Find Compound

Compound Database
External Standard Compoun
- Oxygen/Argon
- Carbon monoxide
- Methane (TCD)
- Carbon dioxide
- Signal #2
- Methane (FID)
- Ethylene
- Ethane
- Propylene
- Propane
- Isobutylene
- Isobutane
- n-Butane

Identification | Calibration | User-Defined | Advanced | Reporting

Lvl ID	Concentration	Response
1	0.151000	3782.537646
2	0.302000	6933.285530
3	1.510000	39139.518208
4	4.530000	112341.896872
5	10.570000	248003.903623
6	200.000000	4504060.086084
7	600.000000	13569342.761419
8	1000.000000	22494887.720990
9	2000.000000	42124689.656800
10	4000.000000	

Lvl ID	Concentration	Response
11	20000.000000	



0.000e+000	Quadratic term
2.343e+004	Linear term
0.000e+000	Constant term
6.559%	RF Rel Std Dev

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

00918079

Edit Compounds -- Compound #10 -- Propane

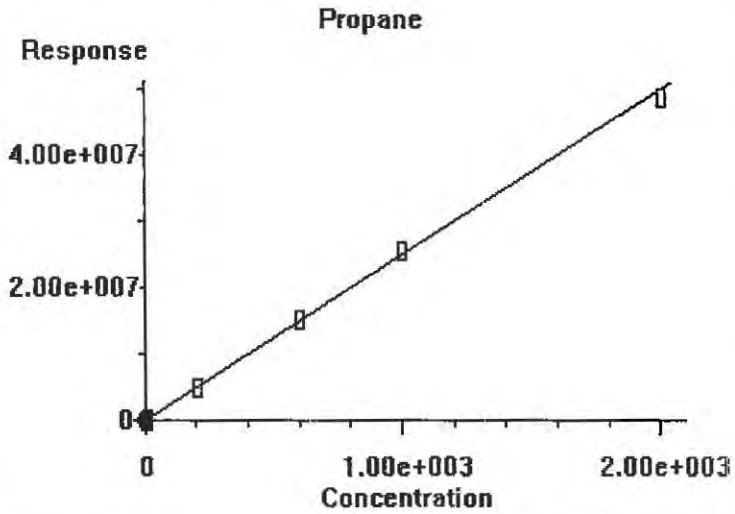
Search by: Ret Time | Name | Index — Find Compound

- Compound Database
- External Standard Compoun
  - Oxygen/Argon
  - Carbon monoxide
  - Methane (TCD)
  - Carbon dioxide
  - Signal #2
  - Methane (FID)
  - Ethylene
  - Ethane
  - Propylene
  - Propane
  - Isobutylene
  - Isobutane
  - n-Butane

Identification | Calibration | User-Defined | Advanced | Reporting

Lvl ID	Concentration	Response
1	0.151000	3682.897354
2	0.302000	6894.237803
3	1.510000	39934.166792
4	4.530000	115723.428128
5	10.570000	257124.432806
6	200.000000	5043035.663316
7	600.000000	15251325.797404
8	1000.000000	25459410.657938
9	2000.000000	48583085.287451
10	4000.000000	

Lvl ID	Concentration	Response
11	20000.000000	



0.000e+000	Quadratic term
2.488e+004	Linear term
0.000e+000	Constant term
4.200%	RF Rel Std Dev

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

Calibration Status Report HP5890

Method Path : J:\GC10\METHODS\
Method File : RS091217_R.M
Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
Last Update : Wed Sep 13 11:14:47 2017
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	1	0	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121702.D
2	2	0	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121703.D
3	3	3	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121704.D
4	4	10	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121705.D
5	5	25	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121706.D
6	6	125	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121707.D
7	7	5000	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121708.D
8	8	25000	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121709.D
9	9	2000	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121710.D
10	10	30000	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121711.D
11	11	20000	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121712.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Sep 13 11:04 2017	Sep 12 15:03 2017	12-Sep-2017, 10:52
2	2	Sep 13 11:05 2017	Sep 13 11:05 2017	12-Sep-2017, 11:05
3	3	Sep 13 11:06 2017	Sep 13 11:05 2017	12-Sep-2017, 11:45
4	4	Sep 13 11:09 2017	Sep 13 11:06 2017	12-Sep-2017, 12:09
5	5	Sep 13 11:09 2017	Sep 13 11:09 2017	12-Sep-2017, 12:30
6	6	Sep 13 11:10 2017	Sep 13 11:10 2017	12-Sep-2017, 12:47
7	7	Sep 13 11:11 2017	Sep 13 11:10 2017	12-Sep-2017, 13:00
8	8	Sep 13 11:12 2017	Sep 13 11:11 2017	12-Sep-2017, 13:47
9	9	Sep 13 11:12 2017	Sep 13 11:12 2017	12-Sep-2017, 14:07
10	10	Sep 13 11:14 2017	Sep 13 11:13 2017	12-Sep-2017, 14:48
11	11	Sep 13 11:14 2017	Sep 13 11:14 2017	12-Sep-2017, 15:21

RS091217_R.M Wed Sep 13 15:11:22 2017

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121702.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 10:52
Operator : MC
Sample : 0.151ppm 0.250ml s32-09121702
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 12 11:03:15 2017
Quant Method : I:\GC10\METHODS\RS082417.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Fri Aug 25 09:19:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.767	373920	0.128	ppm	
2)	Carbon monoxide	1.767	373920	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	0.000	0	N.D.	ppm	
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	1.595	2622	0.156	ppm	
8)	Ethane	1.848	2690	0.156	ppm	
9)	Propylene	4.222	3783	0.154	ppm	
10)	Propane	4.348	3683	0.139	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	6.582f	6058	NoCal	ppm	
13)	n-Butane	6.582f	6058	NoCal	ppm	

(f)=RT Delta > 1/2 Window (m)=manual int.

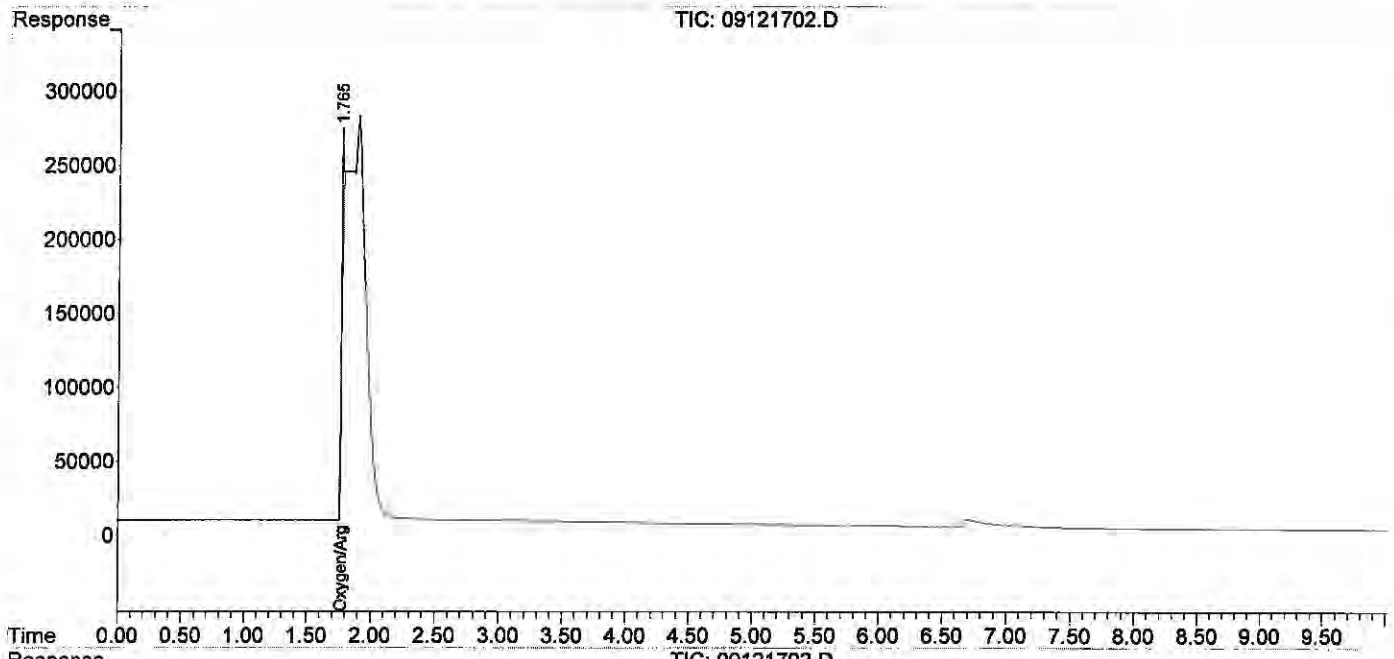
9/13/17

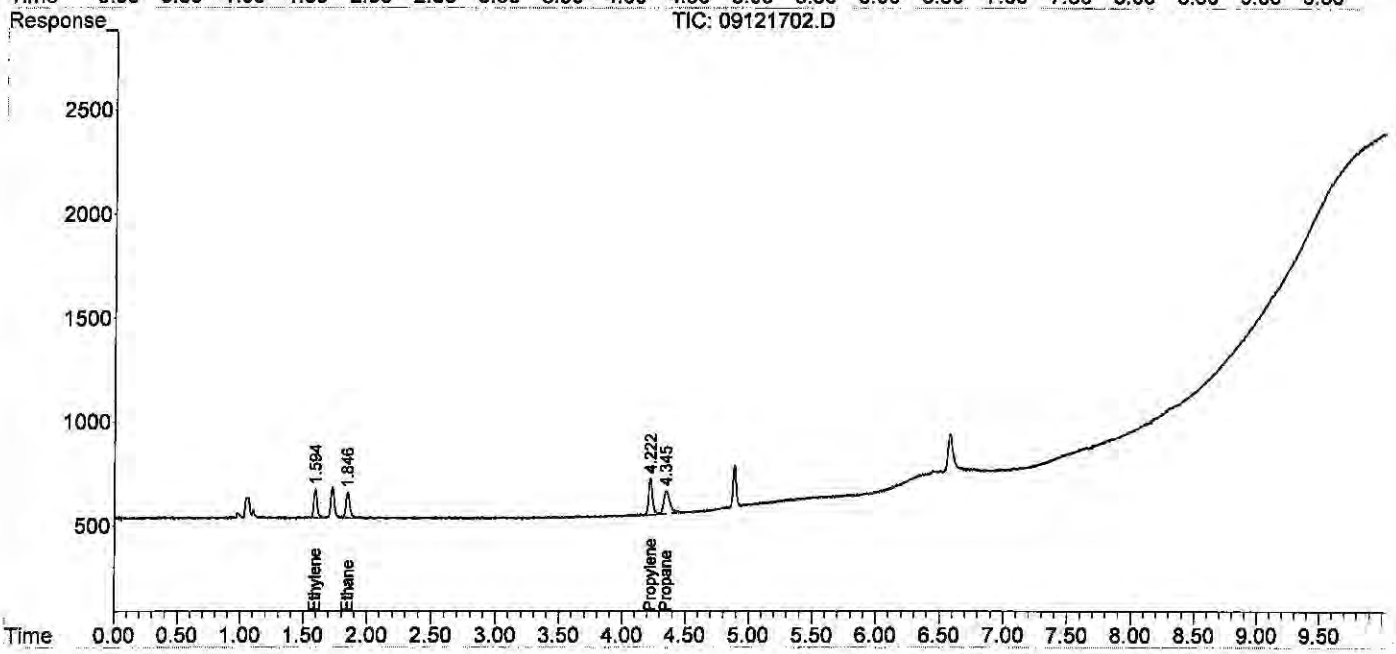
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121702.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 10:52
Operator : MC
Sample : 0.151ppm 0.250ml s32-09121702
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 12 11:03:15 2017
Quant Method : I:\GC10\METHODS\RS082417.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Fri Aug 25 09:19:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121703.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 11:05
Operator : MC
Sample : 0.302ppm 0.5ml s32-09121702
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:05:03 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.913f	-25181981	N.D.	ppm	
2)	Carbon monoxide	1.913f	-25181981	1.089	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	0.000	0	N.D.	ppm	
6)	Methane (FID)	1.049	3564	0.391	ppm	m
7)	Ethylene	1.577	4947	0.292	ppm	
8)	Ethane	1.828	5060	0.293	ppm	
9)	Propylene	4.207	6933	0.281	ppm	
10)	Propane	4.337	6894	0.268	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	6.579f	9587	0.158	ppm	
13)	n-Butane	6.579f	9587	0.158	ppm	

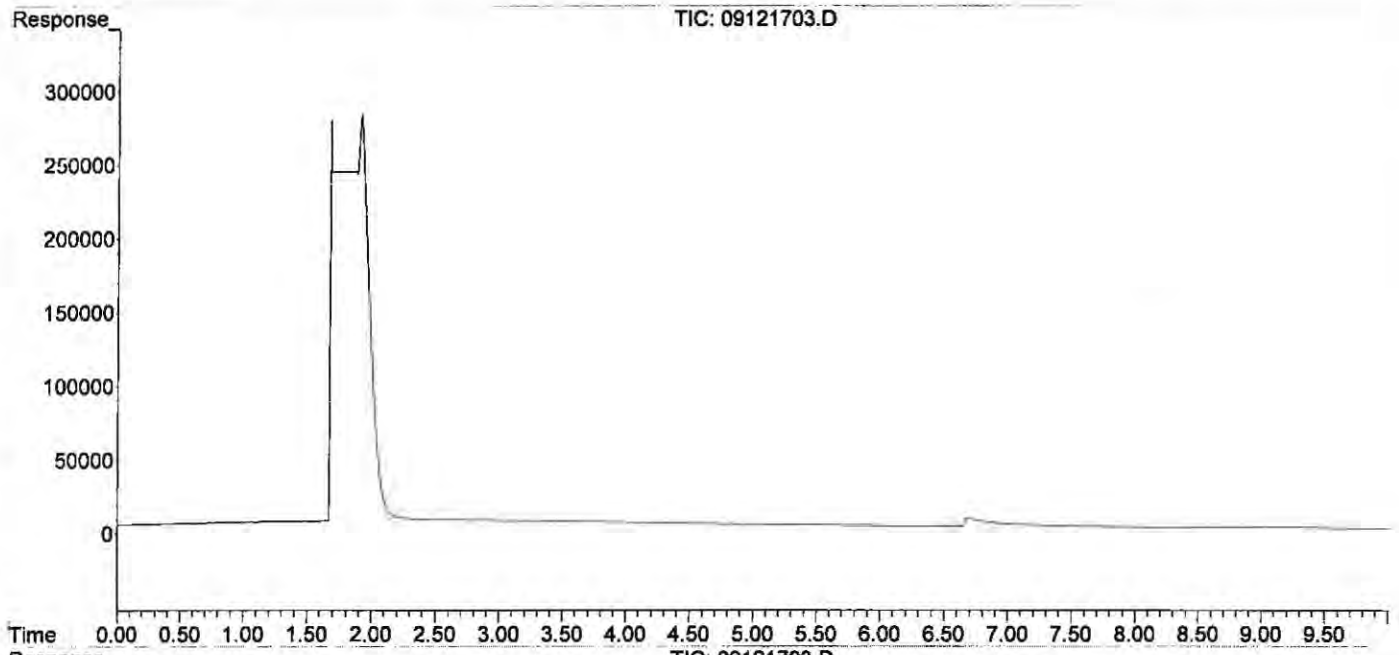
(f)=RT Delta > 1/2 Window (m)=manual int.

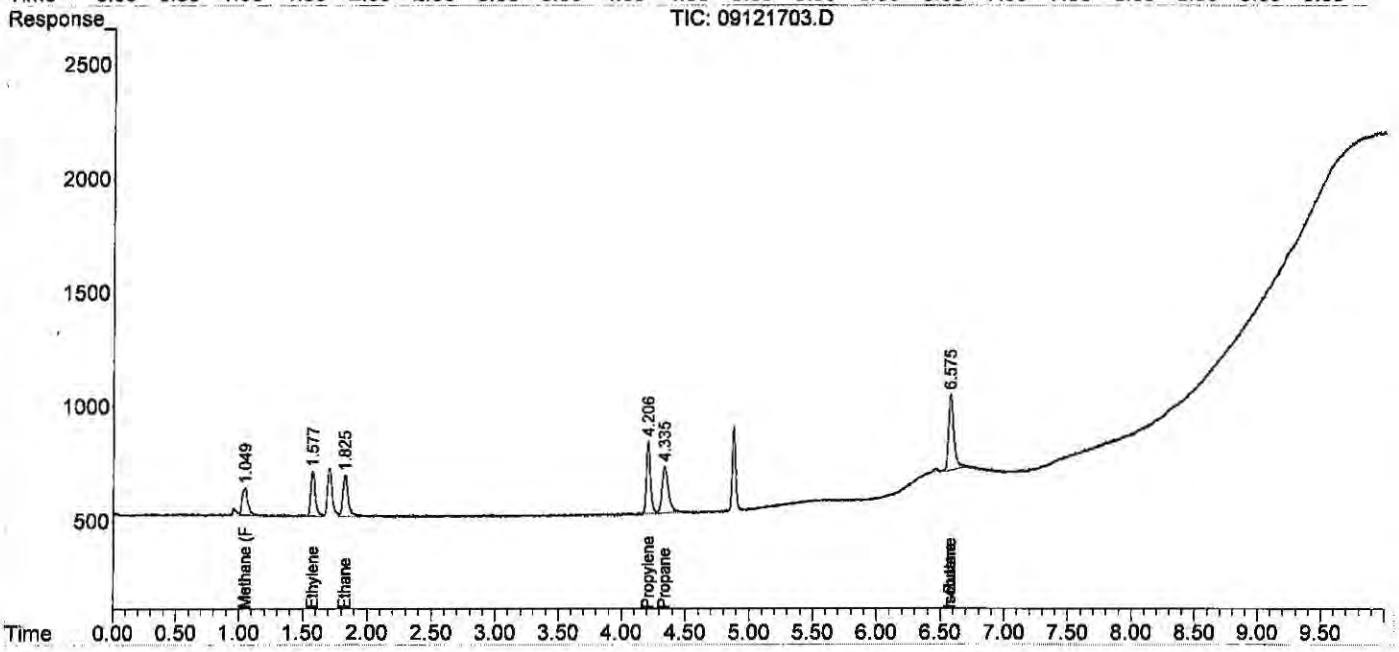
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121703.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 11:05
Operator : MC
Sample : 0.302ppm 0.5ml s32-09121702
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:05:03 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



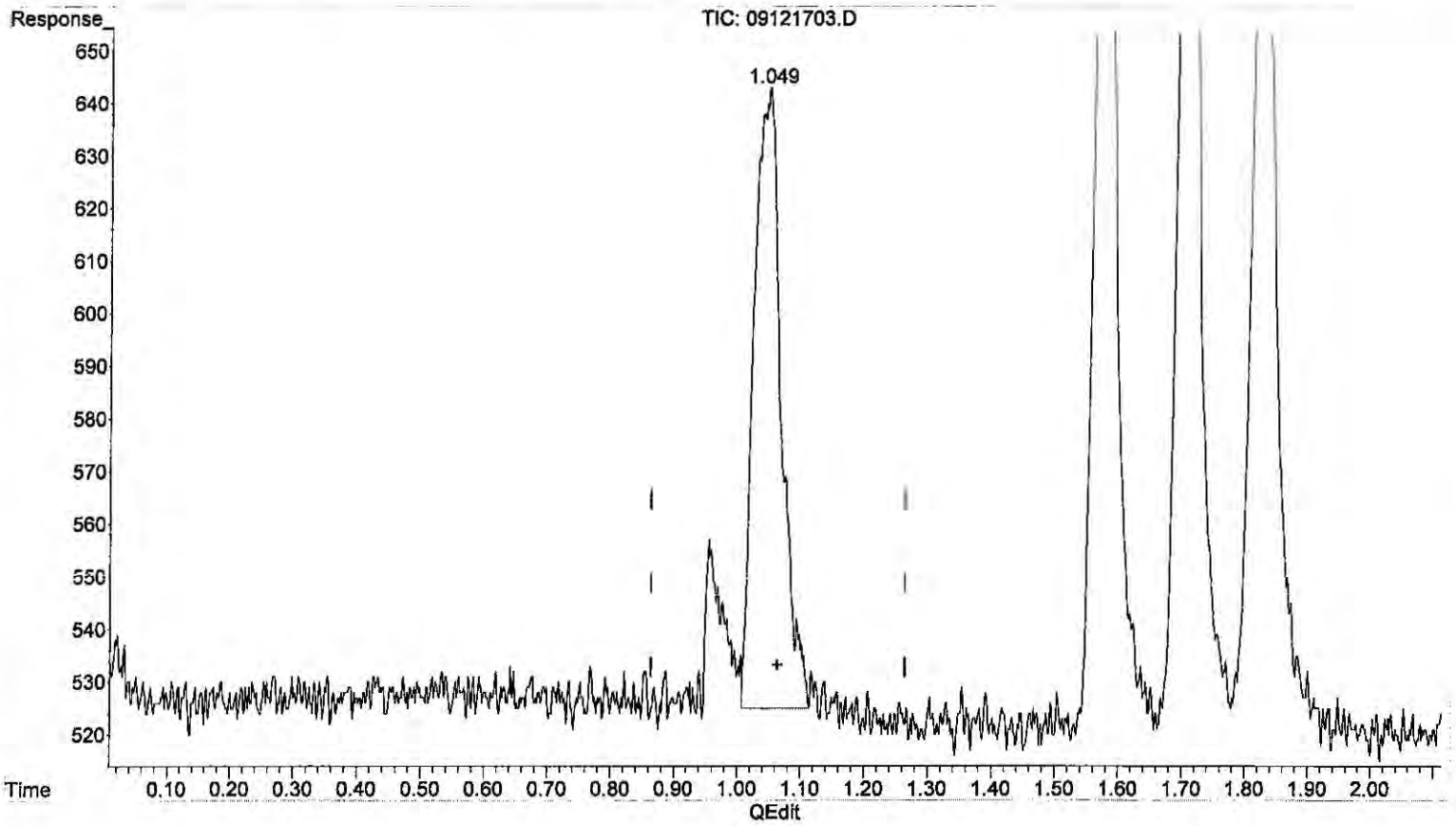


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121703.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 11:05
Operator : MC
Sample : 0.302ppm 0.5ml s32-09121702
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:05:03 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(6) Methane (FID)

1.049min 0.391 ppm m

response 3564

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121704.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 11:45
Operator : MC
Sample : 1.51ppm 0.1ml s32-09051701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:05:55 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.847	2536230	1.056	ppm
2)	Carbon monoxide	1.847	2536230	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.064	14725	1.613	ppm
7)	Ethylene	1.598	26885	1.582	ppm
8)	Ethane	1.851	26944	1.555	ppm
9)	Propylene	4.220	39140	1.589	ppm
10)	Propane	4.349	39934	1.596	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.578f	55348	1.020	ppm
13)	n-Butane	6.578f	55348	1.020	ppm

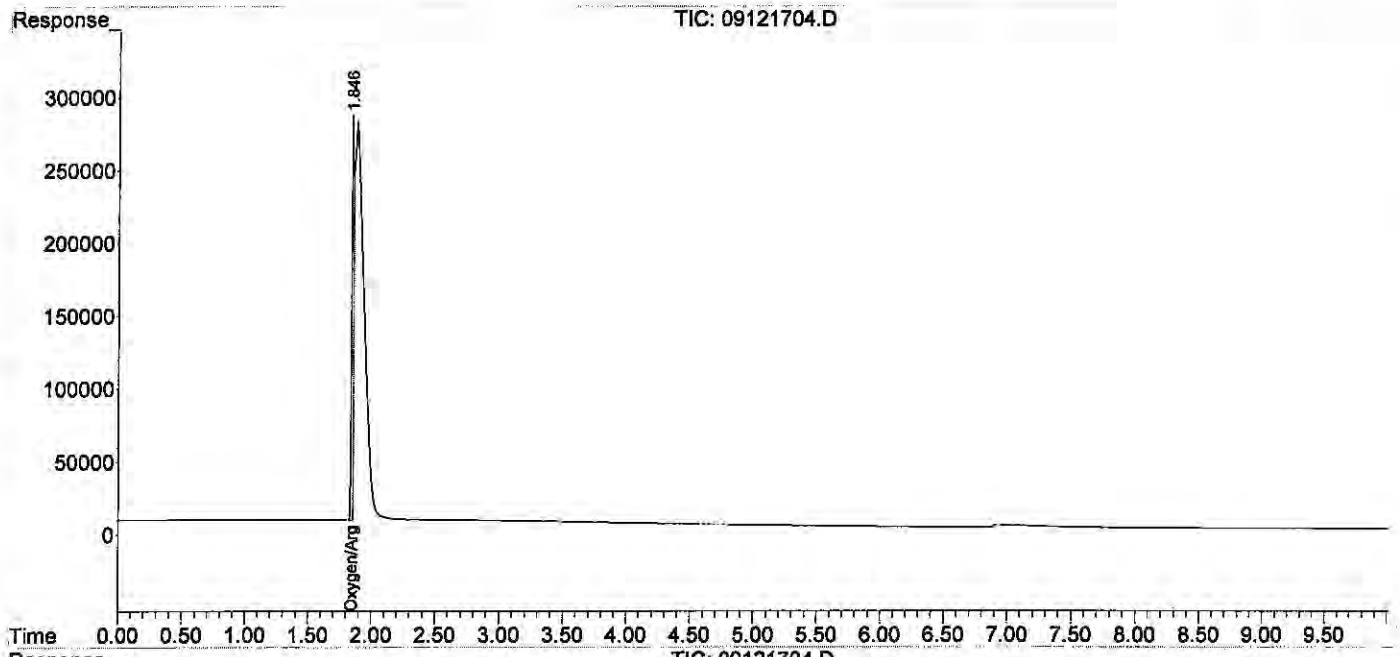
(f)=RT Delta > 1/2 Window (m)=manual int.

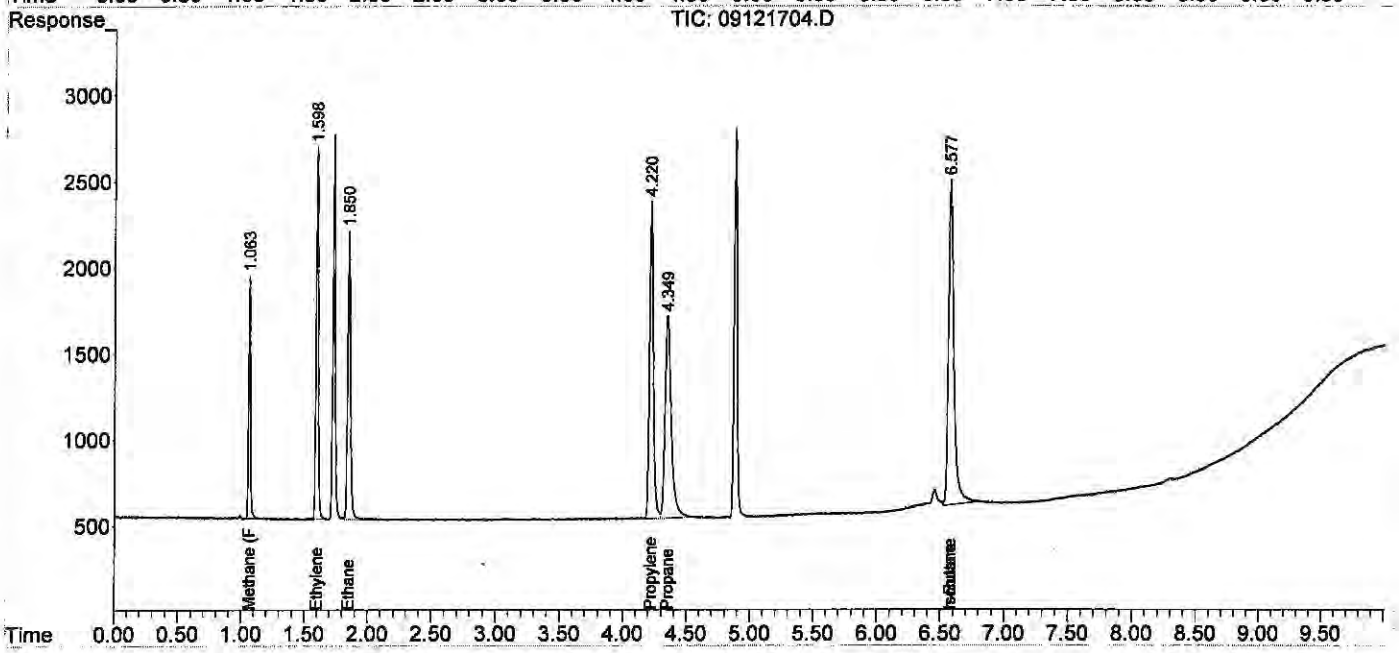
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121704.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 11:45
Operator : MC
Sample : 1.51ppm 0.1ml s32-09051701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:05:55 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121705.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 12:09
Operator : MC
Sample : 4.53ppm 0.3ml s32-09051701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:06:32 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.738	-331216	N.D.	ppm
2)	Carbon monoxide	1.738	-331216	0.019	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.052	41129	4.522	ppm
7)	Ethylene	1.586	77903	4.637	ppm
8)	Ethane	1.838	78354	4.558	ppm
9)	Propylene	4.218	112342	4.614	ppm
10)	Propane	4.347	115723	4.680	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.580f	155256	3.565	ppm
13)	n-Butane	6.580f	155256	3.565	ppm

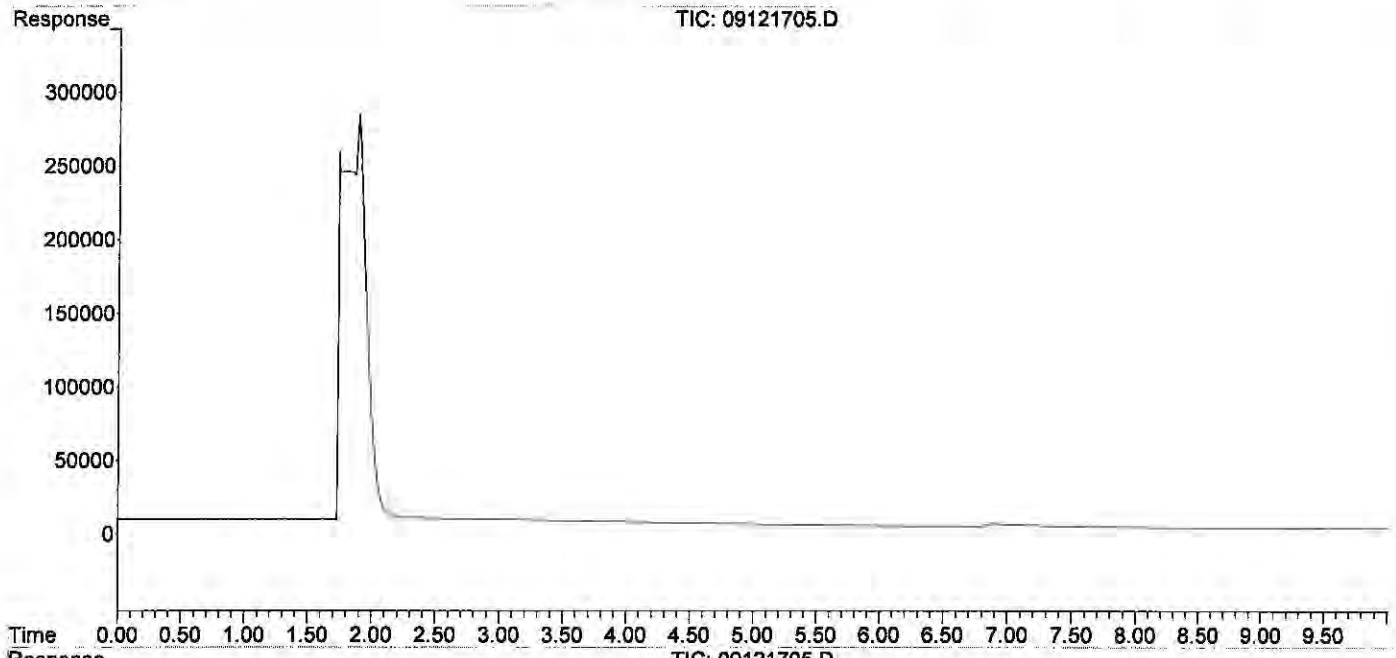
(f)=RT Delta > 1/2 Window (m)=manual int.

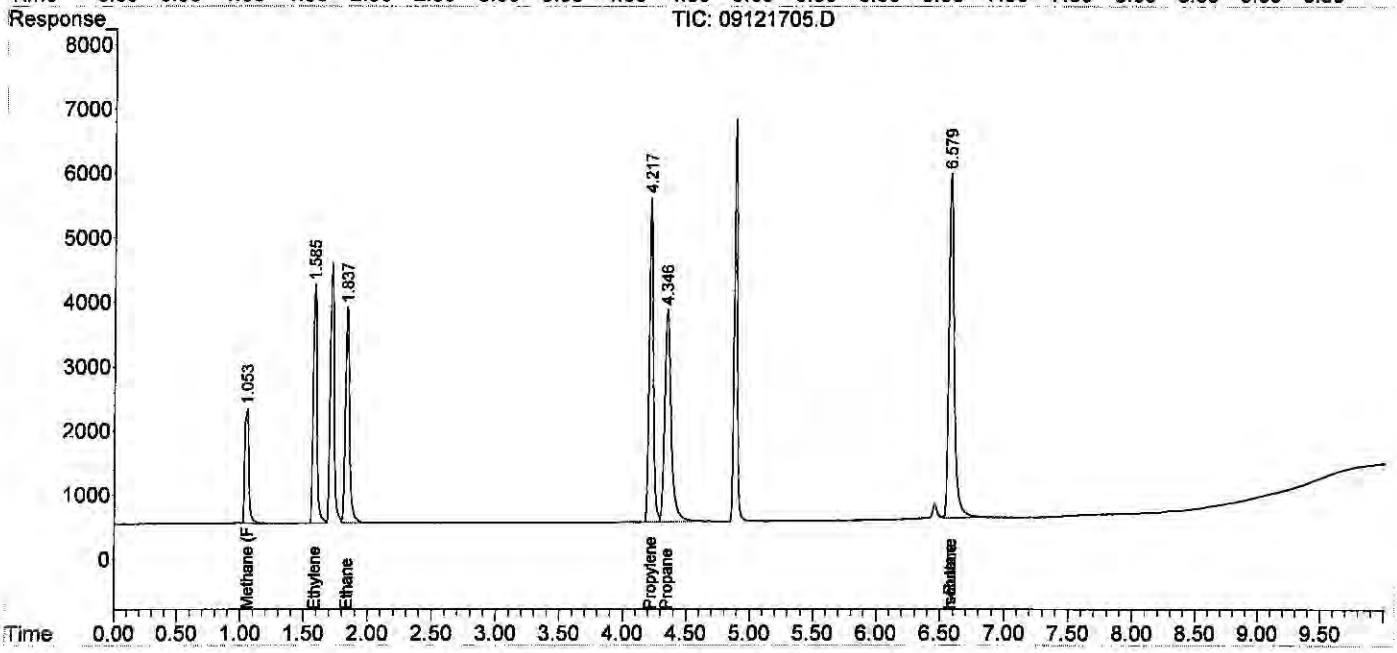
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121705.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 12:09
Operator : MC
Sample : 4.53ppm 0.3ml s32-09051701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:06:32 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121706.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 12:30
Operator : MC
Sample : 10.57ppm 0.7ml s32-09051701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:09:24 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.929f	-31871242	N.D.	ppm
2)	Carbon monoxide	1.929f	-31871242	1.818	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.025	91967	10.135	ppm
7)	Ethylene	1.568	172086	10.273	ppm
8)	Ethane	1.822	178841	10.441	ppm
9)	Propylene	4.214	248004	10.236	ppm
10)	Propane	4.344	257124	10.458	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.578f	338181	9.254	ppm
13)	n-Butane	6.578f	338181	9.254	ppm

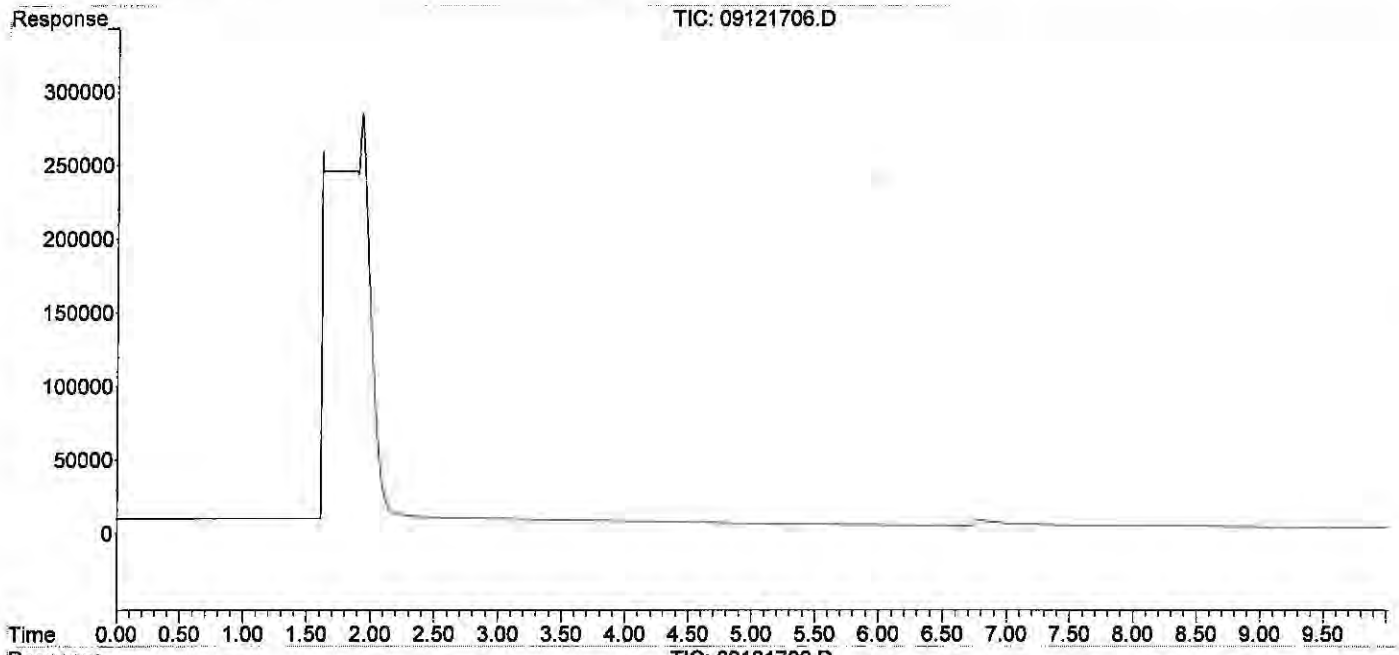
(f)=RT Delta > 1/2 Window (m)=manual int.

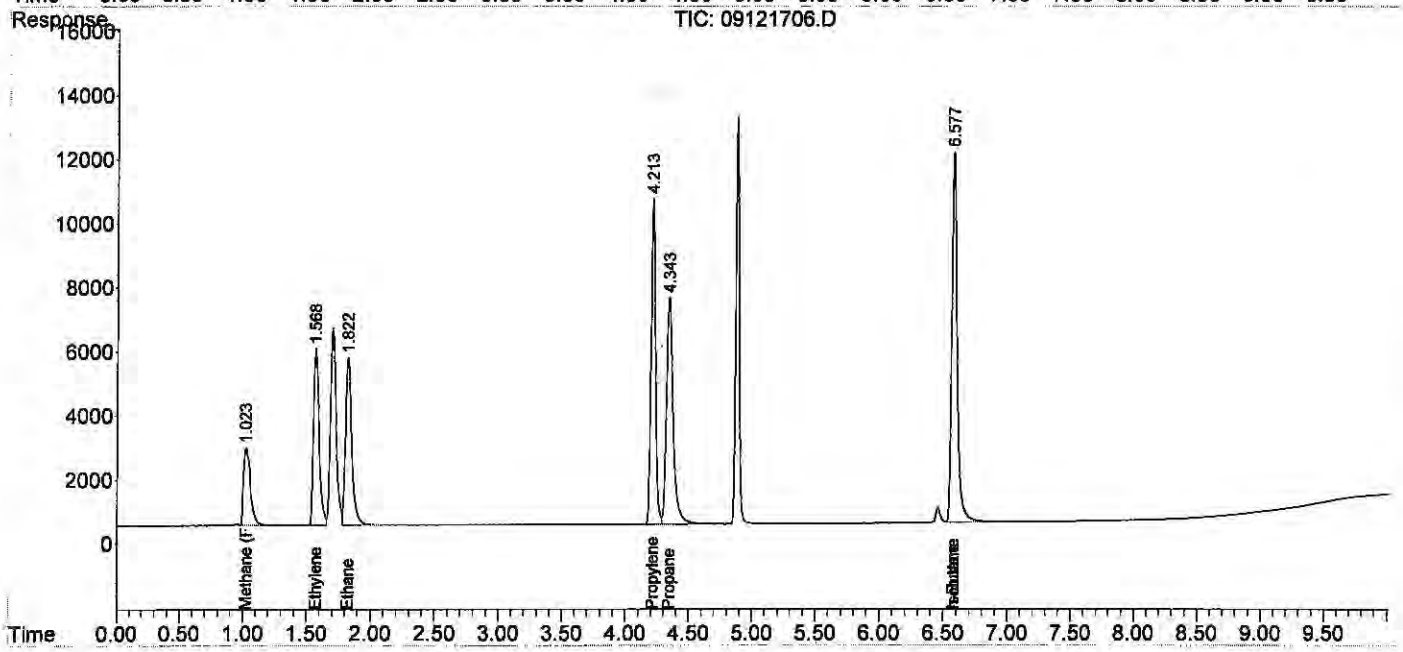
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121706.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 12:30
Operator : MC
Sample : 10.57ppm 0.7ml s32-09051701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:09:24 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121707.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 12:47
Operator : MC
Sample : 200ppm 0.1ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:09:59 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.897	155286	0.065	ppm
2)	Carbon monoxide	1.897	155286	N.D.	ppm
3)	Methane (TCD)	4.079f	27015	2856.472	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.063	1735997	190.792	ppm
7)	Ethylene	1.597	3339702	198.758	ppm
8)	Ethane	1.849	3350442	194.597	ppm
9)	Propylene	4.201	4504060	185.706	ppm
10)	Propane	4.333	5043036	204.809	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

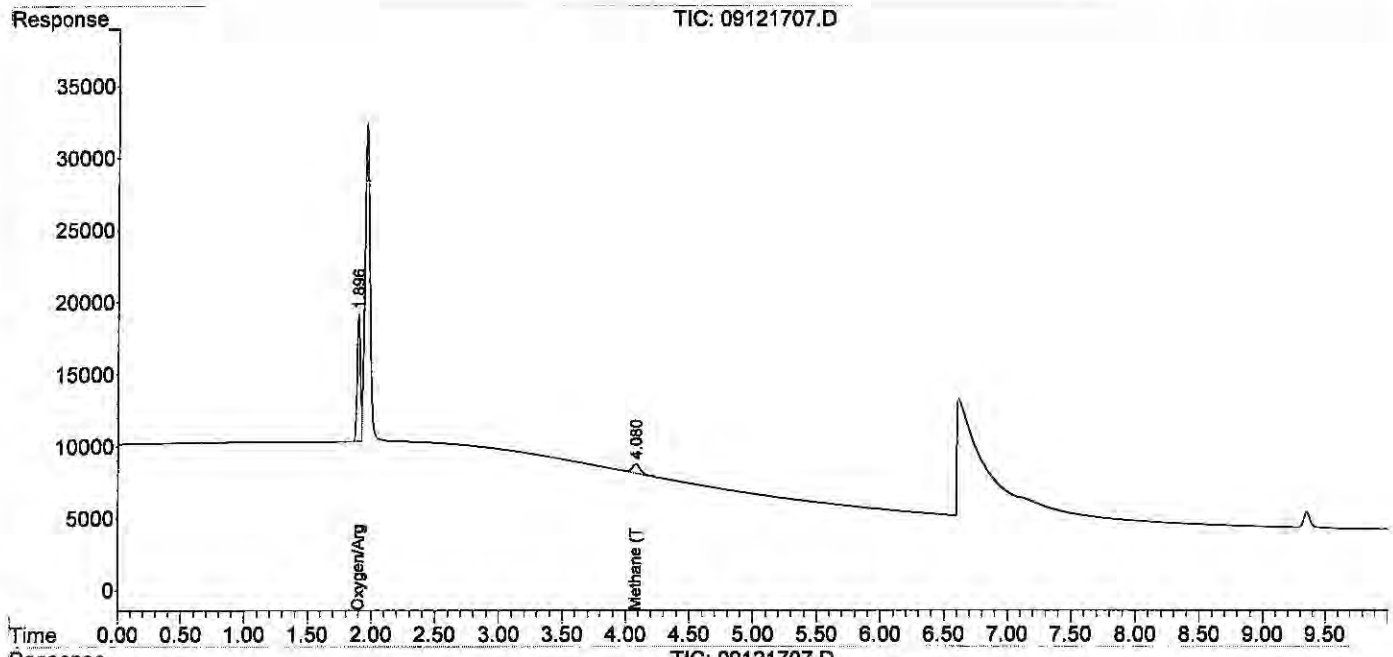
(f)=RT Delta > 1/2 Window (m)=manual int.

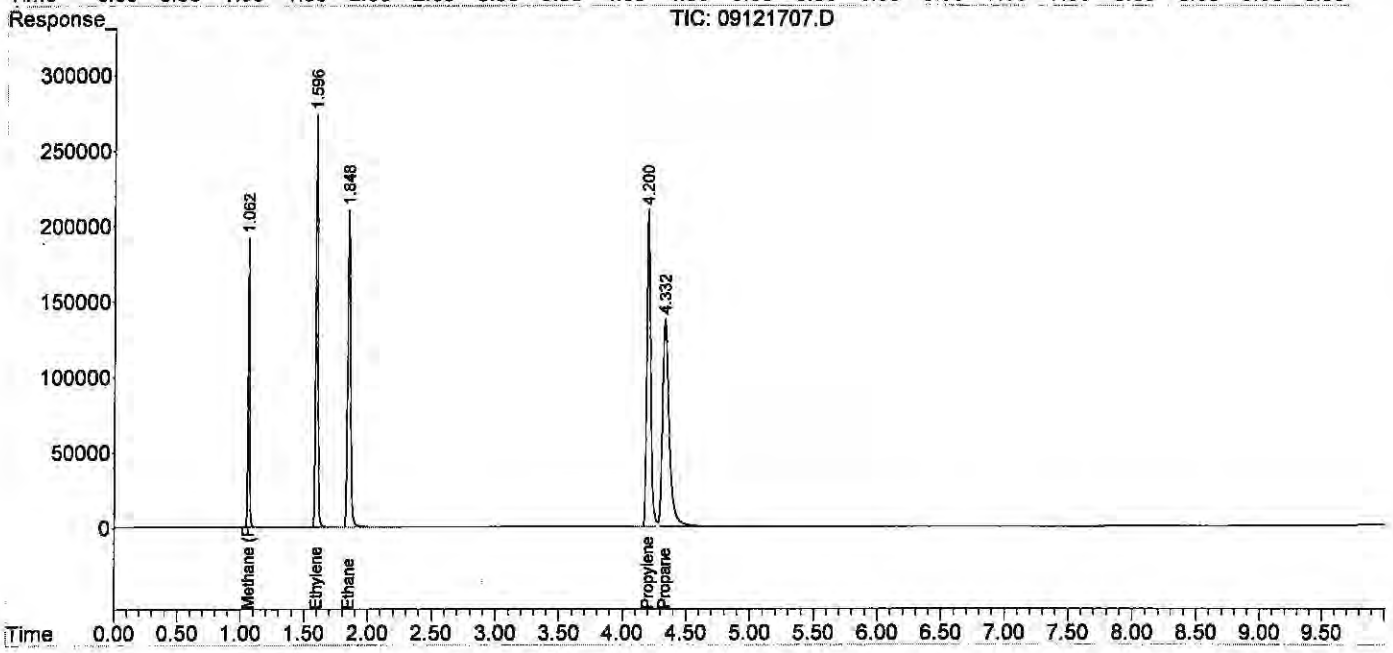
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121707.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 12:47
Operator : MC
Sample : 200ppm 0.1ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:09:59 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121708.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 13:00
Operator : MC
Sample : 600ppm 0.3ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:10:57 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:10:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.884	196022	0.124	ppm
2)	Carbon monoxide	1.884	196022	N.D.	ppm
3)	Methane (TCD)	4.070f	88282	782.730	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.044	5189849	539.759	ppm
7)	Ethylene	1.573	10007759	590.286	ppm
8)	Ethane	1.822	10048964	583.213	ppm
9)	Propylene	4.160	13569343	562.612	ppm
10)	Propane	4.300	15251326	615.171	ppm
11)	Isobutylene	6.143	9815	NoCal	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

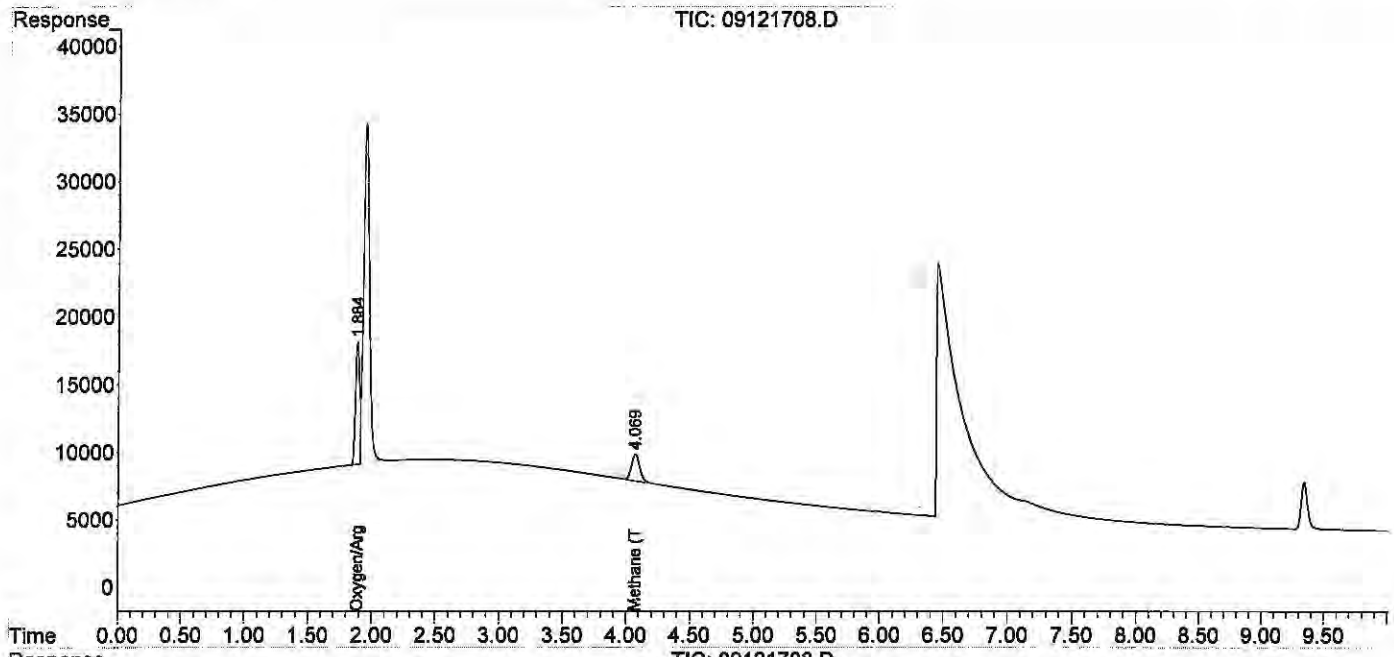
(f)=RT Delta > 1/2 Window (m)=manual int.

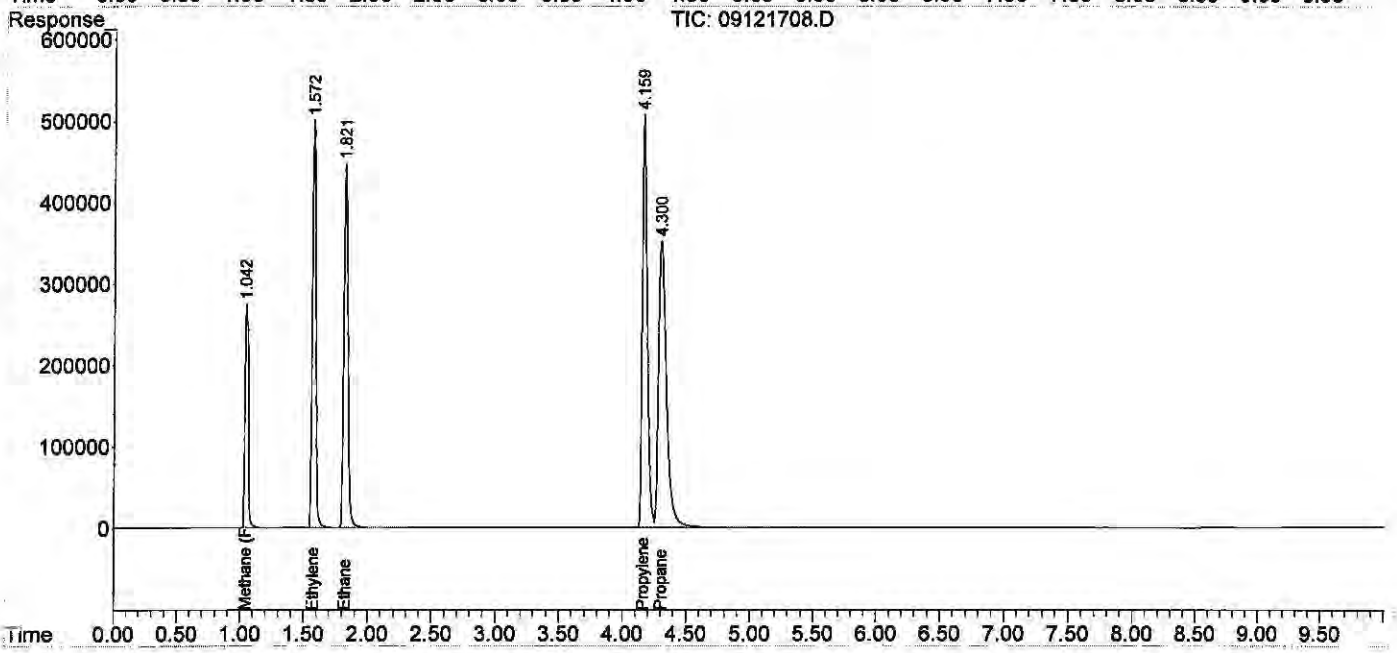
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121708.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 13:00
Operator : MC
Sample : 600ppm 0.3ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:10:57 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:10:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121709.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 13:47
Operator : MC
Sample : 1000ppm 0.5ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:11:46 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:11:38 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.879	192611	0.162	ppm
2)	Carbon monoxide	1.879	192611	N.D.	ppm
3)	Methane (TCD)	4.070f	145492	1244.729	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.039	8598534	945.644	ppm
7)	Ethylene	1.576	16608504	981.887	ppm
8)	Ethane	1.827	16709165	973.644	ppm
9)	Propylene	4.161	22494888	941.060	ppm
10)	Propane	4.298	25459411	1023.223	ppm
11)	Isobutylene	6.138	16970	8645.243	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

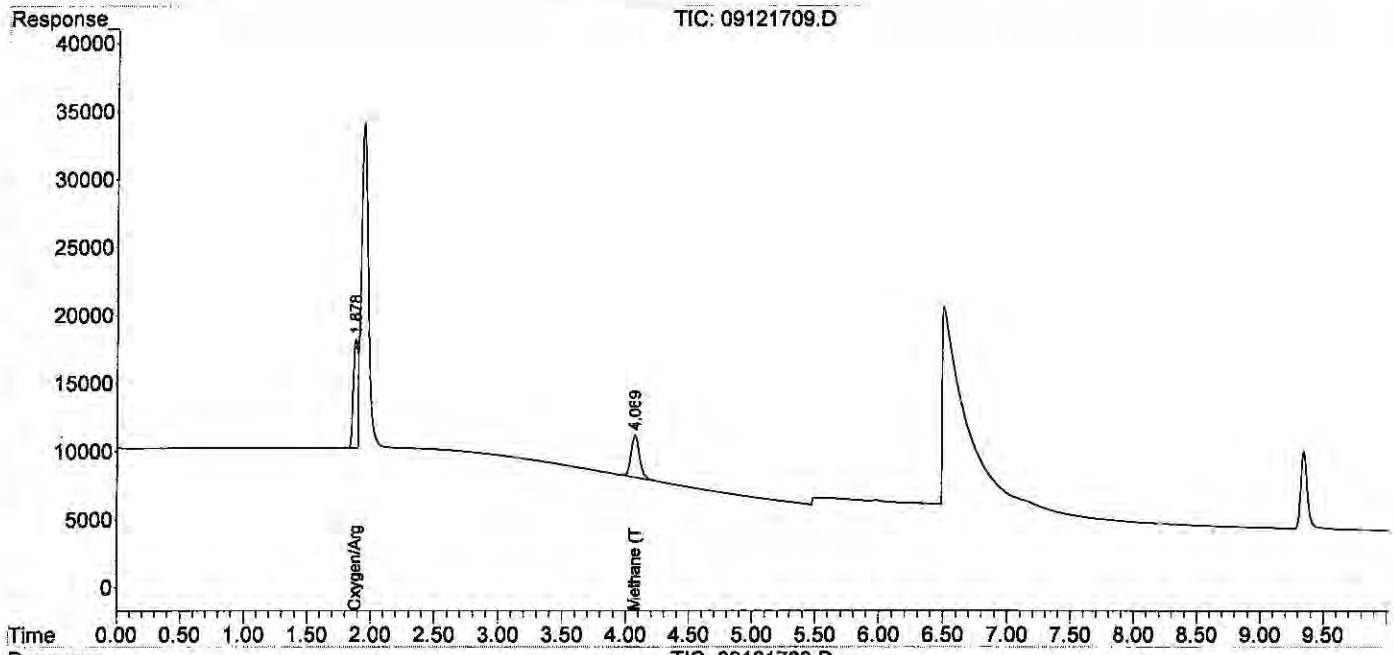
(f)=RT Delta > 1/2 Window (m)=manual int.

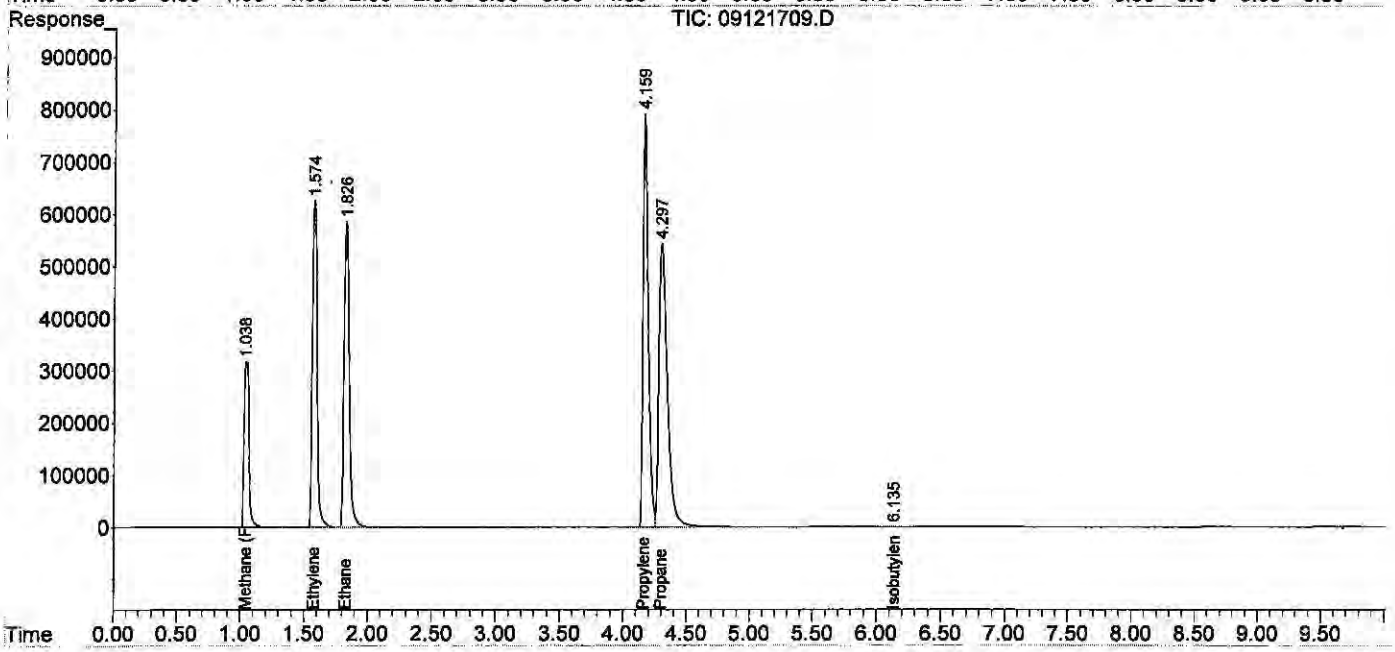
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121709.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 13:47
Operator : MC
Sample : 1000ppm 0.5ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:11:46 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:11:38 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121710.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 14:07
Operator : MC
Sample : 2000ppm 1ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:12:33 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:12:25 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

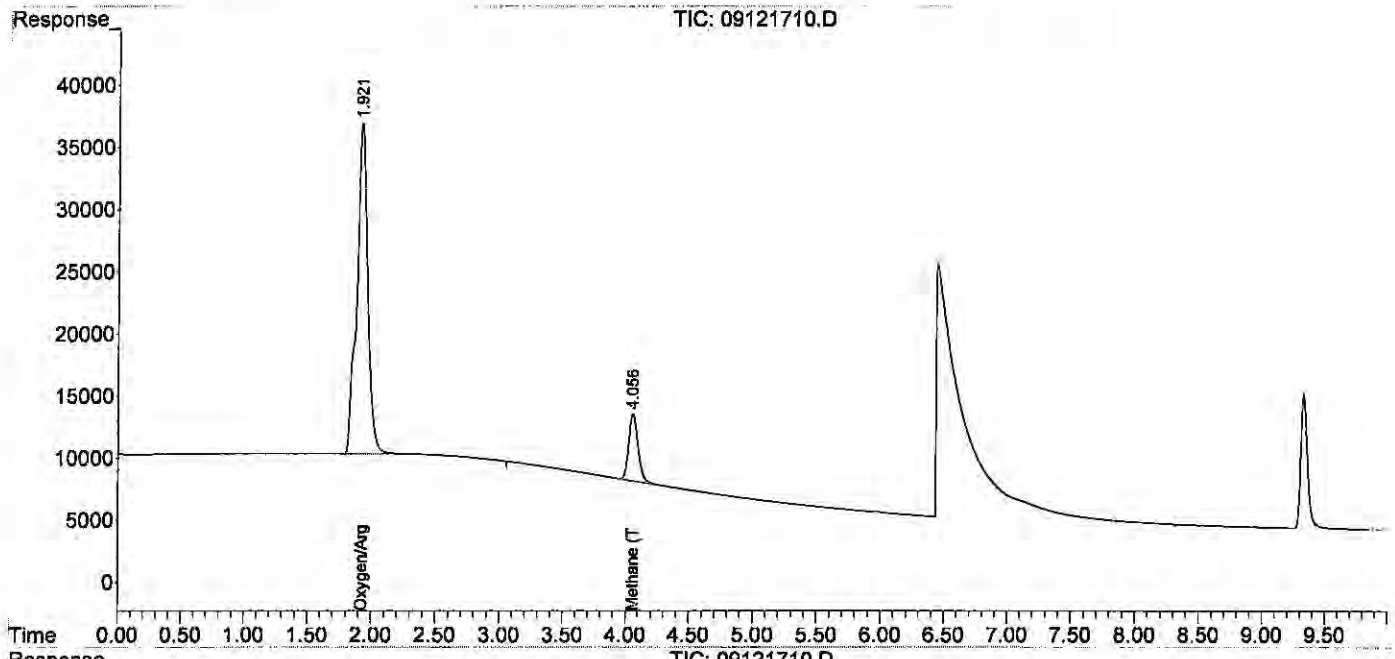
	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.922f	1578147	1.659	ppm	
2)	Carbon monoxide	1.922f	1578147	N.D.	ppm	
3)	Methane (TCD)	4.057f	281651	3526.607	ppm	
4)	Carbon dioxide	0.000	0	N.D.	ppm	
6)	Methane (FID)	1.016	16098209	1763.622	ppm	
7)	Ethylene	1.552	31192444	1848.268	ppm	
8)	Ethane	1.801	31424218	1837.143	ppm	
9)	Propylene	4.129	42124690	1775.341	ppm	m
10)	Propane	4.269	48583085	1946.921	ppm	
11)	Isobutylene	6.136	33832	25613.603	ppm	
12)	Isobutane	6.576f	3845	0.120	ppm	
13)	n-Butane	6.576f	3845	0.120	ppm	

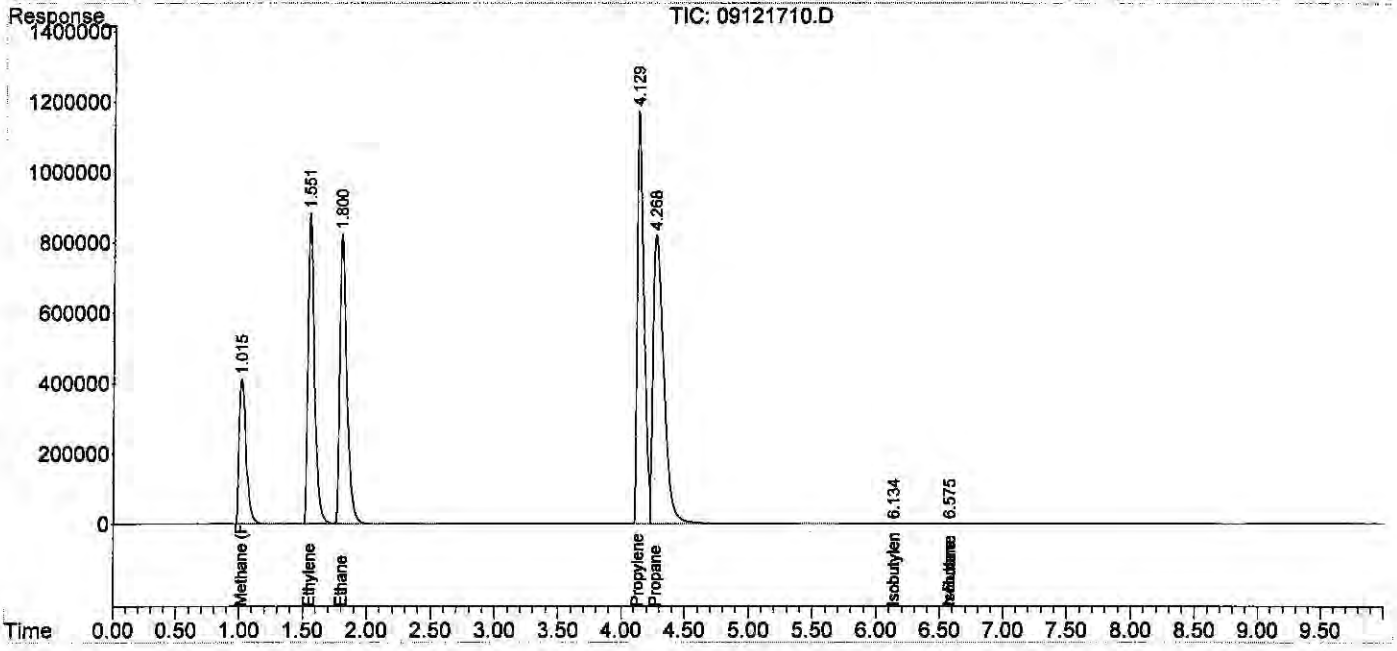
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121710.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 14:07
Operator : MC
Sample : 2000ppm 1ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:12:33 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:12:25 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



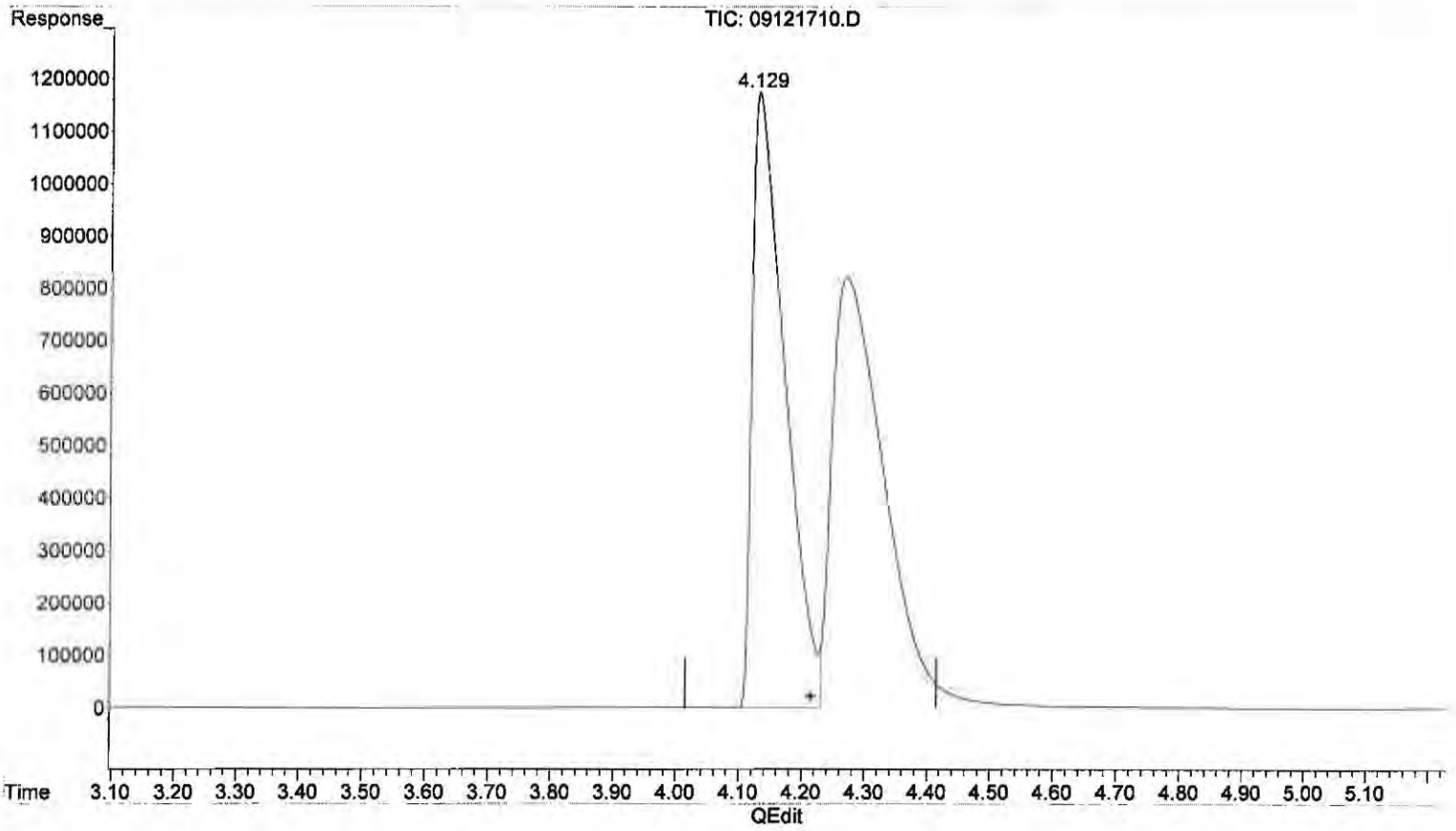


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121710.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 14:07
Operator : MC
Sample : 2000ppm 1ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:12:33 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:12:25 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



(9) Propylene

4.129min 1775.341 ppm m

response 42124690

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121711.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 14:48
Operator : MC
Sample : 4000ppm 0.1ml s32-08231701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:13:37 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:13:29 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

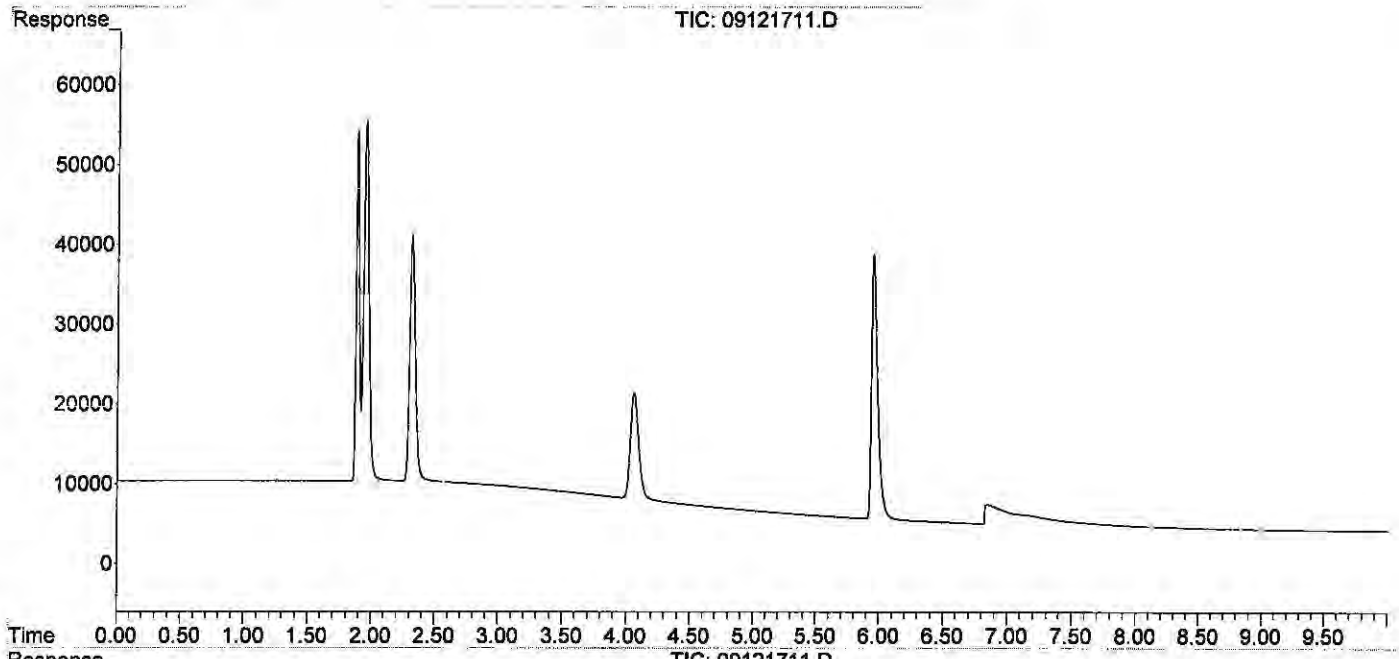
	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	d
2)	Carbon monoxide	0.000	0	N.D.	ppm	d
3)	Methane (TCD)	0.000	0	N.D.	ppm	d
4)	Carbon dioxide	0.000	0	N.D.	ppm	d
6)	Methane (FID)	1.059	35776839	3925.122	ppm	
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

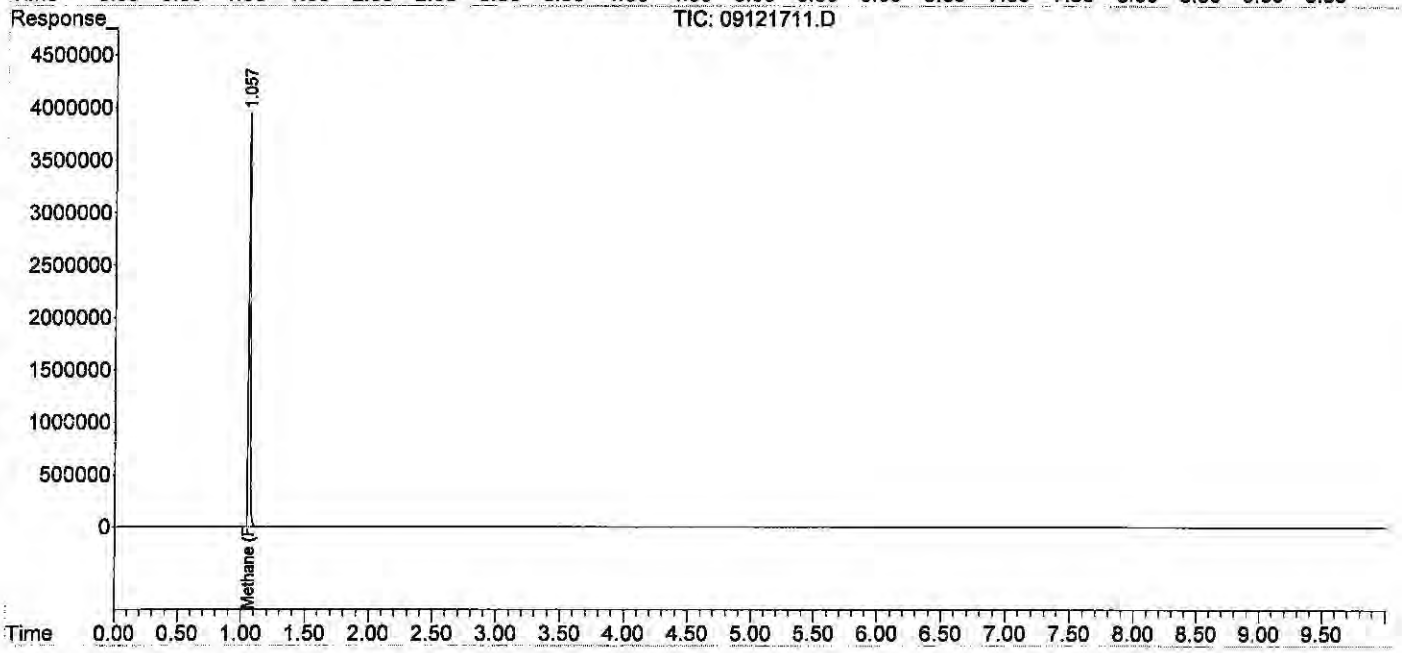
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121711.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 14:48
Operator : MC
Sample : 4000ppm 0.1ml s32-08231701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:13:37 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:13:29 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121712.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 15:21
Operator : MC
Sample : 20000ppm 0.5ml s32-08231701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:14:17 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:13:29 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	d
2)	Carbon monoxide	1.836	3190788	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	d
4)	Carbon dioxide	0.000	0	N.D.	ppm	d
6)	Methane (FID)	1.034	169009160	18492.064	ppm	
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

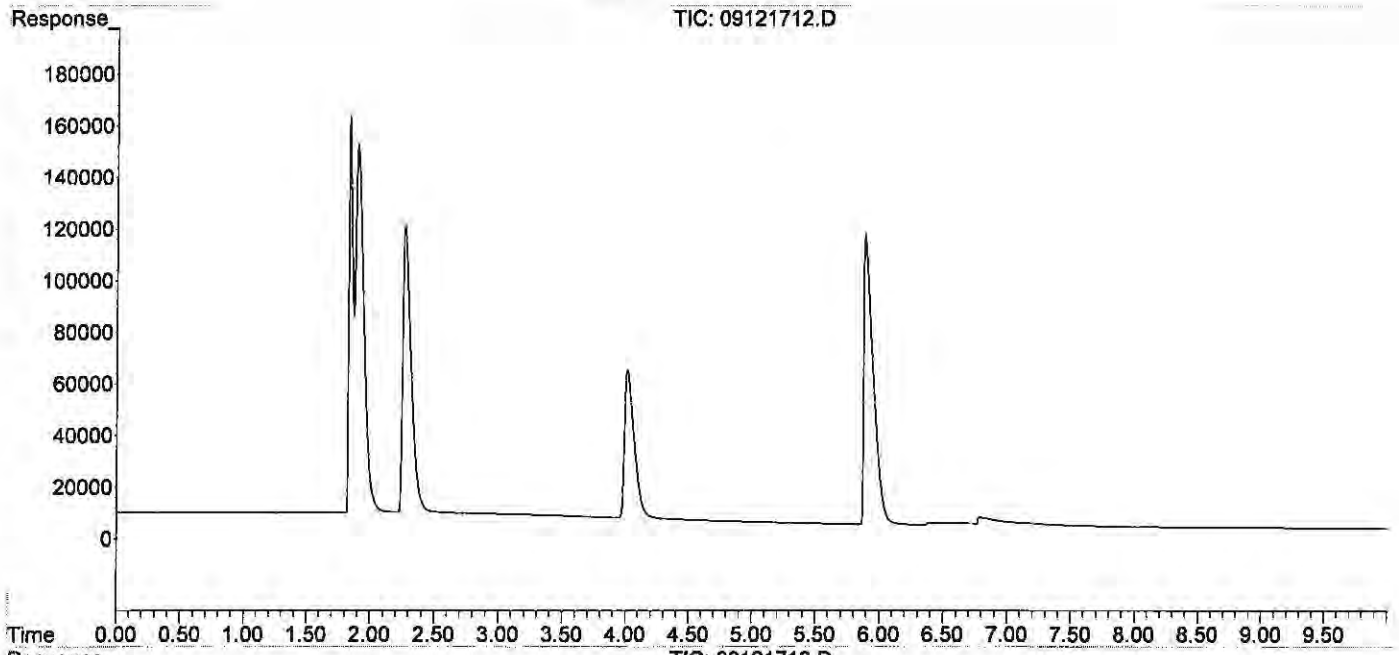
(f)=RT Delta > 1/2 Window (m)=manual int.

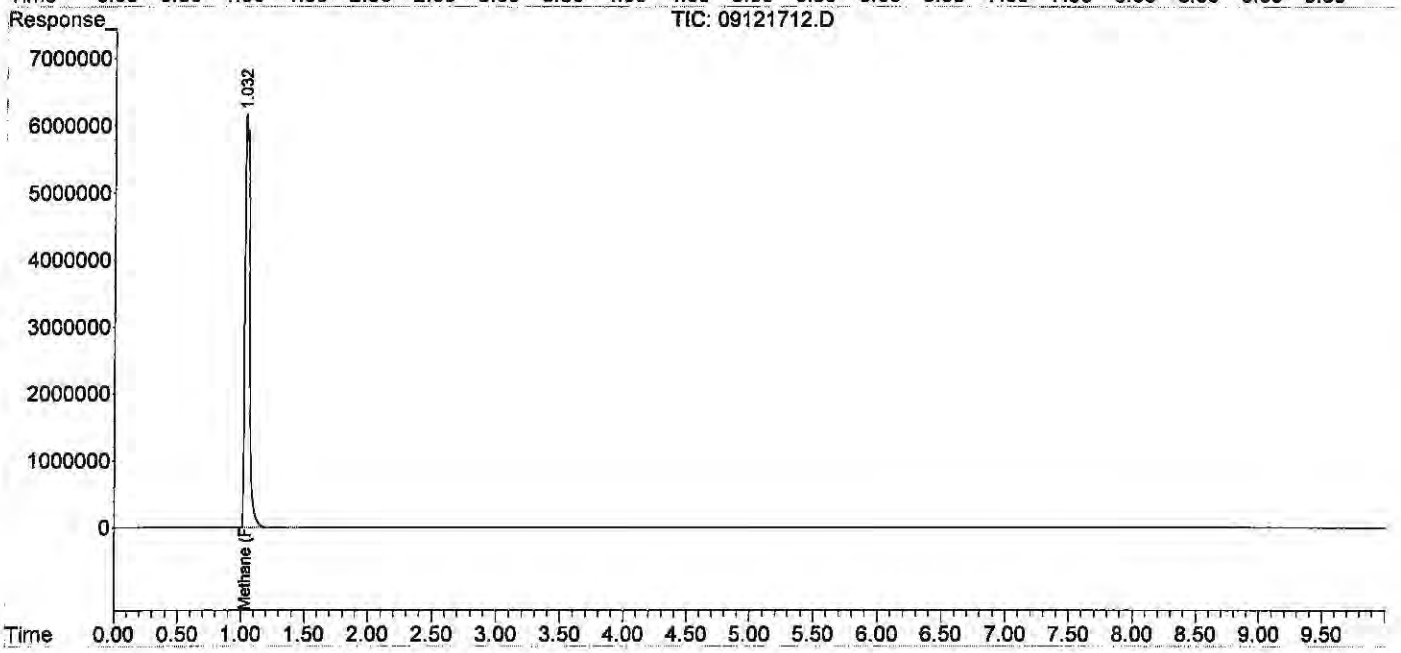
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121712.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 15:21
Operator : MC
Sample : 20000ppm 0.5ml s32-08231701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:14:17 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:13:29 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121715.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 16:15
Operator : MC
Sample : icv s30-05241604
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:15:11 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:13:29 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.843	2922459	3.687	ppm	
2)	Carbon monoxide	1.843	2922459	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	actual %D
4)	Carbon dioxide	0.000	0	N.D.	ppm	
6)	Methane (FID)	1.063	13748	1.516	ppm	1.50 101.1
7)	Ethylene	1.598	24153	1.443	ppm	1.50 96.2
8)	Ethane	1.850	24488	1.445	ppm	1.50 96.3
9)	Propylene	4.221	36004	1.537	ppm	1.50 102.5
10)	Propane	4.350	37738	1.517	ppm	1.51 100.5
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	6.579f	48019	1.804	ppm	9/14/2
13)	n-Butane	6.579f	48019	1.804	ppm	

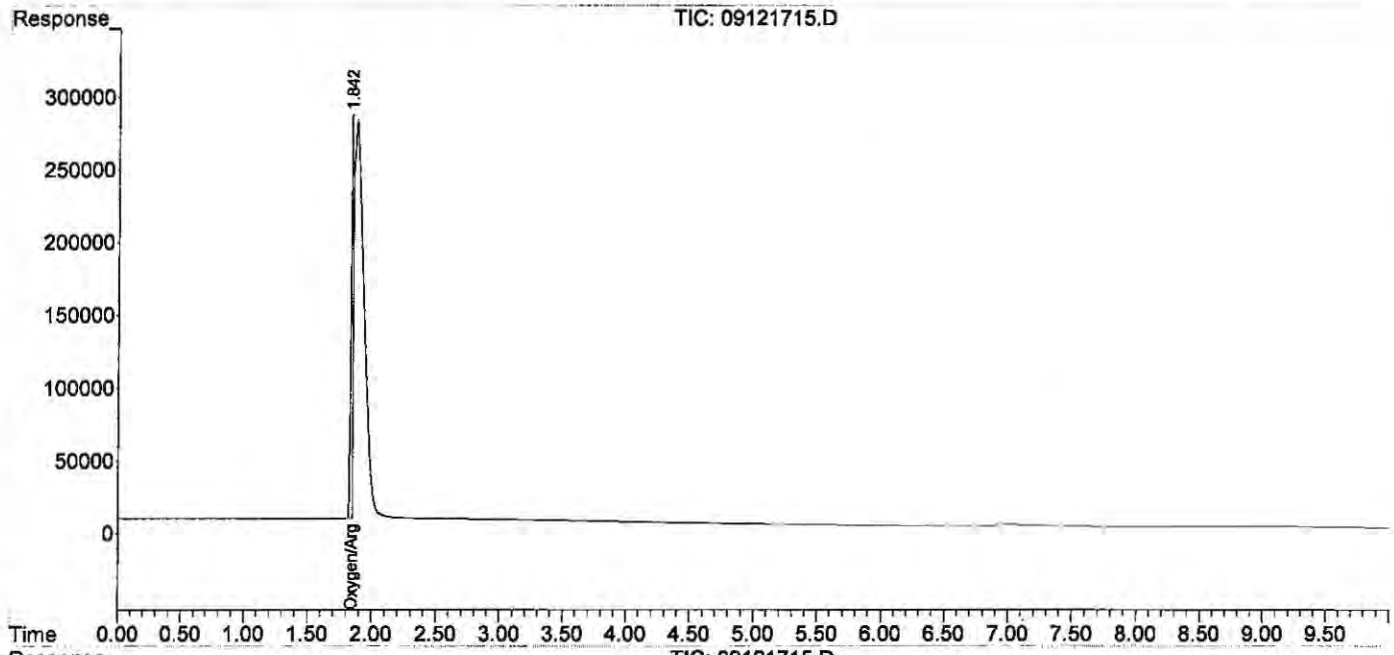
(f)=RT Delta > 1/2 Window (m)=manual int.

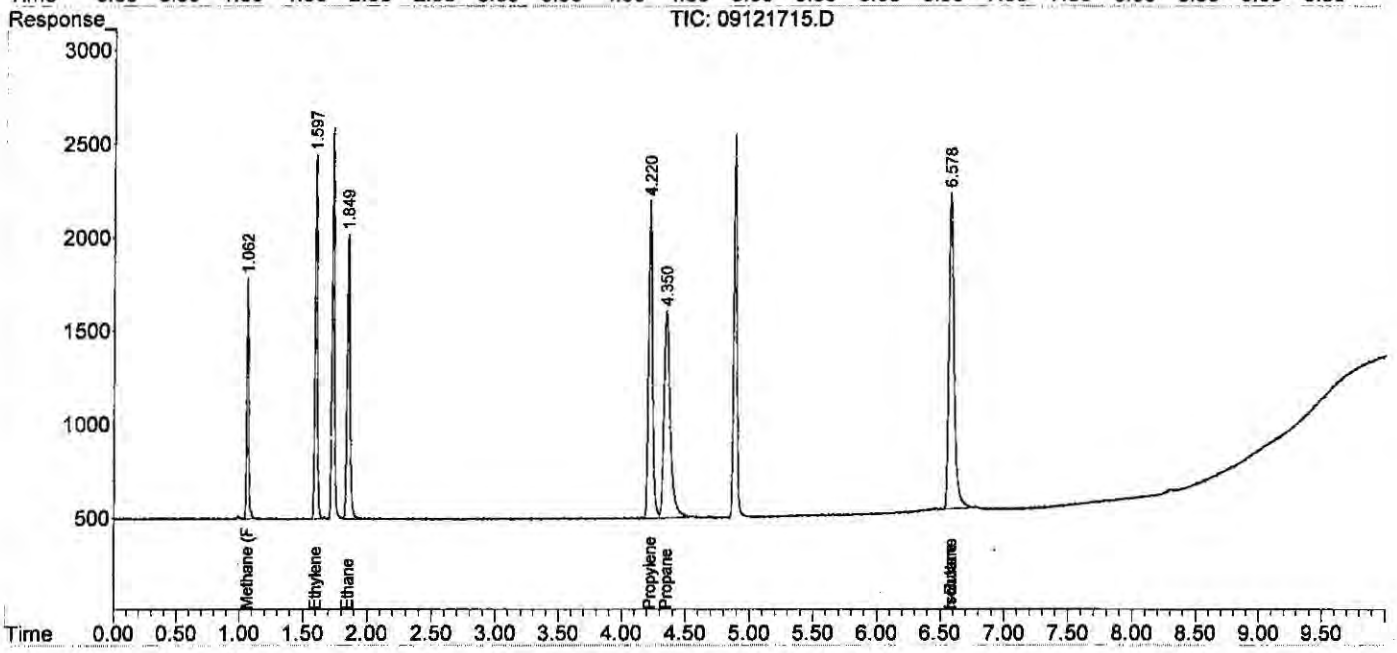
9/14/2017

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121715.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 16:15
Operator : MC
Sample : icv s30-05241604
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:15:11 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:13:29 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Injection Log

Directory: I:\GC10\DATA\RSK_FID\2017_09\12\

	Date/Time	File Name	Sample ID	Misc Info	Operator	Acquisition Method	Comments
1	12-Sep-17, 08:38:08	09121701.D	test		MC	RSKBOTH.M	
2	12-Sep-17, 10:52:40	09121702.D	0.151ppm 0.250ml s32-09121702		MC	RSKBOTH.M	Curve
3	12-Sep-17, 11:05:49	09121703.D	0.302ppm 0.5ml s32-09121702		MC	RSKBOTH.M	Curve
4	12-Sep-17, 11:45:34	09121704.D	1.51ppm 0.1ml s32-09051701		MC	RSKBOTH.M	Curve
5	12-Sep-17, 12:09:33	09121705.D	4.53ppm 0.3ml s32-09051701		MC	RSKBOTH.M	Curve
6	12-Sep-17, 12:30:23	09121706.D	10.57ppm 0.7ml s32-09051701		MC	RSKBOTH.M	Curve
7	12-Sep-17, 12:47:18	09121707.D	200ppm 0.1ml s32-09121701		MC	RSKBOTH.M	Curve
8	12-Sep-17, 13:00:22	09121708.D	600ppm 0.3ml s32-09121701		MC	RSKBOTH.M	Curve
9	12-Sep-17, 13:47:48	09121709.D	1000ppm 0.5ml s32-09121701		MC	RSKBOTH.M	Curve
10	12-Sep-17, 14:07:58	09121710.D	2000ppm 1ml s32-09121701		MC	RSKBOTH.M	Curve
11	12-Sep-17, 14:48:48	09121711.D	4000ppm 0.1ml s32-08231701		MC	RSKBOTH.M	Curve
12	12-Sep-17, 15:21:51	09121712.D	20000ppm 0.5ml s32-08231701		MC	RSKBOTH.M	Curve
13	12-Sep-17, 15:38:59	09121713.D	mb 0.5ml		MC	RSKBOTH.M	Pass
14	12-Sep-17, 15:55:35	09121714.D	mb 0.1ml		MC	RSKBOTH.M	Pass
15	12-Sep-17, 16:15:26	09121715.D	icv s30-05241604		MC	RSKBOTH.M	Pass

Injection Log

Directory: I:\GC10\DATA\RSK_FID\2018_09\01\

	Date/Time	File Name	Sample ID	Misc Info	Operator	Acquisition Method	Comments
1	01-Sep-18, 10:11:03	09011801.D	std s32-07231801		WH	RSKBOTH.M	pass
2	01-Sep-18, 10:28:14	09011802.D	rb 0.1ml		WH	RSKBOTH.M	pass
3	01-Sep-18, 10:45:52	09011803.D	mcs 0.1ml		WH	RSKBOTH.M	pass
4	01-Sep-18, 11:05:40	09011804.D	fid lcs s30-05241604		WH	RSKBOTH.M	pass
5	01-Sep-18, 11:19:15	09011805.D	fid lcsd s30-05241604		WH	RSKBOTH.M	pass
6	01-Sep-18, 11:33:06	09011806.D	P1804546-001 0.1ml		WH	RSKBOTH.M	
7	01-Sep-18, 11:46:17	09011807.D	P1804546-001 ms 0.1ml		WH	RSKBOTH.M	
8	01-Sep-18, 12:00:37	09011808.D	P1804546-001 msd 0.1ml		WH	RSKBOTH.M	
9	01-Sep-18, 12:13:48	09011809.D	P1804546-002 0.1ml		WH	RSKBOTH.M	
10	01-Sep-18, 12:27:14	09011810.D	P1804546-003 0.1ml		WH	RSKBOTH.M	
11	01-Sep-18, 12:40:25	09011811.D	P1804548-001 0.1ml		WH	RSKBOTH.M	
12	01-Sep-18, 12:54:38	09011812.D	P1804548-002 0.1ml		WH	RSKBOTH.M	
13	01-Sep-18, 13:07:49	09011813.D	P1804548-003 0.1ml		WH	RSKBOTH.M	
14	01-Sep-18, 13:22:56	09011814.D	P1804548-004 0.1ml		WH	RSKBOTH.M	
15	01-Sep-18, 13:35:07	09011815.D	std s32-07231801		WH	RSKBOTH.M	pass

Data Validation Checklist
Methane, Ethane, Ethene & Carbon dioxide by RSK175

Project Name:	LHAAP-46	SDG/Report No.:	HS18081428 (P1804548)
Project No.:	77501032	Lab ID:	ALS-Houston (Simi Valley)
No. of Samples:	4 Originals & 0 FD	Matrix:	GW
1st / 2nds	SP/KN		

All areas evaluated by QAPP and/or SW846 methods and the identification as to whether qualification is necessary are identified below:

Area Evaluated	Outlier/Qualifier	Qualification Necessary	
		YES	NO
1. Hold Time/Preservation.			X
2. BFB Tune.			X
3. ICAL (RRF and/or %RSD)			X
4. CCAL (RRF and/or %D)			X
5. Blanks (Method and/or Field QC)			X
6. LCS			X
7. MS/MSD			X
8. Field Duplicate			X
10. Form1 vs Database			X
11. Professional Judgement	X	X	

The following section is intended to specify areas evaluated and to provide an explanation for qualification identified during the review.

Comments/Discussion:

Associated samples (4):
46WW05-180828, 46WW16-180828, 46WW09-180828, LHSMW19-180828
MEE plus Carbon dioxide
1. Hold Time/Preservation (QAPP - Worksheet#19/SW846/ASTM methods).
No Qualification Necessary
Rec'd <6ºC; collected 8/28/2018; analyzed CO2: 9/06/2018 & MEE: 9/01/2018
2. BFB Tune (instr. performance criteria) (Table 12)
09011815.D 9/01/2018, 13:35:07 No Qualification Necessary
3. ICAL (Worksheet #24, Table 12) (EPA RSKSOP-175; 20%RSD or R>0.995)
No Qualification Necessary
RS082817_CO2.M 8/29/2018, 16:13:13 All criteria met
RS091217_R.M 9/13/2018, 11:14:47 All criteria met

Data Validation Checklist
Methane, Ethane, Ethene & Carbon dioxide by RSK175

4. CCAL (Worksheet #24, Table 12) (EPA RSKSOP-175; 15%D)
No Qualification Necessary
5. Blanks "UB" (EPA Region 3&4: Method and/or Field QC)
No Qualification Necessary
P180906-MB-CO2, P180901-MB-MEE Results are non-detected
6. LCS (QAPP – Worksheet#15)
No Qualification Necessary
P180906-DLCS –CO2, P180901-LCS-MEE-All criteria were met
7. MS/MSD (QAPP – Worksheet#15 Parent sample only)
No MS/MSD
8. Field Duplicate (QAPP – Worksheet#36, Table 23) - WATERS 20% / SOILS 50%
(non-detect & result <RL no qualifiers / non-detect & result >RL "J/UJ" qualifiers)
No Field Duplicates
9. Form 1 vs Database
Check laboratory's Form1 against Database; one sample per SDG per fraction; list sample number:
10. Multiple Results
No Qualification Necessary
11. Professional Judgement:
46WW05-180828: Carbon dioxide concentration exceeded instrument calibration range and "E" flagged by the lab. It was also noted that sample had a pH of 5 which may give a high bias to the CO2 results; therefore, CO2 results for this sample are estimated J19.

Data Validation Checklist
Inorganic Metals by SW846 6010/6020/7470/7471

Project Name:	LHAAP-46	SDG/Report No.:	HS18081428
Project No.:	77501032	Lab ID:	ALS-Houston
No. of Samples:	4 Originals & 0 FD	Matrix:	GW
1st / 2nd by	SP/KN		

* Note: If field QC samples (i.e. TB, ER, FB, etc.) are reported in another SDG, the SDG, blanks, detected contaminants, and associated samples are identified in the comment/discussion section provided below

All areas evaluated by QAPP and/or test methods and the identification as to whether qualification is necessary are identified below:

Area Evaluated	Outlier Reports	Qualification Necessary	
		YES	NO
1. Hold Time/Preservation.			X
2. ICAL			X
3. CCAL			X
4. LLICV-Low			X
5. Blanks (Method, Calibration and/or Field QC)			X
6. LCS			X
7. ICP Check Standards			X
8. MS/MSD			X
9. Field Duplicate			X
10. Serial Dilutions			X
11. Internal Standards (6020)			X
12. Form 1 vs Database			X

The following section is intended to specify areas evaluated and to provide an explanation for qualification identified during the review.

Comments/Discussion:

Associated samples (4):
46WW05-180828, 46WW16-180828, 46WW09-180828, LHSMW19-180828
Iron, total and dissolved; and manganese dissolved.
1. Hold Time/Preservation. (QAPP - Worksheet#19/SW846)
No Qualification Necessary
Received <6.0°C; collected: 8/28/2018; digested: 8/30/2018; analyzed: 8/31/2018
2. ICAL (Worksheet #24, Table 12) (DoD_5.0/SW846: R^2>0.990)
(083118A.batch.bin. 8/31/2018 3:06:08 PM) No qualification necessary
3. CCV (Worksheet #24, Table 12) (DoD_5.0 and/or SW846: ±10%D)

Data Validation Checklist
Inorganic Metals by SW846 6010/6020/7470/7471

(ICPMS04_322696, ICPMS05_322610) No Qualification Necessary
4. LLICV-Low Level ICV - CRDL (Worksheet #24, Table 12) (DoD_5.0 <±20% / SW846<±30%) <±20% applicable
LLICV2 (020SMPL.d 8-31-2018 11:52:40), LLICV5 (021LICV.d 8-31-2018 11:54:56)
LLICV2 (013SMPL.d 8-30-2018 10:53:53), LLICV5 (014LICV.d 8-30-2018 10:55:53)
No qualification Necessary
5. Blanks "UB" 5X(EPA Region#&4: Method and/or Field QC)
(ICPMS04_322696, ICPMS05_322610) –Results were non-detected No Qualification Necessary
6. LCS (QAPP –Worksheet #15) (DoD_5.0 QSM limits)
(Form 7's) No Qualification Necessary
7. ICP Check Standards (Worksheet #24, Table 12) (DoD_5.0 and SW846/QAPP – worksheet#24, Table 12: ±20%)
(ICPMS04_322696, ICPMS05_322610) No Qualification Necessary
8. MS/MSD (QAPP - Worksheet#15 (QSM/DoD/Lab); parent sample only
(Form 5A's) Non-project sample. No Qualification Necessary
9. Field Duplicate (QAPP – worksheet#36 _Table 23) 20% waters / 50% soils)
(non-detect & result <RL or both <RL no qualifiers / non-detect & result >RL "J/UJ" qualifiers)
No field duplicates
10. Serial Dilutions (DoD_5.0/SW846/QAAP: Worksheet # 28, Table 15) ±10%; SW6010/6020 >50X MDL; parent sample)
(Form 8's) Non-project sample. No Qualification Necessary
11. Internal Standard (6020 only: DoD5.0: 30-120% and/or NFG 60-125%) applicable by lab
12. Form 1 vs Database
Check laboratory's Form1 against Database; minimum one sample per SDG per fraction; list sample number:
11. Multiple Results
No Qualification Necessary

Data Validation Checklist
Inorganic Metals by SW846 6010/6020/7470/7471

Data Validation Checklist
Volatile Organics by SW846 8260C

Project Name:	LHAAP-46	SDG/Report No.:	HS18081428
Project No.:	77501032	Lab ID:	ALS-Houston
No. of Samples:	9 Originals & 1 FD	Matrix:	GW
1ST / 2nd by	SP/KN		

* Note: If field QC samples (i.e. TB, ER, FB, etc.) are reported in another SDG, the SDG, blanks, detected contaminants, and associated samples are identified in the comment/discussion section provided below

All areas evaluated by QAPP and/or SW846 8260 methods and the identification as to whether qualification is necessary are identified below:

Area Evaluated	Outlier/Qualifier	Qualification Necessary	
		YES	NO
1. Hold Time/Preservation.			X
2. BFB Tune.			X
3. ICAL (RRF and/or %RSD)			X
4. CCAL opening (RRF and/or 20% D)			X
5. CCAL closing (%D<±50%)			X
6. Blanks (Method and/or Field QC)			X
7. LCS			X
8. Surrogates			X
9. MS/MSD		X	
10. Field Duplicate			X
11. Internal Standards			X
12. Form1 vs Database			X

The following section is intended to specify areas evaluated and to provide an explanation for qualification identified during the review.

Comments/Discussion:

Associated samples(9): LHSMW25-180827, 46WW07-180827, 46WW08-180827, 46WW06-180827, 46WW03-180827, 46WW05-180828, 46WW16-180828, 46WW09-180828, LHSMW19--180828
1. Hold Time/Preservation (QAPP - Worksheet#19/SW846/ASTM methods).
No Qualification Necessary
Rec'd <6ºC; collected 8/27, 28/2018. Analyzed 9/02/2018.
2. BFB Tune (instr. performance criteria) (Table 12)
8/02/2018 @9:45 PM (E080201.D), 9/02/2018 @ 1:16 PM (D090201.D)- No Qualification Necessary

Data Validation Checklist
Volatile Organics by SW846 8260C

3. ICAL (Worksheet #24, Table 12) (DoD: RSD≤15% or linear R^2≥0.99 and Avg RRF's; 2-butanone & acetone >0.05; J/UJ < recommended criteria)
8/02/2018 @ 10:37 PM -No Qualification Necessary
4. ICV (Worksheet #24, Table 12) (20%D only) /CCAL opening (DoD: %D≤20% and/or SW846 8260 Table 4 Avg RRF's: J/UJ < recommended criteria)
8/02/2018 @ 14:15 (D090203.D)-No Qualification Necessary
5. Closing CCV (Worksheet #24, Table 12) (DoD_5.0: %D<±50%) (if applicable by lab)
9/03/2018 @ 00:31 (D090228.D)- No Qualification Necessary
6. Blanks "UB" 5X/10X (EPA Region 3&4: Method and/or Field QC)
No Qualification Necessary
TB 46TB01-180827-Results are non detect.
VBLKW-180830 (QC Batch No. R322791) - Results are non detect.
7. LCS (QAPP – Worksheet#15)
No Qualification Necessary
VLCSW-180830 (QC Batch No. R322791) - Criteria were met.
8. Surrogates (QAPP - Worksheet#15)
No Qualification Necessary-All recoveries were within acceptance criteria.
9. MS/MSD (DoD/QAPP – Worksheet#15; parent sample only)
Qualification Necessary
LHSMW25-180827 (QC Batch No. R322791)- 1,1,2-Trichlor-1,2,2-trifluoroethane and methylene chloride recovery low, sample results non-detect, UJ (08A) qualified.
Note: Lab identified other compounds w/ outliers; however, no qualification required since QAPP/DOD QSM 5.1 limits were met.
10. Field Duplicate (QAPP – Worksheet#36 – Table 23 WATERS ≤20% / SOILS ≤50%)
(non-detect & result <RL or both <RL no qualifiers / non-detect & result >RL "J/UJ" qualifiers)
46WW08-180827/46WW08-180827-FD- No Qualification Necessary-both <RL no qualifiers
11.Internal Standards (Worksheet #24, Table 12) (-50% to +100% and RT ±0.30 sec)
9/02/2018 (D090203D)-No Qualification Necessary

Data Validation Checklist
Volatile Organics by SW846 8260C

12. Form 1 vs Database
Check laboratory's Form1 against Database; one sample per SDG per fraction; list sample number:
LHSMW25-180827
13. Multiple Results
No Qualification Necessary

Data Validation Checklist
Wet Chemistry

Project Name:	LHAAP-46	SDG/Report No.:	HS18081428
Project No.:	77501032	Lab ID:	ALS-Houston
No. of Samples:	4 Originals & 0 FD	Analysis:	Alkalinity, Anions (chloride, Nitrate/Nitrite, sulfate) Phosphorous,
1st / 2nd by	SP/KN		Sulfide, TOC,

All areas evaluated by QAPP and **SW846** methods and the identification as to whether qualification is necessary are identified below:

Area Evaluated	Outlier/Qualifier	Qualification Necessary	
		YES	NO
1. Hold Time/Preservation.			X
2. ICAL			X
3. CCAL			X
4. Limit of Detection Verification (LODV)			X
5. Blanks (Method, Calibration and/or Field QC)			X
6. LCS			X
7. Duplicate Analysis			X
8. MS/MSD			X
9. Field Duplicate			X
10. Form1 vs Database			X

The following section is intended to specify areas evaluated and to provide an explanation for qualification identified during the review.

Comments/Discussion:

Associated samples(4):
46WW05-180828, 46WW16-180828, 46WW09-180828, LHSMW19-180828
1. Hold Time/Preservation. (QAPP - Worksheet#19/SW846/ASTM methods)
No Qualification Necessary
Rec'd <6°C; collected 8/28/2018, analyzed: TOC: 9/12, 13,18/2018, anions, phosphorus 8/29/2018, alkalinity 8/30/2018, 9/04/2018
Professional judgment – no qualification for hold time.
2. ICAL (QAPP - Worksheet#24, Table 12)/SW846/ASTM methods: RSD≤20%/r≥0.995)
No Qualification Necessary
3. ICV/CCAL (QAPP - Worksheet#24, Table 12/)/SW846/ASTM methods: ±10%D)
No Qualification Necessary

Data Validation Checklist
Wet Chemistry

4. Limit of Detection Verification (LODV) (QAAP/DoD_4.2; ±30%D)
No Qualification Necessary
5. Blanks "UB" (EPA Region 3&4: Method and/or Field QC)
TOC: K1808655-MB1,-MB2, -MB3; WBLKW1-82918 (anions), WBLKW1-180830, WBLKW1-180904 (alkalinity) Results non-detected. No Qualification Necessary
6. LCS (QAPP - Worksheet#15)
TOC: K1808655-LCS1, -LCS2, -LCS3, WLCSW1-082918/ WLCSDW1-082918 (anions), WLCS1-180830/WLCSD1-180830, WLCS1-180904/WLCSD1-180904 (alkalinity) All criteria were met No Qualification Necessary
7. Duplicate Analysis (QAPP - Worksheet#28, Table 15-Worksheet #15)/SW846/ASTM methods DoD-4.2<15%)
TOC: K1808655-001DUP2, -002DUP, -003DUP, -004DUP All criteria were met. No Qualification Necessary
8. MS/MSD (QAPP - Worksheet#19/#28; DoD_4.2= ±20%MS/MSD / 15%RPD)
TOC: K1808655-001, non-project MS/MSD for anions All criteria were met. No Qualification Necessary
9. Field Duplicate (QAPP – worksheet#35: 20% waters / 50% soils)
(non-detect & result <RL no qualifiers / non-detect & result >RL "J/UJ" qualifiers)
No field duplicates
10. Form 1 vs Database
Check laboratory's Form1 against Database; minimum one sample per SDG per fraction; list sample number:
11. Multiple Results
No Qualification Necessary

10450 Stancliff Rd. Suite 210
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WorkOrder: HS18081504

LHAAP-46 501032

Aptim Environmental & Infrastucture, Inc.

Sharon Pennington
2500 City West Blvd., Suite 1700
Houston TX 77042

12-Oct-2018

10450 Stancliff Rd. Suite 210
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T: +1 281 530 5656
F: +1 281 530 5887

September 20, 2018

Sharon Pennington
Aptim Environmental & Infrastucture, Inc.
2500 City West Blvd., Suite 1700
Houston, TX 77042

Work Order: **HS18081504**

Laboratory Results for: **LHAAP-46 501032**

Dear Sharon,

ALS Environmental received 4 sample(s) on Aug 30, 2018 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
RJ Modashia
Project Manager

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Work Order: HS18081504

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS18081504-01	46WW02-180829	Groundwater		29-Aug-2018 08:35	30-Aug-2018 08:50	☐
HS18081504-02	46WW11-180829	Groundwater		29-Aug-2018 09:55	30-Aug-2018 08:50	☐
HS18081504-03	46WW11-180829-FD	Groundwater		29-Aug-2018 09:55	30-Aug-2018 08:50	☐
HS18081504-04	Trip Blank ALS-080318-8	Groundwater		29-Aug-2018 00:00	30-Aug-2018 08:50	☐

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc. **CASE NARRATIVE**
Project: LHAAP-46 501032
Work Order:

Work Order Comments

- The analysis for Methane, Ethene, Ethane and CO2 by RSK175 was subcontracted to ALS Simi Valley, CA. Final report attached.

Work Order Comments

- The analysis for Total Organic Carbon was subcontracted to ALS Kelso, WA Final report attached.

GCMS Volatiles by Method SW8260

Batch ID: R322857

Sample ID: 46WW02-180829 (HS18081504-01MSD)

- MSD recovered outside control limits for few compounds

Metals by Method SW6020

Batch ID: 132159

Sample ID: 46WW02-180829 (HS18081504-01MSD)

- 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. Manganese.

Batch ID: 132160

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

WetChemistry by Method SM2320B

Batch ID: R322912

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

WetChemistry by Method E376.1

Batch ID: R322994

Sample ID: 46WW02-180829 (HS18081504-01MS)

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

WetChemistry by Method SW9056

Batch ID: R322692

Sample ID: 46WW02-180829 (HS18081504-01MS/MSD)

- The MS and/or MSD recovery was outside of the control limits; however, the result in the parent sample is greater than 4x the spike amount. (Sulfate)

WetChemistry by Method SM4500P E

Batch ID: 132252

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Sample ID: 46WW02-180829
Collection Date: 29-Aug-2018 08:35

ANALYTICAL REPORT
WorkOrder:HS18081504
Lab ID:HS18081504-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**							Analyst: AKP
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,1,2-Trichlor-1,2,2-trifluoroethane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,2-Dibromo-3-chloropropane	0.50	U	1.0	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:01
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	04-Sep-2018 16:01
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
2-Hexanone	1.0	U	1.0	1.0	2.0	ug/L	1	04-Sep-2018 16:01
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:01
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
4-Methyl-2-pentanone	1.0	U	0.70	1.0	2.0	ug/L	1	04-Sep-2018 16:01
Acetone	1.0	U	2.0	1.0	2.0	ug/L	1	04-Sep-2018 16:01
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Carbon disulfide	1.0	U	0.60	1.0	2.0	ug/L	1	04-Sep-2018 16:01
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Sample ID: 46WW02-180829
Collection Date: 29-Aug-2018 08:35

ANALYTICAL REPORT
WorkOrder:HS18081504
Lab ID:HS18081504-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**						Analyst: AKP
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
cis-1,2-Dichloroethene	**1.4**		**0.20**	**0.50**	**1.0**	**ug/L**	1	04-Sep-2018 16:01
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	04-Sep-2018 16:01
Methylene chloride	1.0	U	1.0	1.0	2.0	ug/L	1	04-Sep-2018 16:01
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:01
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Trichloroethene	**24**		**0.20**	**0.50**	**1.0**	**ug/L**	1	04-Sep-2018 16:01
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:01
Surr: 1,2-Dichloroethane-d4	*89.9*			**0**	*70-126*	*%REC*	*1*	*04-Sep-2018 16:01*
Surr: 4-Bromofluorobenzene	*98.0*			**0**	*81-113*	*%REC*	*1*	*04-Sep-2018 16:01*
Surr: Dibromofluoromethane	*93.4*			**0**	*77-123*	*%REC*	*1*	*04-Sep-2018 16:01*
Surr: Toluene-d8	*91.2*			**0**	*82-127*	*%REC*	*1*	*04-Sep-2018 16:01*
ICP-MS METALS BY SW6020A		**Method:SW6020**				Prep:SW3010A / 05-Sep-2018		Analyst: JDE
Iron	**0.691**		**0.0120**	**0.100**	**0.200**	**mg/L**	1	06-Sep-2018 14:40
DISSOLVED METALS BY SW6020A		**Method:SW6020 (dissolved)**				Prep:SW3010A / 05-Sep-2018		Analyst: JDE
Iron	**0.743**		**0.0120**	**0.100**	**0.200**	**mg/L**	1	06-Sep-2018 15:08
Manganese	**0.298**		**0.000700**	**0.00100**	**0.00500**	**mg/L**	1	06-Sep-2018 15:08
SULFIDE BY E376.1		**Method:E376.1**						Analyst: KVL
Sulfide	**16.1**		**1.00**	**1.00**	**1.00**	**mg/L**	1	05-Sep-2018 17:00
ALKALINITY BY SM2320B		**Method:SM2320B**						Analyst: AJH
Alkalinity, Total (As CaCO3)	5.00	U	5.00	5.00	5.00	mg/L	1	04-Sep-2018 18:25

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Sample ID: 46WW02-180829
Collection Date: 29-Aug-2018 08:35

ANALYTICAL REPORT
WorkOrder:HS18081504
Lab ID:HS18081504-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
PHOSPHORUS BY SM4500P E		**Method:SM4500P E**				Prep:SM4500P E / 07-Sep-2018		Analyst: MZD
Phosphorus, Total (As P)	**0.0840**		**0.0200**	**0.0250**	**0.0500**	**mg/L**	1	07-Sep-2018 15:40
ANIONS BY SW9056A		**Method:SW9056**						Analyst: KMU
Chloride	**35.9**		**0.200**	**0.500**	**0.500**	**mg/L**	1	30-Aug-2018 19:41
Nitrogen, Nitrate (As N)	**0.216**		**0.0300**	**0.100**	**0.100**	**mg/L**	1	30-Aug-2018 19:41
Nitrogen, Nitrite (As N)	0.100	U	0.0300	0.100	0.100	mg/L	1	30-Aug-2018 19:41
Sulfate	**182**		**2.00**	**5.00**	**5.00**	**mg/L**	10	30-Aug-2018 21:07
SUBCONTRACT ANALYSIS - RSK		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	11-Sep-2018 09:18
SUBCONTRACT ANALYSIS - TOC ANALYSIS		**Method:NA**						Analyst: SUBK
Subcontract Analysis	See Attached		0	0		NA	1	19-Sep-2018 08:25

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Sample ID: 46WW11-180829
Collection Date: 29-Aug-2018 09:55

ANALYTICAL REPORT
WorkOrder:HS18081504
Lab ID:HS18081504-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**							Analyst: AKP
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,1,2-Trichlor-1,2,2-trifluoroethane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,2-Dibromo-3-chloropropane	0.50	U	1.0	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:25
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	04-Sep-2018 16:25
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
2-Hexanone	1.0	U	1.0	1.0	2.0	ug/L	1	04-Sep-2018 16:25
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:25
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
4-Methyl-2-pentanone	1.0	U	0.70	1.0	2.0	ug/L	1	04-Sep-2018 16:25
Acetone	1.0	U	2.0	1.0	2.0	ug/L	1	04-Sep-2018 16:25
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Carbon disulfide	1.0	U	0.60	1.0	2.0	ug/L	1	04-Sep-2018 16:25
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Sample ID: 46WW11-180829
Collection Date: 29-Aug-2018 09:55

ANALYTICAL REPORT
WorkOrder:HS18081504
Lab ID:HS18081504-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**						Analyst: AKP
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	04-Sep-2018 16:25
Methylene chloride	1.0	U	1.0	1.0	2.0	ug/L	1	04-Sep-2018 16:25
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:25
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Trichloroethene	**13**		**0.20**	**0.50**	**1.0**	**ug/L**	1	04-Sep-2018 16:25
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:25
Surr: 1,2-Dichloroethane-d4	*88.5*			**0**	*70-126*	*%REC*	*1*	*04-Sep-2018 16:25*
Surr: 4-Bromofluorobenzene	*97.4*			**0**	*81-113*	*%REC*	*1*	*04-Sep-2018 16:25*
Surr: Dibromofluoromethane	*95.4*			**0**	*77-123*	*%REC*	*1*	*04-Sep-2018 16:25*
Surr: Toluene-d8	*91.2*			**0**	*82-127*	*%REC*	*1*	*04-Sep-2018 16:25*
ICP-MS METALS BY SW6020A		**Method:SW6020**				Prep:SW3010A / 05-Sep-2018		Analyst: JDE
Iron	**0.544**		**0.0120**	**0.100**	**0.200**	**mg/L**	1	06-Sep-2018 14:50
DISSOLVED METALS BY SW6020A		**Method:SW6020 (dissolved)**				Prep:SW3010A / 05-Sep-2018		Analyst: JDE
Iron	**0.547**		**0.0120**	**0.100**	**0.200**	**mg/L**	1	06-Sep-2018 15:18
Manganese	**0.124**		**0.000700**	**0.00100**	**0.00500**	**mg/L**	1	06-Sep-2018 15:18
SULFIDE BY E376.1		**Method:E376.1**						Analyst: KVL
Sulfide	**15.3**		**1.00**	**1.00**	**1.00**	**mg/L**	1	05-Sep-2018 17:00
ALKALINITY BY SM2320B		**Method:SM2320B**						Analyst: AJH
Alkalinity, Total (As CaCO3)	**32.4**		**5.00**	**5.00**	**5.00**	**mg/L**	1	04-Sep-2018 18:35

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Sample ID: 46WW11-180829
Collection Date: 29-Aug-2018 09:55

ANALYTICAL REPORT
WorkOrder:HS18081504
Lab ID:HS18081504-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
PHOSPHORUS BY SM4500P E		**Method:SM4500P E**				Prep:SM4500P E / 07-Sep-2018		Analyst: MZD
Phosphorus, Total (As P)	**0.110**		**0.0200**	**0.0250**	**0.0500**	**mg/L**	1	07-Sep-2018 15:40
ANIONS BY SW9056A		**Method:SW9056**						Analyst: KMU
Chloride	**201**		**2.00**	**5.00**	**5.00**	**mg/L**	10	30-Aug-2018 21:42
Nitrogen, Nitrate (As N)	0.100	U	0.0300	0.100	0.100	mg/L	1	30-Aug-2018 21:28
Nitrogen, Nitrite (As N)	0.100	U	0.0300	0.100	0.100	mg/L	1	30-Aug-2018 21:28
Sulfate	**274**		**2.00**	**5.00**	**5.00**	**mg/L**	10	30-Aug-2018 21:42
SUBCONTRACT ANALYSIS - RSK		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	11-Sep-2018 09:18
SUBCONTRACT ANALYSIS - TOC ANALYSIS		**Method:NA**						Analyst: SUBK
Subcontract Analysis	See Attached		0	0		NA	1	19-Sep-2018 08:25

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Sample ID: 46WW11-180829-FD
Collection Date: 29-Aug-2018 09:55

ANALYTICAL REPORT
WorkOrder:HS18081504
Lab ID:HS18081504-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**							Analyst: AKP
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,1,2-Trichlor-1,2,2-trifluoroethane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,2-Dibromo-3-chloropropane	0.50	U	1.0	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:50
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	04-Sep-2018 16:50
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
2-Hexanone	1.0	U	1.0	1.0	2.0	ug/L	1	04-Sep-2018 16:50
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:50
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
4-Methyl-2-pentanone	1.0	U	0.70	1.0	2.0	ug/L	1	04-Sep-2018 16:50
Acetone	1.0	U	2.0	1.0	2.0	ug/L	1	04-Sep-2018 16:50
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Carbon disulfide	1.0	U	0.60	1.0	2.0	ug/L	1	04-Sep-2018 16:50
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Sample ID: 46WW11-180829-FD
Collection Date: 29-Aug-2018 09:55

ANALYTICAL REPORT
WorkOrder:HS18081504
Lab ID:HS18081504-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**						Analyst: AKP
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	04-Sep-2018 16:50
Methylene chloride	1.0	U	1.0	1.0	2.0	ug/L	1	04-Sep-2018 16:50
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 16:50
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Trichloroethene	**12**		**0.20**	**0.50**	**1.0**	**ug/L**	1	04-Sep-2018 16:50
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 16:50
Surr: 1,2-Dichloroethane-d4	*88.9*			**0**	*70-126*	*%REC*	*1*	*04-Sep-2018 16:50*
Surr: 4-Bromofluorobenzene	*98.9*			**0**	*81-113*	*%REC*	*1*	*04-Sep-2018 16:50*
Surr: Dibromofluoromethane	*92.3*			**0**	*77-123*	*%REC*	*1*	*04-Sep-2018 16:50*
Surr: Toluene-d8	*90.6*			**0**	*82-127*	*%REC*	*1*	*04-Sep-2018 16:50*
ICP-MS METALS BY SW6020A		**Method:SW6020**				Prep:SW3010A / 05-Sep-2018		Analyst: JDE
Iron	**0.505**		**0.0120**	**0.100**	**0.200**	**mg/L**	1	06-Sep-2018 14:52
DISSOLVED METALS BY SW6020A		**Method:SW6020 (dissolved)**				Prep:SW3010A / 05-Sep-2018		Analyst: JDE
Iron	**0.526**		**0.0120**	**0.100**	**0.200**	**mg/L**	1	06-Sep-2018 15:24
Manganese	**0.122**		**0.000700**	**0.00100**	**0.00500**	**mg/L**	1	06-Sep-2018 15:24
SULFIDE BY E376.1		**Method:E376.1**						Analyst: KVL
Sulfide	**19.5**		**1.00**	**1.00**	**1.00**	**mg/L**	1	05-Sep-2018 17:00
ALKALINITY BY SM2320B		**Method:SM2320B**						Analyst: AJH
Alkalinity, Total (As CaCO3)	**34.9**		**5.00**	**5.00**	**5.00**	**mg/L**	1	04-Sep-2018 18:40

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Sample ID: 46WW11-180829-FD
Collection Date: 29-Aug-2018 09:55

ANALYTICAL REPORT
WorkOrder:HS18081504
Lab ID:HS18081504-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
PHOSPHORUS BY SM4500P E		**Method:SM4500P E**				Prep:SM4500P E / 07-Sep-2018		Analyst: MZD
Phosphorus, Total (As P)	**0.0940**		**0.0200**	**0.0250**	**0.0500**	**mg/L**	1	07-Sep-2018 15:40
ANIONS BY SW9056A		**Method:SW9056**						Analyst: KMU
Chloride	**205**		**2.00**	**5.00**	**5.00**	**mg/L**	10	30-Aug-2018 22:12
Nitrogen, Nitrate (As N)	0.100	U	0.0300	0.100	0.100	mg/L	1	30-Aug-2018 21:57
Nitrogen, Nitrite (As N)	0.100	U	0.0300	0.100	0.100	mg/L	1	30-Aug-2018 21:57
Sulfate	**282**		**2.00**	**5.00**	**5.00**	**mg/L**	10	30-Aug-2018 22:12
SUBCONTRACT ANALYSIS - RSK		**Method:NA**						Analyst: SUB
Subcontract Analysis	See Attached		0	0		NA	1	11-Sep-2018 09:18
SUBCONTRACT ANALYSIS - TOC ANALYSIS		**Method:NA**						Analyst: SUBK
Subcontract Analysis	See Attached		0	0		NA	1	19-Sep-2018 08:25

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Sample ID: Trip Blank ALS-080318-8
Collection Date: 29-Aug-2018 00:00

ANALYTICAL REPORT
WorkOrder:HS18081504
Lab ID:HS18081504-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**							Analyst: AKP
1,1,1,2-Tetrachloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,1,1-Trichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,1,2-Trichlor-1,2,2-trifluoroethane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,1,2-Trichloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,1-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,1-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,1-Dichloropropene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,2,3-Trichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,2,3-Trichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,2,4-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,2-Dibromo-3-chloropropane	0.50	U	1.0	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,2-Dibromoethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,2-Dichlorobenzene	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,2-Dichloroethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,2-Dichloropropane	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,3,5-Trimethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,3-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,3-Dichloropropane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
1,4-Dichlorobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 15:36
2,2-Dichloropropane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
2-Butanone	1.0	U	0.50	1.0	2.0	ug/L	1	04-Sep-2018 15:36
2-Chlorotoluene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
2-Hexanone	1.0	U	1.0	1.0	2.0	ug/L	1	04-Sep-2018 15:36
4-Chlorotoluene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 15:36
4-Isopropyltoluene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
4-Methyl-2-pentanone	1.0	U	0.70	1.0	2.0	ug/L	1	04-Sep-2018 15:36
Acetone	1.0	U	2.0	1.0	2.0	ug/L	1	04-Sep-2018 15:36
Benzene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Bromobenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Bromochloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Bromodichloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Bromoform	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Bromomethane	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Carbon disulfide	1.0	U	0.60	1.0	2.0	ug/L	1	04-Sep-2018 15:36
Carbon tetrachloride	0.50	U	0.50	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Chlorobenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Chloroethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Sample ID: Trip Blank ALS-080318-8
Collection Date: 29-Aug-2018 00:00

ANALYTICAL REPORT
WorkOrder:HS18081504
Lab ID:HS18081504-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	DL	LOD	LOQ	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		**Method:SW8260**						Analyst: AKP
Chloroform	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Chloromethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
cis-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
cis-1,3-Dichloropropene	0.50	U	0.10	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Dibromochloromethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Dibromomethane	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Dichlorodifluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Ethylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Hexachlorobutadiene	0.50	U	1.0	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Isopropylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
m,p-Xylene	1.0	U	0.50	1.0	2.0	ug/L	1	04-Sep-2018 15:36
Methylene chloride	1.0	U	1.0	1.0	2.0	ug/L	1	04-Sep-2018 15:36
n-Butylbenzene	0.50	U	0.40	0.50	1.0	ug/L	1	04-Sep-2018 15:36
n-Propylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Naphthalene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
o-Xylene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
sec-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Styrene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
tert-Butylbenzene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Tetrachloroethene	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Toluene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
trans-1,2-Dichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
trans-1,3-Dichloropropene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Trichloroethene	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Trichlorofluoromethane	0.50	U	0.30	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Vinyl chloride	0.50	U	0.20	0.50	1.0	ug/L	1	04-Sep-2018 15:36
Surr: 1,2-Dichloroethane-d4	*88.2*			**0**	*70-126*	*%REC*	*1*	*04-Sep-2018 15:36*
Surr: 4-Bromofluorobenzene	*98.5*			**0**	*81-113*	*%REC*	*1*	*04-Sep-2018 15:36*
Surr: Dibromofluoromethane	*95.9*			**0**	*77-123*	*%REC*	*1*	*04-Sep-2018 15:36*
Surr: Toluene-d8	*90.7*			**0**	*82-127*	*%REC*	*1*	*04-Sep-2018 15:36*

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

WEIGHT LOG

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Batch ID: 132119 **Method:** ICP-MS METALS BY SW6020A **Prep:** 3010A

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18081504-01	1	10	10 (mL)	1

Batch ID: 132159 **Method:** DISSOLVED METALS BY SW6020A **Prep:** 3010A DISS

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18081504-01	1	10	10 (mL)	1
HS18081504-02	1	10	10 (mL)	1
HS18081504-03	1	10	10 (mL)	1

Batch ID: 132160 **Method:** ICP-MS METALS BY SW6020A **Prep:** 3010A

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18081504-01	1	10	10 (mL)	1
HS18081504-02	1	10	10 (mL)	1
HS18081504-03	1	10	10 (mL)	1

Batch ID: 132252 **Method:** PHOSPHORUS BY SM4500P E **Prep:** P_TW_PR4500

SampID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS18081504-01	1	50	50 (mL)	1
HS18081504-02	1	50	50 (mL)	1
HS18081504-03	1	50	50 (mL)	1

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 132159	**Test Name :** DISSOLVED METALS BY SW6020A			**Matrix:** Groundwater		
HS18081504-01	46WW02-180829	29 Aug 2018 08:35		05 Sep 2018 13:30	06 Sep 2018 15:08	1
HS18081504-02	46WW11-180829	29 Aug 2018 09:55		05 Sep 2018 13:30	06 Sep 2018 15:18	1
HS18081504-03	46WW11-180829-FD	29 Aug 2018 09:55		05 Sep 2018 13:30	06 Sep 2018 15:24	1
Batch ID 132160	**Test Name :** ICP-MS METALS BY SW6020A			**Matrix:** Groundwater		
HS18081504-01	46WW02-180829	29 Aug 2018 08:35		05 Sep 2018 13:30	06 Sep 2018 14:40	1
HS18081504-02	46WW11-180829	29 Aug 2018 09:55		05 Sep 2018 13:30	06 Sep 2018 14:50	1
HS18081504-03	46WW11-180829-FD	29 Aug 2018 09:55		05 Sep 2018 13:30	06 Sep 2018 14:52	1
Batch ID 132252	**Test Name :** PHOSPHORUS BY SM4500P E			**Matrix:** Groundwater		
HS18081504-01	46WW02-180829	29 Aug 2018 08:35		07 Sep 2018 09:30	07 Sep 2018 15:40	1
HS18081504-02	46WW11-180829	29 Aug 2018 09:55		07 Sep 2018 09:30	07 Sep 2018 15:40	1
HS18081504-03	46WW11-180829-FD	29 Aug 2018 09:55		07 Sep 2018 09:30	07 Sep 2018 15:40	1
Batch ID R322692	**Test Name :** ANIONS BY SW9056A			**Matrix:** Groundwater		
HS18081504-01	46WW02-180829	29 Aug 2018 08:35			30 Aug 2018 21:07	10
HS18081504-01	46WW02-180829	29 Aug 2018 08:35			30 Aug 2018 19:41	1
HS18081504-02	46WW11-180829	29 Aug 2018 09:55			30 Aug 2018 21:42	10
HS18081504-02	46WW11-180829	29 Aug 2018 09:55			30 Aug 2018 21:28	1
HS18081504-03	46WW11-180829-FD	29 Aug 2018 09:55			30 Aug 2018 22:12	10
HS18081504-03	46WW11-180829-FD	29 Aug 2018 09:55			30 Aug 2018 21:57	1
Batch ID R322857	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Groundwater		
HS18081504-01	46WW02-180829	29 Aug 2018 08:35			04 Sep 2018 16:01	1
HS18081504-02	46WW11-180829	29 Aug 2018 09:55			04 Sep 2018 16:25	1
HS18081504-03	46WW11-180829-FD	29 Aug 2018 09:55			04 Sep 2018 16:50	1
HS18081504-04	Trip Blank ALS-080318-8	29 Aug 2018 00:00			04 Sep 2018 15:36	1
Batch ID R322912	**Test Name :** ALKALINITY BY SM2320B			**Matrix:** Groundwater		
HS18081504-01	46WW02-180829	29 Aug 2018 08:35			04 Sep 2018 18:25	1
HS18081504-02	46WW11-180829	29 Aug 2018 09:55			04 Sep 2018 18:35	1
HS18081504-03	46WW11-180829-FD	29 Aug 2018 09:55			04 Sep 2018 18:40	1
Batch ID R322994	**Test Name :** SULFIDE BY E376.1			**Matrix:** Groundwater		
HS18081504-01	46WW02-180829	29 Aug 2018 08:35			05 Sep 2018 17:00	1
HS18081504-02	46WW11-180829	29 Aug 2018 09:55			05 Sep 2018 17:00	1
HS18081504-03	46WW11-180829-FD	29 Aug 2018 09:55			05 Sep 2018 17:00	1
Batch ID R323145	**Test Name :** SUBCONTRACT ANALYSIS - RSK			**Matrix:** Groundwater		
HS18081504-01	46WW02-180829	29 Aug 2018 08:35			11 Sep 2018 09:18	1
HS18081504-02	46WW11-180829	29 Aug 2018 09:55			11 Sep 2018 09:18	1
HS18081504-03	46WW11-180829-FD	29 Aug 2018 09:55			11 Sep 2018 09:18	1

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R323666	**Test Name :** SUBCONTRACT ANALYSIS - TOC ANALYSIS				**Matrix:** Groundwater	
HS18081504-01	46WW02-180829	29 Aug 2018 08:35			19 Sep 2018 08:25	1
HS18081504-02	46WW11-180829	29 Aug 2018 09:55			19 Sep 2018 08:25	1
HS18081504-03	46WW11-180829-FD	29 Aug 2018 09:55			19 Sep 2018 08:25	1

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: 132159 **Instrument: ICPMS05** **Method: SW6020 (dissolved) (DISSOLVED)**

MBLK Sample ID: **MBLK-132159** Units: **mg/L** Analysis Date: **06-Sep-2018 15:04**
Client ID: Run ID: **ICPMS05_322949** SeqNo: **4718253** PrepDate: **05-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	0.100	0.200								U
Manganese	0.00100	0.00500								U

LCS Sample ID: **LCS-132159** Units: **mg/L** Analysis Date: **06-Sep-2018 15:06**
Client ID: Run ID: **ICPMS05_322949** SeqNo: **4718254** PrepDate: **05-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.699	0.200	5	0	94.0	80 - 120				
Manganese	0.0486	0.00500	0.05	0	97.2	80 - 120				

MS Sample ID: **HS18081504-01MS** Units: **mg/L** Analysis Date: **06-Sep-2018 15:12**
Client ID: **46WW02-180829** Run ID: **ICPMS05_322949** SeqNo: **4718257** PrepDate: **05-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	5.235	0.200	5	0.743	89.8	75 - 125				
Manganese	0.3377	0.00500	0.05	0.2984	78.6	75 - 125				O

MSD Sample ID: **HS18081504-01MSD** Units: **mg/L** Analysis Date: **06-Sep-2018 15:14**
Client ID: **46WW02-180829** Run ID: **ICPMS05_322949** SeqNo: **4718258** PrepDate: **05-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	5.272	0.200	5	0.743	90.6	75 - 125	5.235	0.703	20	
Manganese	0.331	0.00500	0.05	0.2984	65.0	75 - 125	0.3377	2.03	20	SO

PDS Sample ID: **HS18081504-01PDS** Units: **mg/L** Analysis Date: **06-Sep-2018 15:16**
Client ID: **46WW02-180829** Run ID: **ICPMS05_322949** SeqNo: **4718259** PrepDate: **05-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	10.85	0.200	10	0.743	101	75 - 125				
Manganese	0.3993	0.00500	0.1	0.2984	101	75 - 125				

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: 132159 **Instrument:** ICPMS05 **Method:** SW6020 (dissolved) (DISSOLVED)

SD Sample ID: **HS18081504-01SD** Units: **mg/L** Analysis Date: **06-Sep-2018 15:10**
Client ID: **46WW02-180829** Run ID: **ICPMS05_322949** SeqNo: **4718256** PrepDate: **05-Sep-2018** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Iron	0.7847	1.00					0.743	0	10	J
Manganese	0.3002	0.0250					0.2984	0.585	10	

The following samples were analyzed in this batch: HS18081504-01 HS18081504-02 HS18081504-03

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: 132160 **Instrument: ICPMS05** **Method: SW6020**

MBLK Sample ID: **MBLK-132160** Units: **mg/L** Analysis Date: **06-Sep-2018 14:36**
Client ID: Run ID: **ICPMS05_322949** SeqNo: **4718239** PrepDate: **05-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	0.100	0.200								U

LCS Sample ID: **LCS-132160** Units: **mg/L** Analysis Date: **06-Sep-2018 14:38**
Client ID: Run ID: **ICPMS05_322949** SeqNo: **4718240** PrepDate: **05-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	4.704	0.200	5	0	94.1	80 - 120				

MS Sample ID: **HS18081504-01MS** Units: **mg/L** Analysis Date: **06-Sep-2018 14:44**
Client ID: **46WW02-180829** Run ID: **ICPMS05_322949** SeqNo: **4718243** PrepDate: **05-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	5.089	0.200	5	0.6907	88.0	80 - 120				

MSD Sample ID: **HS18081504-01MSD** Units: **mg/L** Analysis Date: **06-Sep-2018 14:46**
Client ID: **46WW02-180829** Run ID: **ICPMS05_322949** SeqNo: **4718244** PrepDate: **05-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	5.285	0.200	5	0.6907	91.9	80 - 120	5.089	3.77	20	

PDS Sample ID: **HS18081504-01PDS** Units: **mg/L** Analysis Date: **06-Sep-2018 14:48**
Client ID: **46WW02-180829** Run ID: **ICPMS05_322949** SeqNo: **4718245** PrepDate: **05-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	9.228	0.200	10	0.6907	85.4	75 - 125				

SD Sample ID: **HS18081504-01SD** Units: **mg/L** Analysis Date: **06-Sep-2018 14:42**
Client ID: **46WW02-180829** Run ID: **ICPMS05_322949** SeqNo: **4718242** PrepDate: **05-Sep-2018** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Iron	0.7796	1.00					0.6907	0	10	J

The following samples were analyzed in this batch: HS18081504-01 HS18081504-02 HS18081504-03

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322857 **Instrument: VOA2** **Method: SW8260**

MBLK Sample ID: **VBLKW-180904** Units: **ug/L** Analysis Date: **04-Sep-2018 12:45**
Client ID: Run ID: **VOA2_322857** SeqNo: **4715512** 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-Trichlor-1,2,2-trifluoroethane	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	1.0	2.0								U
2-Chlorotoluene	0.50	1.0								U
2-Hexanone	1.0	2.0								U
4-Chlorotoluene	0.50	1.0								U
4-Isopropyltoluene	0.50	1.0								U
4-Methyl-2-pentanone	1.0	2.0								U
Acetone	1.0	2.0								U
Benzene	0.50	1.0								U
Bromobenzene	0.50	1.0								U
Bromochloromethane	0.50	1.0								U
Bromodichloromethane	0.50	1.0								U
Bromoform	0.50	1.0								U

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322857 **Instrument: VOA2** **Method: SW8260**

MBLK Sample ID: **VBLKW-180904** Units: **ug/L** Analysis Date: **04-Sep-2018 12:45**
Client ID: Run ID: **VOA2_322857** SeqNo: **4715512** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromomethane	0.50	1.0								U
Carbon disulfide	1.0	2.0								U
Carbon tetrachloride	0.50	1.0								U
Chlorobenzene	0.50	1.0								U
Chloroethane	0.50	1.0								U
Chloroform	0.50	1.0								U
Chloromethane	0.50	1.0								U
cis-1,2-Dichloroethene	0.50	1.0								U
cis-1,3-Dichloropropene	0.50	1.0								U
Dibromochloromethane	0.50	1.0								U
Dibromomethane	0.50	1.0								U
Dichlorodifluoromethane	0.50	1.0								U
Ethylbenzene	0.50	1.0								U
Hexachlorobutadiene	0.50	1.0								U
Isopropylbenzene	0.50	1.0								U
m,p-Xylene	1.0	2.0								U
Methylene chloride	1.0	2.0								U
Naphthalene	0.50	1.0								U
n-Butylbenzene	0.50	1.0								U
n-Propylbenzene	0.50	1.0								U
o-Xylene	0.50	1.0								U
sec-Butylbenzene	0.50	1.0								U
Styrene	0.50	1.0								U
tert-Butylbenzene	0.50	1.0								U
Tetrachloroethene	0.50	1.0								U
Toluene	0.50	1.0								U
trans-1,2-Dichloroethene	0.50	1.0								U
trans-1,3-Dichloropropene	0.50	1.0								U
Trichloroethene	0.50	1.0								U
Trichlorofluoromethane	0.50	1.0								U
Vinyl chloride	0.50	1.0								U
Surr: 1,2-Dichloroethane-d4	*43.72*	*1.0*	*50*	*0*	*87.4*	*70 - 123*				
Surr: 4-Bromofluorobenzene	*49.33*	*1.0*	*50*	*0*	*98.7*	*82 - 115*				
Surr: Dibromofluoromethane	*46.04*	*1.0*	*50*	*0*	*92.1*	*73 - 126*				

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322857 **Instrument:** VOA2 **Method:** SW8260

MBLK Sample ID: **VBLKW-180904** Units: **ug/L** Analysis Date: **04-Sep-2018 12:45**
Client ID: Run ID: **VOA2_322857** SeqNo: **4715512** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Surr: Toluene-d8	*46.25*	*1.0*	*50*	*0*	*92.5*	*81 - 120*				

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322857 **Instrument: VOA2** **Method: SW8260**

LCS Sample ID: **VLCSW-180904** Units: **ug/L** Analysis Date: **04-Sep-2018 12:21**
Client ID: Run ID: **VOA2_322857** SeqNo: **4715511** 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	21.09	1.0	20	0	105	77 - 118				
1,1,1-Trichloroethane	19.06	1.0	20	0	95.3	70 - 130				
1,1,2,2-Tetrachloroethane	18.9	1.0	20	0	94.5	70 - 120				
1,1,2-Trichlor-1,2,2-trifluoroethane	19.02	1.0	20	0	95.1	70 - 130				
1,1,2-Trichloroethane	20.4	1.0	20	0	102	77 - 113				
1,1-Dichloroethane	19.11	1.0	20	0	95.5	71 - 122				
1,1-Dichloroethene	18.55	1.0	20	0	92.7	70 - 130				
1,1-Dichloropropene	22.73	1.0	20	0	114	78 - 118				
1,2,3-Trichlorobenzene	20.23	1.0	20	0	101	70 - 130				
1,2,3-Trichloropropane	19.12	1.0	20	0	95.6	70 - 127				
1,2,4-Trichlorobenzene	20.82	1.0	20	0	104	77 - 126				
1,2,4-Trimethylbenzene	20.75	1.0	20	0	104	73 - 121				
1,2-Dibromo-3-chloropropane	18.2	1.0	20	0	91.0	70 - 130				
1,2-Dibromoethane	21.24	1.0	20	0	106	76 - 123				
1,2-Dichlorobenzene	20.04	1.0	20	0	100	77 - 113				
1,2-Dichloroethane	20.96	1.0	20	0	105	70 - 124				
1,2-Dichloropropane	20.74	1.0	20	0	104	72 - 119				
1,3,5-Trimethylbenzene	19.28	1.0	20	0	96.4	75 - 118				
1,3-Dichlorobenzene	19.92	1.0	20	0	99.6	78 - 118				
1,3-Dichloropropane	20.85	1.0	20	0	104	75 - 116				
1,4-Dichlorobenzene	20.11	1.0	20	0	101	79 - 113				
2,2-Dichloropropane	23.35	1.0	20	0	117	70 - 130				
2-Butanone	39.93	2.0	40	0	99.8	70 - 130				
2-Chlorotoluene	20.99	1.0	20	0	105	70 - 128				
2-Hexanone	40.89	2.0	40	0	102	70 - 130				
4-Chlorotoluene	20.99	1.0	20	0	105	74 - 126				
4-Isopropyltoluene	19.07	1.0	20	0	95.4	74 - 126				
4-Methyl-2-pentanone	41.92	2.0	40	0	105	70 - 130				
Acetone	33.4	2.0	40	0	83.5	70 - 130				
Benzene	20.36	1.0	20	0	102	74 - 120				
Bromobenzene	19.79	1.0	20	0	99.0	78 - 113				
Bromochloromethane	20.87	1.0	20	0	104	76 - 124				
Bromodichloromethane	21.06	1.0	20	0	105	74 - 122				
Bromoform	21.89	1.0	20	0	109	73 - 128				

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322857 **Instrument: VOA2** **Method: SW8260**

LCS Sample ID: **VLCSW-180904** Units: **ug/L** Analysis Date: **04-Sep-2018 12:21**
Client ID: Run ID: **VOA2_322857** SeqNo: **4715511** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromomethane	20.9	1.0	20	0	104	70 - 130				
Carbon disulfide	36.72	2.0	40	0	91.8	70 - 130				
Carbon tetrachloride	21.38	1.0	20	0	107	71 - 125				
Chlorobenzene	20.87	1.0	20	0	104	76 - 113				
Chloroethane	16.55	1.0	20	0	82.8	70 - 130				
Chloroform	19.41	1.0	20	0	97.1	71 - 121				
Chloromethane	17.17	1.0	20	0	85.9	70 - 129				
cis-1,2-Dichloroethene	20.25	1.0	20	0	101	75 - 122				
cis-1,3-Dichloropropene	22.68	1.0	20	0	113	73 - 127				
Dibromochloromethane	21.25	1.0	20	0	106	77 - 122				
Dibromomethane	22.37	1.0	20	0	112	78 - 121				
Dichlorodifluoromethane	21.75	1.0	20	0	109	70 - 130				
Ethylbenzene	22.2	1.0	20	0	111	77 - 117				
Hexachlorobutadiene	20.91	1.0	20	0	105	70 - 130				
Isopropylbenzene	20.7	1.0	20	0	104	73 - 127				
m,p-Xylene	45.35	2.0	40	0	113	77 - 122				
Methylene chloride	19.71	2.0	20	0	98.5	70 - 127				
Naphthalene	19.54	1.0	20	0	97.7	70 - 130				
n-Butylbenzene	19.69	1.0	20	0	98.4	72 - 130				
n-Propylbenzene	21.39	1.0	20	0	107	73 - 124				
o-Xylene	22.09	1.0	20	0	110	75 - 119				
sec-Butylbenzene	18.87	1.0	20	0	94.3	73 - 128				
Styrene	21.35	1.0	20	0	107	72 - 126				
tert-Butylbenzene	21.36	1.0	20	0	107	73 - 124				
Tetrachloroethene	21.5	1.0	20	0	108	76 - 119				
Toluene	19.62	1.0	20	0	98.1	77 - 118				
trans-1,2-Dichloroethene	20	1.0	20	0	100.0	72 - 127				
trans-1,3-Dichloropropene	23.47	1.0	20	0	117	77 - 119				
Trichloroethene	21.13	1.0	20	0	106	77 - 121				
Trichlorofluoromethane	19.22	1.0	20	0	96.1	70 - 130				
Vinyl chloride	19.88	1.0	20	0	99.4	70 - 130				
Surr: 1,2-Dichloroethane-d4	*45.05*	*1.0*	*50*	*0*	*90.1*	*70 - 130*				
Surr: 4-Bromofluorobenzene	*50.78*	*1.0*	*50*	*0*	*102*	*82 - 115*				
Surr: Dibromofluoromethane	*47.24*	*1.0*	*50*	*0*	*94.5*	*73 - 126*				

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322857 **Instrument:** VOA2 **Method:** SW8260

LCS Sample ID: **VLCSW-180904** Units: **ug/L** Analysis Date: **04-Sep-2018 12:21**
Client ID: Run ID: **VOA2_322857** SeqNo: **4715511** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Surr: Toluene-d8	*44.24*	*1.0*	*50*	*0*	*88.5*	*81 - 120*				

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322857 **Instrument: VOA2** **Method: SW8260**

MS Sample ID: **HS18081504-01MS** Units: **ug/L** Analysis Date: **04-Sep-2018 17:39**
Client ID: **46WW02-180829** Run ID: **VOA2_322857** SeqNo: **4715521** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	18.12	1.0	20	0	90.6	70 - 120				
1,1,1-Trichloroethane	16.99	1.0	20	0	85.0	70 - 130				
1,1,2,2-Tetrachloroethane	15.55	1.0	20	0	77.7	70 - 123				
1,1,2-Trichlor-1,2,2-trifluoroethane	18.37	1.0	20	0	91.8	70 - 130				
1,1,2-Trichloroethane	17.22	1.0	20	0	86.1	70 - 117				
1,1-Dichloroethane	15.47	1.0	20	0	77.4	70 - 127				
1,1-Dichloroethene	17.84	1.0	20	0	89.2	70 - 130				
1,1-Dichloropropene	20.07	1.0	20	0	100	70 - 129				
1,2,3-Trichlorobenzene	16.8	1.0	20	0	84.0	70 - 130				
1,2,3-Trichloropropane	15.99	1.0	20	0	79.9	70 - 130				
1,2,4-Trichlorobenzene	17.29	1.0	20	0	86.4	70 - 125				
1,2,4-Trimethylbenzene	17.58	1.0	20	0	87.9	70 - 125				
1,2-Dibromo-3-chloropropane	15.61	1.0	20	0	78.1	70 - 130				
1,2-Dibromoethane	18.32	1.0	20	0	91.6	70 - 124				
1,2-Dichlorobenzene	16.87	1.0	20	0	84.3	70 - 115				
1,2-Dichloroethane	17.45	1.0	20	0	87.2	70 - 127				
1,2-Dichloropropane	18.04	1.0	20	0	90.2	70 - 122				
1,3,5-Trimethylbenzene	16.39	1.0	20	0	81.9	70 - 126				
1,3-Dichlorobenzene	17.36	1.0	20	0	86.8	70 - 119				
1,3-Dichloropropane	17.82	1.0	20	0	89.1	70 - 121				
1,4-Dichlorobenzene	17.28	1.0	20	0	86.4	70 - 114				
2,2-Dichloropropane	19.35	1.0	20	0	96.7	70 - 130				
2-Butanone	33.75	2.0	40	0	84.4	70 - 130				
2-Chlorotoluene	17.87	1.0	20	0	89.4	70 - 130				
2-Hexanone	34.24	2.0	40	0	85.6	70 - 130				
4-Chlorotoluene	17.61	1.0	20	0	88.1	70 - 130				
4-Isopropyltoluene	16.44	1.0	20	0	82.2	70 - 130				
4-Methyl-2-pentanone	34.54	2.0	40	0	86.4	70 - 130				
Acetone	30.28	2.0	40	0	75.7	70 - 130				
Benzene	17.94	1.0	20	0	89.7	70 - 127				
Bromobenzene	17.32	1.0	20	0	86.6	70 - 115				
Bromochloromethane	17.64	1.0	20	0	88.2	70 - 127				
Bromodichloromethane	18.37	1.0	20	0	91.8	70 - 124				
Bromoform	18.07	1.0	20	0	90.3	70 - 129				

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322857 **Instrument: VOA2** **Method: SW8260**

MS Sample ID: **HS18081504-01MS** Units: **ug/L** Analysis Date: **04-Sep-2018 17:39**
Client ID: **46WW02-180829** Run ID: **VOA2_322857** SeqNo: **4715521** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Bromomethane	17.17	1.0	20	0	85.9	70 - 130				
Carbon disulfide	32.99	2.0	40	0	82.5	70 - 130				
Carbon tetrachloride	20.08	1.0	20	0	100	70 - 130				
Chlorobenzene	18.15	1.0	20	0	90.7	70 - 114				
Chloroethane	14.94	1.0	20	0	74.7	70 - 130				
Chloroform	16.61	1.0	20	0	83.1	70 - 125				
Chloromethane	14.15	1.0	20	0	70.7	70 - 130				
cis-1,2-Dichloroethene	19.05	1.0	20	1.385	88.3	70 - 128				
cis-1,3-Dichloropropene	19.52	1.0	20	0	97.6	70 - 125				
Dibromochloromethane	18.32	1.0	20	0	91.6	70 - 124				
Dibromomethane	18.42	1.0	20	0	92.1	70 - 124				
Dichlorodifluoromethane	17.39	1.0	20	0	87.0	70 - 130				
Ethylbenzene	19.85	1.0	20	0	99.2	70 - 124				
Hexachlorobutadiene	17.78	1.0	20	0	88.9	70 - 130				
Isopropylbenzene	18.28	1.0	20	0	91.4	70 - 130				
m,p-Xylene	39.15	2.0	40	0	97.9	70 - 130				
Methylene chloride	15.13	2.0	20	0	75.7	70 - 128				
Naphthalene	16.32	1.0	20	0	81.6	70 - 130				
n-Butylbenzene	17.12	1.0	20	0	85.6	70 - 130				
n-Propylbenzene	18.45	1.0	20	0	92.3	70 - 130				
o-Xylene	19.49	1.0	20	0	97.4	70 - 124				
sec-Butylbenzene	16.73	1.0	20	0	83.7	70 - 130				
Styrene	18.64	1.0	20	0	93.2	70 - 130				
tert-Butylbenzene	18.43	1.0	20	0	92.1	70 - 130				
Tetrachloroethene	19.37	1.0	20	0	96.8	70 - 130				
Toluene	17.59	1.0	20	0	88.0	70 - 123				
trans-1,2-Dichloroethene	17.14	1.0	20	0	85.7	70 - 130				
trans-1,3-Dichloropropene	20	1.0	20	0	100	70 - 121				
Trichloroethene	42.42	1.0	20	23.95	92.4	70 - 129				
Trichlorofluoromethane	15.9	1.0	20	0	79.5	70 - 130				
Vinyl chloride	16.67	1.0	20	0	83.4	70 - 130				
Surr: 1,2-Dichloroethane-d4	*44.76*	*1.0*	*50*	*0*	*89.5*	*70 - 126*				
Surr: 4-Bromofluorobenzene	*51.25*	*1.0*	*50*	*0*	*102*	*81 - 113*				
Surr: Dibromofluoromethane	*45.23*	*1.0*	*50*	*0*	*90.5*	*77 - 123*				

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322857 **Instrument:** VOA2 **Method:** SW8260

MS Sample ID: **HS18081504-01MS** Units: **ug/L** Analysis Date: **04-Sep-2018 17:39**
Client ID: **46WW02-180829** Run ID: **VOA2_322857** SeqNo: **4715521** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Surr: Toluene-d8	*44.52*	*1.0*	*50*	*0*	*89.0*	*82 - 127*				

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322857 **Instrument: VOA2** **Method: SW8260**

MSD Sample ID: **HS18081504-01MSD** Units: **ug/L** Analysis Date: **04-Sep-2018 18:03**
Client ID: **46WW02-180829** Run ID: **VOA2_322857** SeqNo: **4715522** 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	18.03	1.0	20	0	90.2	70 - 120	18.12	0.501	20	
1,1,1-Trichloroethane	16.54	1.0	20	0	82.7	70 - 130	16.99	2.7	20	
1,1,2,2-Tetrachloroethane	15.67	1.0	20	0	78.3	70 - 123	15.55	0.76	20	
1,1,2-Trichlor-1,2,2-trifluoroethane	17.68	1.0	20	0	88.4	70 - 130	18.37	3.82	20	
1,1,2-Trichloroethane	17.35	1.0	20	0	86.7	70 - 117	17.22	0.702	20	
1,1-Dichloroethane	16.91	1.0	20	0	84.5	70 - 127	15.47	8.87	20	
1,1-Dichloroethene	17.89	1.0	20	0	89.4	70 - 130	17.84	0.275	20	
1,1-Dichloropropene	19.56	1.0	20	0	97.8	70 - 129	20.07	2.55	20	
1,2,3-Trichlorobenzene	16.28	1.0	20	0	81.4	70 - 130	16.8	3.14	20	
1,2,3-Trichloropropane	15.65	1.0	20	0	78.2	70 - 130	15.99	2.17	20	
1,2,4-Trichlorobenzene	17.32	1.0	20	0	86.6	70 - 125	17.29	0.22	20	
1,2,4-Trimethylbenzene	17.54	1.0	20	0	87.7	70 - 125	17.58	0.235	20	
1,2-Dibromo-3-chloropropane	15.39	1.0	20	0	77.0	70 - 130	15.61	1.42	20	
1,2-Dibromoethane	18.43	1.0	20	0	92.1	70 - 124	18.32	0.565	20	
1,2-Dichlorobenzene	16.6	1.0	20	0	83.0	70 - 115	16.87	1.58	20	
1,2-Dichloroethane	18.06	1.0	20	0	90.3	70 - 127	17.45	3.45	20	
1,2-Dichloropropane	18.12	1.0	20	0	90.6	70 - 122	18.04	0.464	20	
1,3,5-Trimethylbenzene	16.45	1.0	20	0	82.2	70 - 126	16.39	0.357	20	
1,3-Dichlorobenzene	16.95	1.0	20	0	84.8	70 - 119	17.36	2.35	20	
1,3-Dichloropropane	17.2	1.0	20	0	86.0	70 - 121	17.82	3.54	20	
1,4-Dichlorobenzene	16.88	1.0	20	0	84.4	70 - 114	17.28	2.35	20	
2,2-Dichloropropane	19.33	1.0	20	0	96.7	70 - 130	19.35	0.0813	20	
2-Butanone	32.61	2.0	40	0	81.5	70 - 130	33.75	3.44	20	
2-Chlorotoluene	17.62	1.0	20	0	88.1	70 - 130	17.87	1.39	20	
2-Hexanone	33.42	2.0	40	0	83.6	70 - 130	34.24	2.43	20	
4-Chlorotoluene	17.6	1.0	20	0	88.0	70 - 130	17.61	0.0849	20	
4-Isopropyltoluene	16.19	1.0	20	0	80.9	70 - 130	16.44	1.57	20	
4-Methyl-2-pentanone	34.5	2.0	40	0	86.2	70 - 130	34.54	0.131	20	
Acetone	30.37	2.0	40	0	75.9	70 - 130	30.28	0.306	20	
Benzene	17.91	1.0	20	0	89.5	70 - 127	17.94	0.176	20	
Bromobenzene	16.78	1.0	20	0	83.9	70 - 115	17.32	3.19	20	
Bromochloromethane	17.55	1.0	20	0	87.8	70 - 127	17.64	0.481	20	
Bromodichloromethane	18.54	1.0	20	0	92.7	70 - 124	18.37	0.938	20	
Bromoform	18.22	1.0	20	0	91.1	70 - 129	18.07	0.824	20	

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322857 **Instrument:** VOA2 **Method:** SW8260

MSD Sample ID: **HS18081504-01MSD** Units: **ug/L** Analysis Date: **04-Sep-2018 18:03**
Client ID: **46WW02-180829** Run ID: **VOA2_322857** SeqNo: **4715522** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Bromomethane	16.04	1.0	20	0	80.2	70 - 130	17.17	6.86	20	
Carbon disulfide	32.04	2.0	40	0	80.1	70 - 130	32.99	2.91	20	
Carbon tetrachloride	18.81	1.0	20	0	94.1	70 - 130	20.08	6.53	20	
Chlorobenzene	18.08	1.0	20	0	90.4	70 - 114	18.15	0.397	20	
Chloroethane	13.89	1.0	20	0	69.5	70 - 130	14.94	7.26	20	S
Chloroform	16.58	1.0	20	0	82.9	70 - 125	16.61	0.198	20	
Chloromethane	13.79	1.0	20	0	69.0	70 - 130	14.15	2.51	20	S
cis-1,2-Dichloroethene	18.72	1.0	20	1.385	86.7	70 - 128	19.05	1.74	20	
cis-1,3-Dichloropropene	19.65	1.0	20	0	98.2	70 - 125	19.52	0.676	20	
Dibromochloromethane	17.97	1.0	20	0	89.8	70 - 124	18.32	1.98	20	
Dibromomethane	18.59	1.0	20	0	93.0	70 - 124	18.42	0.91	20	
Dichlorodifluoromethane	17.93	1.0	20	0	89.6	70 - 130	17.39	3.01	20	
Ethylbenzene	19.64	1.0	20	0	98.2	70 - 124	19.85	1.02	20	
Hexachlorobutadiene	17.25	1.0	20	0	86.2	70 - 130	17.78	3.01	20	
Isopropylbenzene	17.81	1.0	20	0	89.0	70 - 130	18.28	2.62	20	
m,p-Xylene	38.39	2.0	40	0	96.0	70 - 130	39.15	1.96	20	
Methylene chloride	15.49	2.0	20	0	77.5	70 - 128	15.13	2.38	20	
Naphthalene	15.77	1.0	20	0	78.8	70 - 130	16.32	3.45	20	
n-Butylbenzene	16.74	1.0	20	0	83.7	70 - 130	17.12	2.26	20	
n-Propylbenzene	18.11	1.0	20	0	90.6	70 - 130	18.45	1.84	20	
o-Xylene	18.87	1.0	20	0	94.3	70 - 124	19.49	3.23	20	
sec-Butylbenzene	16.37	1.0	20	0	81.8	70 - 130	16.73	2.22	20	
Styrene	18.14	1.0	20	0	90.7	70 - 130	18.64	2.72	20	
tert-Butylbenzene	18.22	1.0	20	0	91.1	70 - 130	18.43	1.13	20	
Tetrachloroethene	18.76	1.0	20	0	93.8	70 - 130	19.37	3.17	20	
Toluene	17.4	1.0	20	0	87.0	70 - 123	17.59	1.1	20	
trans-1,2-Dichloroethene	18.16	1.0	20	0	90.8	70 - 130	17.14	5.81	20	
trans-1,3-Dichloropropene	20.03	1.0	20	0	100	70 - 121	20	0.117	20	
Trichloroethene	42.18	1.0	20	23.95	91.2	70 - 129	42.42	0.578	20	
Trichlorofluoromethane	16.59	1.0	20	0	83.0	70 - 130	15.9	4.26	20	
Vinyl chloride	15.67	1.0	20	0	78.3	70 - 130	16.67	6.22	20	
Surr: 1,2-Dichloroethane-d4	*45.53*	*1.0*	*50*	*0*	*91.1*	*70 - 126*	*44.76*	*1.71*	*20*	
Surr: 4-Bromofluorobenzene	*50.71*	*1.0*	*50*	*0*	*101*	*81 - 113*	*51.25*	*1.06*	*20*	
Surr: Dibromofluoromethane	*46.87*	*1.0*	*50*	*0*	*93.7*	*77 - 123*	*45.23*	*3.56*	*20*	

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322857 **Instrument:** VOA2 **Method:** SW8260

MSD Sample ID: **HS18081504-01MSD** Units: **ug/L** Analysis Date: **04-Sep-2018 18:03**
Client ID: **46WW02-180829** Run ID: **VOA2_322857** SeqNo: **4715522** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Surr: Toluene-d8	*44.68*	*1.0*	*50*	*0*	*89.4*	*82 - 127*	*44.52*	*0.357*	*20*	

The following samples were analyzed in this batch: HS18081504-01 HS18081504-02 HS18081504-03 HS18081504-04

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: 132252 **Instrument: UV-2450** **Method: SM4500P E**

MBLK Sample ID: **MBLK-132252** Units: **mg/L** Analysis Date: **07-Sep-2018 15:40**
Client ID: Run ID: **UV-2450_323053** SeqNo: **4719314** PrepDate: **07-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total (As P)	0.0250	0.0500								U

LCS Sample ID: **LCS-132252** Units: **mg/L** Analysis Date: **07-Sep-2018 15:40**
Client ID: Run ID: **UV-2450_323053** SeqNo: **4719313** PrepDate: **07-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total (As P)	0.23	0.0500	0.25	0	92.0	80 - 120				

MS Sample ID: **HS18081504-01MS** Units: **mg/L** Analysis Date: **07-Sep-2018 15:40**
Client ID: **46WW02-180829** Run ID: **UV-2450_323053** SeqNo: **4719311** PrepDate: **07-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total (As P)	0.352	0.0500	0.25	0.084	107	80 - 120				

MSD Sample ID: **HS18081504-01MSD** Units: **mg/L** Analysis Date: **07-Sep-2018 15:40**
Client ID: **46WW02-180829** Run ID: **UV-2450_323053** SeqNo: **4719312** PrepDate: **07-Sep-2018** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Phosphorus, Total (As P)	0.353	0.0500	0.25	0.084	108	80 - 120	0.352	0.284	20	

The following samples were analyzed in this batch: HS18081504-01 HS18081504-02 HS18081504-03

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322692 **Instrument: ICS2100** **Method: SW9056**

MBLK Sample ID: **WBLKW1-083018** Units: **mg/L** Analysis Date: **30-Aug-2018 11:31**
Client ID: Run ID: **ICS2100_322692** SeqNo: **4712026** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.500	0.500								U
Nitrogen, Nitrate (As N)	0.100	0.100								U
Nitrogen, Nitrite (As N)	0.100	0.100								U
Sulfate	0.500	0.500								U

LCS Sample ID: **WLCSW1-083018** Units: **mg/L** Analysis Date: **30-Aug-2018 11:45**
Client ID: Run ID: **ICS2100_322692** SeqNo: **4712027** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.86	0.500	20	0	99.3	80 - 120				
Nitrogen, Nitrate (As N)	3.893	0.100	4	0	97.3	80 - 120				
Nitrogen, Nitrite (As N)	4.127	0.100	4	0	103	80 - 120				
Sulfate	19.66	0.500	20	0	98.3	80 - 120				

LCSD Sample ID: **WLCSDW1-083018** Units: **mg/L** Analysis Date: **30-Aug-2018 12:00**
Client ID: Run ID: **ICS2100_322692** SeqNo: **4712028** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.8	0.500	20	0	99.0	80 - 120	19.86	0.293	20	
Nitrogen, Nitrate (As N)	3.885	0.100	4	0	97.1	80 - 120	3.893	0.206	20	
Nitrogen, Nitrite (As N)	4.119	0.100	4	0	103	80 - 120	4.127	0.194	20	
Sulfate	19.62	0.500	20	0	98.1	80 - 120	19.66	0.239	20	

MS Sample ID: **HS18081504-01MS** Units: **mg/L** Analysis Date: **30-Aug-2018 20:09**
Client ID: **46WW02-180829** Run ID: **ICS2100_322692** SeqNo: **4712034** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	45.74	0.500	10	35.94	98.0	80 - 120				
Nitrogen, Nitrate (As N)	2.174	0.100	2	0.216	97.9	80 - 120				
Nitrogen, Nitrite (As N)	2.009	0.100	2	0	100	80 - 120				
Sulfate	192.8	0.500	10	186.1	67.5	80 - 120				SEO

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322692 **Instrument:** ICS2100 **Method:** SW9056

MSD Sample ID: **HS18081504-01MSD** Units: **mg/L** Analysis Date: **30-Aug-2018 20:23**
Client ID: **46WW02-180829** Run ID: **ICS2100_322692** SeqNo: **4712035** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	45.21	0.500	10	35.94	92.7	80 - 120	45.74	1.17	20	
Nitrogen, Nitrate (As N)	2.128	0.100	2	0.216	95.6	80 - 120	2.174	2.14	20	
Nitrogen, Nitrite (As N)	1.983	0.100	2	0	99.2	80 - 120	2.009	1.3	20	
Sulfate	190.2	0.500	10	186.1	41.3	80 - 120	192.8	1.37	20	SEO

The following samples were analyzed in this batch: HS18081504-01 HS18081504-02 HS18081504-03

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322912 **Instrument: ManTech01** **Method: SM2320B**

MBLK Sample ID: **WBLKW1-180904** Units: **mg/L** Analysis Date: **04-Sep-2018 17:08**
Client ID: Run ID: **ManTech01_322912** SeqNo: **4717516** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	5.00	5.00								U

LCS Sample ID: **WLCS1-180904** Units: **mg/L** Analysis Date: **04-Sep-2018 17:17**
Client ID: Run ID: **ManTech01_322912** SeqNo: **4717517** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1072	5.00	1000	0	107	85 - 115				

LCSD Sample ID: **WLCSD1-180904** Units: **mg/L** Analysis Date: **04-Sep-2018 17:25**
Client ID: Run ID: **ManTech01_322912** SeqNo: **4717518** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1070	5.00	1000	0	107	85 - 115	1072	0.159	20	

DUP Sample ID: **HS18081504-01DUP** Units: **mg/L** Analysis Date: **04-Sep-2018 18:30**
Client ID: **46WW02-180829** Run ID: **ManTech01_322912** SeqNo: **4717528** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	5.00	5.00					-4.71	0	20	U

The following samples were analyzed in this batch: HS18081504-01 HS18081504-02 HS18081504-03

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

QC BATCH REPORT

Batch ID: R322994 **Instrument: WetChem_HS** **Method: E376.1**

MBLK Sample ID: **MBLK-322994** Units: **mg/L** Analysis Date: **05-Sep-2018 17:00**
Client ID: Run ID: **WetChem_HS_322994** SeqNo: **4718072** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	1.00	1.00								U

LCS Sample ID: **LCS-322994** Units: **mg/L** Analysis Date: **05-Sep-2018 17:00**
Client ID: Run ID: **WetChem_HS_322994** SeqNo: **4718073** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	21.32	1.00	25	0	85.3	80 - 120				

LCSD Sample ID: **LCSD-322994** Units: **mg/L** Analysis Date: **05-Sep-2018 17:00**
Client ID: Run ID: **WetChem_HS_322994** SeqNo: **4718074** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	21.52	1.00	25	0	86.1	80 - 120	21.32	0.934	20	

MS Sample ID: **HS18081504-01MS** Units: **mg/L** Analysis Date: **05-Sep-2018 17:00**
Client ID: **46WW02-180829** Run ID: **WetChem_HS_322994** SeqNo: **4718075** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide	30.52	1.00	25	16.12	57.6	80 - 120				S

The following samples were analyzed in this batch: HS18081504-01 HS18081504-02 HS18081504-03

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

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: **HS18081504**

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
North Carolina	624-2018	31-Dec-2018
Arkansas	88-0356	27-Mar-2019
Texas	T10470231-18-21	30-Apr-2019
North Dakota	R193 2018-2019	30-Apr-2019
Illinois	004438	29-Jun-2019
Louisiana	03087	30-Jun-2019
Dept of Defense	L2231 Rev 3-30-2018	22-Dec-2018
Kentucky	123043 - 2018	30-Apr-2019
Kansas	E-10352 2018-2019	31-Jul-2019
Oklahoma	2018-156	31-Aug-2019

ALS Houston, US Date: 20-Sep-18

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
Work Order: HS18081504

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS18081504-01	46WW02-180829	Login	8/30/2018 3:14:19 PM	RPG	WET118
HS18081504-01	46WW02-180829	Login	8/30/2018 3:14:19 PM	RPG	WET118
HS18081504-01	46WW02-180829	Login	8/30/2018 3:14:19 PM	RPG	WET118
HS18081504-01	46WW02-180829	Login	8/30/2018 3:14:19 PM	RPG	MET072
HS18081504-01	46WW02-180829	Login	8/30/2018 3:14:19 PM	RPG	MET072
HS18081504-01	46WW02-180829	Login	8/30/2018 3:14:19 PM	RPG	VOA200
HS18081504-01	46WW02-180829	Login	8/30/2018 3:14:19 PM	RPG	WET118
HS18081504-01	46WW02-180829	Login	8/30/2018 3:14:19 PM	RPG	Sub
HS18081504-02	46WW11-180829	Login	8/30/2018 3:14:19 PM	RPG	WET118
HS18081504-02	46WW11-180829	Login	8/30/2018 3:14:19 PM	RPG	WET118
HS18081504-02	46WW11-180829	Login	8/30/2018 3:14:19 PM	RPG	WET118
HS18081504-02	46WW11-180829	Login	8/30/2018 3:14:19 PM	RPG	MET072
HS18081504-02	46WW11-180829	Login	8/30/2018 3:14:19 PM	RPG	MET072
HS18081504-02	46WW11-180829	Login	8/30/2018 3:14:19 PM	RPG	VOA200
HS18081504-02	46WW11-180829	Login	8/30/2018 3:14:19 PM	RPG	WET118
HS18081504-02	46WW11-180829	Login	8/30/2018 3:14:19 PM	RPG	Sub
HS18081504-03	46WW11-180829-FD	Login	8/30/2018 3:14:19 PM	RPG	WET118
HS18081504-03	46WW11-180829-FD	Login	8/30/2018 3:14:19 PM	RPG	WET118
HS18081504-03	46WW11-180829-FD	Login	8/30/2018 3:14:19 PM	RPG	WET118
HS18081504-03	46WW11-180829-FD	Login	8/30/2018 3:14:19 PM	RPG	MET072
HS18081504-03	46WW11-180829-FD	Login	8/30/2018 3:14:19 PM	RPG	MET072
HS18081504-03	46WW11-180829-FD	Login	8/30/2018 3:14:19 PM	RPG	VOA200
HS18081504-03	46WW11-180829-FD	Login	8/30/2018 3:14:19 PM	RPG	WET118
HS18081504-03	46WW11-180829-FD	Login	8/30/2018 3:14:19 PM	RPG	Sub
HS18081504-04	Trip Blank ALS-080318-8	Login	8/30/2018 3:14:19 PM	RPG	VOA200

ALS Houston, US Date: 20-Sep-18

Sample Receipt Checklist

Client Name: CBI-Houston
Work Order: HS18081504
Date/Time Received: **30-Aug-2018 08:50**
Received by: **NDR**

Checklist completed by: *Raegen Giga* eSignature 30-Aug-2018 Date
Reviewed by: *RJ Modashia* eSignature 31-Aug-2018 Date

Matrices: **GW**
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 ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☑
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):	0.5c/0.2c uc/c	IR 25	
Cooler(s)/Kit(s):	43314		
Date/Time sample(s) sent to storage:	08/30/2018 15:32		
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:

HS18081504

APTIM

Aptim Environmental & Infrastructure, Inc.
LHAAP-46 501032

COC ID: 46-AUG2018-GW-ALSHT-1808 29

TURNAROUND TIME: normal

PROJECT/CLIENT INFO

Facility Name: Longhorn AAP
Project Number: 501032
LHAAP-37
Address: 1202-B East Grand Avenue
PMB 202
City: Marshall State: TX
Postal Code: 75670 Country: USA
Phone Number: 713 243 7264
Project Manager: Praveen Srivastav

LABORATORY

Lab Name: ALS Laboratories
Lab Contact: RJ Medasilia
Email: RJ.Medasilia@alsglobal.com
Address: 10450 Stancliff Rd., Suite 210
City: Houston State: TX
Postal Code: 77099 Country: USA
Phone Number: 281 575 2279 or 281 530 5656

Email Report To: Sharon.Pennington@CH2MHillFederalServices.com
Mail Reports To: Sharon Pennington
Address: 2410 Cinnabala Blvd
City: Kingsville State: TX
Postal Code: 78363 Country: USA
Shipping Company:

SAMPLE DETAILS

Sample ID	Location	Start Depth	End Depth	Depth Unit	Field Matrix	Date	Time (24hr)	# Of Cont
46wwo82-180829		38.25	38.39		WG	8/29/18	0835	15
46wwo82-180829-MS		38.25	38.39		WG	8/29/18	0835	15
46wwo82-180829-MSD		38.25	38.39		WG	8/29/18	0835	15
46wwl1-180829		27.30	27.55		WG	8/29/18	0955	15
46wwl1-180829-FD		27.30	27.55		WG	8/29/18	0955	15
Trip Blank					W	8/29/18		2

ANALYSIS REQUESTED

Sample ID	VOCs in Water by SW846 8260B	Carbon Dioxide in Water by RSK175	Methane, Ethane, Ethene in Water by RSK175	Alkalinity in Water by E310.1 & Anions in Water by E300.0	TOC in Water by E415.1	Sulfide in Water by E376.1	Phosphorous, total in Water by 365.2	Iron, total, in Water by 6020A	Iron, dissolved, & Manganese, dissolved, in Water
46wwo82-180829	X	X	X	X	X	X	X	X	X
46wwo82-180829-MS	X	X	X	X	X	X	X	X	X
46wwo82-180829-MSD	X	X	X	X	X	X	X	X	X
46wwl1-180829	X	X	X	X	X	X	X	X	X
46wwl1-180829-FD	X	X	X	X	X	X	X	X	X
Trip Blank	X								

ADDITIONAL COMMENTS/SPECIAL INSTRUCTIONS

Anions should include chloride, nitrate, nitrite, and sulfate.

RELINQUISHED BY/AFFILIATION	DATE/TIME	ACCEPTED BY/AFFILIATION	DATE/TIME
Steve Blessing/Battelle	8/29/18 1900	N/L	08/30/18 0850

43.3/4 — TEMP 4/C 0.5

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

CUSTODY SEAL

Date: 8/29/18 Time: 1400
Name: Scott Beesinger
Company: BHGE

Seal Broken By: SDH
Date: 8/30/18

43310

AUG 30 2018

CLIENT SERVICES
ALS LABORATORY GROUP
10450 STANCLIFF ROAD
SUITE 210
HOUSTON TX 77099
(281) 530-5656
REF: LHAAP-46-RJ
PMA:

FedEx Express

TRK# 4380 9528 4882

THU - 30 AUG 10:30A
PRIORITY OVERNIGHT

43310

77099
TX-US
IAH

FID 162/86 29AUG18 0000 54GC1/3302/0C0A

00918163

Volatile Organics Data Package

Aptim Environmental & Infrastucture, Inc.

Project: LHAAP-46 501032

ALS WO#HS18081504

ALS Houston, US Date: 09-Oct-18

Form 2A - System Monitoring Compound Recovery

Client: Aptim Environmental & Infrastucture, Inc. Run ID: VOA2_322857
Project: LHAAP-46 501032 Instrument: VOA2
WorkOrder: HS18081504 Method: SW8260

	Result	Spike	Recovery	Low	High	Flag
Sample ID: HS18081504-04 (4715516)			%REC	DF:1	04-Sep-2018 13:36	
1,2-Dichloroethane-d4	44.11	50.00	88.2	70	126	
4-Bromofluorobenzene	49.23	50.00	98.5	81	113	
Dibromofluoromethane	47.97	50.00	95.9	77	123	
Toluene-d8	45.35	50.00	90.7	82	127	
Sample ID: HS18081504-02 (4715518)			%REC	DF:1	04-Sep-2018 14:25	
1,2-Dichloroethane-d4	44.27	50.00	88.5	70	126	
4-Bromofluorobenzene	48.68	50.00	97.4	81	113	
Dibromofluoromethane	47.69	50.00	95.4	77	123	
Toluene-d8	45.59	50.00	91.2	82	127	
Sample ID: HS18081504-01MS (4715521)			%REC	DF:1	04-Sep-2018 15:39	
1,2-Dichloroethane-d4	44.76	50.00	89.5	70	126	
4-Bromofluorobenzene	51.25	50.00	102	81	113	
Dibromofluoromethane	45.23	50.00	90.5	77	123	
Toluene-d8	44.52	50.00	89.0	82	127	
Sample ID: HS18081504-01MSD (4715522)			%REC	DF:1	04-Sep-2018 16:03	
1,2-Dichloroethane-d4	45.53	50.00	91.1	70	126	
4-Bromofluorobenzene	50.71	50.00	101	81	113	
Dibromofluoromethane	46.87	50.00	93.7	77	123	
Toluene-d8	44.68	50.00	89.4	82	127	
Sample ID: HS18081504-03 (4715519)			%REC	DF:1	04-Sep-2018 14:50	
1,2-Dichloroethane-d4	44.45	50.00	88.9	70	126	
4-Bromofluorobenzene	49.45	50.00	98.9	81	113	
Dibromofluoromethane	46.13	50.00	92.3	77	123	
Toluene-d8	45.31	50.00	90.6	82	127	
Sample ID: HS18081504-01 (4715517)			%REC	DF:1	04-Sep-2018 14:01	
1,2-Dichloroethane-d4	44.93	50.00	89.9	70	126	
4-Bromofluorobenzene	48.99	50.00	98.0	81	113	
Dibromofluoromethane	46.68	50.00	93.4	77	123	
Toluene-d8	45.61	50.00	91.2	82	127	
Sample ID: VBLKW-180904 (4715512)			%REC	DF:1	04-Sep-2018 10:45	
1,2-Dichloroethane-d4	43.72	50.00	87.4	70	123	
4-Bromofluorobenzene	49.33	50.00	98.7	82	115	
Dibromofluoromethane	46.04	50.00	92.1	73	126	
Toluene-d8	46.25	50.00	92.5	81	120	

ALS Houston, US Date: 09-Oct-18

Form 2A - System Monitoring Compound Recovery

Client: Aptim Environmental & Infrastucture, Inc. Run ID: VOA2_322857
Project: LHAAP-46 501032 Instrument: VOA2
WorkOrder: HS18081504 Method: SW8260

	Result	Spike	Recovery	Low	High	Flag
Sample ID: VLCSW-180904 (4715511)			%REC	DF:1	04-Sep-2018 10:21	
1,2-Dichloroethane-d4	45.05	50.00	90.1	70	130	
4-Bromofluorobenzene	50.78	50.00	102	82	115	
Dibromofluoromethane	47.24	50.00	94.5	73	126	
Toluene-d8	44.24	50.00	88.5	81	120	

ALS Group USA, Corp

Date: 09-Oct-18

Form 3 - Method Spike Recovery

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Dept: GCMS Volatiles
Date Analyzed: 03-Aug-2018 00:56
Units: µg/L

Lab Sample ID: VSTD050 **Prep Date:** **Analysis Method:** SW8260
Instrument ID: VOA2

Analyte	Spike Added	Sample Amount	% Rec	QC Limits Rec.	Flag
1,1,1,2-Tetrachloroethane	50.00	45.87	91.7	80 - 120	
1,1,1-Trichloroethane	50.00	45.41	90.8	80 - 120	
1,1,2,2-Tetrachloroethane	50.00	44.71	89.4	80 - 120	
1,1,2-Trichlor-1,2,2-trifluoroethane	50.00	49.93	99.9	80 - 120	
1,1,2-Trichloroethane	50.00	46.39	92.8	80 - 120	
1,1-Dichloroethane	50.00	47.27	94.5	80 - 120	
1,1-Dichloroethene	50.00	46.98	94.0	80 - 120	
1,1-Dichloropropene	50.00	50.82	102	80 - 120	
1,2,3-Trichlorobenzene	50.00	49.05	98.1	80 - 120	
1,2,3-Trichloropropane	50.00	45.48	91.0	80 - 120	
1,2,4-Trichlorobenzene	50.00	48.81	97.6	80 - 120	
1,2,4-Trimethylbenzene	50.00	52.06	104	80 - 120	
1,2-Dibromo-3-chloropropane	50.00	47.74	95.5	80 - 120	
1,2-Dibromoethane	50.00	49.13	98.3	80 - 120	
1,2-Dichlorobenzene	50.00	45.29	90.6	80 - 120	
1,2-Dichloroethane	50.00	48.45	96.9	80 - 120	
1,2-Dichloropropane	50.00	47.42	94.8	80 - 120	
1,3,5-Trimethylbenzene	50.00	46.14	92.3	80 - 120	
1,3-Dichlorobenzene	50.00	45.90	91.8	80 - 120	
1,3-Dichloropropane	50.00	46.95	93.9	80 - 120	
1,4-Dichlorobenzene	50.00	47.38	94.8	80 - 120	
2,2-Dichloropropane	50.00	45.03	90.1	80 - 120	
2-Butanone	100.0	104.1	104	80 - 120	
2-Chlorotoluene	50.00	51.49	103	80 - 120	
2-Hexanone	100.0	98.60	98.6	80 - 120	
4-Chlorotoluene	50.00	52.01	104	80 - 120	
4-Isopropyltoluene	50.00	42.38	84.8	80 - 120	
4-Methyl-2-pentanone	100.0	94.43	94.4	80 - 120	
Acetone	100.0	103.9	104	80 - 120	
Benzene	50.00	44.96	89.9	80 - 120	
Bromobenzene	50.00	45.96	91.9	80 - 120	
Bromochloromethane	50.00	51.74	103	80 - 120	
Bromodichloromethane	50.00	47.85	95.7	80 - 120	
Bromoform	50.00	49.44	98.9	80 - 120	
Bromomethane	50.00	57.98	116	80 - 120	
Carbon disulfide	100.0	95.78	95.8	80 - 120	
Carbon tetrachloride	50.00	50.25	100	80 - 120	
Chlorobenzene	50.00	45.39	90.8	80 - 120	
Chloroethane	50.00	45.44	90.9	80 - 120	
Chloroform	50.00	46.52	93.0	80 - 120	

* = Outside regulatory limit

ALS Group USA, Corp Date: 09-Oct-18

Form 3 - Method Spike Recovery

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Dept: GCMS Volatiles
Date Analyzed: 03-Aug-2018 00:56
Units: µg/L

Lab Sample ID: VSTD050 **Prep Date:** **Analysis Method:** SW8260
Instrument ID: VOA2

Analyte	Spike Added	Sample Amount	% Rec	QC Limits Rec.	Flag
Chloromethane	50.00	46.41	92.8	80 - 120	
cis-1,2-Dichloroethene	50.00	48.79	97.6	80 - 120	
cis-1,3-Dichloropropene	50.00	51.06	102	80 - 120	
Dibromochloromethane	50.00	48.10	96.2	80 - 120	
Dibromomethane	50.00	51.22	102	80 - 120	
Dichlorodifluoromethane	50.00	46.65	93.3	80 - 120	
Ethylbenzene	50.00	51.06	102	80 - 120	
Hexachlorobutadiene	50.00	44.83	89.7	80 - 120	
Isopropylbenzene	50.00	42.96	85.9	80 - 120	
m,p-Xylene	100.0	105.3	105	80 - 120	
Methylene chloride	50.00	50.43	101	80 - 120	
n-Butylbenzene	50.00	44.30	88.6	80 - 120	
n-Propylbenzene	50.00	51.59	103	80 - 120	
Naphthalene	50.00	51.47	103	80 - 120	
o-Xylene	50.00	52.29	105	80 - 120	
sec-Butylbenzene	50.00	42.17	84.3	80 - 120	
Styrene	50.00	47.12	94.2	80 - 120	
tert-Butylbenzene	50.00	51.77	104	80 - 120	
Tetrachloroethene	50.00	43.09	86.2	80 - 120	
Toluene	50.00	43.58	87.2	80 - 120	
trans-1,2-Dichloroethene	50.00	49.48	99.0	80 - 120	
trans-1,3-Dichloropropene	50.00	52.88	106	80 - 120	
Trichloroethene	50.00	46.23	92.5	80 - 120	
Trichlorofluoromethane	50.00	45.52	91.0	80 - 120	
Vinyl chloride	50.00	45.84	91.7	80 - 120	

* = Outside regulatory limit

ALS Houston, US Date: 09-Oct-18

Form 4 - Method Blank Summary

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS14080841

Instrument: VOA2
Method: SW8260

Run ID: VOA2_322857

Client Samp ID	Samp ID	File ID	Date Analyzed
VBLKW-180904	VBLKW-180904	D090406.D	04-Sep-2018 10:45
VLCSW-180904	VLCSW-180904	D090405.D	04-Sep-2018 10:21
ZZZZZZ	HS18090024-01	D090407.D	04-Sep-2018 11:10
ZZZZZZ	HS18090032-01	D090408.D	04-Sep-2018 11:34
ZZZZZZ	HS18081361-19	D090409.D	04-Sep-2018 11:58
ZZZZZZ	HS18081372-09	D090410.D	04-Sep-2018 12:23
Trip Blank ALS-080318-8	HS18081504-04	D090413.D	04-Sep-2018 13:36
46WW02-180829	HS18081504-01	D090414.D	04-Sep-2018 14:01
46WW11-180829	HS18081504-02	D090415.D	04-Sep-2018 14:25
46WW11-180829-FD	HS18081504-03	D090416.D	04-Sep-2018 14:50
ZZZZZZ	HS18081323-01	D090417.D	04-Sep-2018 15:14
HS18081504-01MS	HS18081504-01MS	D090418.D	04-Sep-2018 15:39
HS18081504-01MSD	HS18081504-01MSD	D090419.D	04-Sep-2018 16:03
ZZZZZZ	HS18081383-03	D090420.D	04-Sep-2018 16:28
ZZZZZZ	HS18081383-02	D090421.D	04-Sep-2018 16:52
ZZZZZZ	HS18081383-01	D090422.D	04-Sep-2018 17:17
ZZZZZZ	HS18081383-01	D090423.D	04-Sep-2018 17:44
ZZZZZZ	HS18090004-01	D090424.D	04-Sep-2018 18:08
ZZZZZZ	HS18081583-01	D090425.D	04-Sep-2018 18:33
ZZZZZZ	HS18081583-02	D090426.D	04-Sep-2018 18:57
ZZZZZZ	HS18081583-03	D090427.D	04-Sep-2018 19:22
ZZZZZZ	HS18081583-04	D090428.D	04-Sep-2018 19:46

ALS Houston, US Date: 09-Oct-18

Form 5 - Volatile Instrument Performance Check
BROMOFLUOROBENZENE (BFB)

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Lab File ID: E080201.D
Instrument ID: VOA2
Injection Date: 02-Aug-2018
Injection Time: 7:45 PM

m/e	Ion Abundance Criterion	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.7
75	30.0 - 60.0% of mass 95	46.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 120.0% of mass 95	83.8
175	4.0 - 9.0% of mass 174	6.4 (7.6) 1
176	93.0 - 101.0% of mass 174	82.8 (98.9) 1
177	5.0 - 9.0% of mass 176	5.0 (6.1) 2

1-Value is % mass 174 2-Value is % mass 176

This check applies to following Samples, MS, MSD, Blanks and Standards

EPA Sample No.	Lab Sample ID	Lab File ID	Date Analyzed
VSTD0005	VSTD0005	E080203.D	02-Aug-2018 20:37
VSTD001	VSTD001	E080204.D	02-Aug-2018 21:03
VSTD002	VSTD002	E080205.D	02-Aug-2018 21:29
VSTD005	VSTD005	E080206.D	02-Aug-2018 21:55
VSTD010	VSTD010	E080207.D	02-Aug-2018 22:21
VSTD020	VSTD020	E080208.D	02-Aug-2018 22:47
VSTD050	VSTD050	E080209.D	02-Aug-2018 23:12
VSTD100	VSTD100	E080210.D	02-Aug-2018 23:38
VSTD200	VSTD200	E080211.D	03-Aug-2018 00:04
VSTD050	VSTD050	E080213.D	03-Aug-2018 00:56

Form 5 - Volatile Instrument Performance Check
BROMOFLUOROBENZENE (BFB)

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Lab File ID: D090401.D
Instrument ID: VOA2
Injection Date: 04-Sep-2018
Injection Time: 8:43 AM

m/e	Ion Abundance Criterion	% Relative Abundance
50	15.0 - 40.0% of mass 95	18.7
75	30.0 - 60.0% of mass 95	41.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 120.0% of mass 95	83.7
175	4.0 - 9.0% of mass 174	6.2 (7.4) 1
176	93.0 - 101.0% of mass 174	80.8 (96.5) 1
177	5.0 - 9.0% of mass 176	6.4 (7.9) 2

1-Value is % mass 174 2-Value is % mass 176

This check applies to following Samples, MS, MSD, Blanks and Standards

EPA Sample No.	Lab Sample ID	Lab File ID	Date Analyzed
CCV	CCV	D090402.D	04-Sep-2018 09:07
CCB	CCB	D090404.D	04-Sep-2018 09:56
VLCSW-180904	VLCSW-180904	D090405.D	04-Sep-2018 10:21
VBLKW-180904	VBLKW-180904	D090406.D	04-Sep-2018 10:45
ZZZZZZZZZZ-01	ZZZZZZZZZZ-01	D090407.D	04-Sep-2018 11:10
ZZZZZZZZZZ-01	ZZZZZZZZZZ-01	D090408.D	04-Sep-2018 11:34
ZZZZZZZZZZ-19	ZZZZZZZZZZ-19	D090409.D	04-Sep-2018 11:58
ZZZZZZZZZZ-09	ZZZZZZZZZZ-09	D090410.D	04-Sep-2018 12:23
HS18081504-04	HS18081504-04	D090413.D	04-Sep-2018 13:36
HS18081504-01	HS18081504-01	D090414.D	04-Sep-2018 14:01
HS18081504-02	HS18081504-02	D090415.D	04-Sep-2018 14:25
HS18081504-03	HS18081504-03	D090416.D	04-Sep-2018 14:50
ZZZZZZZZZZ-01	ZZZZZZZZZZ-01	D090417.D	04-Sep-2018 15:14
HS18081504-01MS	HS18081504-01MS	D090418.D	04-Sep-2018 15:39
HS18081504-01MSD	HS18081504-01MSD	D090419.D	04-Sep-2018 16:03
ZZZZZZZZZZ-03	ZZZZZZZZZZ-03	D090420.D	04-Sep-2018 16:28
ZZZZZZZZZZ-02	ZZZZZZZZZZ-02	D090421.D	04-Sep-2018 16:52
ZZZZZZZZZZ-01	ZZZZZZZZZZ-01	D090422.D	04-Sep-2018 17:17
ZZZZZZZZZZ-01	ZZZZZZZZZZ-01	D090423.D	04-Sep-2018 17:44
ZZZZZZZZZZ-01	ZZZZZZZZZZ-01	D090424.D	04-Sep-2018 18:08
ZZZZZZZZZZ-01	ZZZZZZZZZZ-01	D090425.D	04-Sep-2018 18:33
ZZZZZZZZZZ-02	ZZZZZZZZZZ-02	D090426.D	04-Sep-2018 18:57
ZZZZZZZZZZ-03	ZZZZZZZZZZ-03	D090427.D	04-Sep-2018 19:22
ZZZZZZZZZZ-04	ZZZZZZZZZZ-04	D090428.D	04-Sep-2018 19:46
CCV_END	CCV_END	D090429.D	04-Sep-2018 20:11

Form 6 - Initial Calibration Data

Client: Aptim Environmental & Infrastucture, Inc. **Calibrationtion Date:** 8/2/2018 10:37:00 PM

Project: LHAAP-46 501032 **Run ID:** VOA2_322857 **CAL Run ID:** VOA2_321352

WorkOrder: HS18081504

Sample ID	File ID	Analysis Date
VSTD0005	E080203.D	02-Aug-2018 22:37
VSTD001	E080204.D	02-Aug-2018 23:03
VSTD002	E080205.D	02-Aug-2018 23:29
VSTD005	E080206.D	02-Aug-2018 23:55
VSTD010	E080207.D	03-Aug-2018 00:21
VSTD020	E080208.D	03-Aug-2018 00:47
VSTD050	E080209.D	03-Aug-2018 01:12
VSTD100	E080210.D	03-Aug-2018 01:38
VSTD200	E080211.D	03-Aug-2018 02:04

Form 6 - Initial Calibration Data

Client: Aptim Environmental & Infrastucture, Inc. **Calibrationtion Date:** 8/2/2018 10:37:00 PM
Project: LHAAP-46 501032 **Run ID:** VOA2_322857 **CAL Run ID:** VOA2_321352
WorkOrder: HS18081504

Compound

1,1,1,2-Tetrachloroethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.41035	2	0.42005	3	0.41648	4	0.4211
5		0.39487	6	0.40652	7	0.39222	8	0.38209
9		0.35562	10	0				

1,1,1-Trichloroethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.87501	2	0.83008	3	0.80967	4	0.88219
5		0.82194	6	0.8513	7	0.82966	8	0.78272
9		0.74612	10	0				

1,1,2,2-Tetrachloroethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		1.65604	2	1.49391	3	1.43905	4	1.45622
5		1.35893	6	1.34078	7	1.27833	8	1.23563
9		1.14599	10	0				

1,1,2-Trichlor-1,2,2-trifluoroethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.48834	2	0.42527	3	0.44132	4	0.49376
5		0.44252	6	0.45119	7	0.43718	8	0.41647
9		0.40538	10	0				

1,1,2-Trichloroethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.37706	2	0.35155	3	0.3294	4	0.34821
5		0.33232	6	0.33886	7	0.31866	8	0.31189
9		0.29213	10	0				

1,1-Dichloroethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		1.18416	2	1.22395	3	1.16654	4	1.21164
5		1.13945	6	1.22345	7	1.18441	8	1.13788
9		1.08615	10	0				

1,1-Dichloroethene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.49306	2	0.44836	3	0.4783	4	0.51377
5		0.4587	6	0.47423	7	0.48594	8	0.46474
9		0.44714	10	0				

1,1-Dichloropropene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.59629	2	0.55473	3	0.49342	4	0.43885
5		0.4456	6	0.44954	7	0.428	8	0.40499
9		0.38604	10	0				

1,2,3-Trichlorobenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		156	2	1033	3	3463	4	14360
5		31046	6	68289	7	174186	8	364804
9		733571	10	0				

Form 6 - Initial Calibration Data

Client: Aptim Environmental & Infrastucture, Inc. **Calibrationtion Date:** 8/2/2018 10:37:00 PM
Project: LHAAP-46 501032 **Run ID:** VOA2_322857 **CAL Run ID:** VOA2_321352
WorkOrder: HS18081504

Compound

1,2,3-Trichloropropane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		1.42585	2	1.41596	3	1.11539	4	1.36964
5		1.27703	6	1.27499	7	1.24811	8	1.23789
9		1.15785	10	0				

1,2,4-Trichlorobenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		324	2	1524	3	4507	4	15896
5		35394	6	79194	7	202102	8	419490
9		843176	10	0				

1,2,4-Trimethylbenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		4.29791	2	4.00516	3	3.60575	4	3.74774
5		3.38911	6	3.37741	7	3.21568	8	3.02044
9		2.76187	10	0				

1,2-Dibromo-3-chloropropane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		182	2	601	3	1223	4	3795
5		8218	6	17461	7	44045	8	89341
9		177752	10	0				

1,2-Dibromoethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.44212	2	0.37755	3	0.38073	4	0.40664
5		0.407	6	0.4122	7	0.40521	8	0.3948
9		0.37411	10	0				

1,2-Dichlorobenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		2.13679	2	1.9937	3	1.87778	4	1.98458
5		1.82896	6	1.88079	7	1.78448	8	1.69278
9		1.56076	10	0				

1,2-Dichloroethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.47841	2	0.48315	3	0.46596	4	0.48259
5		0.45022	6	0.4774	7	0.47078	8	0.45758
9		0.42537	10	0				

1,2-Dichloropropane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.48608	2	0.47448	3	0.44783	4	0.46805
5		0.4457	6	0.4438	7	0.41509	8	0.40191
9		0.37497	10	0				

1,3,5-Trimethylbenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		7639	2	13813	3	25926	4	68557
5		125497	6	251935	7	598561	8	1105601
9		2054572	10	0				

Form 6 - Initial Calibration Data

Client: Aptim Environmental & Infrastucture, Inc. **Calibrationtion Date:** 8/2/2018 10:37:00 PM
Project: LHAAP-46 501032 **Run ID:** VOA2_322857 **CAL Run ID:** VOA2_321352
WorkOrder: HS18081504

Compound

1,3-Dichlorobenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		2.18939	2	2.01891	3	1.94532	4	2.05911
5		1.84092	6	1.92709	7	1.86746	8	1.79037
9		1.67746	10	0				

1,3-Dichloropropane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.76087	2	0.6693	3	0.62889	4	0.68841
5		0.64826	6	0.65869	7	0.63298	8	0.61344
9		0.56752	10	0				

1,4-Dichlorobenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		2.13906	2	1.92492	3	1.76119	4	1.87502
5		1.70027	6	1.77434	7	1.77351	8	1.73726
9		1.6521	10	0				

2,2-Dichloropropane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.82697	2	0.79929	3	0.78642	4	0.79838
5		0.72117	6	0.78617	7	0.77347	8	0.72741
9		0.6979	10	0				

2-Butanone

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.31328	2	0.29706	3	0.32481	4	0.32992
5		0.32781	6	0.34504	7	0.35305	8	0.3414
9		0.32379	10	0				

2-Chlorotoluene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		6563	2	11918	3	24113	4	59309
5		110512	6	216695	7	525182	8	985891
9		1862121	10	0				

2-Hexanone

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.30189	2	0.29616	3	0.32581	4	0.30667
5		0.29679	6	0.32181	7	0.31723	8	0.28766
9		0.26552	10	0				

4-Chlorotoluene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		7201	2	12577	3	24680	4	63178
5		119427	6	236021	7	561756	8	1068381
9		2027600	10	0				

4-Isopropyltoluene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		3.87824	2	3.44118	3	3.3021	4	3.61599
5		3.1762	6	3.3042	7	3.1367	8	2.95072
9		2.74178	10	0				

Form 6 - Initial Calibration Data

Client: Aptim Environmental & Infrastucture, Inc. **Calibrationtion Date:** 8/2/2018 10:37:00 PM
Project: LHAAP-46 501032 **Run ID:** VOA2_322857 **CAL Run ID:** VOA2_321352
WorkOrder: HS18081504

Compound

4-Methyl-2-pentanone

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.58311	2	0.557	3	0.51702	4	0.55823
5		0.54382	6	0.55201	7	0.52405	8	0.49631
9		0.44482	10	0				

Acetone

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		6100	2	7044	3	10008	4	16285
5		30917	6	53329	7	130892	8	252143
9		496304	10	0				

Benzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		1.77911	2	1.57727	3	1.48212	4	1.55447
5		1.4481	6	1.47379	7	1.38705	8	1.31259
9		1.20003	10	0				

Bromobenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		1.33875	2	1.30305	3	1.18362	4	1.18033
5		1.09763	6	1.12424	7	1.07409	8	1.03862
9		0.9731	10	0				

Bromochloromethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.2679	2	0.27336	3	0.23476	4	0.30159
5		0.29433	6	0.30729	7	0.30497	8	0.2991
9		0.26862	10	0				

Bromodichloromethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.56313	2	0.50405	3	0.47473	4	0.49087
5		0.48672	6	0.49748	7	0.47994	8	0.46896
9		0.43104	10	0				

Bromoform

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.32375	2	0.3008	3	0.31213	4	0.3205
5		0.31342	6	0.32412	7	0.32607	8	0.3223
9		0.30068	10	0				

Bromomethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		2819	2	4268	3	8171	4	17293
5		28504	6	50810	7	116303	8	210508
9		407619	10	0				

Carbon disulfide

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		1.13583	2	1.02293	3	0.98027	4	1.07817
5		0.99623	6	1.04189	7	1.02909	8	0.97727
9		0.94304	10	0				

Form 6 - Initial Calibration Data

Client: Aptim Environmental & Infrastucture, Inc. **Calibrationtion Date:** 8/2/2018 10:37:00 PM
Project: LHAAP-46 501032 **Run ID:** VOA2_322857 **CAL Run ID:** VOA2_321352
WorkOrder: HS18081504

Compound

Carbon tetrachloride

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		3736	2	4799	3	9718	4	23166
5		43671	6	86686	7	207474	8	390913
9		801906	10	0				

Chlorobenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		1.24933	2	1.18374	3	1.08635	4	1.13216
5		1.01985	6	1.04658	7	1.01903	8	0.95626
9		0.87778	10	0				

Chloroethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		2123	2	3511	3	7002	4	15822
5		29696	6	57430	7	131496	8	252026
9		461334	10	0				

Chloroform

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		1.15116	2	0.99076	3	0.9377	4	1.04331
5		0.98025	6	0.98755	7	0.9625	8	0.92676
9		0.88053	10	0				

Chloromethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		1.34803	2	1.21502	3	1.11254	4	1.18992
5		1.09219	6	1.1287	7	1.04244	8	0.9682
9		0.93192	10	0				

cis-1,2-Dichloroethene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.64572	2	0.6069	3	0.62073	4	0.63986
5		0.63714	6	0.66901	7	0.6369	8	0.61188
9		0.59039	10	0				

cis-1,3-Dichloropropene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.57061	2	0.55562	3	0.56136	4	0.6089
5		0.58938	6	0.60489	7	0.59527	8	0.58397
9		0.53738	10	0				

Dibromochloromethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.47323	2	0.48064	3	0.46242	4	0.46239
5		0.44222	6	0.45436	7	0.45062	8	0.4373
9		0.40573	10	0				

Dibromomethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.19685	2	0.19174	3	0.19479	4	0.21383
5		0.2153	6	0.22128	7	0.21999	8	0.21724
9		0.20369	10	0				

Form 6 - Initial Calibration Data

Client: Aptim Environmental & Infrastucture, Inc. **Calibrationtion Date:** 8/2/2018 10:37:00 PM
Project: LHAAP-46 501032 **Run ID:** VOA2_322857 **CAL Run ID:** VOA2_321352
WorkOrder: HS18081504

Compound

Dichlorodifluoromethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.47036	2	0.44128	3	0.46848	4	0.49839
5		0.45066	6	0.45434	7	0.47226	8	0.44197
9		0.43157	10	0				

Ethylbenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.65948	2	0.64229	3	0.6054	4	0.62226
5		0.57878	6	0.58107	7	0.55647	8	0.52867
9		0.4888	10	0				

Hexachlorobutadiene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.47566	2	0.46167	3	0.42206	4	0.49193
5		0.44534	6	0.47404	7	0.46006	8	0.45197
9		0.44393	10	0				

Isopropylbenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		1.95885	2	1.89973	3	1.81659	4	1.90785
5		1.766	6	1.80201	7	1.71439	8	1.56208
9		1.39218	10	0				

m,p-Xylene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.90295	2	0.79811	3	0.75299	4	0.77604
5		0.70105	6	0.70717	7	0.67436	8	0.62436
9		0.56352	10	0				

Methylene chloride

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.77245	2	0.63275	3	0.65591	4	0.65463
5		0.58256	6	0.62001	7	0.59836	8	0.5787
9		0.56122	10	0				

Naphthalene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		734	2	1257	3	5867	4	33895
5		92315	6	211805	7	544152	8	1079112
9		2110998	10	0				

n-Butylbenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		2.45296	2	2.41525	3	2.43798	4	2.64295
5		2.45587	6	2.62349	7	2.54292	8	2.40389
9		2.26163	10	0				

n-Propylbenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		10234	2	18053	3	36434	4	91997
5		170914	6	344503	7	818597	8	1526167
9		2862527	10	0				

Form 6 - Initial Calibration Data

Client: Aptim Environmental & Infrastucture, Inc. **Calibrationtion Date:** 8/2/2018 10:37:00 PM
Project: LHAAP-46 501032 **Run ID:** VOA2_322857 **CAL Run ID:** VOA2_321352
WorkOrder: HS18081504

Compound

o-Xylene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.85899	2	0.83943	3	0.77482	4	0.79072
5		0.72985	6	0.7476	7	0.71287	8	0.67334
9		0.6213	10	0				

sec-Butylbenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		4.45853	2	4.27597	3	4.05422	4	4.39781
5		3.95974	6	4.00559	7	3.79598	8	3.52368
9		3.24512	10	0				

Styrene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		1.24389	2	1.19482	3	1.19402	4	1.2707
5		1.20033	6	1.21706	7	1.15161	8	1.09368
9		0.9918	10	0				

tert-Butylbenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		6277	2	11424	3	22047	4	55856
5		103931	6	215225	7	510402	8	941687
9		1815463	10	0				

Tetrachloroethene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.39882	2	0.36681	3	0.35539	4	0.35121
5		0.3262	6	0.32806	7	0.31901	8	0.30359
9		0.2897	10	0				

Toluene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		2.02695	2	1.91646	3	1.83397	4	1.89221
5		1.70241	6	1.70046	7	1.58782	8	1.47815
9		1.3411	10	0				

trans-1,2-Dichloroethene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.58501	2	0.50577	3	0.49728	4	0.55032
5		0.52002	6	0.55453	7	0.54558	8	0.52153
9		0.50644	10	0				

trans-1,3-Dichloropropene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.359	2	0.42082	3	0.42929	4	0.46085
5		0.44743	6	0.47973	7	0.49071	8	0.49562
9		0.4681	10	0				

Trichloroethene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.40884	2	0.38439	3	0.36491	4	0.38205
5		0.36673	6	0.37864	7	0.37184	8	0.35756
9		0.33364	10	0				

Form 6 - Initial Calibration Data

Client: Aptim Environmental & Infrastucture, Inc. **Calibrationtion Date:** 8/2/2018 10:37:00 PM
Project: LHAAP-46 501032 **Run ID:** VOA2_322857 **CAL Run ID:** VOA2_321352
WorkOrder: HS18081504

Compound

Trichlorofluoromethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.59591	2	0.68062	3	0.62943	4	0.69681
5		0.63334	6	0.6748	7	0.65246	8	0.60791
9		0.59074	10	0				

Vinyl chloride

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.81371	2	0.75204	3	0.74952	4	0.80726
5		0.74234	6	0.74224	7	0.74074	8	0.67274
9		0.65188	10	0				

1,2-Dichloroethane-d4

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		0.70732	2	0.70602	3	0.60138	4	0.59971
5		0.60855	6	0.62601	7	0.60644	8	0.58399
9		0.55248	10	0				

4-Bromofluorobenzene

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		4111	2	5610	3	9711	4	22946
5		45084	6	89799	7	216972	8	415116
9		801860	10	0				

Dibromofluoromethane

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		2127	2	3733	3	6847	4	16598
5		30972	6	62411	7	146156	8	277703
9		545353	10	0				

Toluene-d8

#	Amount	RRF	#	RRF	#	RRF	#	RRF
1		9426	2	14999	3	28398	4	65403
5		128333	6	242924	7	563679	8	1063775
9		2025382	10	0				

Form 6 - Initial Calibration Data

Client: Aptim Environmental & Infrastucture, Inc. **Calibrationtion Date:** 8/2/2018 10:37:00 PM
Project: LHAAP-46 501032 **Run ID:** VOA2_322857 **CAL Run ID:** VOA2_321352
WorkOrder: HS18081504

		Coefficients				
	Curve	A0	A1	A2	%RSD OR R^2	Max RSD OR R^2
1,1,1,2-Tetrachloroethane	AVRG	0	0.39992	0	5.33745	15
1,1,1-Trichloroethane	AVRG	0	0.82541	0	5.20424	15
1,1,2,2-Tetrachloroethane	AVRG	0	1.37832	0	11.07365	15
1,1,2-Trichlor-1,2,2-trifluoroethane	AVRG	0	0.4446	0	6.72251	
1,1,2-Trichloroethane	AVRG	0	0.33334	0	7.41304	15
1,1-Dichloroethane	AVRG	0	1.17307	0	3.91029	15
1,1-Dichloroethene	AVRG	0	0.4738	0	4.60261	15
1,1-Dichloropropene	AVRG	0	0.46639	0	14.89058	15
1,2,3-Trichlorobenzene	Linear	0.01343	1.05493	0	0.99974	0.99
1,2,3-Trichloropropane	AVRG	0	1.28029	0	8.40487	15
1,2,4-Trichlorobenzene	Linear	0.01183	0.917826	0	0.99974	0.99
1,2,4-Trimethylbenzene	AVRG	0	3.49122	0	13.76172	15
1,2-Dibromo-3-chloropropane	Linear	-0.00184	4.35729	0	0.99961	0.99
1,2-Dibromoethane	AVRG	0	0.40004	0	5.31412	15
1,2-Dichlorobenzene	AVRG	0	1.86006	0	9.21285	15
1,2-Dichloroethane	AVRG	0	0.46572	0	4.04992	15
1,2-Dichloropropane	AVRG	0	0.43977	0	8.24087	15
1,3,5-Trimethylbenzene	Linear	-0.06282	0.375097	0	0.99599	0.99
1,3-Dichlorobenzene	AVRG	0	1.924	0	7.9442	15
1,3-Dichloropropane	AVRG	0	0.65204	0	8.23308	15
1,4-Dichlorobenzene	AVRG	0	1.81529	0	8.09403	15
2,2-Dichloropropane	AVRG	0	0.76858	0	5.60198	15
2-Butanone	AVRG	0	0.32846	0	5.16345	15
2-Chlorotoluene	Linear	-0.05284	0.415066	0	0.99729	0.99
2-Hexanone	AVRG	0	0.30217	0	6.20247	
4-Chlorotoluene	Linear	-0.04929	0.381545	0	0.99768	0.99
4-Isopropyltoluene	AVRG	0	3.28301	0	10.36958	15
4-Methyl-2-pentanone	AVRG	0	0.53071	0	7.77246	15
Acetone	Linear	-0.09662	4.98429	0	0.99947	0.99
Benzene	AVRG	0	1.46828	0	11.27741	15
Bromobenzene	AVRG	0	1.12183	0	9.04015	15
Bromochloromethane	AVRG	0	0.28355	0	8.51022	15
Bromodichloromethane	AVRG	0	0.48855	0	7.18176	15
Bromoform	AVRG	0	0.31597	0	3.11427	15
Bromomethane	Linear	-0.0725	3.02984	0	0.99787	0.99
Carbon disulfide	AVRG	0	1.02275	0	5.70079	15
Carbon tetrachloride	Linear	-0.03003	2.59544	0	0.99948	0.99
Chlorobenzene	AVRG	0	1.06344	0	10.74148	15
Chloroethane	Linear	-0.06034	2.63289	0	0.9957	0.99
Chloroform	AVRG	0	0.9845	0	7.87754	15
Chloromethane	AVRG	0	1.11433	0	11.48196	15
cis-1,2-Dichloroethene	AVRG	0	0.62873	0	3.75838	15
cis-1,3-Dichloropropene	AVRG	0	0.5786	0	4.15338	15
Dibromochloromethane	AVRG	0	0.4521	0	4.91366	15
Dibromomethane	AVRG	0	0.2083	0	5.56193	15
Dichlorodifluoromethane	AVRG	0	0.45881	0	4.48942	15
Ethylbenzene	AVRG	0	0.5848	0	9.35217	15
Hexachlorobutadiene	AVRG	0	0.45852	0	4.51058	15

Form 6 - Initial Calibration Data

Client: Aptim Environmental & Infrastucture, Inc. **Calibrationtion Date:** 8/2/2018 10:37:00 PM

Project: LHAAP-46 501032 **Run ID:** VOA2_322857 **CAL Run ID:** VOA2_321352

WorkOrder: HS18081504

		Coefficients				
	Curve	A0	A1	A2	%RSD OR R^2	Max RSD OR R^2
Isopropylbenzene	AVRG	0	1.75774	0	10.30399	15
m,p-Xylene	AVRG	0	0.72228	0	13.84429	15
Methylene chloride	AVRG	0	0.62851	0	10.10524	15
Naphthalene	Linear	0.00225	0.36429	0	0.99891	0.99
n-Butylbenzene	AVRG	0	2.47076	0	4.76923	15
n-Propylbenzene	Linear	-0.05711	0.269651	0	0.99672	0.99
o-Xylene	AVRG	0	0.74988	0	10.15405	15
sec-Butylbenzene	AVRG	0	3.96851	0	10.07419	15
Styrene	AVRG	0	1.1731	0	7.24317	15
tert-Butylbenzene	Linear	-0.04976	0.427211	0	0.99785	0.99
Tetrachloroethene	AVRG	0	0.33764	0	10.00013	15
Toluene	AVRG	0	1.71995	0	12.93045	15
trans-1,2-Dichloroethene	AVRG	0	0.53183	0	5.41605	15
trans-1,3-Dichloropropene	AVRG	0	0.45017	0	9.50099	15
Trichloroethene	AVRG	0	0.37206	0	5.55222	15
Trichlorofluoromethane	AVRG	0	0.64023	0	5.99841	15
Vinyl chloride	AVRG	0	0.74138	0	7.14936	15
1,2-Dichloroethane-d4	AVRG	0	0.62132	0	8.43475	15
4-Bromofluorobenzene	Linear	-0.04262	2.29922	0	0.998	0.99
Dibromofluoromethane	Linear	-0.03492	2.25286	0	0.99891	0.99
Toluene-d8	Linear	-0.02685	0.835617	0	0.99866	0.99

Form 7 - Calibration Verification Summary

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Lab File ID: D090402.D
Instrument ID: VOA2
Injection Date: 04-Sep-2018
Injection Time: 09:07

Compound	RRF or Amount	RRF50.000 or Amount	CCAL RRF50.000	MIN RRF	% D or % DRIFT	MAX % D or % DRIFT	CURVE TYPE	Q
1,1,1,2-Tetrachloroethane	49.949342	50	0.4907		-0.1	15		
1,1,1-Trichloroethane	47.505515	50	0.93883	0.1	-4.99	15		
1,1,2,2-Tetrachloroethane	43.320607	50	1.38198	0.3	-13.36	15		
1,1,2-Trichlor-1,2,2-trifluoroethane	53.164435	50	0.50406	0	6.33	0		
1,1,2-Trichloroethane	47.906519	50	0.36776	0.1	-4.19	15		
1,1-Dichloroethane	46.162761	50	1.29032	0.2	-7.67	15		
1,1-Dichloroethene	45.985755	50	0.54347	0.1	-8.03	15		
1,1-Dichloropropene	54.660348	50	0.49576		9.32	15		
1,2,3-Trichlorobenzene	50.976554	50	1.1485		1.95	15		
1,2,3-Trichloropropane	46.327473	50	1.38645		-7.35	15		
1,2,4-Trichlorobenzene	54.055945	50	1.37614		8.11	15		
1,2,4-Trimethylbenzene	55.515472	50	3.79857		11.03	15		
1,2-Dibromo-3-chloropropane	46.407918	50	0.22905		-7.18	15		
1,2-Dibromoethane	52.023339	50	0.48057		4.05	15		
1,2-Dichlorobenzene	46.853109	50	2.14784		-6.29	15		
1,2-Dichloroethane	49.591307	50	0.54148	0.1	-0.82	15		
1,2-Dichloropropane	50.333673	50	0.49963		0.67	15		
1,3,5-Trimethylbenzene	49.164305	50	3.70447		-1.67	15		
1,3-Dichlorobenzene	48.538886	50	2.25579		-2.92	15		
1,3-Dichloropropane	48.413677	50	0.73477		-3.17	15		
1,4-Dichlorobenzene	49.615578	50	2.15319		-0.77	15		
2,2-Dichloropropane	58.950781	50	0.89678		17.9	15		
2-Butanone	94.049236	100	0.3229		-5.95	15		
2-Chlorotoluene	53.619587	50	3.23304		7.24	15		
2-Hexanone	95.244752	100	0.35202	0	-4.76	0		
4-Chlorotoluene	54.709942	50	3.49891		9.42	15		
4-Isopropyltoluene	45.971428	50	3.79249		-8.06	15		
4-Methyl-2-pentanone	93.298235	100	0.53129		-6.7	15		
Acetone	87.297892	100	0.19331	0	-12.7	0		
Benzene	47.472338	50	1.62403	0.5	-5.06	15		
Bromobenzene	48.237926	50	1.30355		-3.52	15		
Bromochloromethane	52.283862	50	0.35814	0.2	4.57	15		
Bromodichloromethane	51.970673	50	0.59808		3.94	15		
Bromoform	52.159677	50	0.39014	0.1	4.32	15		
Bromomethane	55.387079	50	0.45564	0.1	10.77	15		
Carbon disulfide	94.000012	100	1.04803		-6	15		
Carbon tetrachloride	51.368211	50	0.48948	0.1	2.74	15		
Chlorobenzene	49.817658	50	1.24646	0.5	-0.36	15		
Chloroethane	43.857869	50	0.46235		-12.28	15		
Chloroform	46.415747	50	1.08748	0.2	-7.17	15		
Chloromethane	44.432054	50	1.09636		-11.14	15		

Qualifier "Q" <-- : %Drift is > Max %D

ALS Houston, US

Date: 09-Oct-18

Form 7 - Calibration Verification Summary

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Lab File ID: D090402.D
Instrument ID: VOA2
Injection Date: 04-Sep-2018
Injection Time: 09:07

Compound	RRF or Amount	RRF50.000 or Amount	CCAL RRF50.000	MIN RRF	% D or % DRIFT	MAX % D or % DRIFT	CURVE TYPE	Q
cis-1,2-Dichloroethene	48.878546	50	0.71865		-2.24	15		
cis-1,3-Dichloropropene	56.707625	50	0.73065	0.2	13.42	15		
Dibromochloromethane	50.350192	50	0.53959	0.1	0.7	15		
Dibromomethane	53.311997	50	0.26186		6.62	15		
Dichlorodifluoromethane	54.255534	50	0.53412		8.51	15		
Ethylbenzene	57.195852	50	0.67512	0.1	14.39	15		
Hexachlorobutadiene	52.32364	50	0.6355		4.65	15		
Isopropylbenzene	48.753548	50	2.09451		-2.49	15		
m,p-Xylene	117.157995	100	0.80715		17.16	15		
Methylene chloride	47.883397	50	0.64148		-4.23	15		
Naphthalene	51.851871	50	3.1692		3.7	15		
n-Butylbenzene	49.237309	50	3.00505		-1.53	15		
n-Propylbenzene	56.461344	50	5.09109		12.92	15		
o-Xylene	57.139821	50	0.86128		14.28	15		
sec-Butylbenzene	45.830585	50	4.57001		-8.34	15		
Styrene	51.197163	50	1.36666	0.3	2.39	15		
tert-Butylbenzene	55.971701	50	3.27286		11.94	15		
Tetrachloroethene	51.543856	50	0.41928	0.2	3.09	15		
Toluene	46.935662	50	1.89347	0.4	-6.13	15		
trans-1,2-Dichloroethene	50.977186	50	0.62124		1.95	15		
trans-1,3-Dichloropropene	59.913903	50	0.59835	0.1	19.83	15		
Trichloroethene	52.744426	50	0.48171	0.3	5.49	15		
Trichlorofluoromethane	47.907336	50	0.77243		-4.19	15		
Vinyl chloride	51.060282	50	0.8426	0.1	2.12	15		
1,2-Dichloroethane-d4	45.822839	50	0.46741		-8.35	15		
4-Bromofluorobenzene	50.765779	50	0.45027	0.2	1.53	15		
Dibromofluoromethane	44.70265	50	0.39965		-10.59	15		
Toluene-d8	42.91809	50	1.18643		-14.16	15		

Qualifier "Q" <-- : %Drift is > Max %D

Form 7 - Calibration Verification Summary

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Lab File ID: D090429.D
Instrument ID: VOA2
Injection Date: 04-Sep-2018
Injection Time: 20:11

Compound	RRF or Amount	RRF50.000 or Amount	CCAL RRF50.000	MIN RRF	% D or % DRIFT	MAX % D or % DRIFT	CURVE TYPE	Q
1,1,1,2-Tetrachloroethane	48.867731	50	0.48007		-2.26	50		
1,1,1-Trichloroethane	47.669525	50	0.94207	0.1	-4.66	50		
1,1,2,2-Tetrachloroethane	39.352053	50	1.25538	0.3	-21.3	50		
1,1,2-Trichlor-1,2,2-trifluoroethane	53.49008	50	0.50707	0	6.98	50		
1,1,2-Trichloroethane	46.341105	50	0.35574	0.1	-7.32	50		
1,1-Dichloroethane	44.182387	50	1.23496	0.2	-11.64	50		
1,1-Dichloroethene	45.960933	50	0.54318	0.1	-8.08	50		
1,1-Dichloropropene	58.067077	50	0.52549		16.13	50		
1,2,3-Trichlorobenzene	46.412765	50	1.0461		-7.17	50		
1,2,3-Trichloropropane	41.555568	50	1.24364		-16.89	50		
1,2,4-Trichlorobenzene	47.868498	50	1.21915		-4.26	50		
1,2,4-Trimethylbenzene	51.385496	50	3.53217		2.77	50		
1,2-Dibromo-3-chloropropane	41.534301	50	0.20518		-16.93	50		
1,2-Dibromoethane	50.266615	50	0.46434		0.53	50		
1,2-Dichlorobenzene	44.728141	50	2.05043		-10.54	50		
1,2-Dichloroethane	49.438637	50	0.53982	0.1	-1.12	50		
1,2-Dichloropropane	48.189488	50	0.47835		-3.62	50		
1,3,5-Trimethylbenzene	46.908591	50	3.55155		-6.18	50		
1,3-Dichlorobenzene	46.432584	50	2.1579		-7.13	50		
1,3-Dichloropropane	46.406268	50	0.7043		-7.19	50		
1,4-Dichlorobenzene	46.904165	50	2.03553		-6.19	50		
2,2-Dichloropropane	53.089085	50	0.80761		6.18	50		
2-Butanone	81.861322	100	0.28106		-18.14	50		
2-Chlorotoluene	51.437558	50	3.1084		2.88	50		
2-Hexanone	84.774424	100	0.31332	0	-15.23	50		
4-Chlorotoluene	52.177613	50	3.34603		4.36	50		
4-Isopropyltoluene	44.0064	50	3.63038		-11.99	50		
4-Methyl-2-pentanone	85.522342	100	0.48701		-14.48	50		
Acetone	73.655102	100	0.16429	0	-26.34	50		
Benzene	47.71267	50	1.63225	0.5	-4.57	50		
Bromobenzene	46.045927	50	1.24432		-7.91	50		
Bromochloromethane	50.006351	50	0.34254	0.2	0.01	50		
Bromodichloromethane	50.926986	50	0.58607		1.85	50		
Bromoform	50.588299	50	0.37838	0.1	1.18	50		
Bromomethane	52.71515	50	0.43501	0.1	5.43	50		
Carbon disulfide	90.596581	100	1.01009		-9.4	50		
Carbon tetrachloride	56.97518	50	0.54105	0.1	13.95	50		
Chlorobenzene	48.782705	50	1.22057	0.5	-2.43	50		
Chloroethane	38.20155	50	0.40272		-23.6	50		
Chloroform	45.162212	50	1.05811	0.2	-9.68	50		
Chloromethane	41.547964	50	1.02519		-16.9	50		

Qualifier "Q" <-- : %Drift is > Max %D

Form 7 - Calibration Verification Summary

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Lab File ID: D090429.D
Instrument ID: VOA2
Injection Date: 04-Sep-2018
Injection Time: 20:11

Compound	RRF or Amount	RRF50.000 or Amount	CCAL RRF50.000	MIN RRF	% D or % DRIFT	MAX % D or % DRIFT	CURVE TYPE	Q
cis-1,2-Dichloroethene	46.945746	50	0.69024		-6.11	50		
cis-1,3-Dichloropropene	57.022222	50	0.7347	0.2	14.04	50		
Dibromochloromethane	49.484359	50	0.53031	0.1	-1.03	50		
Dibromomethane	52.134801	50	0.25608		4.27	50		
Dichlorodifluoromethane	56.322391	50	0.55447		12.64	50		
Ethylbenzene	56.609159	50	0.66847	0.1	13.22	50		
Hexachlorobutadiene	48.319572	50	0.58687		-3.36	50		
Isopropylbenzene	48.390614	50	2.07892		-3.22	50		
m,p-Xylene	116.077243	100	0.80013		16.08	50		
Methylene chloride	43.953652	50	0.59052		-12.09	50		
Naphthalene	45.16445	50	2.7688		-9.67	50		
n-Butylbenzene	46.595585	50	2.84382		-6.81	50		
n-Propylbenzene	53.525665	50	4.84226		7.05	50		
o-Xylene	55.782082	50	0.84176		11.56	50		
sec-Butylbenzene	44.928018	50	4.48001		-10.14	50		
Styrene	49.934117	50	1.33295	0.3	-0.13	50		
tert-Butylbenzene	54.969622	50	3.21754		9.94	50		
Tetrachloroethene	52.014366	50	0.42311	0.2	4.03	50		
Toluene	46.662209	50	1.88244	0.4	-6.68	50		
trans-1,2-Dichloroethene	47.837326	50	0.58297		-4.33	50		
trans-1,3-Dichloropropene	62.424578	50	0.62343	0.1	24.85	50		<-
Trichloroethene	52.765402	50	0.4819	0.3	5.53	50		
Trichlorofluoromethane	48.833256	50	0.78736		-2.33	50		
Vinyl chloride	48.504612	50	0.80043	0.1	-2.99	50		
1,2-Dichloroethane-d4	46.122636	50	0.47047		-7.75	50		
4-Bromofluorobenzene	52.252345	50	0.46345	0.2	4.5	50		
Dibromofluoromethane	45.876383	50	0.41015		-8.25	50		
Toluene-d8	43.68244	50	1.20756		-12.64	50		

Qualifier "Q" <-- : %Drift is > Max %D

Form 8 - Volatile Internal Standard Area and RT Summary

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504
Contract: SAS No.:

Lab File ID: D090402.D
Instrument ID: VOA2
Run ID: VOA2_322857
Date Time: 2018-09-04 09:07

Sample ID	IS1 Area	IS1 RT	IS2 Area	IS2 RT	IS3 Area	IS3 RT	IS4 Area	IS4 RT
CCB	259425	5.78	369787	6.58	330156	9.53	134410	11.84
12 HOUR STD	233157	5.78	371987	6.57	342968	9.53	153413	11.84
UPPER LIMIT	466314	6.28	743974	7.07	685936	10.03	306826	12.34
LOWER LIMIT	116579	5.28	185994	6.07	171484	9.03	76707	11.34
CCV_END	204239	5.79	306000	6.57	312298	9.53	142376	11.84
VLCSW-180904	242929	5.79	362051	6.58	328886	9.53	146940	11.83
VBLKW-180904	240614	5.78	362282	6.57	320131	9.53	130004	11.84
HS18081504-01MS	234710	5.79	344091	6.58	312753	9.52	139848	11.83
HS18081504-01MSD	233772	5.79	342769	6.58	315244	9.53	139566	11.83
HS18081504-04	249047	5.79	354919	6.57	319185	9.53	129727	11.84
HS18081504-01	229758	5.78	349858	6.57	311962	9.53	125315	11.84
HS18081504-02	247679	5.79	350086	6.58	313334	9.52	123358	11.84
HS18081504-03	204814	5.78	292104	6.58	262706	9.53	111111	11.84

IS1 = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5
IS4 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

ALS Houston, US

Date: 09-Oct-18

FORM 8 - ANALYSIS RUN LOG

Client: Aptim Environmental & Infrastucture, Inc.

Project: LHAAP-46 501032

WorkOrder: HS18081504

Start Date: 02-Aug-2018 End Date: 03-Aug-2018

Run ID:VOA2_321352

Instrument:VOA2

Sample No.	D/F	Time	File ID
BFB	1	02-Aug-2018 19:45	E080201.D
VSTD0005	1	02-Aug-2018 20:37	E080203.D
VSTD001	1	02-Aug-2018 21:03	E080204.D
VSTD002	1	02-Aug-2018 21:29	E080205.D
VSTD005	1	02-Aug-2018 21:55	E080206.D
VSTD010	1	02-Aug-2018 22:21	E080207.D
VSTD020	1	02-Aug-2018 22:47	E080208.D
VSTD050	1	02-Aug-2018 23:12	E080209.D
VSTD100	1	02-Aug-2018 23:38	E080210.D
VSTD200	1	03-Aug-2018 00:04	E080211.D
VSTD050	1	03-Aug-2018 00:56	E080213.D

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080201.D Page 1
Report Date: 04-Sep-2018 17:00

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080201.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 02-AUG-2018 21:45
Operator : AP Inst ID: VOA2.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\NAHSTWS003\Target\CHEM\VOA2.i\E180802.b\bfb.m
Meth Date : 04-Jun-2018 15:21 Cesar.Lira Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 27 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
10.695	10.696	(0.000)	95	94968			0.00- 100.00	100.00
10.695	10.696	(0.000)	50	17752			15.00- 40.00	18.69
10.695	10.696	(0.000)	75	43808			30.00- 60.00	46.13
10.695	10.696	(0.000)	96	6211			5.00- 9.00	6.54
10.695	10.696	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
10.695	10.696	(0.000)	174	79536			50.00- 0.00	83.75
10.695	10.696	(0.000)	175	6049			5.00- 9.00	7.61
10.695	10.696	(0.000)	176	78648			95.00- 101.00	98.88
10.695	10.696	(0.000)	177	4780			5.00- 9.00	6.08

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080201.D Page 1

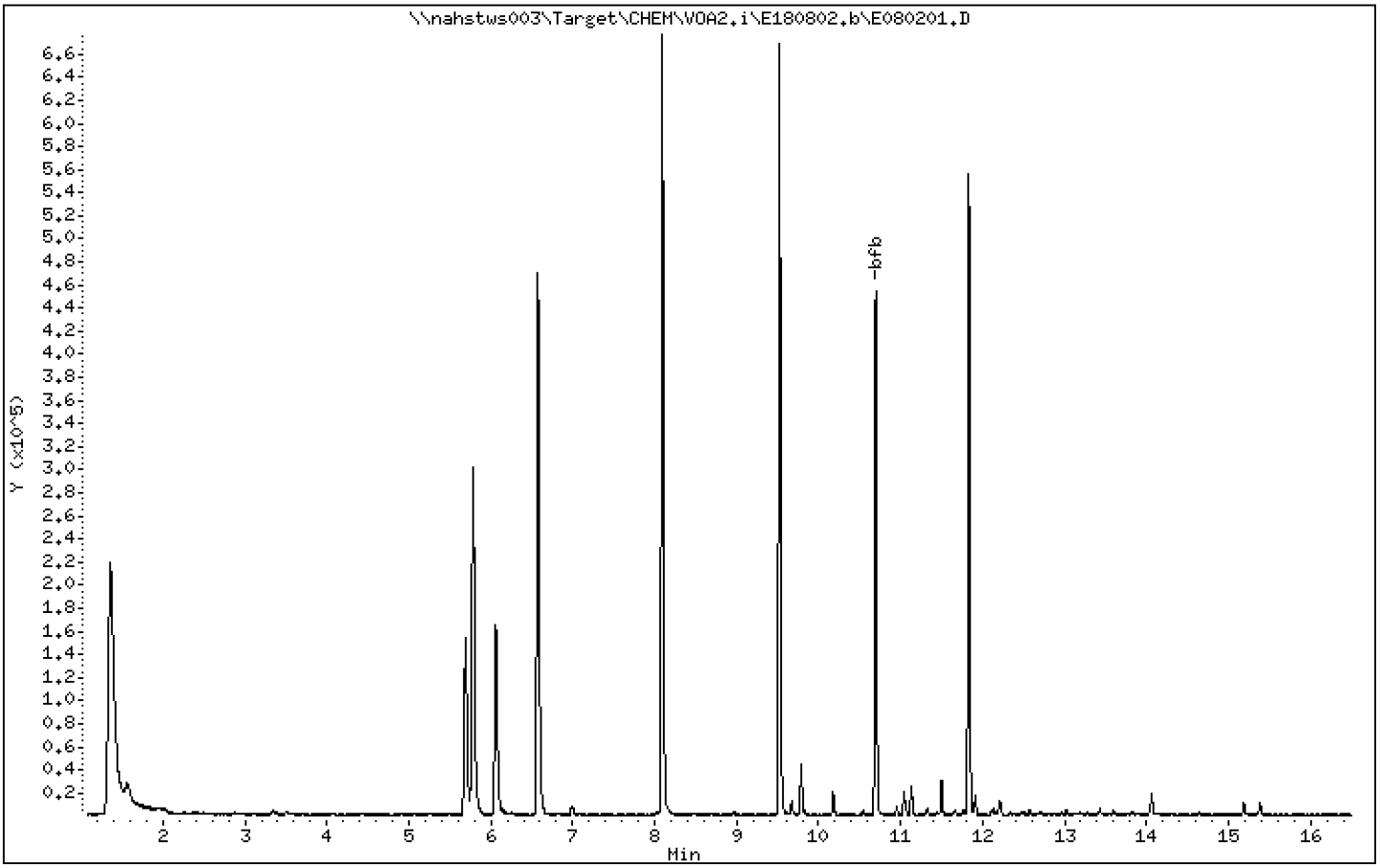
Date : 02-AUG-2018 21:45

Client ID: BFB Instrument: VOA2.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: AP

Column phase: DB624 Column diameter: 0.18



Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080201.D Page 2

Date : 02-AUG-2018 21:45

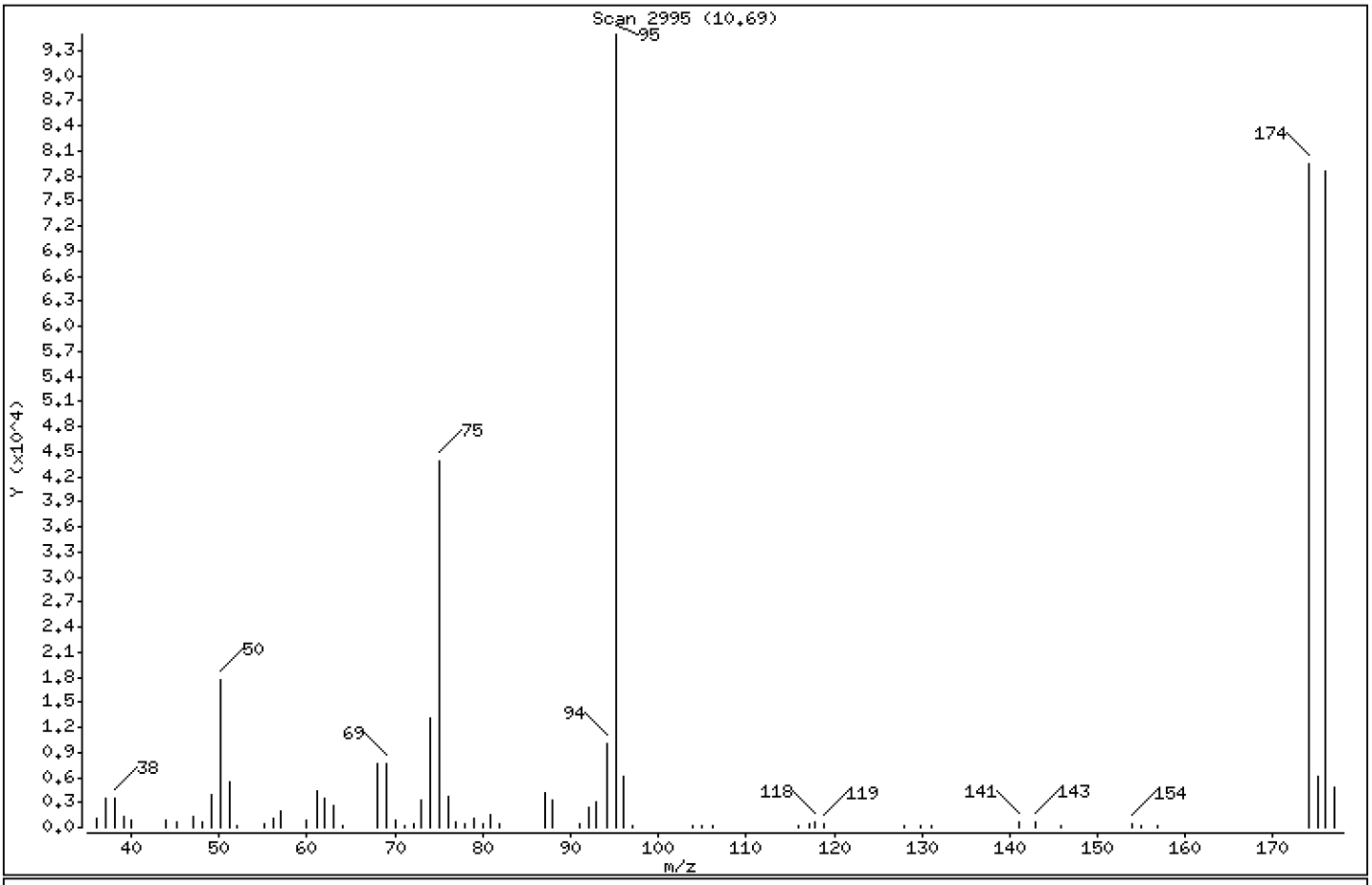
Client ID: BFB Instrument: VOA2.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: AP

Column phase: DB624 Column diameter: 0.18

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	18.69
75	30.00 - 60.00% of mass 95	46.13
96	5.00 - 9.00% of mass 95	6.54
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	83.75
175	5.00 - 9.00% of mass 174	6.37 (7.61)
176	95.00 - 101.00% of mass 174	82.82 (98.88)
177	5.00 - 9.00% of mass 176	5.03 (6.08)

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080201.D

Date : 02-AUG-2018 21:45

Client ID: BFB Instrument: VOA2.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: AP

Column phase: DB624 Column diameter: 0.18

Data File: E080201.D
Spectrum: Scan 2995 (10.69)
Location of Maximum: 95.10
Number of points: 65

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1076	61.10	4308	80.90	1568	118.90	333
37.10	3397	62.00	3502	82.00	414	127.90	252
38.10	3479	63.00	2658	87.00	4051	129.90	232
39.10	1357	64.10	303	88.00	3319	131.00	207
40.00	868	68.10	7544	91.10	354	141.00	632
44.00	972	69.10	7610	92.10	2303	142.90	740
45.20	569	70.00	813	93.00	3058	145.90	282
47.00	1417	71.20	190	94.10	10046	154.00	342
48.00	572	72.10	408	95.10	94968	155.00	245
49.10	3832	73.00	3193	96.10	6211	156.90	150
50.10	17752	74.10	13082	97.00	288	174.00	79536
51.10	5422	75.10	43808	104.00	283	175.00	6049
52.10	170	76.10	3805	104.90	174	176.00	78648
55.10	335	76.90	560	106.10	289	177.00	4780
56.10	1056	77.90	448	116.00	167		
57.00	1896	78.90	1159	117.10	390		
60.00	858	80.00	420	117.90	622		

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080203.D Page 1
Report Date: 04-Sep-2018 17:00

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080203.D
Lab Smp Id: VSTD0005
Inj Date : 02-AUG-2018 22:37
Operator : AP   Inst ID: VOA2.i
Smp Info : VSTD0005;VSTD0005;1;1;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\NAHSTWS003\Target\CHEM\VOA2.i\E180802.b\8260LL.m
Meth Date : 17-Aug-2018 12:13 Shiva.Targ Quant Type: ISTD
Cal Date : 09-JUN-2018 13:37   Cal File: D060910.D
Als bottle: 29   Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.782	5.783	(1.000)	276417	50.0000	
2	Dichlorodifluoromethane	85	1.444	1.454	(0.250)	1421	0.50000	0.52(aM)
186	Isobutylene	56	1.665	1.666	(0.288)	2119	0.50000	0.43(aAM)
3	Chloromethane	50	1.617	1.601	(0.280)	3847	0.50000	0.56(aM)
4	Propionitrile	54	5.253	5.276	(0.908)	5735	5.00000	4.58(aM)
5	Vinyl Chloride	62	1.691	1.688	(0.293)	2110	0.50000	0.46(aM)
159	Dichlorofluoromethane	67	2.253	2.227	(0.390)	3475	0.50000	0.51(aM)
8	Trichlorofluoromethane	101	2.269	2.253	(0.392)	2323	0.50000	0.52(aM)
12	Isobutyl Alcohol	74	6.251	6.184	(1.081)	75	10.0000	2.65(TaM)
13	Acetonitrile	39	3.177	3.174	(0.549)	1605	5.00000	8.83(aM)
14	Allyl Chloride	41	3.199	3.180	(0.553)	6134	0.50000	0.54(aM)
15	Iodomethane	142	2.926	2.914	(0.506)	425	1.00000	1.25(aM)
16	Acrylonitrile	53	3.748	3.710	(0.648)	1113	1.00000	1.14(aM)
18	Methyl tert-butyl ether	73	3.697	3.697	(0.639)	5039	0.50000	0.50(aM)
19	Carbon Disulfide	76	2.968	2.962	(0.513)	6063	1.00000	0.98(aM)
20	trans-1,2-Dichloroethene	96	3.700	3.668	(0.640)	1362	0.50000	0.40(aM)
21	Vinyl Acetate	43	5.263	5.256	(0.910)	4310	1.00000	0.94(aM)
22	1,1-Dichloroethane	63	4.293	4.281	(0.743)	3931	0.50000	0.50(aM)
24	2-Butanone	43	5.173	5.150	(0.895)	1608	1.00000	0.84(aM)
25	Methacrylonitrile	41	5.429	5.414	(0.939)	1772	0.50000	0.42(aM)
26	2,2-Dichloropropane	77	5.060	5.044	(0.875)	2021	0.50000	0.48(aM)
27	cis-1,2-Dichloroethene	96	5.073	5.073	(0.877)	1962	0.50000	0.48(aM)

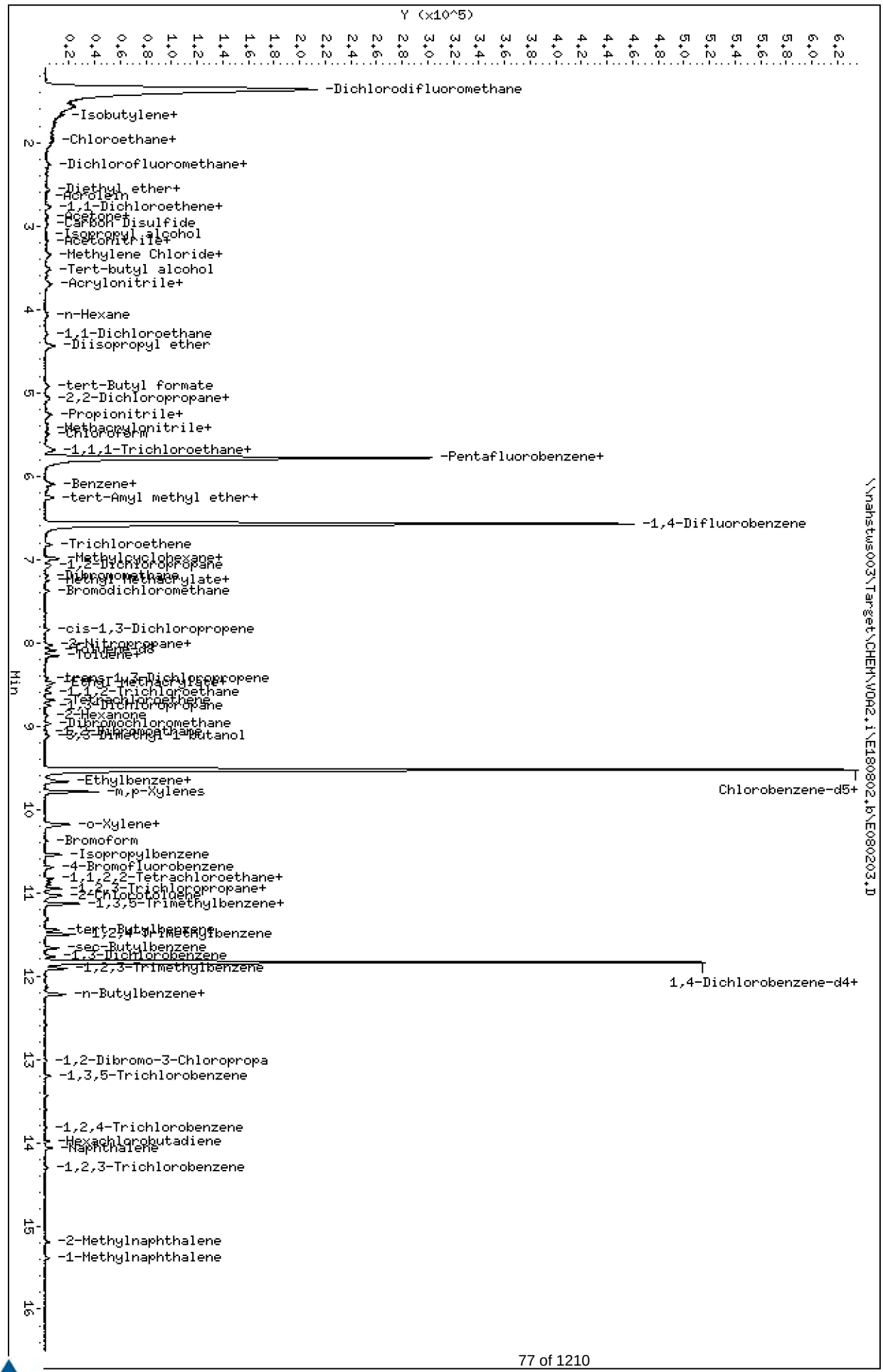
Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080203.D Page 2
Report Date: 04-Sep-2018 17:00

			QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
	28	Chloroform	83	5.500	5.497	(0.951)	3588	0.50000	0.55(aM)
	29	Bromochloromethane	128	5.381	5.378	(0.931)	768	0.50000	0.40(aM)
$	30	Dibromofluoromethane	113	5.702	5.689	(0.986)	1255	0.50000	0.50(aM)
	31	1,1,1-Trichloroethane	97	5.657	5.657	(0.978)	2803	0.50000	0.51(a)
	33	1,2-Dichloroethane	62	6.155	6.148	(0.937)	2131	0.50000	0.46(aM)
$	35	1,2-Dichloroethane-d4	65	6.074	6.059	(1.050)	1330	0.50000	0.47(aM)
*	36	1,4-Difluorobenzene	114	6.572	6.575	(1.000)	416679	50.0000	
	37	Benzene	78	6.094	6.097	(0.927)	8213	0.50000	0.57(Ta)
	38	Trichloroethene	130	6.825	6.819	(1.039)	2018	0.50000	0.53(aM)
	39	Bromodichloromethane	83	7.387	7.381	(1.124)	2313	0.50000	0.48(aM)
	40	Methyl Methacrylate	41	7.252	7.252	(1.254)	2173	0.50000	0.51(aM)
	41	2-Chloroethylvinyl ether	63	8.160	8.164	(1.242)	629	1.00000	1.08(aM)
	42	1,2-Dichloropropane	63	7.069	7.069	(1.076)	1962	0.50000	0.47(aM)
	43	2-Nitropropane	43	8.029	8.038	(1.388)	4342	0.50000	0.49(aM)
	44	Dibromomethane	93	7.207	7.194	(1.097)	1017	0.50000	0.49(aM)
	45	4-Methyl-2-Pentanone	43	8.029	8.038	(0.843)	4299	1.00000	1.04(aM)
	46	cis-1,3-Dichloropropene	75	7.839	7.843	(1.193)	2319	0.50000	0.43(aM)
*	47	Chlorobenzene-d5	117	9.524	9.527	(1.000)	362887	50.0000	
$	48	Toluene-d8	98	8.086	8.093	(0.849)	6082	0.50000	(aM)
	49	Ethyl Methacrylate	69	8.539	8.539	(1.299)	2559	0.50000	0.49(aM)
	50	Toluene	91	8.157	8.164	(0.856)	8058	0.50000	0.55(Ta)
	52	2-Hexanone	43	8.876	8.873	(0.932)	2612	1.00000	0.97(aM)
	53	1,1,2-Trichloroethane	83	8.597	8.600	(0.903)	1387	0.50000	0.49(aM)
	54	1,3-Dichloropropane	76	8.757	8.760	(0.919)	2695	0.50000	0.48(aM)
	55	Dibromochloromethane	129	8.969	8.975	(0.942)	1938	0.50000	0.49(aM)
	56	Tetrachloroethene	164	8.683	8.693	(0.912)	1632	0.50000	0.55(aM)
	57	1,2-Dibromoethane	107	9.072	9.072	(0.952)	1501	0.50000	0.44(aM)
	59	Chlorobenzene	112	9.550	9.556	(1.003)	4751	0.50000	0.52(Ta)
	60	1,1,1,2-Tetrachloroethane	131	9.643	9.652	(1.012)	1717	0.50000	0.48(aM)
	64	Styrene	104	10.201	10.204	(1.071)	4925	0.50000	0.50(aM)
	66	Bromoform	173	10.381	10.378	(1.090)	1283	0.50000	0.47(aM)
	67	Isopropylbenzene	105	10.551	10.551	(1.108)	9258	0.50000	0.59(a)
	68	1,1,2,2-Tetrachloroethane	83	10.872	10.878	(0.919)	2214	0.50000	0.51(aM)
$	69	4-Bromofluorobenzene	95	10.695	10.699	(1.123)	2589	0.50000	(aM)
*	70	1,4-Dichlorobenzene-d4	152	11.834	11.838	(1.000)	135495	50.0000	
	71	1,2,3-Trichloropropane	75	10.901	10.907	(0.921)	2036	0.50000	0.50(aM)
	72	trans-1,4-Dichloro-2-butene	53	10.942	10.936	(1.149)	139	0.50000	1.61(M)
	74	Bromobenzene	156	10.830	10.837	(0.915)	2081	0.50000	0.56(aM)
	75	1,3,5-Trimethylbenzene	105	11.128	11.138	(0.940)	11256	0.50000	0.42(aM)
	81	sec-Butylbenzene	105	11.664	11.674	(0.986)	7738	0.50000	0.57(aM)
	82	p-Isopropyltoluene	119	11.812	11.825	(0.998)	6989	0.50000	0.62(aM)
	83	1,3-Dichlorobenzene	146	11.764	11.774	(0.994)	3233	0.50000	0.51(Ta)
	84	1,4-Dichlorobenzene	146	11.860	11.863	(1.002)	3178	0.50000	0.54(aM)
	87	n-Butylbenzene	91	12.226	12.226	(1.033)	4651	0.50000	0.56(Ta)
	88	1,2-Dichlorobenzene	146	12.226	12.229	(1.033)	3468	0.50000	0.55(aM)
	146	Methyl acetate	43	3.267	3.241	(0.565)	2305	0.50000	0.52(aM)
	139	Diethyl ether	59	2.567	2.545	(0.444)	3024	0.50000	0.45(aM)
	133	Ethyl Acrylate	55	6.992	7.018	(1.209)	6858	0.50000	0.57(aM)
	141	Cyclohexane	56	5.689	5.689	(0.984)	4072	0.50000	0.58(a)
	142	Tetrahydrofuran	42	5.452	5.423	(0.943)	1555	1.00000	1.02(aM)
	148	Tert-butyl alcohol	59	3.527	3.597	(0.610)	4246	10.0000	10.69(M)
	170	1,3,5-Trichlorobenzene	180	13.201	13.208	(1.116)	2081	0.50000	0.51(aM)
	175	tert-Butyl ethyl ether	59	6.248	6.254	(1.080)	2257	0.50000	0.44(aM)
	157	2-Methylnaphthalene	142	15.185	15.191	(1.283)	2578	0.50000	6.20(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	156 Diisopropyl ether	45	4.431	4.435	(0.766)	7511	0.50000	0.50(aM)
	171 1-Methylnaphthalene	142	15.377	15.387	(1.299)	2289	0.50000	5.50(M)
	130 Ethyl Acetate	43	5.263	5.256	(0.910)	4511	0.50000	0.49(aM)
M	94 1,2-Dichloroethylene (total)	96				3324	1.00000	0.88(a)

QC Flag Legend

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



Data File: \\nahstws003\Target\CHEM\WOA2.i\E180802.b\E080203.D
Date : 02-AUG-2018 22:37
Client ID:
Sample Info: VSTD0005;VSTD0005;1;1;
Purge Volume: 5.0
Column phase: DB624

Instrument: WOA2.i
Operator: AP
Column diameter: 0.18

\\nahstws003\Target\CHEM\WOA2.i\E180802.b\E080203.D

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080204.D Page 1
Report Date: 04-Sep-2018 17:00

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080204.D
Lab Smp Id: VSTD001
Inj Date : 02-AUG-2018 23:03
Operator : AP   Inst ID: VOA2.i
Smp Info : VSTD001;VSTD001;1;2;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\NAHSTWS003\Target\CHEM\VOA2.i\E180802.b\8260LL.m
Meth Date : 17-Aug-2018 12:13 Shiva.Targ Quant Type: ISTD
Cal Date : 09-JUN-2018 13:37   Cal File: D060910.D
Als bottle: 30   Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.779	5.783	(1.000)	273991	50.0000	
2 Dichlorodifluoromethane	85	1.460	1.454	(0.253)	2672	1.00000	0.99(aM)
186 Isobutylene	56	1.656	1.666	(0.287)	5049	1.00000	1.03(aAM)
3 Chloromethane	50	1.601	1.601	(0.277)	7562	1.00000	1.11(aM)
4 Propionitrile	54	5.250	5.276	(0.908)	13233	10.0000	10.68(M)
5 Vinyl Chloride	62	1.691	1.688	(0.293)	5159	1.00000	1.14(M)
7 Chloroethane	64	2.041	2.031	(0.353)	3360	1.00000	1.16(M)
159 Dichlorofluoromethane	67	2.236	2.227	(0.387)	7158	1.00000	1.06(M)
8 Trichlorofluoromethane	101	2.262	2.253	(0.391)	4689	1.00000	1.06(T)
10 Acetone	43	2.872	2.869	(0.497)	5616	2.00000	1.22(aM)
11 1,1-Dichloroethene	96	2.756	2.750	(0.477)	3423	1.00000	1.05(M)
12 Isobutyl Alcohol	74	6.257	6.184	(1.083)	453	20.0000	23.51(TM)
13 Acetonitrile	39	3.170	3.174	(0.549)	3797	10.0000	14.22(M)
14 Allyl Chloride	41	3.170	3.180	(0.549)	12524	1.00000	1.12(TM)
15 Iodomethane	142	2.914	2.914	(0.504)	1514	2.00000	1.62(aM)
16 Acrylonitrile	53	3.713	3.710	(0.642)	3033	2.00000	2.27(M)
18 Methyl tert-butyl ether	73	3.684	3.697	(0.637)	10928	1.00000	1.10(M)
19 Carbon Disulfide	76	2.968	2.962	(0.514)	12132	2.00000	1.98(aM)
20 trans-1,2-Dichloroethene	96	3.664	3.668	(0.634)	3595	1.00000	1.07(M)
21 Vinyl Acetate	43	5.246	5.256	(0.908)	9691	2.00000	2.15(M)
22 1,1-Dichloroethane	63	4.287	4.281	(0.742)	8043	1.00000	1.05(M)
24 2-Butanone	43	5.163	5.150	(0.893)	4090	2.00000	2.17(M)

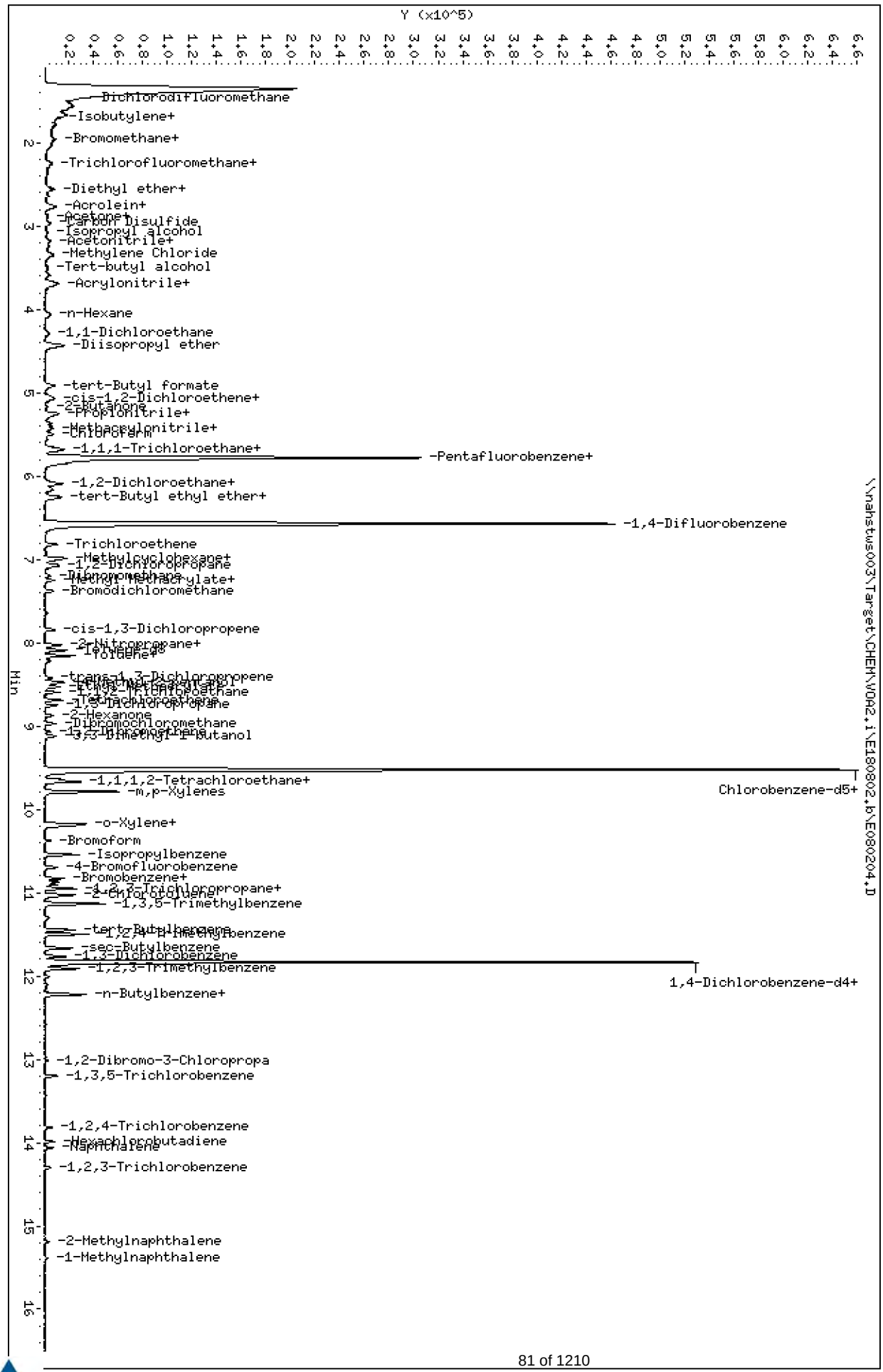
Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080204.D Page 2
Report Date: 04-Sep-2018 17:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	25 Methacrylonitrile	41	5.420	5.414	(0.938)	4112	1.00000	0.99(aM)
	26 2,2-Dichloropropane	77	5.044	5.044	(0.873)	4631	1.00000	1.11(M)
	27 cis-1,2-Dichloroethene	96	5.067	5.073	(0.877)	4183	1.00000	1.03(T)
	28 Chloroform	83	5.494	5.497	(0.951)	6863	1.00000	1.06(T)
	29 Bromochloromethane	128	5.375	5.378	(0.930)	1853	1.00000	0.98(aM)
$	30 Dibromofluoromethane	113	5.696	5.689	(0.986)	2748	1.00000	1.12(M)
	31 1,1,1-Trichloroethane	97	5.648	5.657	(0.977)	5825	1.00000	1.07
	33 1,2-Dichloroethane	62	6.148	6.148	(0.936)	5052	1.00000	1.09(T)
$	35 1,2-Dichloroethane-d4	65	6.065	6.059	(1.049)	2923	1.00000	1.04(M)
*	36 1,4-Difluorobenzene	114	6.572	6.575	(1.000)	421528	50.0000	
	37 Benzene	78	6.094	6.097	(0.927)	15832	1.00000	1.09
	38 Trichloroethene	130	6.822	6.819	(1.038)	4143	1.00000	1.07
	39 Bromodichloromethane	83	7.374	7.381	(1.122)	4811	1.00000	0.99(Ta)
	40 Methyl Methacrylate	41	7.252	7.252	(1.255)	4028	1.00000	0.96(Ta)
	41 2-Chloroethylvinyl ether	63	8.160	8.164	(1.242)	1294	2.00000	2.21(aM)
	42 1,2-Dichloropropane	63	7.066	7.069	(1.075)	4621	1.00000	1.10(M)
	43 2-Nitropropane	43	8.029	8.038	(1.389)	8918	1.00000	1.01(Ta)
	44 Dibromomethane	93	7.197	7.194	(1.095)	1990	1.00000	0.96(aM)
	45 4-Methyl-2-Pentanone	43	8.029	8.038	(0.843)	8918	2.00000	2.11
	46 cis-1,3-Dichloropropene	75	7.839	7.843	(1.193)	5368	1.00000	0.98(aM)
*	47 Chlorobenzene-d5	117	9.524	9.527	(1.000)	369694	50.0000	
$	48 Toluene-d8	98	8.093	8.093	(0.850)	11126	1.00000	(aM)
	49 Ethyl Methacrylate	69	8.532	8.539	(1.298)	5580	1.00000	1.06(T)
	50 Toluene	91	8.157	8.164	(0.856)	17667	1.00000	1.18(T)
	51 trans-1,3-Dichloropropene	75	8.417	8.420	(1.281)	3841	1.00000	0.91(aM)
	52 2-Hexanone	43	8.873	8.873	(0.932)	5809	2.00000	2.15(M)
	53 1,1,2-Trichloroethane	83	8.590	8.600	(0.902)	3155	1.00000	1.11(T)
	54 1,3-Dichloropropane	76	8.747	8.760	(0.918)	6213	1.00000	1.10(M)
	55 Dibromochloromethane	129	8.969	8.975	(0.942)	4195	1.00000	1.05(T)
	56 Tetrachloroethene	164	8.693	8.693	(0.913)	3160	1.00000	1.05
	57 1,2-Dibromoethane	107	9.071	9.072	(0.952)	3519	1.00000	1.03(T)
	59 Chlorobenzene	112	9.550	9.556	(1.003)	10312	1.00000	1.11
	60 1,1,1,2-Tetrachloroethane	131	9.649	9.652	(1.013)	3809	1.00000	1.04
	64 Styrene	104	10.201	10.204	(1.071)	10002	1.00000	1.01
	66 Bromoform	173	10.377	10.378	(1.090)	2801	1.00000	1.01(M)
	67 Isopropylbenzene	105	10.544	10.551	(1.107)	18031	1.00000	1.13
	68 1,1,2,2-Tetrachloroethane	83	10.868	10.878	(0.918)	5075	1.00000	1.14(M)
$	69 4-Bromofluorobenzene	95	10.702	10.699	(1.124)	3985	1.00000	(aM)
*	70 1,4-Dichlorobenzene-d4	152	11.834	11.838	(1.000)	139045	50.0000	
	71 1,2,3-Trichloropropane	75	10.904	10.907	(0.921)	4735	1.00000	1.13(T)
	72 trans-1,4-Dichloro-2-butene	53	10.939	10.936	(1.149)	579	1.00000	2.01(M)
	74 Bromobenzene	156	10.830	10.837	(0.915)	4077	1.00000	1.08
	75 1,3,5-Trimethylbenzene	105	11.132	11.138	(0.941)	17555	1.00000	0.94(aM)
	81 sec-Butylbenzene	105	11.664	11.674	(0.986)	16230	1.00000	1.17
	82 p-Isopropyltoluene	119	11.815	11.825	(0.998)	13433	1.00000	1.17
	83 1,3-Dichlorobenzene	146	11.767	11.774	(0.994)	7046	1.00000	1.09
	84 1,4-Dichlorobenzene	146	11.860	11.863	(1.002)	6547	1.00000	1.08
	87 n-Butylbenzene	91	12.223	12.226	(1.033)	9281	1.00000	1.09
	88 1,2-Dichlorobenzene	146	12.223	12.229	(1.033)	6975	1.00000	1.09
	91 Hexachlorobutadiene	225	13.991	13.988	(1.182)	1961	1.00000	1.16(M)
	146 Methyl acetate	43	3.241	3.241	(0.561)	4908	1.00000	1.12(aM)
	139 Diethyl ether	59	2.561	2.545	(0.443)	6755	1.00000	1.02
	133 Ethyl Acrylate	55	6.986	7.018	(1.209)	12977	1.00000	1.10(M)
	136 n-Hexane	57	4.075	4.063	(0.705)	4855	1.00000	1.09(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
141	Cyclohexane	56	5.680	5.689	(0.983)	7787	1.00000	1.12(a)
142	Tetrahydrofuran	42	5.429	5.423	(0.939)	3444	2.00000	2.29(M)
149	Isopropyl alcohol	45	3.090	3.093	(0.535)	5362	20.0000	20.10(M)
151	4-Methyl-2-pentanol	45	8.478	8.478	(0.890)	16254	20.0000	18.52(a)
167	Ethanol	45	2.551	2.545	(0.441)	7150	20.0000	21.22(M)
170	1,3,5-Trichlorobenzene	180	13.205	13.208	(1.116)	3996	1.00000	0.96(Ta)
172	tert-Butyl formate	59	4.916	4.919	(0.851)	10316	2.00000	2.14(T)
174	tert-Amyl methyl ether	73	6.260	6.261	(1.083)	10047	1.00000	1.07(M)
175	tert-Butyl ethyl ether	59	6.254	6.254	(1.082)	4764	1.00000	0.94(a)
157	2-Methylnaphthalene	142	15.188	15.191	(1.283)	2108	1.00000	6.04(M)
156	Diisopropyl ether	45	4.428	4.435	(0.766)	15655	1.00000	1.06(M)
171	1-Methylnaphthalene	142	15.393	15.387	(1.301)	1653	1.00000	5.30(M)
130	Ethyl Acetate	43	5.246	5.256	(0.908)	9531	1.00000	1.06(aM)
M 94	1,2-Dichloroethylene (total)	96				7778	2.00000	2.11(a)

QC Flag Legend

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



Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080204.D
Date : 02-AUG-2018 23:03
Client ID:
Sample Info: VSTD001;VSTD001;1;2;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080205.D Page 1
Report Date: 04-Sep-2018 17:00

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080205.D
Lab Smp Id: VSTD002
Inj Date : 02-AUG-2018 23:29
Operator : AP   Inst ID: VOA2.i
Smp Info : VSTD002;VSTD002;1;3;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\NAHSTWS003\Target\CHEM\VOA2.i\E180802.b\8260LL.m
Meth Date : 17-Aug-2018 12:13 Shiva.Targ Quant Type: ISTD
Cal Date : 09-JUN-2018 13:37   Cal File: D060910.D
Als bottle: 31   Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.786	5.783	(1.000)	271653	50.0000	
2 Dichlorodifluoromethane	85	1.463	1.454	(0.253)	5607	2.00000	2.09(M)
186 Isobutylene	56	1.668	1.666	(0.288)	10160	2.00000	2.10(aAM)
3 Chloromethane	50	1.608	1.601	(0.278)	14179	2.00000	2.11(aM)
4 Propionitrile	54	5.250	5.276	(0.907)	20732	20.0000	16.88
5 Vinyl Chloride	62	1.701	1.688	(0.294)	8869	2.00000	1.97
7 Chloroethane	64	2.063	2.031	(0.357)	6305	2.00000	2.20(M)
159 Dichlorofluoromethane	67	2.249	2.227	(0.389)	12766	2.00000	1.91(T)
8 Trichlorofluoromethane	101	2.269	2.253	(0.392)	8455	2.00000	1.93(T)
9 Acrolein	56	2.708	2.699	(0.468)	2930	4.00000	2.47(M)
10 Acetone	43	2.878	2.869	(0.498)	7793	4.00000	3.15(M)
11 1,1-Dichloroethene	96	2.772	2.750	(0.479)	6540	2.00000	2.03
12 Isobutyl Alcohol	74	6.180	6.184	(1.068)	536	40.0000	28.34(M)
13 Acetonitrile	39	3.180	3.174	(0.550)	8437	20.0000	25.74(M)
14 Allyl Chloride	41	3.196	3.180	(0.552)	17668	2.00000	1.60(T)
15 Iodomethane	142	2.920	2.914	(0.505)	4031	4.00000	2.48(M)
16 Acrylonitrile	53	3.735	3.710	(0.646)	3527	4.00000	2.57
18 Methyl tert-butyl ether	73	3.703	3.697	(0.640)	19411	2.00000	1.98(T)
19 Carbon Disulfide	76	2.968	2.962	(0.513)	24809	4.00000	4.09(M)
20 trans-1,2-Dichloroethene	96	3.684	3.668	(0.637)	6703	2.00000	2.02
21 Vinyl Acetate	43	5.253	5.256	(0.908)	18601	4.00000	4.16(M)
22 1,1-Dichloroethane	63	4.303	4.281	(0.744)	15546	2.00000	2.04(M)

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080205.D Page 2
Report Date: 04-Sep-2018 17:00

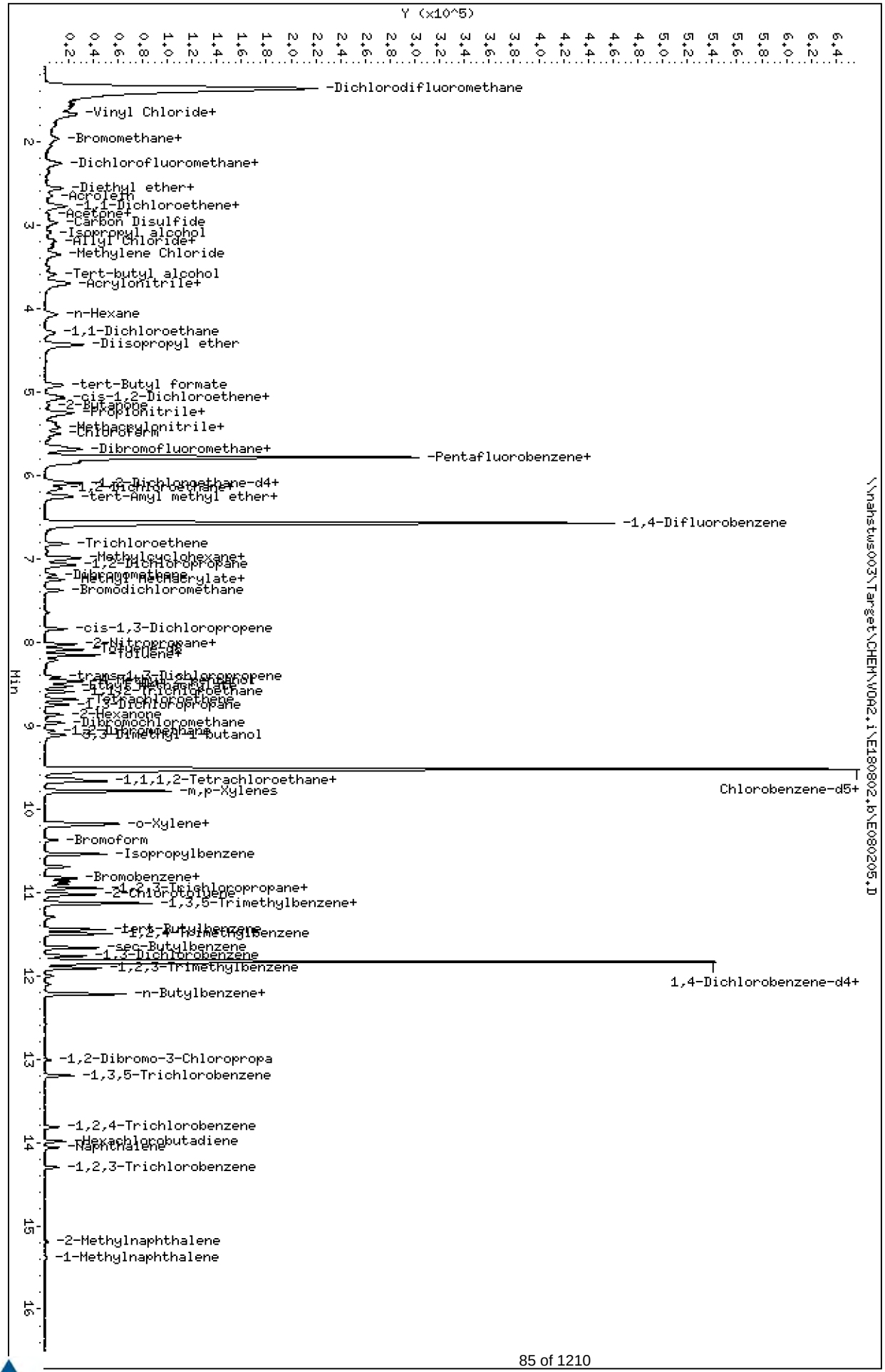
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
24	2-Butanone	43	5.163	5.150	(0.892)	7361	4.00000	3.94(M)
25	Methacrylonitrile	41	5.426	5.414	(0.938)	8234	2.00000	2.01
26	2,2-Dichloropropane	77	5.047	5.044	(0.872)	8758	2.00000	2.11(M)
27	cis-1,2-Dichloroethene	96	5.073	5.073	(0.877)	7546	2.00000	1.88
28	Chloroform	83	5.494	5.497	(0.950)	12430	2.00000	1.95
29	Bromochloromethane	128	5.368	5.378	(0.928)	3625	2.00000	1.94(M)
$ 30	Dibromofluoromethane	113	5.699	5.689	(0.985)	5344	2.00000	2.20
31	1,1,1-Trichloroethane	97	5.657	5.657	(0.978)	11469	2.00000	2.13
32	1,1-Dichloropropene	75	5.869	5.856	(0.893)	9958	2.00000	0.58(a)
33	1,2-Dichloroethane	62	6.155	6.148	(0.936)	9800	2.00000	2.14
34	Carbon Tetrachloride	117	5.837	5.837	(0.888)	9623	2.00000	0.65(Ta)
$ 35	1,2-Dichloroethane-d4	65	6.071	6.059	(1.049)	5882	2.00000	2.12(T)
* 36	1,4-Difluorobenzene	114	6.575	6.575	(1.000)	417699	50.0000	
37	Benzene	78	6.097	6.097	(0.927)	29178	2.00000	2.04
38	Trichloroethene	130	6.825	6.819	(1.038)	7757	2.00000	2.03
39	Bromodichloromethane	83	7.380	7.381	(1.122)	10305	2.00000	2.14(T)
40	Methyl Methacrylate	41	7.252	7.252	(1.253)	8260	2.00000	1.99(Ta)
41	2-Chloroethylvinyl ether	63	8.157	8.164	(1.241)	2211	4.00000	3.81(aM)
42	1,2-Dichloropropane	63	7.069	7.069	(1.075)	8728	2.00000	2.10(M)
43	2-Nitropropane	43	8.032	8.038	(1.388)	17673	2.00000	2.03(Ta)
44	Dibromomethane	93	7.197	7.194	(1.095)	3908	2.00000	1.90
45	4-Methyl-2-Pentanone	43	8.032	8.038	(0.843)	17673	4.00000	4.25
46	cis-1,3-Dichloropropene	75	7.842	7.843	(1.193)	10628	2.00000	1.97
* 47	Chlorobenzene-d5	117	9.524	9.527	(1.000)	364855	50.0000	
$ 48	Toluene-d8	98	8.093	8.093	(0.850)	20619	2.00000	0.93(Ta)
49	Ethyl Methacrylate	69	8.529	8.539	(1.297)	11204	2.00000	2.15(T)
50	Toluene	91	8.160	8.164	(0.857)	31354	2.00000	2.13
51	trans-1,3-Dichloropropene	75	8.420	8.420	(1.281)	8195	2.00000	1.96(M)
52	2-Hexanone	43	8.869	8.873	(0.931)	11116	4.00000	4.30(M)
53	1,1,2-Trichloroethane	83	8.597	8.600	(0.903)	5864	2.00000	2.09
54	1,3-Dichloropropane	76	8.747	8.760	(0.918)	11742	2.00000	2.12
55	Dibromochloromethane	129	8.972	8.975	(0.942)	7781	2.00000	1.99(T)
56	Tetrachloroethene	164	8.686	8.693	(0.912)	6293	2.00000	2.12
57	1,2-Dibromoethane	107	9.071	9.072	(0.952)	6385	2.00000	1.89(T)
59	Chlorobenzene	112	9.553	9.556	(1.003)	19081	2.00000	2.09
60	1,1,1,2-Tetrachloroethane	131	9.646	9.652	(1.013)	7754	2.00000	2.16
61	Ethylbenzene	106	9.668	9.678	(1.015)	11299	2.00000	0.37(a)
64	Styrene	104	10.198	10.204	(1.071)	19882	2.00000	2.04
66	Bromoform	173	10.371	10.378	(1.089)	5215	2.00000	1.91(T)
67	Isopropylbenzene	105	10.548	10.551	(1.107)	32668	2.00000	2.08
68	1,1,2,2-Tetrachloroethane	83	10.868	10.878	(0.918)	9995	2.00000	2.23(M)
* 70	1,4-Dichlorobenzene-d4	152	11.834	11.838	(1.000)	140271	50.0000	
71	1,2,3-Trichloropropane	75	10.904	10.907	(0.921)	9210	2.00000	2.19
72	trans-1,4-Dichloro-2-butene	53	10.926	10.936	(1.147)	1639	2.00000	3.00(M)
74	Bromobenzene	156	10.833	10.837	(0.915)	8034	2.00000	2.11
75	1,3,5-Trimethylbenzene	105	11.128	11.138	(0.940)	28270	2.00000	1.86
81	sec-Butylbenzene	105	11.667	11.674	(0.986)	30286	2.00000	2.16
82	p-Isopropyltoluene	119	11.818	11.825	(0.999)	23826	2.00000	2.05
83	1,3-Dichlorobenzene	146	11.767	11.774	(0.994)	13443	2.00000	2.06
84	1,4-Dichlorobenzene	146	11.857	11.863	(1.002)	12345	2.00000	2.02
87	n-Butylbenzene	91	12.219	12.226	(1.033)	17327	2.00000	2.02
88	1,2-Dichlorobenzene	146	12.223	12.229	(1.033)	13071	2.00000	2.03
89	1,2-Dibromo-3-Chloropropane	75	13.009	13.009	(1.099)	1249	2.00000	1.45(M)
90	1,2,4-Trichlorobenzene	180	13.821	13.821	(1.168)	4411	2.00000	1.05(T)

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080205.D Page 3
Report Date: 04-Sep-2018 17:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
91	Hexachlorobutadiene	225	13.984	13.988	(1.182)	3440	2.00000	2.01(M)
93	1,2,3-Trichlorobenzene	182	14.296	14.302	(1.208)	4040	2.00000	1.07(T)
146	Methyl acetate	43	3.257	3.241	(0.563)	8624	2.00000	1.99(aM)
139	Diethyl ether	59	2.554	2.545	(0.442)	12298	2.00000	1.88
147	Methylcyclohexane	83	6.989	6.992	(1.063)	12089	2.00000	0.41(a)
135	1,4-Dioxane	88	7.249	7.246	(1.253)	1370	40.0000	35.04(M)
132	n-Butanol	56	6.992	6.996	(1.209)	5725	40.0000	20.17
131	Methyl Acrylate	55	5.282	5.282	(0.913)	8116	2.00000	0.39(a)
133	Ethyl Acrylate	55	7.011	7.018	(1.212)	23903	2.00000	2.05(M)
136	n-Hexane	57	4.072	4.063	(0.704)	9085	2.00000	2.06
141	Cyclohexane	56	5.689	5.689	(0.983)	13956	2.00000	2.03(a)
142	Tetrahydrofuran	42	5.442	5.423	(0.941)	6428	4.00000	4.32(M)
148	Tert-butyl alcohol	59	3.594	3.597	(0.621)	13853	40.0000	33.91
149	Isopropyl alcohol	45	3.084	3.093	(0.533)	10546	40.0000	39.88(M)
151	4-Methyl-2-pentanol	45	8.471	8.478	(0.889)	33569	40.0000	38.77
167	Ethanol	45	2.557	2.545	(0.442)	14168	40.0000	42.41(M)
170	1,3,5-Trichlorobenzene	180	13.205	13.208	(1.116)	8459	2.00000	2.02(T)
172	tert-Butyl formate	59	4.919	4.919	(0.850)	18847	4.00000	3.94
173	3,3-Dimethyl-1-butanol	57	9.113	9.110	(0.957)	11060	40.0000	34.50
174	tert-Amyl methyl ether	73	6.260	6.261	(1.082)	17566	2.00000	1.90(T)
175	tert-Butyl ethyl ether	59	6.244	6.254	(1.079)	9590	2.00000	1.91
176	tert-Amyl alcohol	59	6.244	6.254	(1.079)	9590	40.0000	38.28
157	2-Methylnaphthalene	142	15.194	15.191	(1.284)	1755	2.00000	5.92(M)
156	Diisopropyl ether	45	4.435	4.435	(0.767)	28685	2.00000	1.97(T)
171	1-Methylnaphthalene	142	15.393	15.387	(1.301)	1500	2.00000	5.25(M)
130	Ethyl Acetate	43	5.253	5.256	(0.908)	20327	2.00000	2.29(aM)
M 94	1,2-Dichloroethylene (total)	96				14249	4.00000	3.91(a)

QC Flag Legend

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



Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080205.D
Date : 02-AUG-2018 23:29
Client ID:
Sample Info: VSTD002;VSTD0021;3;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080206.D Page 1
Report Date: 04-Sep-2018 17:00

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080206.D
Lab Smp Id: VSTD005
Inj Date : 02-AUG-2018 23:55
Operator : AP   Inst ID: VOA2.i
Smp Info : VSTD005;VSTD005;1;4;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\NAHSTWS003\Target\CHEM\VOA2.i\E180802.b\8260LL.m
Meth Date : 17-Aug-2018 12:13 Shiva.Targ Quant Type: ISTD
Cal Date : 09-JUN-2018 13:37   Cal File: D060910.D
Als bottle: 32   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.783	5.783	(1.000)	253796	50.0000	
2 Dichlorodifluoromethane	85	1.467	1.454	(0.254)	13256	5.00000	5.30(T)
186 Isobutylene	56	1.672	1.666	(0.289)	24641	5.00000	5.46(AM)
3 Chloromethane	50	1.617	1.601	(0.280)	32514	5.00000	5.19
4 Propionitrile	54	5.243	5.276	(0.907)	57765	50.0000	50.35
5 Vinyl Chloride	62	1.698	1.688	(0.294)	22321	5.00000	5.32
6 Bromomethane	94	1.961	1.941	(0.339)	17001	5.00000	5.06(TM)
7 Chloroethane	64	2.051	2.031	(0.355)	14143	5.00000	5.28
159 Dichlorofluoromethane	67	2.243	2.227	(0.388)	33404	5.00000	5.37(T)
8 Trichlorofluoromethane	101	2.269	2.253	(0.392)	21379	5.00000	5.22(T)
9 Acrolein	56	2.702	2.699	(0.467)	3154	10.0000	3.00(T)
10 Acetone	43	2.882	2.869	(0.498)	14782	10.0000	10.09(M)
11 1,1-Dichloroethene	96	2.769	2.750	(0.479)	16201	5.00000	5.40
12 Isobutyl Alcohol	74	6.161	6.184	(1.065)	1685	100.000	98.77(M)
13 Acetonitrile	39	3.180	3.174	(0.550)	8459	50.0000	27.26
14 Allyl Chloride	41	3.193	3.180	(0.552)	47608	5.00000	4.62
15 Iodomethane	142	2.920	2.914	(0.505)	15445	10.0000	6.71(T)
16 Acrylonitrile	53	3.719	3.710	(0.643)	12477	10.0000	8.34
17 Methylene Chloride	84	3.350	3.334	(0.579)	19984	5.00000	4.48
18 Methyl tert-butyl ether	73	3.697	3.697	(0.639)	49506	5.00000	5.42(T)
19 Carbon Disulfide	76	2.968	2.962	(0.513)	59068	10.0000	10.43
20 trans-1,2-Dichloroethene	96	3.684	3.668	(0.637)	15996	5.00000	5.17

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080206.D Page 2
Report Date: 04-Sep-2018 17:00

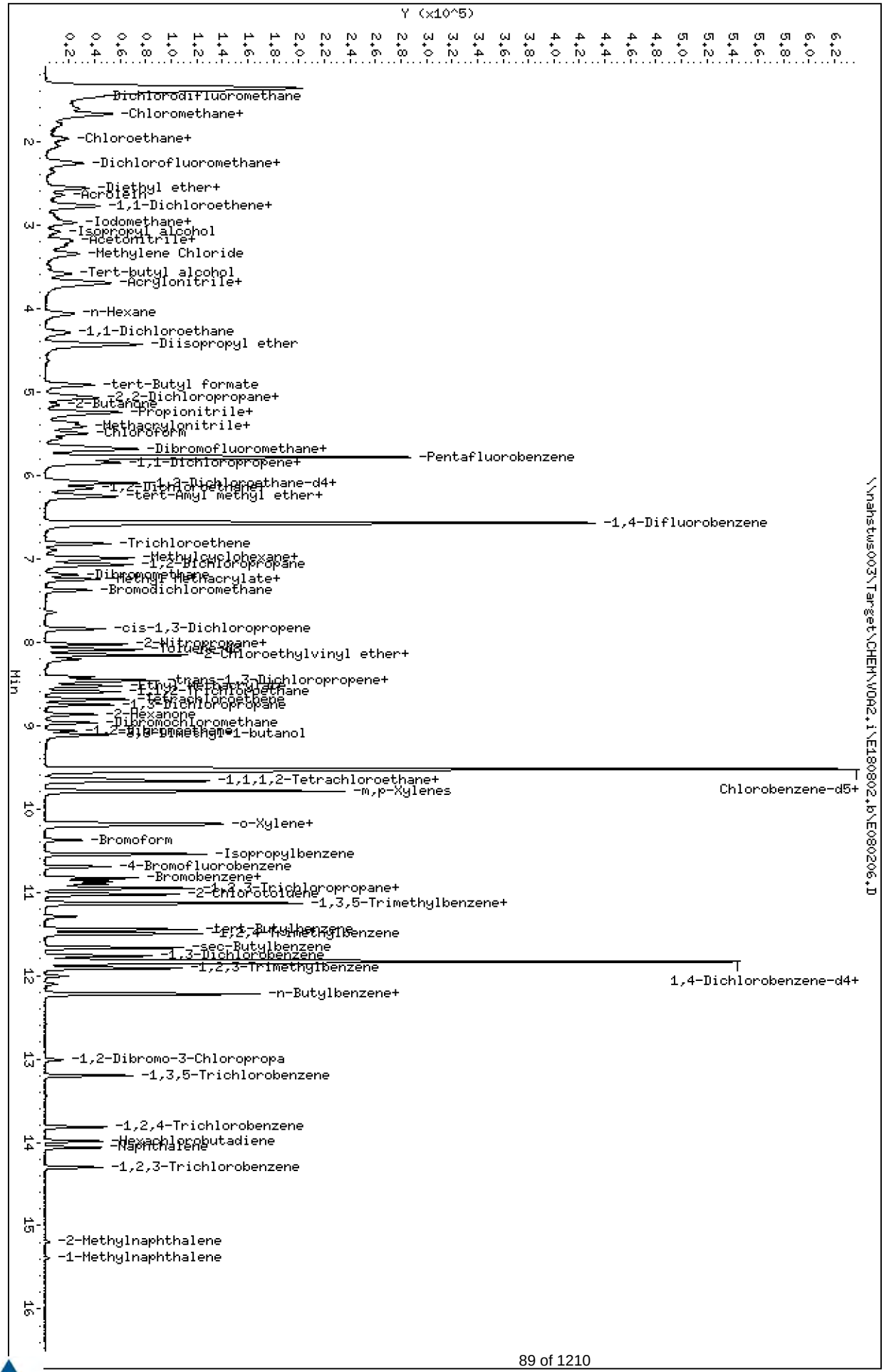
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	21 Vinyl Acetate	43	5.250	5.256	(0.908)	46660	10.0000	11.18(M)
	22 1,1-Dichloroethane	63	4.284	4.281	(0.741)	37049	5.00000	5.22(T)
	24 2-Butanone	43	5.160	5.150	(0.892)	17114	10.0000	9.82
	25 Methacrylonitrile	41	5.417	5.414	(0.937)	20311	5.00000	5.32
	26 2,2-Dichloropropane	77	5.051	5.044	(0.873)	19461	5.00000	5.04
	27 cis-1,2-Dichloroethene	96	5.080	5.073	(0.878)	19860	5.00000	5.32
	28 Chloroform	83	5.500	5.497	(0.951)	31810	5.00000	5.34
	29 Bromochloromethane	128	5.378	5.378	(0.930)	9657	5.00000	5.55
$	30 Dibromofluoromethane	113	5.689	5.689	(0.984)	12457	5.00000	5.49
	31 1,1,1-Trichloroethane	97	5.654	5.657	(0.978)	26302	5.00000	5.24
	32 1,1-Dichloropropene	75	5.856	5.856	(0.891)	21413	5.00000	4.02
	33 1,2-Dichloroethane	62	6.145	6.148	(0.935)	23092	5.00000	5.32
	34 Carbon Tetrachloride	117	5.840	5.837	(0.888)	24656	5.00000	4.89(M)
$	35 1,2-Dichloroethane-d4	65	6.065	6.059	(1.049)	13785	5.00000	5.32
*	36 1,4-Difluorobenzene	114	6.575	6.575	(1.000)	397495	50.0000	
	37 Benzene	78	6.097	6.097	(0.927)	74577	5.00000	5.48
	38 Trichloroethene	130	6.825	6.819	(1.038)	19772	5.00000	5.44
	39 Bromodichloromethane	83	7.377	7.381	(1.122)	24672	5.00000	5.39(T)
	40 Methyl Methacrylate	41	7.249	7.252	(1.254)	20610	5.00000	5.33
	41 2-Chloroethylvinyl ether	63	8.157	8.164	(1.241)	6081	10.0000	11.02(T)
	42 1,2-Dichloropropane	63	7.073	7.069	(1.076)	21892	5.00000	5.54(M)
	43 2-Nitropropane	43	8.029	8.038	(1.388)	41947	5.00000	5.16(T)
	44 Dibromomethane	93	7.188	7.194	(1.093)	9731	5.00000	4.98
	45 4-Methyl-2-Pentanone	43	8.029	8.038	(0.843)	41947	10.0000	10.58
	46 cis-1,3-Dichloropropene	75	7.843	7.843	(1.193)	27121	5.00000	5.29
*	47 Chlorobenzene-d5	117	9.524	9.527	(1.000)	348068	50.0000	
$	48 Toluene-d8	98	8.090	8.093	(0.849)	49918	5.00000	5.17
	49 Ethyl Methacrylate	69	8.529	8.539	(1.297)	25823	5.00000	5.22
	50 Toluene	91	8.157	8.164	(0.856)	78323	5.00000	5.57
	51 trans-1,3-Dichloropropene	75	8.420	8.420	(1.281)	19557	5.00000	4.92
	52 2-Hexanone	43	8.866	8.873	(0.931)	27891	10.0000	11.63(M)
	53 1,1,2-Trichloroethane	83	8.594	8.600	(0.902)	14798	5.00000	5.53
	54 1,3-Dichloropropane	76	8.751	8.760	(0.919)	28604	5.00000	5.41
	55 Dibromochloromethane	129	8.969	8.975	(0.942)	20462	5.00000	5.48(T)
	56 Tetrachloroethene	164	8.690	8.693	(0.912)	15770	5.00000	5.56
	57 1,2-Dibromoethane	107	9.068	9.072	(0.952)	17544	5.00000	5.45(T)
	58 1-Chlorohexane	55	9.550	9.559	(1.452)	20511	5.00000	4.20
	59 Chlorobenzene	112	9.550	9.556	(1.003)	47868	5.00000	5.49
	60 1,1,1,2-Tetrachloroethane	131	9.643	9.652	(1.012)	18909	5.00000	5.52
	61 Ethylbenzene	106	9.669	9.678	(1.015)	27181	5.00000	4.53
	62 m,p-Xylenes	106	9.787	9.800	(1.028)	68774	10.0000	8.21
	63 o-Xylene	106	10.176	10.182	(1.068)	34473	5.00000	4.13
	64 Styrene	104	10.195	10.204	(1.070)	51262	5.00000	5.51
	66 Bromoform	173	10.378	10.378	(1.090)	14038	5.00000	5.39(T)
	67 Isopropylbenzene	105	10.545	10.551	(1.107)	81872	5.00000	5.47
	68 1,1,2,2-Tetrachloroethane	83	10.869	10.878	(0.918)	24724	5.00000	5.53(M)
$	69 4-Bromofluorobenzene	95	10.692	10.699	(1.123)	16698	5.00000	4.06
*	70 1,4-Dichlorobenzene-d4	152	11.835	11.838	(1.000)	140027	50.0000	
	71 1,2,3-Trichloropropane	75	10.901	10.907	(0.921)	22269	5.00000	5.31
	72 trans-1,4-Dichloro-2-butene	53	10.926	10.936	(1.147)	3925	5.00000	5.32(M)
	73 n-Propylbenzene	91	10.952	10.962	(0.925)	87800	5.00000	3.79
	74 Bromobenzene	156	10.830	10.837	(0.915)	20340	5.00000	5.37
	75 1,3,5-Trimethylbenzene	105	11.129	11.138	(0.940)	66428	5.00000	5.22
	76 2-Chlorotoluene	91	11.026	11.036	(0.932)	56944	5.00000	4.13

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080206.D Page 3
Report Date: 04-Sep-2018 17:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
77	4-Chlorotoluene	91	11.138	11.145	(0.941)	59905	5.00000	3.84
78	tert-Butylbenzene	119	11.449	11.456	(0.967)	55700	5.00000	3.89
79	1,2,4-Trimethylbenzene	105	11.498	11.507	(0.972)	64820	5.00000	3.80
81	sec-Butylbenzene	105	11.664	11.674	(0.986)	75987	5.00000	5.44
82	p-Isopropyltoluene	119	11.815	11.825	(0.998)	61403	5.00000	5.31
83	1,3-Dichlorobenzene	146	11.767	11.774	(0.994)	34922	5.00000	5.36
84	1,4-Dichlorobenzene	146	11.854	11.863	(1.002)	30480	5.00000	5.01
87	n-Butylbenzene	91	12.223	12.226	(1.033)	45367	5.00000	5.30
88	1,2-Dichlorobenzene	146	12.223	12.229	(1.033)	34656	5.00000	5.39
89	1,2-Dibromo-3-Chloropropane	75	13.009	13.009	(1.099)	3274	5.00000	4.40
90	1,2,4-Trichlorobenzene	180	13.818	13.821	(1.168)	15011	5.00000	4.04
91	Hexachlorobutadiene	225	13.988	13.988	(1.182)	9227	5.00000	5.42
92	Naphthalene	128	14.062	14.065	(1.188)	35263	5.00000	3.12
93	1,2,3-Trichlorobenzene	182	14.302	14.302	(1.209)	14249	5.00000	4.32
146	Methyl acetate	43	3.251	3.241	(0.562)	21428	5.00000	5.30(M)
138	Freon TF	101	2.785	2.763	(0.482)	15238	5.00000	5.02
139	Diethyl ether	59	2.554	2.545	(0.442)	33674	5.00000	5.51
147	Methylcyclohexane	83	6.986	6.992	(1.062)	28010	5.00000	4.49
135	1,4-Dioxane	88	7.249	7.246	(1.254)	4074	100.000	112.92
132	n-Butanol	56	6.992	6.996	(1.209)	14197	100.000	100.27
131	Methyl Acrylate	55	5.269	5.282	(0.911)	30172	5.00000	4.35
133	Ethyl Acrylate	55	7.008	7.018	(1.212)	55713	5.00000	5.11
136	n-Hexane	57	4.066	4.063	(0.703)	22171	5.00000	5.40
141	Cyclohexane	56	5.686	5.689	(0.983)	33906	5.00000	5.30
142	Tetrahydrofuran	42	5.436	5.423	(0.940)	13050	10.0000	9.38
148	Tert-butyl alcohol	59	3.575	3.597	(0.618)	34626	100.000	89.58
149	Isopropyl alcohol	45	3.081	3.093	(0.533)	26438	100.000	107.03(M)
151	4-Methyl-2-pentanol	45	8.459	8.478	(0.888)	84509	100.000	102.32
166	1,2,3-Trimethylbenzene	105	11.912	11.921	(1.007)	61020	5.00000	4.01
167	Ethanol	45	2.551	2.545	(0.441)	33679	100.000	107.91(T)
170	1,3,5-Trichlorobenzene	180	13.202	13.208	(1.116)	21868	5.00000	5.23
172	tert-Butyl formate	59	4.919	4.919	(0.851)	47230	10.0000	10.59
173	3,3-Dimethyl-1-butanol	57	9.110	9.110	(0.957)	29975	100.000	98.01
174	tert-Amyl methyl ether	73	6.261	6.261	(1.083)	47286	5.00000	5.47
175	tert-Butyl ethyl ether	59	6.241	6.254	(1.079)	23164	5.00000	4.94
176	tert-Amyl alcohol	59	6.241	6.254	(1.079)	23164	100.000	98.99
157	2-Methylnaphthalene	142	15.198	15.191	(1.284)	2327	5.00000	6.10(M)
156	Diisopropyl ether	45	4.428	4.435	(0.766)	72470	5.00000	5.34(T)
171	1-Methylnaphthalene	142	15.380	15.387	(1.300)	2166	5.00000	5.44(M)
130	Ethyl Acetate	43	5.250	5.256	(0.908)	42308	5.00000	5.10
M 94	1,2-Dichloroethylene (total)	96				35856	10.0000	10.49
M 95	Xylenes (total)	106				103247	15.0000	12.34

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws003\Target\CHEM\WOA2.i\E180802.b\E080206.D
Date : 02-AUG-2018 23:55
Client ID:
Sample Info: VSTD005;VSTD005;1;4;
Purge Volume: 5.0
Column phase: DB624

Instrument: WOA2.i
Operator: AP
Column diameter: 0.18

\\nahstws003\Target\CHEM\WOA2.i\E180802.b\E080206.D

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080207.D Page 1
Report Date: 04-Sep-2018 17:00

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080207.D
Lab Smp Id: VSTD010
Inj Date : 03-AUG-2018 00:21
Operator : AP   Inst ID: VOA2.i
Smp Info : VSTD010;VSTD010;1;5;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\NAHSTWS003\Target\CHEM\VOA2.i\E180802.b\8260LL.m
Meth Date : 17-Aug-2018 12:13 Shiva.Targ Quant Type: ISTD
Cal Date : 09-JUN-2018 13:37   Cal File: D060910.D
Als bottle: 33   Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.779	5.783	(1.000)	259438	50.0000	
2 Dichlorodifluoromethane	85	1.457	1.454	(0.252)	24910	10.0000	9.75(T)
186 Isobutylene	56	1.666	1.666	(0.288)	50118	10.0000	10.87(AM)
3 Chloromethane	50	1.605	1.601	(0.278)	65577	10.0000	10.24(T)
4 Propionitrile	54	5.240	5.276	(0.907)	115507	100.000	98.49
5 Vinyl Chloride	62	1.698	1.688	(0.294)	46176	10.0000	10.78
6 Bromomethane	94	1.961	1.941	(0.339)	27205	10.0000	9.96(T)
7 Chloroethane	64	2.054	2.031	(0.355)	28101	10.0000	10.27
159 Dichlorofluoromethane	67	2.246	2.227	(0.389)	64582	10.0000	10.16
8 Trichlorofluoromethane	101	2.262	2.253	(0.392)	43211	10.0000	10.33
9 Acrolein	56	2.696	2.699	(0.466)	12659	10.0000	14.67
10 Acetone	43	2.866	2.869	(0.496)	25014	20.0000	19.07
11 1,1-Dichloroethene	96	2.763	2.750	(0.478)	31839	10.0000	10.38
12 Isobutyl Alcohol	74	6.171	6.184	(1.068)	3016	200.000	174.04(AM)
13 Acetonitrile	39	3.190	3.174	(0.552)	36985	100.000	100.41
14 Allyl Chloride	41	3.193	3.180	(0.553)	96536	10.0000	9.16
15 Iodomethane	142	2.923	2.914	(0.506)	44110	20.0000	16.77
16 Acrylonitrile	53	3.703	3.710	(0.641)	28626	20.0000	18.10
17 Methylene Chloride	84	3.344	3.334	(0.579)	38425	10.0000	9.83
18 Methyl tert-butyl ether	73	3.690	3.697	(0.639)	93072	10.0000	9.97(T)
19 Carbon Disulfide	76	2.965	2.962	(0.513)	116990	20.0000	20.22
20 trans-1,2-Dichloroethene	96	3.674	3.668	(0.636)	32367	10.0000	10.23

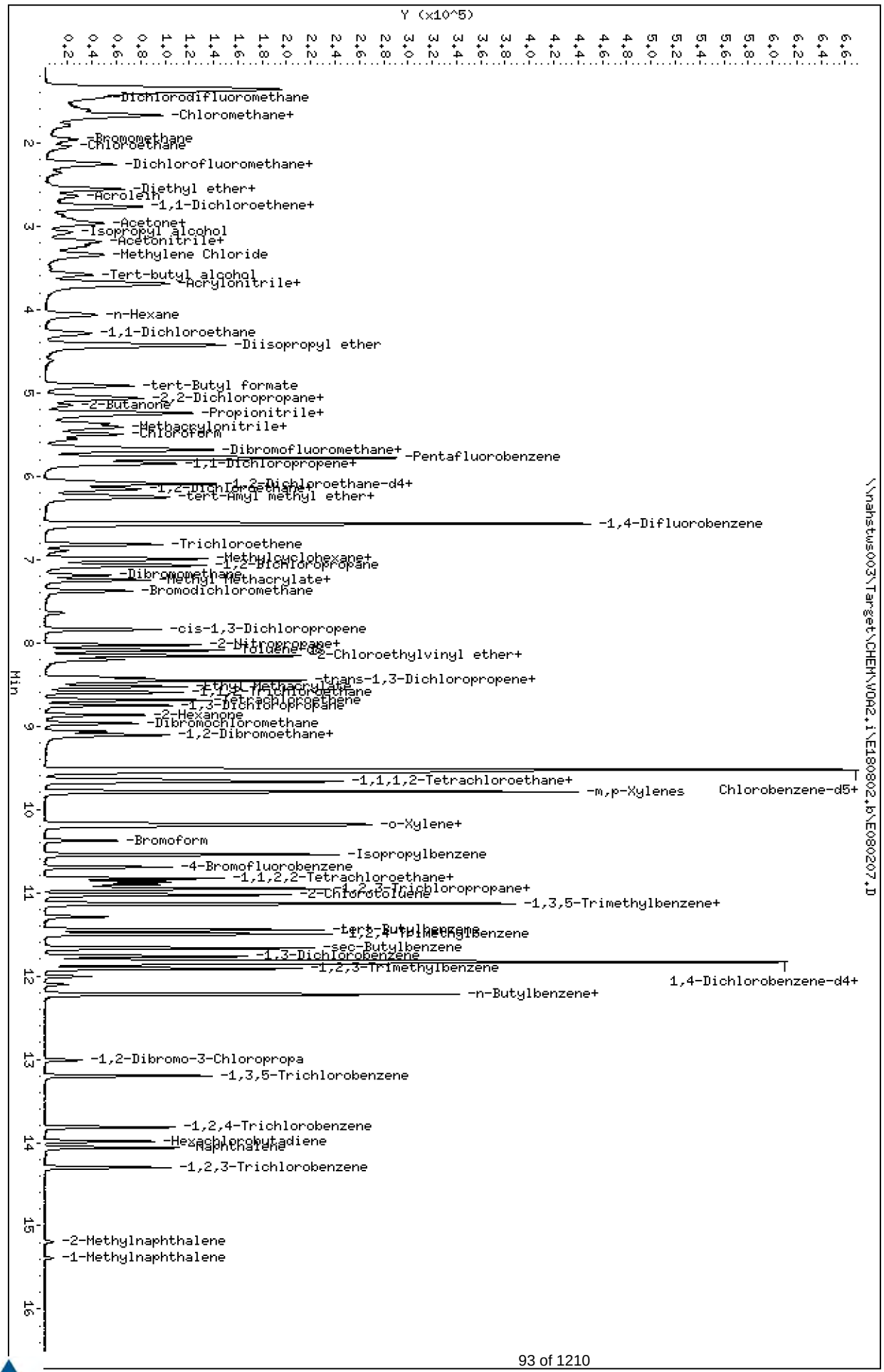
Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080207.D Page 2
Report Date: 04-Sep-2018 17:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	21 Vinyl Acetate	43	5.243	5.256	(0.907)	85414	20.0000	20.03(M)
	22 1,1-Dichloroethane	63	4.284	4.281	(0.741)	71894	10.0000	9.91
	24 2-Butanone	43	5.150	5.150	(0.891)	35600	20.0000	19.98
	25 Methacrylonitrile	41	5.410	5.414	(0.936)	38891	10.0000	9.97
	26 2,2-Dichloropropane	77	5.045	5.044	(0.873)	38792	10.0000	9.82
	27 cis-1,2-Dichloroethene	96	5.073	5.073	(0.878)	39191	10.0000	10.27
	28 Chloroform	83	5.497	5.497	(0.951)	60313	10.0000	9.92
	29 Bromochloromethane	128	5.365	5.378	(0.928)	17916	10.0000	10.08
$	30 Dibromofluoromethane	113	5.693	5.689	(0.985)	23591	10.0000	10.17
	31 1,1,1-Trichloroethane	97	5.657	5.657	(0.979)	51685	10.0000	10.08
	32 1,1-Dichloropropene	75	5.856	5.856	(0.891)	43842	10.0000	10.11
	33 1,2-Dichloroethane	62	6.148	6.148	(0.936)	41299	10.0000	9.23
	34 Carbon Tetrachloride	117	5.837	5.837	(0.888)	43106	10.0000	9.58(M)
$	35 1,2-Dichloroethane-d4	65	6.055	6.059	(1.048)	26924	10.0000	10.17
*	36 1,4-Difluorobenzene	114	6.572	6.575	(1.000)	409662	50.0000	
	37 Benzene	78	6.097	6.097	(0.928)	141855	10.0000	10.12
	38 Trichloroethene	130	6.819	6.819	(1.038)	37563	10.0000	10.03
	39 Bromodichloromethane	83	7.377	7.381	(1.123)	48254	10.0000	10.23
	40 Methyl Methacrylate	41	7.249	7.252	(1.254)	40096	10.0000	10.16
	41 2-Chloroethylvinyl ether	63	8.157	8.164	(1.241)	11589	20.0000	20.39(T)
	42 1,2-Dichloropropane	63	7.069	7.069	(1.076)	41267	10.0000	10.14(M)
	43 2-Nitropropane	43	8.026	8.038	(1.389)	85587	10.0000	10.31
	44 Dibromomethane	93	7.194	7.194	(1.095)	20744	10.0000	10.30
	45 4-Methyl-2-Pentanone	43	8.026	8.038	(0.843)	85587	20.0000	20.67
	46 cis-1,3-Dichloropropene	75	7.839	7.843	(1.193)	54887	10.0000	10.39
*	47 Chlorobenzene-d5	117	9.524	9.527	(1.000)	363386	50.0000	
$	48 Toluene-d8	98	8.090	8.093	(0.849)	94630	10.0000	10.88
	49 Ethyl Methacrylate	69	8.529	8.539	(1.298)	50565	10.0000	9.93
	50 Toluene	91	8.157	8.164	(0.856)	150129	10.0000	10.24
	51 trans-1,3-Dichloropropene	75	8.417	8.420	(1.281)	43975	10.0000	10.74
	52 2-Hexanone	43	8.866	8.873	(0.931)	53046	20.0000	21.79(M)
	53 1,1,2-Trichloroethane	83	8.594	8.600	(0.902)	28314	10.0000	10.15
	54 1,3-Dichloropropane	76	8.751	8.760	(0.919)	56509	10.0000	10.24
	55 Dibromochloromethane	129	8.969	8.975	(0.942)	39639	10.0000	10.17
	56 Tetrachloroethene	164	8.687	8.693	(0.912)	30467	10.0000	10.30
	57 1,2-Dibromoethane	107	9.065	9.072	(0.952)	35052	10.0000	10.44
	58 1-Chlorohexane	55	9.550	9.559	(1.453)	37440	10.0000	9.94
	59 Chlorobenzene	112	9.550	9.556	(1.003)	93169	10.0000	10.24
	60 1,1,1,2-Tetrachloroethane	131	9.646	9.652	(1.013)	37081	10.0000	10.38
	61 Ethylbenzene	106	9.672	9.678	(1.015)	50730	10.0000	9.95
	62 m,p-Xylenes	106	9.787	9.800	(1.028)	125473	20.0000	19.57
	63 o-Xylene	106	10.176	10.182	(1.068)	65376	10.0000	9.75
	64 Styrene	104	10.195	10.204	(1.070)	101912	10.0000	10.50
	66 Bromoform	173	10.375	10.378	(1.089)	28115	10.0000	10.34
	67 Isopropylbenzene	105	10.545	10.551	(1.107)	158107	10.0000	10.12
	68 1,1,2,2-Tetrachloroethane	83	10.869	10.878	(0.918)	47529	10.0000	10.01
$	69 4-Bromofluorobenzene	95	10.692	10.699	(1.123)	33534	10.0000	9.95
*	70 1,4-Dichlorobenzene-d4	152	11.835	11.838	(1.000)	148743	50.0000	
	71 1,2,3-Trichloropropane	75	10.901	10.907	(0.921)	44493	10.0000	9.99
	72 trans-1,4-Dichloro-2-butene	53	10.926	10.936	(1.147)	8368	10.0000	9.39
	73 n-Propylbenzene	91	10.952	10.962	(0.925)	168777	10.0000	9.78
	74 Bromobenzene	156	10.830	10.837	(0.915)	40471	10.0000	10.06
	75 1,3,5-Trimethylbenzene	105	11.129	11.138	(0.940)	126149	10.0000	9.90
	76 2-Chlorotoluene	91	11.026	11.036	(0.932)	108992	10.0000	9.84

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
77	4-Chlorotoluene	91	11.135	11.145	(0.941)	115902	10.0000	9.66
78	tert-Butylbenzene	119	11.446	11.456	(0.967)	107434	10.0000	9.77
79	1,2,4-Trimethylbenzene	105	11.498	11.507	(0.972)	124673	10.0000	9.62
81	sec-Butylbenzene	105	11.665	11.674	(0.986)	148486	10.0000	10.01
82	p-Isopropyltoluene	119	11.815	11.825	(0.998)	119366	10.0000	9.72
83	1,3-Dichlorobenzene	146	11.767	11.774	(0.994)	69865	10.0000	10.10
84	1,4-Dichlorobenzene	146	11.857	11.863	(1.002)	62144	10.0000	9.62
87	n-Butylbenzene	91	12.220	12.226	(1.033)	89410	10.0000	9.84
88	1,2-Dichlorobenzene	146	12.223	12.229	(1.033)	68867	10.0000	10.09
89	1,2-Dibromo-3-Chloropropane	75	13.006	13.009	(1.099)	6984	10.0000	9.22
90	1,2,4-Trichlorobenzene	180	13.818	13.821	(1.168)	35028	10.0000	9.09
91	Hexachlorobutadiene	225	13.988	13.988	(1.182)	18066	10.0000	10.00
92	Naphthalene	128	14.062	14.065	(1.188)	86355	10.0000	8.61
93	1,2,3-Trichlorobenzene	182	14.299	14.302	(1.208)	31035	10.0000	9.08
146	Methyl acetate	43	3.244	3.241	(0.561)	40467	10.0000	9.79(M)
138	Freon TF	101	2.776	2.763	(0.480)	28411	10.0000	10.39
139	Diethyl ether	59	2.558	2.545	(0.443)	65398	10.0000	10.48
147	Methylcyclohexane	83	6.986	6.992	(1.063)	51617	10.0000	9.95
135	1,4-Dioxane	88	7.246	7.246	(1.254)	7134	200.000	193.89
132	n-Butanol	56	6.989	6.996	(1.209)	25030	200.000	193.41
131	Methyl Acrylate	55	5.266	5.282	(0.911)	60823	10.0000	9.49
133	Ethyl Acrylate	55	7.012	7.018	(1.213)	108114	10.0000	9.71
136	n-Hexane	57	4.063	4.063	(0.703)	40724	10.0000	9.71
141	Cyclohexane	56	5.686	5.689	(0.984)	65129	10.0000	9.96
142	Tetrahydrofuran	42	5.423	5.423	(0.938)	27495	20.0000	19.35
148	Tert-butyl alcohol	59	3.581	3.597	(0.620)	73632	200.000	185.62
149	Isopropyl alcohol	45	3.074	3.093	(0.532)	51774	200.000	205.05(M)
151	4-Methyl-2-pentanol	45	8.452	8.478	(0.887)	188427	200.000	218.52
166	1,2,3-Trimethylbenzene	105	11.912	11.921	(1.007)	114630	10.0000	9.37
167	Ethanol	45	2.554	2.545	(0.442)	58210	200.000	182.46
170	1,3,5-Trichlorobenzene	180	13.202	13.208	(1.116)	44995	10.0000	10.14
172	tert-Butyl formate	59	4.919	4.919	(0.851)	94575	20.0000	20.75
173	3,3-Dimethyl-1-butanol	57	9.107	9.110	(0.956)	66519	200.000	208.34
174	tert-Amyl methyl ether	73	6.257	6.261	(1.083)	89763	10.0000	10.17
175	tert-Butyl ethyl ether	59	6.232	6.254	(1.078)	46555	10.0000	9.73
176	tert-Amyl alcohol	59	6.232	6.254	(1.078)	46555	200.000	194.63
157	2-Methylnaphthalene	142	15.194	15.191	(1.284)	4496	10.0000	6.67(T)
156	Diisopropyl ether	45	4.425	4.435	(0.766)	141565	10.0000	10.21(T)
171	1-Methylnaphthalene	142	15.380	15.387	(1.300)	4335	10.0000	5.98(T)
130	Ethyl Acetate	43	5.243	5.256	(0.907)	80336	10.0000	9.47
M 94	1,2-Dichloroethylene (total)	96				71558	20.0000	20.51
M 95	Xylenes (total)	106				190849	30.0000	29.33

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws003\Target\CHEM\WOA2.i\E180802.b\E080207.D
Date : 03-AUG-2018 00:21
Client ID:
Sample Info: VSTD010;VSTD010;1;5;
Purge Volume: 5.0
Column phase: DB624

Instrument: WOA2.i
Operator: AP
Column diameter: 0.18

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080208.D Page 1
Report Date: 04-Sep-2018 17:00

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080208.D
Lab Smp Id: VSTD020
Inj Date : 03-AUG-2018 00:47
Operator : AP   Inst ID: VOA2.i
Smp Info : VSTD020;VSTD020;1;6;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\NAHSTWS003\Target\CHEM\VOA2.i\E180802.b\8260LL.m
Meth Date : 17-Aug-2018 12:13 Shiva.Targ Quant Type: ISTD
Cal Date : 09-JUN-2018 13:37   Cal File: D060910.D
Als bottle: 34   Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.789	5.783	(1.000)	251109	50.0000	
2	Dichlorodifluoromethane	85	1.466	1.454	(0.253)	50532	20.0000	20.44
186	Isobutylene	56	1.678	1.666	(0.290)	101339	20.0000	22.71(AM)
3	Chloromethane	50	1.620	1.601	(0.280)	123465	20.0000	19.92
4	Propionitrile	54	5.246	5.276	(0.906)	244334	200.000	215.25
5	Vinyl Chloride	62	1.707	1.688	(0.295)	86204	20.0000	20.80
6	Bromomethane	94	1.977	1.941	(0.342)	50761	20.0000	22.56(M)
7	Chloroethane	64	2.063	2.031	(0.356)	53126	20.0000	20.06
159	Dichlorofluoromethane	67	2.253	2.227	(0.389)	130501	20.0000	21.22
8	Trichlorofluoromethane	101	2.275	2.253	(0.393)	85560	20.0000	21.13
9	Acrolein	56	2.715	2.699	(0.469)	28091	40.0000	34.91
10	Acetone	43	2.881	2.869	(0.498)	45660	40.0000	39.15
11	1,1-Dichloroethene	96	2.772	2.750	(0.479)	61574	20.0000	20.74
12	Isobutyl Alcohol	74	6.171	6.184	(1.066)	6649	400.000	398.27(A)
13	Acetonitrile	39	3.193	3.174	(0.552)	74469	200.000	203.54
14	Allyl Chloride	41	3.206	3.180	(0.554)	213841	20.0000	20.97
15	Iodomethane	142	2.930	2.914	(0.506)	108093	40.0000	40.75
16	Acrylonitrile	53	3.719	3.710	(0.642)	57890	40.0000	37.28
17	Methylene Chloride	84	3.360	3.334	(0.580)	75907	20.0000	21.72
18	Methyl tert-butyl ether	73	3.709	3.697	(0.641)	184825	20.0000	20.45
19	Carbon Disulfide	76	2.981	2.962	(0.515)	234013	40.0000	41.79
20	trans-1,2-Dichloroethene	96	3.687	3.668	(0.637)	63896	20.0000	20.87

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080208.D Page 2
Report Date: 04-Sep-2018 17:00

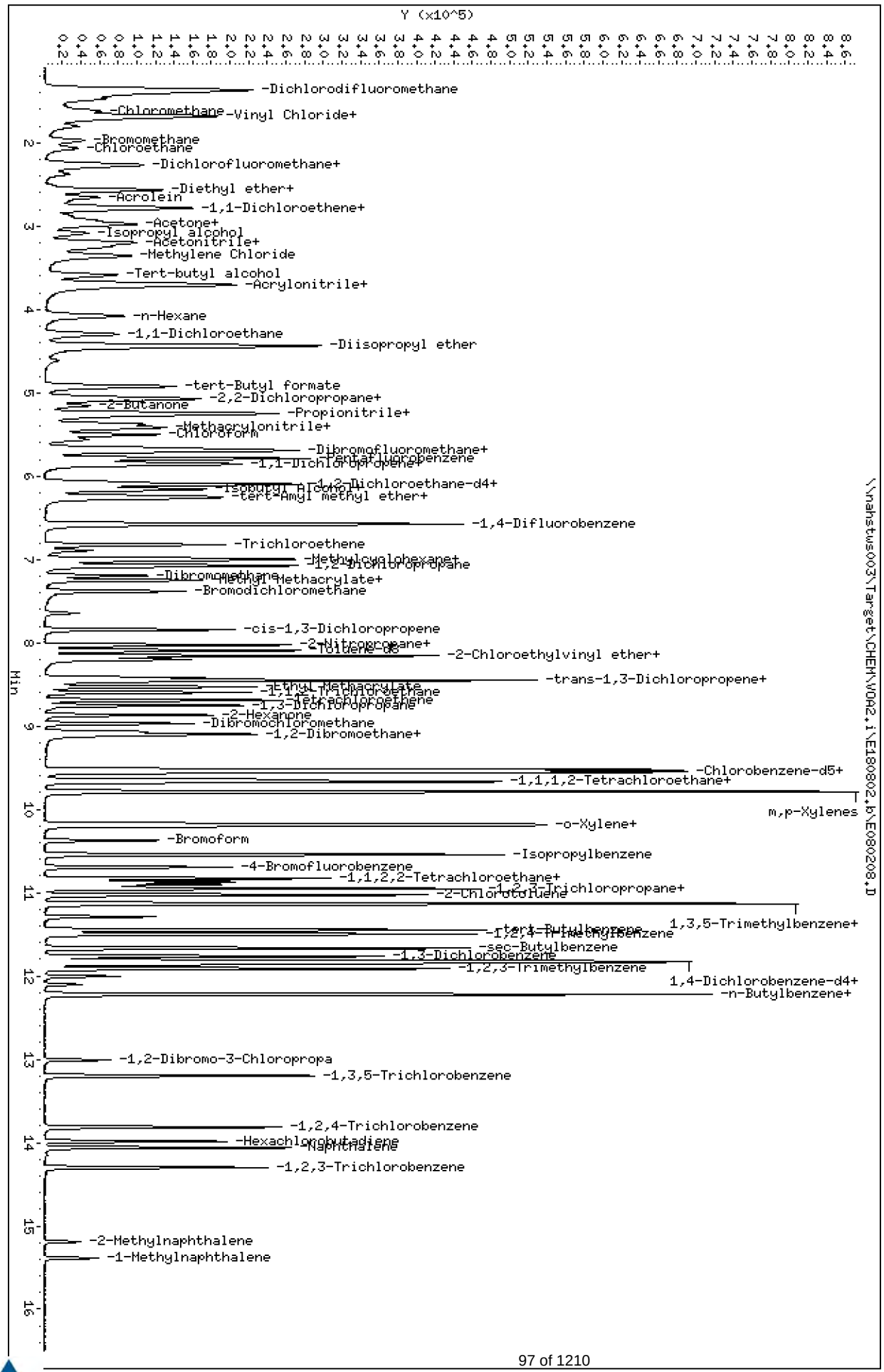
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	21 Vinyl Acetate	43	5.253	5.256	(0.907)	169445	40.0000	41.06(M)
	22 1,1-Dichloroethane	63	4.293	4.281	(0.742)	145083	20.0000	20.67
	24 2-Butanone	43	5.153	5.150	(0.890)	70697	40.0000	41.00
	25 Methacrylonitrile	41	5.416	5.414	(0.936)	81395	20.0000	21.56
	26 2,2-Dichloropropane	77	5.057	5.044	(0.874)	81353	20.0000	21.29
	27 cis-1,2-Dichloroethene	96	5.080	5.073	(0.878)	77902	20.0000	21.10
	28 Chloroform	83	5.503	5.497	(0.951)	120367	20.0000	20.45
	29 Bromochloromethane	128	5.375	5.378	(0.928)	37740	20.0000	21.94
$	30 Dibromofluoromethane	113	5.692	5.689	(0.983)	44899	20.0000	19.99
	31 1,1,1-Trichloroethane	97	5.664	5.657	(0.978)	100939	20.0000	20.34
	32 1,1-Dichloropropene	75	5.863	5.856	(0.891)	84761	20.0000	21.81
	33 1,2-Dichloroethane	62	6.151	6.148	(0.935)	93619	20.0000	21.15
	34 Carbon Tetrachloride	117	5.843	5.837	(0.888)	87056	20.0000	21.50
$	35 1,2-Dichloroethane-d4	65	6.061	6.059	(1.047)	51690	20.0000	20.18
*	36 1,4-Difluorobenzene	114	6.578	6.575	(1.000)	405298	50.0000	
	37 Benzene	78	6.100	6.097	(0.927)	278242	20.0000	20.06
	38 Trichloroethene	130	6.822	6.819	(1.037)	75603	20.0000	20.42
	39 Bromodichloromethane	83	7.380	7.381	(1.122)	97386	20.0000	20.87
	40 Methyl Methacrylate	41	7.249	7.252	(1.252)	79558	20.0000	20.83
	41 2-Chloroethylvinyl ether	63	8.157	8.164	(1.240)	22982	40.0000	40.87(T)
	42 1,2-Dichloropropane	63	7.069	7.069	(1.075)	82902	20.0000	20.60
	43 2-Nitropropane	43	8.029	8.038	(1.387)	170991	20.0000	21.29
	44 Dibromomethane	93	7.197	7.194	(1.094)	42450	20.0000	21.32
	45 4-Methyl-2-Pentanone	43	8.029	8.038	(0.843)	170991	40.0000	41.17
	46 cis-1,3-Dichloropropene	75	7.842	7.843	(1.192)	112442	20.0000	21.53
*	47 Chlorobenzene-d5	117	9.524	9.527	(1.000)	364615	50.0000	
$	48 Toluene-d8	98	8.093	8.093	(0.850)	177474	20.0000	21.93
	49 Ethyl Methacrylate	69	8.529	8.539	(1.297)	105184	20.0000	20.88
	50 Toluene	91	8.160	8.164	(0.857)	291026	20.0000	19.78
	51 trans-1,3-Dichloropropene	75	8.417	8.420	(1.279)	89612	20.0000	22.13
	52 2-Hexanone	43	8.866	8.873	(0.931)	111901	40.0000	46.64(M)
	53 1,1,2-Trichloroethane	83	8.593	8.600	(0.902)	55095	20.0000	19.68
	54 1,3-Dichloropropane	76	8.754	8.760	(0.919)	112753	20.0000	20.37
	55 Dibromochloromethane	129	8.969	8.975	(0.942)	80090	20.0000	20.49
	56 Tetrachloroethene	164	8.686	8.693	(0.912)	59395	20.0000	20.02
	57 1,2-Dibromoethane	107	9.065	9.072	(0.952)	71756	20.0000	21.30
	58 1-Chlorohexane	55	9.553	9.559	(1.452)	71782	20.0000	22.30
	59 Chlorobenzene	112	9.553	9.556	(1.003)	187072	20.0000	20.50
	60 1,1,1,2-Tetrachloroethane	131	9.643	9.652	(1.012)	73428	20.0000	20.49
	61 Ethylbenzene	106	9.668	9.678	(1.015)	100390	20.0000	21.93
	62 m,p-Xylenes	106	9.787	9.800	(1.028)	248667	40.0000	45.46
	63 o-Xylene	106	10.179	10.182	(1.069)	131760	20.0000	22.37
	64 Styrene	104	10.198	10.204	(1.071)	202947	20.0000	20.85
	66 Bromoform	173	10.374	10.378	(1.089)	56910	20.0000	20.86
	67 Isopropylbenzene	105	10.544	10.551	(1.107)	319792	20.0000	20.41
	68 1,1,2,2-Tetrachloroethane	83	10.868	10.878	(0.918)	95943	20.0000	19.94
$	69 4-Bromofluorobenzene	95	10.695	10.699	(1.123)	62709	20.0000	20.54
*	70 1,4-Dichlorobenzene-d4	152	11.834	11.838	(1.000)	150814	50.0000	
	71 1,2,3-Trichloropropane	75	10.901	10.907	(0.921)	89155	20.0000	19.75
	72 trans-1,4-Dichloro-2-butene	53	10.926	10.936	(1.147)	16944	20.0000	17.72
	73 n-Propylbenzene	91	10.952	10.962	(0.925)	341273	20.0000	23.09
	74 Bromobenzene	156	10.833	10.837	(0.915)	84368	20.0000	20.70
	75 1,3,5-Trimethylbenzene	105	11.132	11.138	(0.941)	250204	20.0000	20.43
	76 2-Chlorotoluene	91	11.026	11.036	(0.932)	221839	20.0000	22.77

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080208.D Page 3
Report Date: 04-Sep-2018 17:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
77	4-Chlorotoluene	91	11.138	11.145	(0.941)	234044	20.0000	22.45
78	tert-Butylbenzene	119	11.449	11.456	(0.967)	221284	20.0000	23.26
79	1,2,4-Trimethylbenzene	105	11.497	11.507	(0.972)	251933	20.0000	22.52
81	sec-Butylbenzene	105	11.664	11.674	(0.986)	300936	20.0000	20.01
82	p-Isopropyltoluene	119	11.815	11.825	(0.998)	243485	20.0000	19.57
83	1,3-Dichlorobenzene	146	11.764	11.774	(0.994)	145468	20.0000	20.75
84	1,4-Dichlorobenzene	146	11.857	11.863	(1.002)	134497	20.0000	20.54
87	n-Butylbenzene	91	12.219	12.226	(1.033)	187345	20.0000	20.35
88	1,2-Dichlorobenzene	146	12.219	12.229	(1.033)	143891	20.0000	20.81
89	1,2-Dibromo-3-Chloropropane	75	13.006	13.009	(1.099)	16000	20.0000	21.29
90	1,2,4-Trichlorobenzene	180	13.817	13.821	(1.168)	81951	20.0000	21.23
91	Hexachlorobutadiene	225	13.984	13.988	(1.182)	36905	20.0000	20.14
92	Naphthalene	128	14.061	14.065	(1.188)	207414	20.0000	21.89
93	1,2,3-Trichlorobenzene	182	14.299	14.302	(1.208)	72711	20.0000	21.27
146	Methyl acetate	43	3.254	3.241	(0.562)	75829	20.0000	18.95
138	Freon TF	101	2.788	2.763	(0.482)	55977	20.0000	22.68
139	Diethyl ether	59	2.567	2.545	(0.443)	129690	20.0000	21.47
147	Methylcyclohexane	83	6.995	6.992	(1.063)	102757	20.0000	22.48
135	1,4-Dioxane	88	7.242	7.246	(1.251)	14748	400.000	414.84
132	n-Butanol	56	7.002	6.996	(1.210)	49691	400.000	426.41
131	Methyl Acrylate	55	5.275	5.282	(0.911)	124517	20.0000	21.11
133	Ethyl Acrylate	55	7.008	7.018	(1.211)	219138	20.0000	20.33
136	n-Hexane	57	4.075	4.063	(0.704)	76460	20.0000	18.83
141	Cyclohexane	56	5.692	5.689	(0.983)	133658	20.0000	21.12
142	Tetrahydrofuran	42	5.426	5.423	(0.937)	56530	40.0000	41.10
148	Tert-butyl alcohol	59	3.591	3.597	(0.620)	150333	400.000	390.80
149	Isopropyl alcohol	45	3.080	3.093	(0.532)	99193	400.000	405.88(M)
151	4-Methyl-2-pentanol	45	8.452	8.478	(0.887)	396613	400.000	458.41
166	1,2,3-Trimethylbenzene	105	11.911	11.921	(1.007)	238682	20.0000	22.38
167	Ethanol	45	2.564	2.545	(0.443)	128337	400.000	415.62
170	1,3,5-Trichlorobenzene	180	13.201	13.208	(1.116)	95929	20.0000	21.32
172	tert-Butyl formate	59	4.922	4.919	(0.850)	182102	40.0000	41.28
173	3,3-Dimethyl-1-butanol	57	9.100	9.110	(0.956)	142472	400.000	444.74
174	tert-Amyl methyl ether	73	6.264	6.261	(1.082)	172530	20.0000	20.20
175	tert-Butyl ethyl ether	59	6.238	6.254	(1.078)	98174	20.0000	21.20
176	tert-Amyl alcohol	59	6.238	6.254	(1.078)	98174	400.000	424.04
157	2-Methylnaphthalene	142	15.188	15.191	(1.283)	20571	20.0000	11.14
156	Diisopropyl ether	45	4.438	4.435	(0.767)	281344	20.0000	20.97(T)
171	1-Methylnaphthalene	142	15.383	15.387	(1.300)	29672	20.0000	12.62
130	Ethyl Acetate	43	5.253	5.256	(0.907)	168473	20.0000	20.53
M 94	1,2-Dichloroethylene (total)	96				141798	40.0000	41.98
M 95	Xylenes (total)	106				380427	60.0000	67.84

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080208.D
Date : 03-AUG-2018 00:47
Client ID:
Sample Info: VSTD020;VSTD020;1;6;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080209.D Page 1
Report Date: 04-Sep-2018 17:00

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080209.D
Lab Smp Id: VSTD050
Inj Date : 03-AUG-2018 01:12
Operator : AP   Inst ID: VOA2.i
Smp Info : VSTD050;VSTD050;1;7;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\NAHSTWS003\Target\CHEM\VOA2.i\E180802.b\8260LL.m
Meth Date : 17-Aug-2018 12:13 Shiva.Targ Quant Type: ISTD
Cal Date : 09-JUN-2018 13:37   Cal File: D060910.D
Als bottle: 35   Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.786	5.783	(1.000)	256521	50.0000	
2 Dichlorodifluoromethane	85	1.470	1.454	(0.254)	118629	50.0000	46.97
186 Isobutylene	56	1.669	1.666	(0.288)	233562	50.0000	51.24(AM)
3 Chloromethane	50	1.614	1.601	(0.279)	293393	50.0000	46.35
4 Propionitrile	54	5.243	5.276	(0.906)	625936	500.000	539.80
5 Vinyl Chloride	62	1.701	1.688	(0.294)	205189	50.0000	48.47
6 Bromomethane	94	1.957	1.941	(0.338)	116355	50.0000	55.12
7 Chloroethane	64	2.054	2.031	(0.355)	125193	50.0000	46.29
159 Dichlorofluoromethane	67	2.243	2.227	(0.388)	305760	50.0000	48.68
8 Trichlorofluoromethane	101	2.265	2.253	(0.392)	199262	50.0000	48.17
9 Acrolein	56	2.699	2.699	(0.466)	91892	100.000	113.98
10 Acetone	43	2.878	2.869	(0.498)	115623	100.000	102.37
11 1,1-Dichloroethene	96	2.766	2.750	(0.478)	148018	50.0000	48.82
12 Isobutyl Alcohol	74	6.167	6.184	(1.066)	17323	1000.00	1017.99(A)
13 Acetonitrile	39	3.190	3.174	(0.551)	196316	500.000	517.44
14 Allyl Chloride	41	3.196	3.180	(0.552)	554088	50.0000	53.20
15 Iodomethane	142	2.926	2.914	(0.506)	287116	100.000	104.18
16 Acrylonitrile	53	3.706	3.710	(0.641)	170902	100.000	106.78
17 Methylene Chloride	84	3.350	3.334	(0.579)	179586	50.0000	52.40
18 Methyl tert-butyl ether	73	3.700	3.697	(0.640)	436067	50.0000	47.25
19 Carbon Disulfide	76	2.968	2.962	(0.513)	572576	100.000	100.09
20 trans-1,2-Dichloroethene	96	3.674	3.668	(0.635)	159470	50.0000	51.01

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080209.D Page 2
Report Date: 04-Sep-2018 17:00

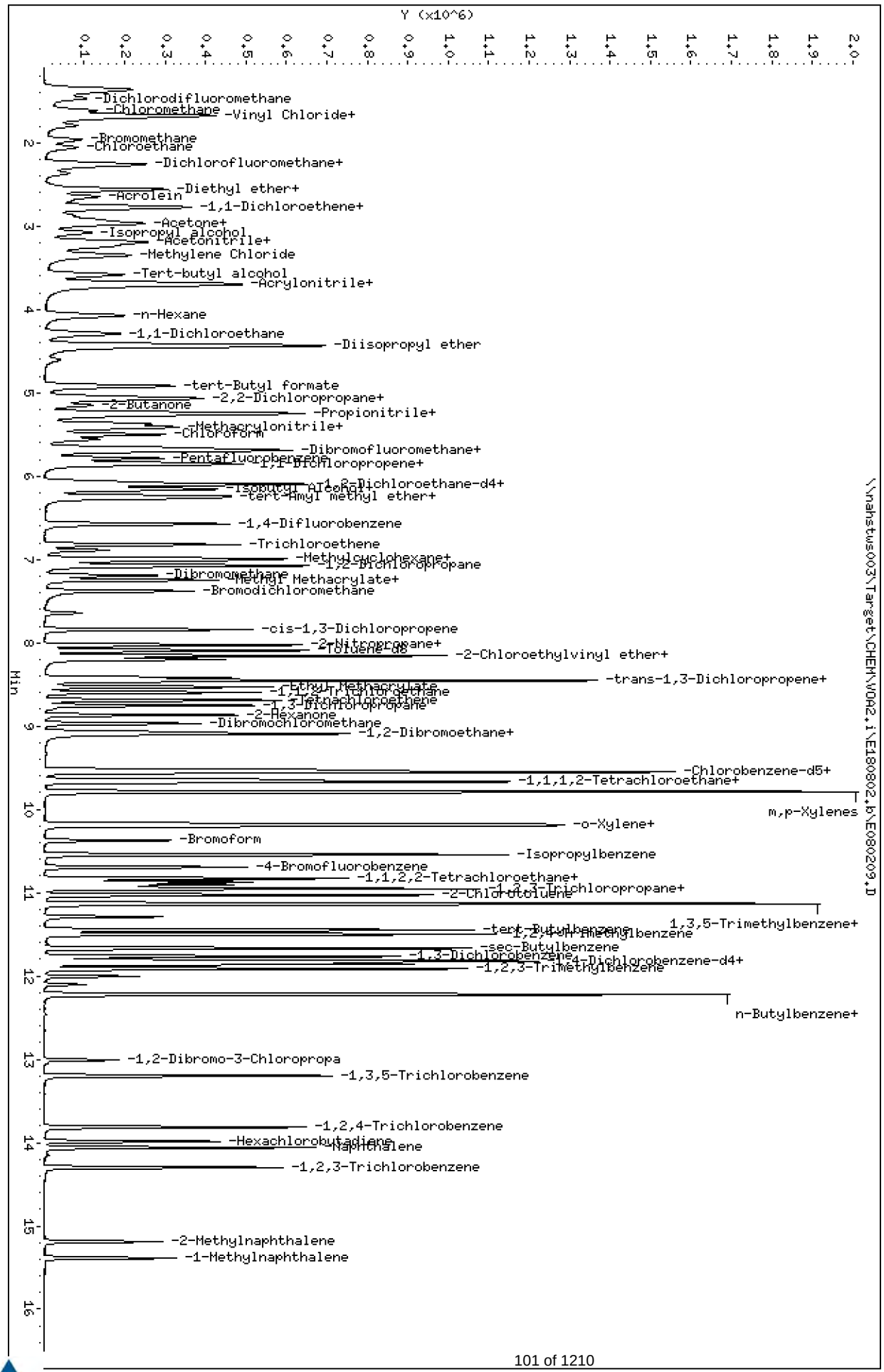
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	21 Vinyl Acetate	43	5.250	5.256	(0.907)	414502	100.000	98.32(M)
	22 1,1-Dichloroethane	63	4.290	4.281	(0.742)	354022	50.0000	49.37
	24 2-Butanone	43	5.153	5.150	(0.891)	188944	100.000	107.26
	25 Methacrylonitrile	41	5.413	5.414	(0.936)	202014	50.0000	52.39
	26 2,2-Dichloropropane	77	5.051	5.044	(0.873)	190243	50.0000	48.75
	27 cis-1,2-Dichloroethene	96	5.076	5.073	(0.877)	189223	50.0000	50.17
	28 Chloroform	83	5.503	5.497	(0.951)	289319	50.0000	48.13
	29 Bromochloromethane	128	5.372	5.378	(0.928)	92424	50.0000	52.59
$	30 Dibromofluoromethane	113	5.692	5.689	(0.984)	108120	50.0000	47.14
	31 1,1,1-Trichloroethane	97	5.660	5.657	(0.978)	242514	50.0000	47.83
	32 1,1-Dichloropropene	75	5.859	5.856	(0.891)	199068	50.0000	52.71
	33 1,2-Dichloroethane	62	6.148	6.148	(0.935)	224412	50.0000	49.42
	34 Carbon Tetrachloride	117	5.837	5.837	(0.888)	205402	50.0000	51.85
$	35 1,2-Dichloroethane-d4	65	6.062	6.059	(1.048)	131495	50.0000	50.25
*	36 1,4-Difluorobenzene	114	6.575	6.575	(1.000)	415818	50.0000	
	37 Benzene	78	6.097	6.097	(0.927)	667400	50.0000	46.91
	38 Trichloroethene	130	6.822	6.819	(1.038)	183214	50.0000	48.24
	39 Bromodichloromethane	83	7.377	7.381	(1.122)	239535	50.0000	50.05
	40 Methyl Methacrylate	41	7.249	7.252	(1.253)	195518	50.0000	50.11
	41 2-Chloroethylvinyl ether	63	8.157	8.164	(1.241)	54500	100.000	94.48(T)
	42 1,2-Dichloropropane	63	7.069	7.069	(1.075)	199898	50.0000	48.43
	43 2-Nitropropane	43	8.029	8.038	(1.388)	418074	50.0000	50.95
	44 Dibromomethane	93	7.191	7.194	(1.094)	106693	50.0000	52.23
	45 4-Methyl-2-Pentanone	43	8.029	8.038	(0.843)	418074	100.000	97.58
	46 cis-1,3-Dichloropropene	75	7.839	7.843	(1.192)	279282	50.0000	52.12
*	47 Chlorobenzene-d5	117	9.524	9.527	(1.000)	376149	50.0000	
$	48 Toluene-d8	98	8.093	8.093	(0.850)	424582	50.0000	53.26
	49 Ethyl Methacrylate	69	8.529	8.539	(1.297)	252296	50.0000	48.82
	50 Toluene	91	8.157	8.164	(0.856)	687627	50.0000	45.31
	51 trans-1,3-Dichloropropene	75	8.417	8.420	(1.280)	225506	50.0000	54.30
	52 2-Hexanone	43	8.866	8.873	(0.931)	278090	100.000	114.31(M)
	53 1,1,2-Trichloroethane	83	8.597	8.600	(0.903)	137952	50.0000	47.77
	54 1,3-Dichloropropane	76	8.754	8.760	(0.919)	273152	50.0000	47.84
	55 Dibromochloromethane	129	8.969	8.975	(0.942)	196995	50.0000	48.86
	56 Tetrachloroethene	164	8.690	8.693	(0.912)	139836	50.0000	45.70
	57 1,2-Dibromoethane	107	9.068	9.072	(0.952)	177401	50.0000	51.05
	58 1-Chlorohexane	55	9.550	9.559	(1.452)	161052	50.0000	52.60
	59 Chlorobenzene	112	9.553	9.556	(1.003)	447952	50.0000	47.59
	60 1,1,1,2-Tetrachloroethane	131	9.643	9.652	(1.012)	177378	50.0000	48.00
	61 Ethylbenzene	106	9.672	9.678	(1.015)	238317	50.0000	53.53
	62 m,p-Xylenes	106	9.790	9.800	(1.028)	576062	100.000	110.78
	63 o-Xylene	106	10.179	10.182	(1.069)	311088	50.0000	54.75
	64 Styrene	104	10.198	10.204	(1.071)	493382	50.0000	49.13
	66 Bromoform	173	10.374	10.378	(1.089)	142979	50.0000	50.81
	67 Isopropylbenzene	105	10.544	10.551	(1.107)	732233	50.0000	45.31
	68 1,1,2,2-Tetrachloroethane	83	10.872	10.878	(0.919)	231121	50.0000	45.91
$	69 4-Bromofluorobenzene	95	10.695	10.699	(1.123)	158916	50.0000	53.84
*	70 1,4-Dichlorobenzene-d4	152	11.834	11.838	(1.000)	157775	50.0000	
	71 1,2,3-Trichloropropane	75	10.901	10.907	(0.921)	226153	50.0000	47.89
	72 trans-1,4-Dichloro-2-butene	53	10.929	10.936	(1.148)	46161	50.0000	46.73
	73 n-Propylbenzene	91	10.952	10.962	(0.925)	794738	50.0000	55.82
	74 Bromobenzene	156	10.830	10.837	(0.915)	207241	50.0000	48.60
	75 1,3,5-Trimethylbenzene	105	11.132	11.138	(0.941)	588327	50.0000	49.52
	76 2-Chlorotoluene	91	11.026	11.036	(0.932)	518783	50.0000	54.58

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080209.D Page 3
Report Date: 04-Sep-2018 17:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
77	4-Chlorotoluene	91	11.138	11.145	(0.941)	560850	50.0000	55.63
78	tert-Butylbenzene	119	11.449	11.456	(0.967)	507745	50.0000	54.98
79	1,2,4-Trimethylbenzene	105	11.501	11.507	(0.972)	590154	50.0000	54.61
81	sec-Butylbenzene	105	11.667	11.674	(0.986)	703146	50.0000	44.69
82	p-Isopropyltoluene	119	11.818	11.825	(0.999)	581129	50.0000	44.64
83	1,3-Dichlorobenzene	146	11.767	11.774	(0.994)	354486	50.0000	48.34
84	1,4-Dichlorobenzene	146	11.857	11.863	(1.002)	335572	50.0000	49.00
87	n-Butylbenzene	91	12.219	12.226	(1.033)	451878	50.0000	46.92
88	1,2-Dichlorobenzene	146	12.223	12.229	(1.033)	342263	50.0000	47.32
89	1,2-Dibromo-3-Chloropropane	75	13.009	13.009	(1.099)	40068	50.0000	51.49
90	1,2,4-Trichlorobenzene	180	13.814	13.821	(1.167)	205611	50.0000	51.18
91	Hexachlorobutadiene	225	13.988	13.988	(1.182)	88999	50.0000	46.44
92	Naphthalene	128	14.061	14.065	(1.188)	520687	50.0000	54.03
93	1,2,3-Trichlorobenzene	182	14.299	14.302	(1.208)	180007	50.0000	50.63
146	Methyl acetate	43	3.244	3.241	(0.561)	197627	50.0000	48.36
138	Freon TF	101	2.779	2.763	(0.480)	126169	50.0000	51.84
139	Diethyl ether	59	2.561	2.545	(0.443)	314479	50.0000	50.97
147	Methylcyclohexane	83	6.992	6.992	(1.063)	227867	50.0000	51.42
135	1,4-Dioxane	88	7.239	7.246	(1.251)	36043	1000.00	993.32
132	n-Butanol	56	6.995	6.996	(1.209)	116281	1000.00	1013.24
131	Methyl Acrylate	55	5.269	5.282	(0.911)	309415	50.0000	52.69
133	Ethyl Acrylate	55	7.008	7.018	(1.211)	511812	50.0000	46.50
136	n-Hexane	57	4.069	4.063	(0.703)	190912	50.0000	46.04
141	Cyclohexane	56	5.696	5.689	(0.984)	285609	50.0000	44.18
142	Tetrahydrofuran	42	5.420	5.423	(0.937)	137673	100.000	97.99
148	Tert-butyl alcohol	59	3.581	3.597	(0.619)	414105	1000.00	1052.63
149	Isopropyl alcohol	45	3.077	3.093	(0.532)	258706	1000.00	1036.26
151	4-Methyl-2-pentanol	45	8.455	8.478	(0.888)	981638	1000.00	1099.80
166	1,2,3-Trimethylbenzene	105	11.915	11.921	(1.007)	568751	50.0000	54.77
167	Ethanol	45	2.557	2.545	(0.442)	316539	1000.00	1003.49
170	1,3,5-Trichlorobenzene	180	13.198	13.208	(1.115)	230316	50.0000	48.93
172	tert-Butyl formate	59	4.919	4.919	(0.850)	425127	100.000	94.35
173	3,3-Dimethyl-1-butanol	57	9.094	9.110	(0.955)	386592	1000.00	1169.78
174	tert-Amyl methyl ether	73	6.264	6.261	(1.083)	428470	50.0000	49.12
175	tert-Butyl ethyl ether	59	6.238	6.254	(1.078)	258253	50.0000	54.59
176	tert-Amyl alcohol	59	6.238	6.254	(1.078)	258253	1000.00	1091.94
157	2-Methylnaphthalene	142	15.188	15.191	(1.283)	140132	50.0000	42.14
156	Diisopropyl ether	45	4.435	4.435	(0.767)	667093	50.0000	48.68(T)
171	1-Methylnaphthalene	142	15.387	15.387	(1.300)	162503	50.0000	45.62
130	Ethyl Acetate	43	5.250	5.256	(0.907)	411434	50.0000	49.09
M 94	1,2-Dichloroethylene (total)	96				348693	100.000	101.18
M 95	Xylenes (total)	106				887150	150.000	165.54

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws003\Target\CHEM\WOA2.i\E180802.b\E080209.D
Date : 03-AUG-2018 01:12
Client ID:
Sample Info: VSTD050;VSTD050;1;7;
Purge Volume: 5.0
Column phase: DB624

Instrument: WOA2.i
Operator: AP
Column diameter: 0.18

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080210.D Page 1
Report Date: 04-Sep-2018 17:00

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080210.D
Lab Smp Id: VSTD100
Inj Date : 03-AUG-2018 01:38
Operator : AP   Inst ID: VOA2.i
Smp Info : VSTD100;VSTD100;1;8;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\NAHSTWS003\Target\CHEM\VOA2.i\E180802.b\8260LL.m
Meth Date : 17-Aug-2018 12:13 Shiva.Targ Quant Type: ISTD
Cal Date : 09-JUN-2018 13:37   Cal File: D060910.D
Als bottle: 36   Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.786	5.783	(1.000)	260800	50.0000	
2 Dichlorodifluoromethane	85	1.460	1.454	(0.252)	251546	100.000	97.97
186 Isobutylene	56	1.665	1.666	(0.288)	405570	100.000	87.53(AM)
3 Chloromethane	50	1.605	1.601	(0.277)	561558	100.000	87.26
4 Propionitrile	54	5.253	5.276	(0.908)	1226474	1000.00	1040.34
5 Vinyl Chloride	62	1.691	1.688	(0.292)	396671	100.000	92.16
6 Bromomethane	94	1.948	1.941	(0.337)	214589	100.000	102.92
7 Chloroethane	64	2.041	2.031	(0.353)	250673	100.000	91.17
159 Dichlorofluoromethane	67	2.240	2.227	(0.387)	595485	100.000	93.25
8 Trichlorofluoromethane	101	2.262	2.253	(0.391)	397396	100.000	94.50
9 Acrolein	56	2.696	2.699	(0.466)	165620	200.000	202.82
10 Acetone	43	2.869	2.869	(0.496)	231438	200.000	205.03
11 1,1-Dichloroethene	96	2.763	2.750	(0.478)	291328	100.000	94.51
12 Isobutyl Alcohol	74	6.168	6.184	(1.066)	35643	2000.00	2061.68(A)
13 Acetonitrile	39	3.180	3.174	(0.550)	381557	1000.00	984.68
14 Allyl Chloride	41	3.187	3.180	(0.551)	1087141	100.000	102.67
15 Iodomethane	142	2.920	2.914	(0.505)	588531	200.000	208.92
16 Acrylonitrile	53	3.703	3.710	(0.640)	332656	200.000	203.97
17 Methylene Chloride	84	3.344	3.334	(0.578)	352075	100.000	102.52
18 Methyl tert-butyl ether	73	3.694	3.697	(0.638)	889003	100.000	94.75
19 Carbon Disulfide	76	2.965	2.962	(0.513)	1123486	200.000	193.18
20 trans-1,2-Dichloroethene	96	3.668	3.668	(0.634)	320936	100.000	100.97

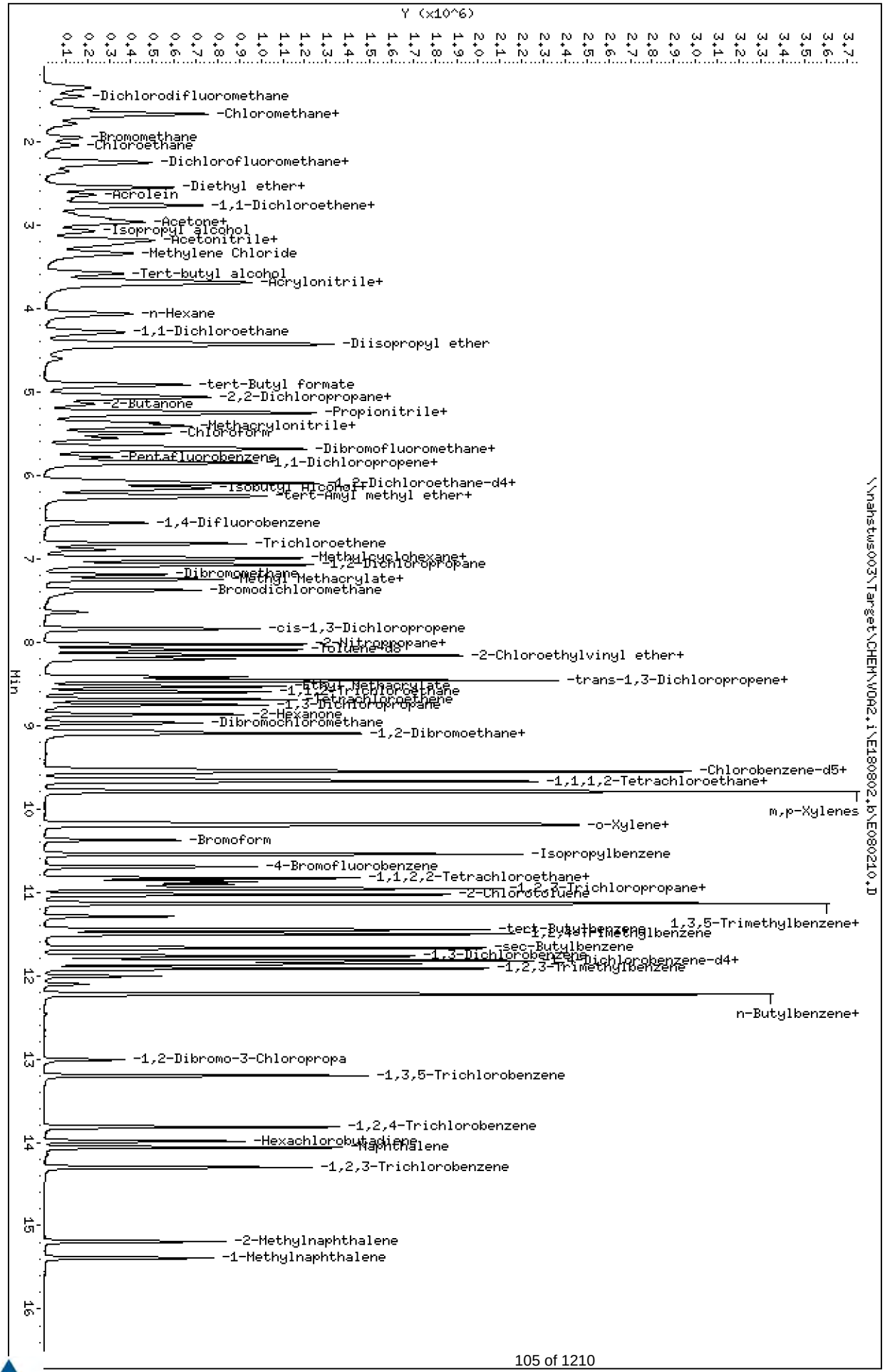
Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080210.D Page 2
Report Date: 04-Sep-2018 17:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	21 Vinyl Acetate	43	5.250	5.256	(0.907)	795847	200.000	185.69
	22 1,1-Dichloroethane	63	4.281	4.281	(0.740)	690143	100.000	94.67
	24 2-Butanone	43	5.144	5.150	(0.889)	368585	200.000	205.81
	25 Methacrylonitrile	41	5.410	5.414	(0.935)	395080	100.000	100.79
	26 2,2-Dichloropropane	77	5.051	5.044	(0.873)	371671	100.000	93.68
	27 cis-1,2-Dichloroethene	96	5.070	5.073	(0.876)	370641	100.000	96.65
	28 Chloroform	83	5.497	5.497	(0.950)	562879	100.000	92.11
	29 Bromochloromethane	128	5.375	5.378	(0.929)	183010	100.000	102.44
$	30 Dibromofluoromethane	113	5.686	5.689	(0.983)	203880	100.000	87.44
	31 1,1,1-Trichloroethane	97	5.657	5.657	(0.978)	474781	100.000	92.11
	32 1,1-Dichloropropene	75	5.860	5.856	(0.891)	397815	100.000	104.62
	33 1,2-Dichloroethane	62	6.148	6.148	(0.935)	451580	100.000	96.87
	34 Carbon Tetrachloride	117	5.837	5.837	(0.888)	416228	100.000	104.15
$	35 1,2-Dichloroethane-d4	65	6.058	6.059	(1.047)	253352	100.000	95.23
*	36 1,4-Difluorobenzene	114	6.575	6.575	(1.000)	426918	50.0000	
	37 Benzene	78	6.097	6.097	(0.927)	1282968	100.000	87.84
	38 Trichloroethene	130	6.819	6.819	(1.037)	355070	100.000	91.06
	39 Bromodichloromethane	83	7.377	7.381	(1.122)	467428	100.000	95.14
	40 Methyl Methacrylate	41	7.249	7.252	(1.253)	383130	100.000	96.58
	41 2-Chloroethylvinyl ether	63	8.160	8.164	(1.241)	107489	200.000	181.51(TA)
	42 1,2-Dichloropropane	63	7.069	7.069	(1.075)	385573	100.000	90.98
	43 2-Nitropropane	43	8.029	8.038	(1.388)	797553	100.000	95.61
	44 Dibromomethane	93	7.191	7.194	(1.094)	211579	100.000	100.89
	45 4-Methyl-2-Pentanone	43	8.029	8.038	(0.843)	797553	200.000	181.38
	46 cis-1,3-Dichloropropene	75	7.843	7.843	(1.193)	557549	100.000	101.36
*	47 Chlorobenzene-d5	117	9.524	9.527	(1.000)	386072	50.0000	
$	48 Toluene-d8	98	8.093	8.093	(0.850)	787074	100.000	97.66
	49 Ethyl Methacrylate	69	8.533	8.539	(1.298)	497184	100.000	93.70
	50 Toluene	91	8.160	8.164	(0.857)	1313115	100.000	84.30
	51 trans-1,3-Dichloropropene	75	8.417	8.420	(1.280)	461900	100.000	108.33
	52 2-Hexanone	43	8.866	8.873	(0.931)	539755	200.000	220.27(M)
	53 1,1,2-Trichloroethane	83	8.597	8.600	(0.903)	270655	100.000	91.32
	54 1,3-Dichloropropane	76	8.754	8.760	(0.919)	530088	100.000	90.46
	55 Dibromochloromethane	129	8.969	8.975	(0.942)	389785	100.000	94.20
	56 Tetrachloroethene	164	8.690	8.693	(0.912)	277489	100.000	88.35
	57 1,2-Dibromoethane	107	9.068	9.072	(0.952)	348324	100.000	97.66
	58 1-Chlorohexane	55	9.553	9.559	(1.453)	325563	100.000	106.69
	59 Chlorobenzene	112	9.553	9.556	(1.003)	847217	100.000	87.70
	60 1,1,1,2-Tetrachloroethane	131	9.646	9.652	(1.013)	346426	100.000	91.33
	61 Ethylbenzene	106	9.672	9.678	(1.015)	462566	100.000	103.33
	62 m,p-Xylenes	106	9.794	9.800	(1.028)	1098324	200.000	211.78
	63 o-Xylene	106	10.179	10.182	(1.069)	593633	100.000	104.17
	64 Styrene	104	10.198	10.204	(1.071)	949321	100.000	92.11
	66 Bromoform	173	10.374	10.378	(1.089)	284156	100.000	98.40
	67 Isopropylbenzene	105	10.548	10.551	(1.107)	1406108	100.000	84.77
	68 1,1,2,2-Tetrachloroethane	83	10.872	10.878	(0.919)	453654	100.000	87.67
$	69 4-Bromofluorobenzene	95	10.695	10.699	(1.123)	306027	100.000	103.04
*	70 1,4-Dichlorobenzene-d4	152	11.835	11.838	(1.000)	162204	50.0000	
	71 1,2,3-Trichloropropane	75	10.904	10.907	(0.921)	443787	100.000	91.42
	72 trans-1,4-Dichloro-2-butene	53	10.930	10.936	(1.148)	98089	100.000	103.59
	73 n-Propylbenzene	91	10.955	10.962	(0.926)	1533096	100.000	107.90
	74 Bromobenzene	156	10.833	10.837	(0.915)	400214	100.000	91.30
	75 1,3,5-Trimethylbenzene	105	11.135	11.138	(0.941)	1118473	100.000	100.20
	76 2-Chlorotoluene	91	11.029	11.036	(0.932)	1003716	100.000	105.35

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
77	4-Chlorotoluene	91	11.141	11.145	(0.941)	1066486	100.000	105.66
78	tert-Butylbenzene	119	11.449	11.456	(0.967)	988606	100.000	107.08
79	1,2,4-Trimethylbenzene	105	11.501	11.507	(0.972)	1151446	100.000	106.67
81	sec-Butylbenzene	105	11.668	11.674	(0.986)	1383915	100.000	85.56
82	p-Isopropyltoluene	119	11.818	11.825	(0.999)	1152457	100.000	86.12
83	1,3-Dichlorobenzene	146	11.767	11.774	(0.994)	692574	100.000	91.87
84	1,4-Dichlorobenzene	146	11.860	11.863	(1.002)	670117	100.000	95.19
87	n-Butylbenzene	91	12.223	12.226	(1.033)	915304	100.000	92.45
88	1,2-Dichlorobenzene	146	12.226	12.229	(1.033)	660494	100.000	88.82
89	1,2-Dibromo-3-Chloropropane	75	13.009	13.009	(1.099)	80963	100.000	101.56
90	1,2,4-Trichlorobenzene	180	13.818	13.821	(1.168)	427522	100.000	103.69
91	Hexachlorobutadiene	225	13.988	13.988	(1.182)	186021	100.000	94.42
92	Naphthalene	128	14.062	14.065	(1.188)	1040481	100.000	106.05
93	1,2,3-Trichlorobenzene	182	14.302	14.302	(1.209)	378478	100.000	103.78
146	Methyl acetate	43	3.241	3.241	(0.560)	401096	100.000	96.54
138	Freon TF	101	2.773	2.763	(0.479)	246185	100.000	100.85
139	Diethyl ether	59	2.554	2.545	(0.442)	611769	100.000	97.54
147	Methylcyclohexane	83	6.992	6.992	(1.063)	469442	100.000	105.64
135	1,4-Dioxane	88	7.239	7.246	(1.251)	73828	2000.00	2001.92
132	n-Butanol	56	6.999	6.996	(1.210)	237583	2000.00	2064.79
131	Methyl Acrylate	55	5.269	5.282	(0.911)	613626	100.000	103.66
133	Ethyl Acrylate	55	7.012	7.018	(1.212)	1022431	100.000	91.37
136	n-Hexane	57	4.066	4.063	(0.703)	394694	100.000	93.63
141	Cyclohexane	56	5.689	5.689	(0.983)	568165	100.000	86.45
142	Tetrahydrofuran	42	5.420	5.423	(0.937)	267095	200.000	186.99
148	Tert-butyl alcohol	59	3.584	3.597	(0.620)	810006	2000.00	2024.57
149	Isopropyl alcohol	45	3.071	3.093	(0.531)	510100	2000.00	2009.72
151	4-Methyl-2-pentanol	45	8.462	8.478	(0.888)	1746238	2000.00	1906.16
166	1,2,3-Trimethylbenzene	105	11.915	11.921	(1.007)	1102788	100.000	105.94
167	Ethanol	45	2.548	2.545	(0.440)	614887	2000.00	1917.34
170	1,3,5-Trichlorobenzene	180	13.202	13.208	(1.116)	477238	100.000	98.63
172	tert-Butyl formate	59	4.916	4.919	(0.850)	894098	200.000	195.17
173	3,3-Dimethyl-1-butanol	57	9.097	9.110	(0.955)	716339	2000.00	2111.85
174	tert-Amyl methyl ether	73	6.261	6.261	(1.082)	877654	100.000	98.97
175	tert-Butyl ethyl ether	59	6.241	6.254	(1.079)	517155	100.000	107.53
176	tert-Amyl alcohol	59	6.241	6.254	(1.079)	517155	2000.00	2150.75
157	2-Methylnaphthalene	142	15.188	15.191	(1.283)	406922	100.000	105.23
156	Diisopropyl ether	45	4.432	4.435	(0.766)	1303416	100.000	93.55(T)
171	1-Methylnaphthalene	142	15.384	15.387	(1.300)	402769	100.000	103.17
130	Ethyl Acetate	43	5.250	5.256	(0.907)	795847	100.000	93.40
M 94	1,2-Dichloroethylene (total)	96				691577	200.000	197.63
M 95	Xylenes (total)	106				1691957	300.000	315.95

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080210.D
Date : 03-AUG-2018 01:38
Client ID:
Sample Info: VSTD100;VSTD100;1;8;
Purge Volume: 5.0
Column phase: DB624

\\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080210.D

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

Page 1

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080211.D Page 1
Report Date: 04-Sep-2018 17:00

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080211.D
Lab Smp Id: VSTD200
Inj Date : 03-AUG-2018 02:04
Operator : AP   Inst ID: VOA2.i
Smp Info : VSTD200;VSTD200;1;9;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\NAHSTWS003\Target\CHEM\VOA2.i\E180802.b\8260LL.m
Meth Date : 17-Aug-2018 12:13 Shiva.Targ Quant Type: ISTD
Cal Date : 09-JUN-2018 13:37   Cal File: D060910.D
Als bottle: 37   Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.783	5.783	(1.000)	270354	50.0000	
2	Dichlorodifluoromethane	85	1.454	1.454	(0.251)	499792	200.000	187.78
186	Isobutylene	56	1.666	1.666	(0.288)	798264	200.000	166.19(AM)
3	Chloromethane	50	1.601	1.601	(0.277)	1116699	200.000	167.39(A)
4	Propionitrile	54	5.276	5.276	(0.912)	2398441	2000.00	1962.56
5	Vinyl Chloride	62	1.688	1.688	(0.292)	775310	200.000	173.78
6	Bromomethane	94	1.941	1.941	(0.336)	418221	200.000	196.68(M)
7	Chloroethane	64	2.031	2.031	(0.351)	479438	200.000	168.21
159	Dichlorofluoromethane	67	2.227	2.227	(0.385)	1174143	200.000	177.38(A)
8	Trichlorofluoromethane	101	2.253	2.253	(0.390)	773963	200.000	177.55
9	Acrolein	56	2.699	2.699	(0.467)	333458	400.000	394.85
10	Acetone	43	2.869	2.869	(0.496)	460575	400.000	396.92
11	1,1-Dichloroethene	96	2.750	2.750	(0.476)	573978	200.000	179.64
12	Isobutyl Alcohol	74	6.184	6.184	(1.069)	71030	4000.00	3964.71(A)
13	Acetonitrile	39	3.174	3.174	(0.549)	806581	2000.00	2002.83(A)
14	Allyl Chloride	41	3.180	3.180	(0.550)	2195299	200.000	200.00(A)
15	Iodomethane	142	2.914	2.914	(0.504)	1154316	400.000	394.29
16	Acrylonitrile	53	3.710	3.710	(0.642)	671162	400.000	396.51
17	Methylene Chloride	84	3.334	3.334	(0.577)	699249	200.000	197.88
18	Methyl tert-butyl ether	73	3.697	3.697	(0.639)	1727023	200.000	177.56
19	Carbon Disulfide	76	2.962	2.962	(0.512)	2249686	400.000	373.17
20	trans-1,2-Dichloroethene	96	3.668	3.668	(0.634)	639292	200.000	194.03

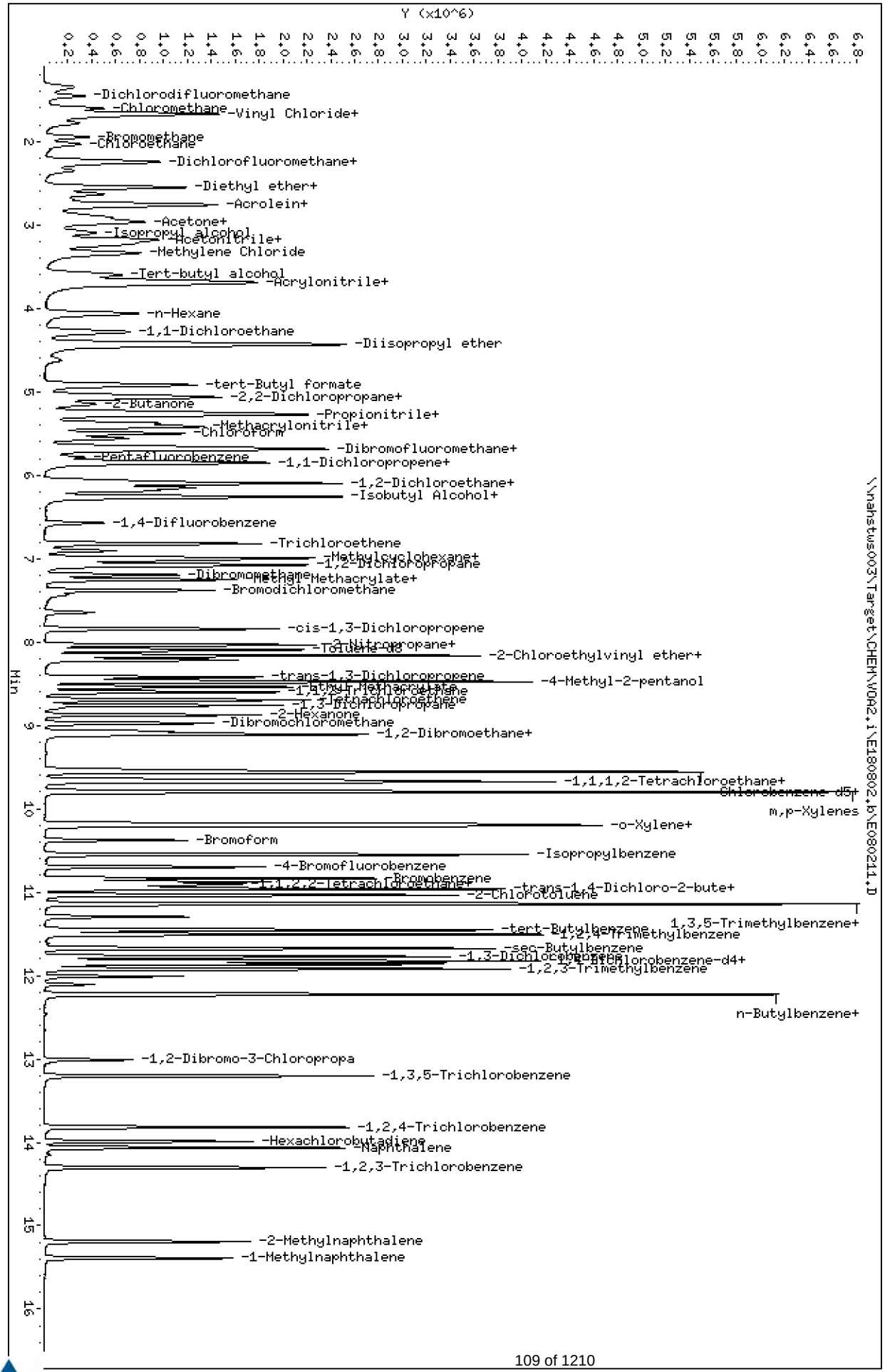
Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080211.D Page 2
Report Date: 04-Sep-2018 17:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	21 Vinyl Acetate	43	5.256	5.256	(0.909)	1554040	400.000	349.79(A)
	22 1,1-Dichloroethane	63	4.281	4.281	(0.740)	1367578	200.000	180.97
	24 2-Butanone	43	5.150	5.150	(0.891)	721259	400.000	388.52
	25 Methacrylonitrile	41	5.414	5.414	(0.936)	766405	200.000	188.62
	26 2,2-Dichloropropane	77	5.044	5.044	(0.872)	740521	200.000	180.05
	27 cis-1,2-Dichloroethene	96	5.073	5.073	(0.877)	742976	200.000	186.91
	28 Chloroform	83	5.497	5.497	(0.951)	1111271	200.000	175.44
	29 Bromochloromethane	128	5.378	5.378	(0.930)	346258	200.000	186.97
$	30 Dibromofluoromethane	113	5.689	5.689	(0.984)	401166	200.000	165.97
	31 1,1,1-Trichloroethane	97	5.657	5.657	(0.978)	938221	200.000	175.60
	32 1,1-Dichloropropene	75	5.856	5.856	(0.891)	788264	200.000	196.60
	33 1,2-Dichloroethane	62	6.148	6.148	(0.935)	882089	200.000	177.76
	34 Carbon Tetrachloride	117	5.837	5.837	(0.888)	831824	200.000	197.17
$	35 1,2-Dichloroethane-d4	65	6.059	6.059	(1.048)	496690	200.000	180.10
*	36 1,4-Difluorobenzene	114	6.575	6.575	(1.000)	454445	50.0000	
	37 Benzene	78	6.097	6.097	(0.927)	2486220	200.000	159.92
	38 Trichloroethene	130	6.819	6.819	(1.037)	710981	200.000	171.30
	39 Bromodichloromethane	83	7.381	7.381	(1.122)	912989	200.000	174.57
	40 Methyl Methacrylate	41	7.252	7.252	(1.254)	745382	200.000	181.27
	41 2-Chloroethylvinyl ether	63	8.164	8.164	(1.242)	215382	400.000	341.67(TA)
	42 1,2-Dichloropropane	63	7.069	7.069	(1.075)	776902	200.000	172.22
	43 2-Nitropropane	43	8.038	8.038	(1.390)	1518699	200.000	175.63
	44 Dibromomethane	93	7.194	7.194	(1.094)	421946	200.000	189.02
	45 4-Methyl-2-Pentanone	43	8.038	8.038	(0.844)	1518699	400.000	333.27
	46 cis-1,3-Dichloropropene	75	7.843	7.843	(1.193)	1087445	200.000	185.71
*	47 Chlorobenzene-d5	117	9.527	9.527	(1.000)	400102	50.0000	
$	48 Toluene-d8	98	8.093	8.093	(0.849)	1519477	200.000	183.51
	49 Ethyl Methacrylate	69	8.539	8.539	(1.299)	983733	200.000	174.18
	50 Toluene	91	8.164	8.164	(0.857)	2489442	200.000	154.23
	51 trans-1,3-Dichloropropene	75	8.420	8.420	(1.281)	931967	200.000	205.34(A)
	52 2-Hexanone	43	8.873	8.873	(0.931)	1038275	400.000	351.06(M)
	53 1,1,2-Trichloroethane	83	8.600	8.600	(0.903)	534482	200.000	174.01
	54 1,3-Dichloropropane	76	8.760	8.760	(0.920)	1051453	200.000	173.15
	55 Dibromochloromethane	129	8.975	8.975	(0.942)	763414	200.000	178.04
	56 Tetrachloroethene	164	8.693	8.693	(0.912)	546562	200.000	167.93
	57 1,2-Dibromoethane	107	9.072	9.072	(0.952)	686213	200.000	185.66
	58 1-Chlorohexane	55	9.559	9.559	(1.454)	626126	200.000	195.37
	59 Chlorobenzene	112	9.556	9.556	(1.003)	1632277	200.000	163.05
	60 1,1,1,2-Tetrachloroethane	131	9.652	9.652	(1.013)	678538	200.000	172.63
	61 Ethylbenzene	106	9.678	9.678	(1.016)	904574	200.000	197.07
	62 m,p-Xylenes	106	9.800	9.800	(1.029)	2064636	400.000	389.83
	63 o-Xylene	106	10.182	10.182	(1.069)	1144596	200.000	196.18
	64 Styrene	104	10.204	10.204	(1.071)	1812413	200.000	169.69
	66 Bromoform	173	10.378	10.378	(1.089)	556359	200.000	185.91
	67 Isopropylbenzene	105	10.551	10.551	(1.107)	2586647	200.000	150.48
	68 1,1,2,2-Tetrachloroethane	83	10.878	10.878	(0.919)	874313	200.000	162.77
$	69 4-Bromofluorobenzene	95	10.699	10.699	(1.123)	600849	200.000	197.30
*	70 1,4-Dichlorobenzene-d4	152	11.838	11.838	(1.000)	168372	50.0000	
	71 1,2,3-Trichloropropane	75	10.907	10.907	(0.921)	845378	200.000	167.77
	72 trans-1,4-Dichloro-2-butene	53	10.936	10.936	(1.148)	176104	200.000	199.08
	73 n-Propylbenzene	91	10.962	10.962	(0.926)	2812784	200.000	193.48
	74 Bromobenzene	156	10.837	10.837	(0.915)	776308	200.000	170.61
	75 1,3,5-Trimethylbenzene	105	11.138	11.138	(0.941)	2039238	200.000	199.96
	76 2-Chlorotoluene	91	11.036	11.036	(0.932)	1908838	200.000	195.49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
77	4-Chlorotoluene	91	11.145	11.145	(0.941)	2015459	200.000	195.03
78	tert-Butylbenzene	119	11.456	11.456	(0.968)	1836426	200.000	194.25
79	1,2,4-Trimethylbenzene	105	11.507	11.507	(0.972)	2151827	200.000	194.75
81	sec-Butylbenzene	105	11.674	11.674	(0.986)	2557821	200.000	152.34
82	p-Isopropyltoluene	119	11.825	11.825	(0.999)	2167935	200.000	156.07
83	1,3-Dichlorobenzene	146	11.774	11.774	(0.995)	1321401	200.000	168.87
84	1,4-Dichlorobenzene	146	11.863	11.863	(1.002)	1307352	200.000	178.91
87	n-Butylbenzene	91	12.226	12.226	(1.033)	1730717	200.000	168.42
88	1,2-Dichlorobenzene	146	12.229	12.229	(1.033)	1246745	200.000	161.52
89	1,2-Dibromo-3-Chloropropane	75	13.009	13.009	(1.099)	164158	200.000	198.72
90	1,2,4-Trichlorobenzene	180	13.821	13.821	(1.168)	845299	200.000	197.68
91	Hexachlorobutadiene	225	13.988	13.988	(1.182)	363074	200.000	177.54
92	Naphthalene	128	14.065	14.065	(1.188)	1981453	200.000	195.47
93	1,2,3-Trichlorobenzene	182	14.302	14.302	(1.208)	747952	200.000	197.77
146	Methyl acetate	43	3.241	3.241	(0.561)	785872	200.000	182.47(A)
138	Freon TF	101	2.763	2.763	(0.478)	499355	200.000	198.75
139	Diethyl ether	59	2.545	2.545	(0.440)	1174554	200.000	180.65
147	Methylcyclohexane	83	6.992	6.992	(1.063)	918919	200.000	196.30
135	1,4-Dioxane	88	7.246	7.246	(1.253)	152862	4000.00	3999.15
132	n-Butanol	56	6.996	6.996	(1.210)	469334	4000.00	3960.35
131	Methyl Acrylate	55	5.282	5.282	(0.913)	1205457	200.000	197.27
133	Ethyl Acrylate	55	7.018	7.018	(1.214)	1992940	200.000	171.80
136	n-Hexane	57	4.063	4.063	(0.703)	769334	200.000	176.06
141	Cyclohexane	56	5.689	5.689	(0.984)	1121288	200.000	164.58(A)
142	Tetrahydrofuran	42	5.423	5.423	(0.938)	530912	400.000	358.55
148	Tert-butyl alcohol	59	3.597	3.597	(0.622)	1649053	4000.00	3975.42
149	Isopropyl alcohol	45	3.093	3.093	(0.535)	1078445	4000.00	4098.77(A)
151	4-Methyl-2-pentanol	45	8.478	8.478	(0.890)	3274909	4000.00	3449.48
166	1,2,3-Trimethylbenzene	105	11.921	11.921	(1.007)	2082564	200.000	195.17
167	Ethanol	45	2.545	2.545	(0.440)	1174855	4000.00	3533.98
170	1,3,5-Trichlorobenzene	180	13.208	13.208	(1.116)	907869	200.000	180.75
172	tert-Butyl formate	59	4.919	4.919	(0.851)	1756860	400.000	369.96
173	3,3-Dimethyl-1-butanol	57	9.110	9.110	(0.956)	1421960	4000.00	4045.11(A)
174	tert-Amyl methyl ether	73	6.261	6.261	(1.083)	1651456	200.000	179.65
175	tert-Butyl ethyl ether	59	6.254	6.254	(1.082)	1020675	200.000	204.73(A)
176	tert-Amyl alcohol	59	6.254	6.254	(1.082)	1020675	4000.00	4094.79(A)
157	2-Methylnaphthalene	142	15.191	15.191	(1.283)	876986	200.000	199.01
156	Diisopropyl ether	45	4.435	4.435	(0.767)	2530817	200.000	175.24
171	1-Methylnaphthalene	142	15.387	15.387	(1.300)	828046	200.000	199.59
130	Ethyl Acetate	43	5.256	5.256	(0.909)	1554040	200.000	175.94
M 94	1,2-Dichloroethylene (total)	96				1382268	400.000	380.95
M 95	Xylenes (total)	106				3209232	600.000	586.01

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080211.D
Date : 03-AUG-2018 02:04
Client ID:
Sample Info: VSTD200;VSTD200;1;9;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

\\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080211.D

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080213.D Page 1
Report Date: 04-Sep-2018 17:00

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080213.D
Lab Smp Id: VSTD050
Inj Date : 03-AUG-2018 02:56
Operator : AP   Inst ID: VOA2.i
Smp Info : VSTD050;VSTD050;2;;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\NAHSTWS003\Target\CHEM\VOA2.i\E180802.b\8260LL.m
Meth Date : 17-Aug-2018 12:13 Shiva.Targ Quant Type: ISTD
Cal Date : 02-AUG-2018 22:37   Cal File: E080203.D
Als bottle: 39   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.786	5.783	(1.000)	259831	50.0000	
2	Dichlorodifluoromethane	85	1.460	1.454	(0.252)	119321	50.0000	46.64
186	Isobutylene	56	1.665	1.666	(0.288)	227883	50.0000	49.36(AM)
3	Chloromethane	50	1.611	1.601	(0.278)	297537	50.0000	46.40
4	Propionitrile	54	5.243	5.276	(0.906)	606572	500.000	516.43
5	Vinyl Chloride	62	1.698	1.688	(0.293)	196554	50.0000	45.84
6	Bromomethane	94	1.961	1.941	(0.339)	123594	50.0000	57.98
7	Chloroethane	64	2.054	2.031	(0.355)	124454	50.0000	45.43
159	Dichlorofluoromethane	67	2.240	2.227	(0.387)	297636	50.0000	46.78
8	Trichlorofluoromethane	101	2.262	2.253	(0.391)	190700	50.0000	45.52
9	Acrolein	56	2.699	2.699	(0.466)	90534	100.000	110.83
10	Acetone	43	2.866	2.869	(0.495)	118757	100.000	103.85
11	1,1-Dichloroethene	96	2.763	2.750	(0.478)	144263	50.0000	46.97
12	Isobutyl Alcohol	74	6.161	6.184	(1.065)	16736	1000.00	970.90(AH)
13	Acetonitrile	39	3.186	3.174	(0.551)	188092	500.000	489.71
14	Allyl Chloride	41	3.196	3.180	(0.552)	546187	50.0000	51.77
15	Iodomethane	142	2.923	2.914	(0.505)	234052	100.000	84.06
16	Acrylonitrile	53	3.700	3.710	(0.640)	163655	100.000	100.97
17	Methylene Chloride	84	3.347	3.334	(0.579)	175252	50.0000	50.42
18	Methyl tert-butyl ether	73	3.700	3.697	(0.640)	455348	50.0000	48.71
19	Carbon Disulfide	76	2.968	2.962	(0.513)	554956	100.000	95.78
20	trans-1,2-Dichloroethene	96	3.677	3.668	(0.636)	156679	50.0000	49.48

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080213.D Page 2
Report Date: 04-Sep-2018 17:00

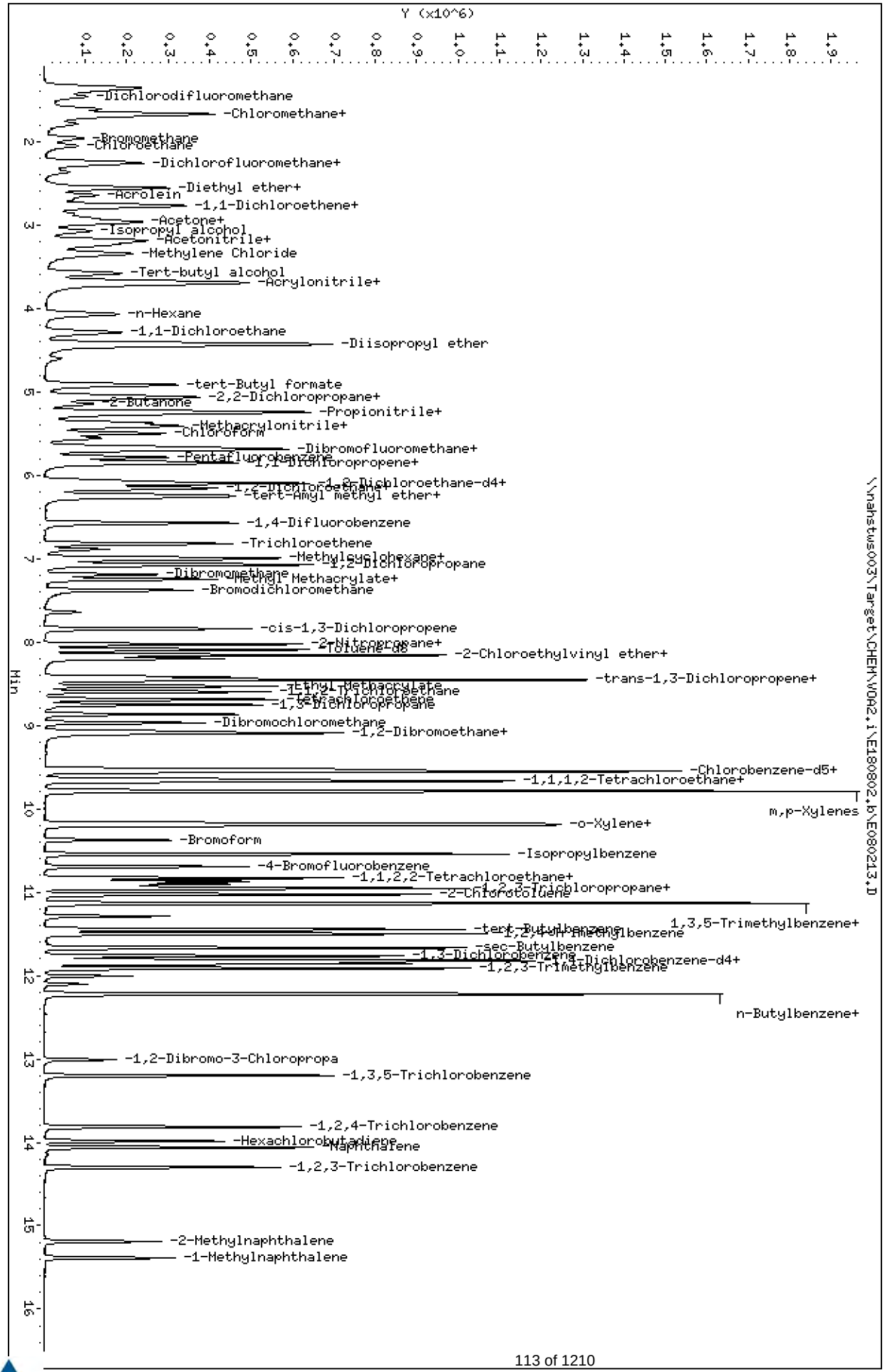
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	21 Vinyl Acetate	43	5.247	5.256	(0.907)	406557	100.000	95.21
	22 1,1-Dichloroethane	63	4.287	4.281	(0.741)	343327	50.0000	47.27
	24 2-Butanone	43	5.144	5.150	(0.889)	185701	100.000	104.08
	25 Methacrylonitrile	41	5.413	5.414	(0.936)	198490	50.0000	50.82
	26 2,2-Dichloropropane	77	5.048	5.044	(0.872)	177985	50.0000	45.02
	27 cis-1,2-Dichloroethene	96	5.077	5.073	(0.877)	186378	50.0000	48.78
	28 Chloroform	83	5.500	5.497	(0.951)	283193	50.0000	46.51
	29 Bromochloromethane	128	5.369	5.378	(0.928)	92094	50.0000	51.74
$	30 Dibromofluoromethane	113	5.689	5.689	(0.983)	106089	50.0000	45.66
	31 1,1,1-Trichloroethane	97	5.657	5.657	(0.978)	233178	50.0000	45.41
	32 1,1-Dichloropropene	75	5.859	5.856	(0.892)	194804	50.0000	50.81
	33 1,2-Dichloroethane	62	6.148	6.148	(0.936)	222959	50.0000	48.45
	34 Carbon Tetrachloride	117	5.840	5.837	(0.889)	201947	50.0000	50.24
$	35 1,2-Dichloroethane-d4	65	6.062	6.059	(1.048)	127673	50.0000	48.17
*	36 1,4-Difluorobenzene	114	6.572	6.575	(1.000)	421442	50.0000	
	37 Benzene	78	6.097	6.097	(0.928)	648251	50.0000	44.96
	38 Trichloroethene	130	6.819	6.819	(1.038)	177936	50.0000	46.22
	39 Bromodichloromethane	83	7.377	7.381	(1.123)	232095	50.0000	47.85
	40 Methyl Methacrylate	41	7.246	7.252	(1.252)	194434	50.0000	49.20
	41 2-Chloroethylvinyl ether	63	8.154	8.164	(1.241)	53274	100.000	91.13(T)
	42 1,2-Dichloropropane	63	7.069	7.069	(1.076)	198383	50.0000	47.42
	43 2-Nitropropane	43	8.025	8.038	(1.387)	411385	50.0000	49.50
	44 Dibromomethane	93	7.194	7.194	(1.095)	106030	50.0000	51.22
	45 4-Methyl-2-Pentanone	43	8.025	8.038	(0.843)	411385	100.000	94.43
	46 cis-1,3-Dichloropropene	75	7.839	7.843	(1.193)	277239	50.0000	51.05
*	47 Chlorobenzene-d5	117	9.524	9.527	(1.000)	382506	50.0000	
$	48 Toluene-d8	98	8.090	8.093	(0.849)	415869	50.0000	51.23
	49 Ethyl Methacrylate	69	8.529	8.539	(1.298)	251750	50.0000	48.06
	50 Toluene	91	8.157	8.164	(0.856)	672527	50.0000	43.58
	51 trans-1,3-Dichloropropene	75	8.417	8.420	(1.281)	222567	50.0000	52.88
	52 2-Hexanone	43	8.452	8.873	(0.887)	228035	100.000	98.60(H)
	53 1,1,2-Trichloroethane	83	8.597	8.600	(0.903)	136213	50.0000	46.38
	54 1,3-Dichloropropane	76	8.754	8.760	(0.919)	272556	50.0000	46.94
	55 Dibromochloromethane	129	8.969	8.975	(0.942)	197163	50.0000	48.09
	56 Tetrachloroethene	164	8.690	8.693	(0.912)	134074	50.0000	43.09
	57 1,2-Dibromoethane	107	9.065	9.072	(0.952)	173602	50.0000	49.13
	58 1-Chlorohexane	55	9.550	9.559	(1.453)	155496	50.0000	49.95
	59 Chlorobenzene	112	9.550	9.556	(1.003)	434390	50.0000	45.38
	60 1,1,1,2-Tetrachloroethane	131	9.643	9.652	(1.012)	172361	50.0000	45.86
	61 Ethylbenzene	106	9.668	9.678	(1.015)	231645	50.0000	51.06
	62 m,p-Xylenes	106	9.787	9.800	(1.028)	558367	100.000	105.27
	63 o-Xylene	106	10.175	10.182	(1.068)	302795	50.0000	52.29
	64 Styrene	104	10.195	10.204	(1.070)	481091	50.0000	47.11
	66 Bromoform	173	10.371	10.378	(1.089)	141452	50.0000	49.44
	67 Isopropylbenzene	105	10.544	10.551	(1.107)	706017	50.0000	42.96
	68 1,1,2,2-Tetrachloroethane	83	10.869	10.878	(0.918)	229574	50.0000	44.70
$	69 4-Bromofluorobenzene	95	10.695	10.699	(1.123)	155825	50.0000	51.83
*	70 1,4-Dichlorobenzene-d4	152	11.834	11.838	(1.000)	160960	50.0000	
	71 1,2,3-Trichloropropane	75	10.901	10.907	(0.921)	219061	50.0000	45.47
	72 trans-1,4-Dichloro-2-butene	53	10.926	10.936	(1.147)	44317	50.0000	44.00
	73 n-Propylbenzene	91	10.955	10.962	(0.926)	753061	50.0000	51.59
	74 Bromobenzene	156	10.830	10.837	(0.915)	199895	50.0000	45.95
	75 1,3,5-Trimethylbenzene	105	11.132	11.138	(0.941)	563252	50.0000	46.14
	76 2-Chlorotoluene	91	11.026	11.036	(0.932)	500821	50.0000	51.49

Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080213.D Page 3
Report Date: 04-Sep-2018 17:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
77	4-Chlorotoluene	91	11.138	11.145	(0.941)	536912	50.0000	52.00
78	tert-Butylbenzene	119	11.446	11.456	(0.967)	489457	50.0000	51.76
79	1,2,4-Trimethylbenzene	105	11.498	11.507	(0.972)	575529	50.0000	52.05
81	sec-Butylbenzene	105	11.668	11.674	(0.986)	676879	50.0000	42.17
82	p-Isopropyltoluene	119	11.818	11.825	(0.999)	562754	50.0000	42.38
83	1,3-Dichlorobenzene	146	11.764	11.774	(0.994)	343330	50.0000	45.89
84	1,4-Dichlorobenzene	146	11.857	11.863	(1.002)	330956	50.0000	47.37
87	n-Butylbenzene	91	12.220	12.226	(1.033)	435200	50.0000	44.30
88	1,2-Dichlorobenzene	146	12.223	12.229	(1.033)	334209	50.0000	45.29
89	1,2-Dibromo-3-Chloropropane	75	13.006	13.009	(1.099)	37914	50.0000	47.73
90	1,2,4-Trichlorobenzene	180	13.814	13.821	(1.167)	200081	50.0000	48.81
91	Hexachlorobutadiene	225	13.984	13.988	(1.182)	87637	50.0000	44.82
92	Naphthalene	128	14.061	14.065	(1.188)	506478	50.0000	51.47
93	1,2,3-Trichlorobenzene	182	14.299	14.302	(1.208)	177909	50.0000	49.05
146	Methyl acetate	43	3.244	3.241	(0.561)	196557	50.0000	47.48
138	Freon TF	101	2.776	2.763	(0.480)	123215	50.0000	49.92
139	Diethyl ether	59	2.558	2.545	(0.442)	311572	50.0000	49.86
147	Methylcyclohexane	83	6.989	6.992	(1.063)	221135	50.0000	49.13
135	1,4-Dioxane	88	7.239	7.246	(1.251)	36483	1000.00	992.64
132	n-Butanol	56	6.992	6.996	(1.209)	109160	1000.00	937.01
131	Methyl Acrylate	55	5.266	5.282	(0.910)	305766	50.0000	51.38
133	Ethyl Acrylate	55	7.011	7.018	(1.212)	500163	50.0000	44.86
136	n-Hexane	57	4.072	4.063	(0.704)	175019	50.0000	41.67
141	Cyclohexane	56	5.689	5.689	(0.983)	268655	50.0000	41.03
142	Tetrahydrofuran	42	5.420	5.423	(0.937)	135735	100.000	95.38
148	Tert-butyl alcohol	59	3.581	3.597	(0.619)	401933	1000.00	1008.70
149	Isopropyl alcohol	45	3.071	3.093	(0.531)	243816	1000.00	964.18
151	4-Methyl-2-pentanol	45	8.455	8.478	(0.888)	959306	1000.00	1056.92
166	1,2,3-Trimethylbenzene	105	11.911	11.921	(1.007)	558606	50.0000	52.62
167	Ethanol	45	2.554	2.545	(0.442)	313286	1000.00	980.53
170	1,3,5-Trichlorobenzene	180	13.201	13.208	(1.116)	226883	50.0000	47.25
172	tert-Butyl formate	59	4.913	4.919	(0.849)	434968	100.000	95.30
173	3,3-Dimethyl-1-butanol	57	9.091	9.110	(0.955)	374764	1000.00	1115.15
174	tert-Amyl methyl ether	73	6.257	6.261	(1.082)	434519	50.0000	49.18
175	tert-Butyl ethyl ether	59	6.235	6.254	(1.078)	248581	50.0000	51.88
176	tert-Amyl alcohol	59	6.235	6.254	(1.078)	248581	1000.00	1037.65
157	2-Methylnaphthalene	142	15.188	15.191	(1.283)	139948	50.0000	41.38
156	Diisopropyl ether	45	4.432	4.435	(0.766)	659076	50.0000	47.48(T)
171	1-Methylnaphthalene	142	15.387	15.387	(1.300)	159371	50.0000	44.04
130	Ethyl Acetate	43	5.247	5.256	(0.907)	406557	50.0000	47.89
M 94	1,2-Dichloroethylene (total)	96				343057	100.000	98.26
M 95	Xylenes (total)	106				861162	150.000	157.56

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.



Data File: \\nahstws003\Target\CHEM\VOA2.i\E180802.b\E080213.D
Date : 03-AUG-2018 02:56
Client ID:
Sample Info: VSTD050;VSTD050;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

ALS Houston, US

Date: 09-Oct-18

FORM 8 - ANALYSIS RUN LOG

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504
Start Date: 04-Sep-2018 End Date: 04-Sep-2018

Run ID:VOA2_322857
Instrument:VOA2

Sample No.	D/F	Time	File ID
BFB	1	04-Sep-2018 08:43	D090401.D
CCV	1	04-Sep-2018 09:07	D090402.D
CCB	1	04-Sep-2018 09:56	D090404.D
VLCSW-180904	1	04-Sep-2018 10:21	D090405.D
VBLKW-180904	1	04-Sep-2018 10:45	D090406.D
ZZZZZZZZZZZZ	1	04-Sep-2018 11:10	D090407.D
ZZZZZZZZZZZZ	1	04-Sep-2018 11:34	D090408.D
ZZZZZZZZZZZZ	1	04-Sep-2018 11:58	D090409.D
ZZZZZZZZZZZZ	1	04-Sep-2018 12:23	D090410.D
HS18081504-04	1	04-Sep-2018 13:36	D090413.D
HS18081504-01	1	04-Sep-2018 14:01	D090414.D
HS18081504-02	1	04-Sep-2018 14:25	D090415.D
HS18081504-03	1	04-Sep-2018 14:50	D090416.D
ZZZZZZZZZZZZ	10	04-Sep-2018 15:14	D090417.D
HS18081504-01MS	1	04-Sep-2018 15:39	D090418.D
HS18081504-01MSD	1	04-Sep-2018 16:03	D090419.D
ZZZZZZZZZZZZ	1	04-Sep-2018 16:28	D090420.D
ZZZZZZZZZZZZ	1	04-Sep-2018 16:52	D090421.D
ZZZZZZZZZZZZ	1	04-Sep-2018 17:17	D090422.D
ZZZZZZZZZZZZ	10	04-Sep-2018 17:44	D090423.D
ZZZZZZZZZZZZ	1	04-Sep-2018 18:08	D090424.D
ZZZZZZZZZZZZ	1	04-Sep-2018 18:33	D090425.D
ZZZZZZZZZZZZ	1	04-Sep-2018 18:57	D090426.D
ZZZZZZZZZZZZ	1	04-Sep-2018 19:22	D090427.D
ZZZZZZZZZZZZ	1	04-Sep-2018 19:46	D090428.D
CCV_END	1	04-Sep-2018 20:11	D090429.D

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090401.D Page 1
Report Date: 17-Sep-2018 12:34

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090401.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 04-SEP-2018 10:43
Operator : AP Inst ID: VOA2.i
Smp Info : BFB;BFB;3;;BFB
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\NAHSTWS003\Target\CHEM\VOA2.i\D180904.b\bfb.m
Meth Date : 04-Jun-2018 15:21 Cesar.Lira Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/l)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
10.695	10.696	(0.000)	95	95000			0.00- 100.00	100.00
10.695	10.696	(0.000)	50	17784			15.00- 40.00	18.72
10.695	10.696	(0.000)	75	39208			30.00- 60.00	41.27
10.695	10.696	(0.000)	96	6815			5.00- 9.00	7.17
10.695	10.696	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
10.695	10.696	(0.000)	174	79512			50.00- 0.00	83.70
10.695	10.696	(0.000)	175	5914			5.00- 9.00	7.44
10.695	10.696	(0.000)	176	76744			95.00- 101.00	96.52
10.695	10.696	(0.000)	177	6039			5.00- 9.00	7.87

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090401.D Page 1

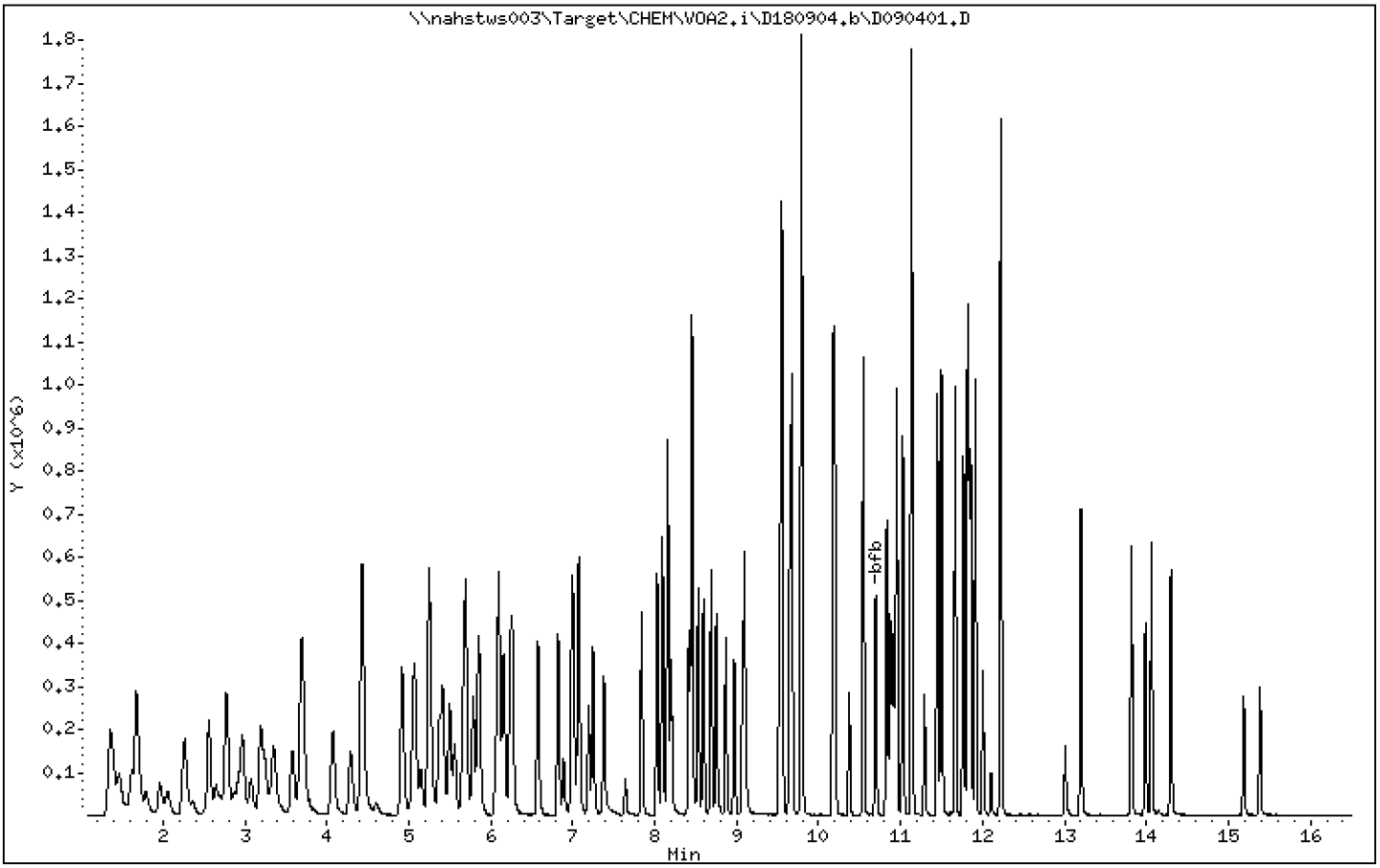
Date : 04-SEP-2018 10:43

Client ID: BFB Instrument: VOA2.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: AP

Column phase: DB624 Column diameter: 0.18



Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090401.D Page 2

Date : 04-SEP-2018 10:43

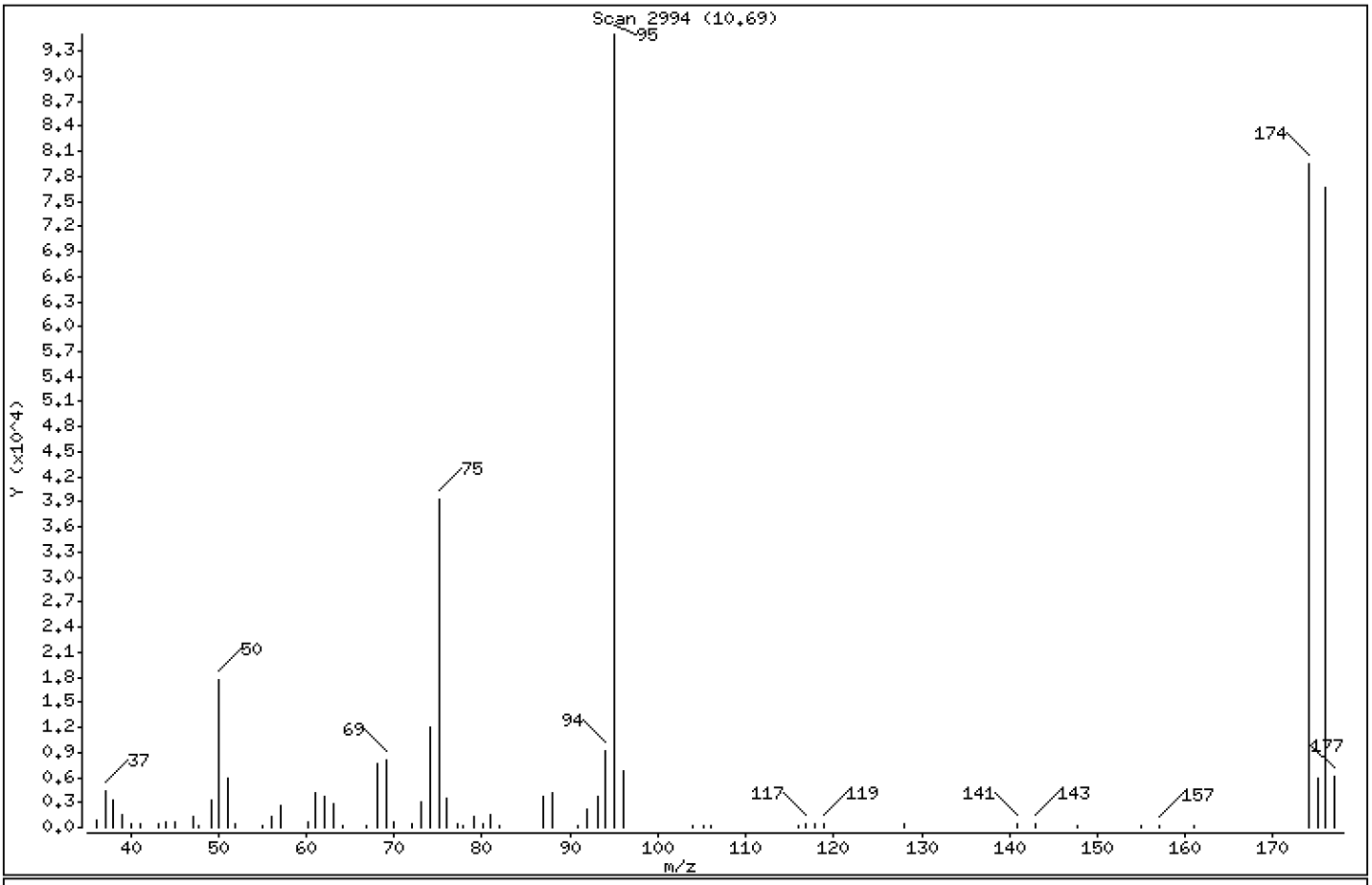
Client ID: BFB Instrument: VOA2.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: AP

Column phase: DB624 Column diameter: 0.18

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	18.72
75	30.00 - 60.00% of mass 95	41.27
96	5.00 - 9.00% of mass 95	7.17
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	83.70
175	5.00 - 9.00% of mass 174	6.23 (7.44)
176	95.00 - 101.00% of mass 174	80.78 (96.52)
177	5.00 - 9.00% of mass 176	6.36 (7.87)

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090401.D

Date : 04-SEP-2018 10:43

Client ID: BFB Instrument: VOA2.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0 Operator: AP

Column phase: DB624 Column diameter: 0.18

Data File: D090401.D
Spectrum: Scan 2994 (10.69)
Location of Maximum: 95.10
Number of points: 64

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	850	57.10	2607	79.00	1409	117.90	380
37.10	4295	60.10	612	80.10	417	118.90	434
38.10	3294	61.10	4097	81.00	1482	128.00	395
39.10	1520	62.10	3641	81.90	234	140.90	422
40.00	542	63.10	2811	87.00	3767	143.00	475
41.10	418	64.10	187	88.00	4225	147.80	298
43.10	330	66.80	209	90.80	266	155.00	162
44.10	609	68.10	7728	92.00	2130	157.00	233
45.00	683	69.10	8024	93.10	3686	161.00	218
47.10	1263	70.00	599	94.10	9268	174.00	79512
47.80	323	72.00	412	95.10	95000	175.00	5914
49.10	3289	73.00	2975	96.10	6815	176.00	76744
50.10	17784	74.10	12041	104.00	295	177.00	6039
51.10	5927	75.10	39208	105.10	202		
52.00	441	76.00	3392	106.00	209		
55.10	272	77.20	474	116.00	227		
56.00	1210	77.80	236	116.80	532		

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090402.D Page 1
Report Date: 17-Sep-2018 12:34

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090402.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 04-SEP-2018 11:07
Operator : AP Inst ID: VOA2.i
Smp Info : CCV;CCV;2;;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\nahstws003\Target\chem\voa2.i\D180904.b\8260LL.m
Meth Date : 05-Sep-2018 10:47 VOA2.i Quant Type: ISTD
Cal Date : 03-AUG-2018 02:04 Cal File: E080211.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.779	5.782	(1.000)	233157	50.0000	
2	Dichlorodifluoromethane	85	1.466	1.460	(0.254)	124534	50.0000	54.25
186	Isobutylene	56	1.665	1.669	(0.288)	178233	50.0000	43.02(AM)
3	Chloromethane	50	1.608	1.611	(0.278)	255623	50.0000	44.43
4	Propionitrile	54	5.240	5.240	(0.907)	517044	500.000	490.57
5	Vinyl Chloride	62	1.694	1.698	(0.293)	196459	50.0000	51.06
6	Bromomethane	94	1.951	1.954	(0.338)	106236	50.0000	55.38
7	Chloroethane	64	2.054	2.050	(0.355)	107801	50.0000	43.85
159	Dichlorofluoromethane	67	2.240	2.243	(0.388)	254092	50.0000	44.51
8	Trichlorofluoromethane	101	2.262	2.272	(0.392)	180097	50.0000	47.90
9	Acrolein	56	2.695	2.695	(0.466)	68537	100.000	93.35
10	Acetone	43	2.866	2.866	(0.496)	90141	100.000	87.29
11	1,1-Dichloroethene	96	2.760	2.769	(0.478)	126714	50.0000	45.98
12	Isobutyl Alcohol	74	6.161	6.158	(1.066)	14346	1000.00	927.39(A)
13	Acetonitrile	39	3.180	3.186	(0.550)	162932	500.000	472.91
14	Allyl Chloride	41	3.193	3.196	(0.552)	446833	50.0000	47.20
15	Iodomethane	142	2.923	2.920	(0.506)	230125	100.000	92.00
16	Acrylonitrile	53	3.700	3.700	(0.640)	131845	100.000	90.70
17	Methylene Chloride	84	3.347	3.344	(0.579)	149565	50.0000	47.88
18	Methyl tert-butyl ether	73	3.693	3.697	(0.639)	386605	50.0000	46.08
19	Carbon Disulfide	76	2.965	2.971	(0.513)	488712	100.000	94.00
20	trans-1,2-Dichloroethene	96	3.671	3.677	(0.635)	144846	50.0000	50.97

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090402.D Page 2
Report Date: 17-Sep-2018 12:34

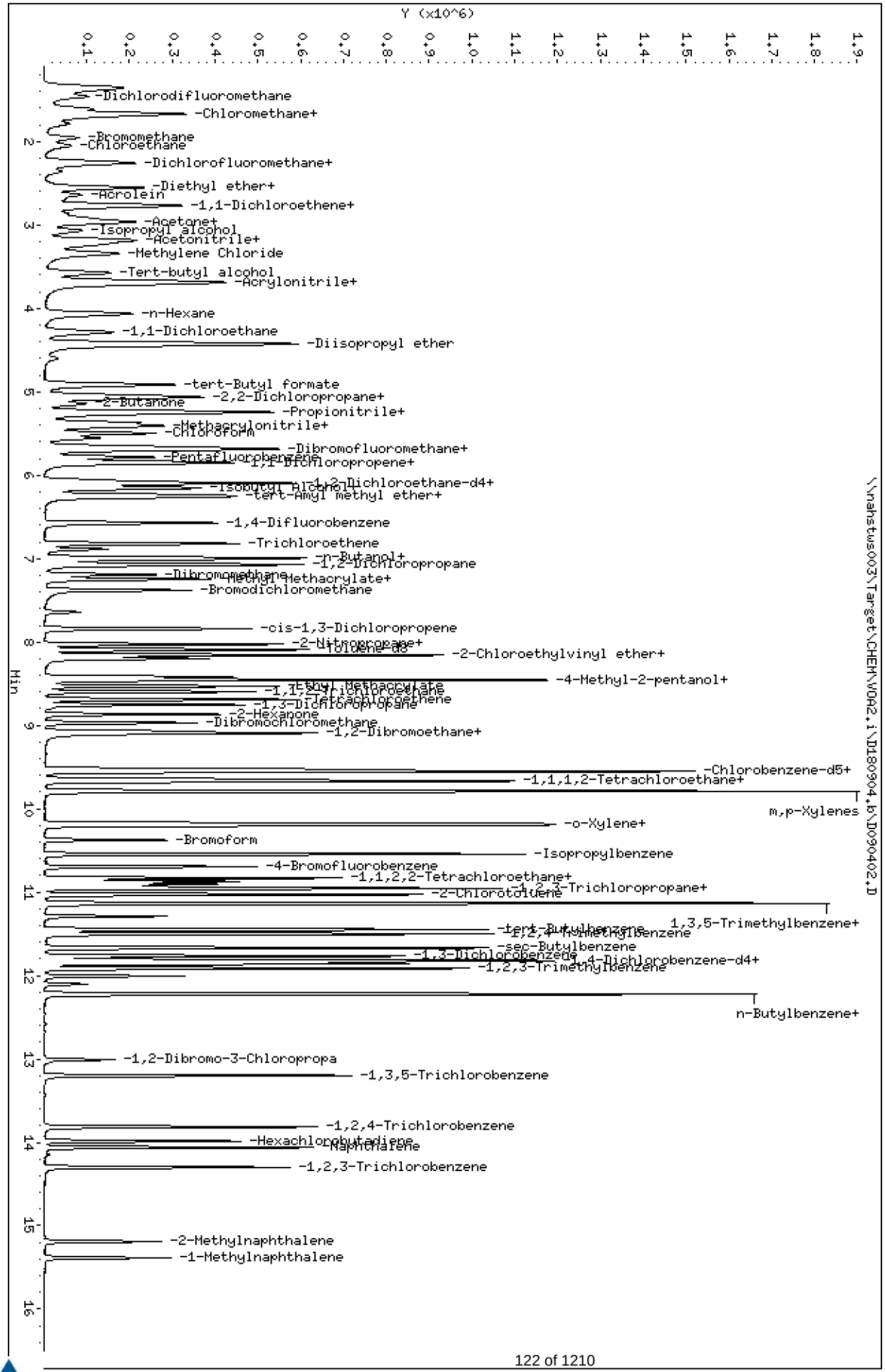
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	21 Vinyl Acetate	43	5.243	5.247	(0.907)	330289	100.000	86.20
	22 1,1-Dichloroethane	63	4.277	4.290	(0.740)	300847	50.0000	46.16
	24 2-Butanone	43	5.144	5.141	(0.890)	150573	100.000	94.04
	25 Methacrylonitrile	41	5.407	5.410	(0.936)	166476	50.0000	47.50
	26 2,2-Dichloropropane	77	5.041	5.051	(0.872)	209090	50.0000	58.95
	27 cis-1,2-Dichloroethene	96	5.073	5.073	(0.878)	167559	50.0000	48.87
	28 Chloroform	83	5.497	5.500	(0.951)	253553	50.0000	46.41
	29 Bromochloromethane	128	5.372	5.369	(0.929)	83503	50.0000	52.28
$	30 Dibromofluoromethane	113	5.686	5.689	(0.984)	93182	50.0000	44.70
	31 1,1,1-Trichloroethane	97	5.657	5.654	(0.979)	218894	50.0000	47.50
	32 1,1-Dichloropropene	75	5.859	5.859	(0.892)	184416	50.0000	54.66
	33 1,2-Dichloroethane	62	6.145	6.148	(0.935)	201425	50.0000	49.59
	34 Carbon Tetrachloride	117	5.837	5.837	(0.888)	182081	50.0000	51.36
$	35 1,2-Dichloroethane-d4	65	6.062	6.058	(1.049)	108980	50.0000	45.82
*	36 1,4-Difluorobenzene	114	6.572	6.575	(1.000)	371987	50.0000	
	37 Benzene	78	6.094	6.097	(0.927)	604118	50.0000	47.47
	38 Trichloroethene	130	6.819	6.819	(1.038)	179190	50.0000	52.74
	39 Bromodichloromethane	83	7.377	7.377	(1.123)	222479	50.0000	51.97
	40 Methyl Methacrylate	41	7.246	7.246	(1.254)	177088	50.0000	49.93
	41 2-Chloroethylvinyl ether	63	8.157	8.154	(1.241)	49594	100.000	96.11(T)
	42 1,2-Dichloropropane	63	7.066	7.069	(1.075)	185856	50.0000	50.33
	43 2-Nitropropane	43	8.026	8.029	(1.389)	364434	50.0000	48.87
	44 Dibromomethane	93	7.191	7.191	(1.094)	97410	50.0000	53.31
	45 4-Methyl-2-Pentanone	43	8.026	8.029	(0.843)	364434	100.000	93.29
	46 cis-1,3-Dichloropropene	75	7.839	7.839	(1.193)	271792	50.0000	56.70
*	47 Chlorobenzene-d5	117	9.524	9.524	(1.000)	342968	50.0000	
$	48 Toluene-d8	98	8.093	8.093	(0.850)	406907	50.0000	42.91
	49 Ethyl Methacrylate	69	8.529	8.529	(1.298)	236391	50.0000	51.13
	50 Toluene	91	8.157	8.157	(0.856)	649401	50.0000	46.93
	51 trans-1,3-Dichloropropene	75	8.417	8.417	(1.281)	222580	50.0000	59.91(M)
	52 2-Hexanone	43	8.866	8.866	(0.931)	241461	100.000	95.24
	53 1,1,2-Trichloroethane	83	8.593	8.597	(0.902)	126129	50.0000	47.90
	54 1,3-Dichloropropane	76	8.751	8.754	(0.919)	252003	50.0000	48.41
	55 Dibromochloromethane	129	8.969	8.969	(0.942)	185062	50.0000	50.35
	56 Tetrachloroethene	164	8.690	8.690	(0.912)	143799	50.0000	51.54
	57 1,2-Dibromoethane	107	9.065	9.068	(0.952)	164820	50.0000	52.02
	58 1-Chlorohexane	55	9.550	9.550	(1.453)	160323	50.0000	58.89
	59 Chlorobenzene	112	9.553	9.553	(1.003)	427497	50.0000	49.81
	60 1,1,1,2-Tetrachloroethane	131	9.646	9.643	(1.013)	168293	50.0000	49.94
	61 Ethylbenzene	106	9.668	9.672	(1.015)	231544	50.0000	57.19
	62 m,p-Xylenes	106	9.790	9.790	(1.028)	553656	100.000	117.15
	63 o-Xylene	106	10.175	10.179	(1.068)	295392	50.0000	57.13
	64 Styrene	104	10.198	10.198	(1.071)	468722	50.0000	51.19
	66 Bromoform	173	10.378	10.374	(1.090)	133804	50.0000	52.15
	67 Isopropylbenzene	105	10.544	10.544	(1.107)	718350	50.0000	48.75
	68 1,1,2,2-Tetrachloroethane	83	10.869	10.869	(0.918)	212014	50.0000	43.32
$	69 4-Bromofluorobenzene	95	10.695	10.695	(1.123)	154427	50.0000	50.76
*	70 1,4-Dichlorobenzene-d4	152	11.834	11.834	(1.000)	153413	50.0000	
	71 1,2,3-Trichloropropane	75	10.901	10.901	(0.921)	212700	50.0000	46.32
	72 trans-1,4-Dichloro-2-butene	53	10.926	10.926	(1.147)	48070	50.0000	53.78
	73 n-Propylbenzene	91	10.955	10.955	(0.926)	781040	50.0000	56.46
	74 Bromobenzene	156	10.833	10.833	(0.915)	199982	50.0000	48.23
	75 1,3,5-Trimethylbenzene	105	11.132	11.132	(0.941)	568314	50.0000	49.16
	76 2-Chlorotoluene	91	11.029	11.029	(0.932)	495991	50.0000	53.61

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090402.D Page 3
Report Date: 17-Sep-2018 12:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
77	4-Chlorotoluene	91	11.138	11.138	(0.941)	536778	50.0000	54.70
78	tert-Butylbenzene	119	11.449	11.449	(0.967)	502100	50.0000	55.97
79	1,2,4-Trimethylbenzene	105	11.498	11.498	(0.972)	582750	50.0000	55.51
81	sec-Butylbenzene	105	11.668	11.668	(0.986)	701099	50.0000	45.83
82	p-Isopropyltoluene	119	11.818	11.815	(0.999)	581817	50.0000	45.97
83	1,3-Dichlorobenzene	146	11.767	11.764	(0.994)	346067	50.0000	48.53
84	1,4-Dichlorobenzene	146	11.857	11.857	(1.002)	330328	50.0000	49.61
87	n-Butylbenzene	91	12.223	12.223	(1.033)	461014	50.0000	49.23
88	1,2-Dichlorobenzene	146	12.223	12.223	(1.033)	329507	50.0000	46.85
89	1,2-Dibromo-3-Chloropropane	75	13.006	13.009	(1.099)	35139	50.0000	46.40
90	1,2,4-Trichlorobenzene	180	13.814	13.818	(1.167)	211118	50.0000	54.05
91	Hexachlorobutadiene	225	13.988	13.988	(1.182)	97494	50.0000	52.32
92	Naphthalene	128	14.061	14.061	(1.188)	486197	50.0000	51.85
93	1,2,3-Trichlorobenzene	182	14.299	14.299	(1.208)	176195	50.0000	50.97
146	Methyl acetate	43	3.241	3.244	(0.561)	158322	50.0000	42.62
138	Freon TF	101	2.779	2.776	(0.481)	117526	50.0000	53.16
139	Diethyl ether	59	2.551	2.554	(0.441)	246289	50.0000	43.92
147	Methylcyclohexane	83	6.989	6.989	(1.063)	235828	50.0000	59.87(M)
135	1,4-Dioxane	88	7.239	7.239	(1.253)	33765	1000.00	1023.81
132	n-Butanol	56	6.992	6.995	(1.210)	109746	1000.00	1053.21
131	Methyl Acrylate	55	5.269	5.269	(0.912)	261096	50.0000	48.85
133	Ethyl Acrylate	55	7.011	7.008	(1.213)	491231	50.0000	49.10
136	n-Hexane	57	4.066	4.069	(0.704)	203145	50.0000	53.90
141	Cyclohexane	56	5.693	5.689	(0.985)	257961	50.0000	43.90
142	Tetrahydrofuran	42	5.420	5.420	(0.938)	114063	100.000	89.32
148	Tert-butyl alcohol	59	3.575	3.575	(0.619)	348195	1000.00	973.83
149	Isopropyl alcohol	45	3.068	3.071	(0.531)	199008	1000.00	877.02
151	4-Methyl-2-pentanol	45	8.455	8.452	(0.888)	860039	1000.00	1056.79
166	1,2,3-Trimethylbenzene	105	11.915	11.915	(1.007)	548616	50.0000	54.31
167	Ethanol	45	2.551	2.557	(0.441)	235504	1000.00	821.41
170	1,3,5-Trichlorobenzene	180	13.198	13.201	(1.115)	238056	50.0000	52.01
172	tert-Butyl formate	59	4.913	4.916	(0.850)	414642	100.000	101.24
173	3,3-Dimethyl-1-butanol	57	9.094	9.094	(0.955)	335175	1000.00	1112.32
174	tert-Amyl methyl ether	73	6.261	6.261	(1.083)	448701	50.0000	56.59
175	tert-Butyl ethyl ether	59	6.235	6.235	(1.079)	236020	50.0000	54.89
176	tert-Amyl alcohol	59	6.235	6.235	(1.079)	236020	1000.00	1097.93
157	2-Methylnaphthalene	142	15.188	15.191	(1.283)	136280	50.0000	42.15
156	Diisopropyl ether	45	4.425	4.428	(0.766)	568824	50.0000	45.67(T)
171	1-Methylnaphthalene	142	15.384	15.384	(1.300)	149438	50.0000	43.40
130	Ethyl Acetate	43	5.243	5.247	(0.907)	331189	50.0000	43.47
M 94	1,2-Dichloroethylene (total)	96				312405	100.000	99.85
M 95	Xylenes (total)	106				849048	150.000	174.29

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws003\Target\CHEM\WOA2.i\D180904.b\D090402.D
Date : 04-SEP-2018 11:07
Client ID: CCV
Sample Info: CCV;CCV;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: WOA2.i
Operator: AP
Column diameter: 0.18

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090404.D Page 1
Report Date: 17-Sep-2018 12:34

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090404.D
Lab Smp Id: CCB Client Smp ID: CCB
Inj Date : 04-SEP-2018 11:56
Operator : AP Inst ID: VOA2.i
Smp Info : CCB;CCB;;;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\nahstws003\Target\chem\voa2.i\D180904.b\8260LL.m
Meth Date : 05-Sep-2018 10:47 VOA2.i Quant Type: ISTD
Cal Date : 03-AUG-2018 02:04 Cal File: E080211.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260-LLw.sub
Target Version: 4.14

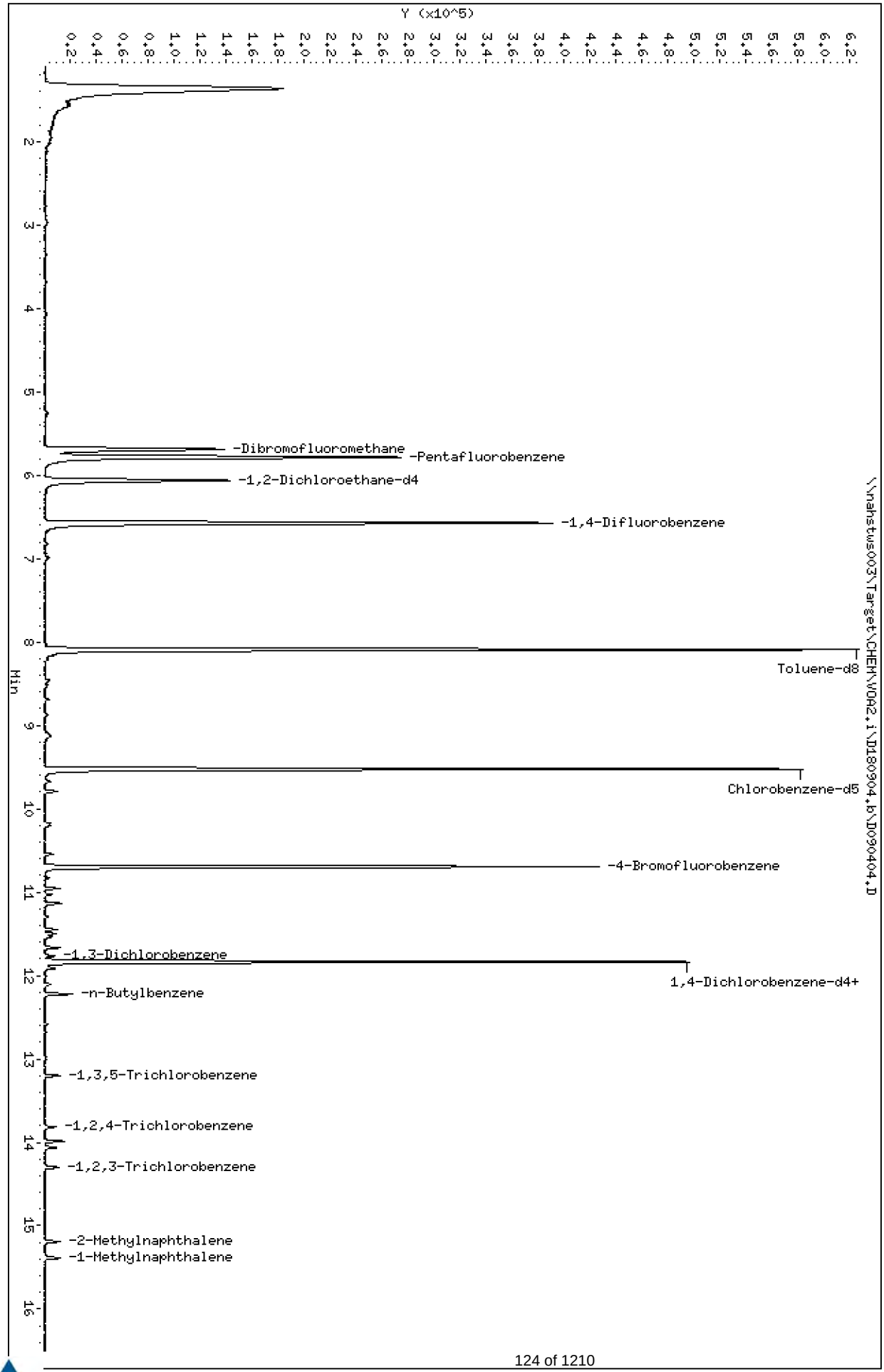
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Va	0.00000	
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	5.783	5.782	(1.000)	259425	50.0000	
$ 30 Dibromofluoromethane	113	5.686	5.689	(0.983)	109136	47.0550	47.05
$ 35 1,2-Dichloroethane-d4	65	6.062	6.058	(1.048)	113140	42.7551	42.75
* 36 1,4-Difluorobenzene	114	6.575	6.575	(1.000)	369787	50.0000	
* 47 Chlorobenzene-d5	117	9.524	9.524	(1.000)	330156	50.0000	
$ 48 Toluene-d8	98	8.090	8.093	(0.849)	417059	45.6959	45.69
$ 69 4-Bromofluorobenzene	95	10.695	10.695	(1.123)	143224	48.9100	48.91
* 70 1,4-Dichlorobenzene-d4	152	11.835	11.834	(1.000)	134410	50.0000	
82 p-Isopropyltoluene	119	11.815	11.815	(0.998)	6979	0.62940	0.62(a)
83 1,3-Dichlorobenzene	146	11.764	11.764	(0.994)	3862	0.61826	0.61(a)
87 n-Butylbenzene	91	12.226	12.223	(1.033)	8139	0.99216	0.99(a)
90 1,2,4-Trichlorobenzene	180	13.824	13.818	(1.168)	3520	0.85005	0.85(a)
93 1,2,3-Trichlorobenzene	182	14.299	14.299	(1.208)	4413	1.25210	1.25
170 1,3,5-Trichlorobenzene	180	13.198	13.201	(1.115)	4632	1.15525	1.15
157 2-Methylnaphthalene	142	15.188	15.191	(1.283)	6763	7.52357	7.52
171 1-Methylnaphthalene	142	15.384	15.384	(1.300)	7457	7.02835	7.02

QC Flag Legend

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



Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090404.D
Date : 04-SEP-2018 11:56
Client ID: CCB
Sample Info: CCB;CCB;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090404.D Page 2

Date : 04-SEP-2018 11:56

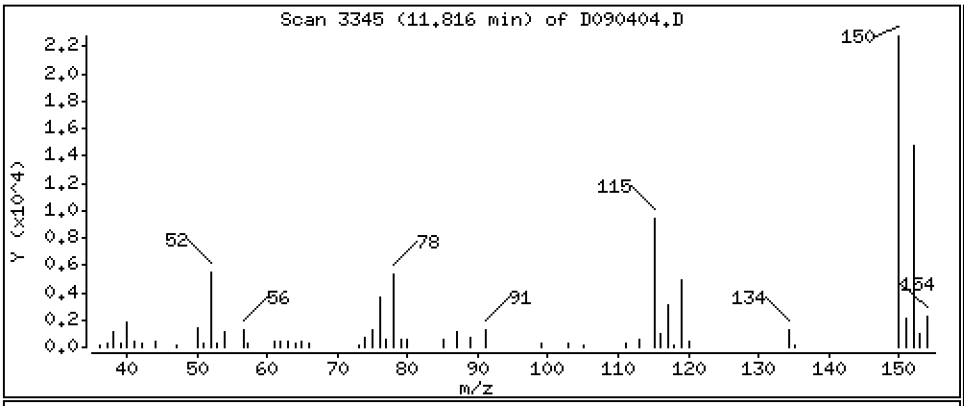
Client ID: CCB Instrument: VOA2.i

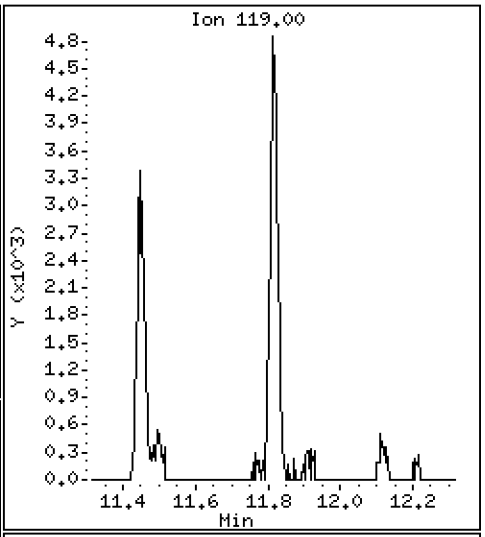
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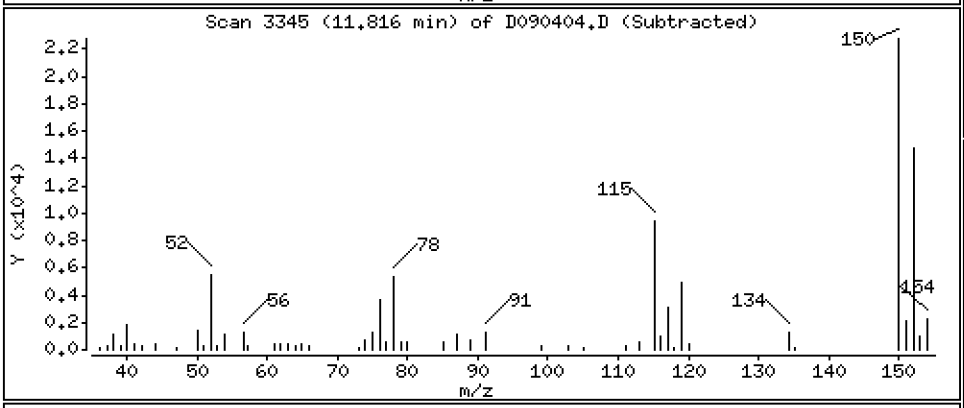
Purge Volume: 5.0 Operator: AP

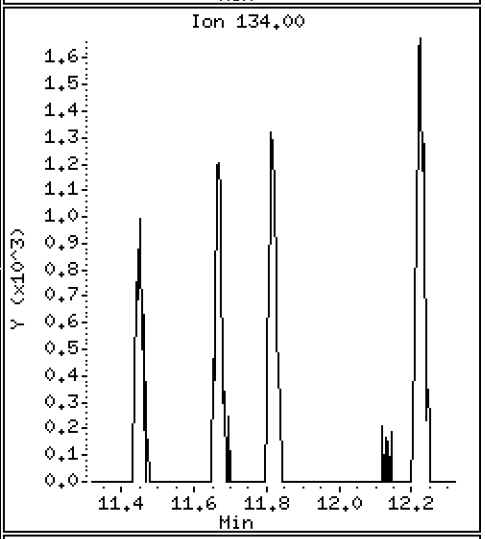
Column phase: DB624 Column diameter: 0.18

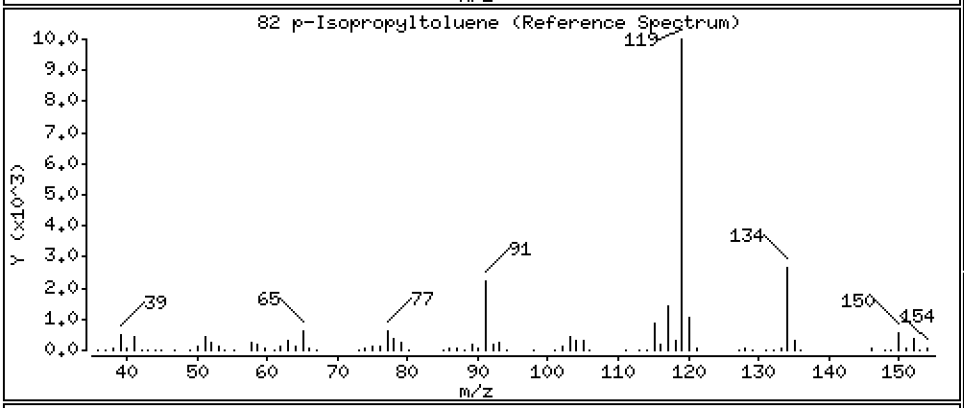
82 p-Isopropyltoluene Concentration: 0.62 ug/l Review Code:

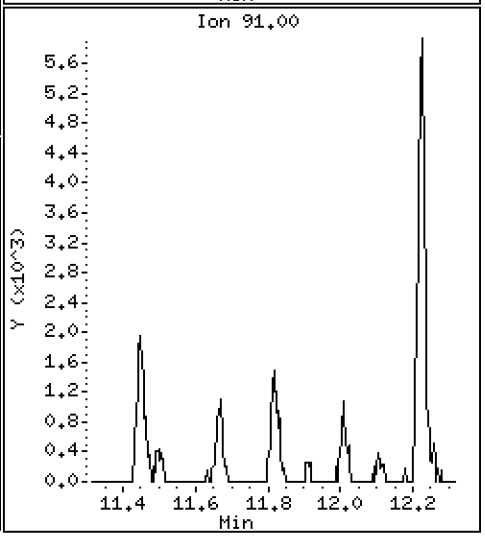


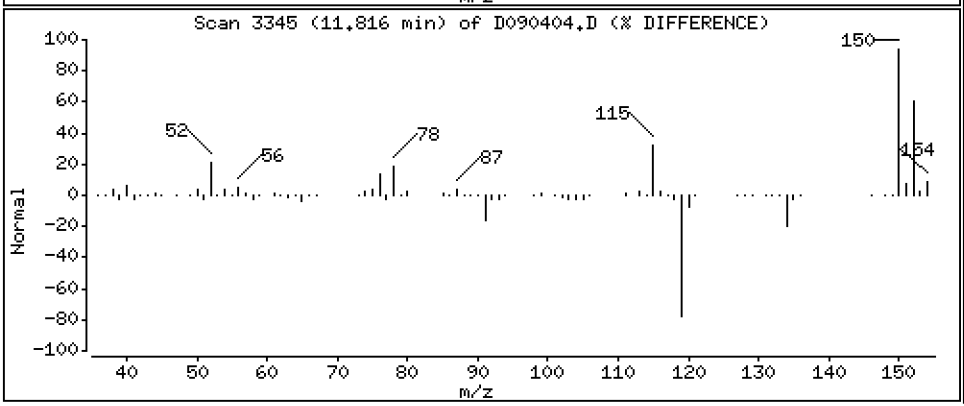












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090404.D Page 3

Date : 04-SEP-2018 11:56

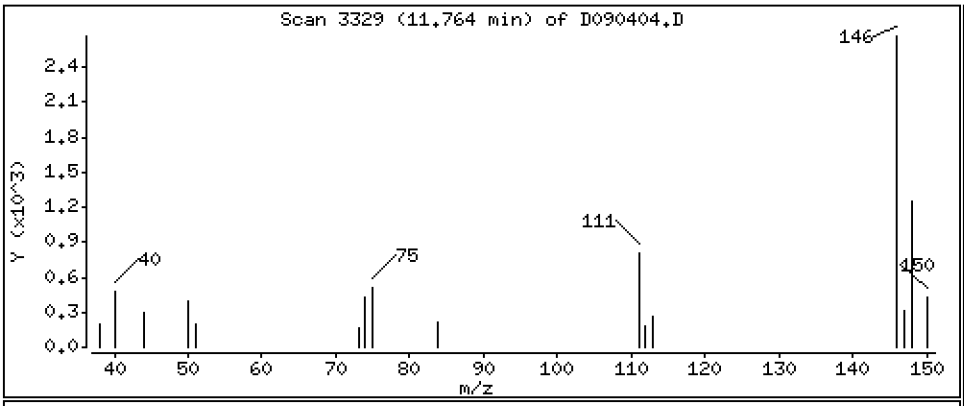
Client ID: CCB Instrument: VOA2.i

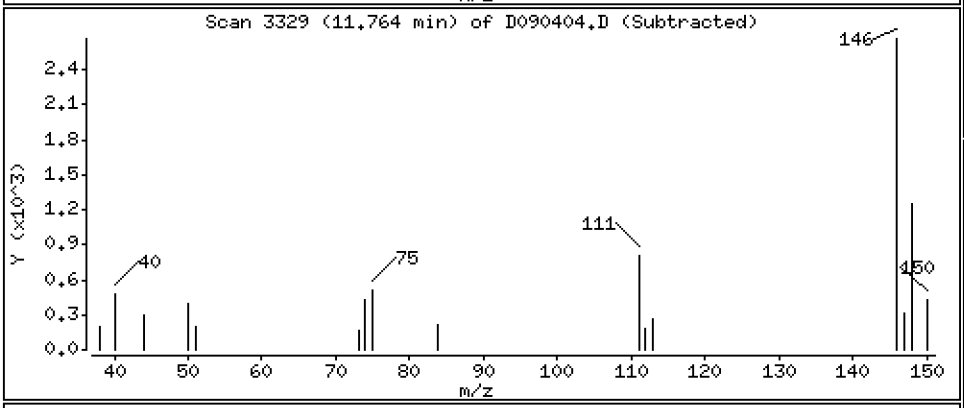
Sample Info: CCB;CCB;;;

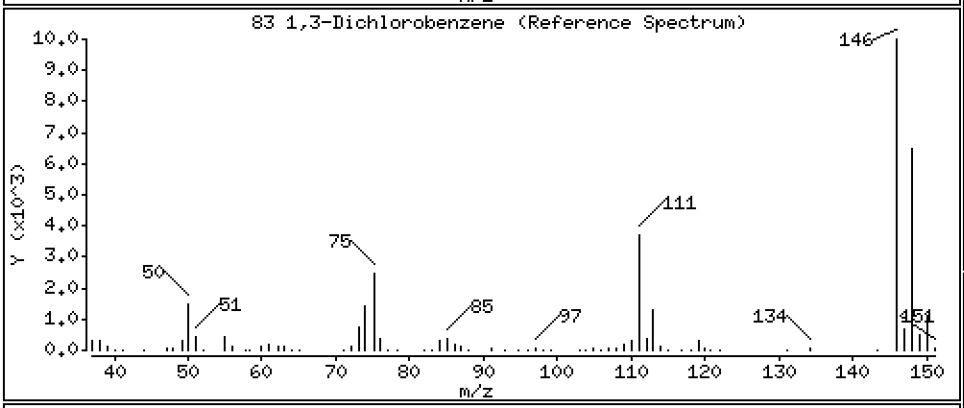
Purge Volume: 5.0 Operator: AP

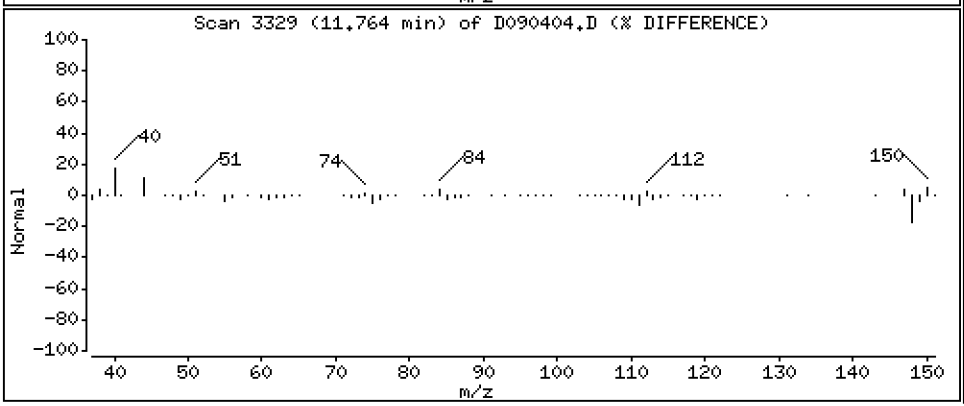
Column phase: DB624 Column diameter: 0.18

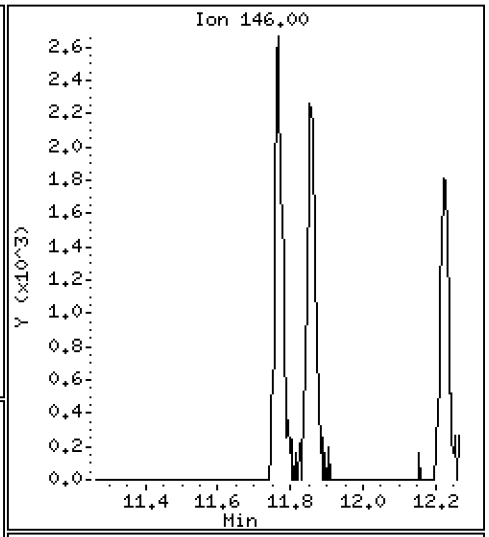
83 1,3-Dichlorobenzene Concentration: 0.61 ug/l Review Code:

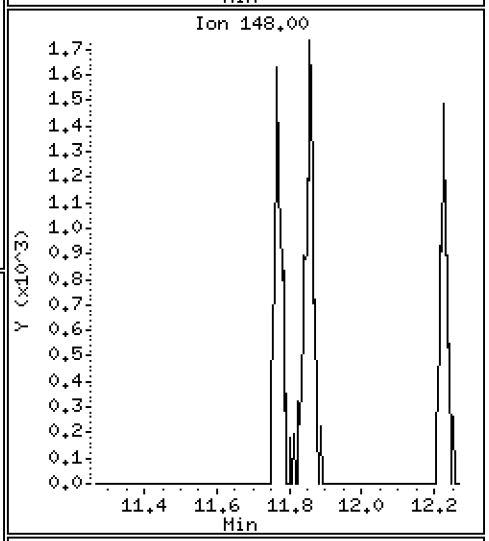


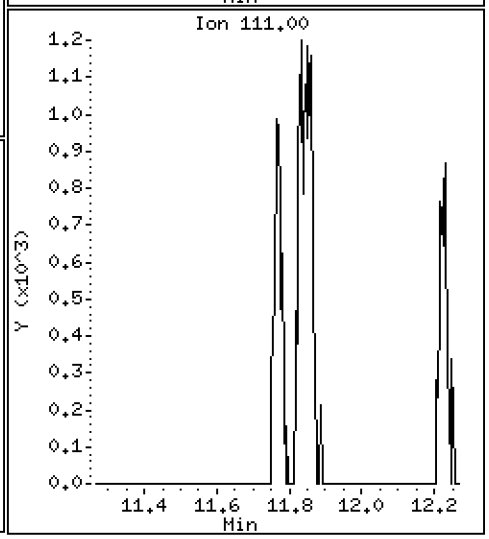












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090404.D Page 4

Date : 04-SEP-2018 11:56

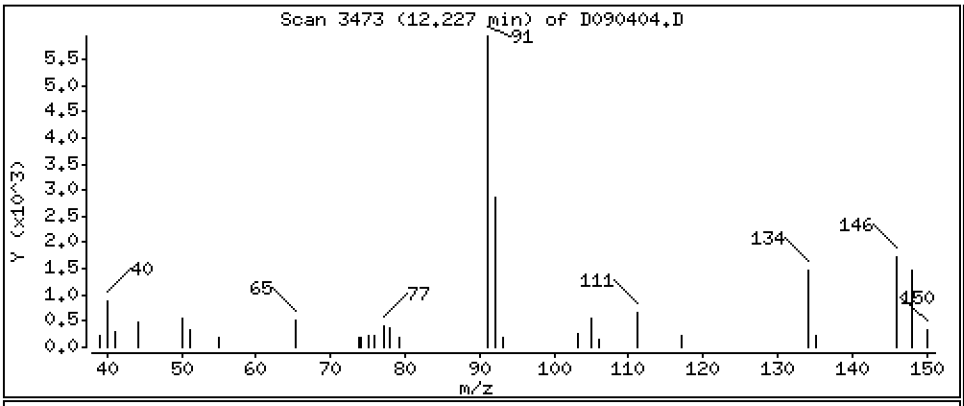
Client ID: CCB Instrument: VOA2.i

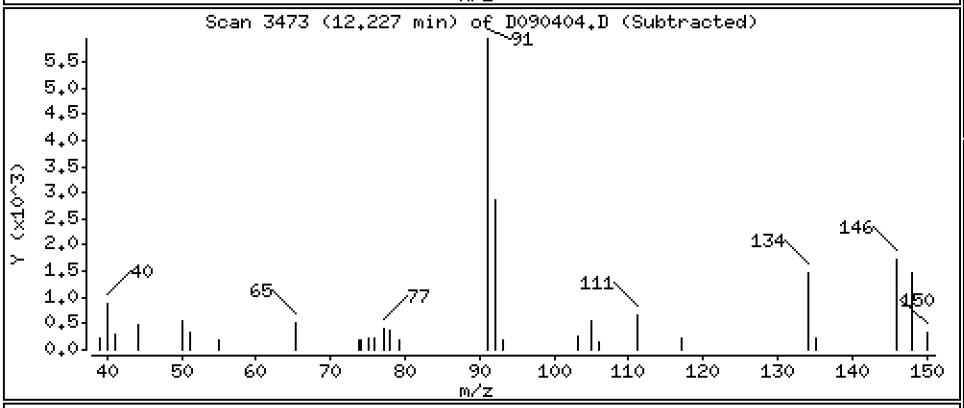
Sample Info: CCB;CCB;;;

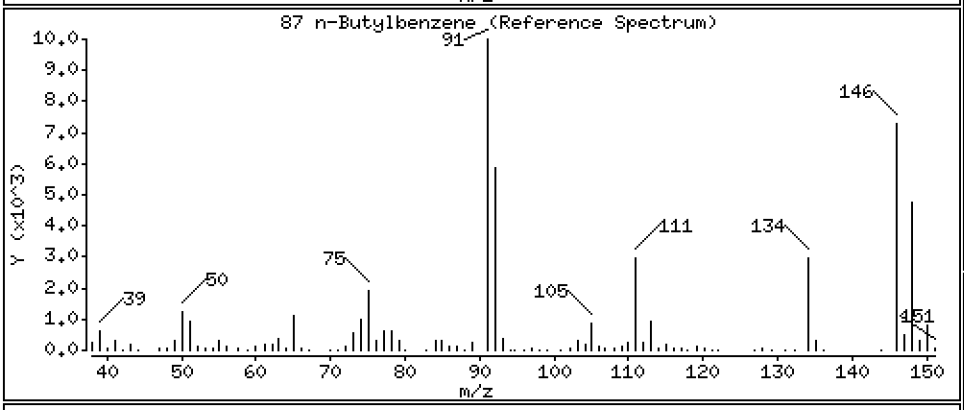
Purge Volume: 5.0 Operator: AP

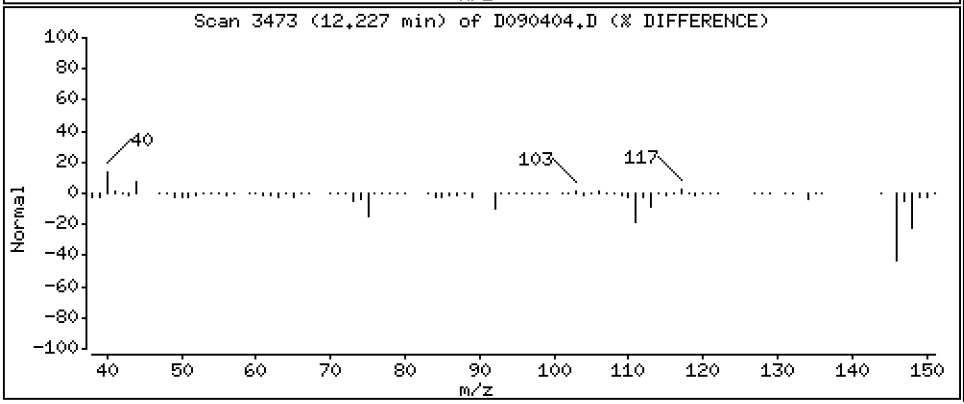
Column phase: DB624 Column diameter: 0.18

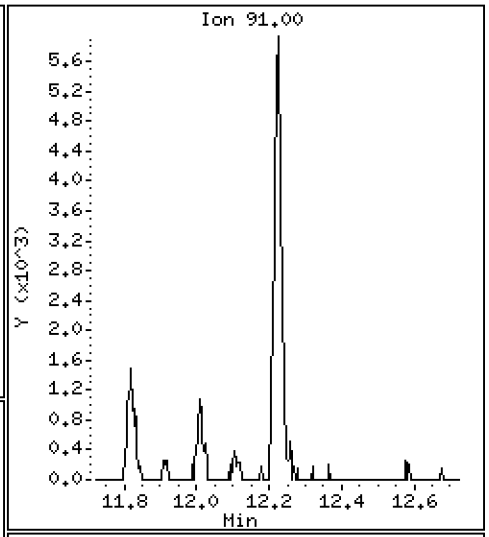
87 n-Butylbenzene Concentration: 0.99 ug/l Review Code:

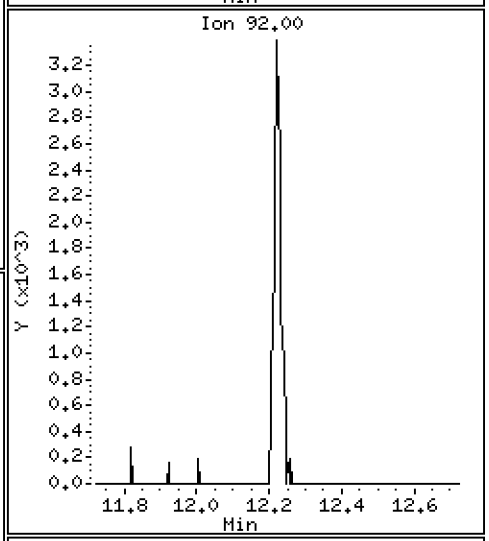


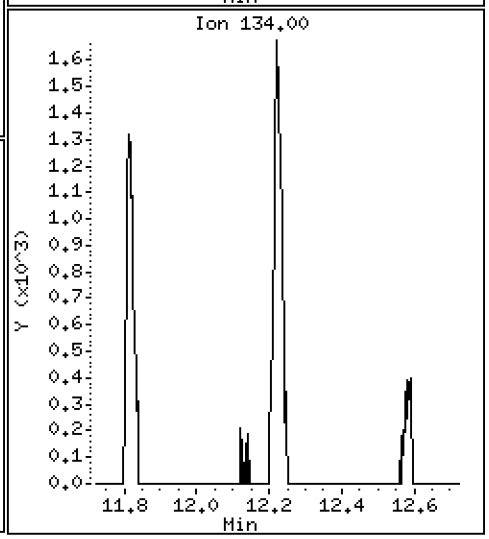












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090404.D Page 5

Date : 04-SEP-2018 11:56

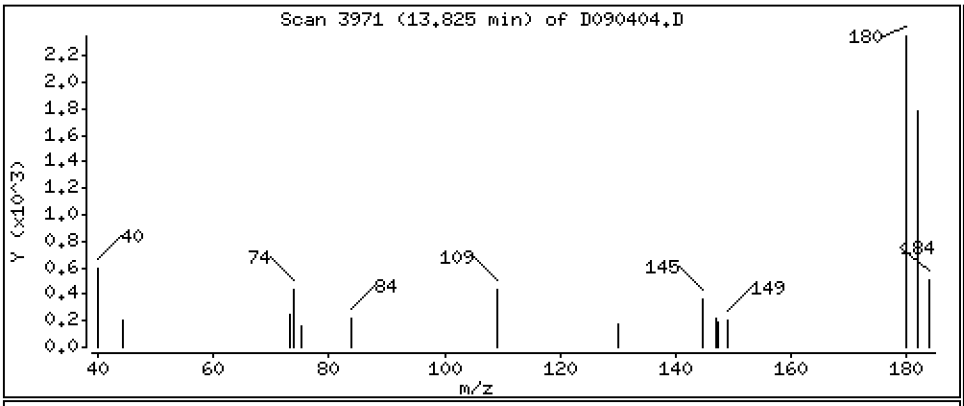
Client ID: CCB Instrument: VOA2.i

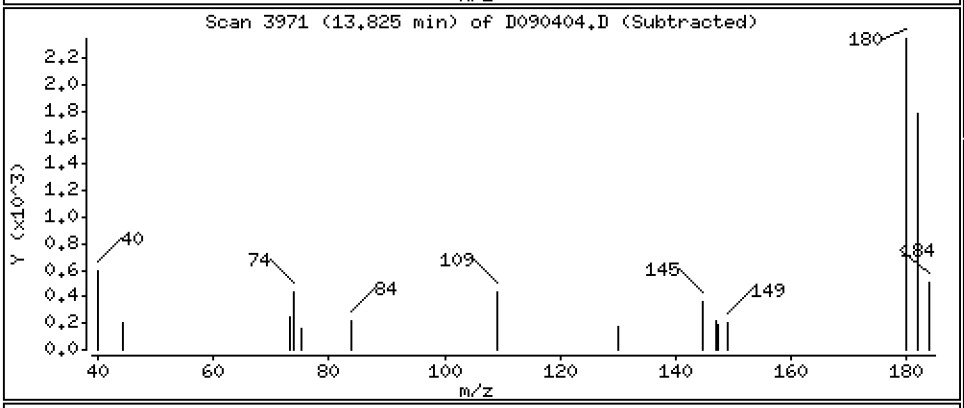
Sample Info: CCB;CCB;;;

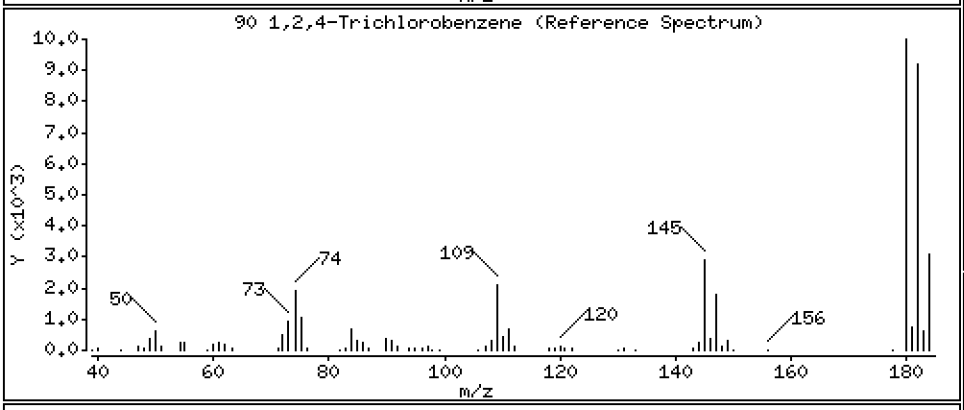
Purge Volume: 5.0 Operator: AP

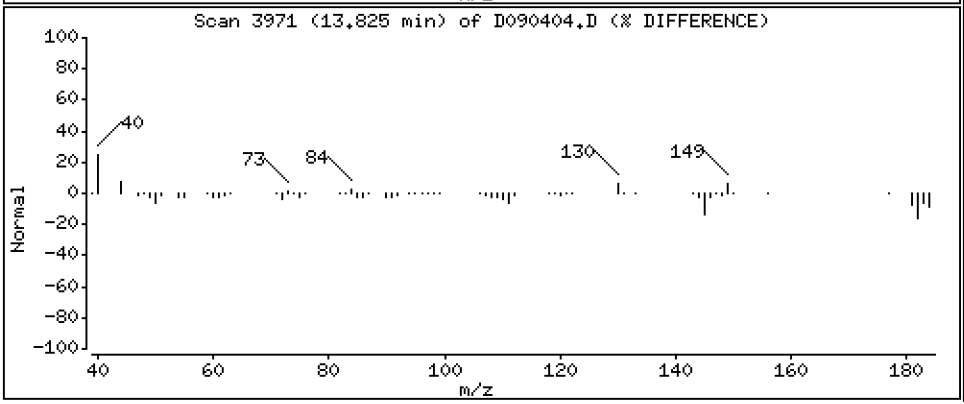
Column phase: DB624 Column diameter: 0.18

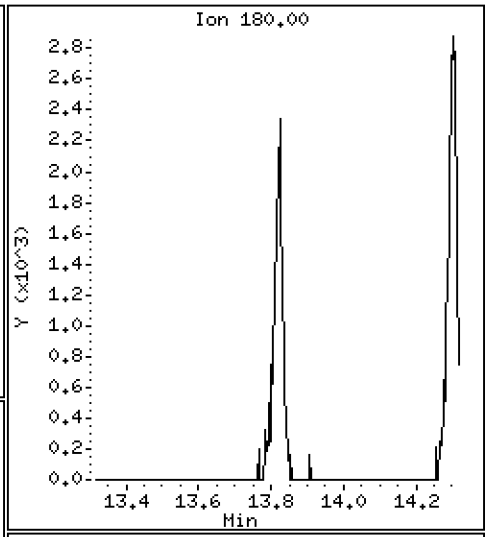
90 1,2,4-Trichlorobenzene Concentration: 0.85 ug/l Review Code:

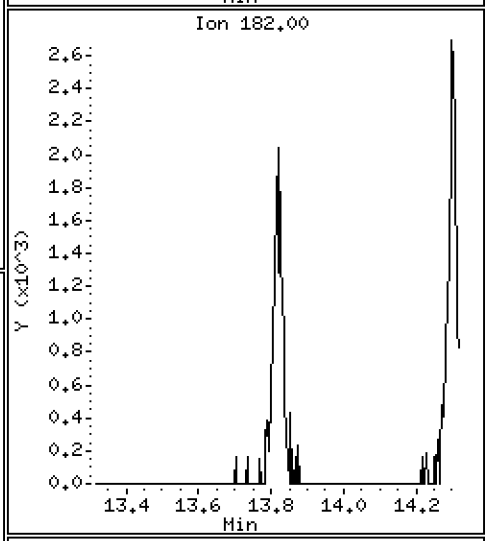


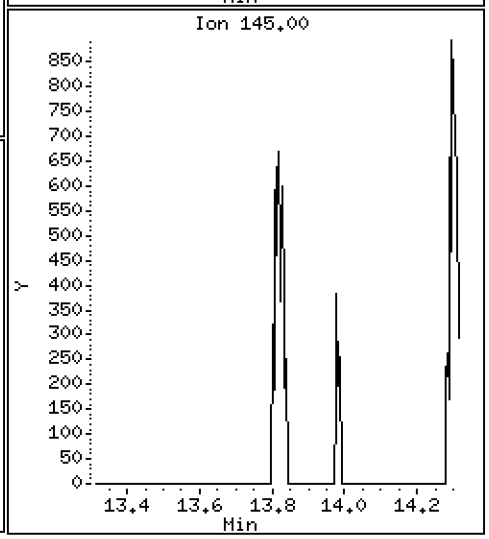












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090404.D Page 6

Date : 04-SEP-2018 11:56

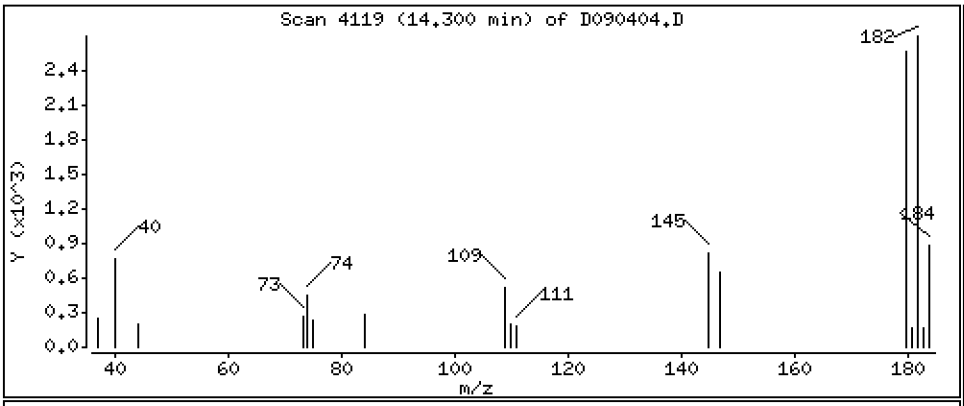
Client ID: CCB Instrument: VOA2.i

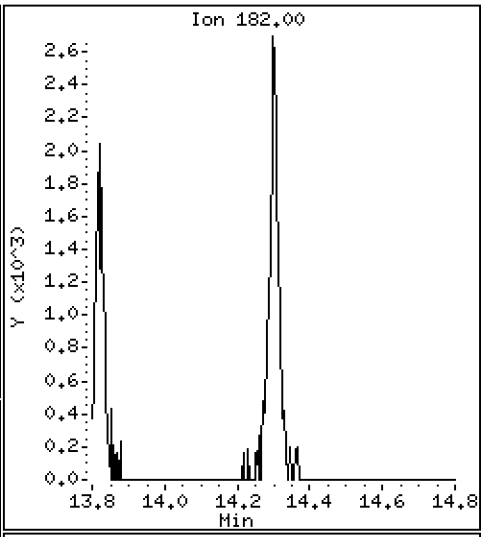
Sample Info: CCB;CCB;;;

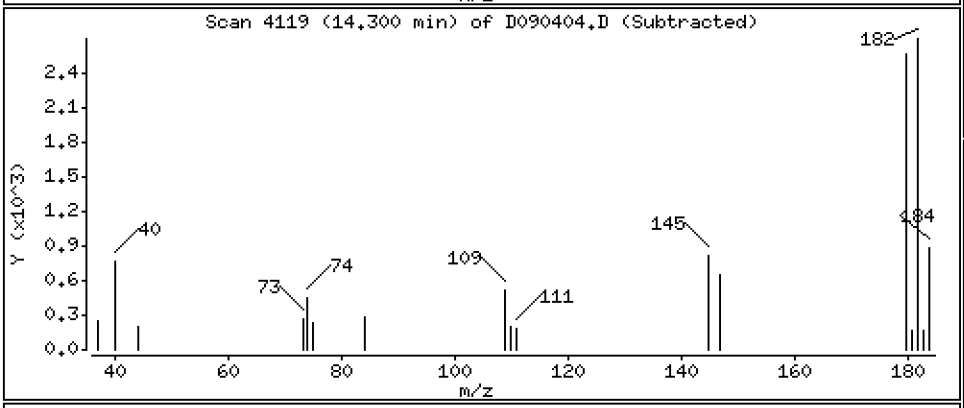
Purge Volume: 5.0 Operator: AP

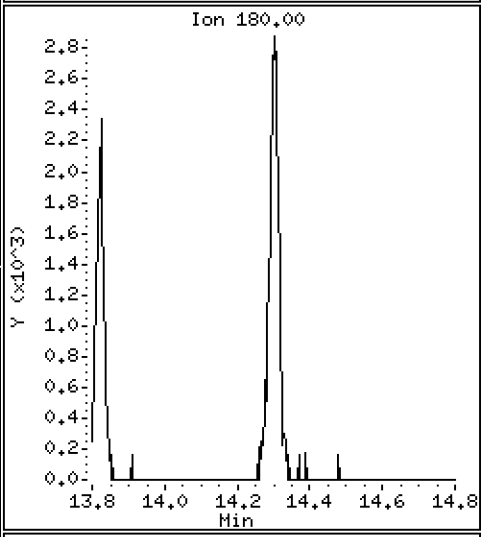
Column phase: DB624 Column diameter: 0.18

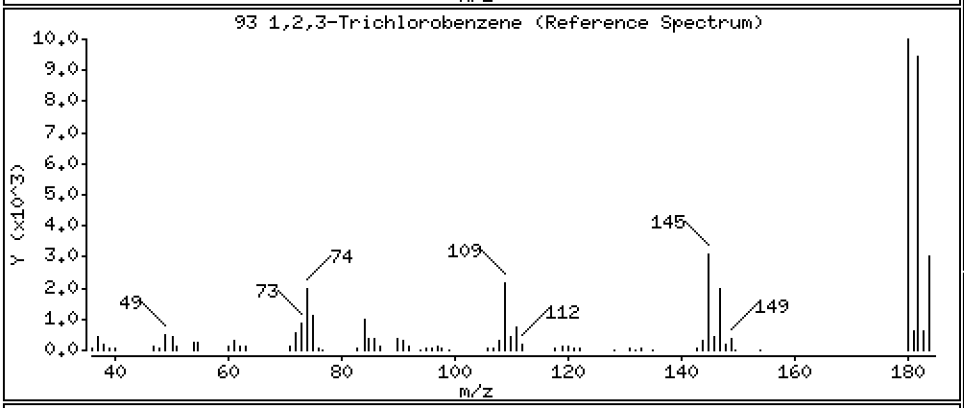
93 1,2,3-Trichlorobenzene Concentration: 1.25 ug/l Review Code:

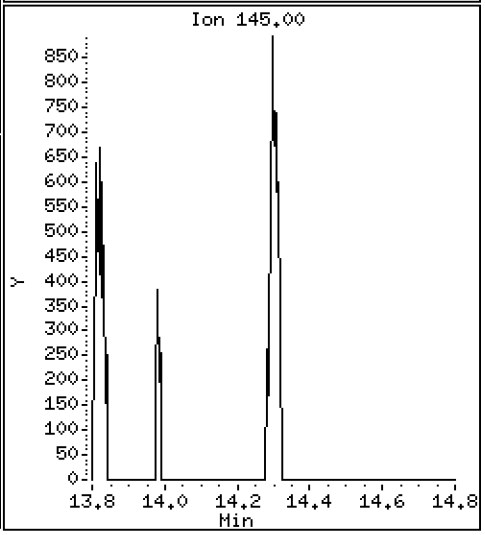


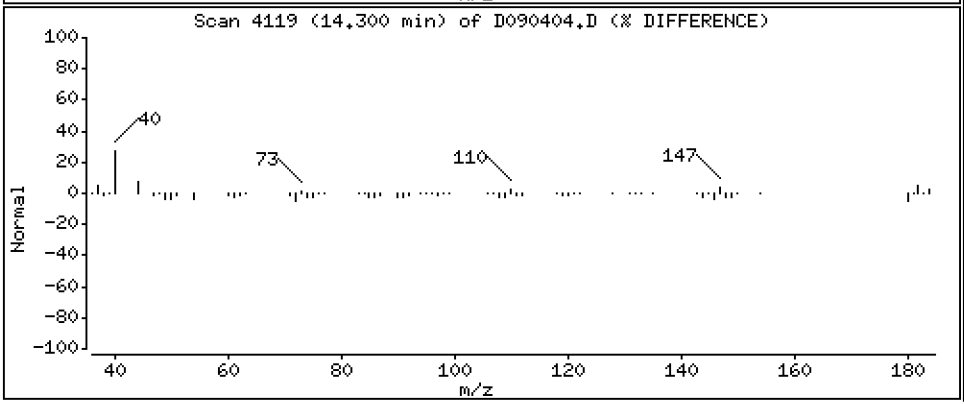












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090404.D Page 7

Date : 04-SEP-2018 11:56

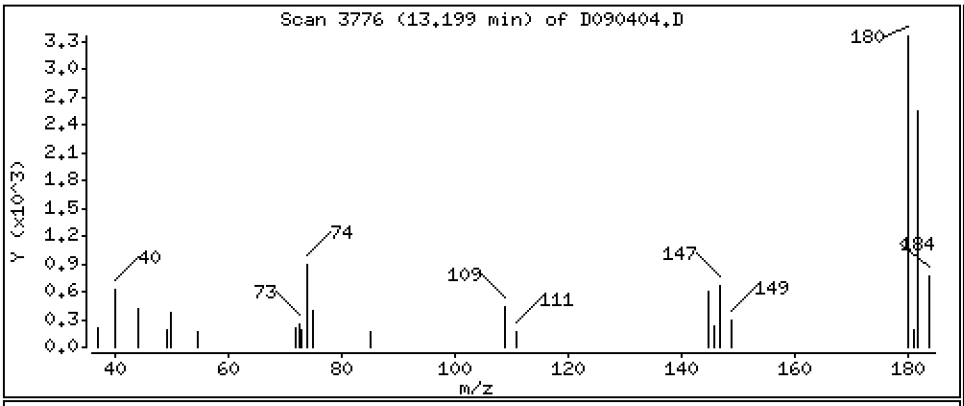
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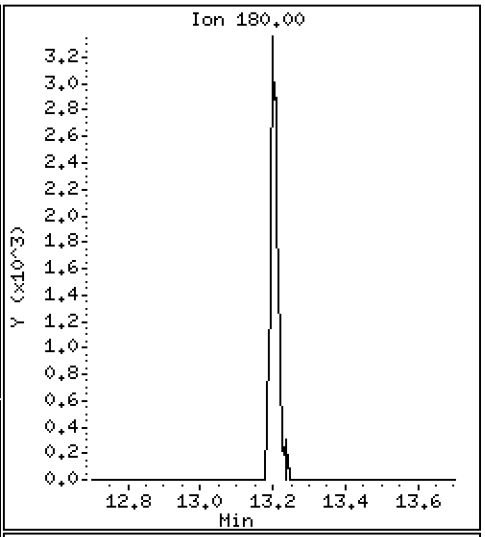
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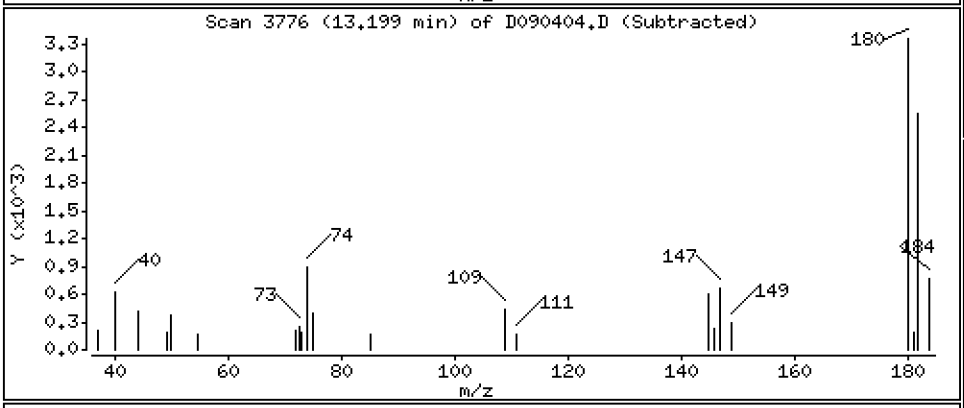
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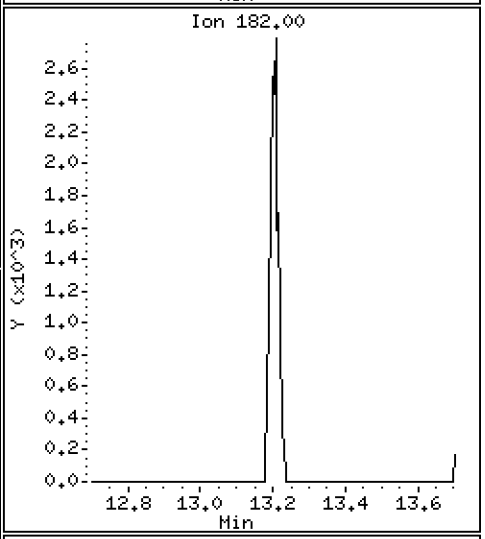
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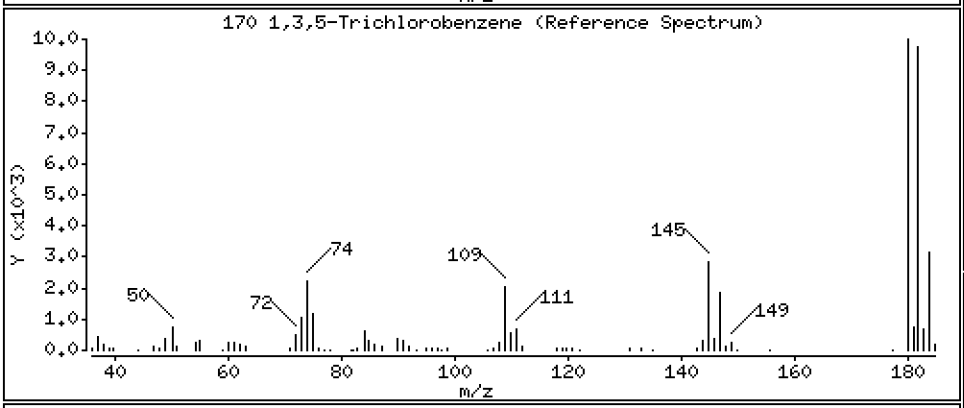
170 1,3,5-Trichlorobenzene Concentration: 1.15 ug/l Review Code:

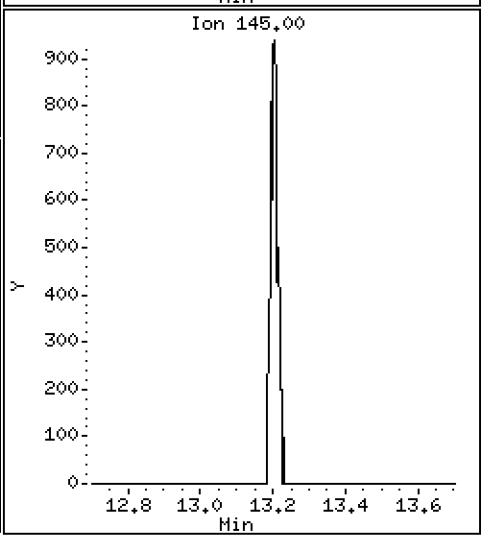


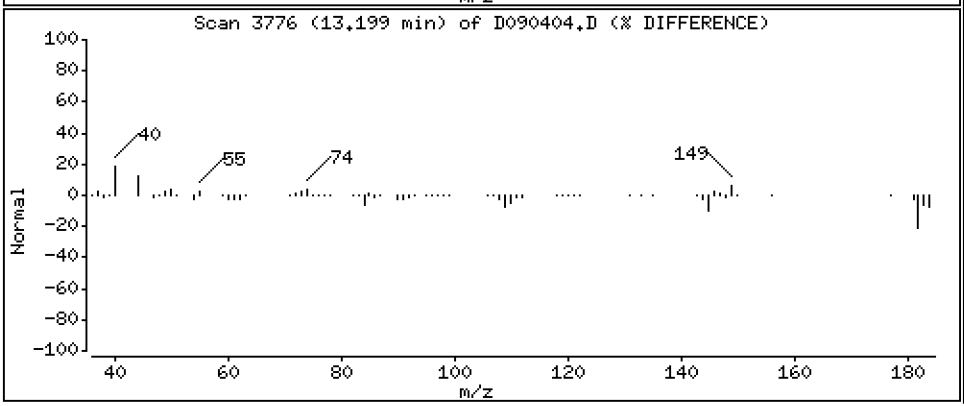












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090404.D Page 8

Date : 04-SEP-2018 11:56

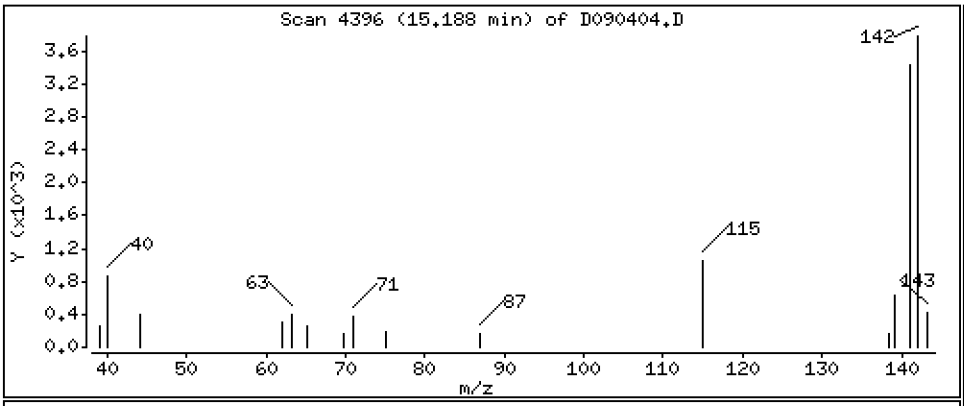
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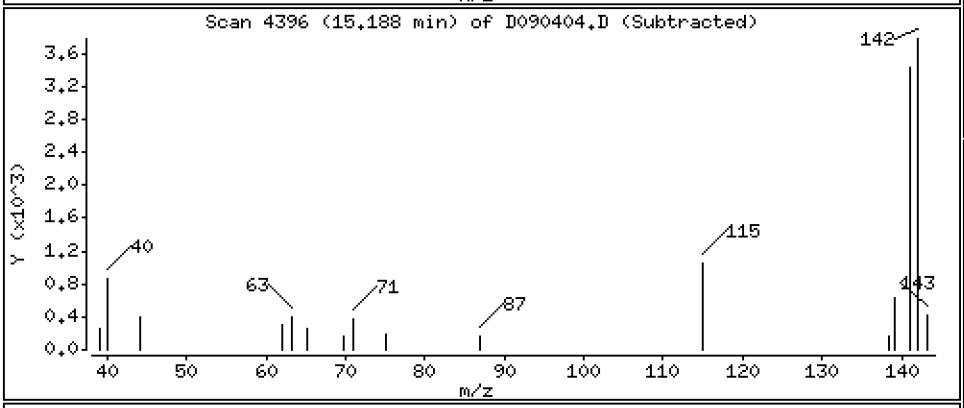
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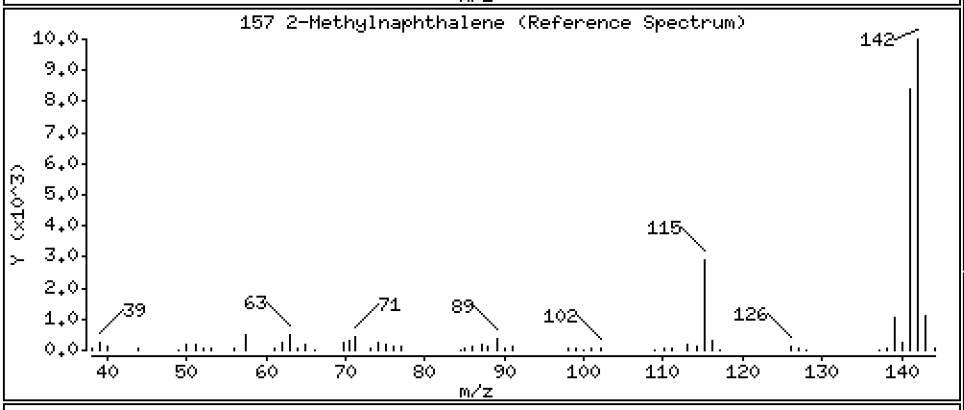
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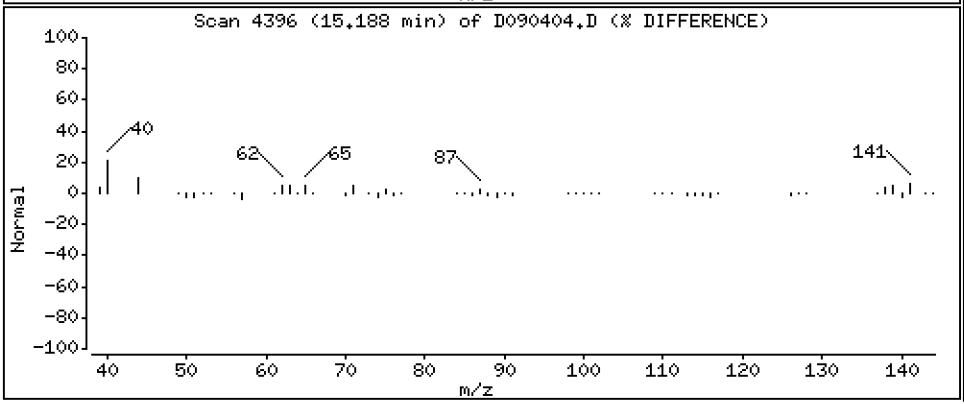
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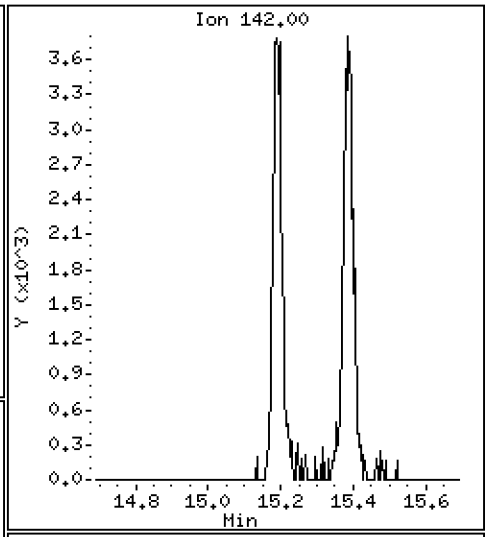
157 2-Methylnaphthalene Concentration: 7.52 ug/l Review Code:

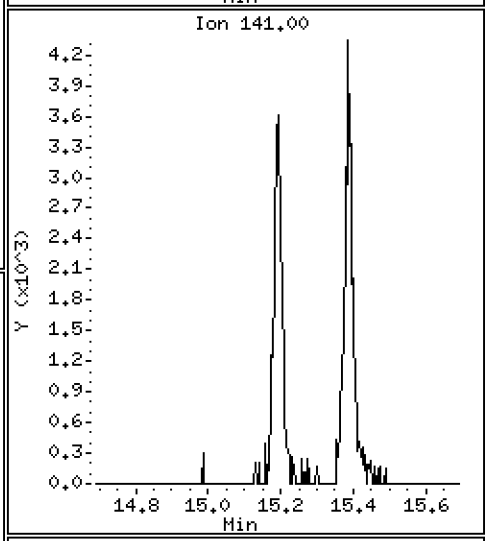


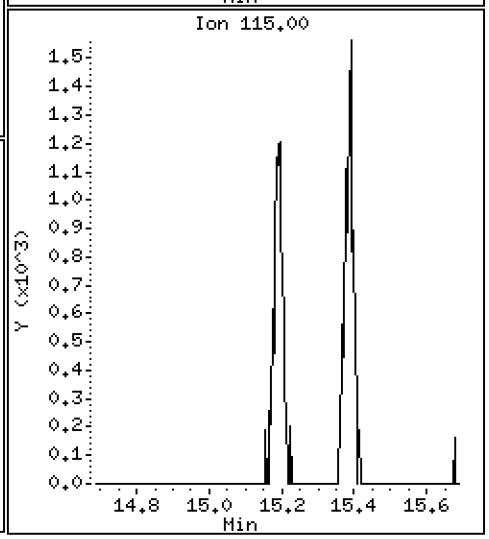












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090404.D Page 9

Date : 04-SEP-2018 11:56

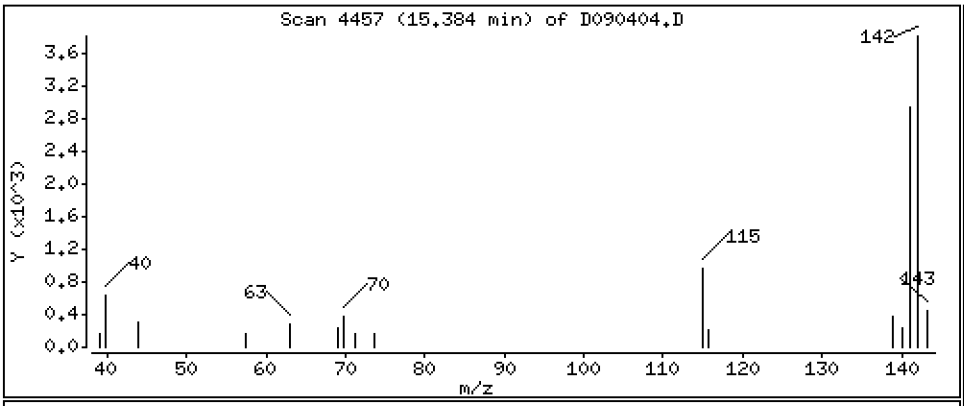
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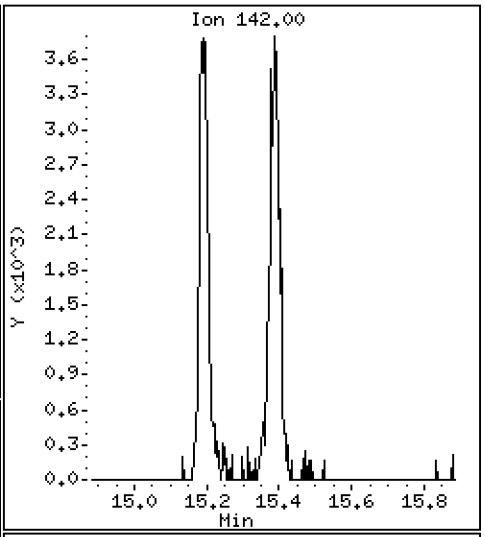
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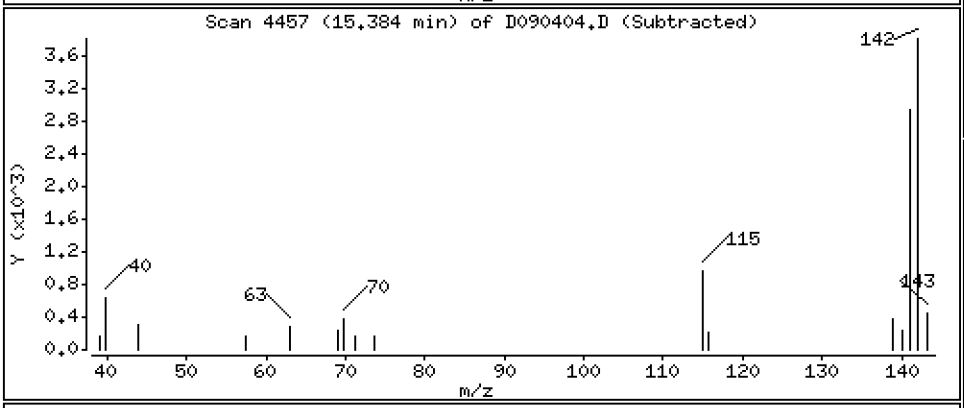
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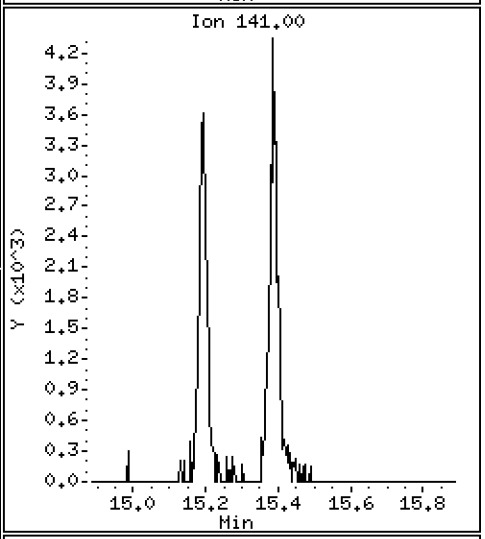
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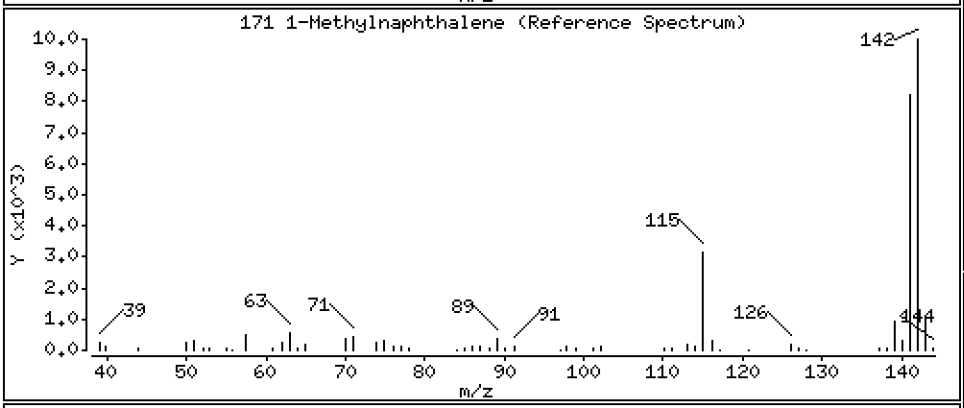
171 1-Methylnaphthalene Concentration: 7.02 ug/l Review Code:

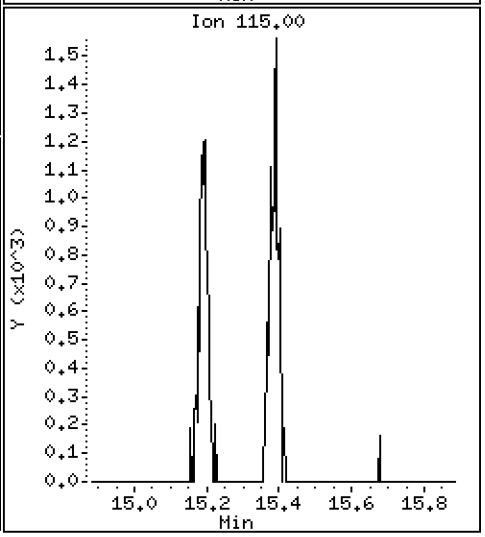


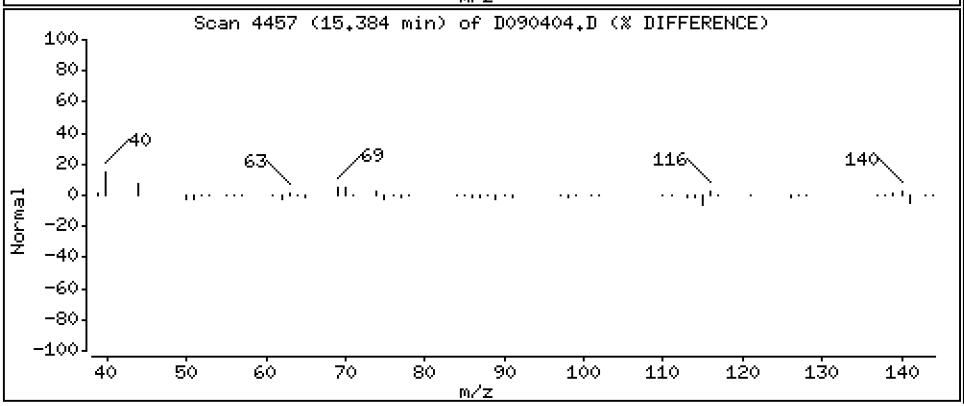












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 1
Report Date: 17-Sep-2018 12:34

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D
Lab Smp Id: VLCSW-180904 Client Smp ID: VLCSW-180904
Inj Date : 04-SEP-2018 12:21
Operator : AP Inst ID: VOA2.i
Smp Info : VLCSW-180904;VLCSW-180904;3;;LCS
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\nahstws003\Target\chem\voa2.i\D180904.b\8260LL.m
Meth Date : 05-Sep-2018 10:47 VOA2.i Quant Type: ISTD
Cal Date : 03-AUG-2018 02:04 Cal File: E080211.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.786	5.782	(1.000)	242929	50.0000	
2	Dichlorodifluoromethane	85	1.466	1.460	(0.254)	52025	21.7539	21.75
186	Isobutylene	56	1.675	1.669	(0.290)	82537	19.1235	19.12(AM)
3	Chloromethane	50	1.617	1.611	(0.280)	102951	17.1750	17.17
4	Propionitrile	54	5.240	5.240	(0.906)	226924	206.647	206.64
5	Vinyl Chloride	62	1.701	1.698	(0.294)	79708	19.8830	19.88
6	Bromomethane	94	1.961	1.954	(0.339)	45974	20.8955	20.89
7	Chloroethane	64	2.054	2.050	(0.355)	42388	16.5515	16.55
159	Dichlorofluoromethane	67	2.249	2.243	(0.389)	100822	16.9511	16.95
8	Trichlorofluoromethane	101	2.272	2.272	(0.393)	75285	19.2209	19.22
9	Acrolein	56	2.705	2.695	(0.468)	22928	29.3071	29.30
10	Acetone	43	2.872	2.866	(0.496)	38226	33.4000	33.40
11	1,1-Dichloroethene	96	2.763	2.769	(0.478)	53248	18.5469	18.54
12	Isobutyl Alcohol	74	6.168	6.158	(1.066)	5743	355.433	355.43(A)
13	Acetonitrile	39	3.183	3.186	(0.550)	64769	183.492	183.49
14	Allyl Chloride	41	3.199	3.196	(0.553)	177840	18.0311	18.03
15	Iodomethane	142	2.927	2.920	(0.506)	76322	30.0454	30.04
16	Acrylonitrile	53	3.710	3.700	(0.641)	55327	36.8358	36.83
17	Methylene Chloride	84	3.353	3.344	(0.580)	67079	19.7061	19.70
18	Methyl tert-butyl ether	73	3.703	3.697	(0.640)	164646	18.8389	18.83
19	Carbon Disulfide	76	2.968	2.971	(0.513)	198890	36.7161	36.71
20	trans-1,2-Dichloroethene	96	3.684	3.677	(0.637)	59209	19.9998	19.99

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 2
Report Date: 17-Sep-2018 12:34

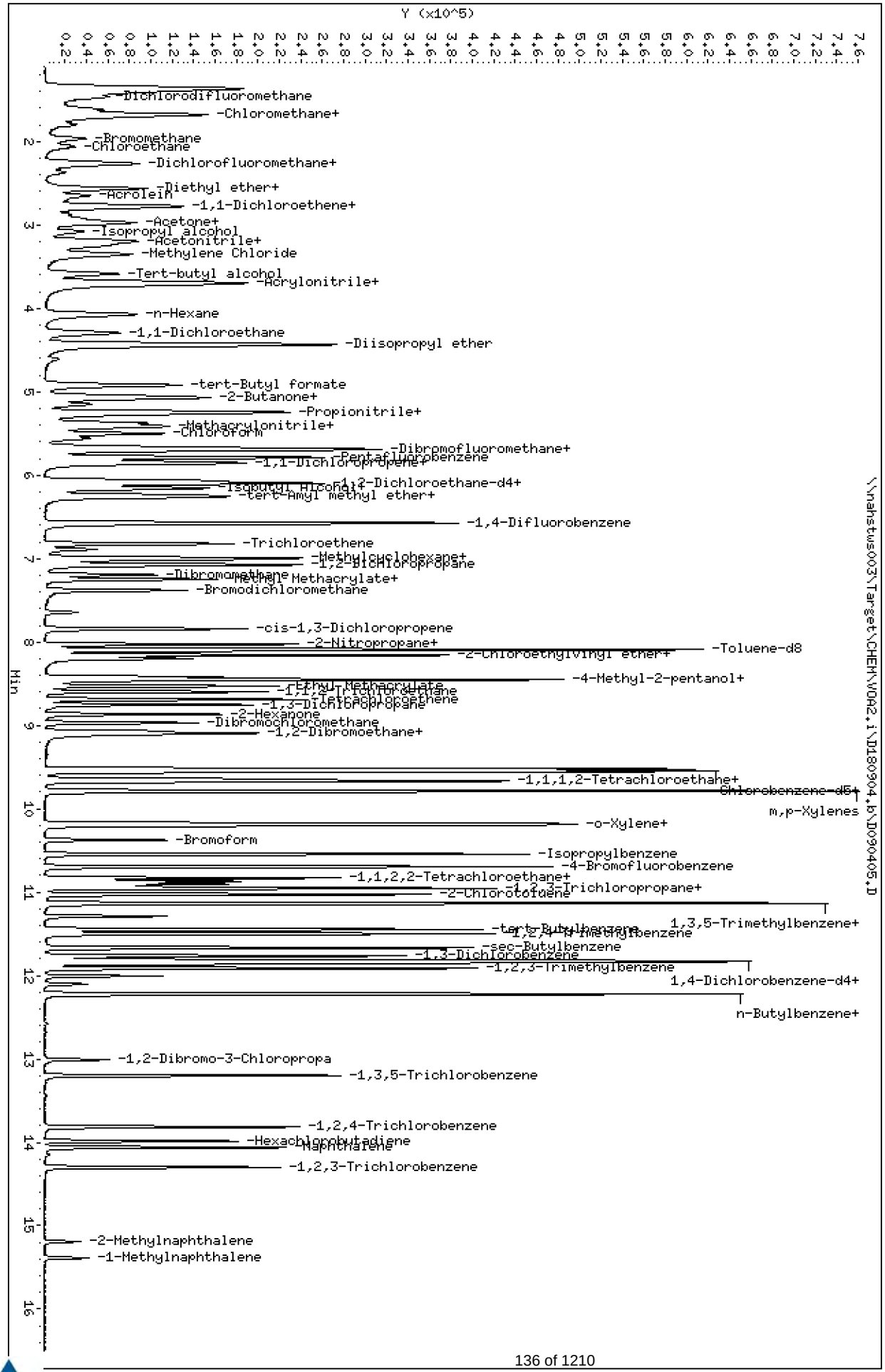
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	21 Vinyl Acetate	43	5.247	5.247	(0.907)	146127	36.6042	36.60(M)
	22 1,1-Dichloroethane	63	4.297	4.290	(0.743)	129741	19.1070	19.10
	24 2-Butanone	43	5.147	5.141	(0.890)	66605	39.9286	39.92
	25 Methacrylonitrile	41	5.410	5.410	(0.935)	72956	19.9826	19.98
	26 2,2-Dichloropropane	77	5.051	5.051	(0.873)	86307	23.3545	23.35
	27 cis-1,2-Dichloroethene	96	5.073	5.073	(0.877)	72327	20.2498	20.24
	28 Chloroform	83	5.503	5.500	(0.951)	110493	19.4133	19.41
	29 Bromochloromethane	128	5.375	5.369	(0.929)	34722	20.8660	20.86
$	30 Dibromofluoromethane	113	5.693	5.689	(0.984)	102593	47.2376	47.23
	31 1,1,1-Trichloroethane	97	5.657	5.654	(0.978)	91512	19.0615	19.06
	32 1,1-Dichloropropene	75	5.859	5.859	(0.891)	78612	22.7335	22.73
	33 1,2-Dichloroethane	62	6.148	6.148	(0.935)	82879	20.9650	20.96
	34 Carbon Tetrachloride	117	5.843	5.837	(0.889)	77352	21.3764	21.37
$	35 1,2-Dichloroethane-d4	65	6.062	6.058	(1.048)	111622	45.0458	45.04
*	36 1,4-Difluorobenzene	114	6.575	6.575	(1.000)	362051	50.0000	
	37 Benzene	78	6.097	6.097	(0.927)	252140	20.3572	20.35
	38 Trichloroethene	130	6.822	6.819	(1.038)	69861	21.1279	21.12
	39 Bromodichloromethane	83	7.381	7.377	(1.122)	87739	21.0581	21.05
	40 Methyl Methacrylate	41	7.249	7.246	(1.253)	71671	19.3978	19.39
	41 2-Chloroethylvinyl ether	63	8.154	8.154	(1.240)	19573	38.9739	38.97
	42 1,2-Dichloropropane	63	7.066	7.069	(1.075)	74533	20.7390	20.73
	43 2-Nitropropane	43	8.029	8.029	(1.388)	157019	20.2092	20.20
	44 Dibromomethane	93	7.194	7.191	(1.094)	39783	22.3706	22.37
	45 4-Methyl-2-Pentanone	43	8.029	8.029	(0.843)	157019	41.9194	41.91
	46 cis-1,3-Dichloropropene	75	7.839	7.839	(1.192)	105812	22.6829	22.68
*	47 Chlorobenzene-d5	117	9.524	9.524	(1.000)	328886	50.0000	
$	48 Toluene-d8	98	8.093	8.093	(0.850)	402142	44.2316	44.23(M)
	49 Ethyl Methacrylate	69	8.529	8.529	(1.297)	95755	21.2816	21.28
	50 Toluene	91	8.157	8.157	(0.856)	260347	19.6223	19.62
	51 trans-1,3-Dichloropropene	75	8.420	8.417	(1.281)	84850	23.4667	23.46(M)
	52 2-Hexanone	43	8.866	8.866	(0.931)	99417	40.8943	40.89
	53 1,1,2-Trichloroethane	83	8.593	8.597	(0.902)	51499	20.3980	20.39
	54 1,3-Dichloropropane	76	8.754	8.754	(0.919)	104077	20.8509	20.85
	55 Dibromochloromethane	129	8.972	8.969	(0.942)	74899	21.2504	21.25
	56 Tetrachloroethene	164	8.687	8.690	(0.912)	57522	21.5012	21.50
	57 1,2-Dibromoethane	107	9.068	9.068	(0.952)	64521	21.2372	21.23
	58 1-Chlorohexane	55	9.553	9.550	(1.453)	63699	22.1324	22.13
	59 Chlorobenzene	112	9.550	9.553	(1.003)	171762	20.8730	20.87
	60 1,1,1,2-Tetrachloroethane	131	9.646	9.643	(1.013)	68153	21.0939	21.09
	61 Ethylbenzene	106	9.672	9.672	(1.015)	91563	22.2016	22.20
	62 m,p-Xylenes	106	9.790	9.790	(1.028)	223792	45.3470	45.34
	63 o-Xylene	106	10.175	10.179	(1.068)	117486	22.0877	22.08
	64 Styrene	104	10.195	10.198	(1.070)	187399	21.3455	21.34
	66 Bromoform	173	10.374	10.374	(1.089)	53842	21.8875	21.88
	67 Isopropylbenzene	105	10.544	10.544	(1.107)	292484	20.7005	20.70
	68 1,1,2,2-Tetrachloroethane	83	10.869	10.869	(0.919)	88613	18.9038	18.90
$	69 4-Bromofluorobenzene	95	10.695	10.695	(1.123)	148134	50.7821	50.78
*	70 1,4-Dichlorobenzene-d4	152	11.831	11.834	(1.000)	146940	50.0000	
	71 1,2,3-Trichloropropane	75	10.901	10.901	(0.921)	84071	19.1179	19.11
	72 trans-1,4-Dichloro-2-butene	53	10.926	10.926	(1.147)	16811	19.4079	19.40
	73 n-Propylbenzene	91	10.952	10.955	(0.926)	311322	21.3934	21.39
	74 Bromobenzene	156	10.833	10.833	(0.916)	78598	19.7939	19.79
	75 1,3,5-Trimethylbenzene	105	11.132	11.132	(0.941)	230981	19.2804	19.28
	76 2-Chlorotoluene	91	11.026	11.029	(0.932)	201199	20.9912	20.99

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 3
Report Date: 17-Sep-2018 12:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
77	4-Chlorotoluene	91	11.138	11.138	(0.941)	215017	20.9919	20.99
78	tert-Butylbenzene	119	11.449	11.449	(0.968)	200179	21.3643	21.36
79	1,2,4-Trimethylbenzene	105	11.498	11.498	(0.972)	228619	20.7472	20.74
81	sec-Butylbenzene	105	11.668	11.668	(0.986)	276441	18.8669	18.86
82	p-Isopropyltoluene	119	11.815	11.815	(0.999)	231174	19.0705	19.07
83	1,3-Dichlorobenzene	146	11.764	11.764	(0.994)	136065	19.9250	19.92
84	1,4-Dichlorobenzene	146	11.857	11.857	(1.002)	128227	20.1082	20.10
87	n-Butylbenzene	91	12.223	12.223	(1.033)	176550	19.6866	19.68
88	1,2-Dichlorobenzene	146	12.223	12.223	(1.033)	135018	20.0441	20.04
89	1,2-Dibromo-3-Chloropropane	75	13.006	13.009	(1.099)	13360	18.2018	18.20
90	1,2,4-Trichlorobenzene	180	13.818	13.818	(1.168)	78310	20.8227	20.82
91	Hexachlorobutadiene	225	13.988	13.988	(1.182)	37316	20.9092	20.90
92	Naphthalene	128	14.061	14.061	(1.188)	181371	19.5358	19.53
93	1,2,3-Trichlorobenzene	182	14.299	14.299	(1.209)	67399	20.2320	20.23
146	Methyl acetate	43	3.251	3.244	(0.562)	69443	17.9448	17.94
138	Freon TF	101	2.792	2.776	(0.483)	45943	19.0225	19.02
139	Diethyl ether	59	2.561	2.554	(0.443)	95467	16.3413	16.34
147	Methylcyclohexane	83	6.992	6.989	(1.063)	95183	23.4091	23.40
135	1,4-Dioxane	88	7.246	7.239	(1.252)	12787	371.730	371.72
132	n-Butanol	56	6.995	6.995	(1.209)	40890	358.483	358.48
131	Methyl Acrylate	55	5.272	5.269	(0.911)	109529	19.1139	19.11
133	Ethyl Acrylate	55	7.008	7.008	(1.211)	199173	19.1087	19.10
136	n-Hexane	57	4.075	4.069	(0.704)	85064	21.6644	21.66
141	Cyclohexane	56	5.699	5.689	(0.985)	111618	18.2330	18.23
142	Tetrahydrofuran	42	5.426	5.420	(0.938)	47312	35.5597	35.55
148	Tert-butyl alcohol	59	3.584	3.575	(0.620)	150801	405.196	405.19
149	Isopropyl alcohol	45	3.084	3.071	(0.533)	79527	336.375	336.37
151	4-Methyl-2-pentanol	45	8.449	8.452	(0.887)	357881	458.584	458.58
166	1,2,3-Trimethylbenzene	105	11.911	11.915	(1.007)	221842	21.2177	21.21
167	Ethanol	45	2.561	2.557	(0.443)	92029	308.076	308.07
170	1,3,5-Trichlorobenzene	180	13.201	13.201	(1.116)	93087	21.2368	21.23
172	tert-Butyl formate	59	4.919	4.916	(0.850)	171034	40.0824	40.08
173	3,3-Dimethyl-1-butanol	57	9.097	9.094	(0.955)	129027	446.528	446.52
174	tert-Amyl methyl ether	73	6.264	6.261	(1.083)	167250	20.2483	20.24
175	tert-Butyl ethyl ether	59	6.235	6.235	(1.078)	88594	19.7775	19.77
176	tert-Amyl alcohol	59	6.235	6.235	(1.078)	88594	395.551	395.55
157	2-Methylnaphthalene	142	15.191	15.191	(1.284)	17056	10.2902	10.29
156	Diisopropyl ether	45	4.435	4.428	(0.767)	254054	19.5773	19.57
171	1-Methylnaphthalene	142	15.384	15.384	(1.300)	22116	10.7919	10.79
130	Ethyl Acetate	43	5.247	5.247	(0.907)	149419	18.8272	18.82
M 94	1,2-Dichloroethylene (total)	96				131536	40.2496	40.24
M 95	Xylenes (total)	106				341278	67.4347	67.43

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D
Date : 04-SEP-2018 12:21
Client ID: VLCSW-180904
Sample Info: VLCSW-180904;VLCSW-180904;3;LCS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

\\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 2

Date : 04-SEP-2018 12:21

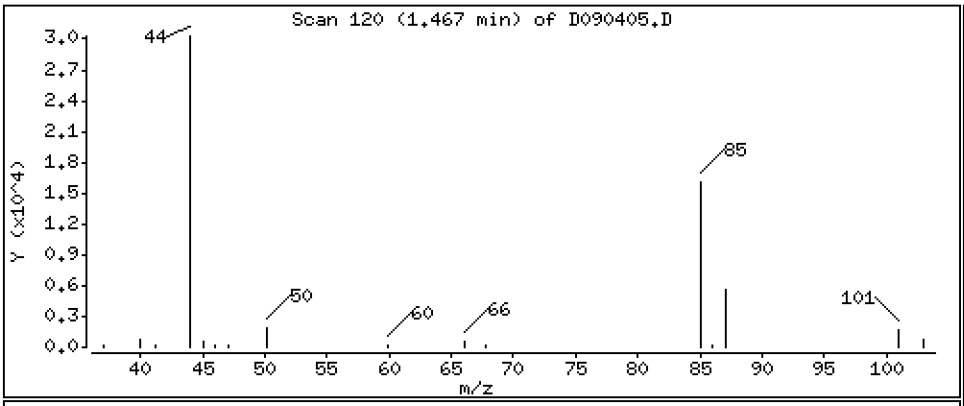
Client ID: VLCSW-180904 Instrument: VOA2.i

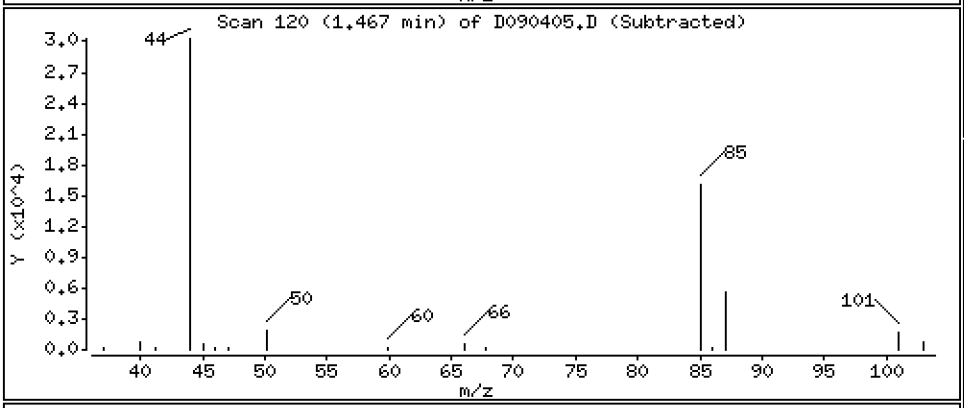
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

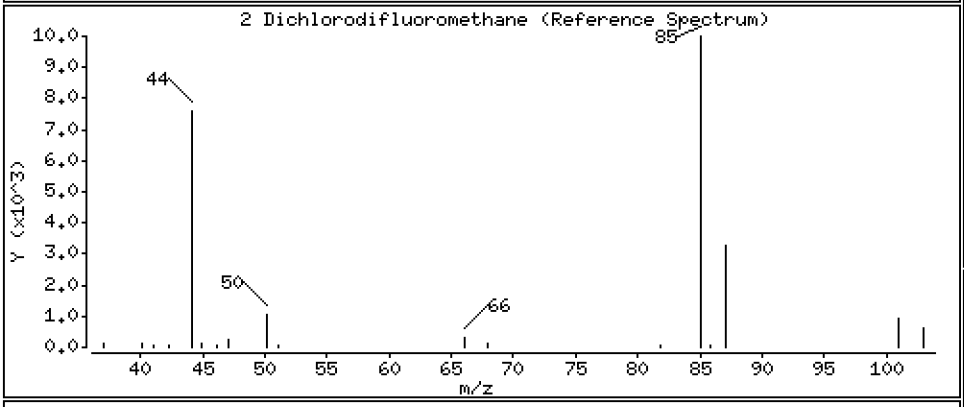
Purge Volume: 5.0 Operator: AP

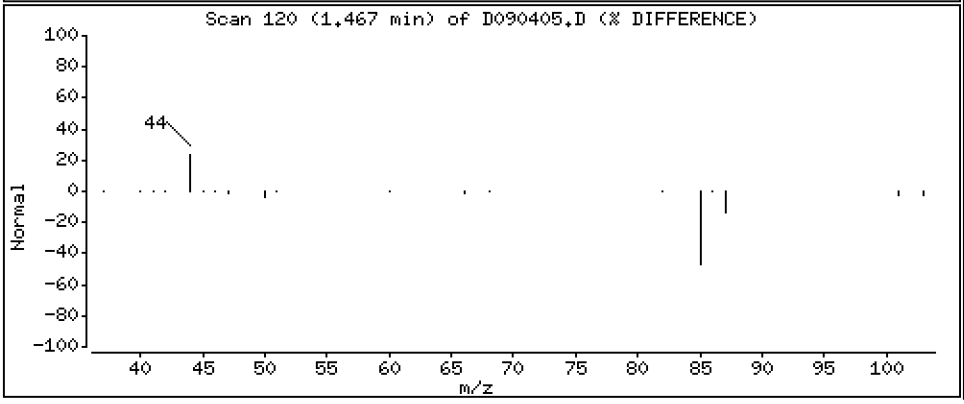
Column phase: DB624 Column diameter: 0.18

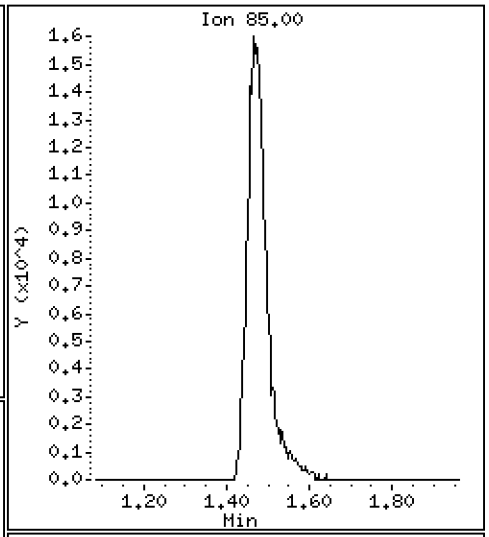
2 Dichlorodifluoromethane Concentration: 21.75 ug/l Review Code:

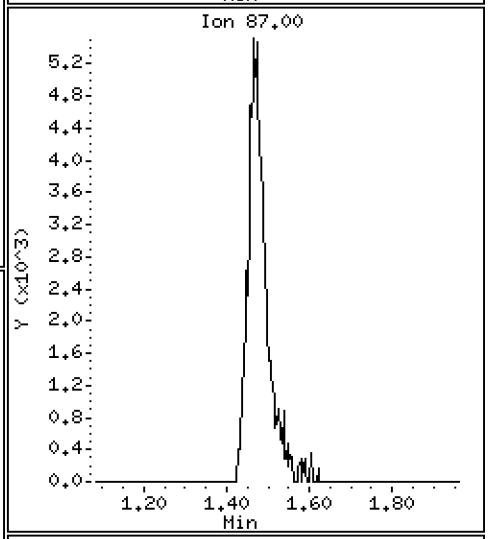


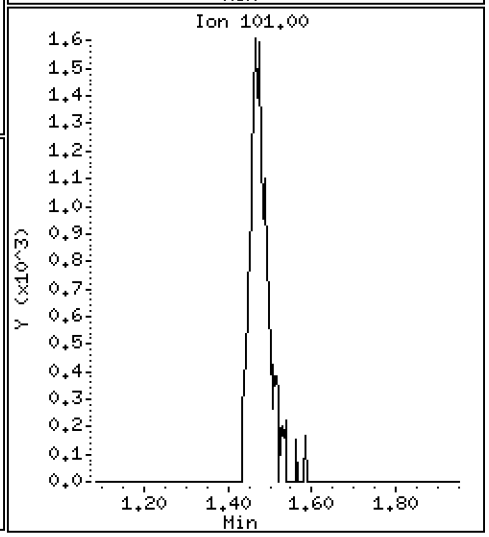












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 3

Date : 04-SEP-2018 12:21

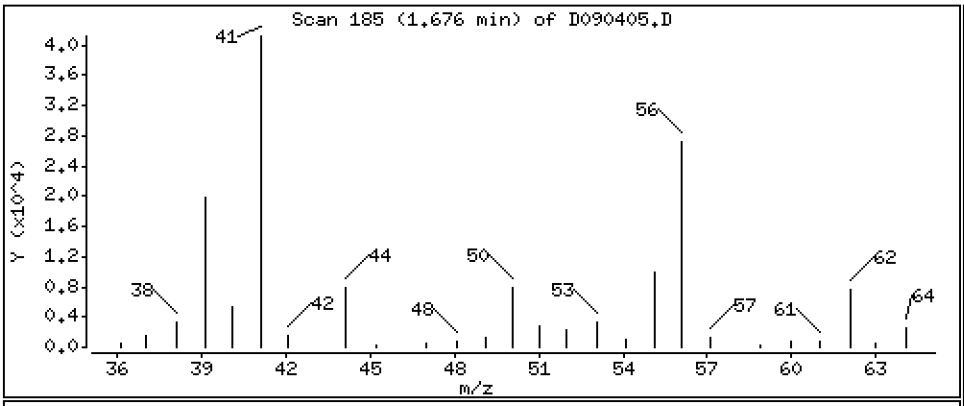
Client ID: VLCSW-180904 Instrument: VOA2.i

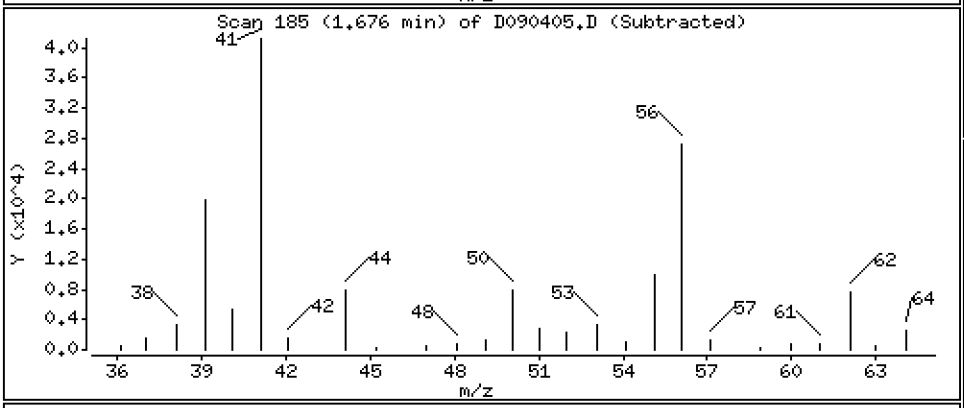
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

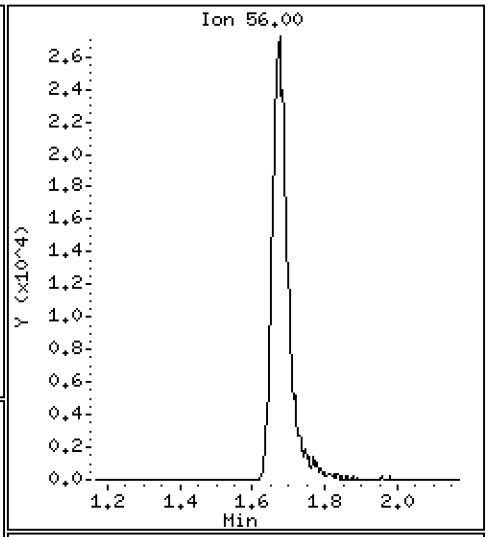
Purge Volume: 5.0 Operator: AP

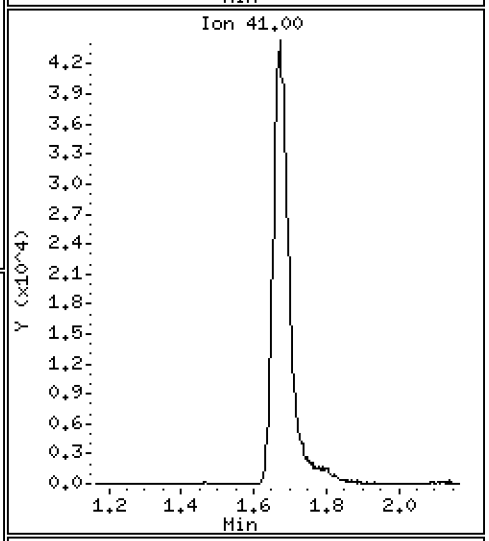
Column phase: DB624 Column diameter: 0.18

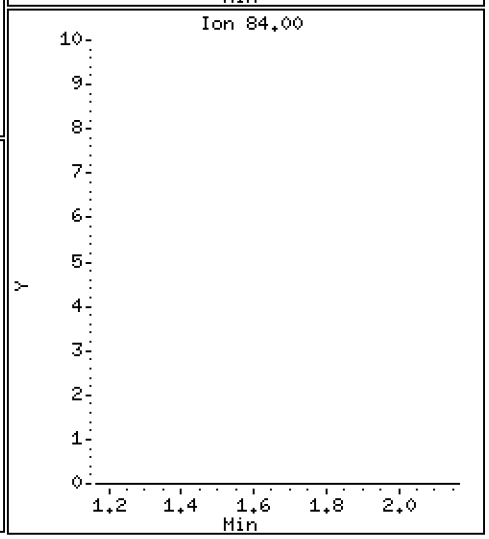
186 Isobutylene Concentration: 19.12 ug/l Review Code:











Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 4

Date : 04-SEP-2018 12:21

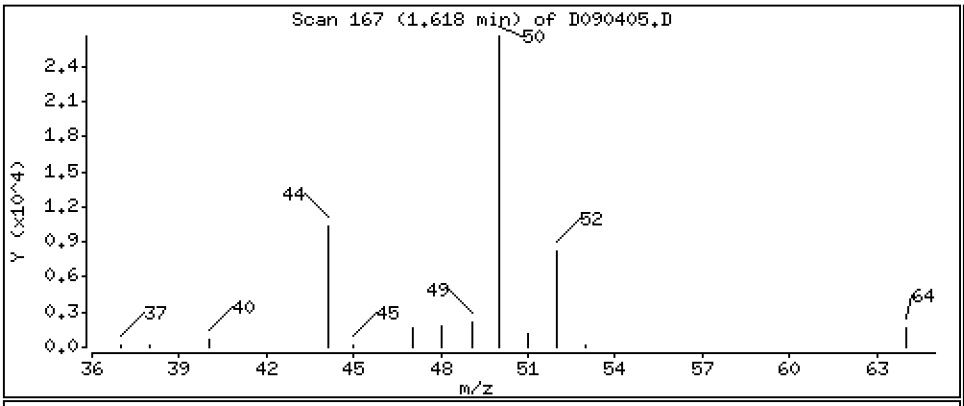
Client ID: VLCSW-180904 Instrument: VOA2.i

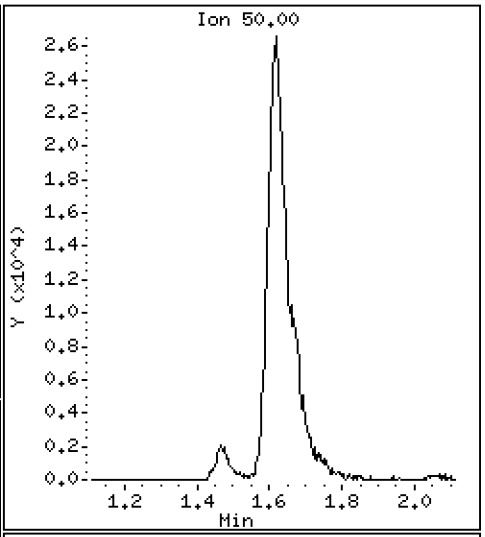
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

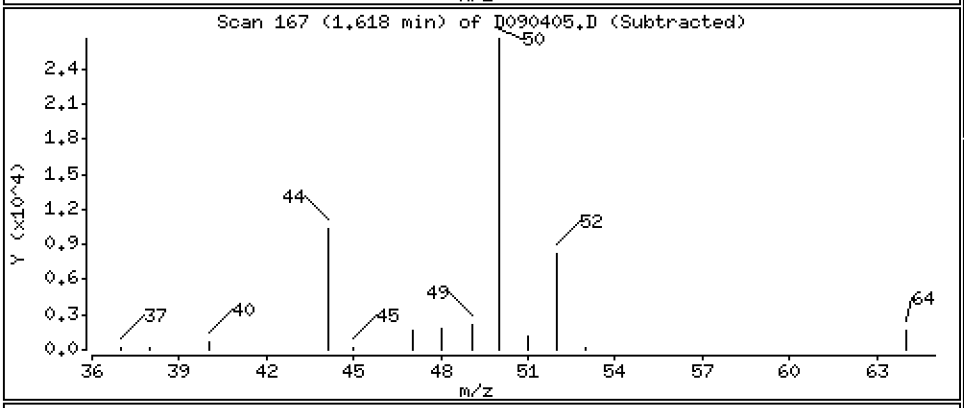
Purge Volume: 5.0 Operator: AP

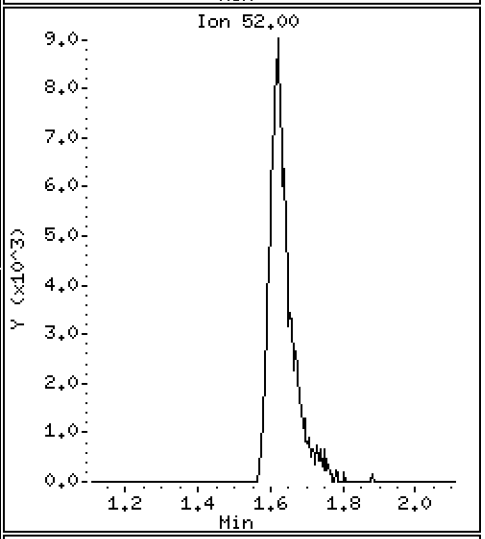
Column phase: DB624 Column diameter: 0.18

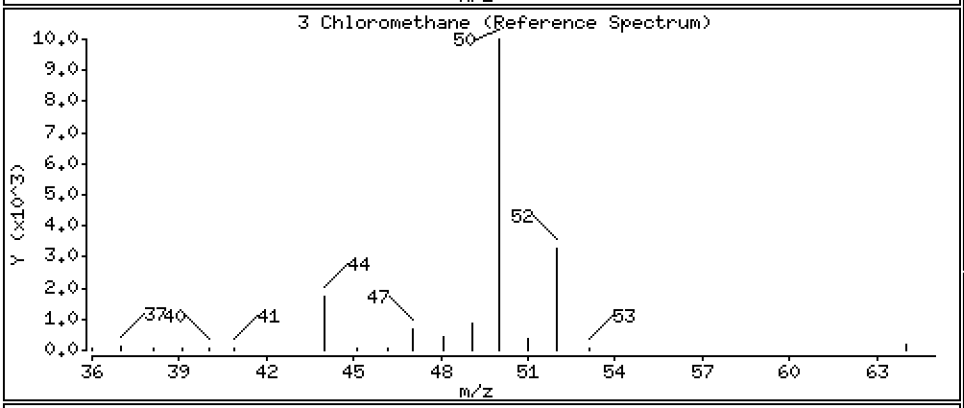
3 Chloromethane Concentration: 17.17 ug/l Review Code:

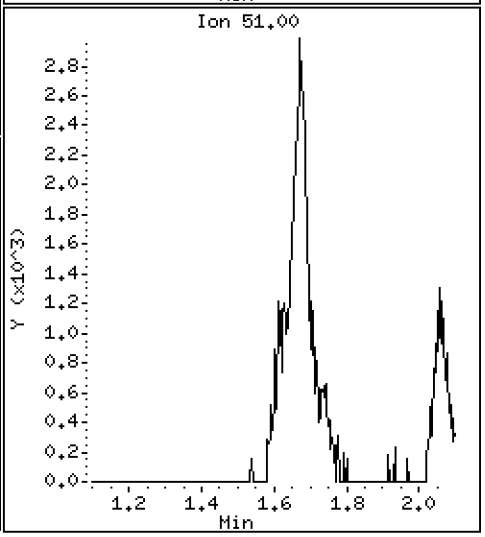


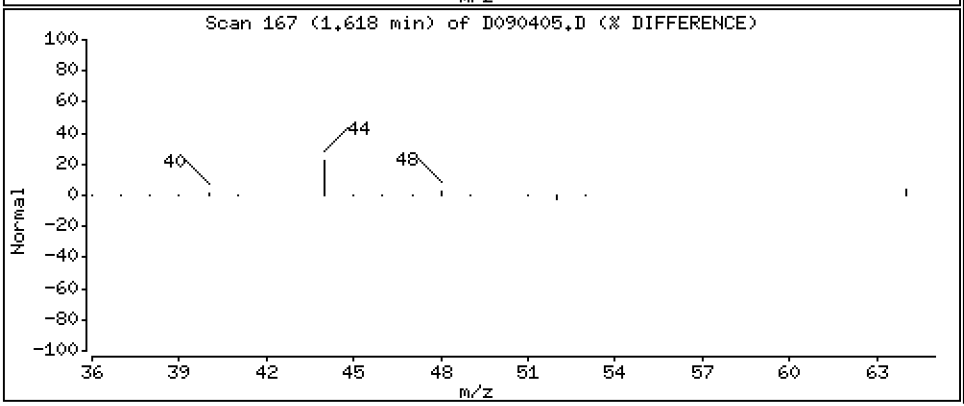












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 5

Date : 04-SEP-2018 12:21

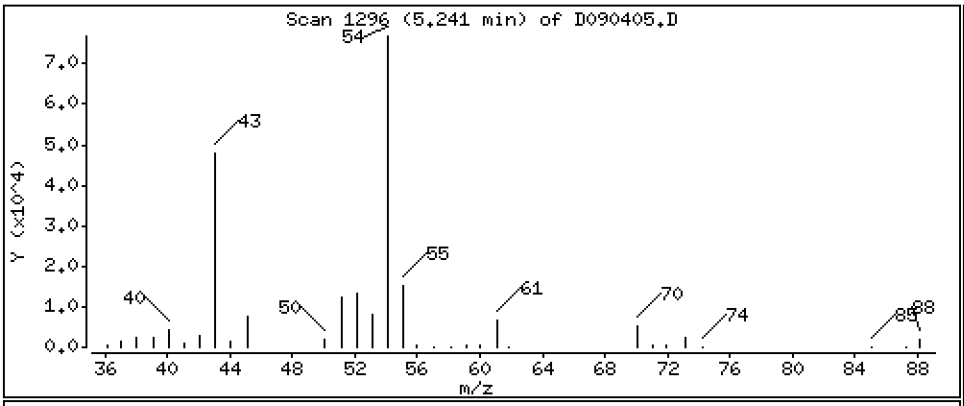
Client ID: VLCSW-180904 Instrument: VOA2.i

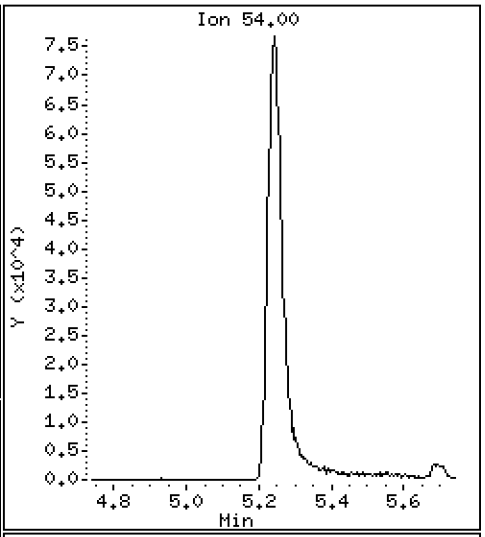
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

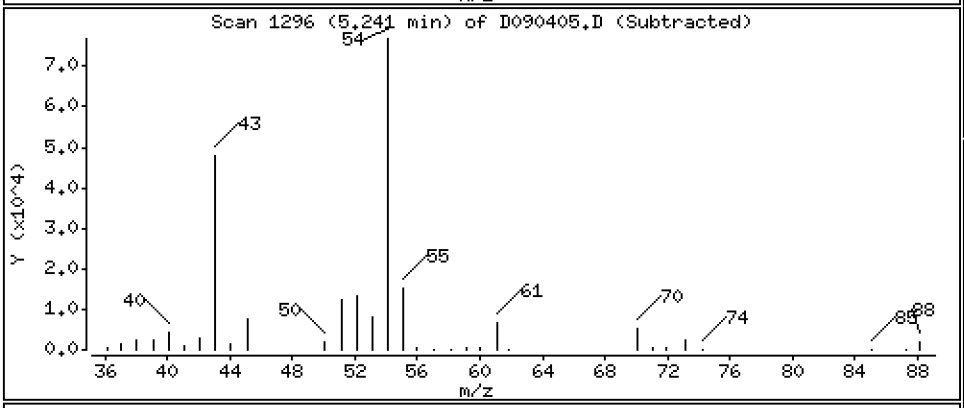
Purge Volume: 5.0 Operator: AP

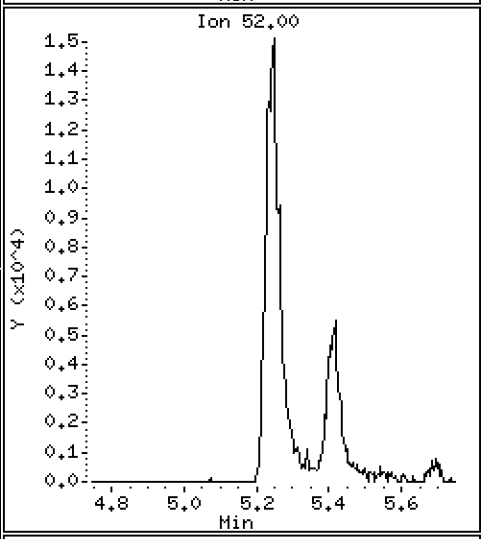
Column phase: DB624 Column diameter: 0.18

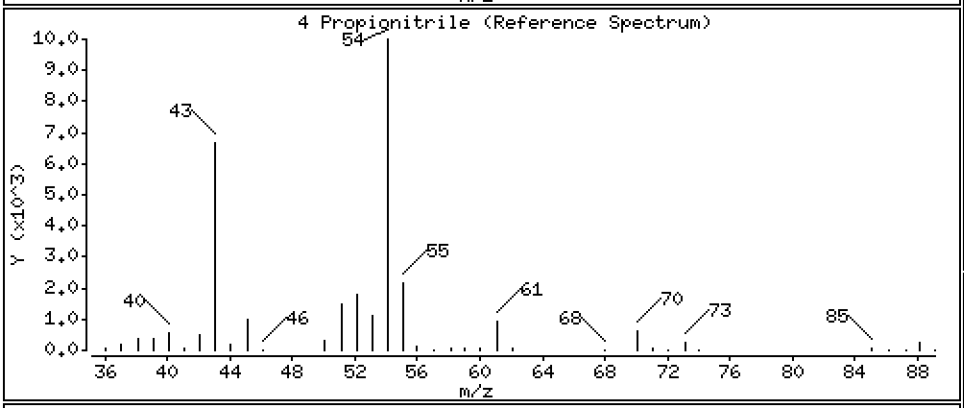
4 Propionitrile Concentration: 206.64 ug/l Review Code:

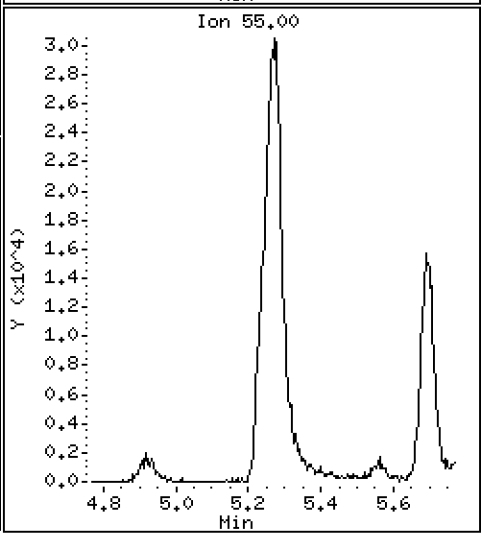


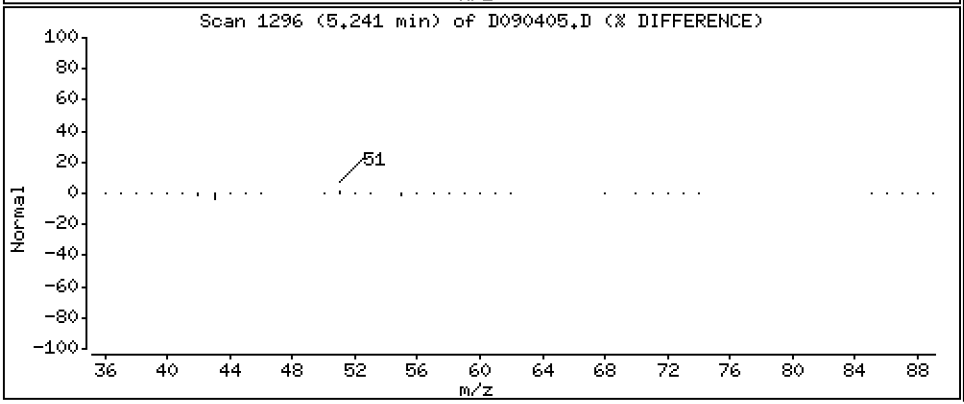












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 6

Date : 04-SEP-2018 12:21

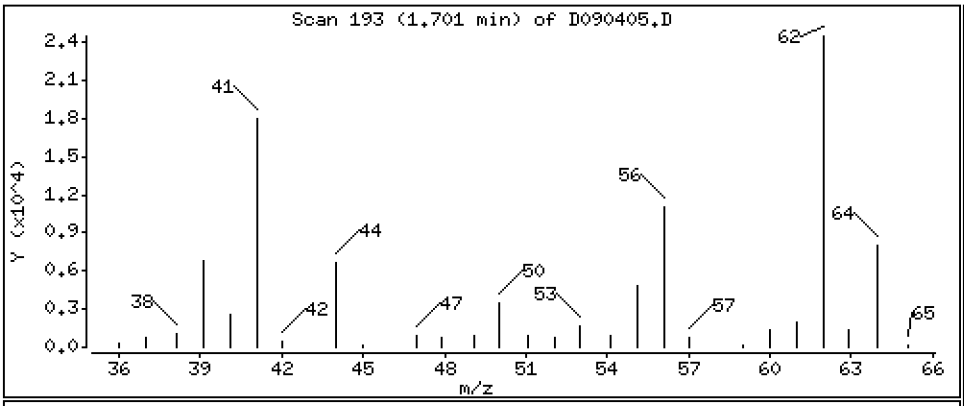
Client ID: VLCSW-180904 Instrument: VOA2.i

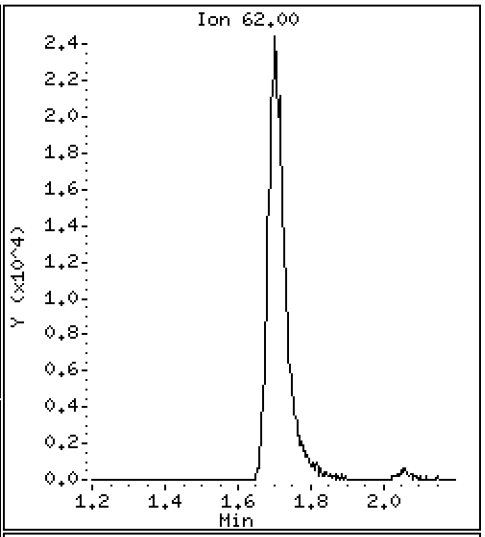
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

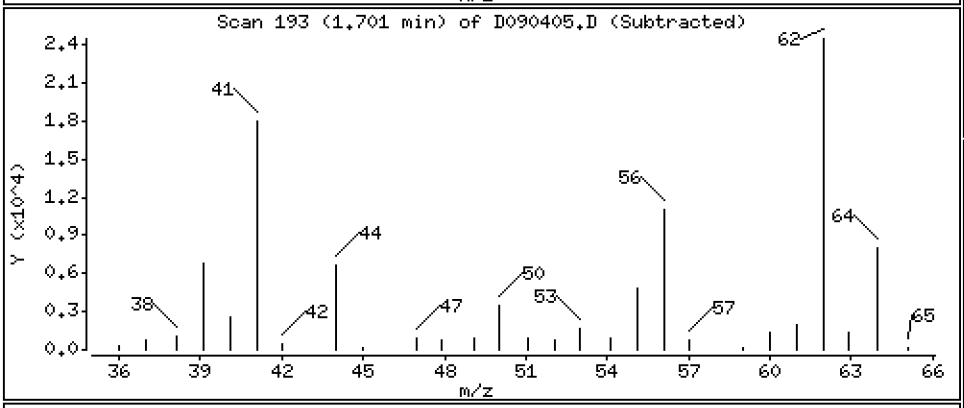
Purge Volume: 5.0 Operator: AP

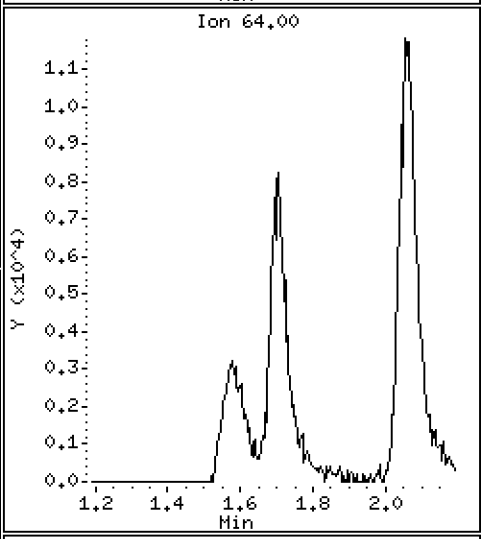
Column phase: DB624 Column diameter: 0.18

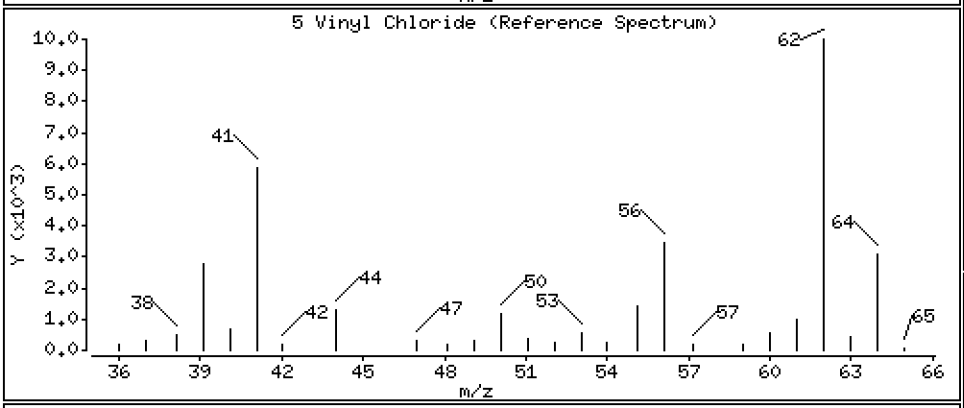
5 Vinyl Chloride Concentration: 19.88 ug/l Review Code:

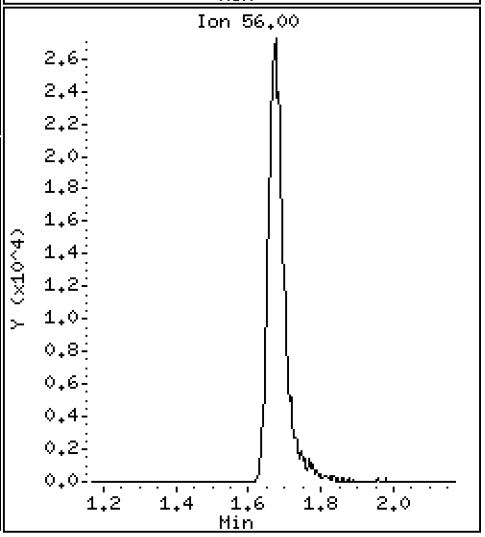


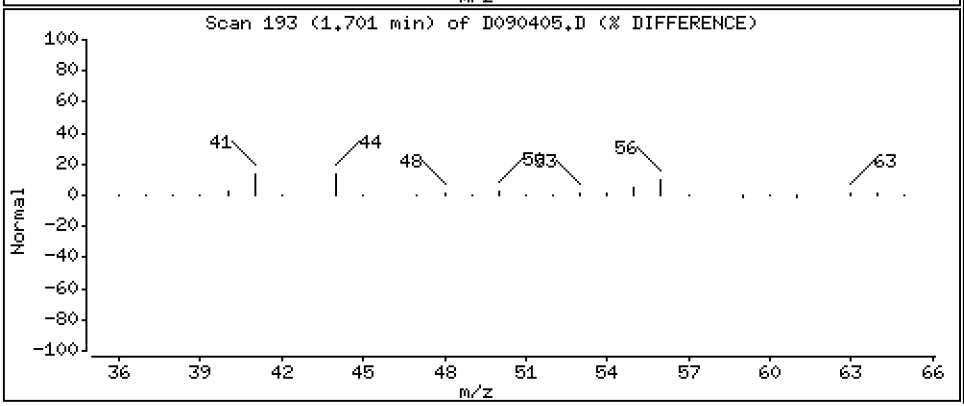












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 7

Date : 04-SEP-2018 12:21

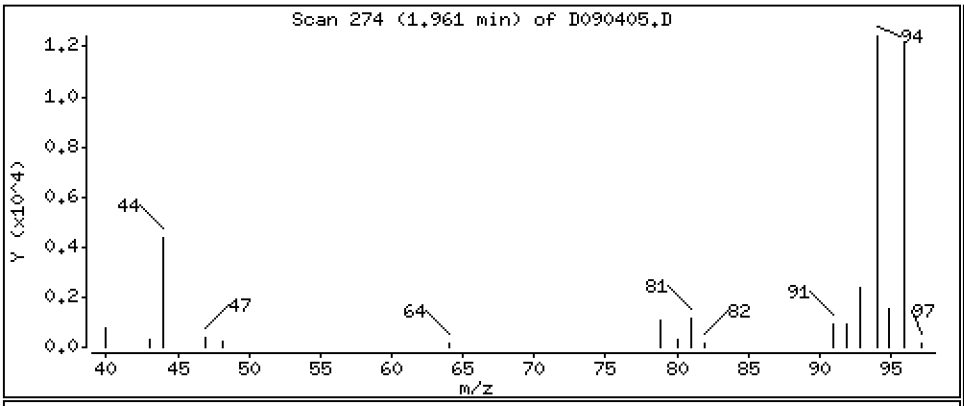
Client ID: VLCSW-180904 Instrument: VOA2.i

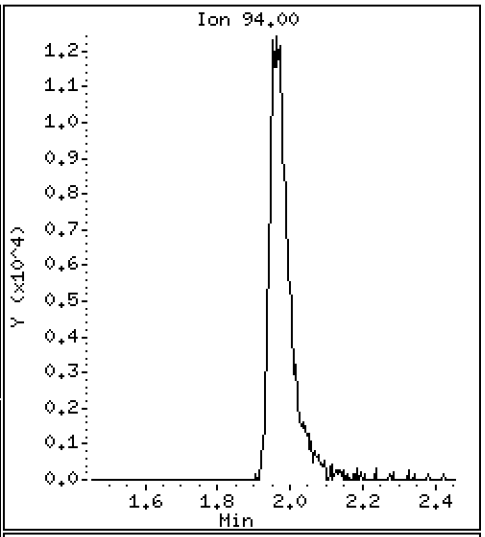
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

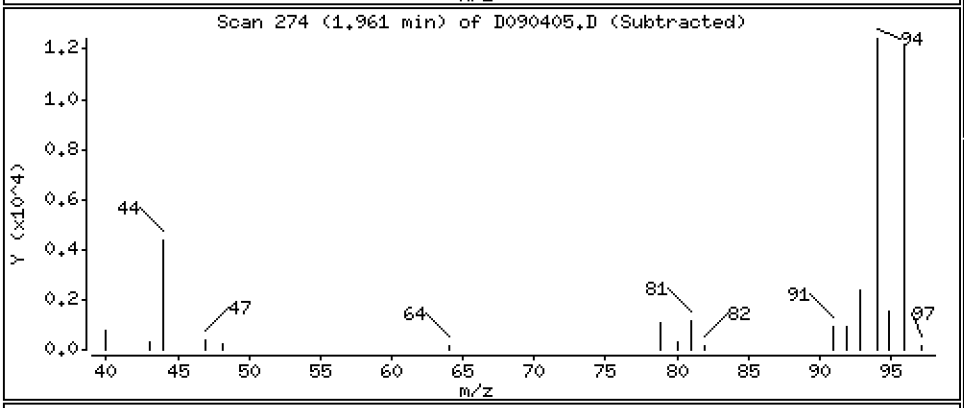
Purge Volume: 5.0 Operator: AP

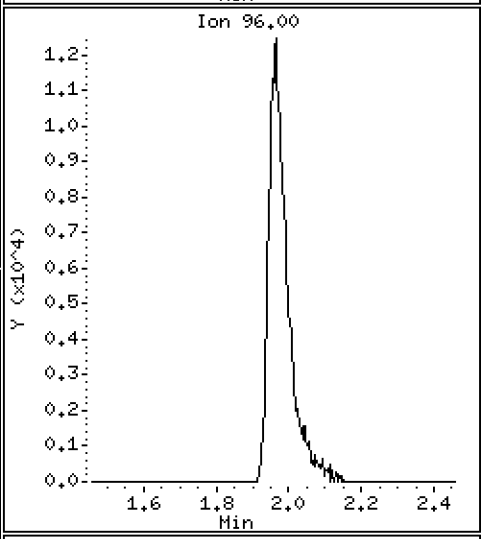
Column phase: DB624 Column diameter: 0.18

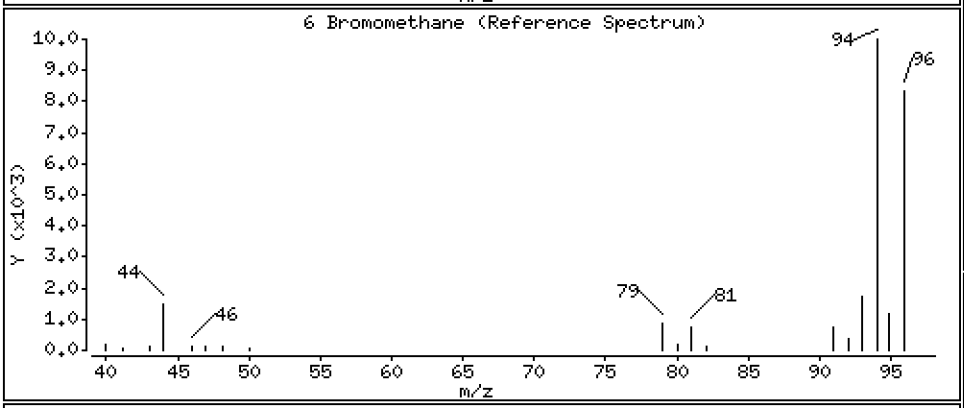
6 Bromomethane Concentration: 20.89 ug/l Review Code:

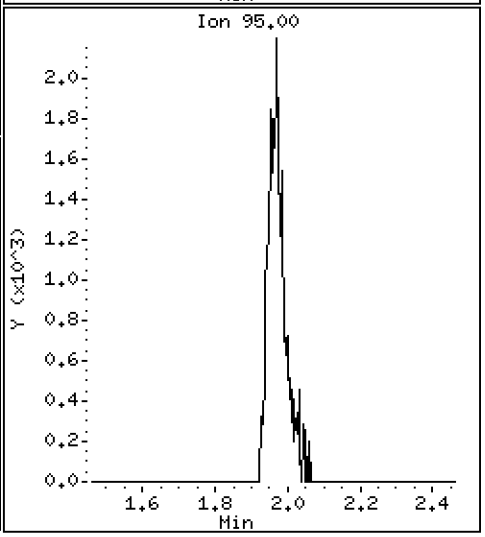


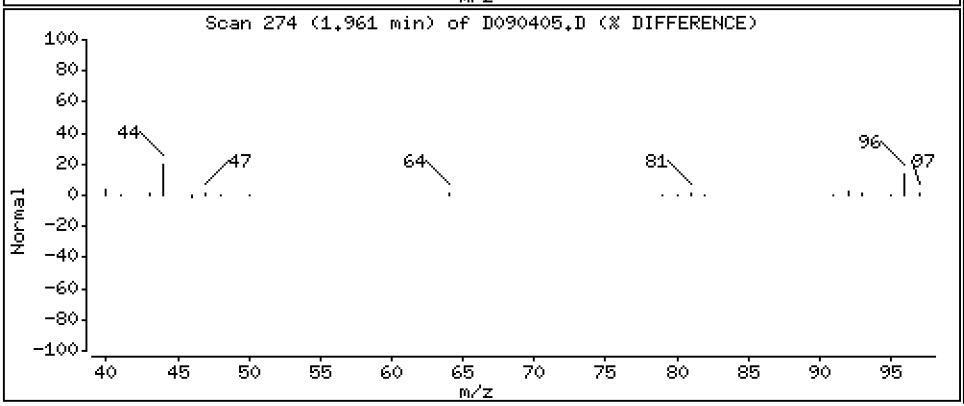












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 8

Date : 04-SEP-2018 12:21

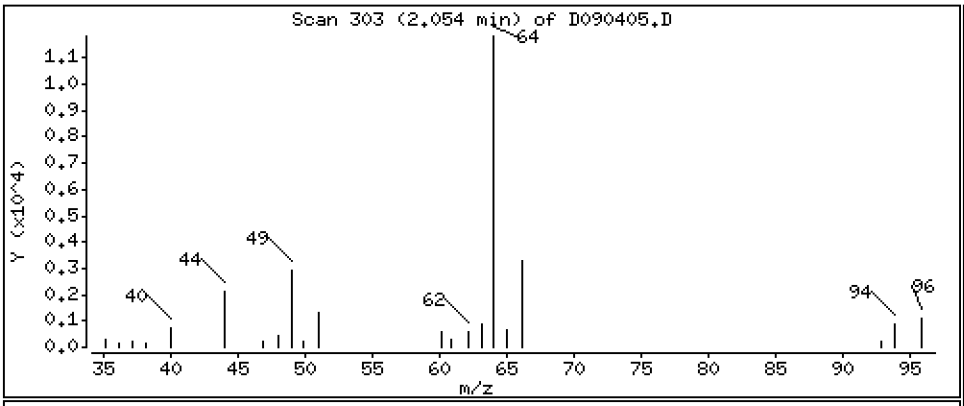
Client ID: VLCSW-180904 Instrument: VOA2.i

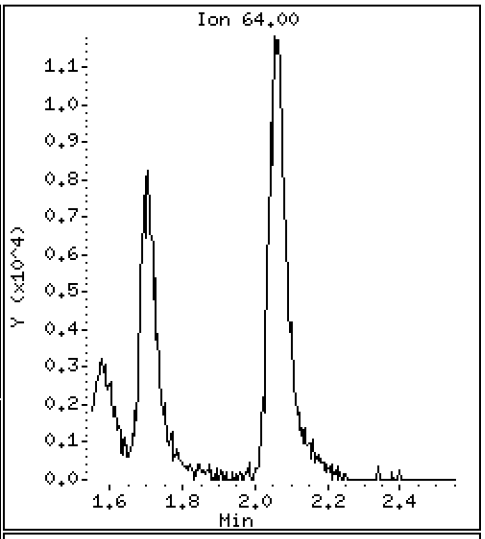
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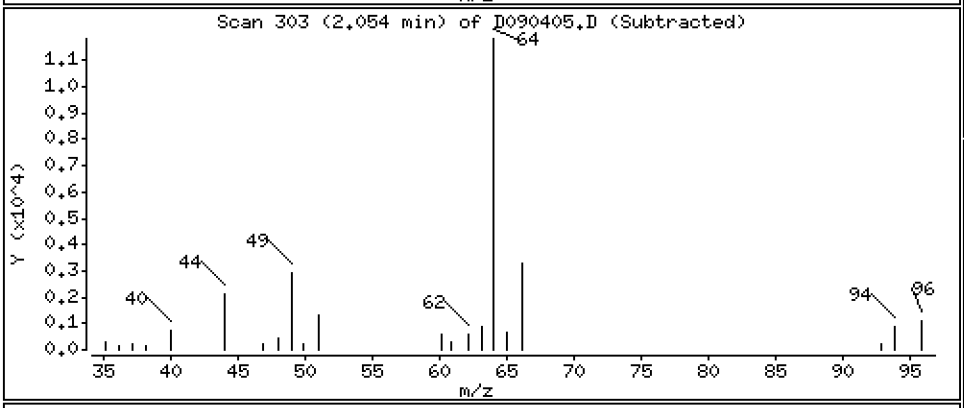
Purge Volume: 5.0 Operator: AP

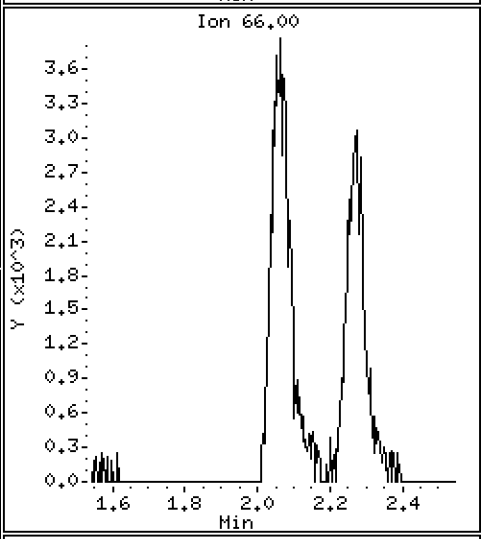
Column phase: DB624 Column diameter: 0.18

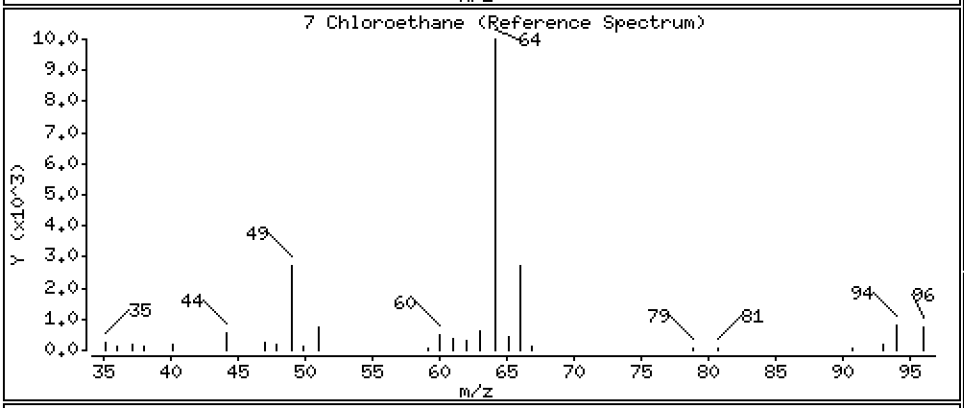
7 Chloroethane Concentration: 16.55 ug/l Review Code:

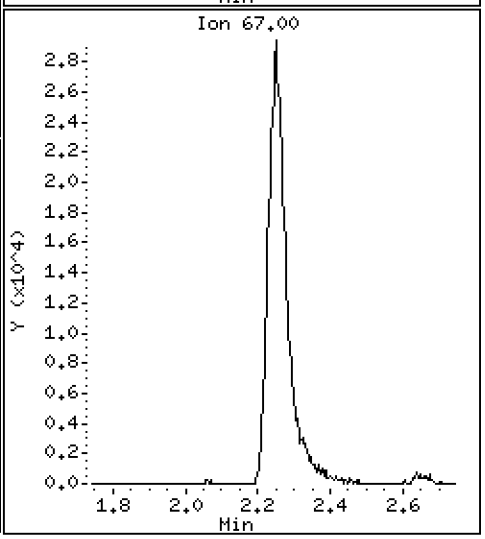


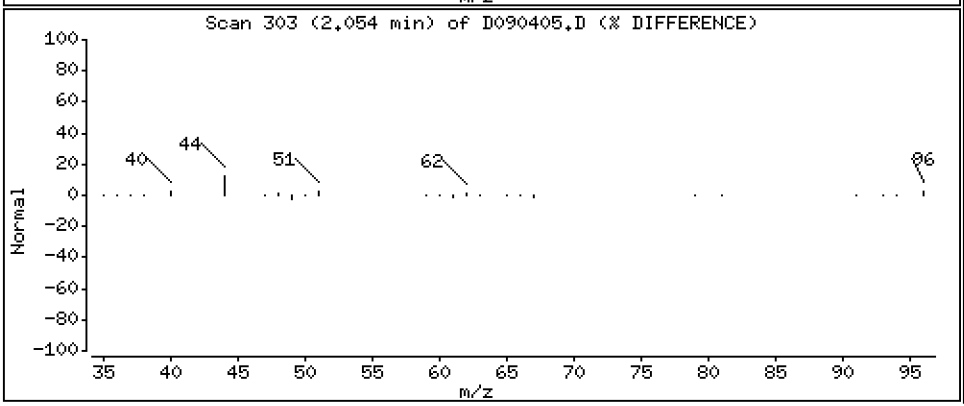












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 9

Date : 04-SEP-2018 12:21

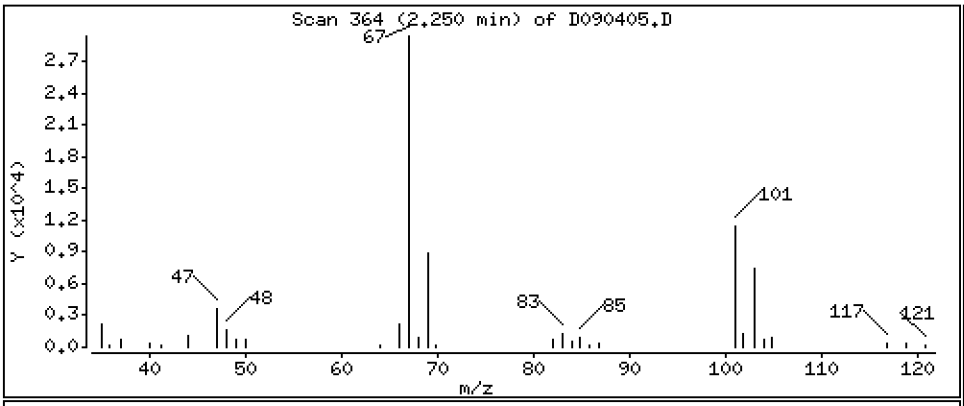
Client ID: VLCSW-180904 Instrument: VOA2.i

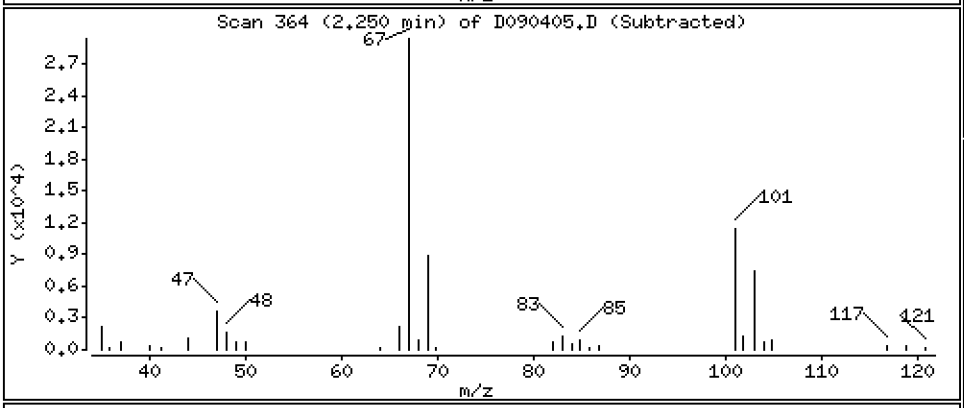
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

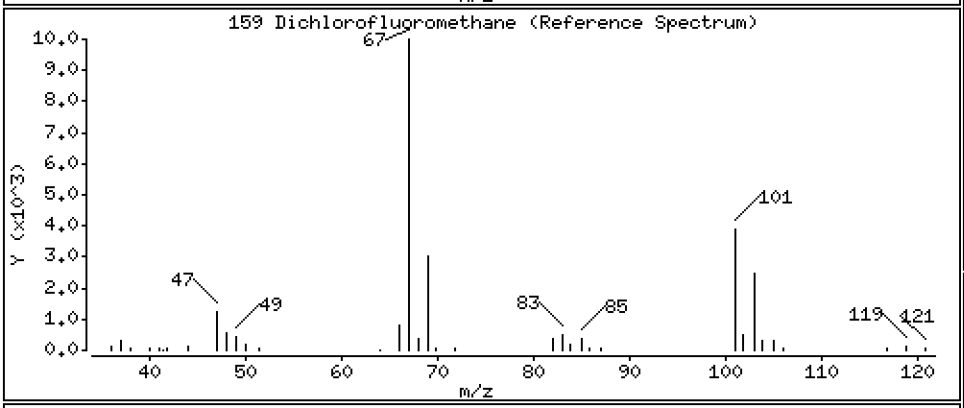
Purge Volume: 5.0 Operator: AP

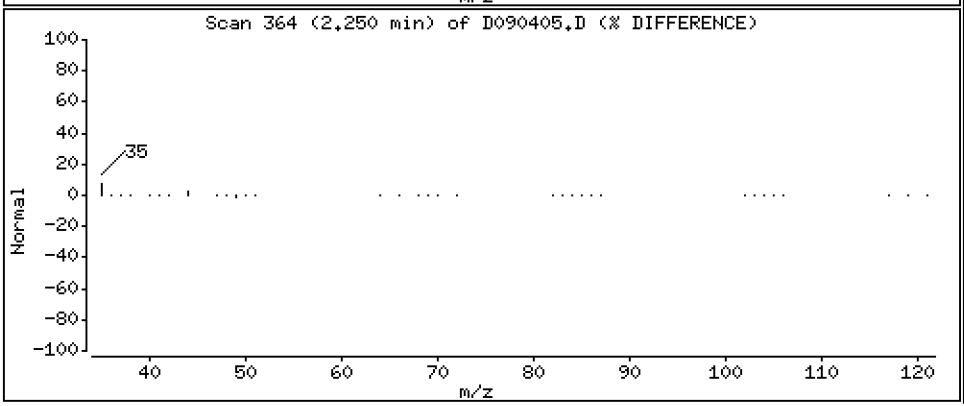
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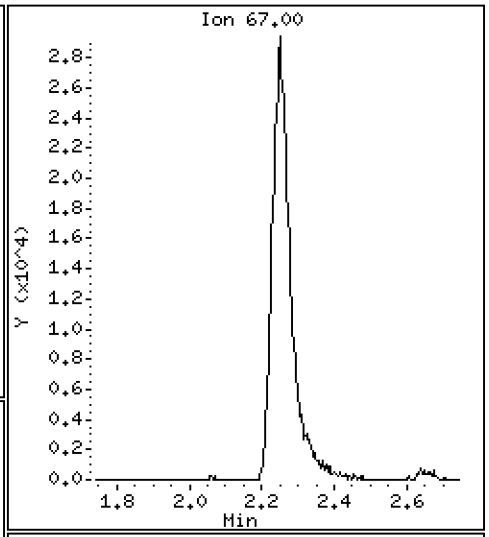
159 Dichlorofluoromethane Concentration: 16.95 ug/l Review Code:

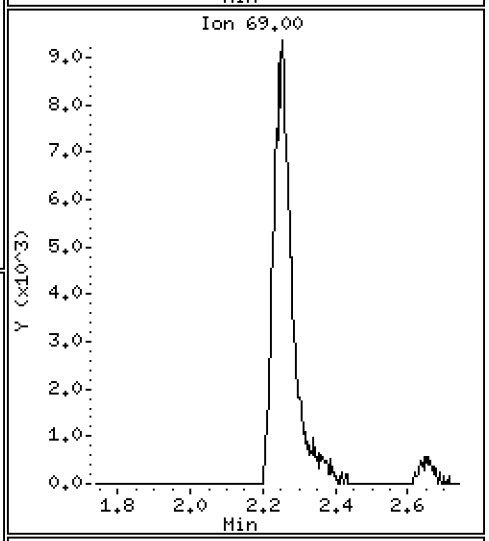


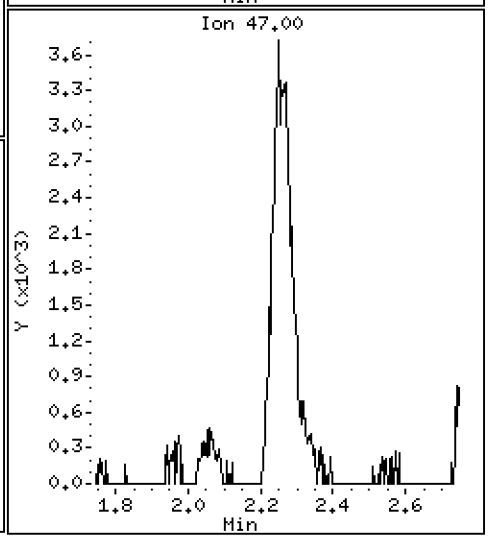












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 10

Date : 04-SEP-2018 12:21

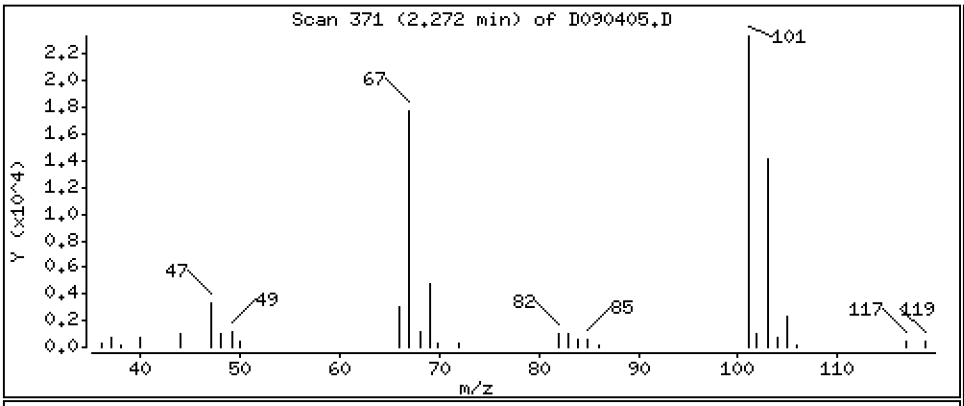
Client ID: VLCSW-180904 Instrument: VOA2.i

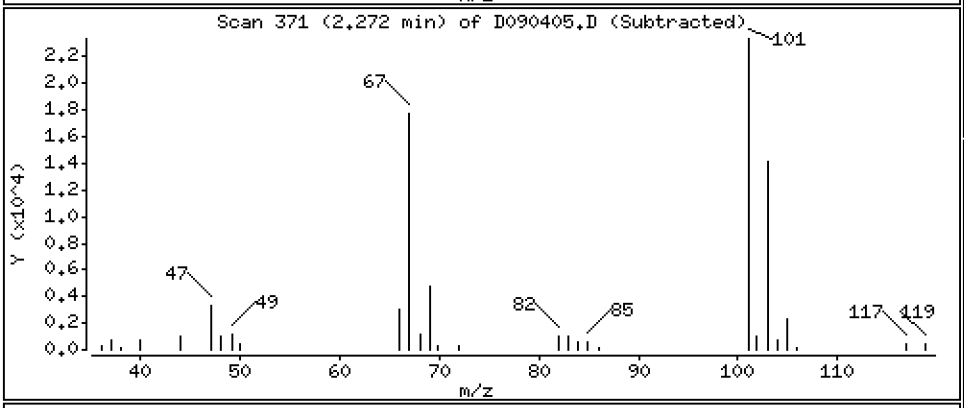
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

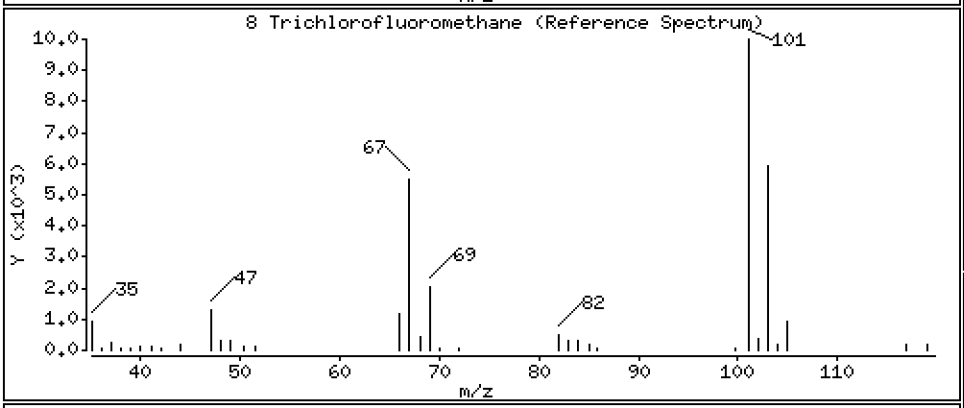
Purge Volume: 5.0 Operator: AP

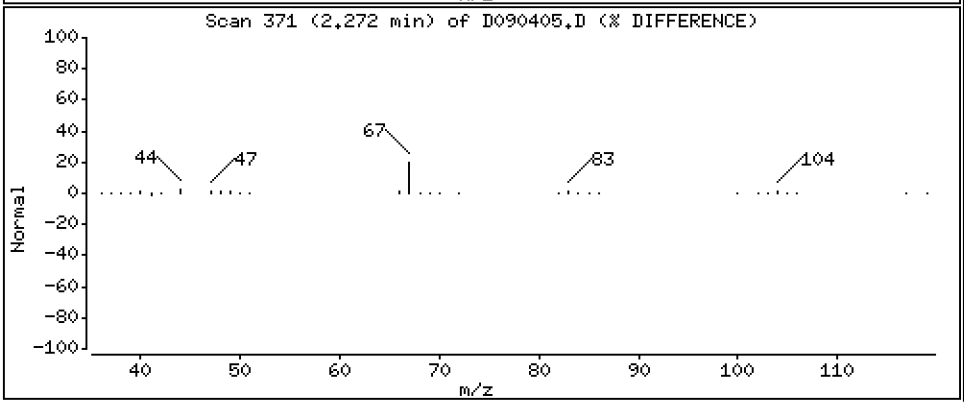
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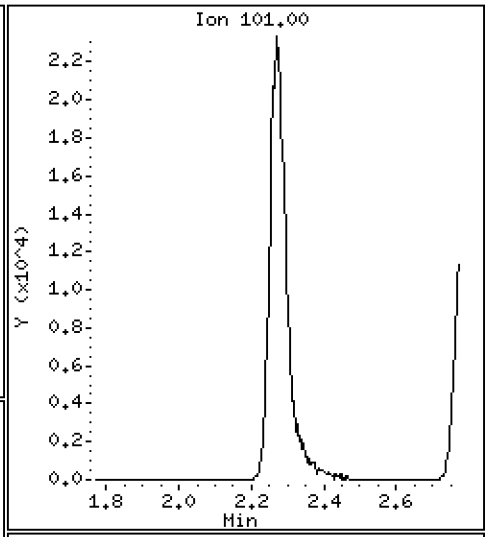
8 Trichlorofluoromethane Concentration: 19.22 ug/l Review Code:

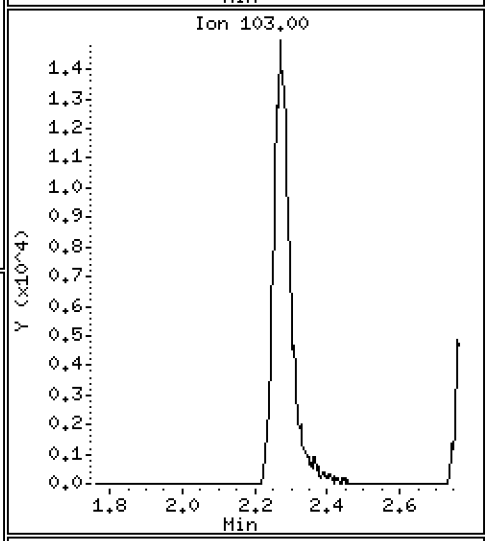


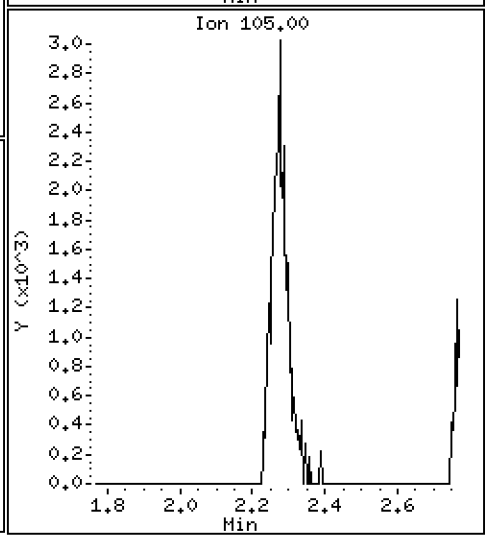












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 11

Date : 04-SEP-2018 12:21

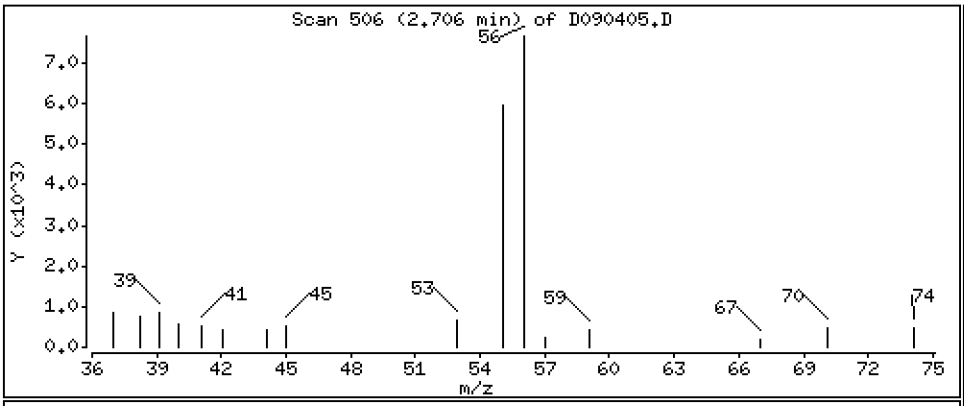
Client ID: VLCSW-180904 Instrument: VOA2.i

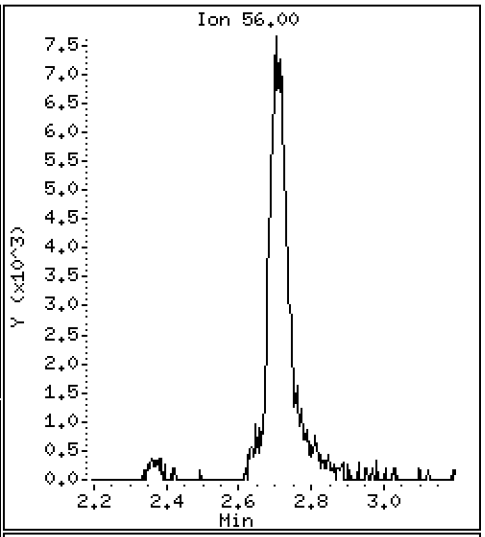
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

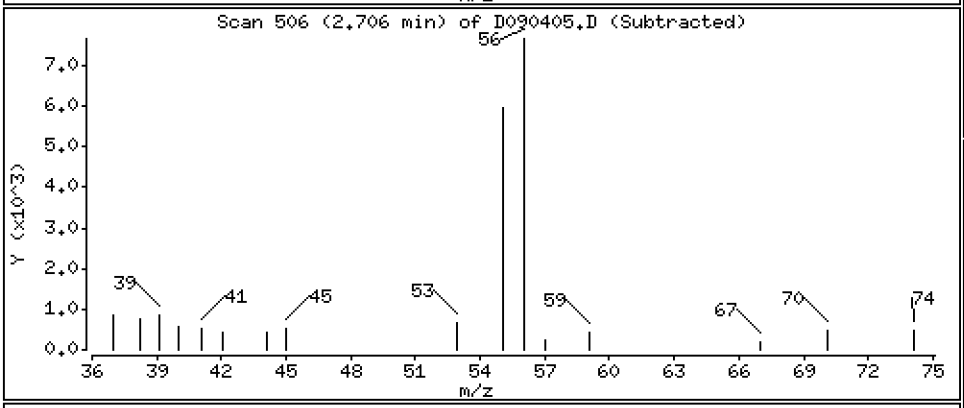
Purge Volume: 5.0 Operator: AP

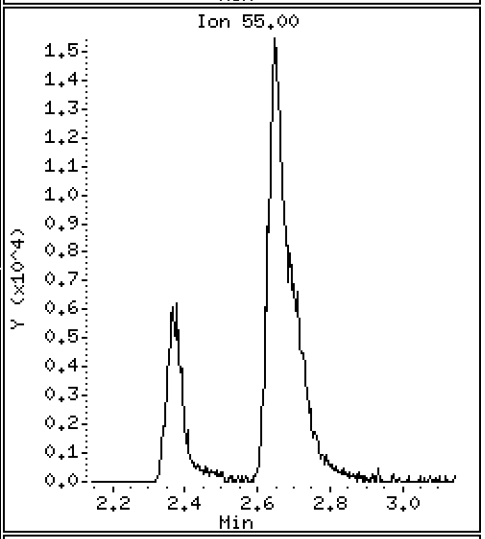
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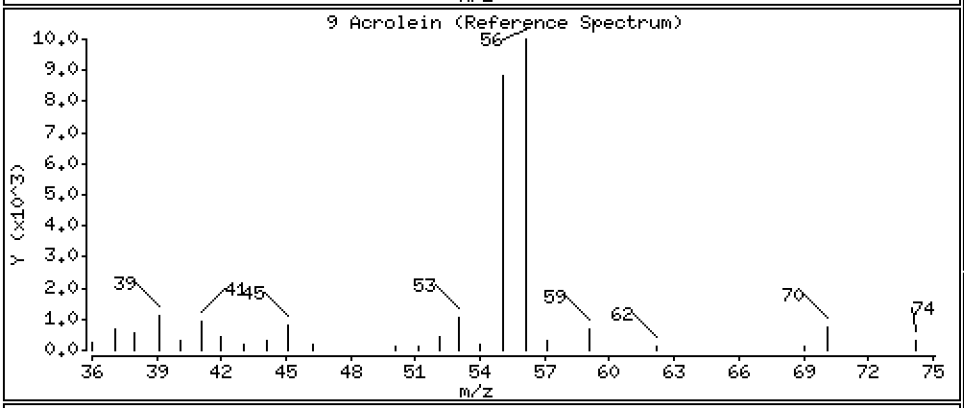
9 Acrolein Concentration: 29.30 ug/l Review Code:

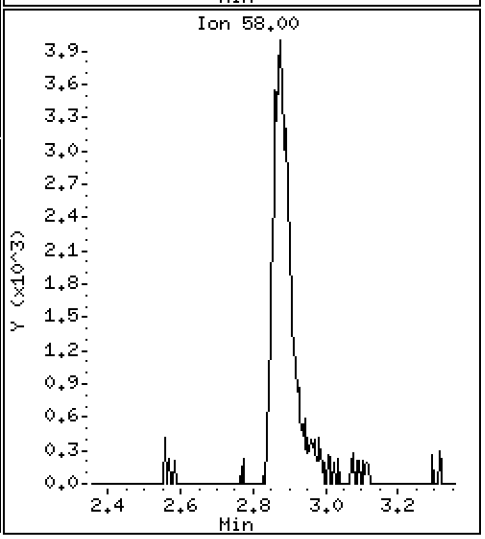


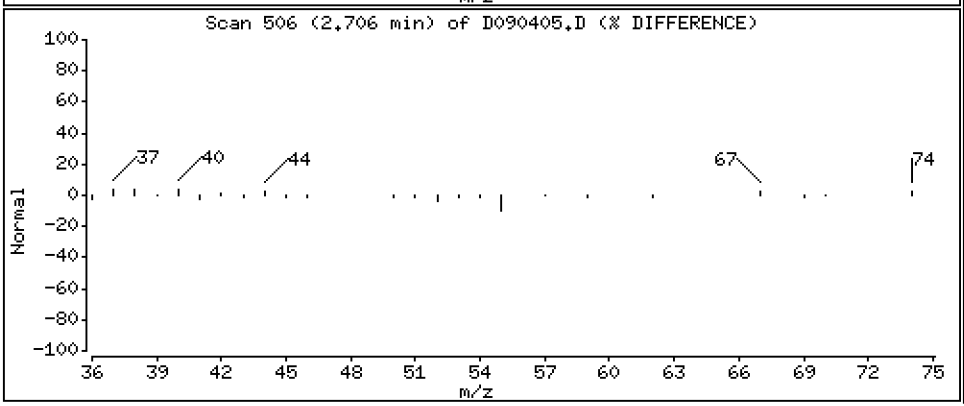












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 12

Date : 04-SEP-2018 12:21

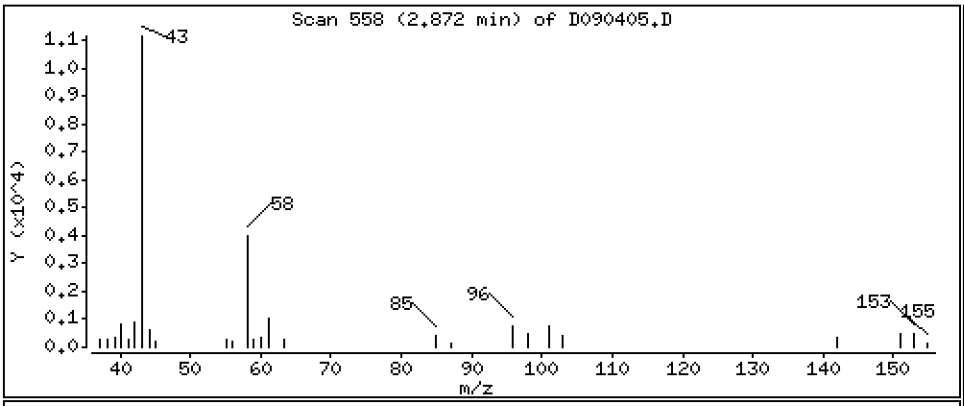
Client ID: VLCSW-180904 Instrument: VOA2.i

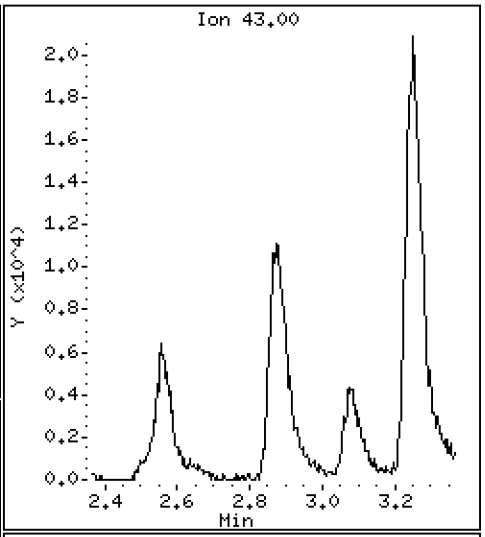
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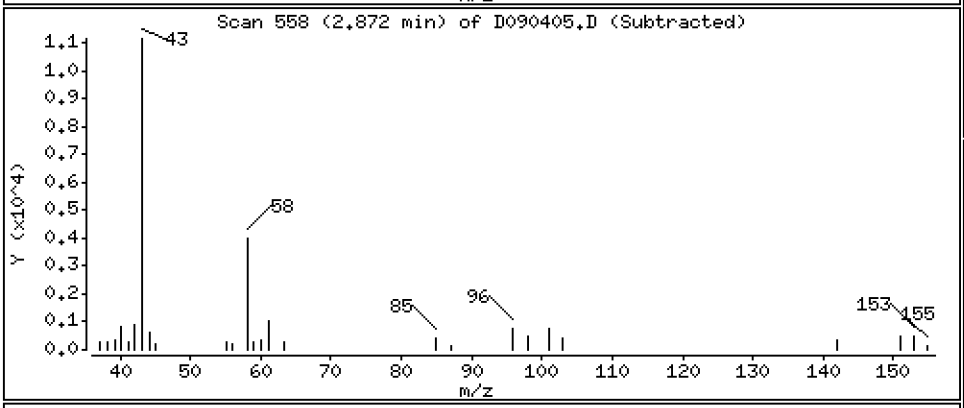
Purge Volume: 5.0 Operator: AP

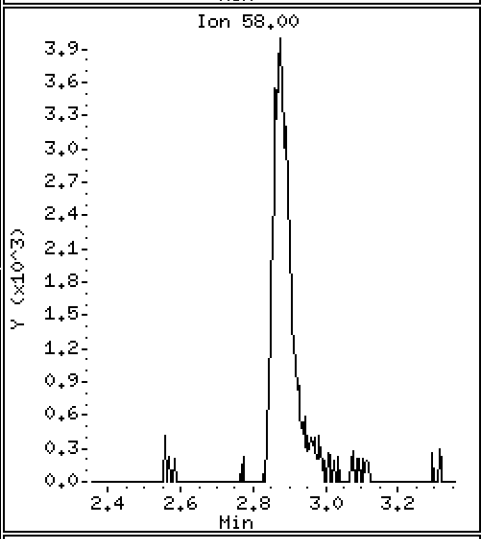
Column phase: DB624 Column diameter: 0.18

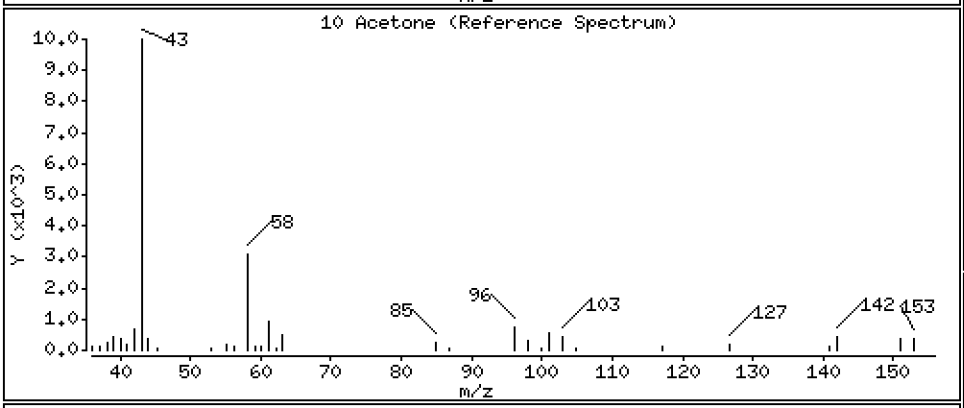
10 Acetone Concentration: 33.40 ug/l Review Code:

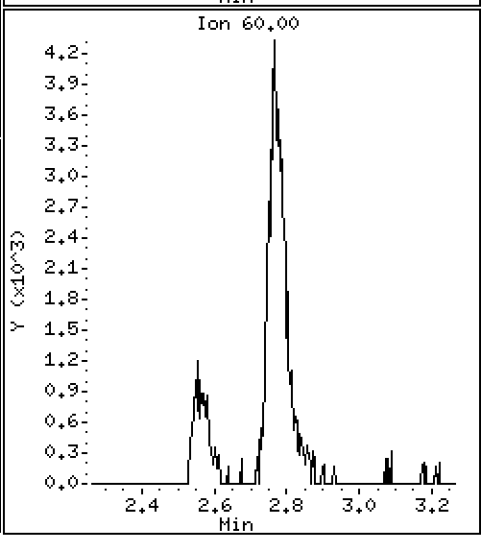


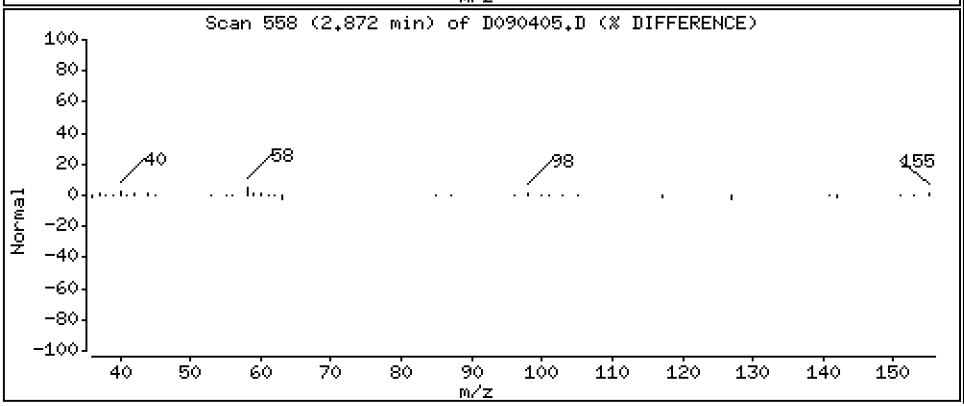












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 13

Date : 04-SEP-2018 12:21

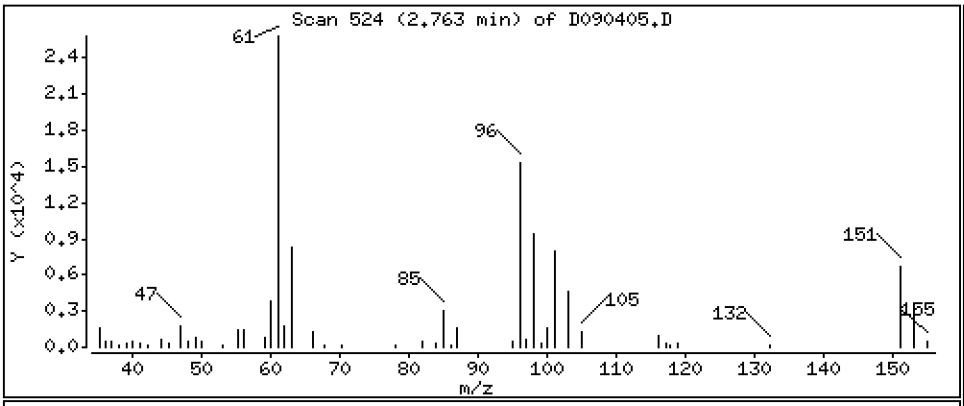
Client ID: VLCSW-180904 Instrument: VOA2.i

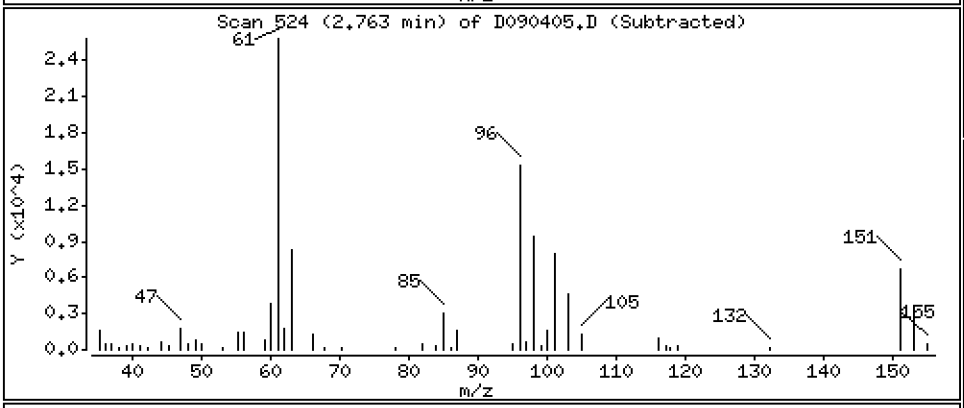
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

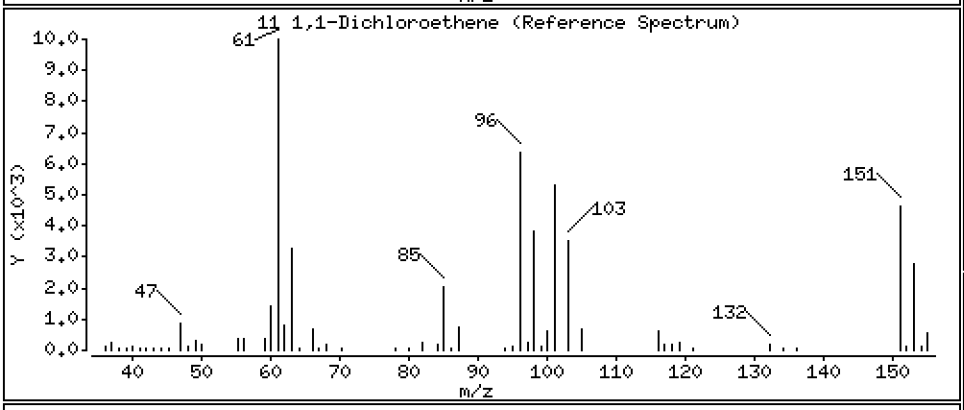
Purge Volume: 5.0 Operator: AP

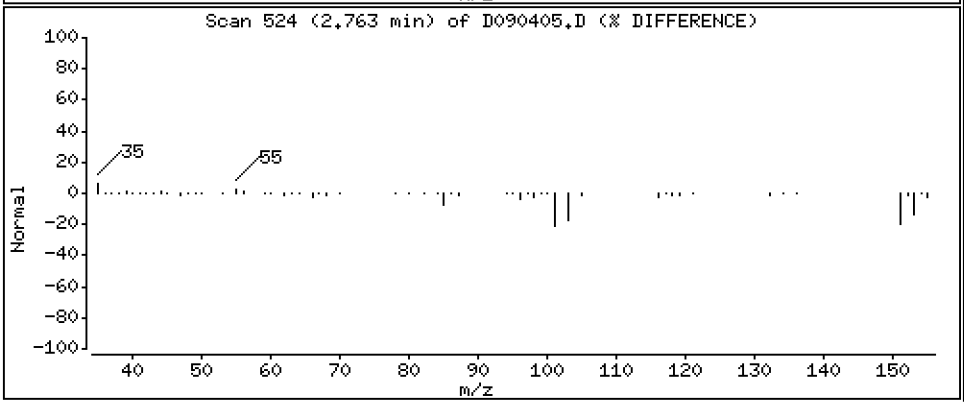
Column phase: DB624 Column diameter: 0.18

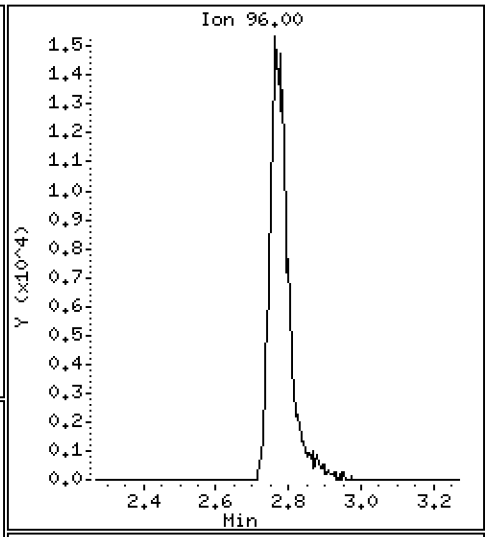
11 1,1-Dichloroethene Concentration: 18.54 ug/l Review Code:

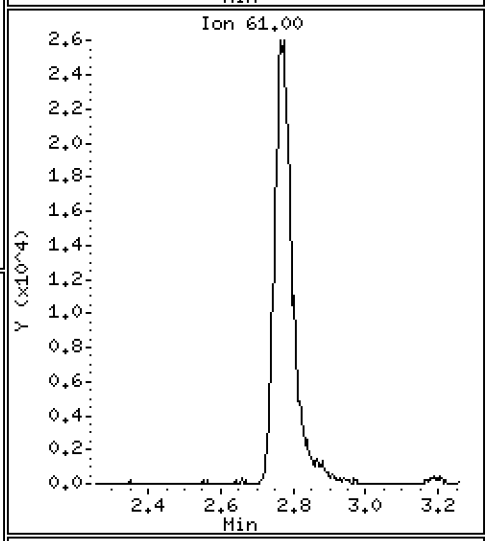


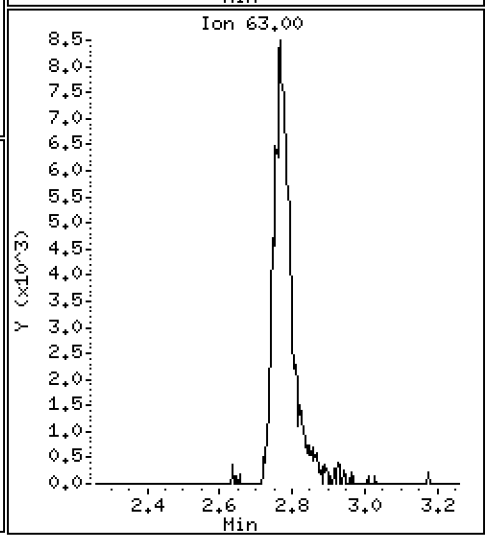












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 14

Date : 04-SEP-2018 12:21

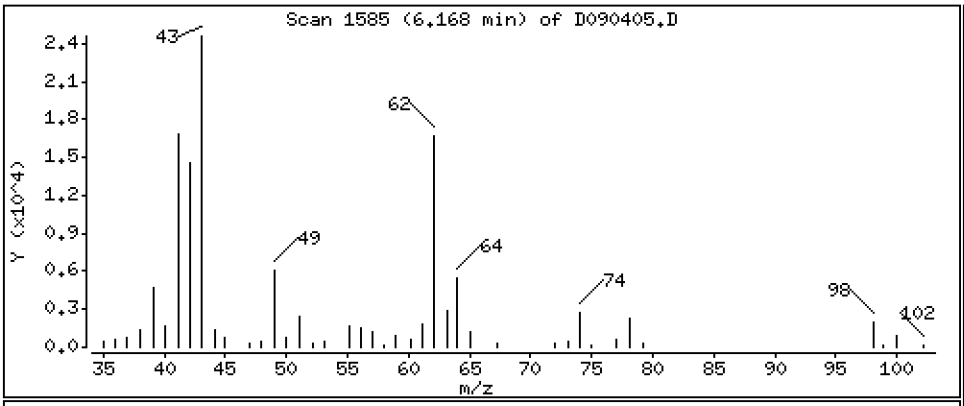
Client ID: VLCSW-180904 Instrument: VOA2.i

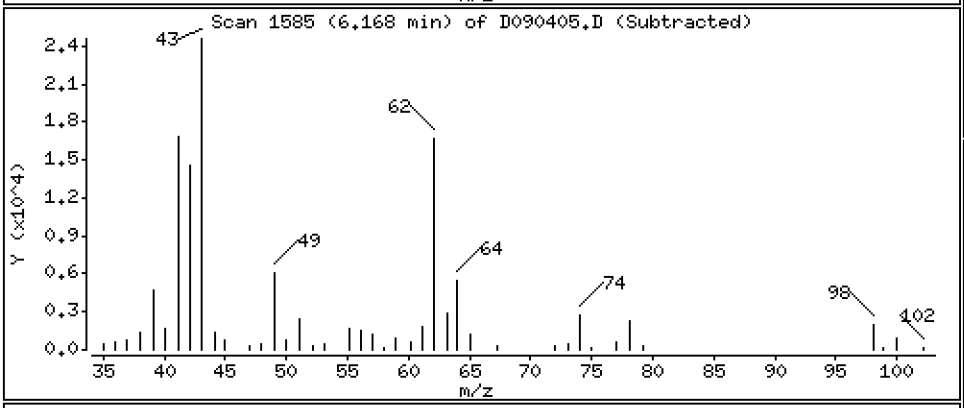
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

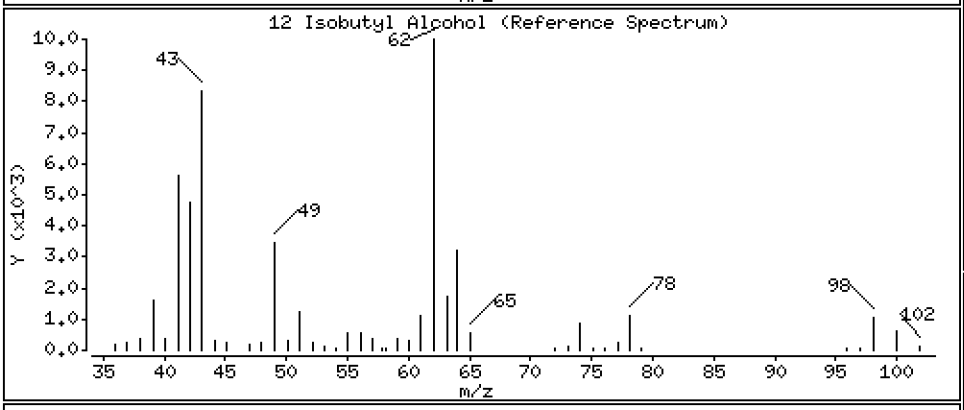
Purge Volume: 5.0 Operator: AP

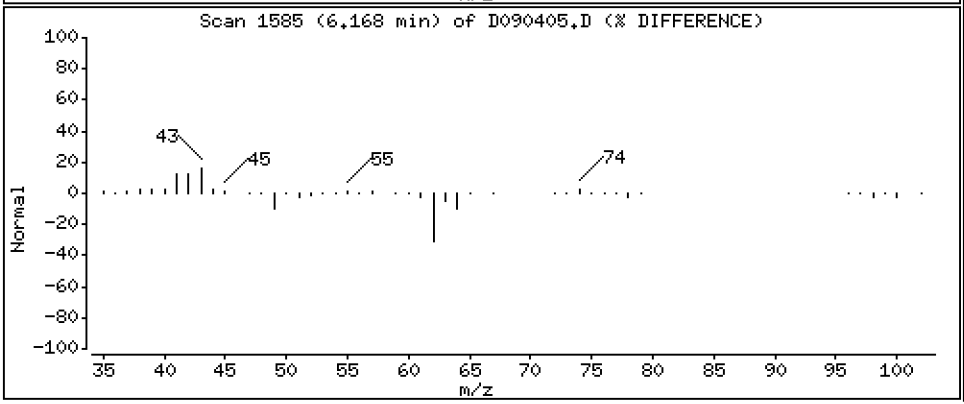
Column phase: DB624 Column diameter: 0.18

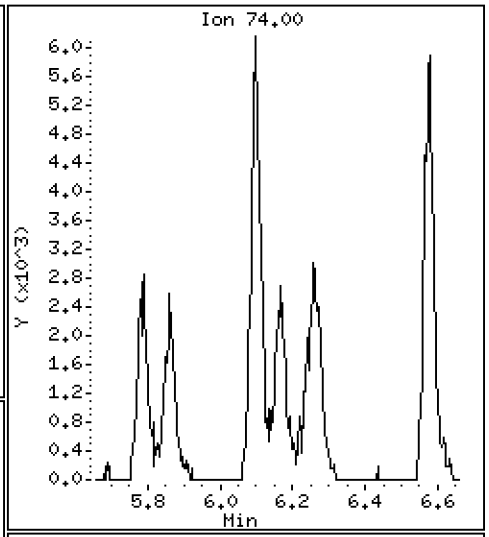
12 Isobutyl Alcohol Concentration: 355.43 ug/l Review Code:

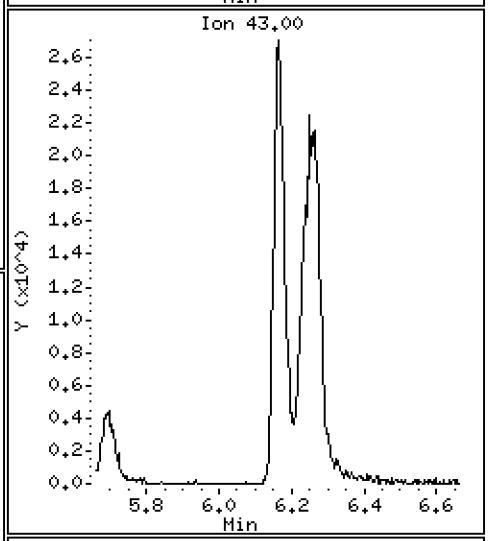


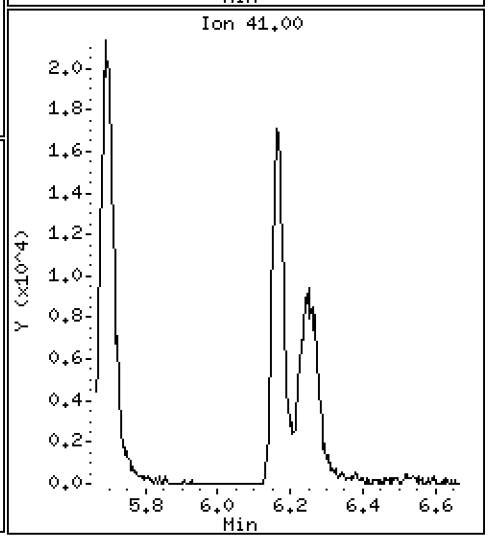












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 15

Date : 04-SEP-2018 12:21

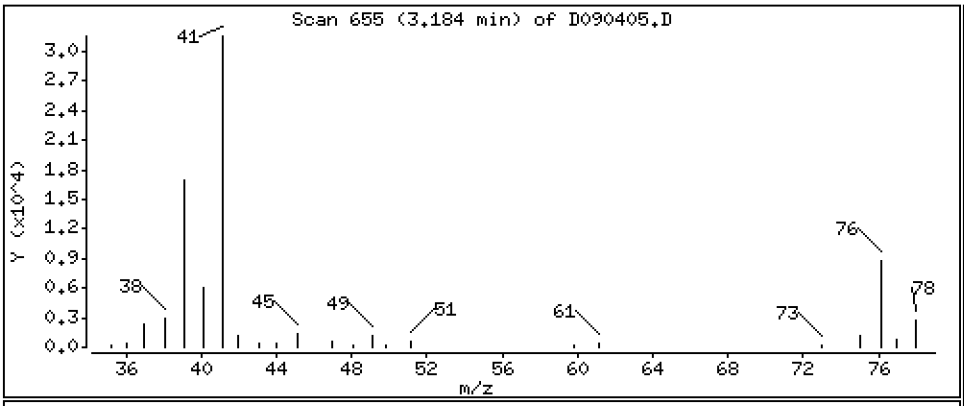
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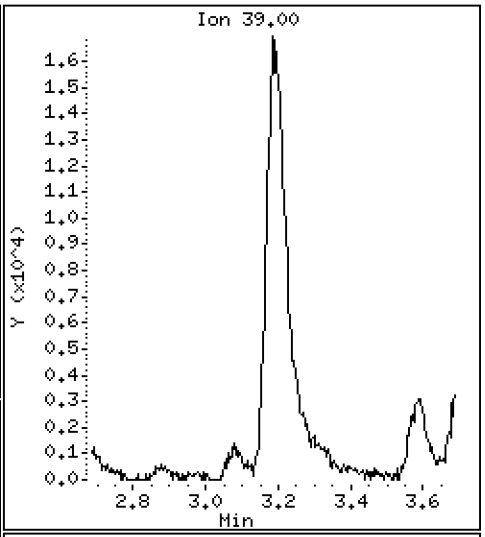
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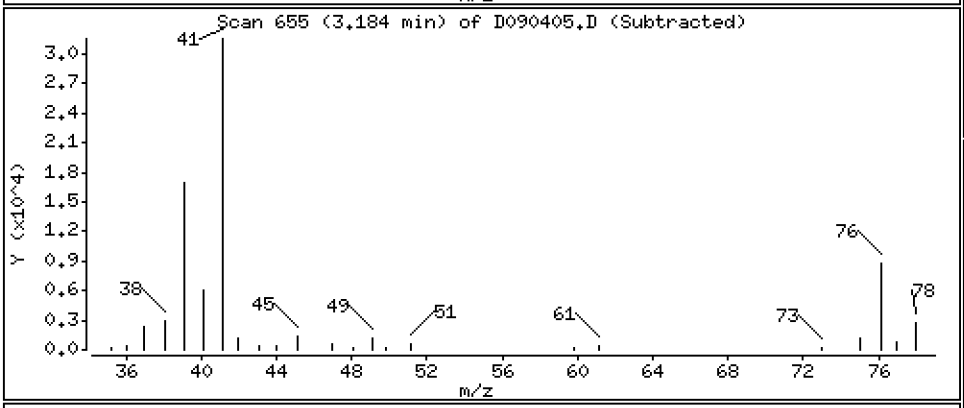
Purge Volume: 5.0 Operator: AP

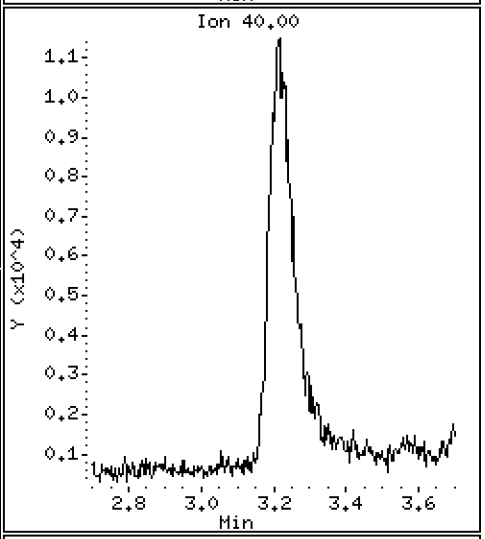
Column phase: DB624 Column diameter: 0.18

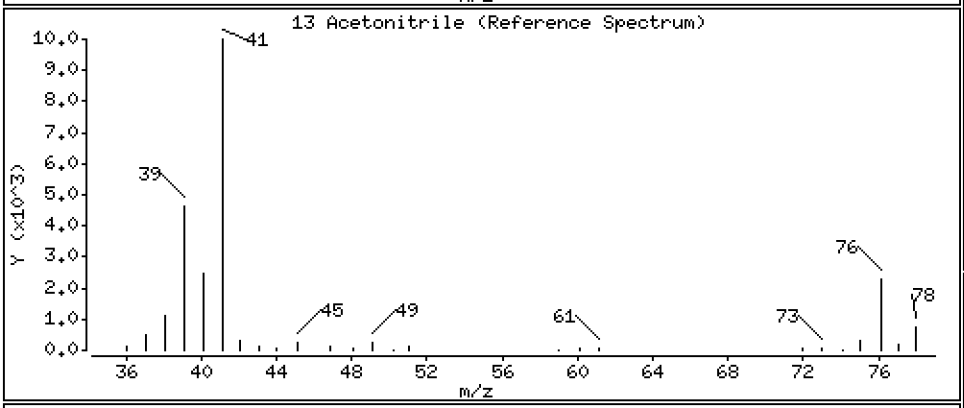
13 Acetonitrile Concentration: 183.49 ug/l Review Code:

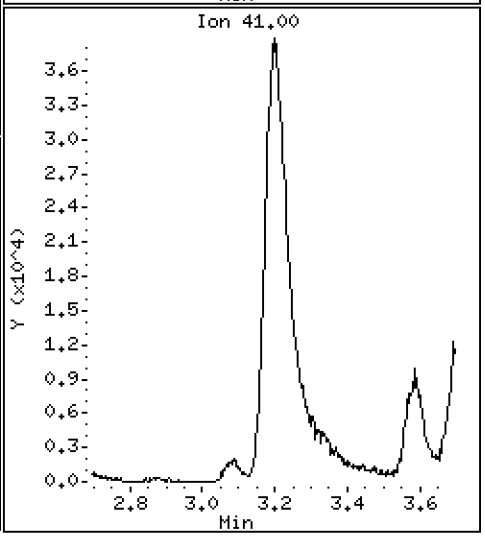


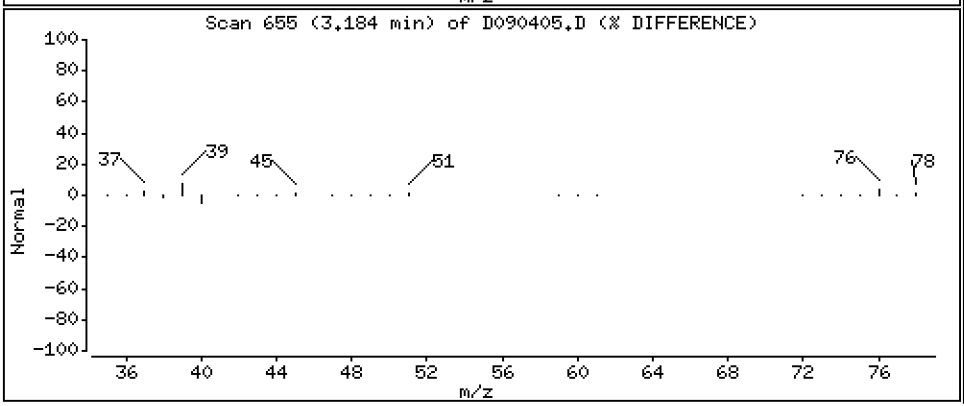












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 16

Date : 04-SEP-2018 12:21

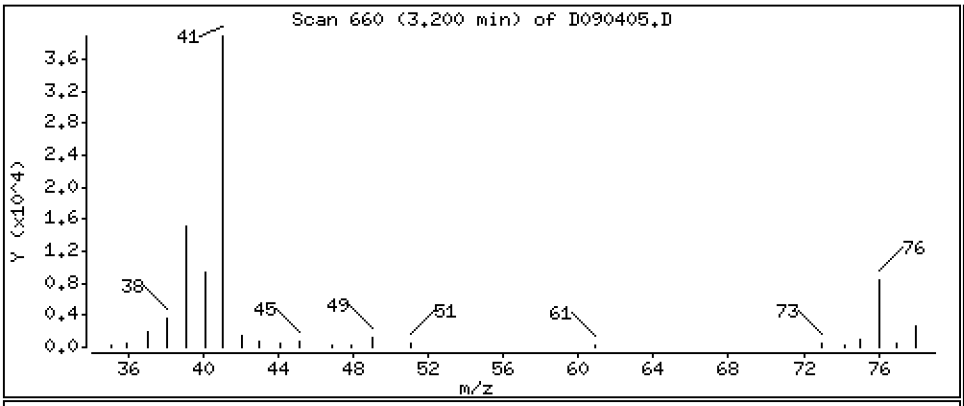
Client ID: VLCSW-180904 Instrument: VOA2.i

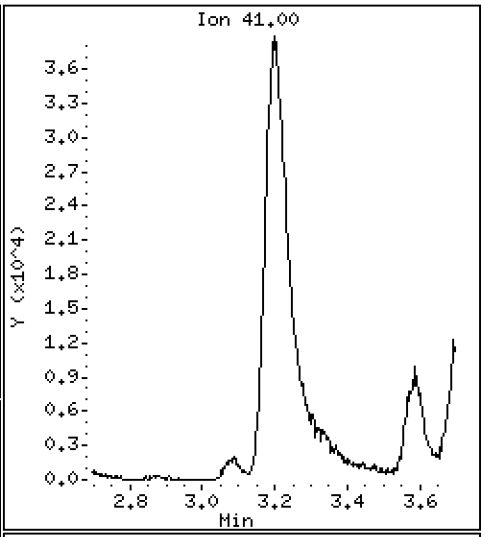
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

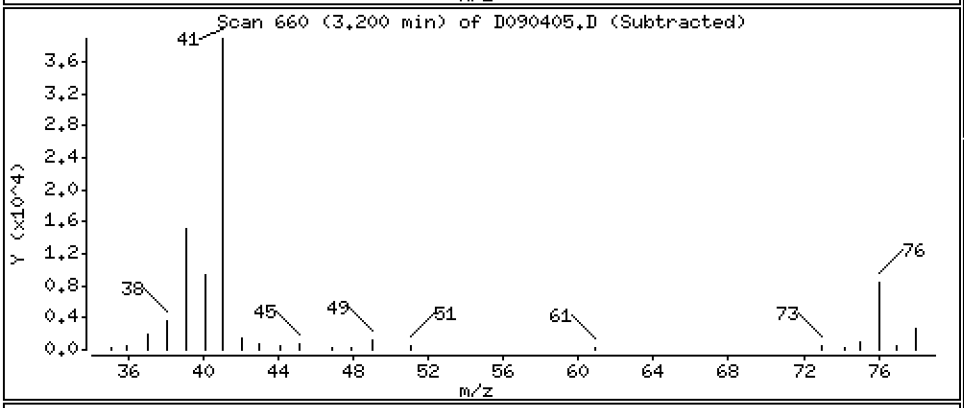
Purge Volume: 5.0 Operator: AP

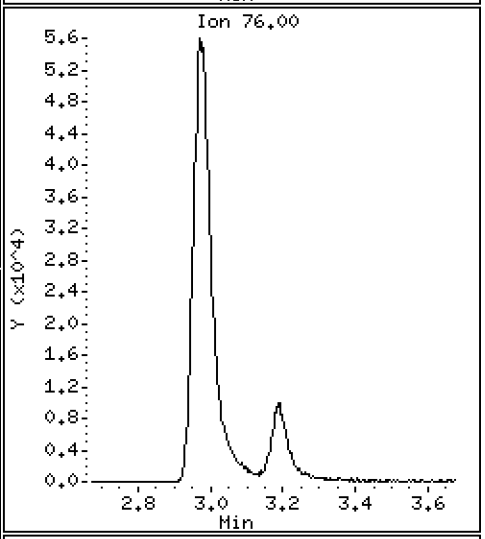
Column phase: DB624 Column diameter: 0.18

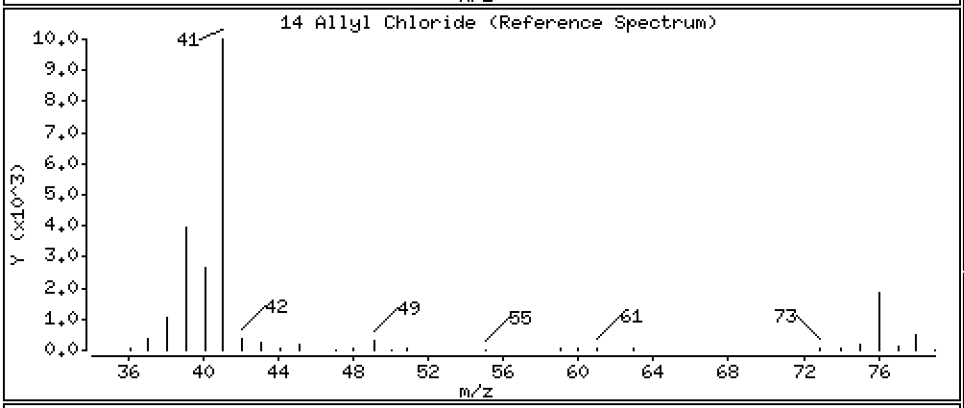
14 Allyl Chloride Concentration: 18.03 ug/l Review Code:

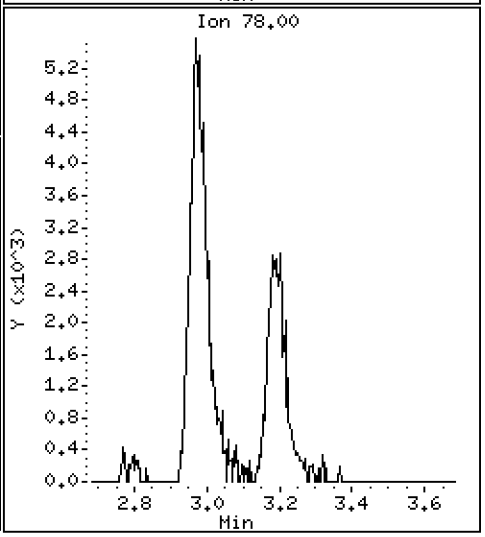


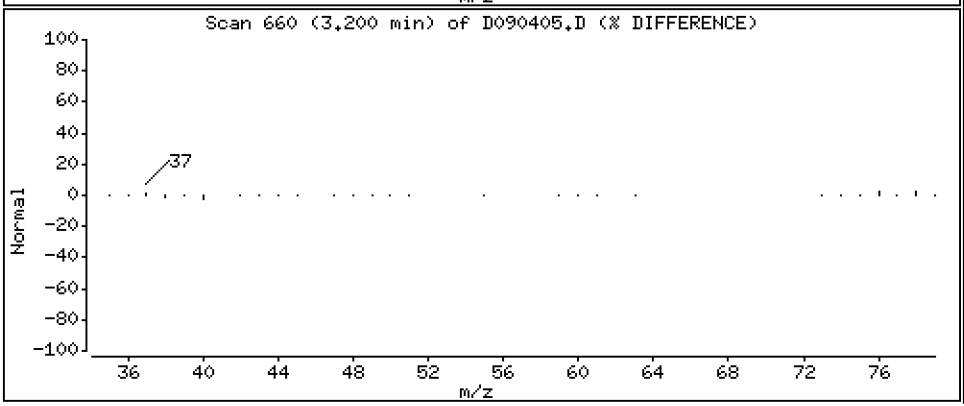












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 17

Date : 04-SEP-2018 12:21

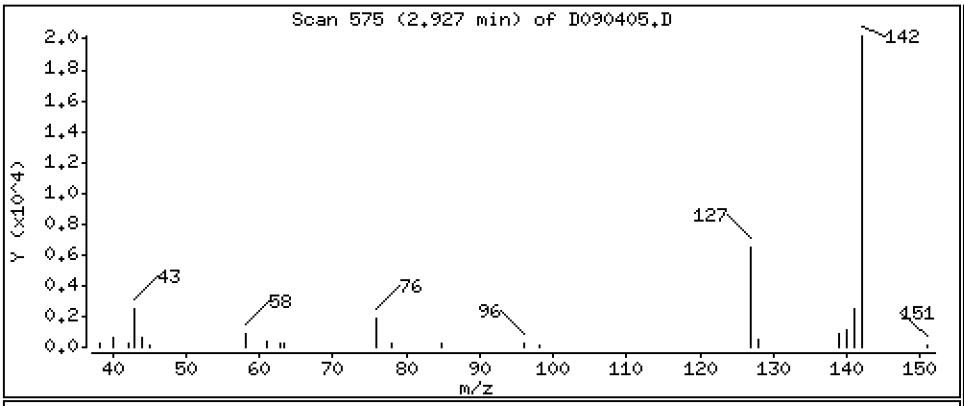
Client ID: VLCSW-180904 Instrument: VOA2.i

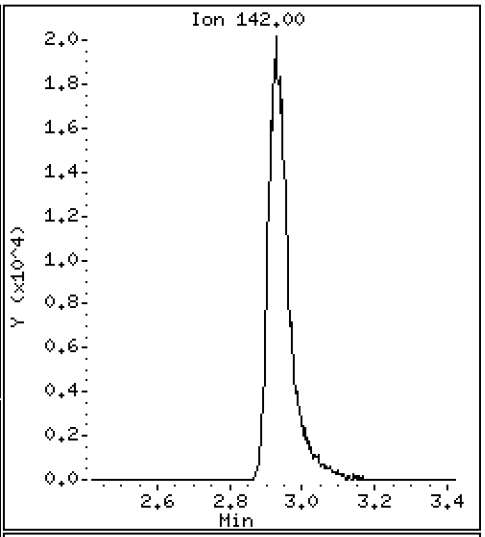
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

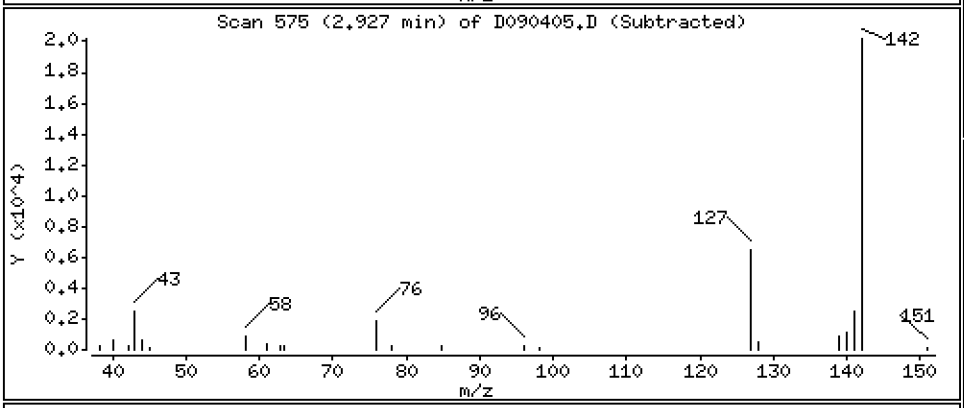
Purge Volume: 5.0 Operator: AP

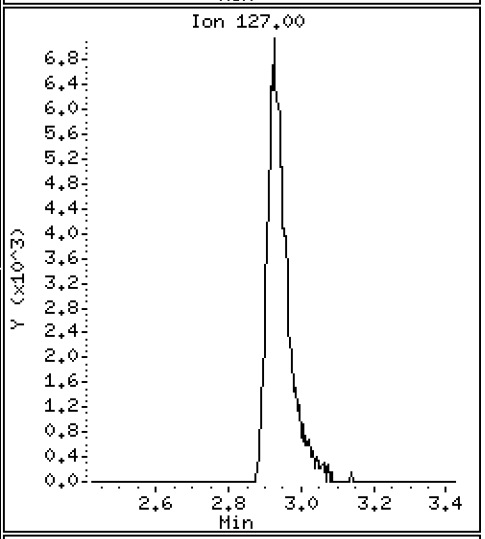
Column phase: DB624 Column diameter: 0.18

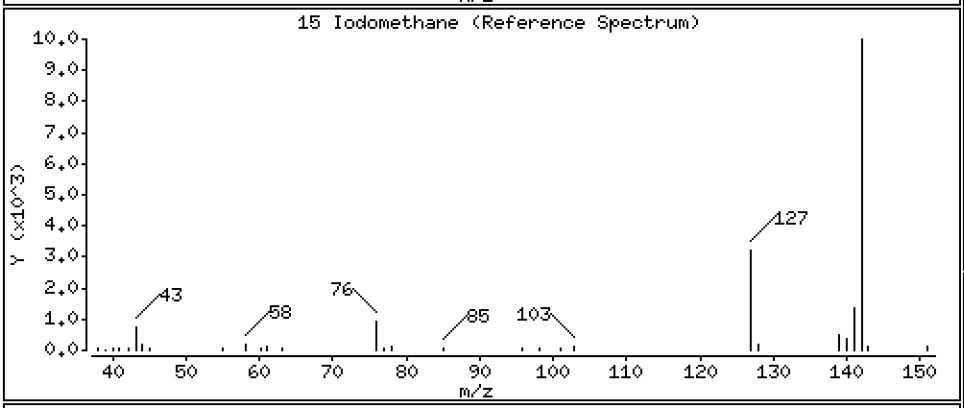
15 Iodomethane Concentration: 30.04 ug/l Review Code:

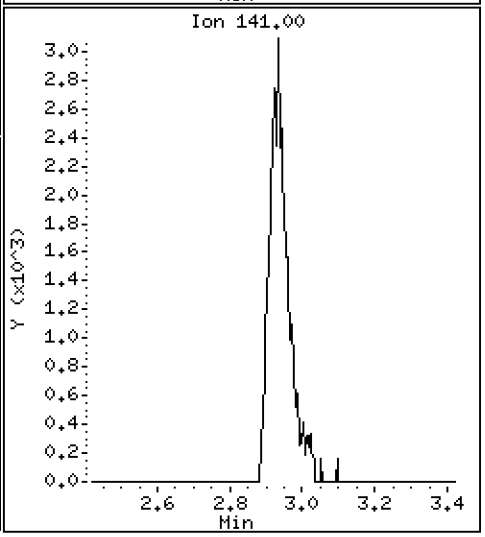


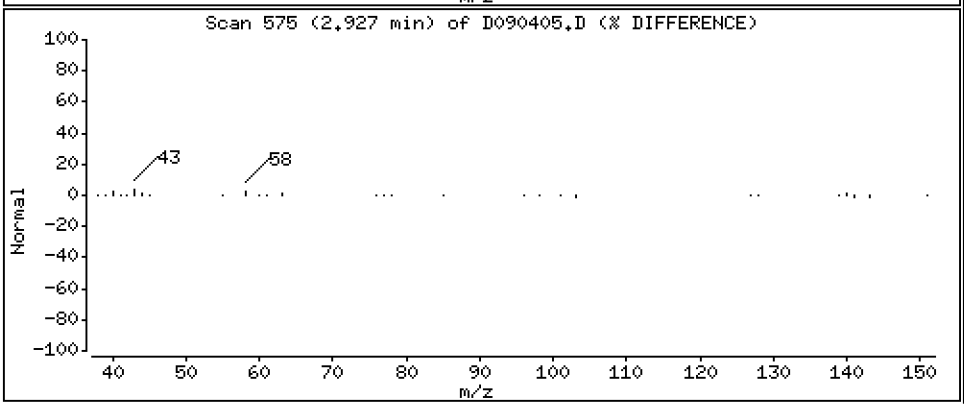












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 18

Date : 04-SEP-2018 12:21

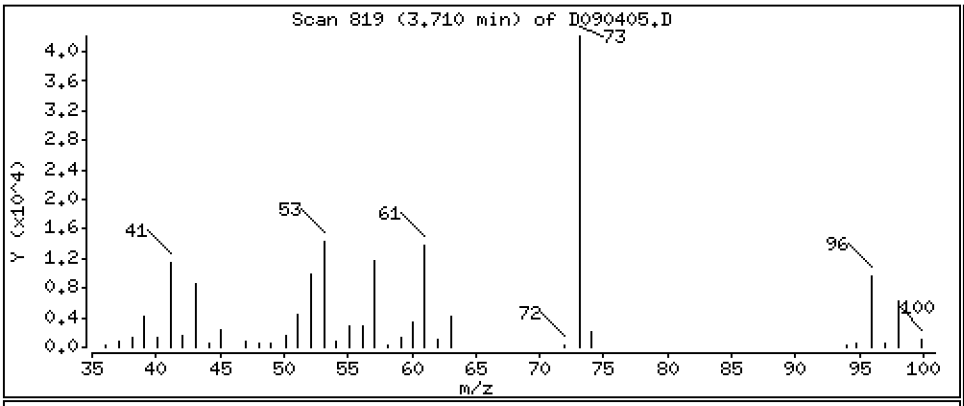
Client ID: VLCSW-180904 Instrument: VOA2.i

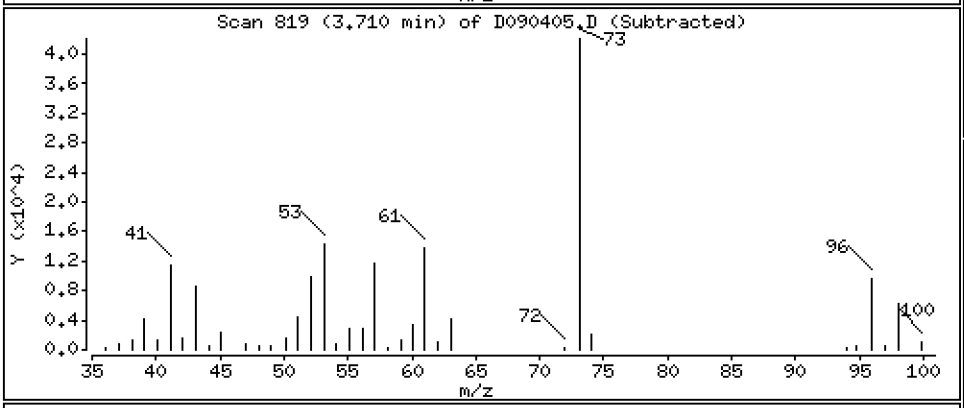
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

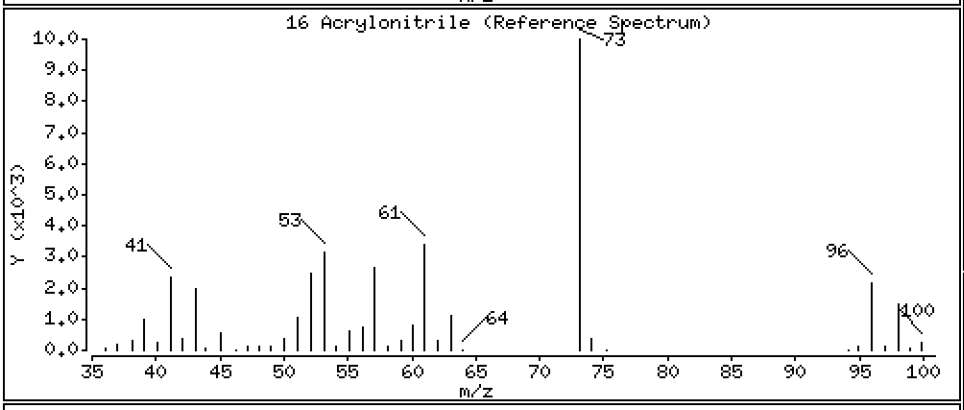
Purge Volume: 5.0 Operator: AP

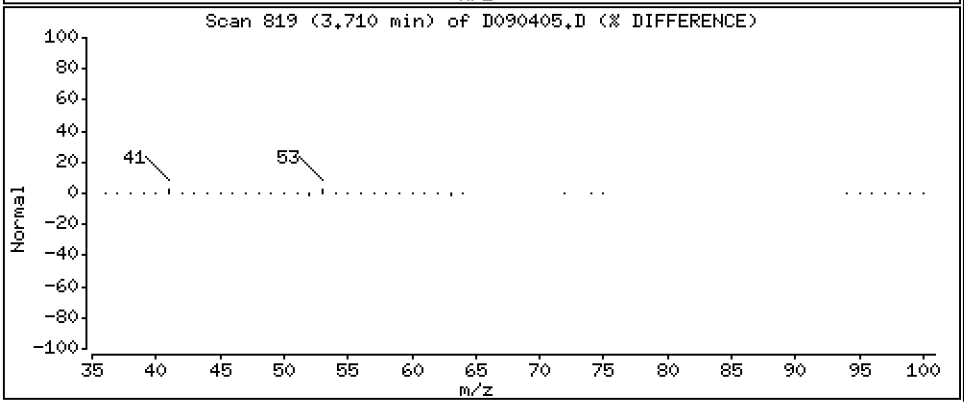
Column phase: DB624 Column diameter: 0.18

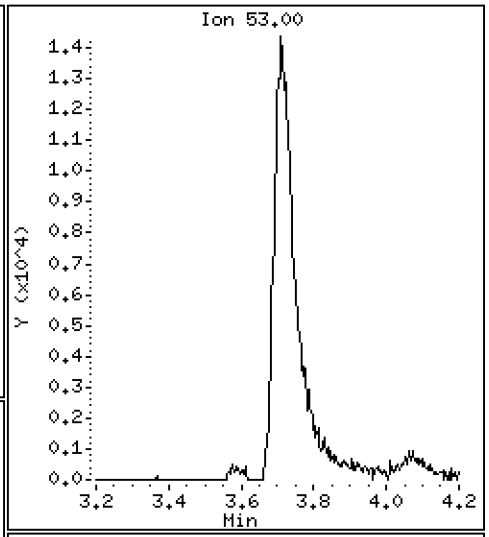
16 Acrylonitrile Concentration: 36.83 ug/l Review Code:

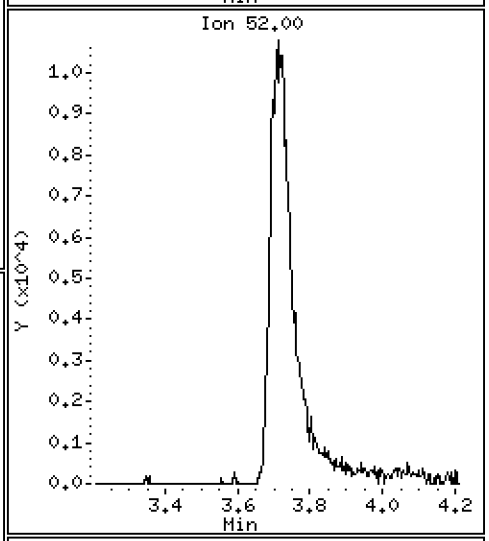


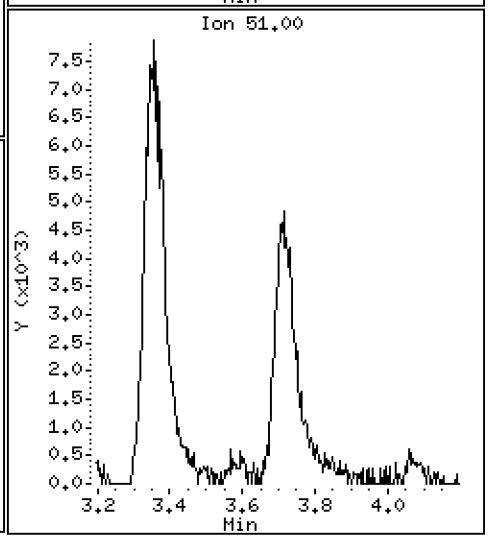












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 19

Date : 04-SEP-2018 12:21

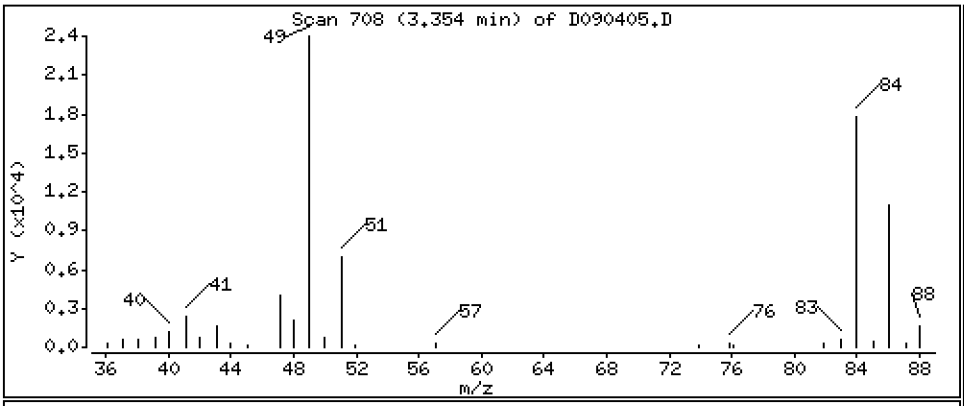
Client ID: VLCSW-180904 Instrument: VOA2.i

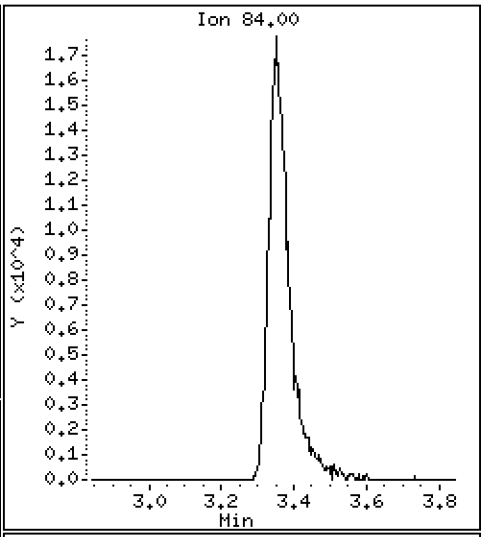
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

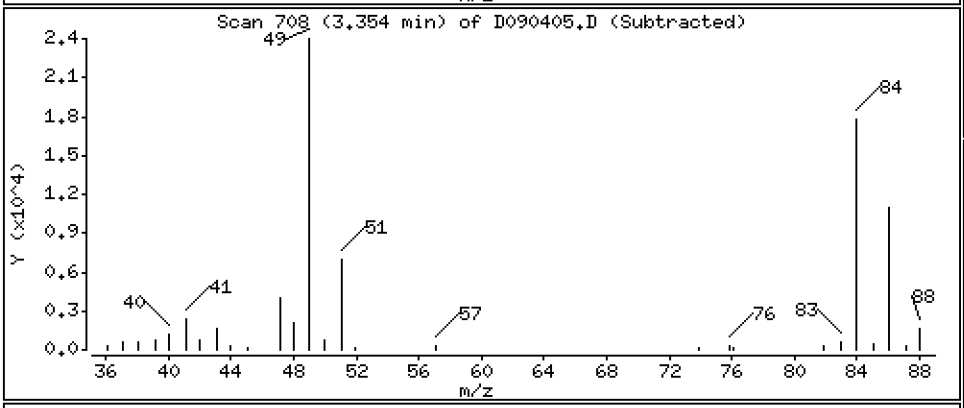
Purge Volume: 5.0 Operator: AP

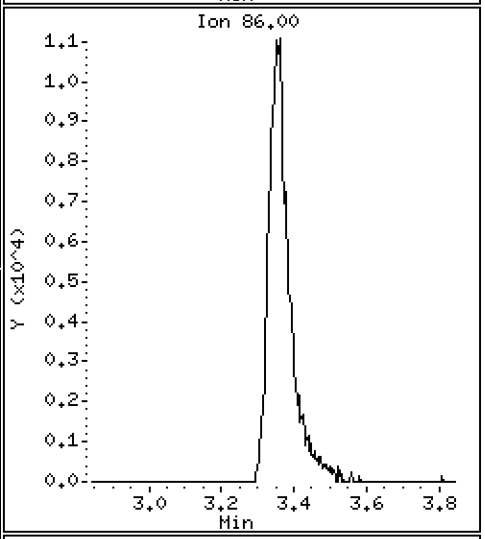
Column phase: DB624 Column diameter: 0.18

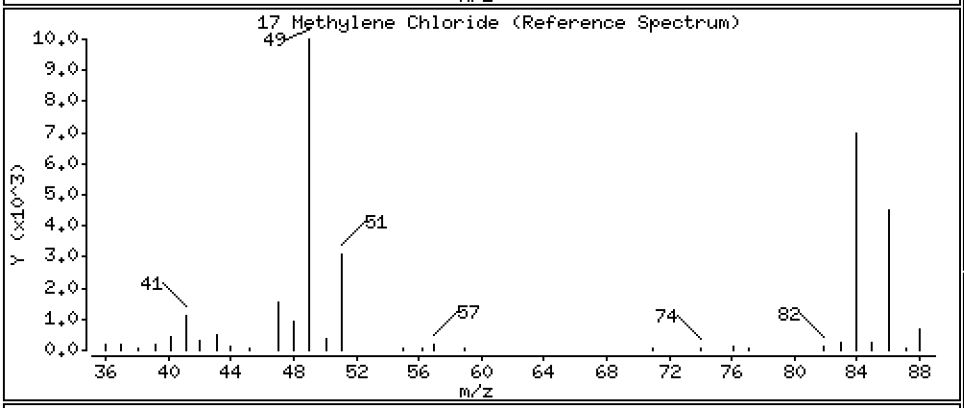
17 Methylene Chloride Concentration: 19.70 ug/l Review Code:

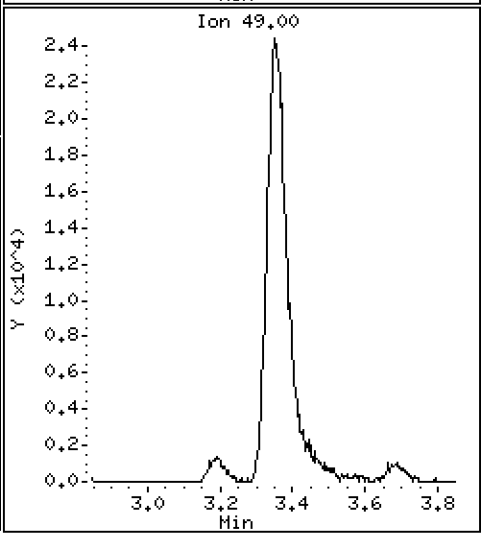


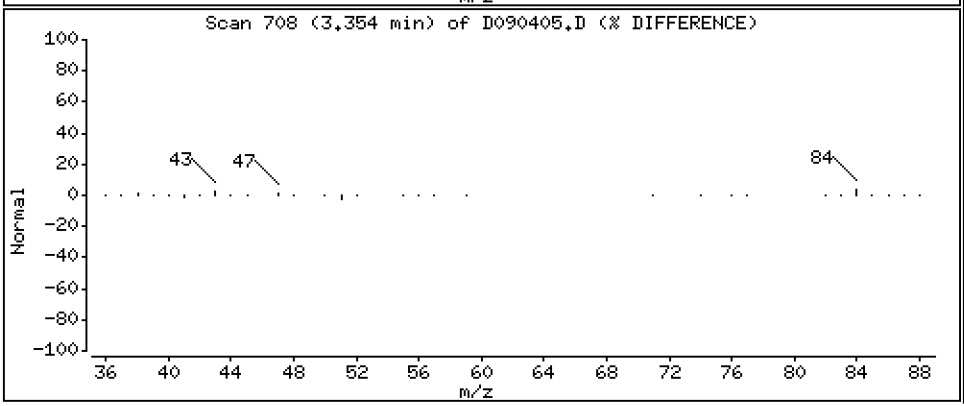












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 20

Date : 04-SEP-2018 12:21

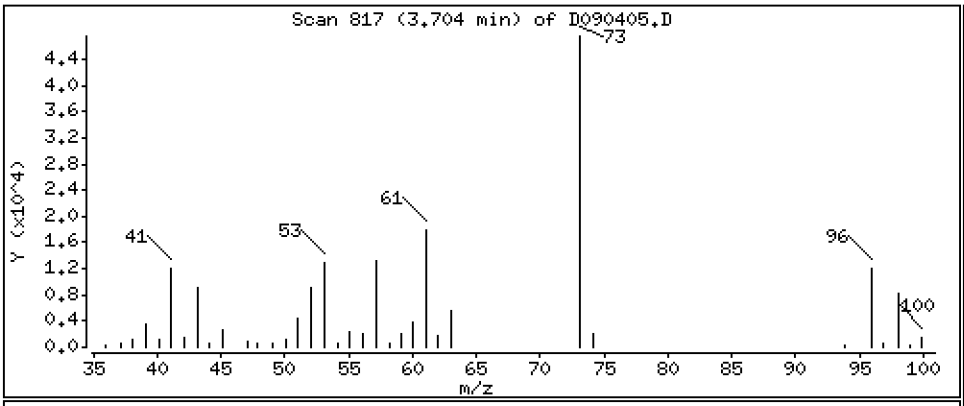
Client ID: VLCSW-180904 Instrument: VOA2.i

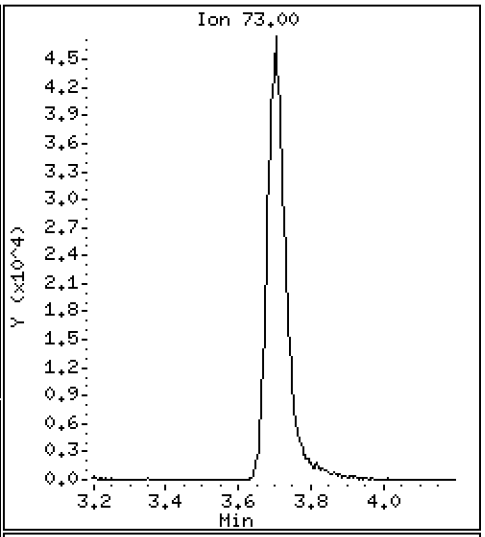
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

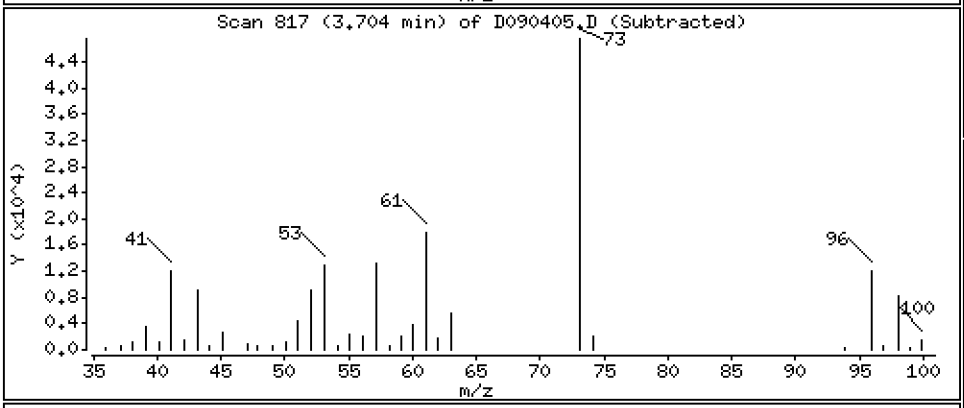
Purge Volume: 5.0 Operator: AP

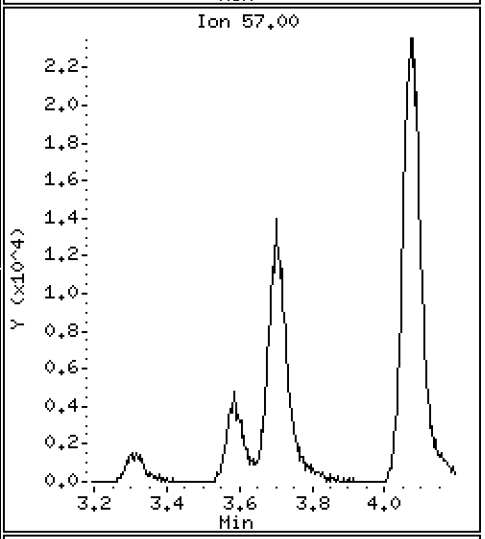
Column phase: DB624 Column diameter: 0.18

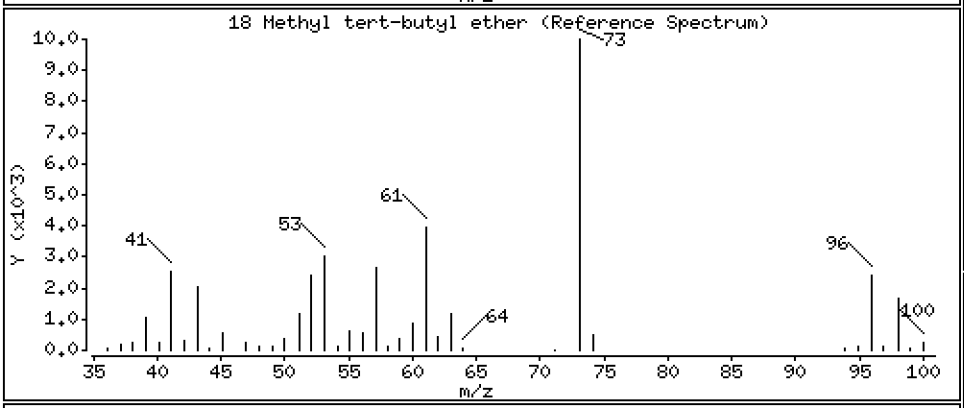
18 Methyl tert-butyl ether Concentration: 18.83 ug/l Review Code:

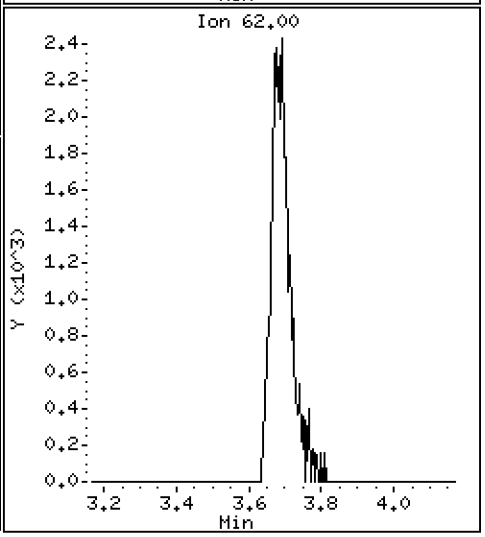


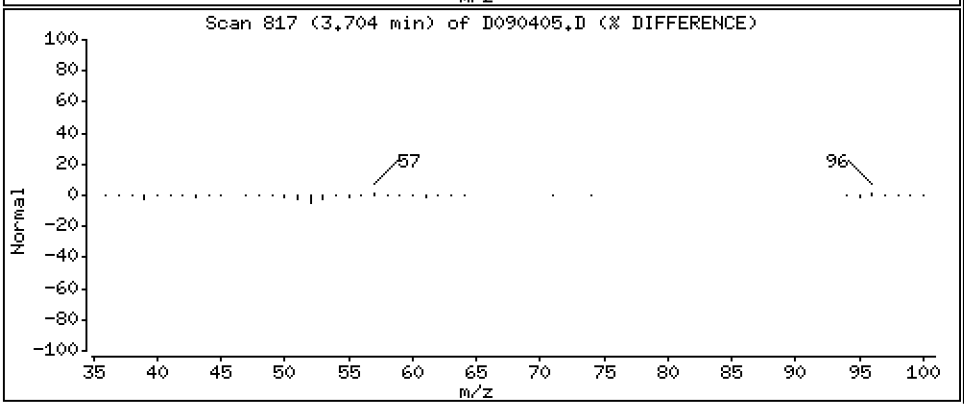












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 21

Date : 04-SEP-2018 12:21

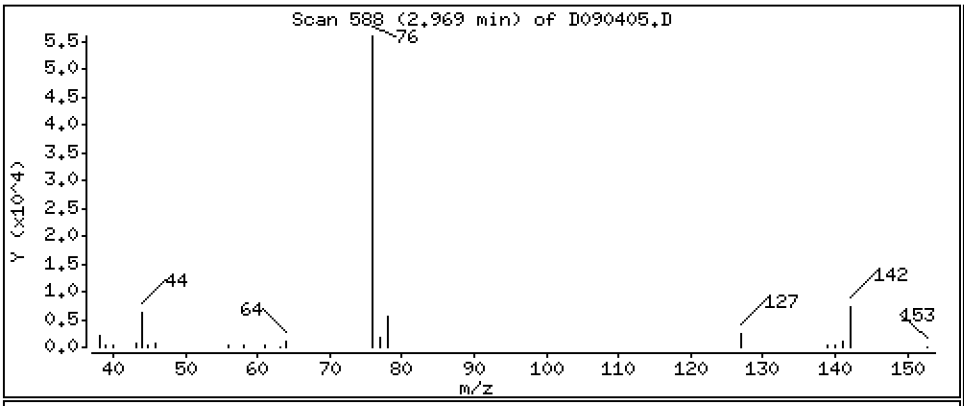
Client ID: VLCSW-180904 Instrument: VOA2.i

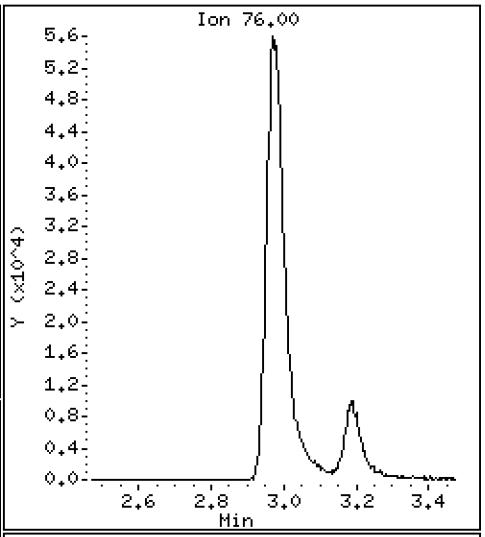
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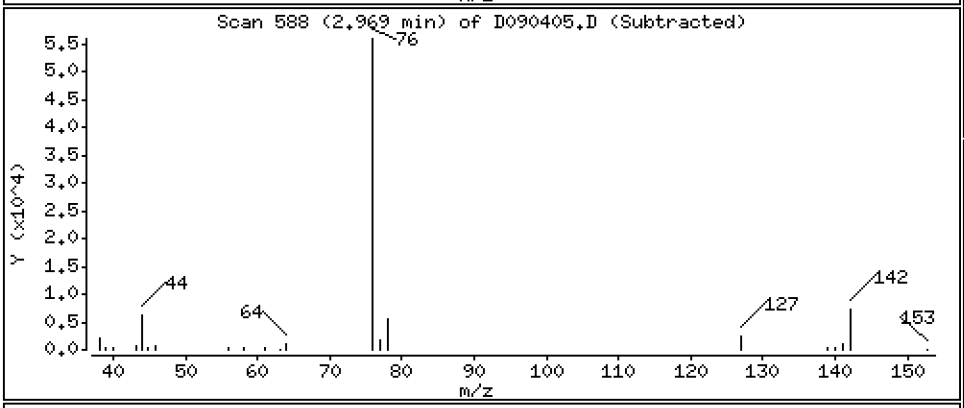
Purge Volume: 5.0 Operator: AP

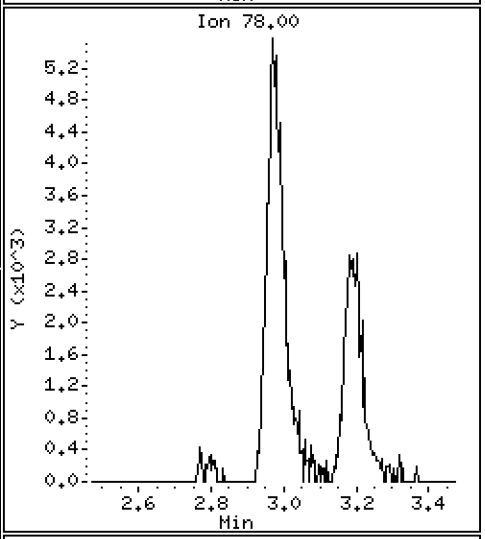
Column phase: DB624 Column diameter: 0.18

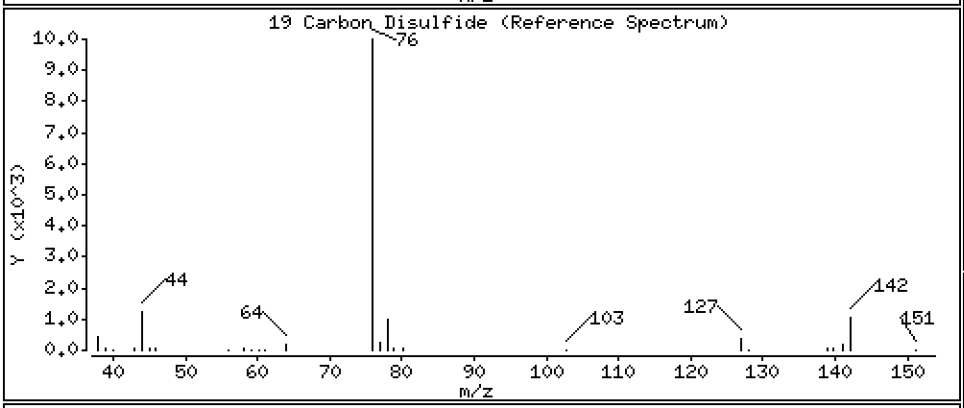
19 Carbon Disulfide Concentration: 36.71 ug/l Review Code:

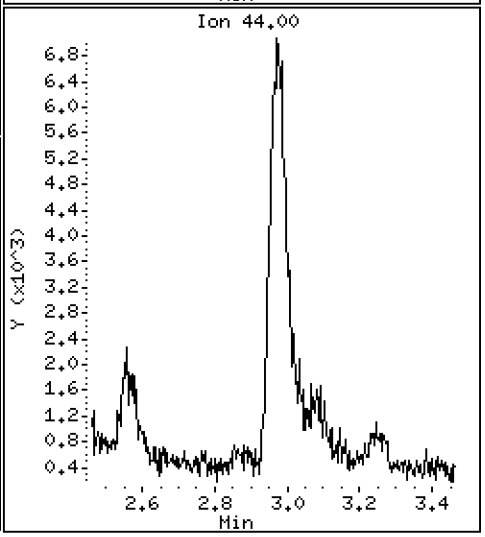


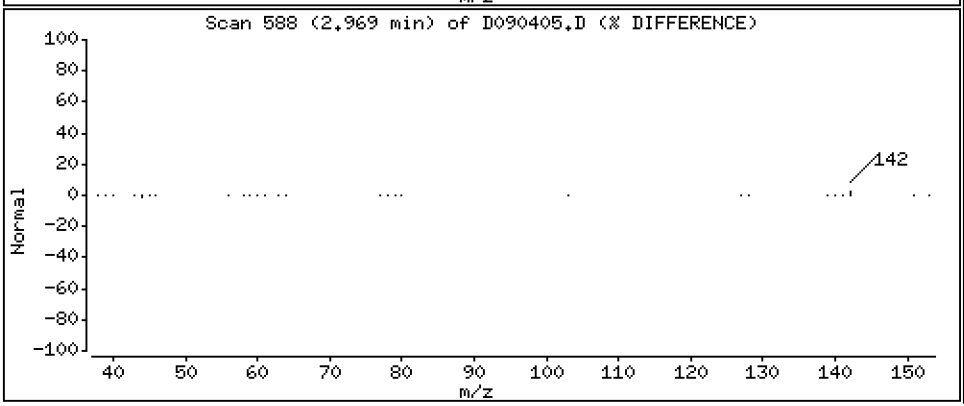












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 22

Date : 04-SEP-2018 12:21

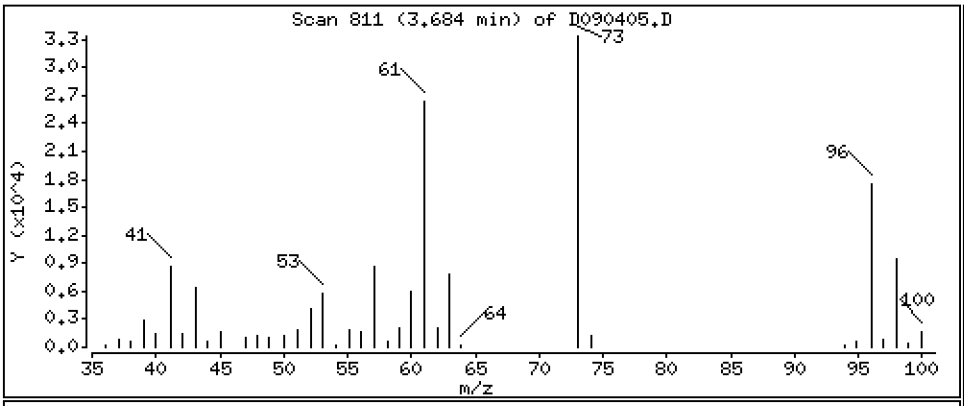
Client ID: VLCSW-180904 Instrument: VOA2.i

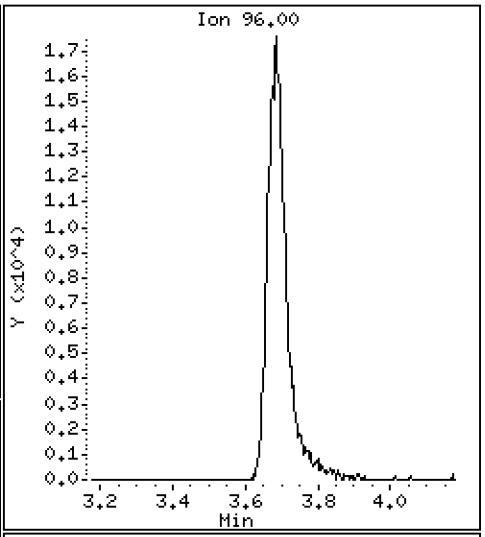
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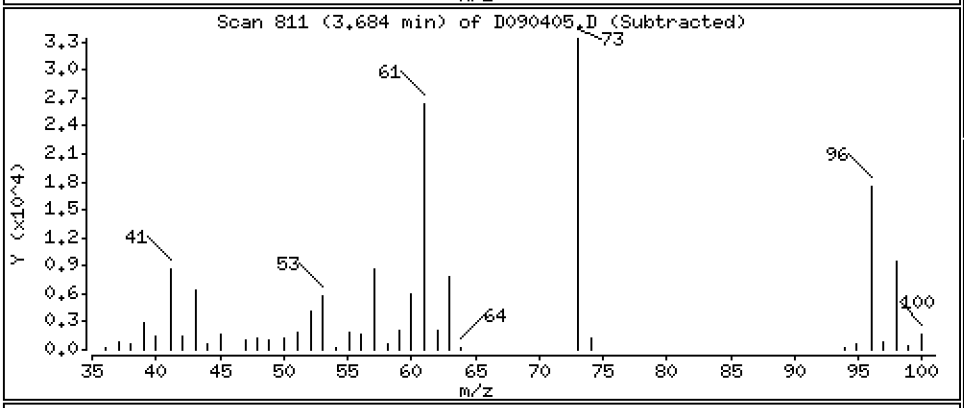
Purge Volume: 5.0 Operator: AP

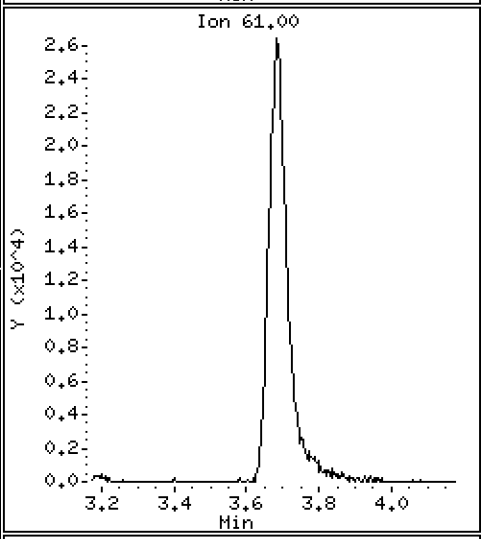
Column phase: DB624 Column diameter: 0.18

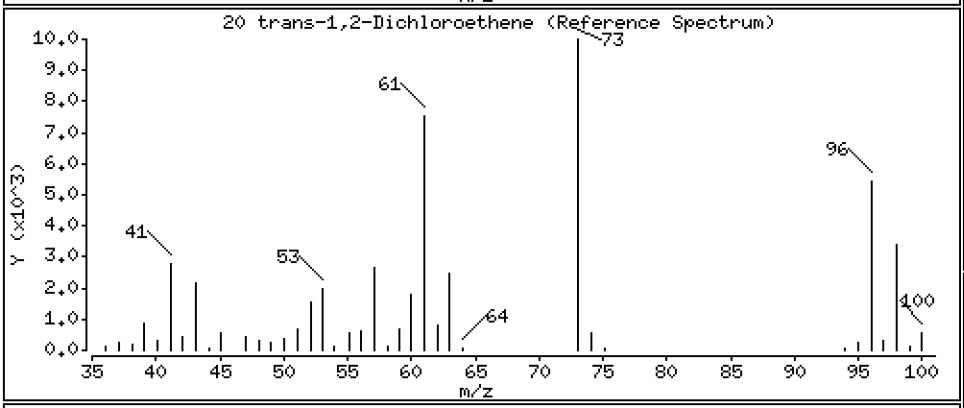
20 trans-1,2-Dichloroethene Concentration: 19.99 ug/l Review Code:

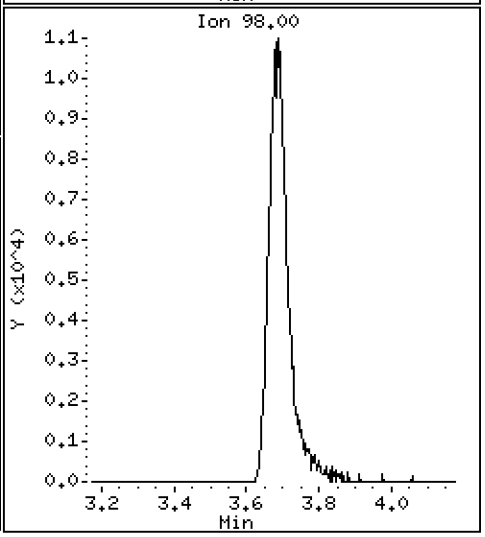


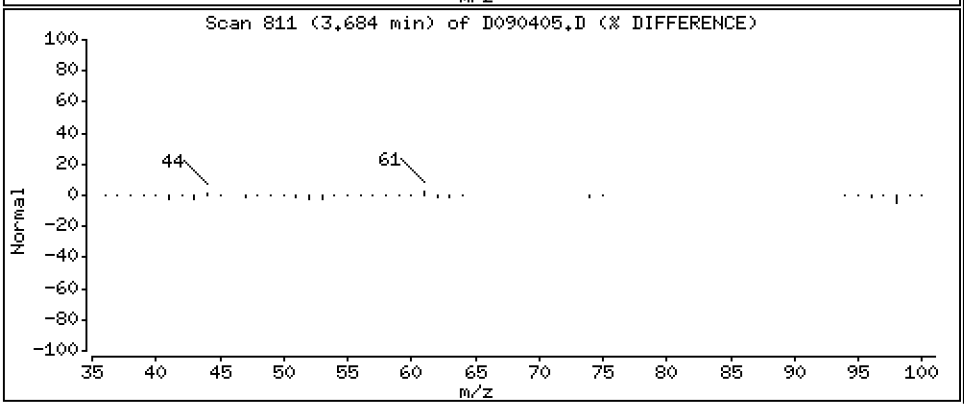












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 23

Date : 04-SEP-2018 12:21

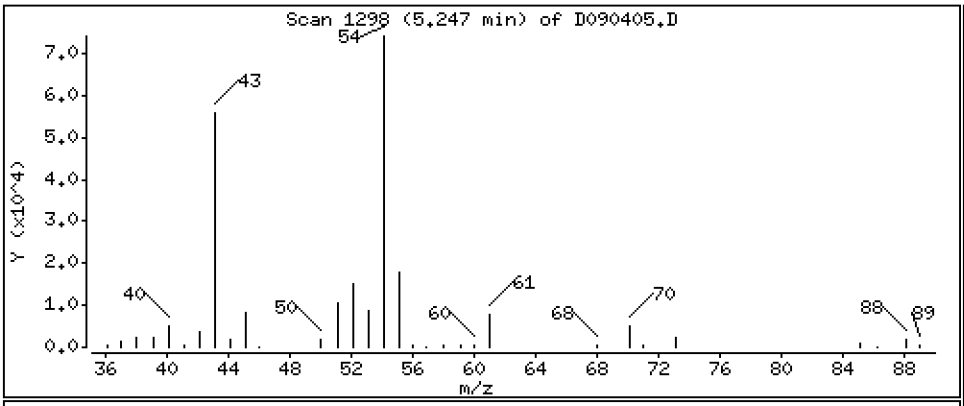
Client ID: VLCSW-180904 Instrument: VOA2.i

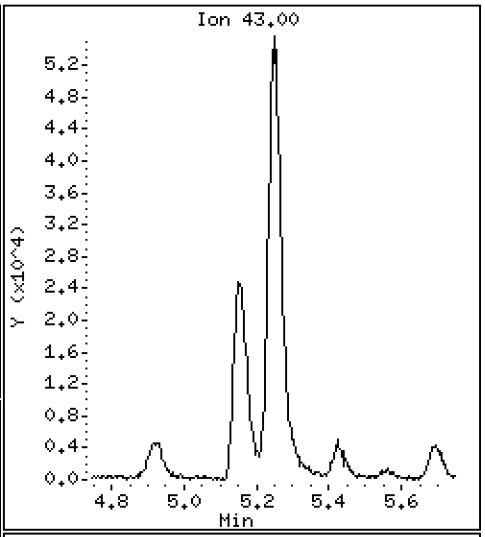
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

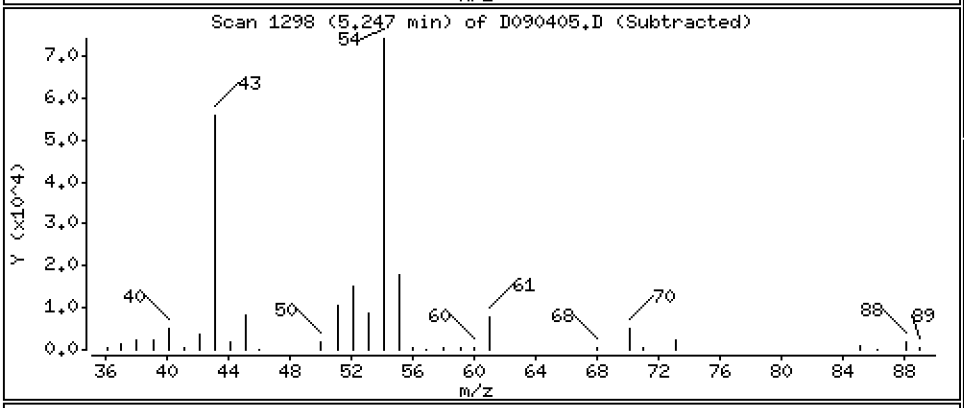
Purge Volume: 5.0 Operator: AP

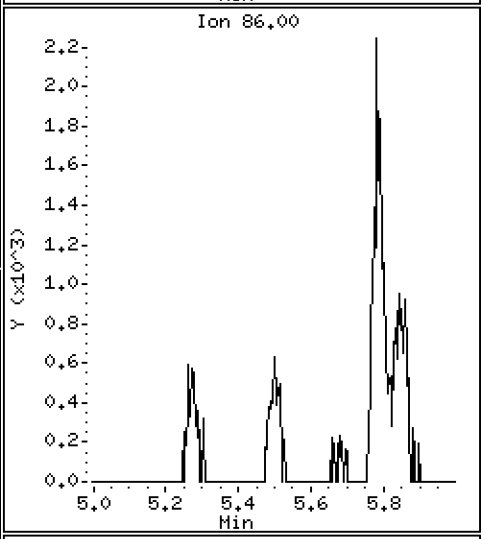
Column phase: DB624 Column diameter: 0.18

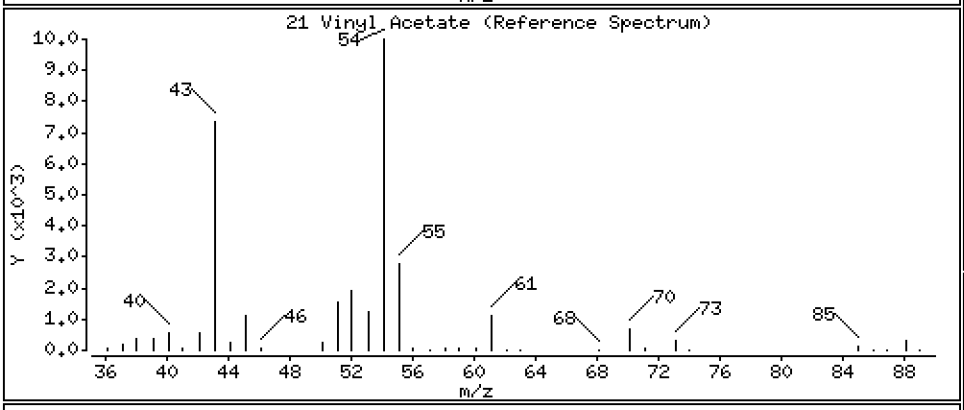
21 Vinyl Acetate Concentration: 36.60 ug/l Review Code:

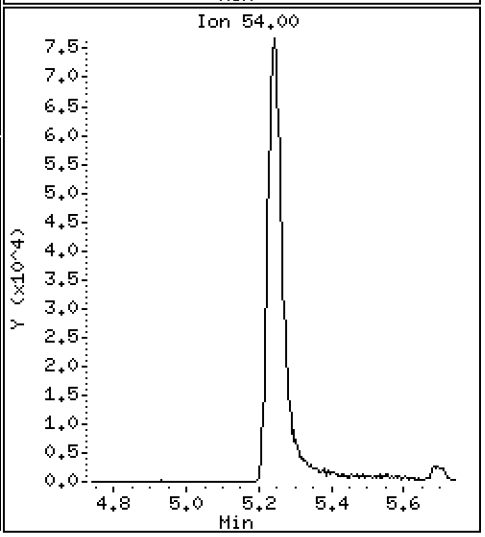


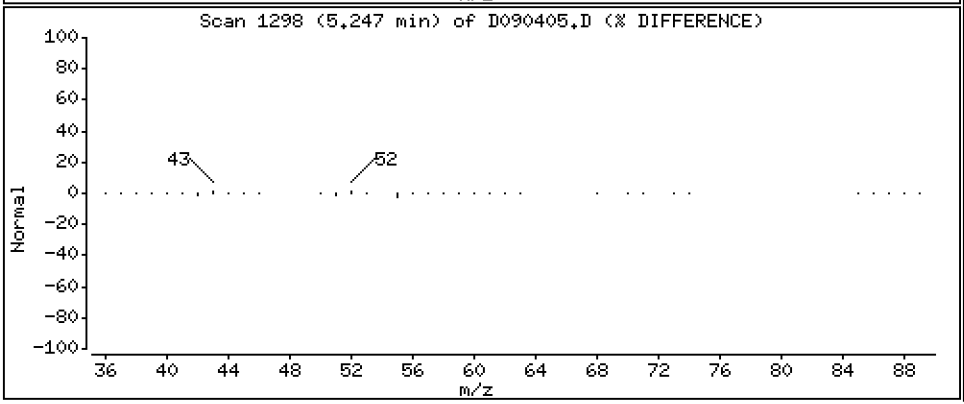












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 24

Date : 04-SEP-2018 12:21

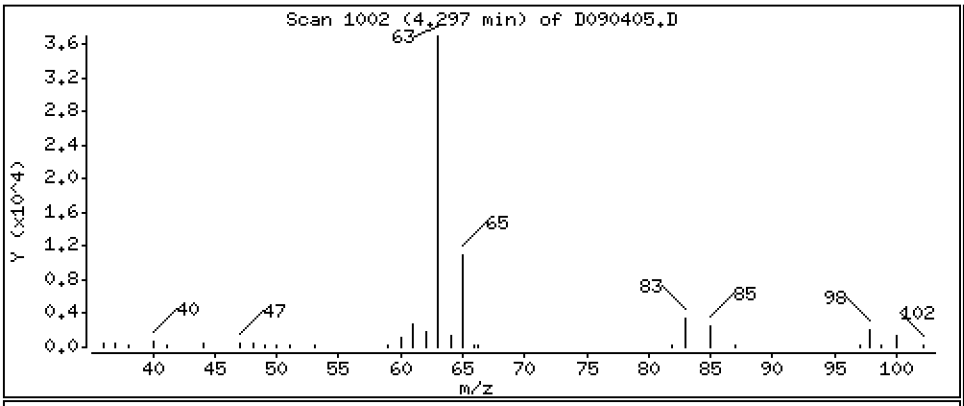
Client ID: VLCSW-180904 Instrument: VOA2.i

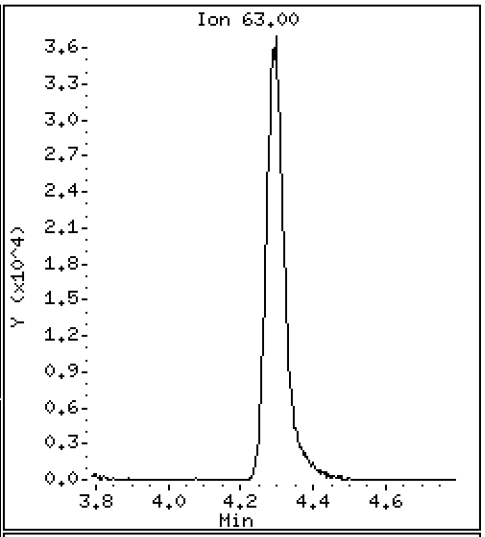
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

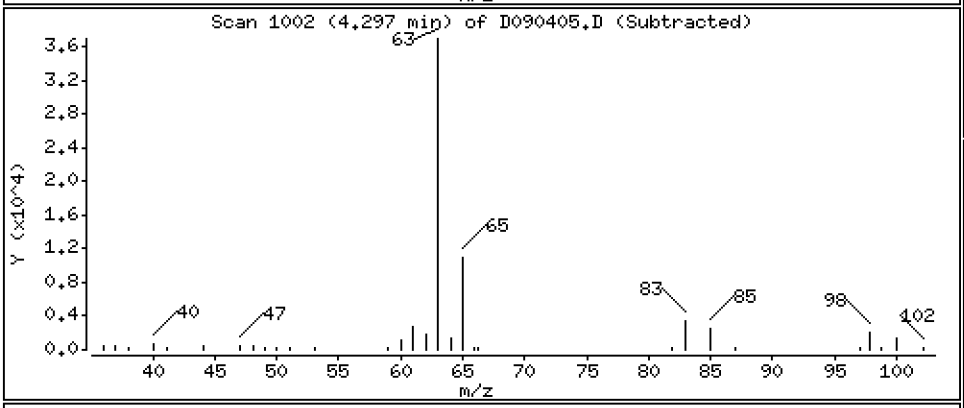
Purge Volume: 5.0 Operator: AP

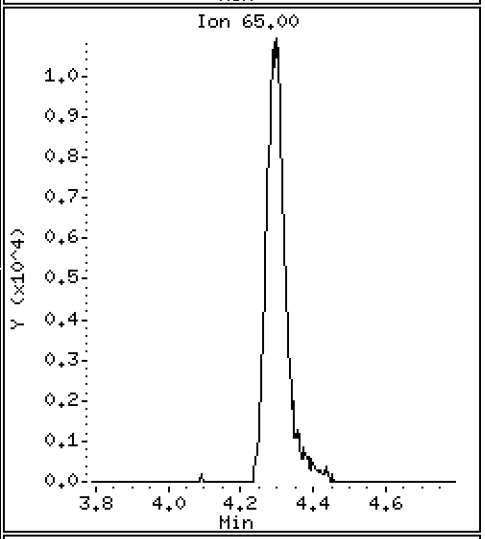
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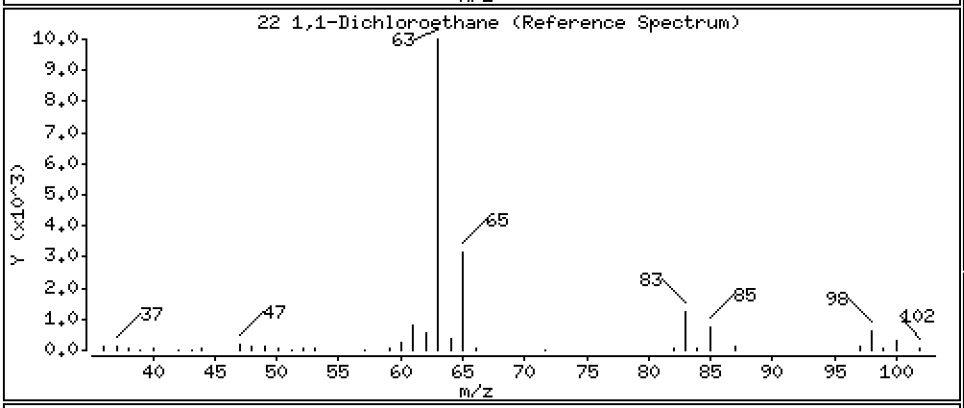
22 1,1-Dichloroethane Concentration: 19.10 ug/l Review Code:

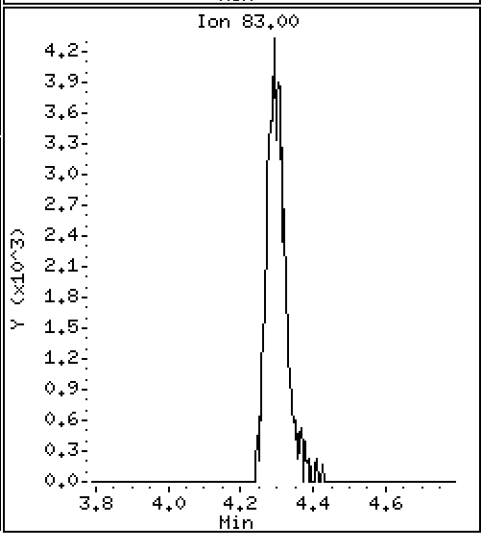


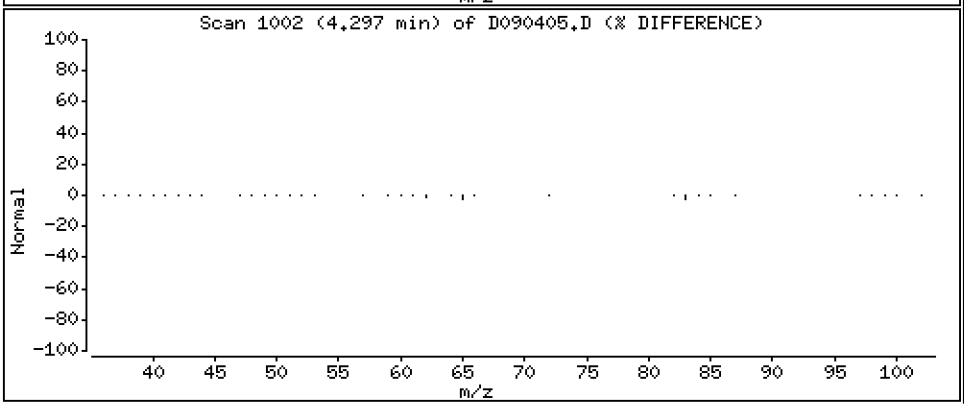












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 25

Date : 04-SEP-2018 12:21

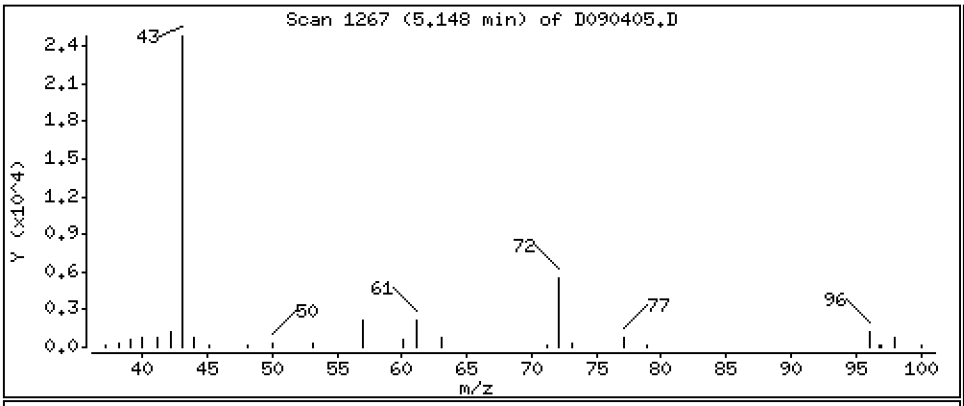
Client ID: VLCSW-180904 Instrument: VOA2.i

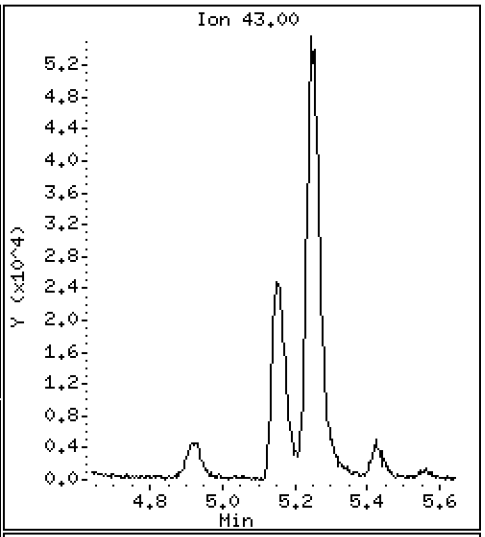
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

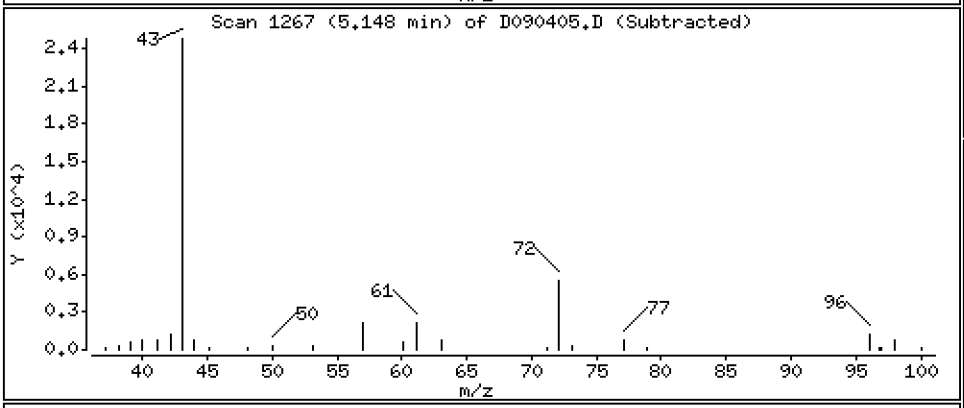
Purge Volume: 5.0 Operator: AP

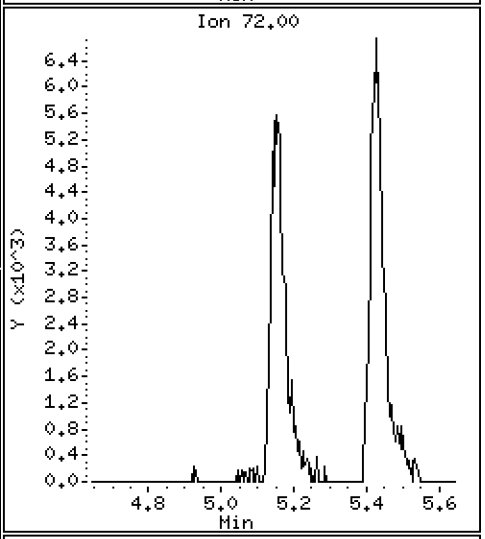
Column phase: DB624 Column diameter: 0.18

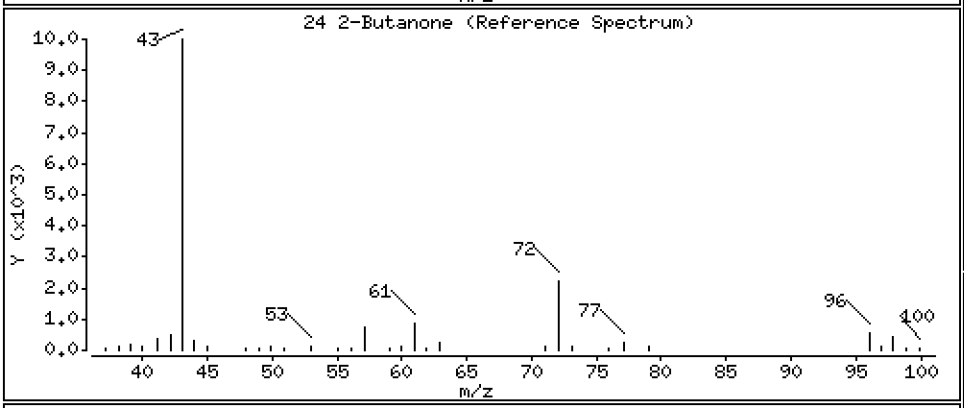
24 2-Butanone Concentration: 39.92 ug/l Review Code:

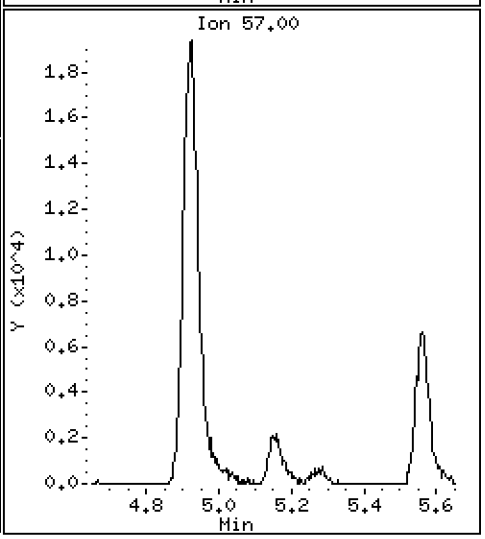


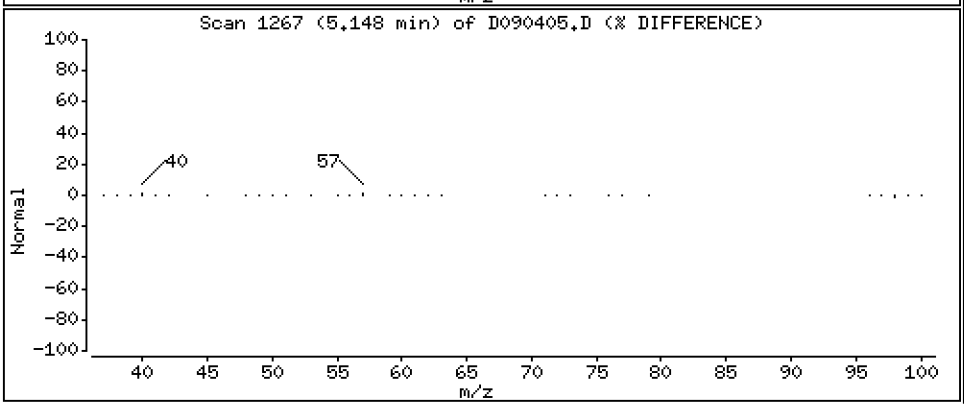












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 26

Date : 04-SEP-2018 12:21

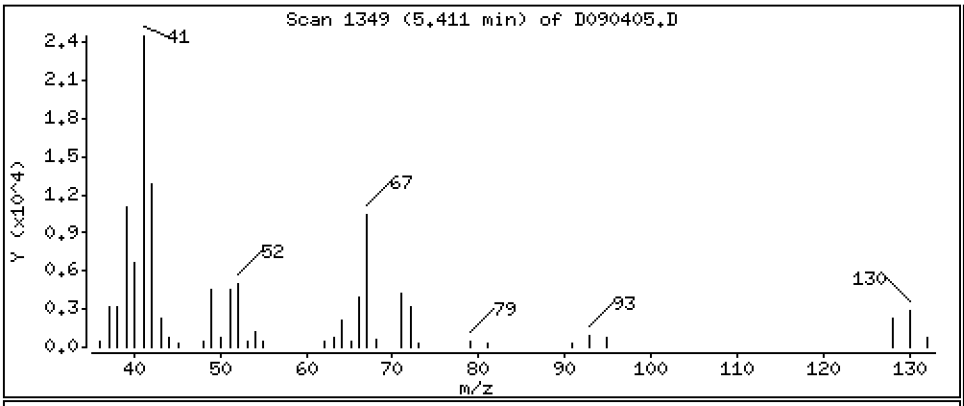
Client ID: VLCSW-180904 Instrument: VOA2.i

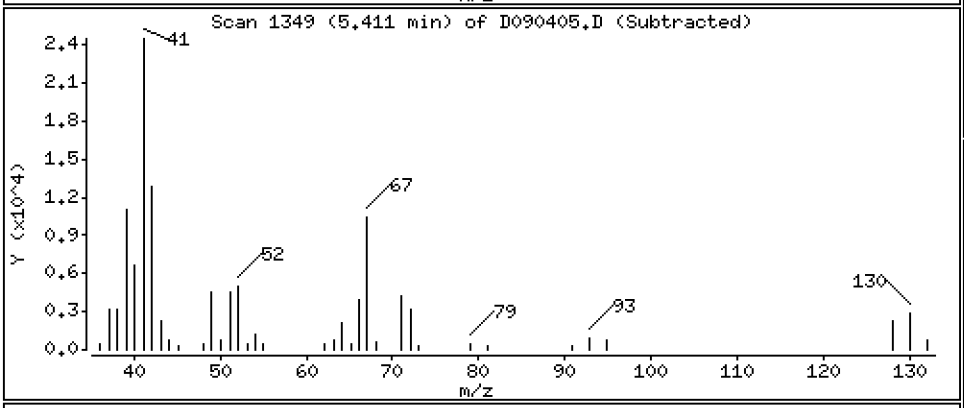
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

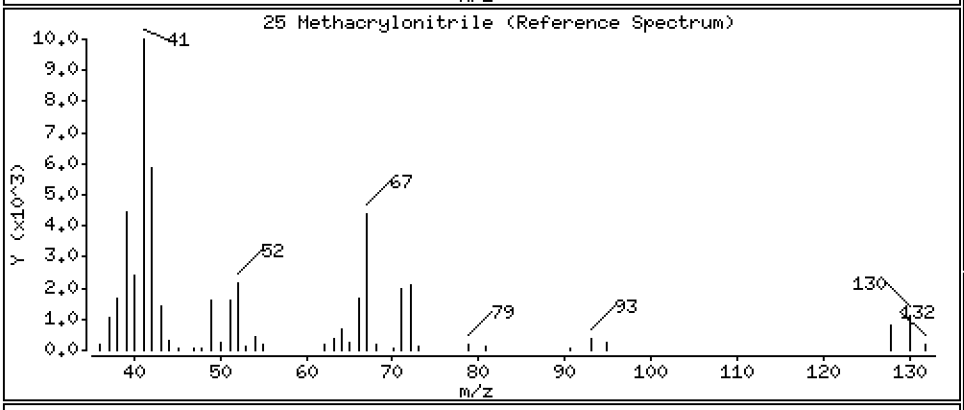
Purge Volume: 5.0 Operator: AP

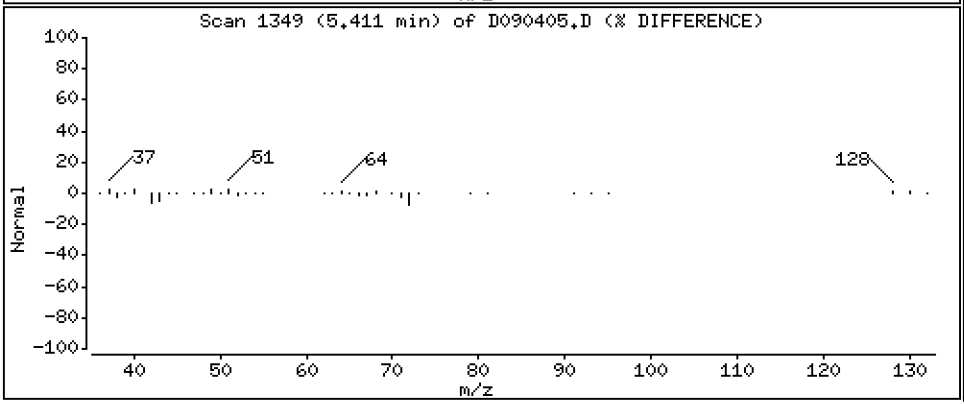
Column phase: DB624 Column diameter: 0.18

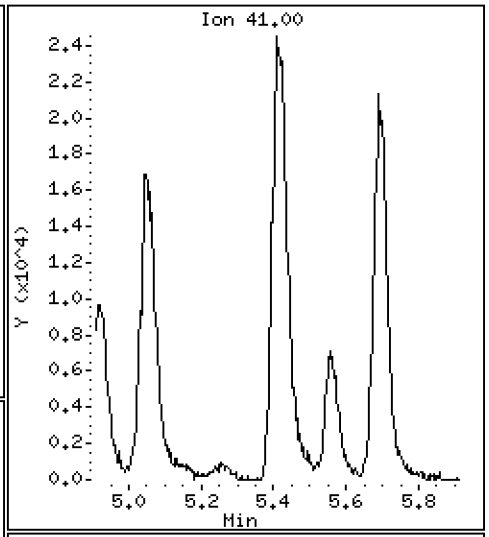
25 Methacrylonitrile Concentration: 19.98 ug/l Review Code:

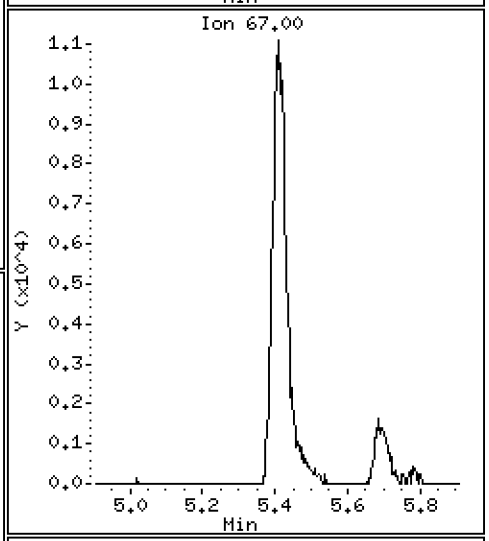


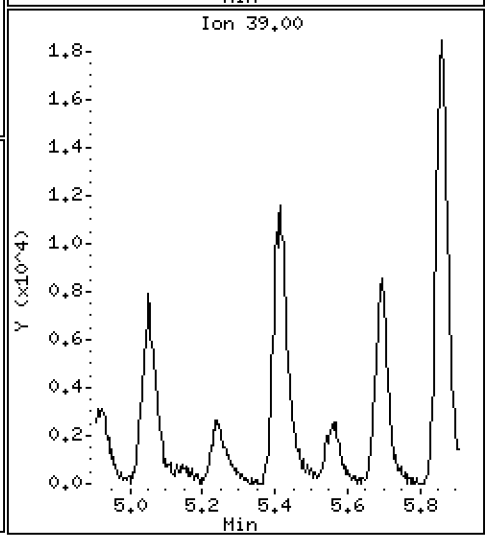












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 27

Date : 04-SEP-2018 12:21

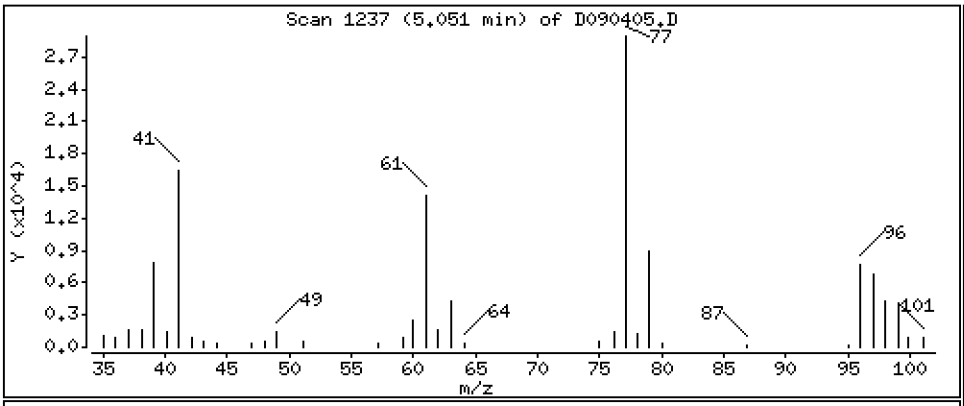
Client ID: VLCSW-180904 Instrument: VOA2.i

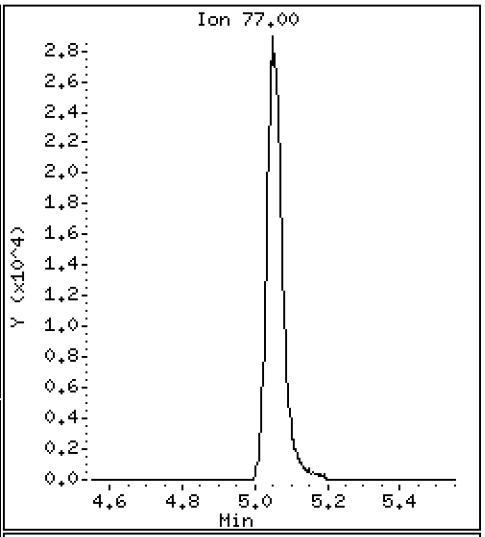
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

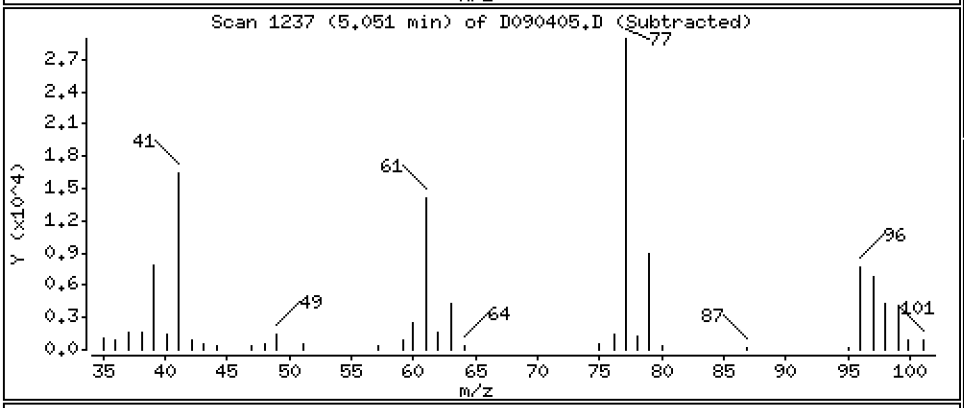
Purge Volume: 5.0 Operator: AP

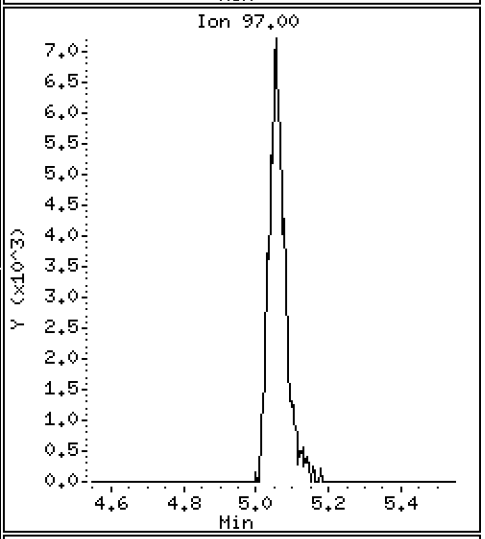
Column phase: DB624 Column diameter: 0.18

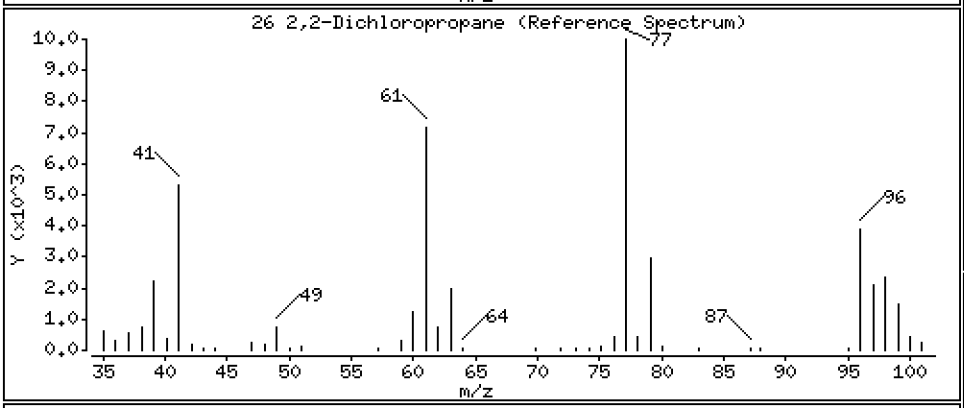
26 2,2-Dichloropropane Concentration: 23.35 ug/l Review Code:

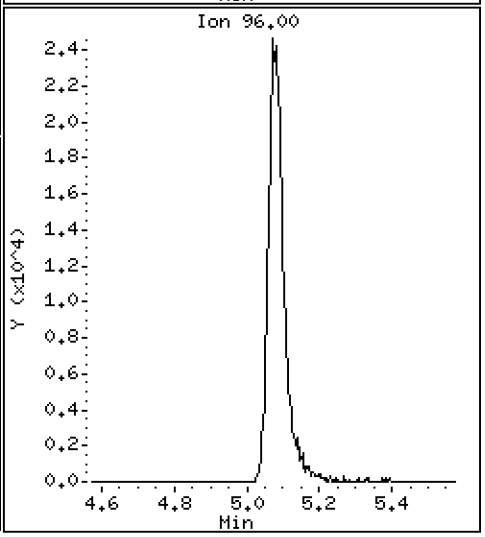


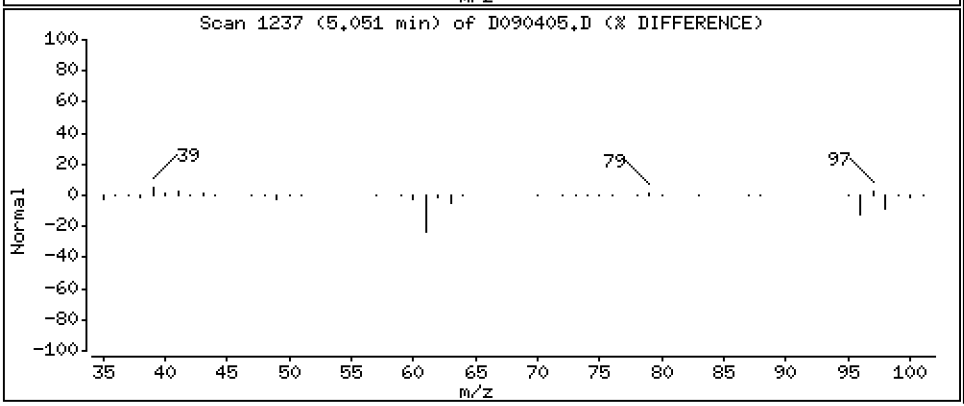












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 28

Date : 04-SEP-2018 12:21

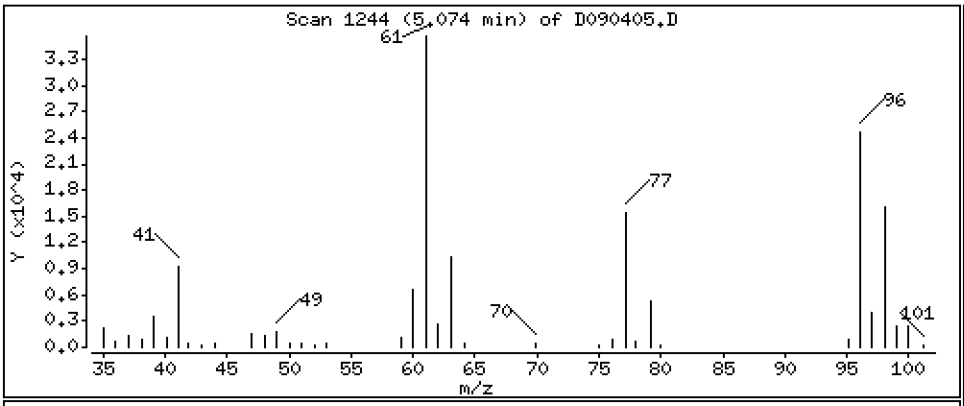
Client ID: VLCSW-180904 Instrument: VOA2.i

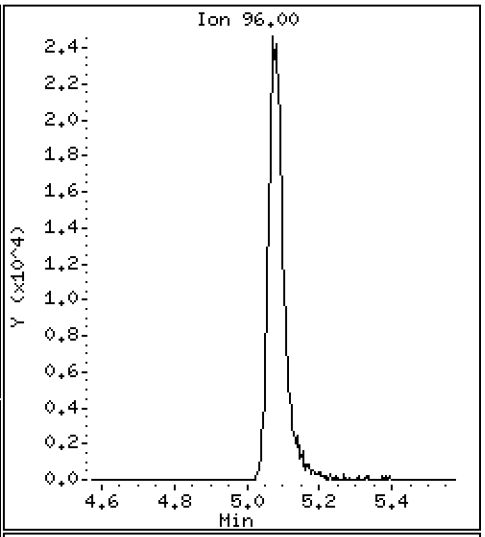
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

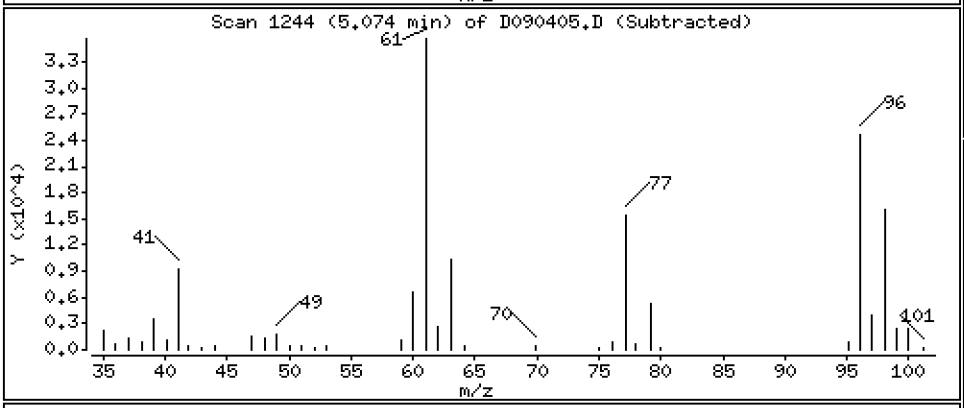
Purge Volume: 5.0 Operator: AP

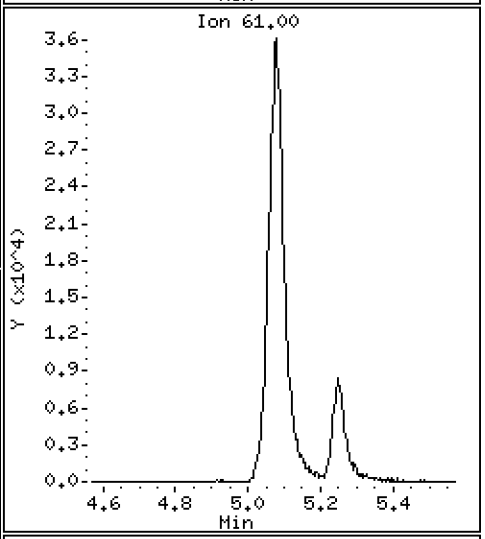
Column phase: DB624 Column diameter: 0.18

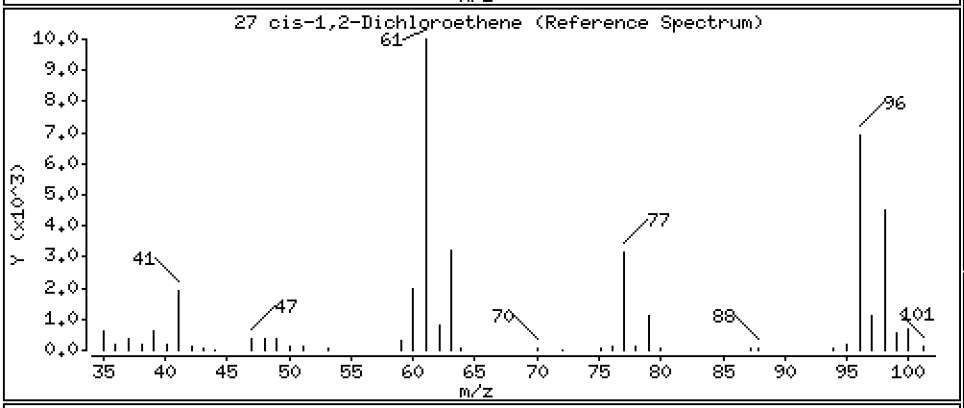
27 cis-1,2-Dichloroethene Concentration: 20.24 ug/l Review Code:

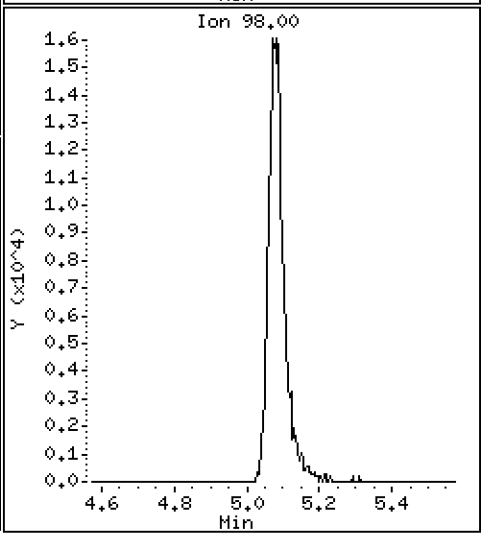


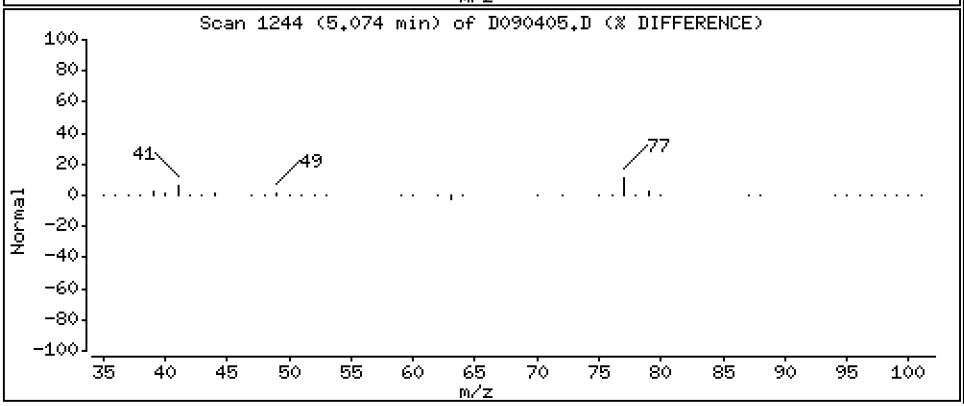












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 29

Date : 04-SEP-2018 12:21

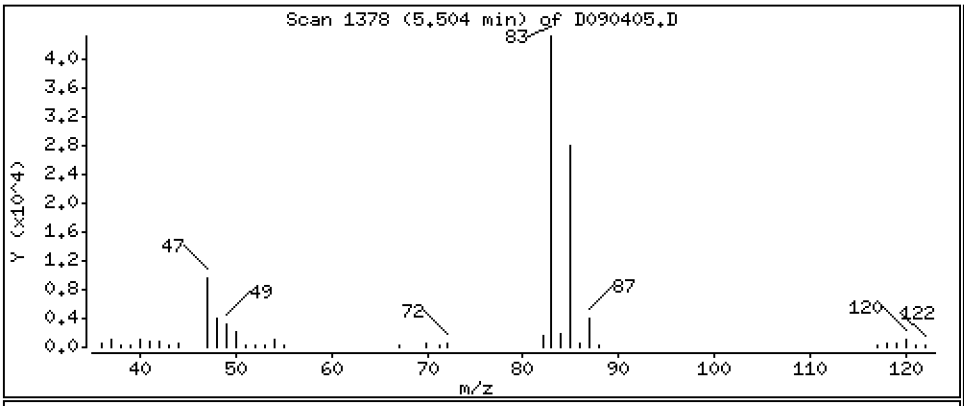
Client ID: VLCSW-180904 Instrument: VOA2.i

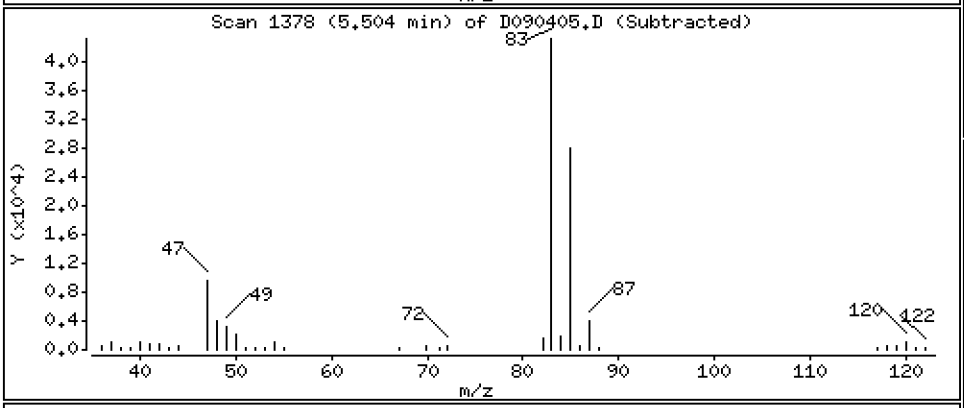
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

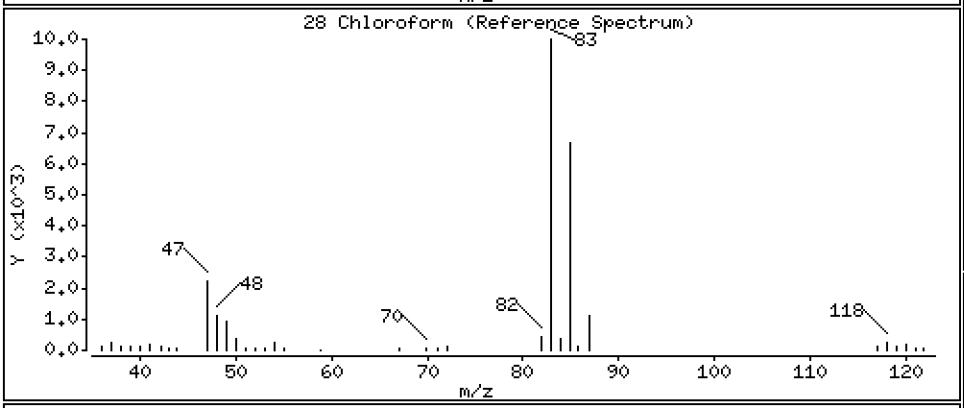
Purge Volume: 5.0 Operator: AP

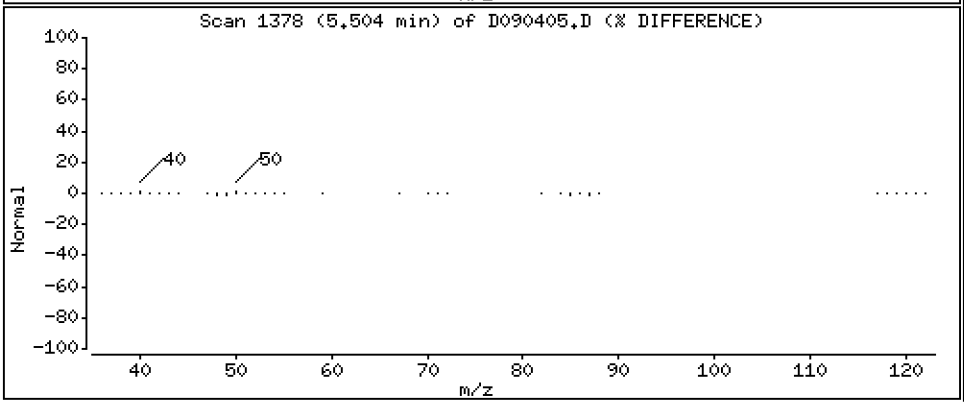
Column phase: DB624 Column diameter: 0.18

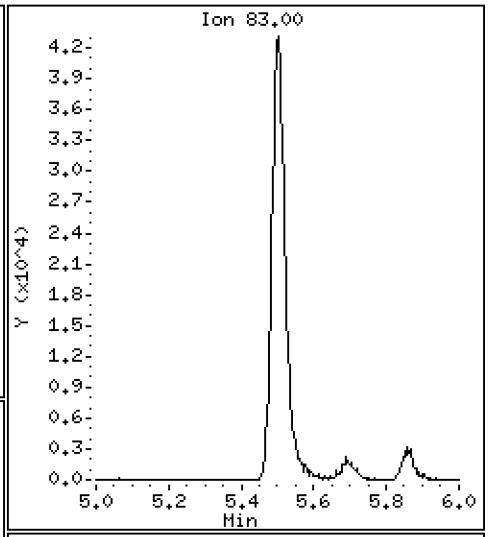
28 Chloroform Concentration: 19.41 ug/l Review Code:

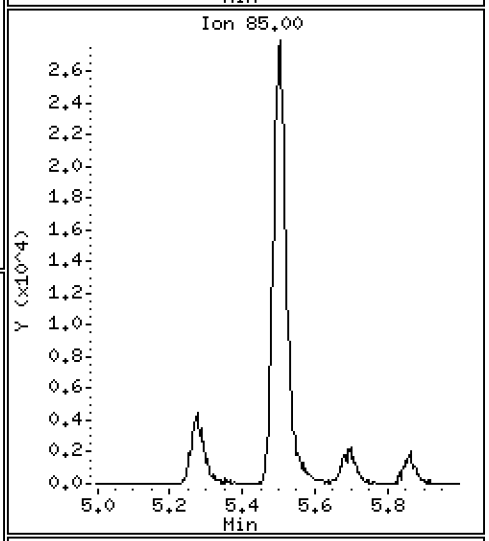


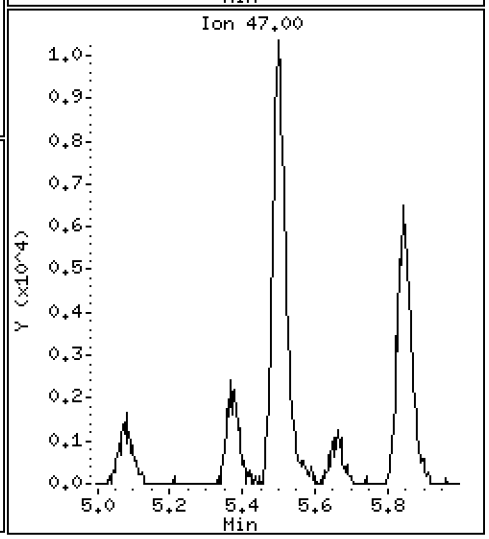












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 30

Date : 04-SEP-2018 12:21

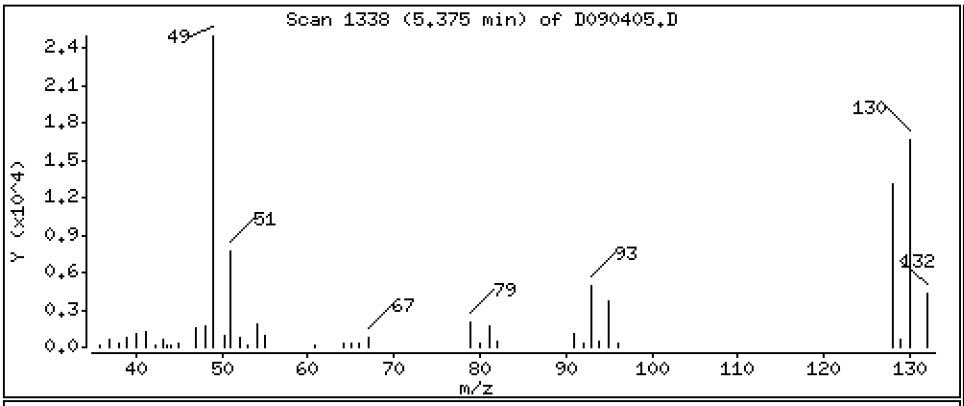
Client ID: VLCSW-180904 Instrument: VOA2.i

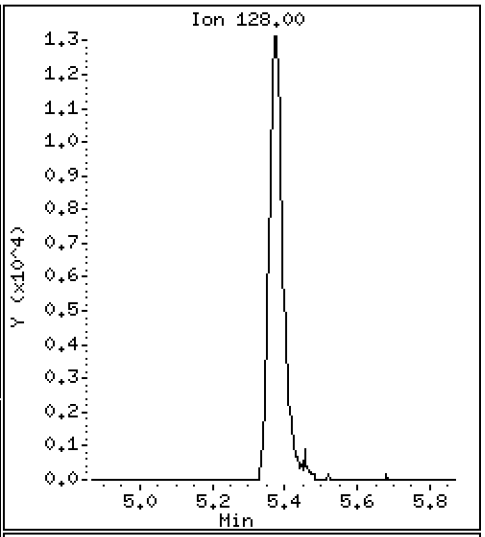
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

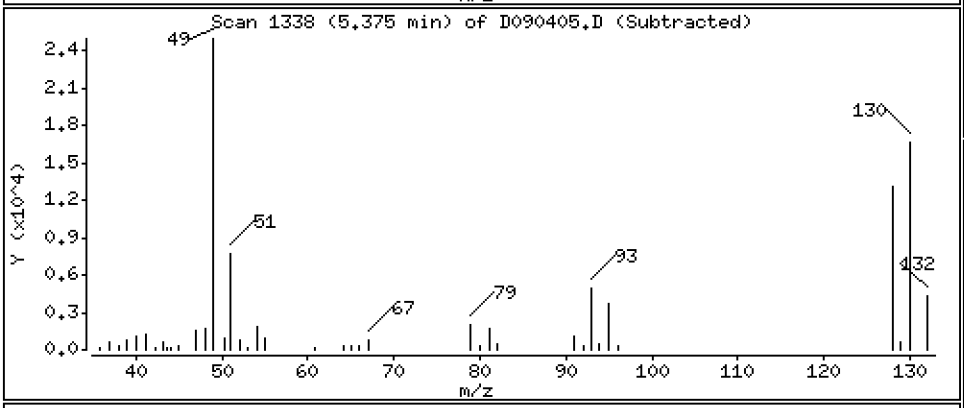
Purge Volume: 5.0 Operator: AP

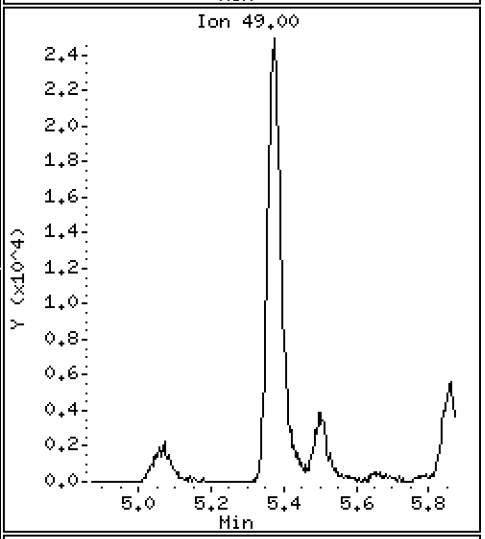
Column phase: DB624 Column diameter: 0.18

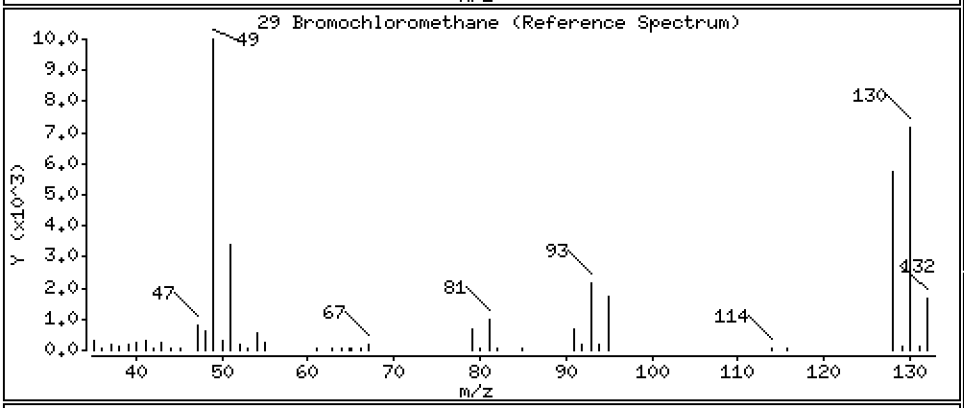
29 Bromochloromethane Concentration: 20.86 ug/l Review Code:

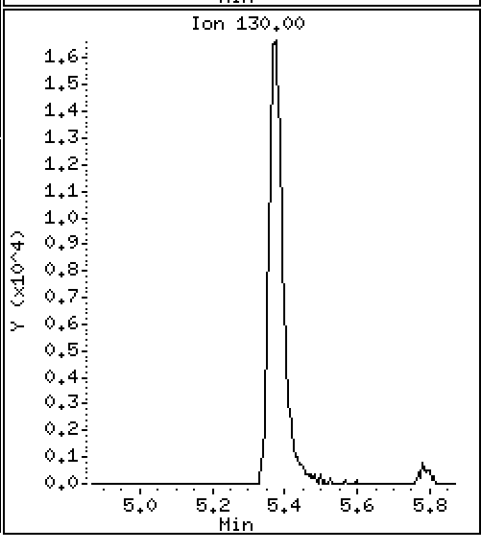


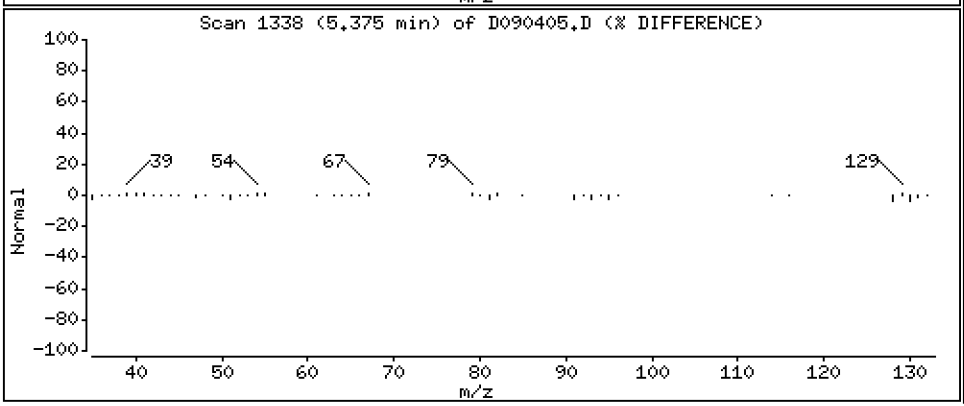












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 31

Date : 04-SEP-2018 12:21

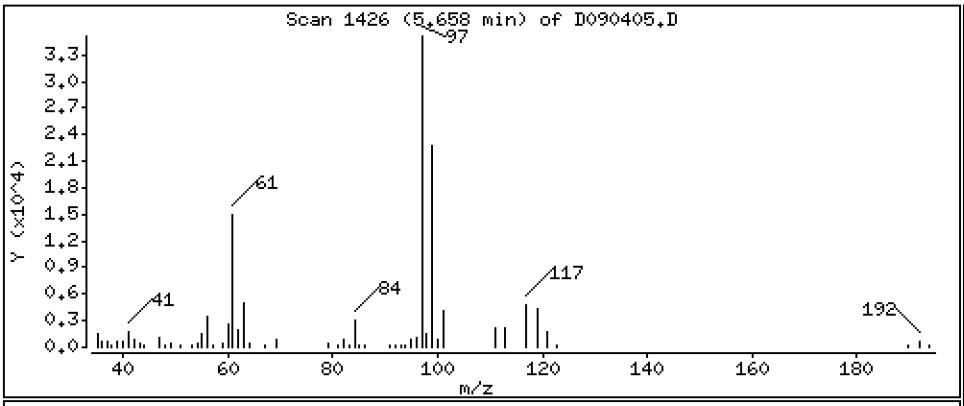
Client ID: VLCSW-180904 Instrument: VOA2.i

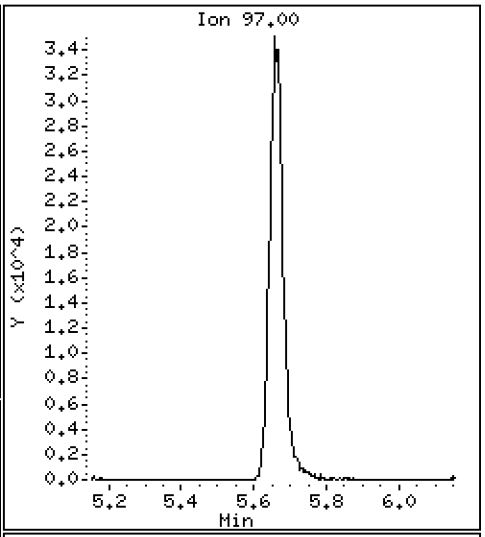
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

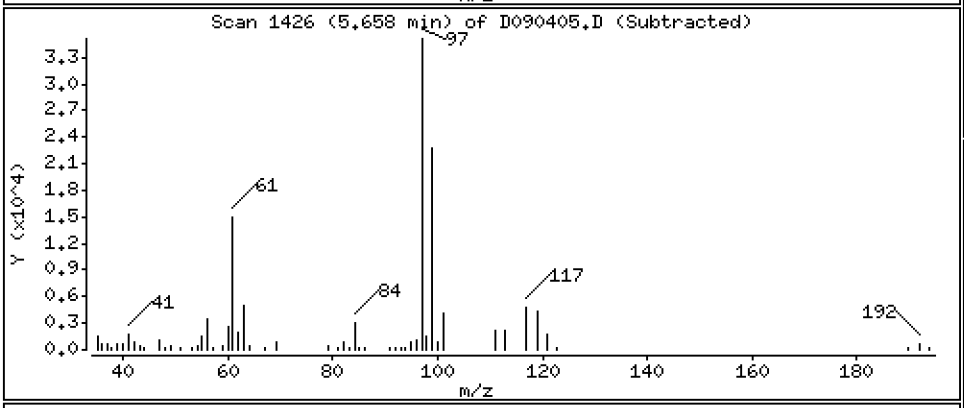
Purge Volume: 5.0 Operator: AP

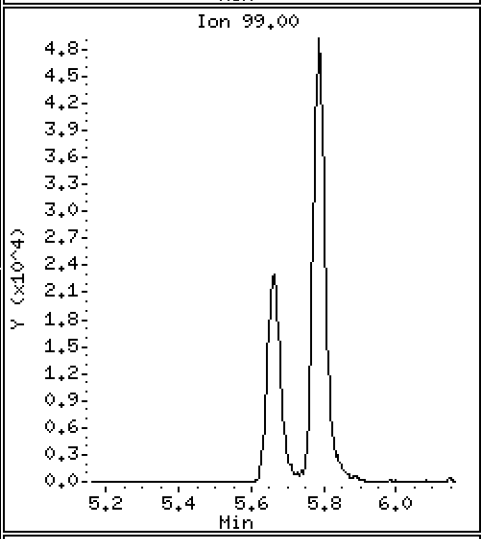
Column phase: DB624 Column diameter: 0.18

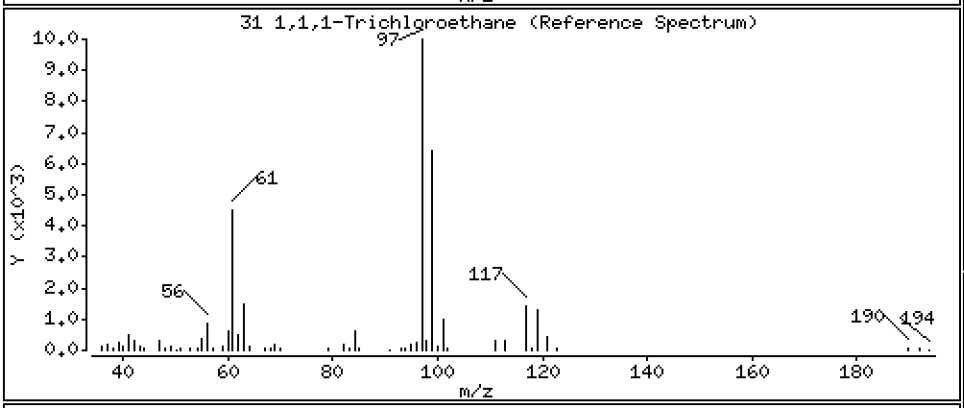
31 1,1,1-Trichloroethane Concentration: 19.06 ug/l Review Code:

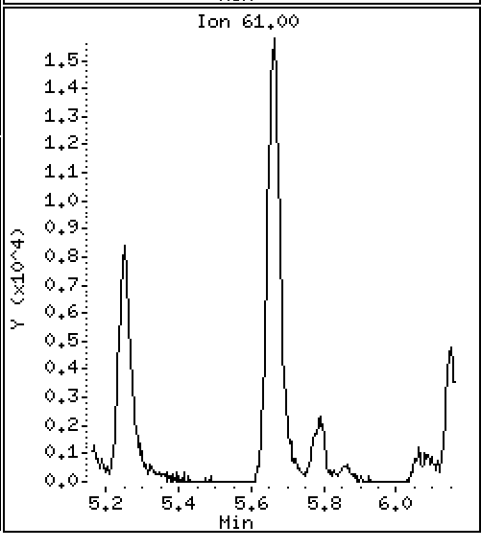


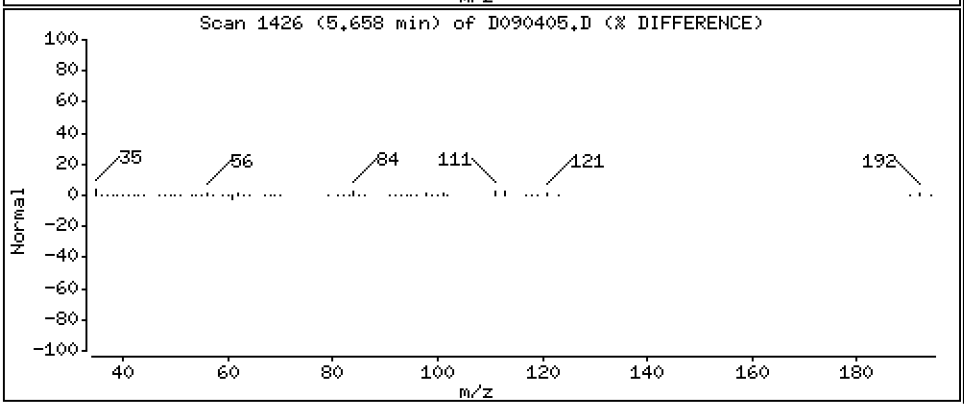












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 32

Date : 04-SEP-2018 12:21

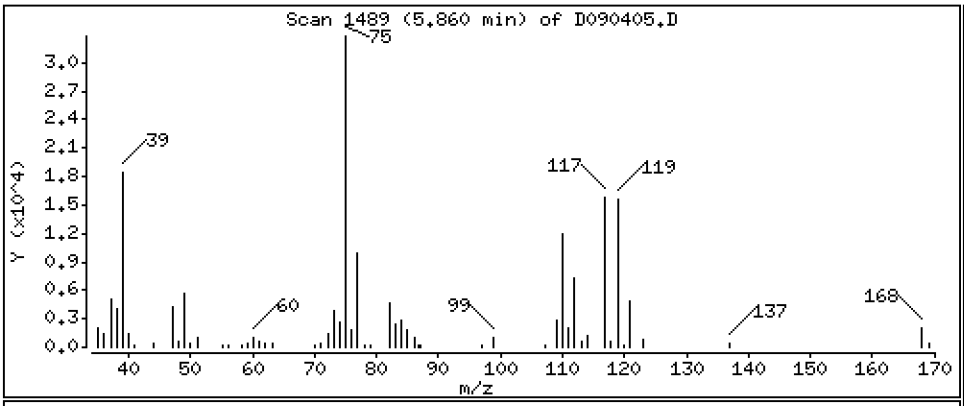
Client ID: VLCSW-180904 Instrument: VOA2.i

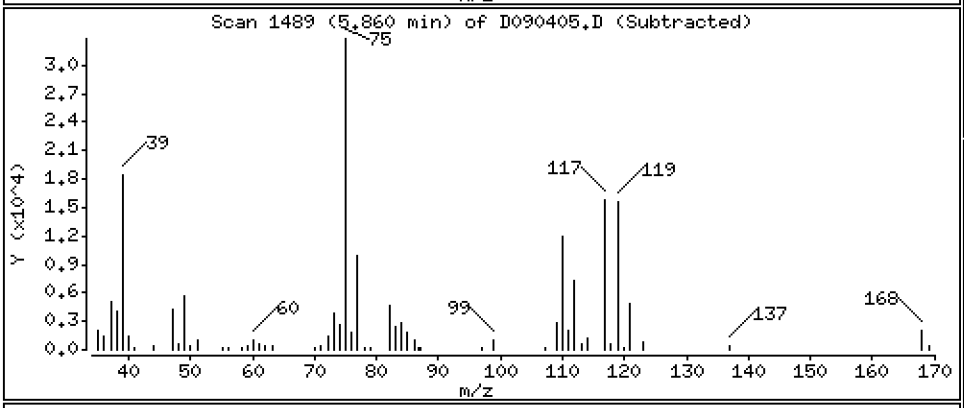
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

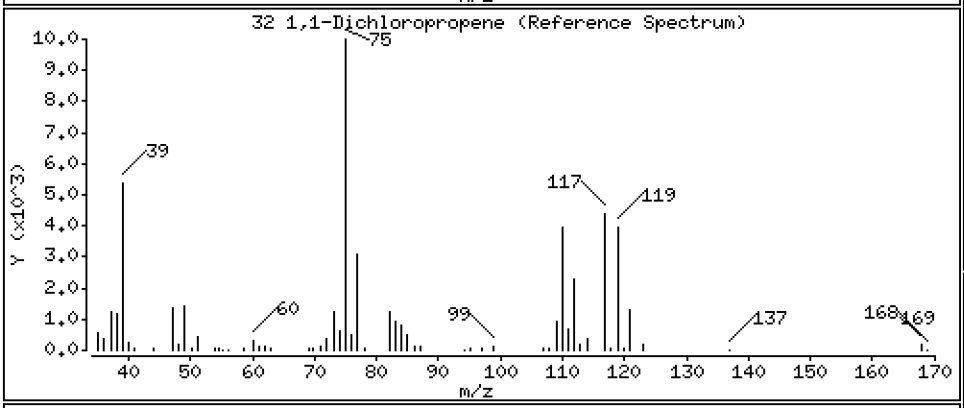
Purge Volume: 5.0 Operator: AP

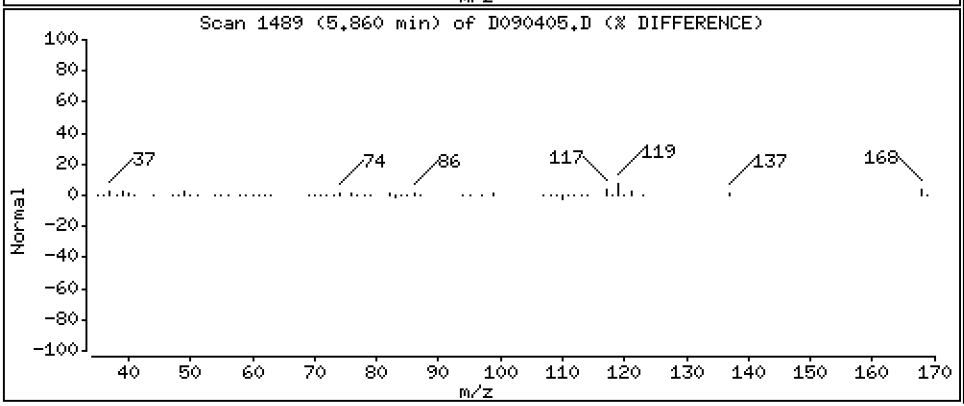
Column phase: DB624 Column diameter: 0.18

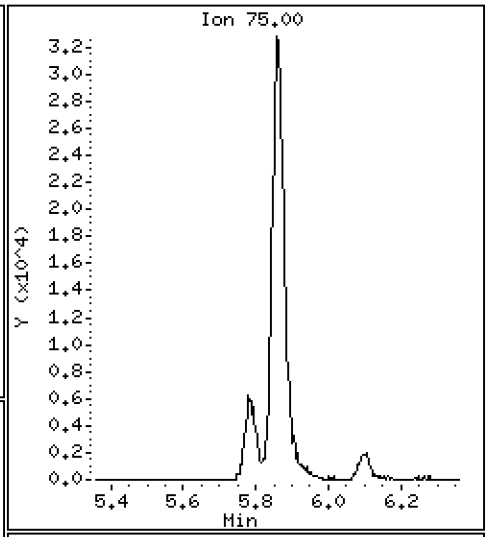
32 1,1-Dichloropropene Concentration: 22.73 ug/l Review Code:

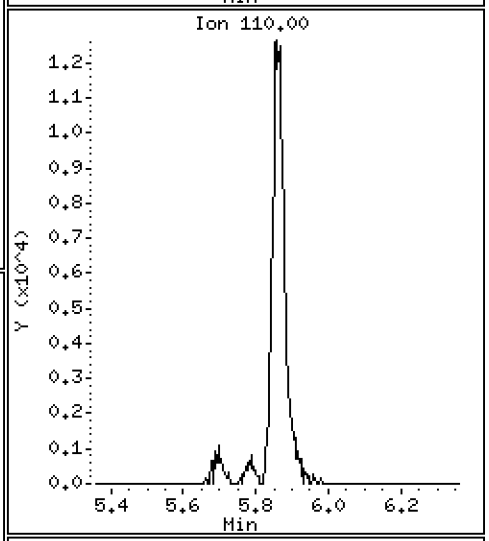


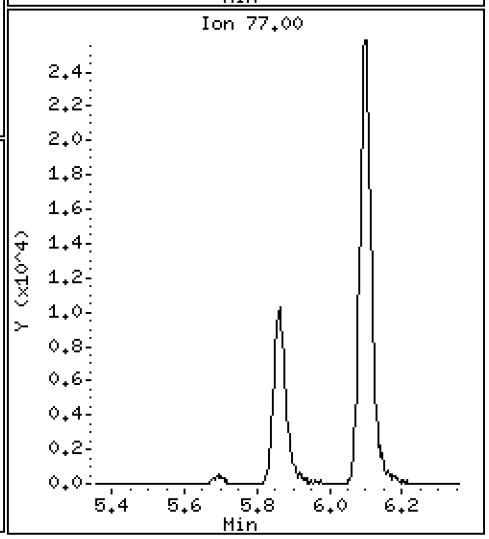












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 33

Date : 04-SEP-2018 12:21

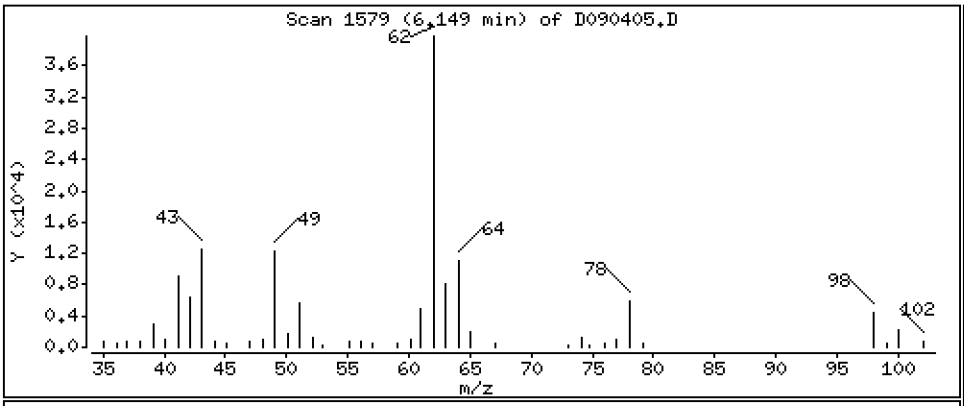
Client ID: VLCSW-180904 Instrument: VOA2.i

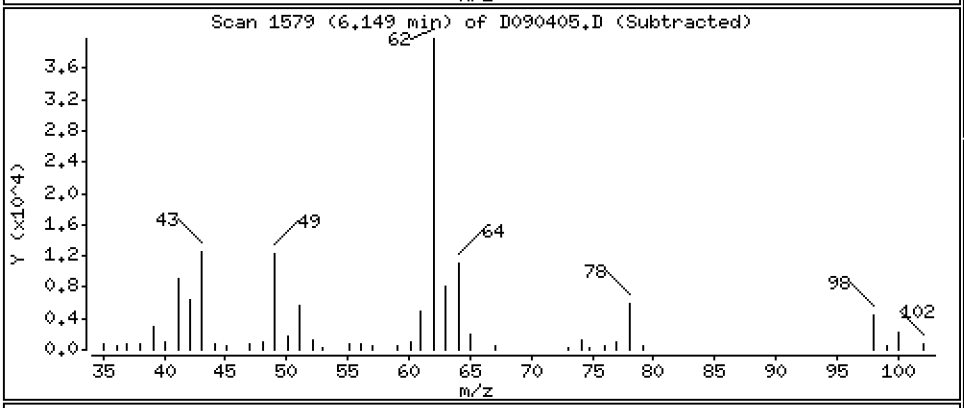
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

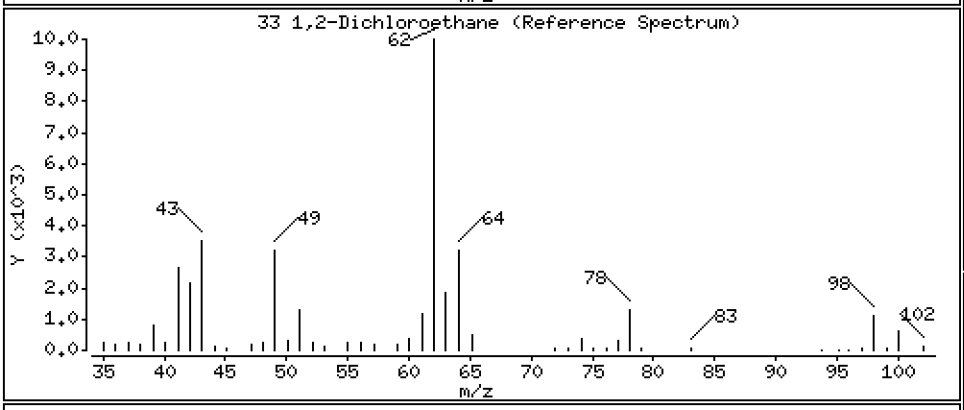
Purge Volume: 5.0 Operator: AP

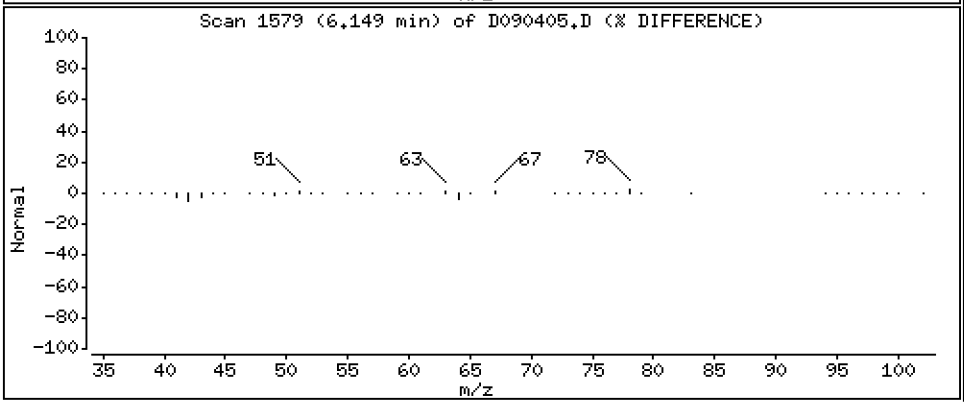
Column phase: DB624 Column diameter: 0.18

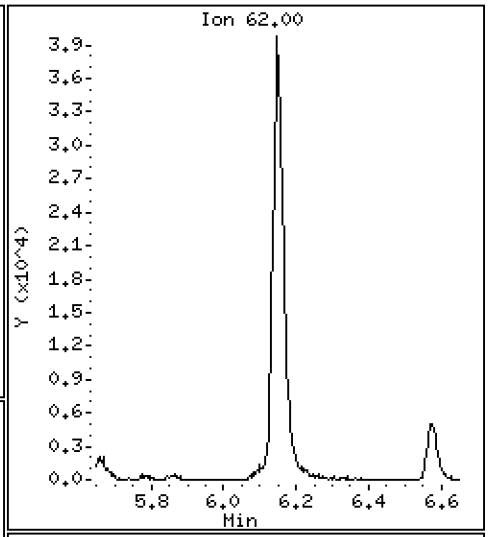
33 1,2-Dichloroethane Concentration: 20.96 ug/l Review Code:

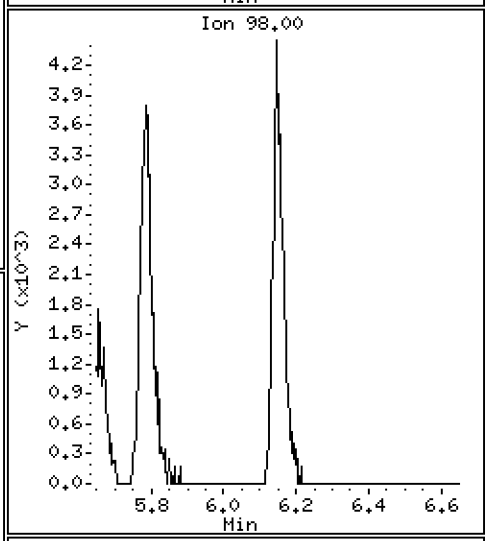


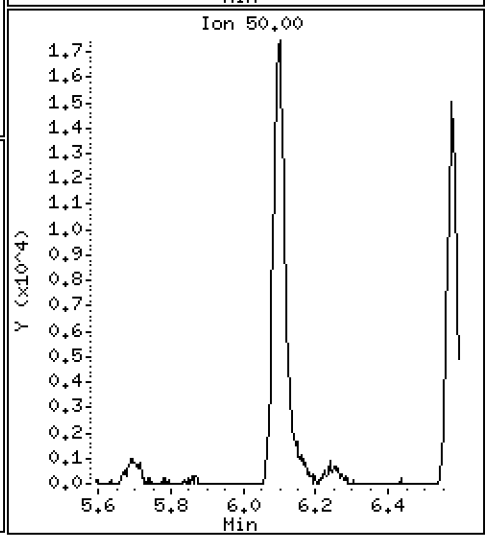












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 34

Date : 04-SEP-2018 12:21

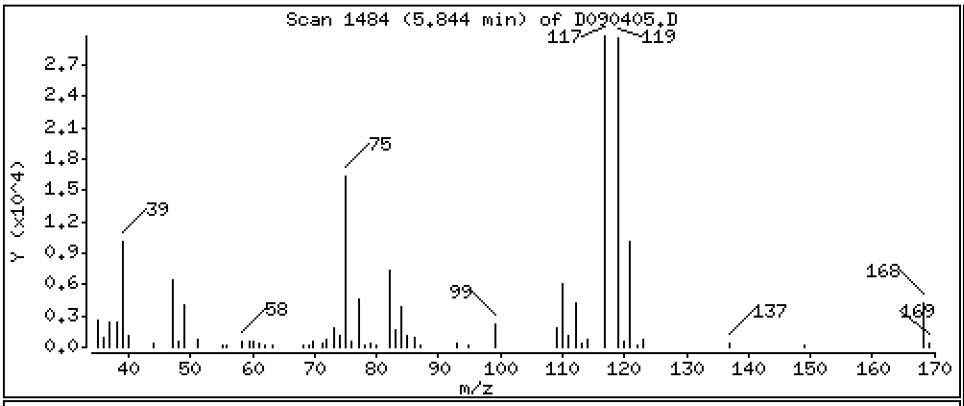
Client ID: VLCSW-180904 Instrument: VOA2.i

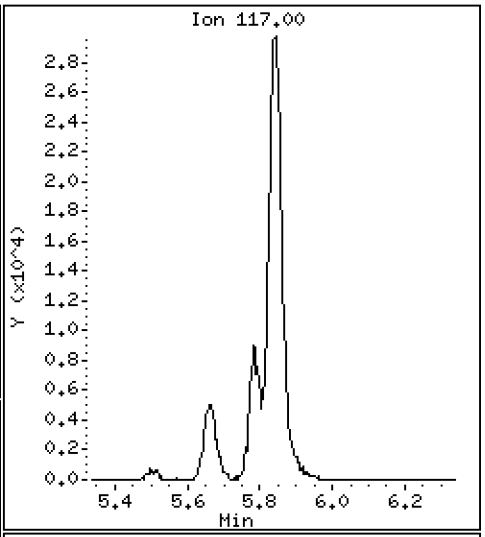
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

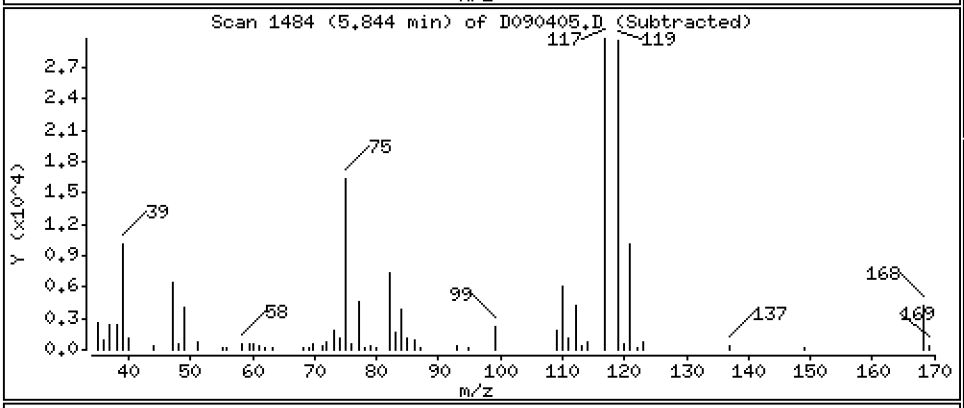
Purge Volume: 5.0 Operator: AP

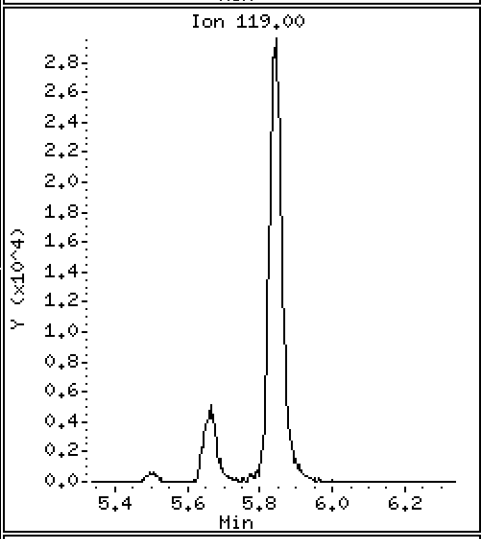
Column phase: DB624 Column diameter: 0.18

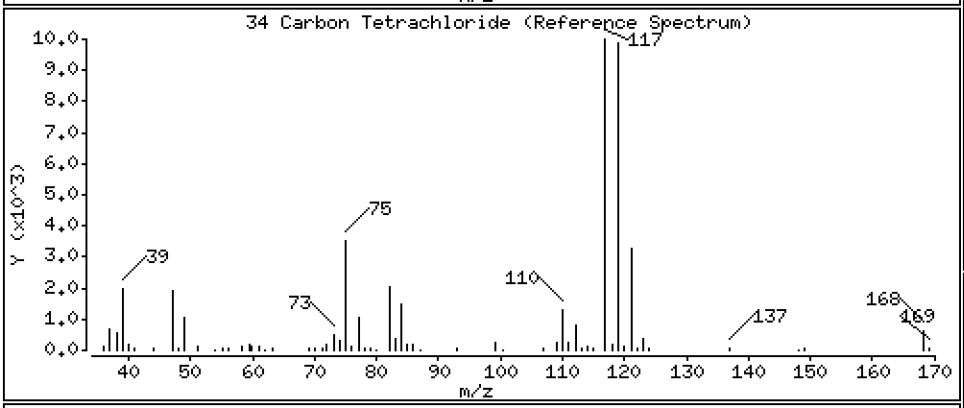
34 Carbon Tetrachloride Concentration: 21.37 ug/l Review Code:

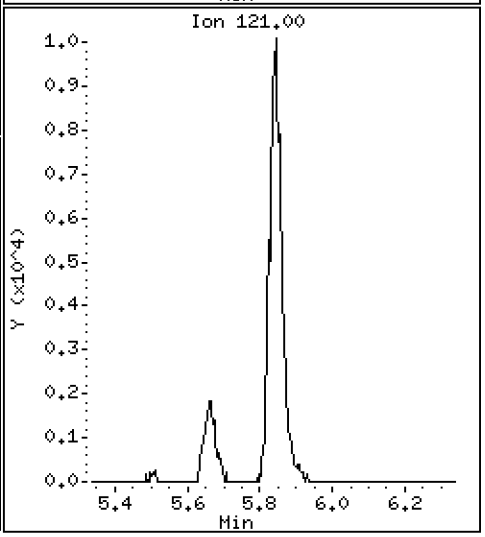


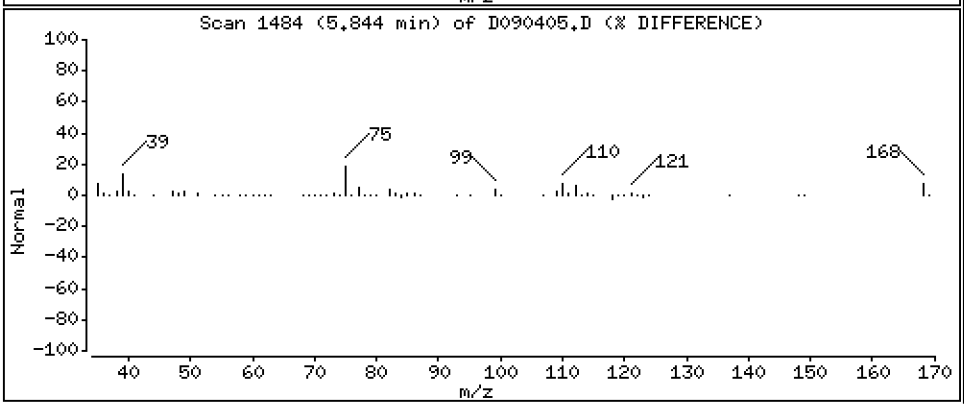












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 35

Date : 04-SEP-2018 12:21

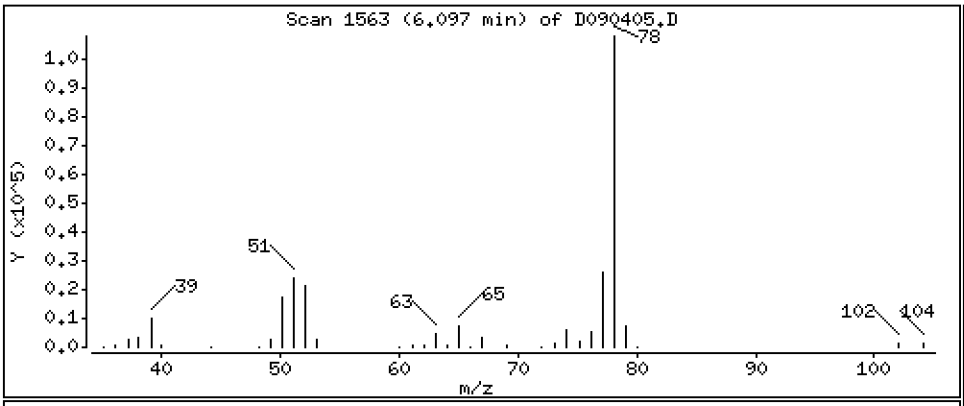
Client ID: VLCSW-180904 Instrument: VOA2.i

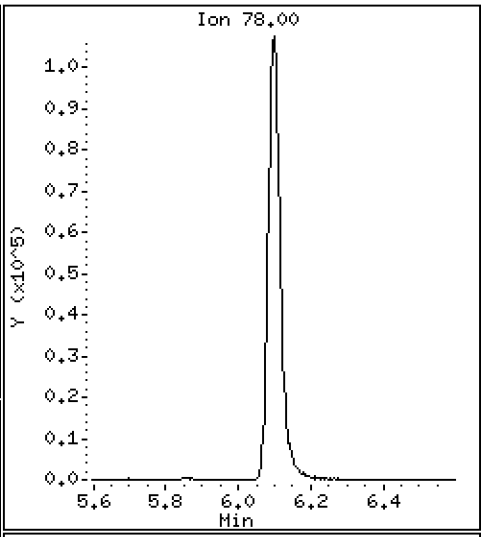
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

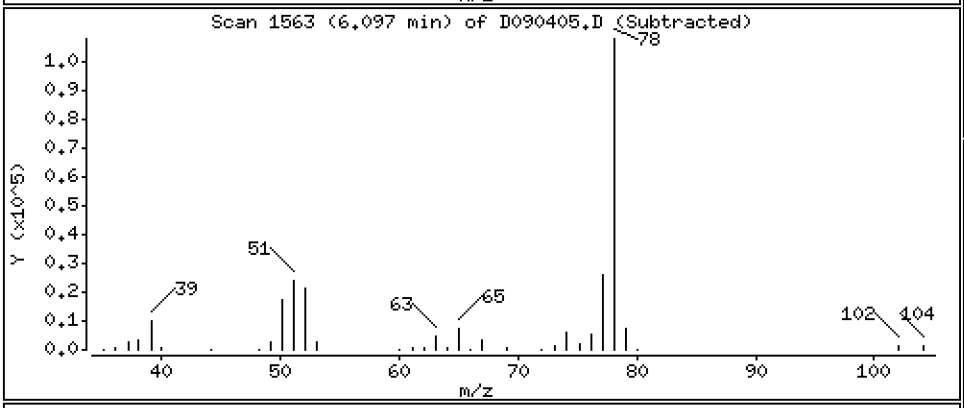
Purge Volume: 5.0 Operator: AP

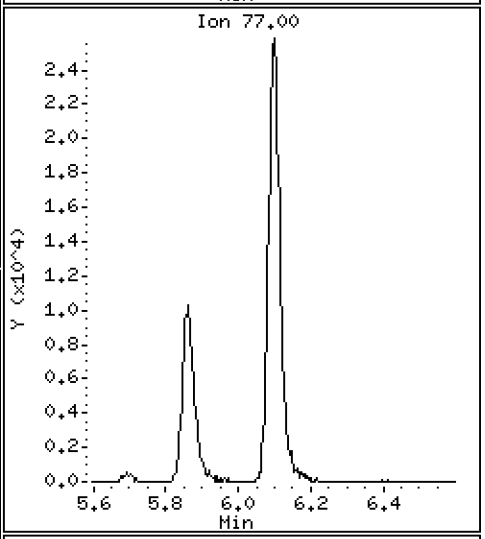
Column phase: DB624 Column diameter: 0.18

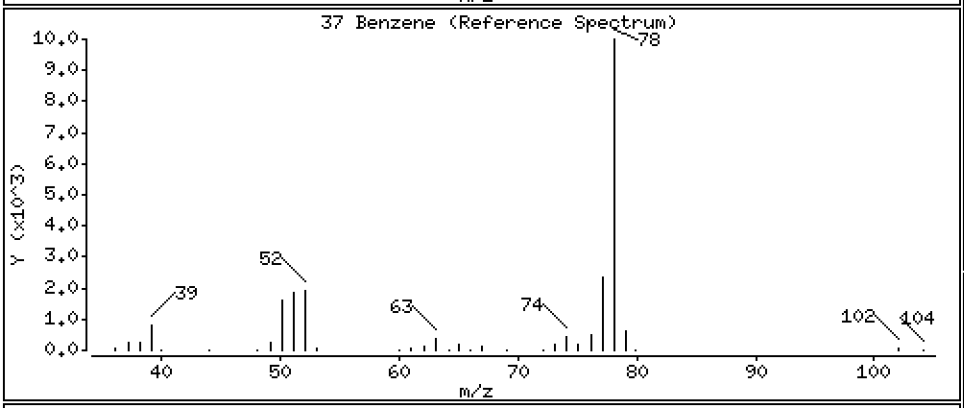
37 Benzene Concentration: 20.35 ug/l Review Code:

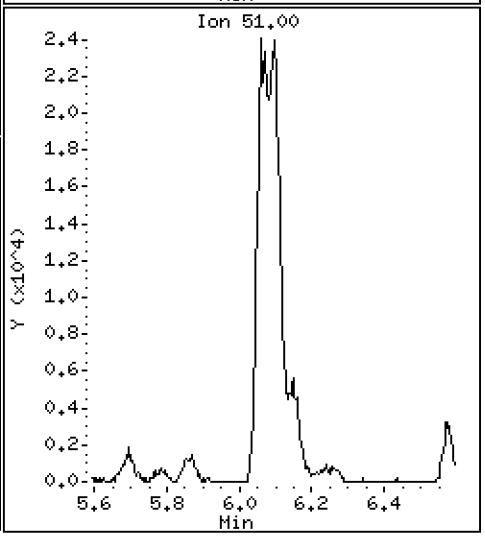


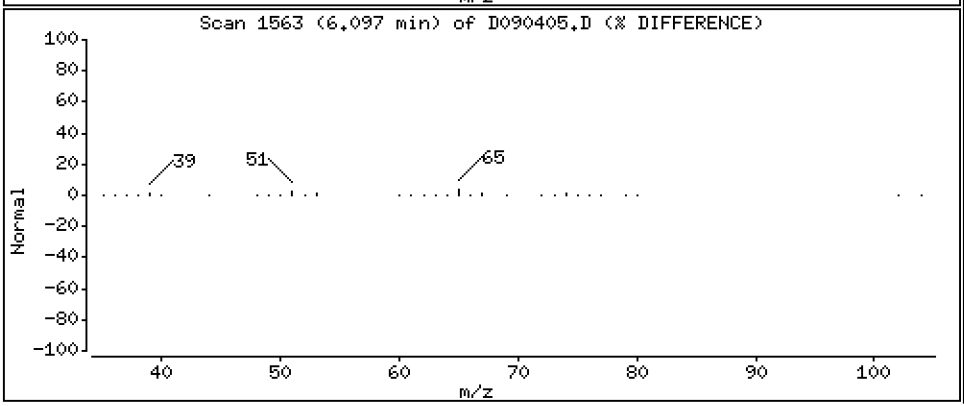












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 36

Date : 04-SEP-2018 12:21

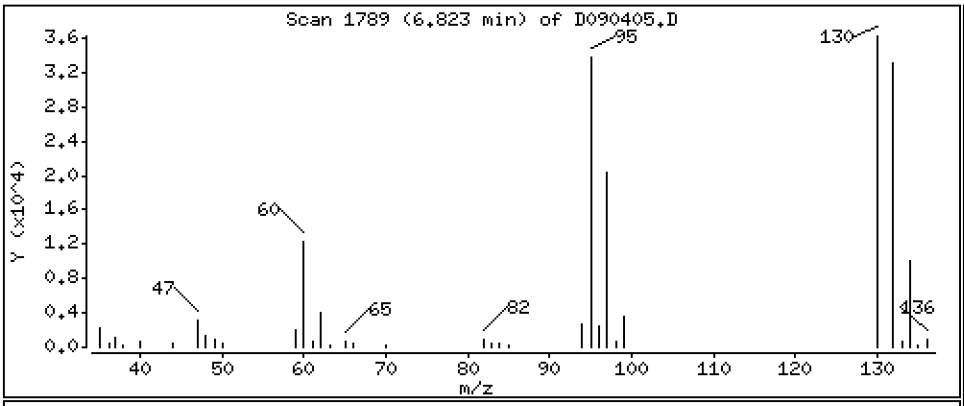
Client ID: VLCSW-180904 Instrument: VOA2.i

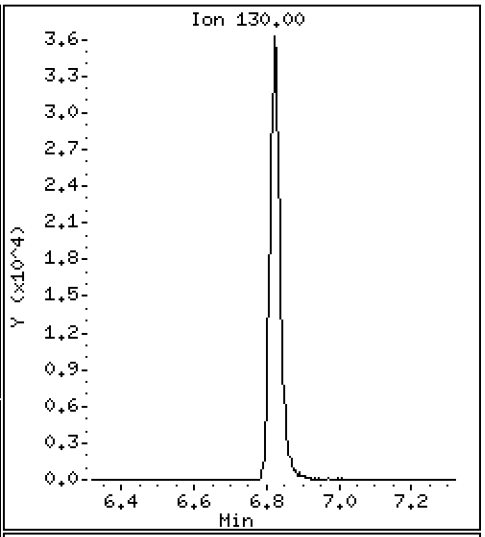
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

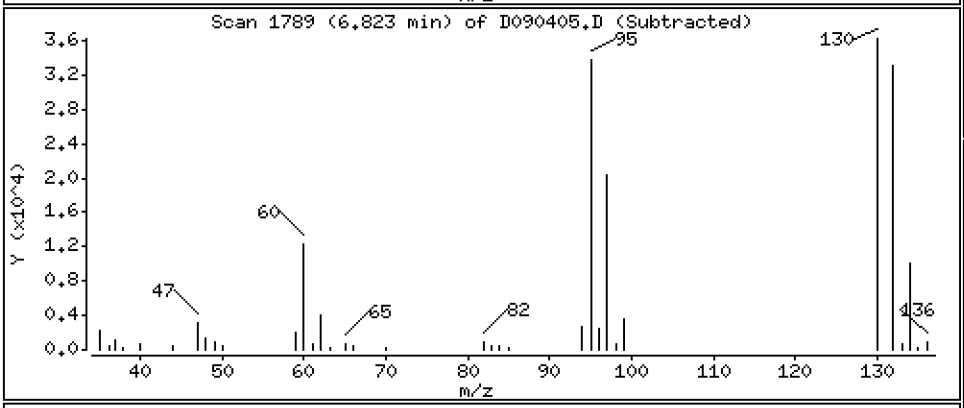
Purge Volume: 5.0 Operator: AP

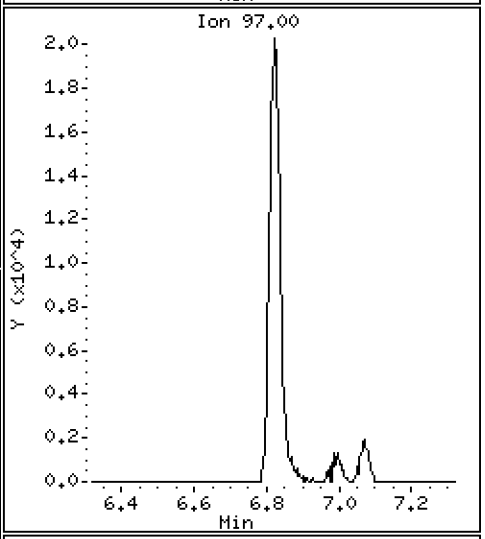
Column phase: DB624 Column diameter: 0.18

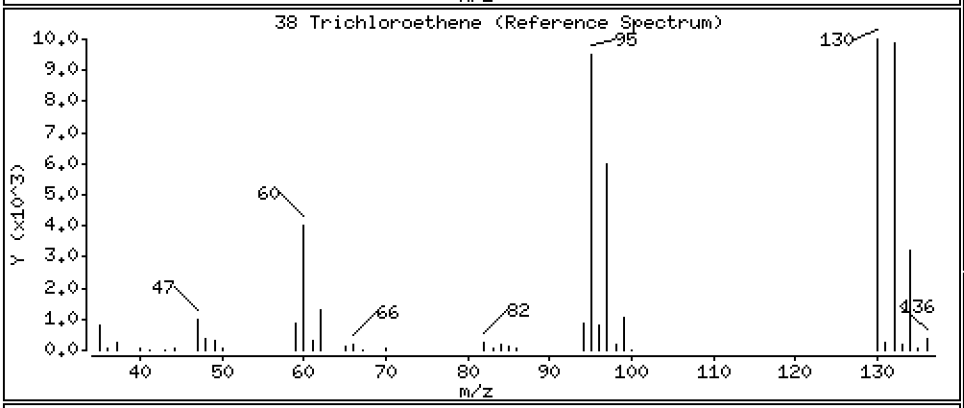
38 Trichloroethene Concentration: 21.12 ug/l Review Code:

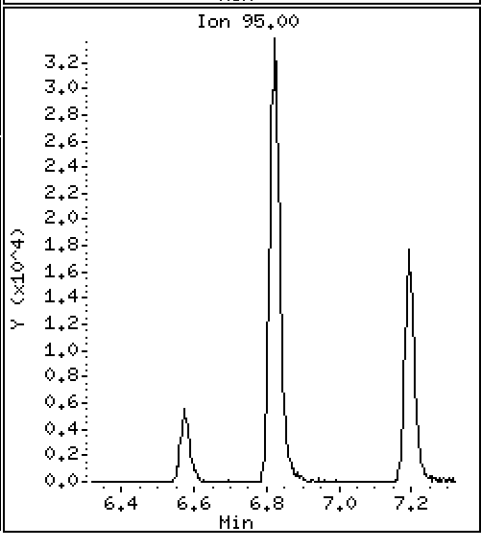


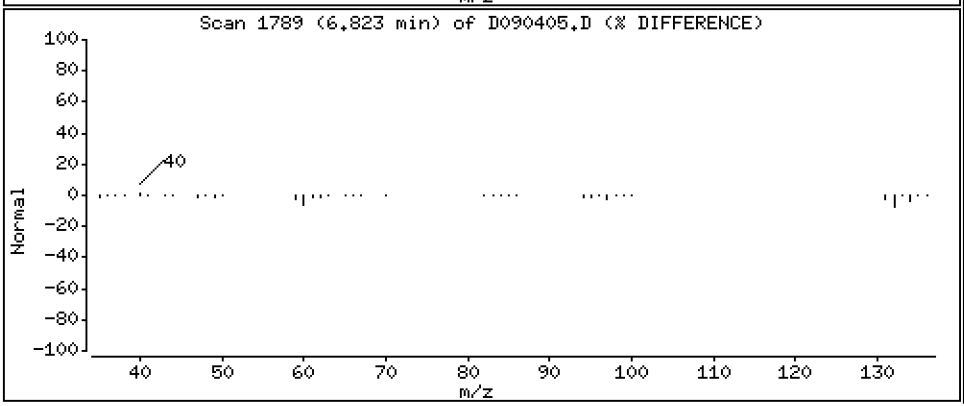












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 37

Date : 04-SEP-2018 12:21

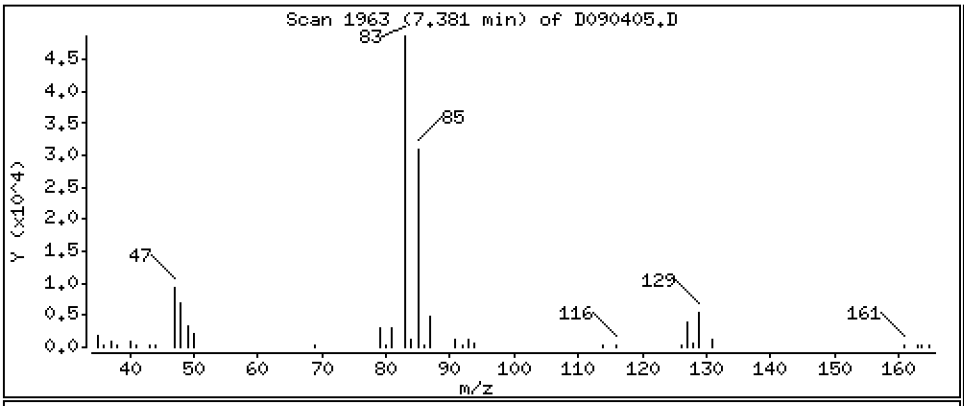
Client ID: VLCSW-180904 Instrument: VOA2.i

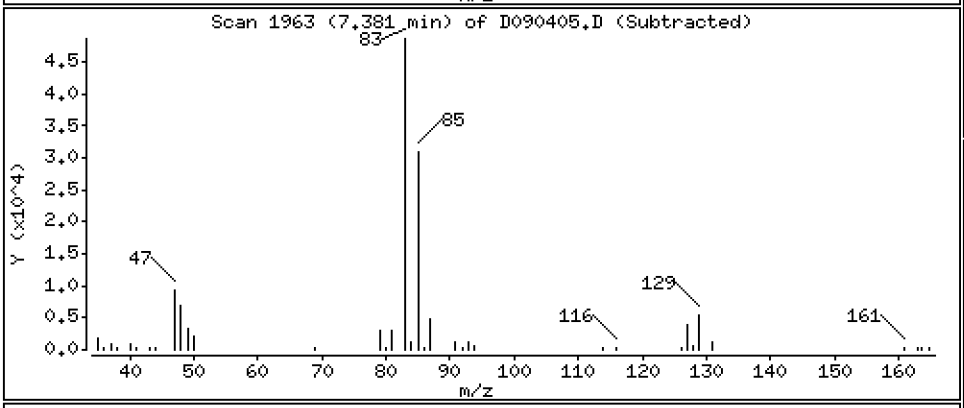
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

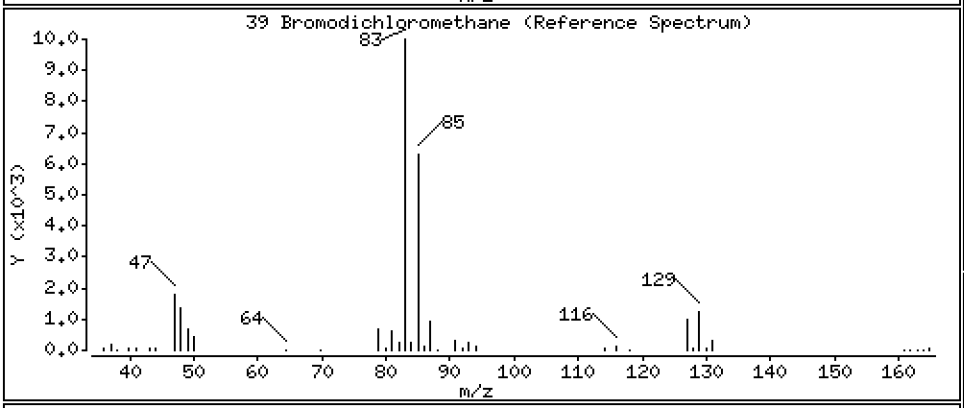
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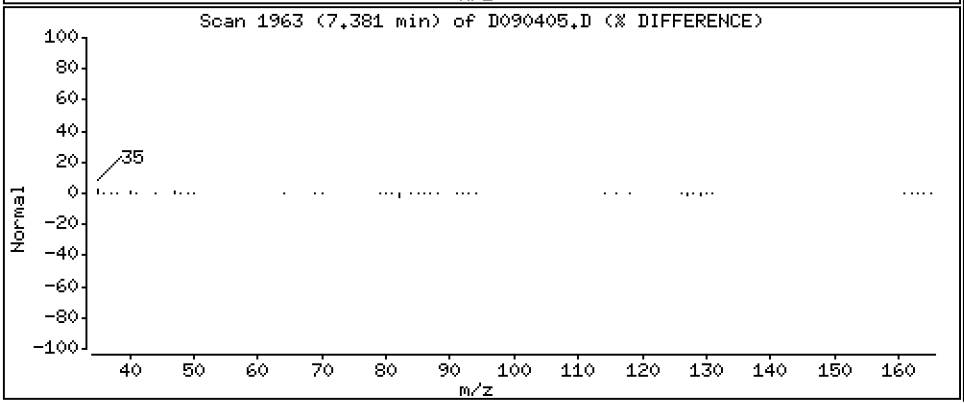
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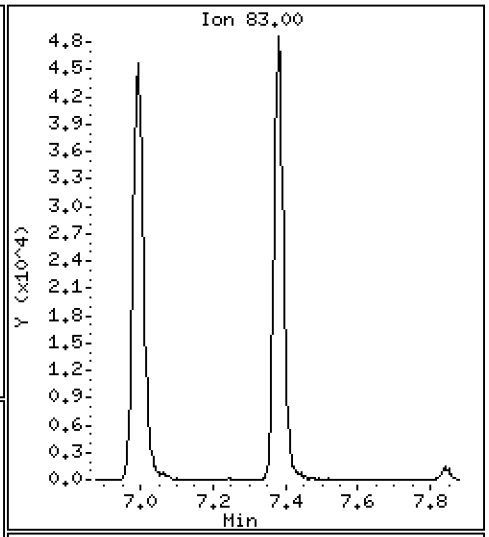
39 Bromodichloromethane Concentration: 21.05 ug/l Review Code:

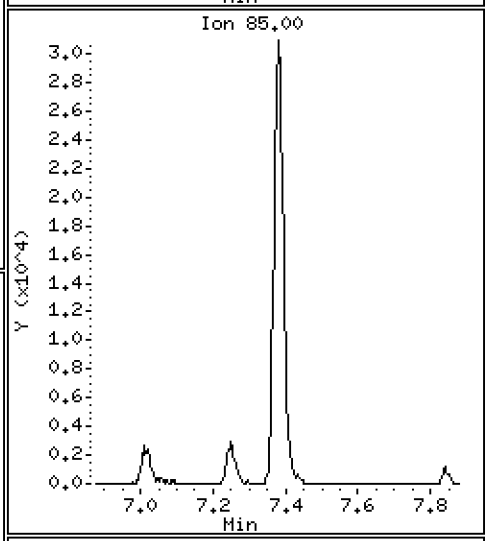


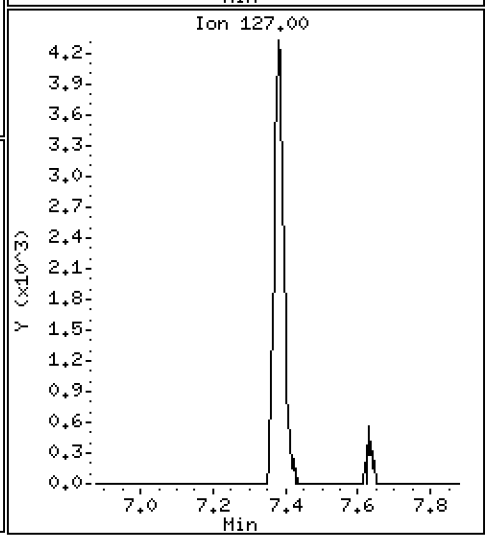












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 38

Date : 04-SEP-2018 12:21

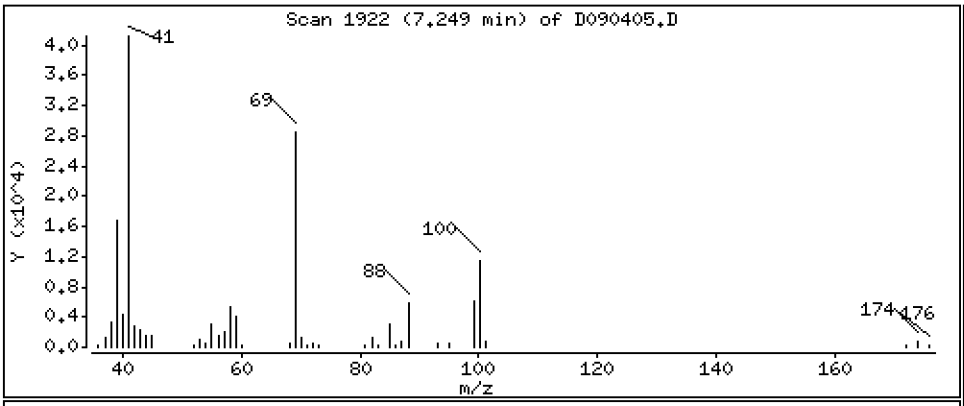
Client ID: VLCSW-180904 Instrument: VOA2.i

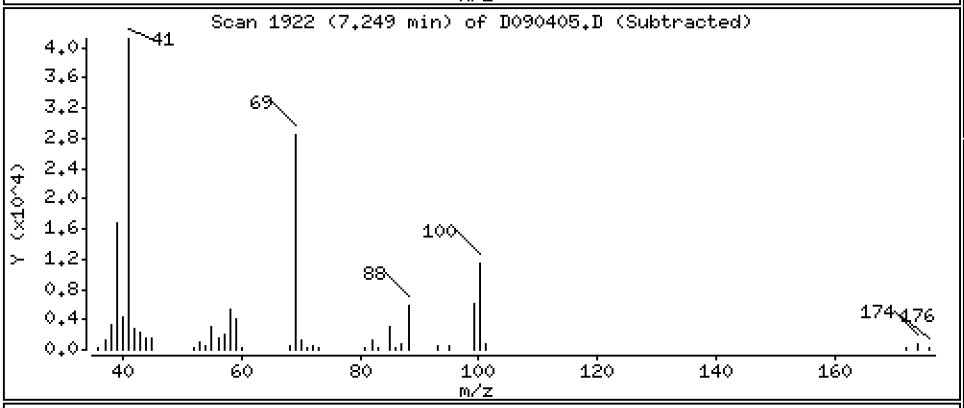
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

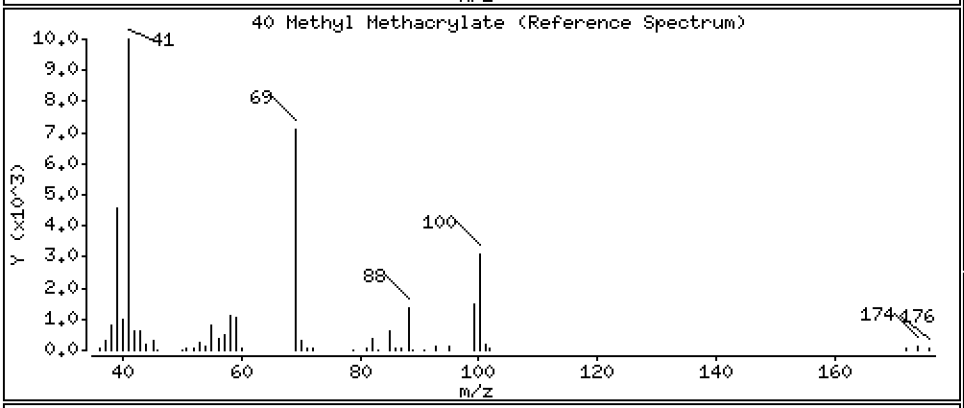
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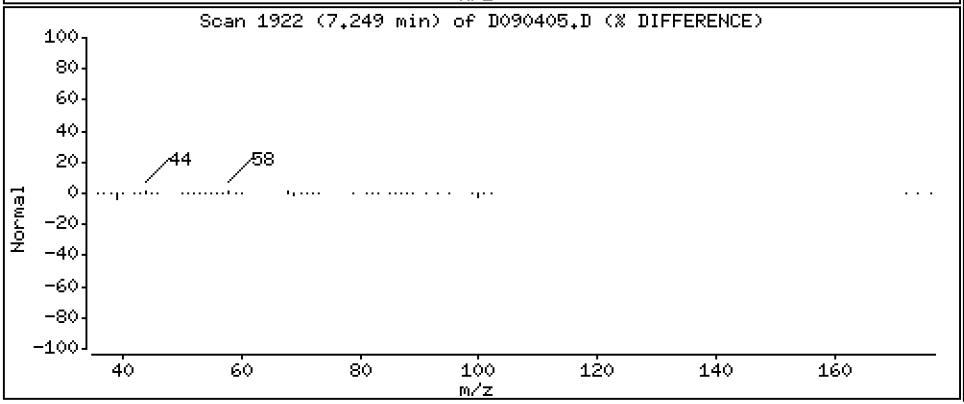
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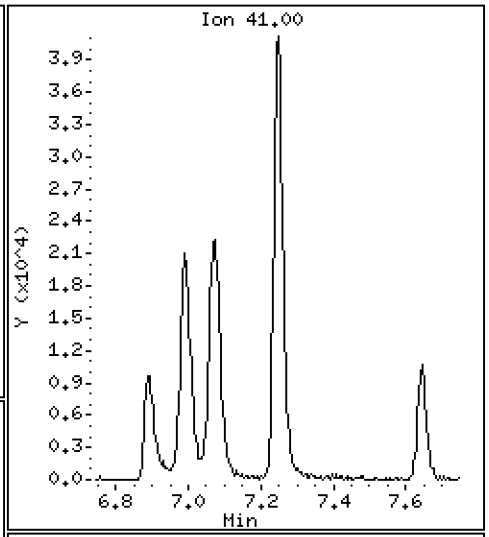
40 Methyl Methacrylate Concentration: 19.39 ug/l Review Code:

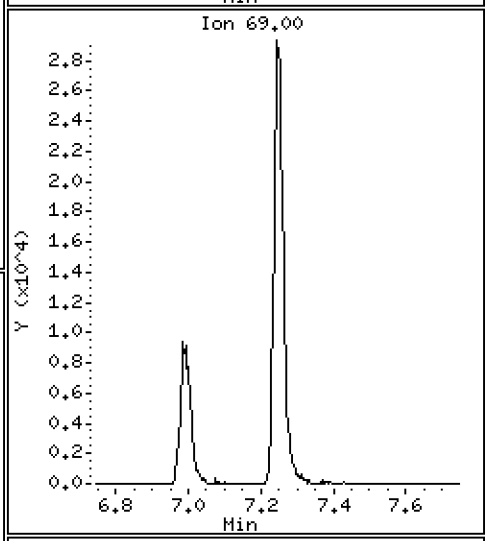


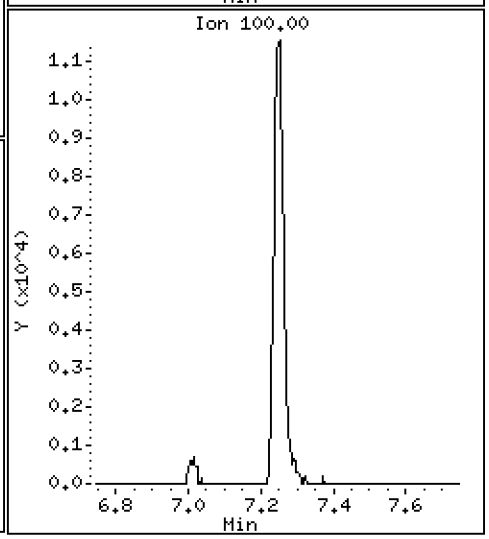












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 39

Date : 04-SEP-2018 12:21

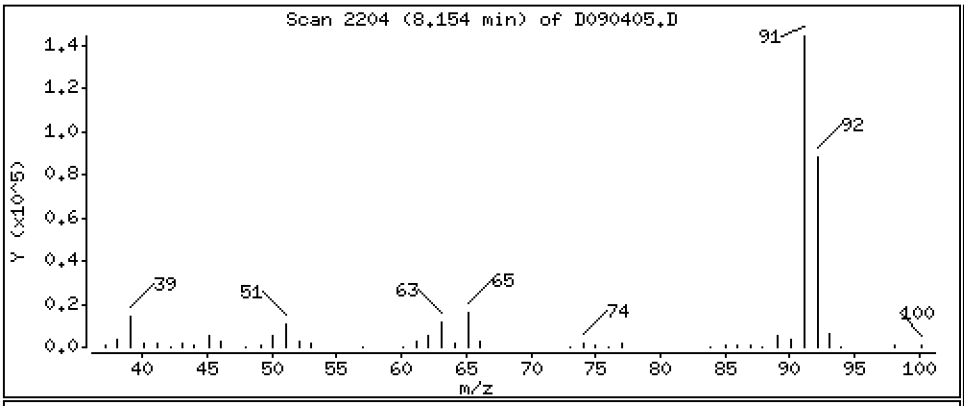
Client ID: VLCSW-180904 Instrument: VOA2.i

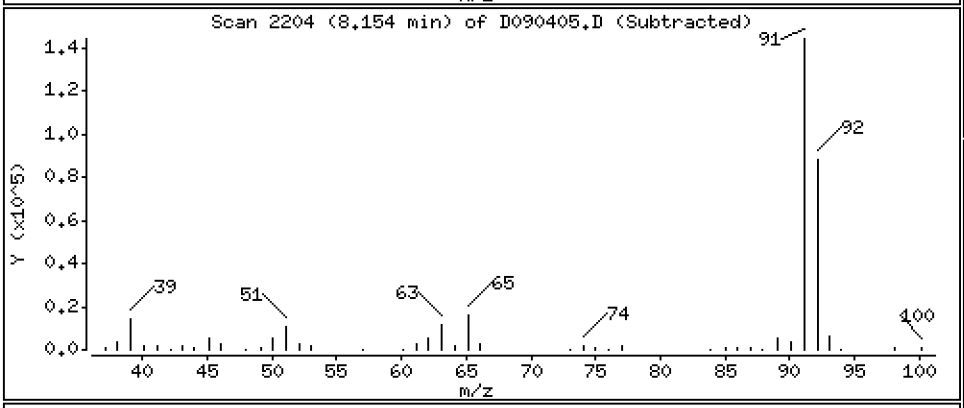
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

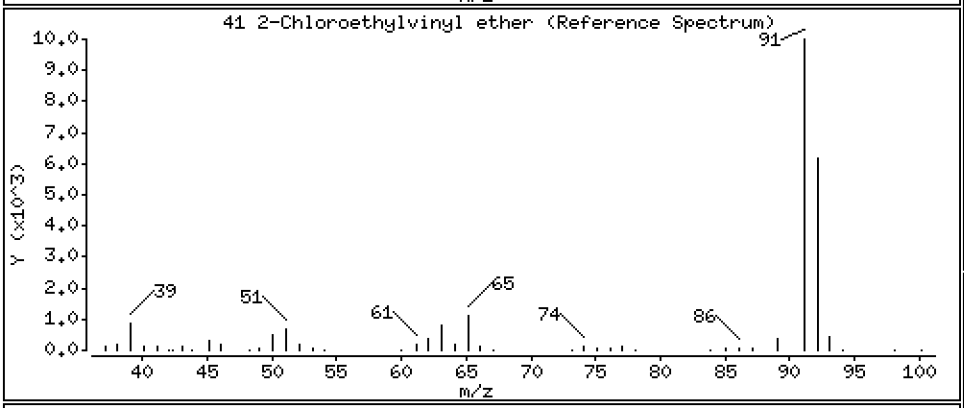
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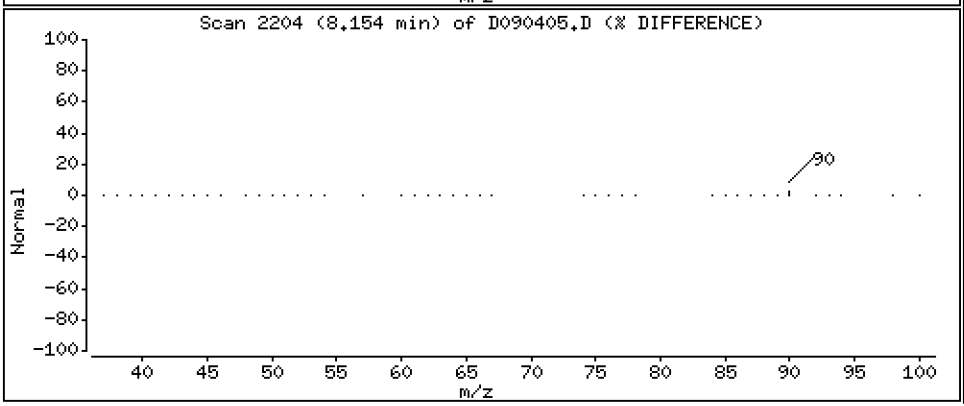
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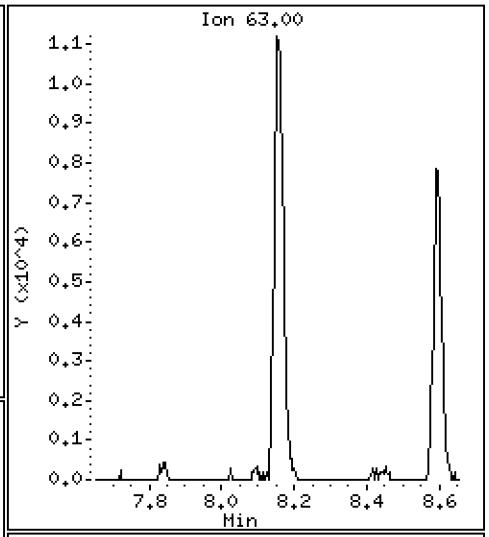
41 2-Chloroethylvinyl ether Concentration: 38.97 ug/l Review Code:

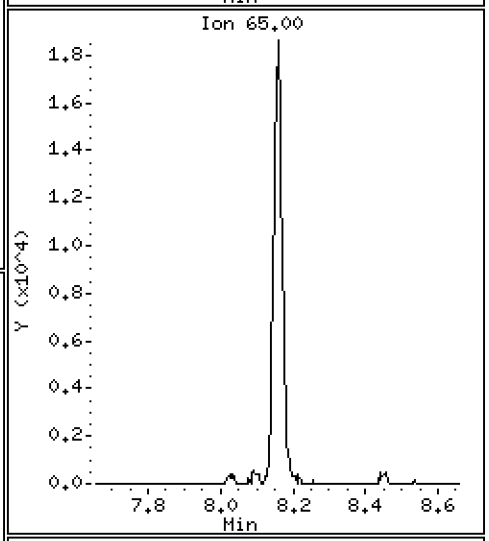


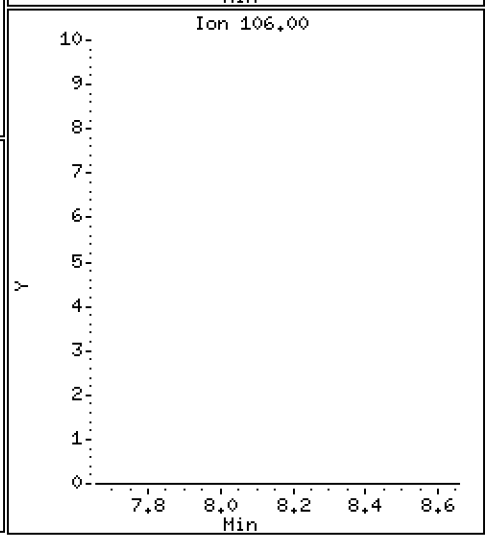












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 40

Date : 04-SEP-2018 12:21

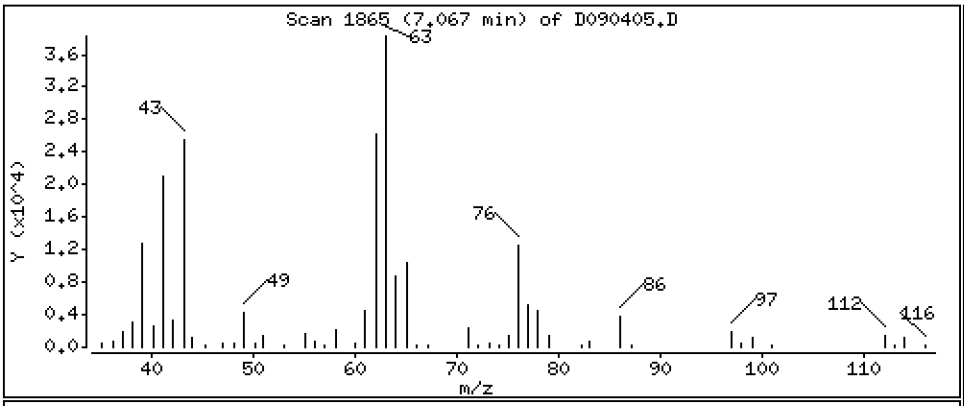
Client ID: VLCSW-180904 Instrument: VOA2.i

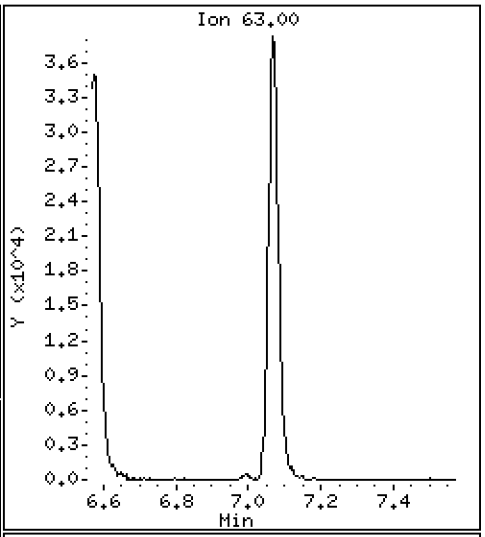
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

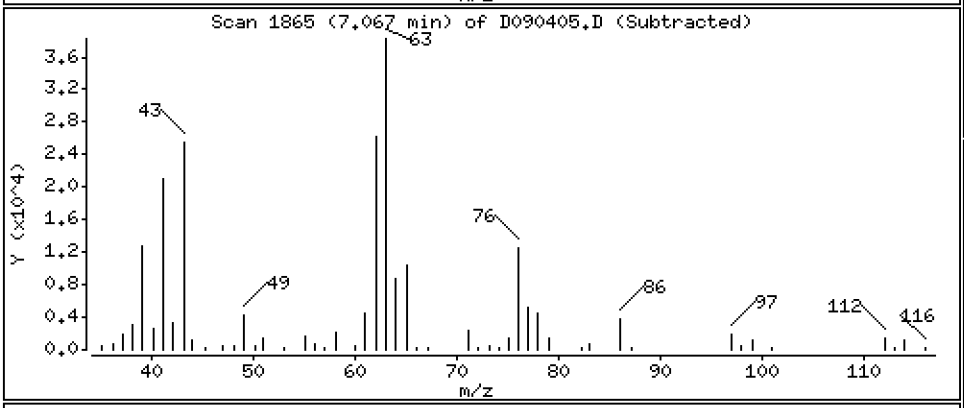
Purge Volume: 5.0 Operator: AP

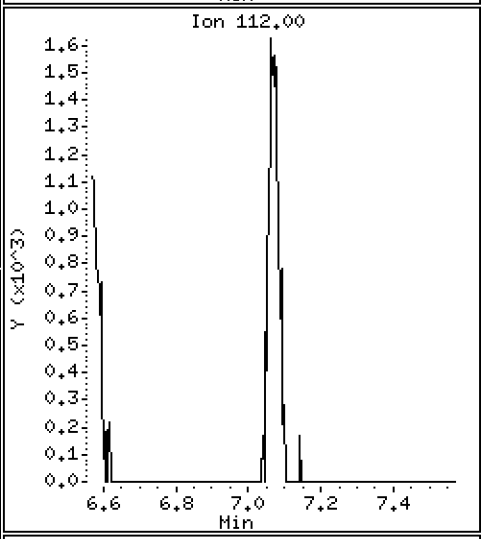
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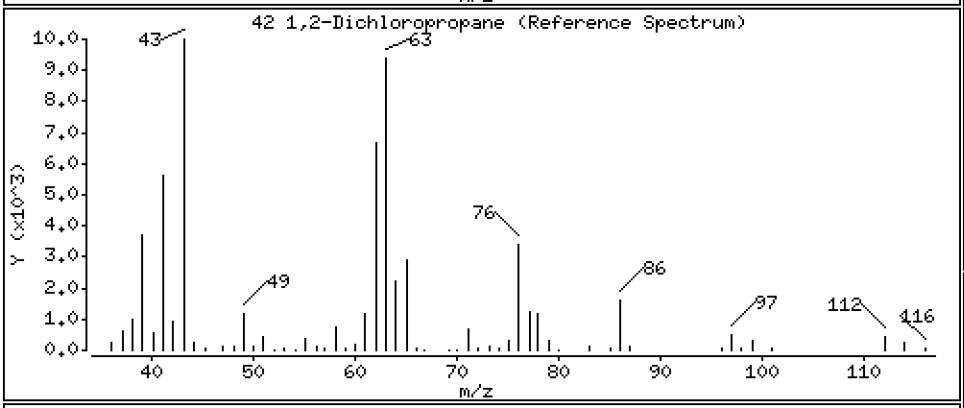
42 1,2-Dichloropropane Concentration: 20.73 ug/l Review Code:

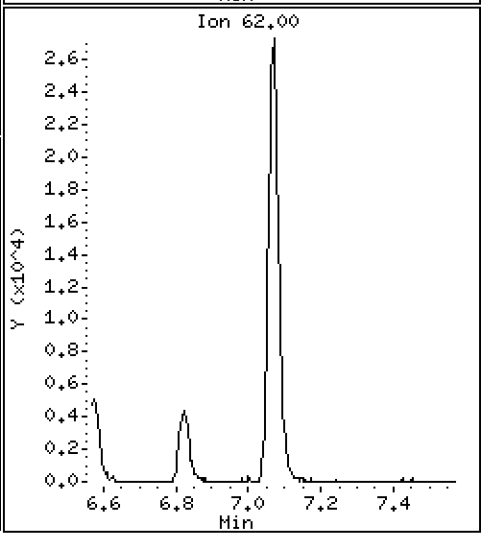


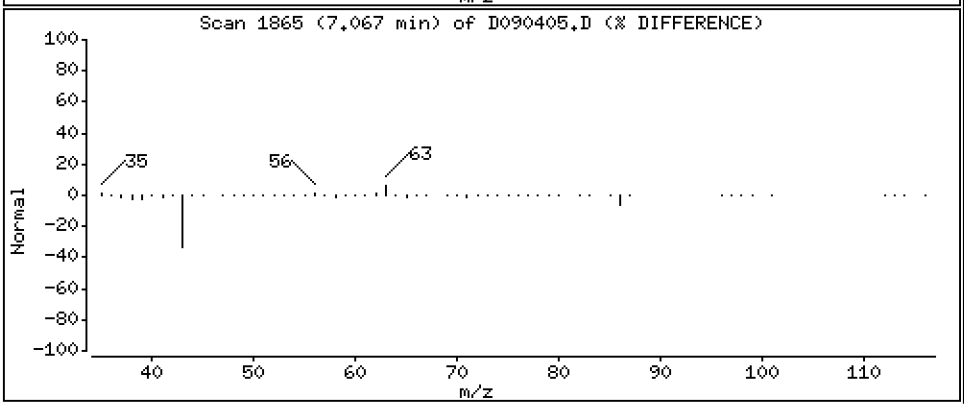












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 41

Date : 04-SEP-2018 12:21

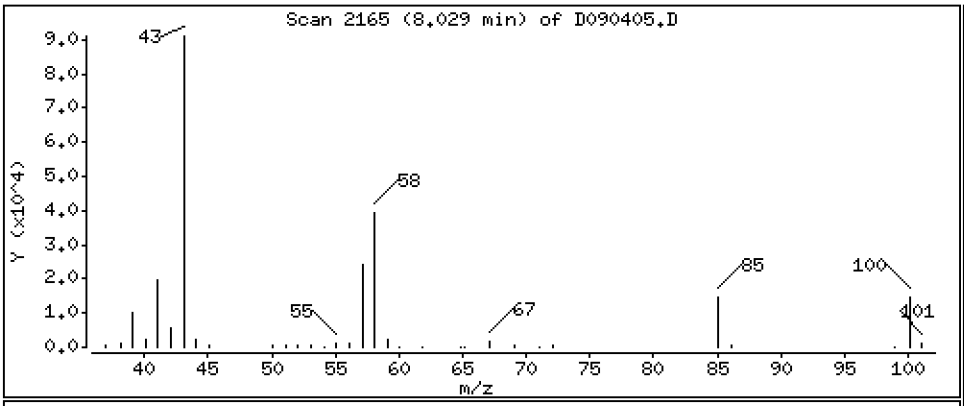
Client ID: VLCSW-180904 Instrument: VOA2.i

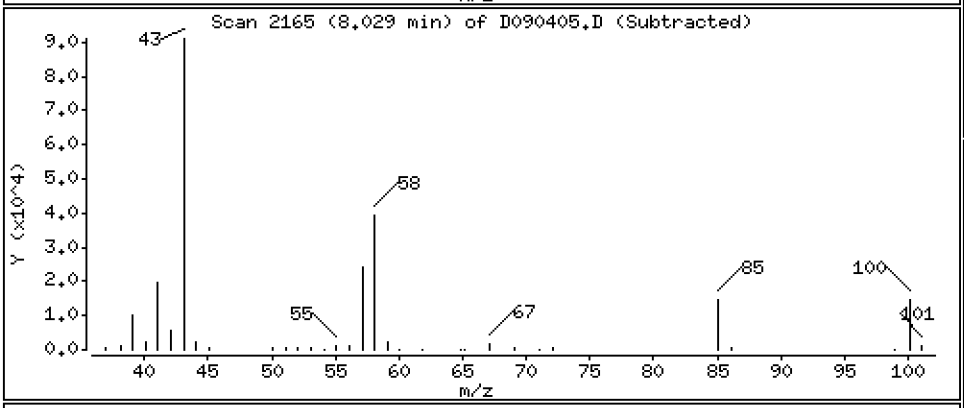
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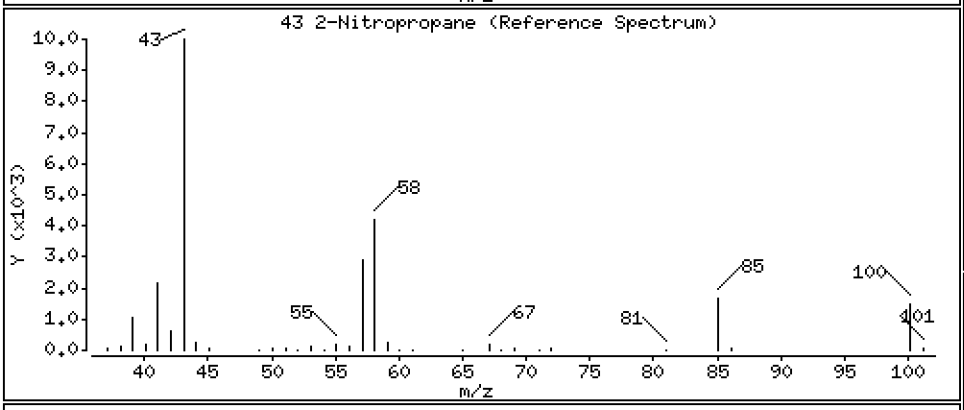
Purge Volume: 5.0 Operator: AP

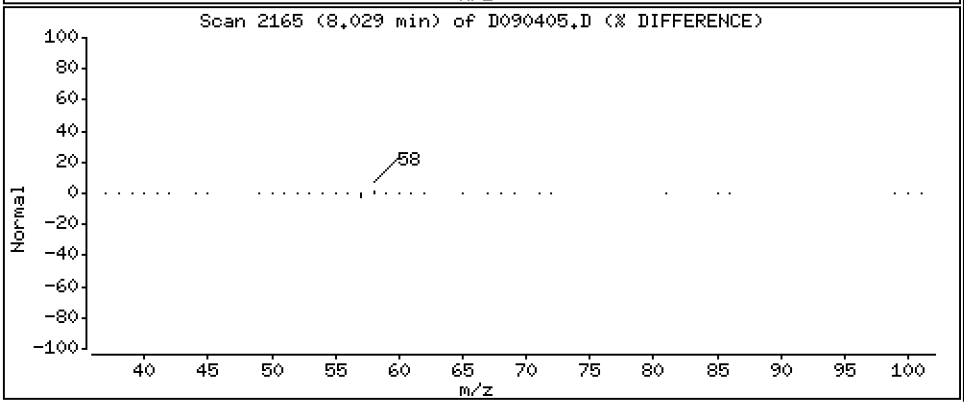
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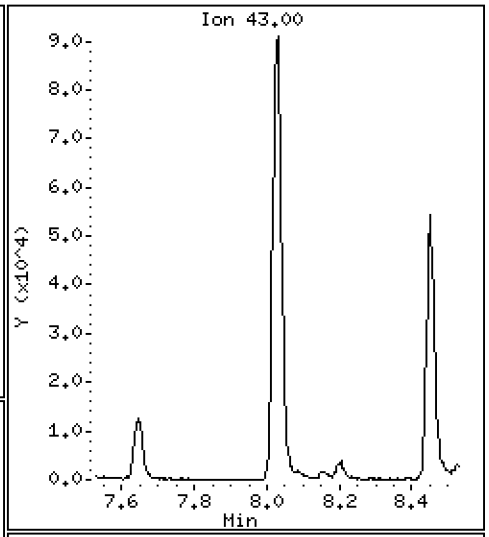
43 2-Nitropropane Concentration: 20.20 ug/l Review Code:

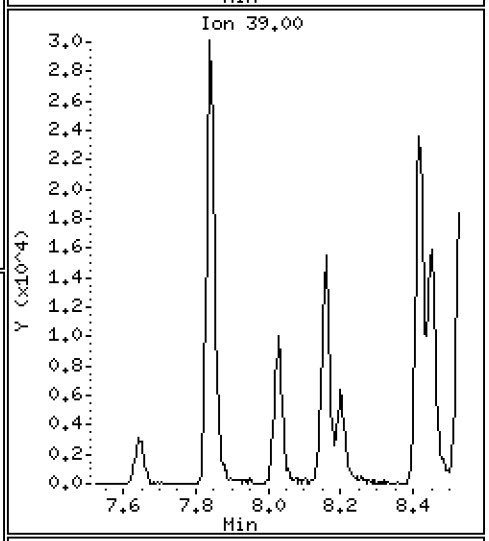


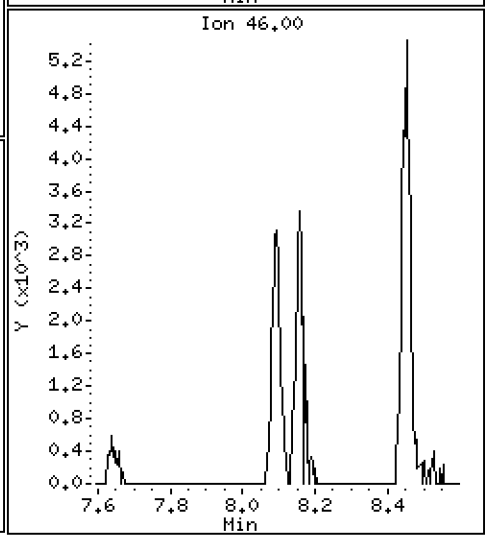












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 42

Date : 04-SEP-2018 12:21

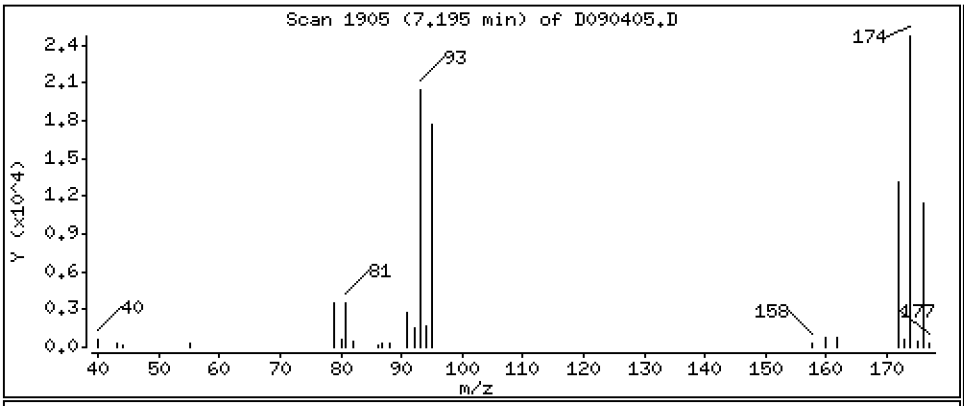
Client ID: VLCSW-180904 Instrument: VOA2.i

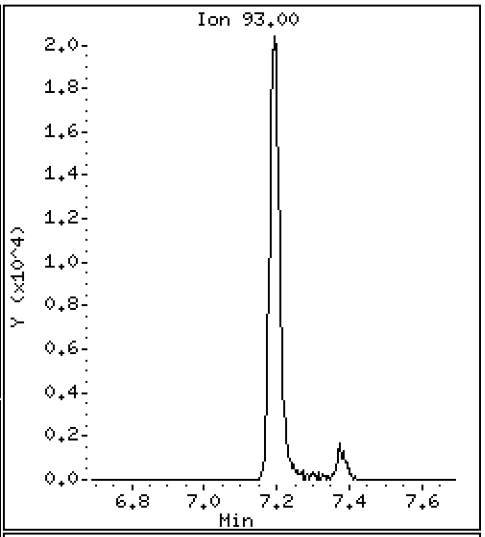
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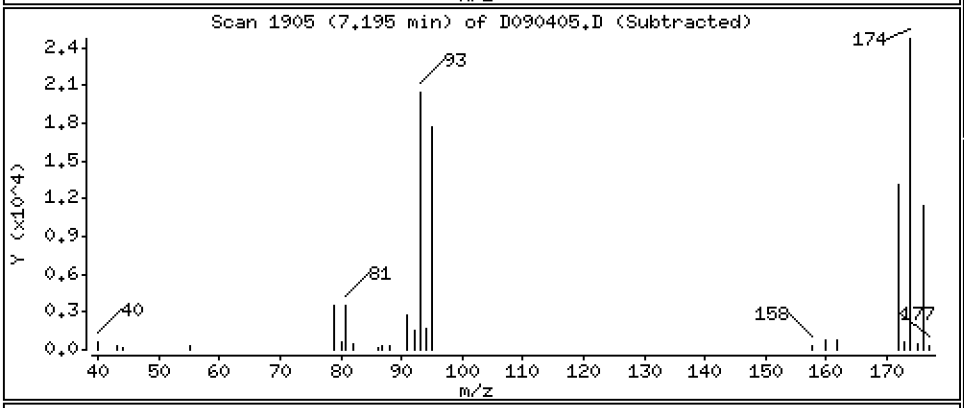
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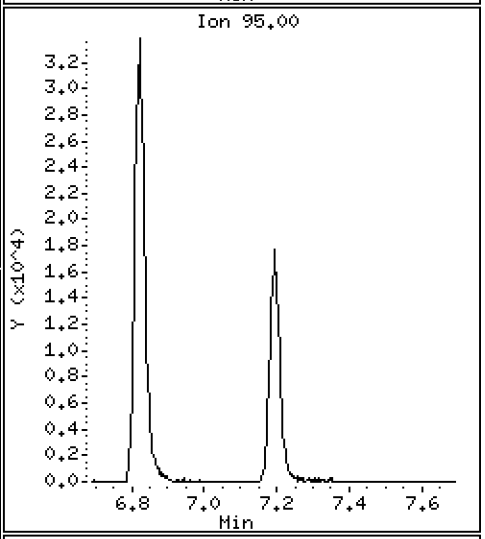
Column phase: DB624 Column diameter: 0.18

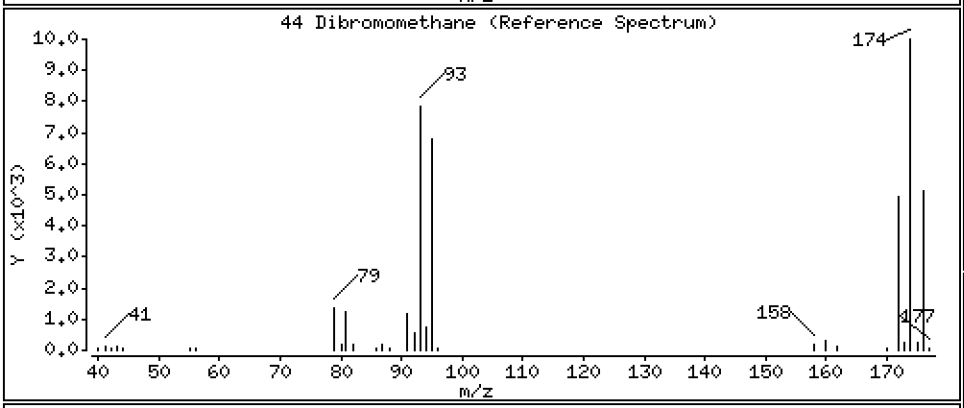
44 Dibromomethane Concentration: 22.37 ug/l Review Code:

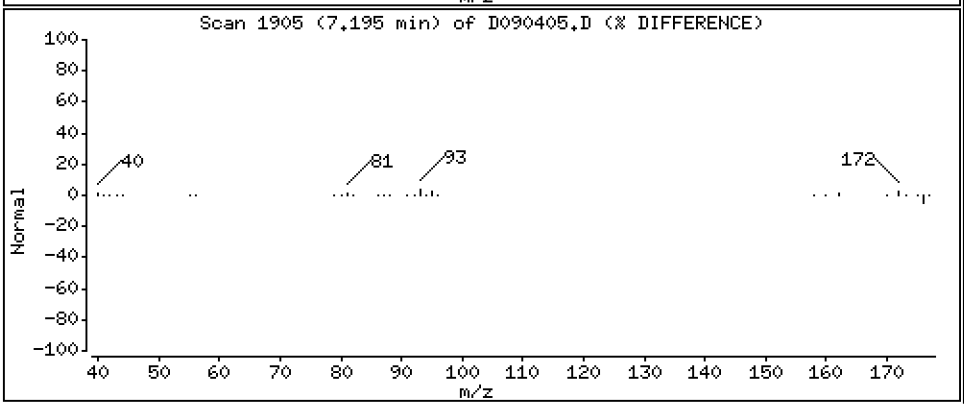


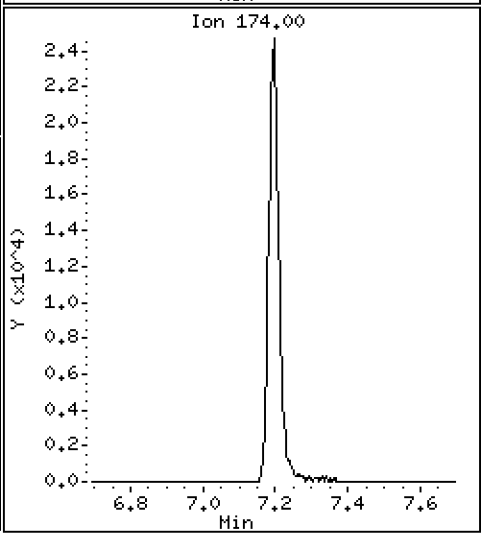












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 43

Date : 04-SEP-2018 12:21

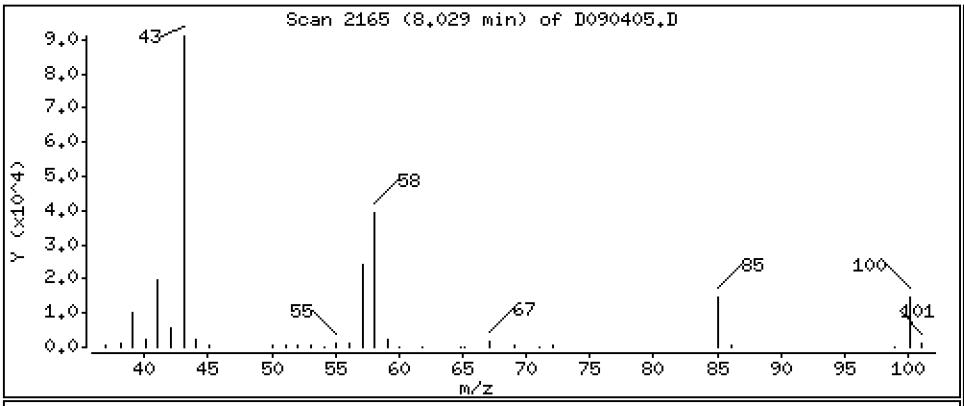
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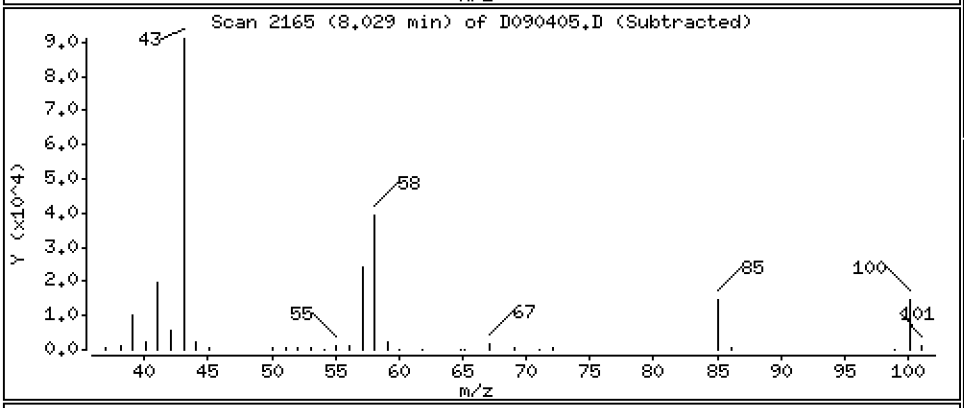
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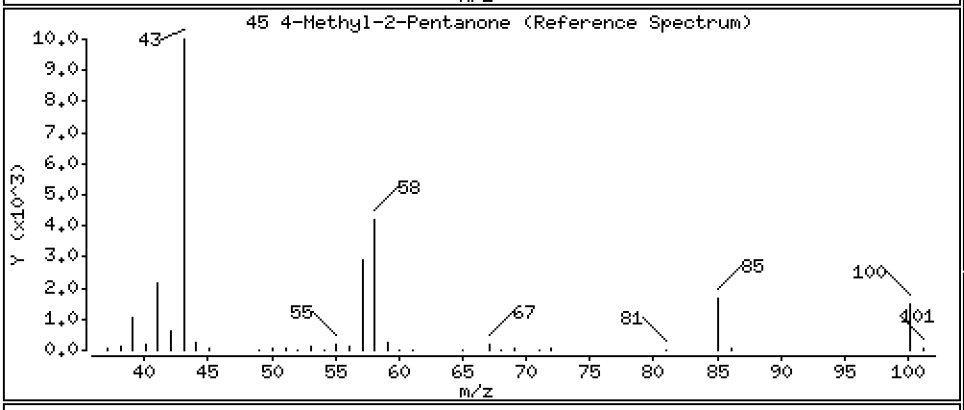
Purge Volume: 5.0 Operator: AP

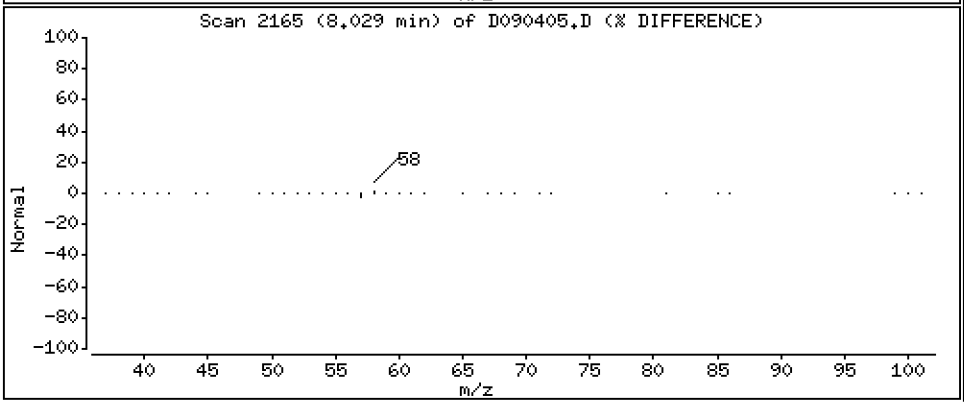
Column phase: DB624 Column diameter: 0.18

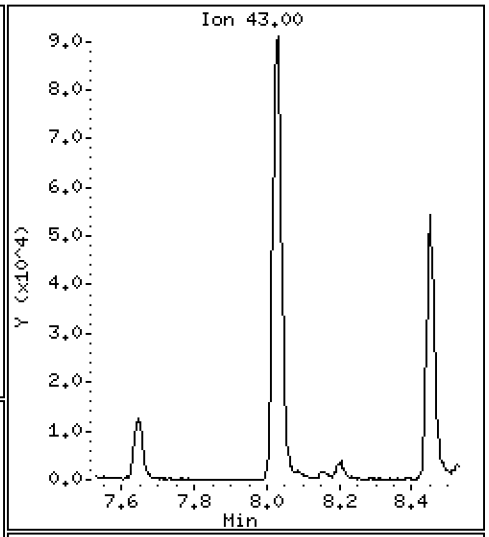
45 4-Methyl-2-Pentanone Concentration: 41.91 ug/l Review Code:

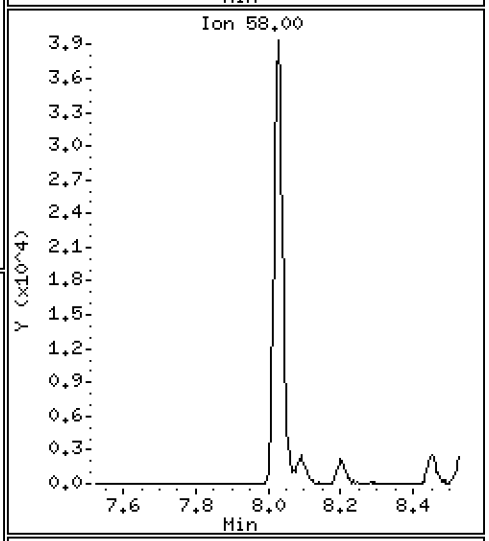


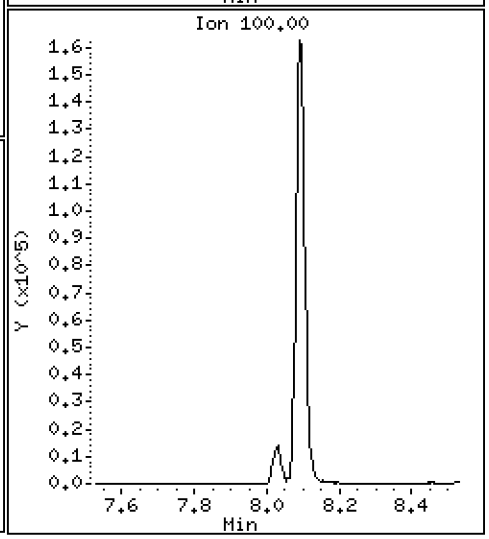












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 44

Date : 04-SEP-2018 12:21

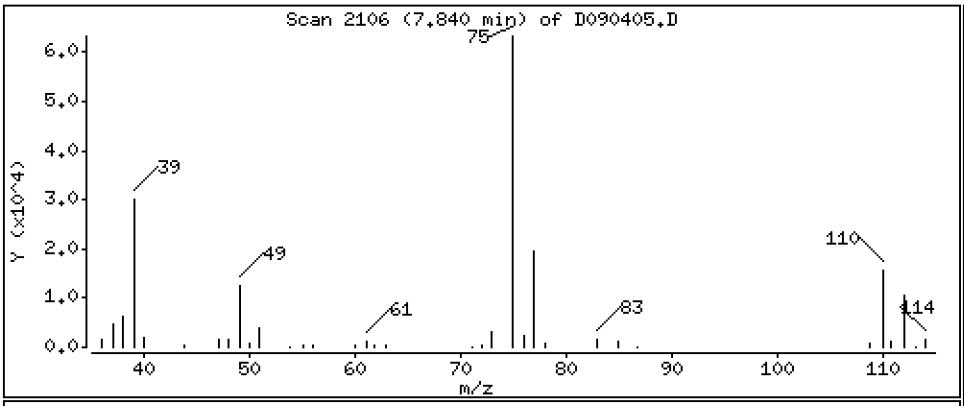
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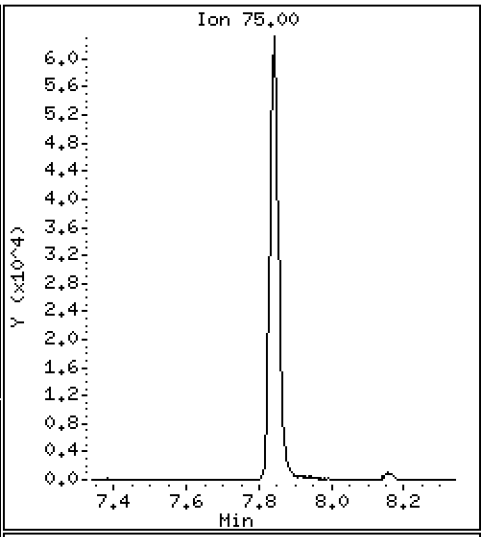
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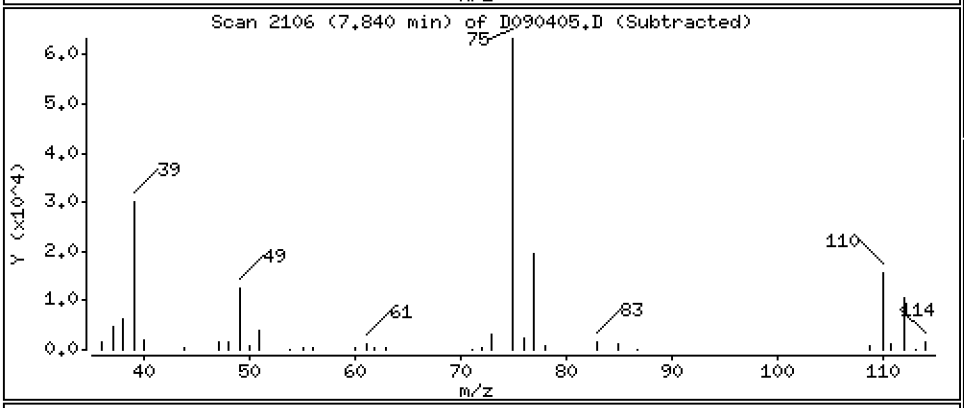
Purge Volume: 5.0 Operator: AP

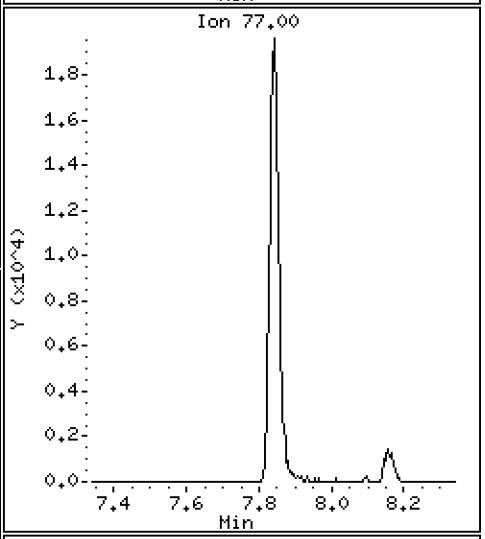
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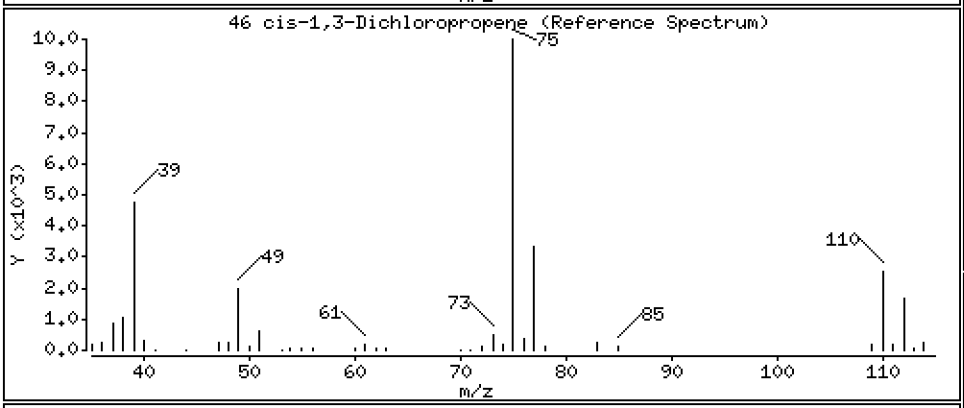
46 cis-1,3-Dichloropropene Concentration: 22.68 ug/l Review Code:

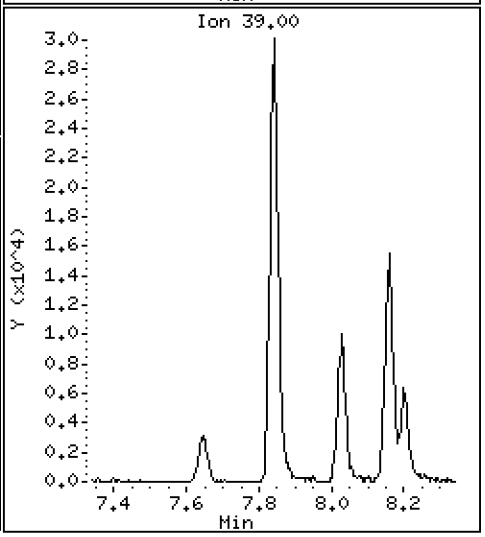


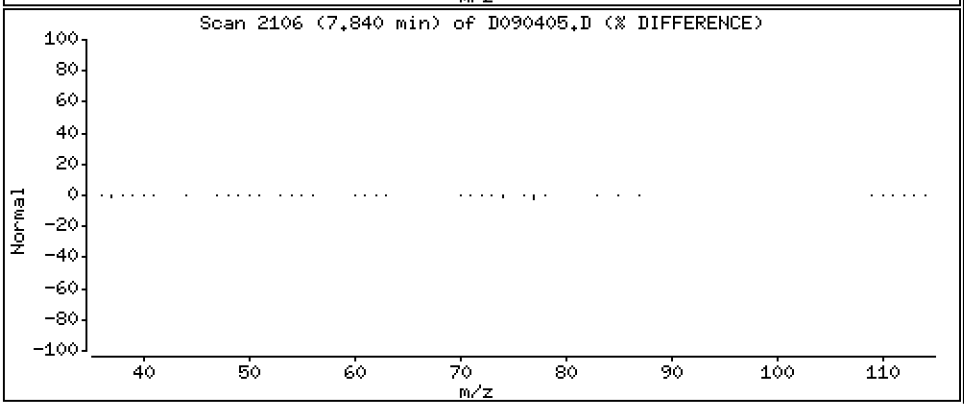












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 45

Date : 04-SEP-2018 12:21

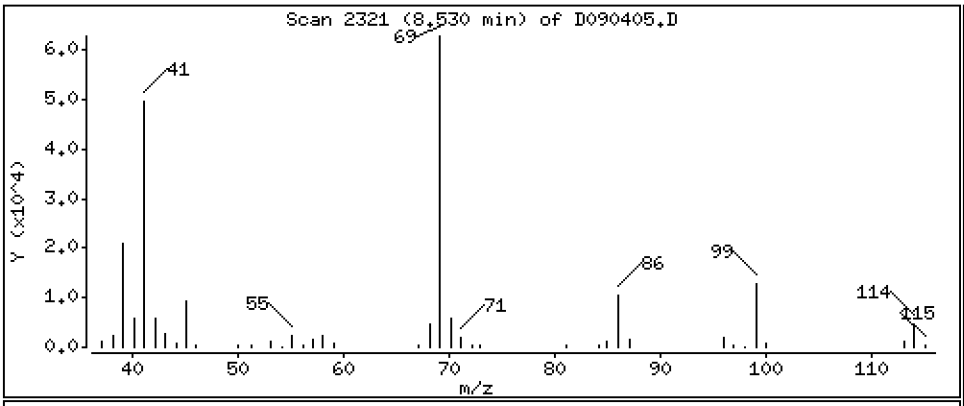
Client ID: VLCSW-180904 Instrument: VOA2.i

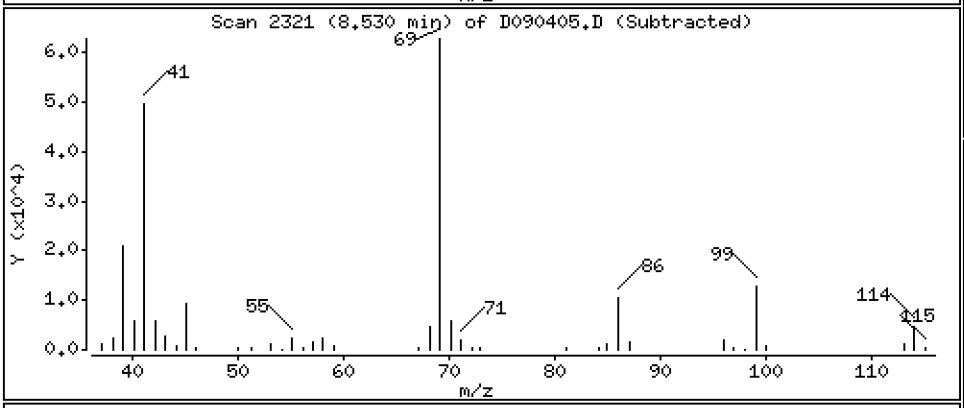
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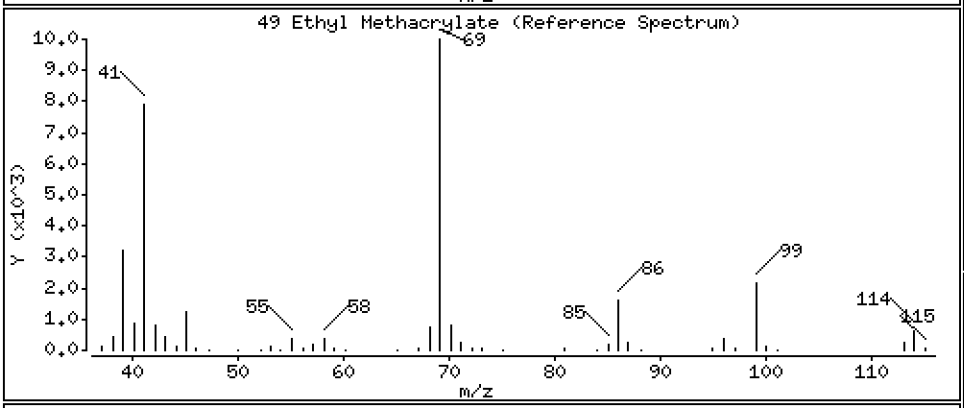
Purge Volume: 5.0 Operator: AP

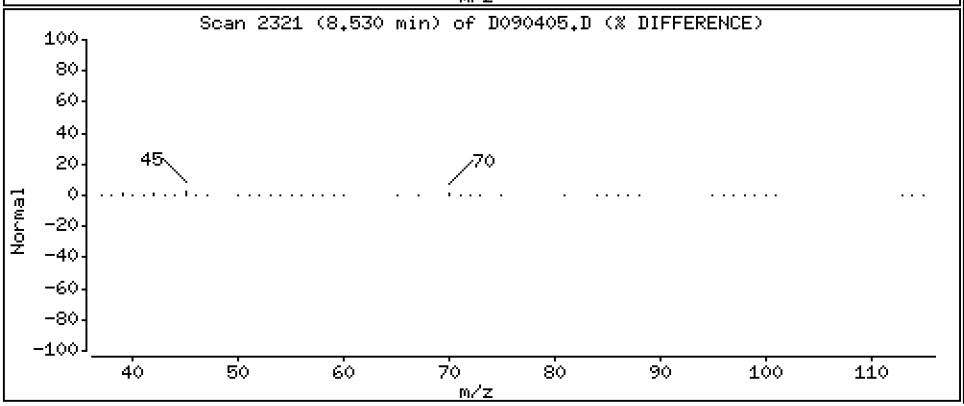
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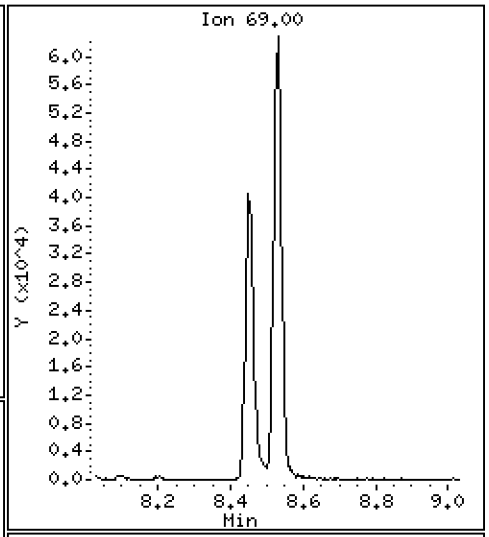
49 Ethyl Methacrylate Concentration: 21.28 ug/l Review Code:

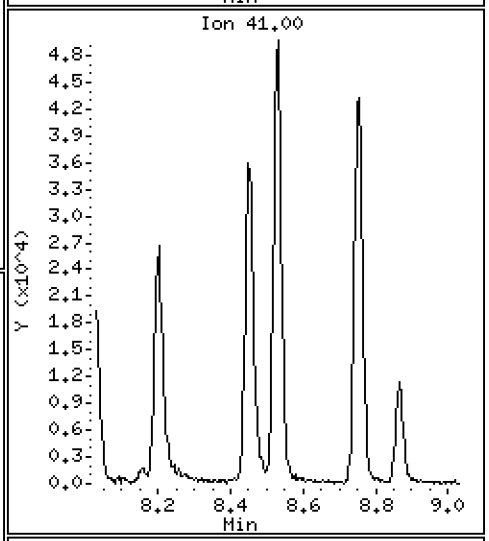


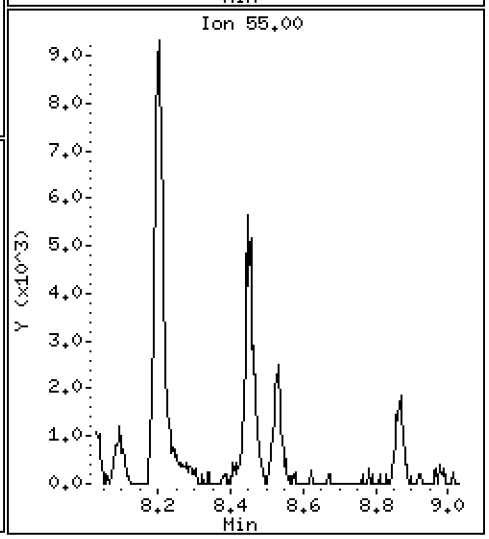












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 46

Date : 04-SEP-2018 12:21

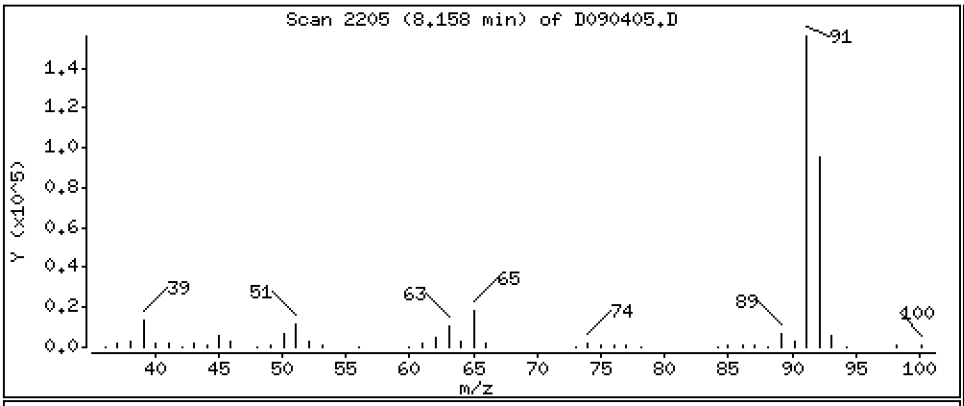
Client ID: VLCSW-180904 Instrument: VOA2.i

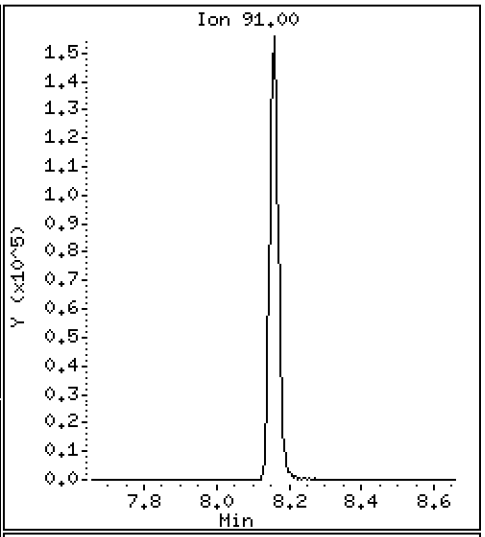
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

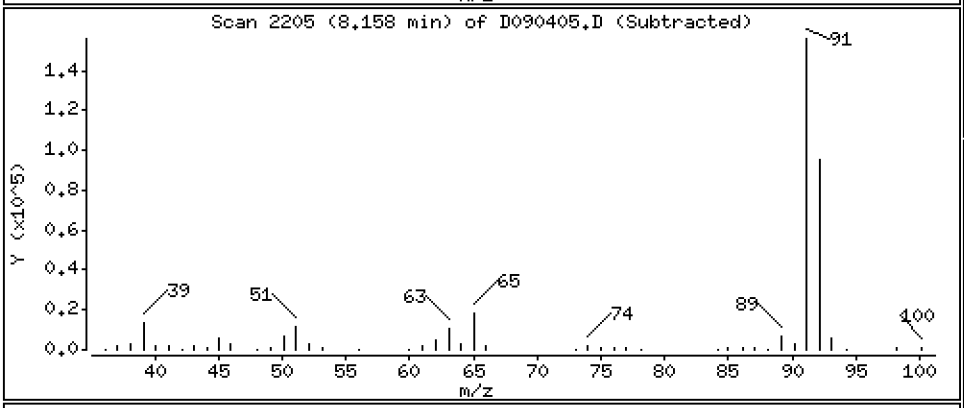
Purge Volume: 5.0 Operator: AP

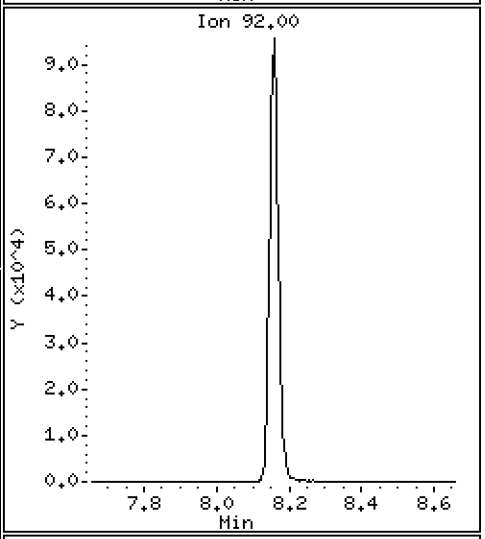
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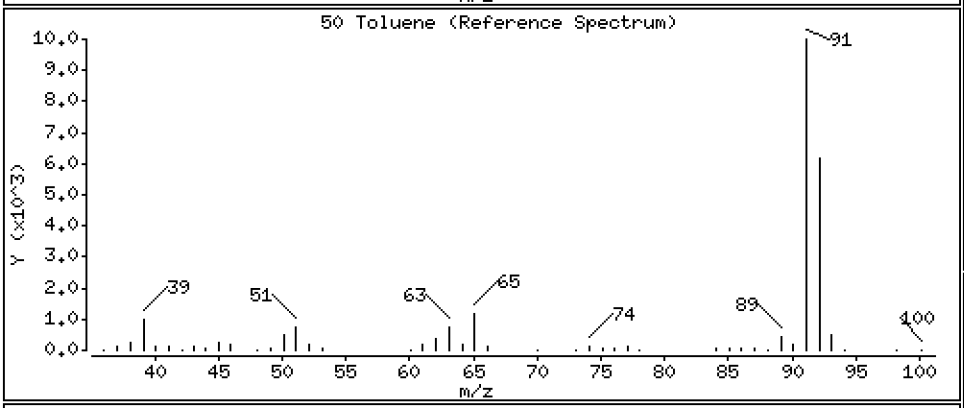
50 Toluene Concentration: 19.62 ug/l Review Code:

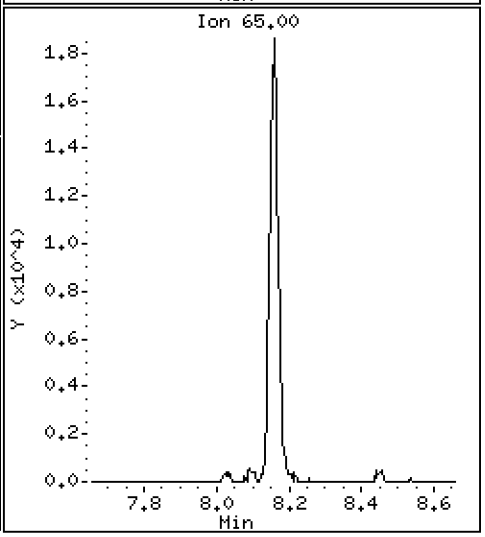


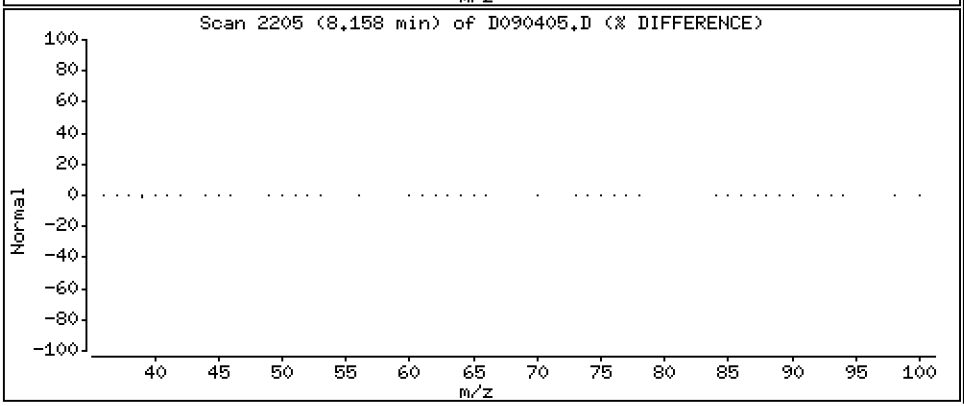












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 47

Date : 04-SEP-2018 12:21

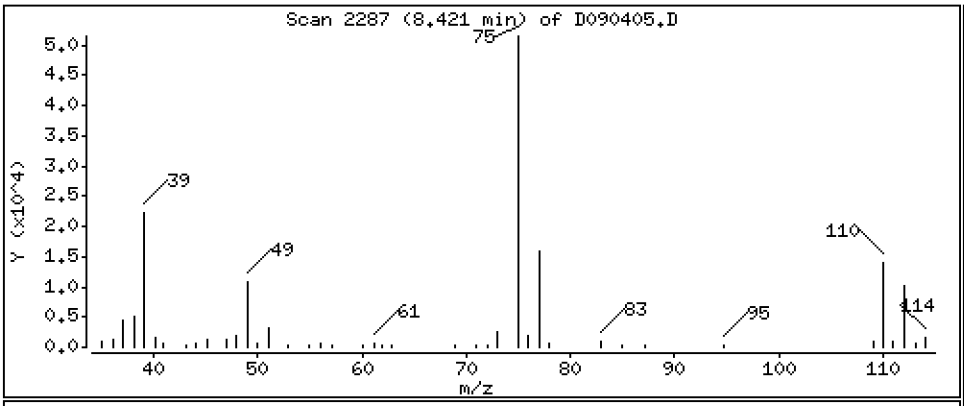
Client ID: VLCSW-180904 Instrument: VOA2.i

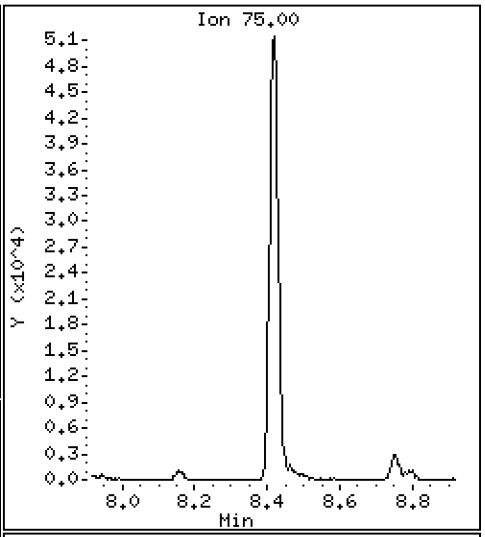
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

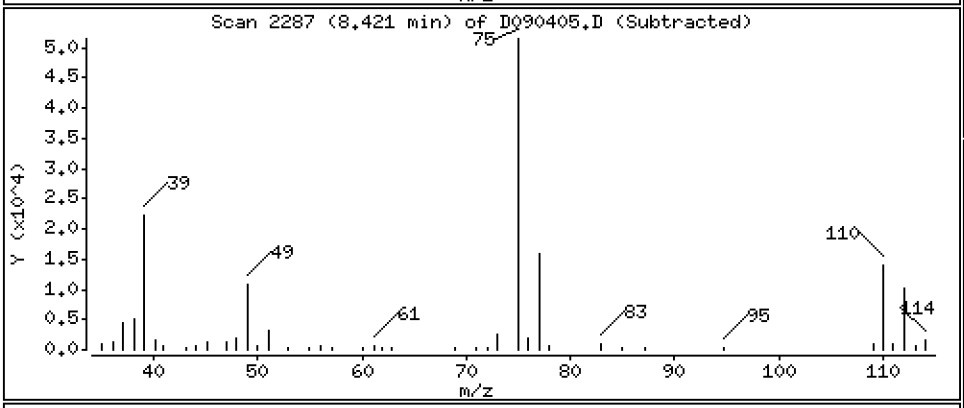
Purge Volume: 5.0 Operator: AP

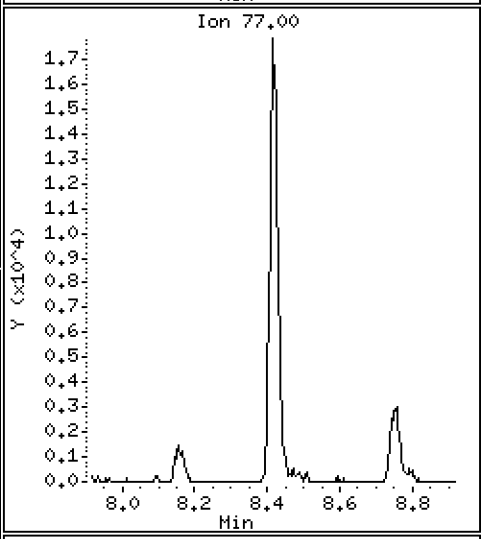
Column phase: DB624 Column diameter: 0.18

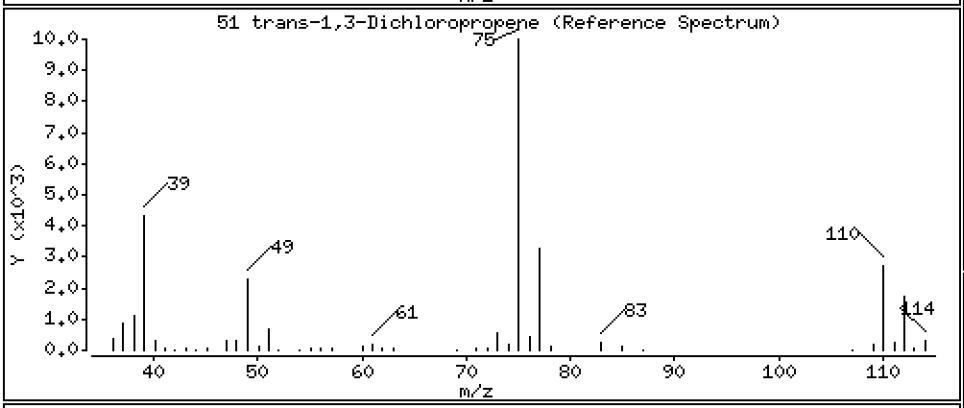
51 trans-1,3-Dichloropropene Concentration: 23.46 ug/l Review Code:

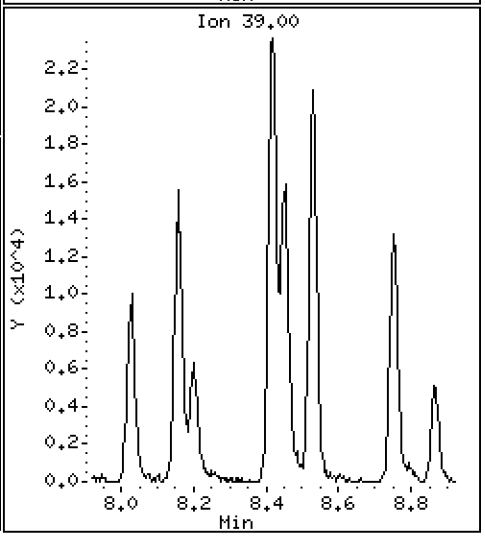


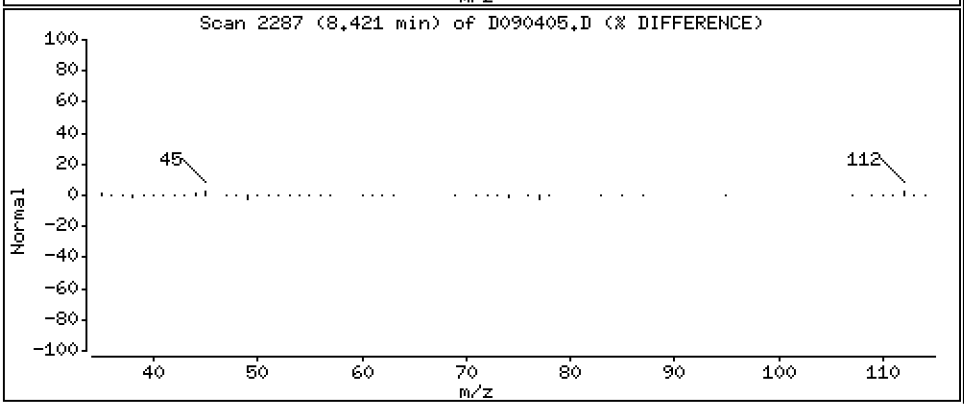












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 48

Date : 04-SEP-2018 12:21

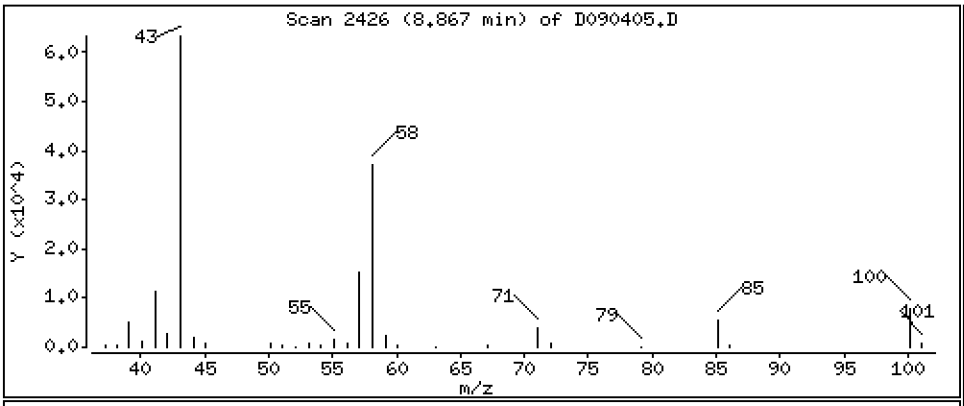
Client ID: VLCSW-180904 Instrument: VOA2.i

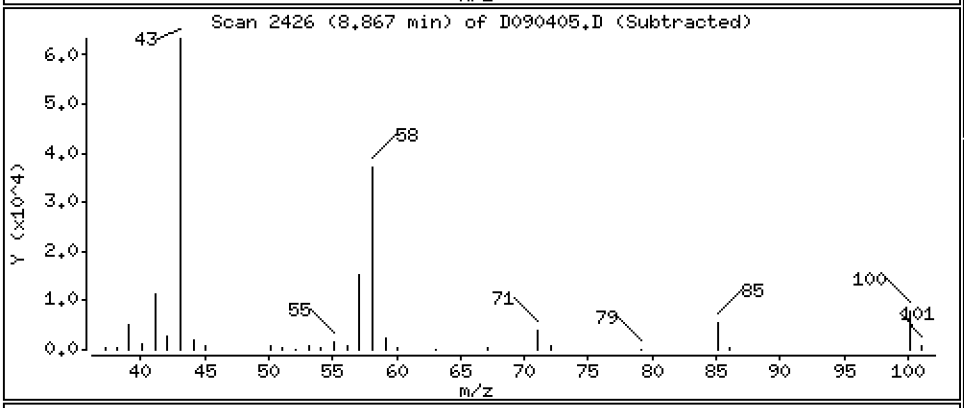
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

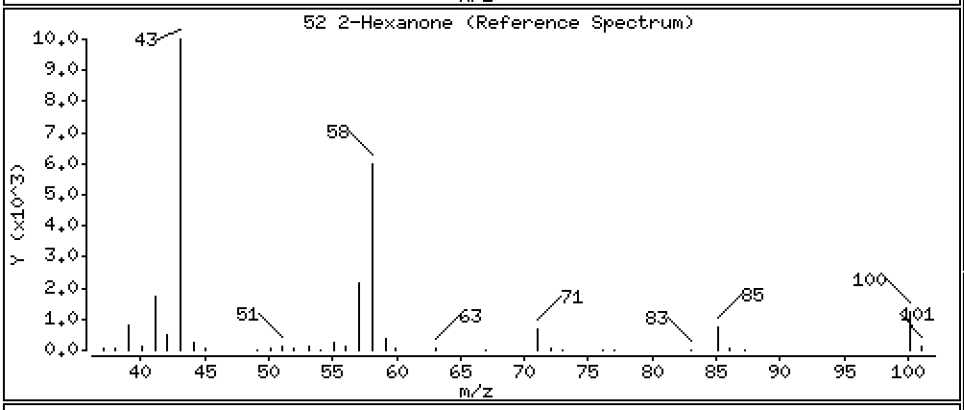
Purge Volume: 5.0 Operator: AP

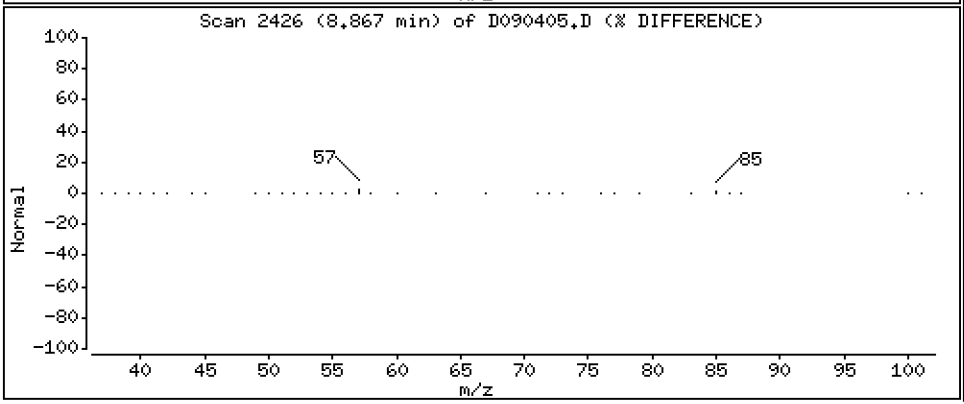
Column phase: DB624 Column diameter: 0.18

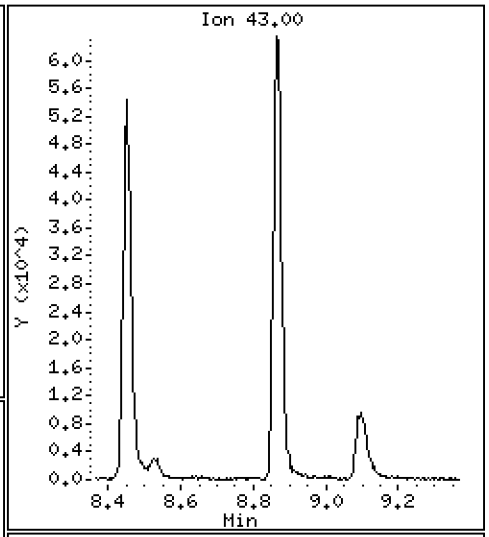
52 2-Hexanone Concentration: 40.89 ug/l Review Code:

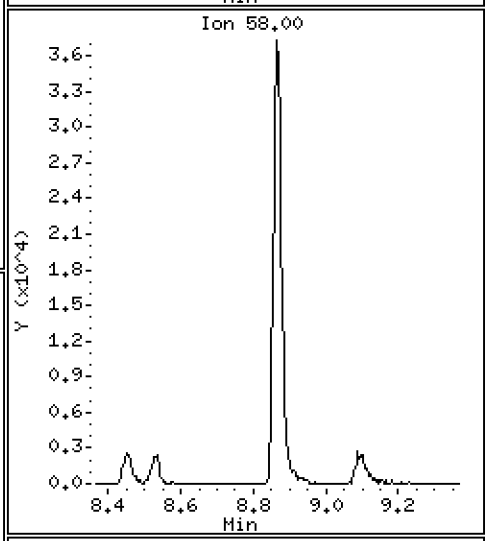


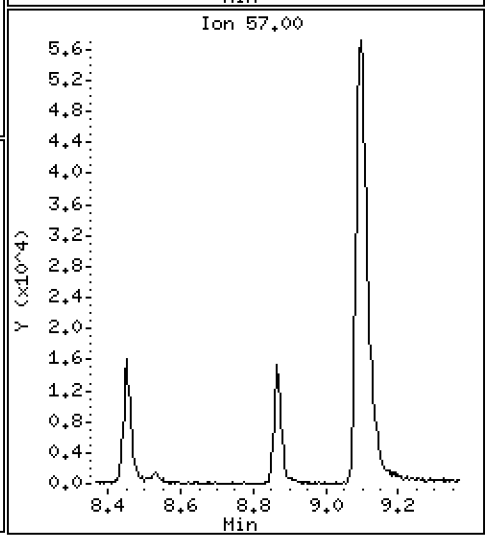












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 49

Date : 04-SEP-2018 12:21

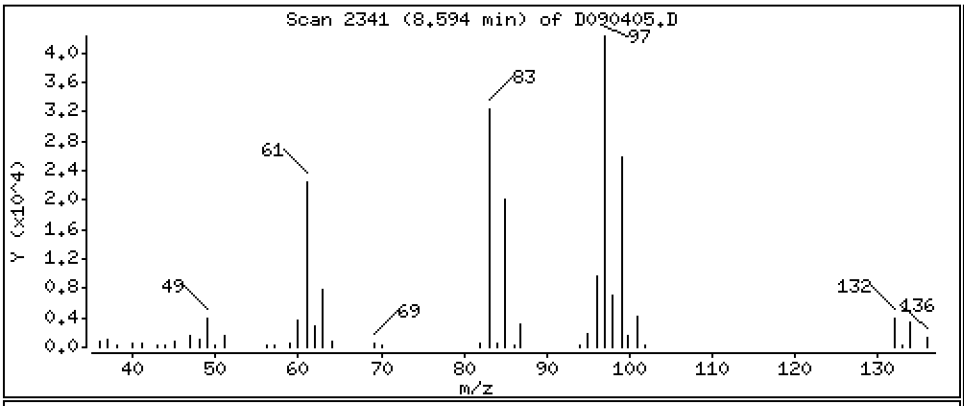
Client ID: VLCSW-180904 Instrument: VOA2.i

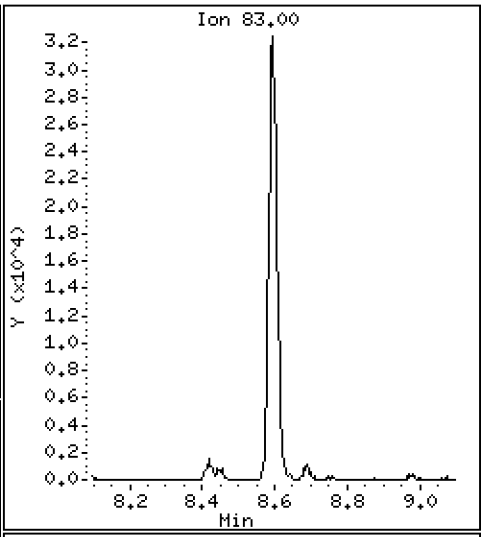
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

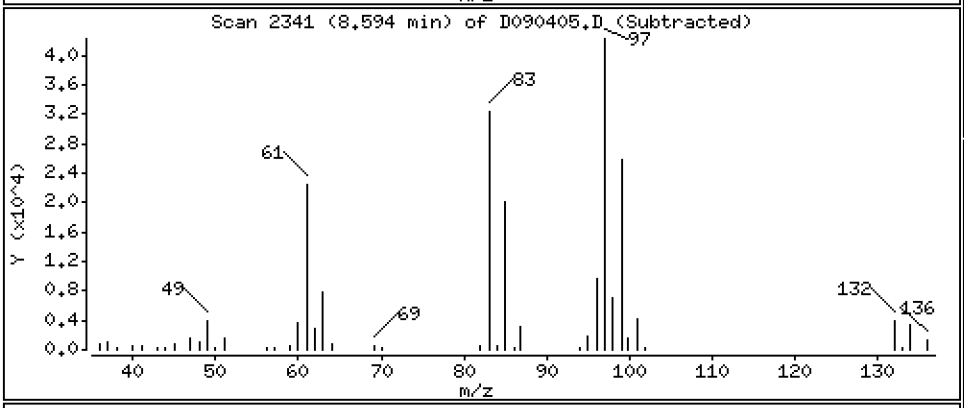
Purge Volume: 5.0 Operator: AP

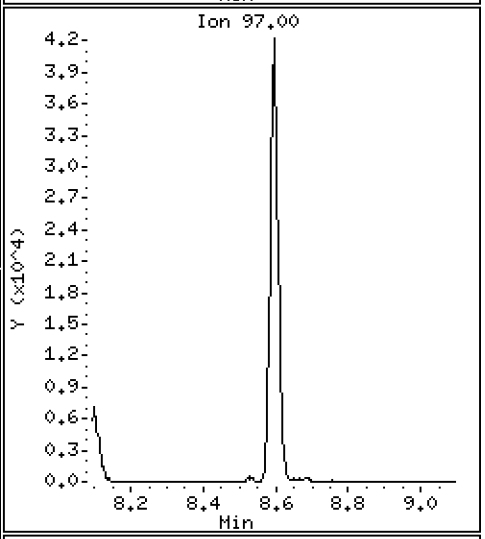
Column phase: DB624 Column diameter: 0.18

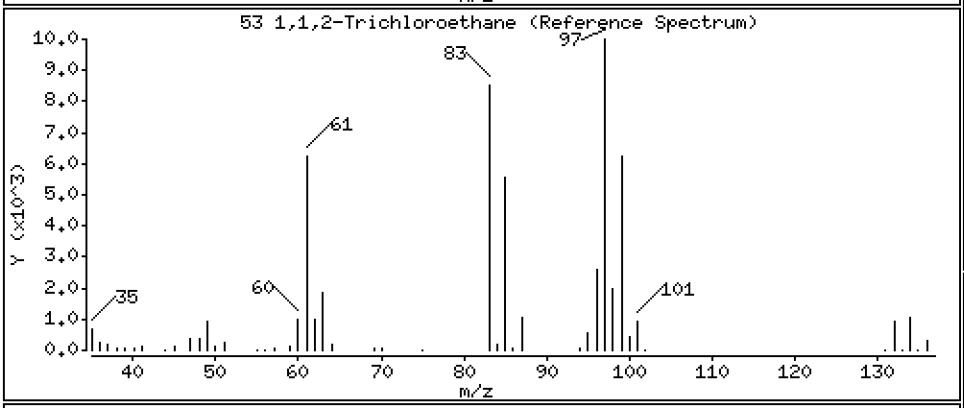
53 1,1,2-Trichloroethane Concentration: 20.39 ug/l Review Code:

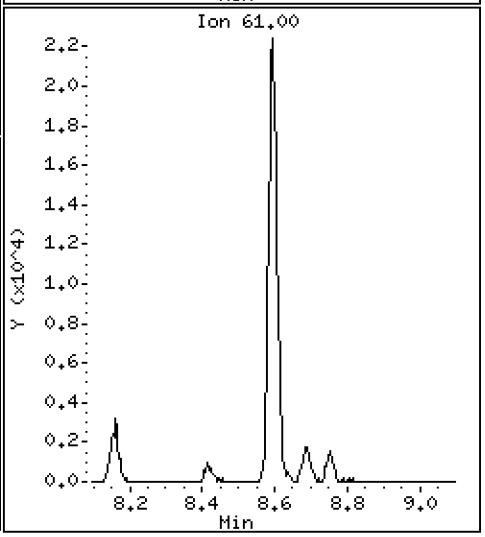


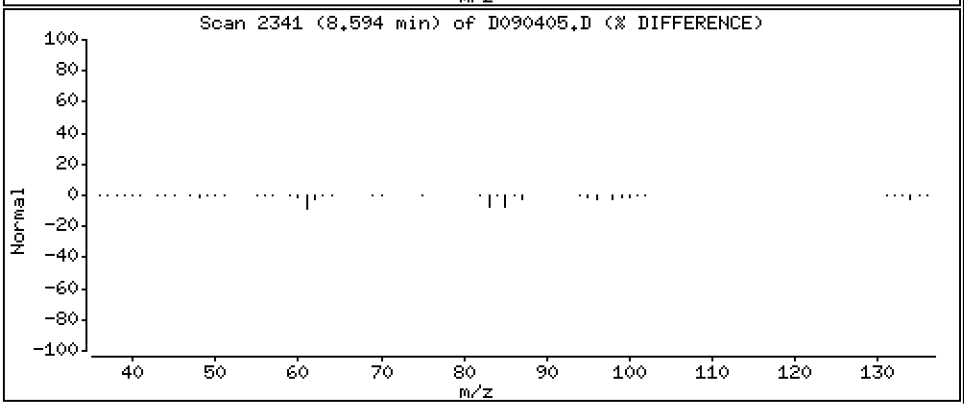












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 50

Date : 04-SEP-2018 12:21

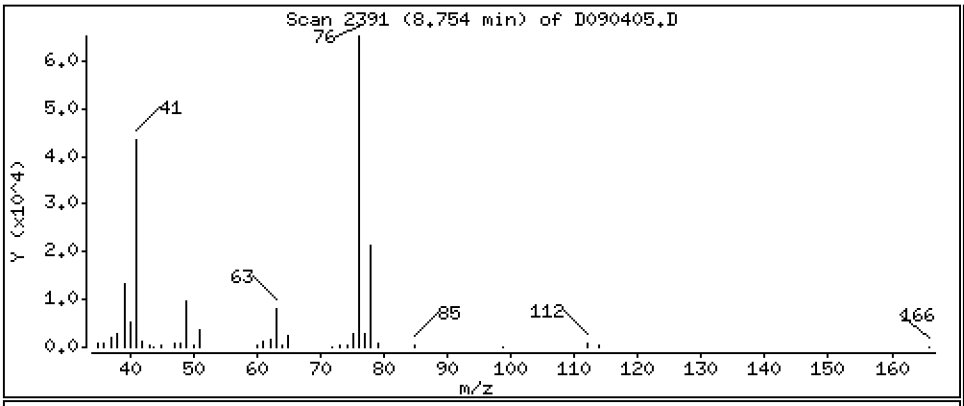
Client ID: VLCSW-180904 Instrument: VOA2.i

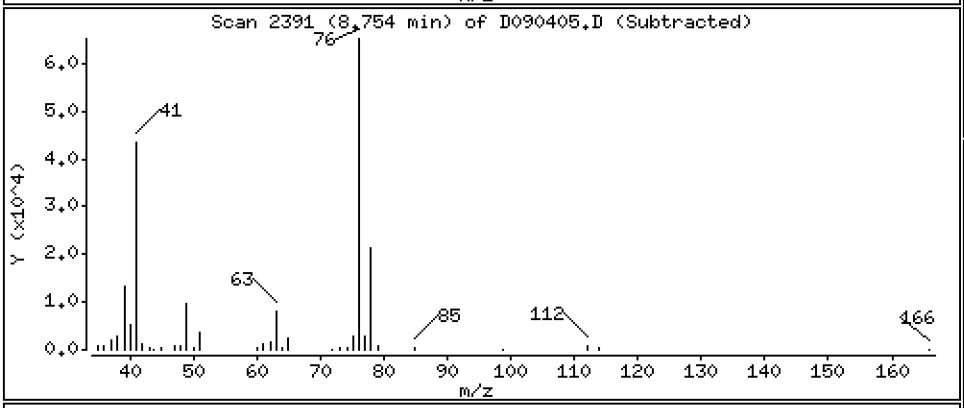
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

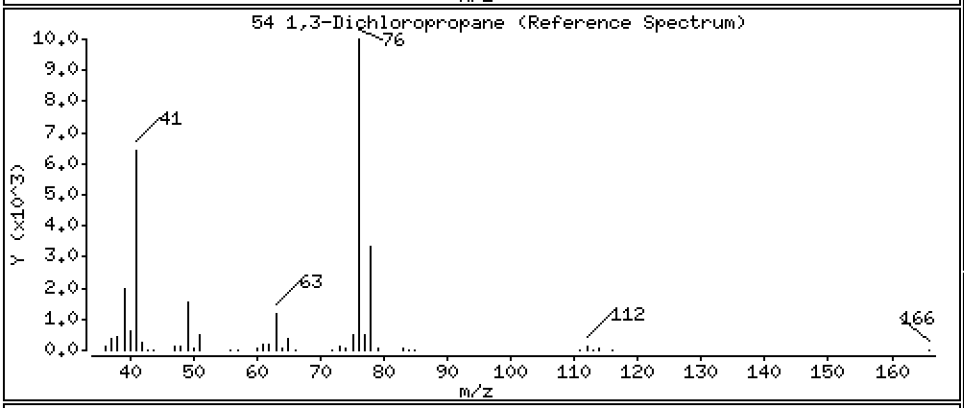
Purge Volume: 5.0 Operator: AP

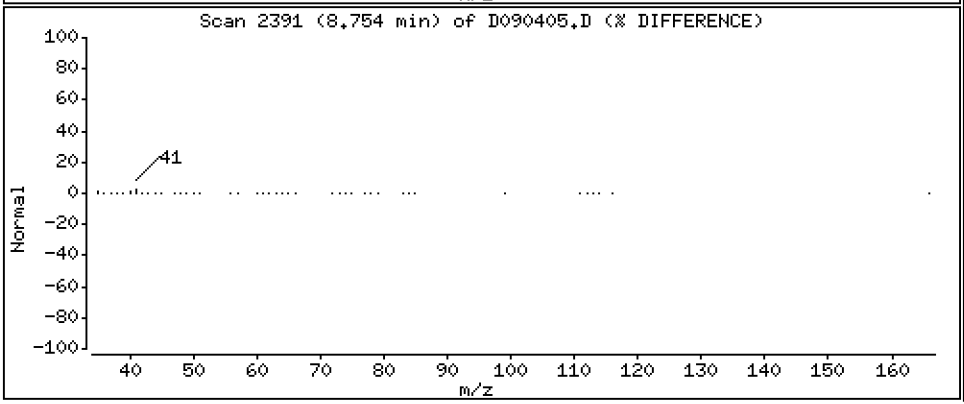
Column phase: DB624 Column diameter: 0.18

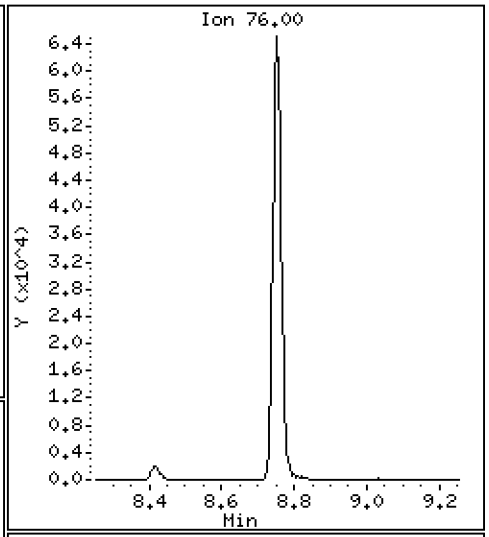
54 1,3-Dichloropropane Concentration: 20.85 ug/l Review Code:

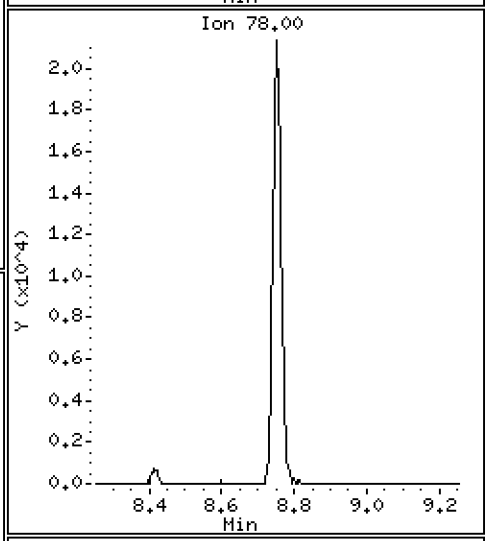


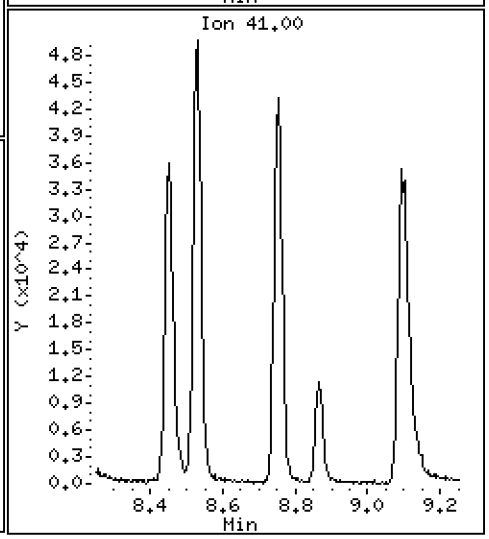












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 51

Date : 04-SEP-2018 12:21

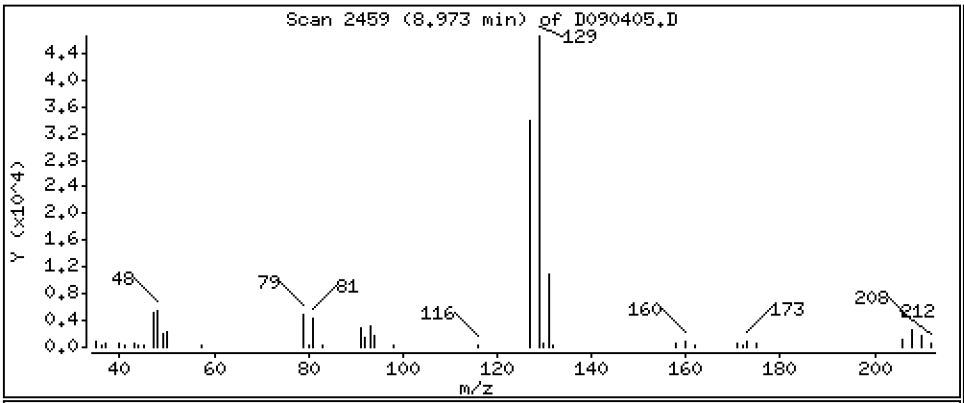
Client ID: VLCSW-180904 Instrument: VOA2.i

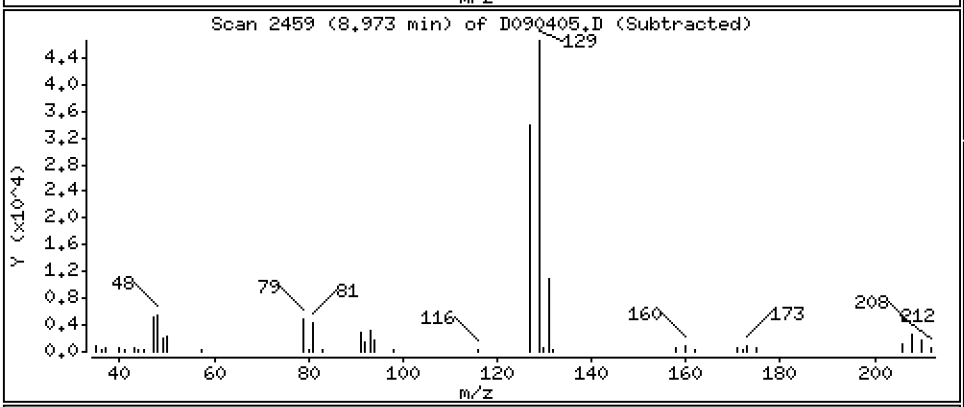
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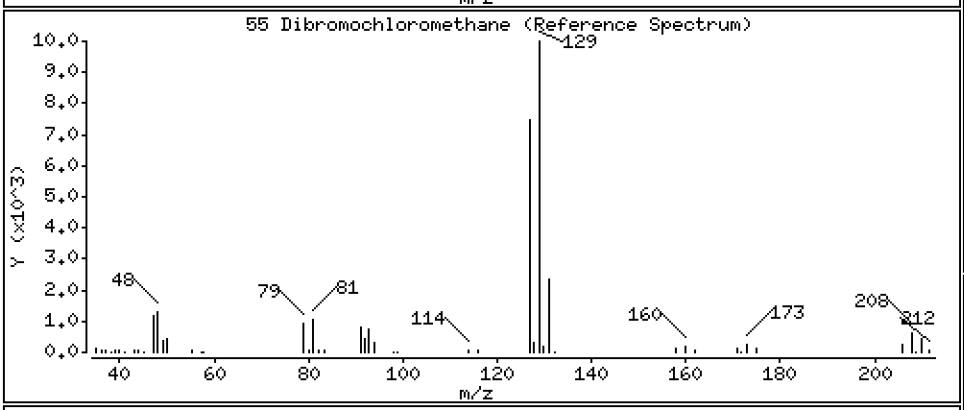
Purge Volume: 5.0 Operator: AP

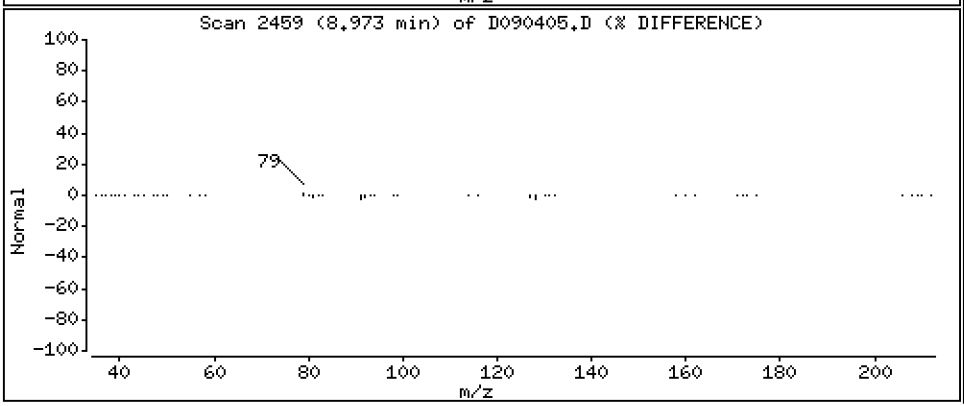
Column phase: DB624 Column diameter: 0.18

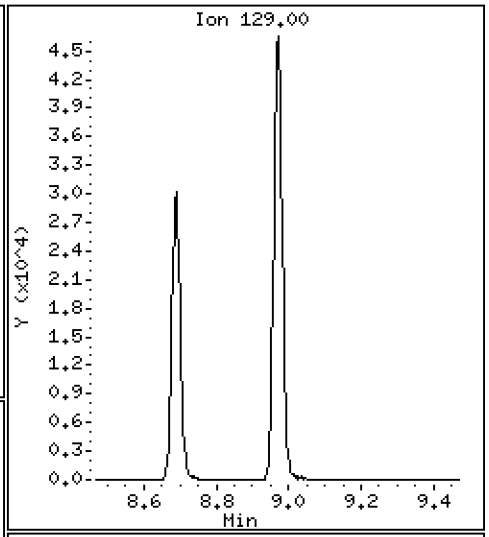
55 Dibromochloromethane Concentration: 21.25 ug/l Review Code:

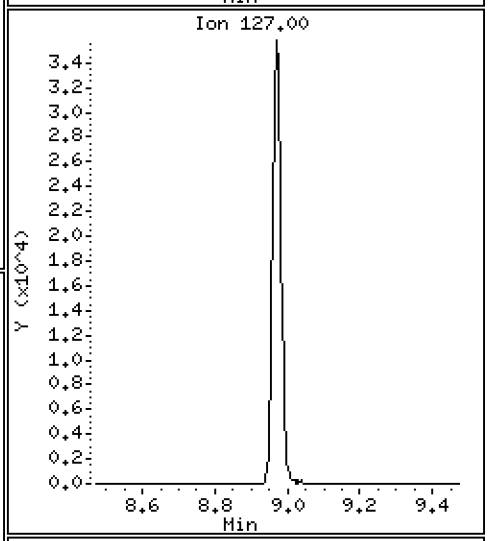


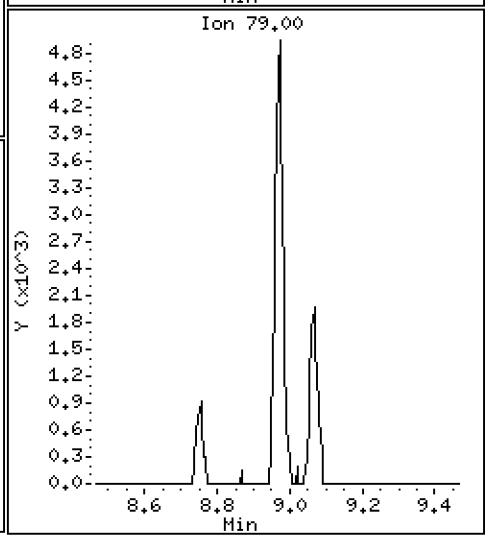












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 52

Date : 04-SEP-2018 12:21

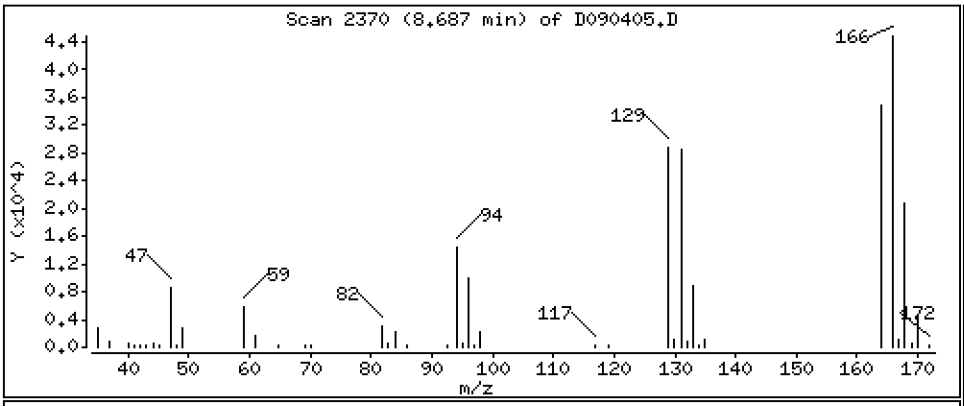
Client ID: VLCSW-180904 Instrument: VOA2.i

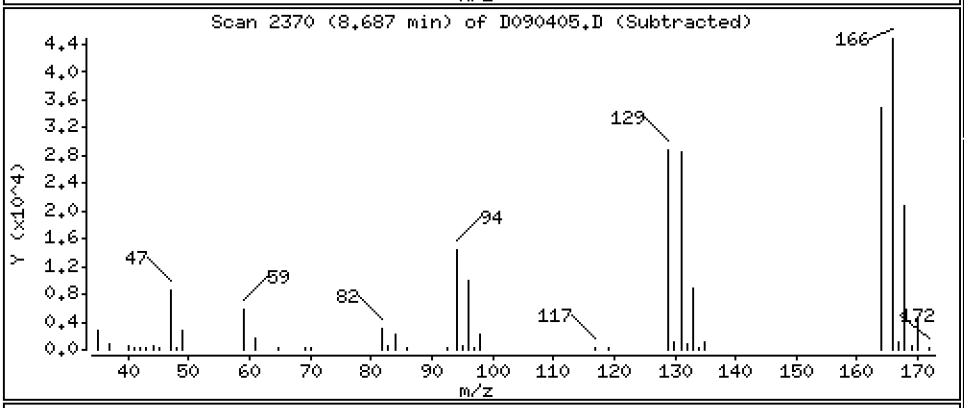
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

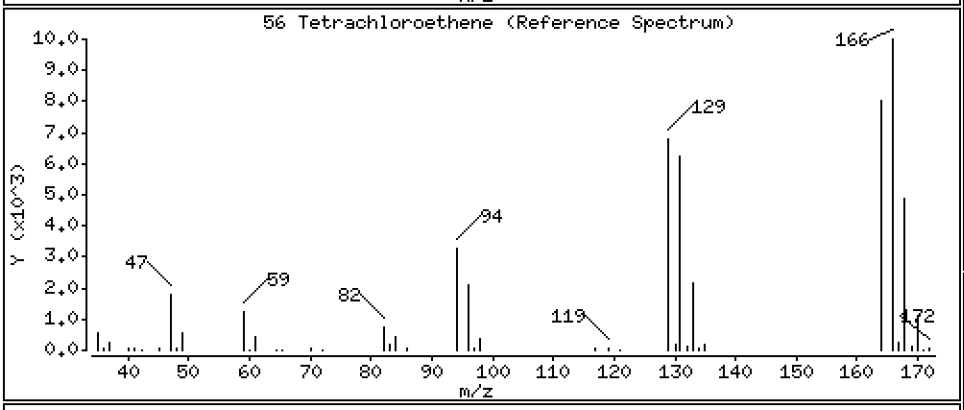
Purge Volume: 5.0 Operator: AP

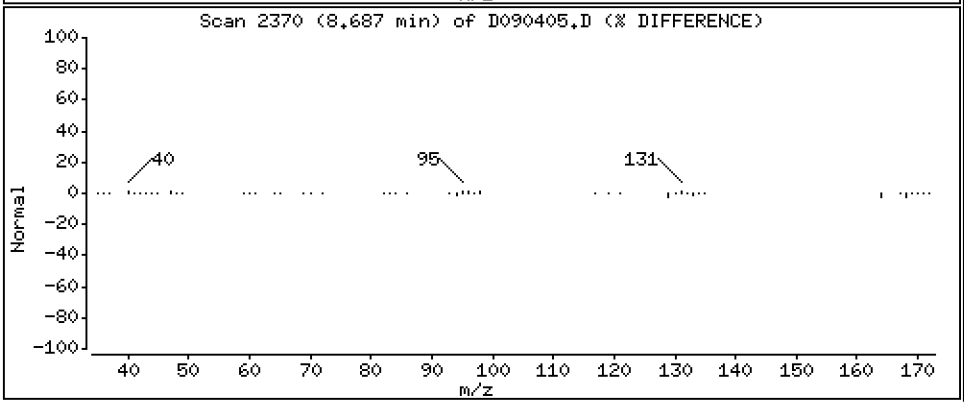
Column phase: DB624 Column diameter: 0.18

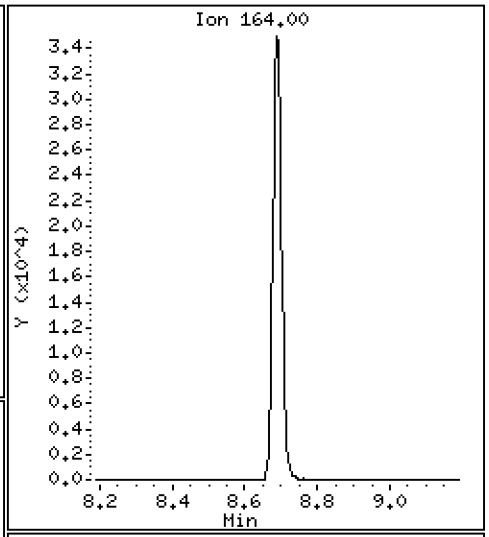
56 Tetrachloroethene Concentration: 21.50 ug/l Review Code:

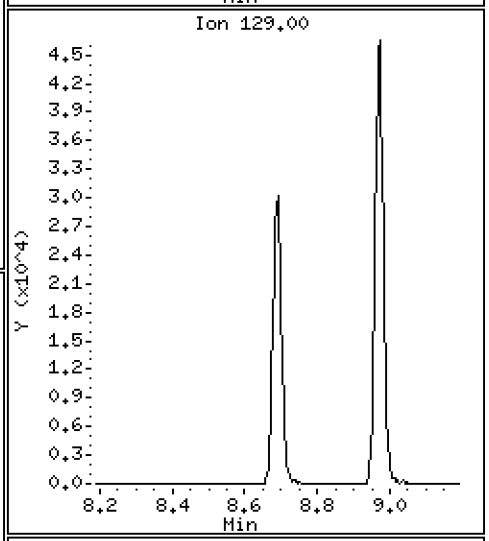


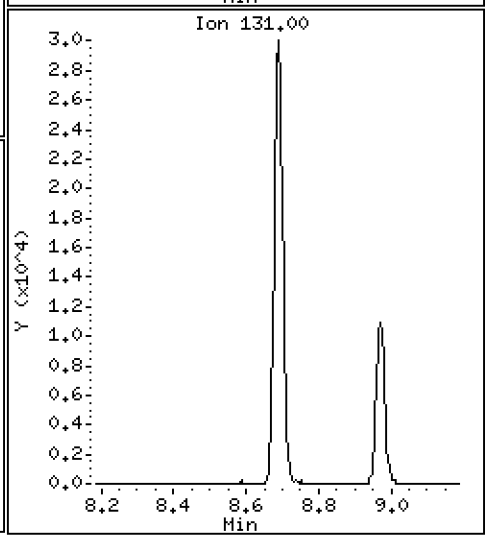












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 53

Date : 04-SEP-2018 12:21

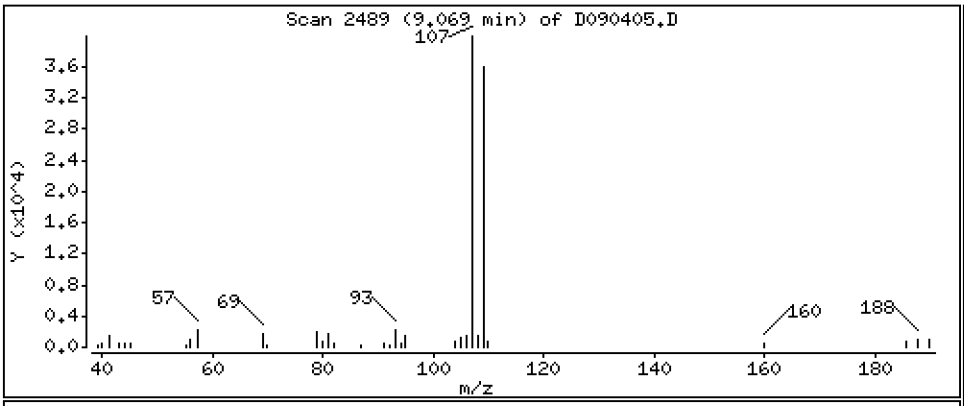
Client ID: VLCSW-180904 Instrument: VOA2.i

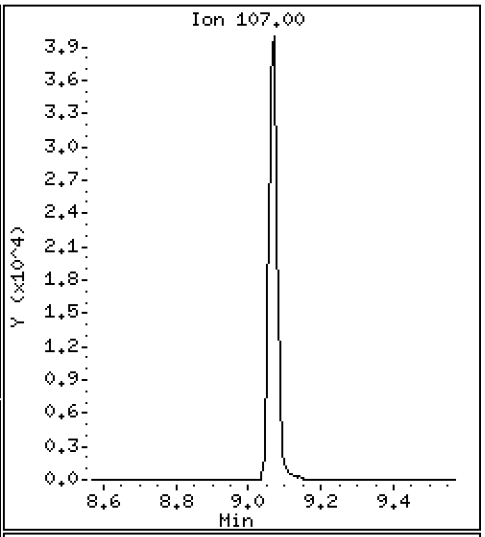
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

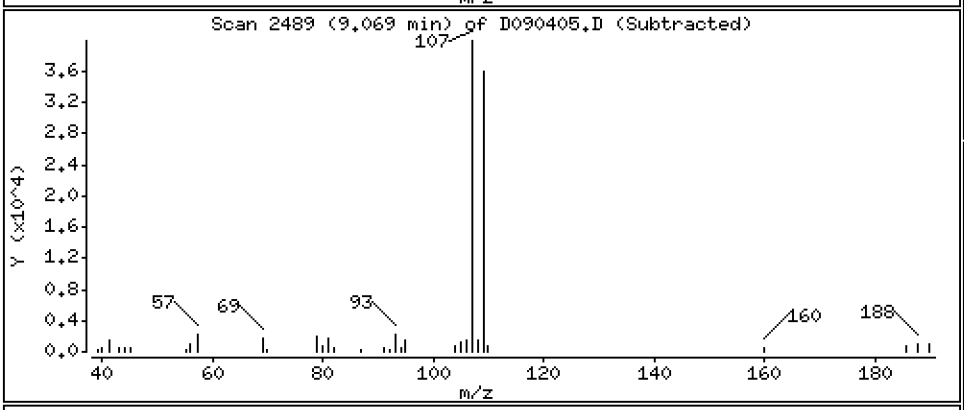
Purge Volume: 5.0 Operator: AP

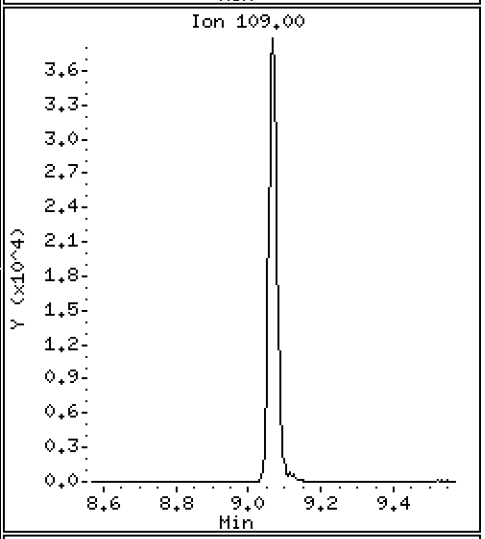
Column phase: DB624 Column diameter: 0.18

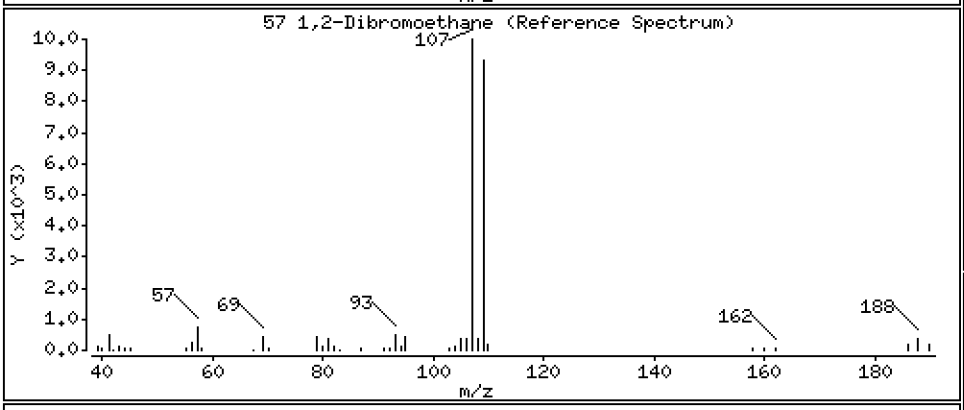
57 1,2-Dibromoethane Concentration: 21.23 ug/l Review Code:

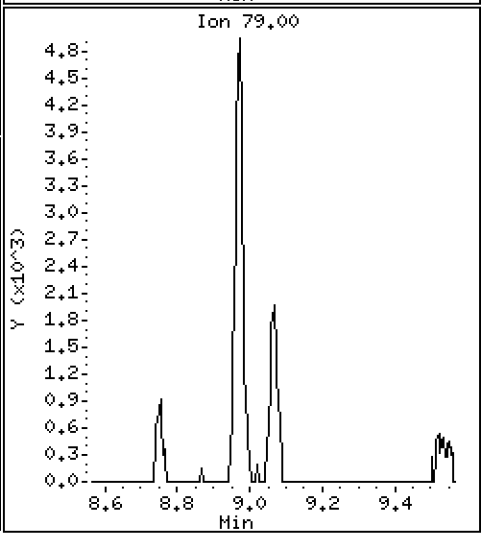


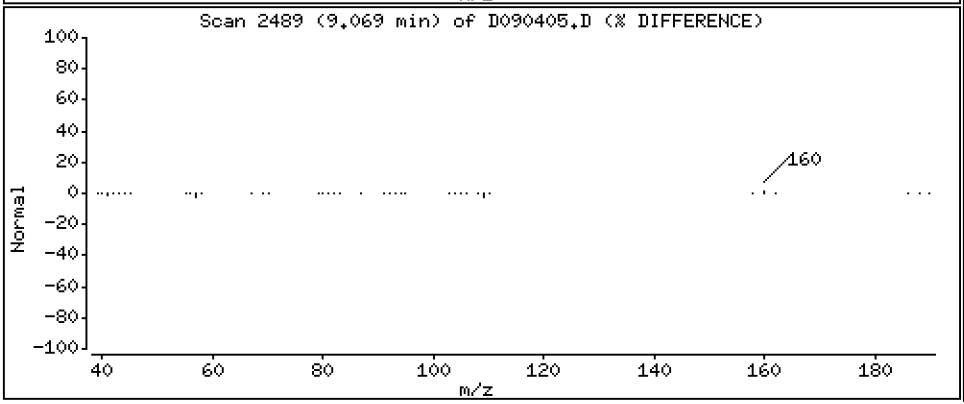












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 54

Date : 04-SEP-2018 12:21

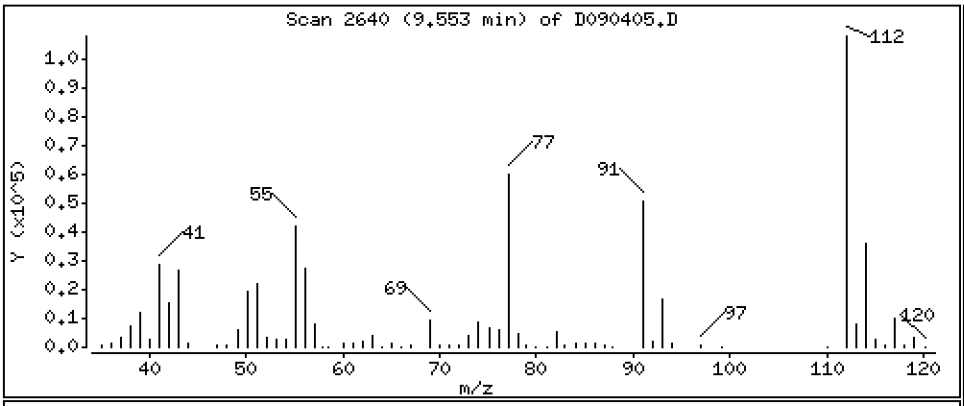
Client ID: VLCSW-180904 Instrument: VOA2.i

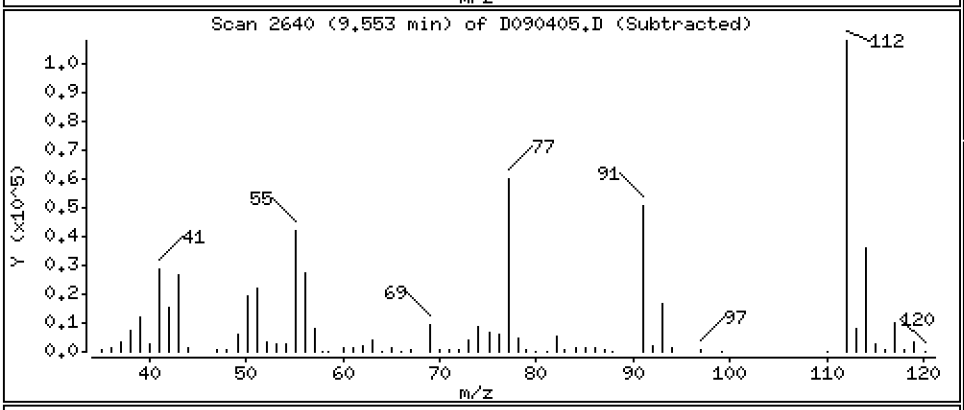
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

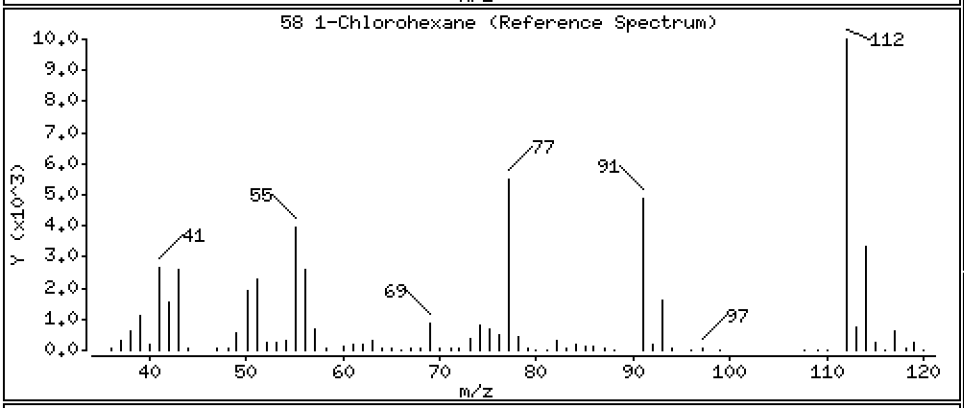
Purge Volume: 5.0 Operator: AP

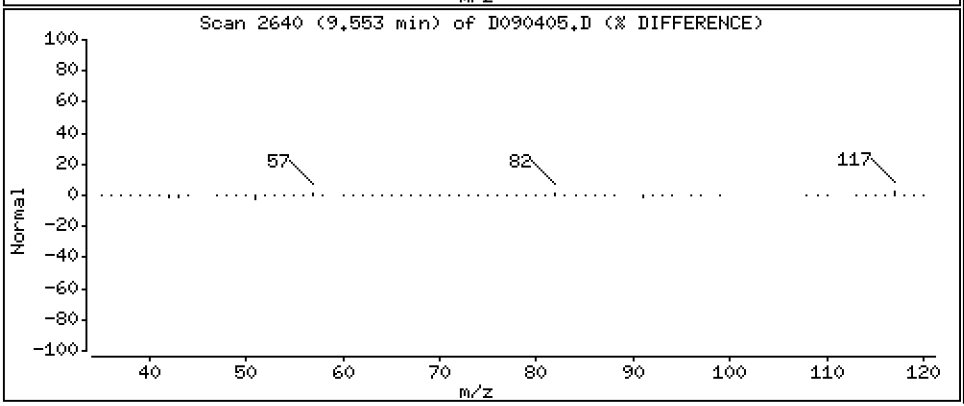
Column phase: DB624 Column diameter: 0.18

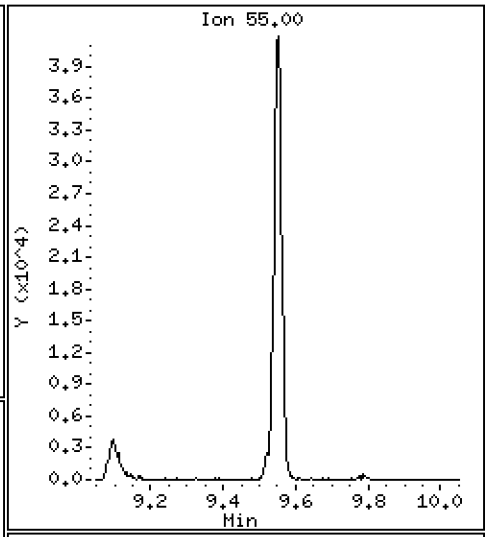
58 1-Chlorohexane Concentration: 22.13 ug/l Review Code:

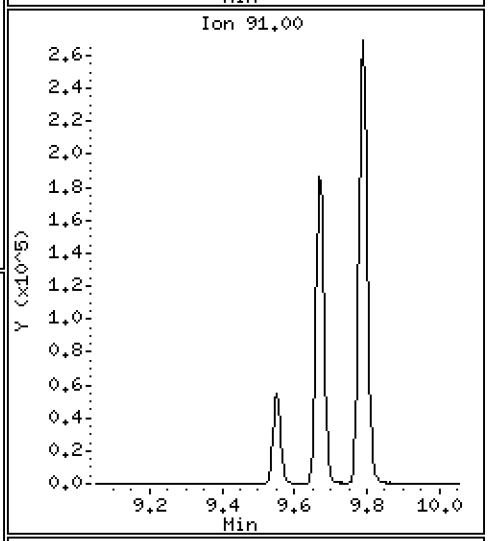


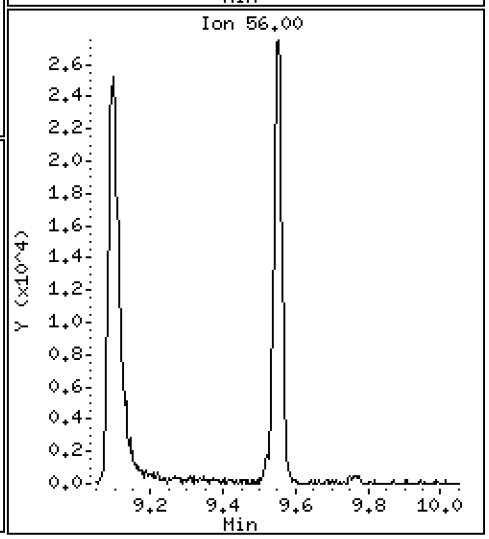












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 55

Date : 04-SEP-2018 12:21

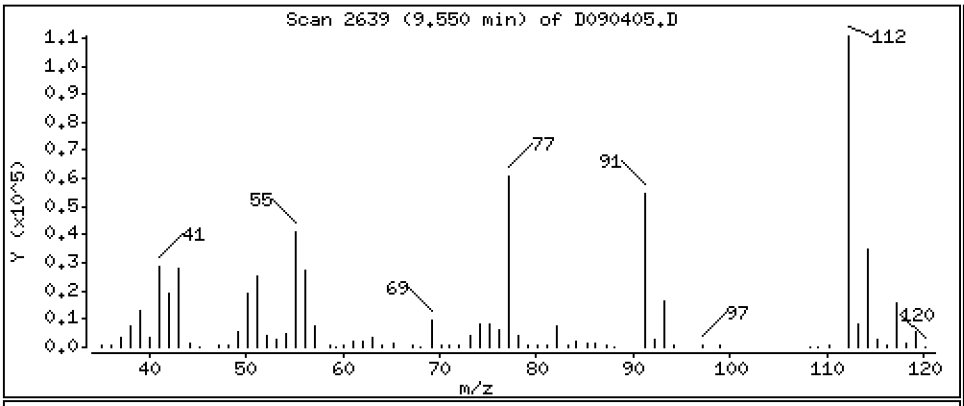
Client ID: VLCSW-180904 Instrument: VOA2.i

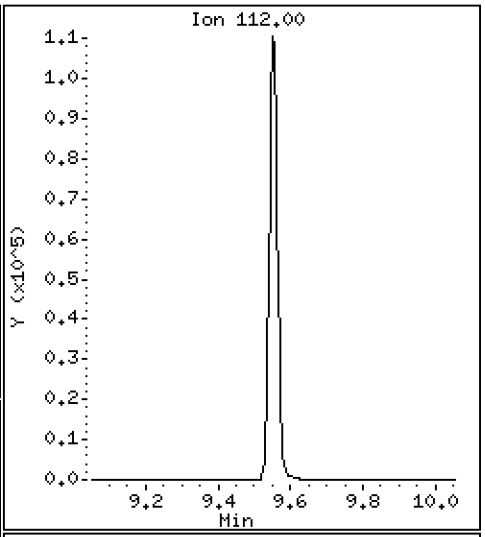
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

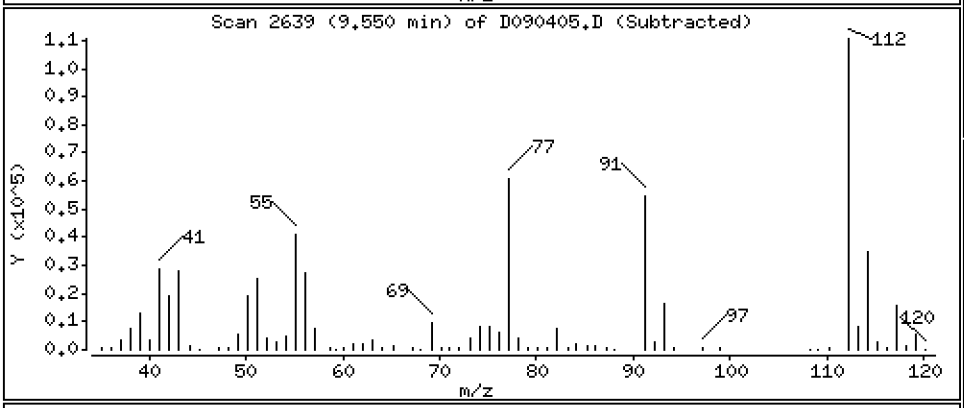
Purge Volume: 5.0 Operator: AP

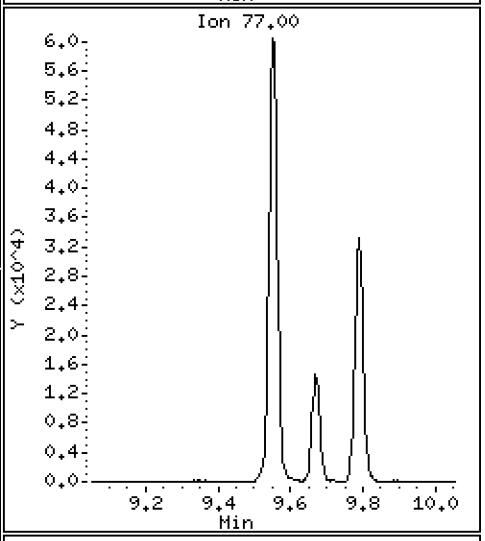
Column phase: DB624 Column diameter: 0.18

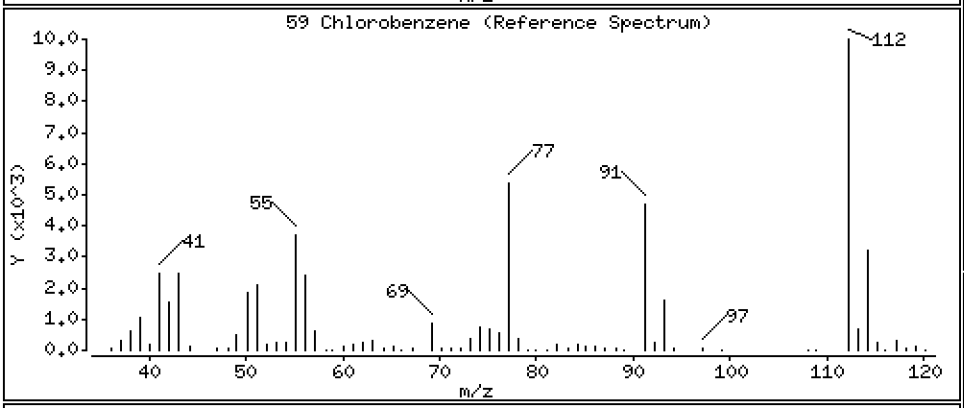
59 Chlorobenzene Concentration: 20.87 ug/l Review Code:

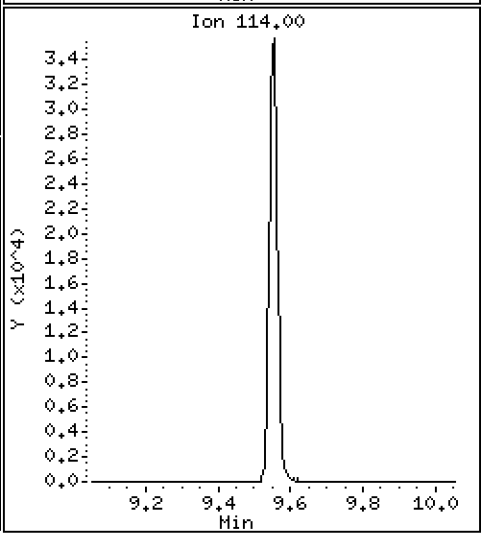


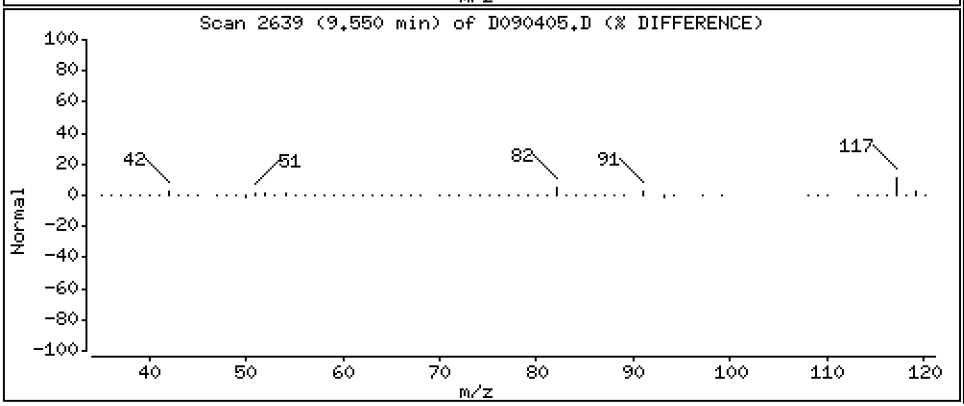












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 56

Date : 04-SEP-2018 12:21

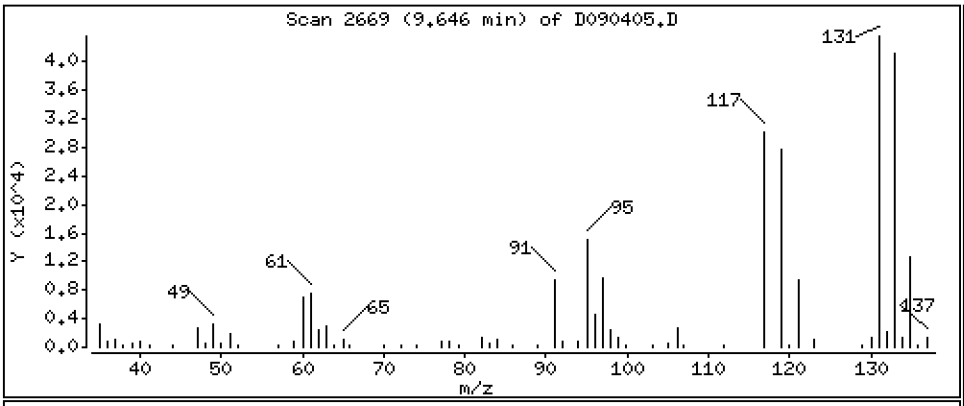
Client ID: VLCSW-180904 Instrument: VOA2.i

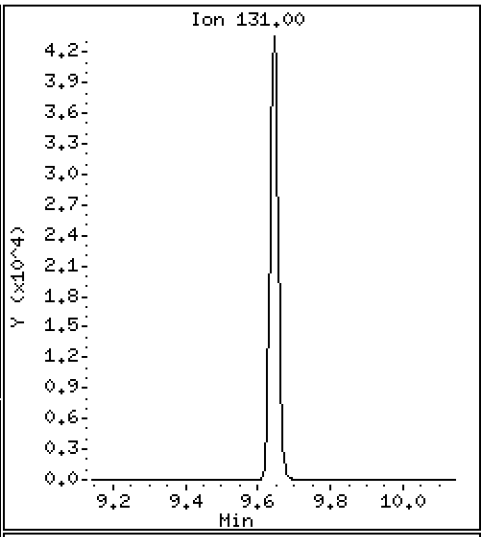
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

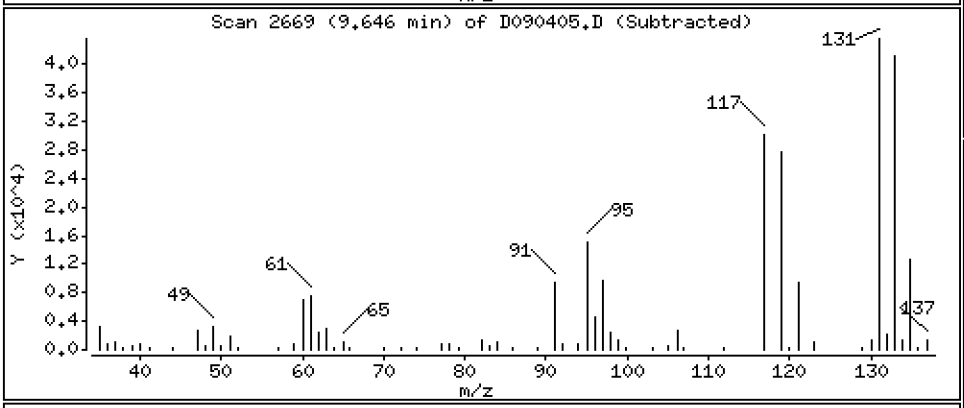
Purge Volume: 5.0 Operator: AP

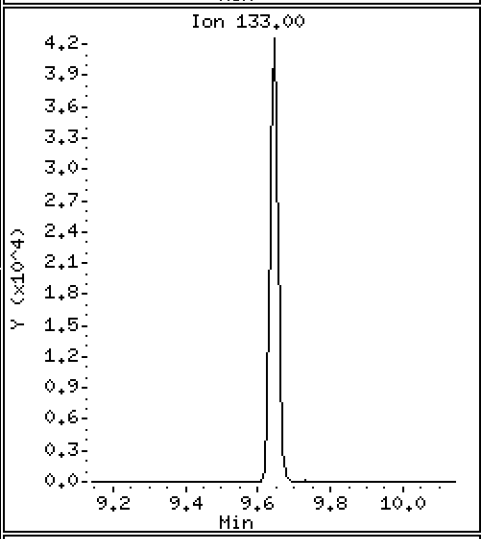
Column phase: DB624 Column diameter: 0.18

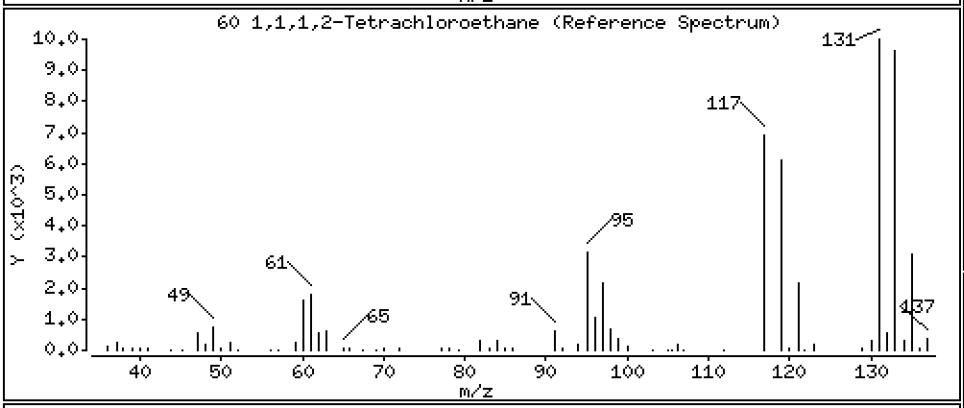
60 1,1,1,2-Tetrachloroethane Concentration: 21.09 ug/l Review Code:

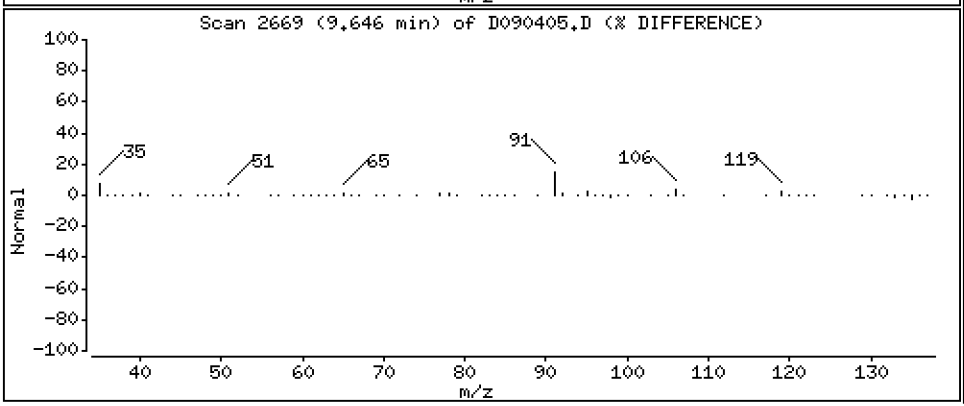


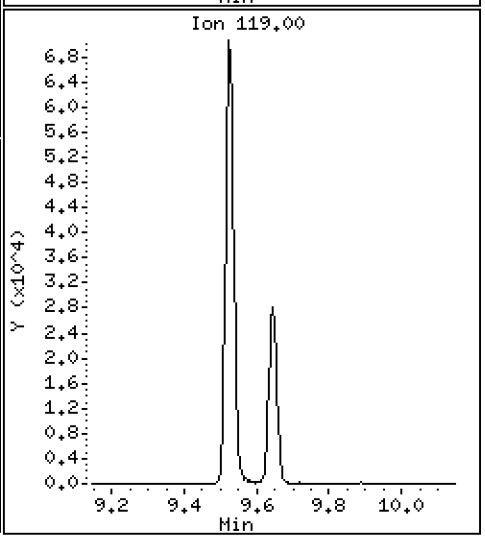












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 57

Date : 04-SEP-2018 12:21

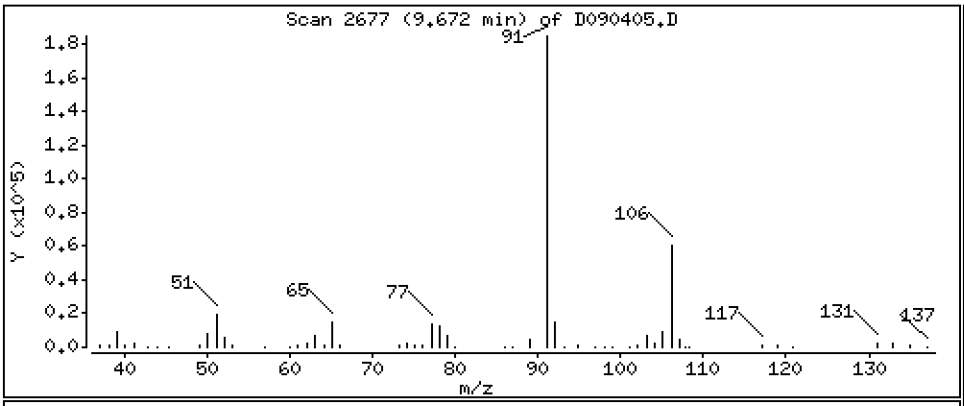
Client ID: VLCSW-180904 Instrument: VOA2.i

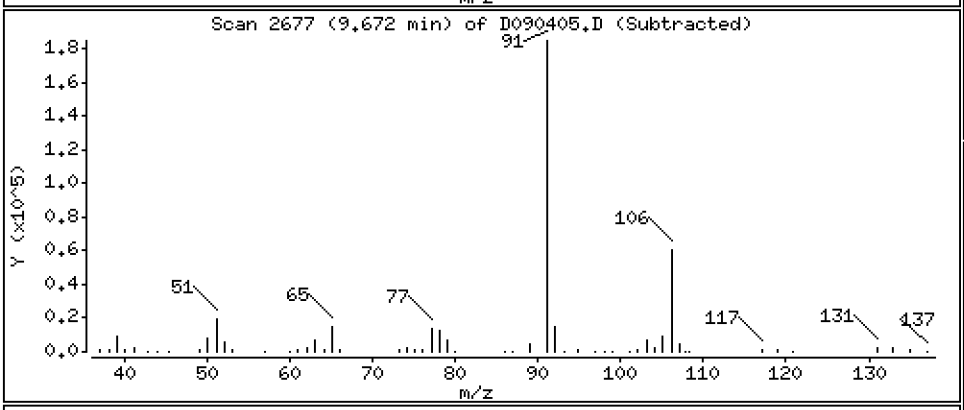
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

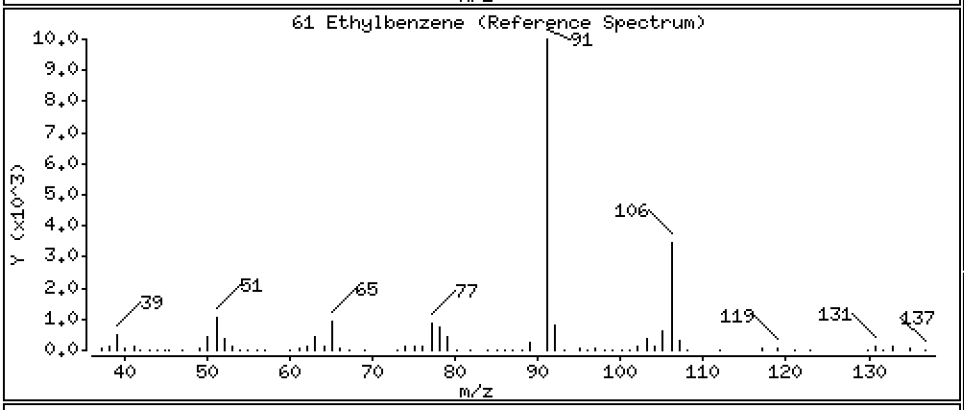
Purge Volume: 5.0 Operator: AP

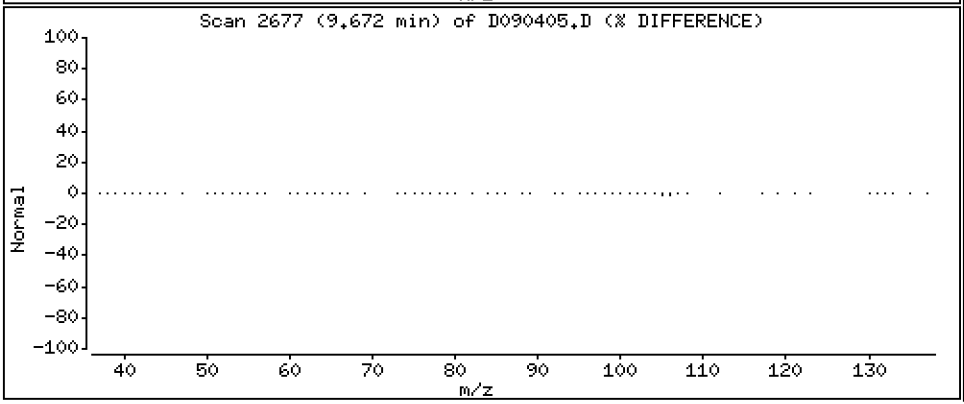
Column phase: DB624 Column diameter: 0.18

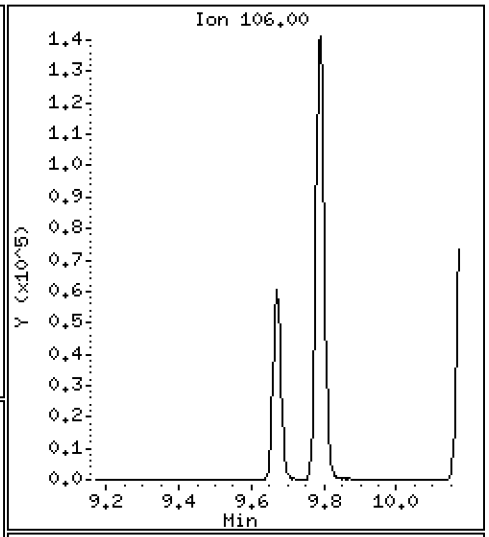
61 Ethylbenzene Concentration: 22.20 ug/l Review Code:

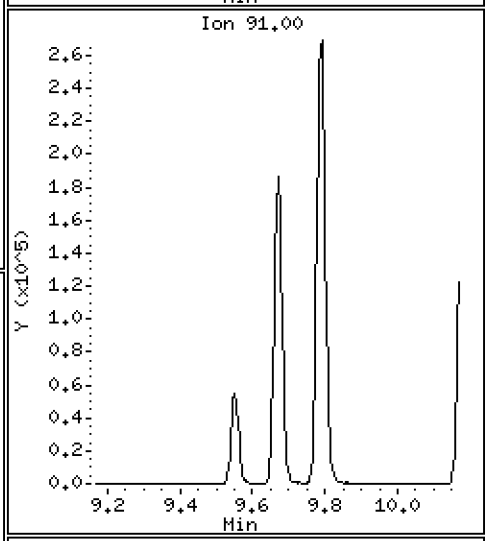


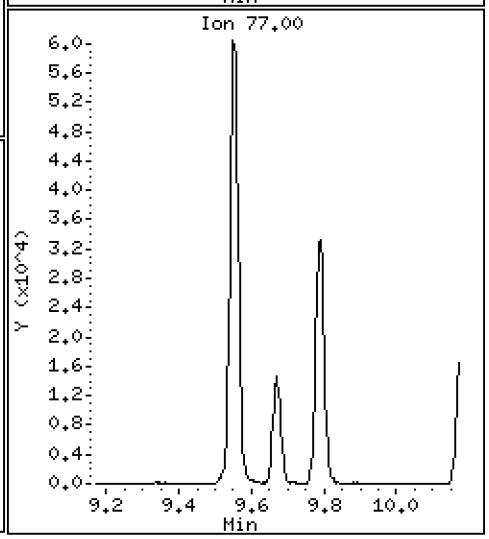












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 58

Date : 04-SEP-2018 12:21

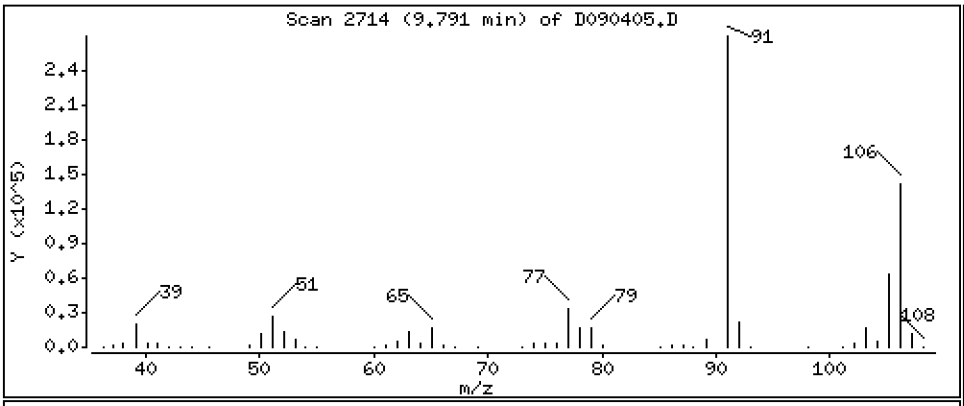
Client ID: VLCSW-180904 Instrument: VOA2.i

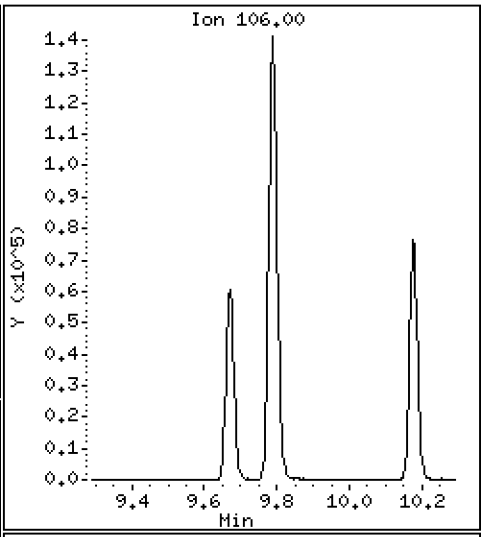
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

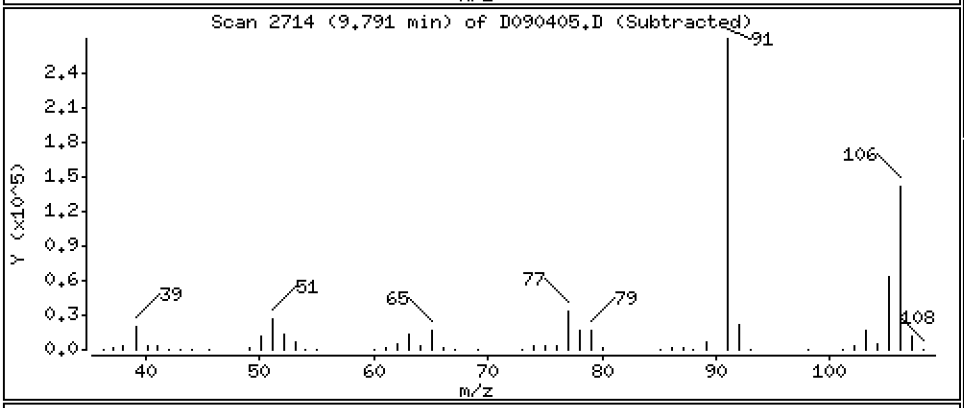
Purge Volume: 5.0 Operator: AP

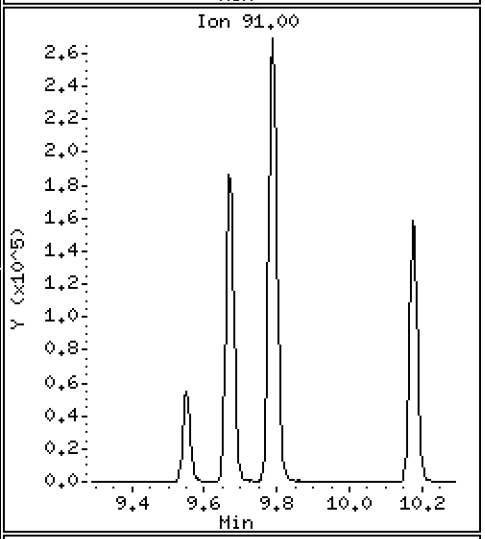
Column phase: DB624 Column diameter: 0.18

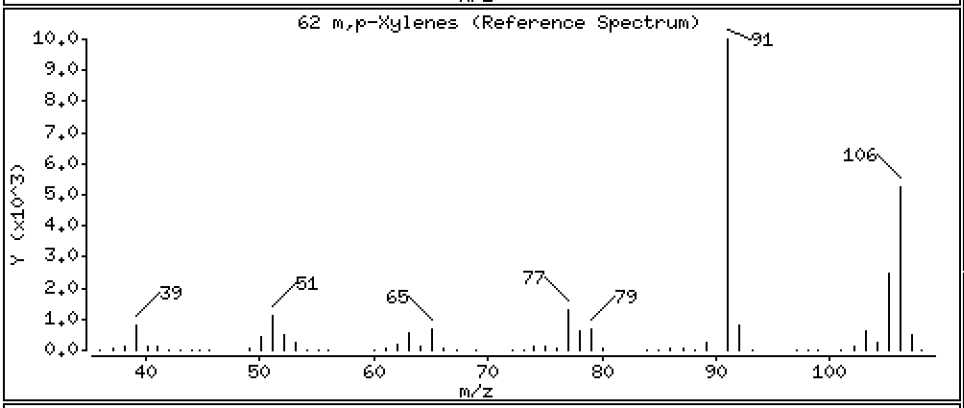
62 m,p-Xylenes Concentration: 45.34 ug/l Review Code:

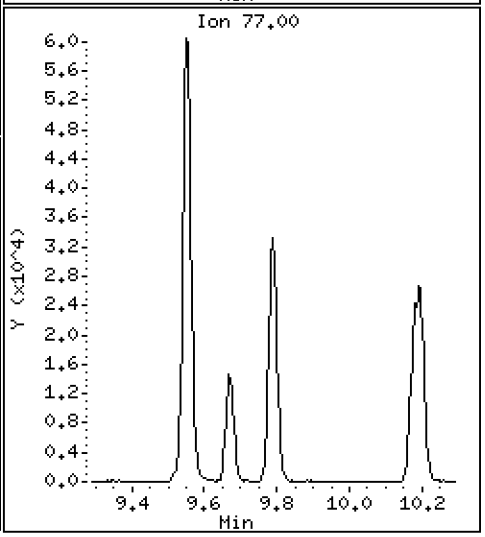


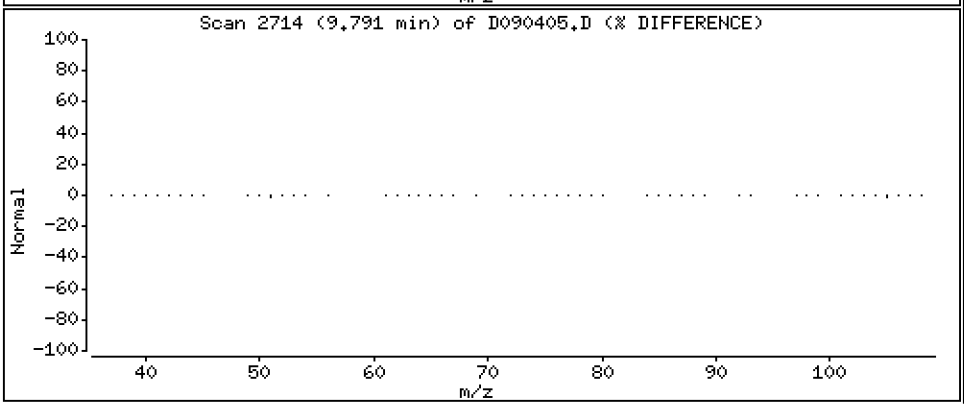












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 59

Date : 04-SEP-2018 12:21

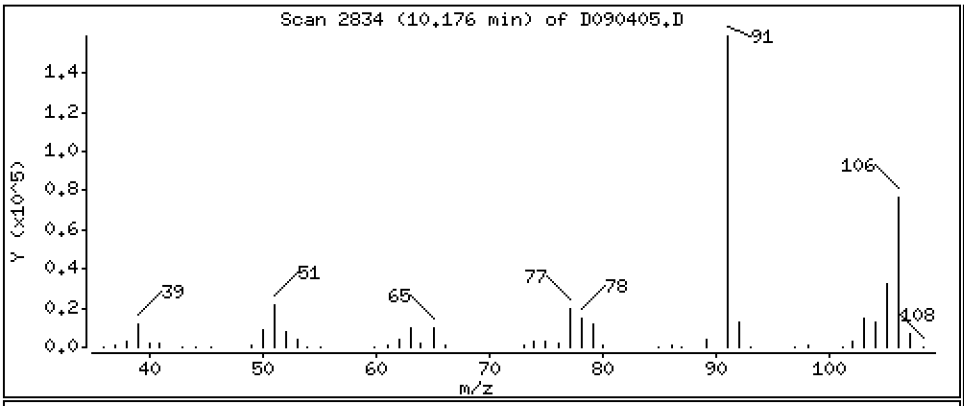
Client ID: VLCSW-180904 Instrument: VOA2.i

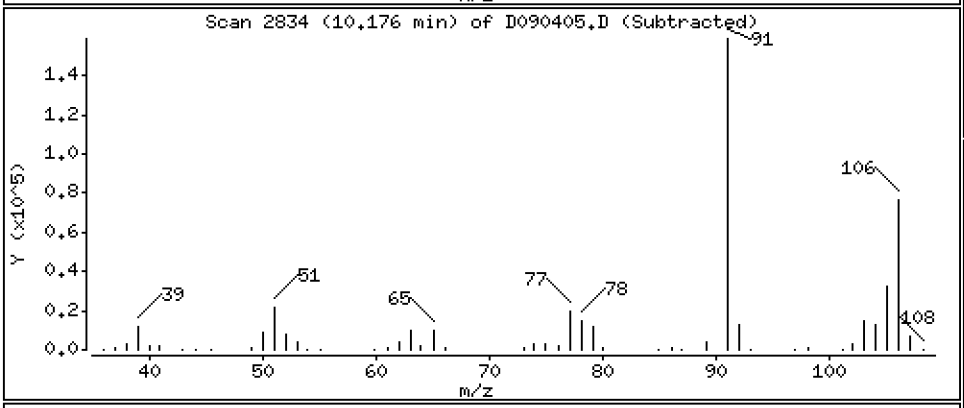
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

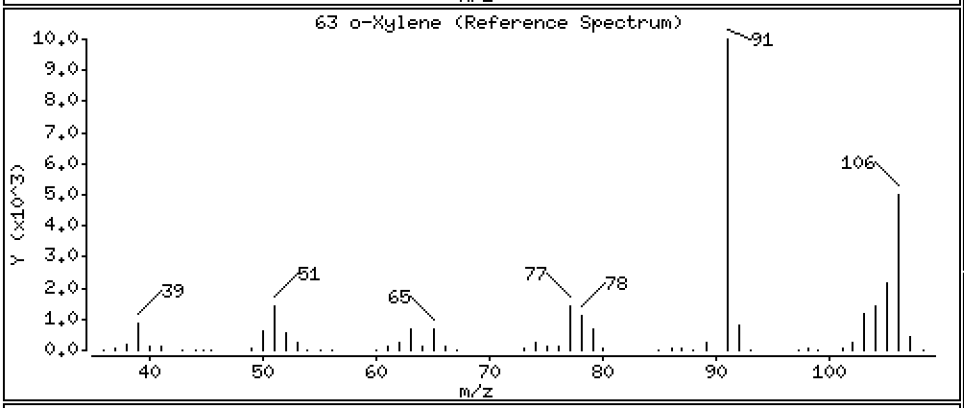
Purge Volume: 5.0 Operator: AP

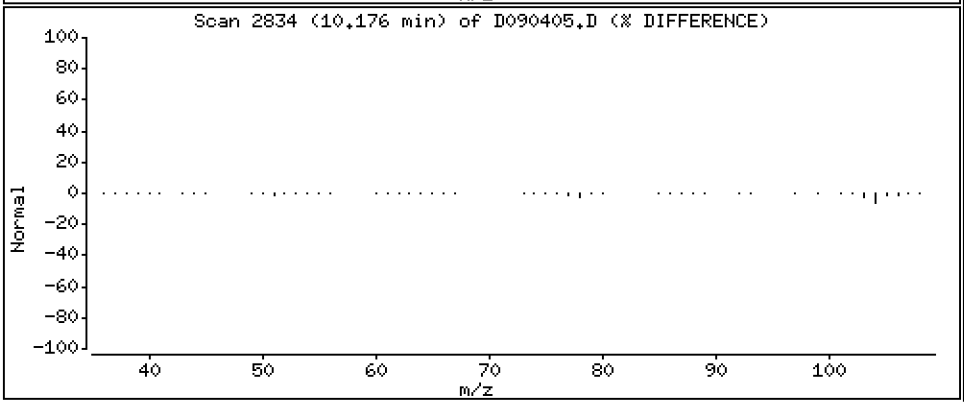
Column phase: DB624 Column diameter: 0.18

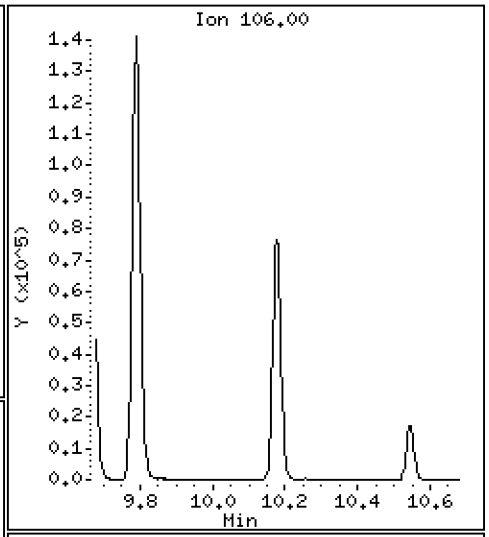
63 o-Xylene Concentration: 22.08 ug/l Review Code:

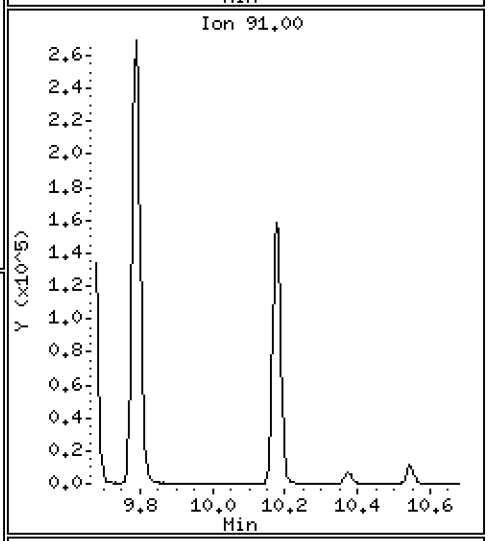


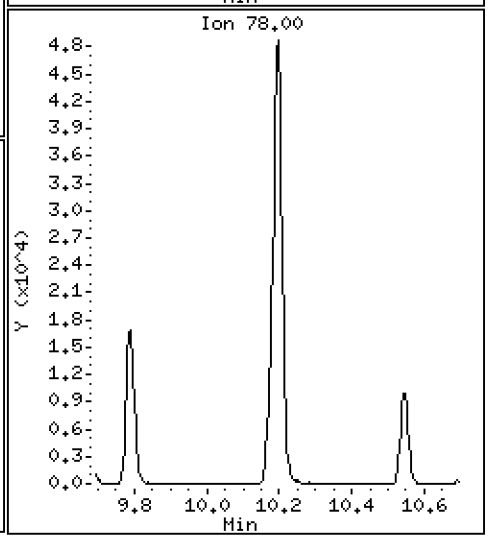












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 60

Date : 04-SEP-2018 12:21

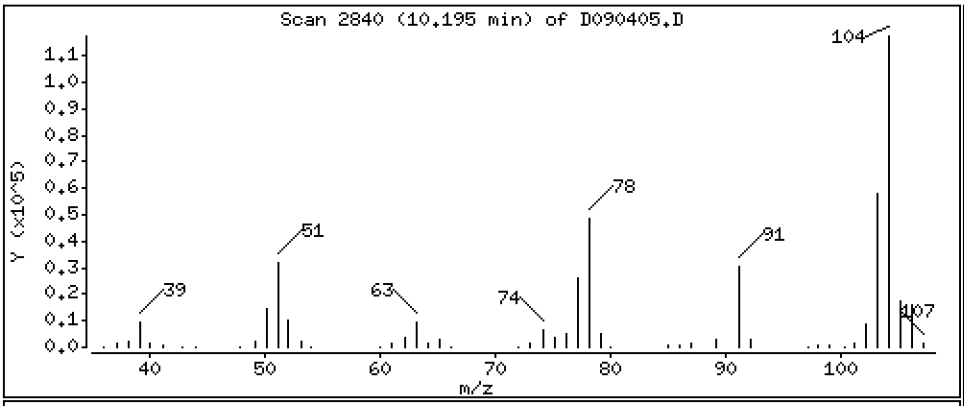
Client ID: VLCSW-180904 Instrument: VOA2.i

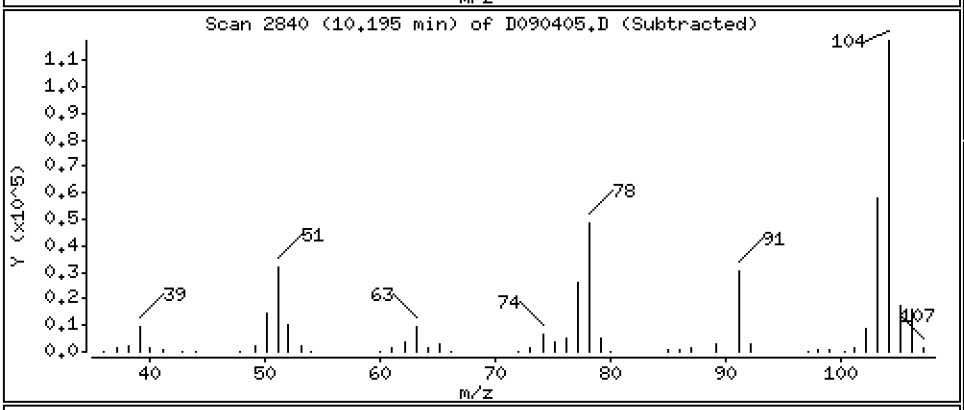
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

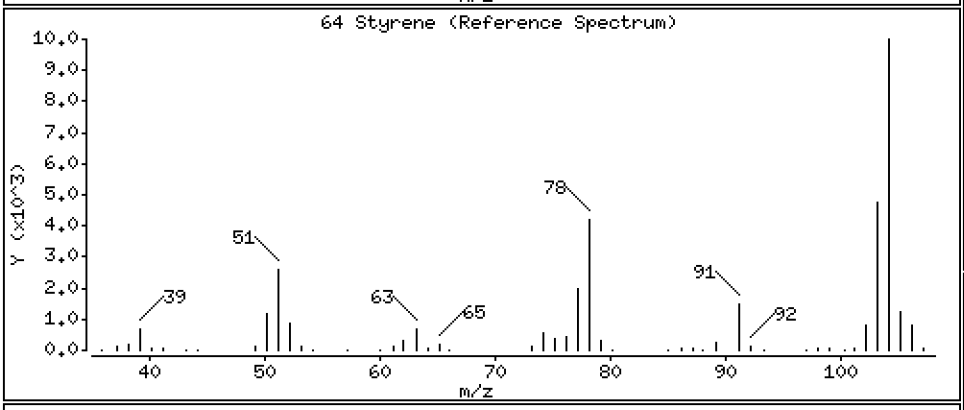
Purge Volume: 5.0 Operator: AP

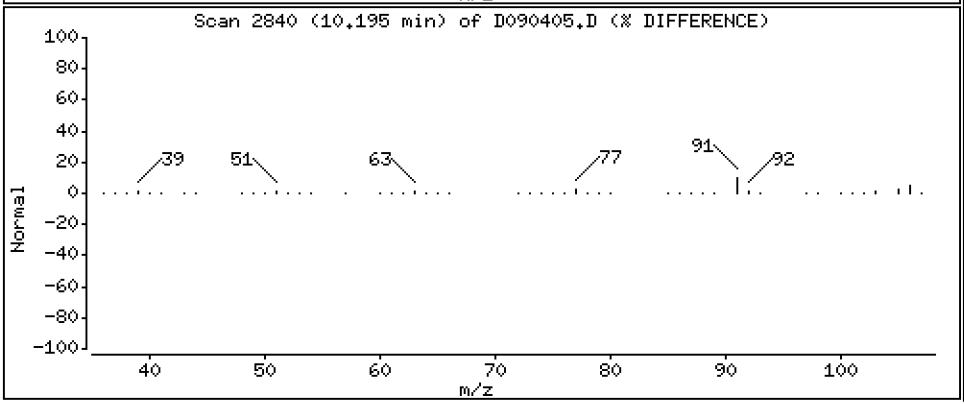
Column phase: DB624 Column diameter: 0.18

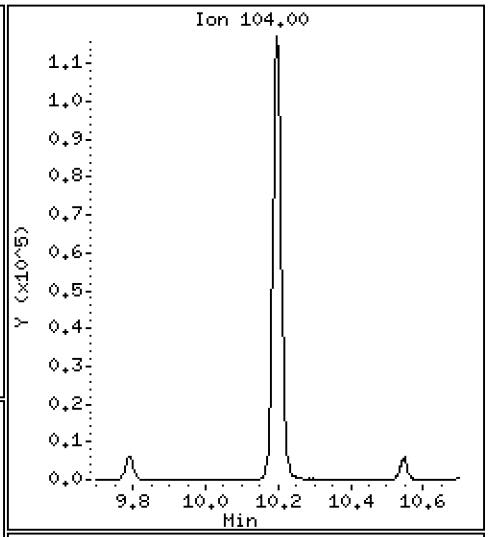
64 Styrene Concentration: 21.34 ug/l Review Code:

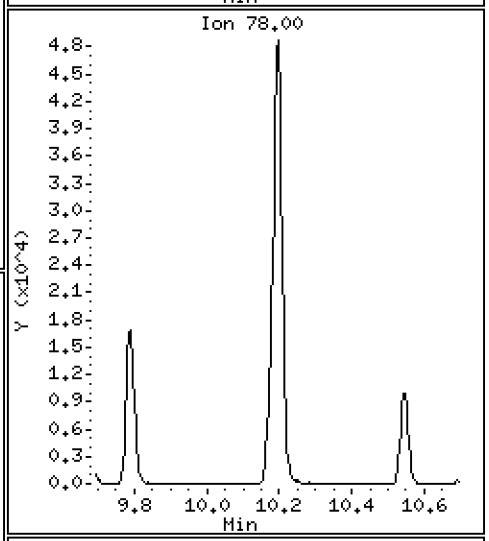


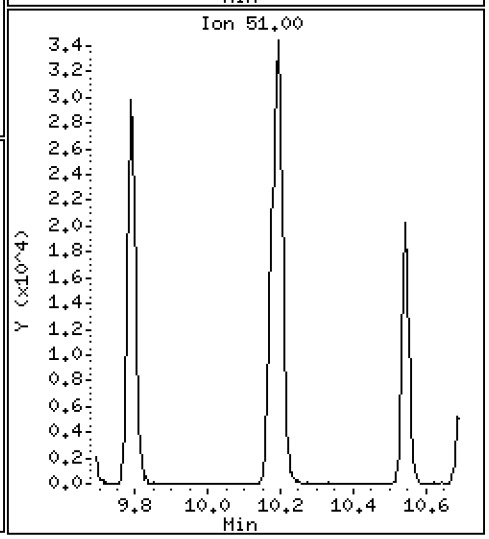












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 61

Date : 04-SEP-2018 12:21

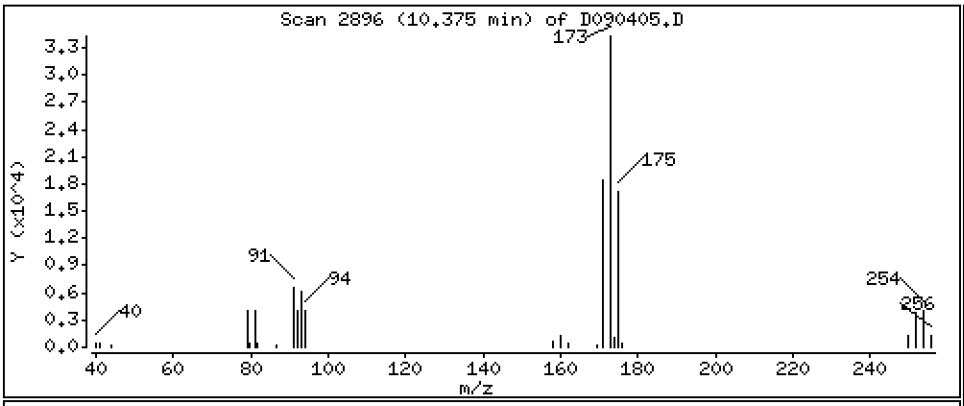
Client ID: VLCSW-180904 Instrument: VOA2.i

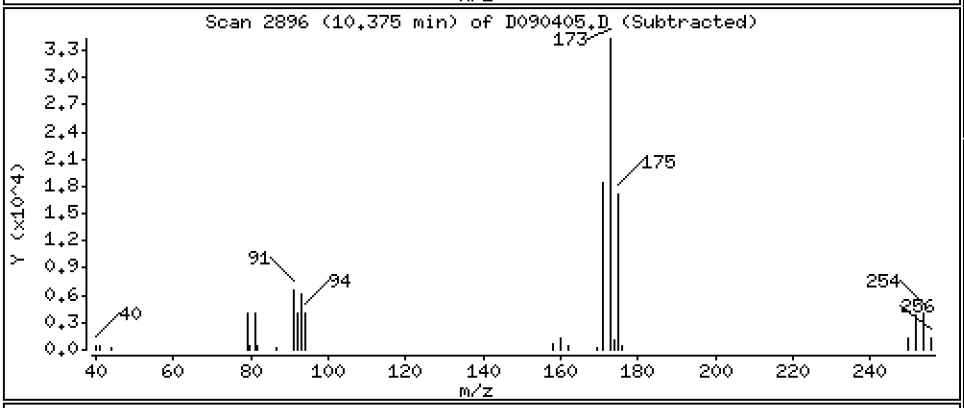
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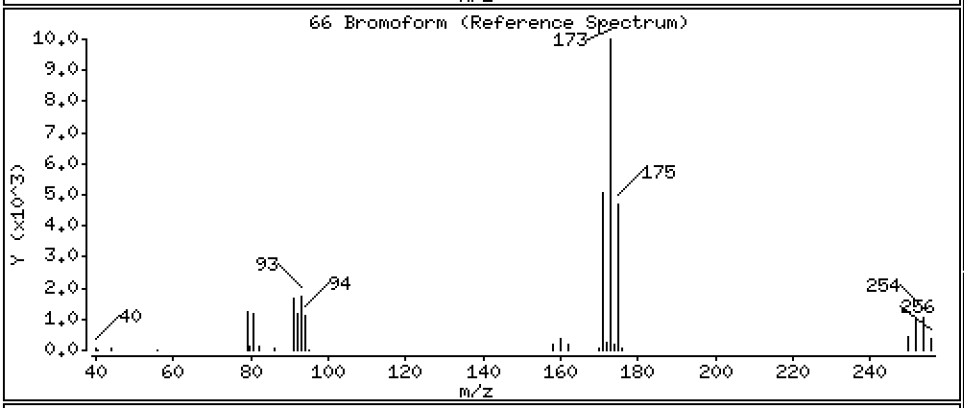
Purge Volume: 5.0 Operator: AP

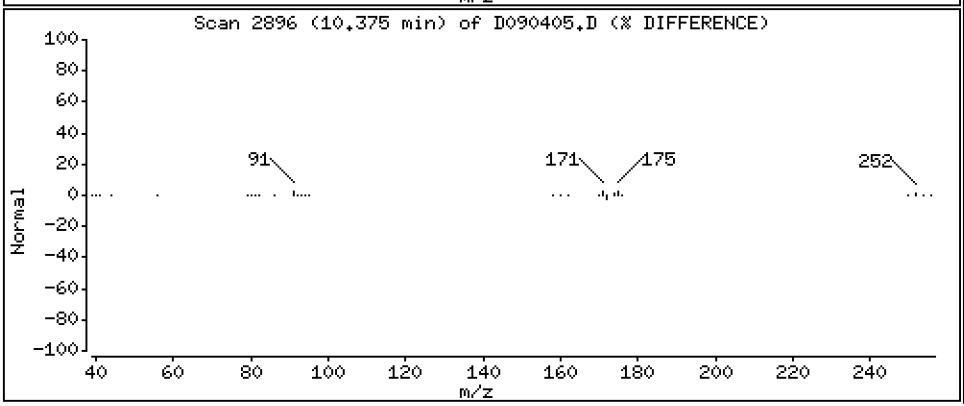
Column phase: DB624 Column diameter: 0.18

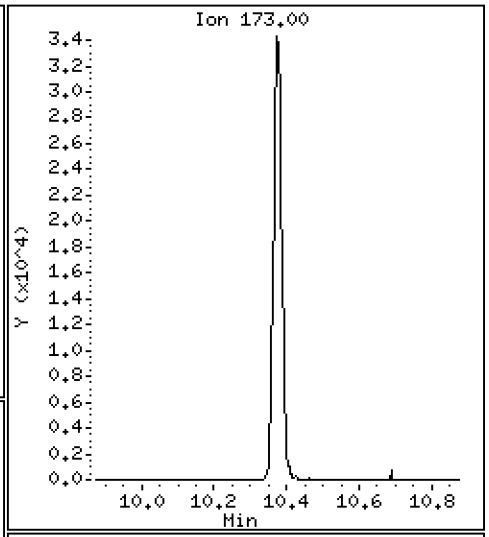
66 Bromoform Concentration: 21.88 ug/l Review Code:

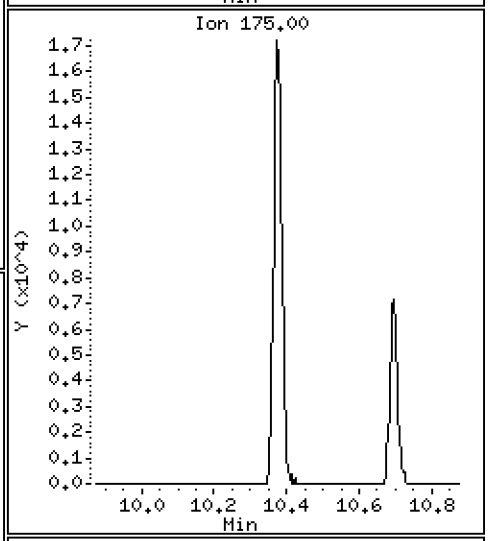


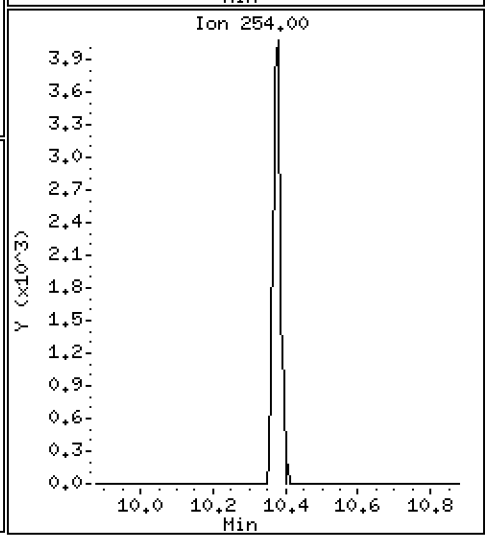












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 62

Date : 04-SEP-2018 12:21

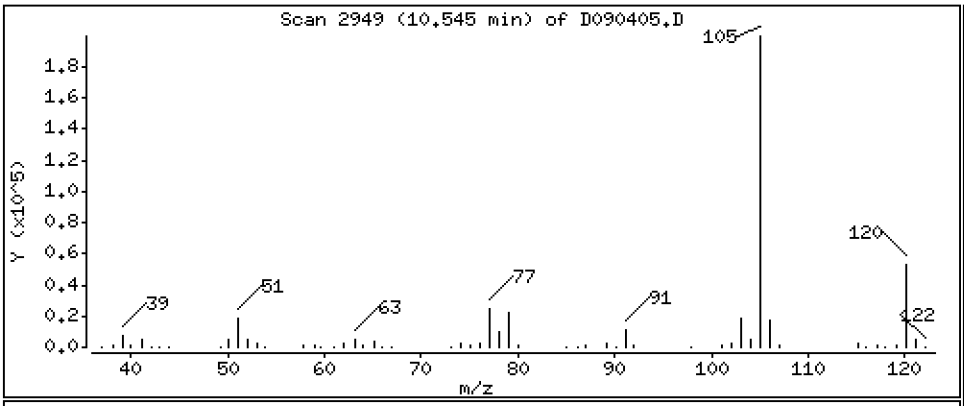
Client ID: VLCSW-180904 Instrument: VOA2.i

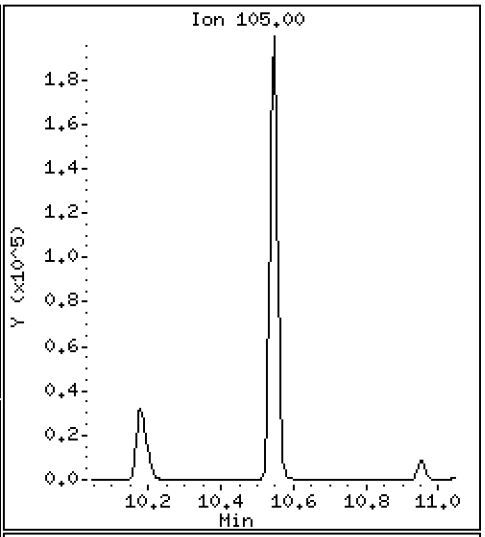
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

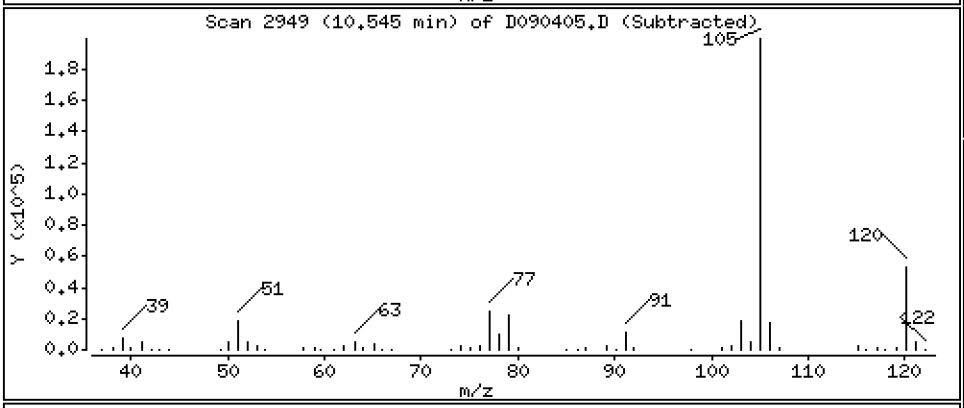
Purge Volume: 5.0 Operator: AP

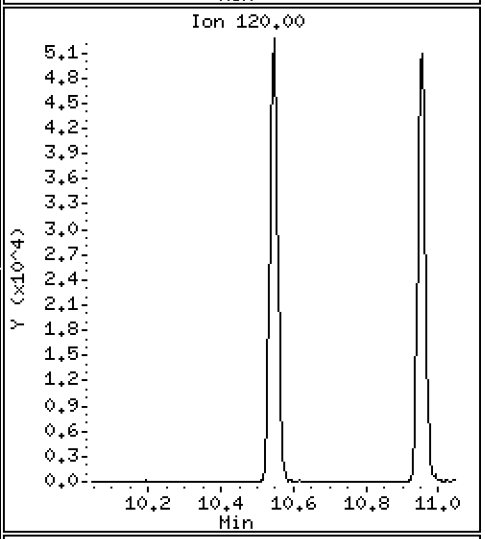
Column phase: DB624 Column diameter: 0.18

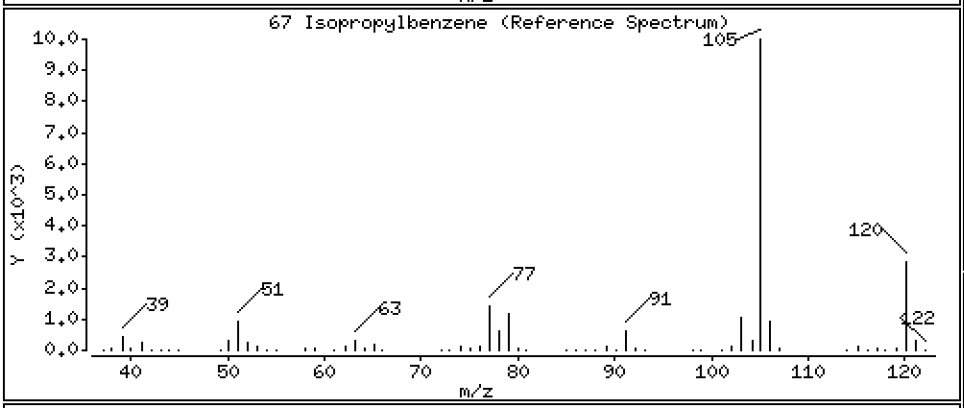
67 Isopropylbenzene Concentration: 20.70 ug/l Review Code:

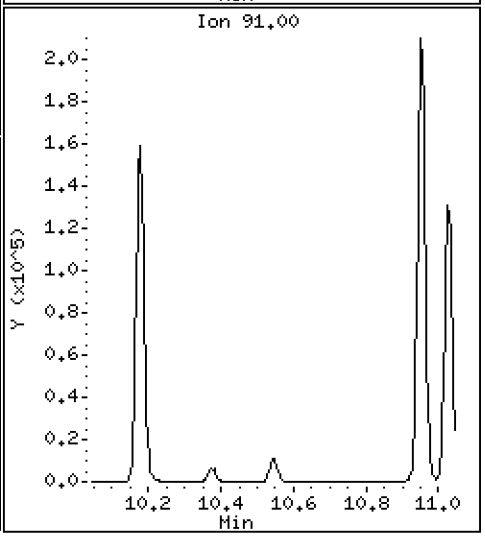


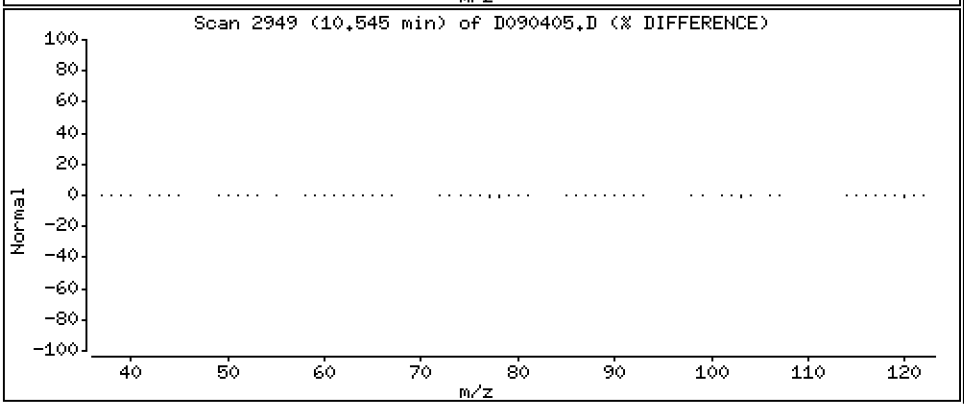












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 63

Date : 04-SEP-2018 12:21

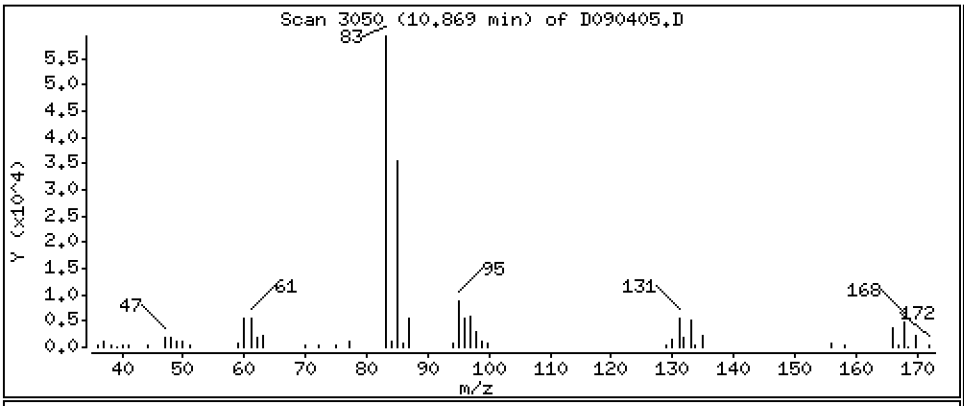
Client ID: VLCSW-180904 Instrument: VOA2.i

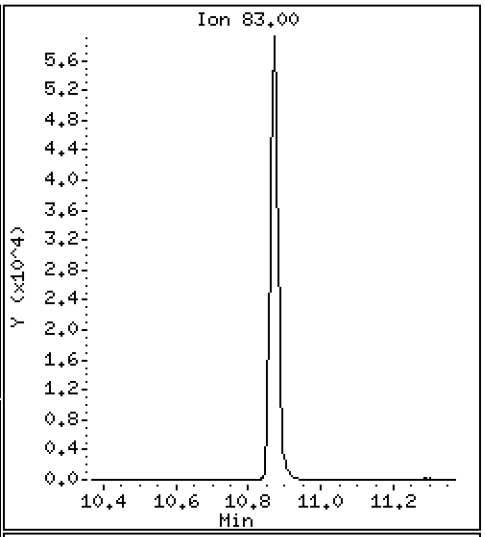
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

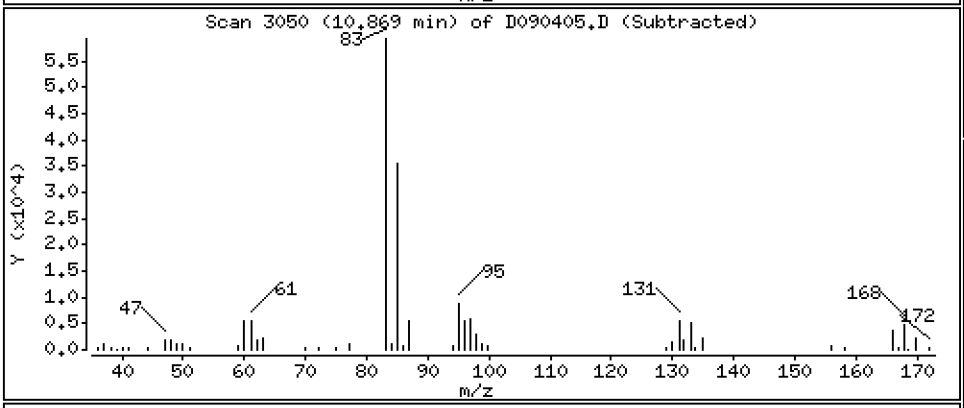
Purge Volume: 5.0 Operator: AP

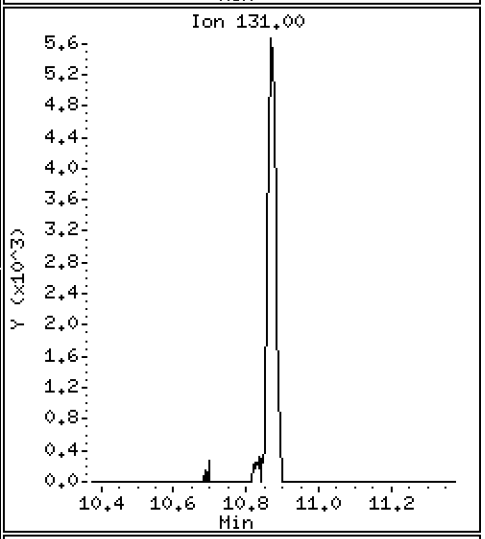
Column phase: DB624 Column diameter: 0.18

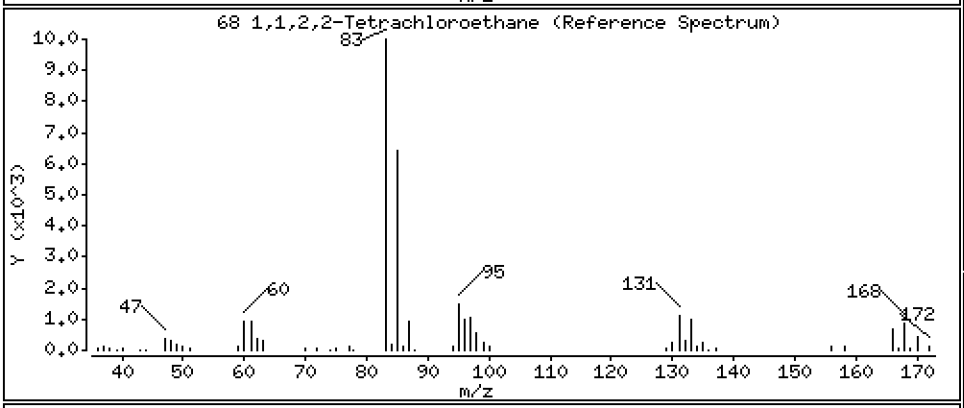
68 1,1,2,2-Tetrachloroethane Concentration: 18.90 ug/l Review Code:

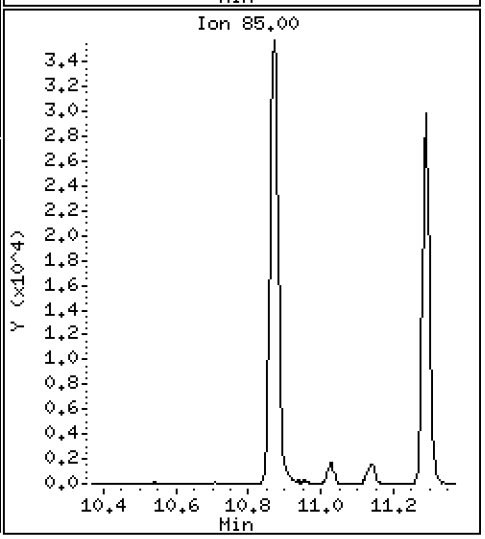


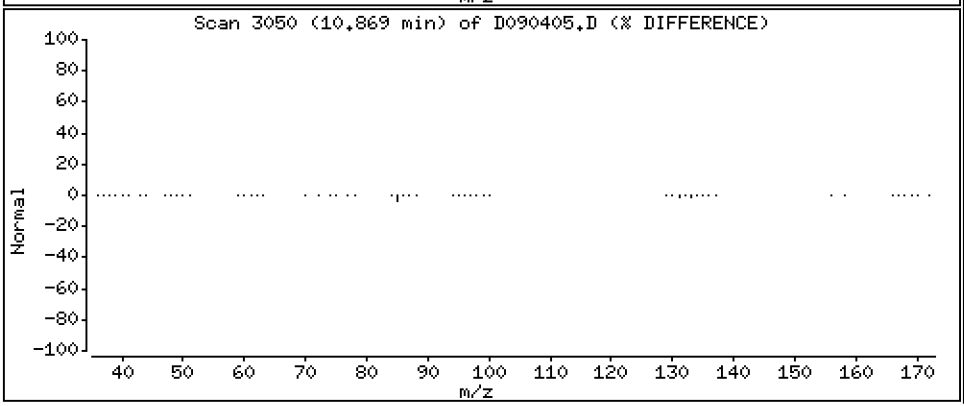












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 64

Date : 04-SEP-2018 12:21

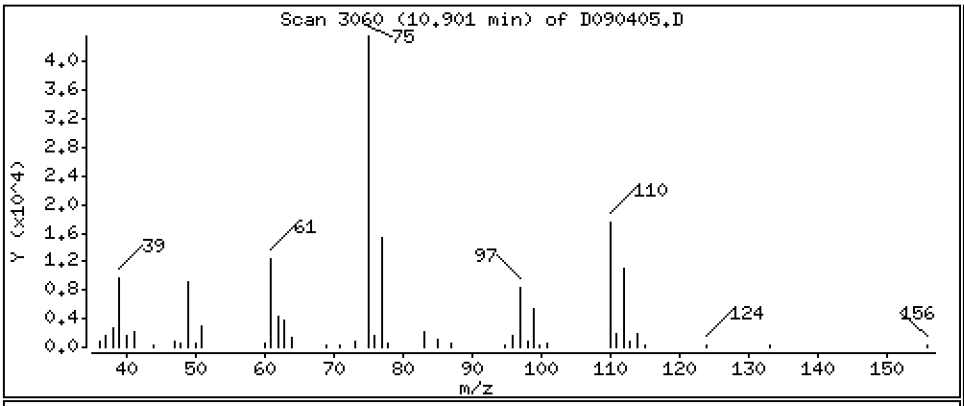
Client ID: VLCSW-180904 Instrument: VOA2.i

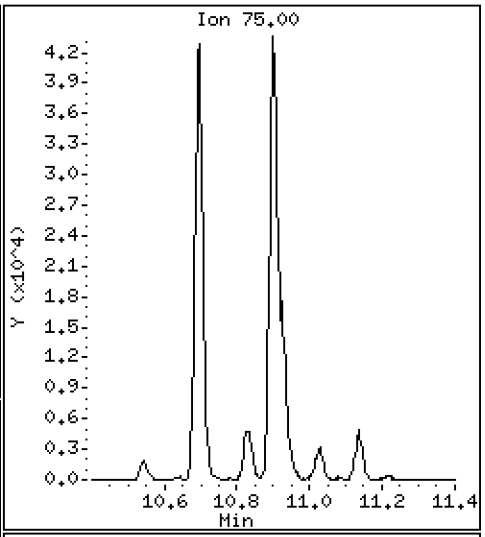
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

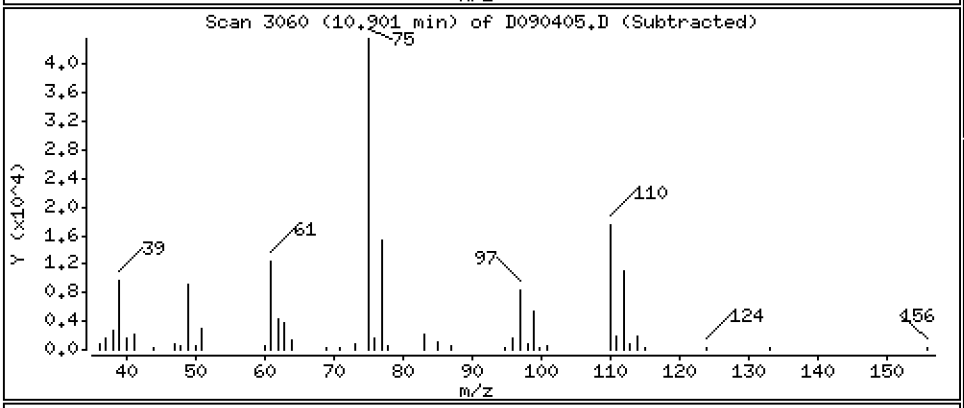
Purge Volume: 5.0 Operator: AP

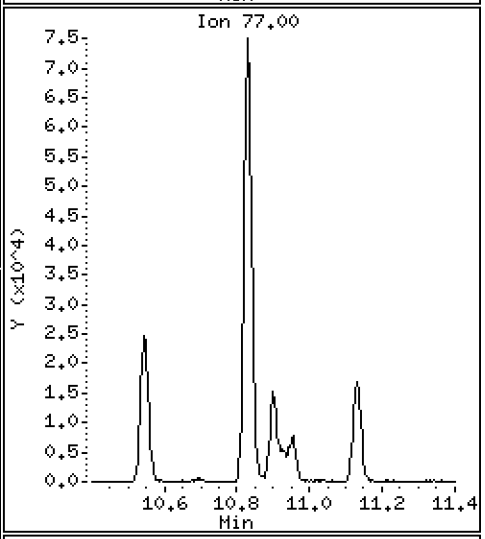
Column phase: DB624 Column diameter: 0.18

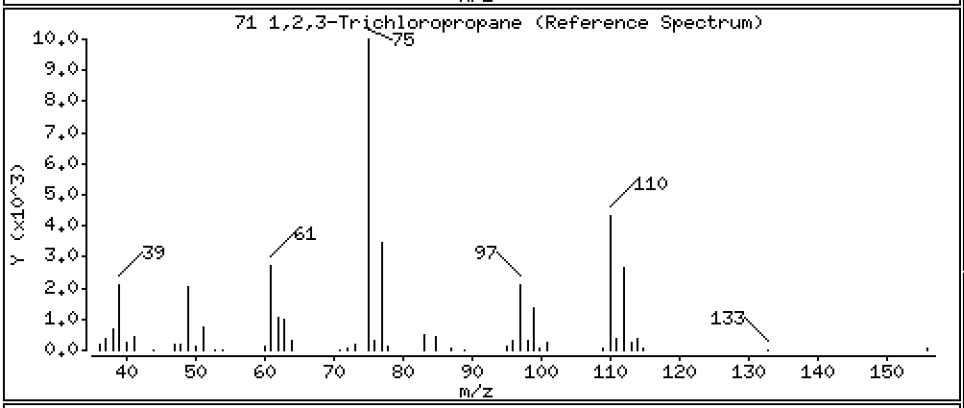
71 1,2,3-Trichloropropane Concentration: 19.11 ug/l Review Code:

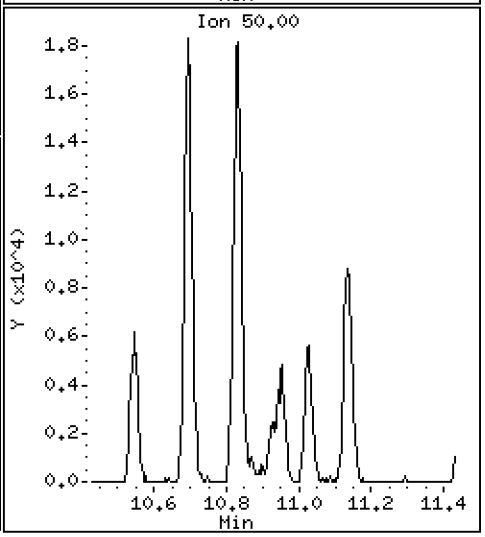


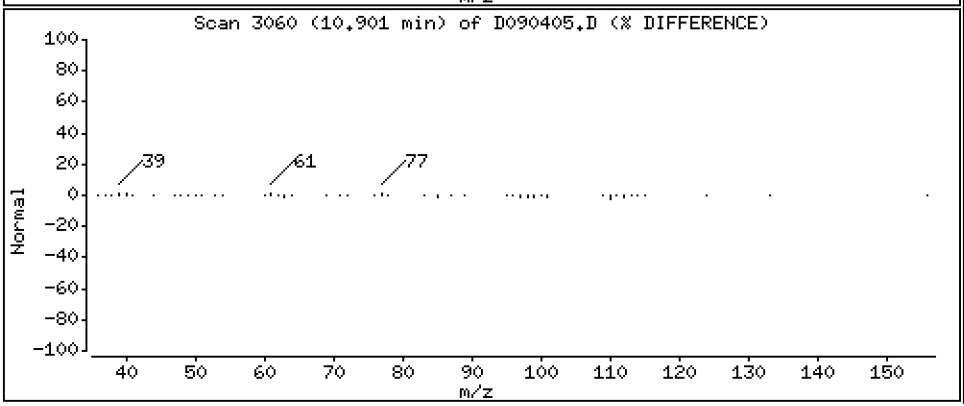












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 65

Date : 04-SEP-2018 12:21

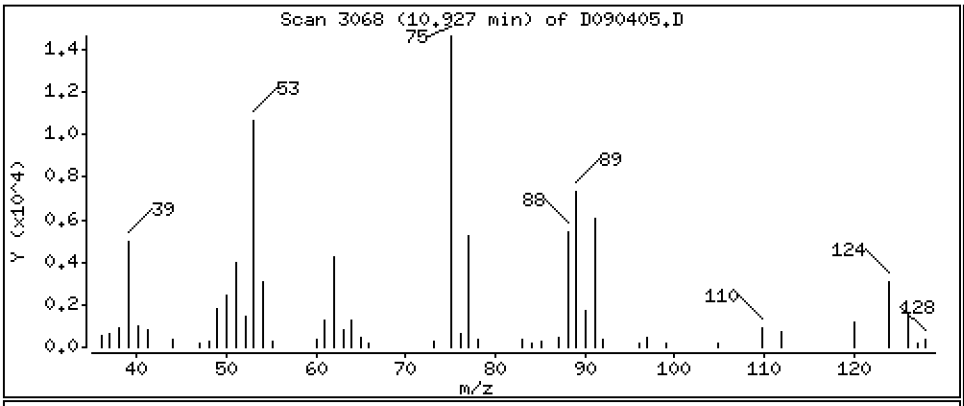
Client ID: VLCSW-180904 Instrument: VOA2.i

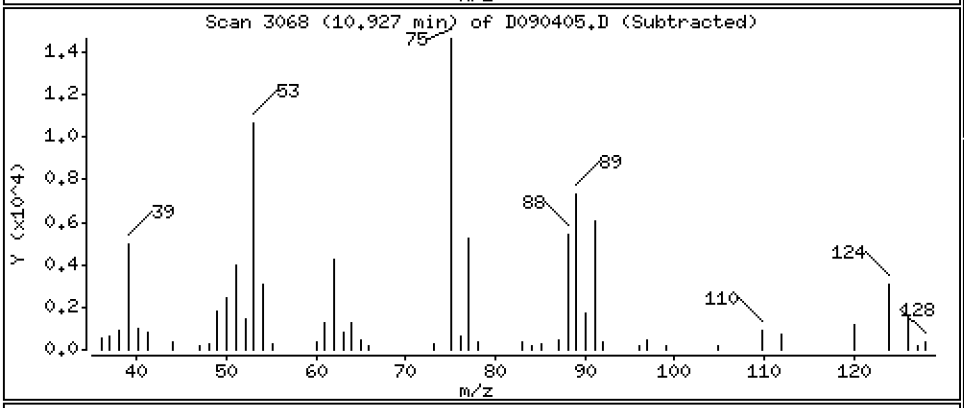
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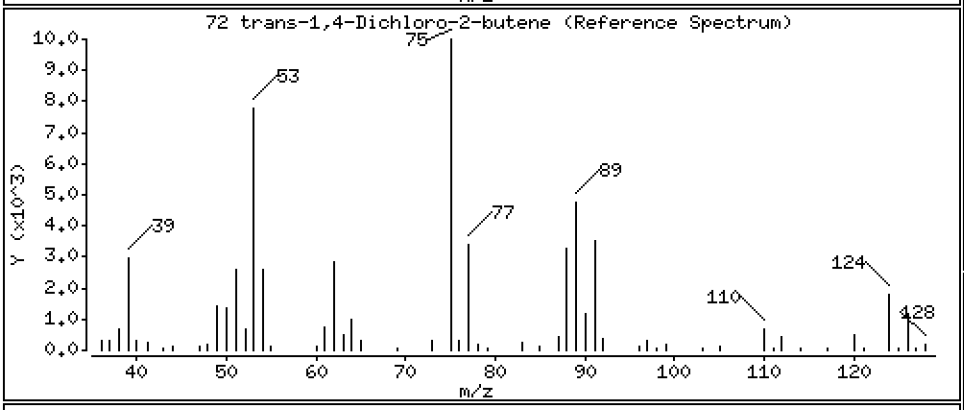
Purge Volume: 5.0 Operator: AP

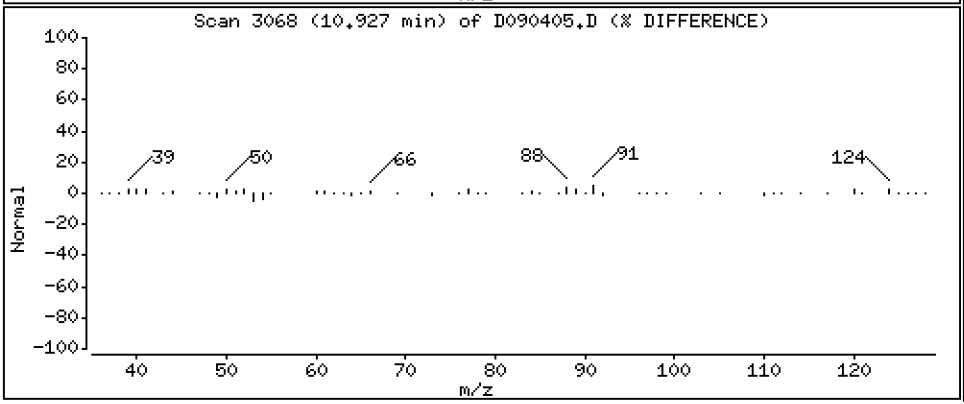
Column phase: DB624 Column diameter: 0.18

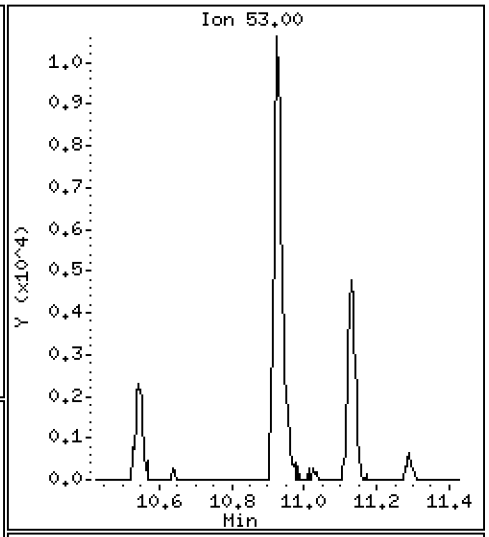
72 trans-1,4-Dichloro-2-butene Concentration: 19.40 ug/l Review Code:

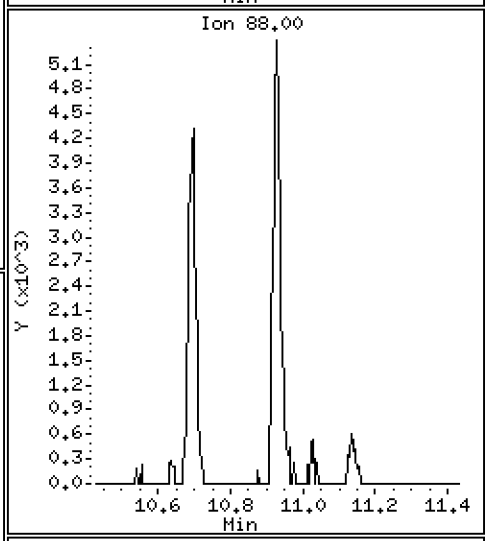


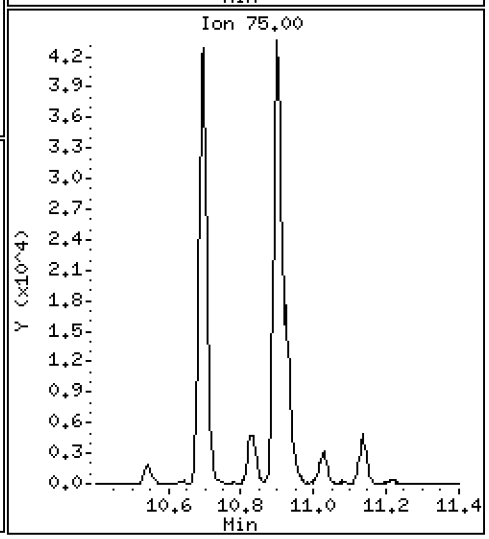












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 66

Date : 04-SEP-2018 12:21

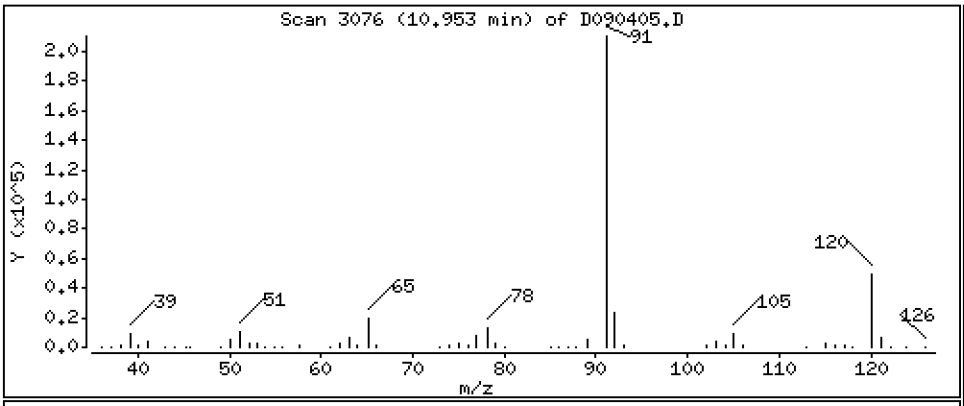
Client ID: VLCSW-180904 Instrument: VOA2.i

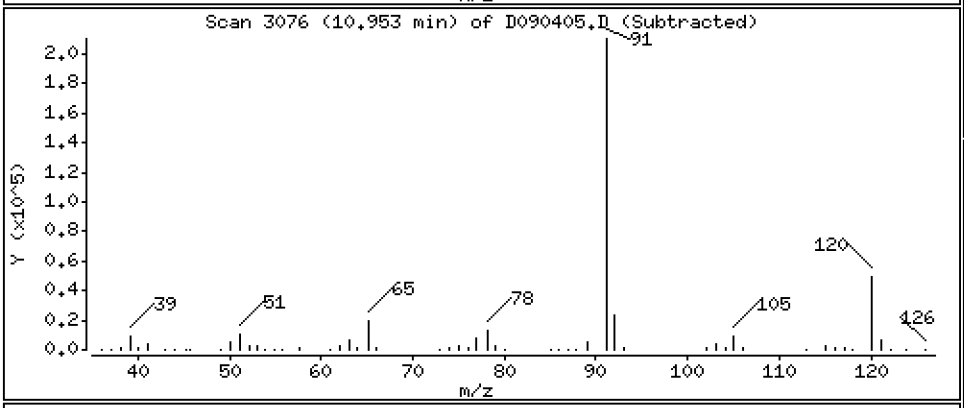
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

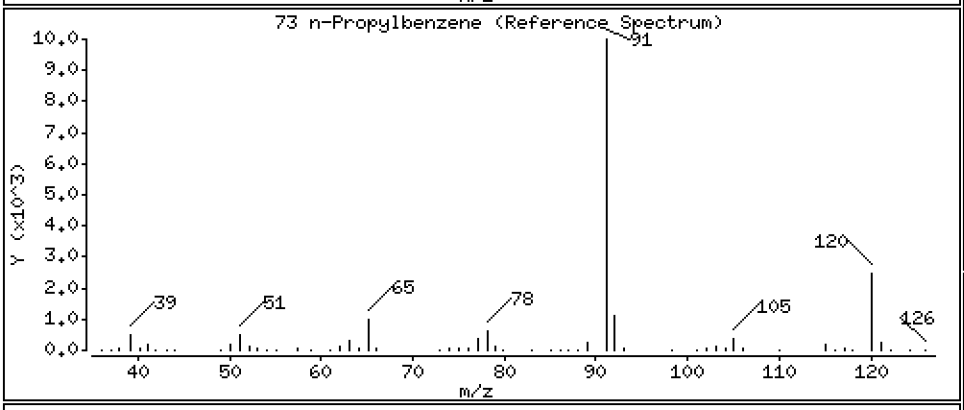
Purge Volume: 5.0 Operator: AP

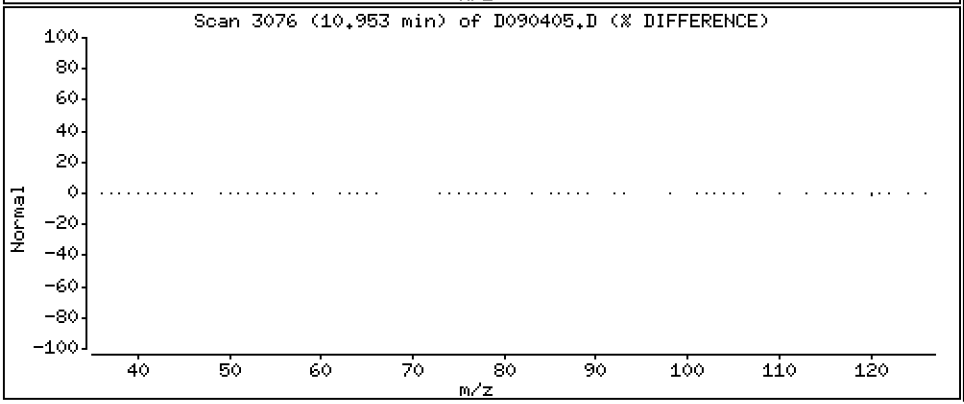
Column phase: DB624 Column diameter: 0.18

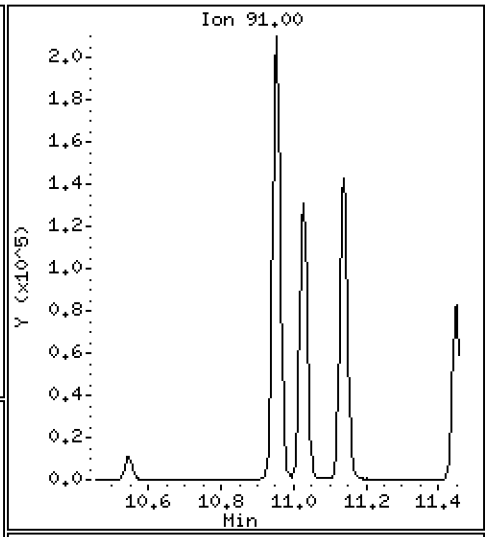
73 n-Propylbenzene Concentration: 21.39 ug/l Review Code:

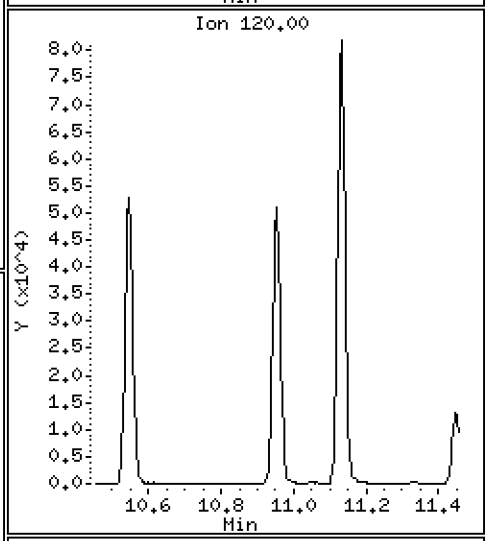


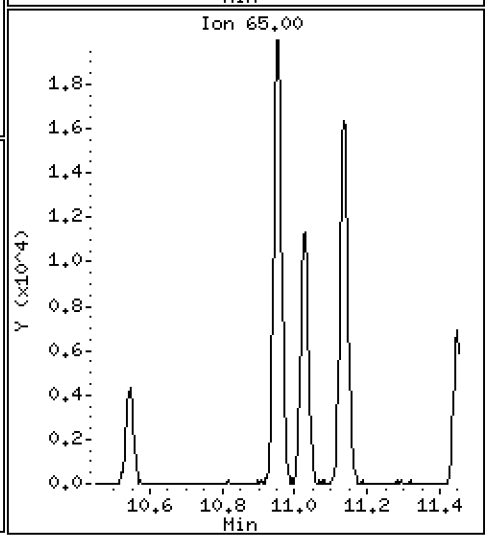












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 67

Date : 04-SEP-2018 12:21

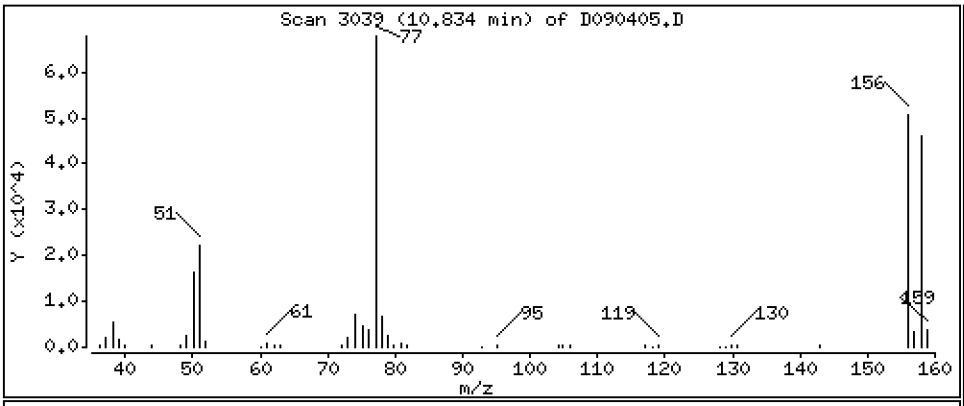
Client ID: VLCSW-180904 Instrument: VOA2.i

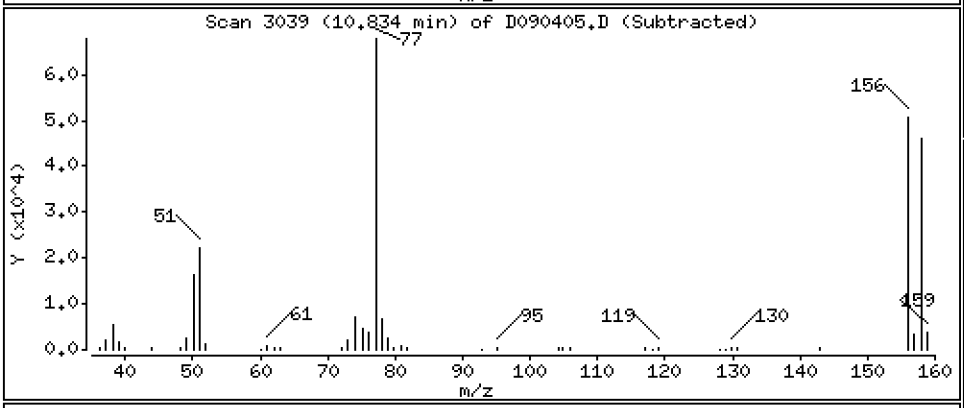
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

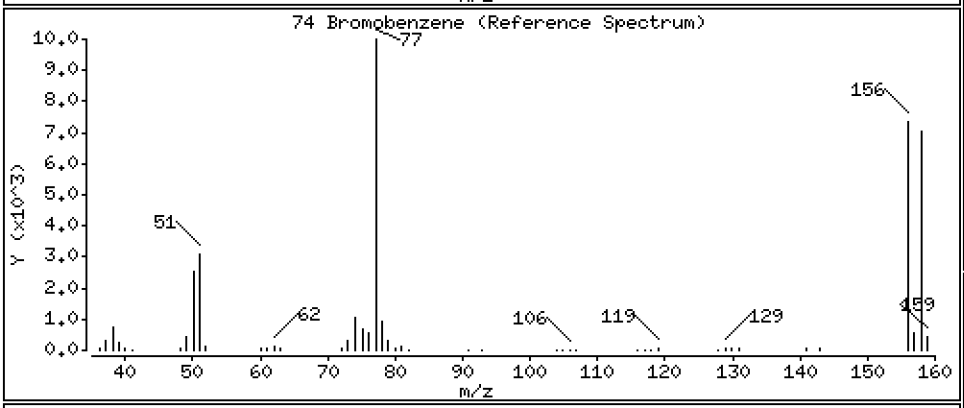
Purge Volume: 5.0 Operator: AP

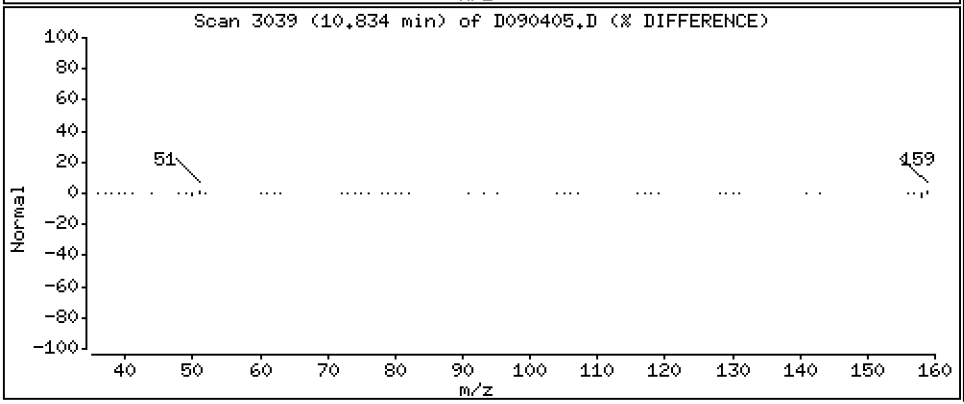
Column phase: DB624 Column diameter: 0.18

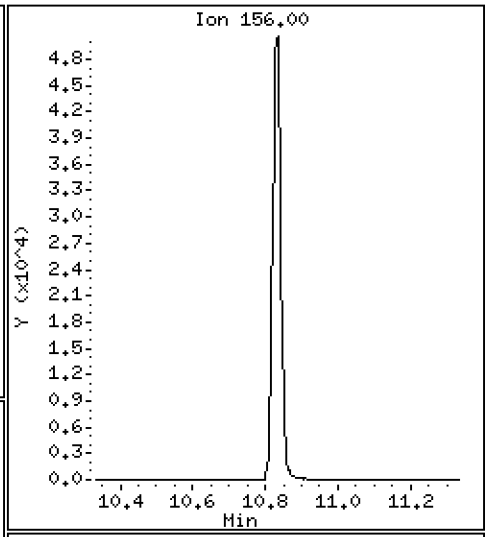
74 Bromobenzene Concentration: 19.79 ug/l Review Code:

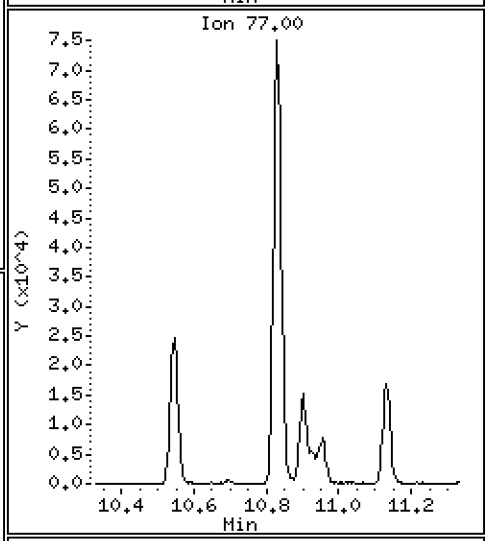


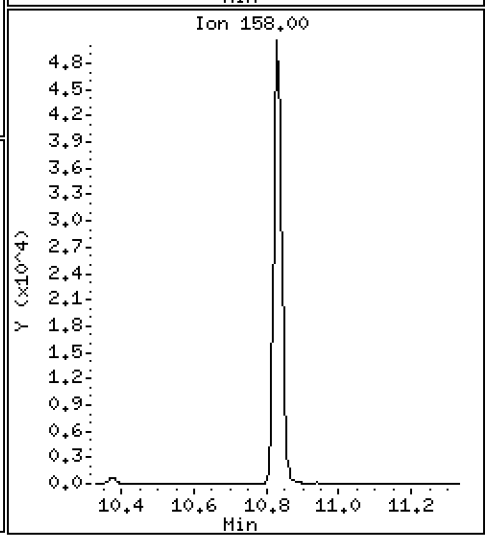












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 68

Date : 04-SEP-2018 12:21

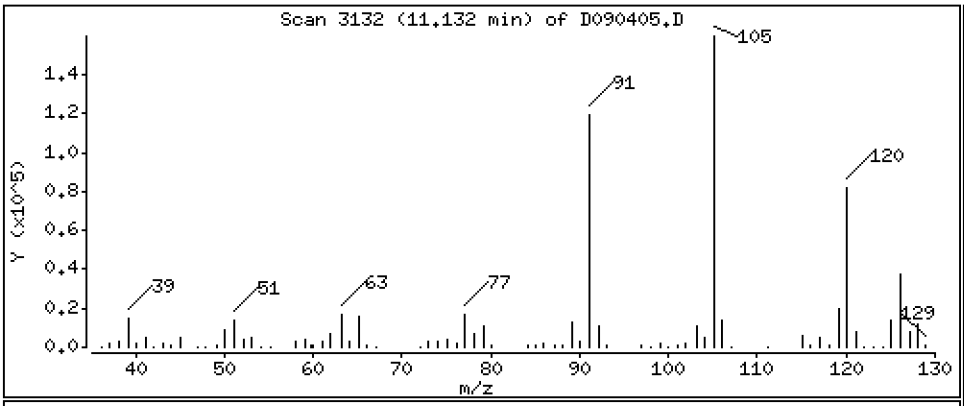
Client ID: VLCSW-180904 Instrument: VOA2.i

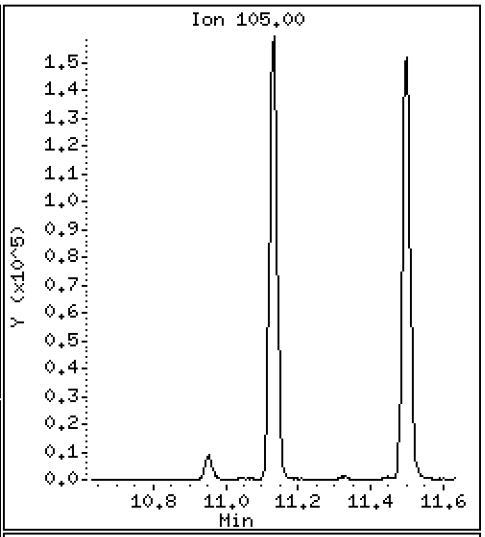
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

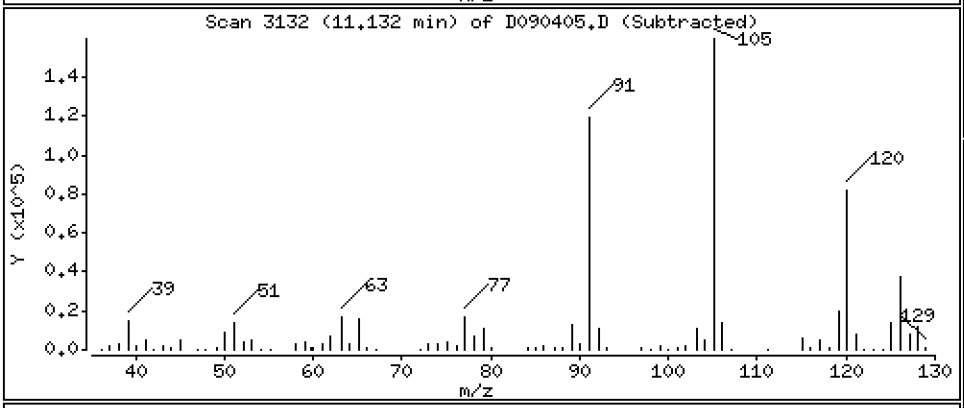
Purge Volume: 5.0 Operator: AP

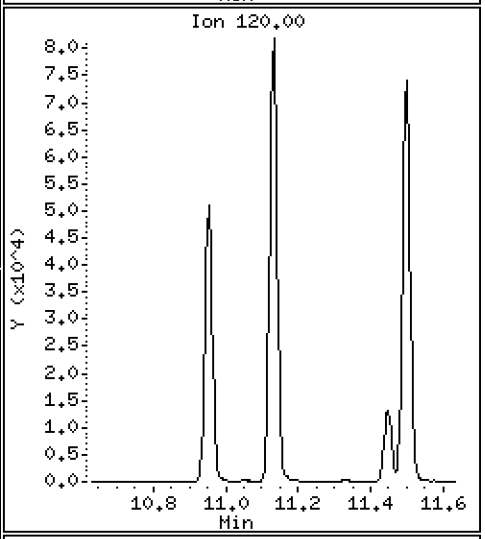
Column phase: DB624 Column diameter: 0.18

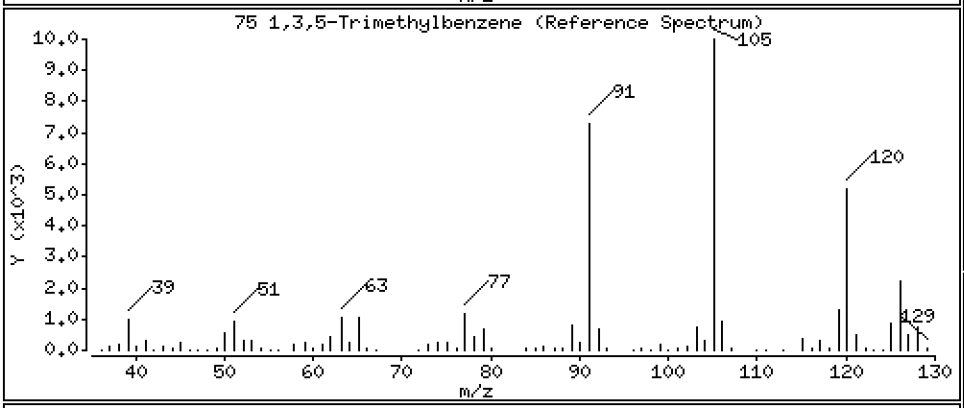
75 1,3,5-Trimethylbenzene Concentration: 19.28 ug/l Review Code:

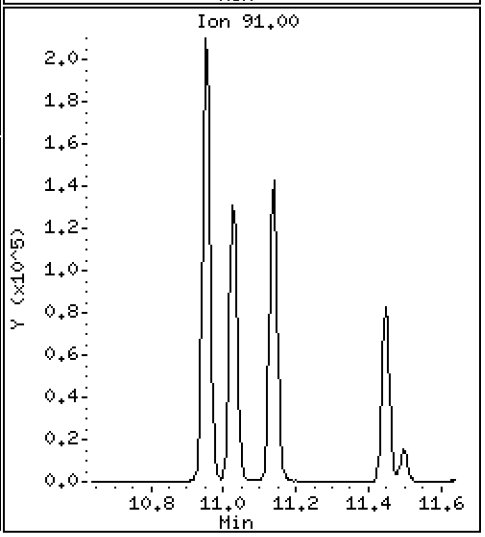


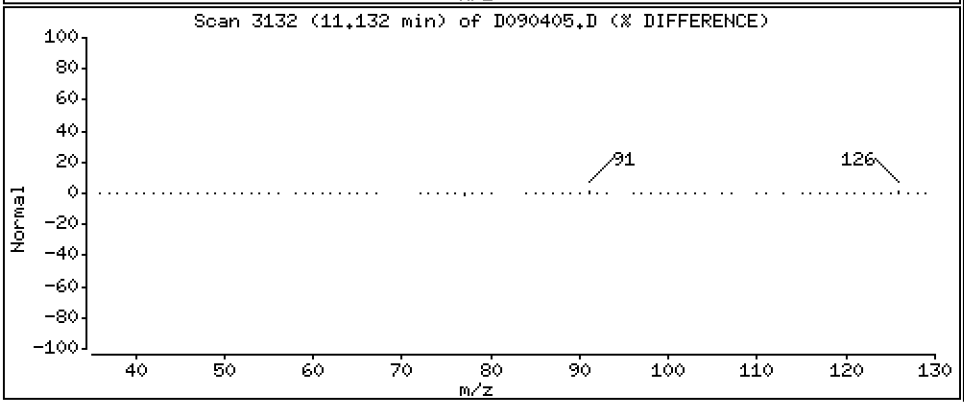












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 69

Date : 04-SEP-2018 12:21

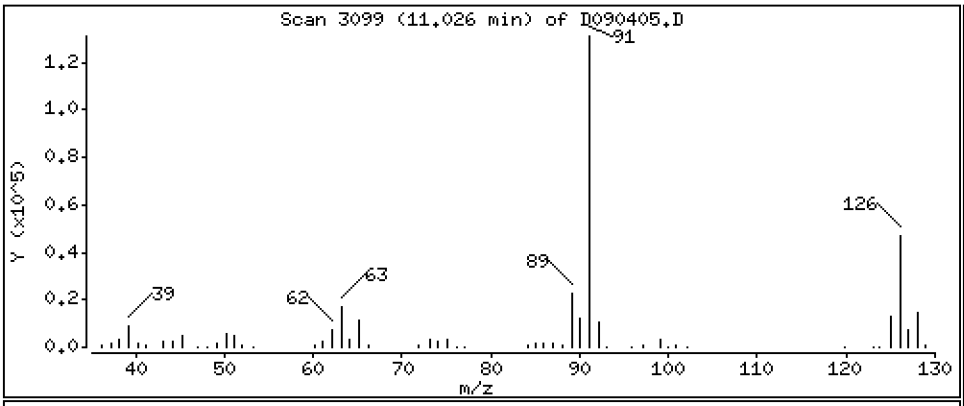
Client ID: VLCSW-180904 Instrument: VOA2.i

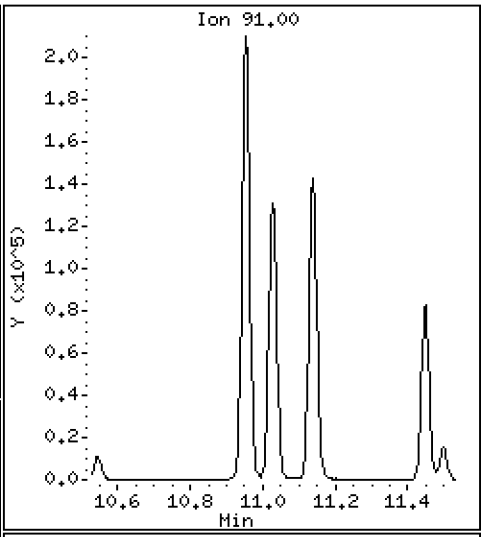
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

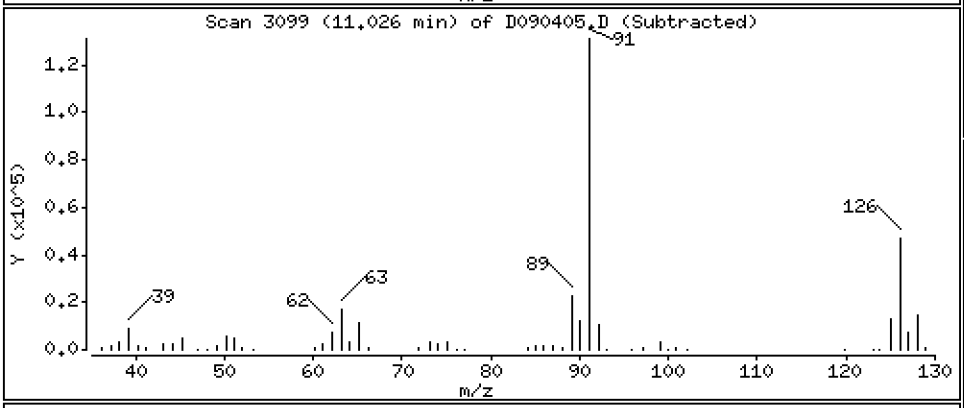
Purge Volume: 5.0 Operator: AP

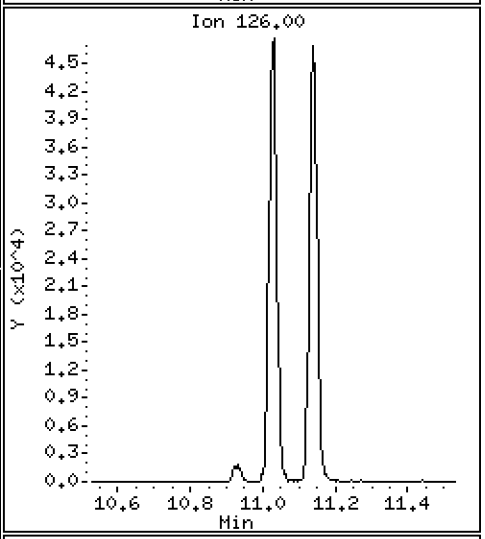
Column phase: DB624 Column diameter: 0.18

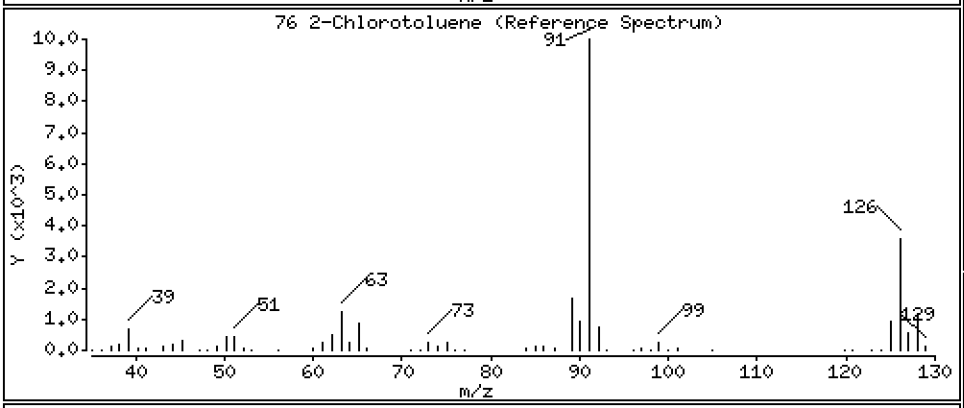
76 2-Chlorotoluene Concentration: 20.99 ug/l Review Code:

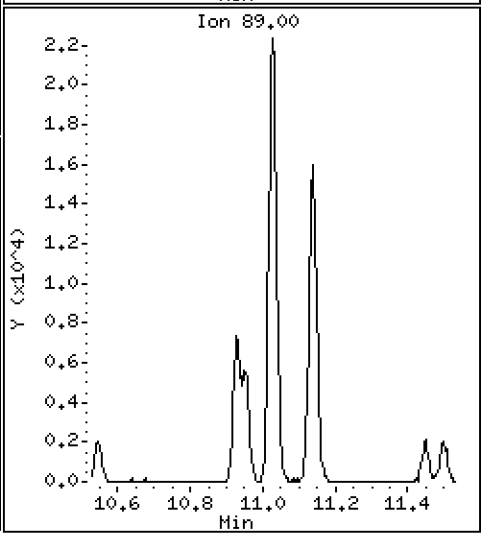


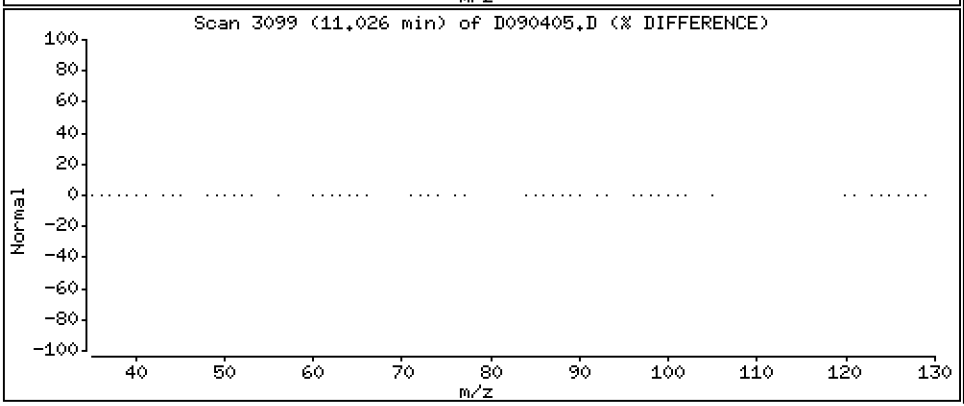












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 70

Date : 04-SEP-2018 12:21

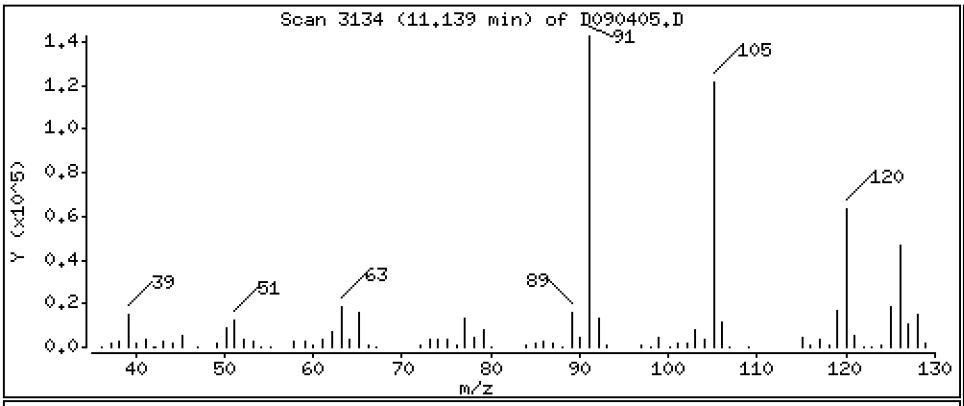
Client ID: VLCSW-180904 Instrument: VOA2.i

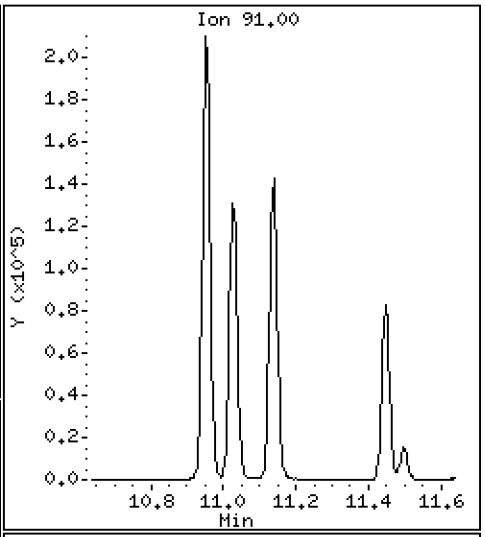
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

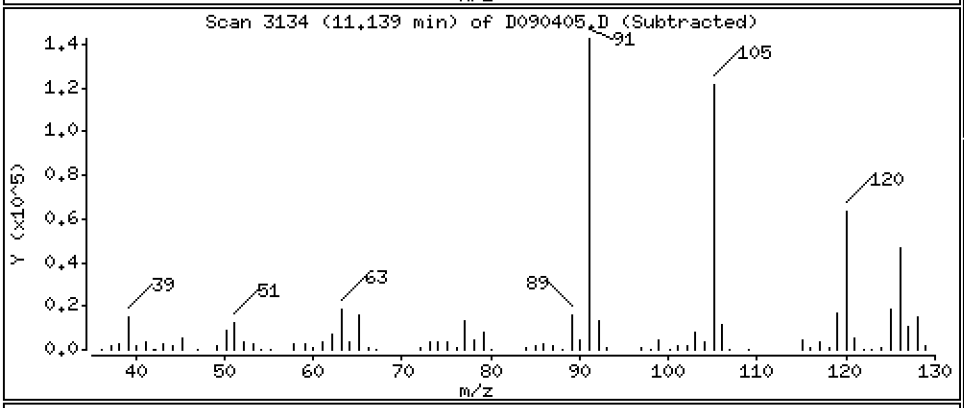
Purge Volume: 5.0 Operator: AP

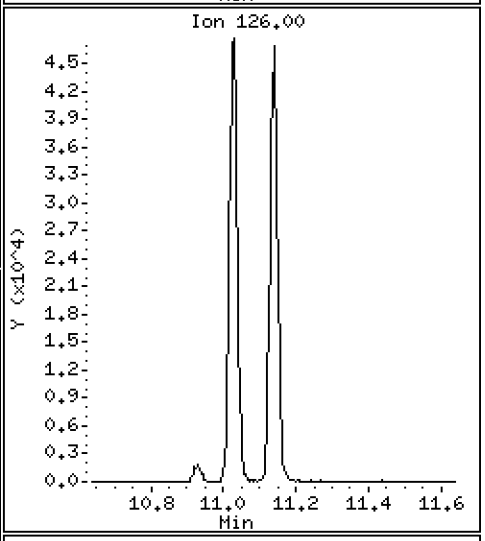
Column phase: DB624 Column diameter: 0.18

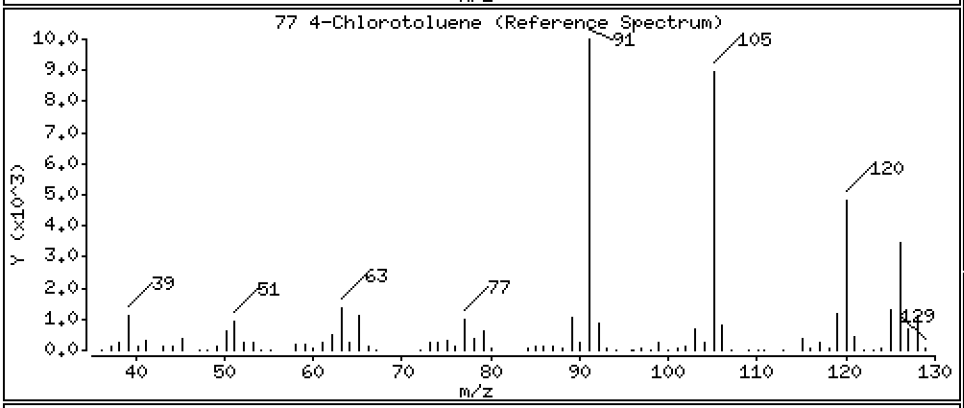
77 4-Chlorotoluene Concentration: 20.99 ug/l Review Code:

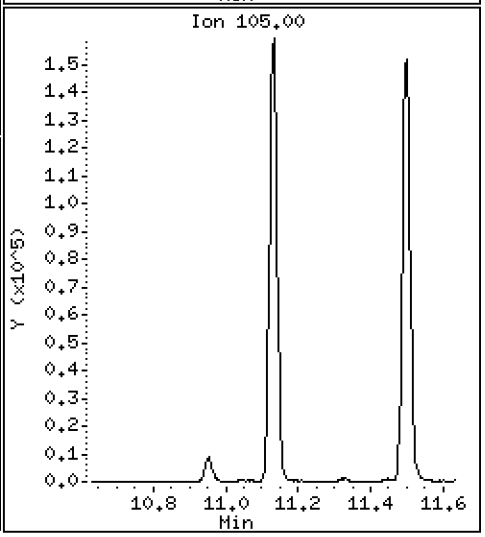


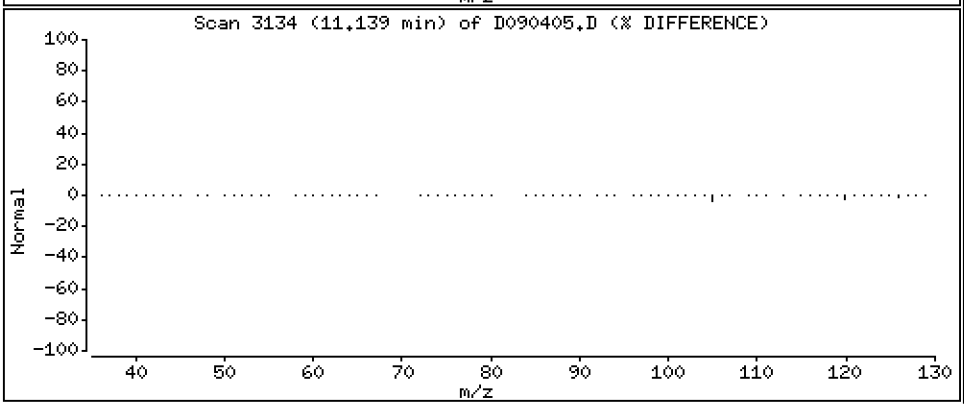












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 71

Date : 04-SEP-2018 12:21

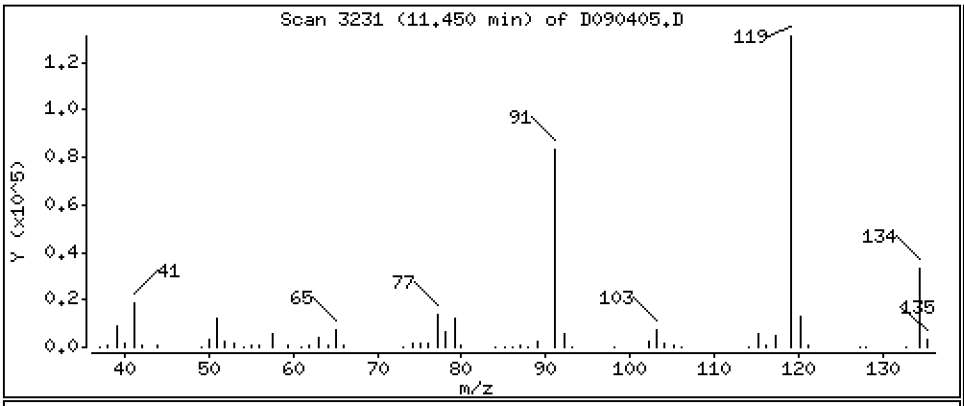
Client ID: VLCSW-180904 Instrument: VOA2.i

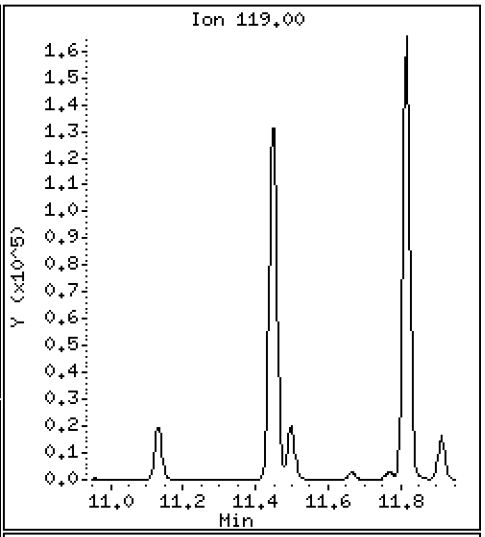
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

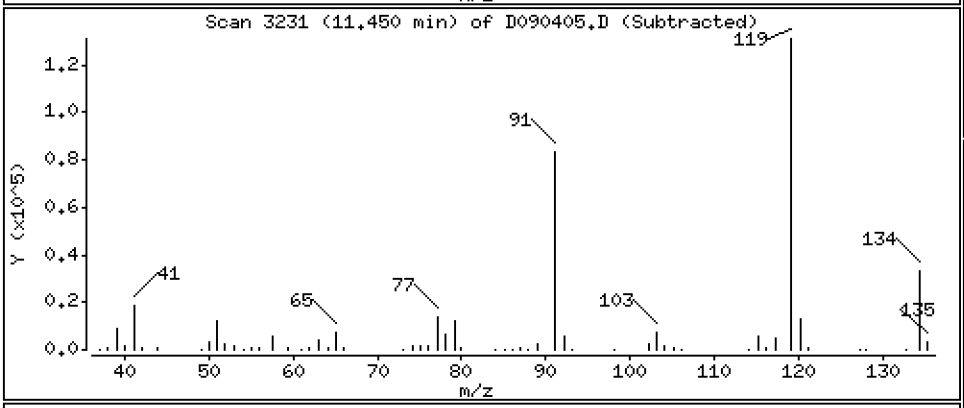
Purge Volume: 5.0 Operator: AP

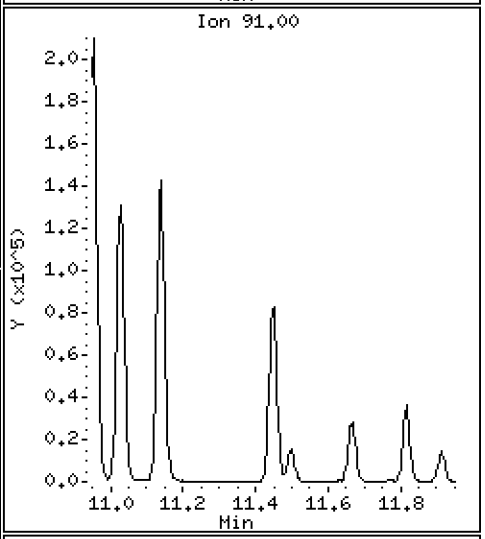
Column phase: DB624 Column diameter: 0.18

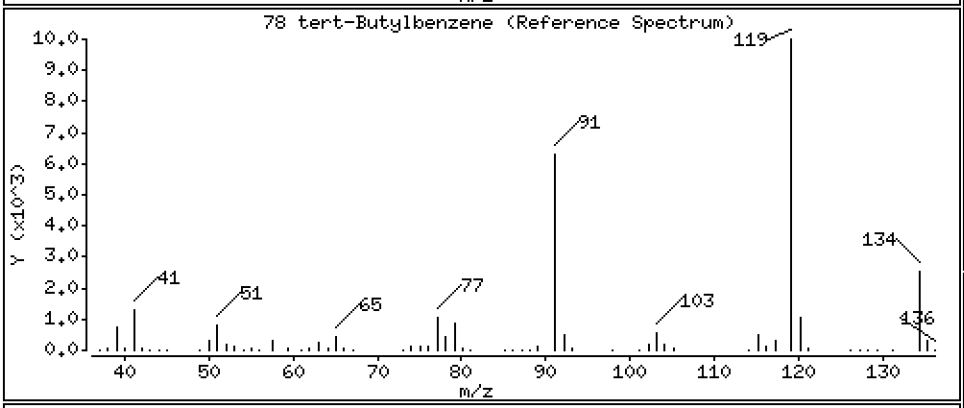
78 tert-Butylbenzene Concentration: 21.36 ug/l Review Code:

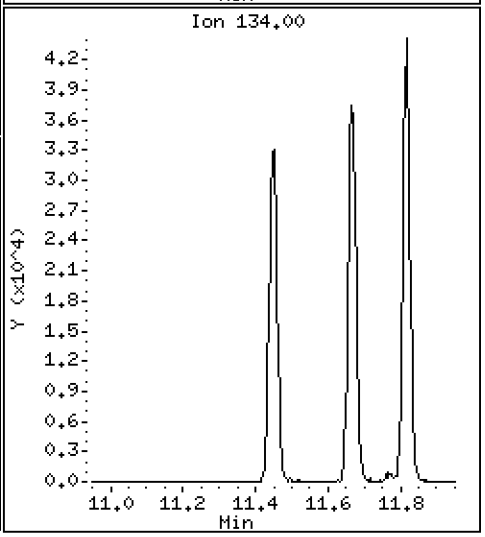


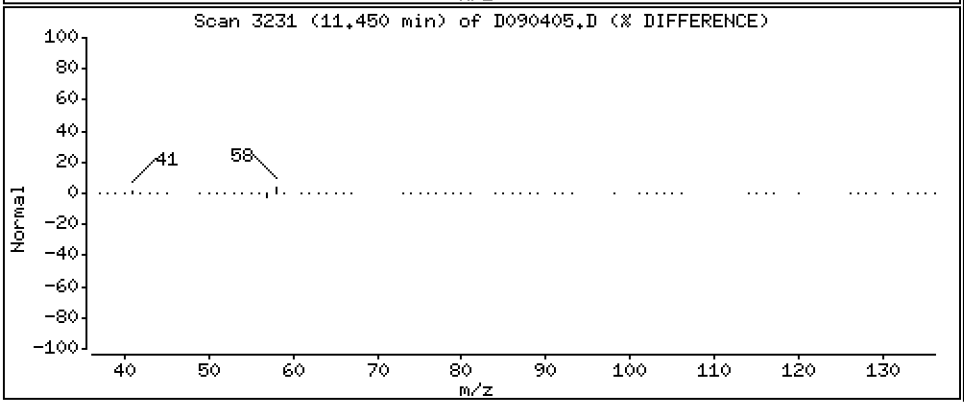












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 72

Date : 04-SEP-2018 12:21

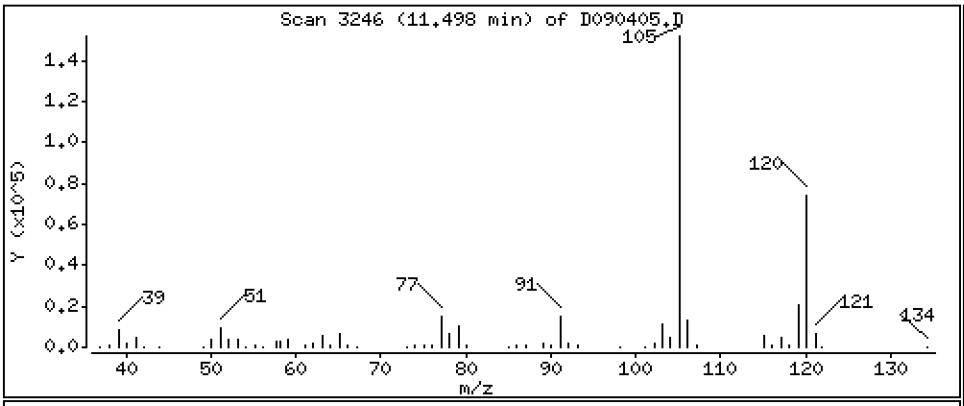
Client ID: VLCSW-180904 Instrument: VOA2.i

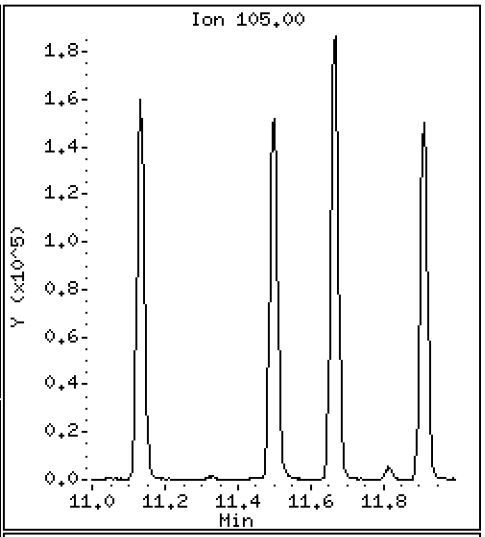
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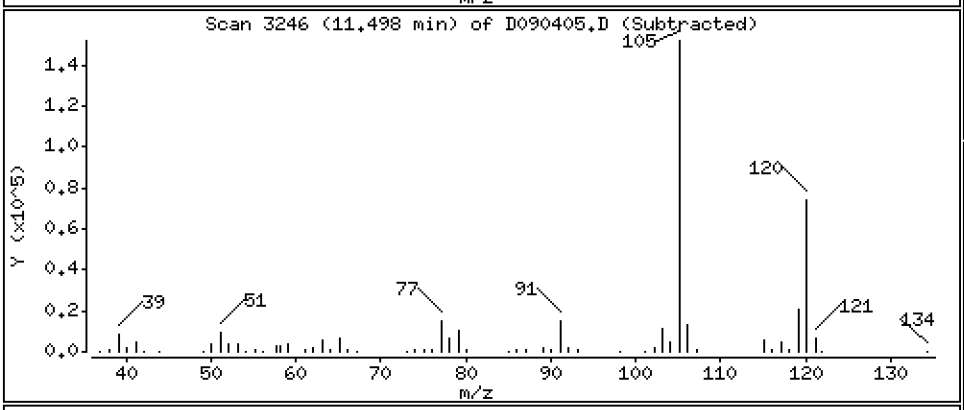
Purge Volume: 5.0 Operator: AP

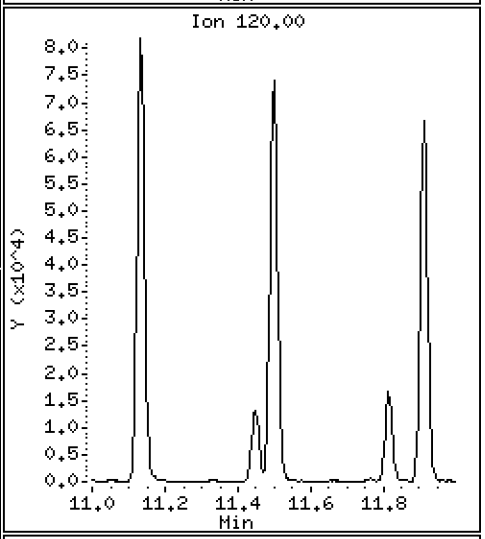
Column phase: DB624 Column diameter: 0.18

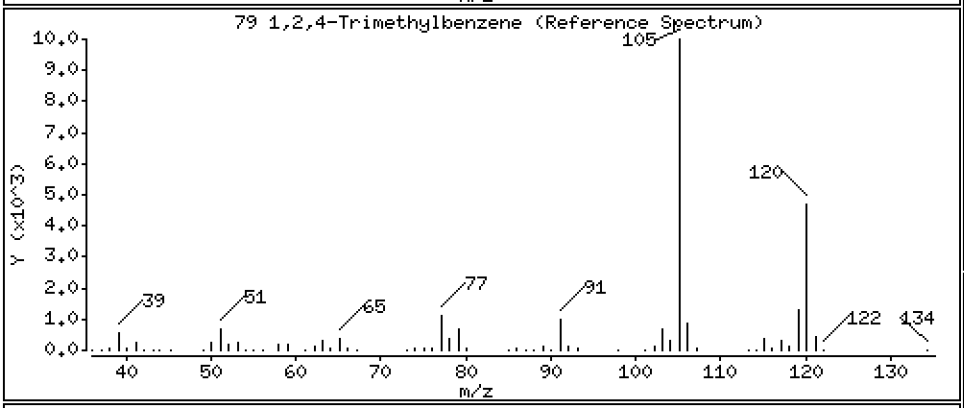
79 1,2,4-Trimethylbenzene Concentration: 20.74 ug/l Review Code:

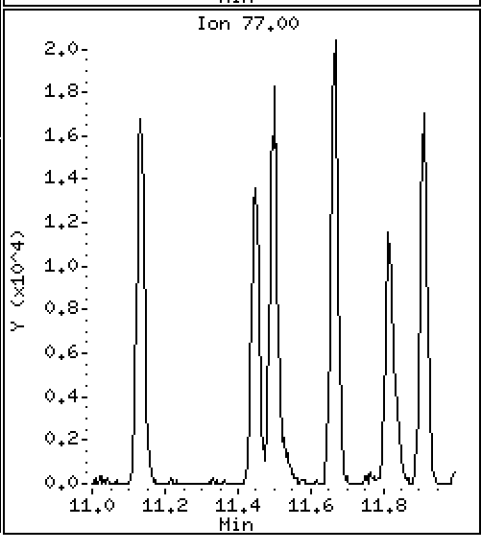


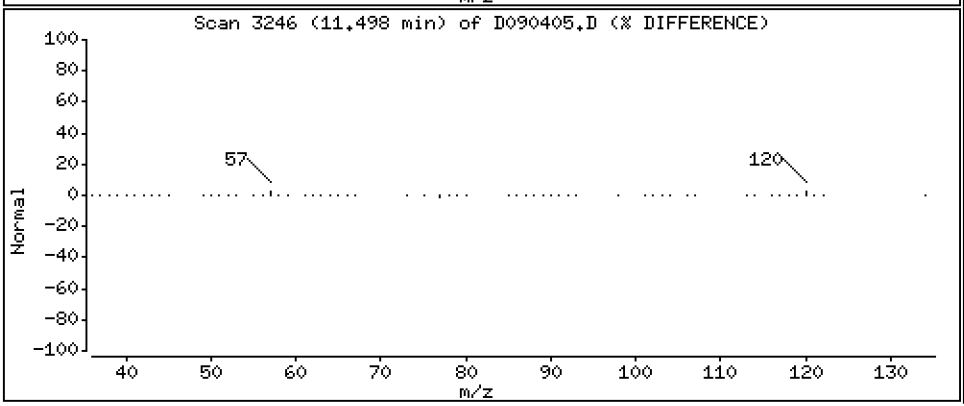












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 73

Date : 04-SEP-2018 12:21

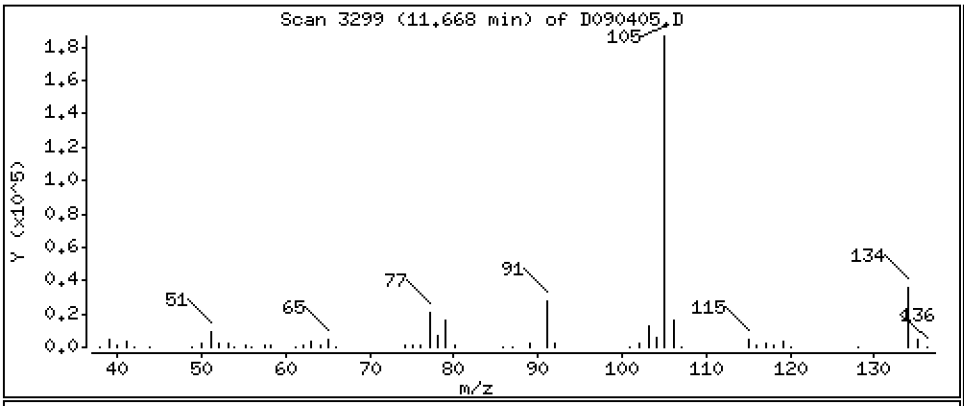
Client ID: VLCSW-180904 Instrument: VOA2.i

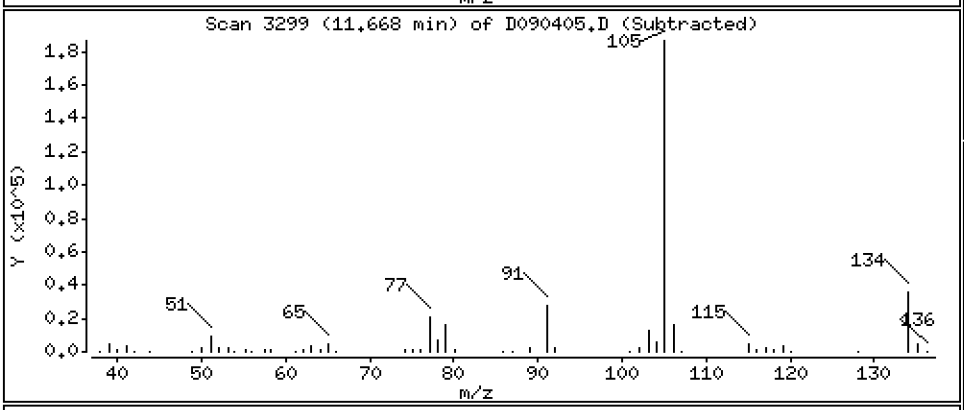
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

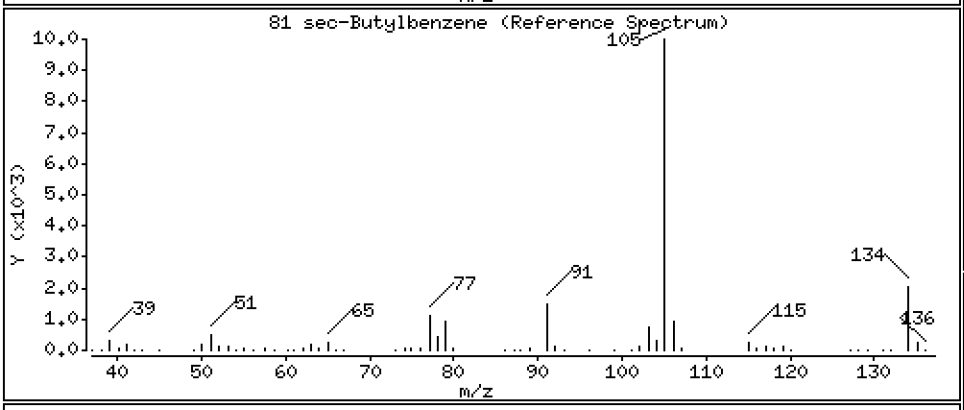
Purge Volume: 5.0 Operator: AP

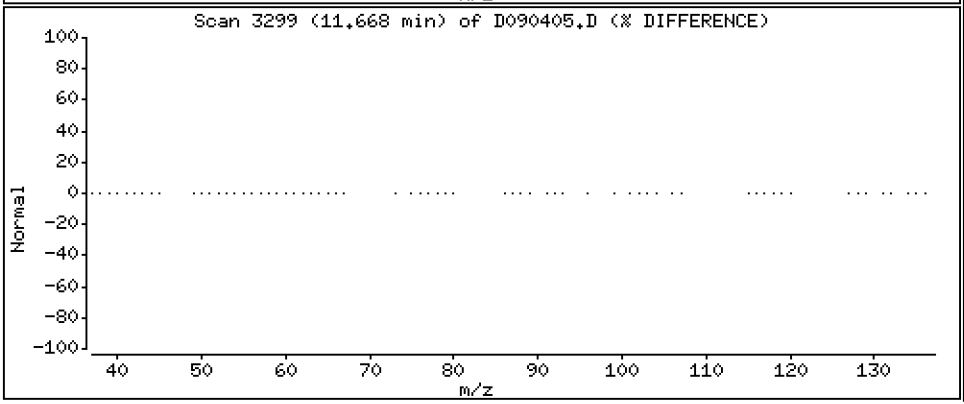
Column phase: DB624 Column diameter: 0.18

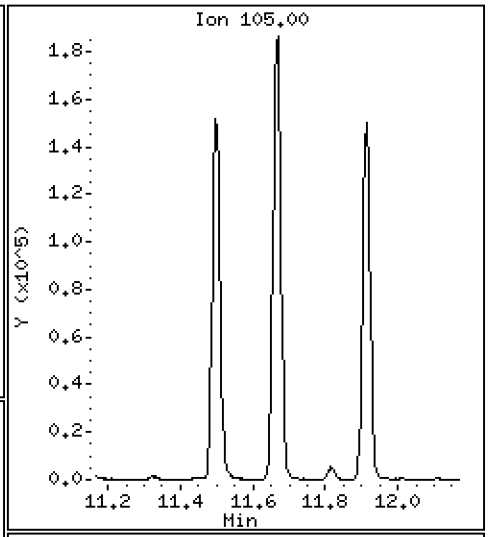
81 sec-Butylbenzene Concentration: 18.86 ug/l Review Code:

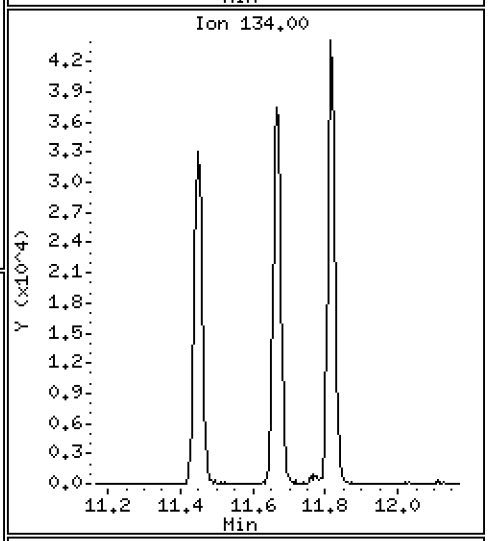


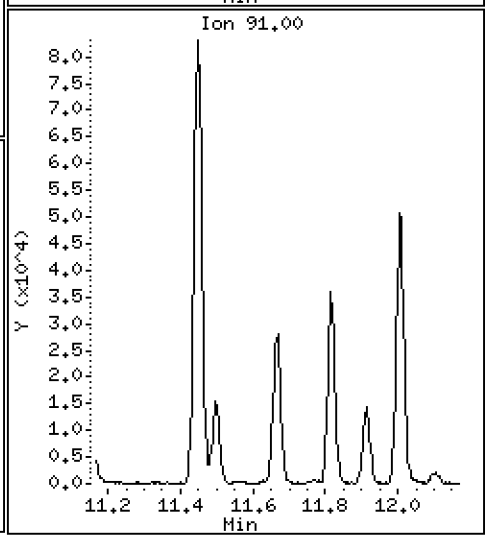












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 74

Date : 04-SEP-2018 12:21

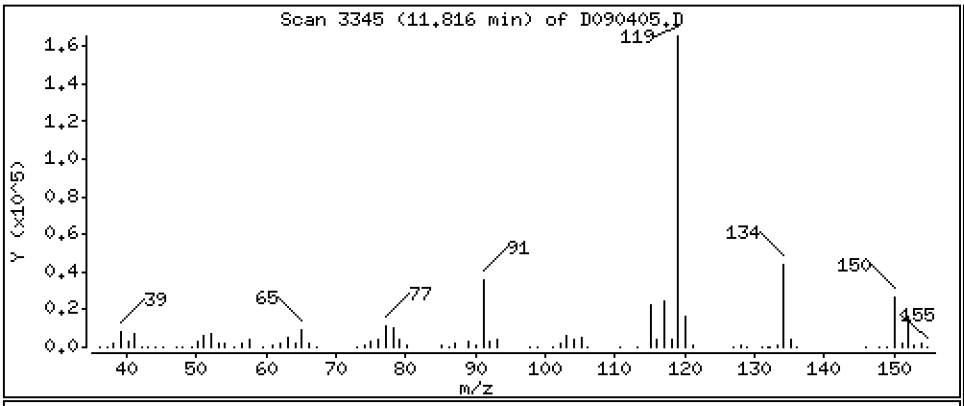
Client ID: VLCSW-180904 Instrument: VOA2.i

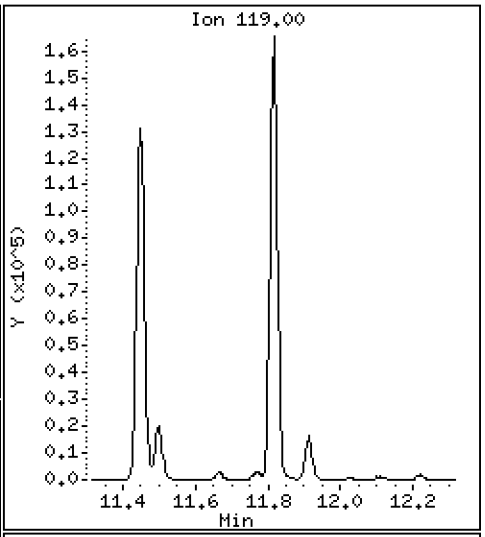
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

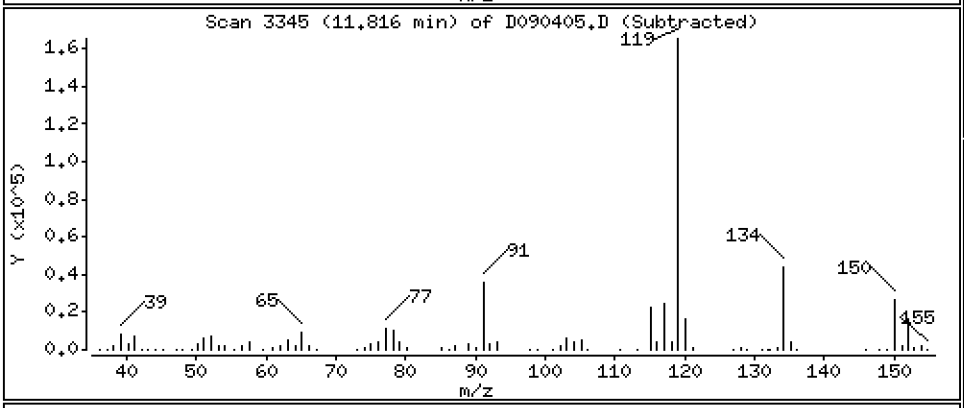
Purge Volume: 5.0 Operator: AP

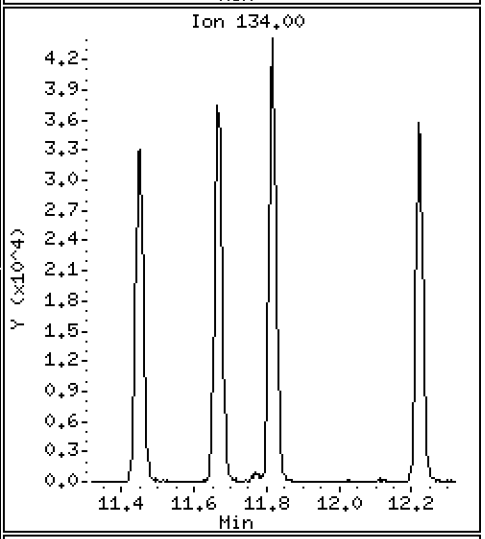
Column phase: DB624 Column diameter: 0.18

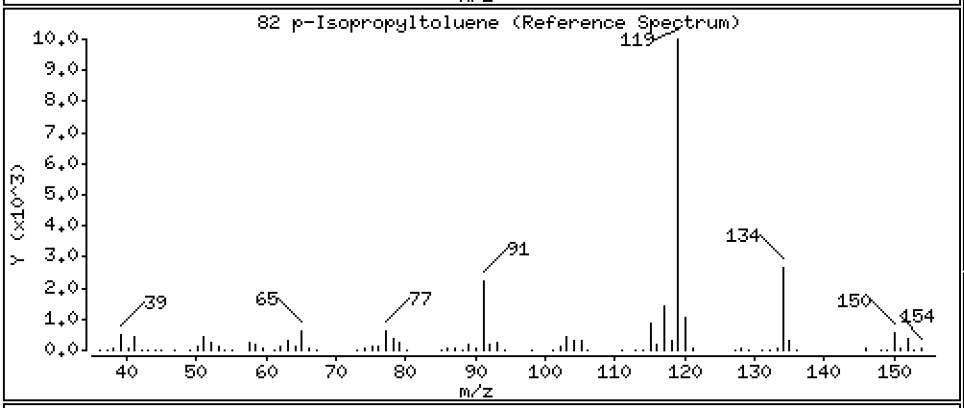
82 p-Isopropyltoluene Concentration: 19.07 ug/l Review Code:

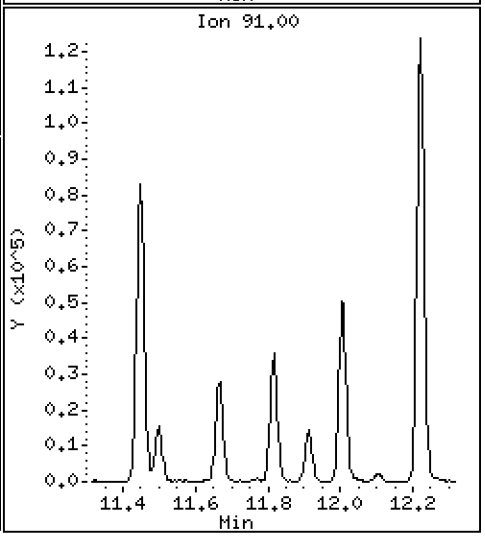


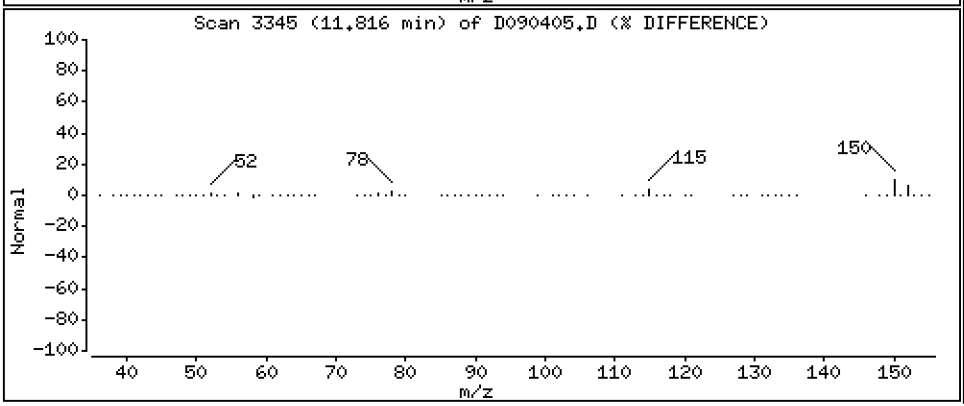












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 75

Date : 04-SEP-2018 12:21

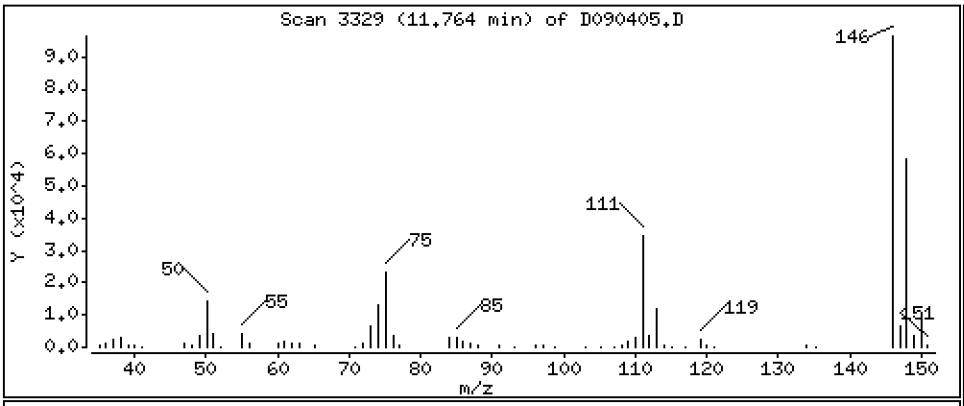
Client ID: VLCSW-180904 Instrument: VOA2.i

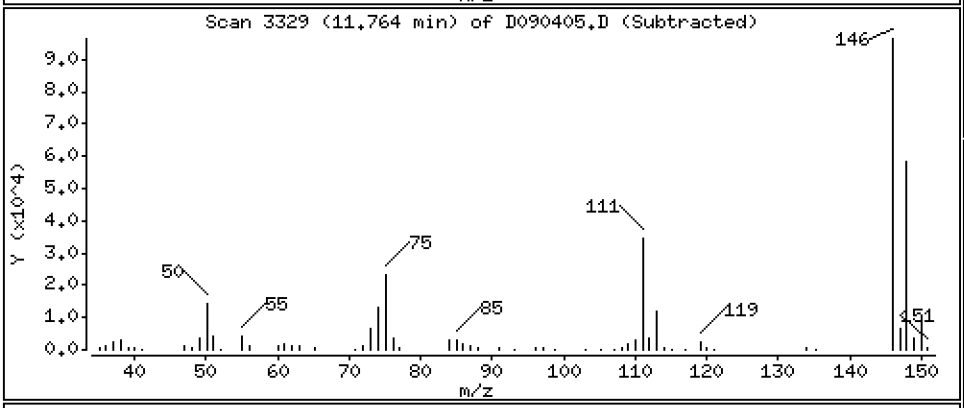
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

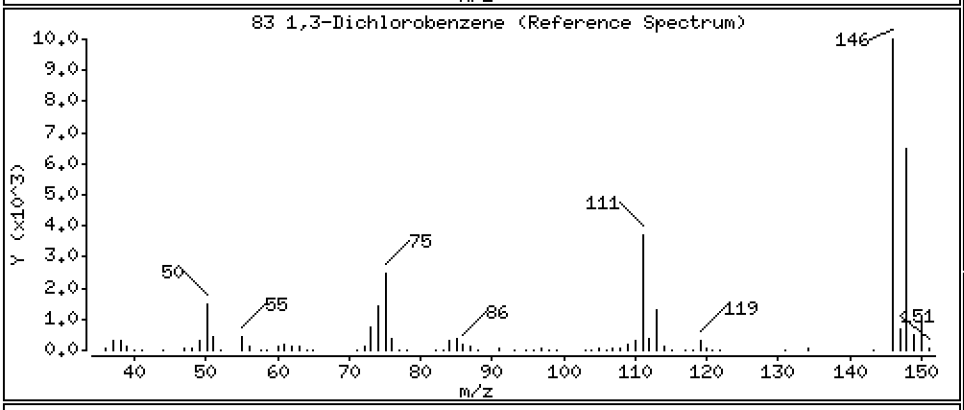
Purge Volume: 5.0 Operator: AP

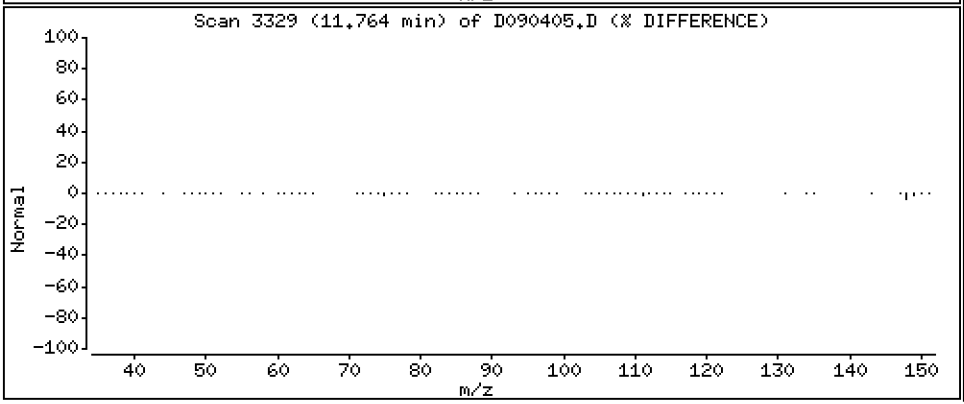
Column phase: DB624 Column diameter: 0.18

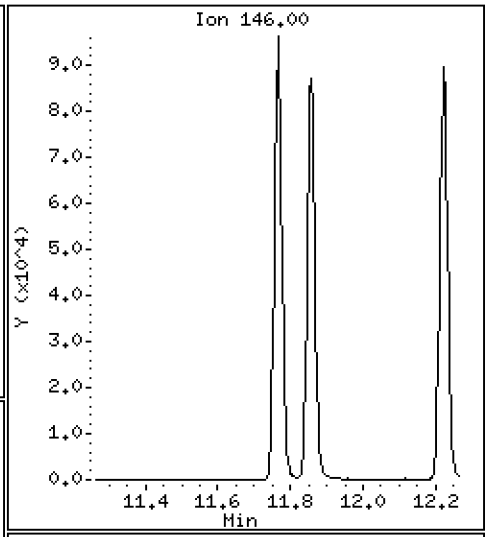
83 1,3-Dichlorobenzene Concentration: 19.92 ug/l Review Code:

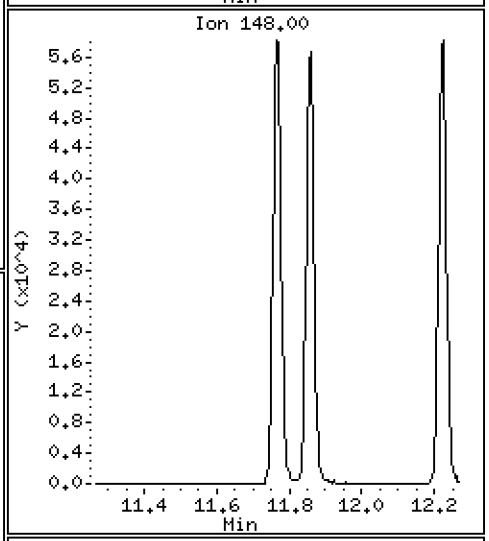


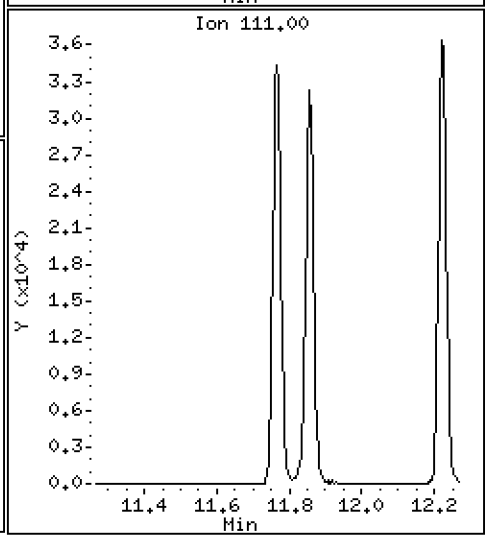












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 76

Date : 04-SEP-2018 12:21

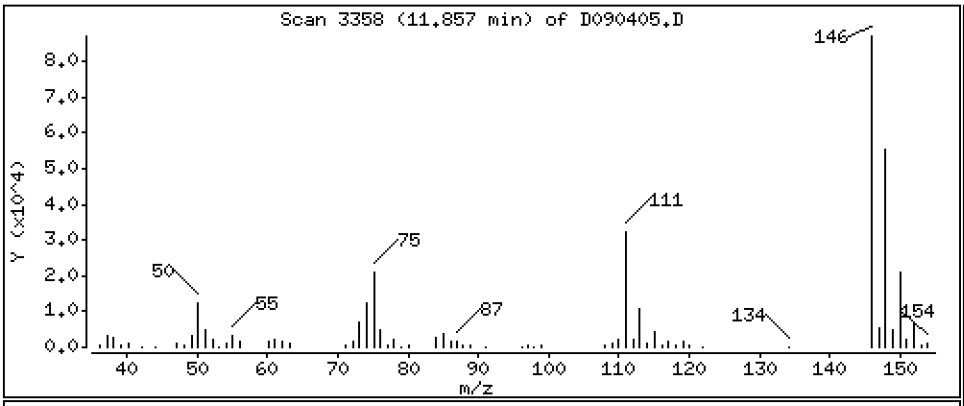
Client ID: VLCSW-180904 Instrument: VOA2.i

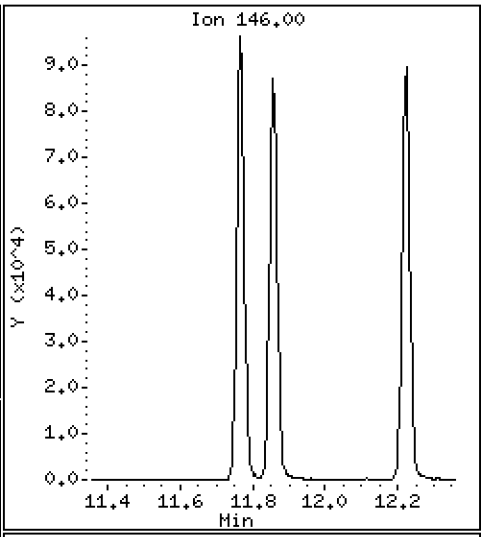
Sample Info: VLCSW-180904:VLCSW-180904:3::LCS

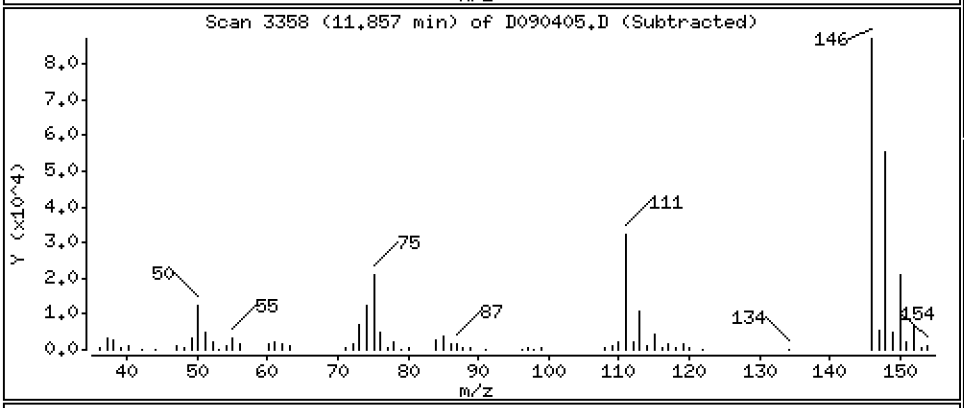
Purge Volume: 5.0 Operator: AP

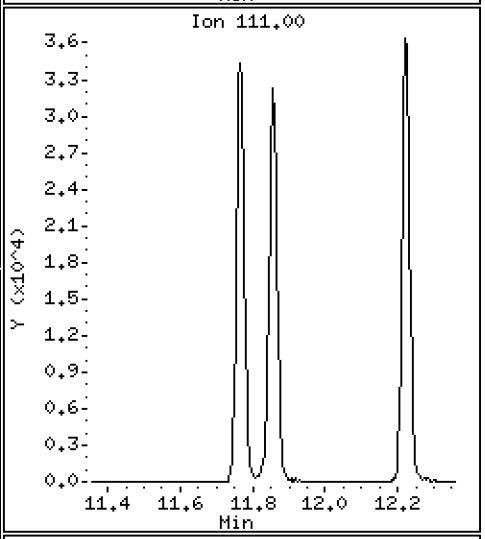
Column phase: DB624 Column diameter: 0.18

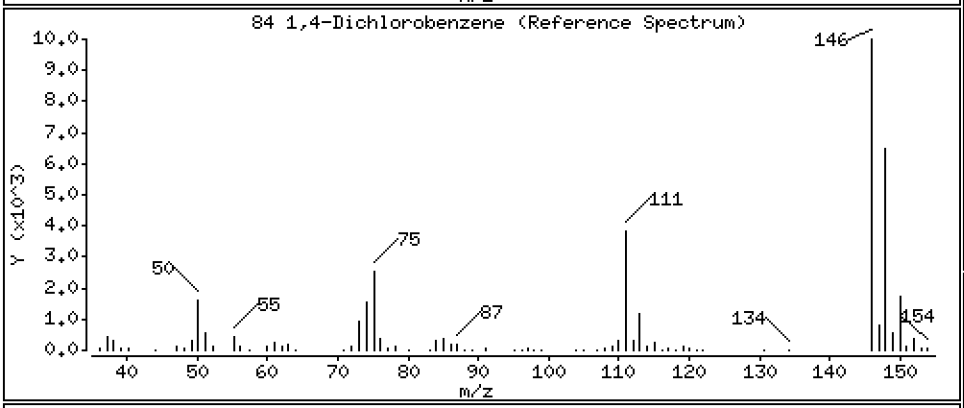
84 1,4-Dichlorobenzene Concentration: 20.10 ug/l Review Code:

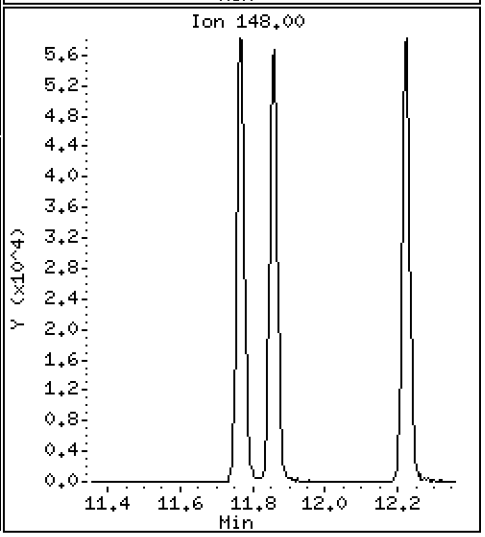


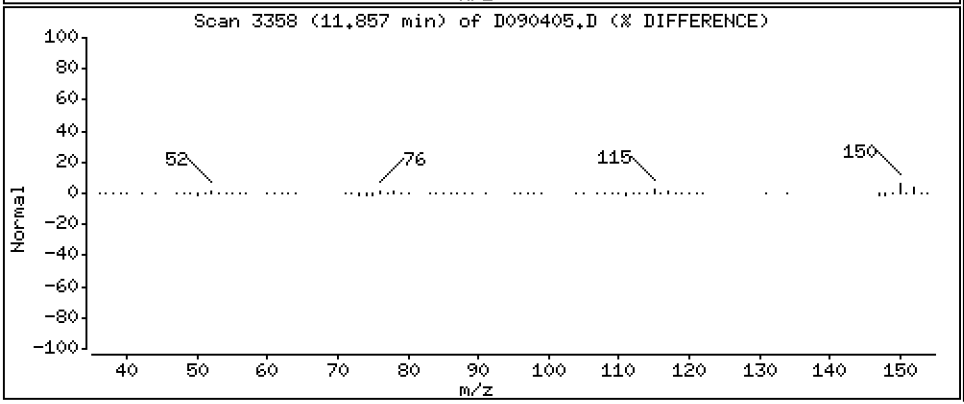












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 77

Date : 04-SEP-2018 12:21

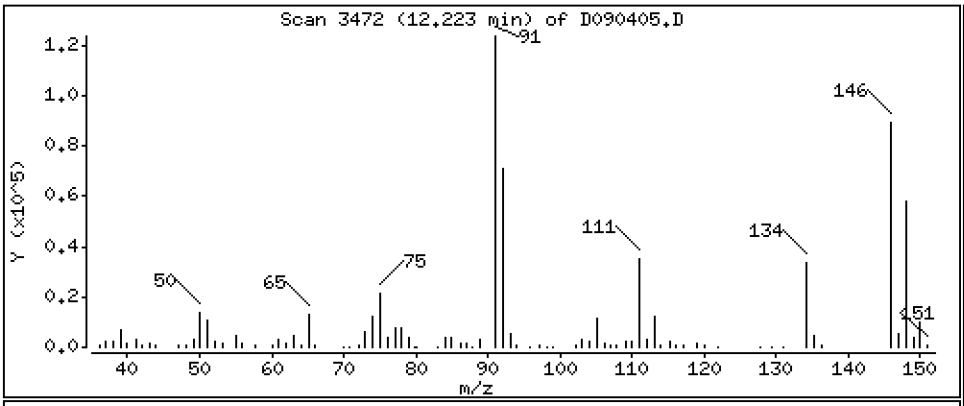
Client ID: VLCSW-180904 Instrument: VOA2.i

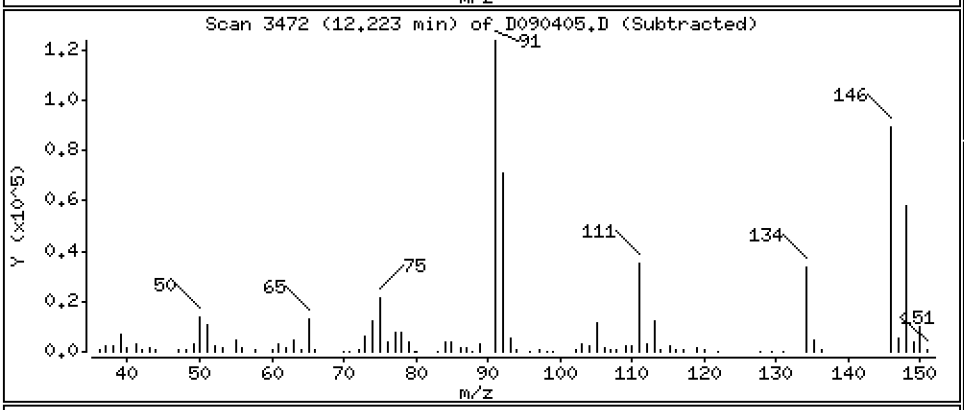
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

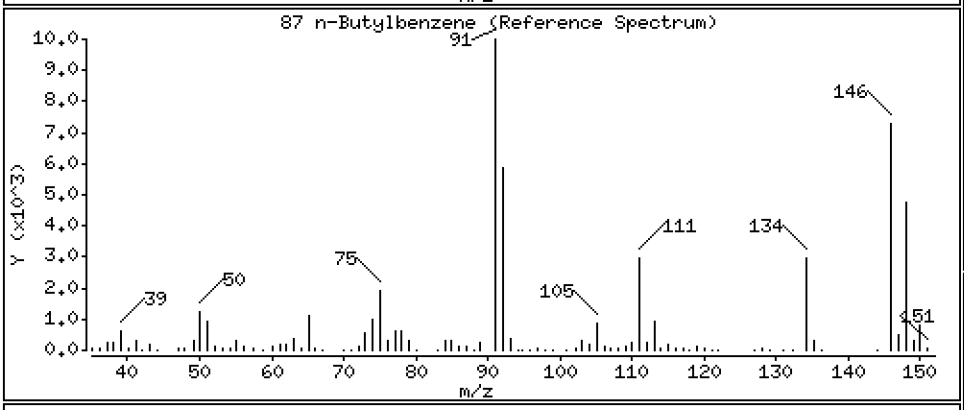
Purge Volume: 5.0 Operator: AP

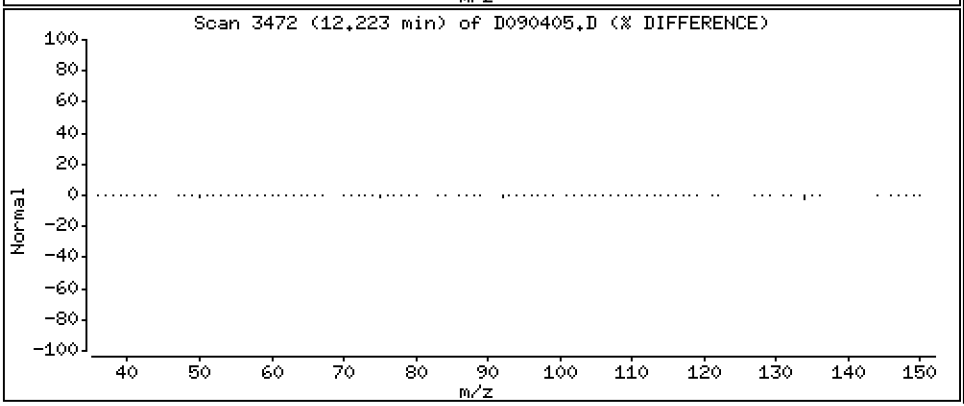
Column phase: DB624 Column diameter: 0.18

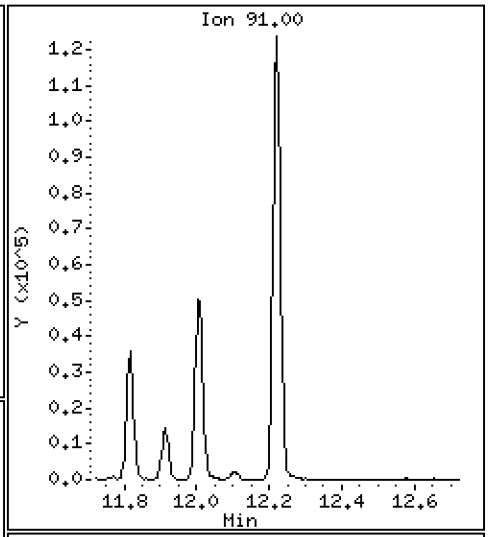
87 n-Butylbenzene Concentration: 19.68 ug/l Review Code:

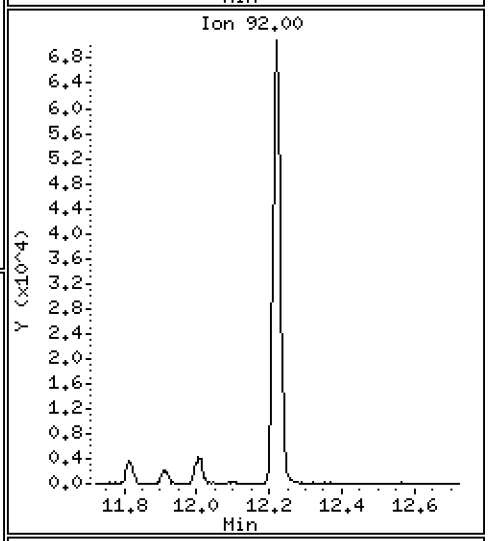


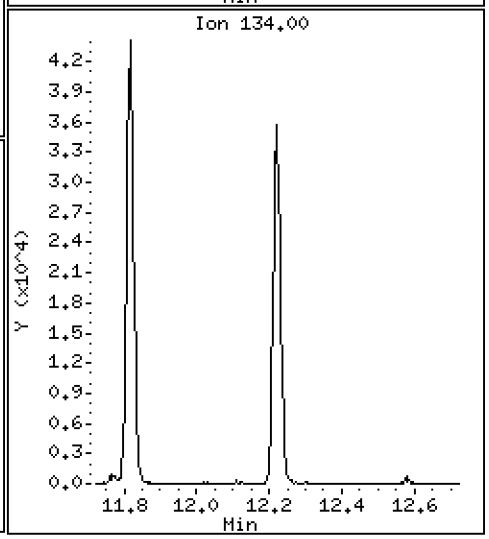












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 78

Date : 04-SEP-2018 12:21

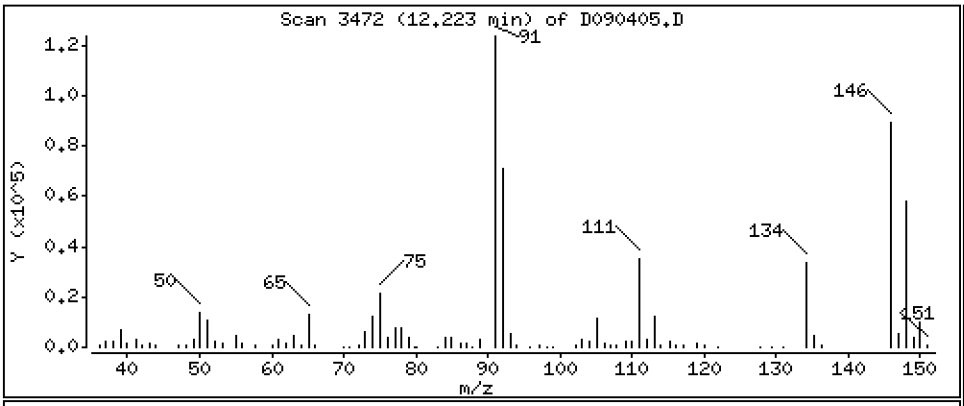
Client ID: VLCSW-180904 Instrument: VOA2.i

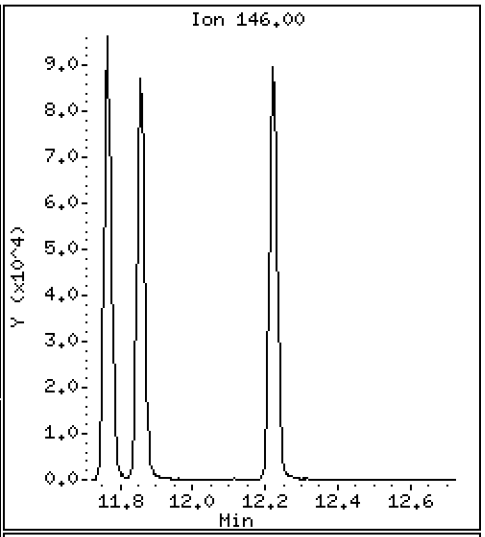
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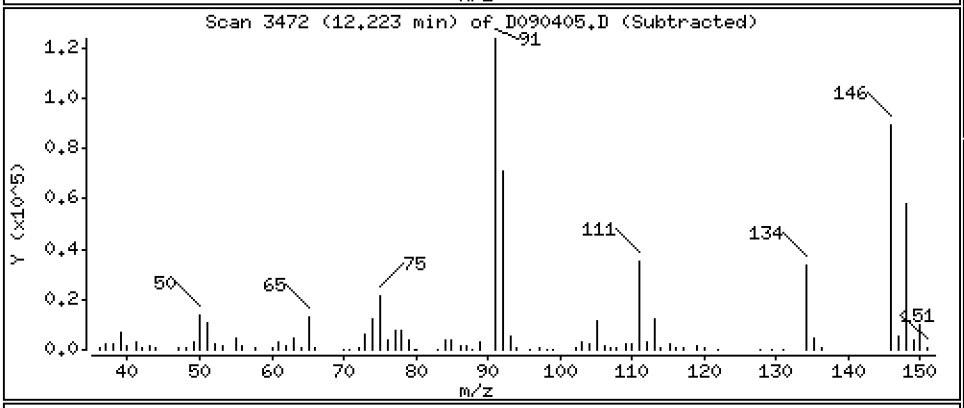
Purge Volume: 5.0 Operator: AP

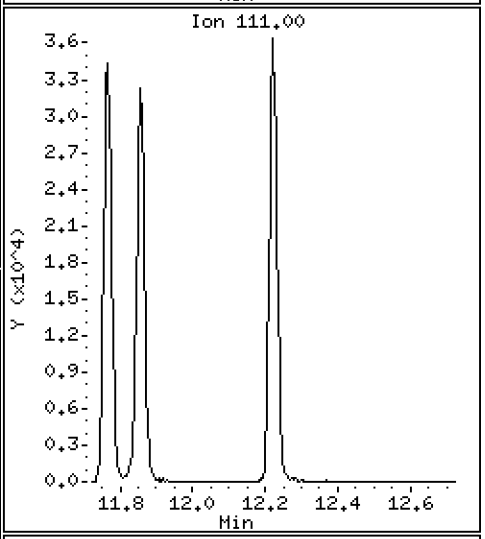
Column phase: DB624 Column diameter: 0.18

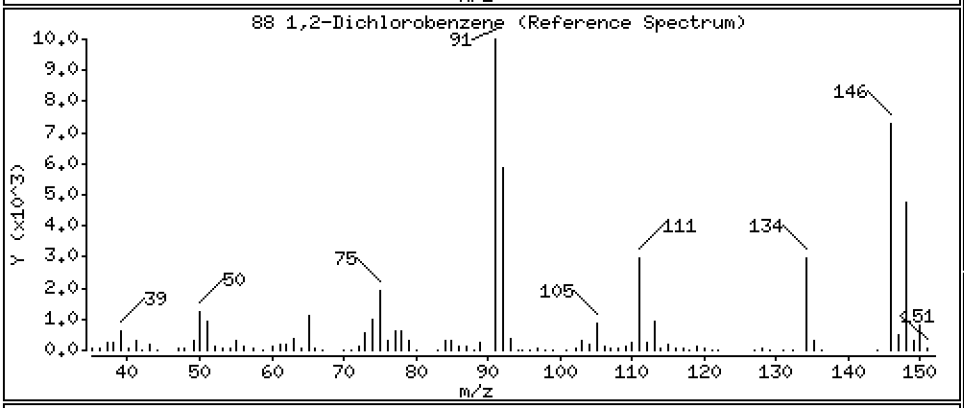
88 1,2-Dichlorobenzene Concentration: 20.04 ug/l Review Code:

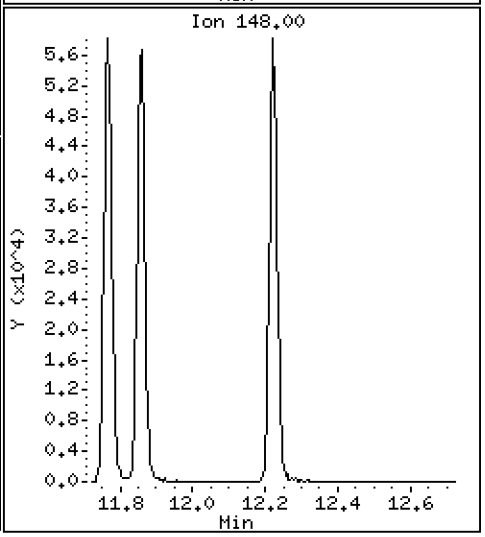


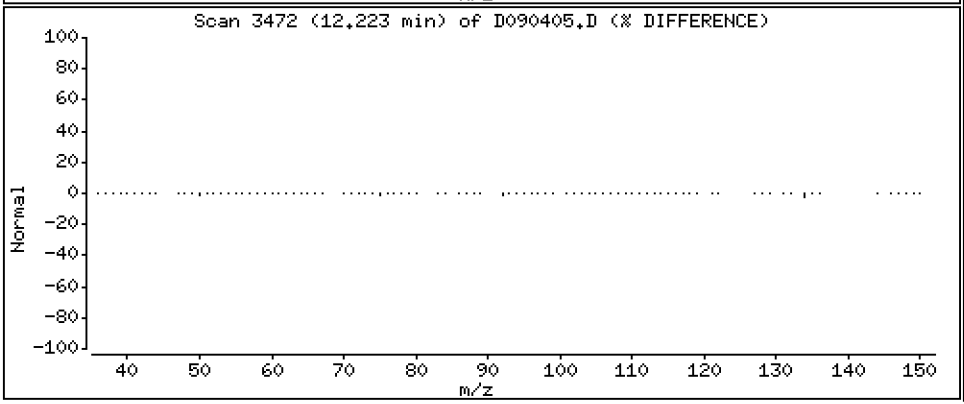












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 79

Date : 04-SEP-2018 12:21

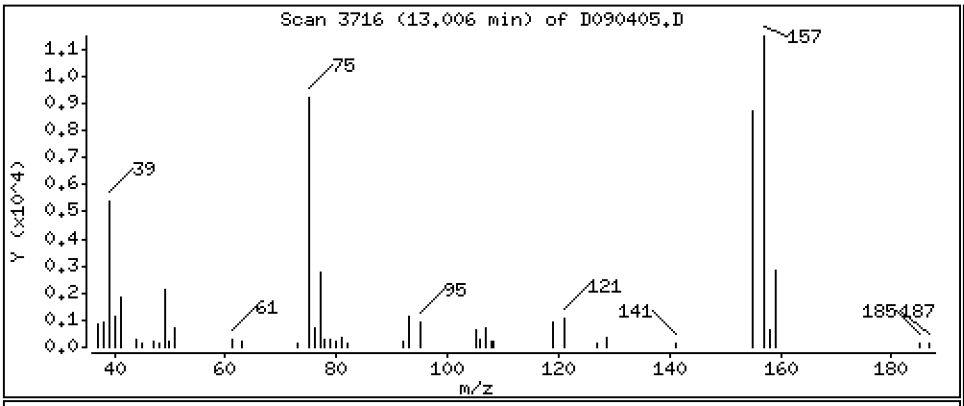
Client ID: VLCSW-180904 Instrument: VOA2.i

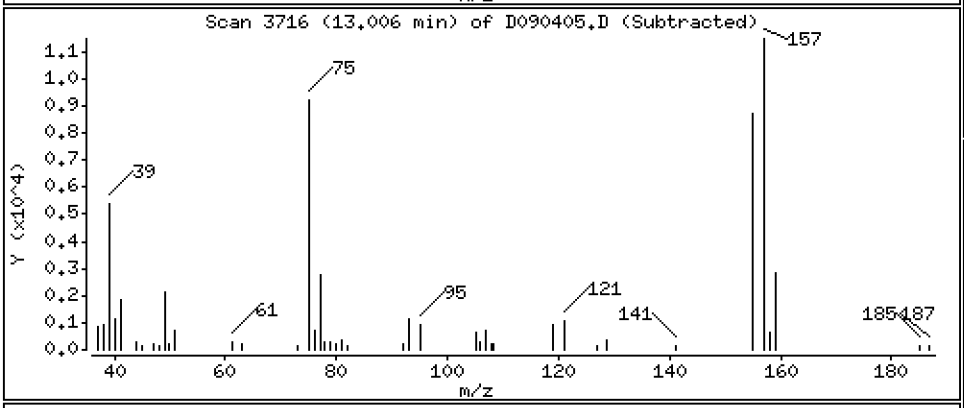
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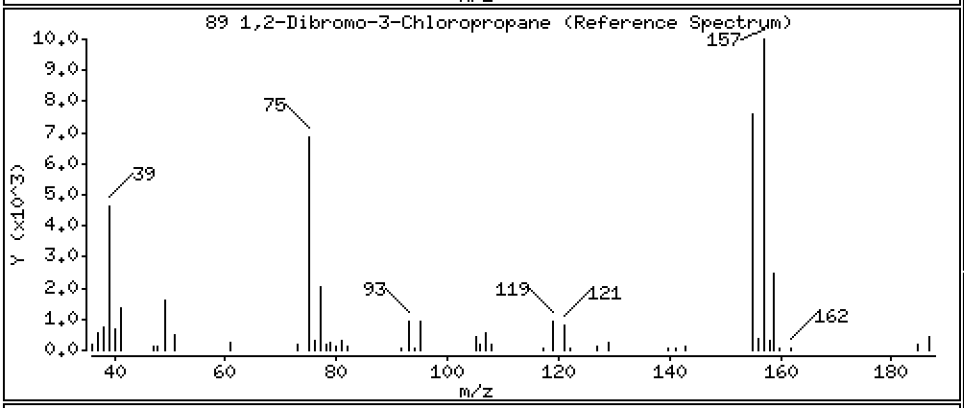
Purge Volume: 5.0 Operator: AP

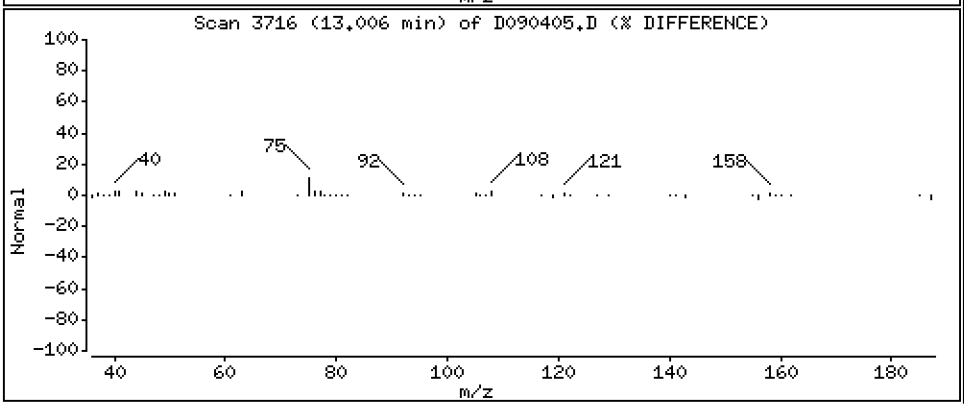
Column phase: DB624 Column diameter: 0.18

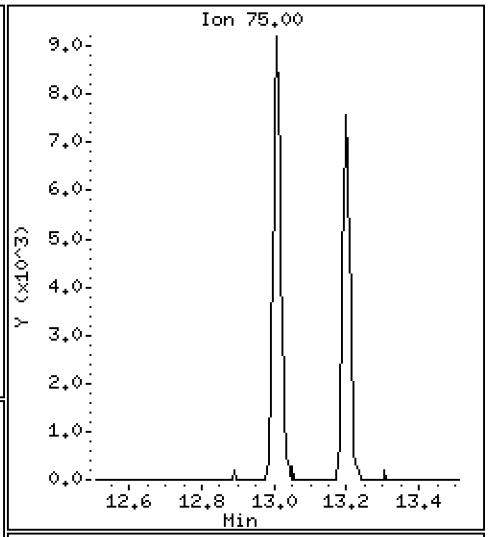
89 1,2-Dibromo-3-Chloropropane Concentration: 18.20 ug/l Review Code:

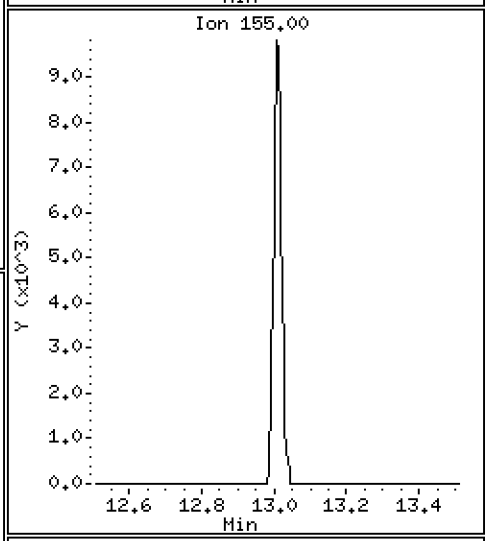


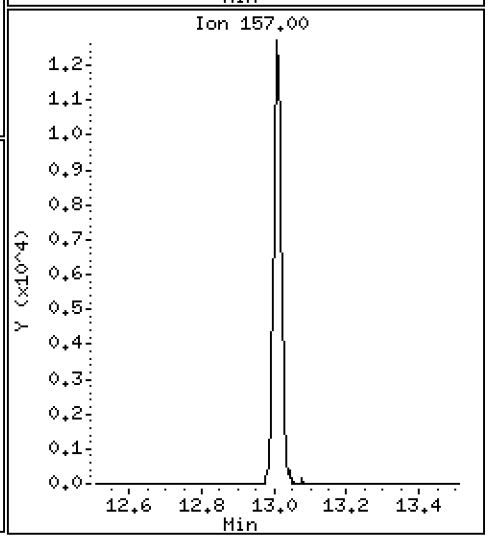












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 80

Date : 04-SEP-2018 12:21

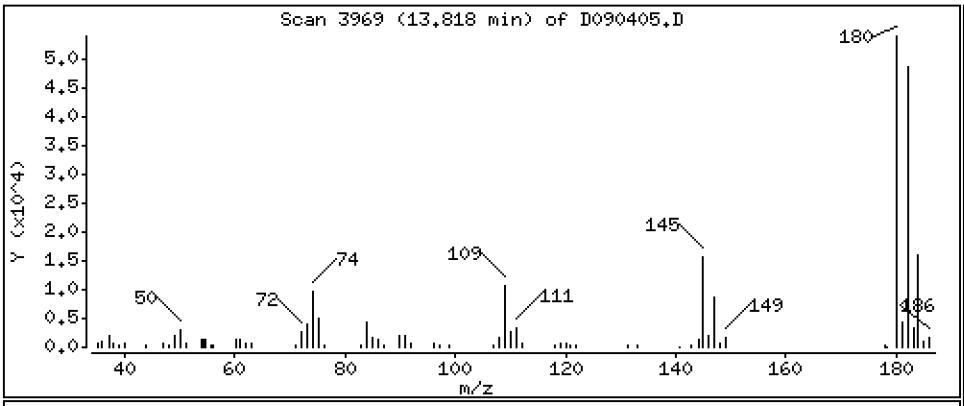
Client ID: VLCSW-180904 Instrument: VOA2.i

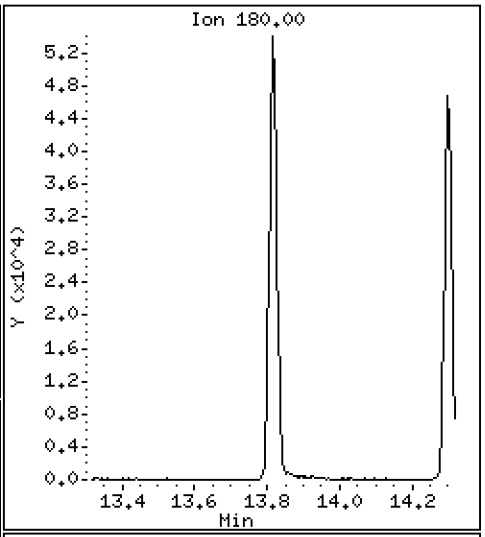
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

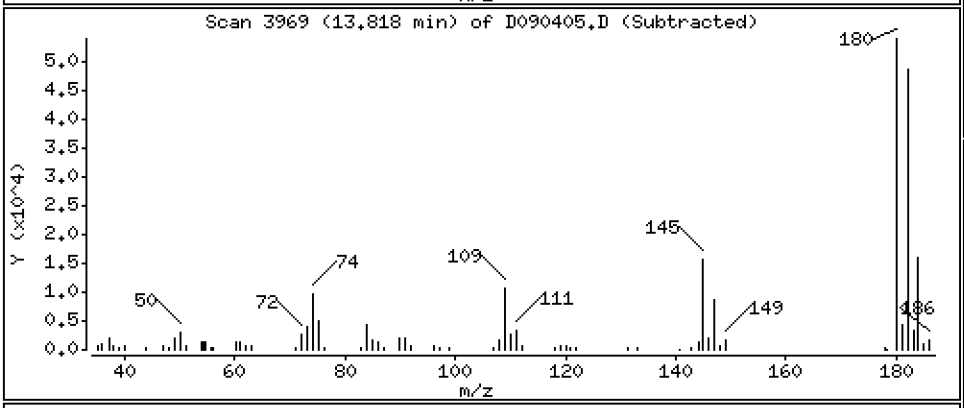
Purge Volume: 5.0 Operator: AP

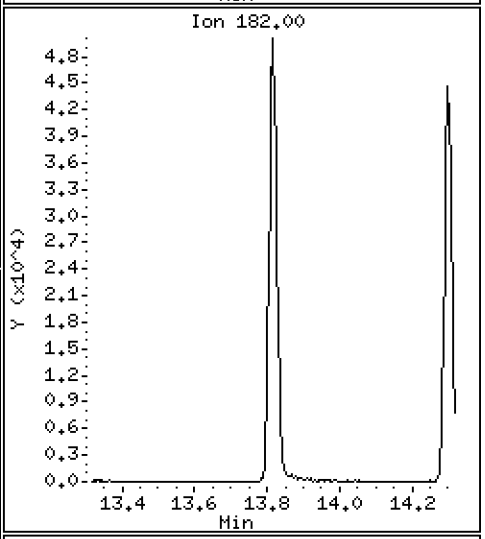
Column phase: DB624 Column diameter: 0.18

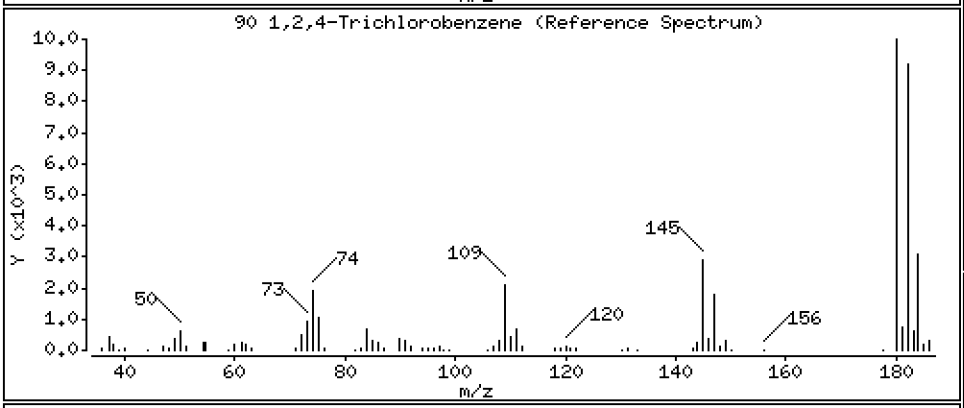
90 1,2,4-Trichlorobenzene Concentration: 20.82 ug/l Review Code:

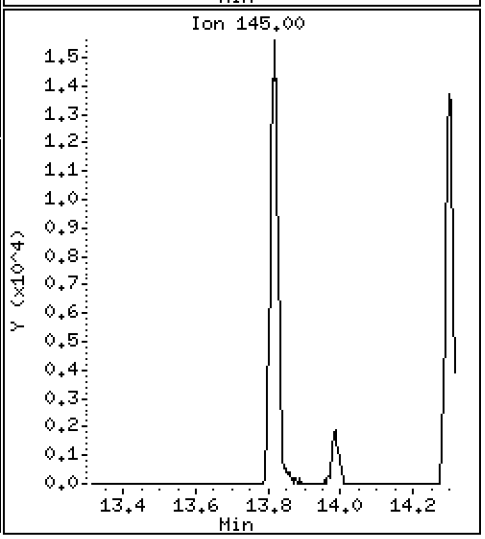


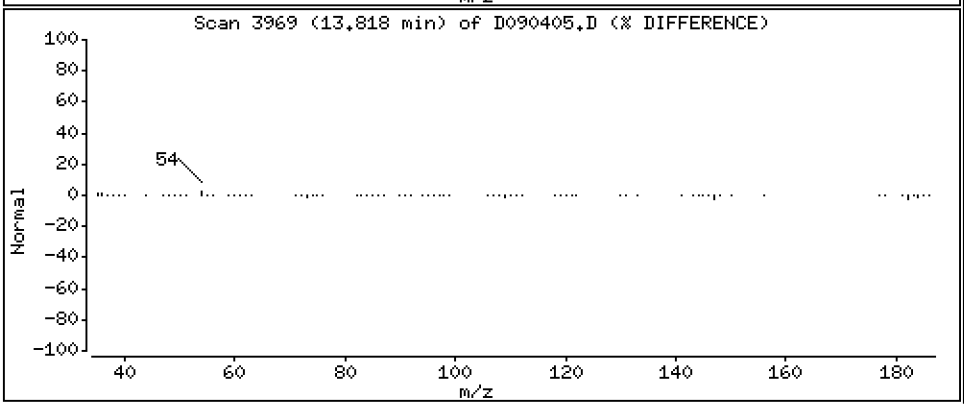












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 81

Date : 04-SEP-2018 12:21

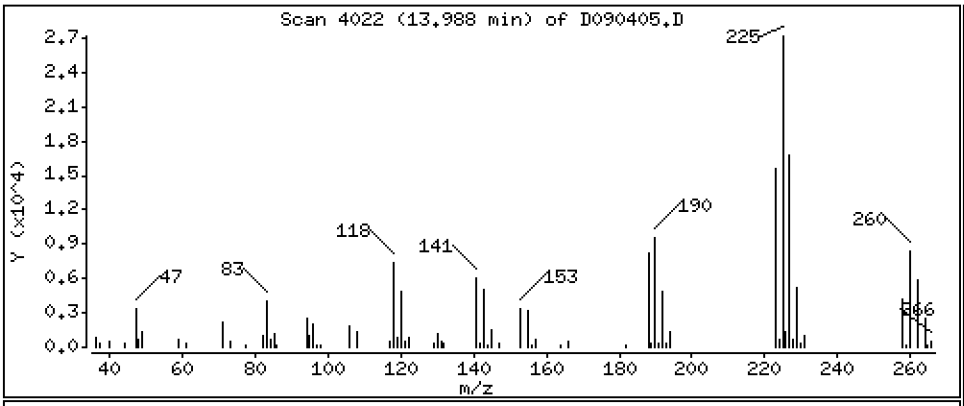
Client ID: VLCSW-180904 Instrument: VOA2.i

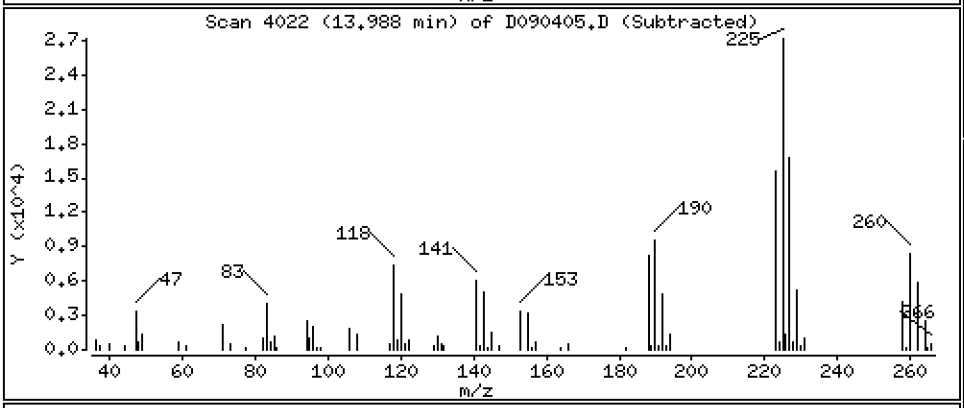
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

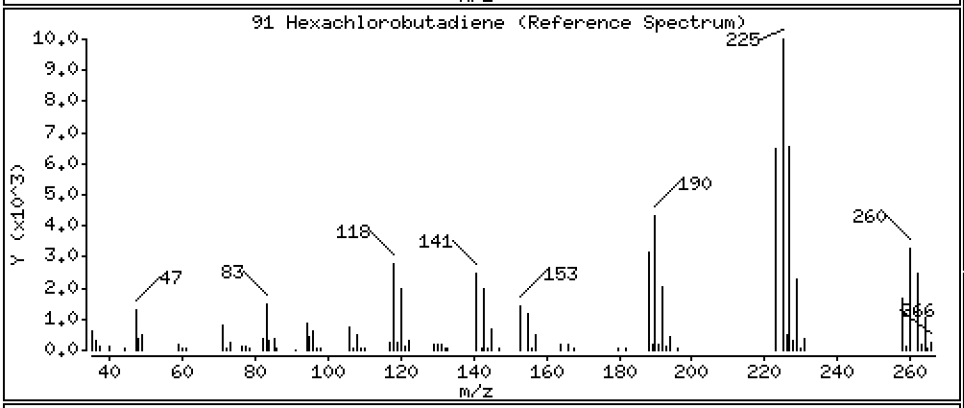
Purge Volume: 5.0 Operator: AP

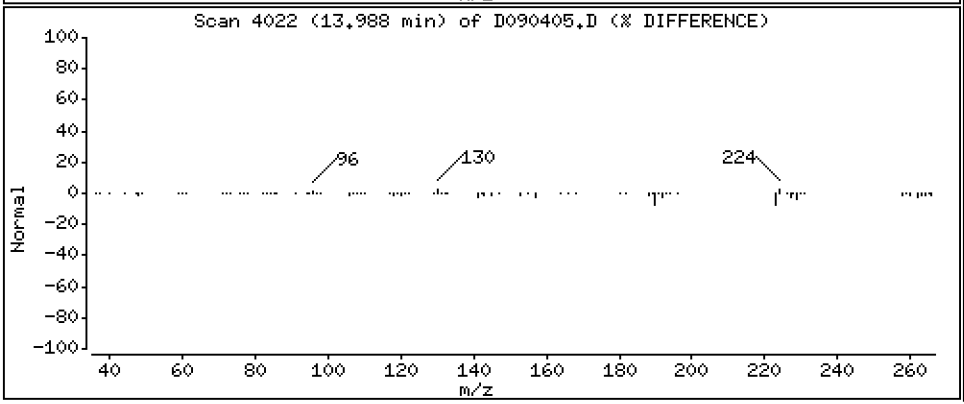
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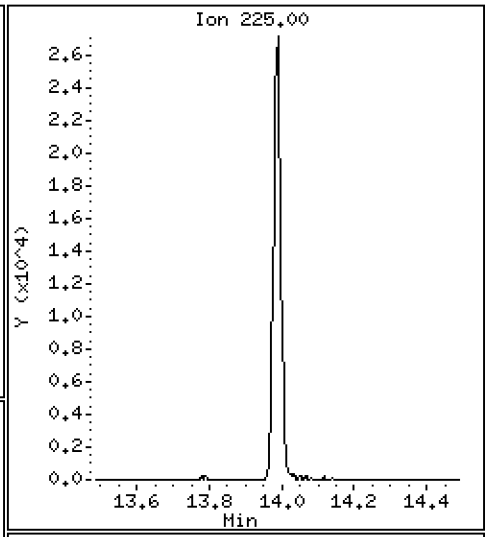
91 Hexachlorobutadiene Concentration: 20.90 ug/l Review Code:

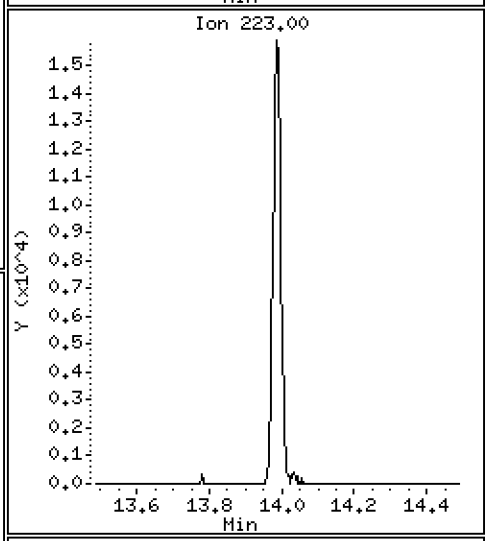


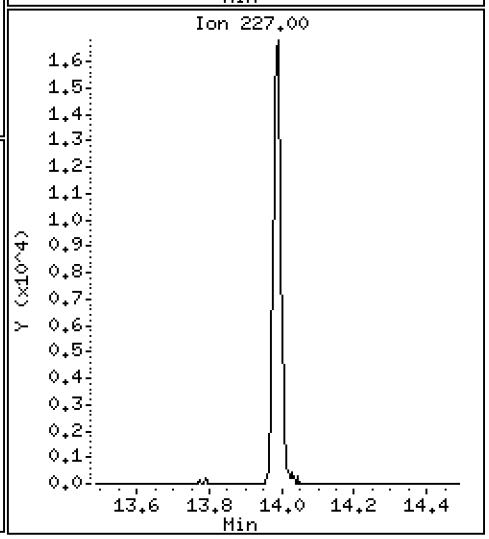












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D

Date : 04-SEP-2018 12:21

Client ID: VLCSW-180904

Instrument: VOA2.i

Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

Purge Volume: 5.0

Operator: AP

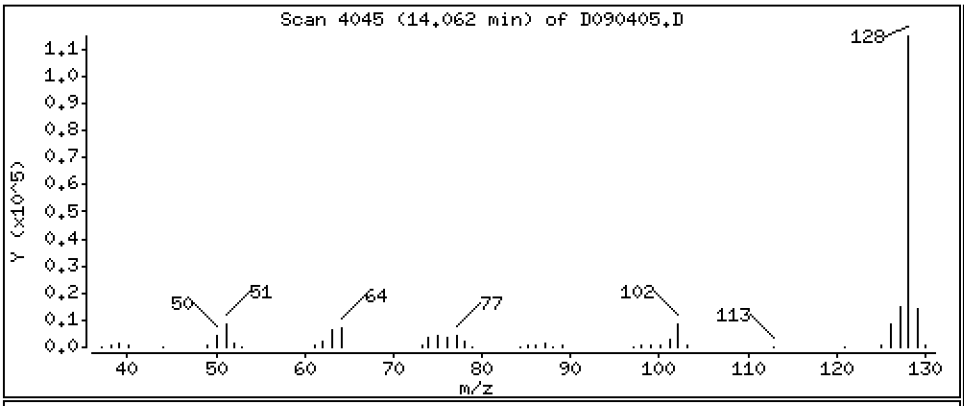
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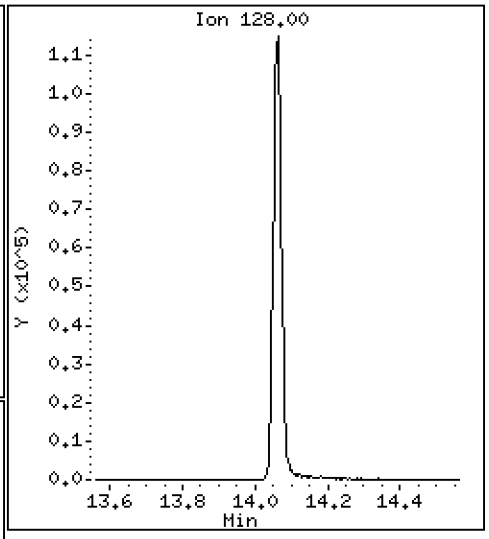
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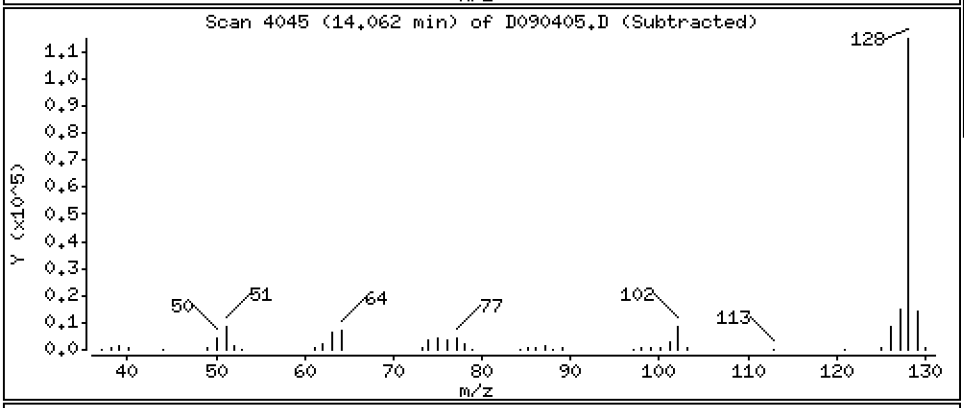
92 Naphthalene

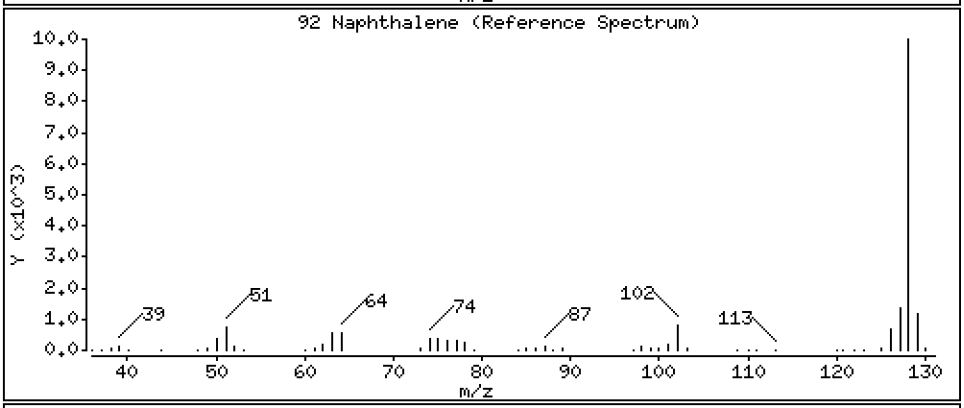
Concentration: 19.53 ug/l

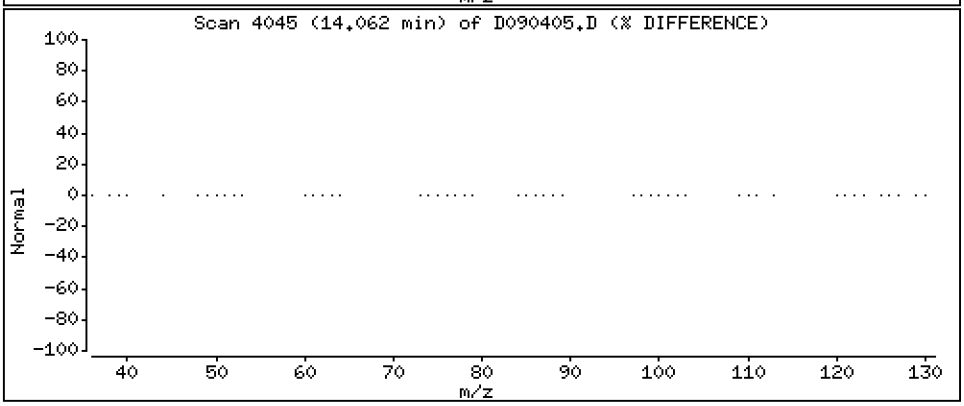
Review Code:











Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 83

Date : 04-SEP-2018 12:21

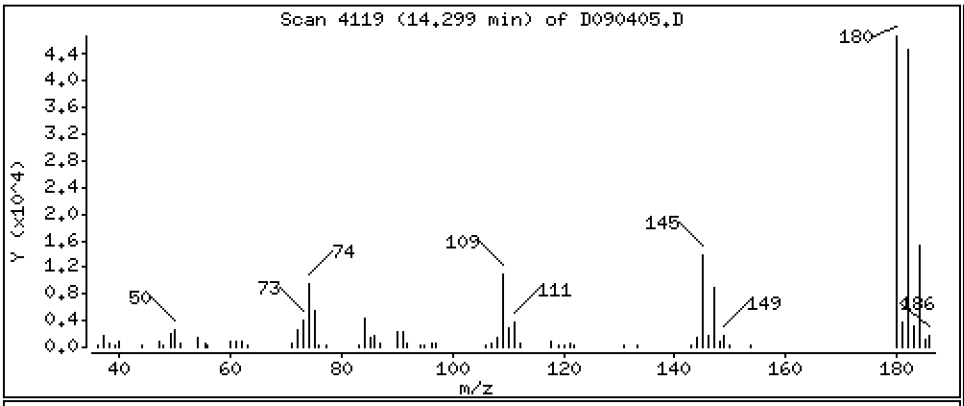
Client ID: VLCSW-180904 Instrument: VOA2.i

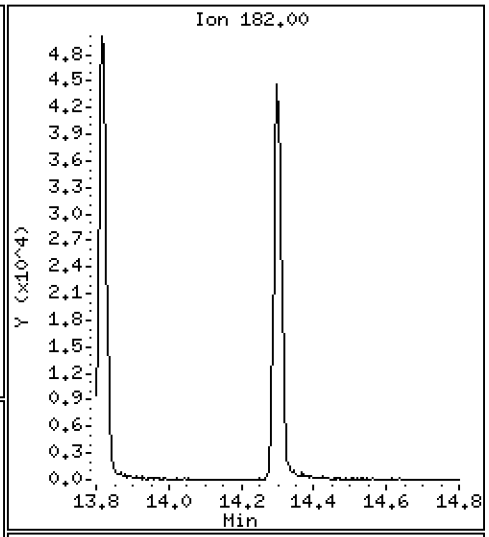
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

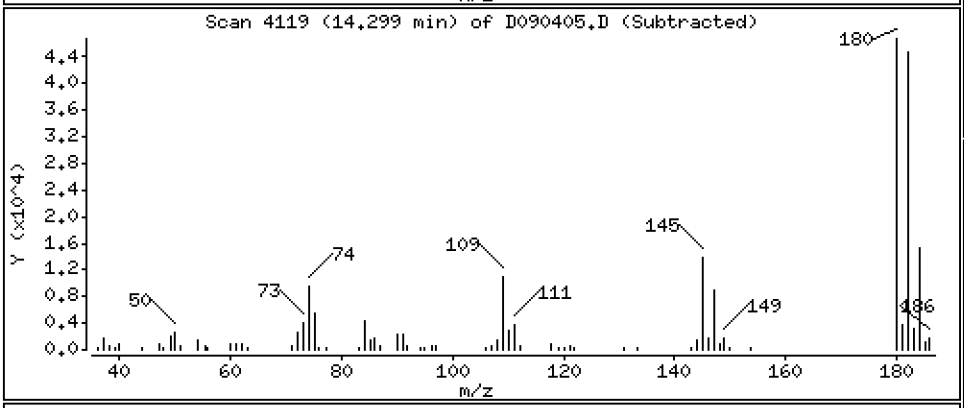
Purge Volume: 5.0 Operator: AP

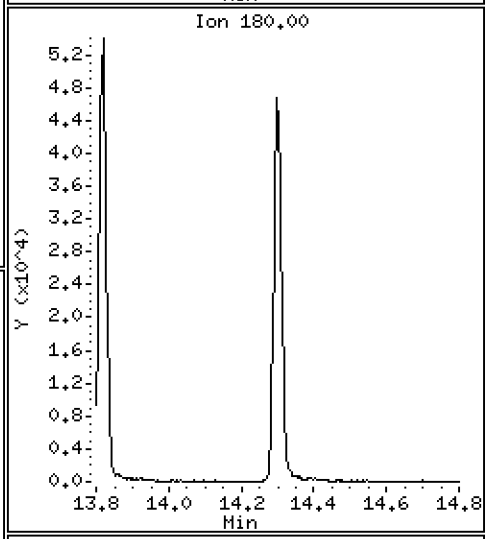
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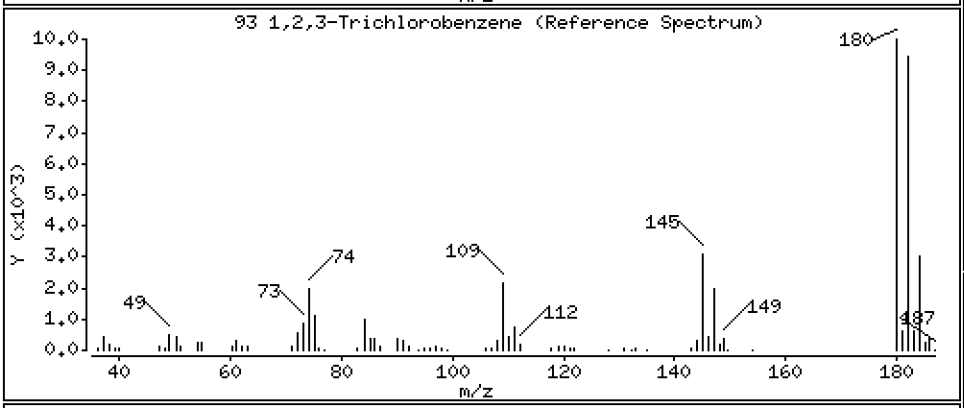
93 1,2,3-Trichlorobenzene Concentration: 20.23 ug/l Review Code:

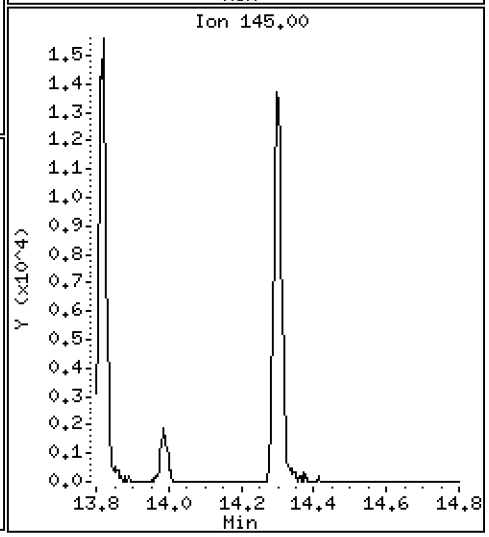


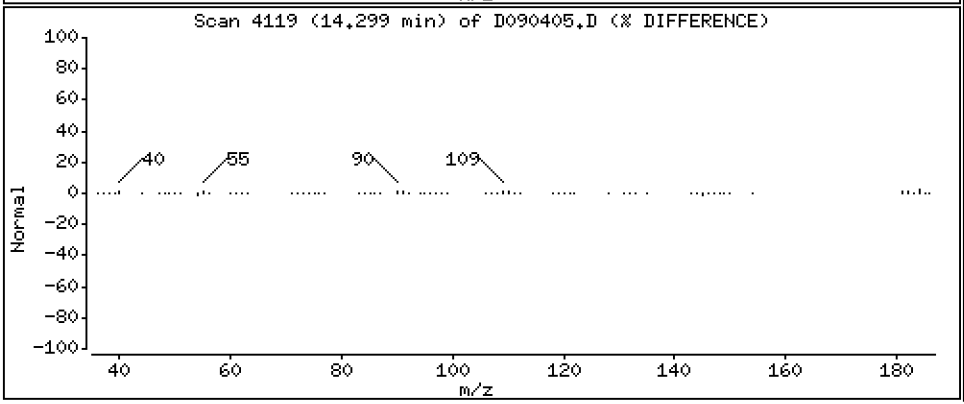












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 84

Date : 04-SEP-2018 12:21

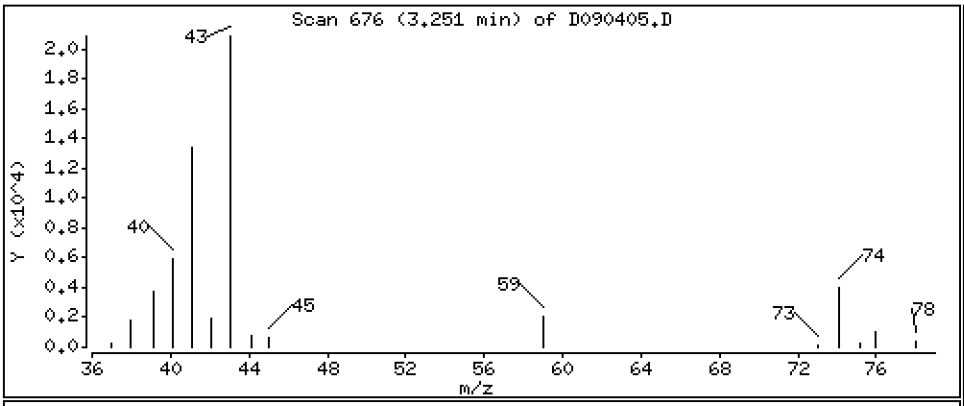
Client ID: VLCSW-180904 Instrument: VOA2.i

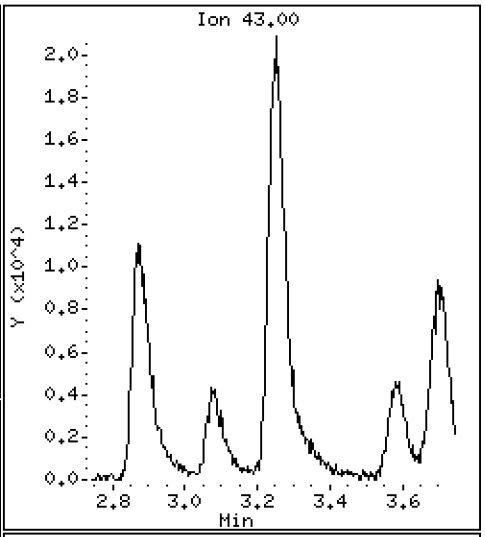
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

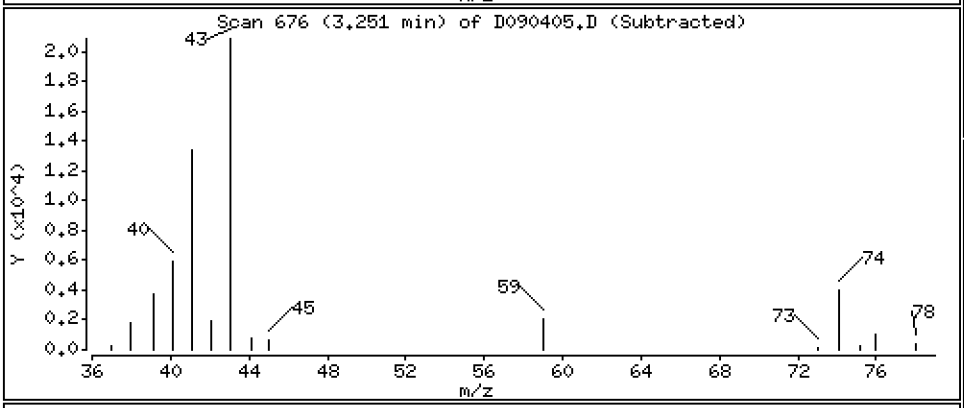
Purge Volume: 5.0 Operator: AP

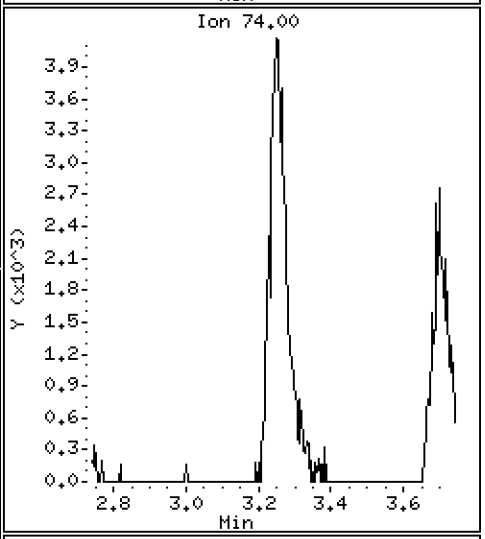
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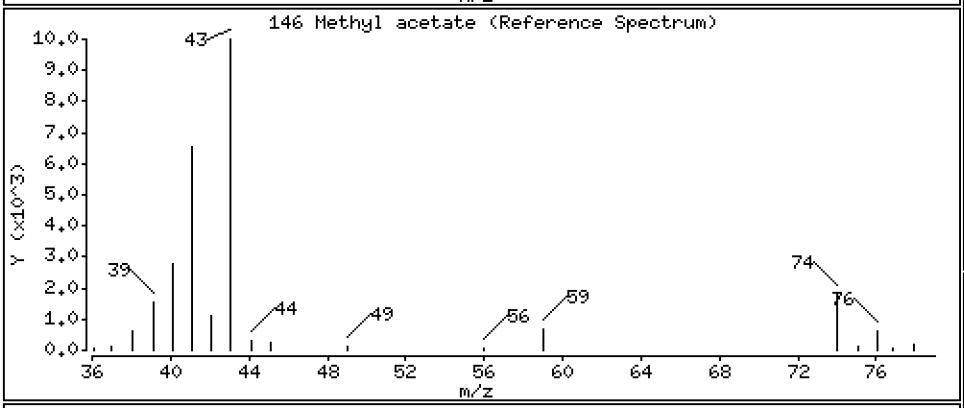
146 Methyl acetate Concentration: 17.94 ug/l Review Code:

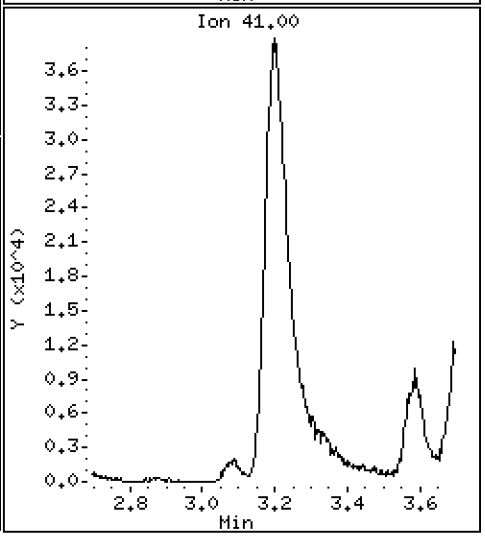


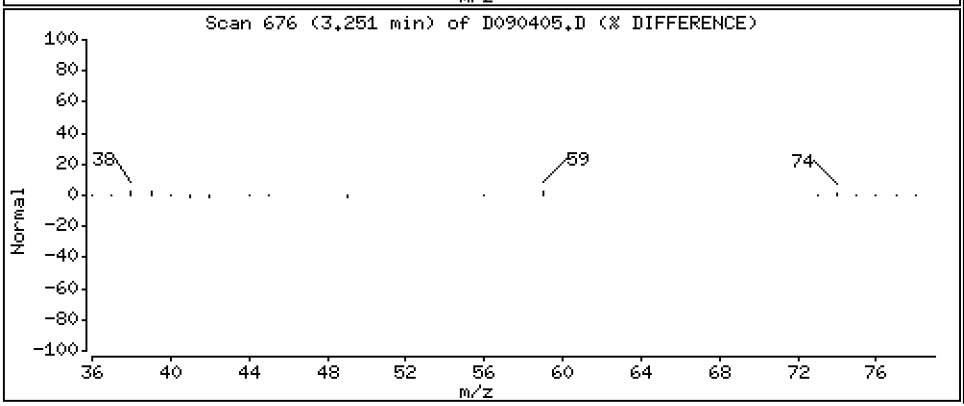












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 85

Date : 04-SEP-2018 12:21

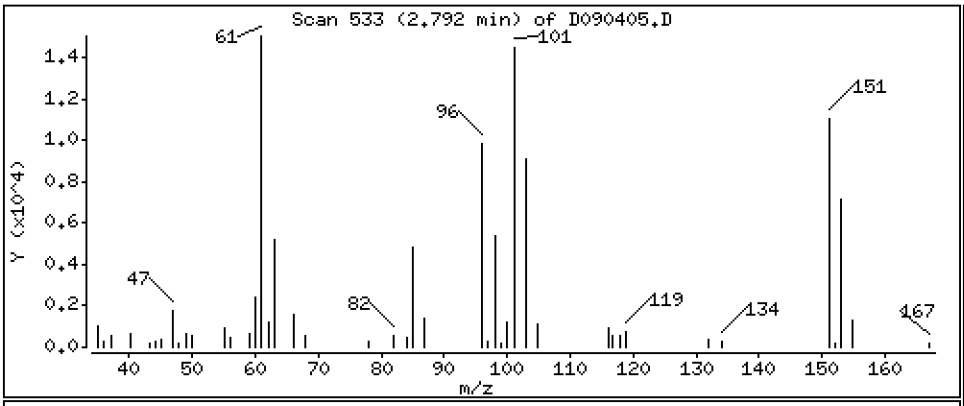
Client ID: VLCSW-180904 Instrument: VOA2.i

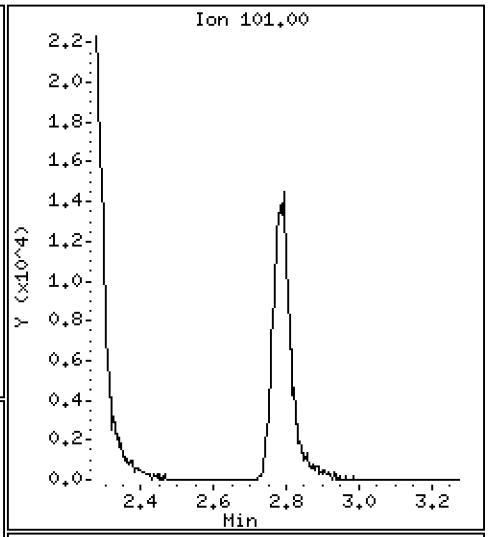
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

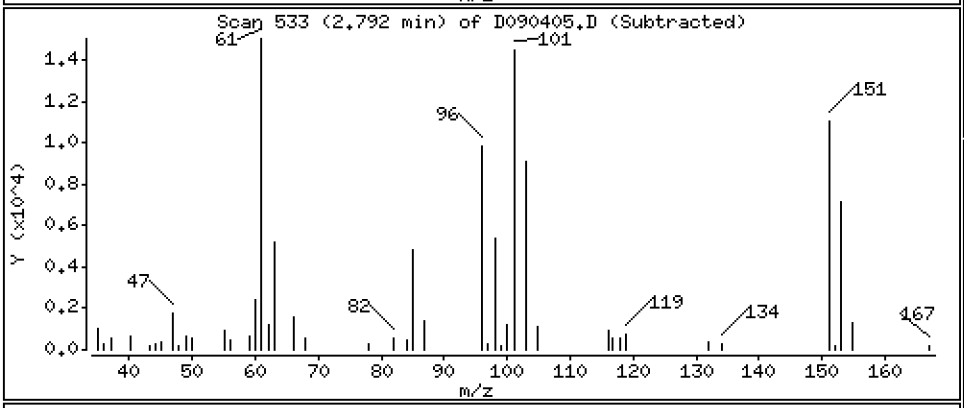
Purge Volume: 5.0 Operator: AP

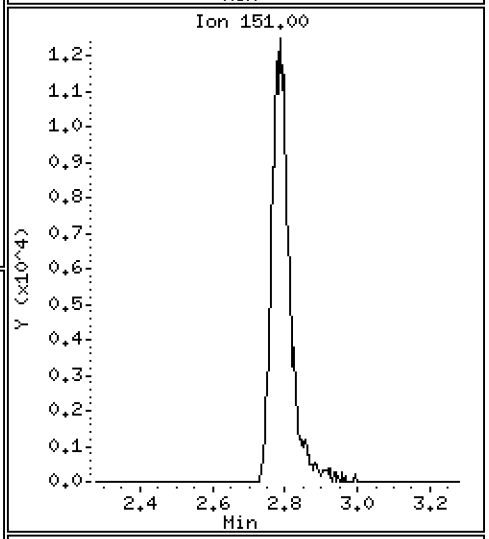
Column phase: DB624 Column diameter: 0.18

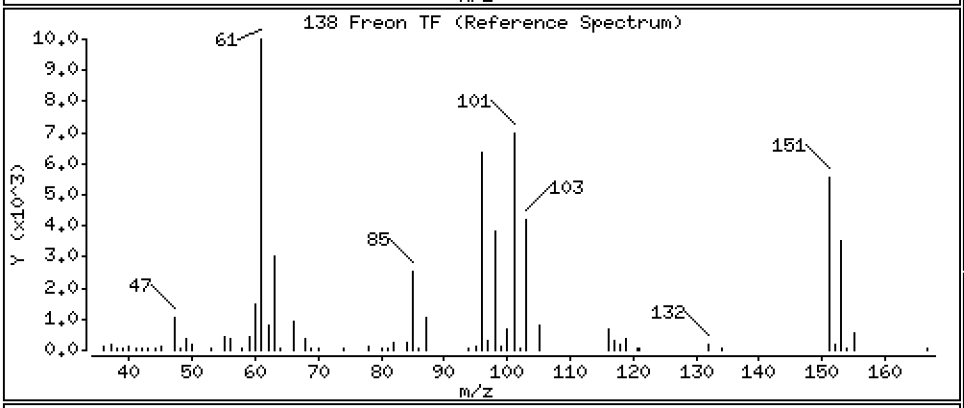
138 Freon TF Concentration: 19.02 ug/l Review Code:

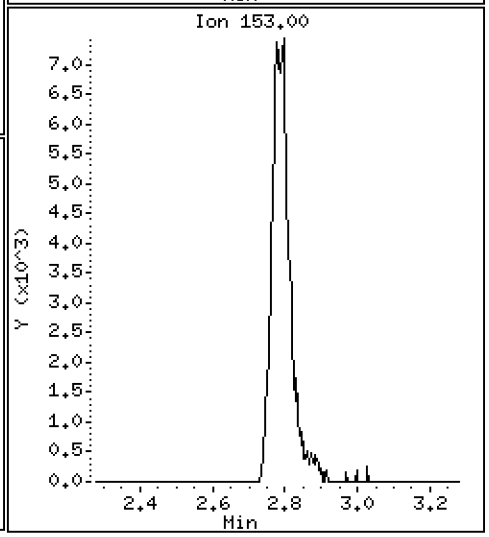


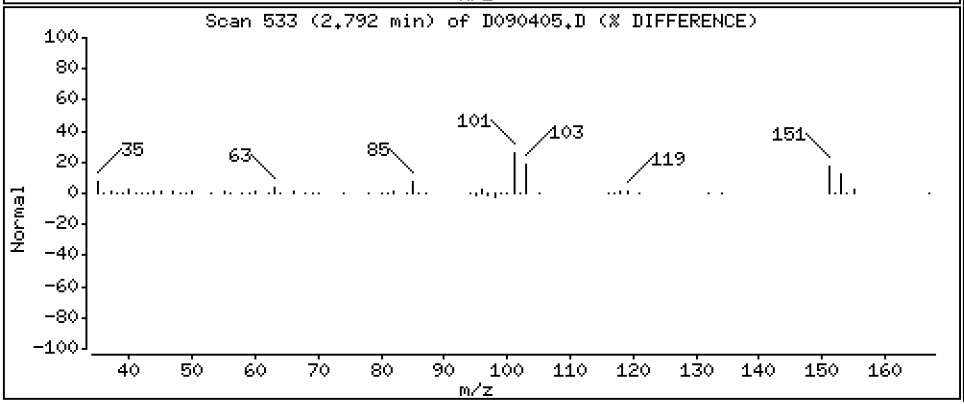












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 86

Date : 04-SEP-2018 12:21

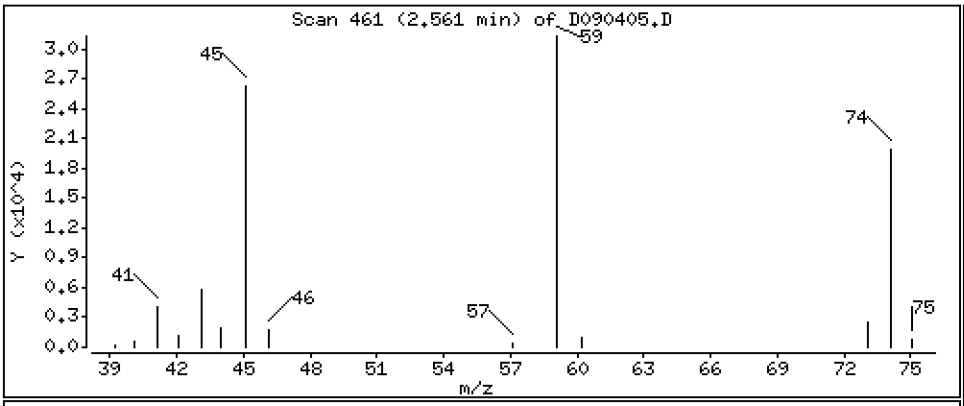
Client ID: VLCSW-180904 Instrument: VOA2.i

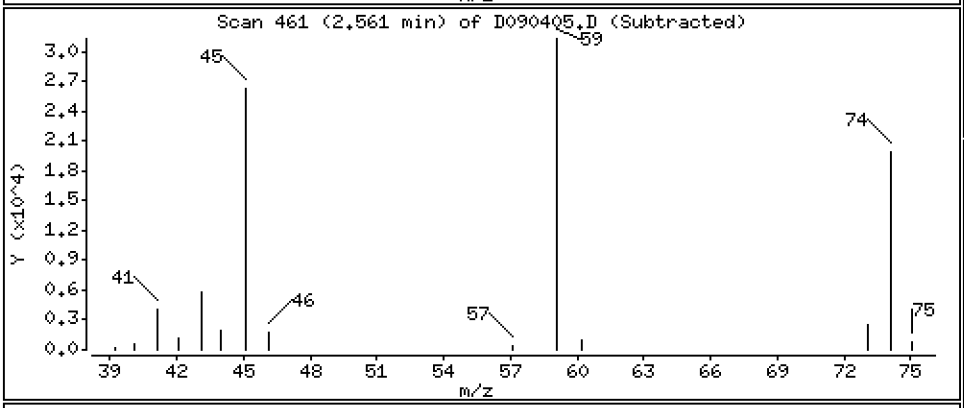
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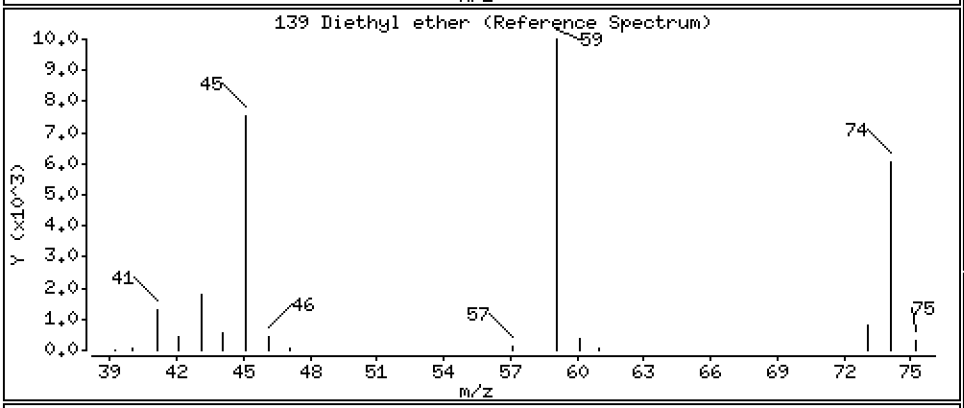
Purge Volume: 5.0 Operator: AP

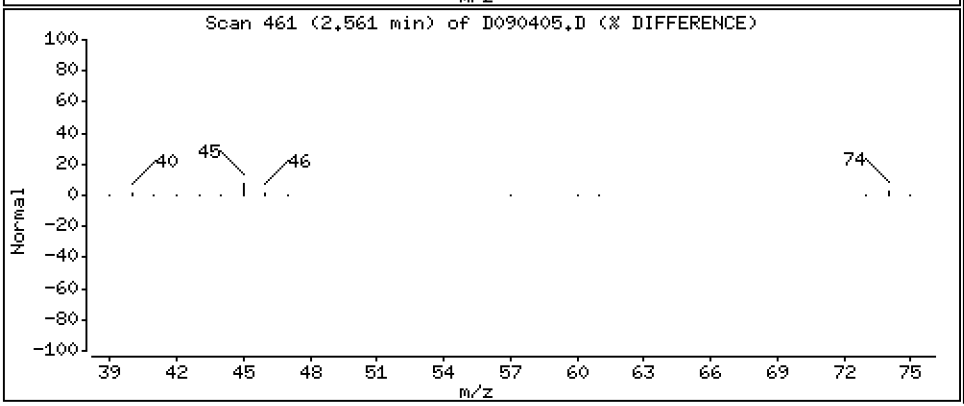
Column phase: DB624 Column diameter: 0.18

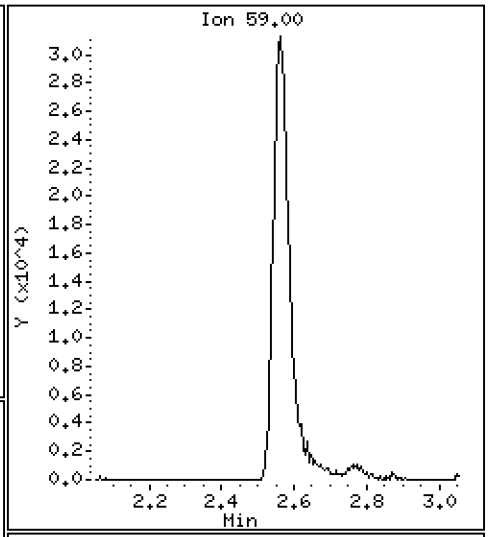
139 Diethyl ether Concentration: 16.34 ug/l Review Code:

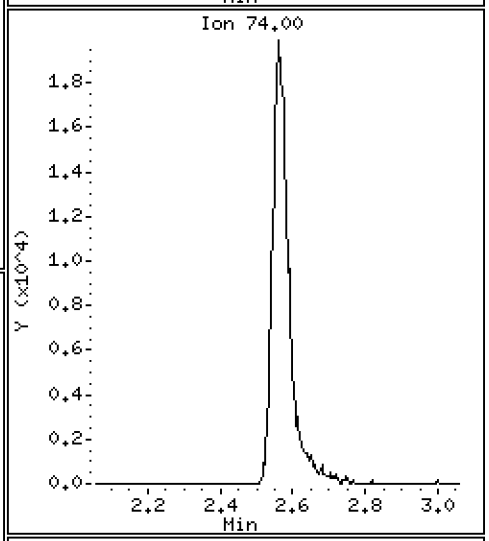


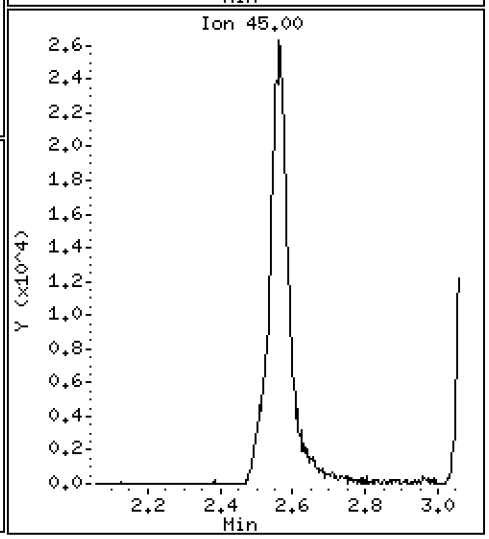












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 87

Date : 04-SEP-2018 12:21

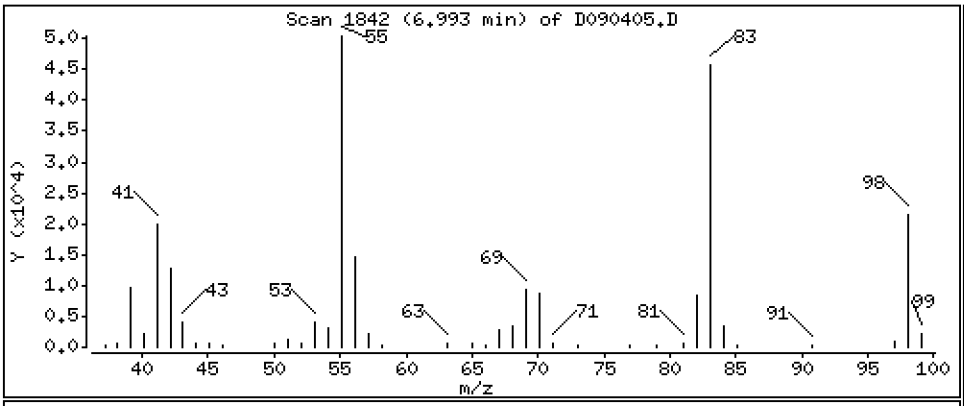
Client ID: VLCSW-180904 Instrument: VOA2.i

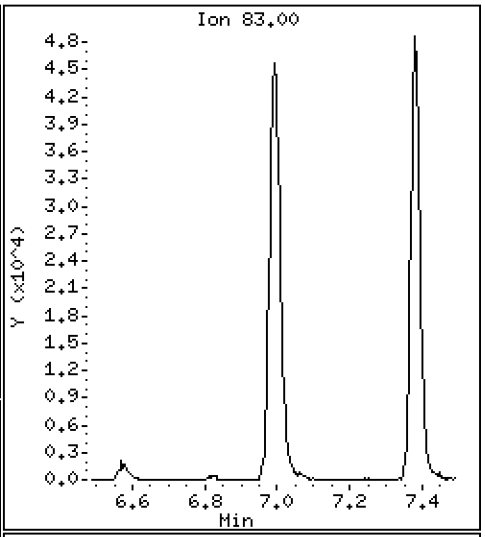
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

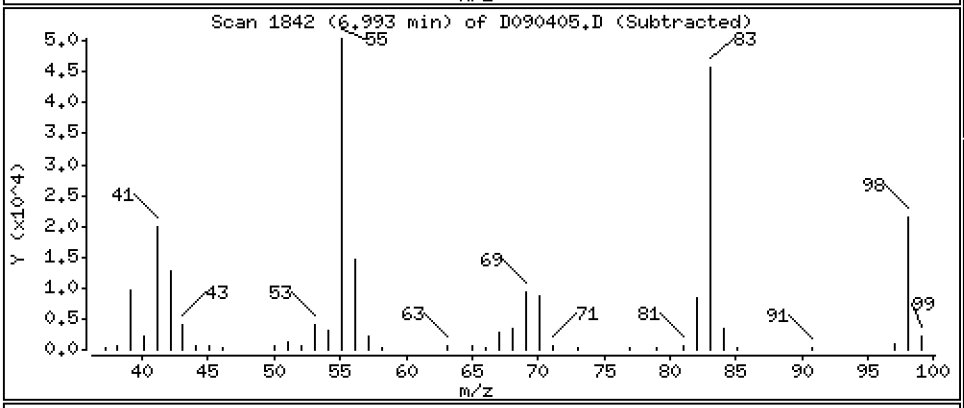
Purge Volume: 5.0 Operator: AP

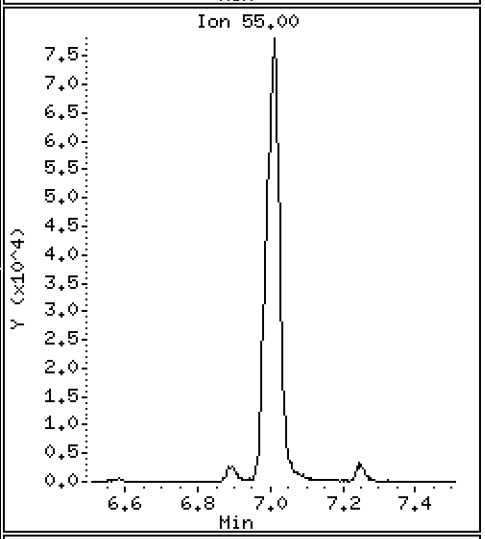
Column phase: DB624 Column diameter: 0.18

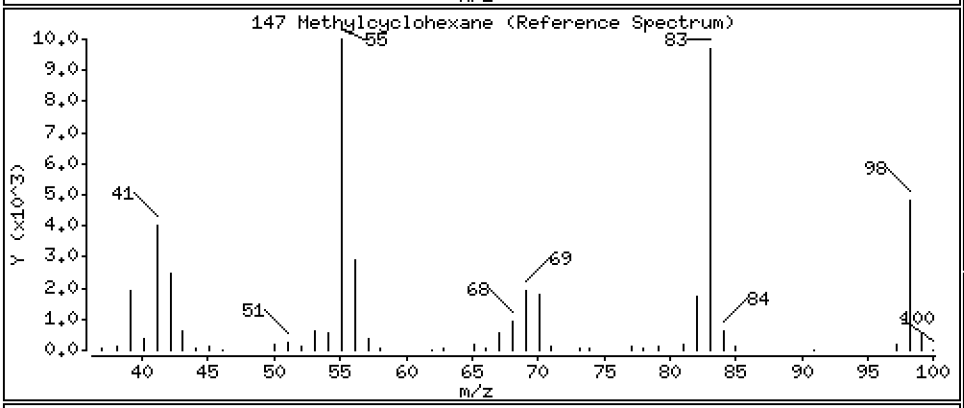
147 Methylcyclohexane Concentration: 23.40 ug/l Review Code:

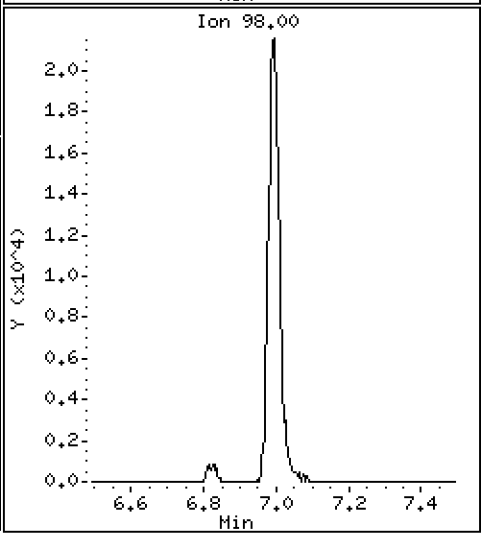


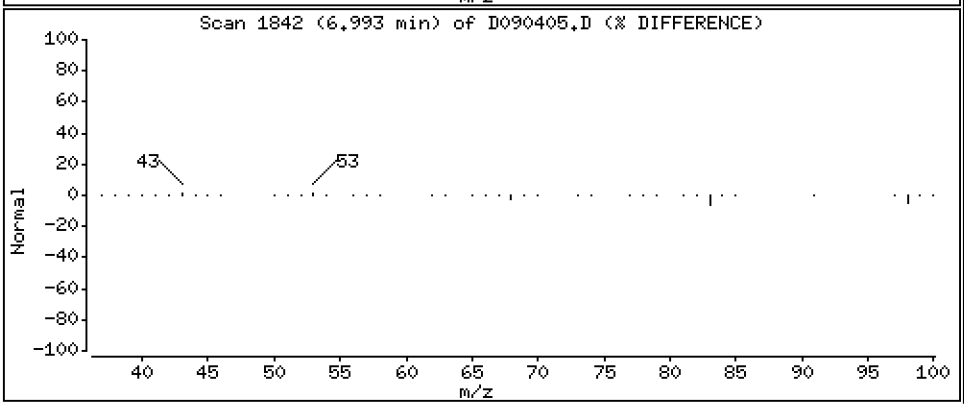












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 88

Date : 04-SEP-2018 12:21

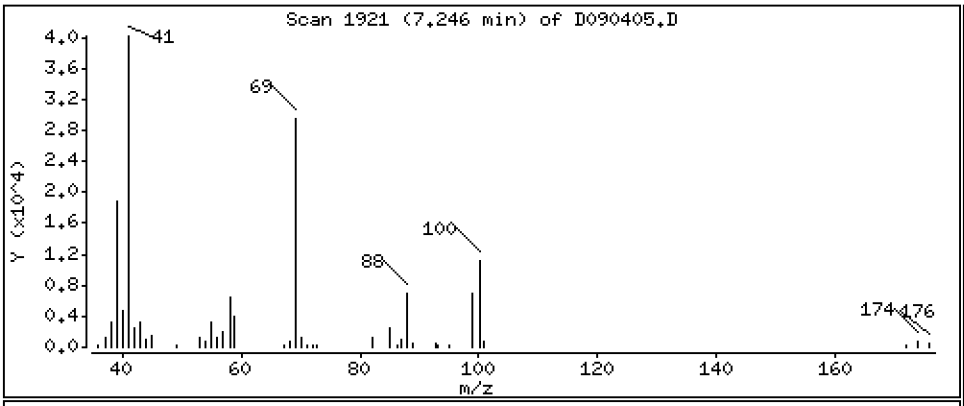
Client ID: VLCSW-180904 Instrument: VOA2.i

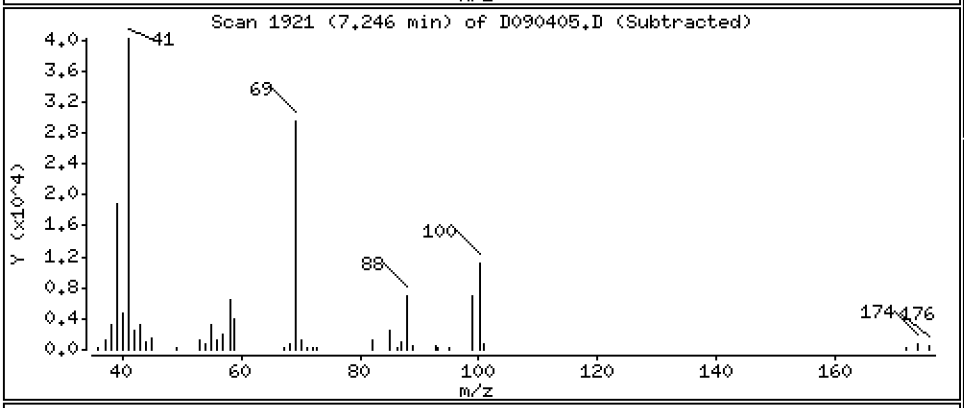
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

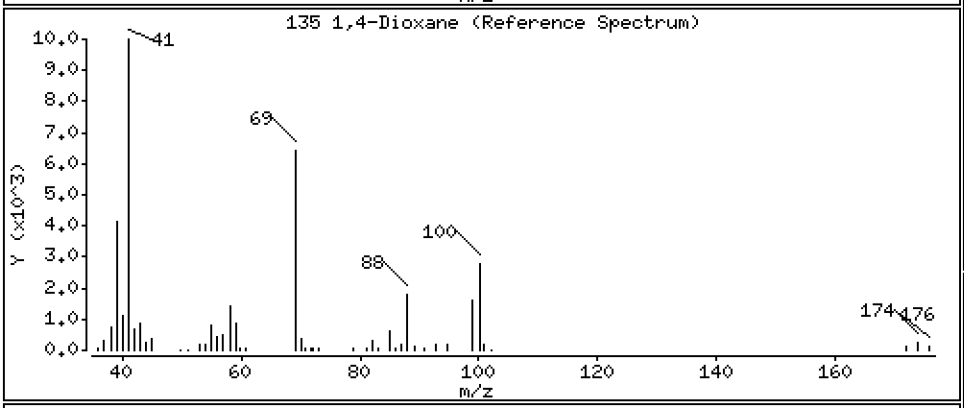
Purge Volume: 5.0 Operator: AP

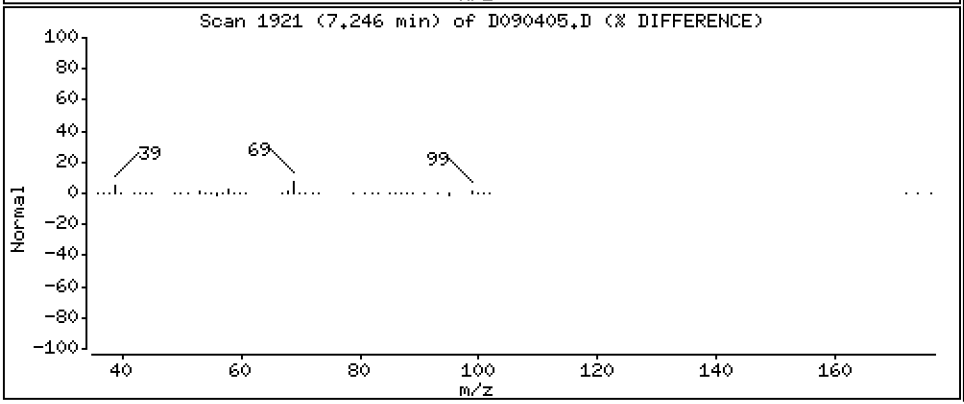
Column phase: DB624 Column diameter: 0.18

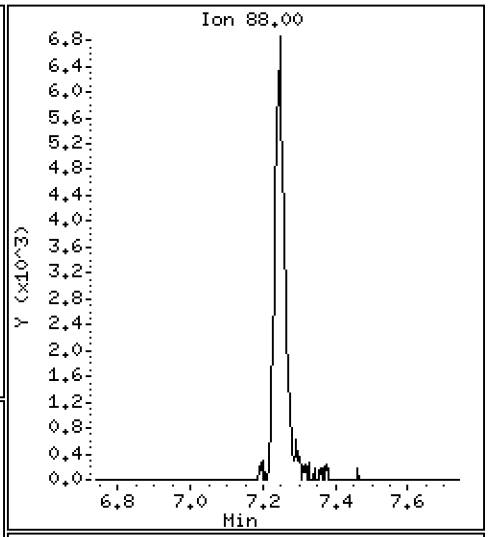
135 1,4-Dioxane Concentration: 371.72 ug/l Review Code:

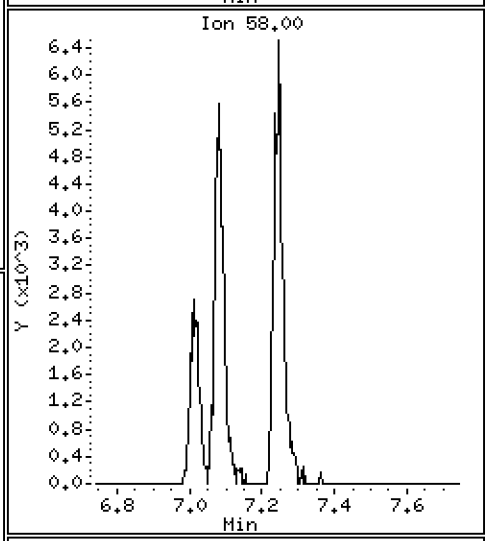


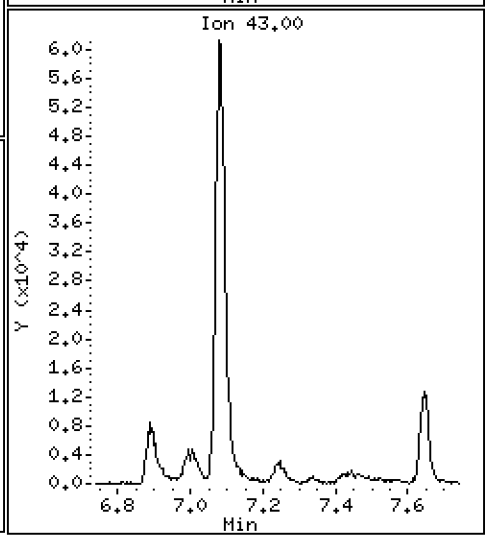












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 89

Date : 04-SEP-2018 12:21

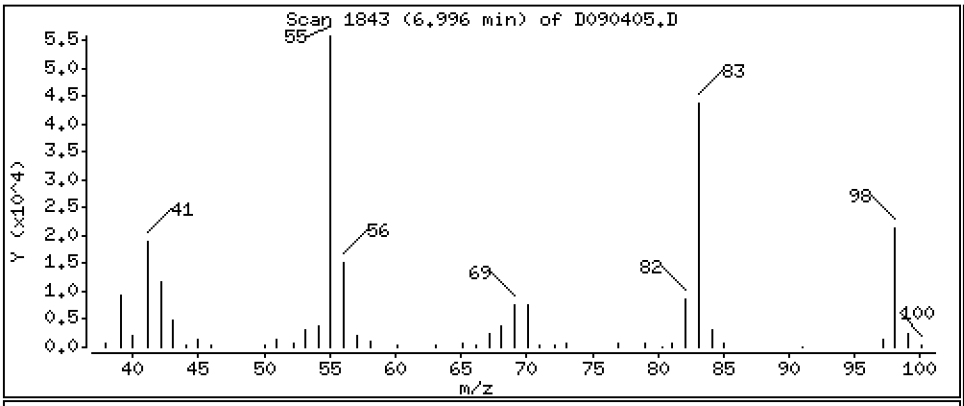
Client ID: VLCSW-180904 Instrument: VOA2.i

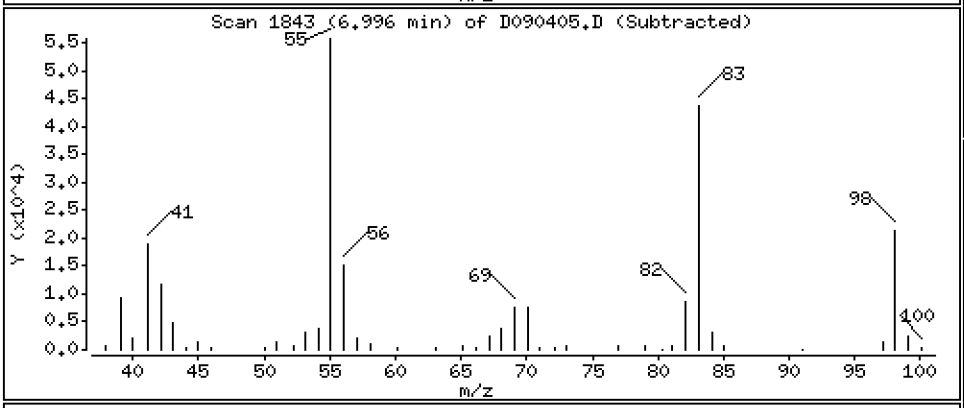
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

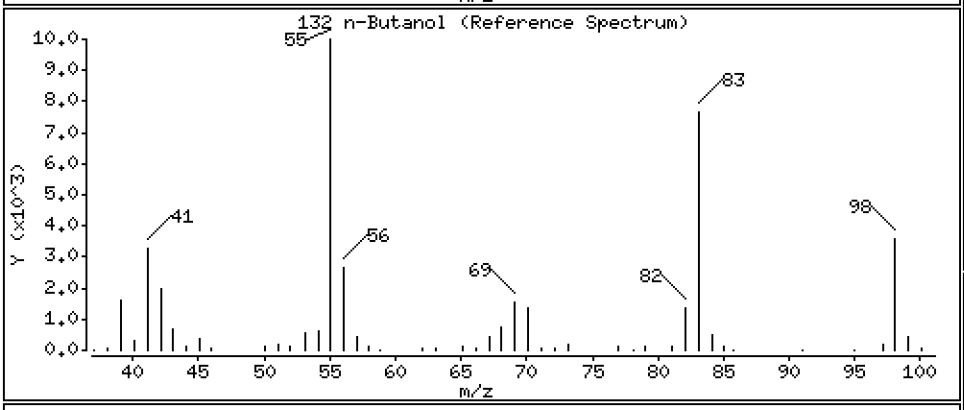
Purge Volume: 5.0 Operator: AP

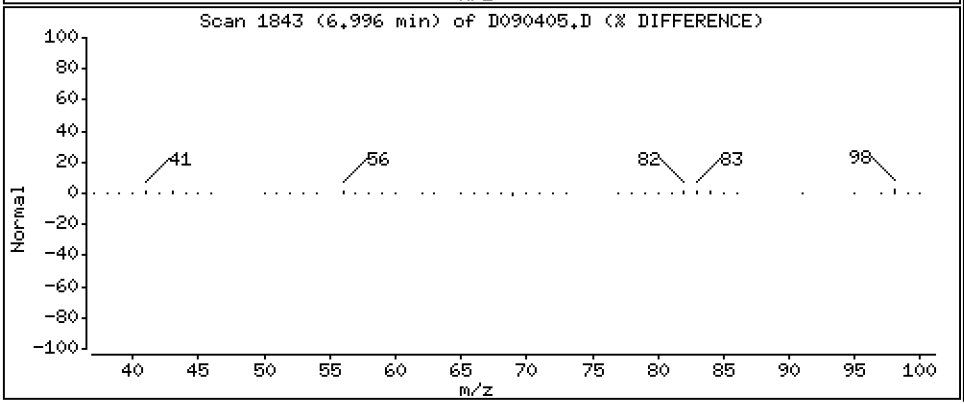
Column phase: DB624 Column diameter: 0.18

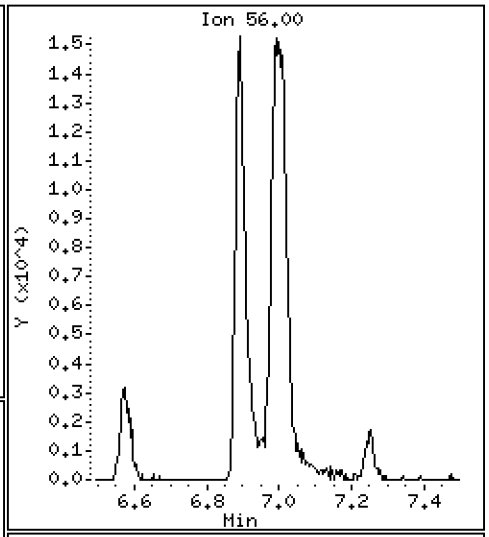
132 n-Butanol Concentration: 358.48 ug/l Review Code:

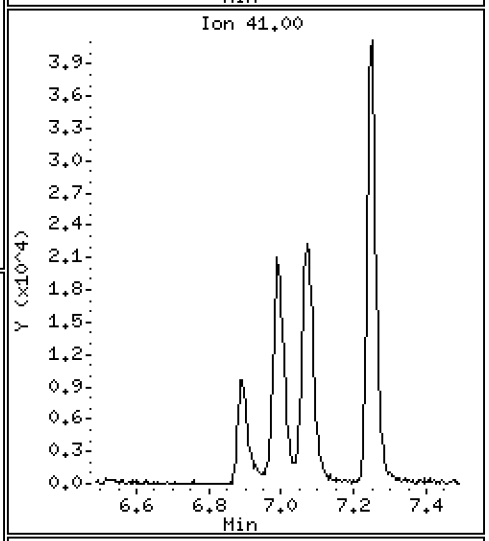


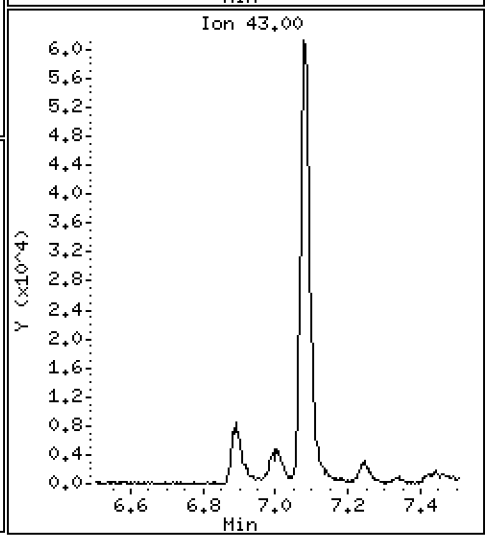












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 90

Date : 04-SEP-2018 12:21

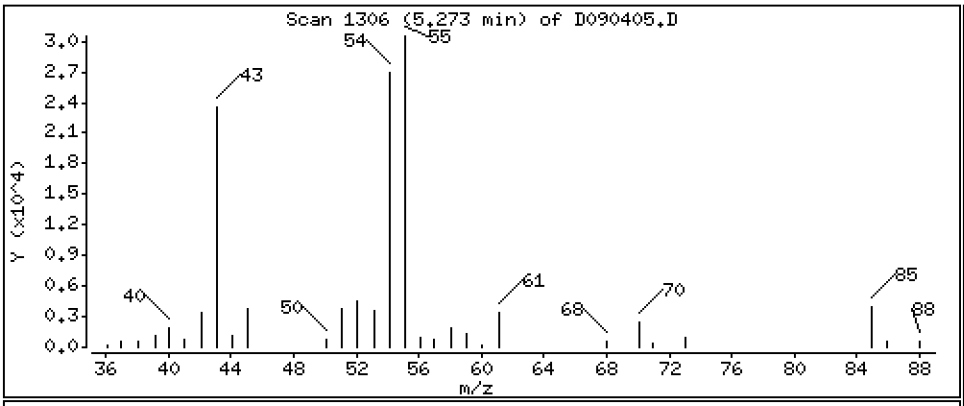
Client ID: VLCSW-180904 Instrument: VOA2.i

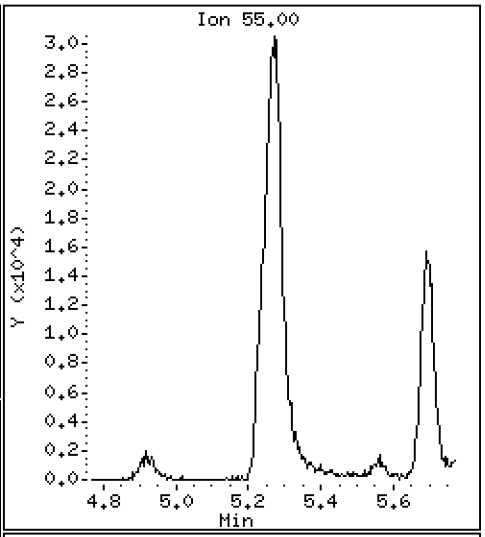
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

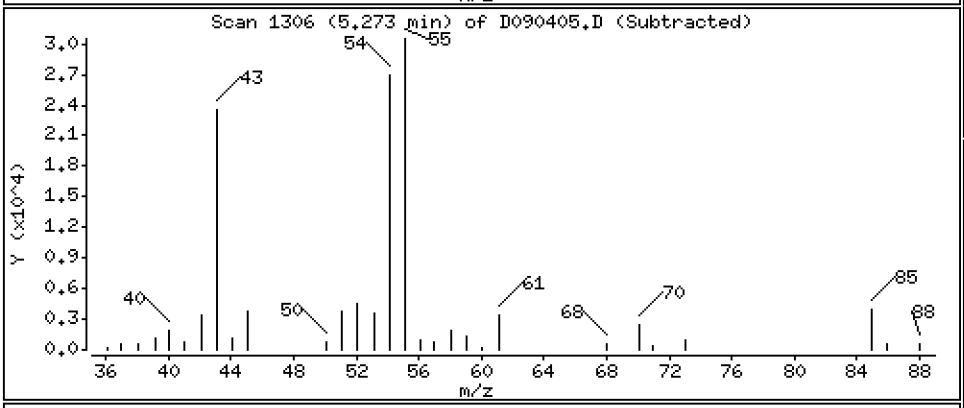
Purge Volume: 5.0 Operator: AP

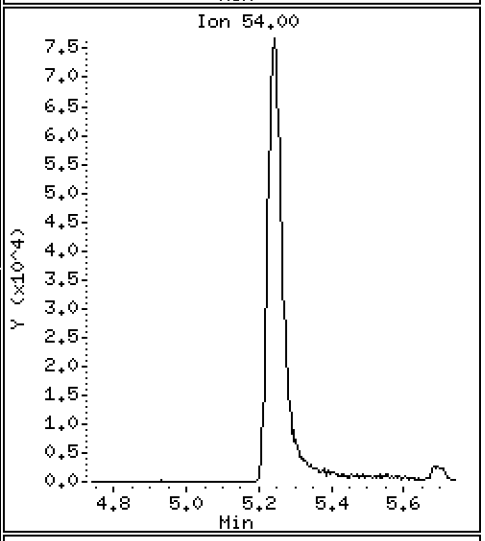
Column phase: DB624 Column diameter: 0.18

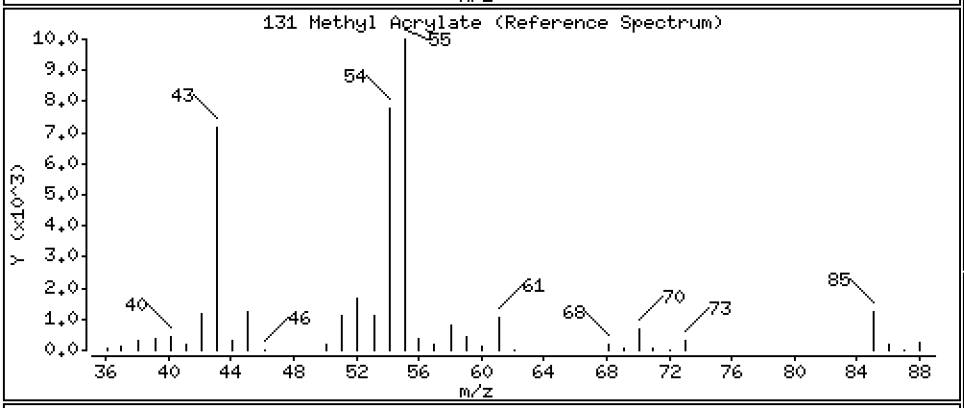
131 Methyl Acrylate Concentration: 19.11 ug/l Review Code:

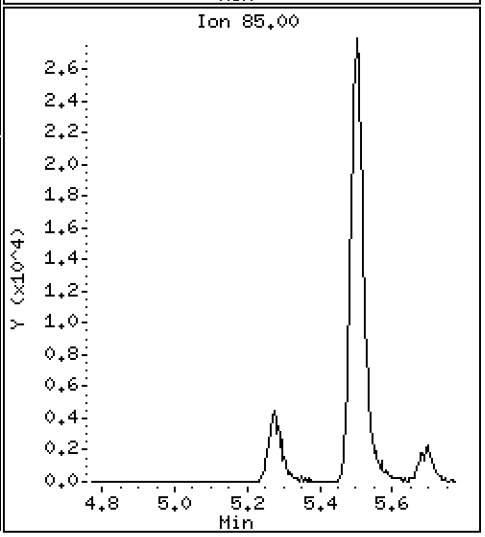


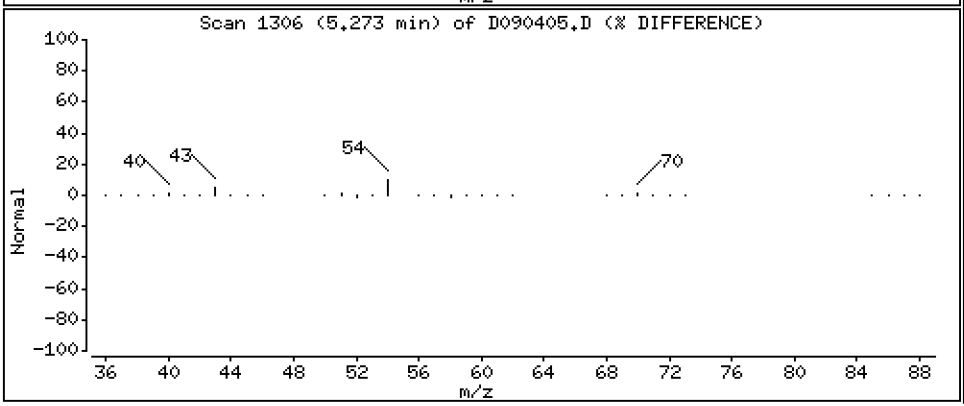












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 91

Date : 04-SEP-2018 12:21

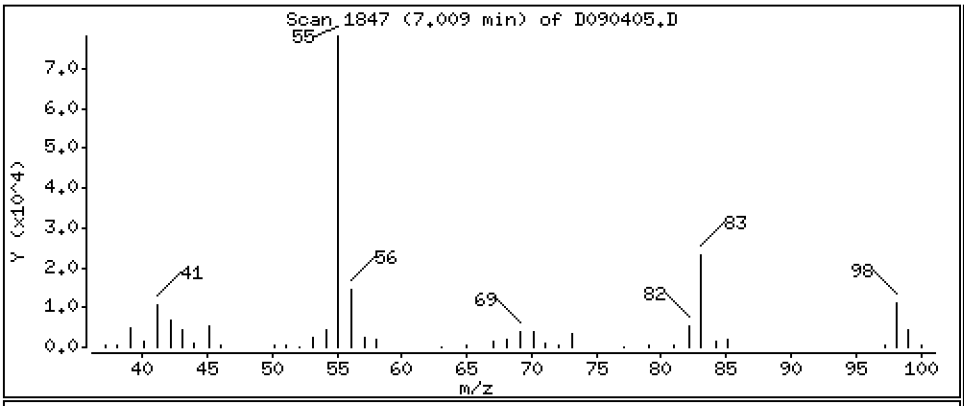
Client ID: VLCSW-180904 Instrument: VOA2.i

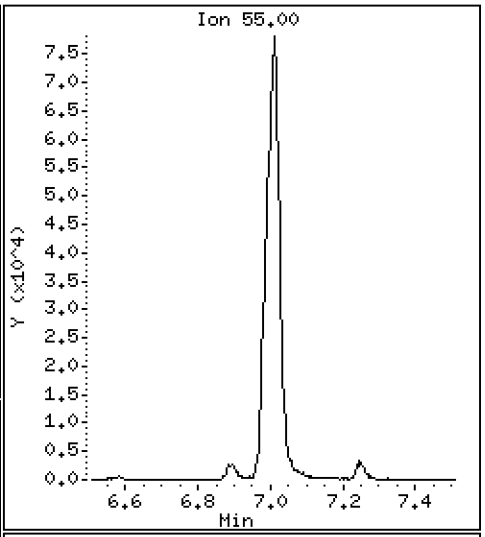
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

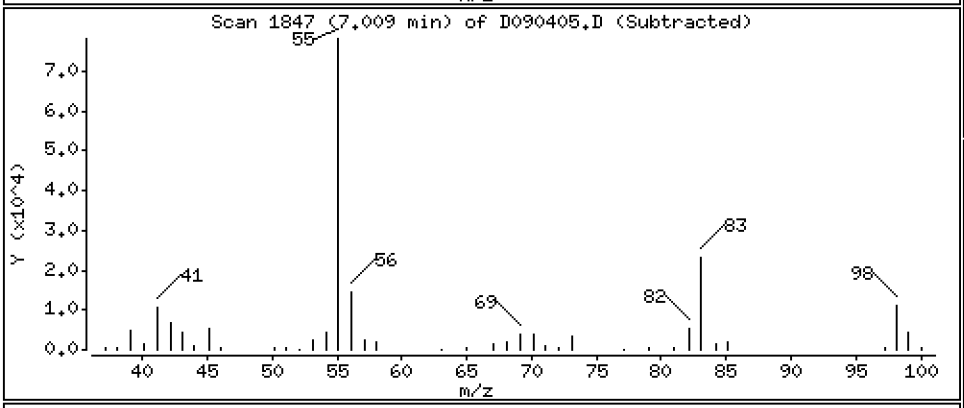
Purge Volume: 5.0 Operator: AP

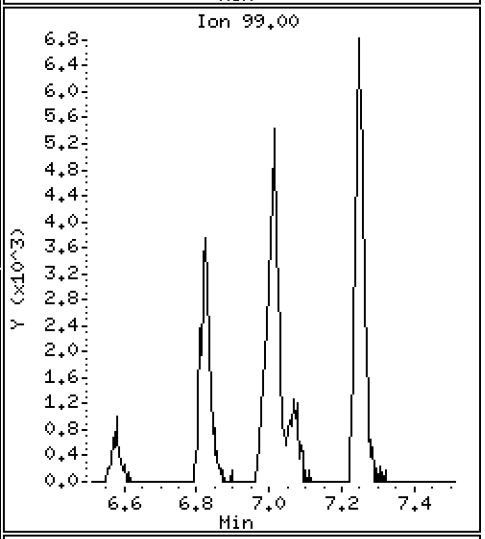
Column phase: DB624 Column diameter: 0.18

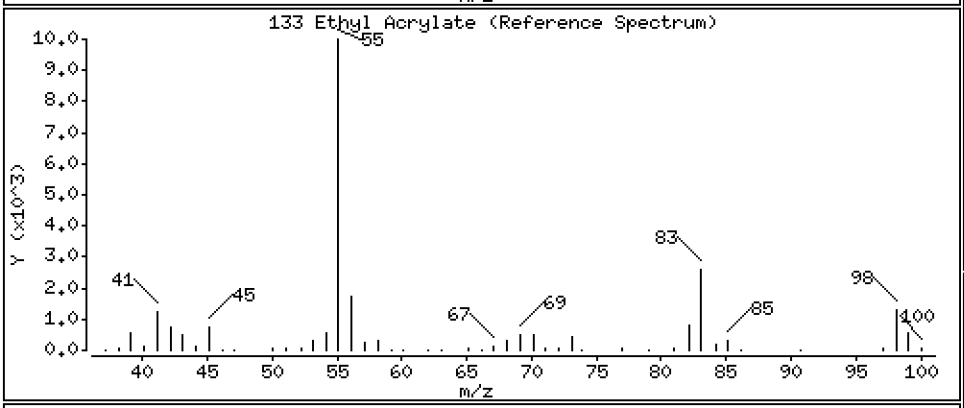
133 Ethyl Acrylate Concentration: 19.10 ug/l Review Code:

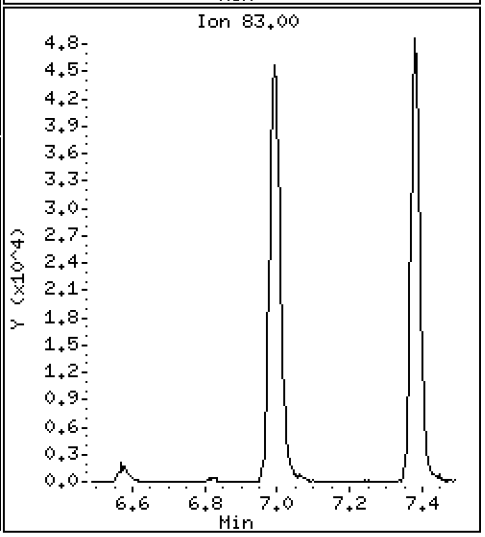


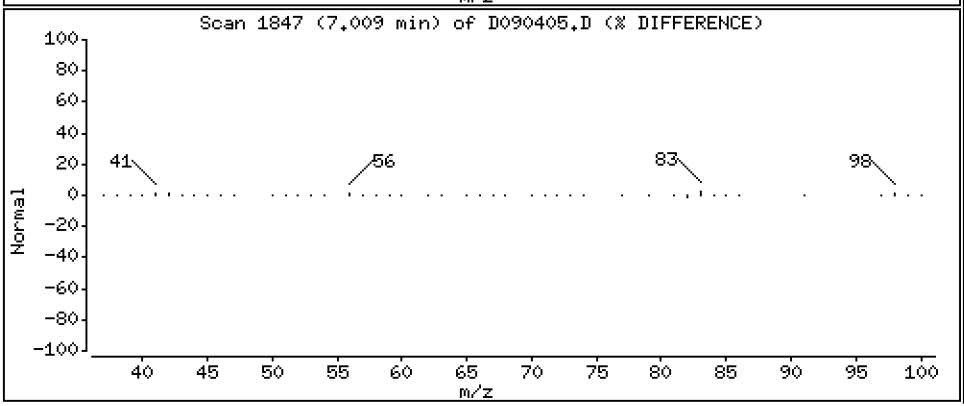












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 92

Date : 04-SEP-2018 12:21

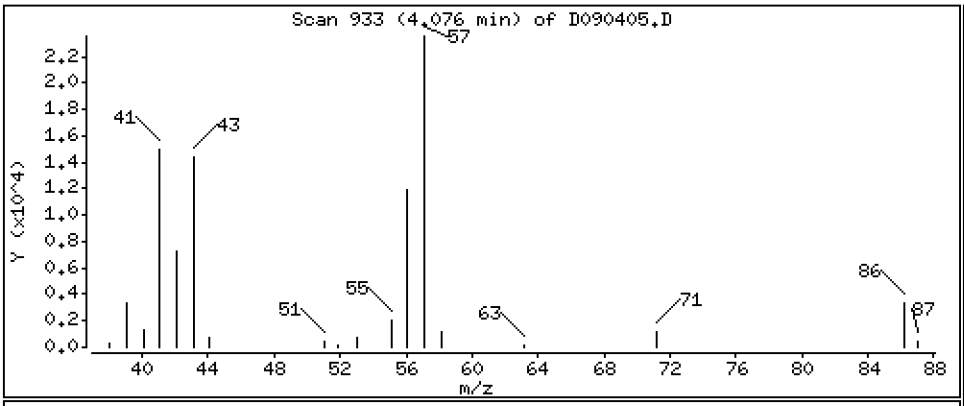
Client ID: VLCSW-180904 Instrument: VOA2.i

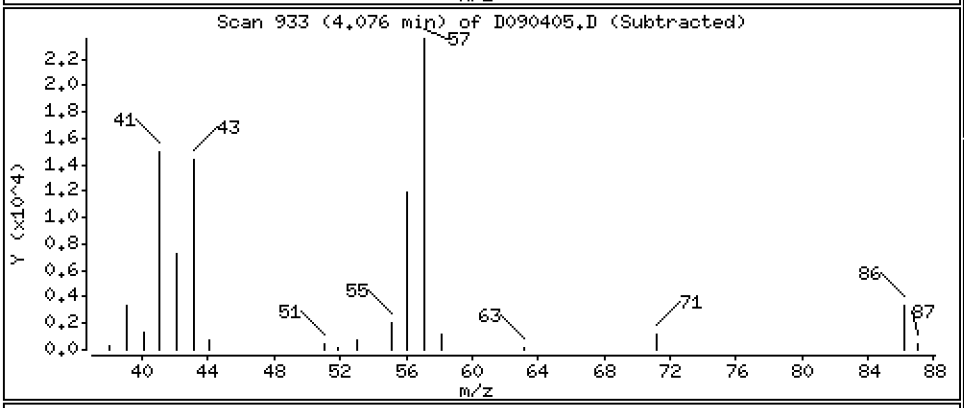
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

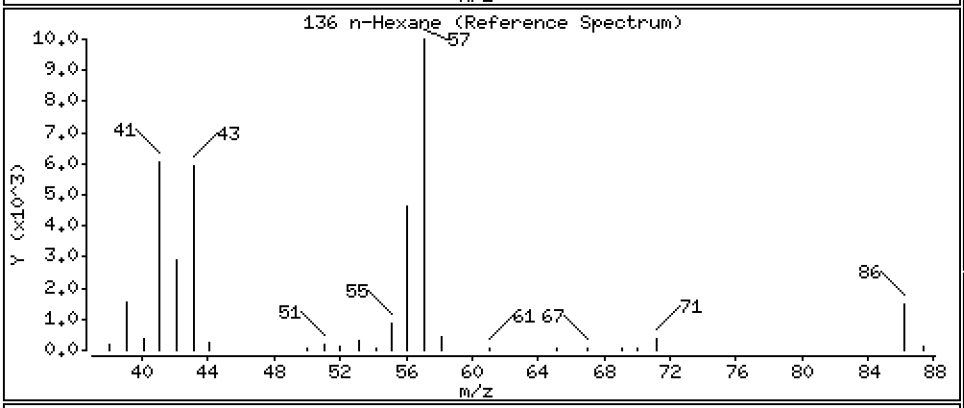
Purge Volume: 5.0 Operator: AP

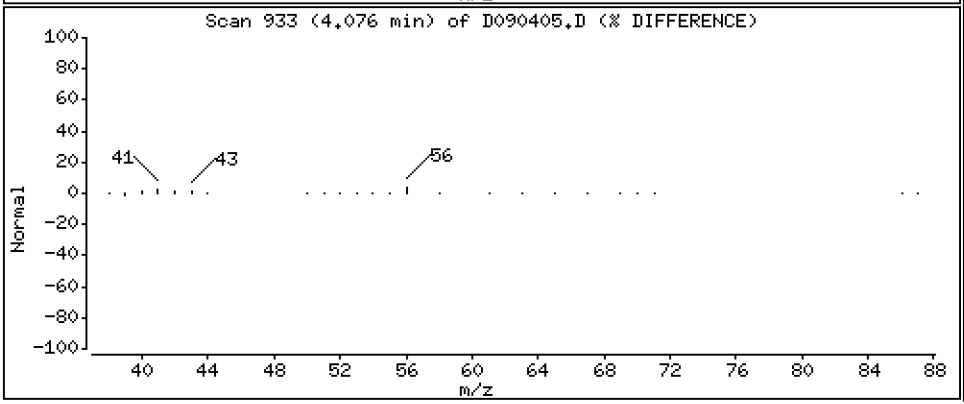
Column phase: DB624 Column diameter: 0.18

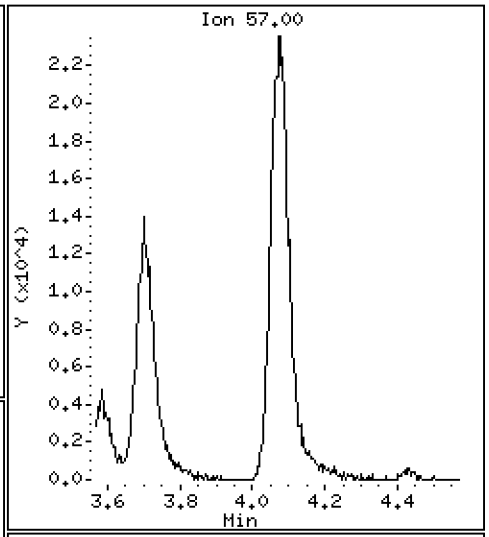
136 n-Hexane Concentration: 21.66 ug/l Review Code:

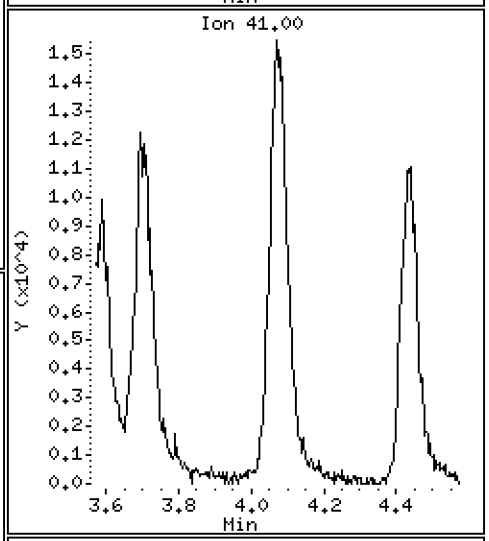


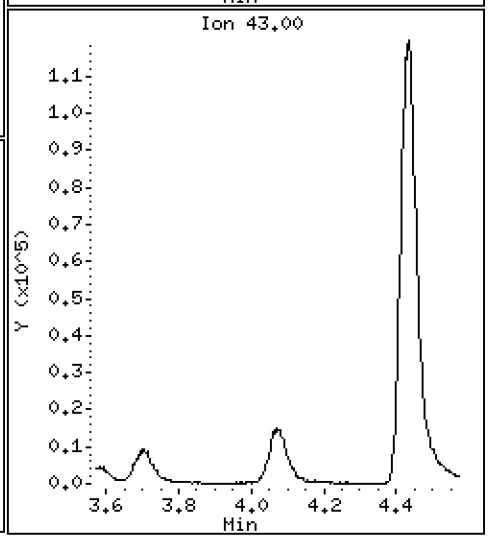












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 93

Date : 04-SEP-2018 12:21

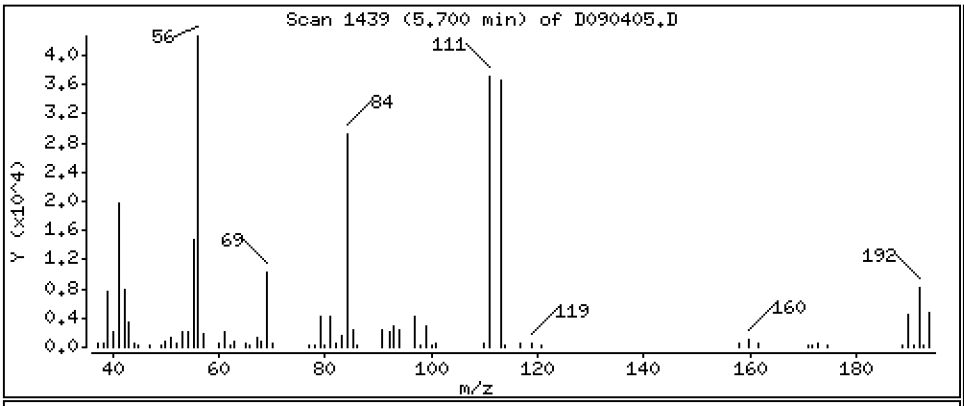
Client ID: VLCSW-180904 Instrument: VOA2.i

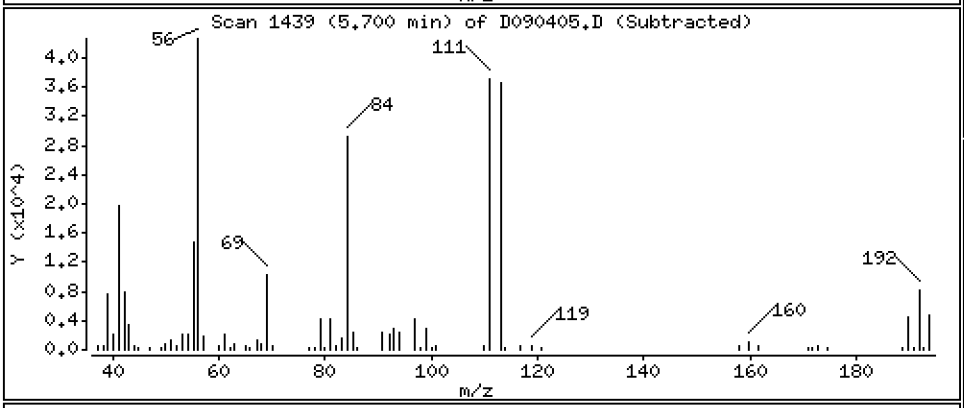
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

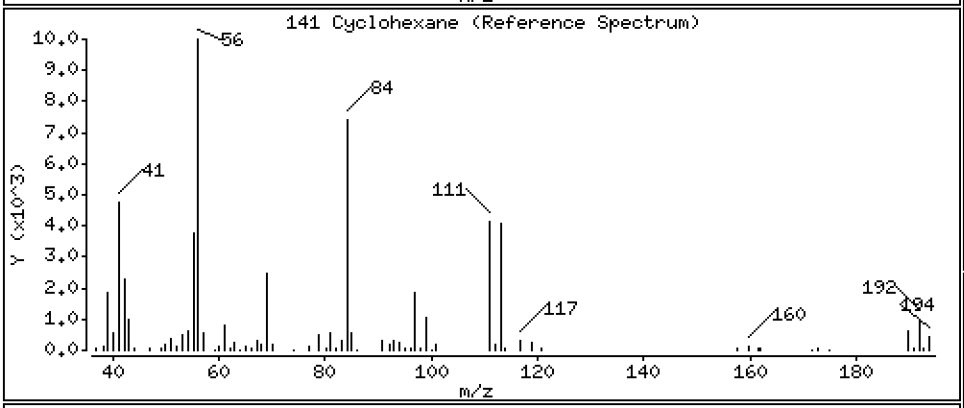
Purge Volume: 5.0 Operator: AP

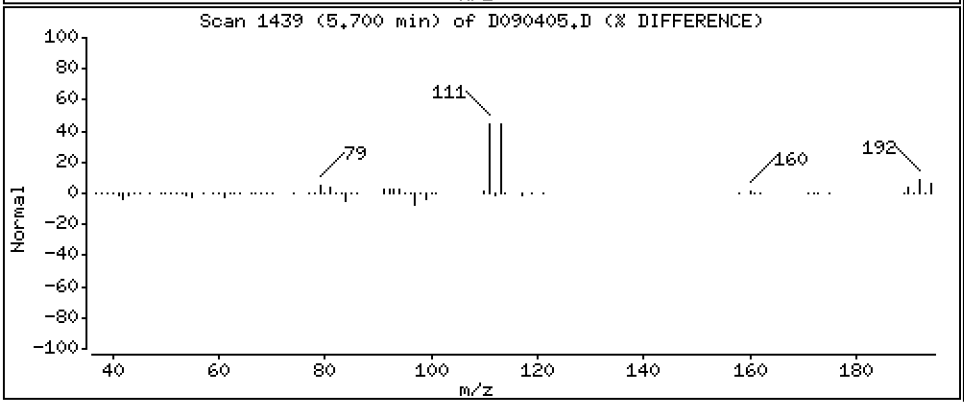
Column phase: DB624 Column diameter: 0.18

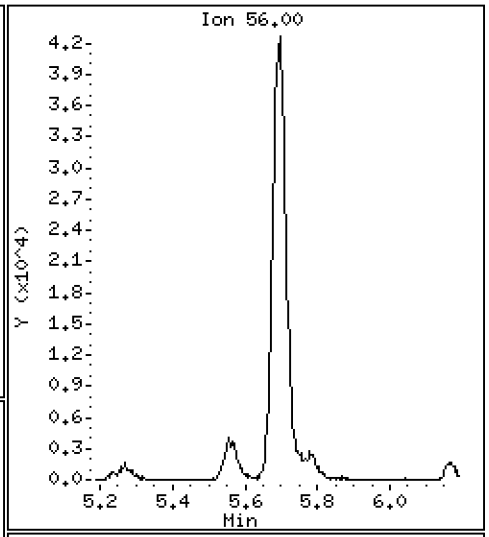
141 Cyclohexane Concentration: 18.23 ug/l Review Code:

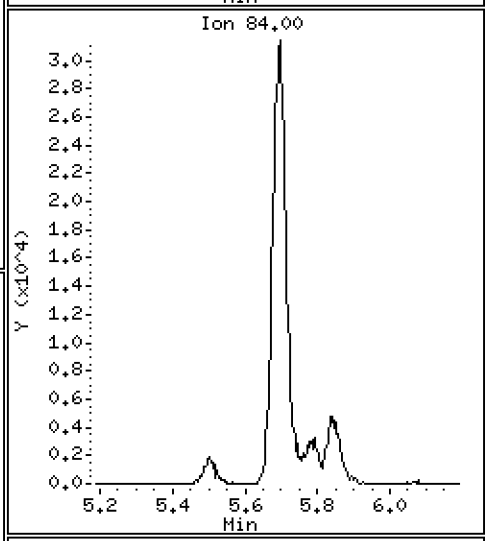


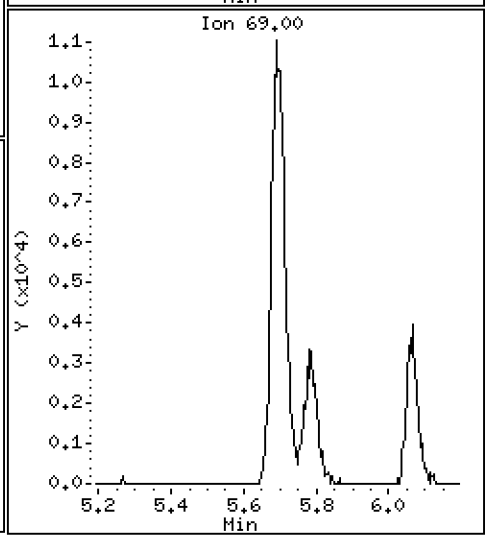












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D

Date : 04-SEP-2018 12:21

Client ID: VLCSW-180904

Instrument: VOA2.i

Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

Purge Volume: 5.0

Operator: AP

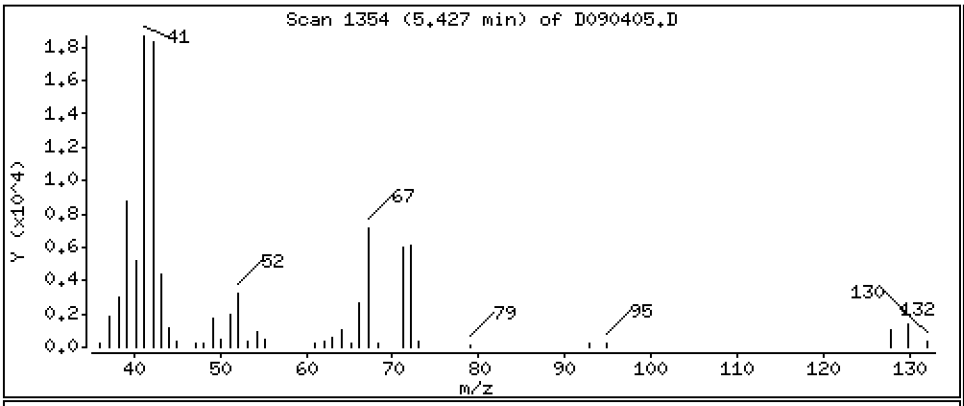
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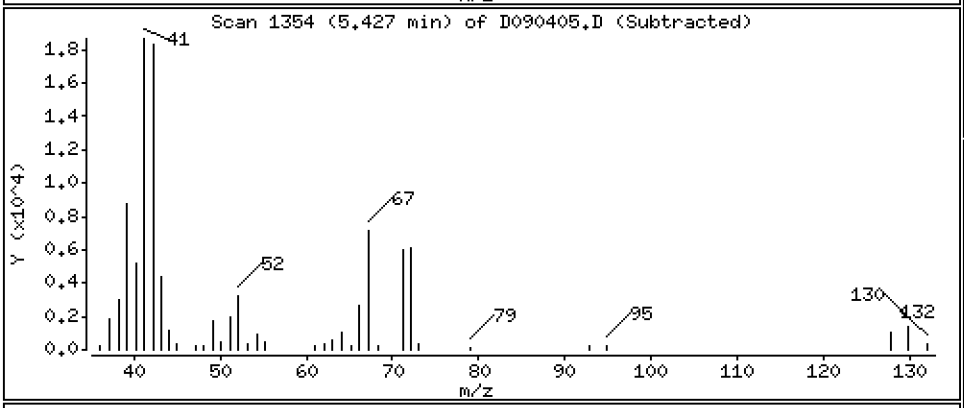
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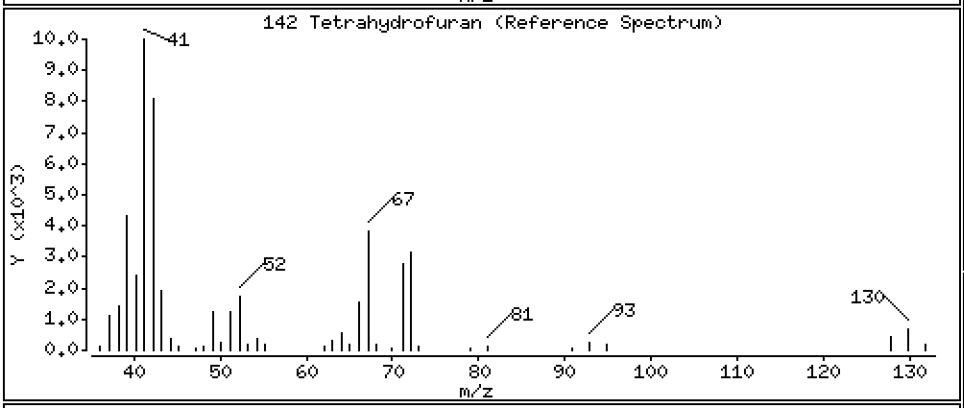
142 Tetrahydrofuran

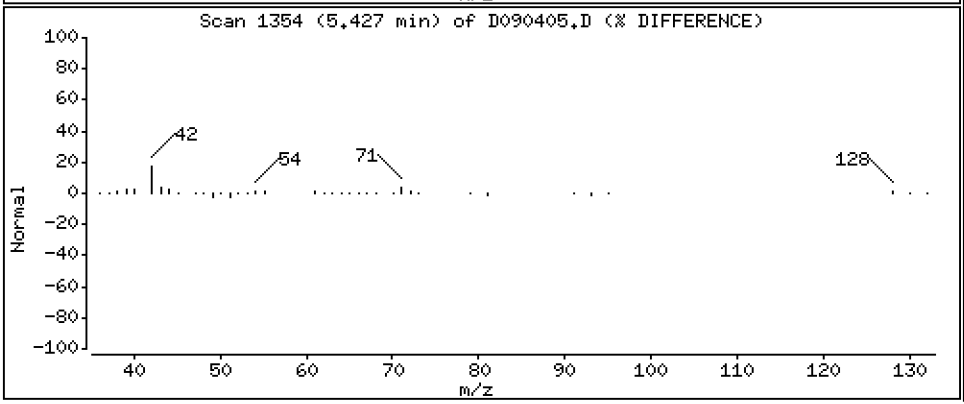
Concentration: 35.55 ug/l

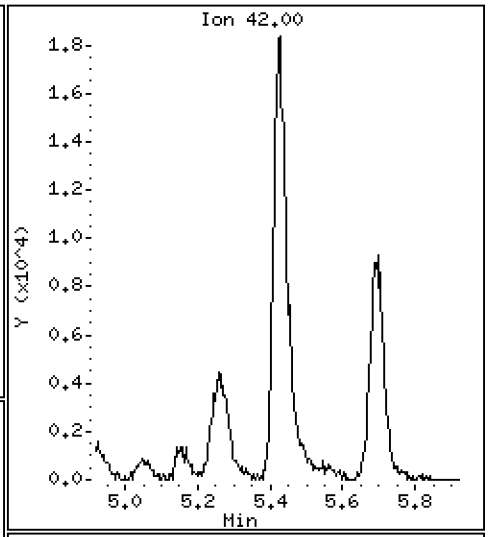
Review Code:

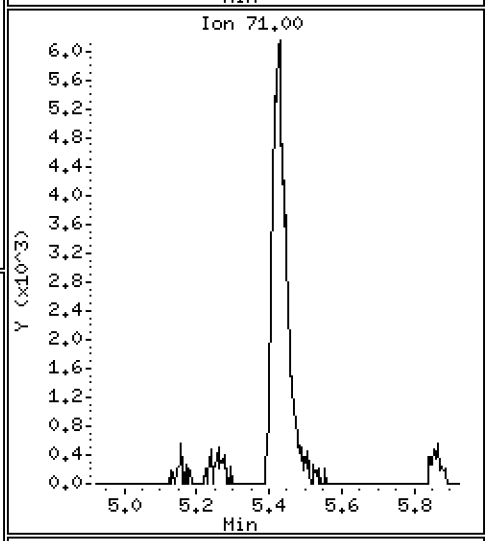


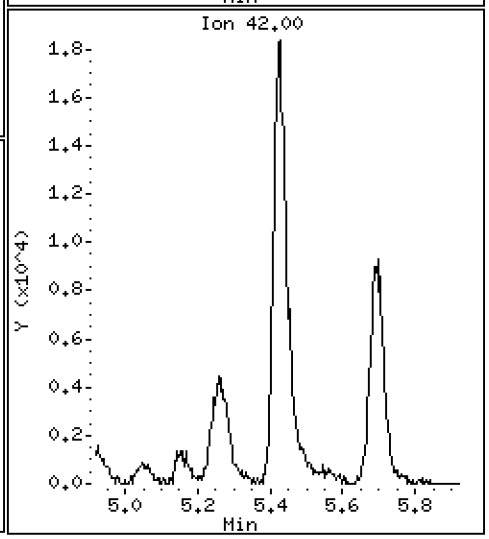












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 95

Date : 04-SEP-2018 12:21

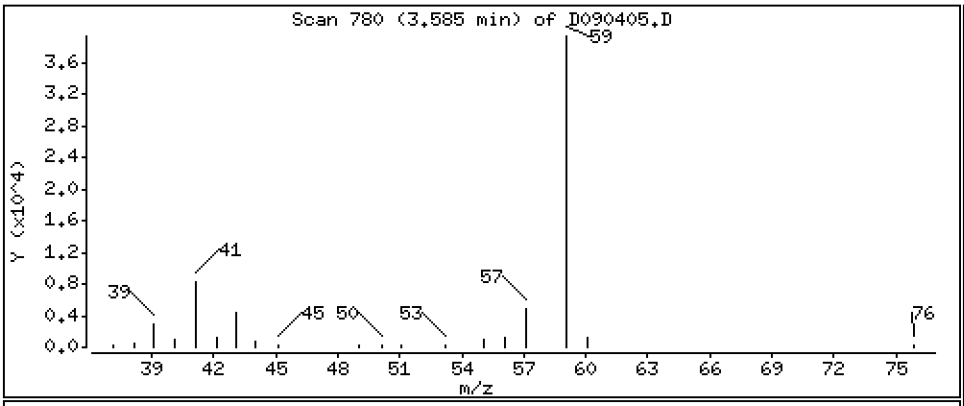
Client ID: VLCSW-180904 Instrument: VOA2.i

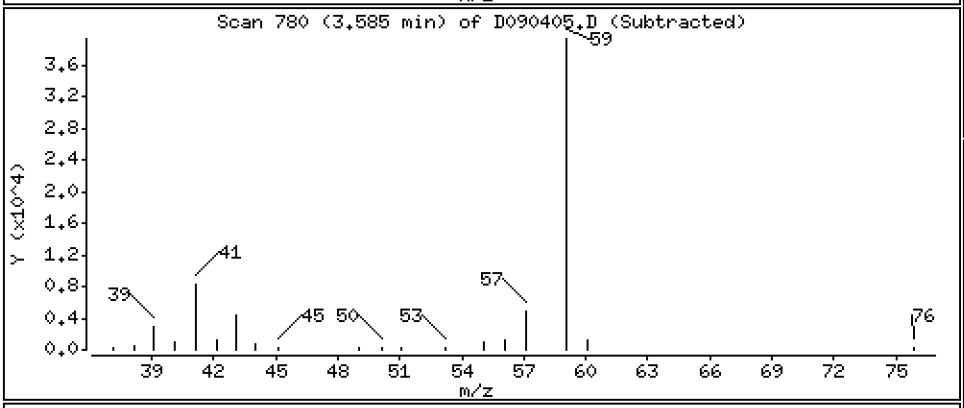
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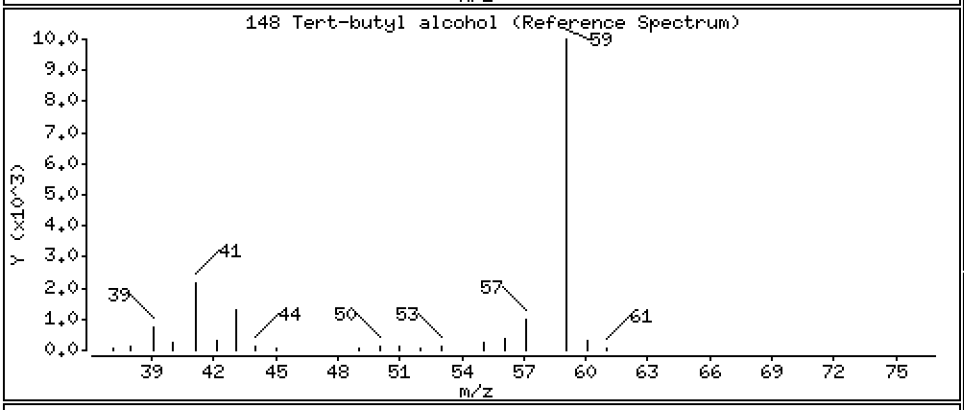
Purge Volume: 5.0 Operator: AP

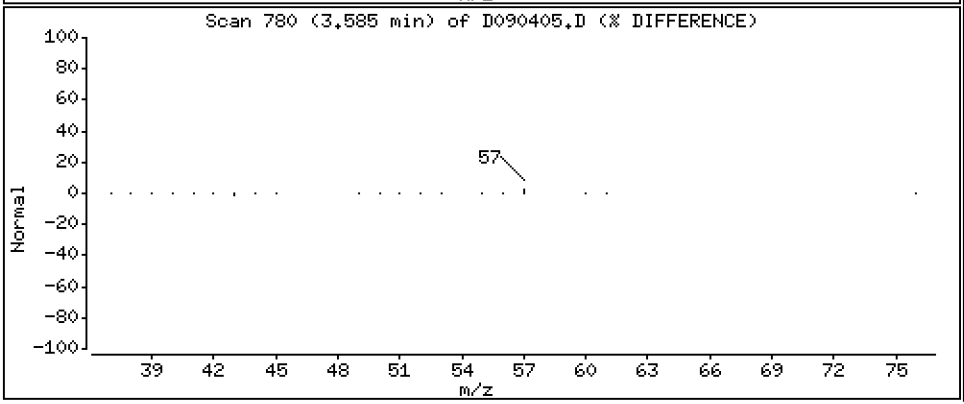
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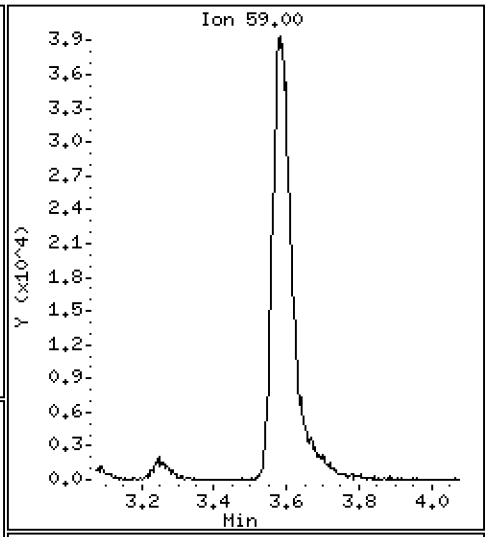
148 Tert-butyl alcohol Concentration: 405.19 ug/l Review Code:

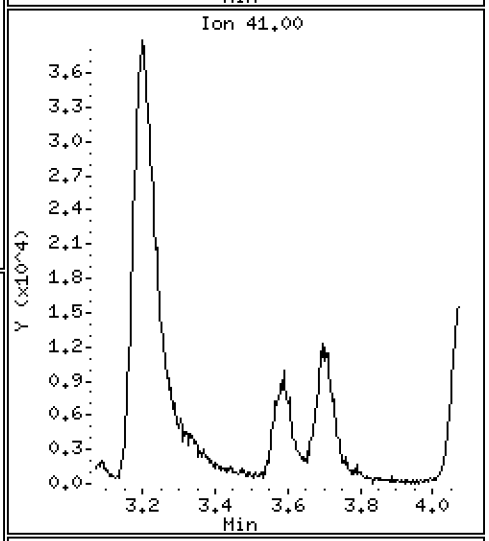


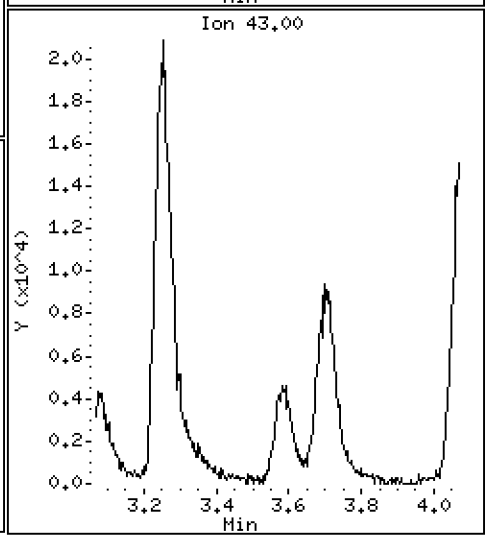












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 96

Date : 04-SEP-2018 12:21

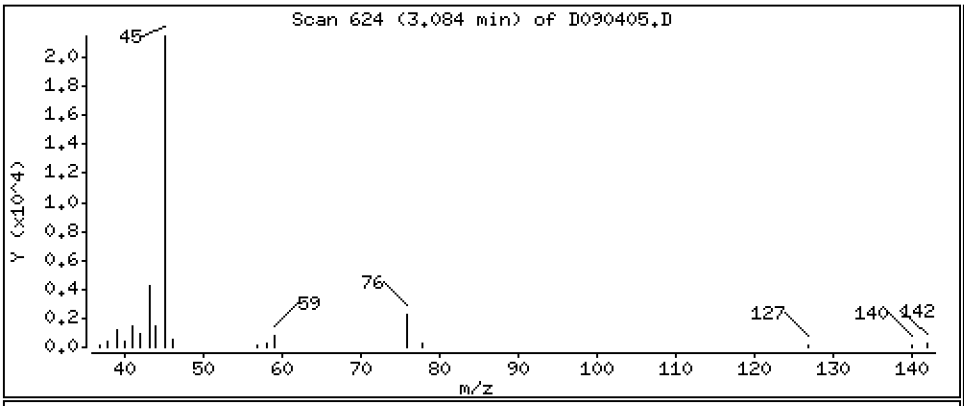
Client ID: VLCSW-180904 Instrument: VOA2.i

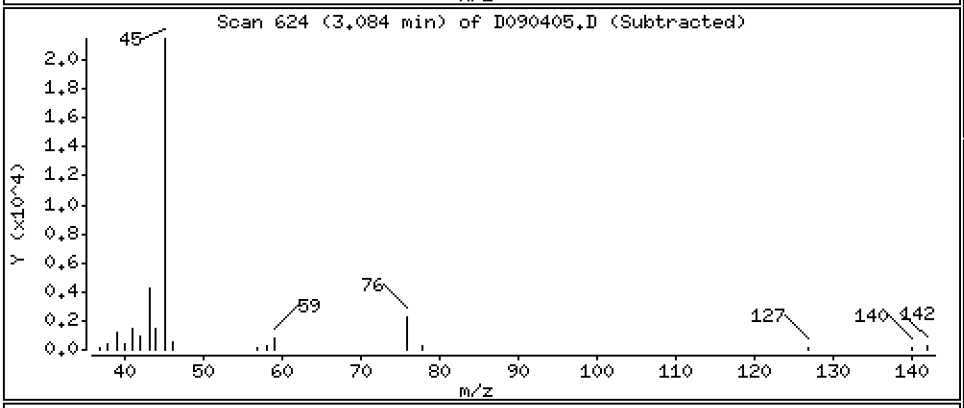
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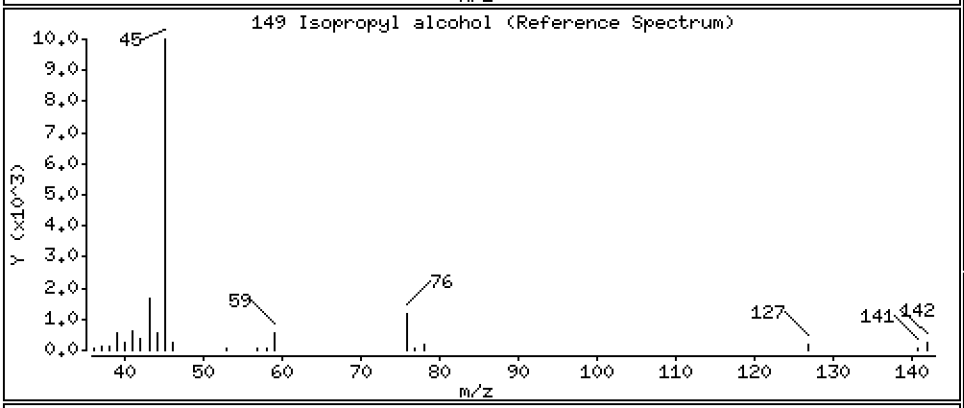
Purge Volume: 5.0 Operator: AP

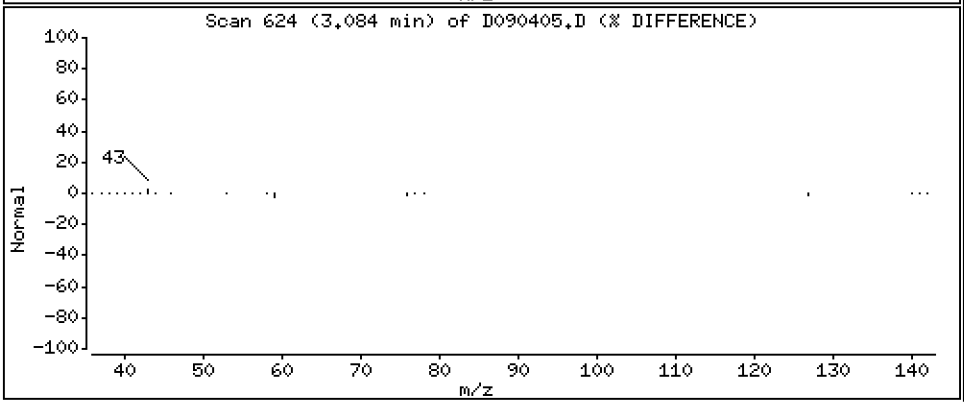
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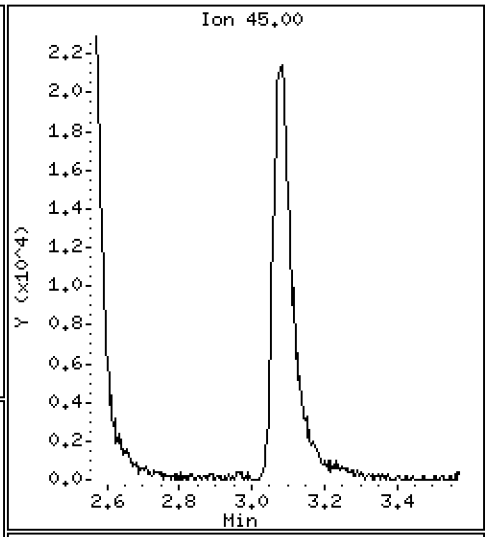
149 Isopropyl alcohol Concentration: 336.37 ug/l Review Code:

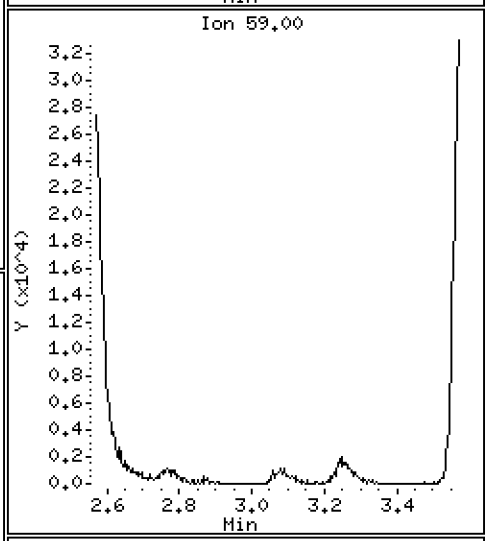


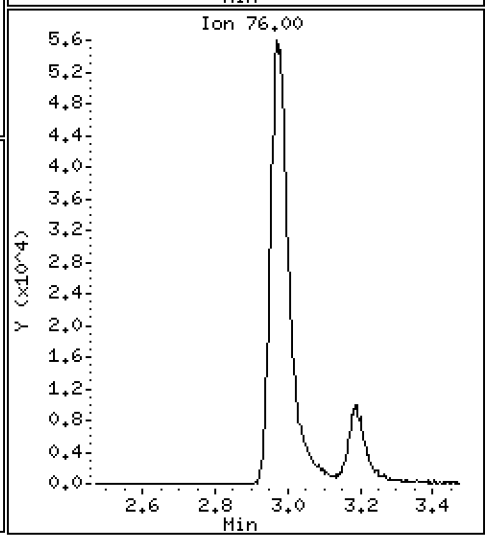












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 97

Date : 04-SEP-2018 12:21

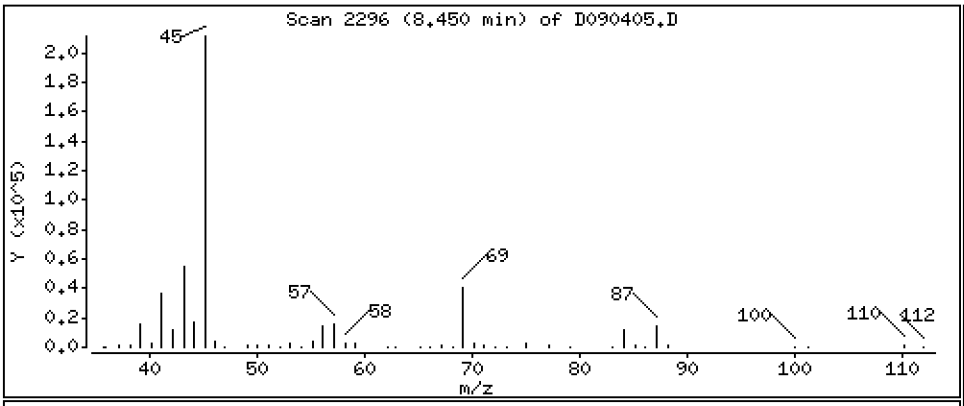
Client ID: VLCSW-180904 Instrument: VOA2.i

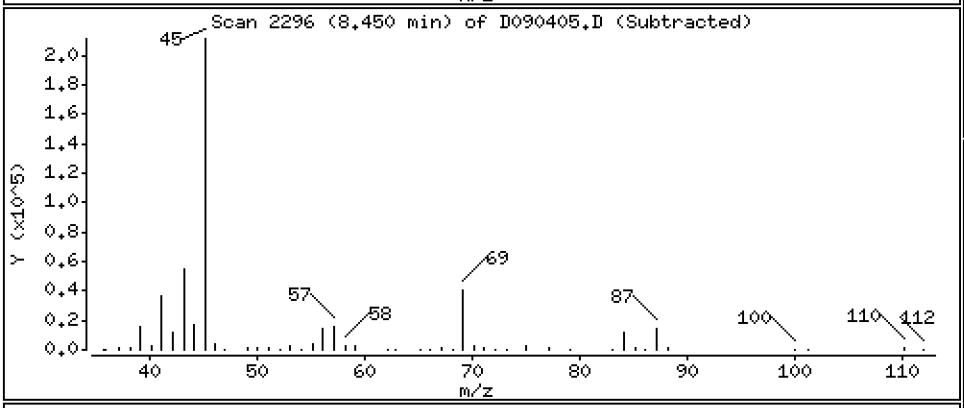
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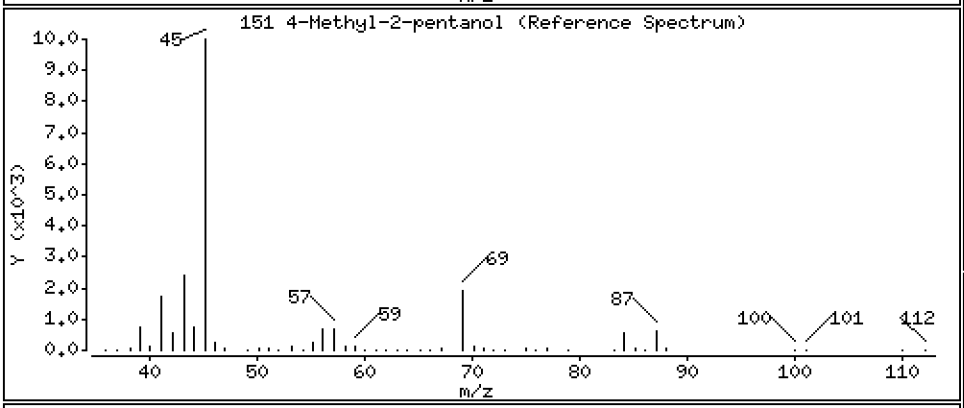
Purge Volume: 5.0 Operator: AP

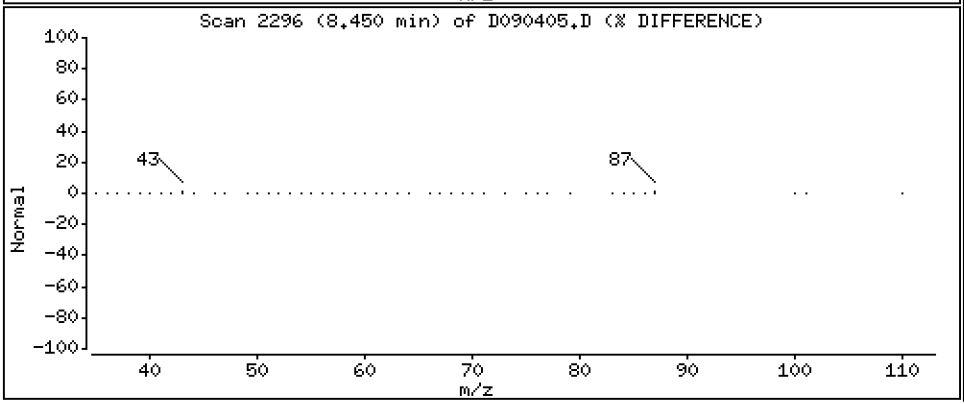
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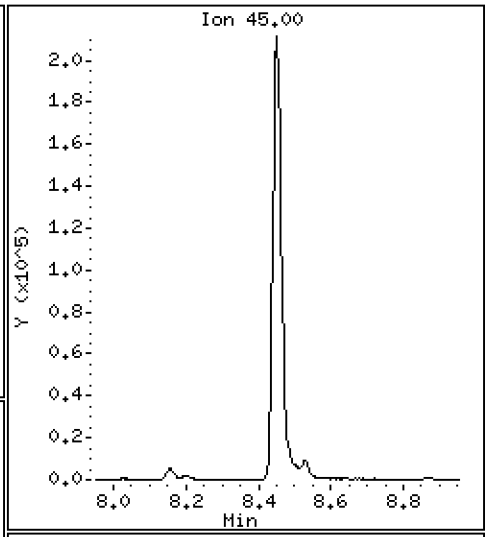
151 4-Methyl-2-pentanol Concentration: 458.58 ug/l Review Code:

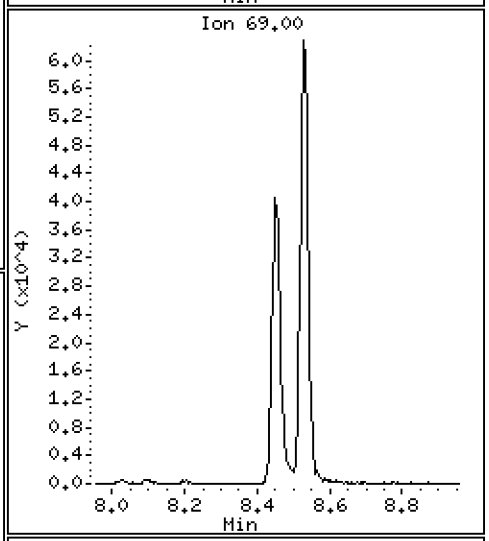


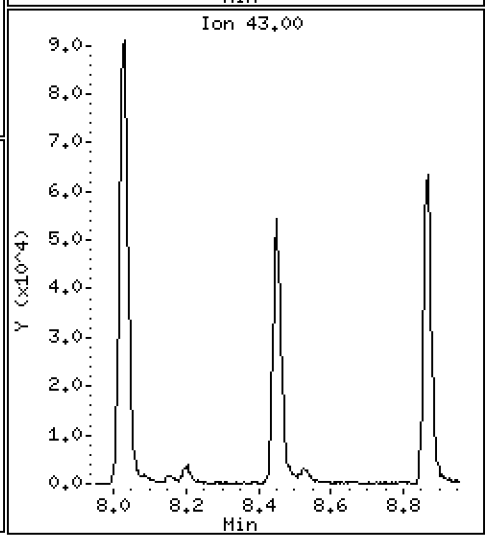












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 98

Date : 04-SEP-2018 12:21

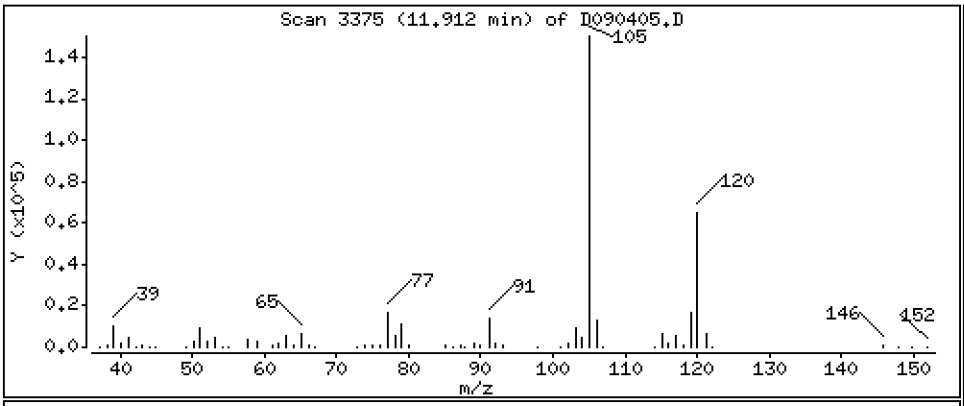
Client ID: VLCSW-180904 Instrument: VOA2.i

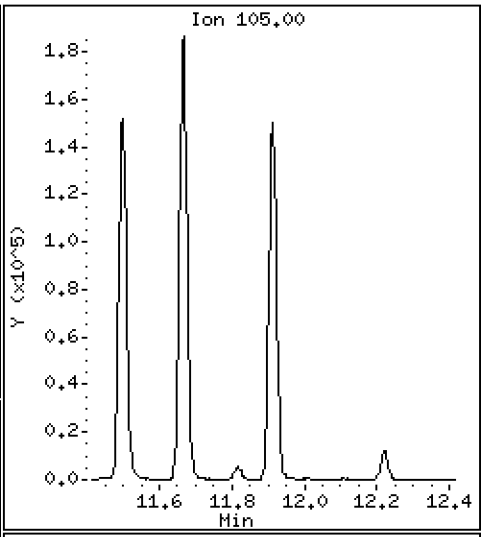
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

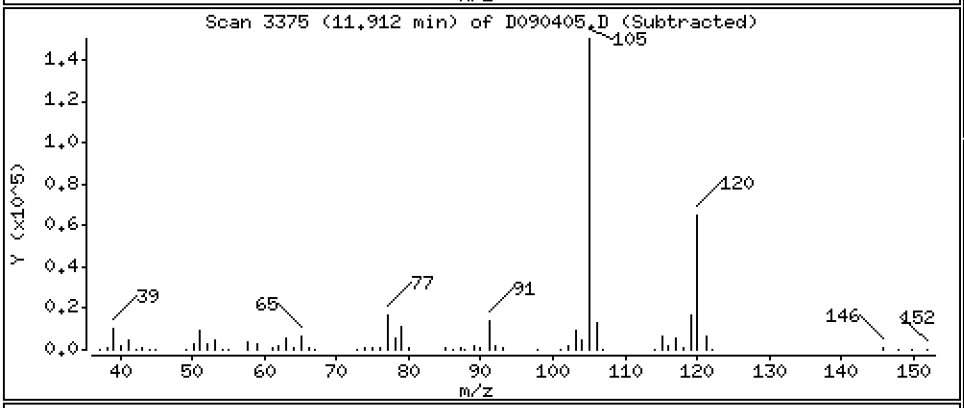
Purge Volume: 5.0 Operator: AP

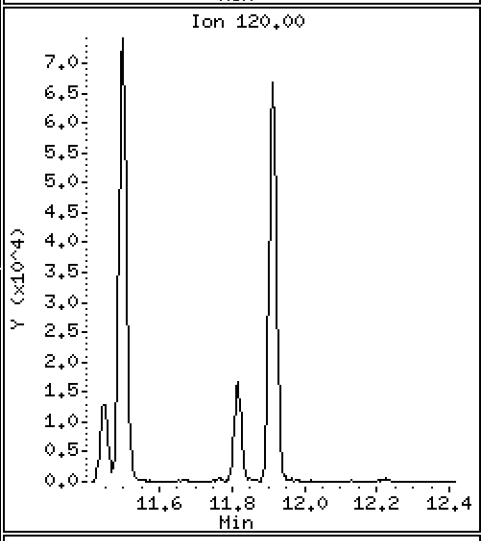
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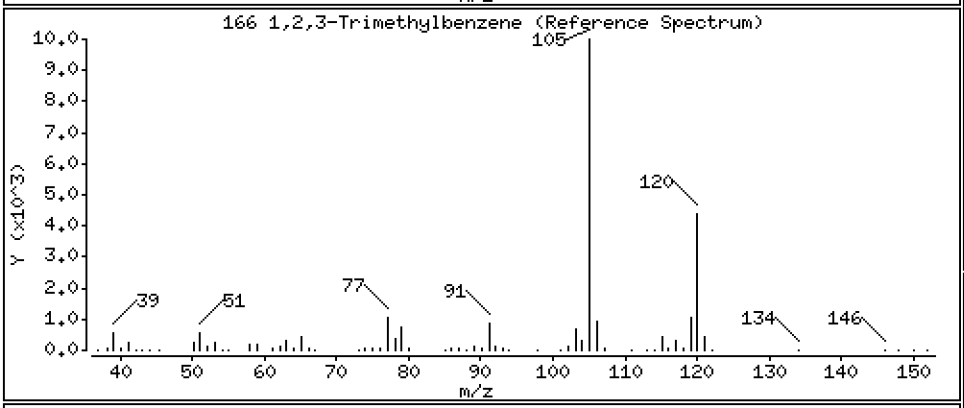
166 1,2,3-Trimethylbenzene Concentration: 21.21 ug/l Review Code:

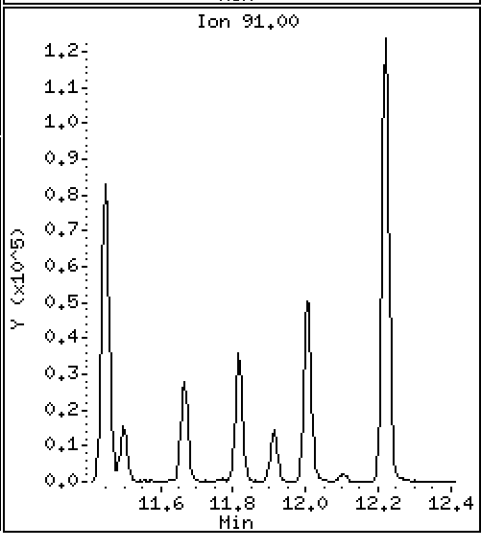


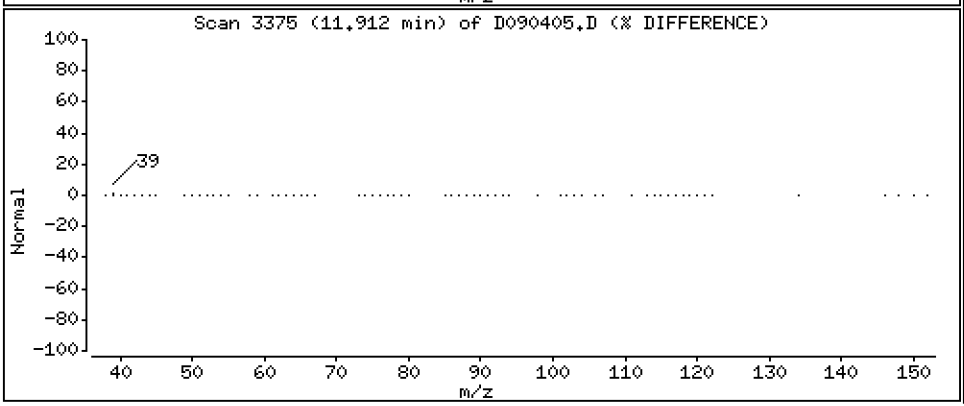












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 99

Date : 04-SEP-2018 12:21

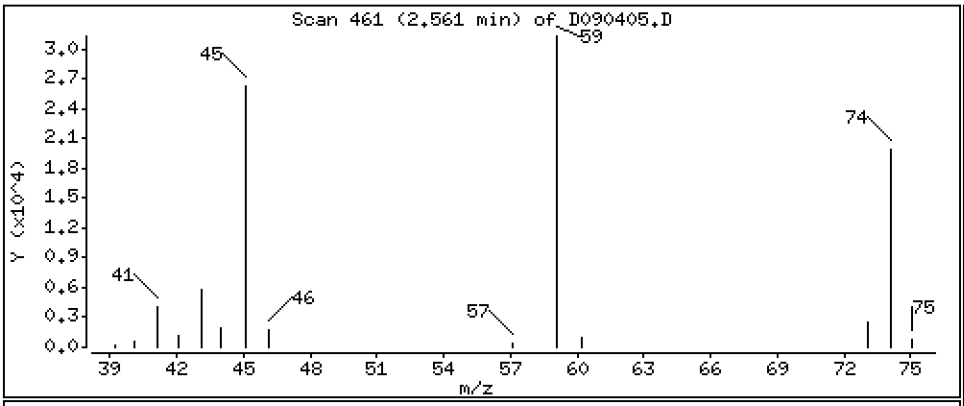
Client ID: VLCSW-180904 Instrument: VOA2.i

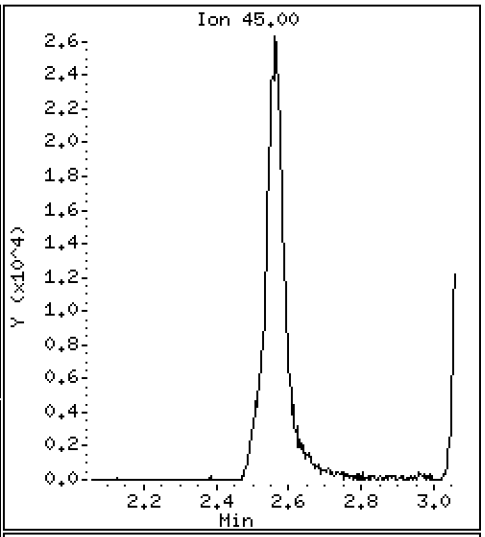
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

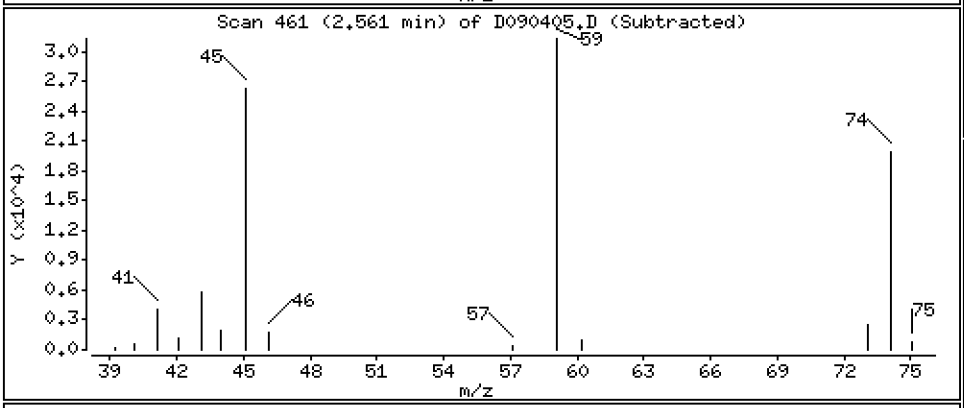
Purge Volume: 5.0 Operator: AP

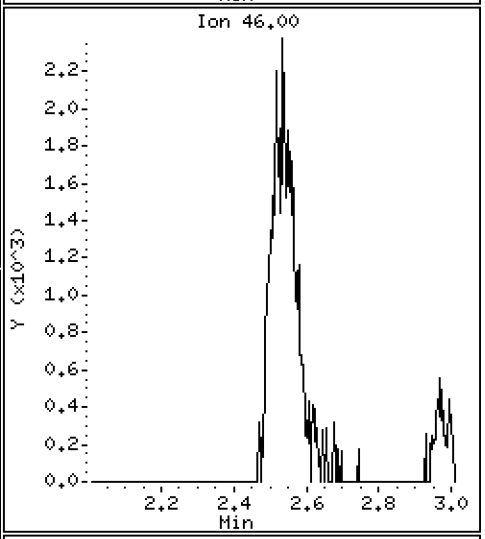
Column phase: DB624 Column diameter: 0.18

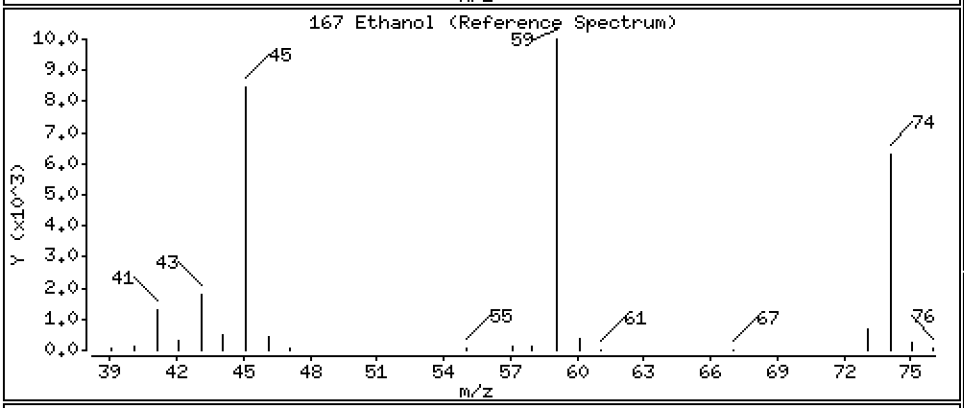
167 Ethanol Concentration: 308.07 ug/l Review Code:

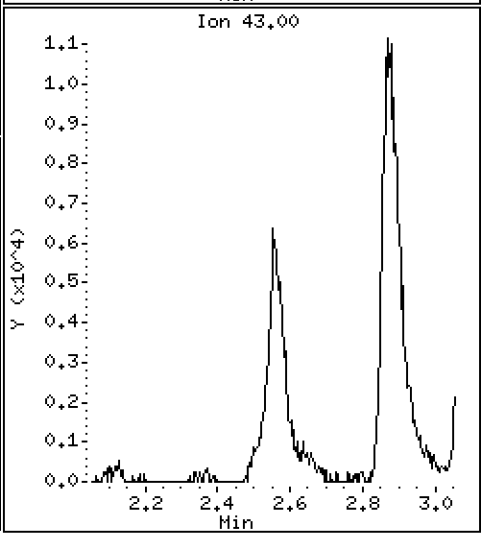


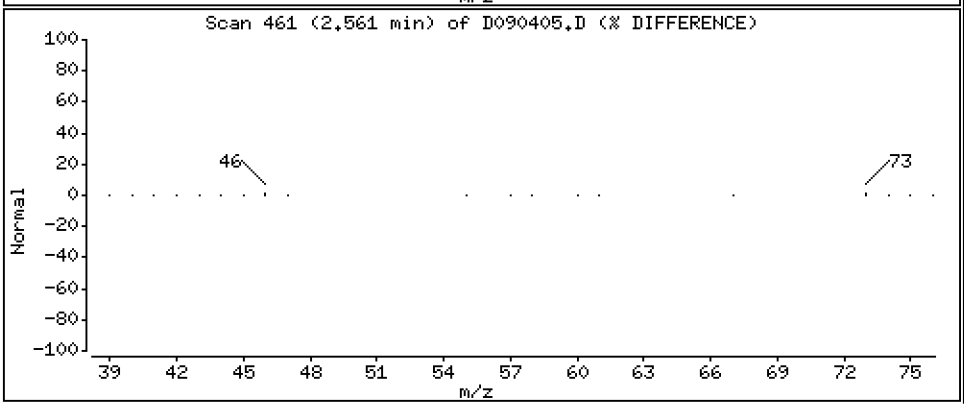












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 100

Date : 04-SEP-2018 12:21

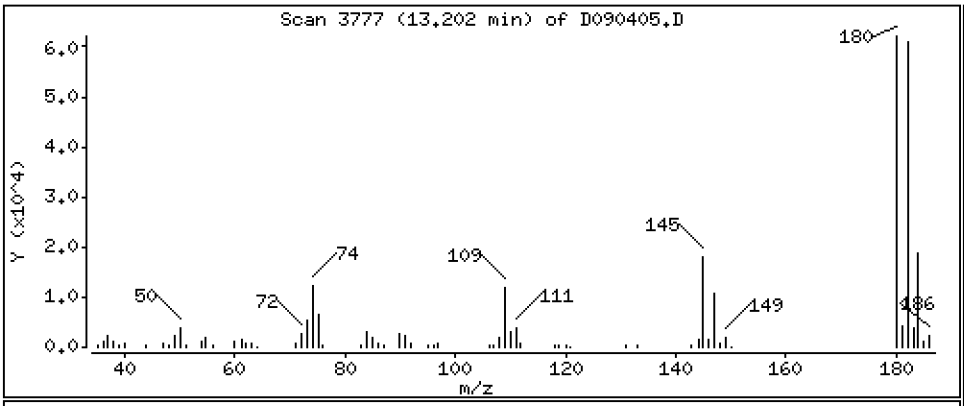
Client ID: VLCSW-180904 Instrument: VOA2.i

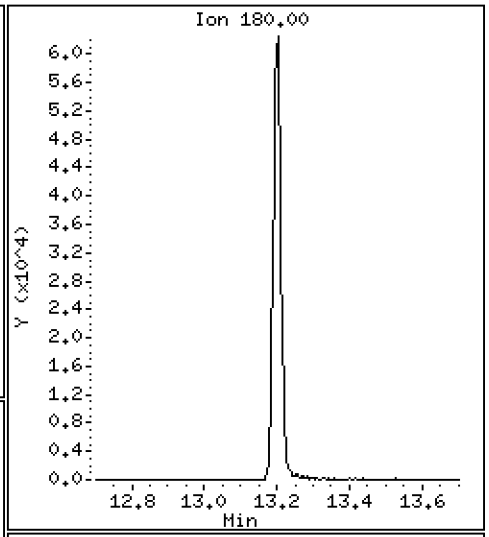
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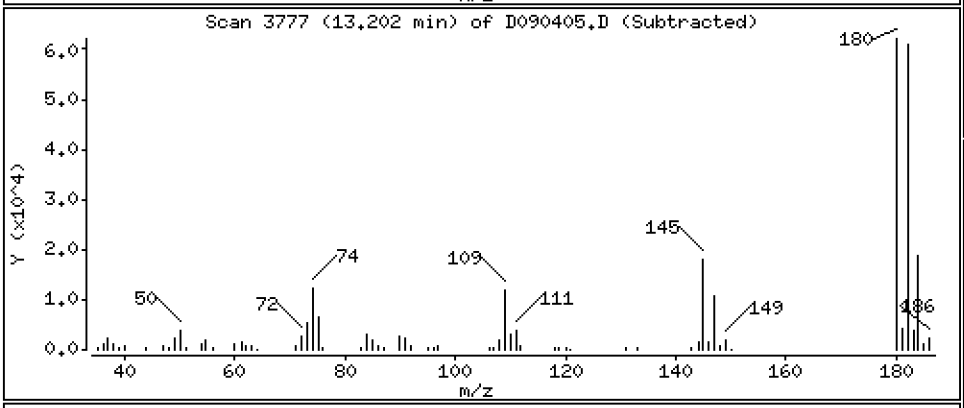
Purge Volume: 5.0 Operator: AP

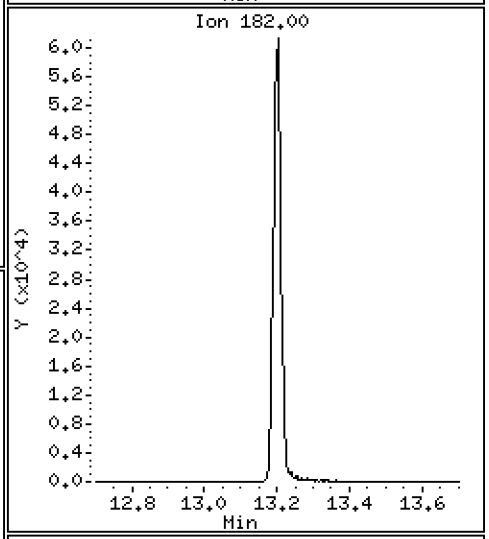
Column phase: DB624 Column diameter: 0.18

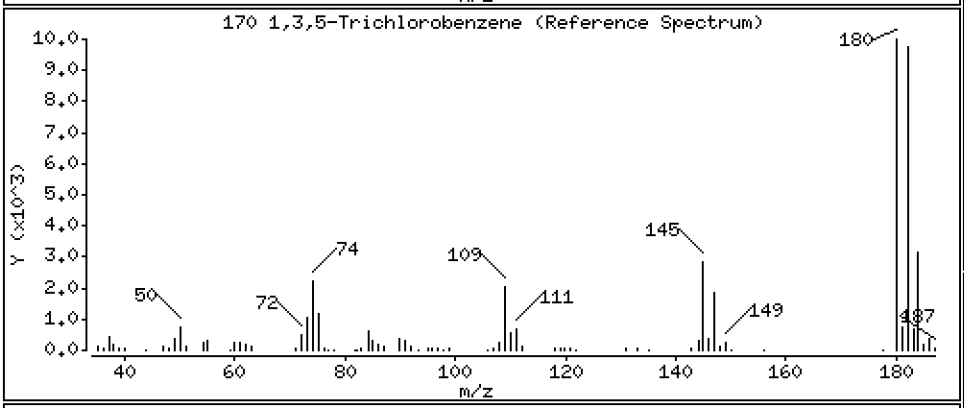
170 1,3,5-Trichlorobenzene Concentration: 21.23 ug/l Review Code:

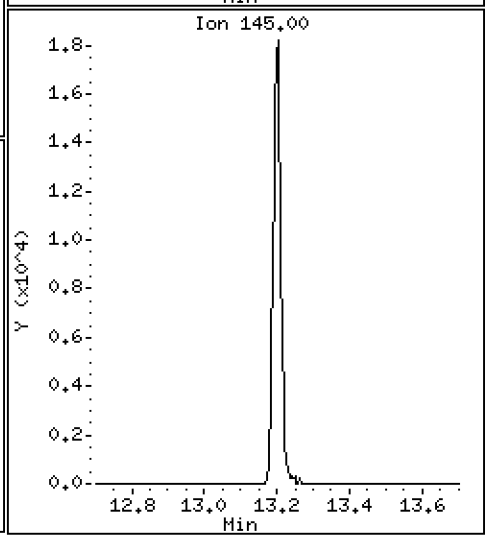


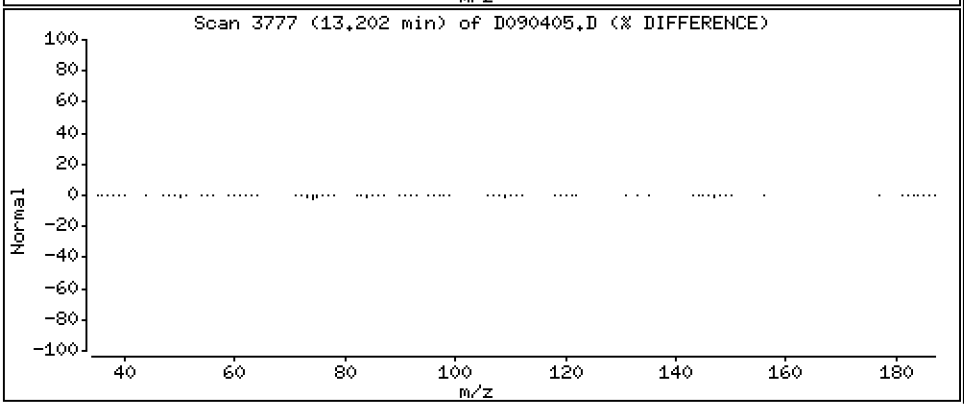












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 101

Date : 04-SEP-2018 12:21

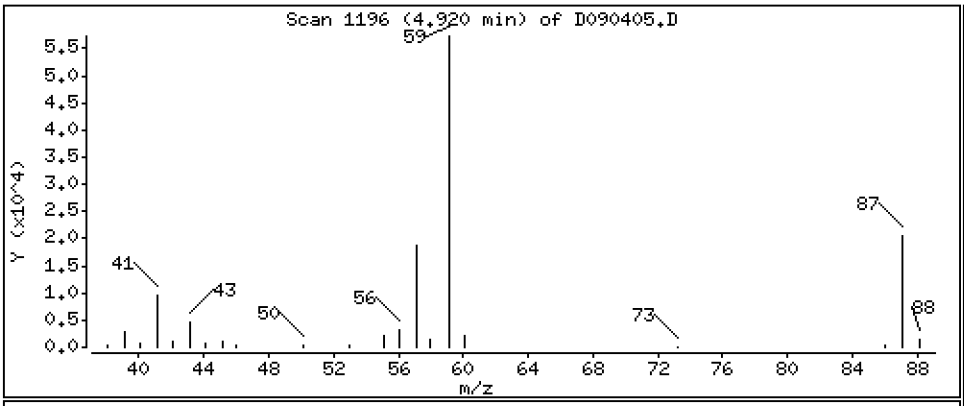
Client ID: VLCSW-180904 Instrument: VOA2.i

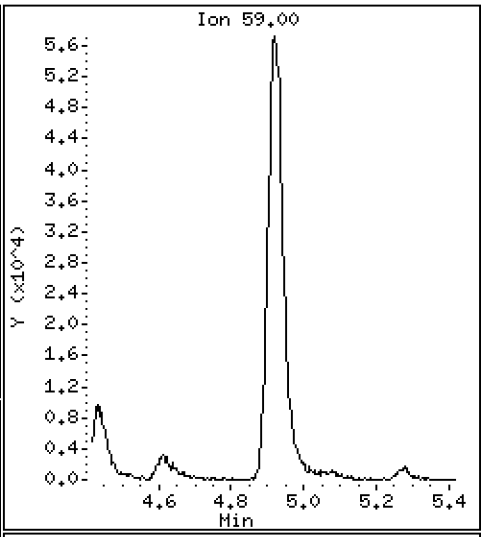
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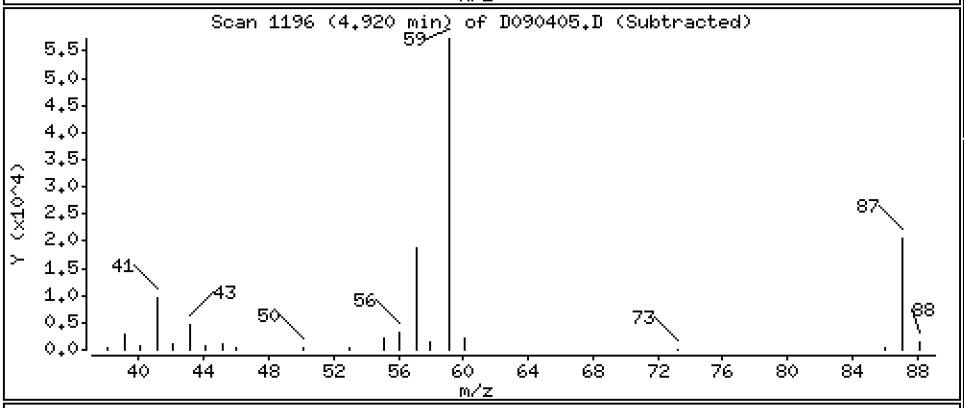
Purge Volume: 5.0 Operator: AP

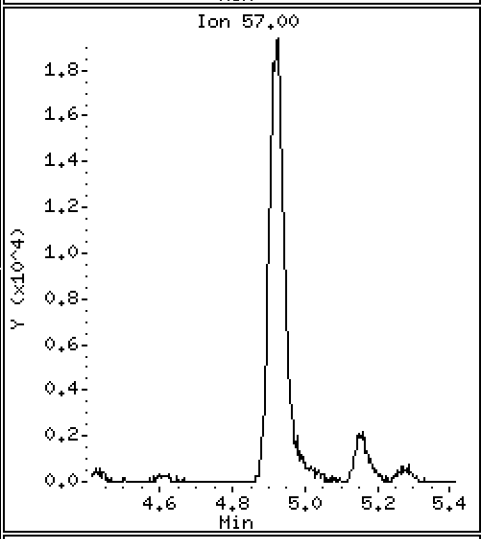
Column phase: DB624 Column diameter: 0.18

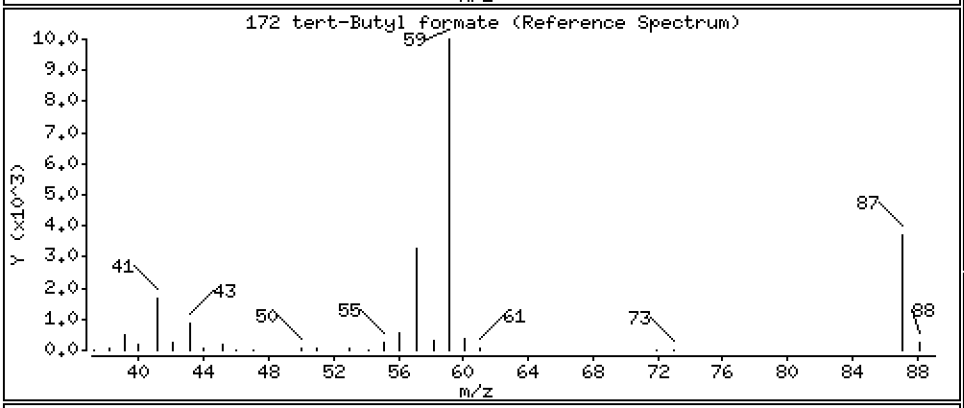
172 tert-Butyl formate Concentration: 40.08 ug/l Review Code:

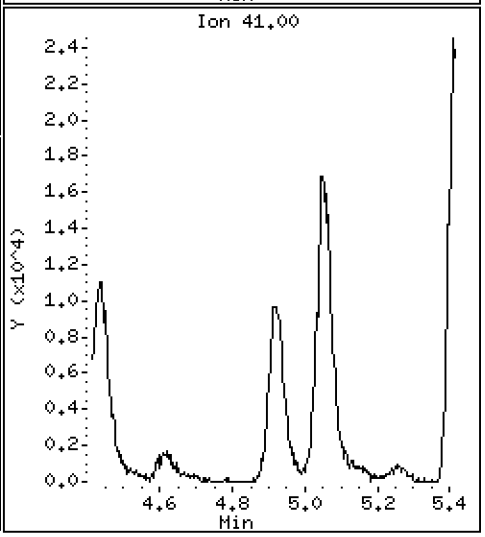


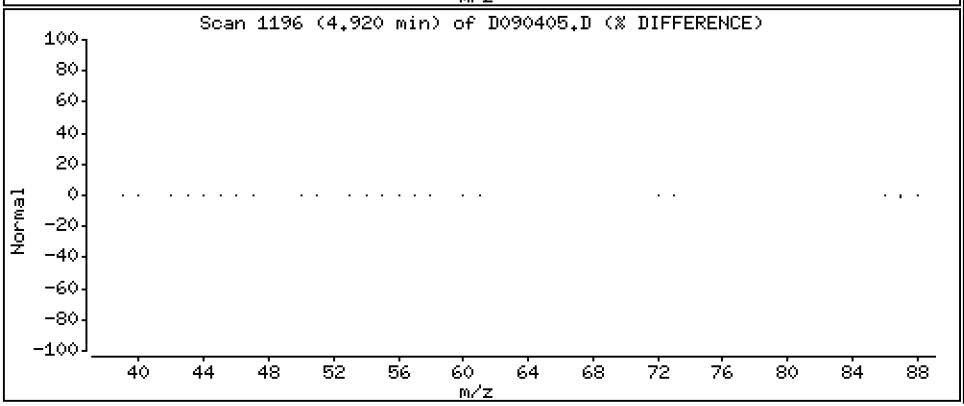












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 102

Date : 04-SEP-2018 12:21

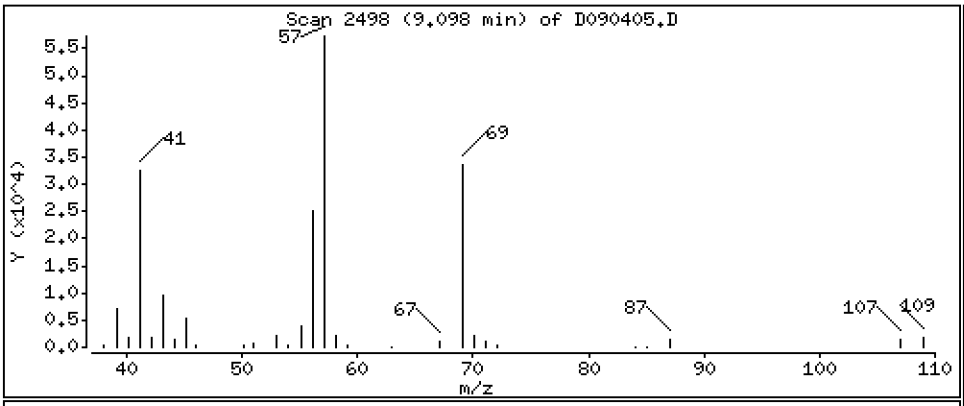
Client ID: VLCSW-180904 Instrument: VOA2.i

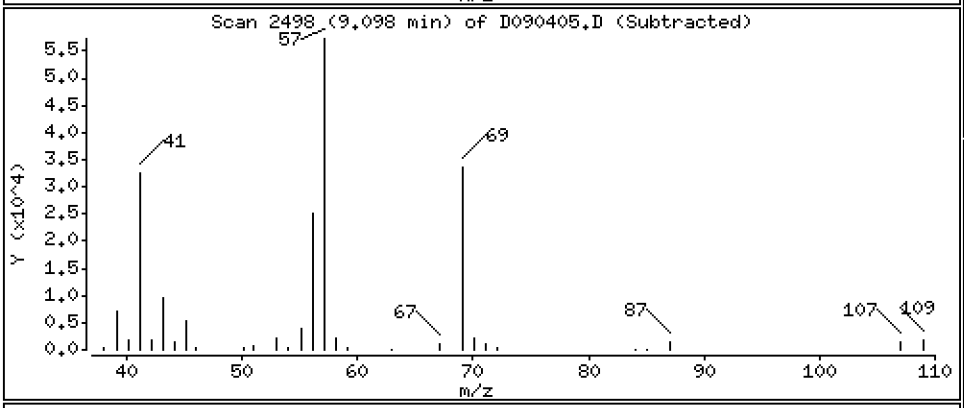
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

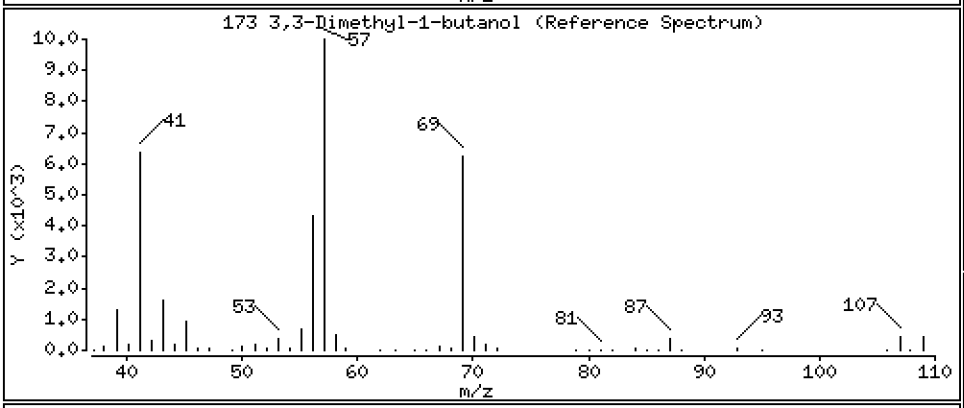
Purge Volume: 5.0 Operator: AP

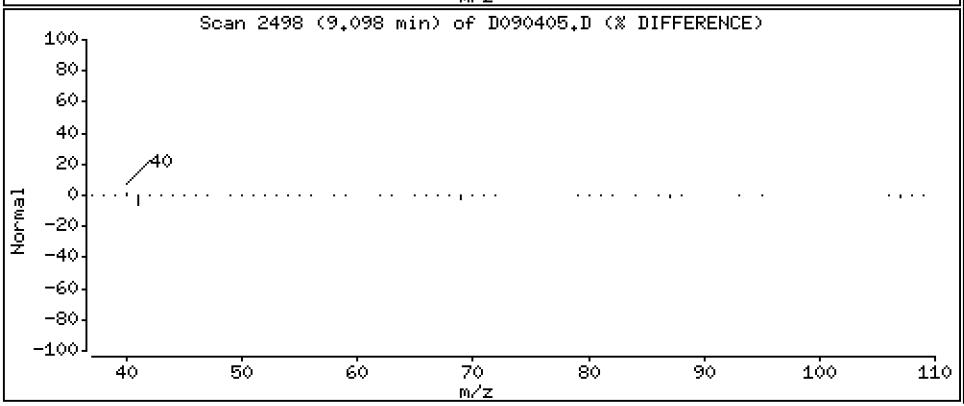
Column phase: DB624 Column diameter: 0.18

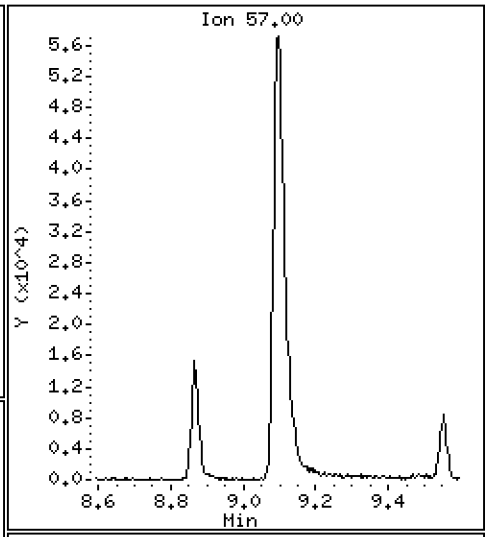
173 3,3-Dimethyl-1-butanol Concentration: 446.52 ug/l Review Code:

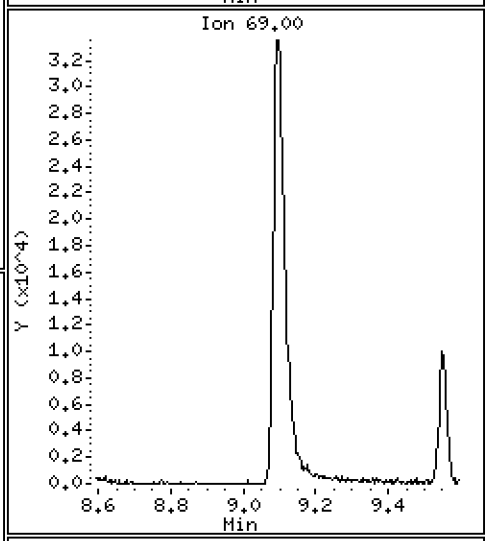


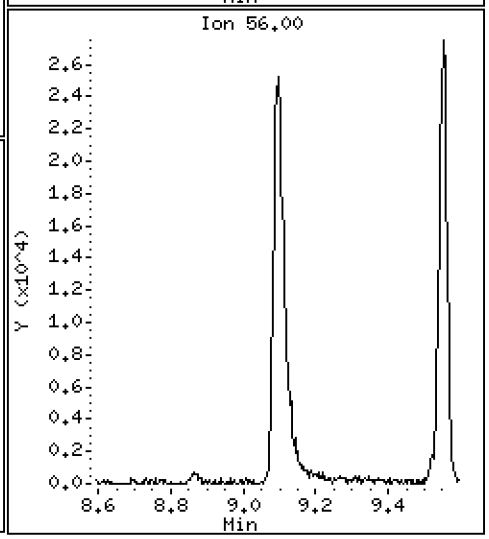












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 103

Date : 04-SEP-2018 12:21

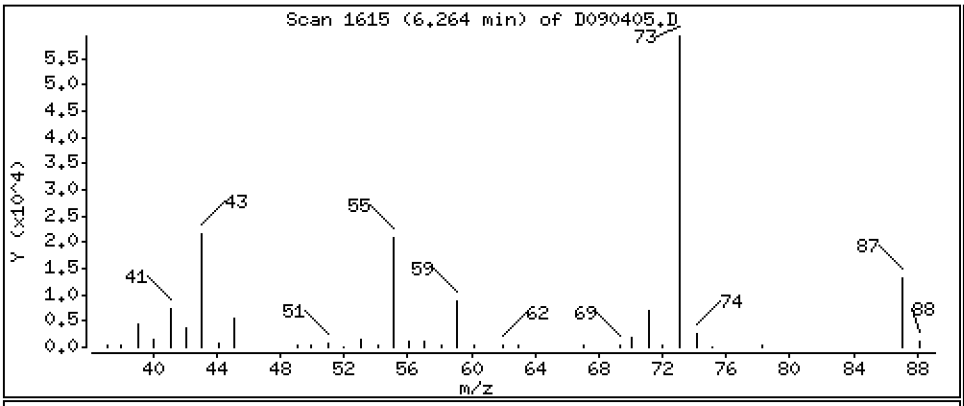
Client ID: VLCSW-180904 Instrument: VOA2.i

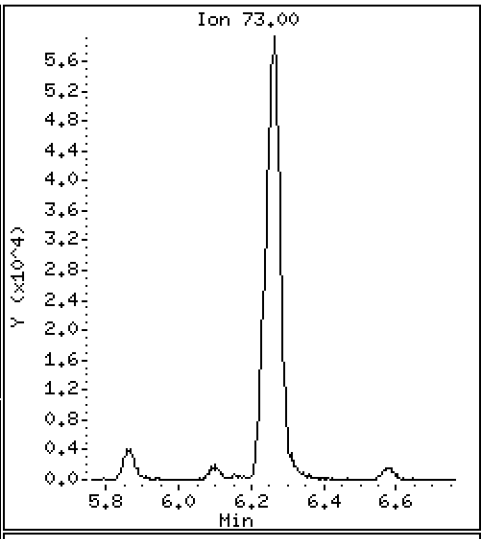
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

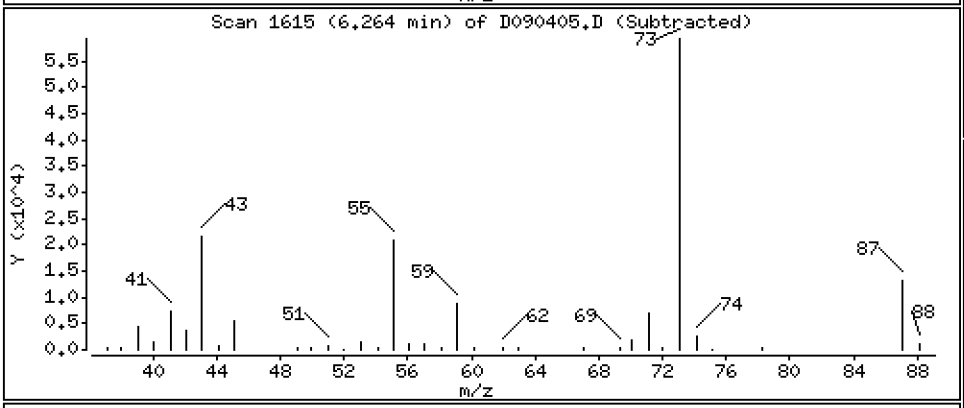
Purge Volume: 5.0 Operator: AP

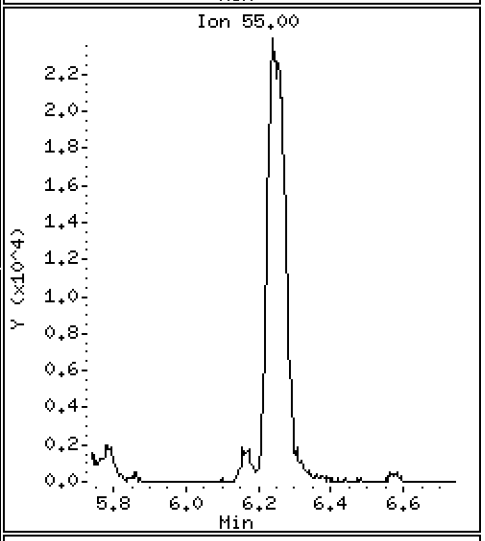
Column phase: DB624 Column diameter: 0.18

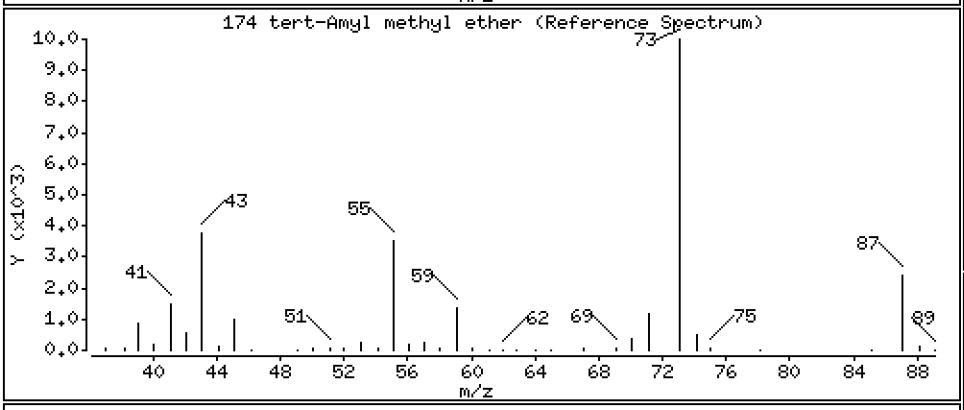
174 tert-Amyl methyl ether Concentration: 20.24 ug/l Review Code:

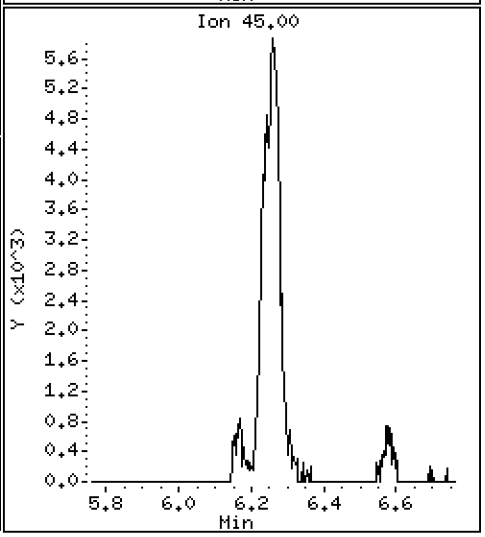


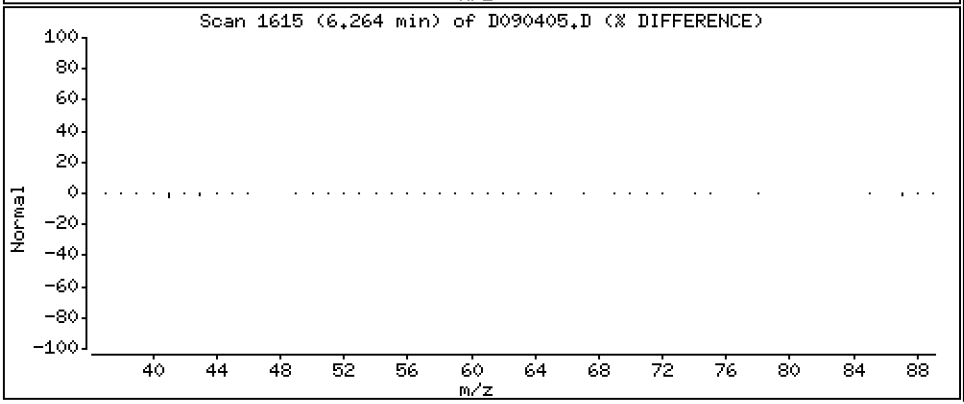












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 104

Date : 04-SEP-2018 12:21

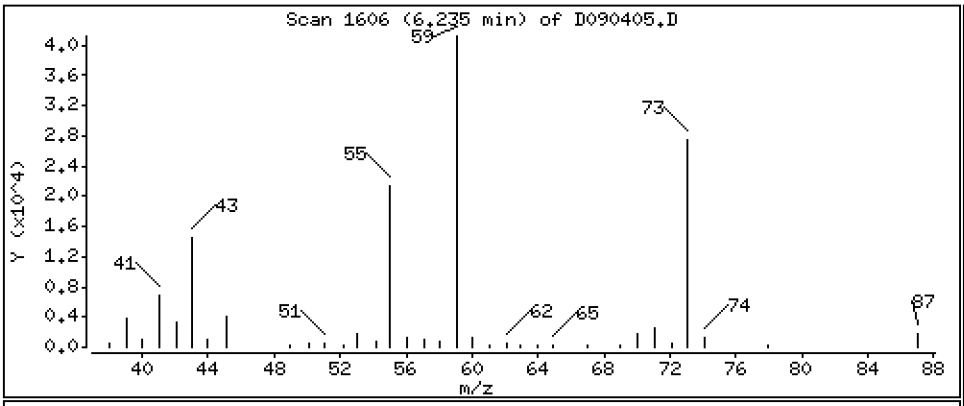
Client ID: VLCSW-180904 Instrument: VOA2.i

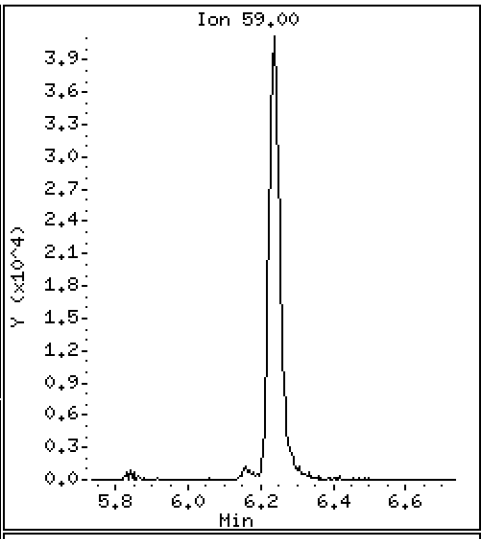
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

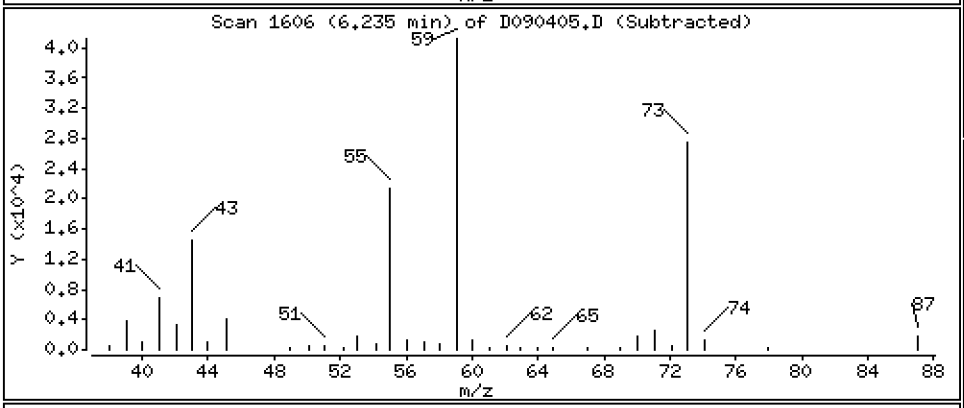
Purge Volume: 5.0 Operator: AP

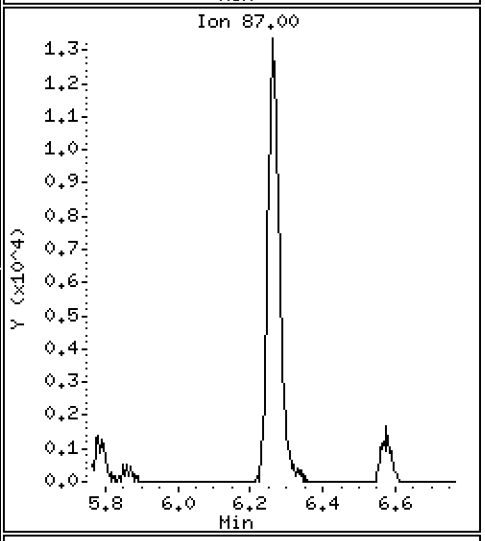
Column phase: DB624 Column diameter: 0.18

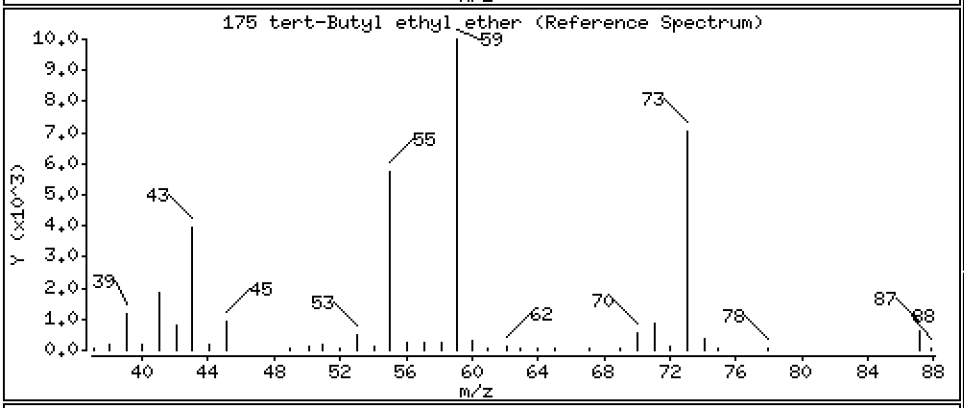
175 tert-Butyl ethyl ether Concentration: 19.77 ug/l Review Code:

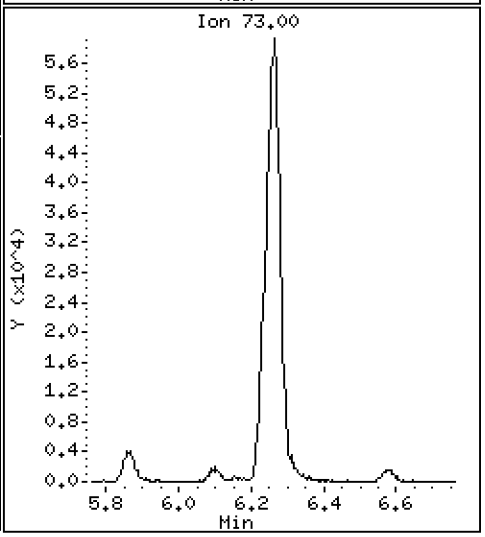


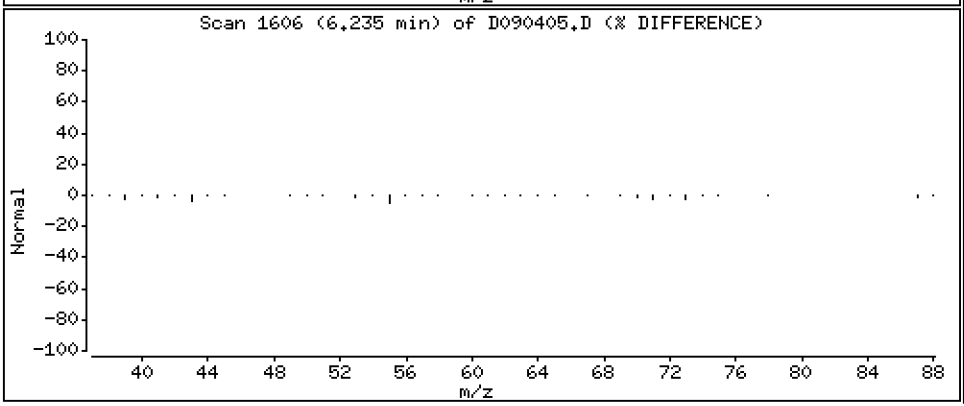












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 105

Date : 04-SEP-2018 12:21

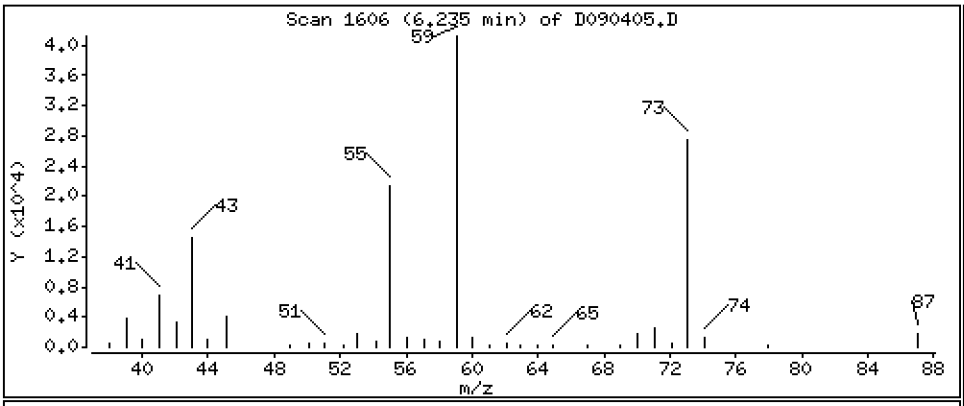
Client ID: VLCSW-180904 Instrument: VOA2.i

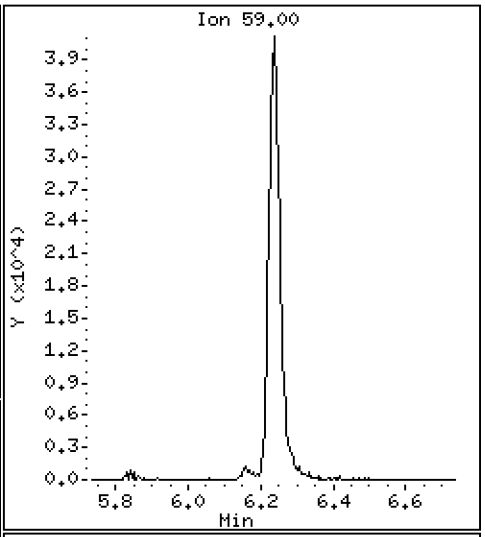
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

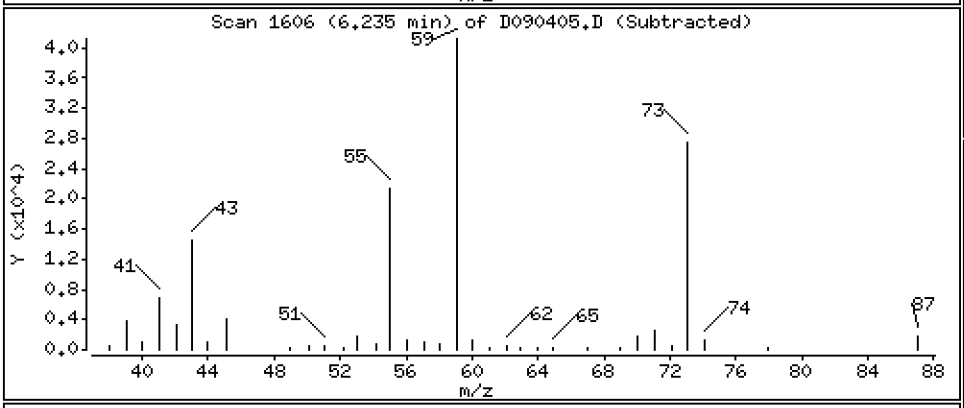
Purge Volume: 5.0 Operator: AP

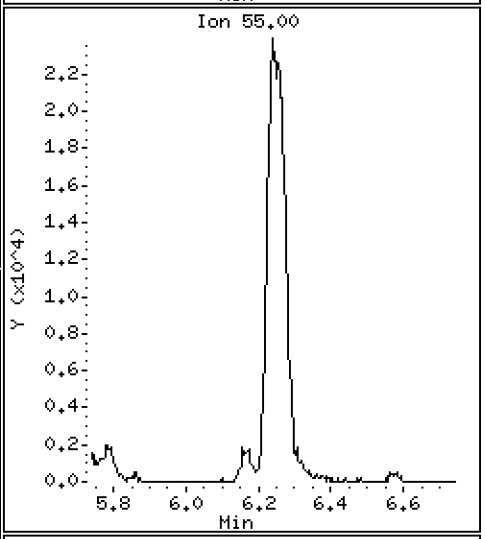
Column phase: DB624 Column diameter: 0.18

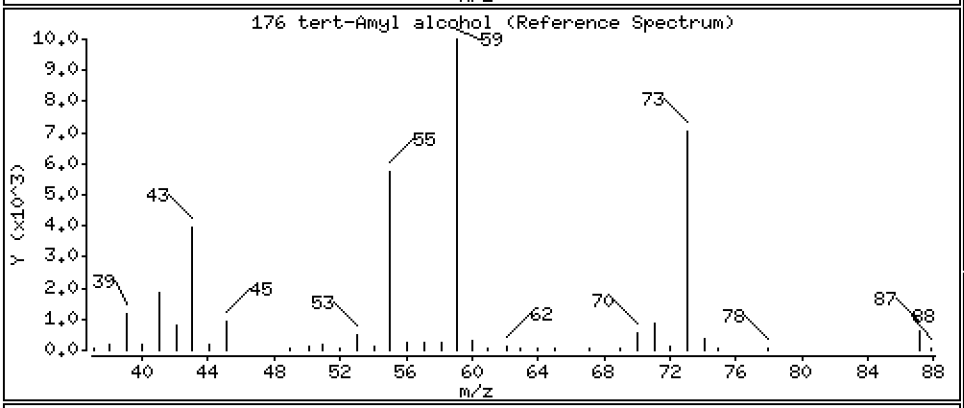
176 tert-Amyl alcohol Concentration: 395.55 ug/l Review Code:

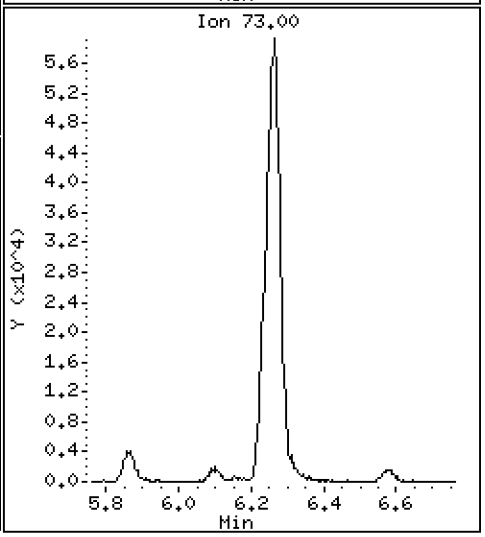


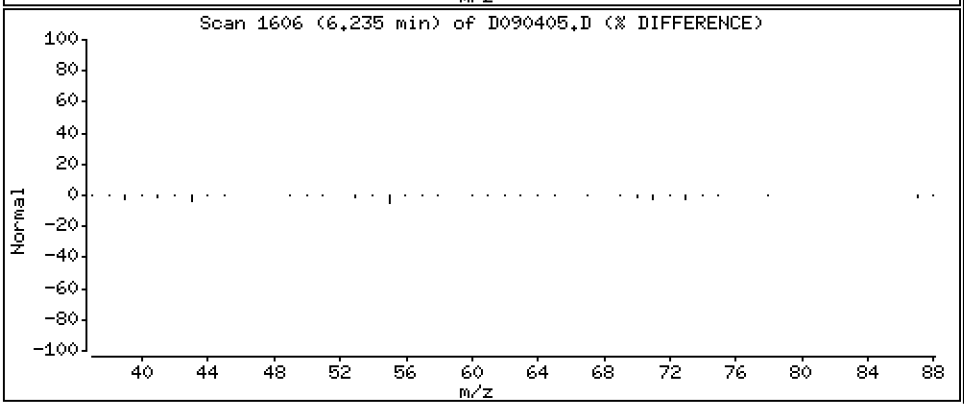












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 106

Date : 04-SEP-2018 12:21

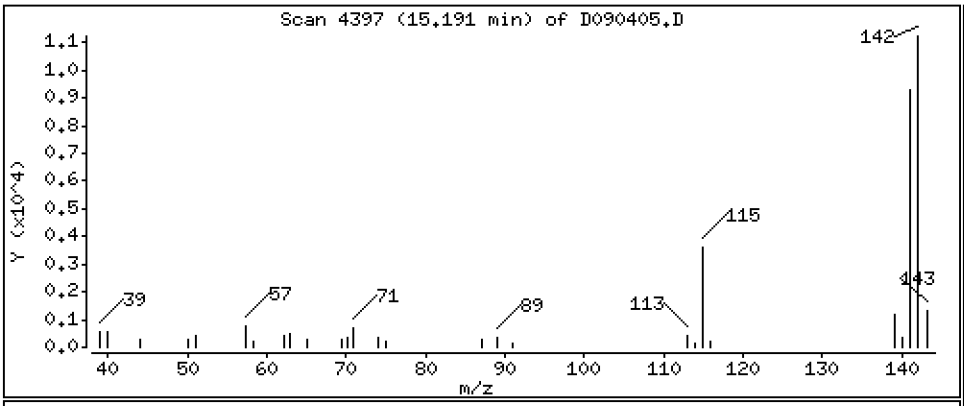
Client ID: VLCSW-180904 Instrument: VOA2.i

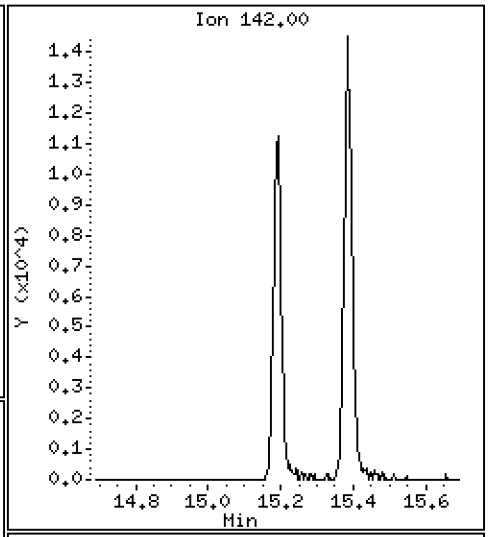
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

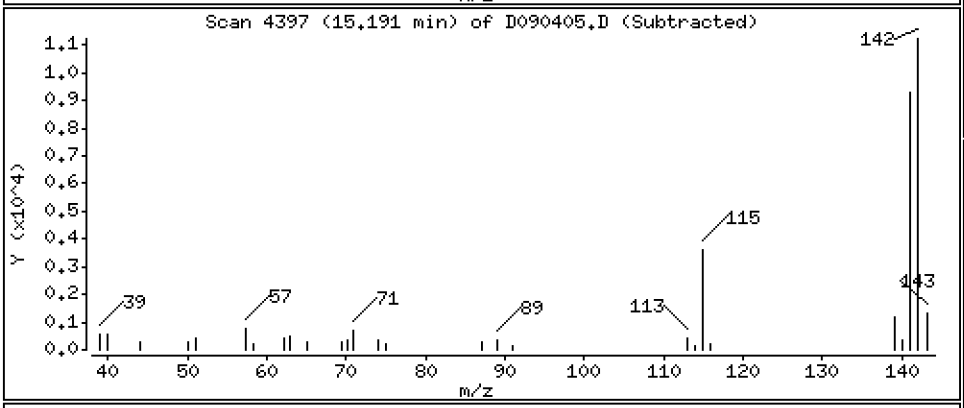
Purge Volume: 5.0 Operator: AP

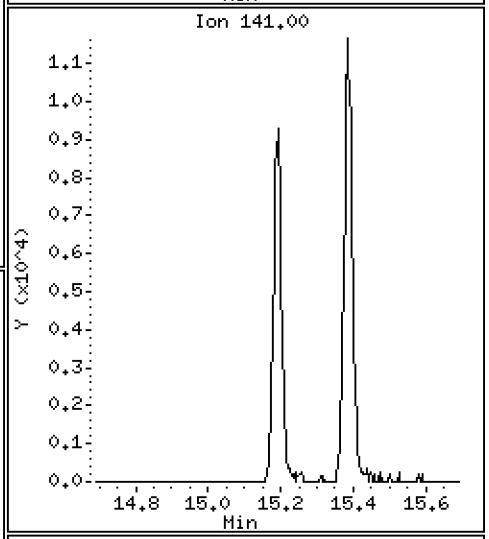
Column phase: DB624 Column diameter: 0.18

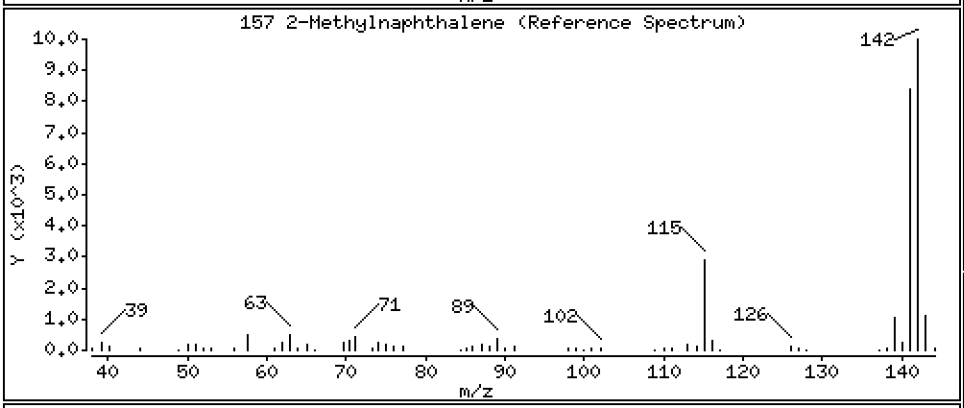
157 2-Methylnaphthalene Concentration: 10.29 ug/l Review Code:

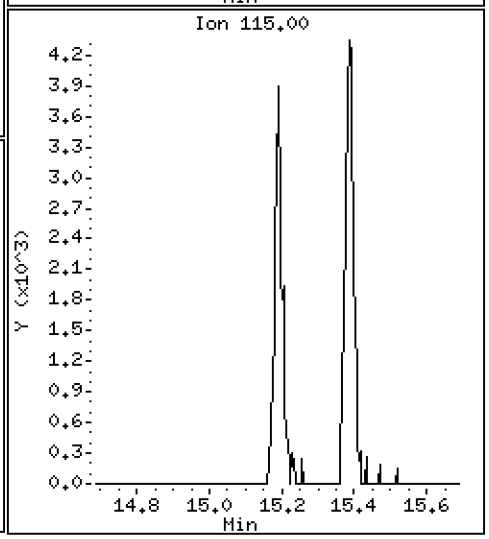


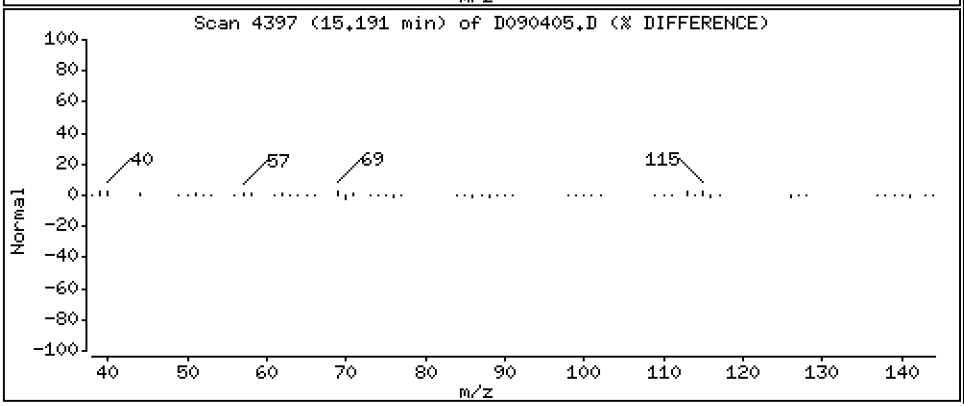












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 107

Date : 04-SEP-2018 12:21

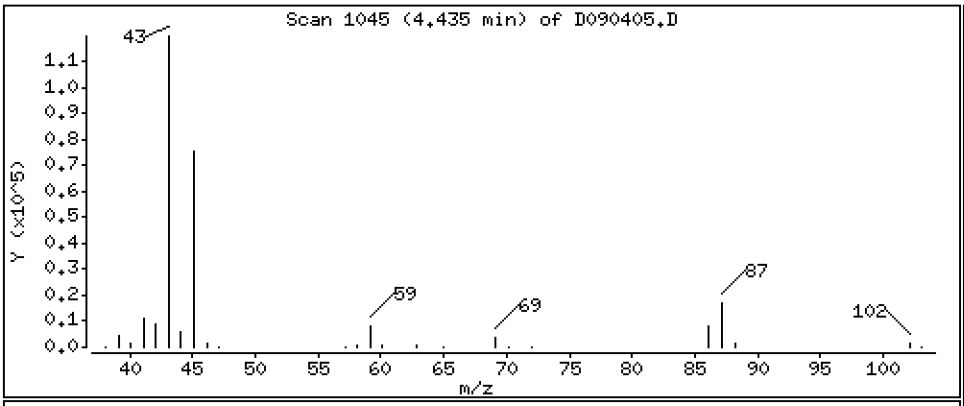
Client ID: VLCSW-180904 Instrument: VOA2.i

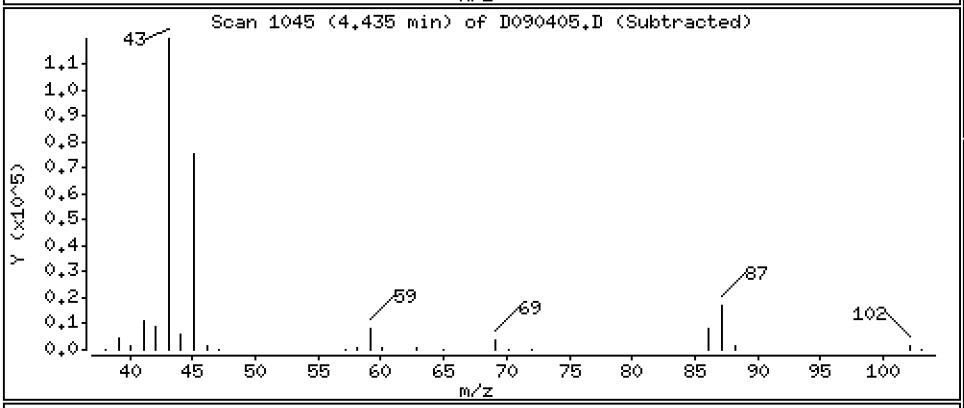
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

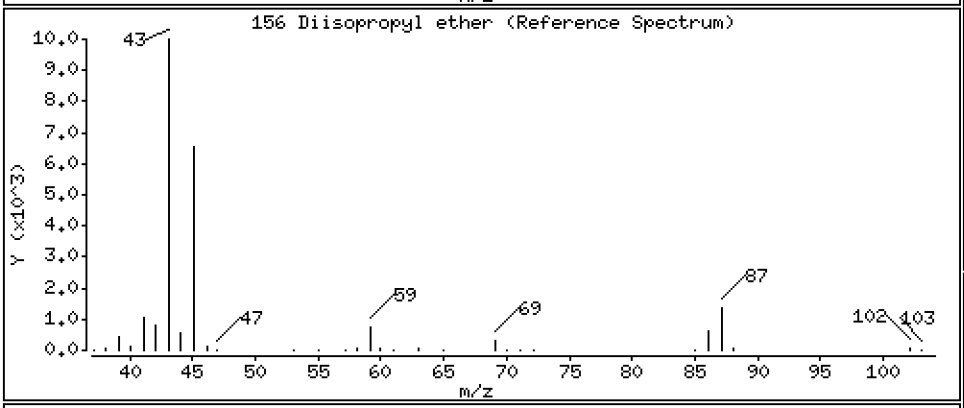
Purge Volume: 5.0 Operator: AP

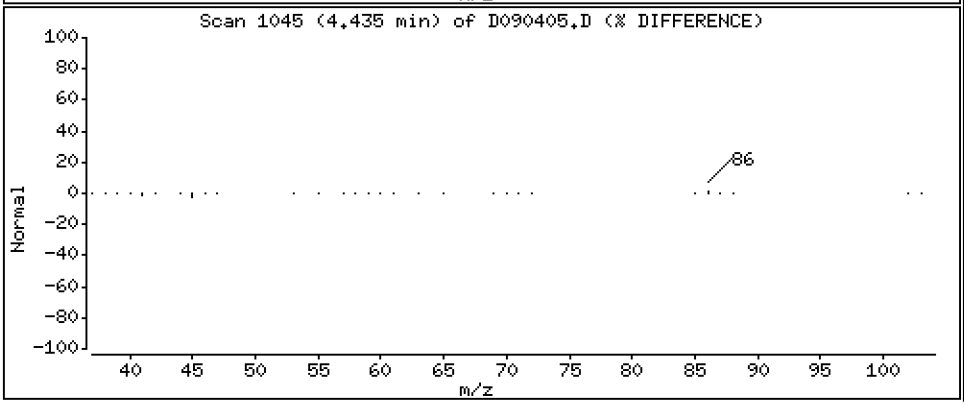
Column phase: DB624 Column diameter: 0.18

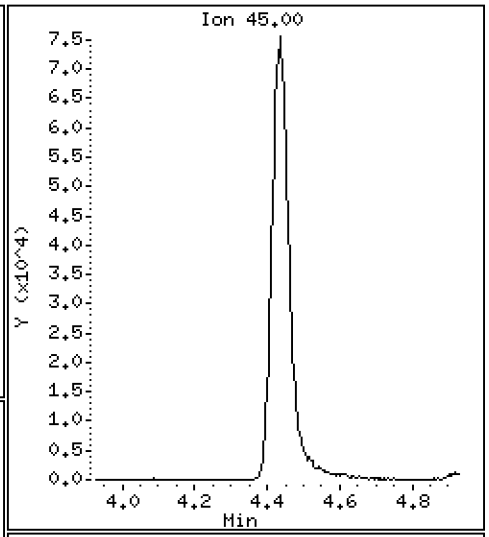
156 Diisopropyl ether Concentration: 19.57 ug/l Review Code:

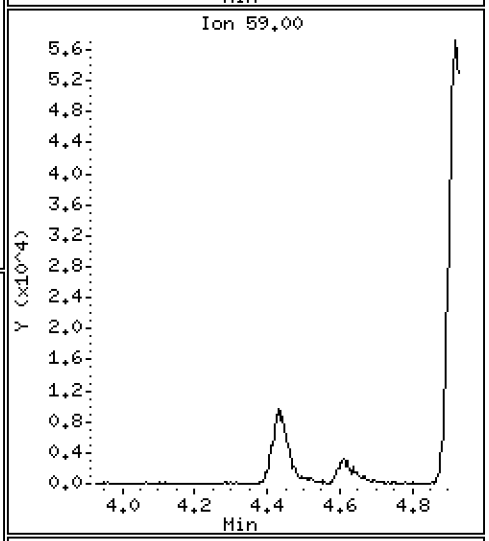


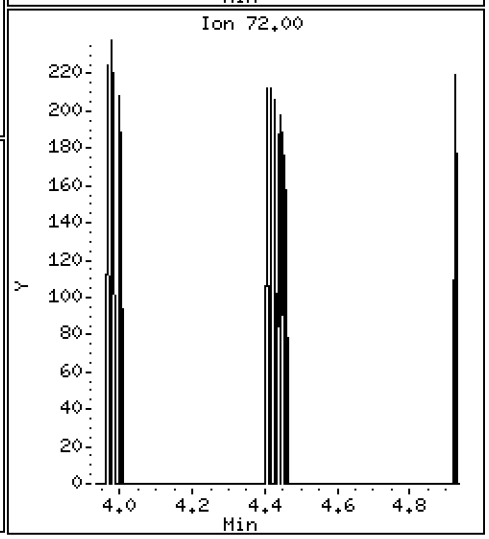












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 108

Date : 04-SEP-2018 12:21

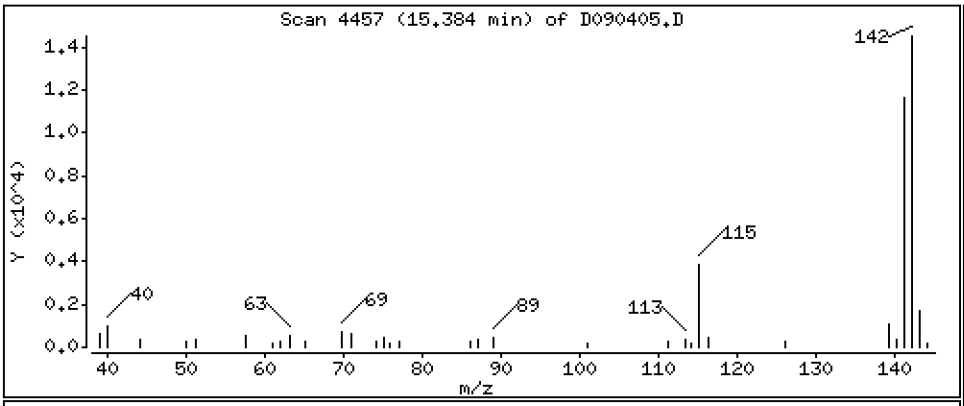
Client ID: VLCSW-180904 Instrument: VOA2.i

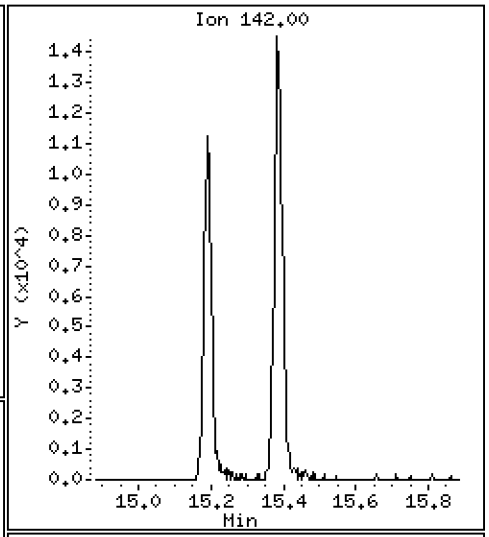
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

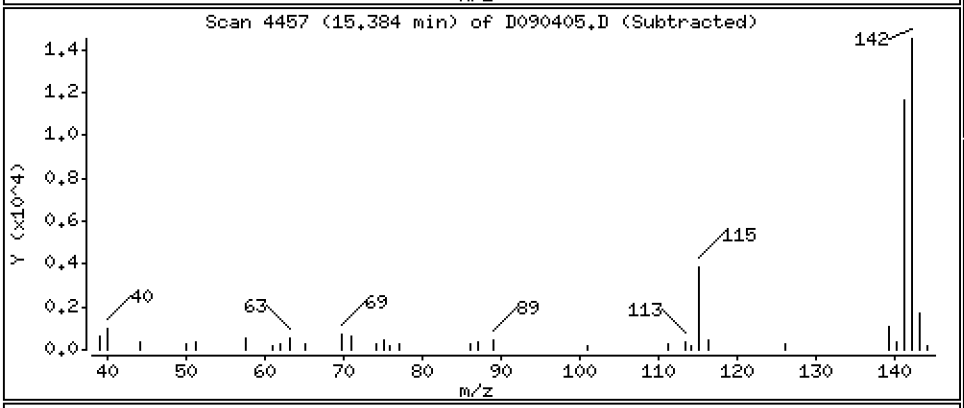
Purge Volume: 5.0 Operator: AP

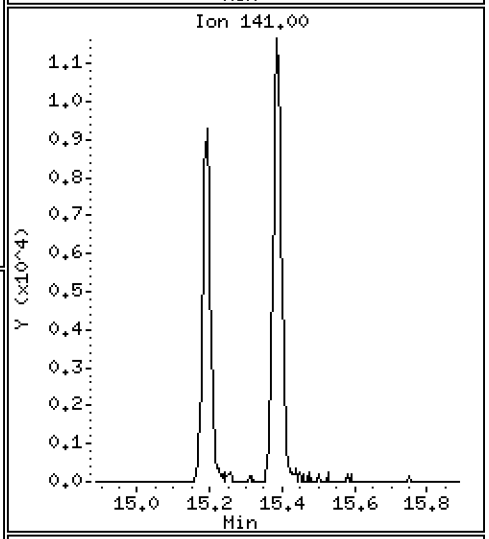
Column phase: DB624 Column diameter: 0.18

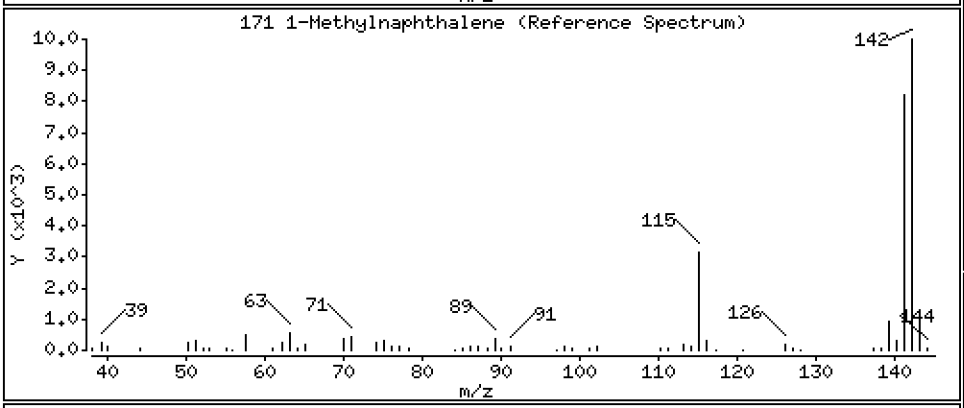
171 1-Methylnaphthalene Concentration: 10.79 ug/l Review Code:

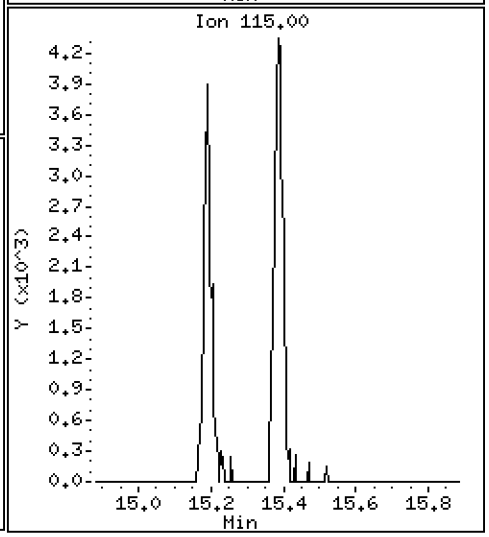


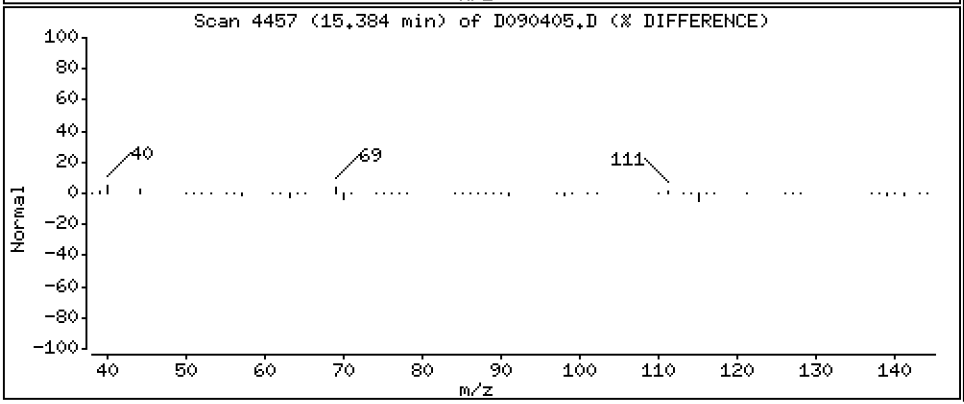












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090405.D Page 109

Date : 04-SEP-2018 12:21

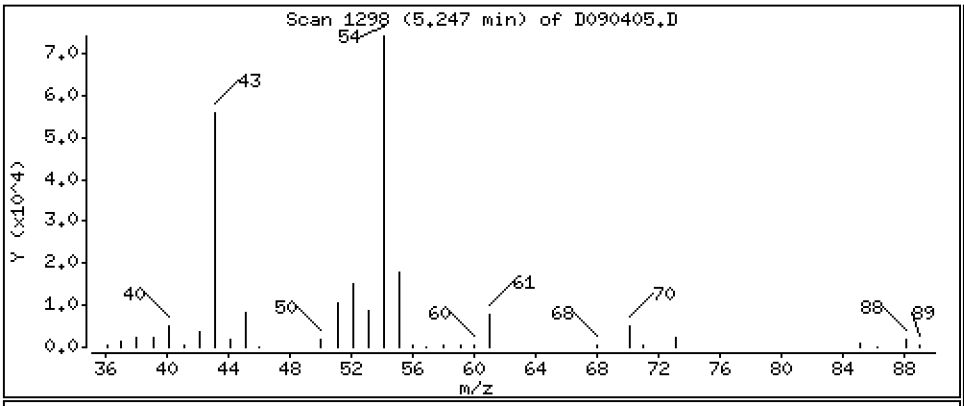
Client ID: VLCSW-180904 Instrument: VOA2.i

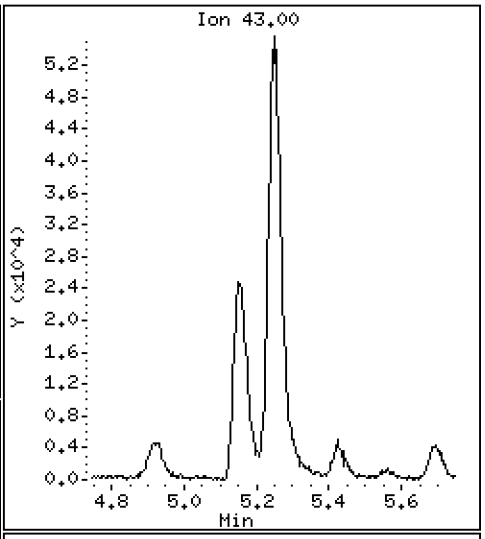
Sample Info: VLCSW-180904;VLCSW-180904;3;;LCS

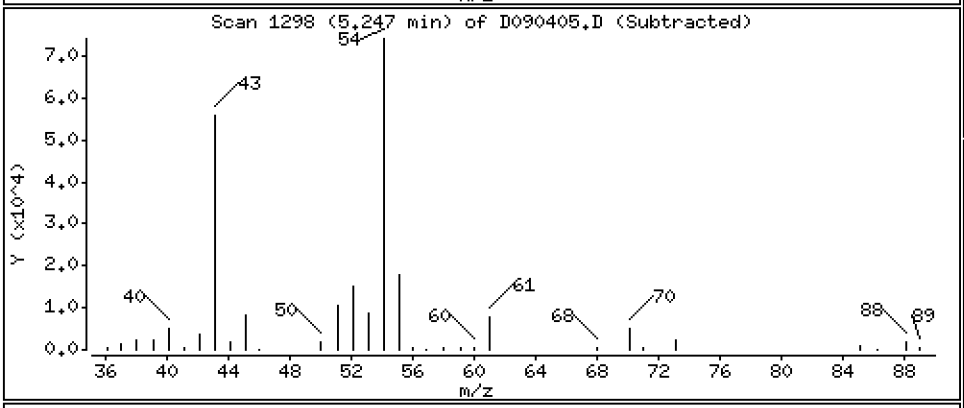
Purge Volume: 5.0 Operator: AP

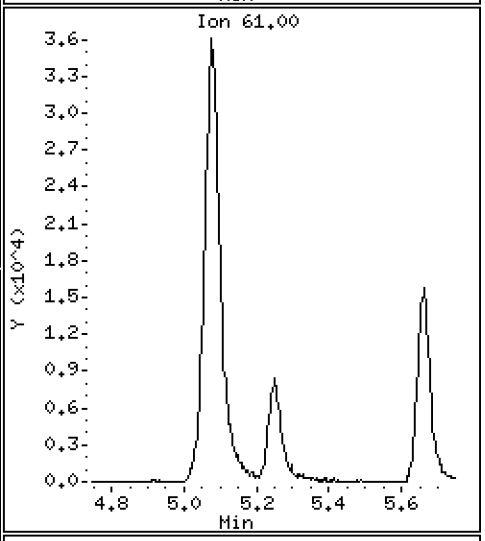
Column phase: DB624 Column diameter: 0.18

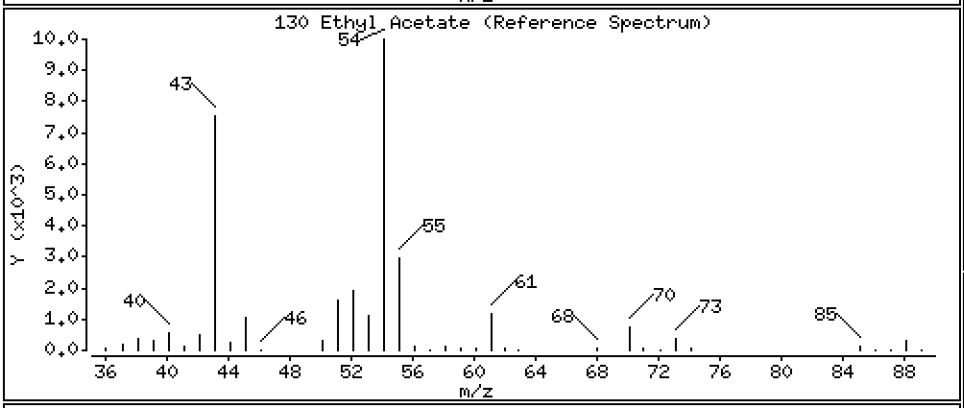
130 Ethyl Acetate Concentration: 18.82 ug/l Review Code:

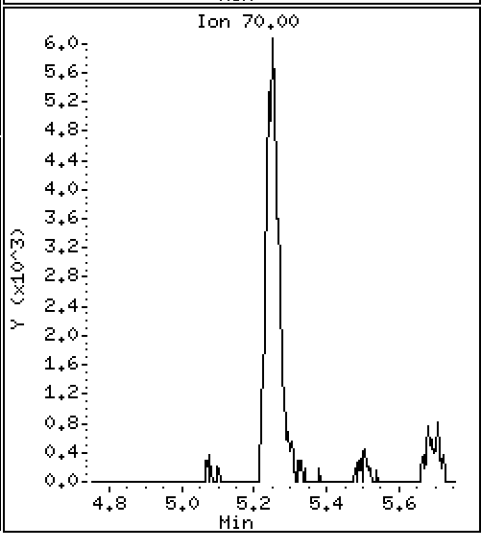


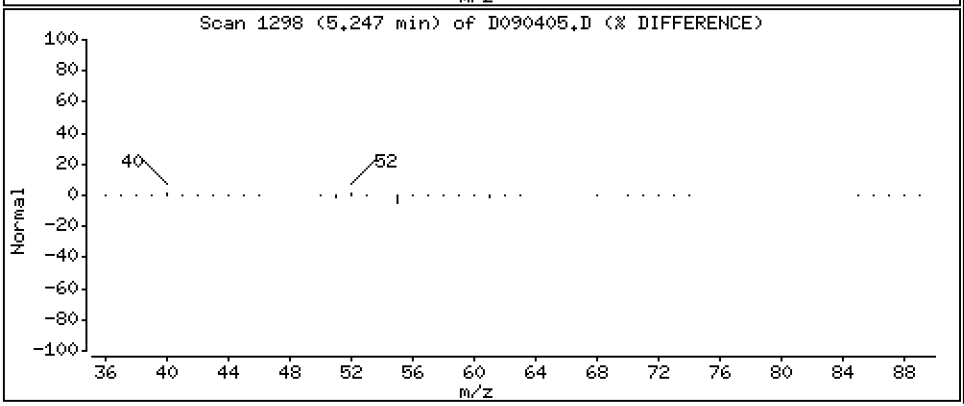












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090406.D Page 1
Report Date: 17-Sep-2018 12:34

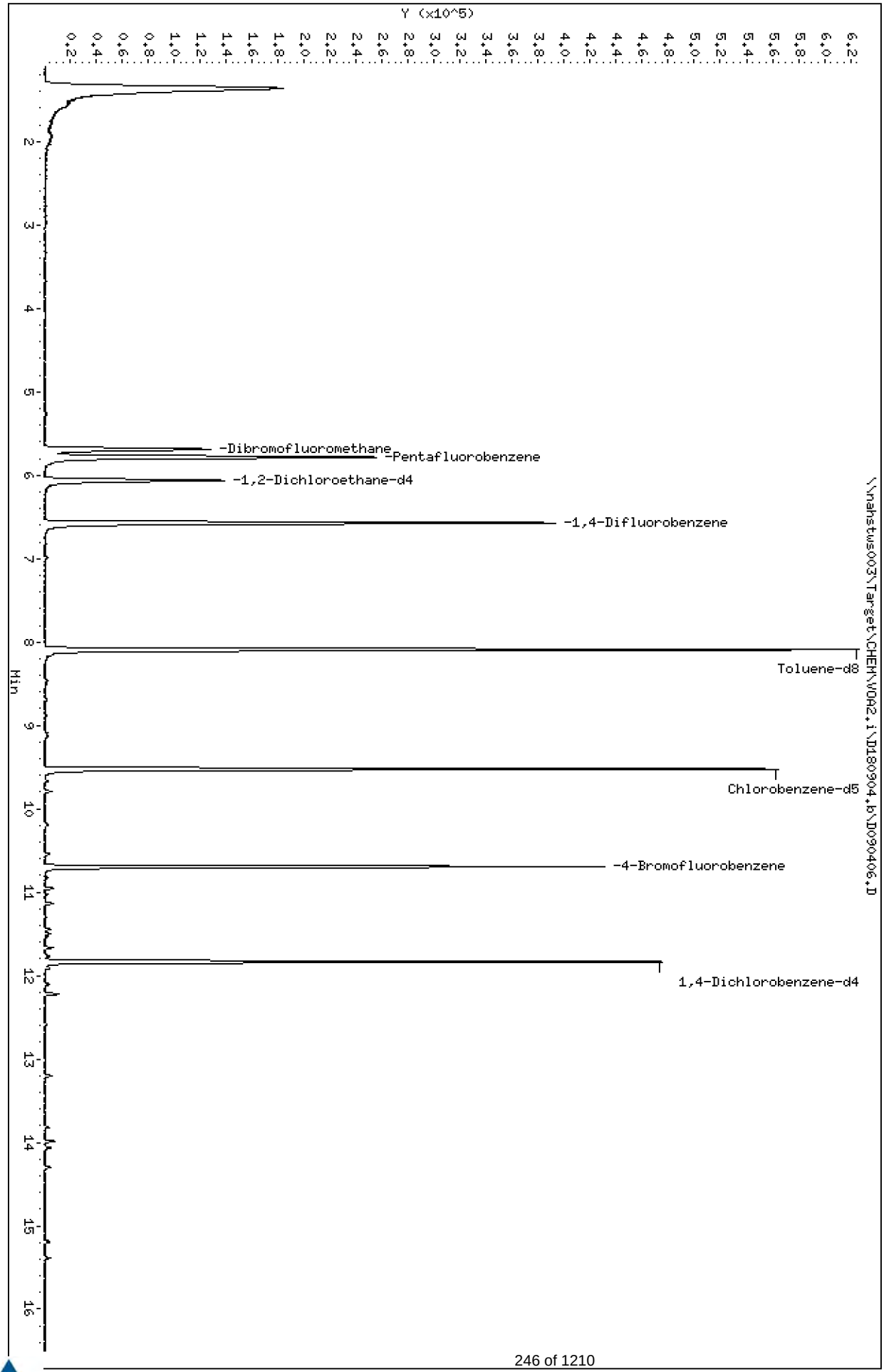
ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090406.D
Lab Smp Id: VBLKW-180904 Client Smp ID: VBLKW-180904
Inj Date : 04-SEP-2018 12:45
Operator : AP Inst ID: VOA2.i
Smp Info : VBLKW-180904;VBLKW-180904;3;;BLANK
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\nahstws003\Target\chem\voa2.i\D180904.b\8260LL.m
Meth Date : 05-Sep-2018 10:47 VOA2.i Quant Type: ISTD
Cal Date : 03-AUG-2018 02:04 Cal File: E080211.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.782	5.782	(1.000)	240614	50.0000	
$ 30 Dibromofluoromethane	113	5.686	5.689	(0.983)	99031	46.0363	46.03
$ 35 1,2-Dichloroethane-d4	65	6.062	6.058	(1.048)	107298	43.7174	43.71
* 36 1,4-Difluorobenzene	114	6.572	6.575	(1.000)	362282	50.0000	
* 47 Chlorobenzene-d5	117	9.524	9.524	(1.000)	320131	50.0000	
$ 48 Toluene-d8	98	8.090	8.093	(0.849)	409337	46.2543	46.25
$ 69 4-Bromofluorobenzene	95	10.695	10.695	(1.123)	140068	49.3302	49.33
* 70 1,4-Dichlorobenzene-d4	152	11.834	11.834	(1.000)	130004	50.0000	



Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090406.D
Date : 04-SEP-2018 12:45
Client ID: VBLKW-180904
Sample Info: VBLKW-180904;VBLKW-180904;3;;BLANK
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090413.D Page 1
Report Date: 17-Sep-2018 12:34

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090413.D
Lab Smp Id: HS18081504-04 Client Smp ID: HS18081504-04
Inj Date : 04-SEP-2018 15:36
Operator : AP Inst ID: VOA2.i
Smp Info : HS18081504-04;HS18081504-04;;;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\nahstws003\Target\chem\voa2.i\D180904.b\8260LL.m
Meth Date : 05-Sep-2018 10:47 VOA2.i Quant Type: ISTD
Cal Date : 03-AUG-2018 02:04 Cal File: E080211.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260-LLw.sub
Target Version: 4.14

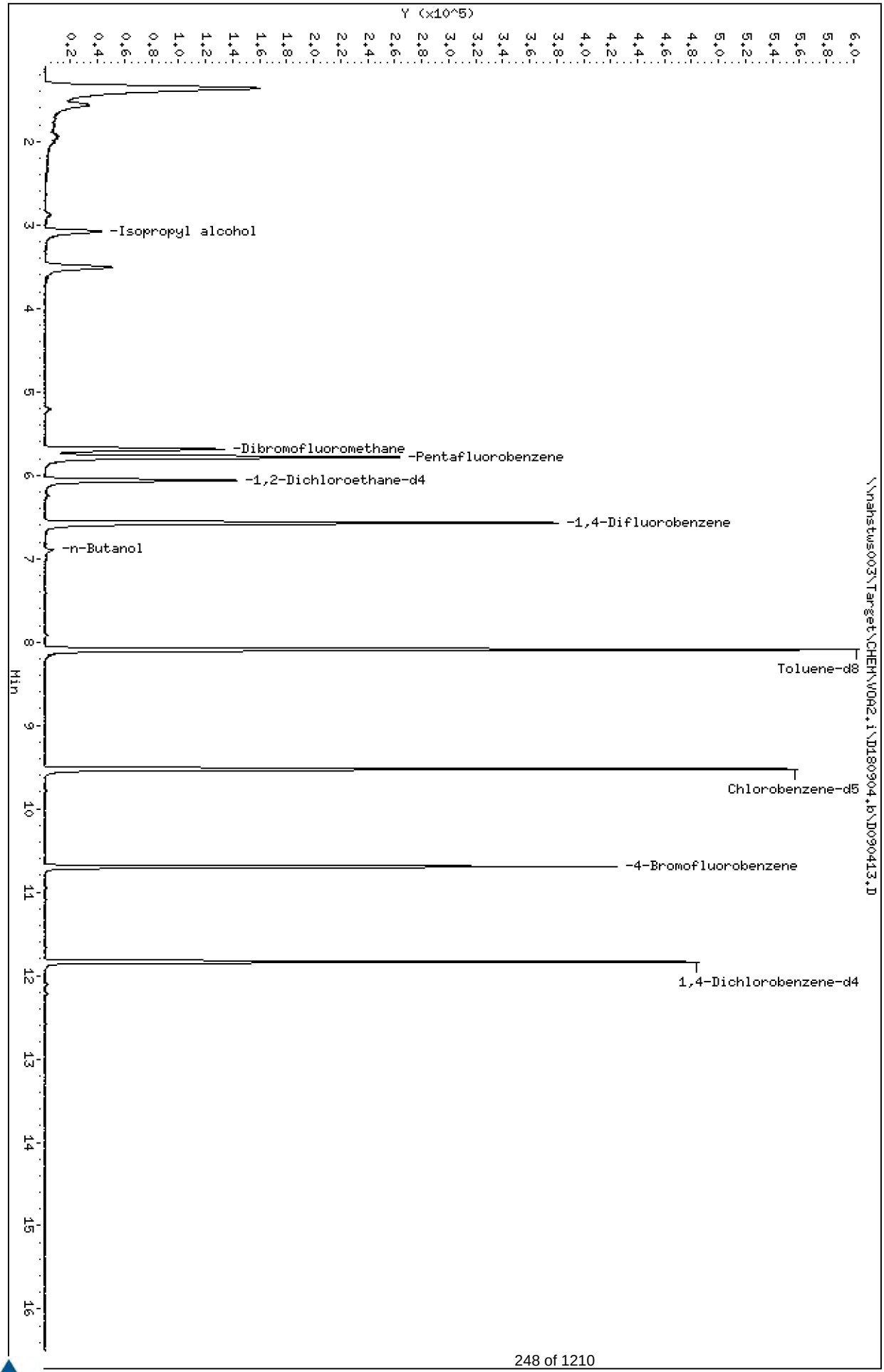
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Va	0.00000	
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	5.786	5.782	(1.000)	249047	50.0000	
$ 30 Dibromofluoromethane	113	5.689	5.689	(0.983)	106811	47.9716	47.97
$ 35 1,2-Dichloroethane-d4	65	6.062	6.058	(1.048)	112065	44.1136	44.11
* 36 1,4-Difluorobenzene	114	6.572	6.575	(1.000)	354919	50.0000	
* 47 Chlorobenzene-d5	117	9.524	9.524	(1.000)	319185	50.0000	
$ 48 Toluene-d8	98	8.090	8.093	(0.849)	400133	45.3483	45.34
$ 69 4-Bromofluorobenzene	95	10.695	10.695	(1.123)	139358	49.2256	49.22
* 70 1,4-Dichlorobenzene-d4	152	11.835	11.834	(1.000)	129727	50.0000	
132 n-Butanol	56	6.896	6.995	(1.192)	5392	21.4962	21.49
149 Isopropyl alcohol	45	3.077	3.071	(0.532)	104383	430.663	430.66(M)

QC Flag Legend

M - Compound response manually integrated.



Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090413.D
Date : 04-SEP-2018 15:36
Client ID: HS18081504-04
Sample Info: HS18081504-04;HS18081504-04;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090413.D Page 2

Date : 04-SEP-2018 15:36

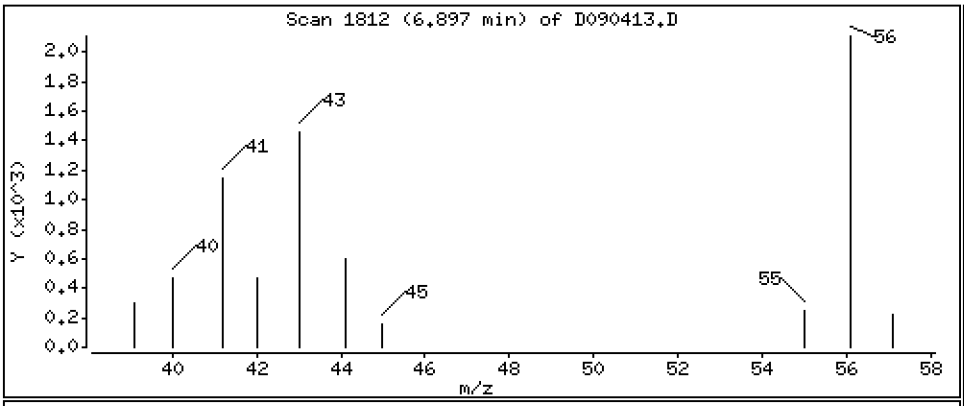
Client ID: HS18081504-04 Instrument: VOA2.i

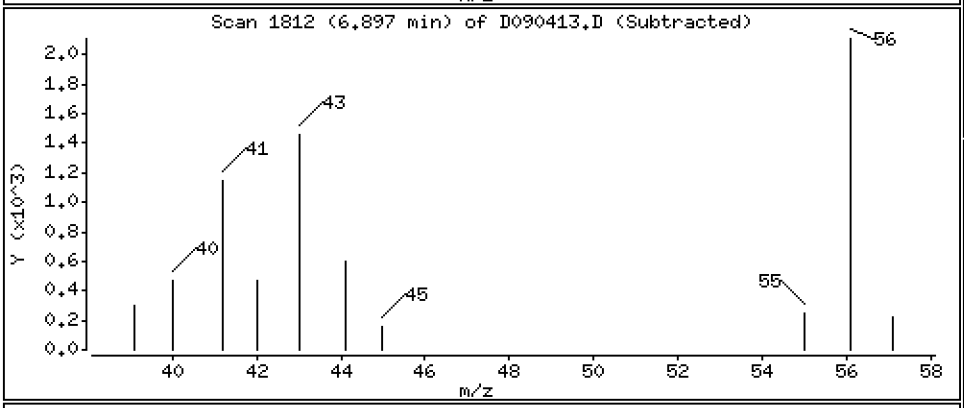
Sample Info: HS18081504-04;HS18081504-04;;;

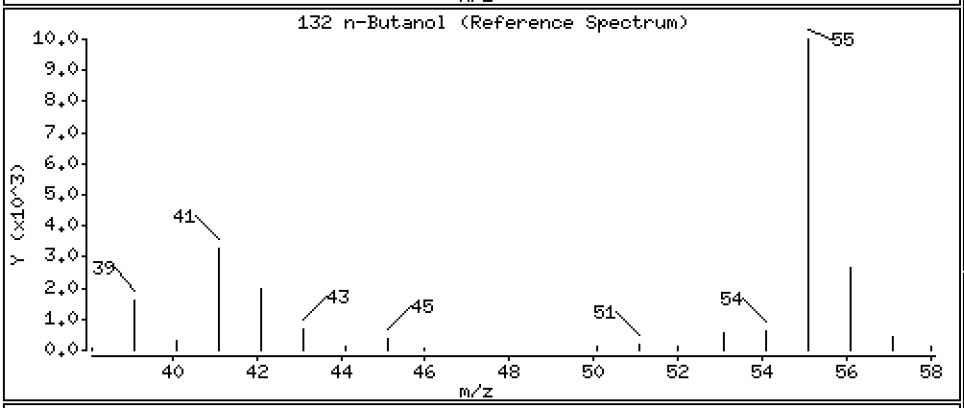
Purge Volume: 5.0 Operator: AP

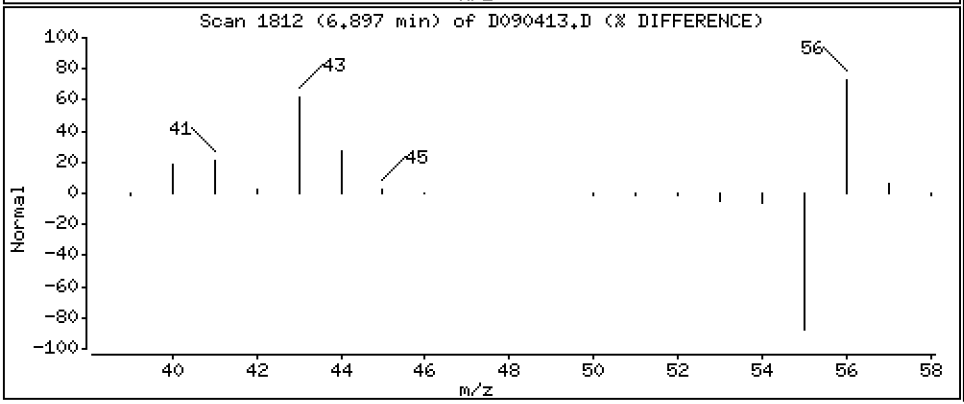
Column phase: DB624 Column diameter: 0.18

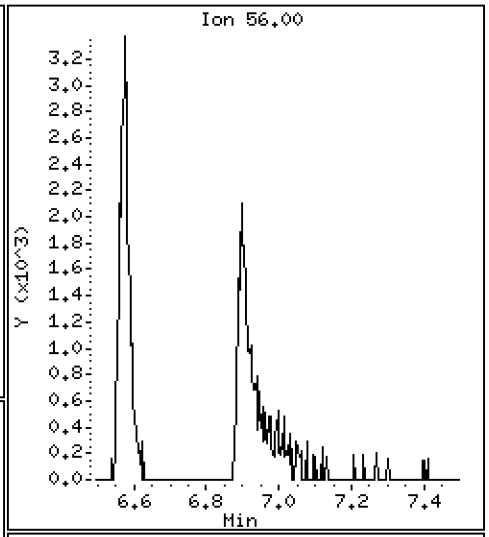
132 n-Butanol Concentration: 21.49 ug/l Review Code:

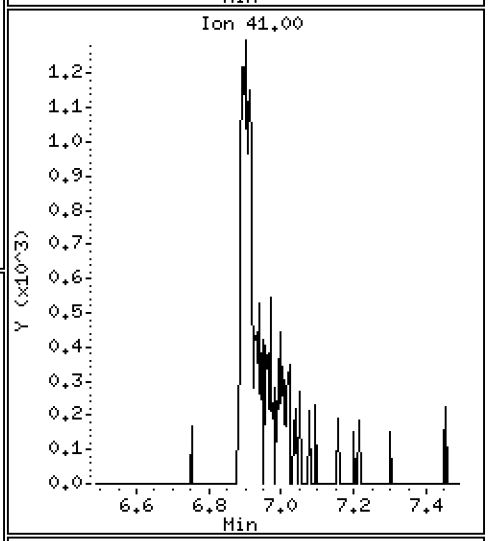


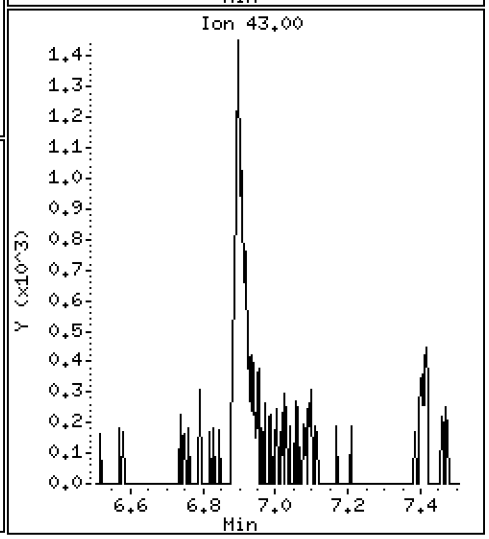












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090413.D Page 3

Date : 04-SEP-2018 15:36

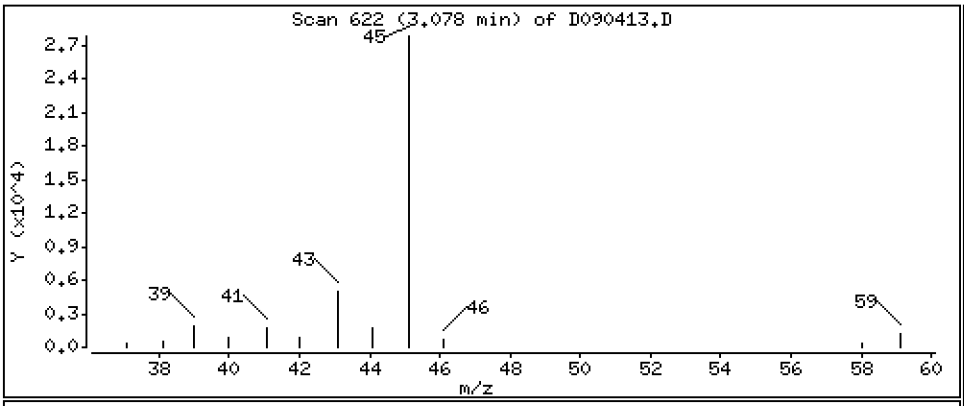
Client ID: HS18081504-04 Instrument: VOA2.i

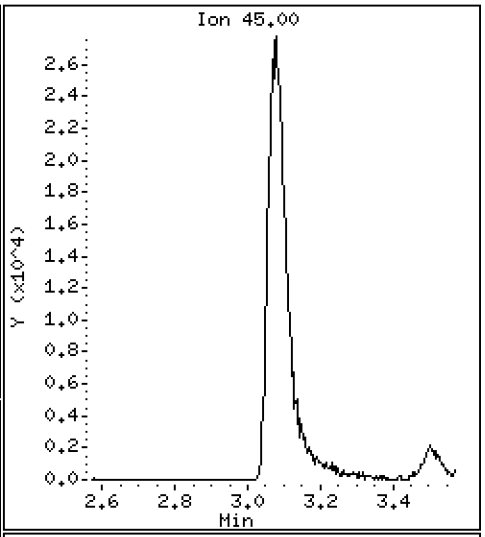
Sample Info: HS18081504-04;HS18081504-04;;;

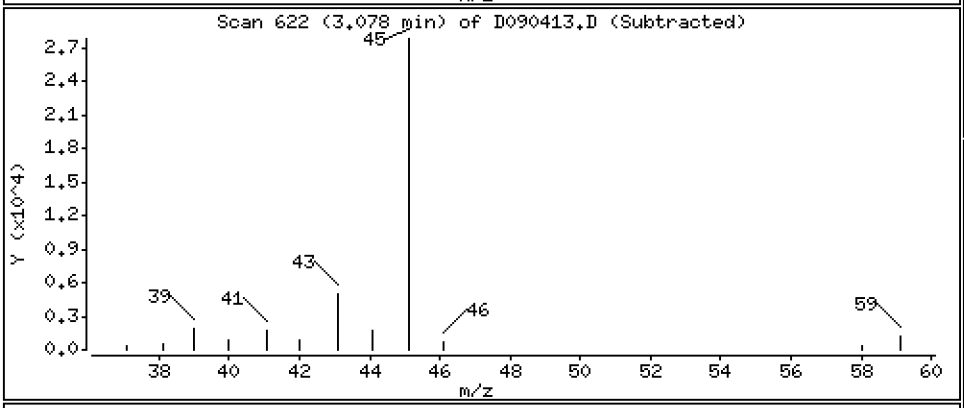
Purge Volume: 5.0 Operator: AP

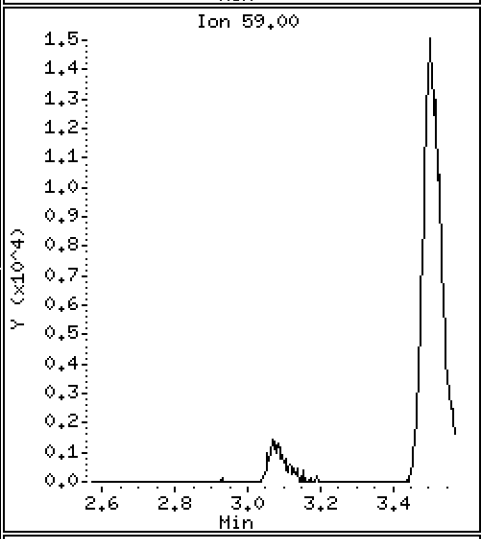
Column phase: DB624 Column diameter: 0.18

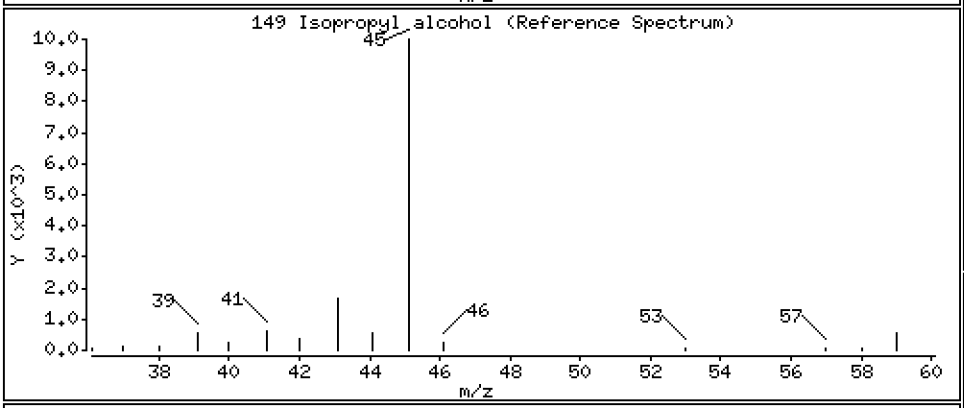
149 Isopropyl alcohol Concentration: 430.66 ug/l Review Code:

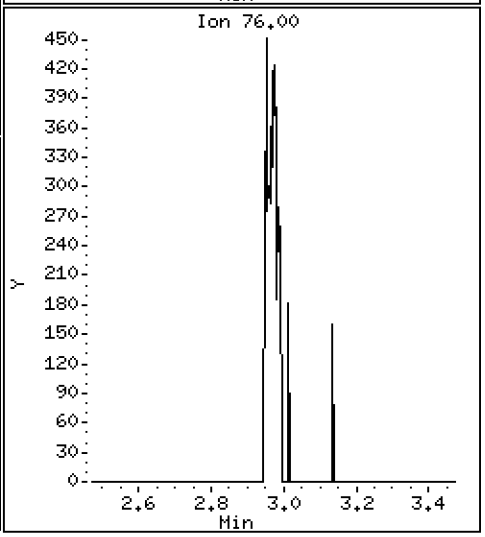


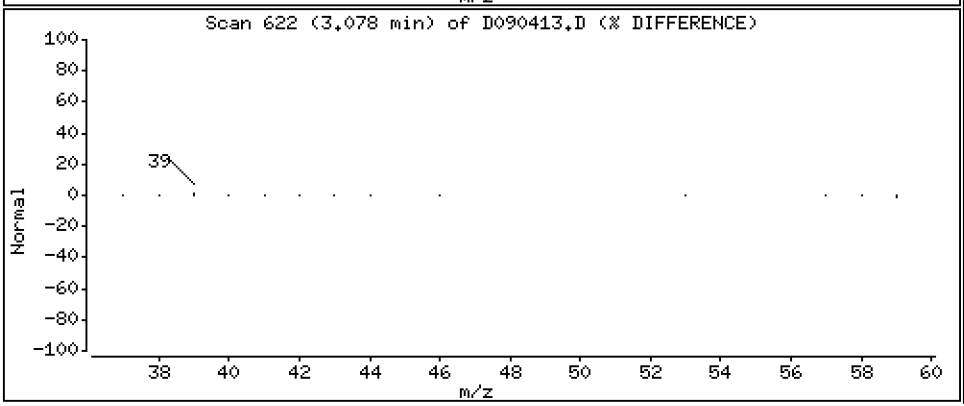












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090414.D Page 1
Report Date: 17-Sep-2018 12:34

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090414.D
Lab Smp Id: HS18081504-01 Client Smp ID: HS18081504-01
Inj Date : 04-SEP-2018 16:01
Operator : AP Inst ID: VOA2.i
Smp Info : HS18081504-01;HS18081504-01;;;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\nahstws003\Target\chem\voa2.i\D180904.b\8260LL.m
Meth Date : 05-Sep-2018 10:47 VOA2.i Quant Type: ISTD
Cal Date : 03-AUG-2018 02:04 Cal File: E080211.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260-LLw.sub
Target Version: 4.14

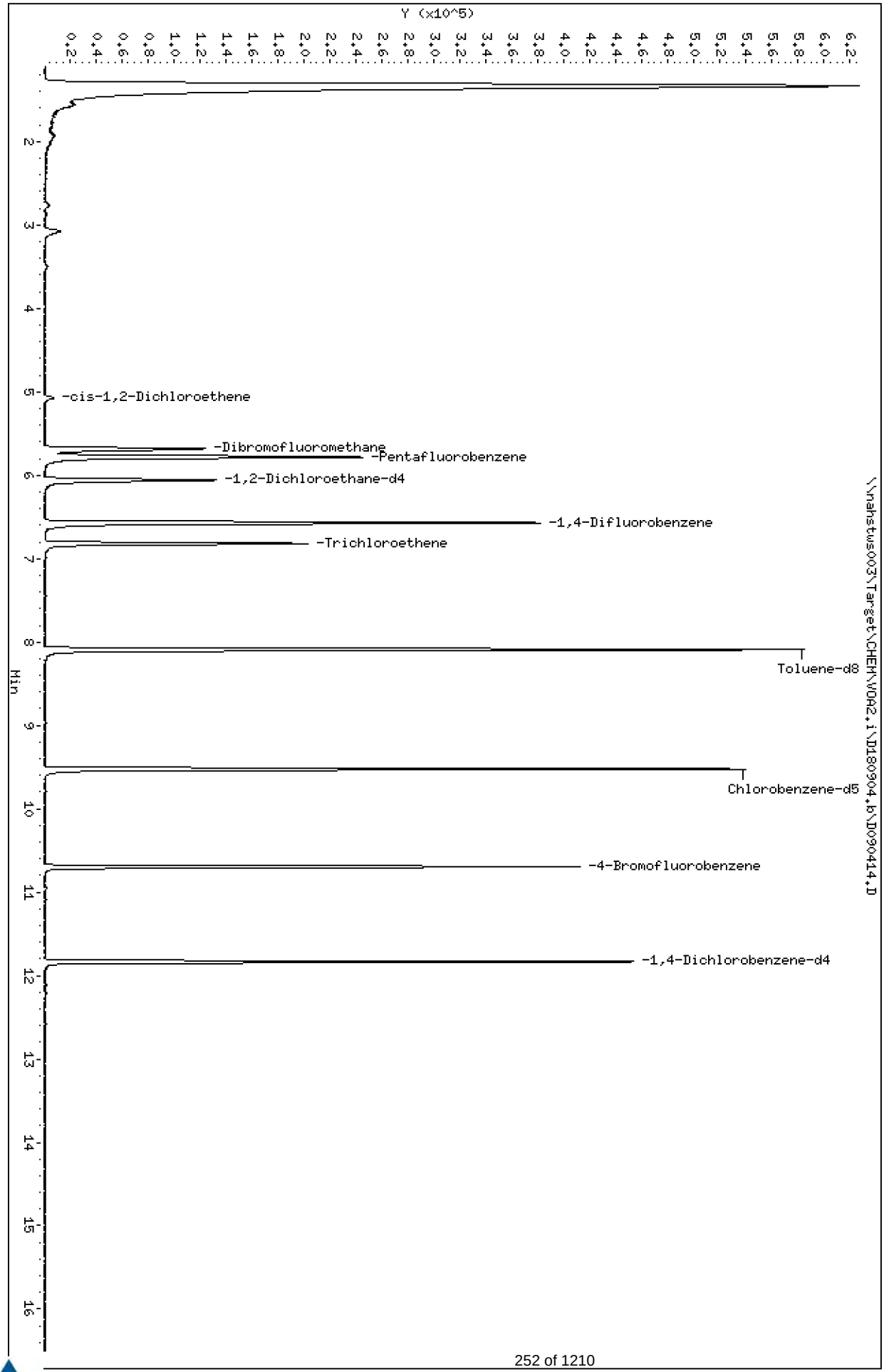
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Va	0.00000	
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	5.782	5.782	(1.000)	229758	50.0000	
	27 cis-1,2-Dichloroethene	96	5.070	5.073	(0.877)	4678	1.38480	1.38
$	30 Dibromofluoromethane	113	5.686	5.689	(0.983)	95882	46.6784	46.67
$	35 1,2-Dichloroethane-d4	65	6.058	6.058	(1.048)	105298	44.9297	44.92
*	36 1,4-Difluorobenzene	114	6.572	6.575	(1.000)	349858	50.0000	
	38 Trichloroethene	130	6.816	6.819	(1.037)	76515	23.9467	23.94
*	47 Chlorobenzene-d5	117	9.524	9.524	(1.000)	311962	50.0000	
$	48 Toluene-d8	98	8.090	8.093	(0.849)	393367	45.6137	45.61
$	69 4-Bromofluorobenzene	95	10.695	10.695	(1.123)	135565	48.9945	48.99
*	70 1,4-Dichlorobenzene-d4	152	11.834	11.834	(1.000)	125315	50.0000	
M	94 1,2-Dichloroethylene (total)	96				4678	1.38480	1.38(a)

QC Flag Legend

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



Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090414.D
Date : 04-SEP-2018 16:01
Client ID: HS18081504-01
Sample Info: HS18081504-01;HS18081504-01;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090414.D Page 2

Date : 04-SEP-2018 16:01

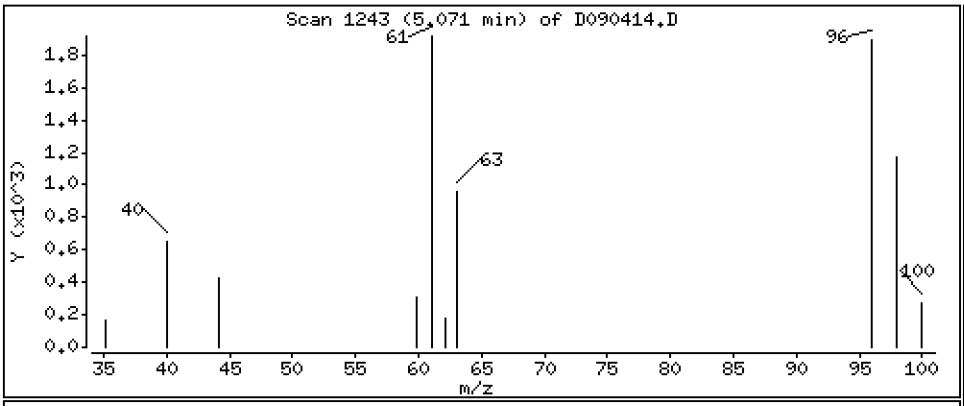
Client ID: HS18081504-01 Instrument: VOA2.i

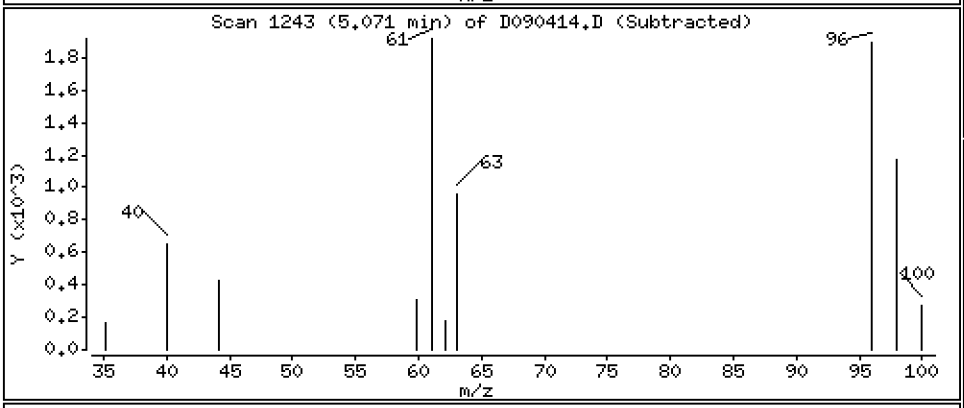
Sample Info: HS18081504-01;HS18081504-01;;;

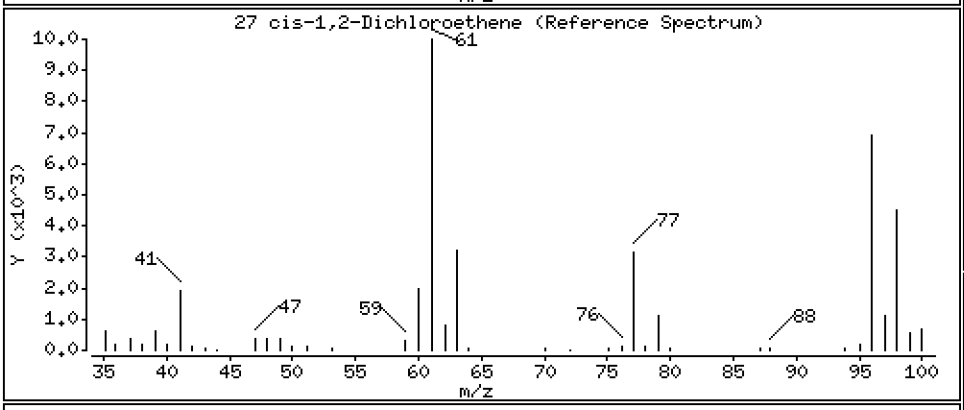
Purge Volume: 5.0 Operator: AP

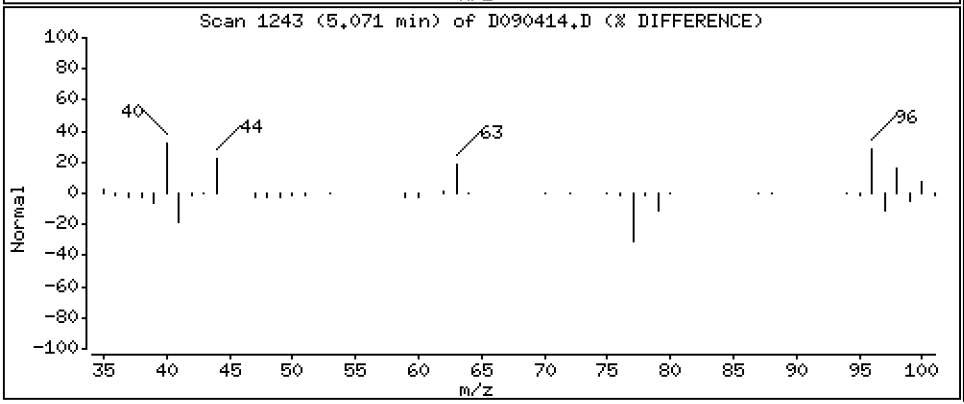
Column phase: DB624 Column diameter: 0.18

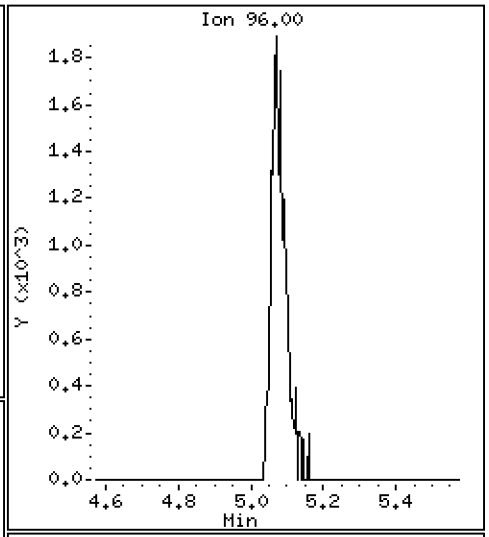
27 cis-1,2-Dichloroethene Concentration: 1.38 ug/l Review Code:

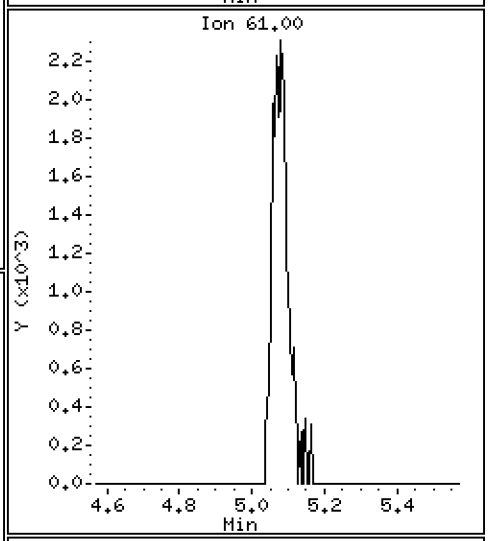


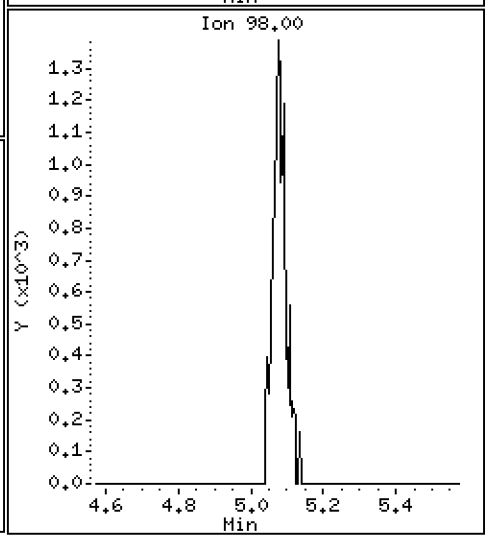












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090414.D Page 3

Date : 04-SEP-2018 16:01

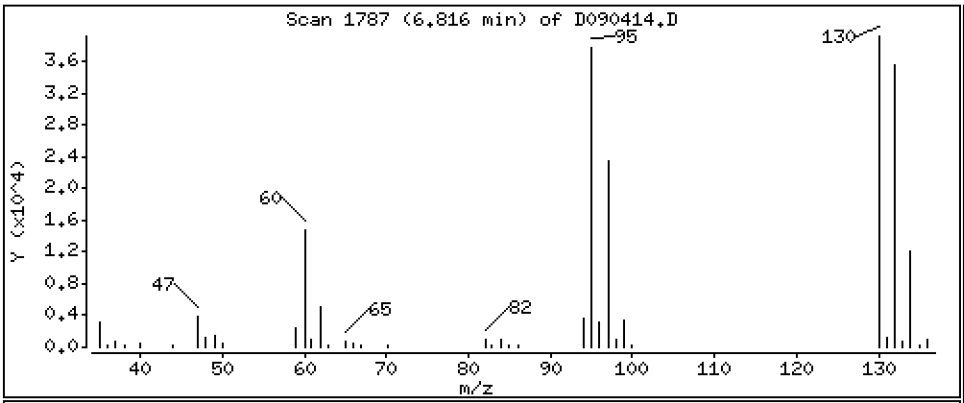
Client ID: HS18081504-01 Instrument: VOA2.i

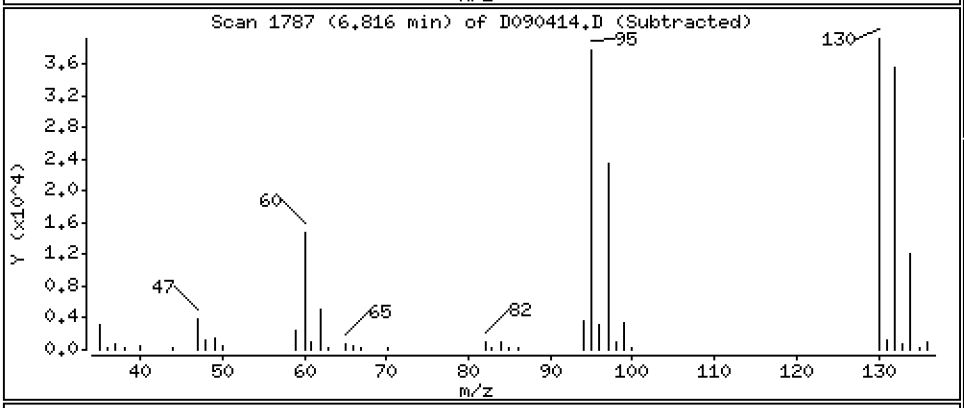
Sample Info: HS18081504-01;HS18081504-01;;;

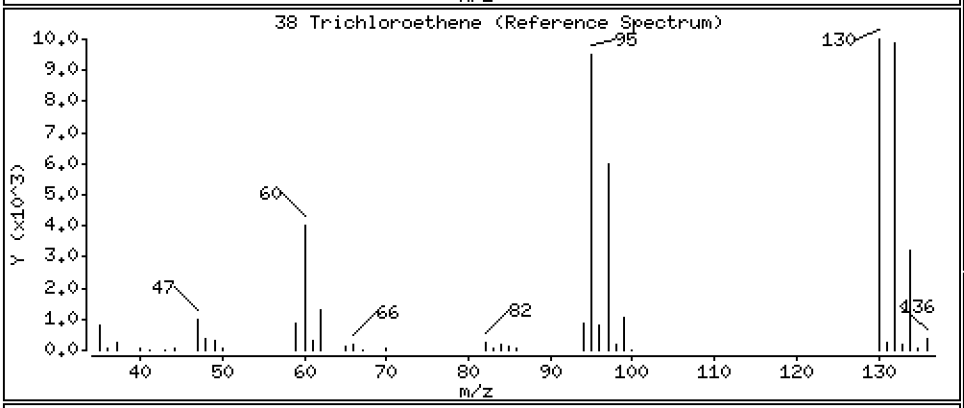
Purge Volume: 5.0 Operator: AP

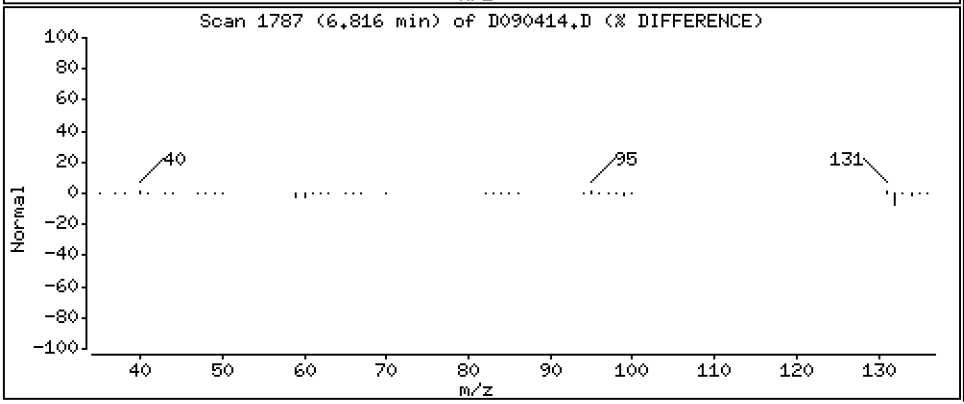
Column phase: DB624 Column diameter: 0.18

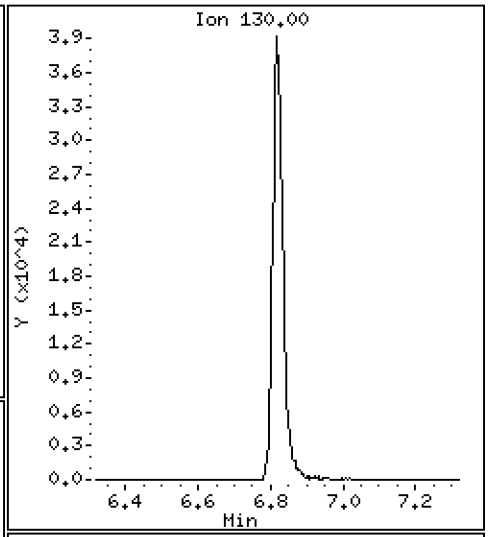
38 Trichloroethene Concentration: 23.94 ug/l Review Code:

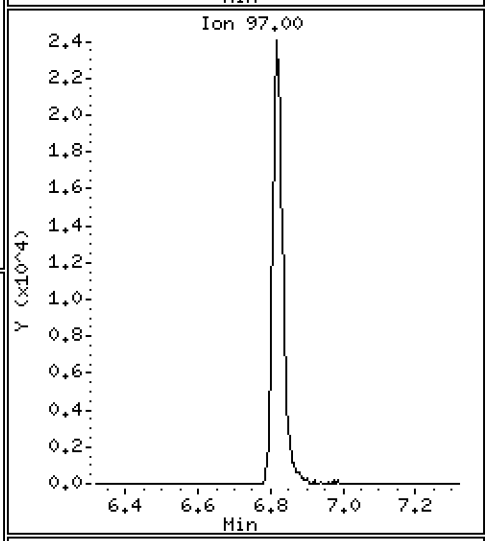


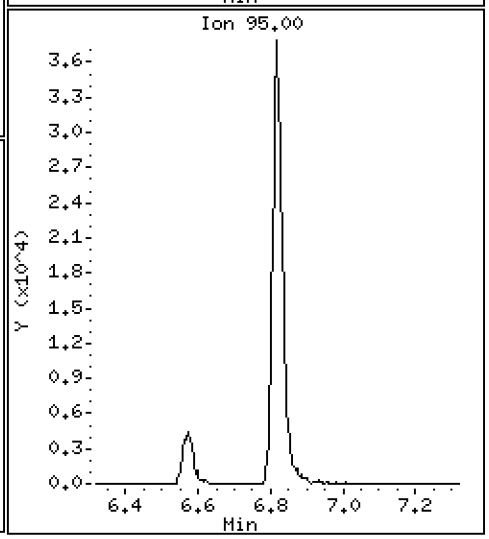












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090415.D Page 1
Report Date: 17-Sep-2018 12:35

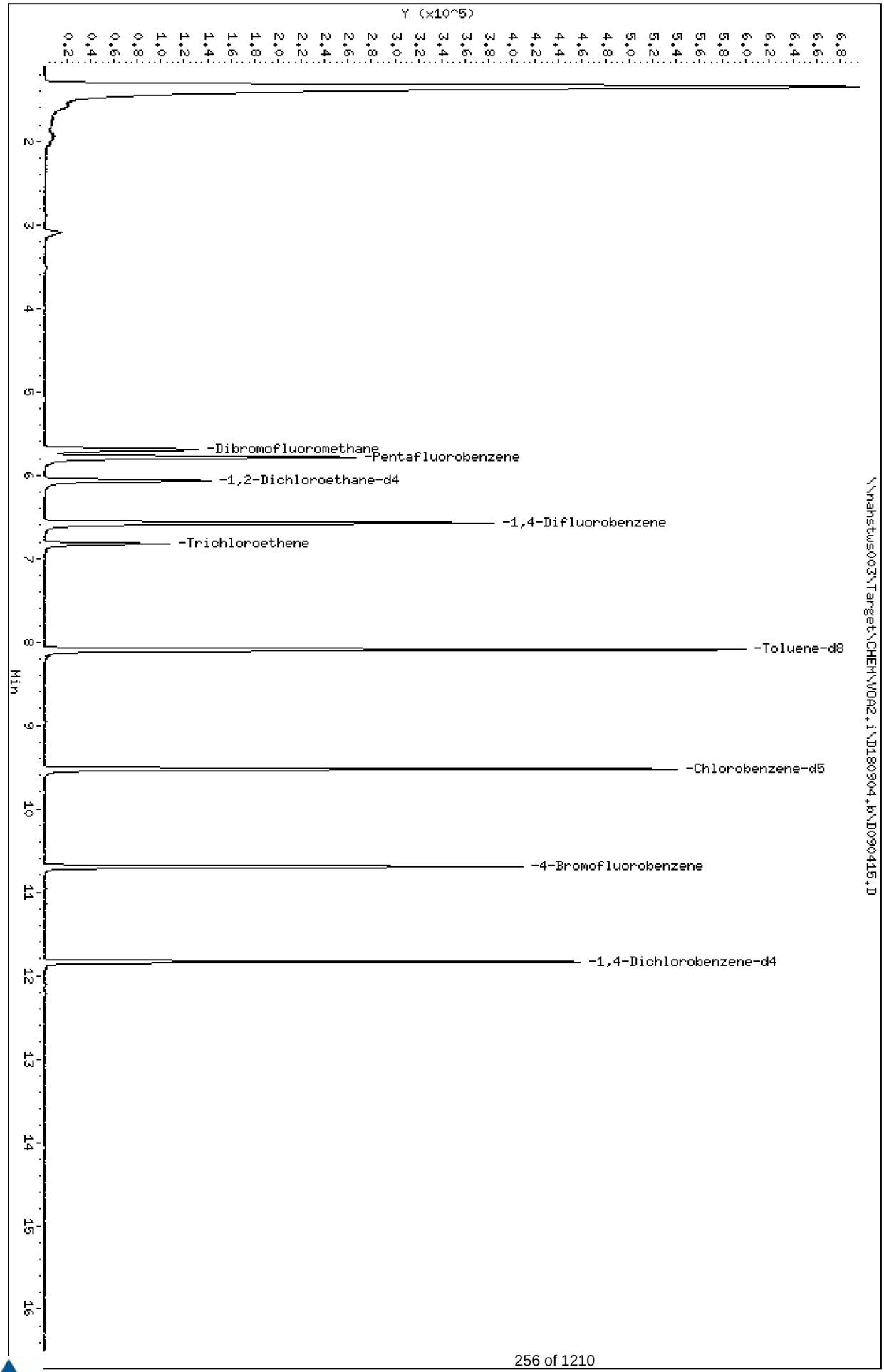
ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090415.D
Lab Smp Id: HS18081504-02 Client Smp ID: HS18081504-02
Inj Date : 04-SEP-2018 16:25
Operator : AP Inst ID: VOA2.i
Smp Info : HS18081504-02;HS18081504-02;;;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\nahstws003\Target\chem\voa2.i\D180904.b\8260LL.m
Meth Date : 05-Sep-2018 10:47 VOA2.i Quant Type: ISTD
Cal Date : 03-AUG-2018 02:04 Cal File: E080211.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.789	5.782	(1.000)	247679	50.0000	
$ 30 Dibromofluoromethane	113	5.692	5.689	(0.983)	105598	47.6888	47.68
$ 35 1,2-Dichloroethane-d4	65	6.065	6.058	(1.048)	111838	44.2674	44.26
* 36 1,4-Difluorobenzene	114	6.578	6.575	(1.000)	350086	50.0000	
38 Trichloroethene	130	6.822	6.819	(1.037)	40640	12.7107	12.71
* 47 Chlorobenzene-d5	117	9.524	9.524	(1.000)	313334	50.0000	
$ 48 Toluene-d8	98	8.093	8.093	(0.850)	394859	45.5862	45.58
$ 69 4-Bromofluorobenzene	95	10.695	10.695	(1.123)	135294	48.6825	48.68
* 70 1,4-Dichlorobenzene-d4	152	11.834	11.834	(1.000)	123358	50.0000	



Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090415.D
Date : 04-SEP-2018 16:25
Client ID: HS18081504-02
Sample Info: HS18081504-02;HS18081504-02;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090415.D Page 2

Date : 04-SEP-2018 16:25

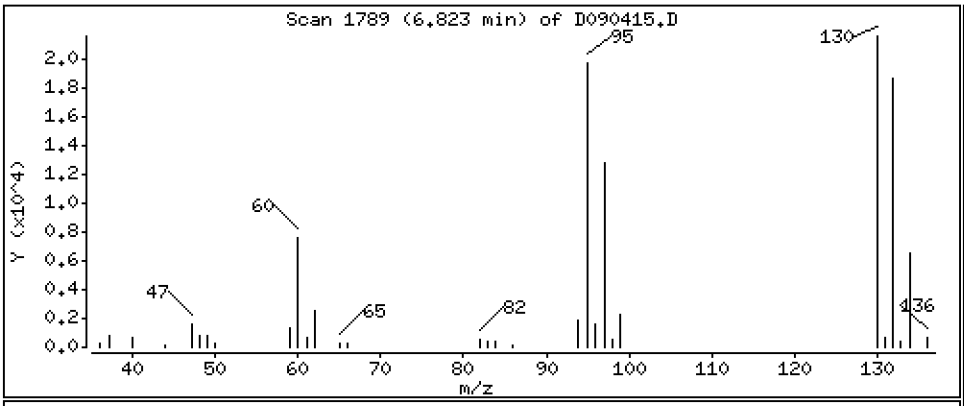
Client ID: HS18081504-02 Instrument: VOA2.i

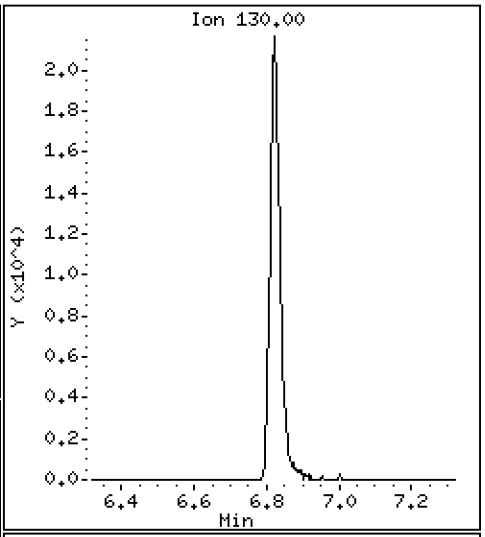
Sample Info: HS18081504-02;HS18081504-02;;;

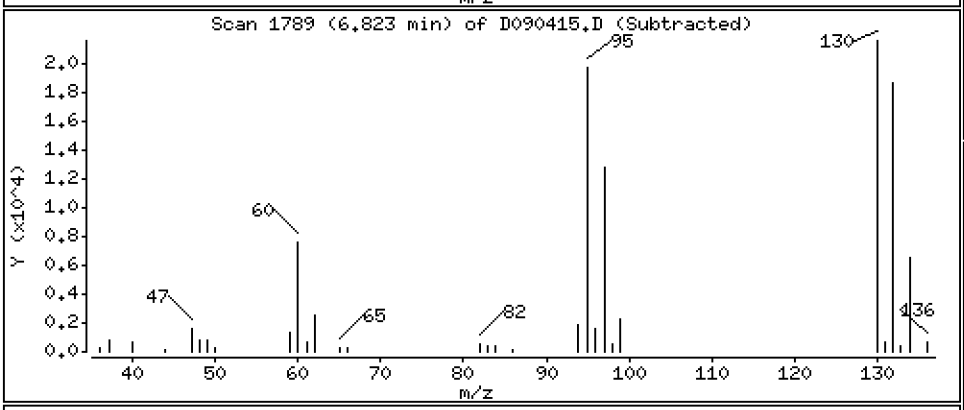
Purge Volume: 5.0 Operator: AP

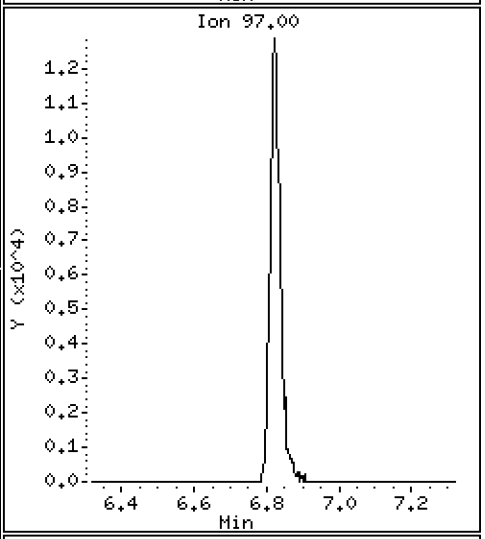
Column phase: DB624 Column diameter: 0.18

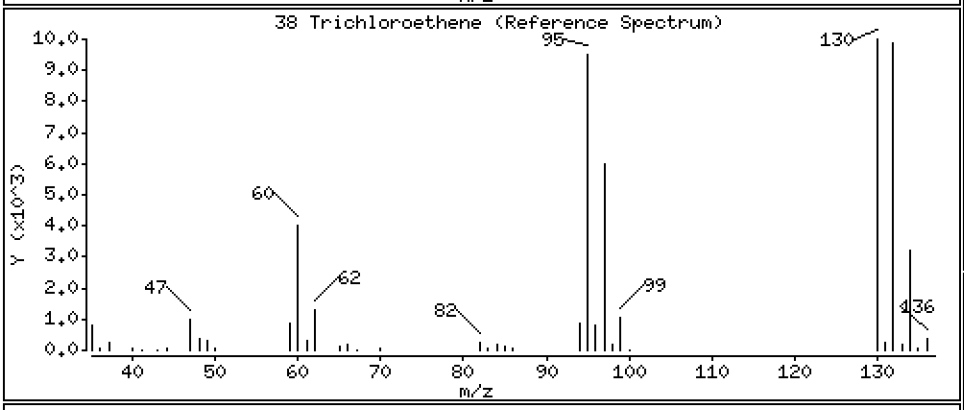
38 Trichloroethene Concentration: 12.71 ug/l Review Code:

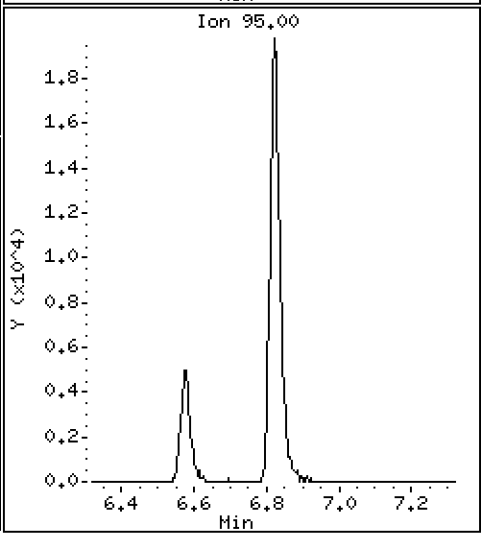


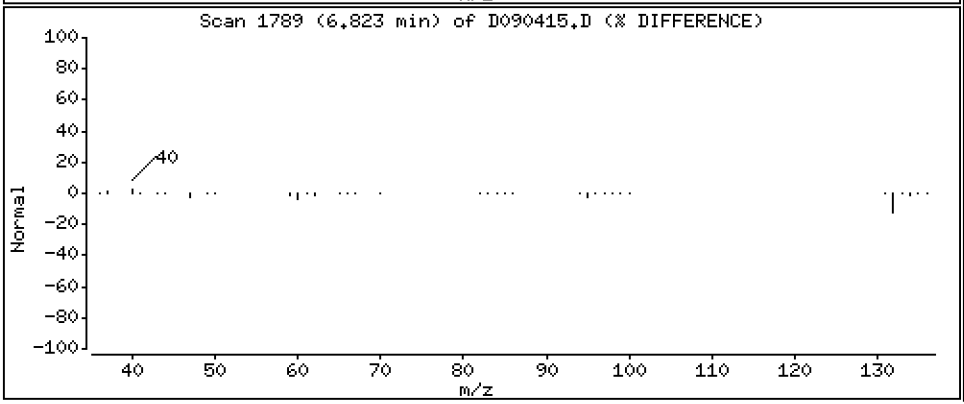












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090416.D Page 1
Report Date: 17-Sep-2018 12:35

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Data file : \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090416.D
Lab Smp Id: HS18081504-03 Client Smp ID: HS18081504-03
Inj Date : 04-SEP-2018 16:50
Operator : AP Inst ID: VOA2.i
Smp Info : HS18081504-03;HS18081504-03;;;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\nahstws003\Target\chem\voa2.i\D180904.b\8260LL.m
Meth Date : 05-Sep-2018 10:47 VOA2.i Quant Type: ISTD
Cal Date : 03-AUG-2018 02:04 Cal File: E080211.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260-LLw.sub
Target Version: 4.14

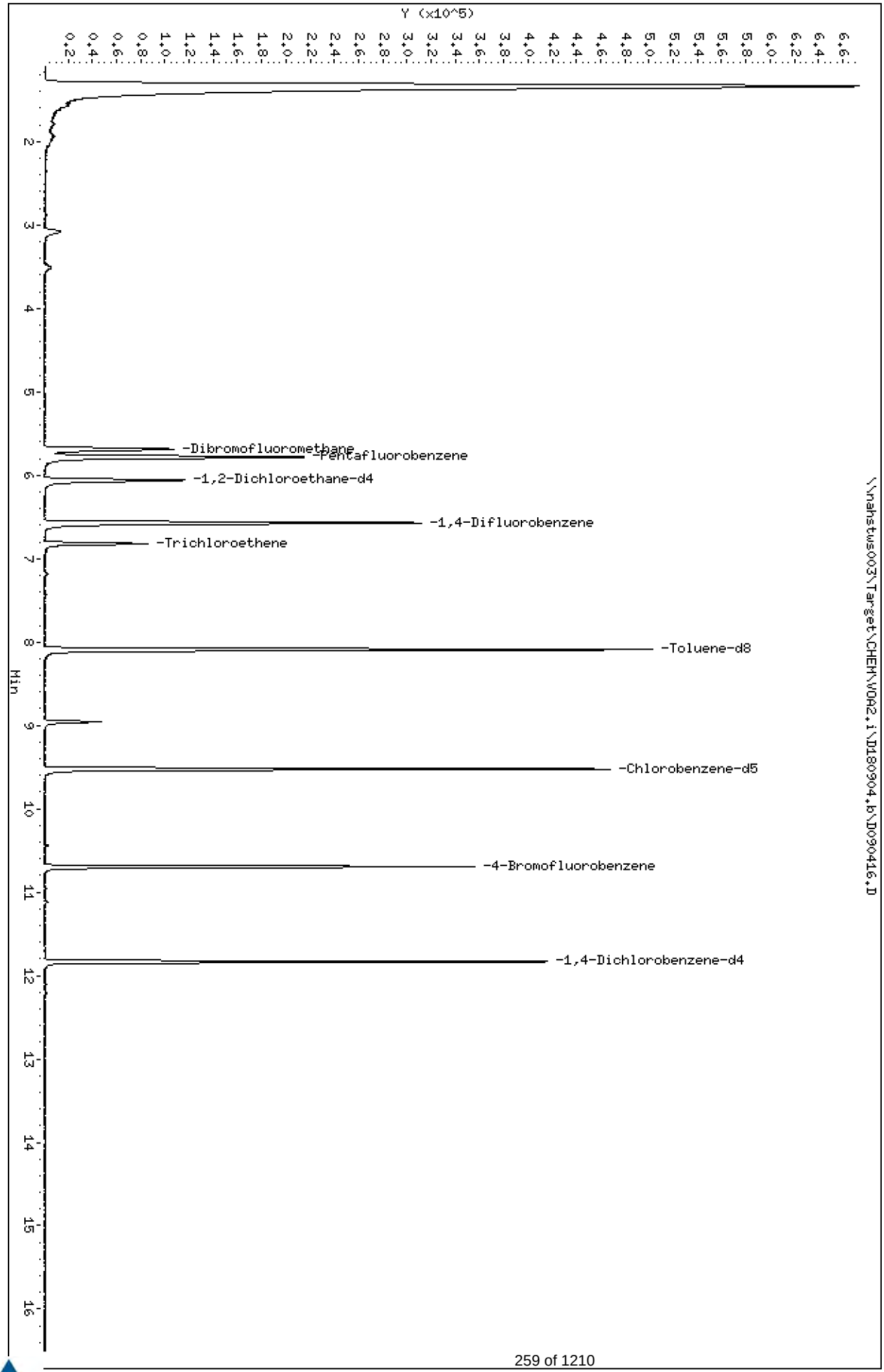
Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Va	0.00000	
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	5.782	5.782	(1.000)	204814	50.0000	
$ 30 Dibromofluoromethane	113	5.683	5.689	(0.983)	84471	46.1315	46.13
$ 35 1,2-Dichloroethane-d4	65	6.062	6.058	(1.048)	92869	44.4524	44.45
* 36 1,4-Difluorobenzene	114	6.575	6.575	(1.000)	292104	50.0000	
38 Trichloroethene	130	6.822	6.819	(1.038)	32741	12.2728	12.27
* 47 Chlorobenzene-d5	117	9.524	9.524	(1.000)	262706	50.0000	
$ 48 Toluene-d8	98	8.090	8.093	(0.849)	329038	45.3080	45.30
$ 69 4-Bromofluorobenzene	95	10.695	10.695	(1.123)	115230	49.4535	49.45
* 70 1,4-Dichlorobenzene-d4	152	11.835	11.834	(1.000)	111111	50.0000	

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090416.D
Date : 04-SEP-2018 16:50
Client ID: HS18081504-03
Sample Info: HS18081504-03;HS18081504-03;;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18



Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090416.D Page 2

Date : 04-SEP-2018 16:50

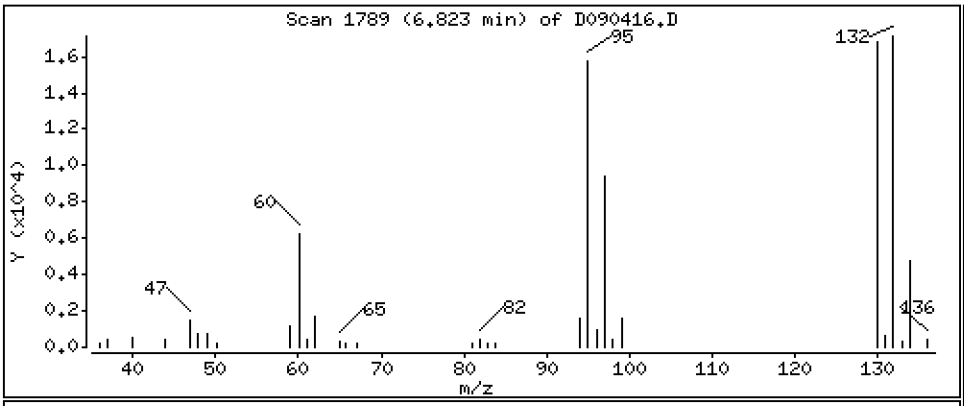
Client ID: HS18081504-03 Instrument: VOA2.i

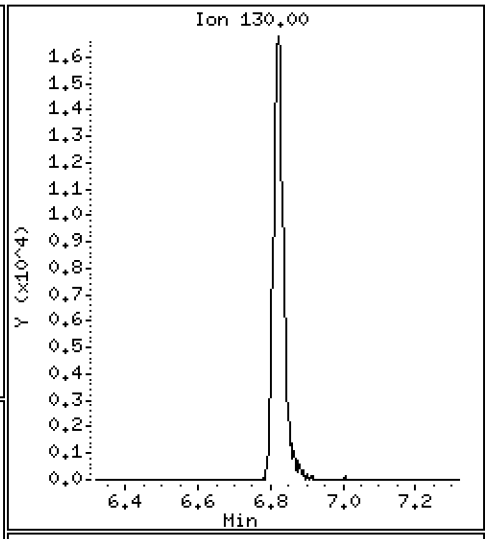
Sample Info: HS18081504-03;HS18081504-03;;;

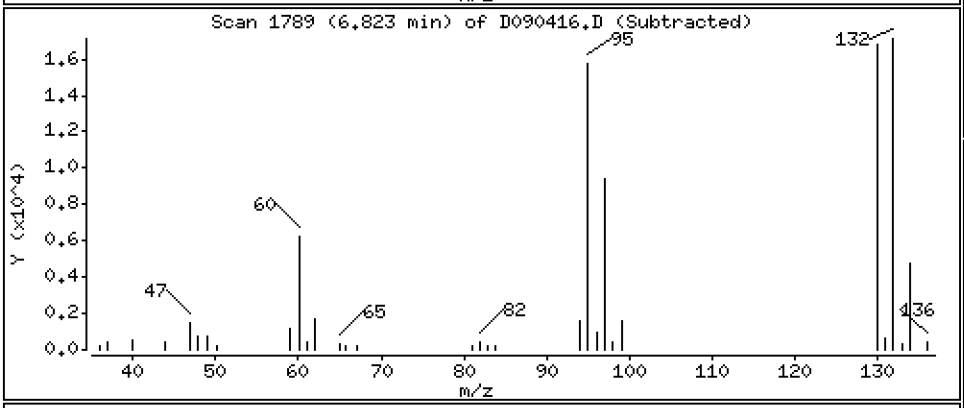
Purge Volume: 5.0 Operator: AP

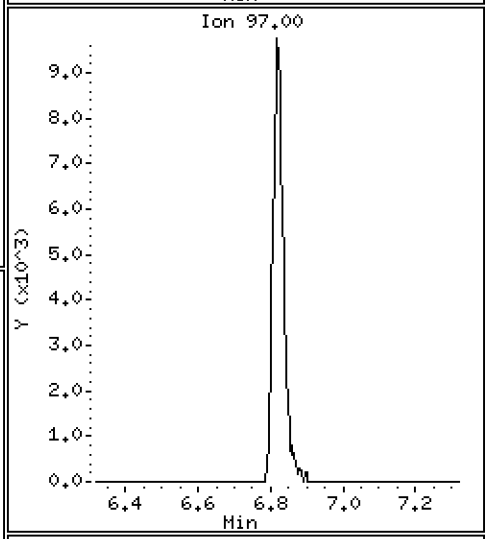
Column phase: DB624 Column diameter: 0.18

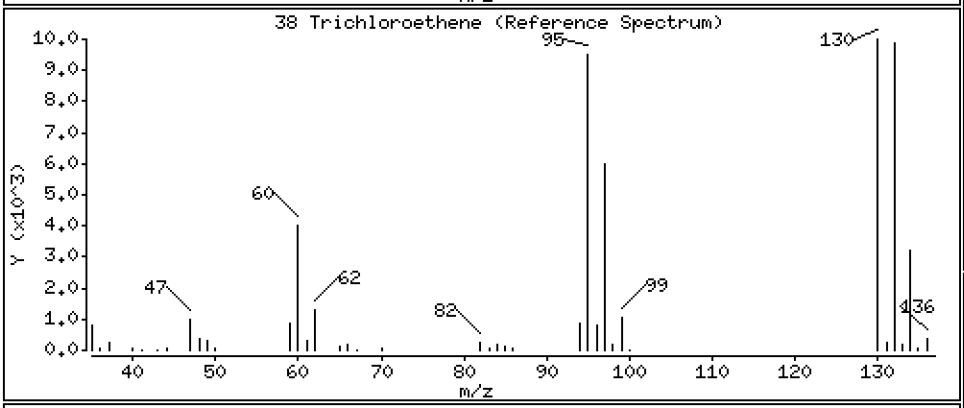
38 Trichloroethene Concentration: 12.27 ug/l Review Code:

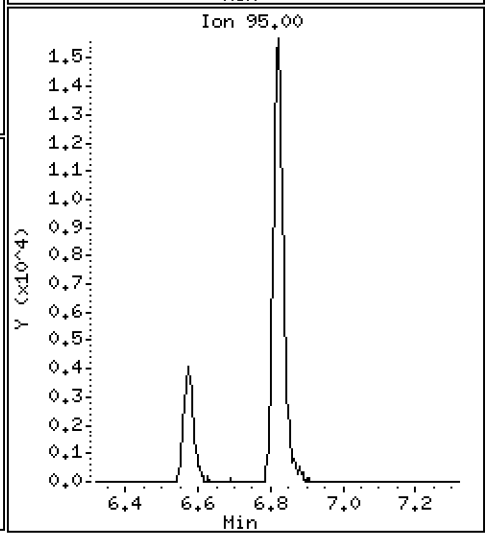


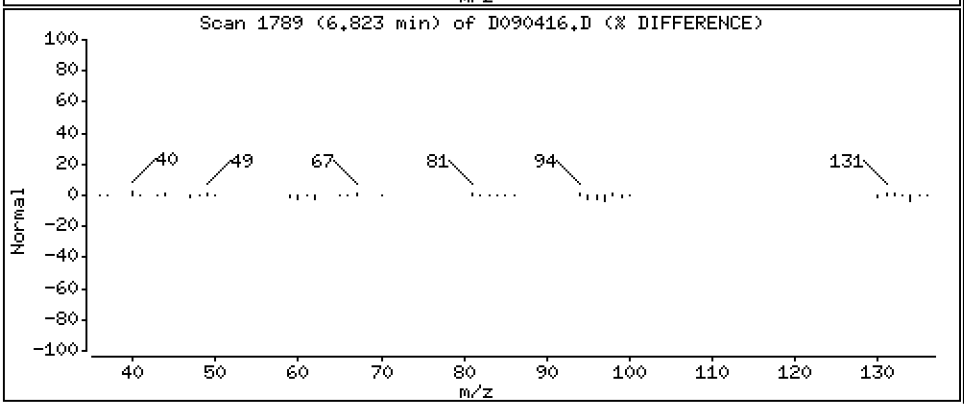












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 1
Report Date: 17-Sep-2018 12:35

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Data file : \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D
Lab Smp Id: HS18081504-01MS Client Smp ID: HS18081504-01MS
Inj Date : 04-SEP-2018 17:39
Operator : AP Inst ID: VOA2.i
Smp Info : HS18081504-01MS;HS18081504-01MS;3;;MS
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\nahstws003\Target\chem\voa2.i\D180904.b\8260LL.m
Meth Date : 05-Sep-2018 10:47 VOA2.i Quant Type: ISTD
Cal Date : 03-AUG-2018 02:04 Cal File: E080211.D
Als bottle: 18 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.789	5.782	(1.000)	234710	50.0000	
2	Dichlorodifluoromethane	85	1.470	1.460	(0.254)	40192	17.3945	17.39
186	Isobutylene	56	1.678	1.669	(0.290)	30005	7.19550	7.19(AM)
3	Chloromethane	50	1.617	1.611	(0.279)	81920	14.1450	14.14
4	Propionitrile	54	5.240	5.240	(0.905)	178129	167.892	167.89
5	Vinyl Chloride	62	1.707	1.698	(0.295)	64572	16.6714	16.67
6	Bromomethane	94	1.964	1.954	(0.339)	37672	17.1738	17.17
7	Chloroethane	64	2.057	2.050	(0.355)	36958	14.9365	14.93
159	Dichlorofluoromethane	67	2.249	2.243	(0.389)	81693	14.2160	14.21
8	Trichlorofluoromethane	101	2.275	2.272	(0.393)	60166	15.8988	15.89
9	Acrolein	56	2.705	2.695	(0.467)	16417	21.4650	21.46
10	Acetone	43	2.872	2.866	(0.496)	33819	30.2812	30.28
11	1,1-Dichloroethene	96	2.766	2.769	(0.478)	49479	17.8376	17.83
12	Isobutyl Alcohol	74	6.161	6.158	(1.064)	4329	276.985	276.98(A)
13	Acetonitrile	39	3.193	3.186	(0.552)	55467	163.205	163.20
14	Allyl Chloride	41	3.193	3.196	(0.552)	141939	14.8950	14.89
15	Iodomethane	142	2.930	2.920	(0.506)	57368	23.6220	23.62
16	Acrylonitrile	53	3.713	3.700	(0.641)	43505	30.0733	30.07
17	Methylene Chloride	84	3.353	3.344	(0.579)	50885	15.1306	15.13
18	Methyl tert-butyl ether	73	3.700	3.697	(0.639)	124162	14.7042	14.70
19	Carbon Disulfide	76	2.975	2.971	(0.514)	172657	32.9895	32.98
20	trans-1,2-Dichloroethene	96	3.681	3.677	(0.636)	49012	17.1352	17.13

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 2
Report Date: 17-Sep-2018 12:35

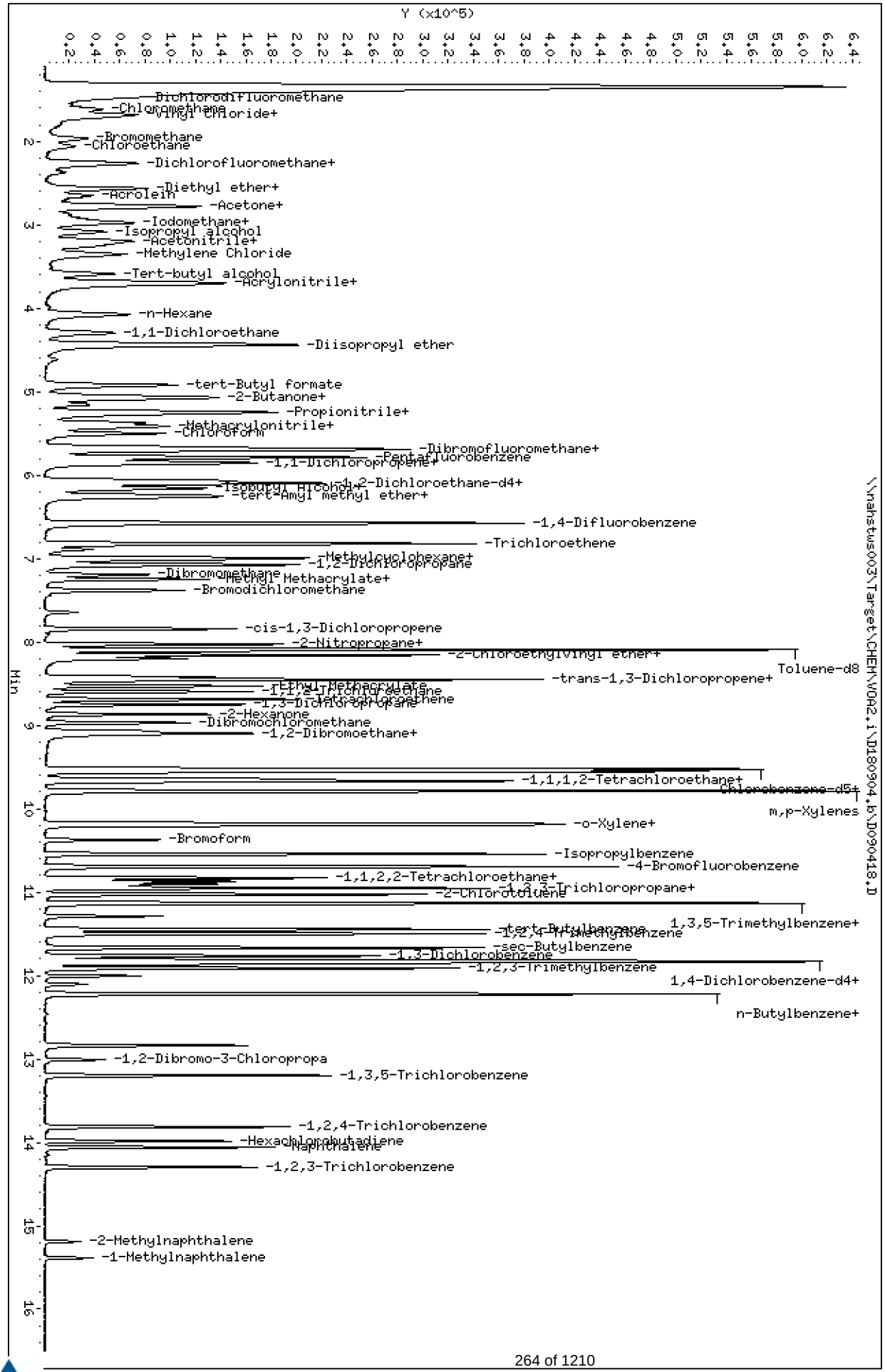
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	21 Vinyl Acetate	43	5.250	5.247	(0.907)	121810	31.5813	31.58(M)
	22 1,1-Dichloroethane	63	4.293	4.290	(0.742)	101508	15.4726	15.47
	24 2-Butanone	43	5.150	5.141	(0.890)	54398	33.7527	33.75
	25 Methacrylonitrile	41	5.413	5.410	(0.935)	60494	17.1495	17.14
	26 2,2-Dichloropropane	77	5.051	5.051	(0.873)	69078	19.3470	19.34
	27 cis-1,2-Dichloroethene	96	5.070	5.073	(0.876)	65736	19.0489	19.04
	28 Chloroform	83	5.500	5.500	(0.950)	91341	16.6104	16.61
	29 Bromochloromethane	128	5.375	5.369	(0.928)	28360	17.6396	17.63
$	30 Dibromofluoromethane	113	5.689	5.689	(0.983)	94905	45.2280	45.22
	31 1,1,1-Trichloroethane	97	5.664	5.654	(0.978)	78815	16.9917	16.99
	32 1,1-Dichloropropene	75	5.859	5.859	(0.891)	66708	20.0680	20.06
	33 1,2-Dichloroethane	62	6.151	6.148	(0.936)	65547	17.4461	17.44
	34 Carbon Tetrachloride	117	5.843	5.837	(0.889)	69413	20.0802	20.08
$	35 1,2-Dichloroethane-d4	65	6.065	6.058	(1.048)	107150	44.7553	44.75
*	36 1,4-Difluorobenzene	114	6.575	6.575	(1.000)	344091	50.0000	
	37 Benzene	78	6.097	6.097	(0.927)	211137	17.9365	17.93
	38 Trichloroethene	130	6.819	6.819	(1.037)	133318	42.4235	42.42
	39 Bromodichloromethane	83	7.380	7.377	(1.122)	72723	18.3652	18.36
	40 Methyl Methacrylate	41	7.249	7.246	(1.252)	57526	16.1147	16.11
	41 2-Chloroethylvinyl ether	63	8.157	8.154	(1.241)	16226	33.9957	33.99
	42 1,2-Dichloropropane	63	7.069	7.069	(1.075)	61620	18.0409	18.04
	43 2-Nitropropane	43	8.029	8.029	(1.387)	123036	16.3899	16.38
	44 Dibromomethane	93	7.191	7.191	(1.094)	31136	18.4221	18.42
	45 4-Methyl-2-Pentanone	43	8.029	8.029	(0.843)	123036	34.5413	34.54
	46 cis-1,3-Dichloropropene	75	7.842	7.839	(1.193)	86526	19.5167	19.51
*	47 Chlorobenzene-d5	117	9.524	9.524	(1.000)	312753	50.0000	
$	48 Toluene-d8	98	8.093	8.093	(0.850)	384926	44.5220	44.52
	49 Ethyl Methacrylate	69	8.529	8.529	(1.297)	77569	18.1396	18.13
	50 Toluene	91	8.157	8.157	(0.856)	221995	17.5948	17.59
	51 trans-1,3-Dichloropropene	75	8.417	8.417	(1.280)	68736	20.0023	20.00
	52 2-Hexanone	43	8.863	8.866	(0.931)	79168	34.2449	34.24
	53 1,1,2-Trichloroethane	83	8.593	8.597	(0.902)	41354	17.2246	17.22
	54 1,3-Dichloropropane	76	8.751	8.754	(0.919)	84584	17.8198	17.81
	55 Dibromochloromethane	129	8.972	8.969	(0.942)	61417	18.3242	18.32
	56 Tetrachloroethene	164	8.690	8.690	(0.912)	49273	19.3679	19.36
	57 1,2-Dibromoethane	107	9.068	9.068	(0.952)	52935	18.3224	18.32
	58 1-Chlorohexane	55	9.550	9.550	(1.452)	54888	19.7650	19.76
	59 Chlorobenzene	112	9.553	9.553	(1.003)	142018	18.1487	18.14
	60 1,1,1,2-Tetrachloroethane	131	9.646	9.643	(1.013)	55681	18.1227	18.12
	61 Ethylbenzene	106	9.672	9.672	(1.015)	78722	19.8466	19.84
	62 m,p-Xylenes	106	9.790	9.790	(1.028)	187591	39.1452	39.14
	63 o-Xylene	106	10.175	10.179	(1.068)	100029	19.4876	19.48
	64 Styrene	104	10.198	10.198	(1.071)	155639	18.6424	18.64
	66 Bromoform	173	10.374	10.374	(1.089)	42268	18.0688	18.06
	67 Isopropylbenzene	105	10.544	10.544	(1.107)	245661	18.2835	18.28
	68 1,1,2,2-Tetrachloroethane	83	10.872	10.869	(0.919)	69370	15.5492	15.54
$	69 4-Bromofluorobenzene	95	10.692	10.695	(1.123)	142164	51.2495	51.24
*	70 1,4-Dichlorobenzene-d4	152	11.831	11.834	(1.000)	139848	50.0000	
	71 1,2,3-Trichloropropane	75	10.897	10.901	(0.921)	66918	15.9890	15.98
	72 trans-1,4-Dichloro-2-butene	53	10.926	10.926	(1.147)	13322	16.3292	16.32
	73 n-Propylbenzene	91	10.952	10.955	(0.926)	261421	18.4513	18.45
	74 Bromobenzene	156	10.830	10.833	(0.915)	65453	17.3194	17.31
	75 1,3,5-Trimethylbenzene	105	11.132	11.132	(0.941)	189030	16.3868	16.38
	76 2-Chlorotoluene	91	11.026	11.029	(0.932)	166563	17.8710	17.87

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 3
Report Date: 17-Sep-2018 12:35

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
77	4-Chlorotoluene	91	11.138	11.138	(0.941)	176110	17.6128	17.61
78	tert-Butylbenzene	119	11.446	11.449	(0.967)	167859	18.4294	18.42
79	1,2,4-Trimethylbenzene	105	11.497	11.498	(0.972)	189009	17.5795	17.57
81	sec-Butylbenzene	105	11.664	11.668	(0.986)	233360	16.7343	16.73
82	p-Isopropyltoluene	119	11.815	11.815	(0.999)	189696	16.4424	16.44
83	1,3-Dichlorobenzene	146	11.764	11.764	(0.994)	112810	17.3573	17.35
84	1,4-Dichlorobenzene	146	11.857	11.857	(1.002)	104870	17.2794	17.27
87	n-Butylbenzene	91	12.219	12.223	(1.033)	146152	17.1234	17.12
88	1,2-Dichlorobenzene	146	12.223	12.223	(1.033)	108145	16.8689	16.86
89	1,2-Dibromo-3-Chloropropane	75	13.009	13.009	(1.100)	10942	15.6126	15.61
90	1,2,4-Trichlorobenzene	180	13.817	13.818	(1.168)	61984	17.2867	17.28
91	Hexachlorobutadiene	225	13.988	13.988	(1.182)	30192	17.7753	17.77
92	Naphthalene	128	14.058	14.061	(1.188)	145705	16.3217	16.32
93	1,2,3-Trichlorobenzene	182	14.302	14.299	(1.209)	53365	16.7961	16.79
146	Methyl acetate	43	3.251	3.244	(0.562)	50458	13.4954	13.49
138	Freon TF	101	2.785	2.776	(0.481)	42974	18.3691	18.36
139	Diethyl ether	59	2.557	2.554	(0.442)	78988	13.9941	13.99
147	Methylcyclohexane	83	6.992	6.989	(1.063)	81178	20.7576	20.75
135	1,4-Dioxane	88	7.242	7.239	(1.251)	10622	319.517	319.51
132	n-Butanol	56	6.995	6.995	(1.208)	34933	313.712	313.71
131	Methyl Acrylate	55	5.269	5.269	(0.910)	90639	16.2381	16.23
133	Ethyl Acrylate	55	7.011	7.008	(1.211)	164470	16.3319	16.33
136	n-Hexane	57	4.075	4.069	(0.704)	64319	16.9546	16.95
141	Cyclohexane	56	5.689	5.689	(0.983)	98285	16.6173	16.61
142	Tetrahydrofuran	42	5.423	5.420	(0.937)	40994	31.8900	31.89
148	Tert-butyl alcohol	59	3.587	3.575	(0.620)	106647	296.774	296.77
149	Isopropyl alcohol	45	3.080	3.071	(0.532)	107511	470.663	470.66
151	4-Methyl-2-pentanol	45	8.452	8.452	(0.887)	285987	385.363	385.36
166	1,2,3-Trimethylbenzene	105	11.911	11.915	(1.007)	177133	17.3229	17.32
167	Ethanol	45	2.557	2.557	(0.442)	75743	262.436	262.43
170	1,3,5-Trichlorobenzene	180	13.201	13.201	(1.116)	73142	17.5328	17.53
172	tert-Butyl formate	59	4.922	4.916	(0.850)	134666	32.6646	32.66
173	3,3-Dimethyl-1-butanol	57	9.097	9.094	(0.955)	99904	363.576	363.57
174	tert-Amyl methyl ether	73	6.264	6.261	(1.082)	132952	16.6596	16.65
175	tert-Butyl ethyl ether	59	6.238	6.235	(1.078)	71670	16.5597	16.55
176	tert-Amyl alcohol	59	6.238	6.235	(1.078)	71670	331.194	331.19
157	2-Methylnaphthalene	142	15.188	15.191	(1.284)	14688	9.82602	9.82
156	Diisopropyl ether	45	4.438	4.428	(0.767)	189956	15.1505	15.15
171	1-Methylnaphthalene	142	15.387	15.384	(1.301)	19867	10.4573	10.45
130	Ethyl Acetate	43	5.250	5.247	(0.907)	113705	14.8288	14.82
M 94	1,2-Dichloroethylene (total)	96				114748	36.1841	36.18
M 95	Xylenes (total)	106				287620	58.6329	58.63

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D
Date : 04-SEP-2018 17:39
Client ID: HS18081504-01MS
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 2

Date : 04-SEP-2018 17:39

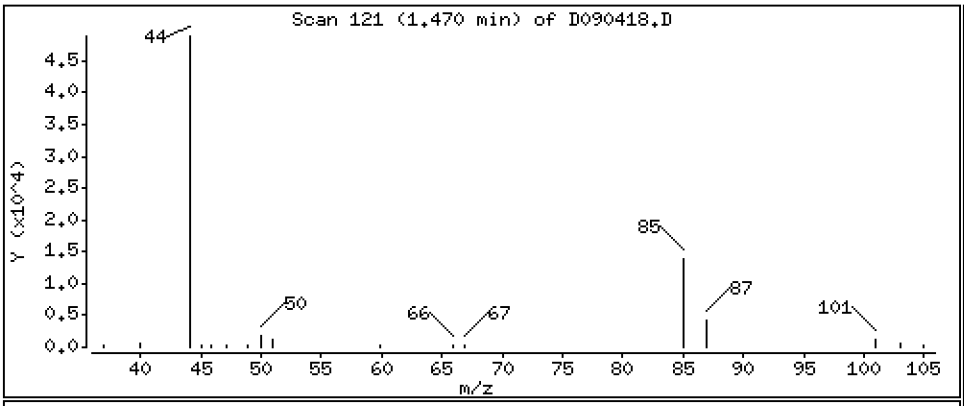
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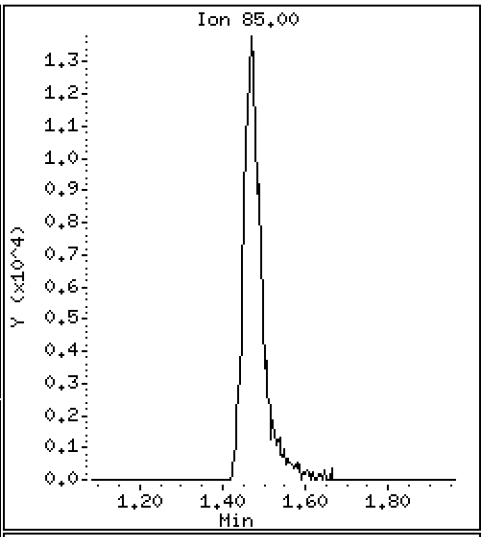
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

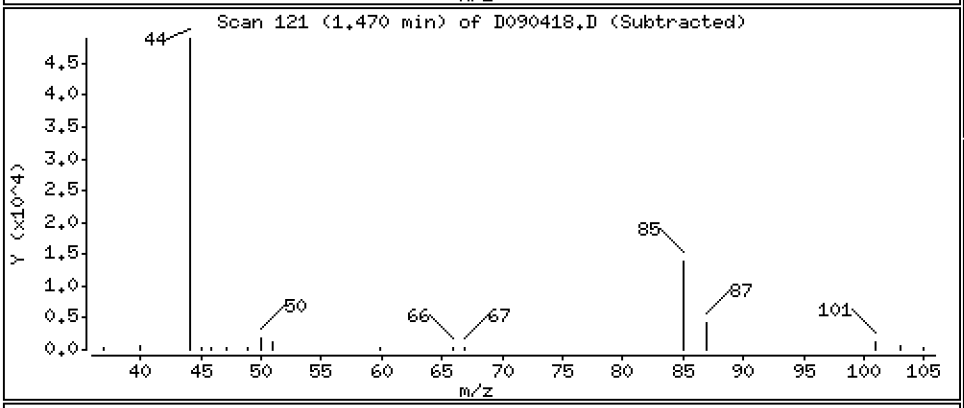
Purge Volume: 5.0 Operator: AP

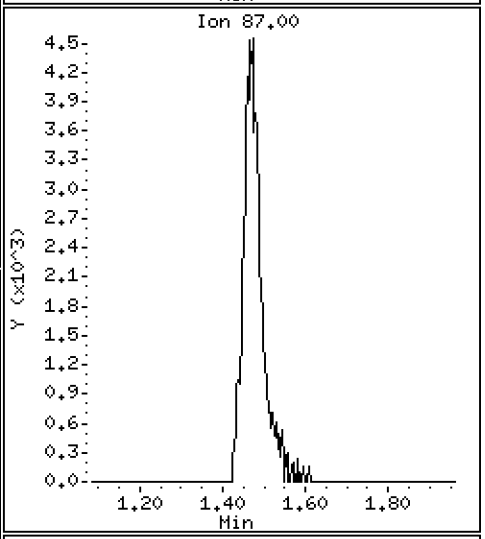
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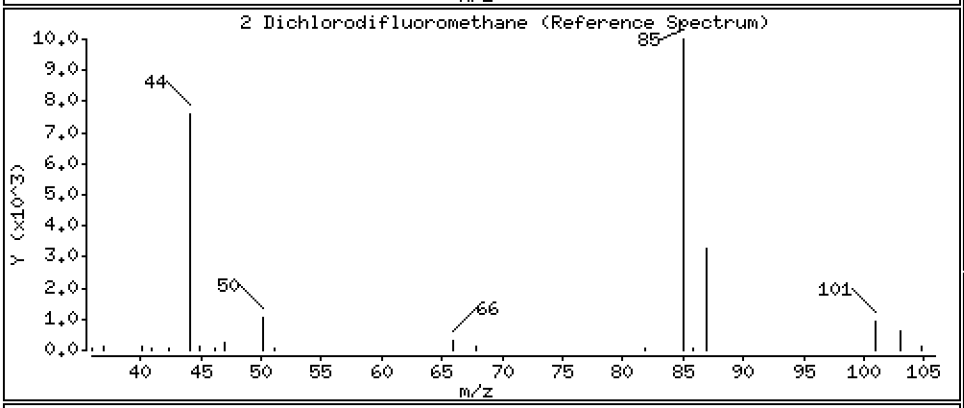
2 Dichlorodifluoromethane Concentration: 17.39 ug/l Review Code:

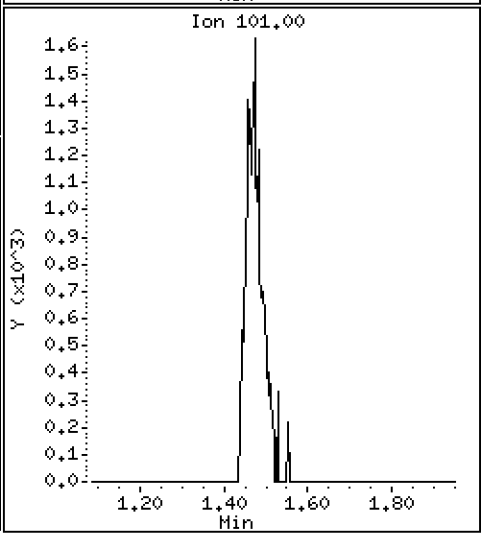


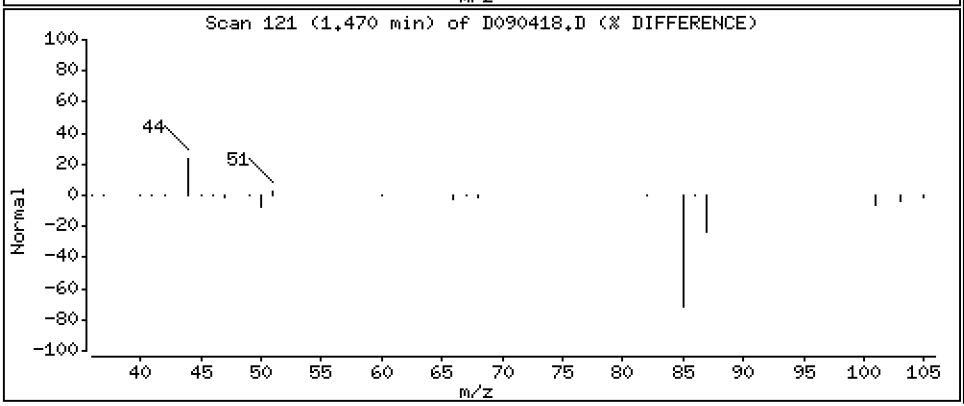












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 3

Date : 04-SEP-2018 17:39

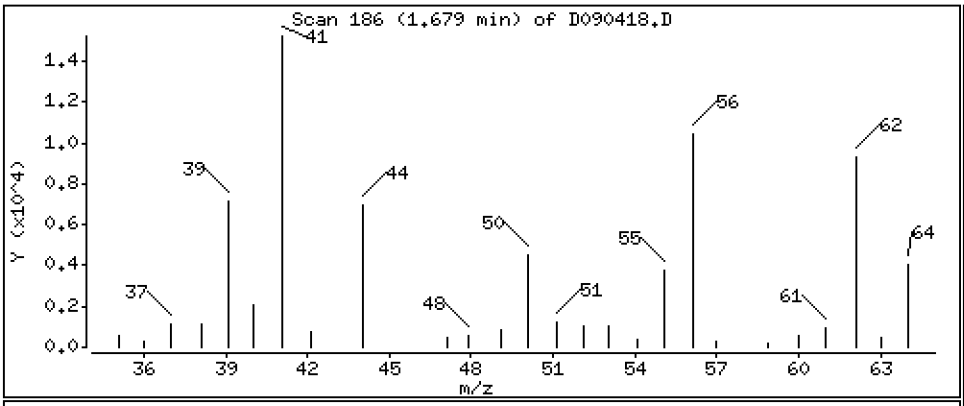
Client ID: HS18081504-01MS Instrument: VOA2.i

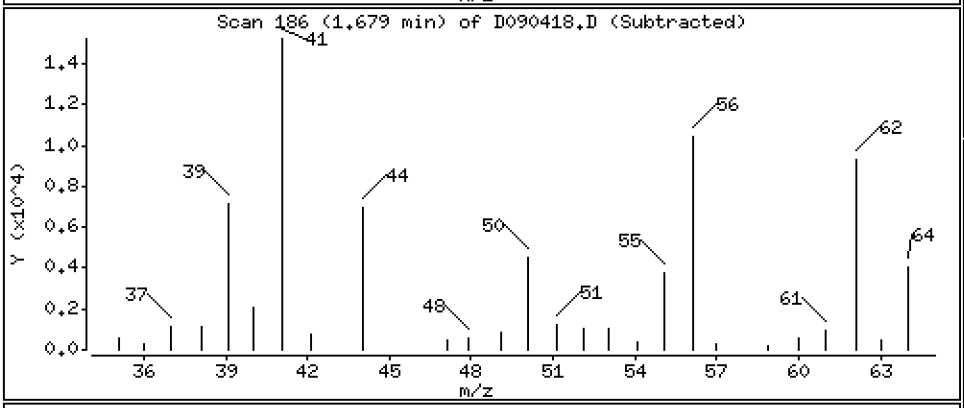
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

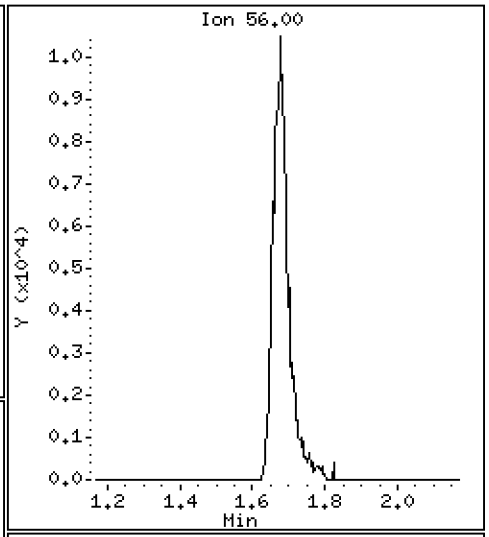
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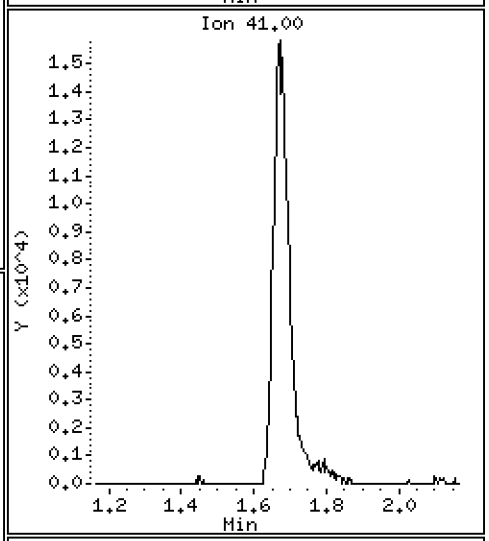
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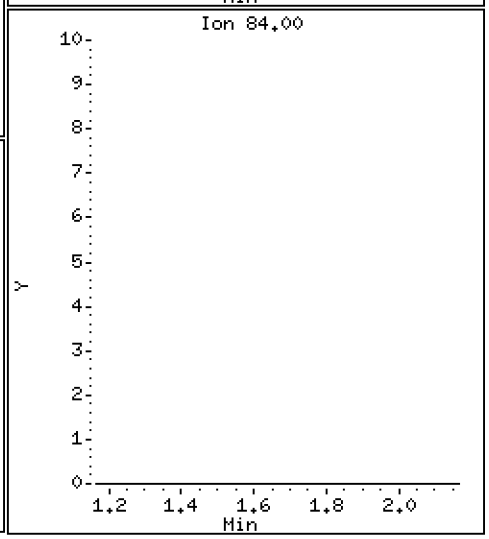
186 Isobutylene Concentration: 7.19 ug/l Review Code:











Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 4

Date : 04-SEP-2018 17:39

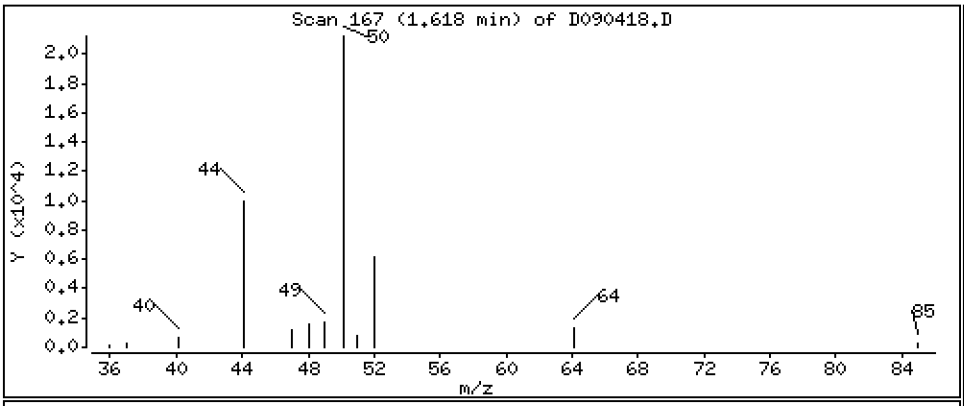
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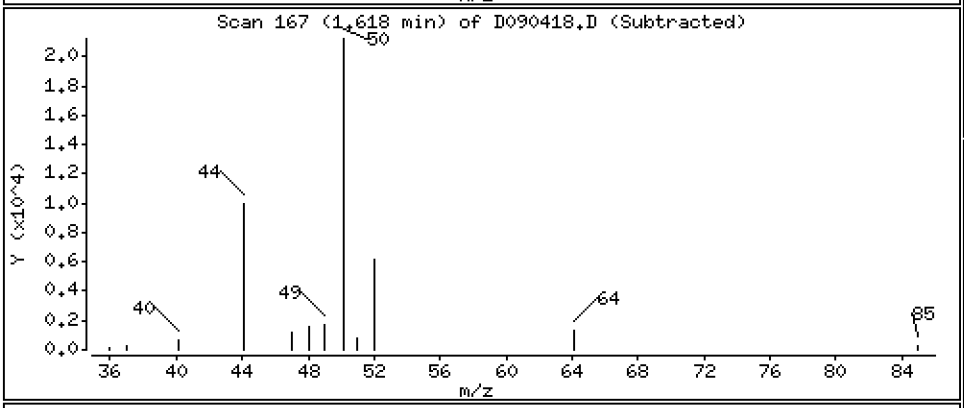
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

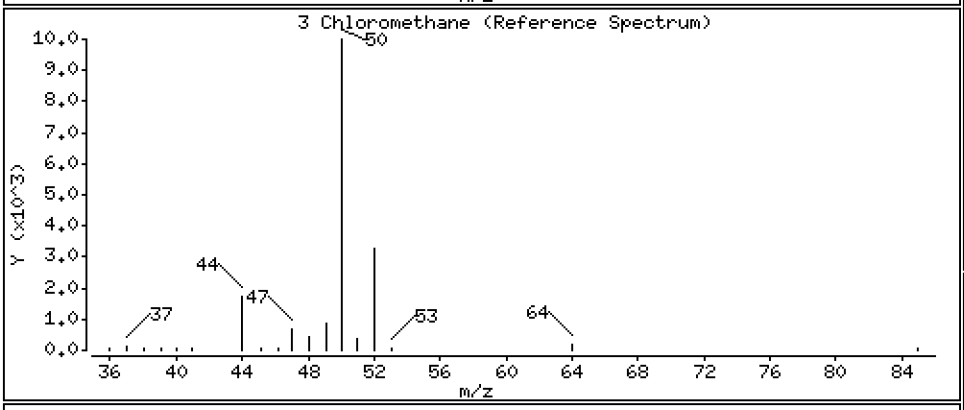
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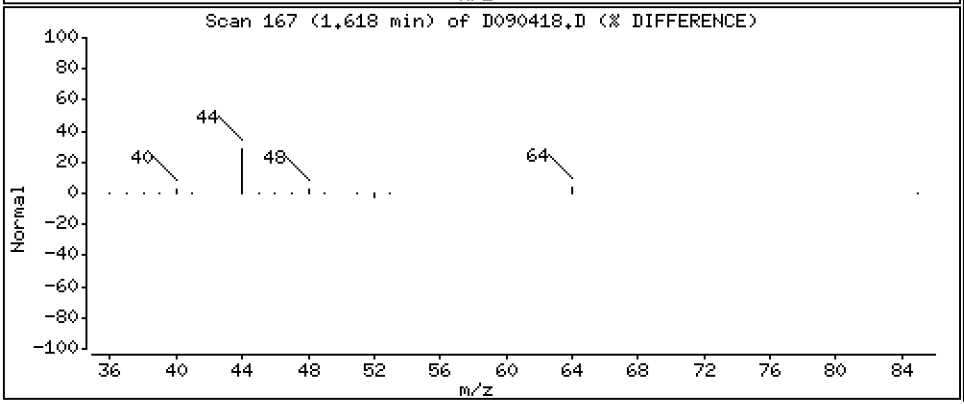
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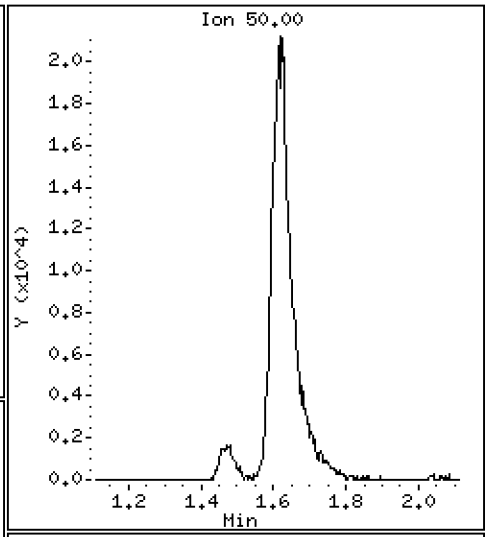
3 Chloromethane Concentration: 14.14 ug/l Review Code:

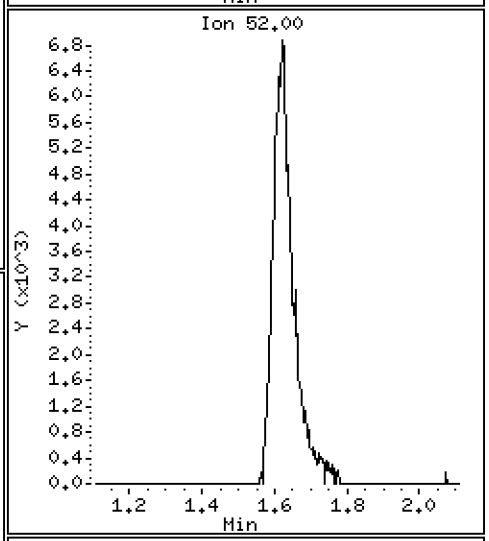


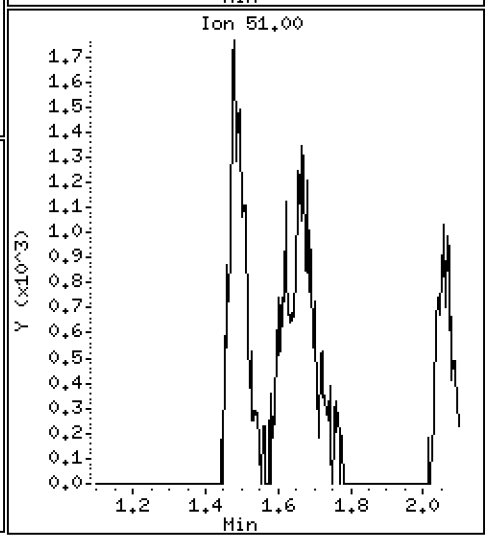












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 5

Date : 04-SEP-2018 17:39

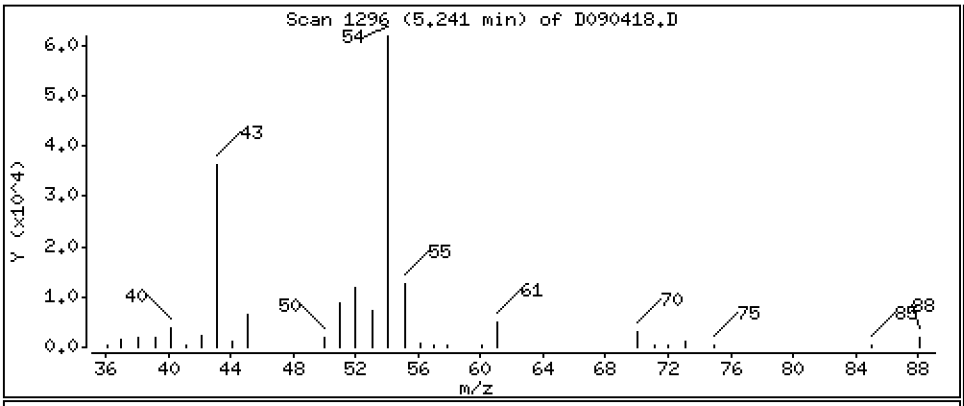
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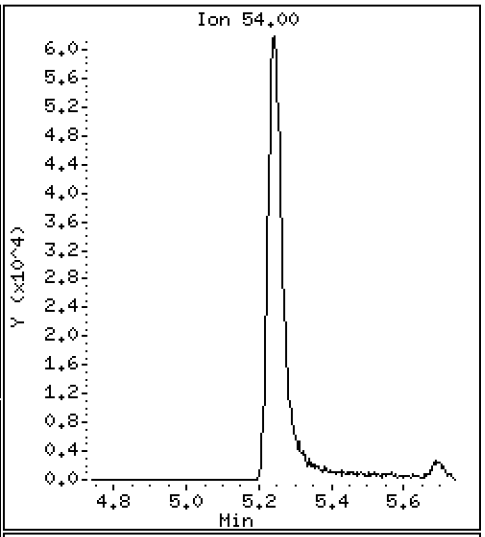
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

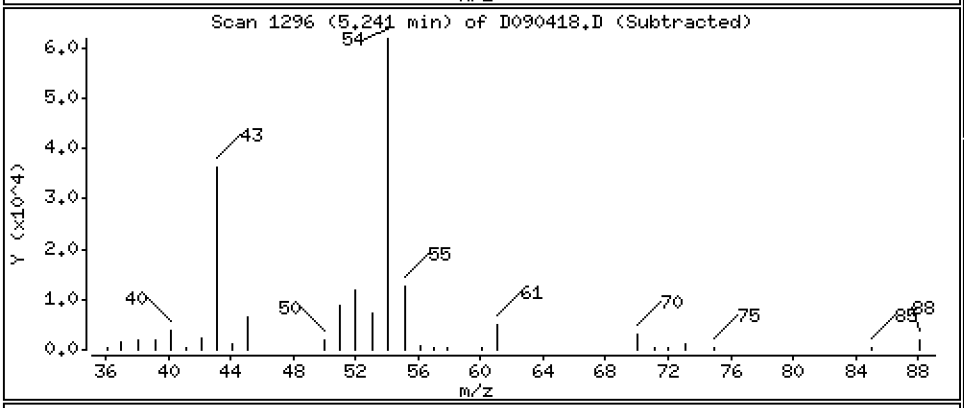
Purge Volume: 5.0 Operator: AP

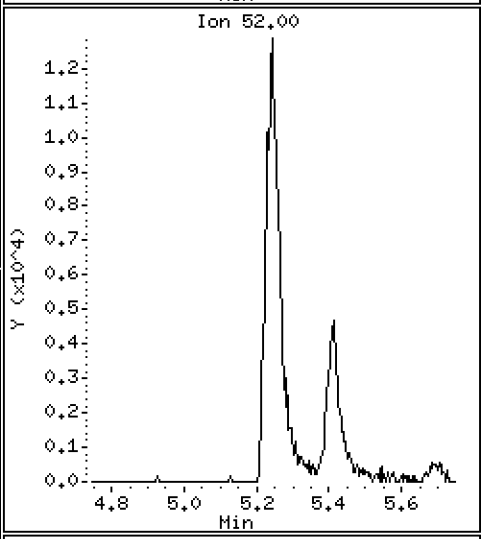
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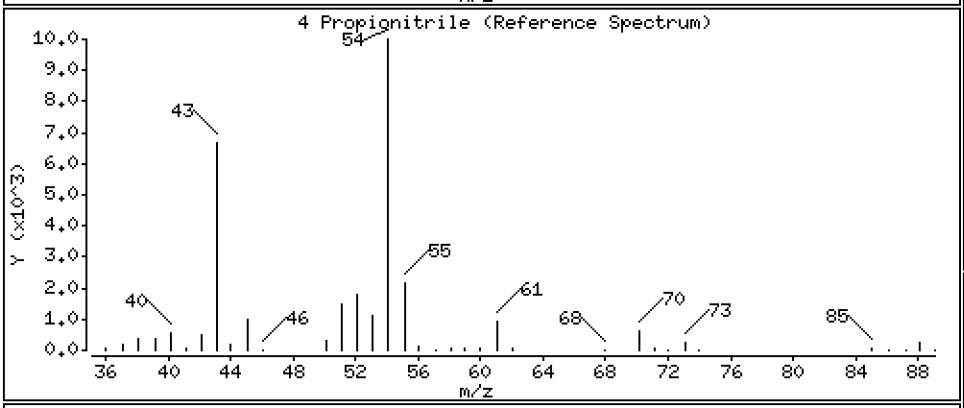
4 Propionitrile Concentration: 167.89 ug/l Review Code:

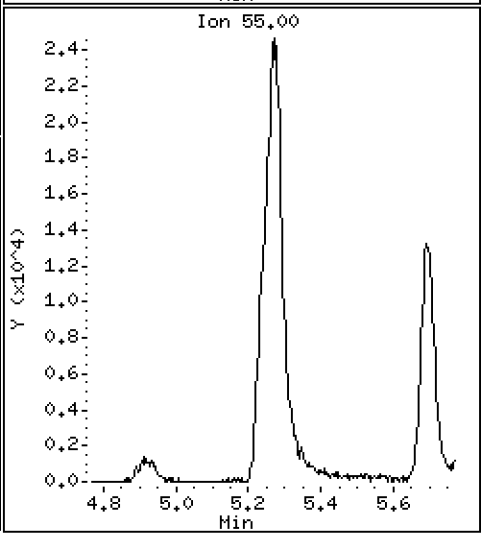


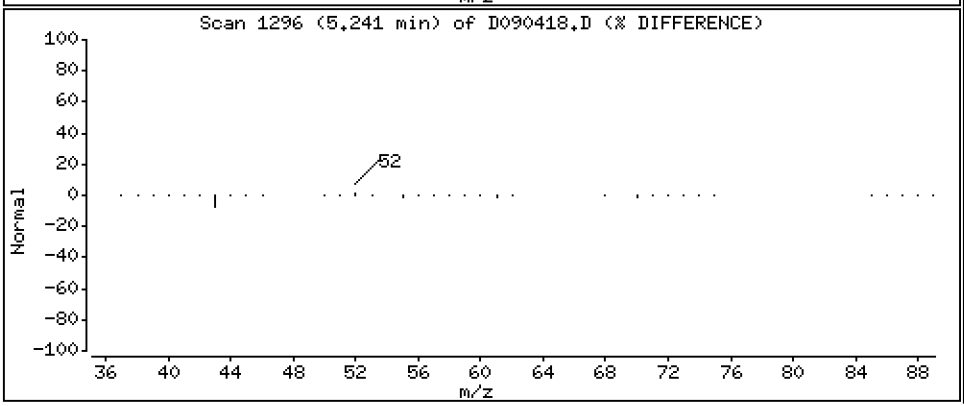












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 6

Date : 04-SEP-2018 17:39

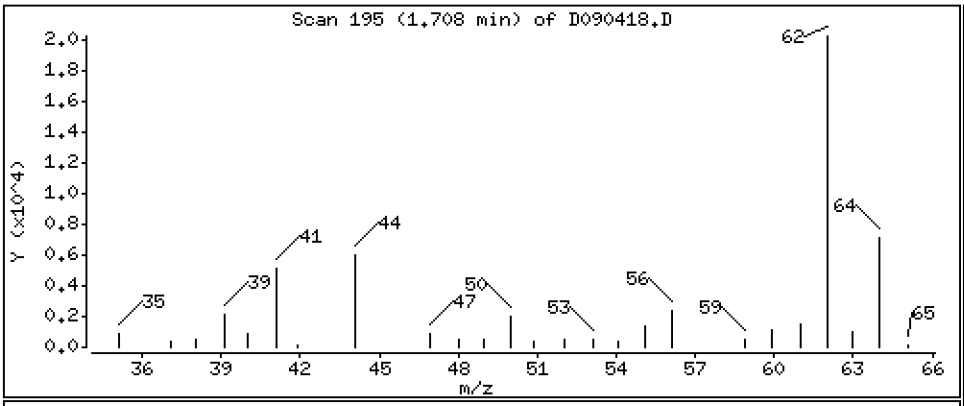
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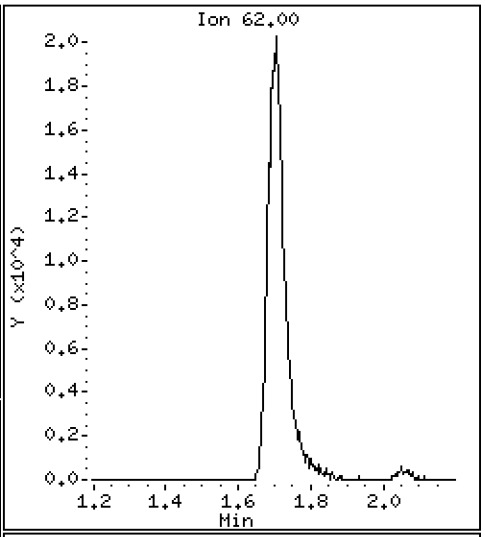
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

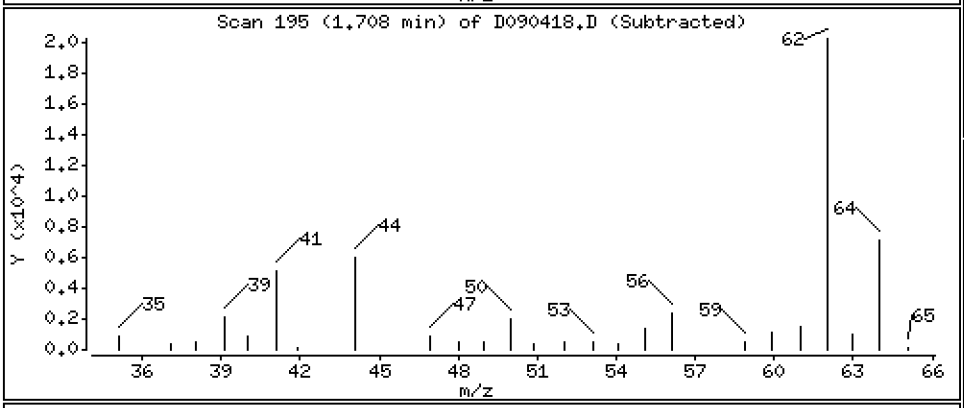
Purge Volume: 5.0 Operator: AP

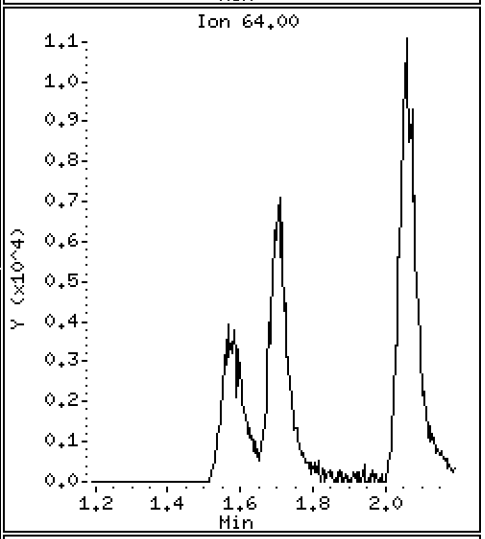
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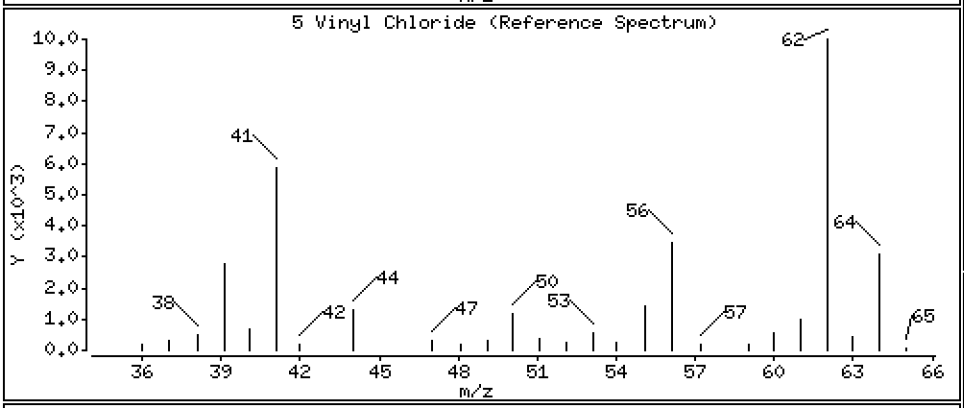
5 Vinyl Chloride Concentration: 16.67 ug/l Review Code:

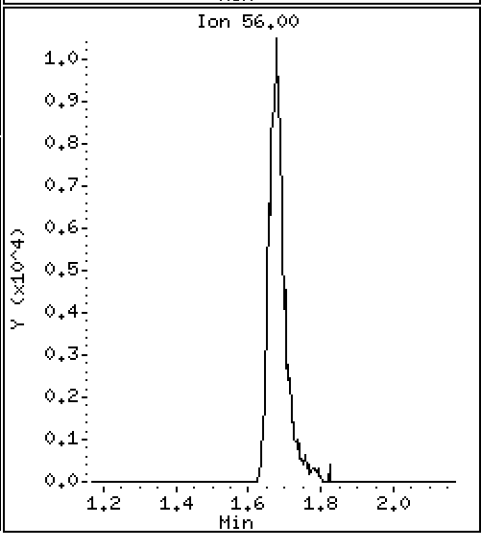


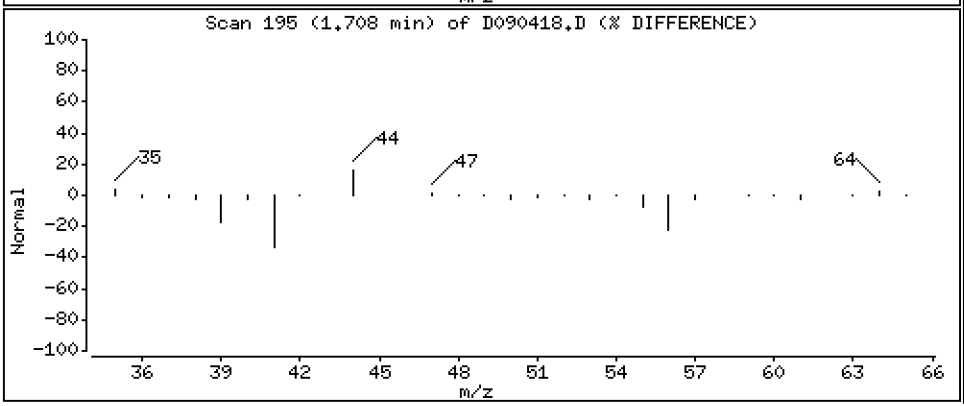












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 7

Date : 04-SEP-2018 17:39

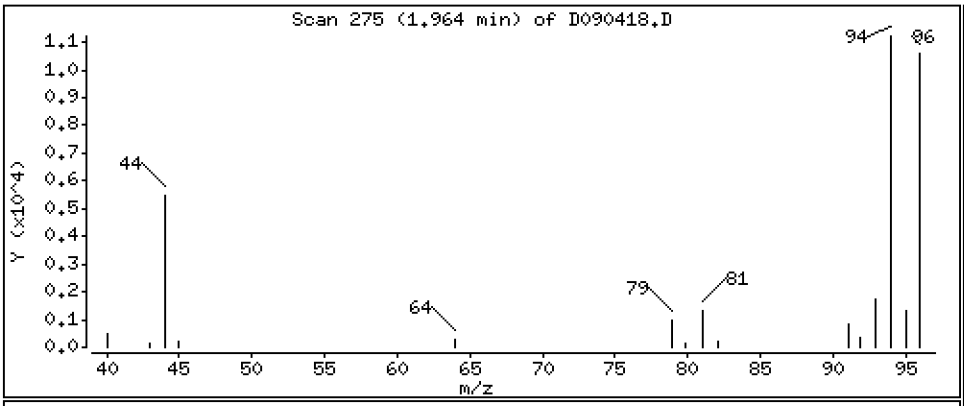
Client ID: HS18081504-01MS Instrument: VOA2.i

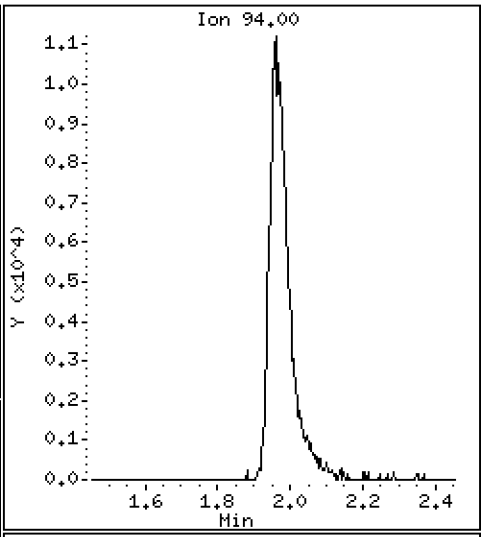
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

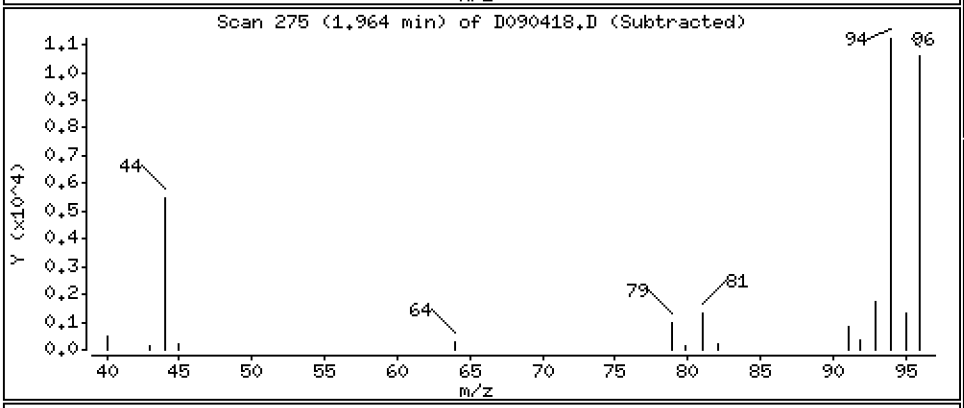
Purge Volume: 5.0 Operator: AP

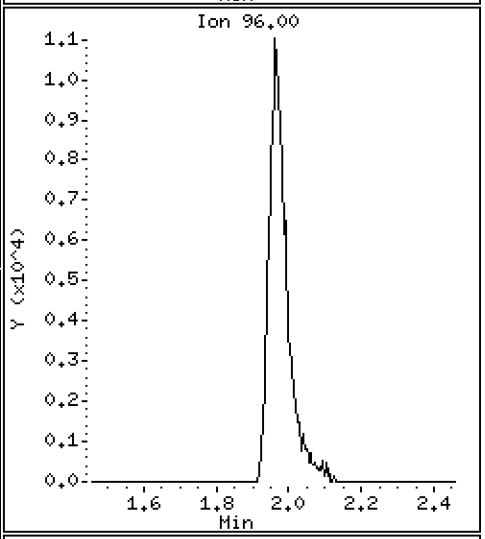
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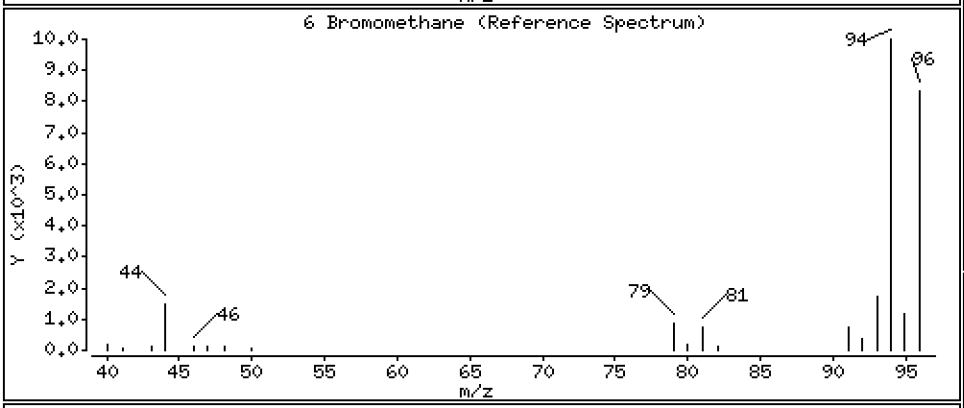
6 Bromomethane Concentration: 17.17 ug/l Review Code:

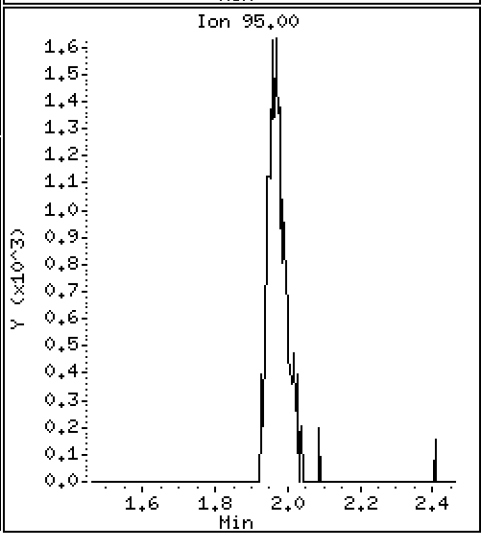


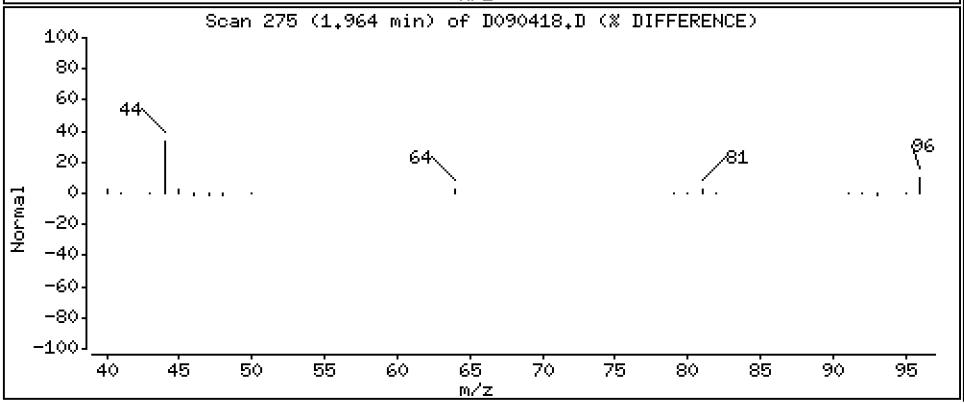












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 8

Date : 04-SEP-2018 17:39

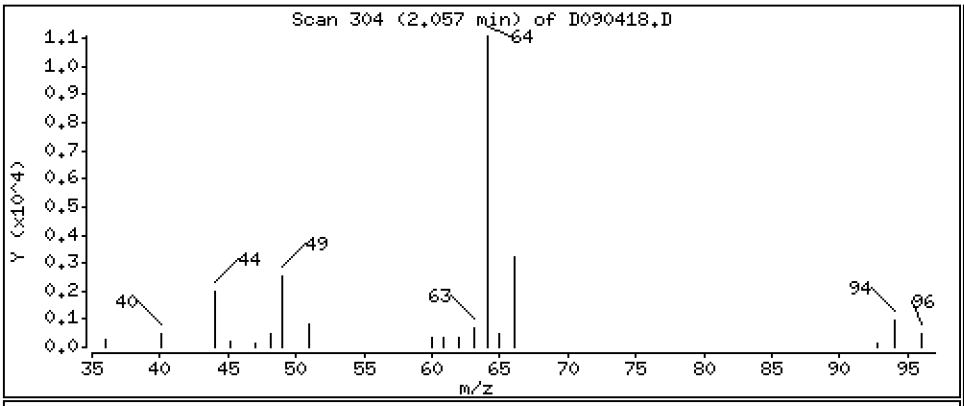
Client ID: HS18081504-01MS Instrument: VOA2.i

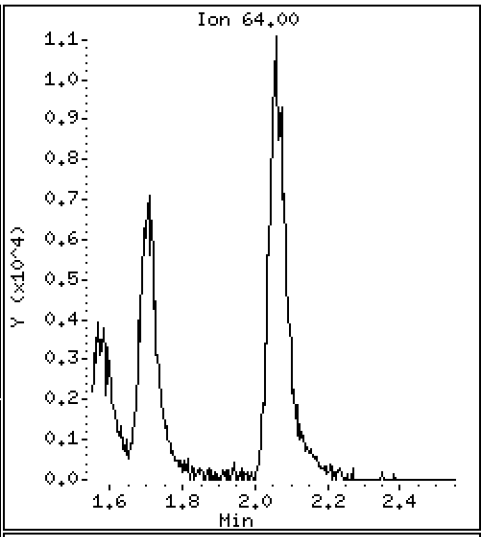
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

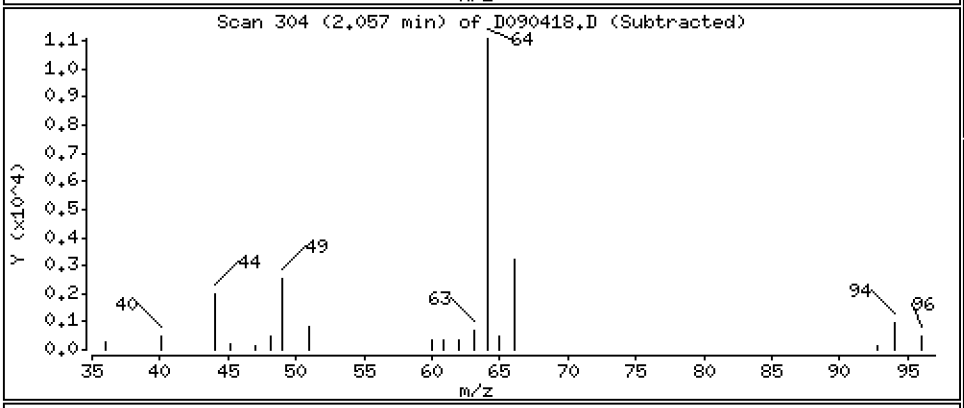
Purge Volume: 5.0 Operator: AP

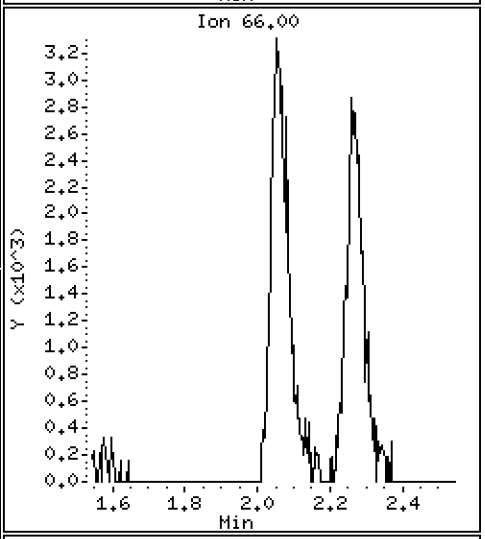
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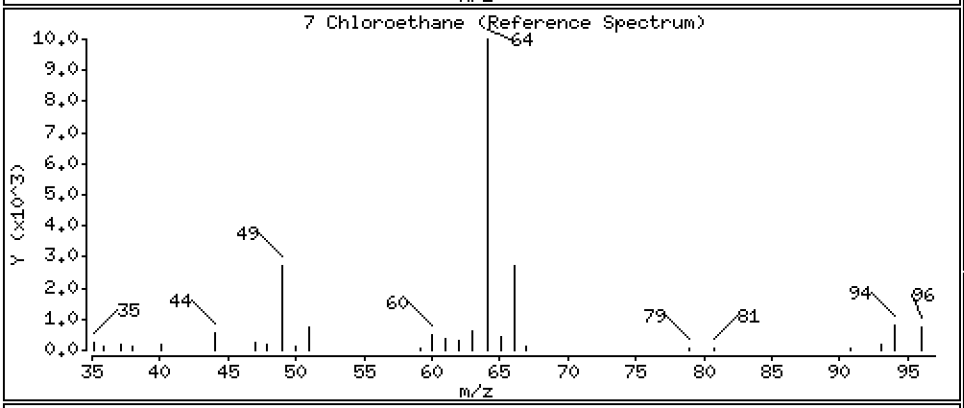
7 Chloroethane Concentration: 14.93 ug/l Review Code:

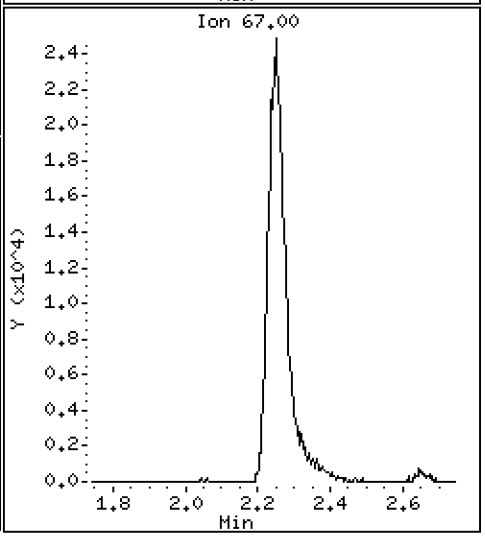


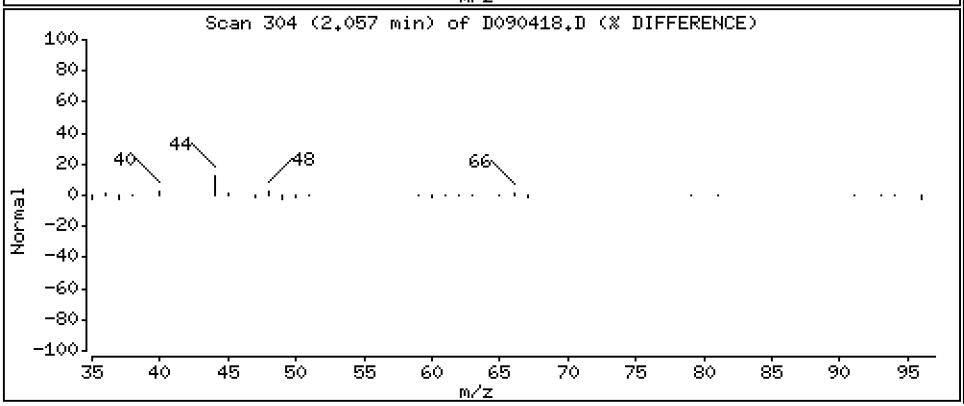












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 9

Date : 04-SEP-2018 17:39

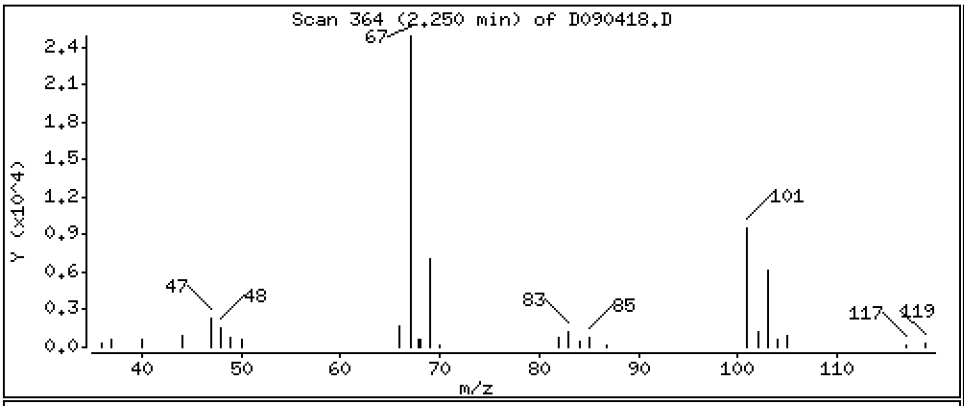
Client ID: HS18081504-01MS Instrument: VOA2.i

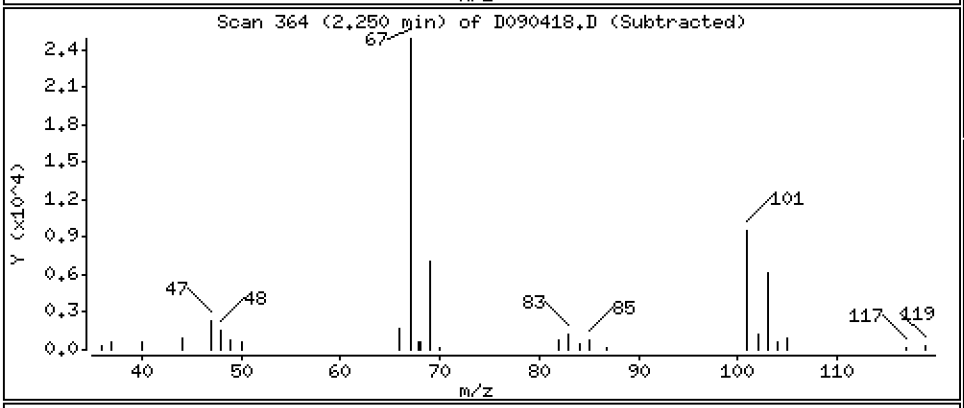
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

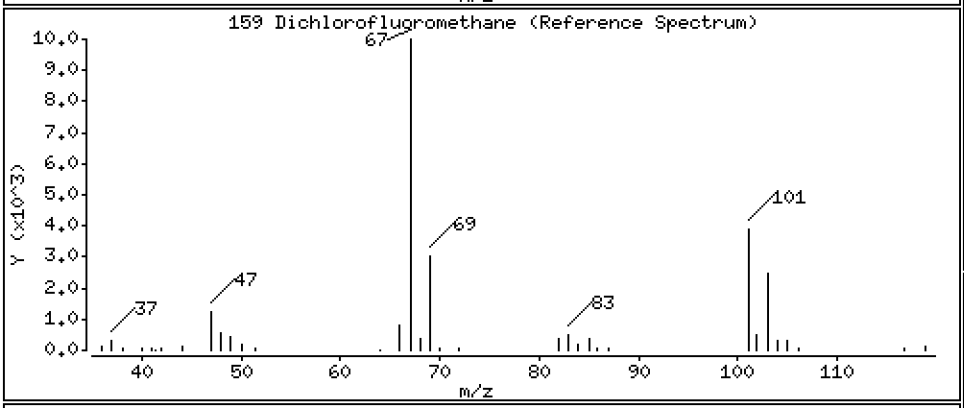
Purge Volume: 5.0 Operator: AP

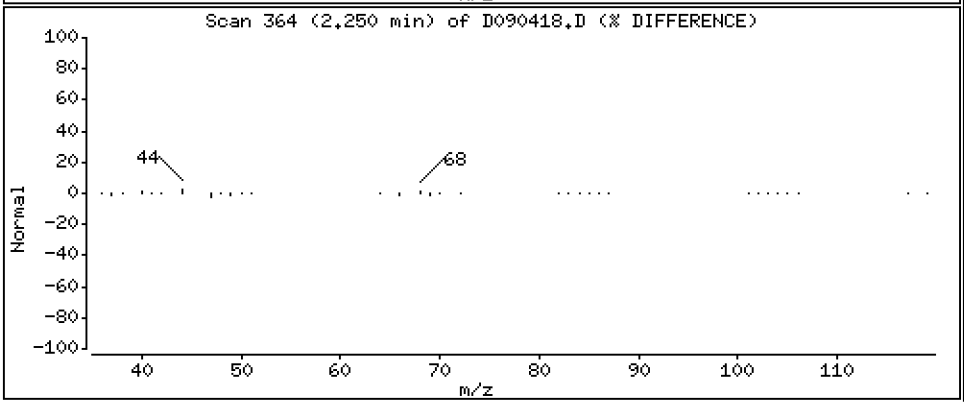
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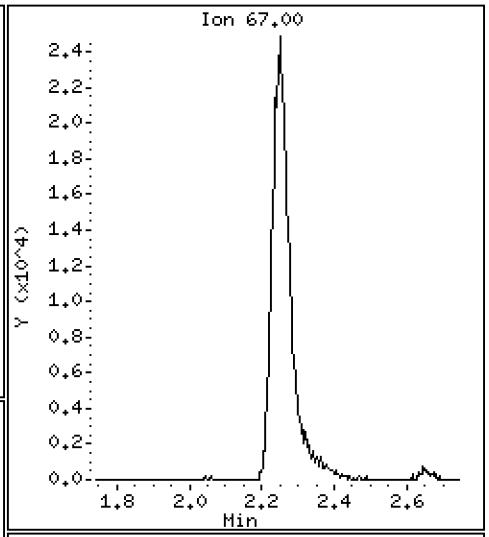
159 Dichlorofluoromethane Concentration: 14.21 ug/l Review Code:

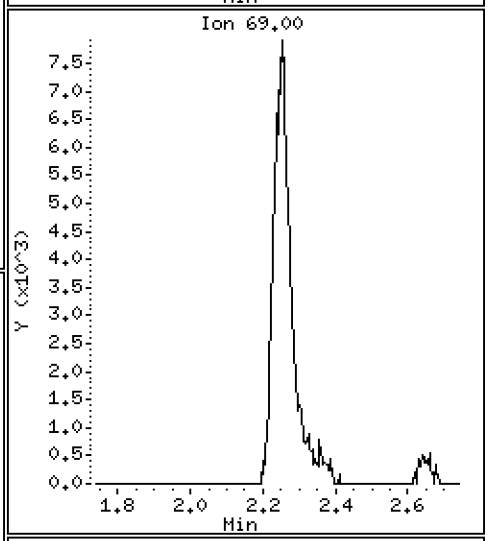


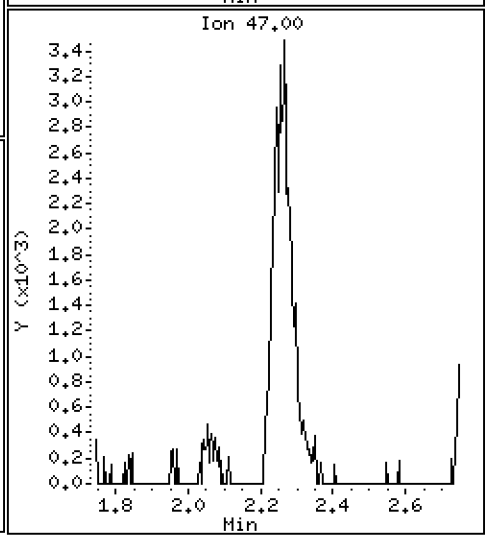












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 10

Date : 04-SEP-2018 17:39

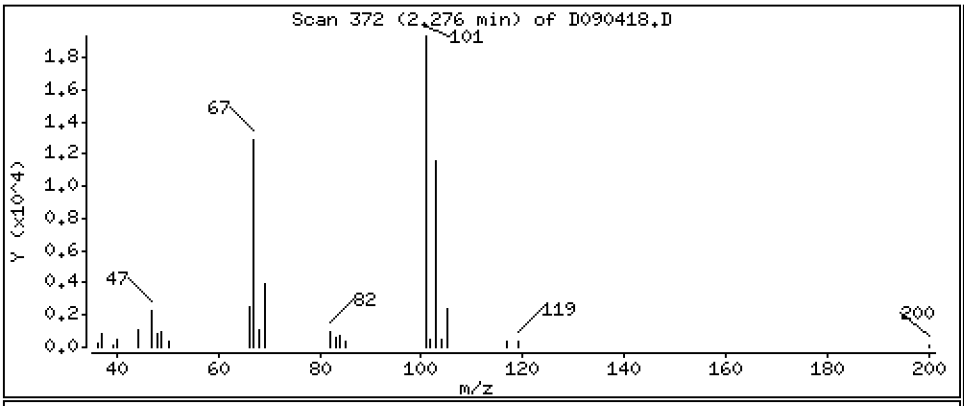
Client ID: HS18081504-01MS Instrument: VOA2.i

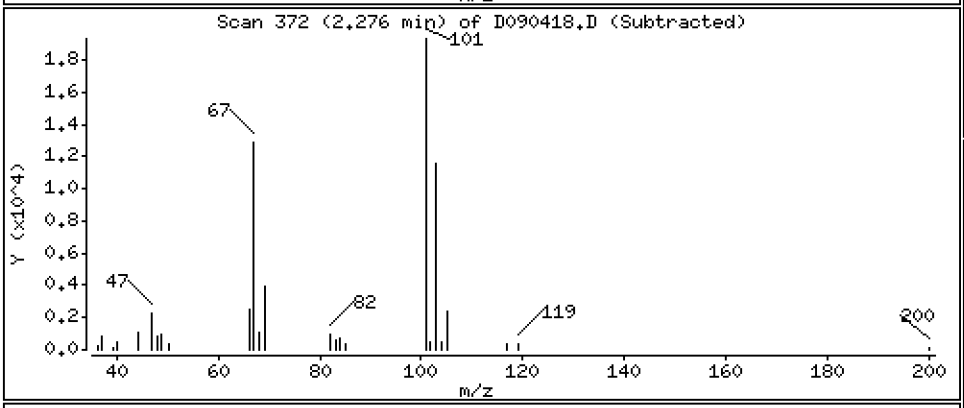
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

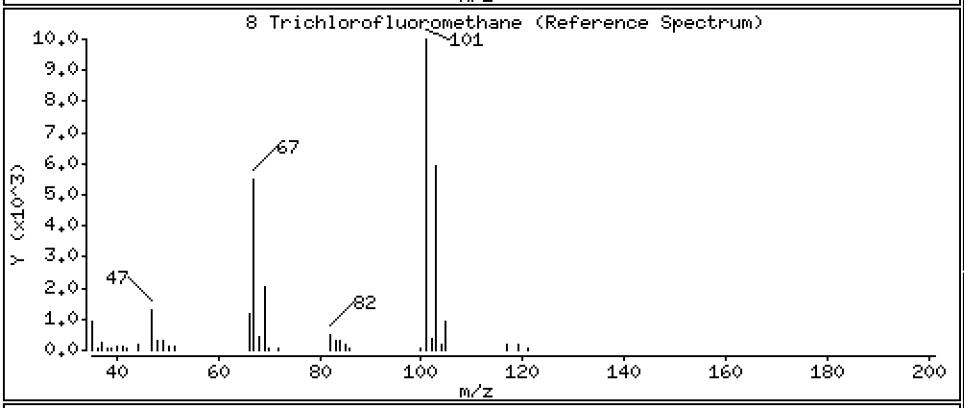
Purge Volume: 5.0 Operator: AP

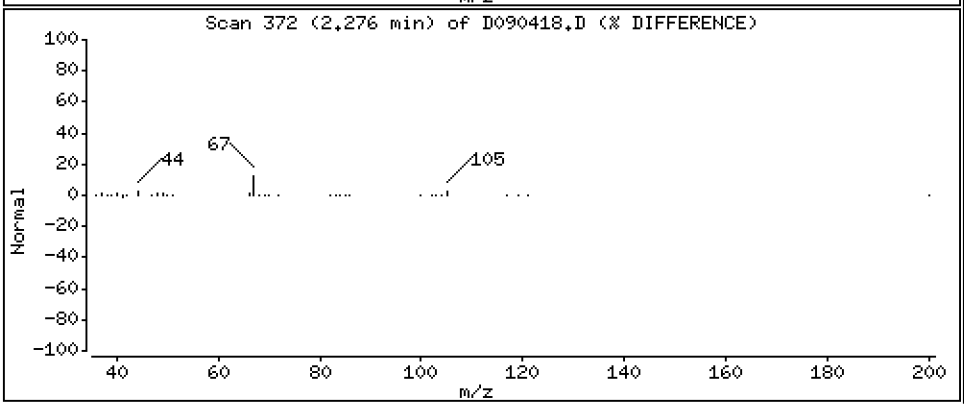
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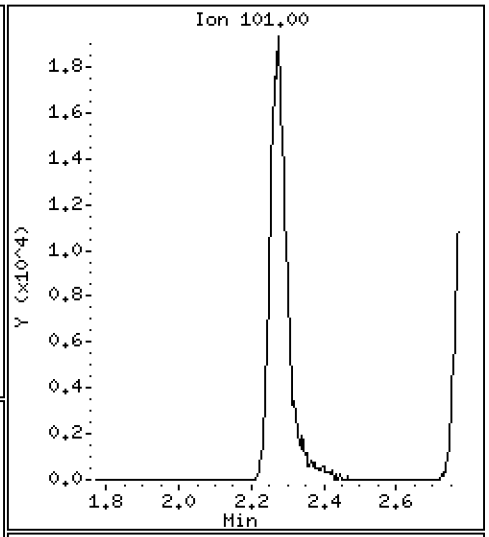
8 Trichlorofluoromethane Concentration: 15.89 ug/l Review Code:

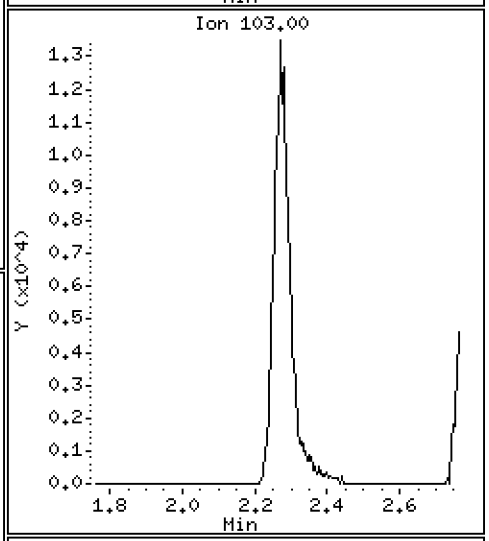


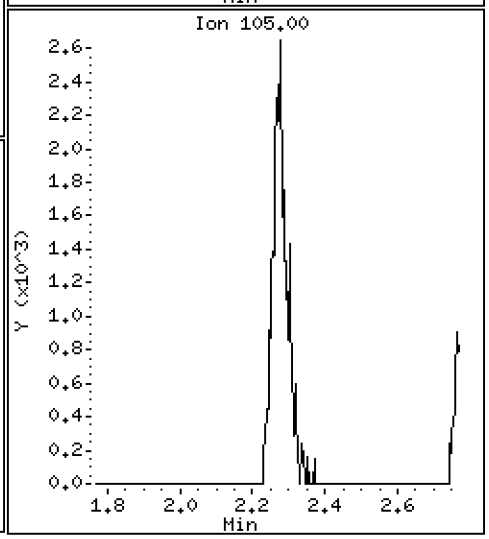












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 11

Date : 04-SEP-2018 17:39

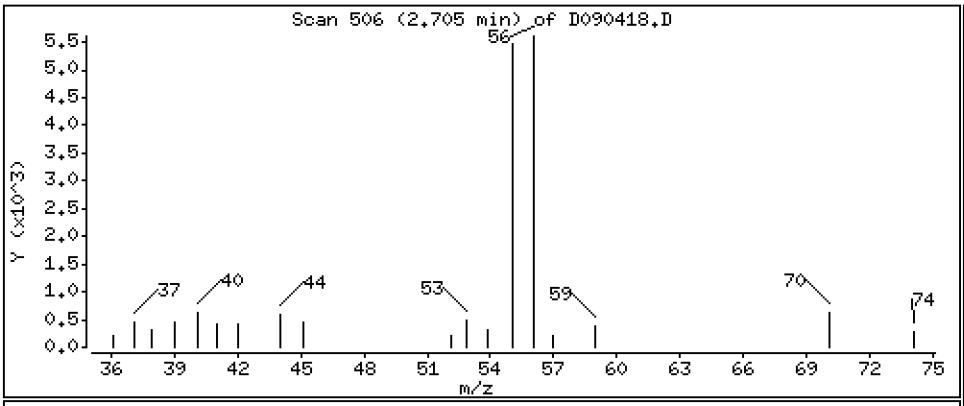
Client ID: HS18081504-01MS Instrument: VOA2.i

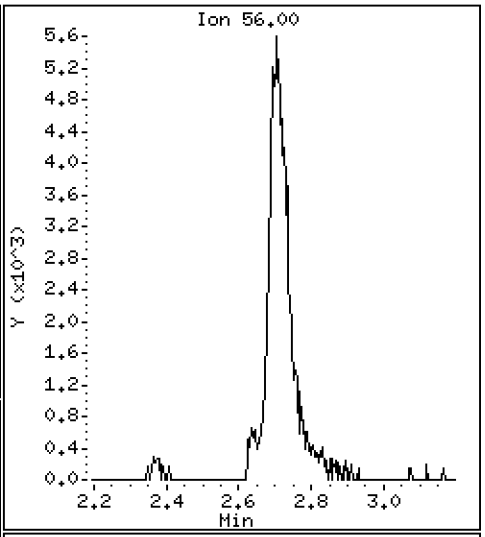
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

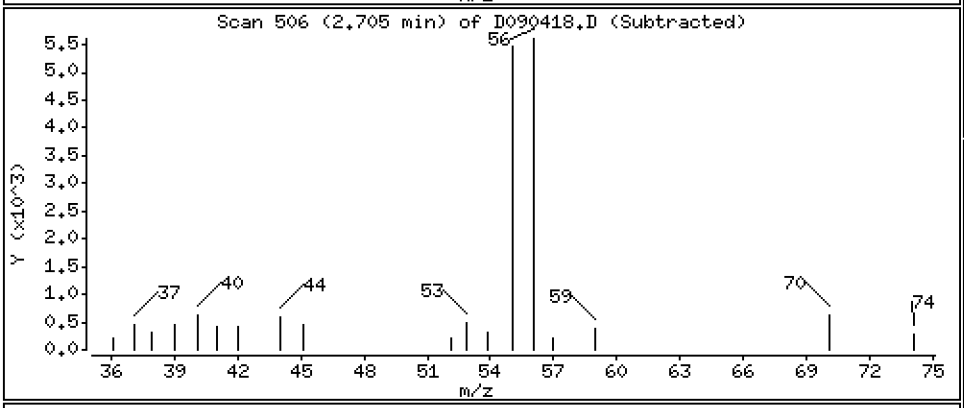
Purge Volume: 5.0 Operator: AP

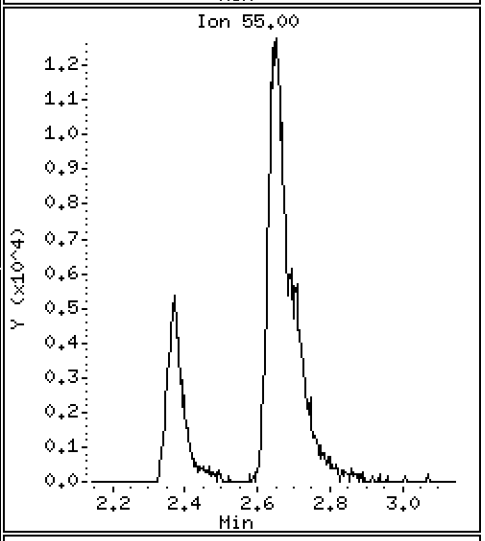
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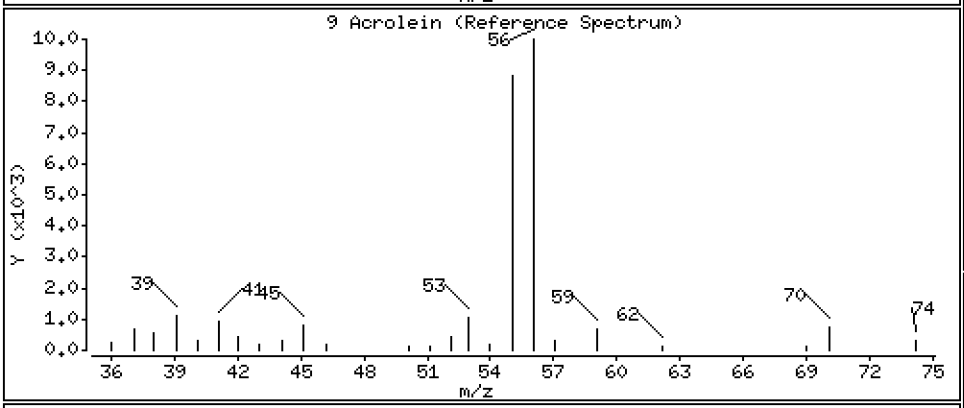
9 Acrolein Concentration: 21.46 ug/l Review Code:

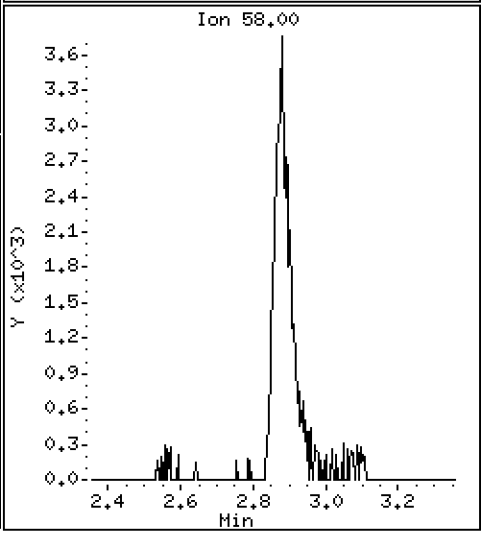


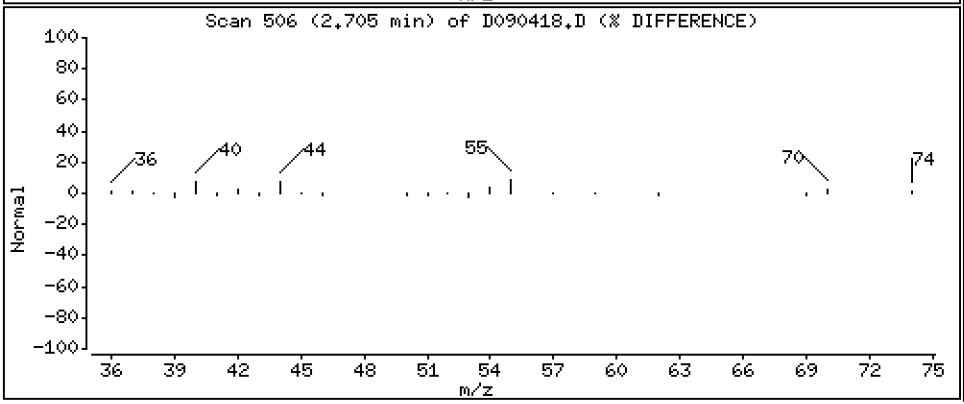












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 12

Date : 04-SEP-2018 17:39

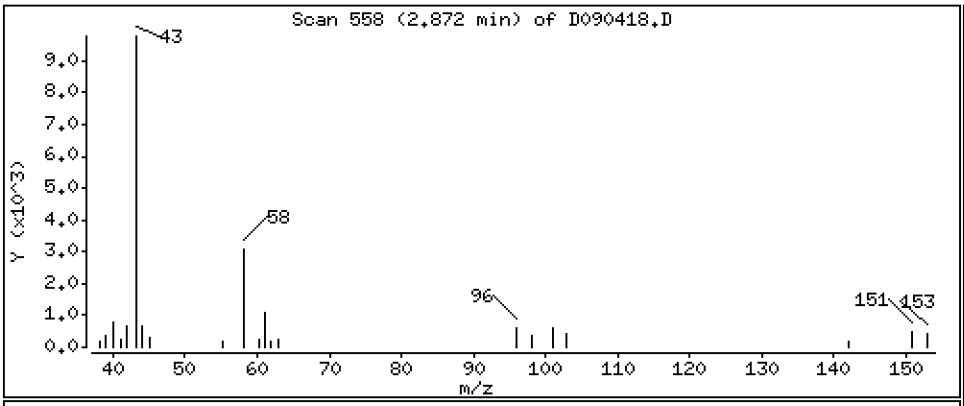
Client ID: HS18081504-01MS Instrument: VOA2.i

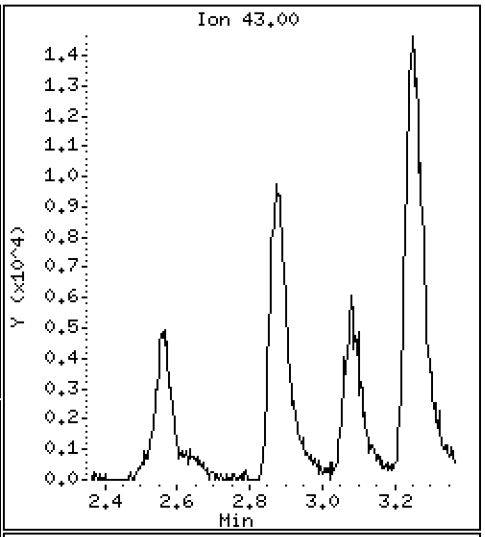
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

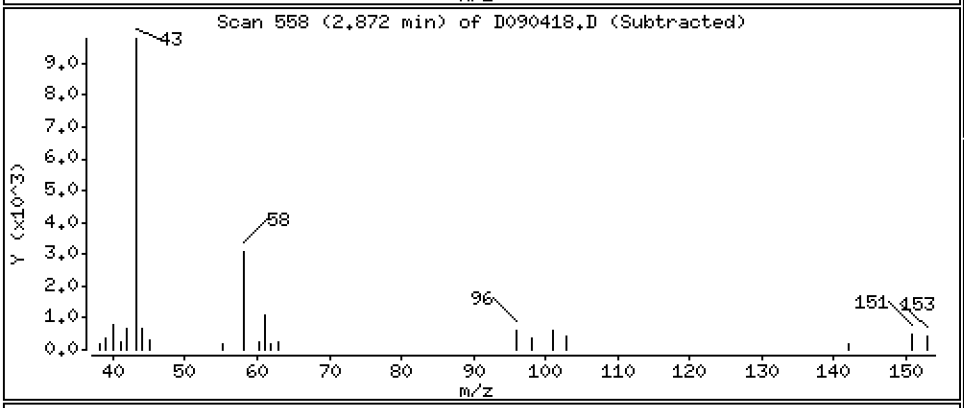
Purge Volume: 5.0 Operator: AP

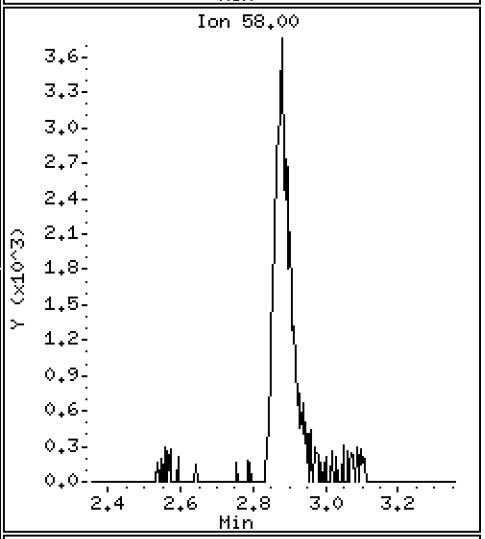
Column phase: DB624 Column diameter: 0.18

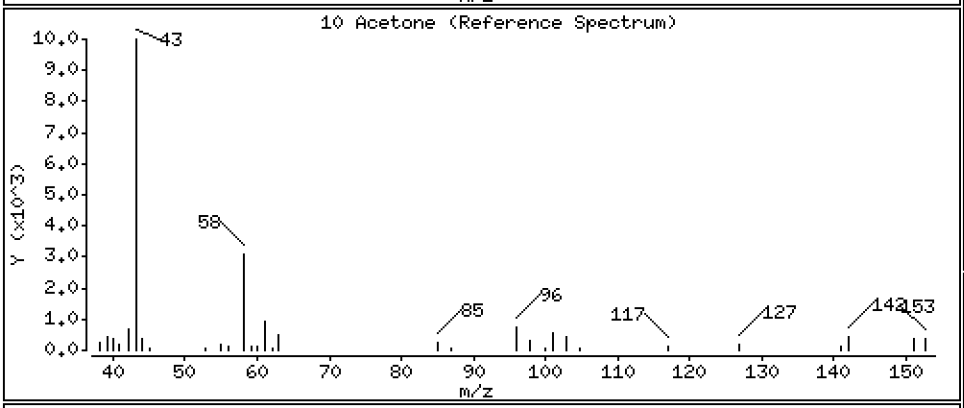
10 Acetone Concentration: 30.28 ug/l Review Code:

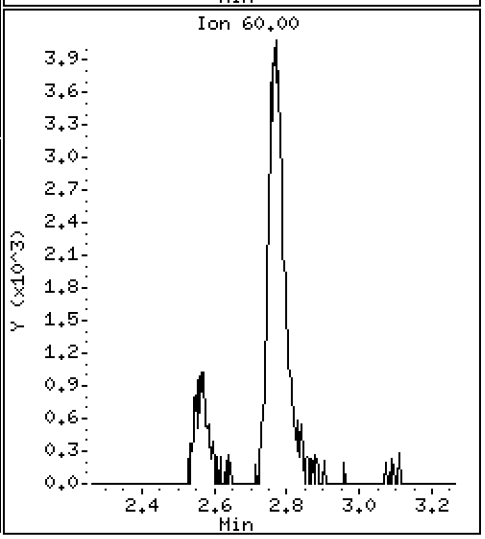


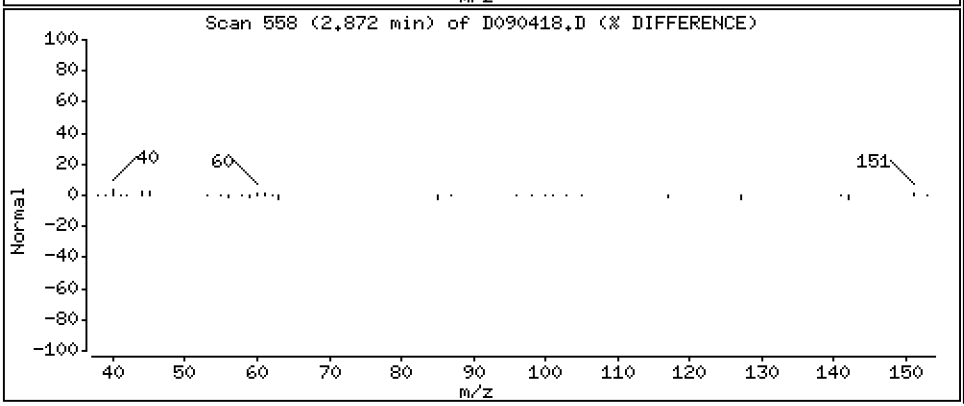












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 13

Date : 04-SEP-2018 17:39

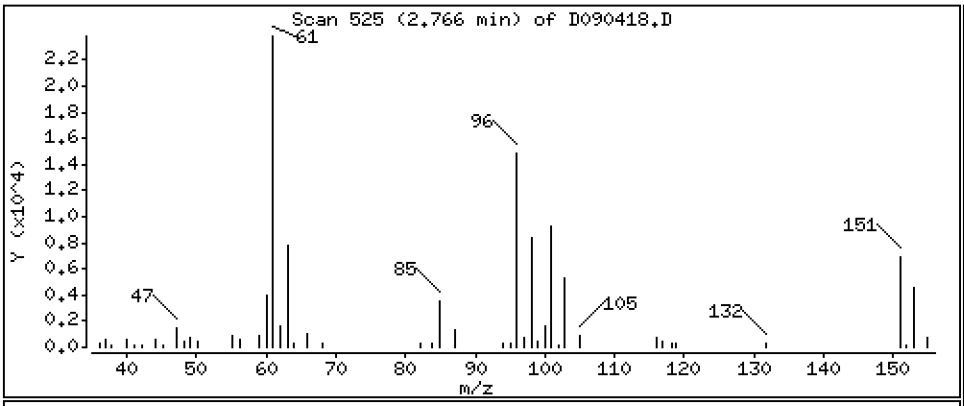
Client ID: HS18081504-01MS Instrument: VOA2.i

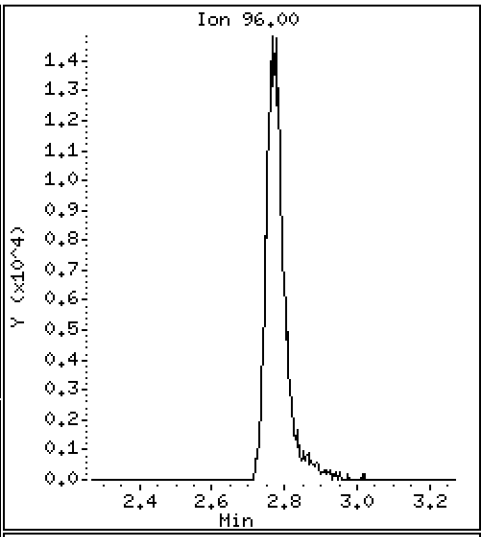
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

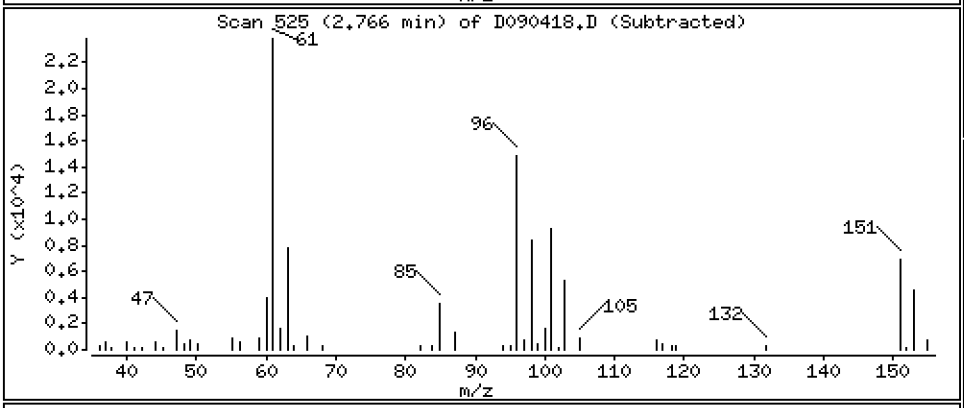
Purge Volume: 5.0 Operator: AP

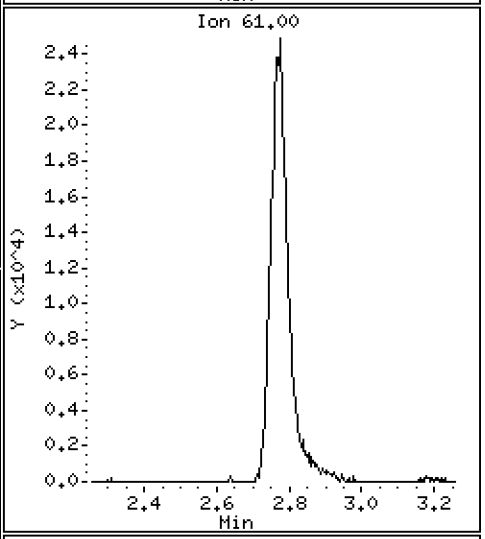
Column phase: DB624 Column diameter: 0.18

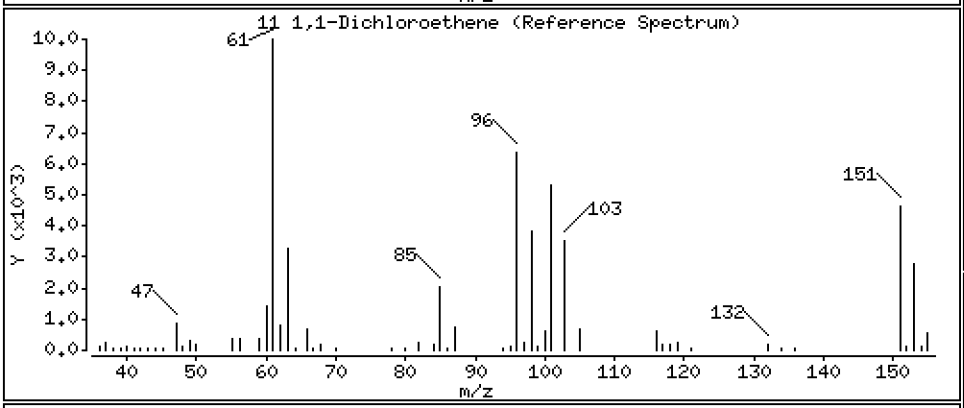
11 1,1-Dichloroethene Concentration: 17.83 ug/l Review Code:

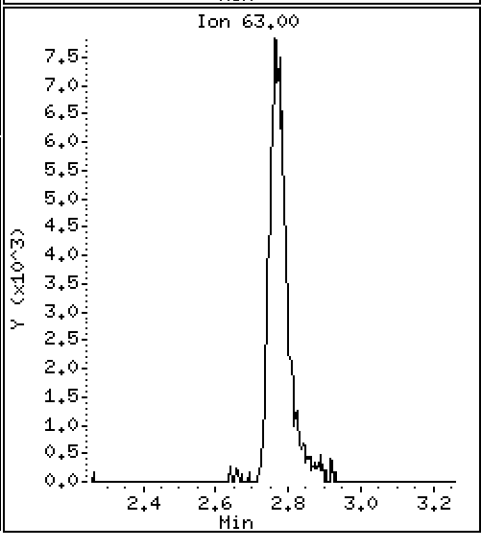


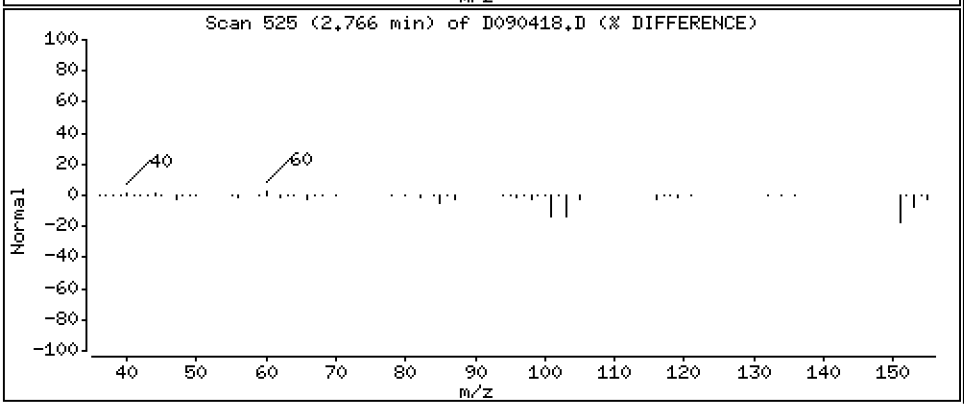












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 14

Date : 04-SEP-2018 17:39

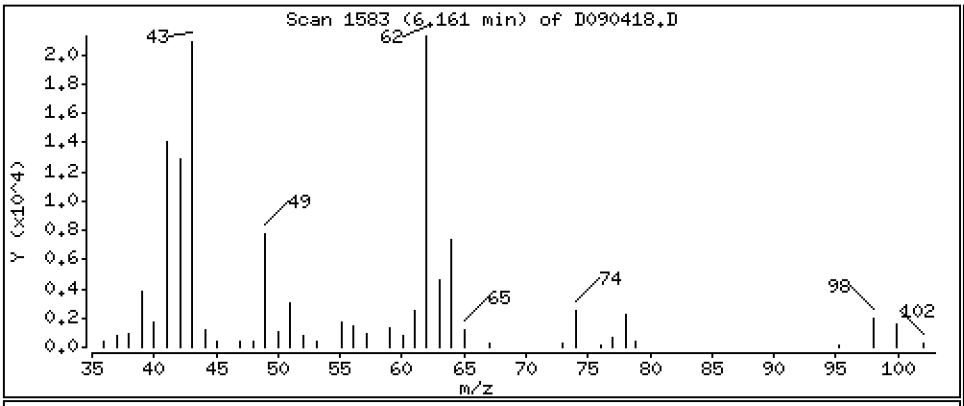
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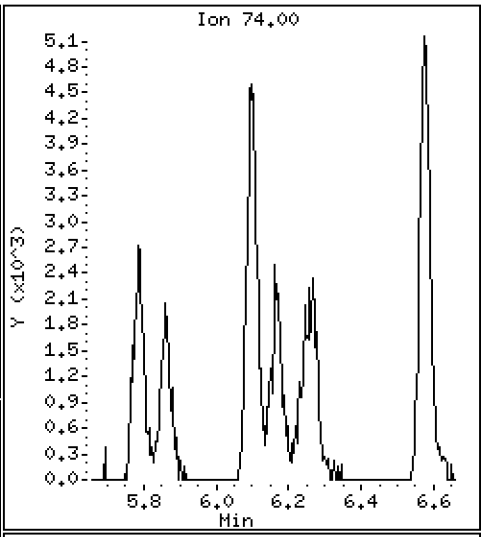
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

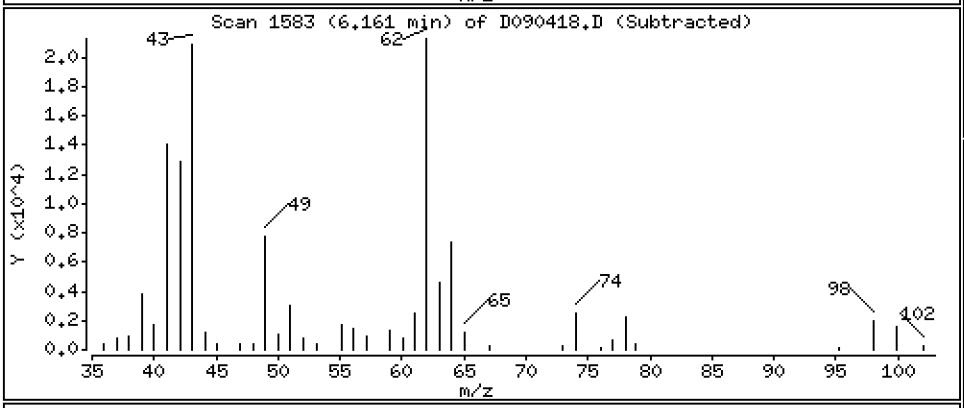
Purge Volume: 5.0 Operator: AP

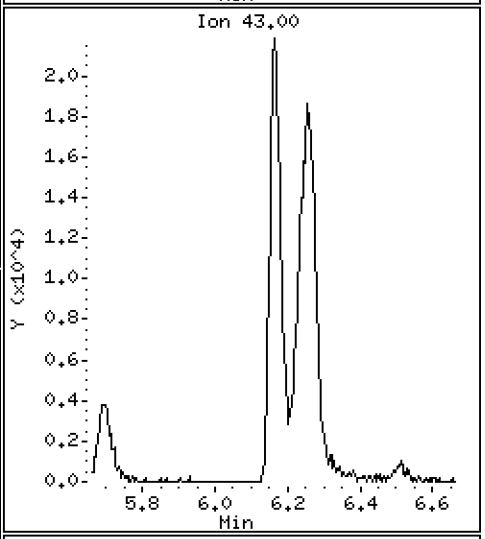
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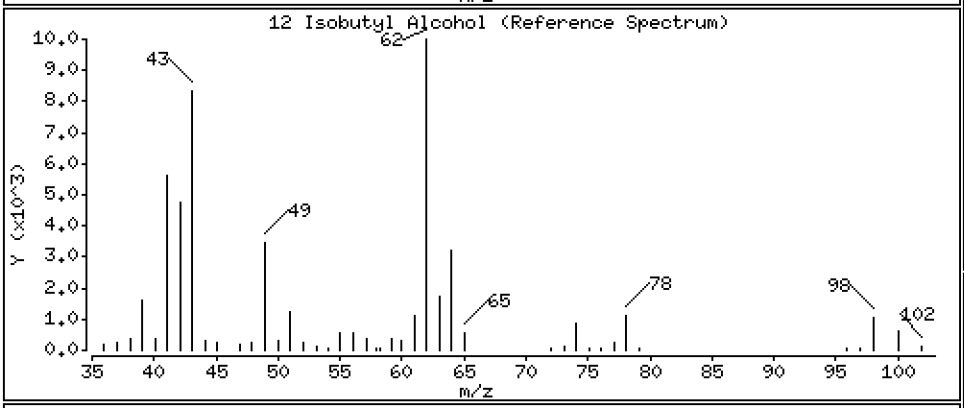
12 Isobutyl Alcohol Concentration: 276.98 ug/l Review Code:

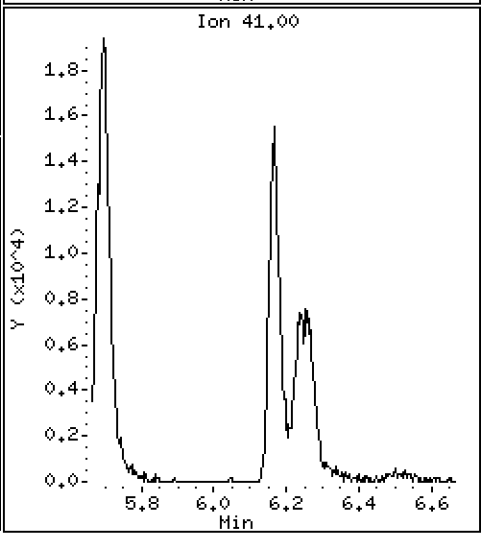


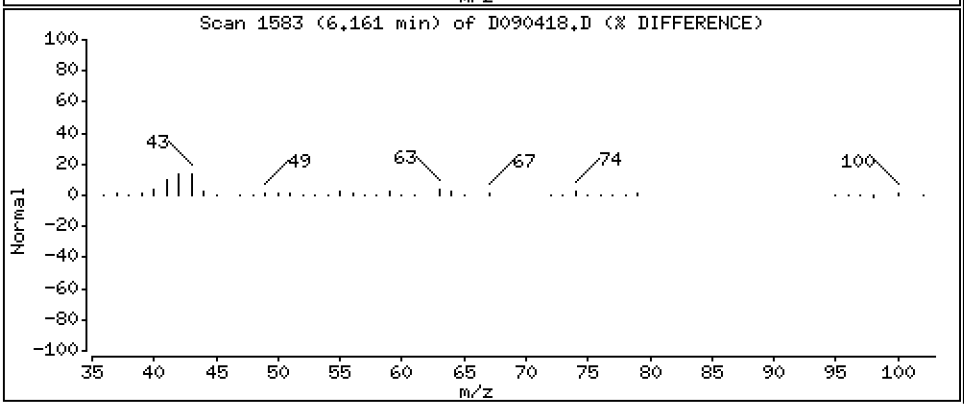












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 15

Date : 04-SEP-2018 17:39

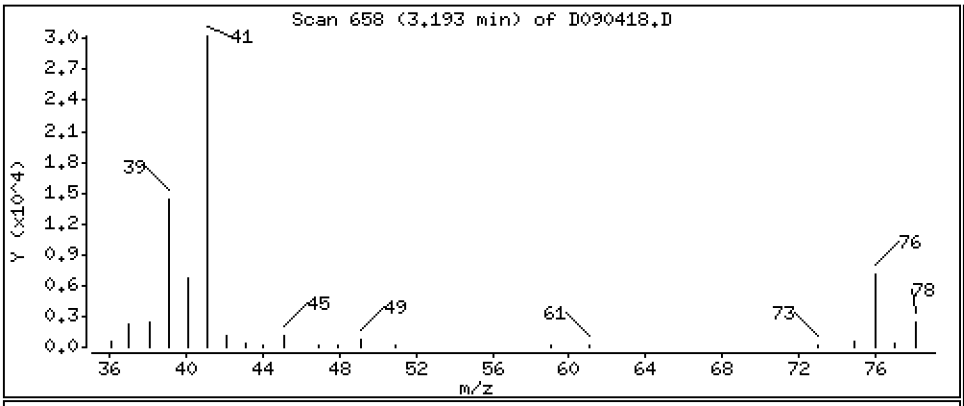
Client ID: HS18081504-01MS Instrument: VOA2.i

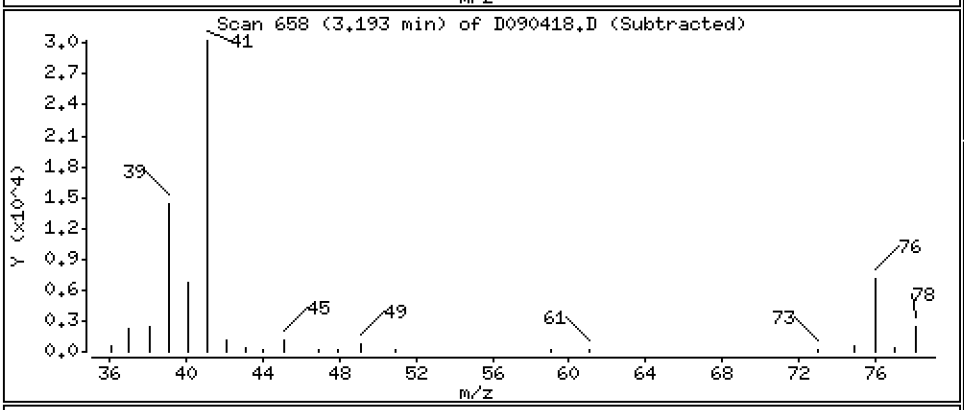
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

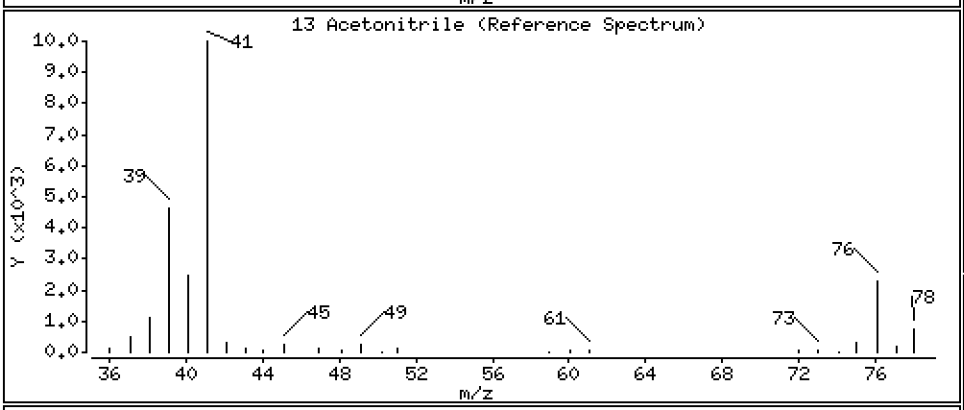
Purge Volume: 5.0 Operator: AP

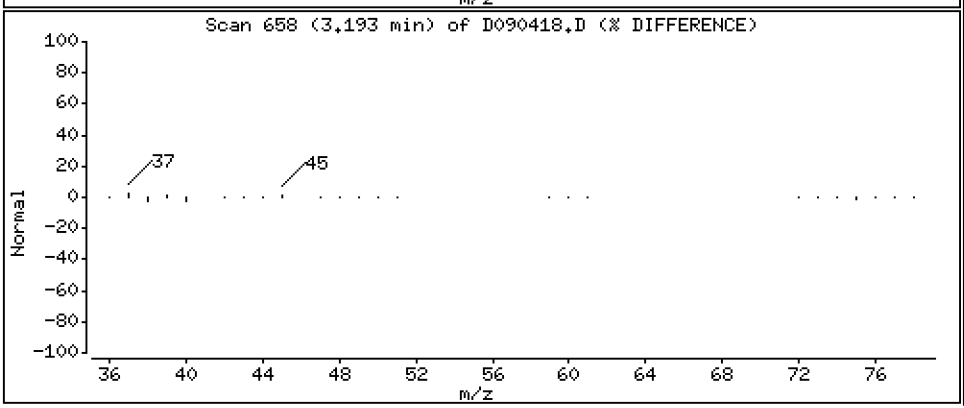
Column phase: DB624 Column diameter: 0.18

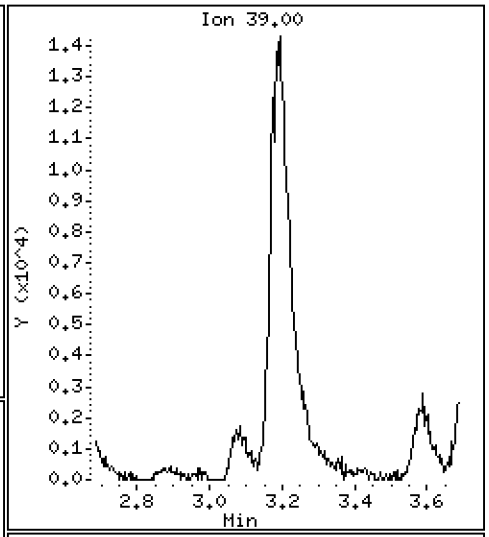
13 Acetonitrile Concentration: 163.20 ug/l Review Code:

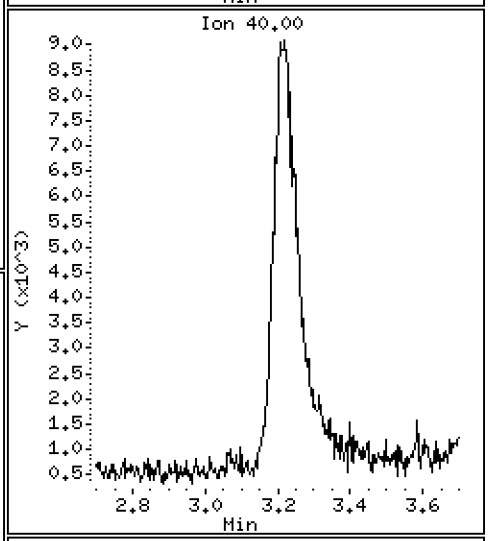


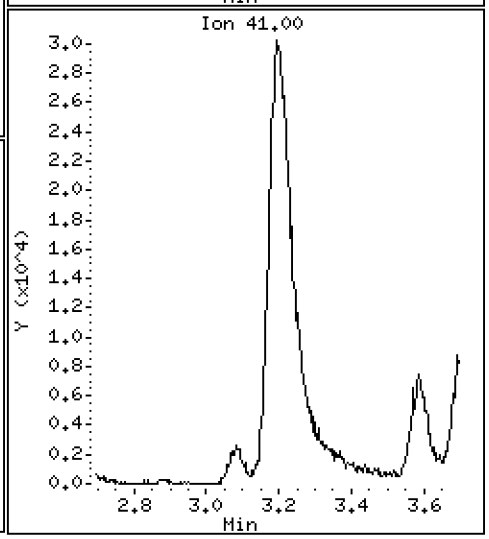












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 16

Date : 04-SEP-2018 17:39

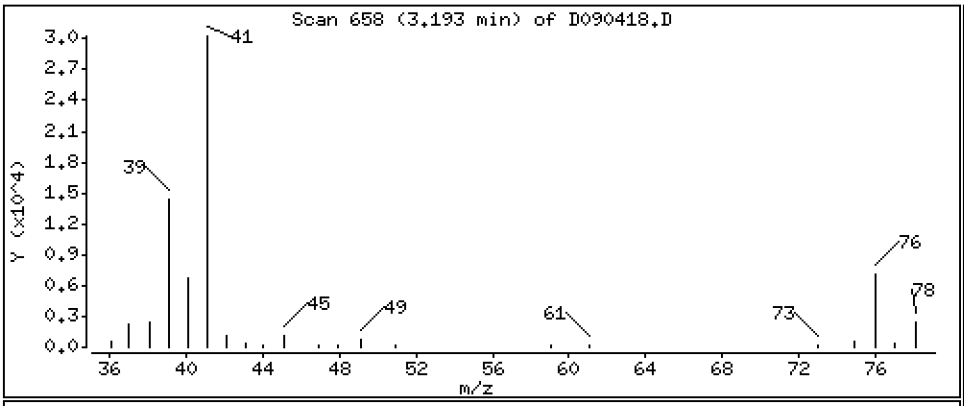
Client ID: HS18081504-01MS Instrument: VOA2.i

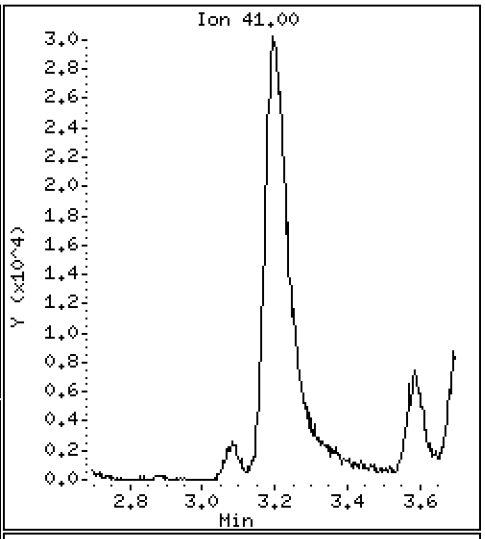
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

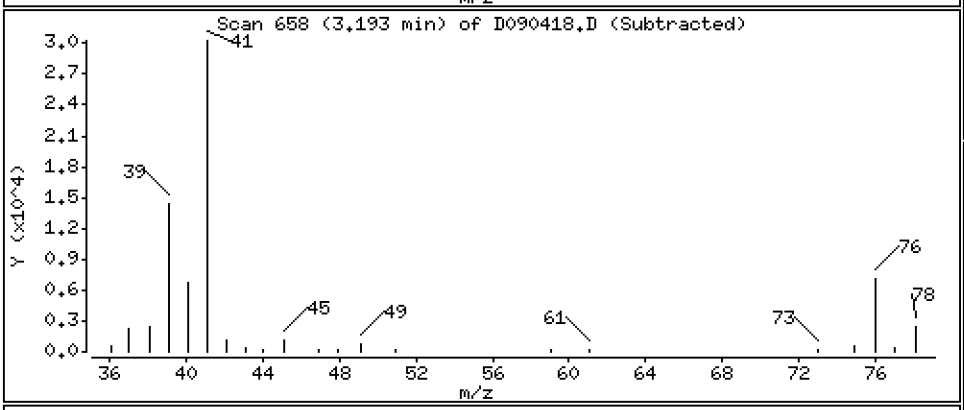
Purge Volume: 5.0 Operator: AP

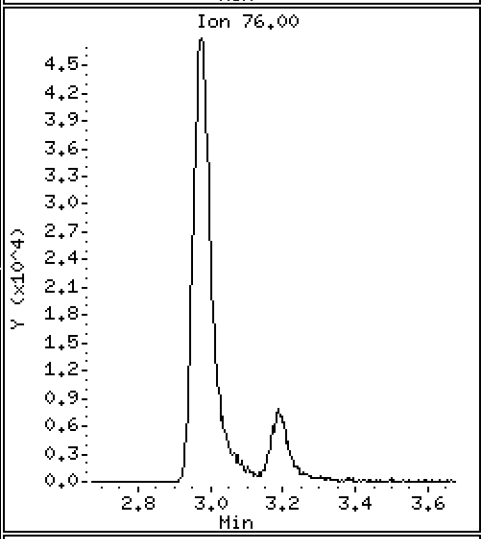
Column phase: DB624 Column diameter: 0.18

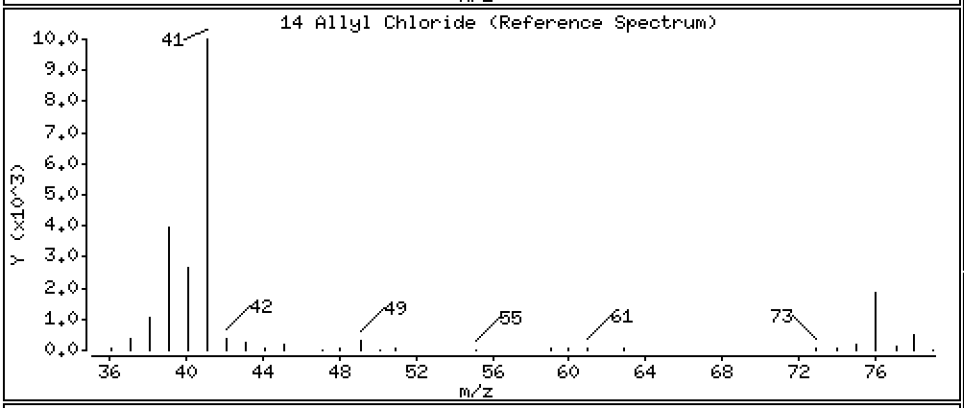
14 Allyl Chloride Concentration: 14.89 ug/l Review Code:

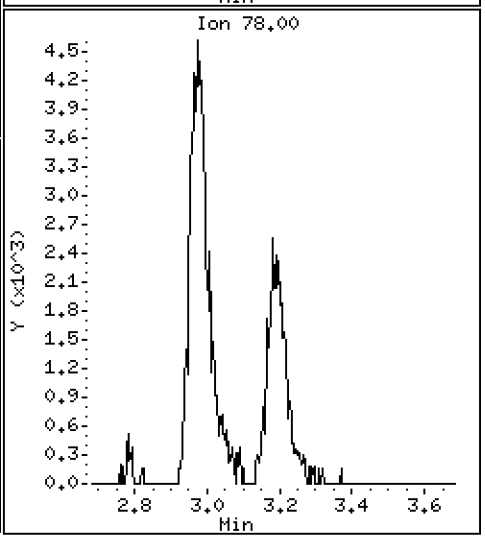


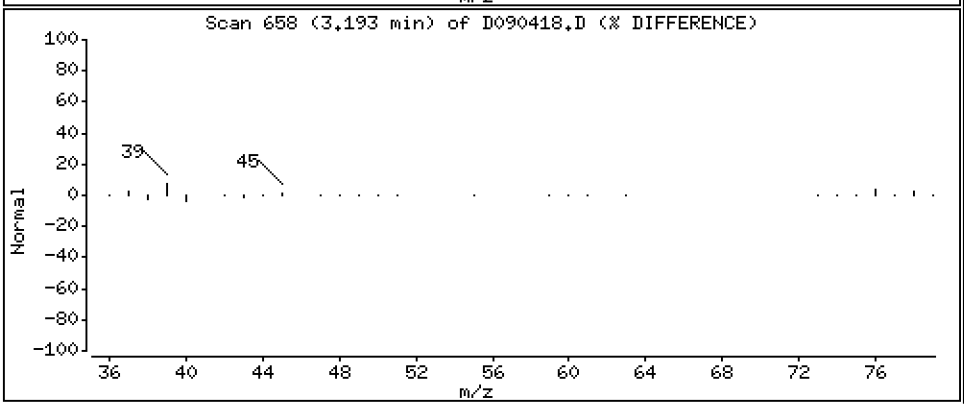












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 17

Date : 04-SEP-2018 17:39

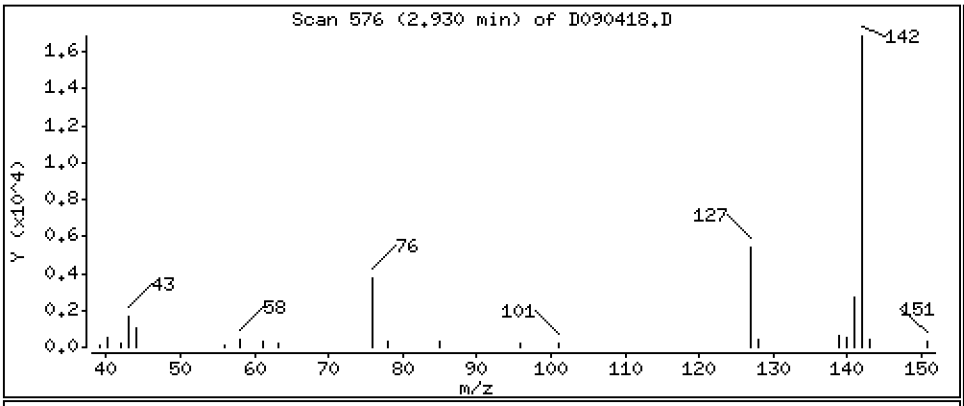
Client ID: HS18081504-01MS Instrument: VOA2.i

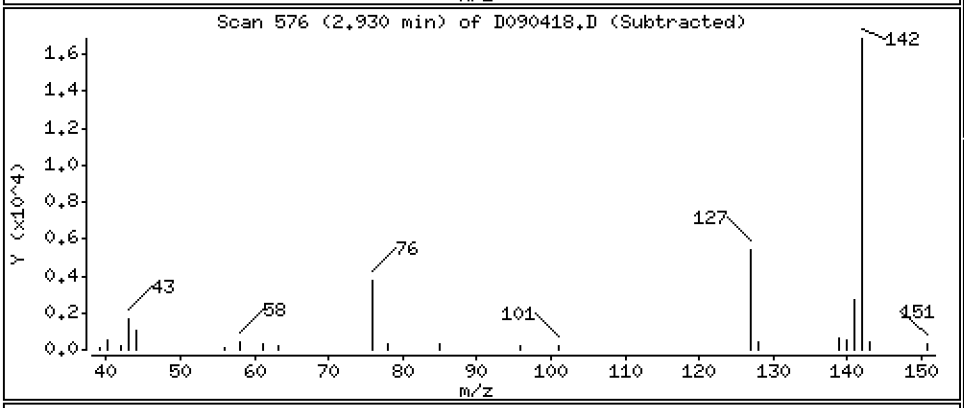
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

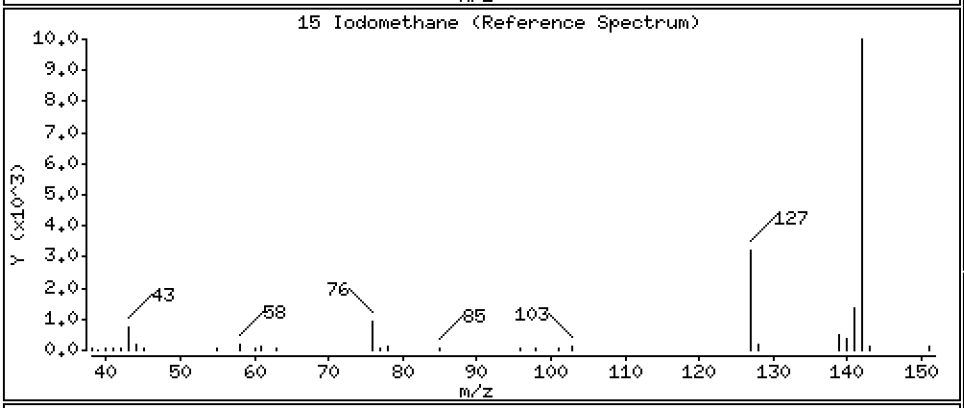
Purge Volume: 5.0 Operator: AP

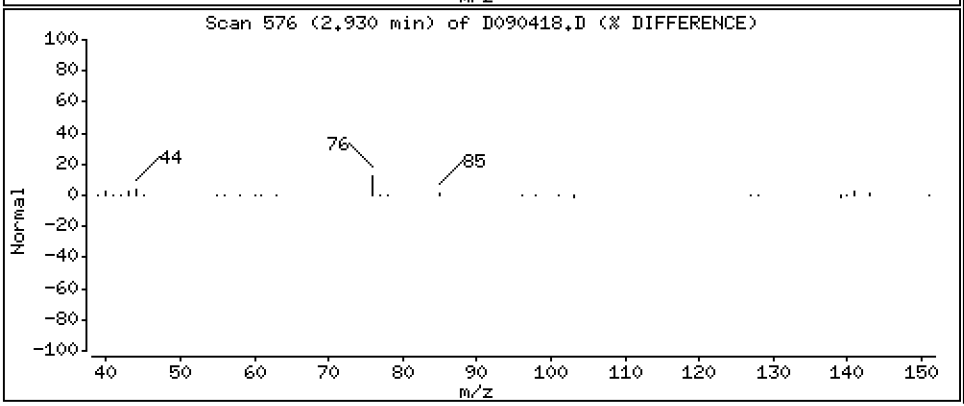
Column phase: DB624 Column diameter: 0.18

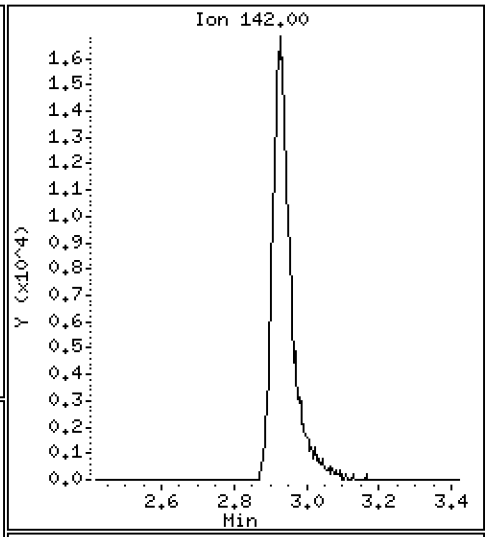
15 Iodomethane Concentration: 23.62 ug/l Review Code:

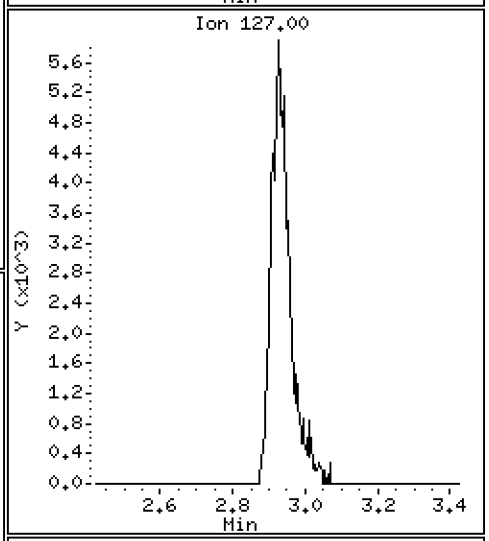


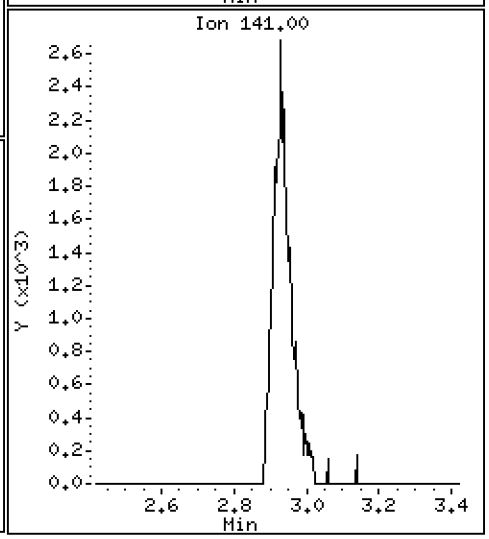












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 18

Date : 04-SEP-2018 17:39

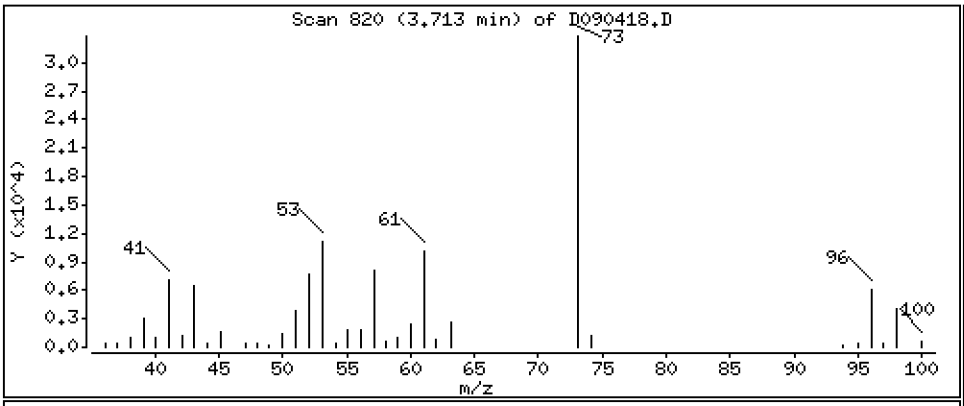
Client ID: HS18081504-01MS Instrument: VOA2.i

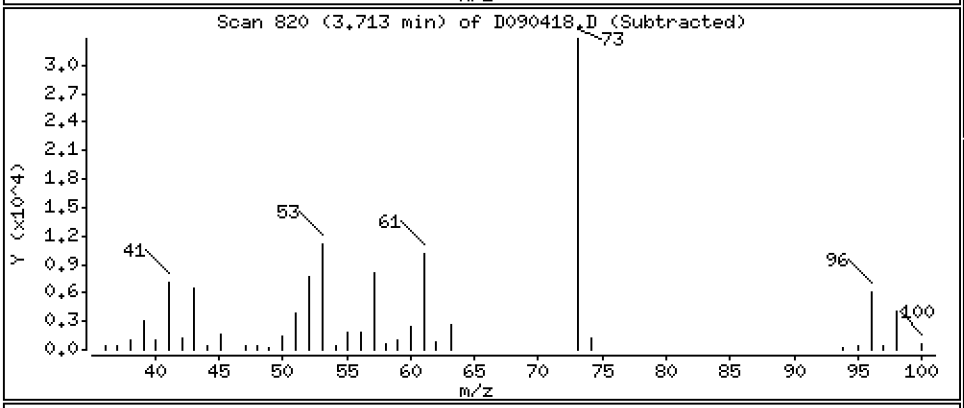
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

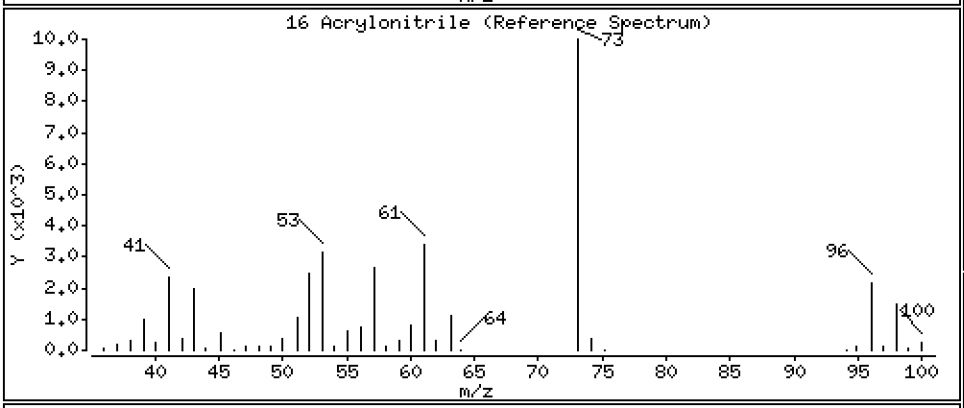
Purge Volume: 5.0 Operator: AP

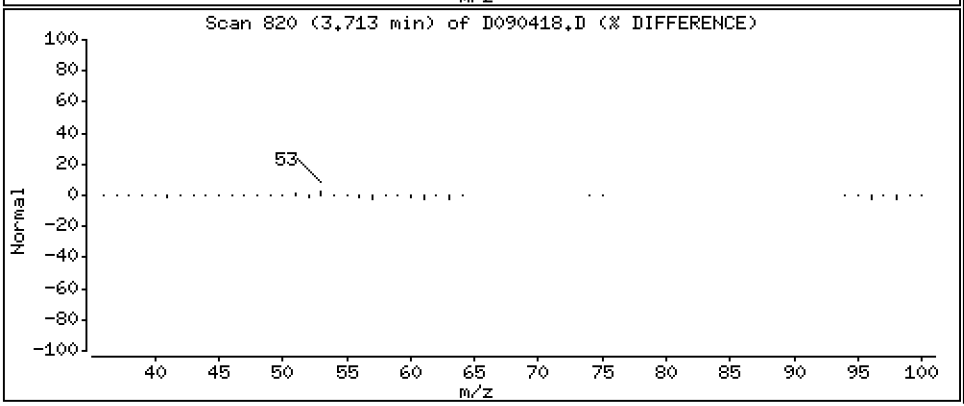
Column phase: DB624 Column diameter: 0.18

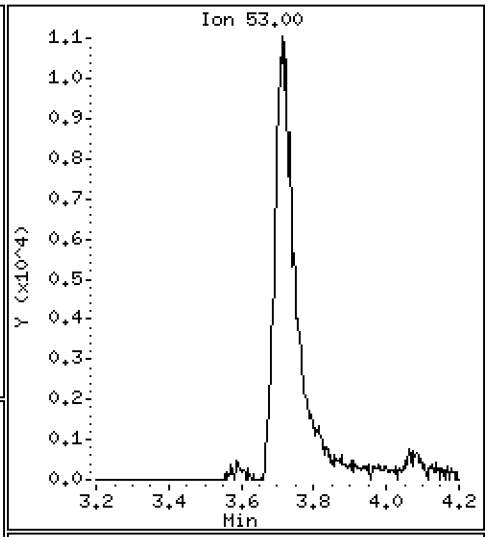
16 Acrylonitrile Concentration: 30.07 ug/l Review Code:

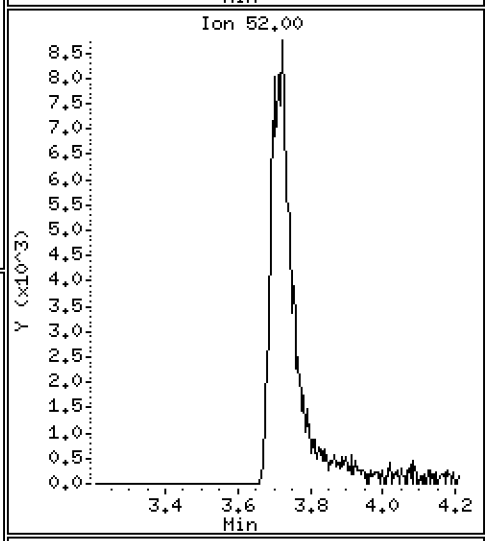


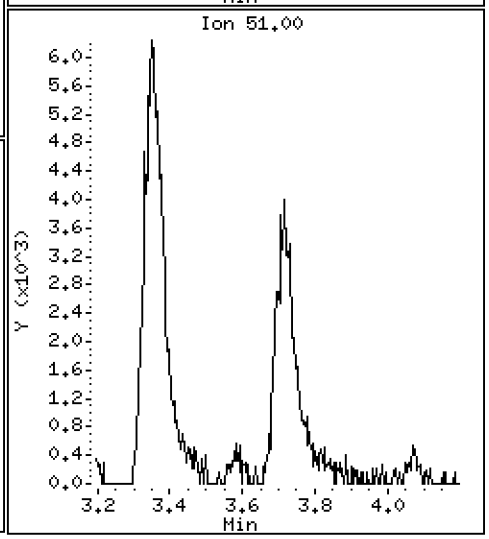












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 19

Date : 04-SEP-2018 17:39

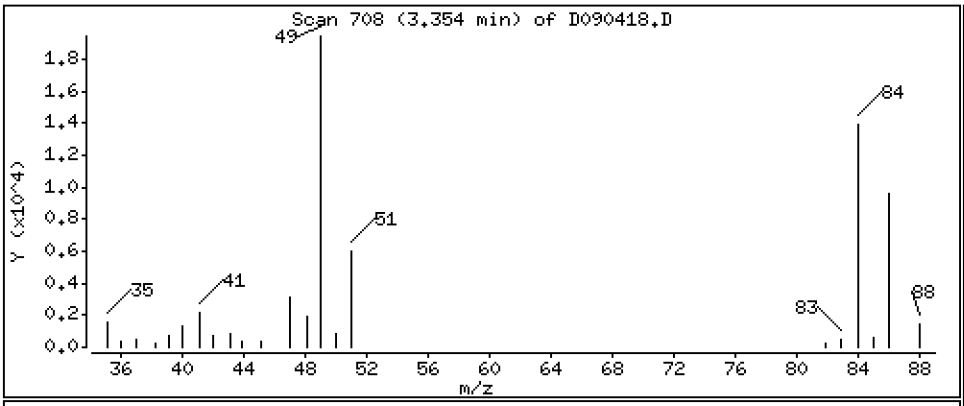
Client ID: HS18081504-01MS Instrument: VOA2.i

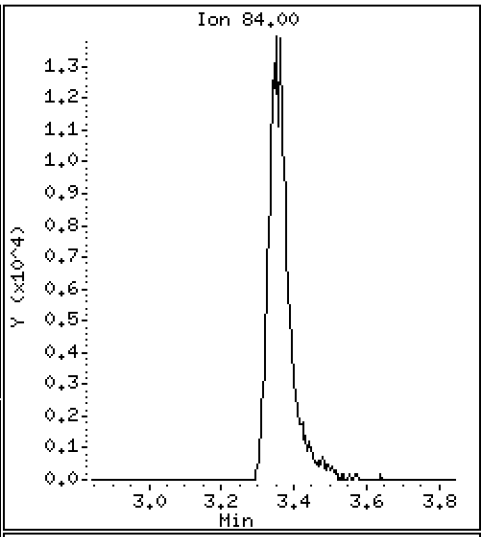
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

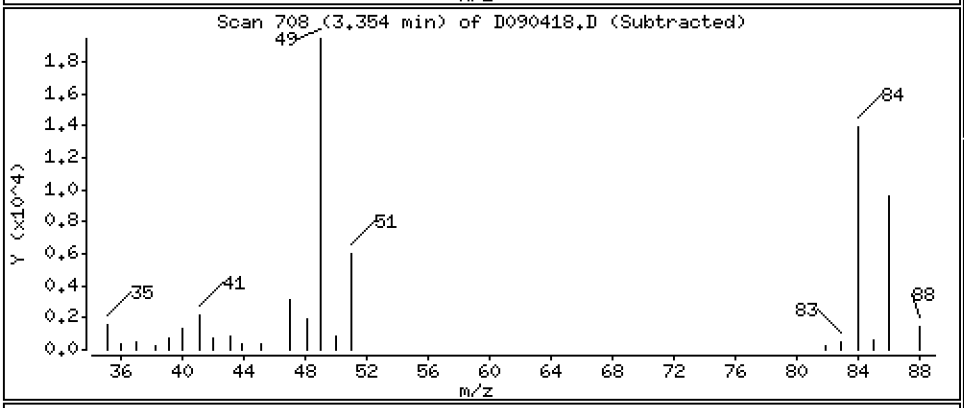
Purge Volume: 5.0 Operator: AP

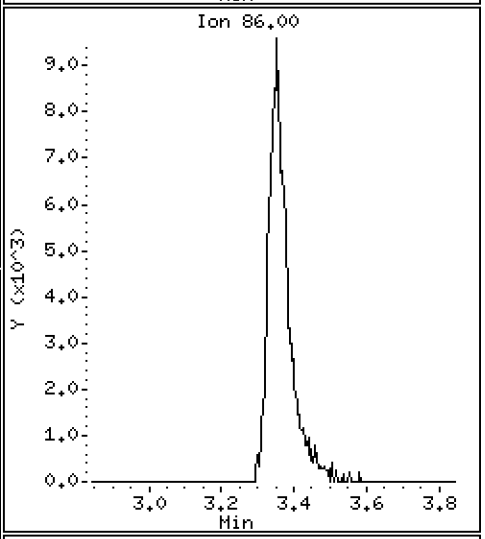
Column phase: DB624 Column diameter: 0.18

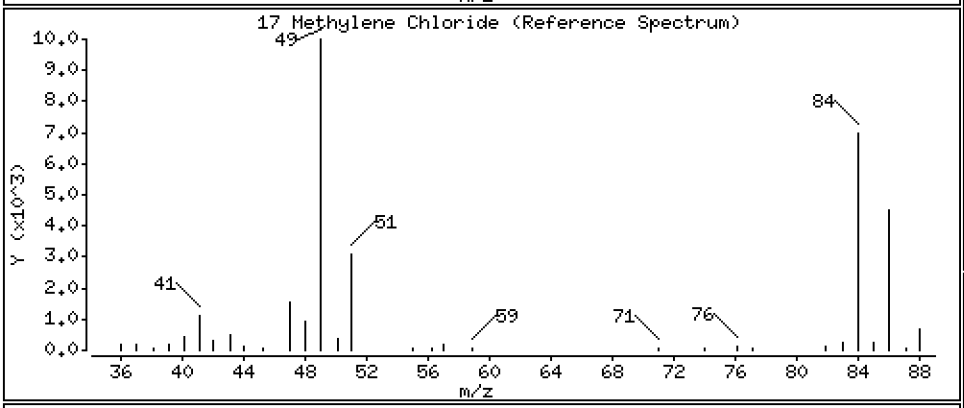
17 Methylene Chloride Concentration: 15.13 ug/l Review Code:

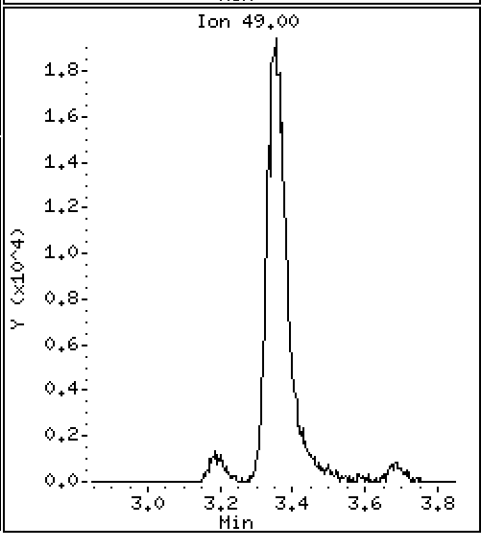


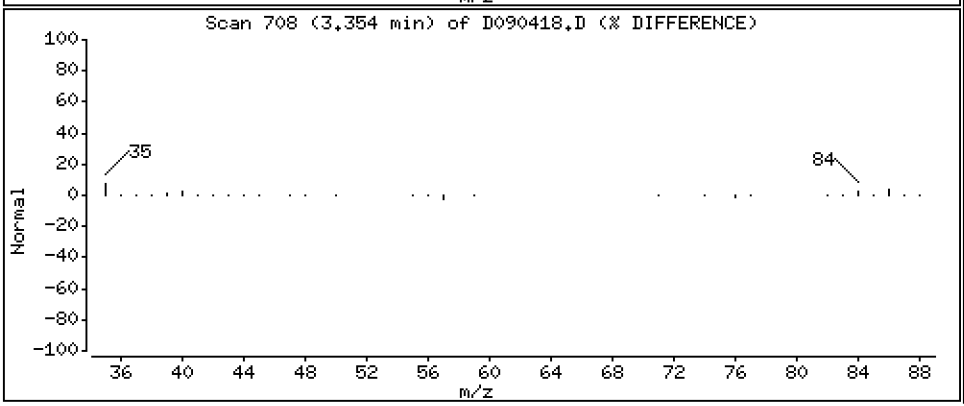












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 20

Date : 04-SEP-2018 17:39

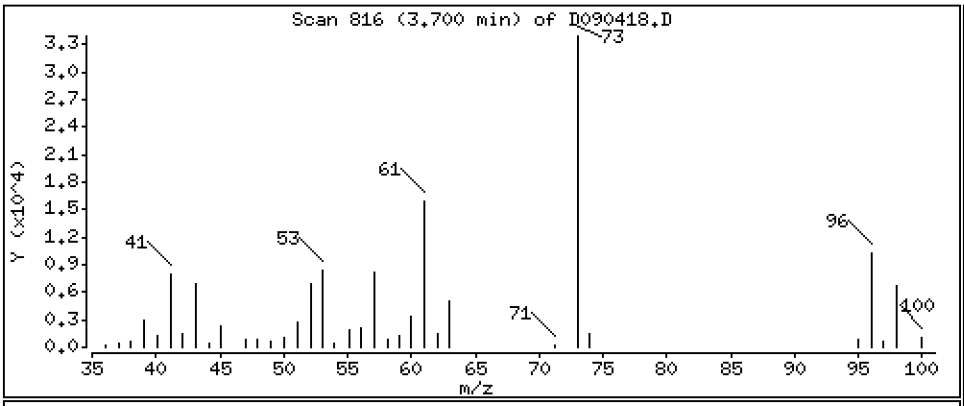
Client ID: HS18081504-01MS Instrument: VOA2.i

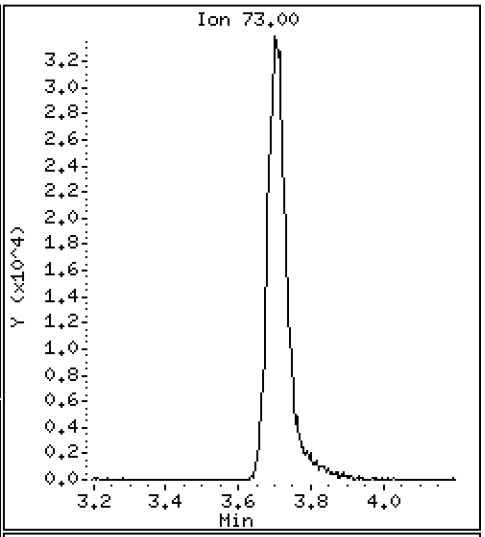
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

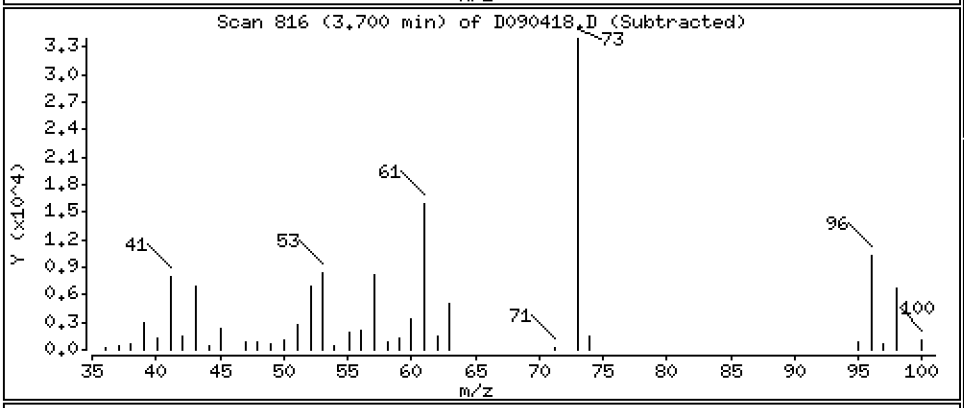
Purge Volume: 5.0 Operator: AP

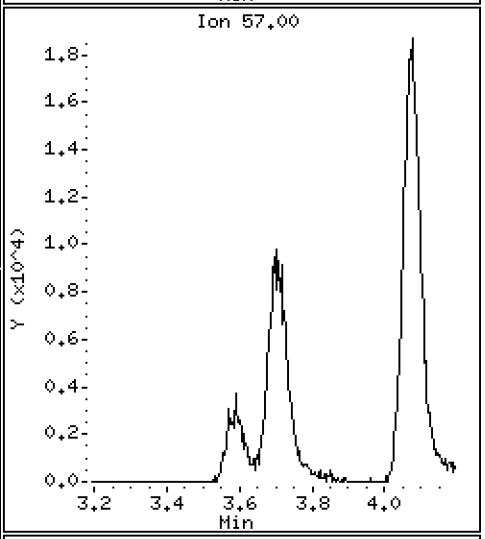
Column phase: DB624 Column diameter: 0.18

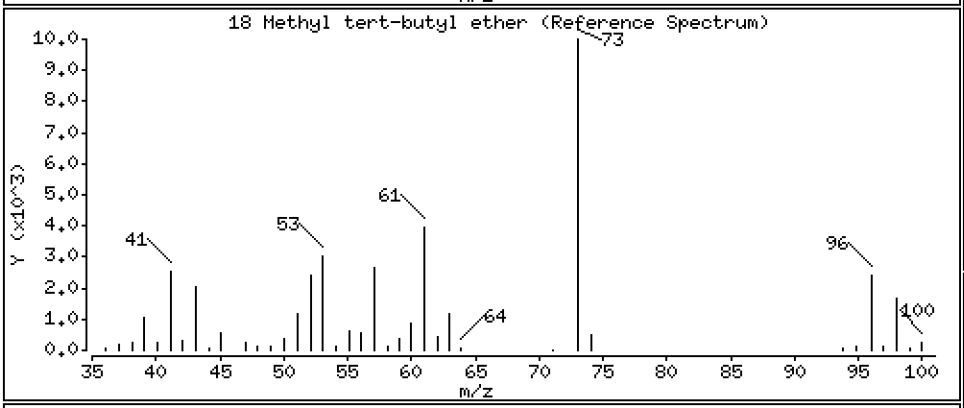
18 Methyl tert-butyl ether Concentration: 14.70 ug/l Review Code:

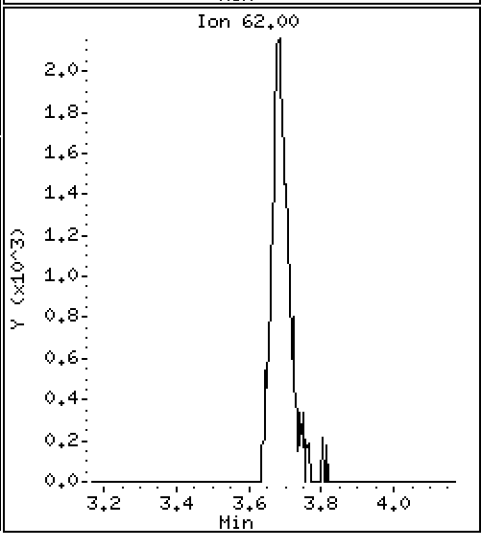


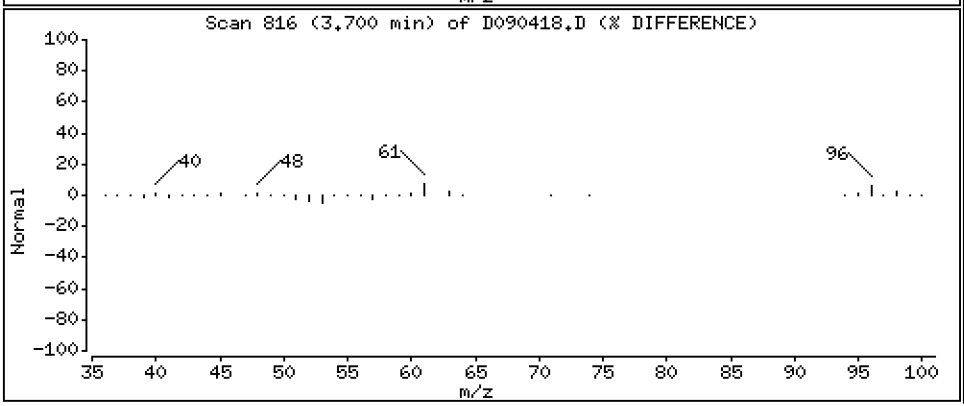












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 21

Date : 04-SEP-2018 17:39

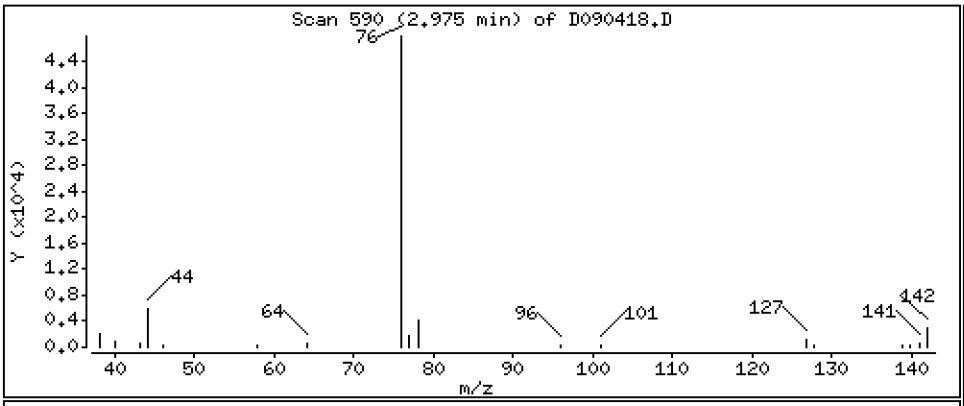
Client ID: HS18081504-01MS Instrument: VOA2.i

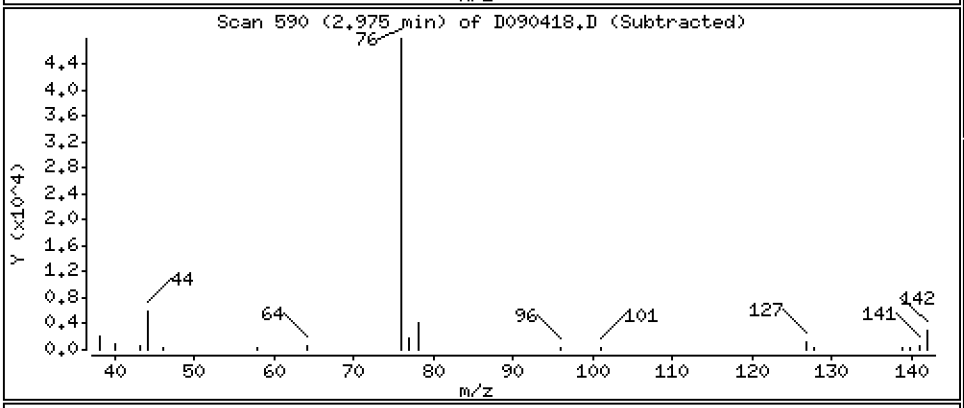
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

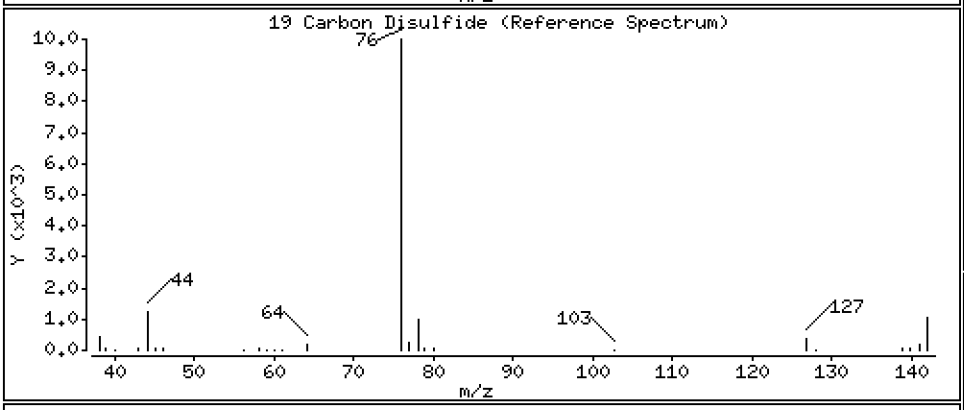
Purge Volume: 5.0 Operator: AP

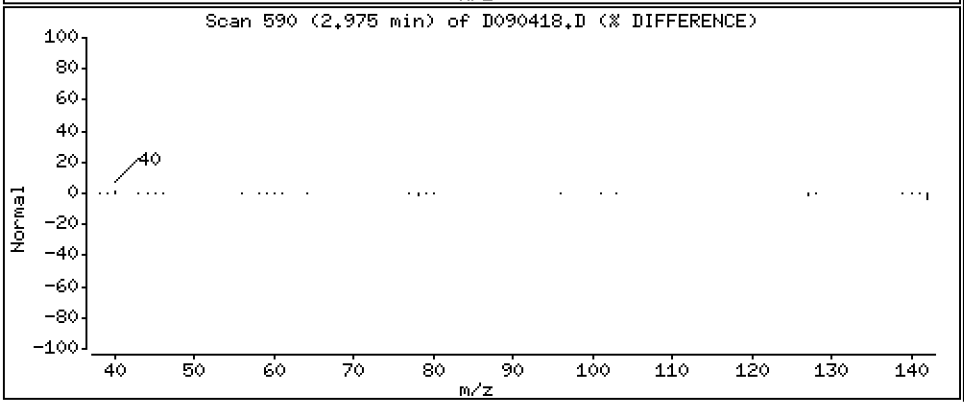
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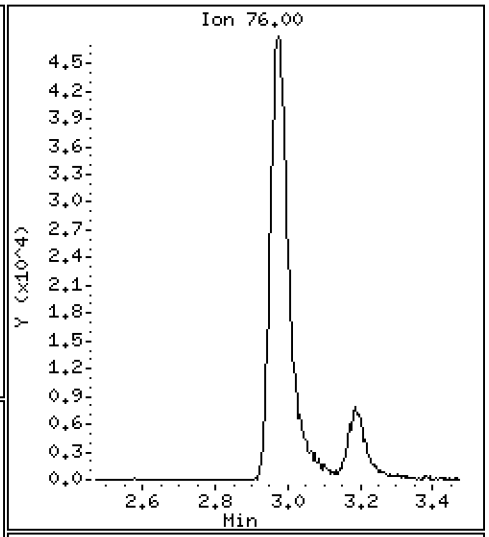
19 Carbon Disulfide Concentration: 32.98 ug/l Review Code:

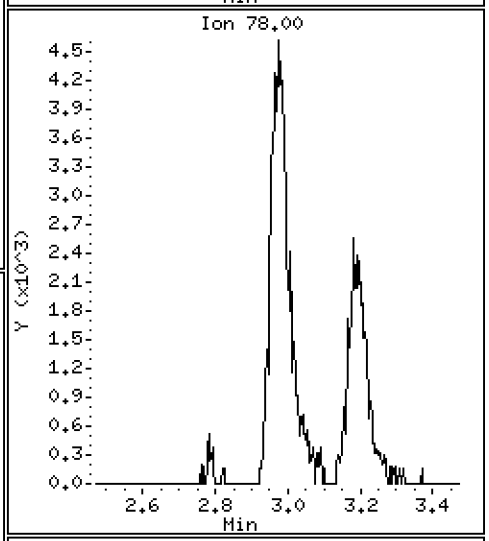


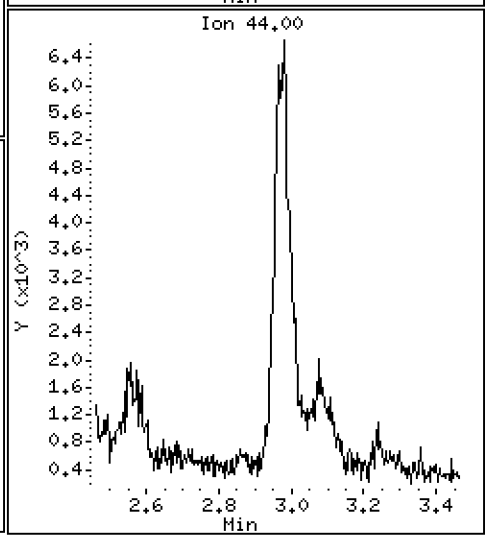












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 22

Date : 04-SEP-2018 17:39

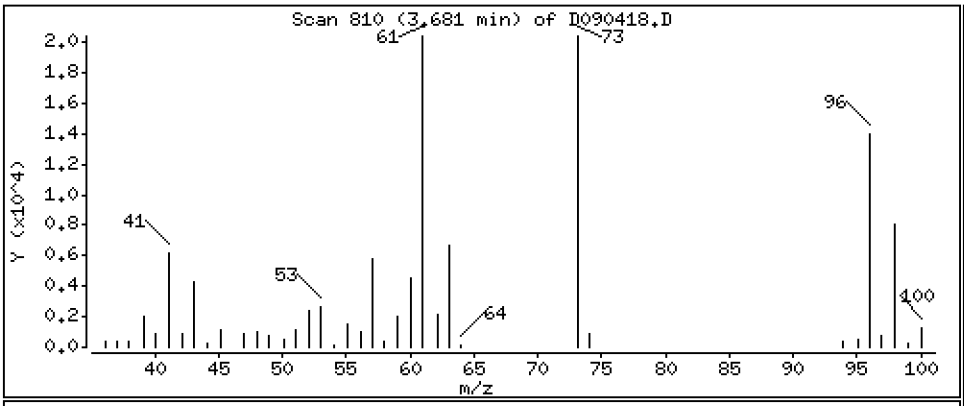
Client ID: HS18081504-01MS Instrument: VOA2.i

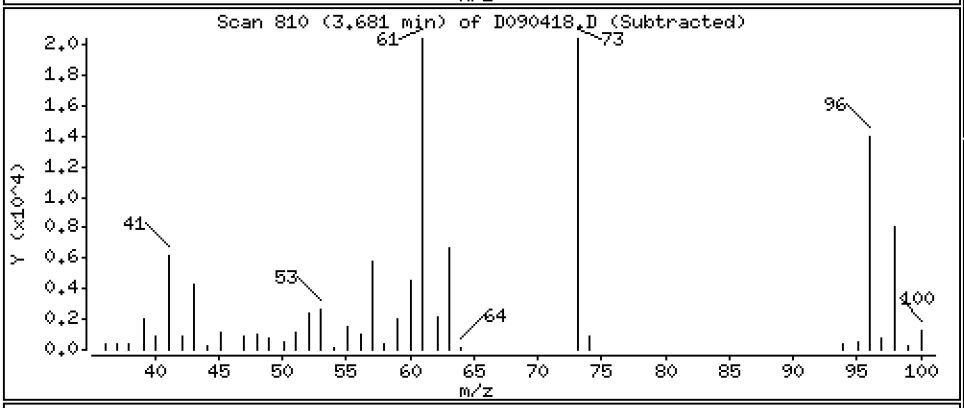
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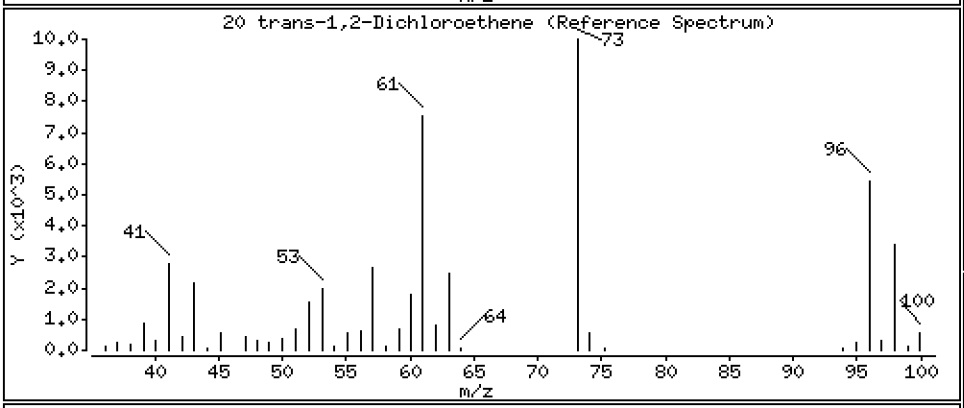
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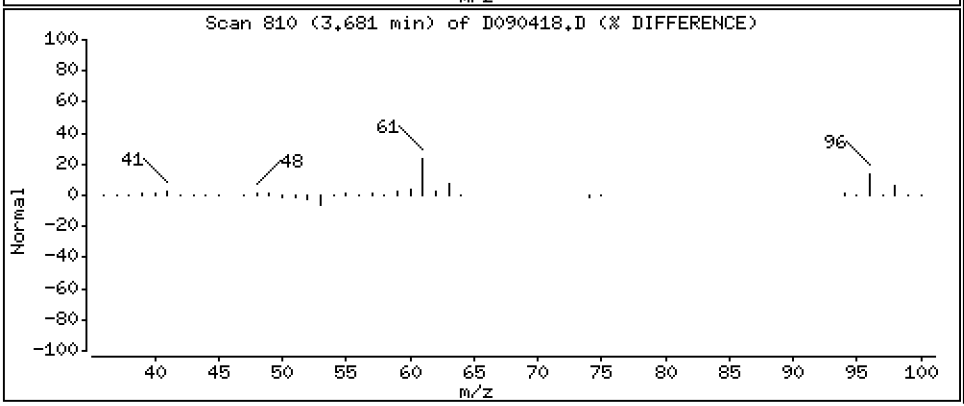
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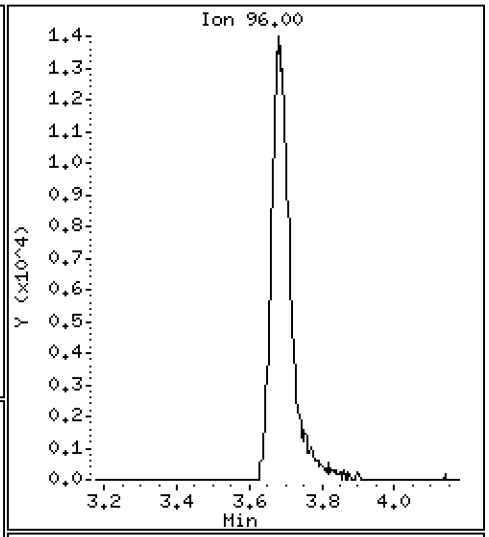
20 trans-1,2-Dichloroethene Concentration: 17.13 ug/l Review Code:

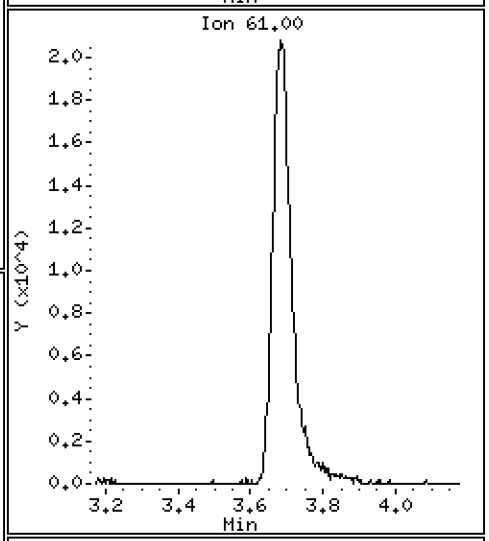


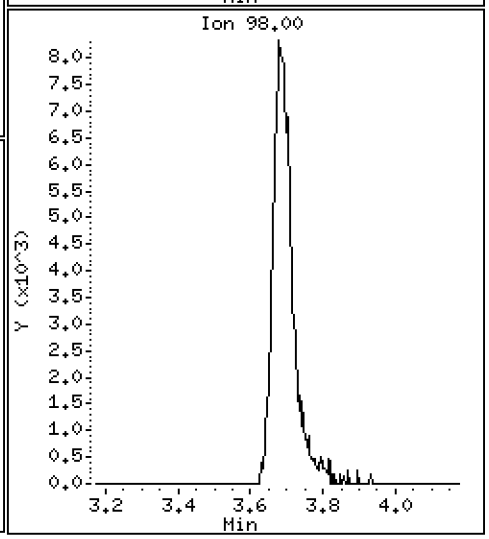












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 23

Date : 04-SEP-2018 17:39

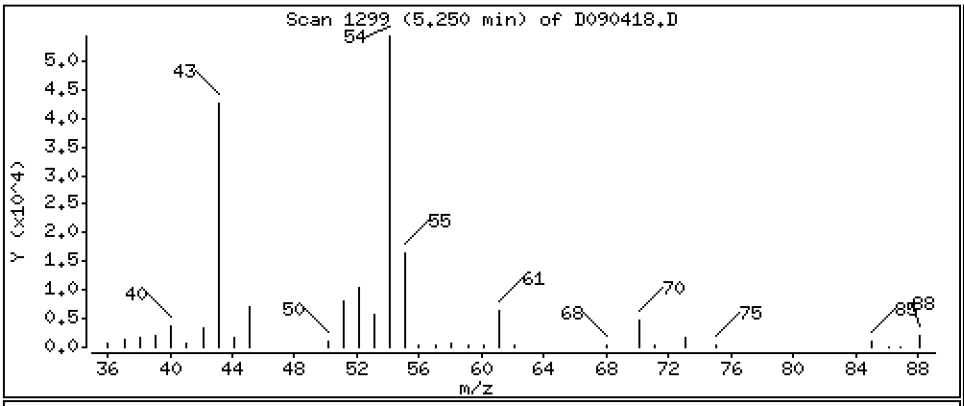
Client ID: HS18081504-01MS Instrument: VOA2.i

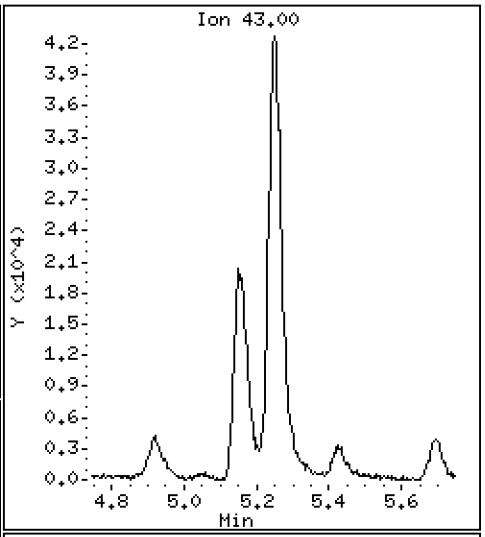
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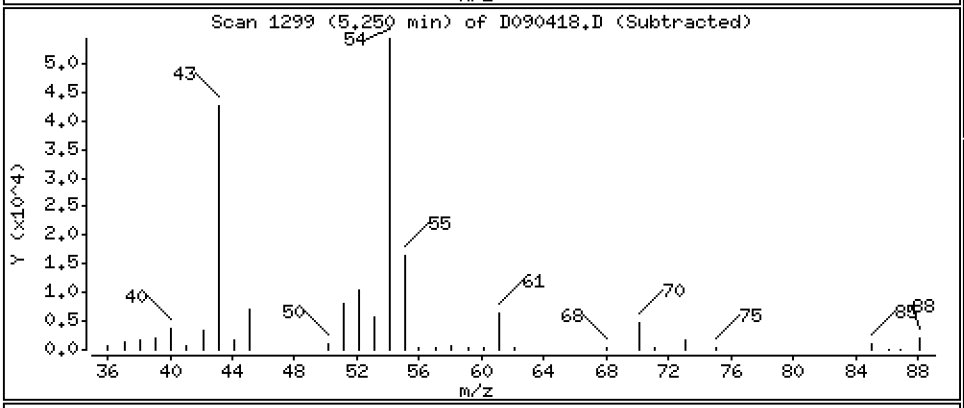
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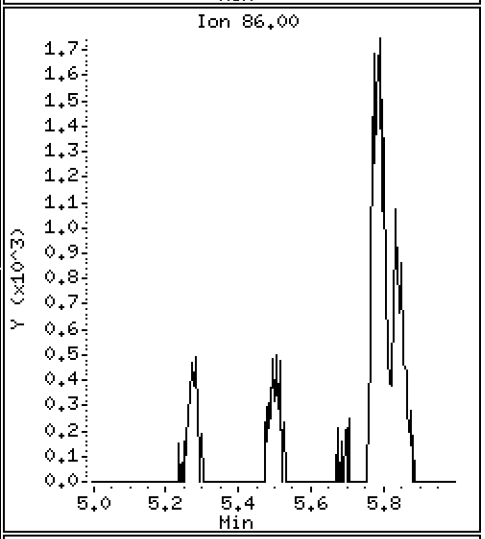
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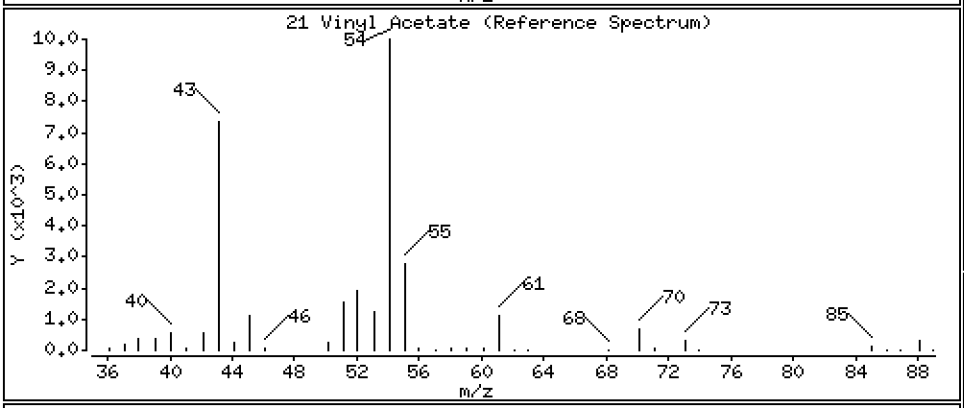
21 Vinyl Acetate Concentration: 31.58 ug/l Review Code:

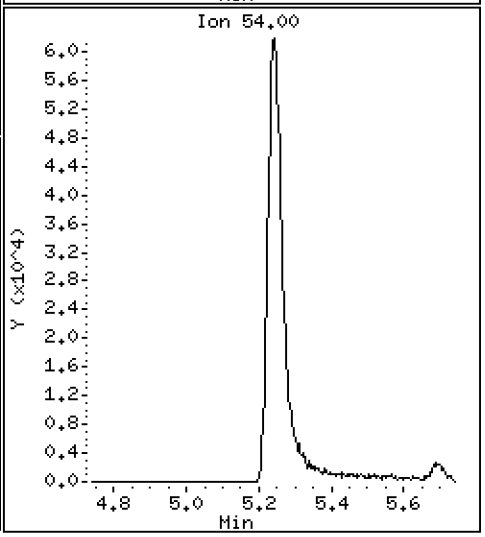


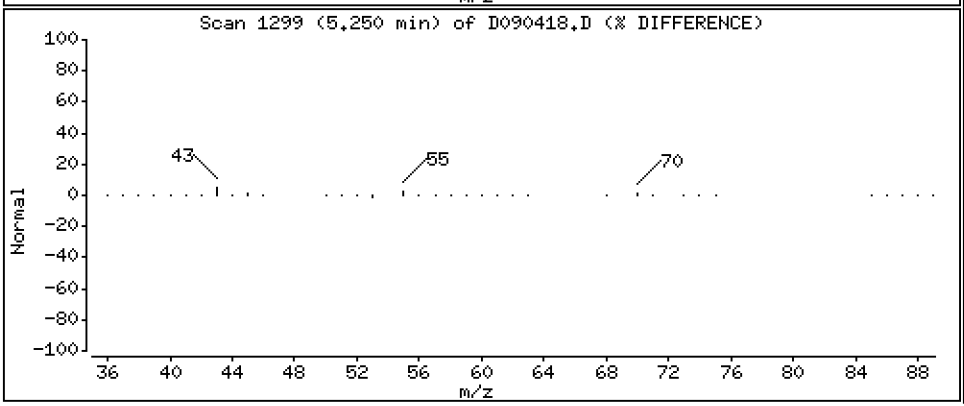












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 24

Date : 04-SEP-2018 17:39

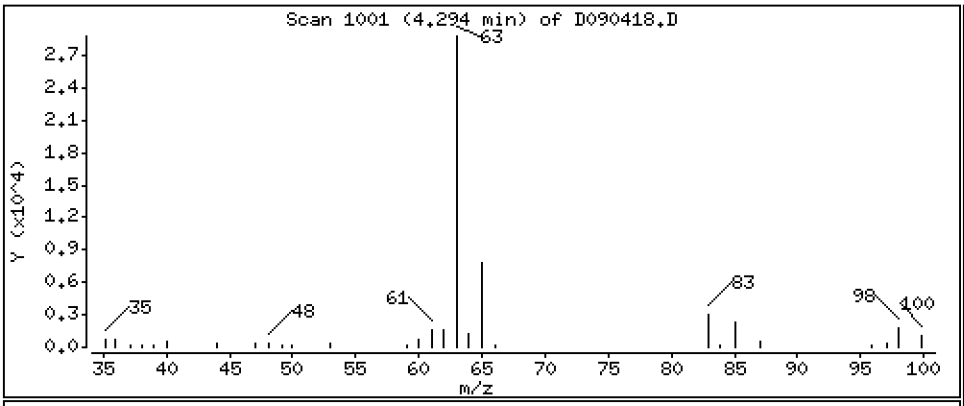
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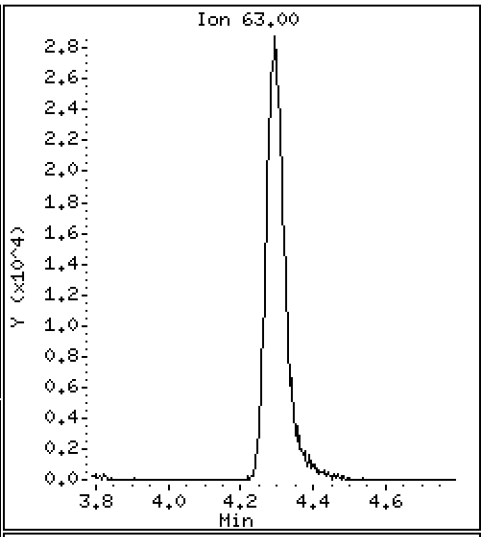
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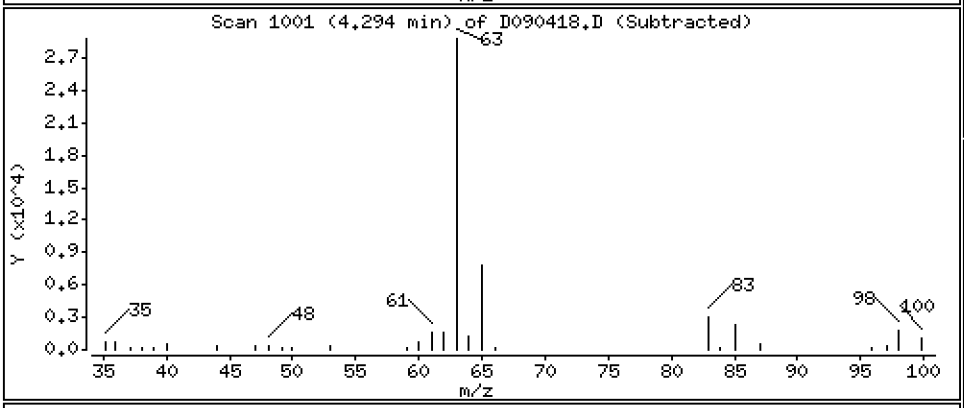
Purge Volume: 5.0 Operator: AP

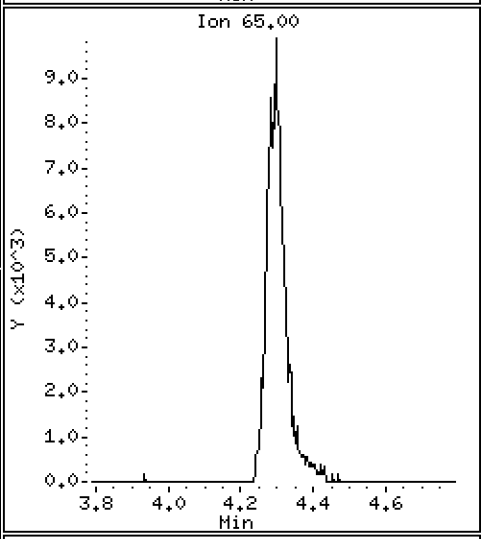
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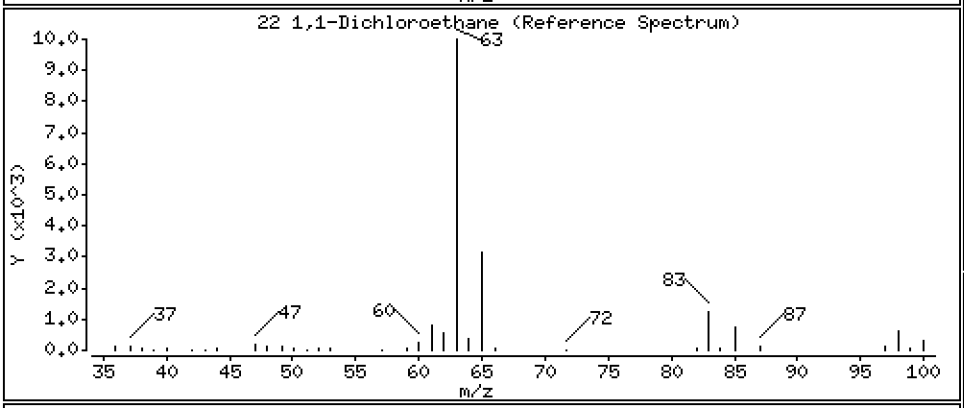
22 1,1-Dichloroethane Concentration: 15.47 ug/l Review Code:

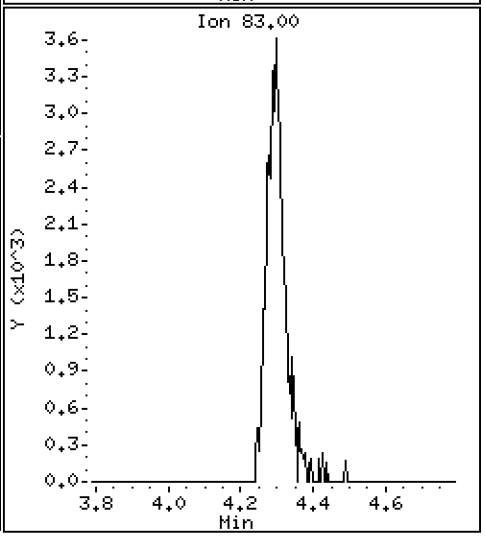


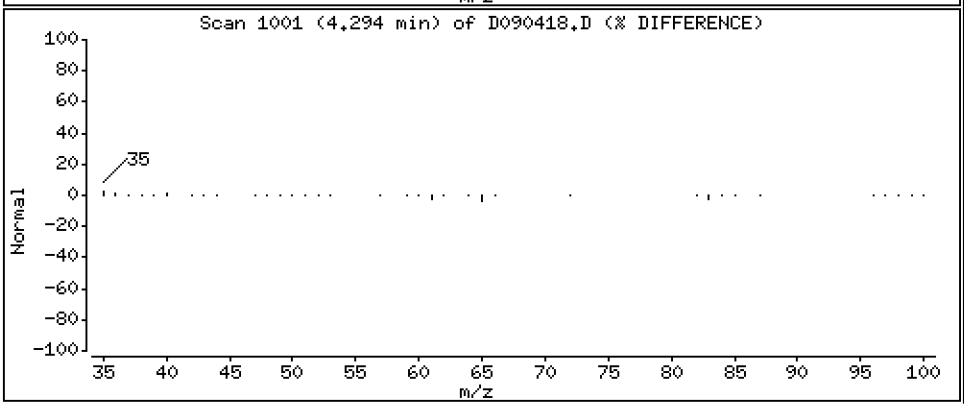












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 25

Date : 04-SEP-2018 17:39

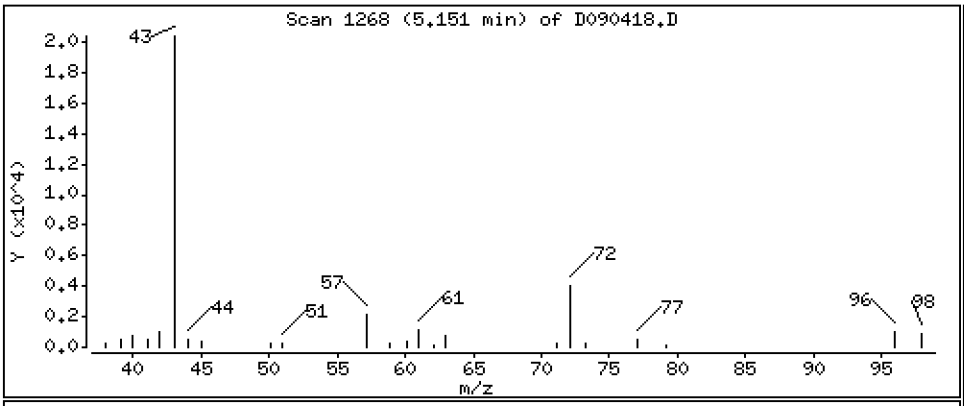
Client ID: HS18081504-01MS Instrument: VOA2.i

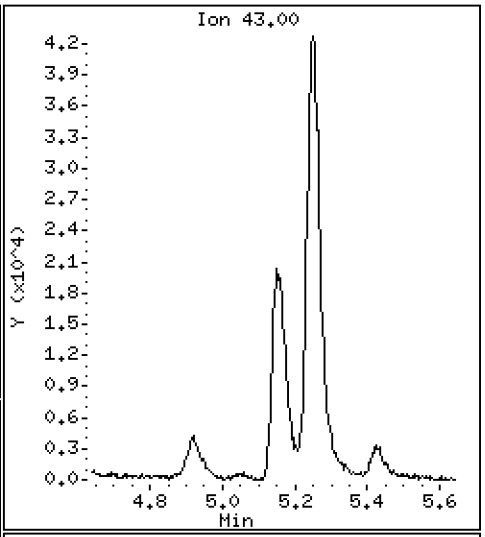
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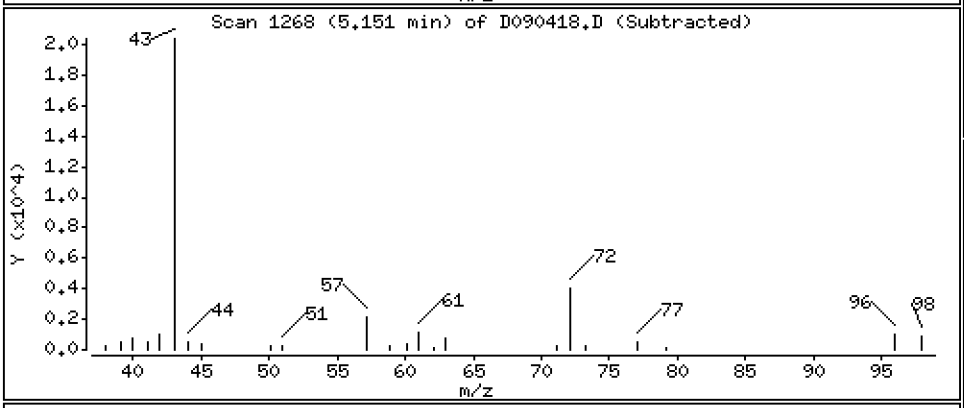
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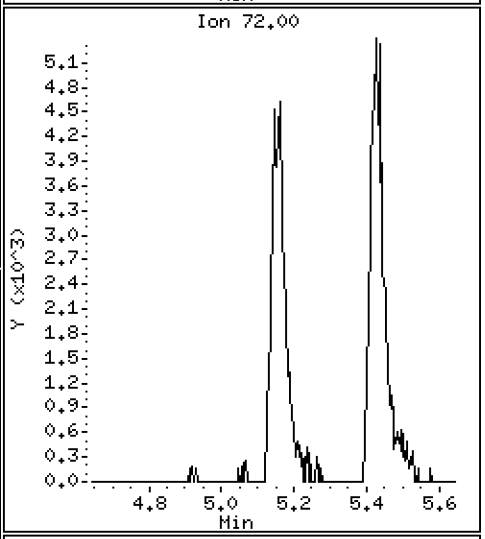
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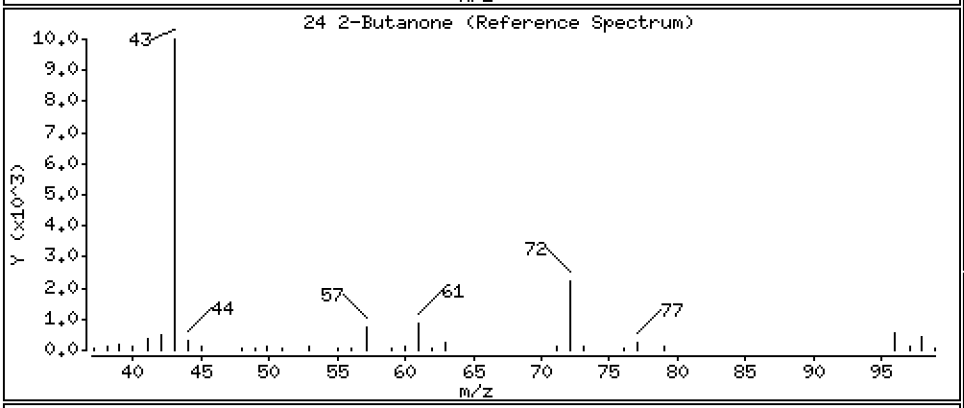
24 2-Butanone Concentration: 33.75 ug/l Review Code:

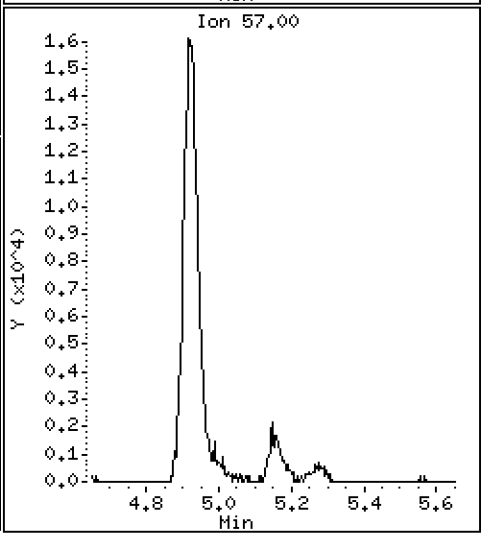


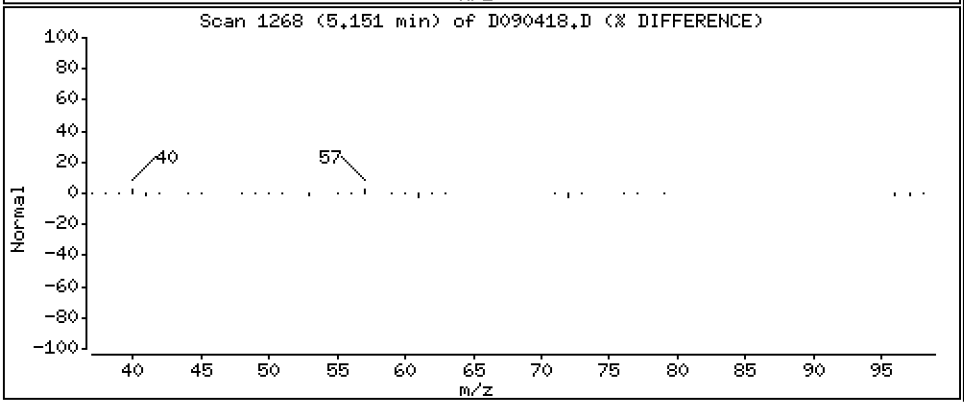












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 26

Date : 04-SEP-2018 17:39

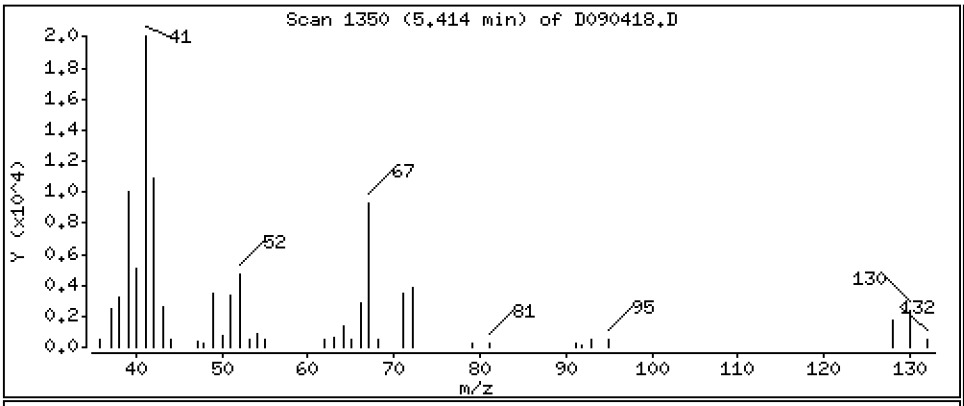
Client ID: HS18081504-01MS Instrument: VOA2.i

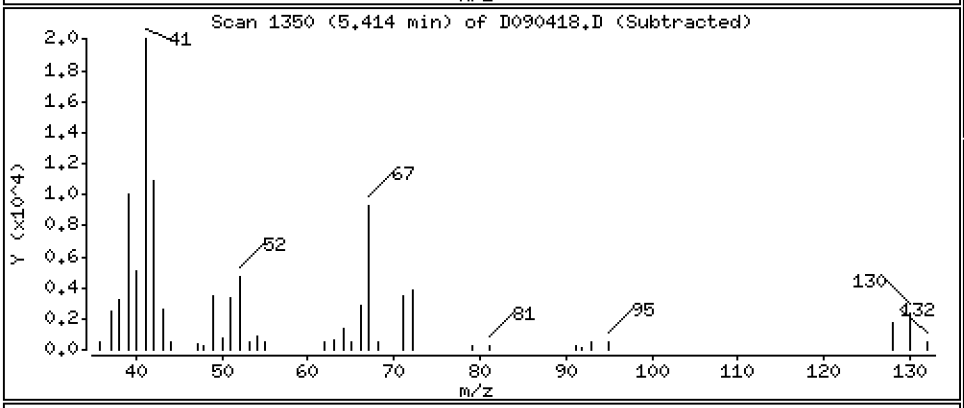
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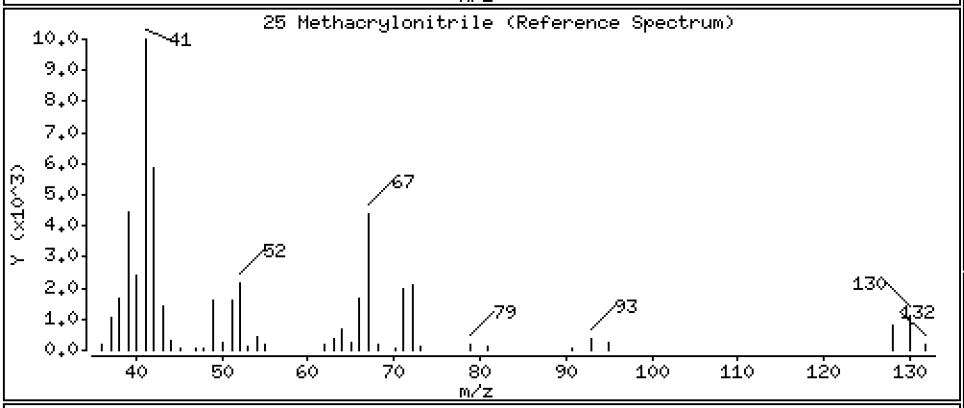
Purge Volume: 5.0 Operator: AP

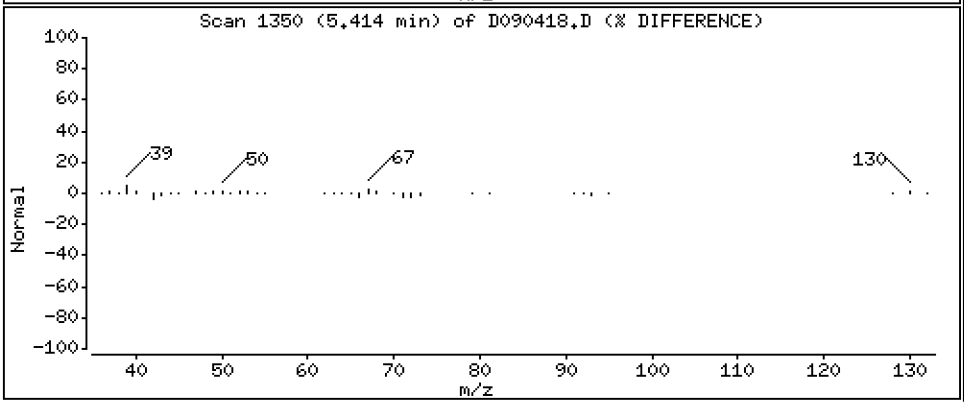
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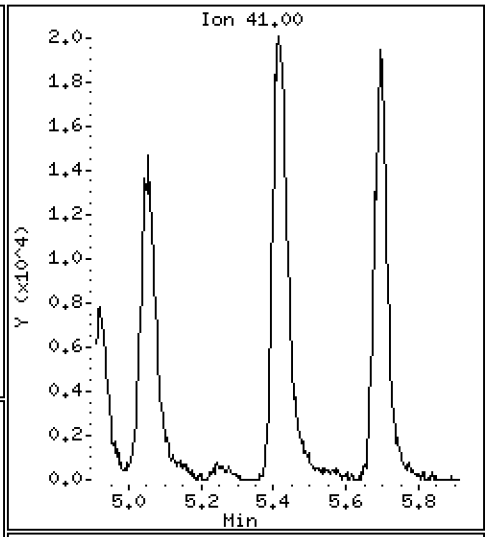
25 Methacrylonitrile Concentration: 17.14 ug/l Review Code:

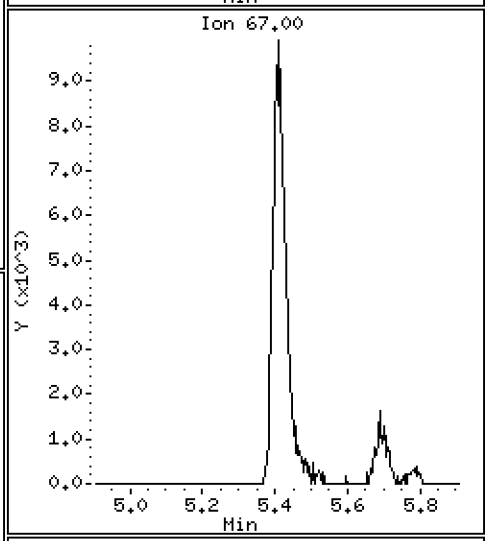


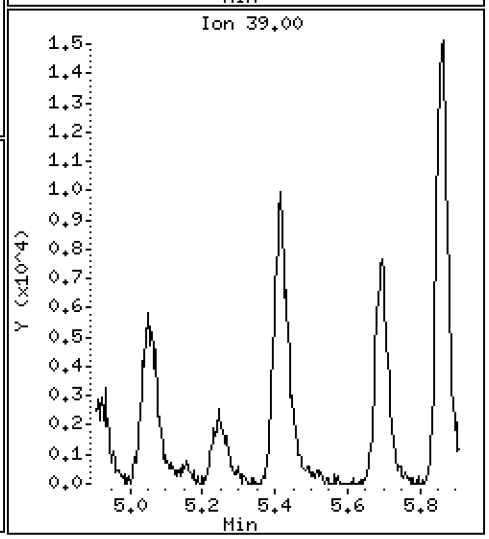












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 27

Date : 04-SEP-2018 17:39

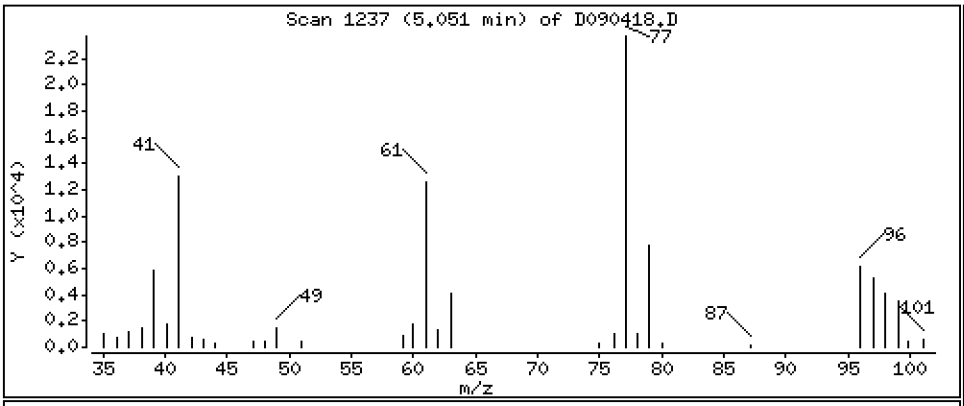
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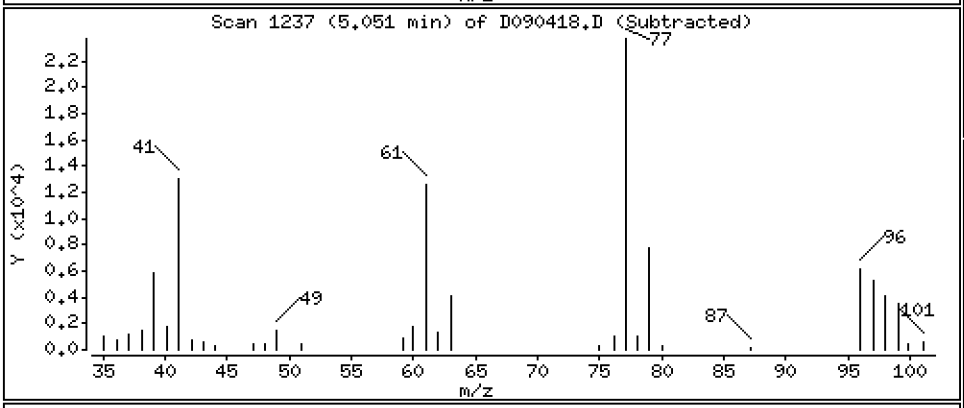
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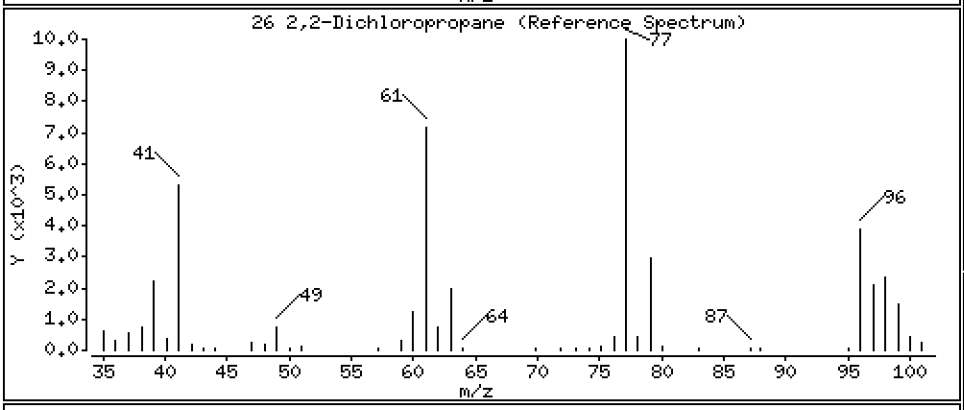
Purge Volume: 5.0 Operator: AP

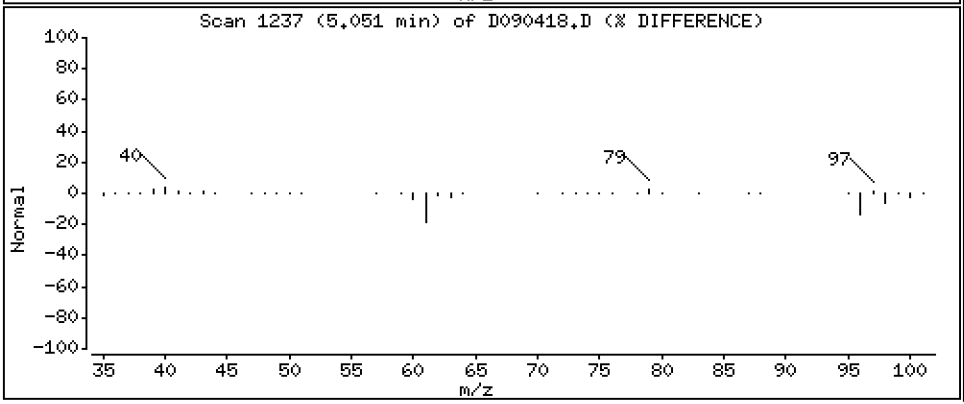
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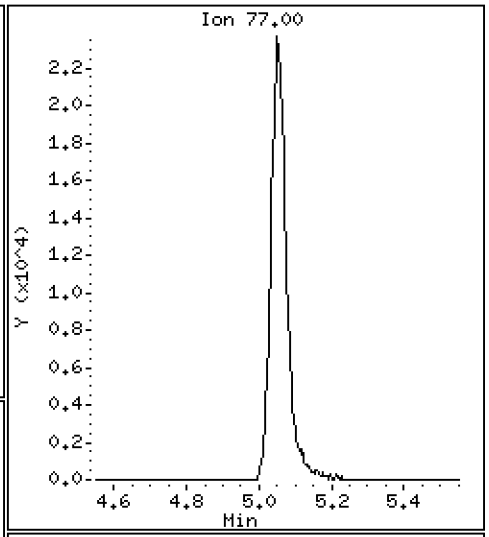
26 2,2-Dichloropropane Concentration: 19.34 ug/l Review Code:

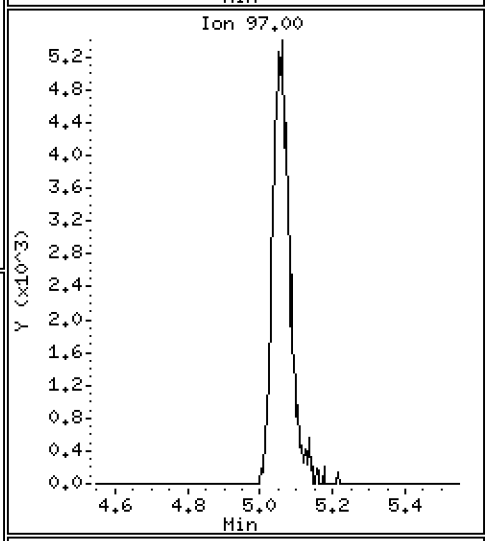


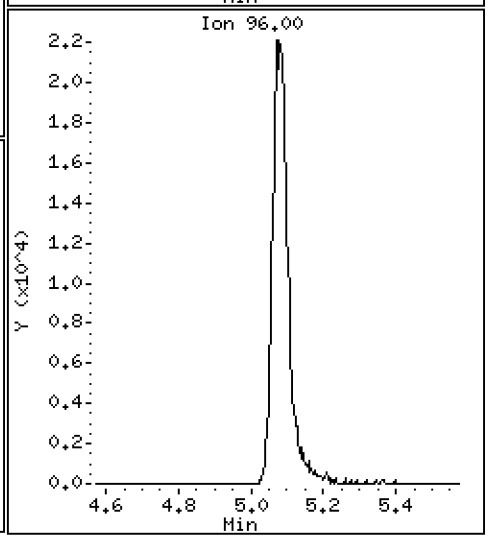












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 28

Date : 04-SEP-2018 17:39

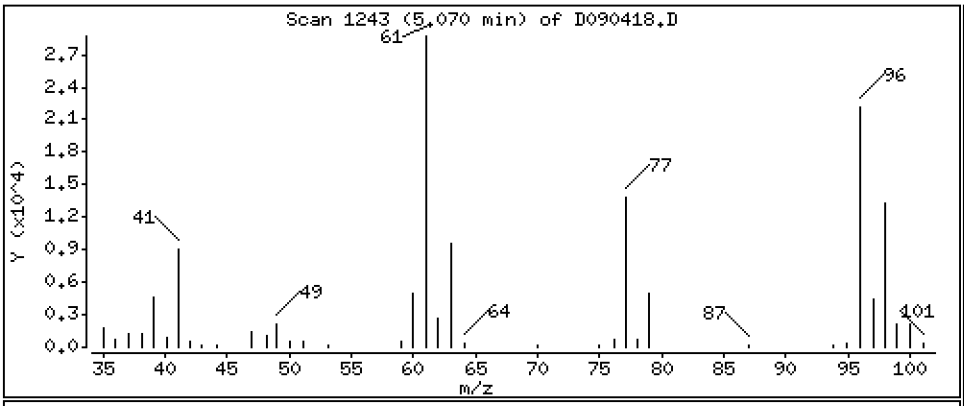
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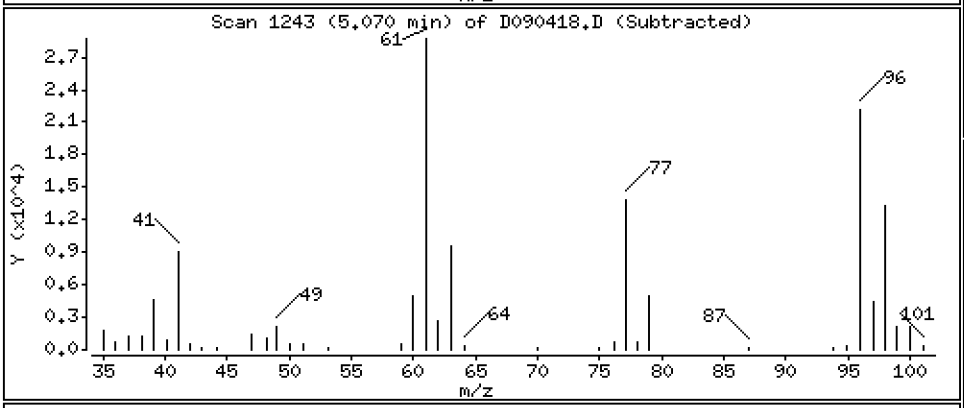
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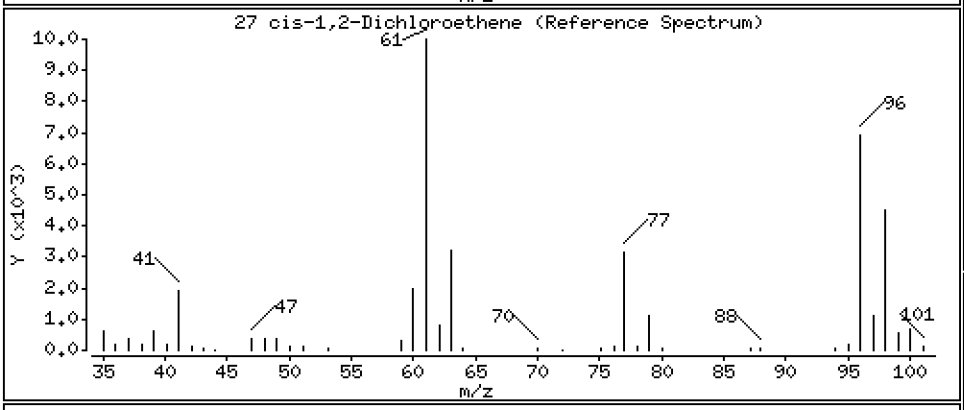
Purge Volume: 5.0 Operator: AP

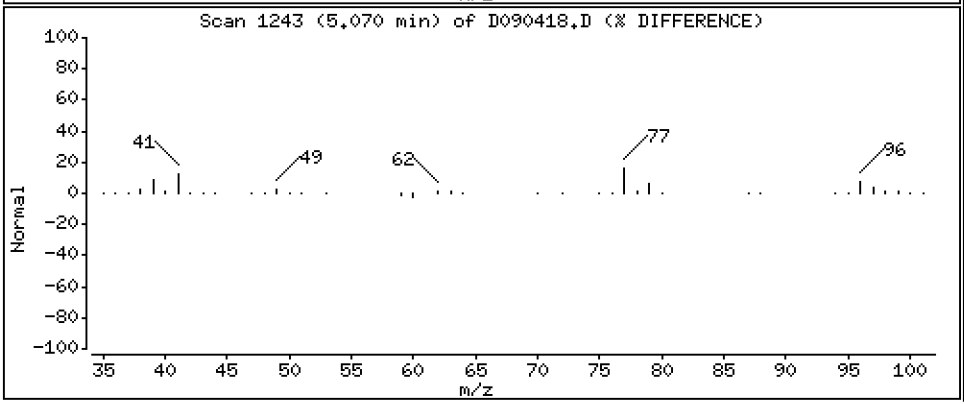
Column phase: DB624 Column diameter: 0.18

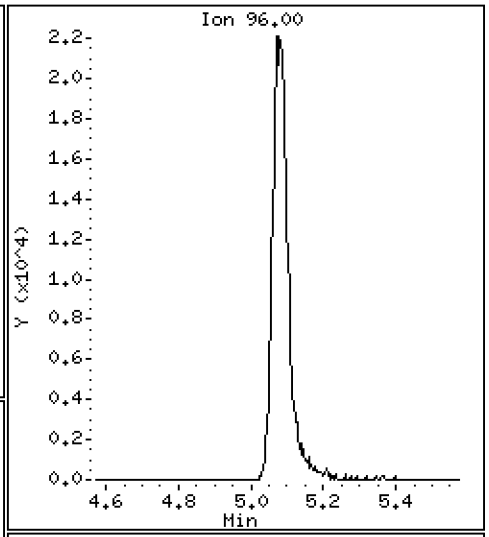
27 cis-1,2-Dichloroethene Concentration: 19.04 ug/l Review Code:

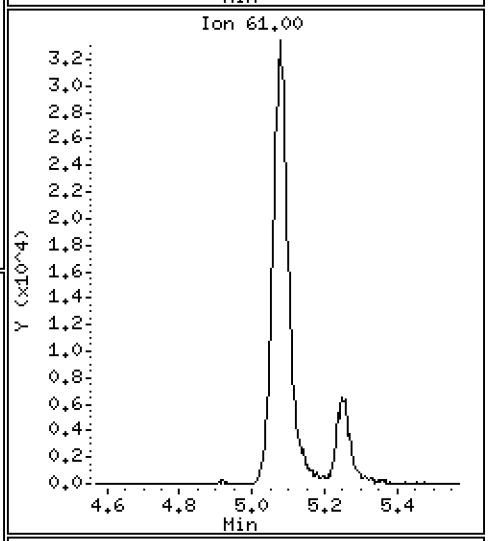


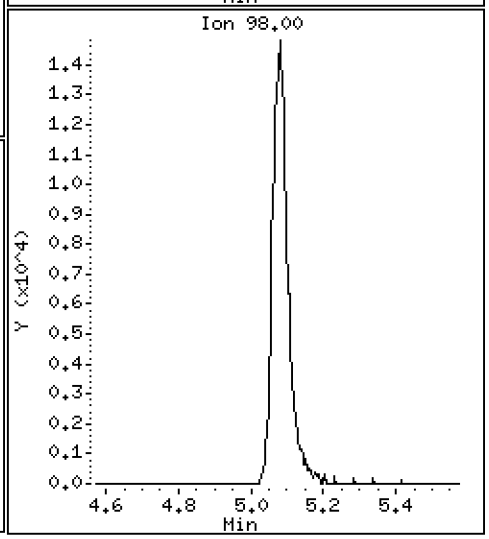












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 29

Date : 04-SEP-2018 17:39

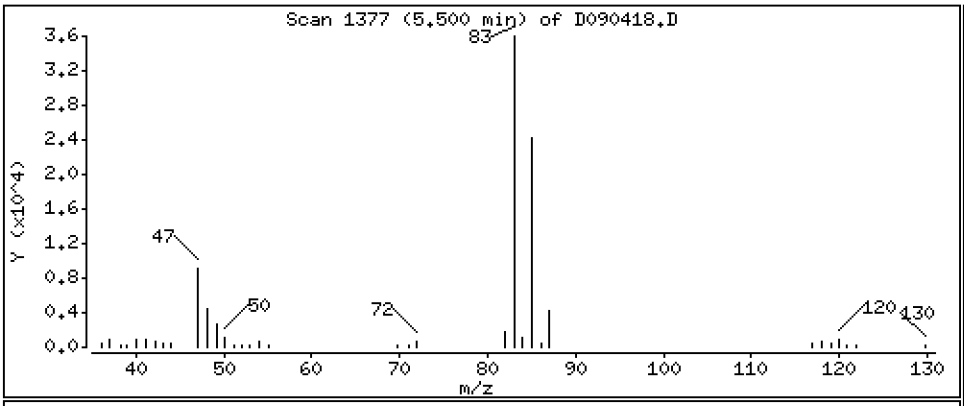
Client ID: HS18081504-01MS Instrument: VOA2.i

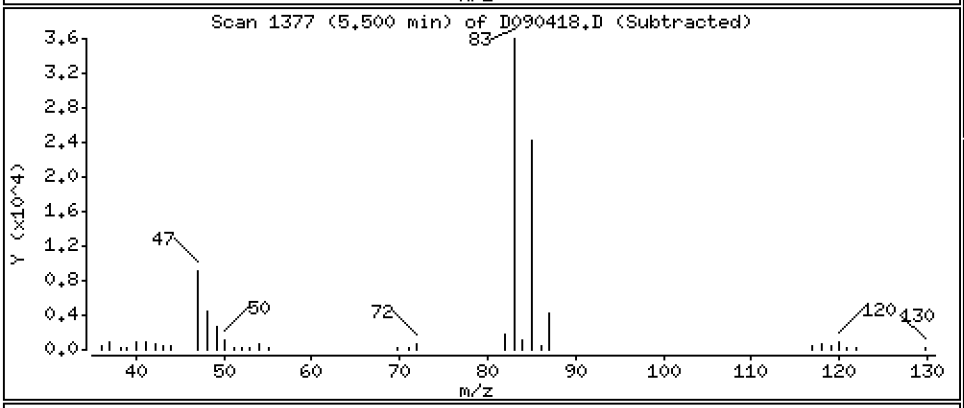
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

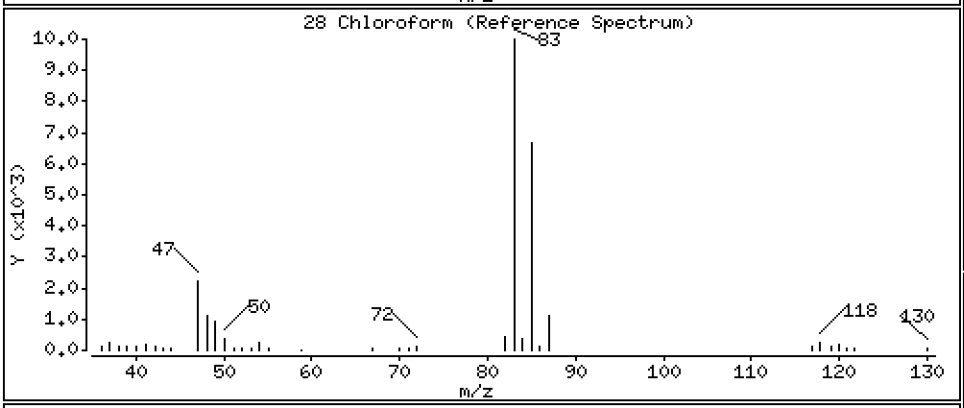
Purge Volume: 5.0 Operator: AP

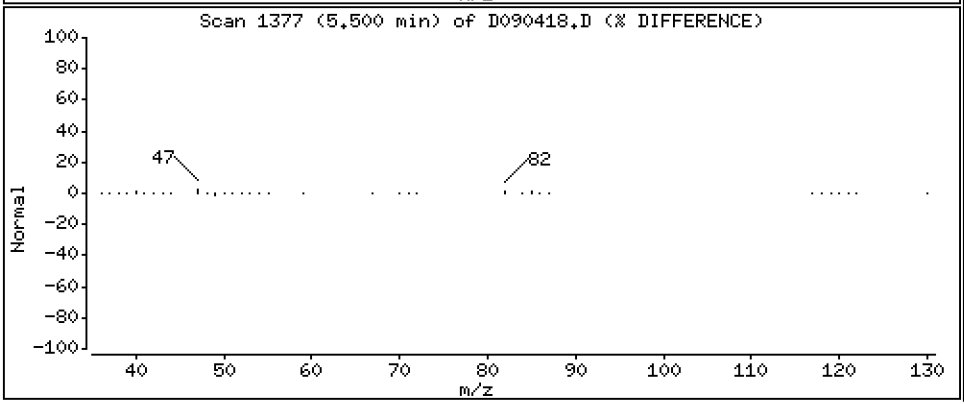
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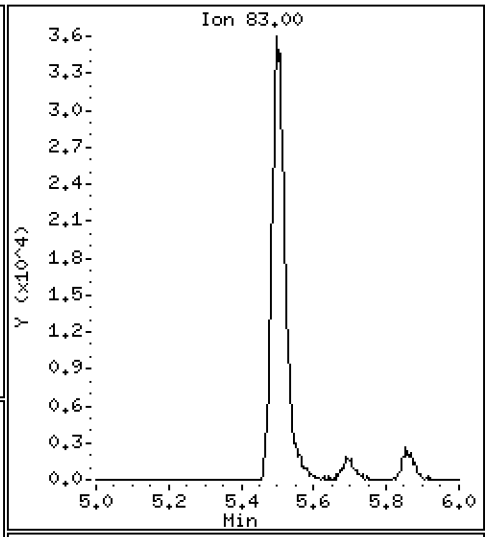
28 Chloroform Concentration: 16.61 ug/l Review Code:

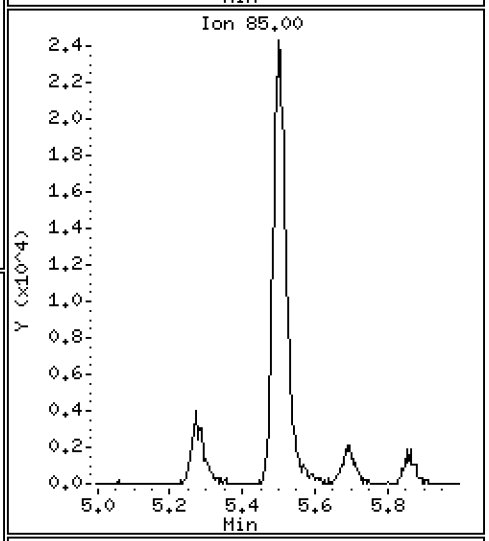


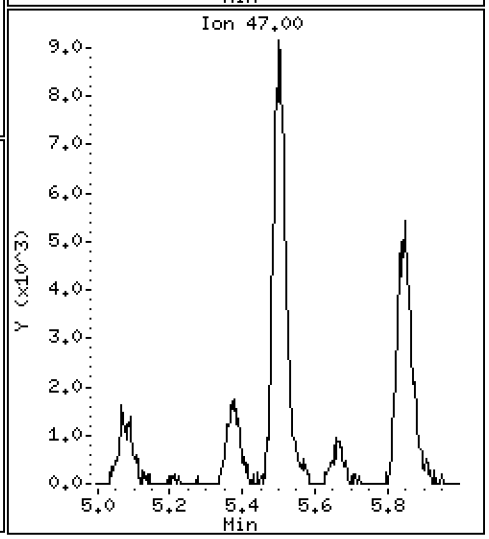












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 30

Date : 04-SEP-2018 17:39

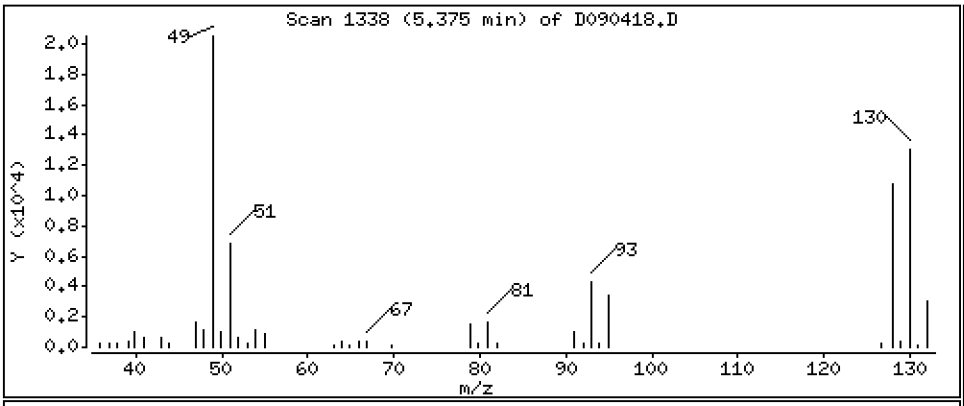
Client ID: HS18081504-01MS Instrument: VOA2.i

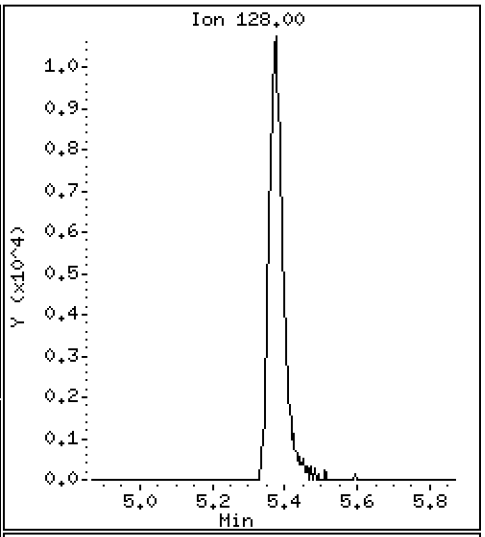
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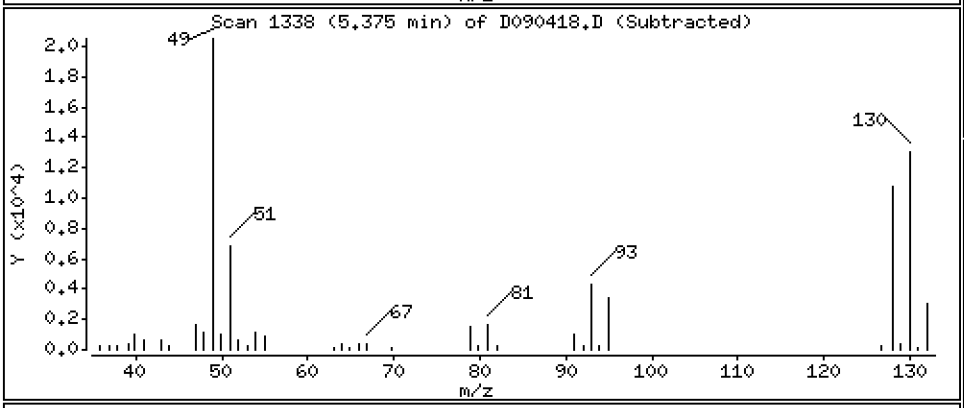
Purge Volume: 5.0 Operator: AP

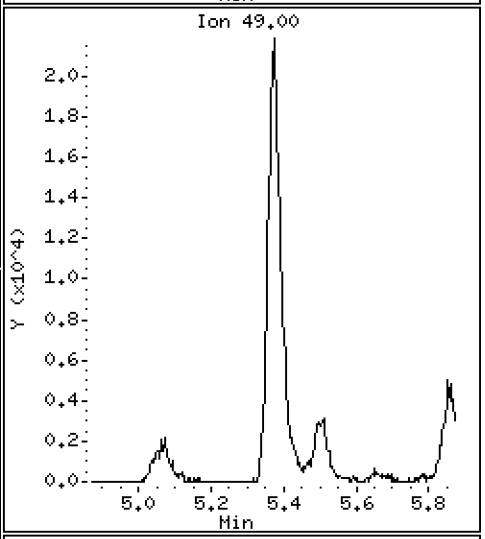
Column phase: DB624 Column diameter: 0.18

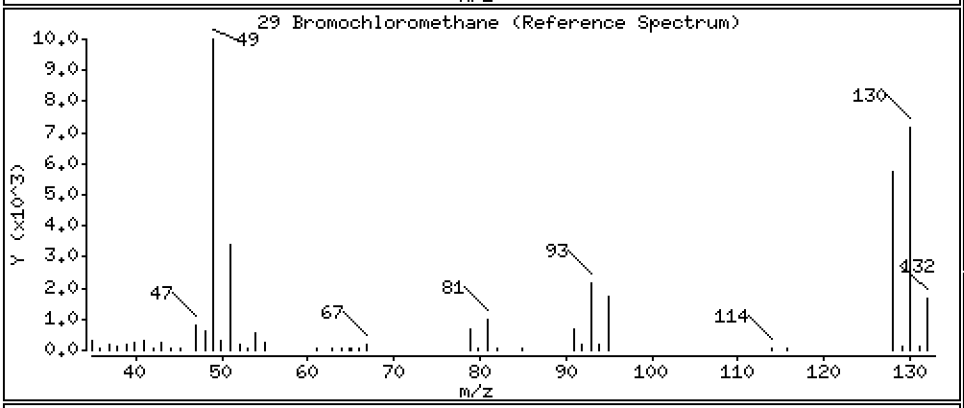
29 Bromochloromethane Concentration: 17.63 ug/l Review Code:

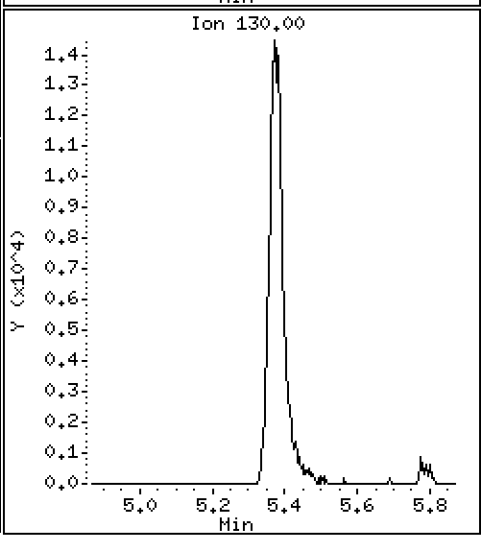


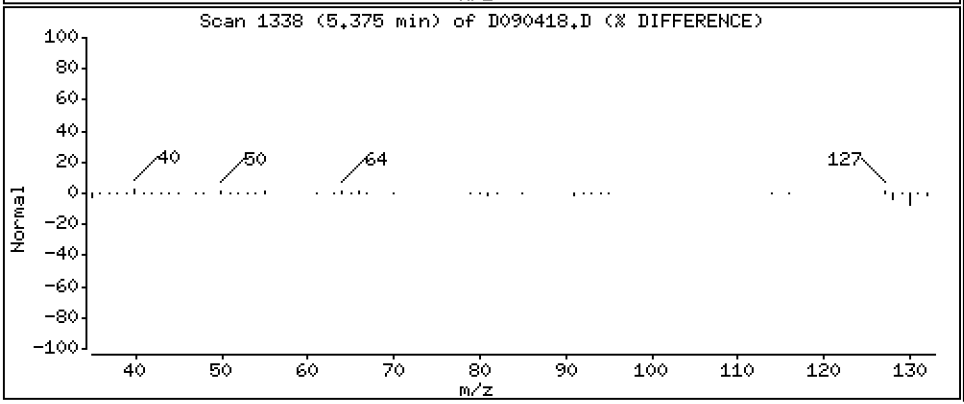












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 31

Date : 04-SEP-2018 17:39

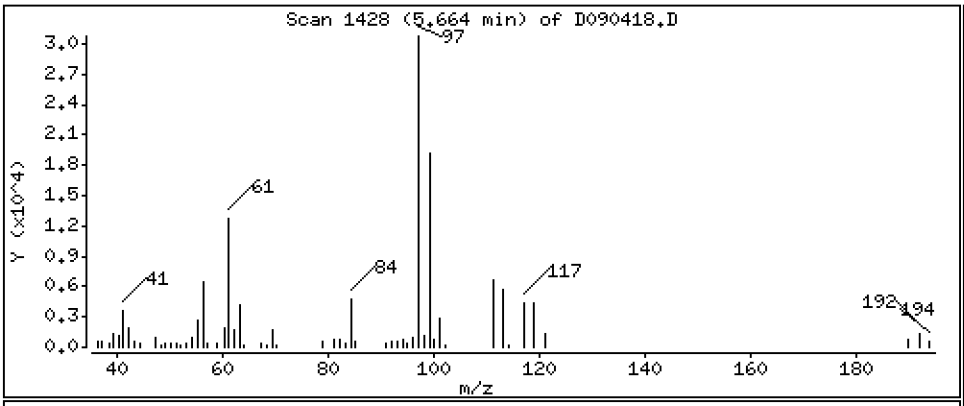
Client ID: HS18081504-01MS Instrument: VOA2.i

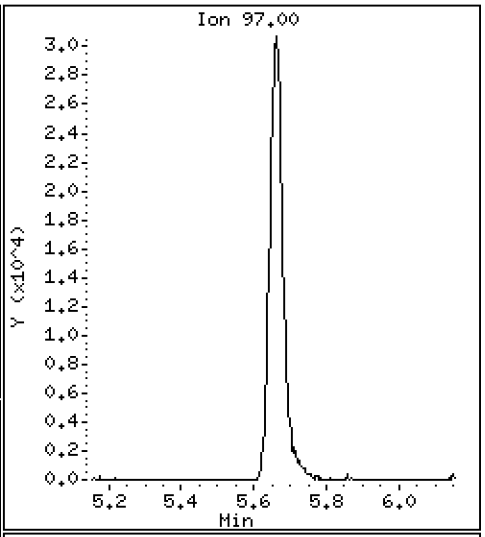
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

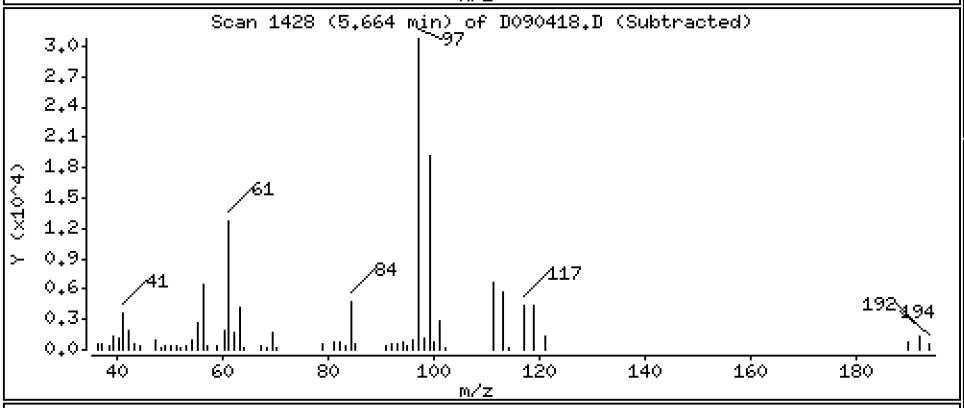
Purge Volume: 5.0 Operator: AP

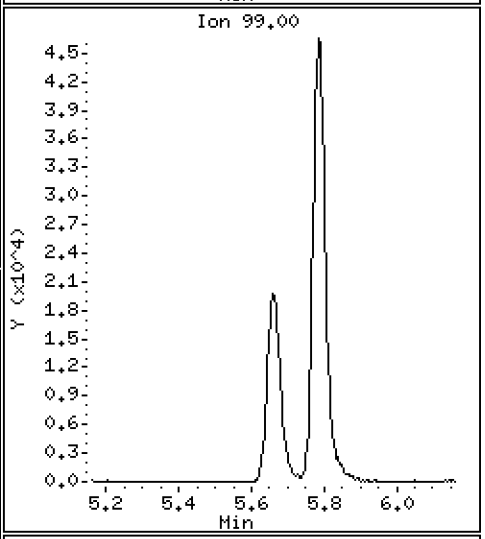
Column phase: DB624 Column diameter: 0.18

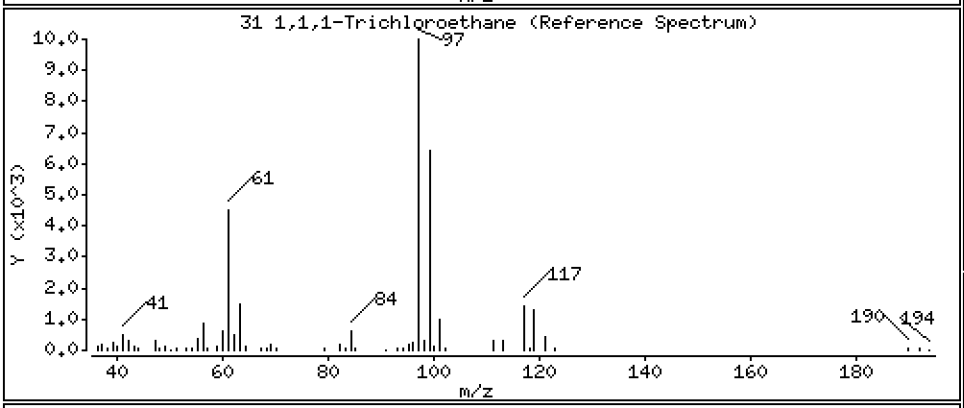
31 1,1,1-Trichloroethane Concentration: 16.99 ug/l Review Code:

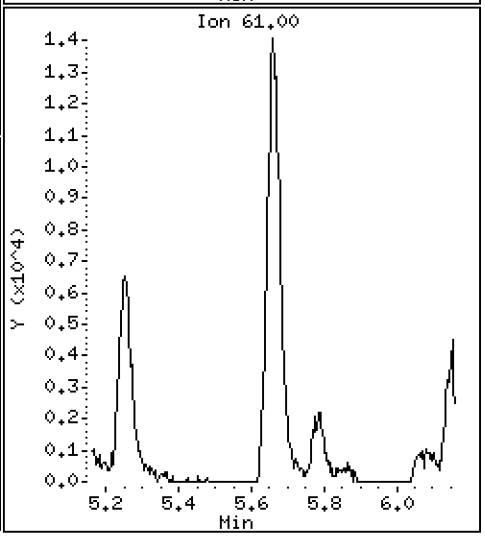


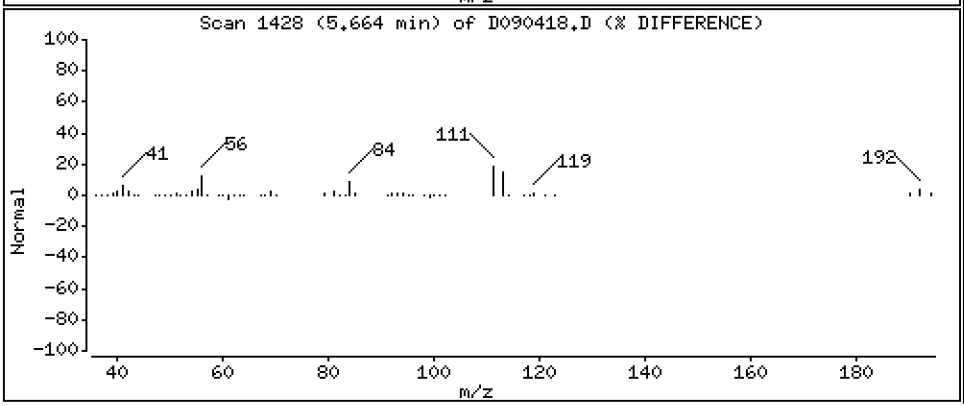












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 32

Date : 04-SEP-2018 17:39

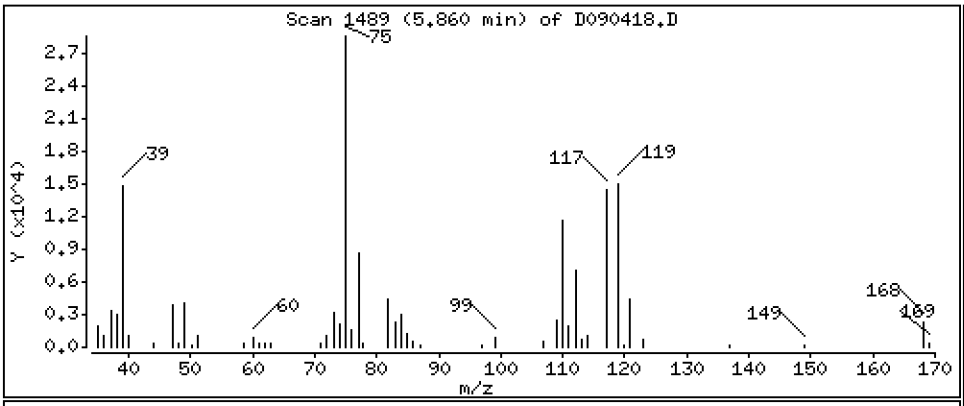
Client ID: HS18081504-01MS Instrument: VOA2.i

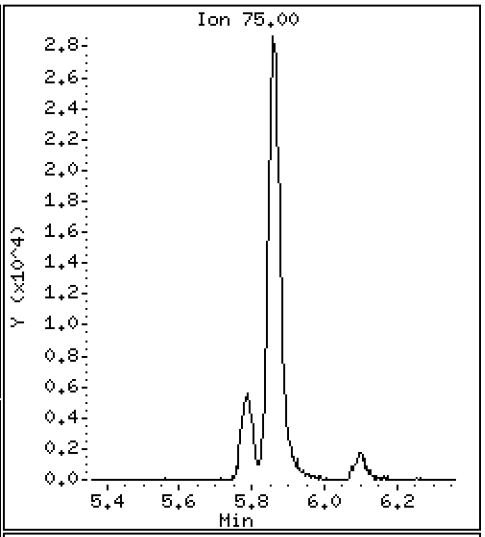
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

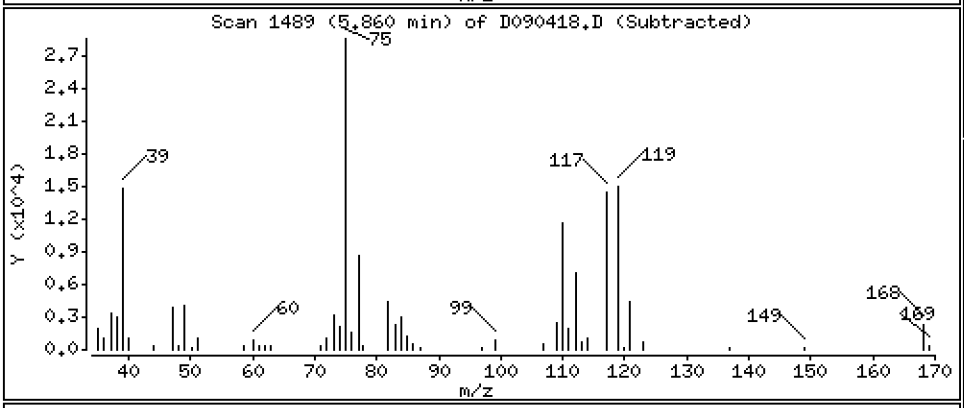
Purge Volume: 5.0 Operator: AP

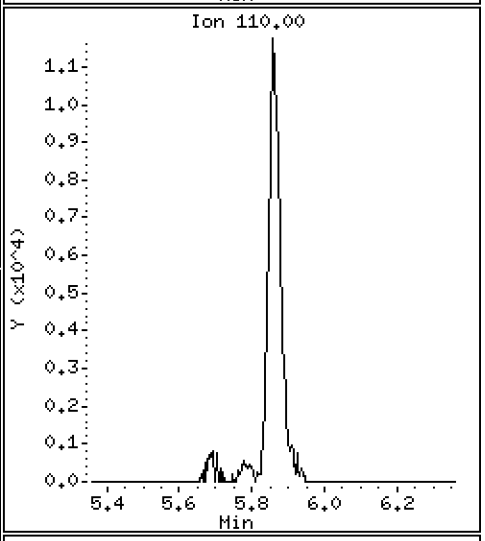
Column phase: DB624 Column diameter: 0.18

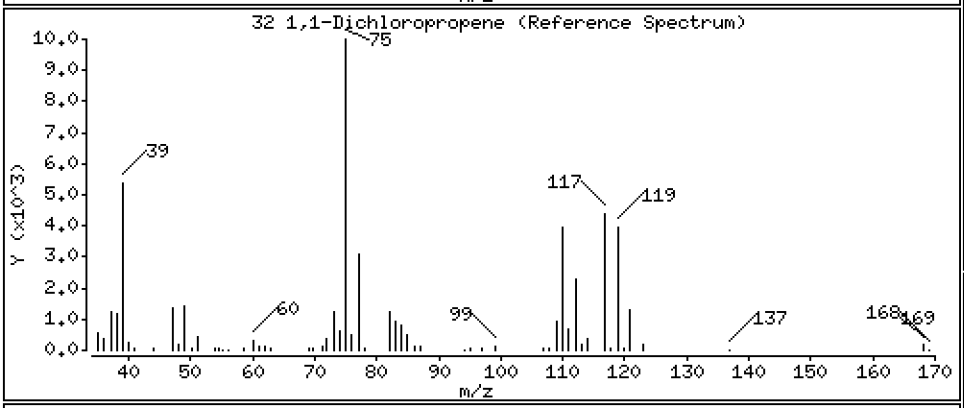
32 1,1-Dichloropropene Concentration: 20.06 ug/l Review Code:

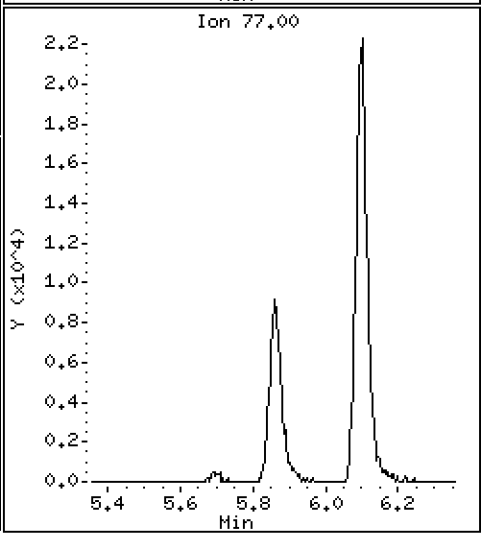


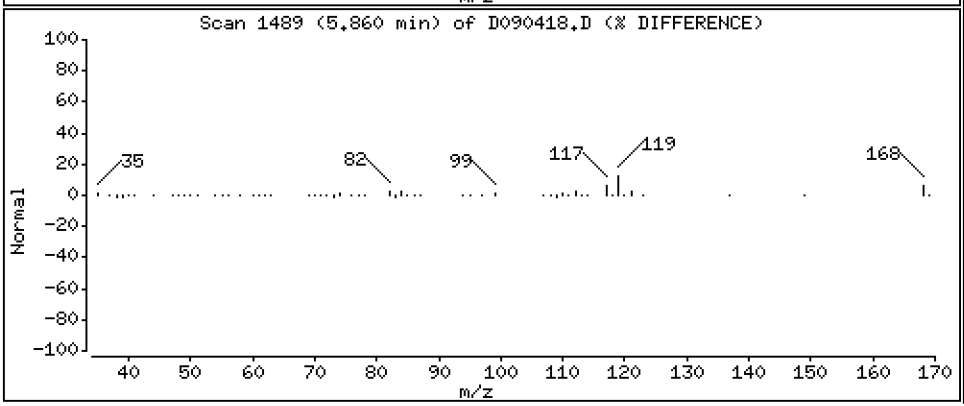












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 33

Date : 04-SEP-2018 17:39

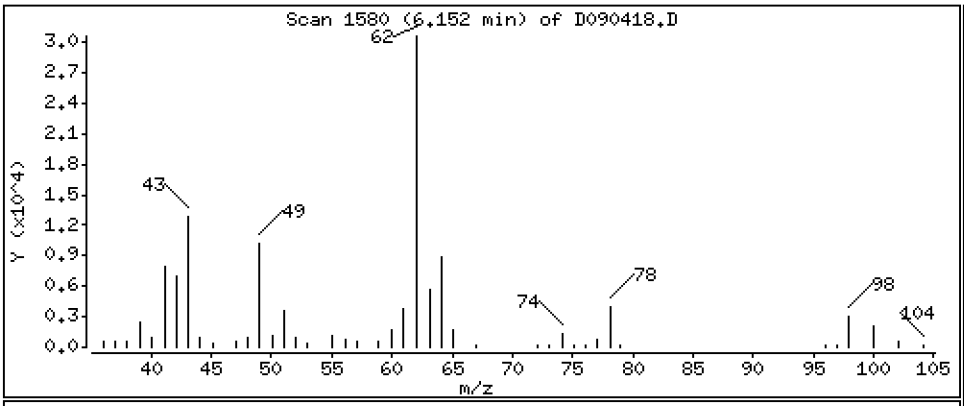
Client ID: HS18081504-01MS Instrument: VOA2.i

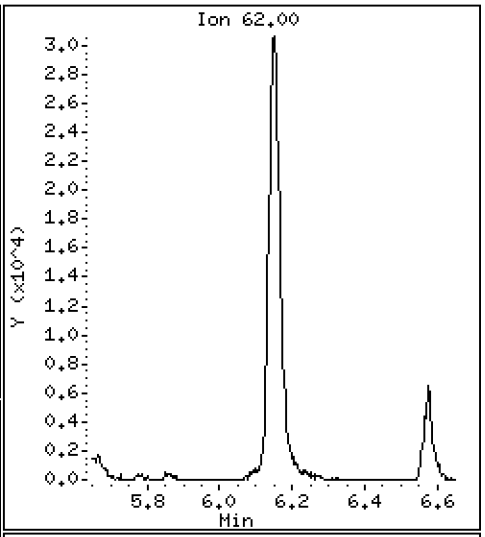
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

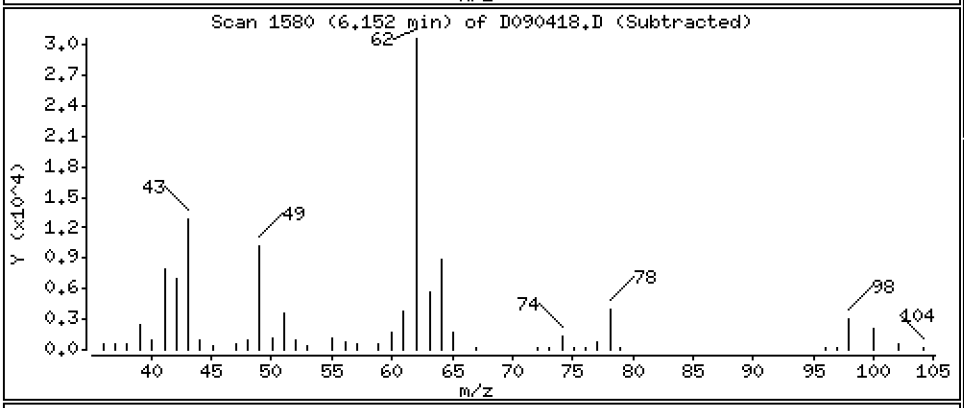
Purge Volume: 5.0 Operator: AP

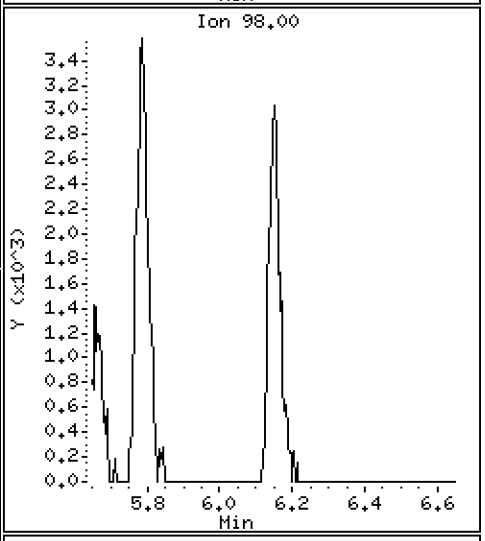
Column phase: DB624 Column diameter: 0.18

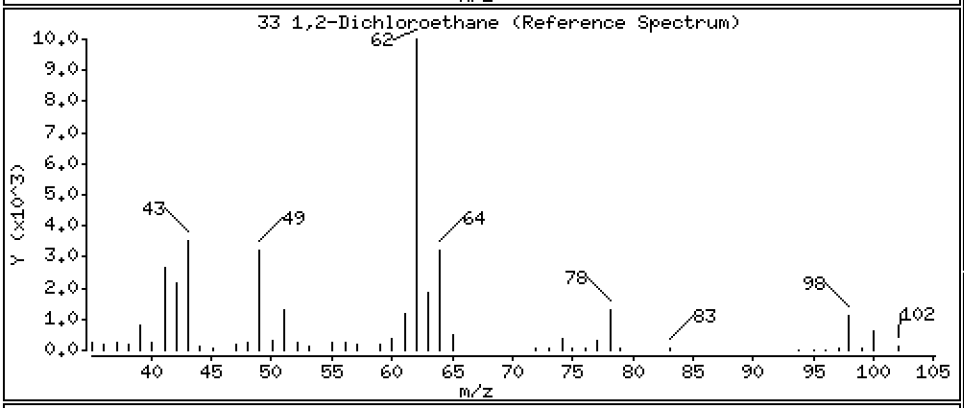
33 1,2-Dichloroethane Concentration: 17.44 ug/l Review Code:

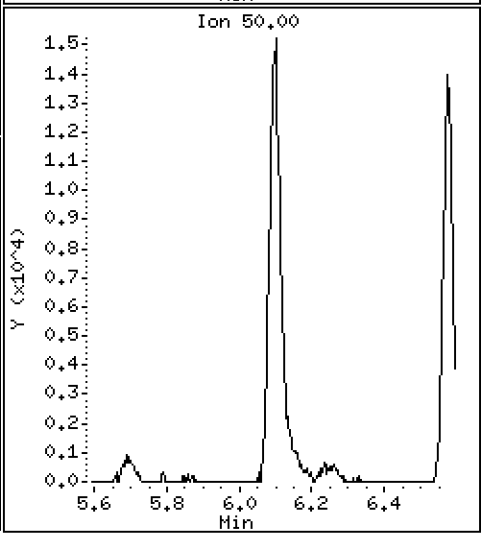


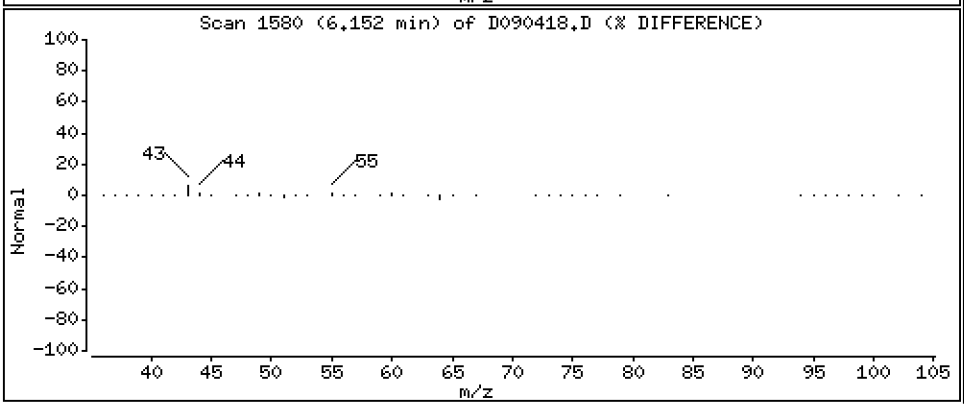












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 34

Date : 04-SEP-2018 17:39

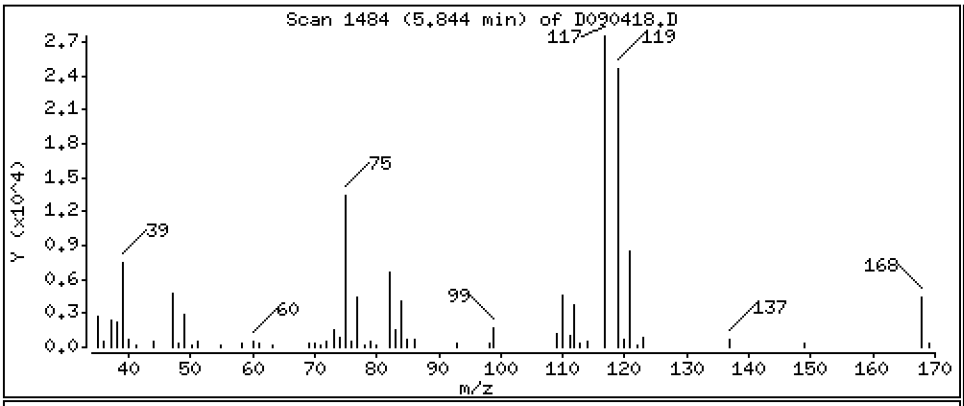
Client ID: HS18081504-01MS Instrument: VOA2.i

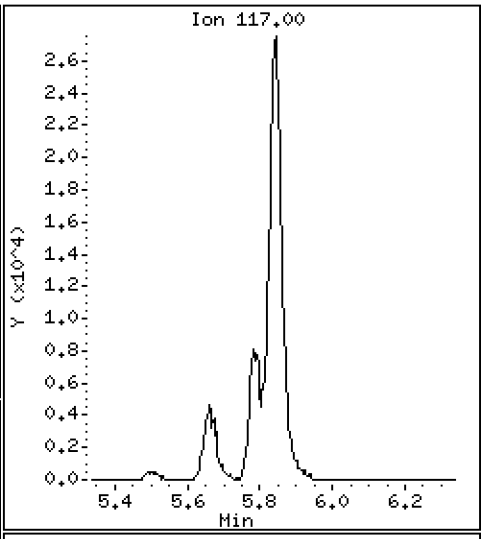
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

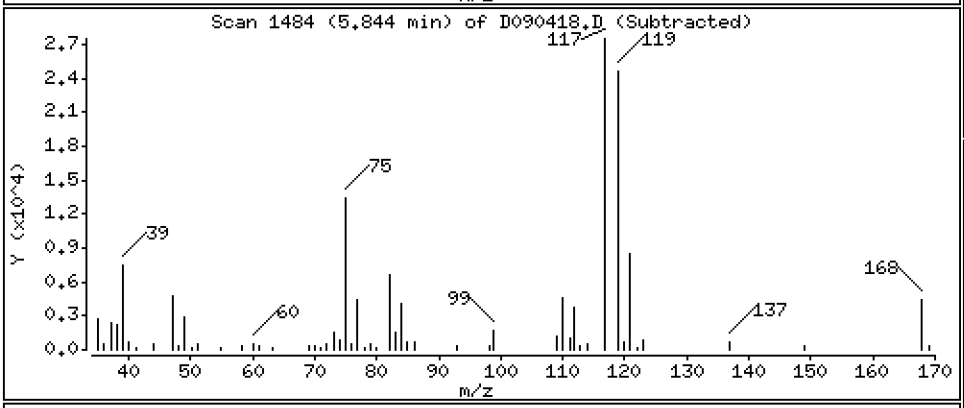
Purge Volume: 5.0 Operator: AP

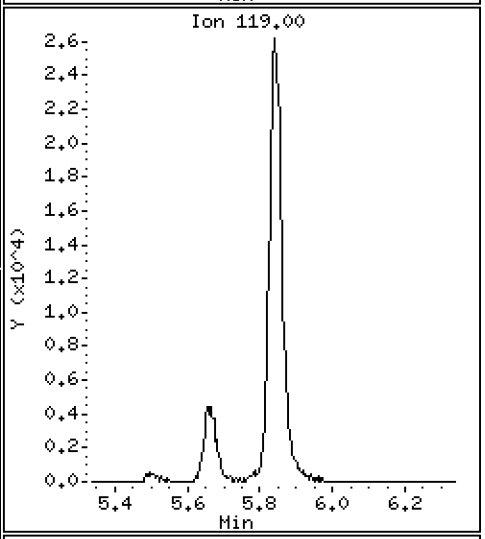
Column phase: DB624 Column diameter: 0.18

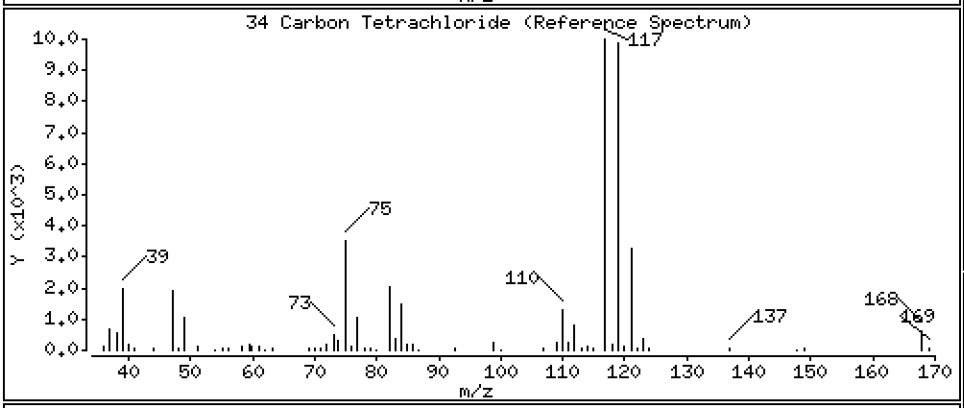
34 Carbon Tetrachloride Concentration: 20.08 ug/l Review Code:

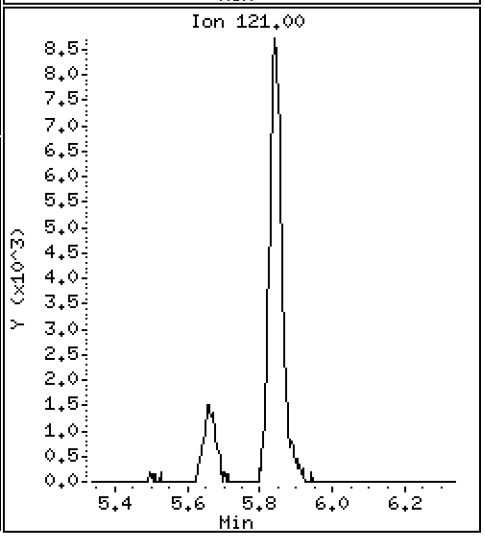


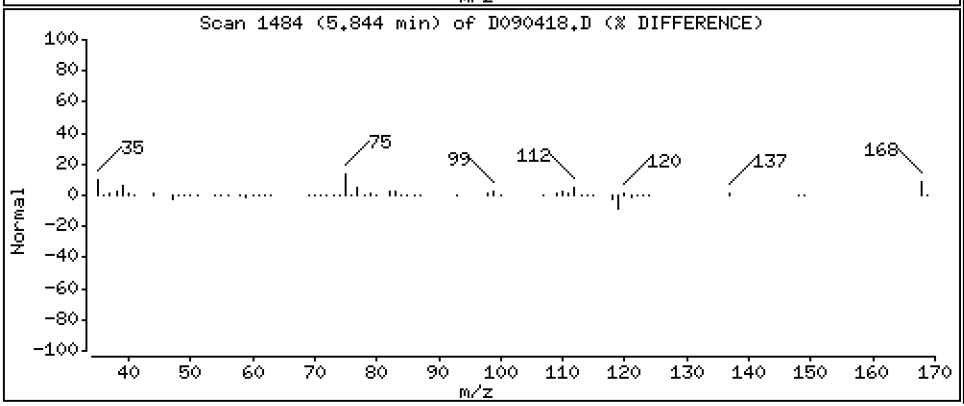












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 35

Date : 04-SEP-2018 17:39

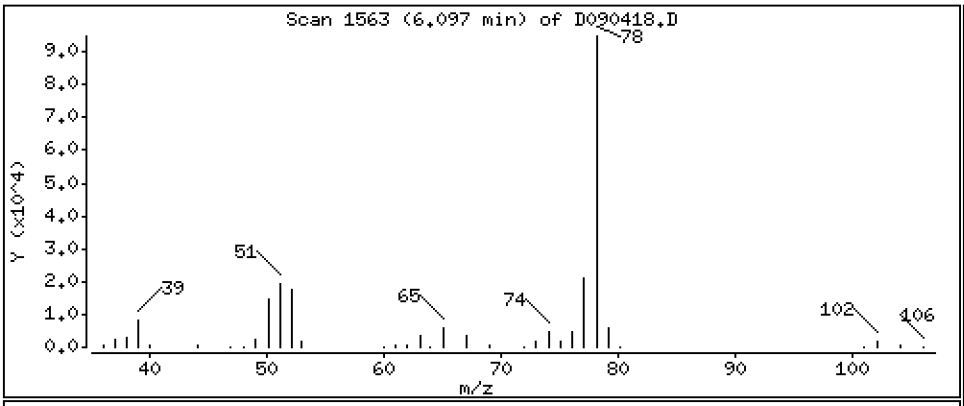
Client ID: HS18081504-01MS Instrument: VOA2.i

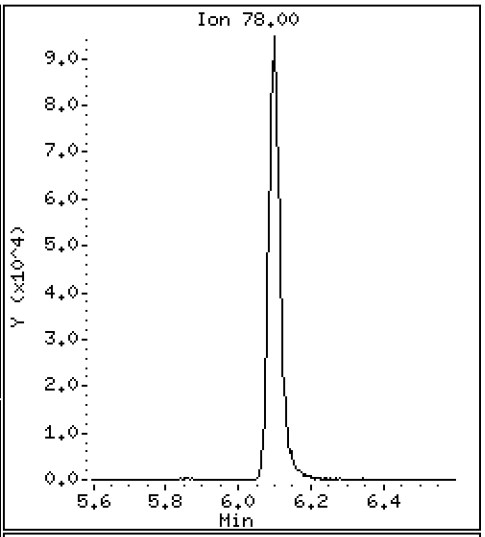
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

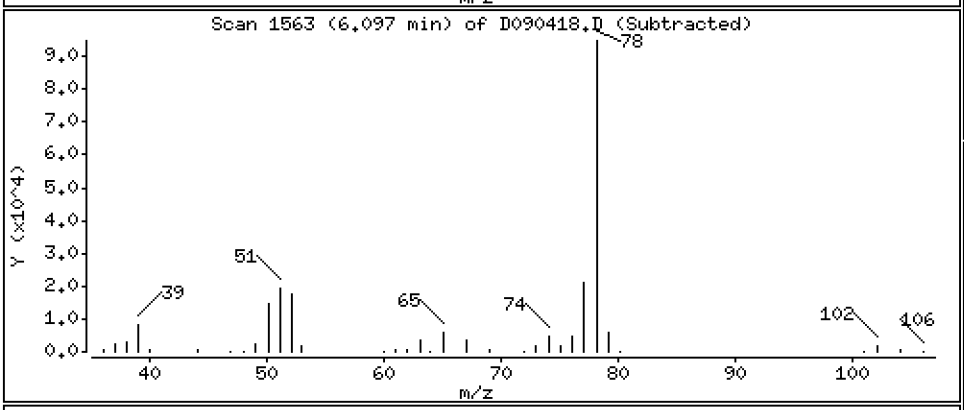
Purge Volume: 5.0 Operator: AP

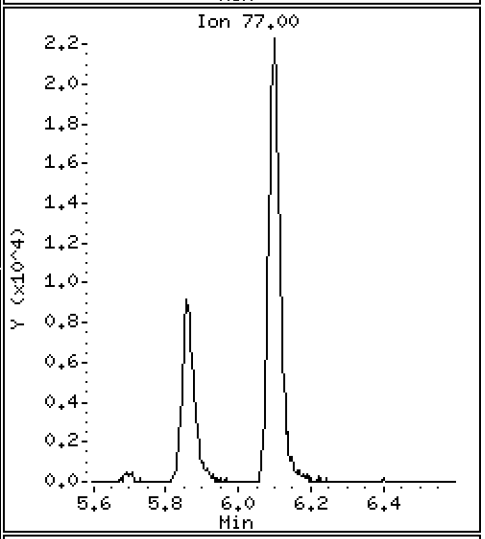
Column phase: DB624 Column diameter: 0.18

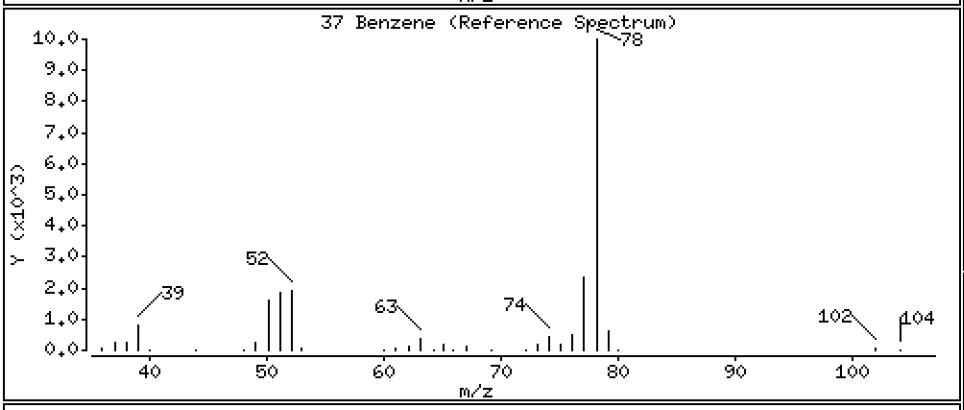
37 Benzene Concentration: 17.93 ug/l Review Code:

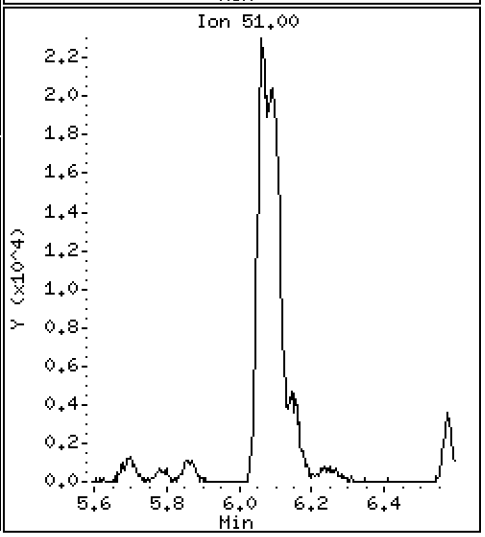


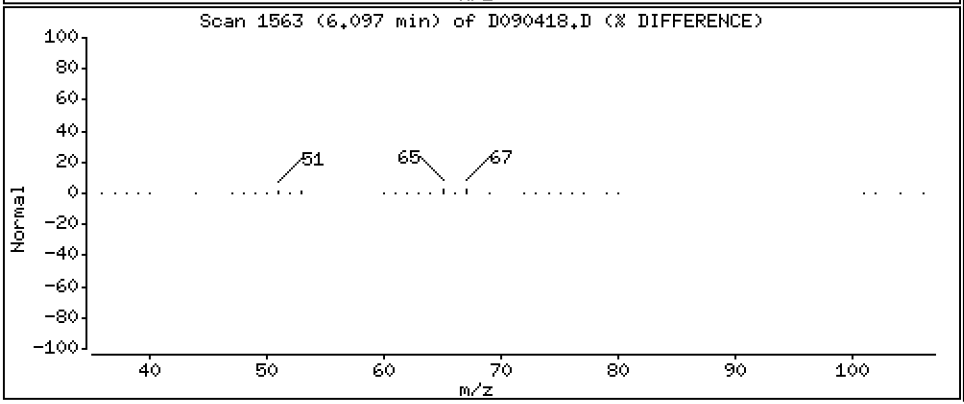












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 36

Date : 04-SEP-2018 17:39

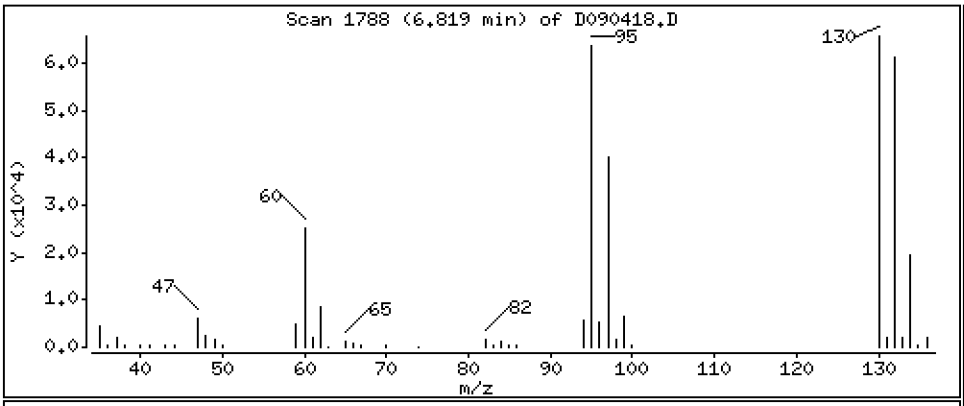
Client ID: HS18081504-01MS Instrument: VOA2.i

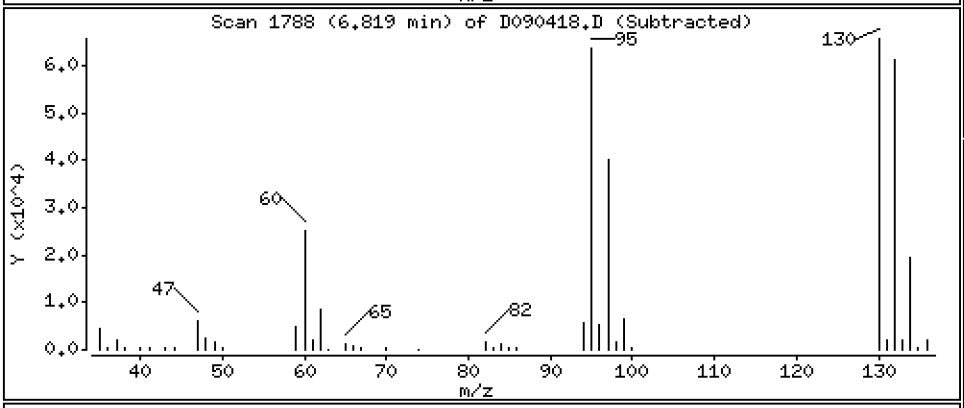
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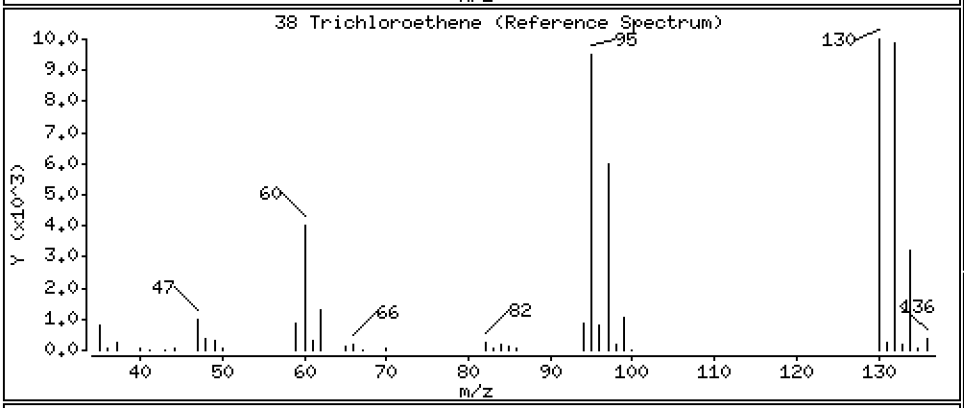
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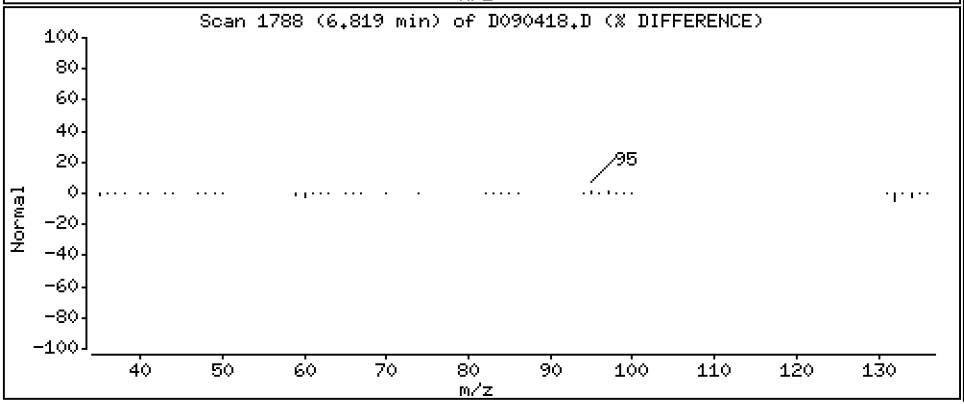
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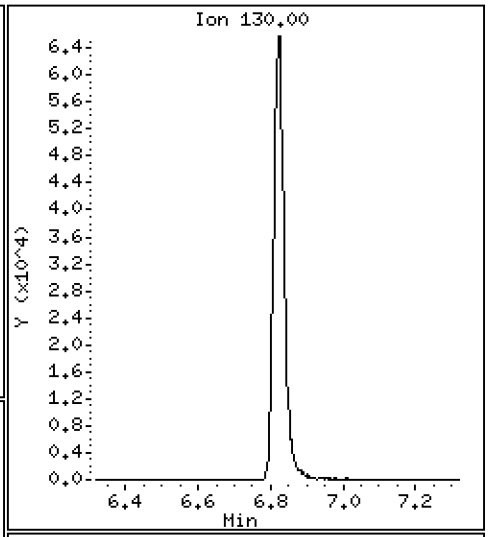
38 Trichloroethene Concentration: 42.42 ug/l Review Code:

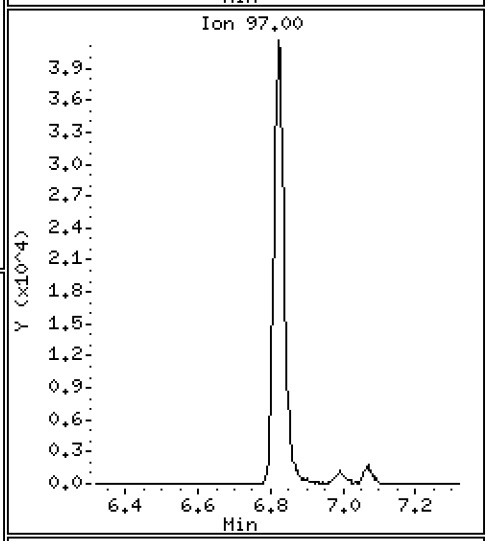


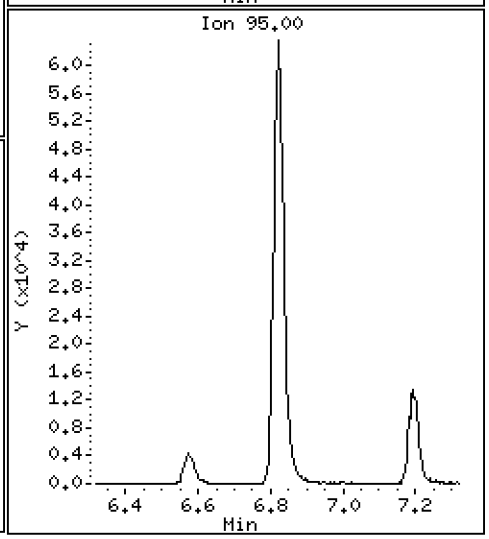












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 37

Date : 04-SEP-2018 17:39

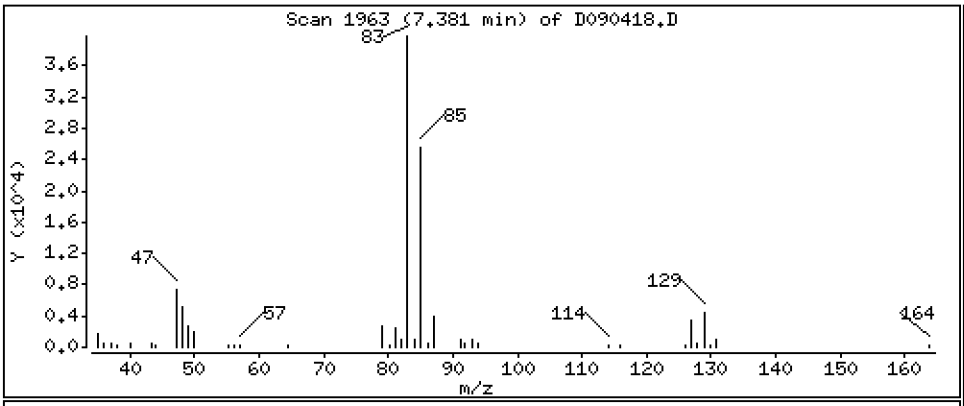
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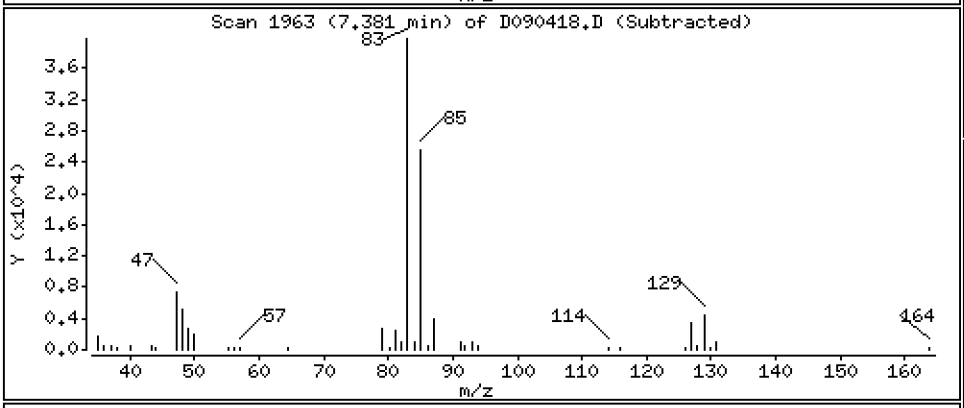
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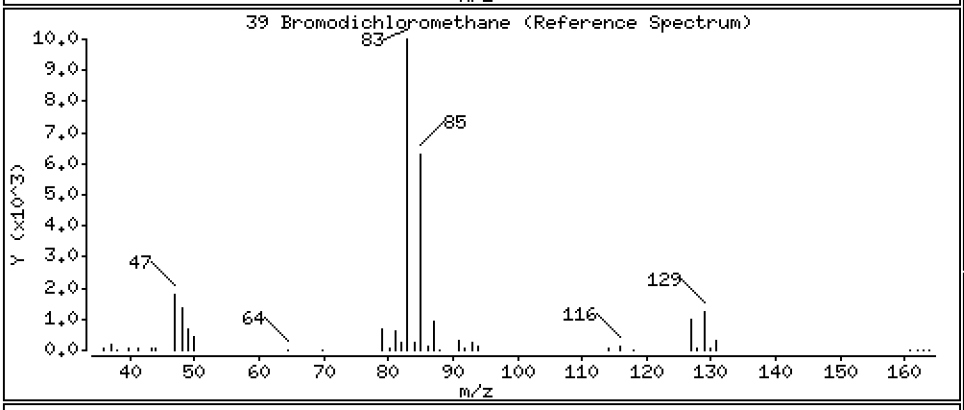
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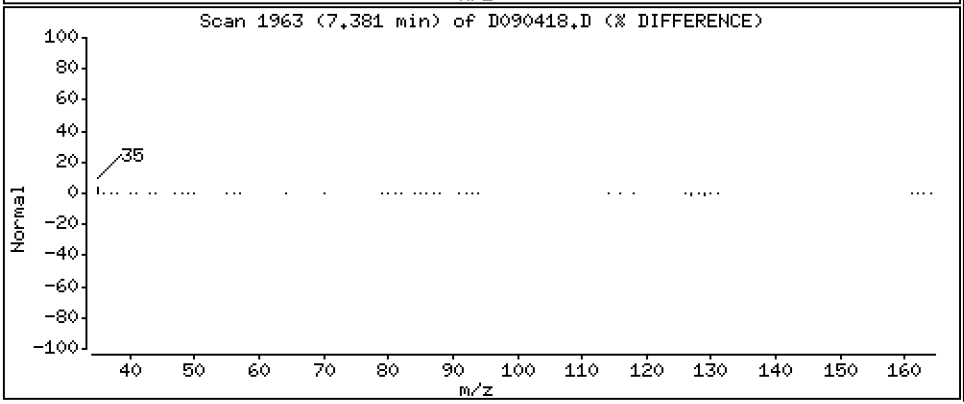
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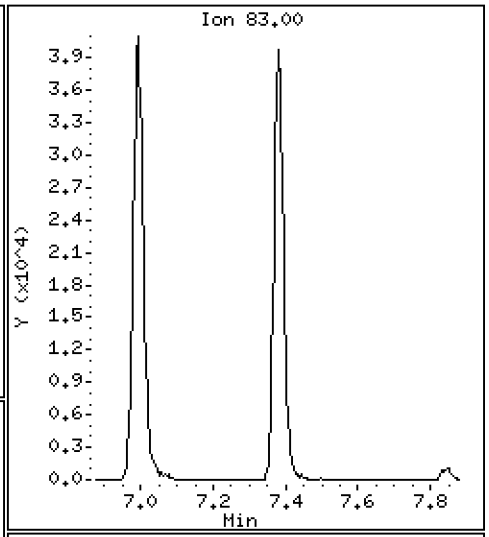
39 Bromodichloromethane Concentration: 18.36 ug/l Review Code:

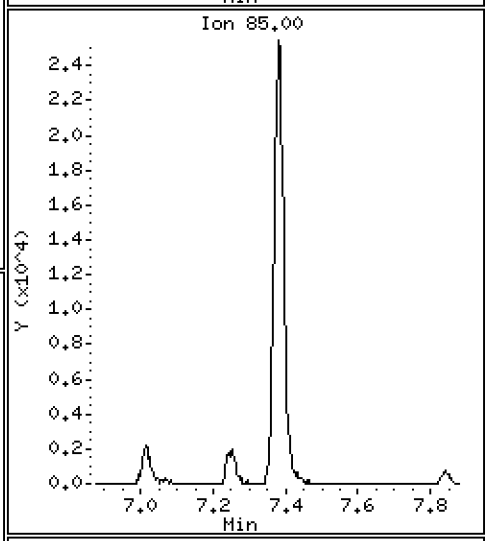


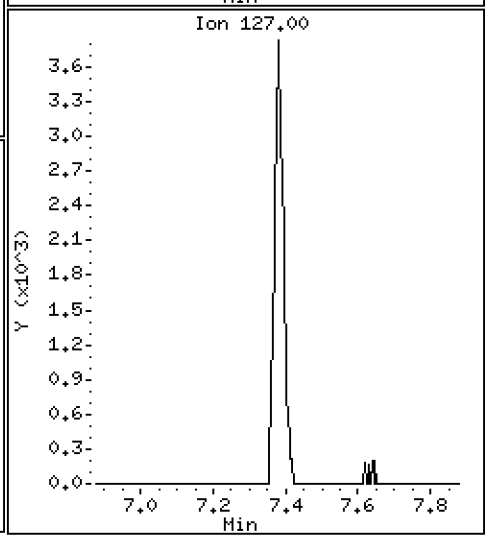












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 38

Date : 04-SEP-2018 17:39

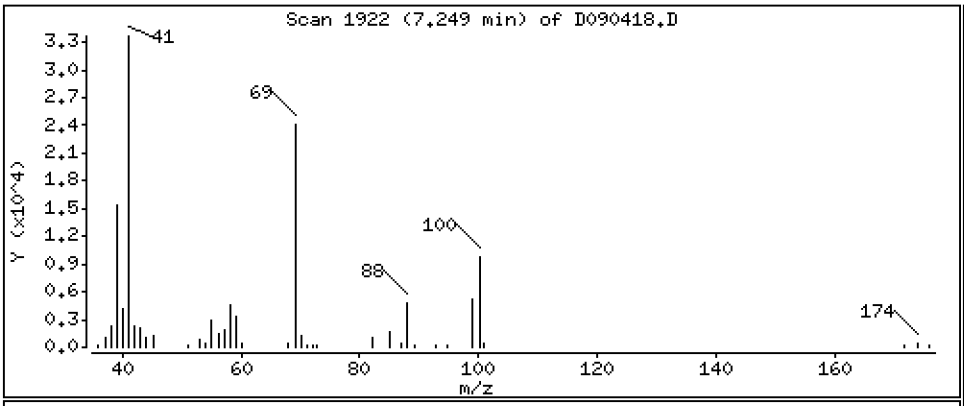
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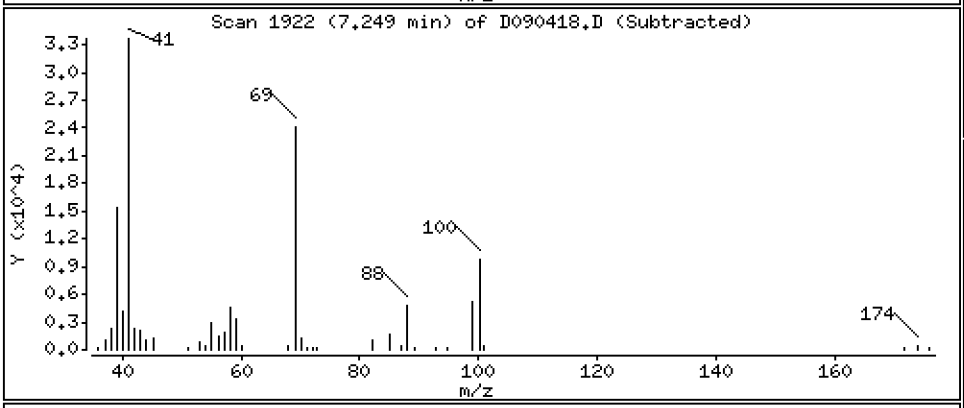
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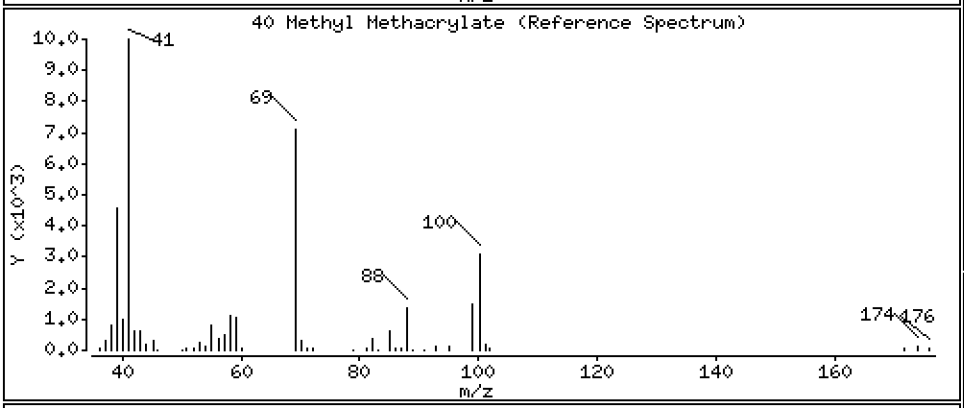
Purge Volume: 5.0 Operator: AP

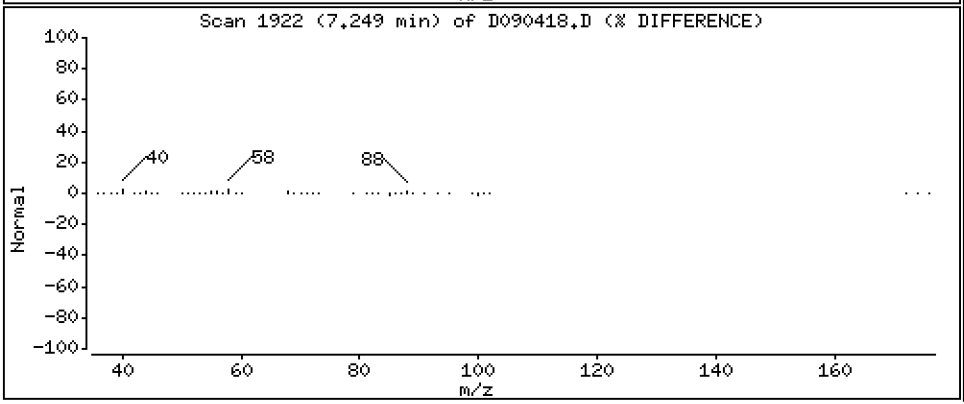
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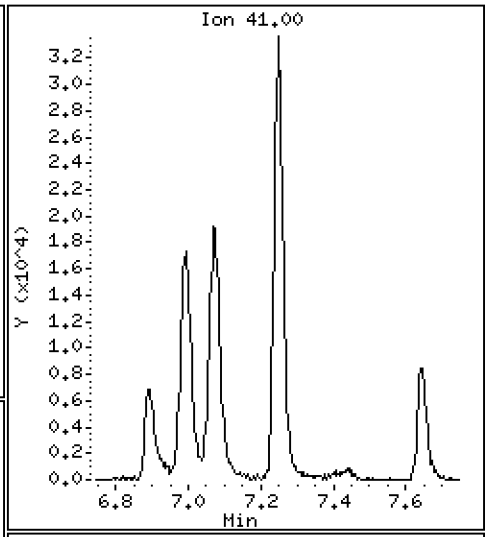
40 Methyl Methacrylate Concentration: 16.11 ug/l Review Code:

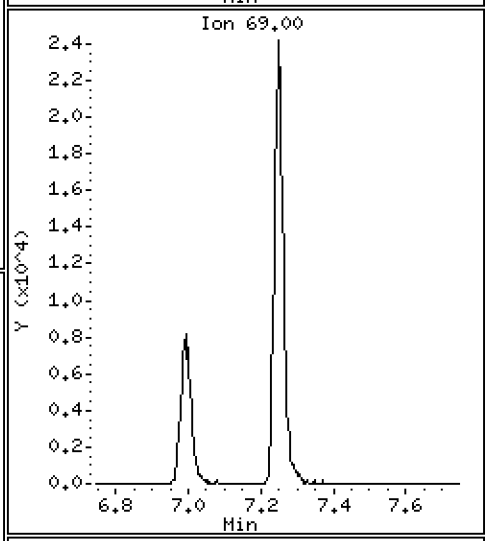


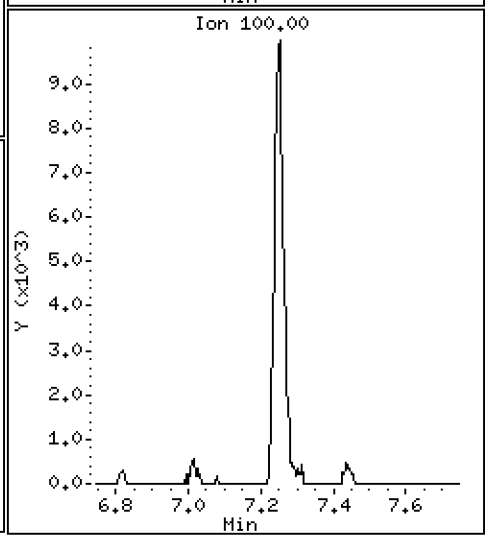












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 39

Date : 04-SEP-2018 17:39

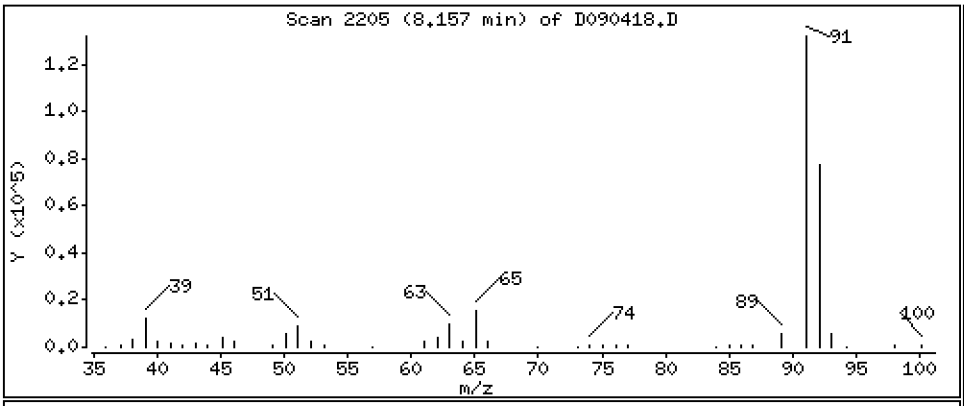
Client ID: HS18081504-01MS Instrument: VOA2.i

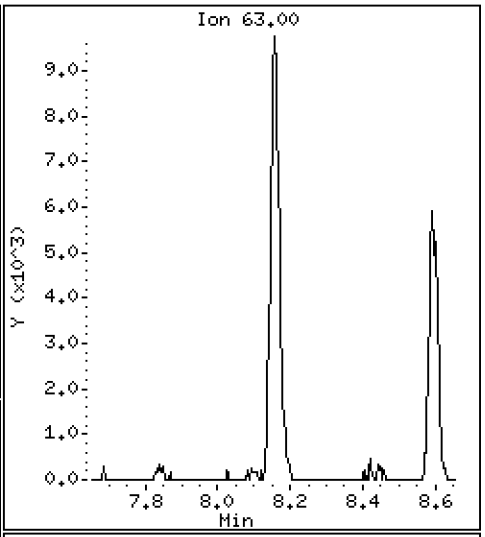
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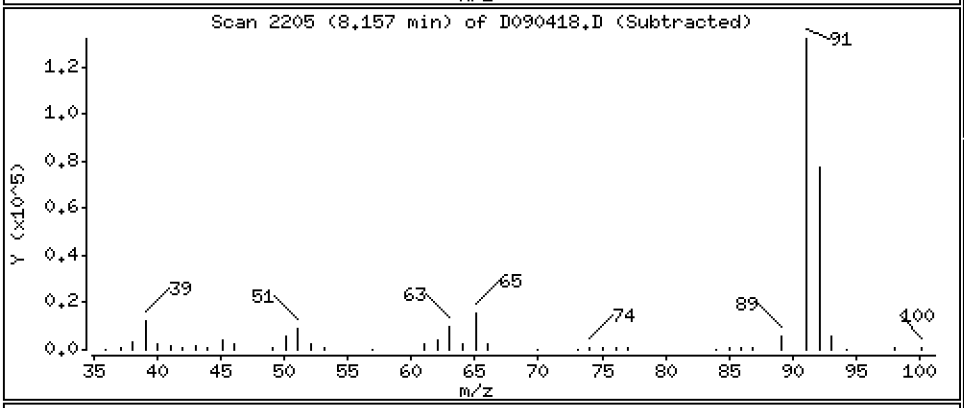
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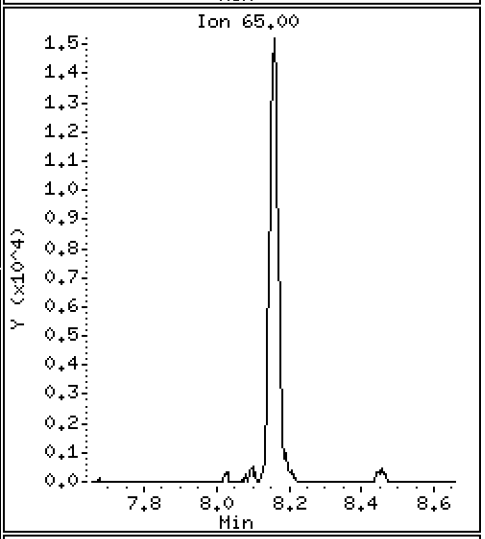
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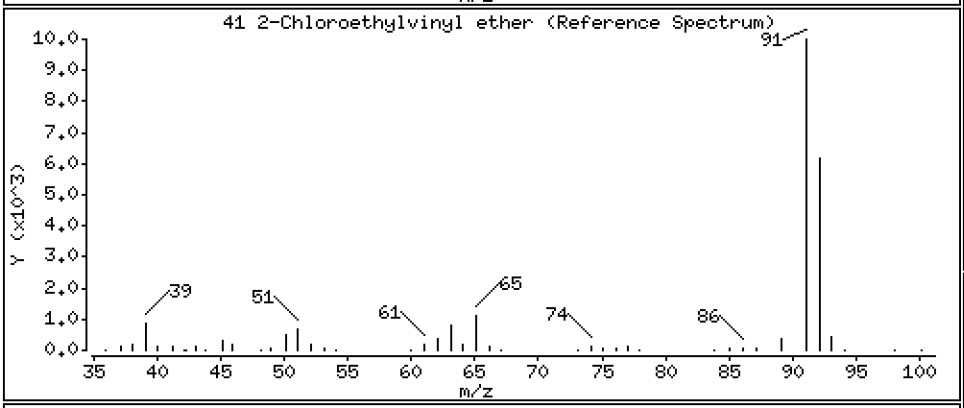
41 2-Chloroethylvinyl ether Concentration: 33.99 ug/l Review Code:

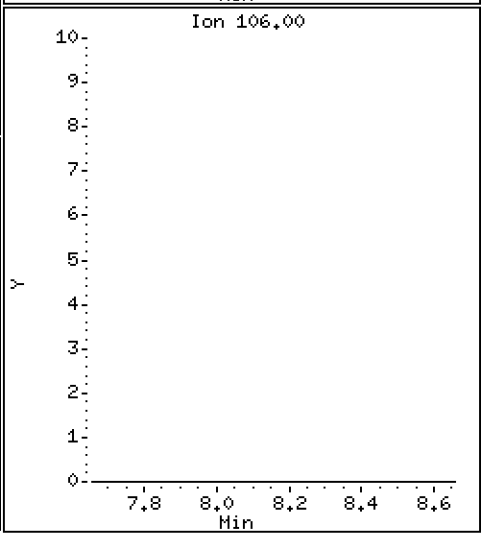


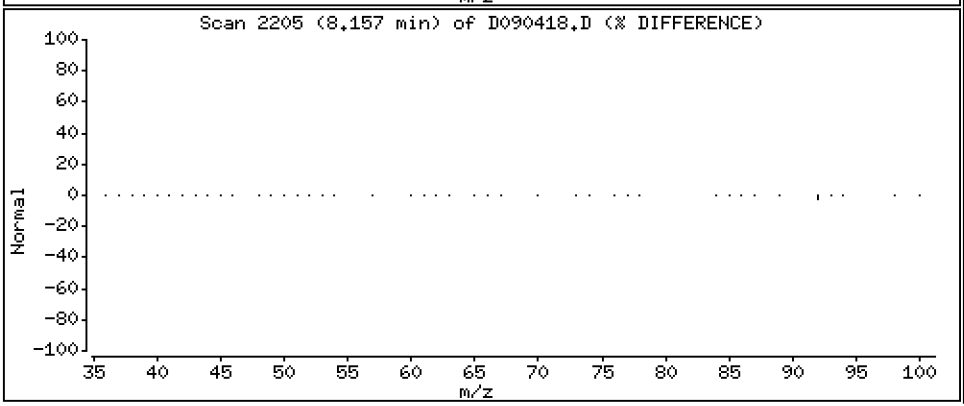












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 40

Date : 04-SEP-2018 17:39

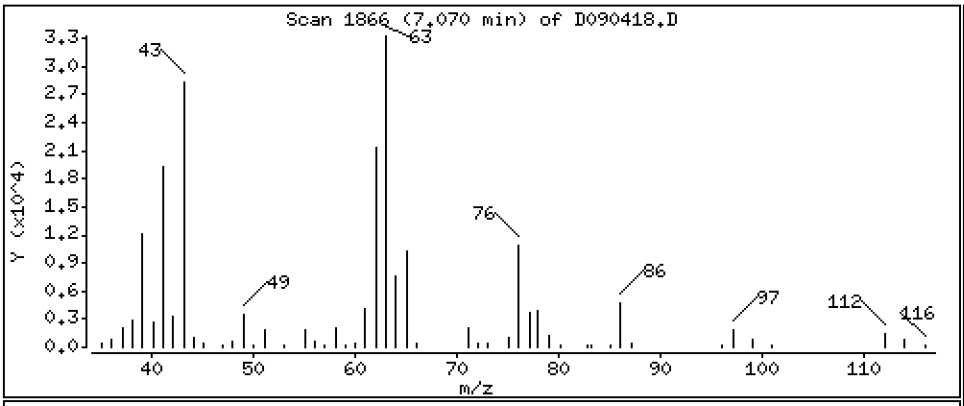
Client ID: HS18081504-01MS Instrument: VOA2.i

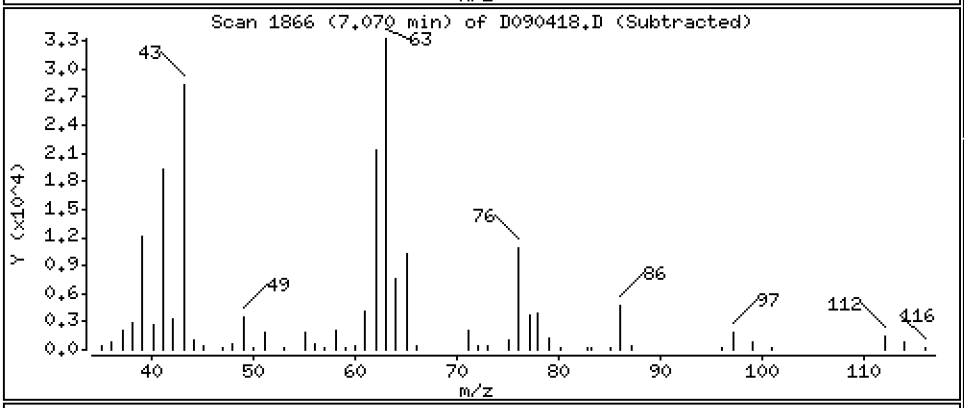
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

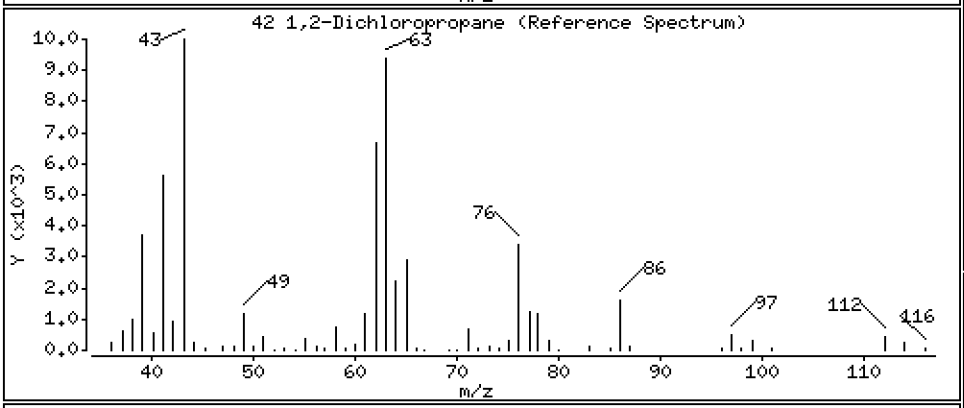
Purge Volume: 5.0 Operator: AP

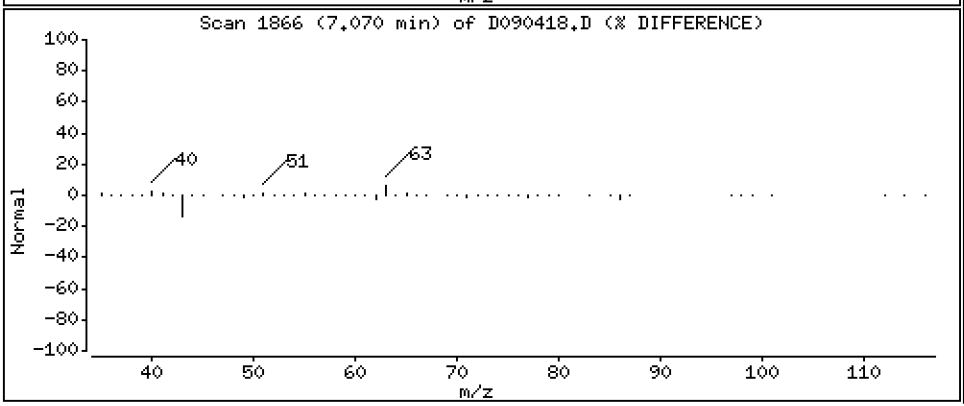
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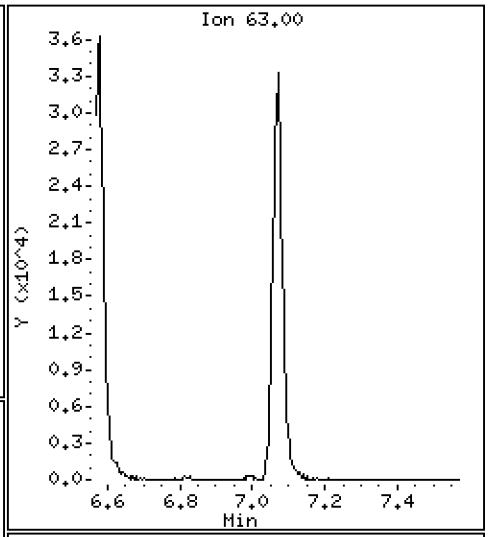
42 1,2-Dichloropropane Concentration: 18.04 ug/l Review Code:

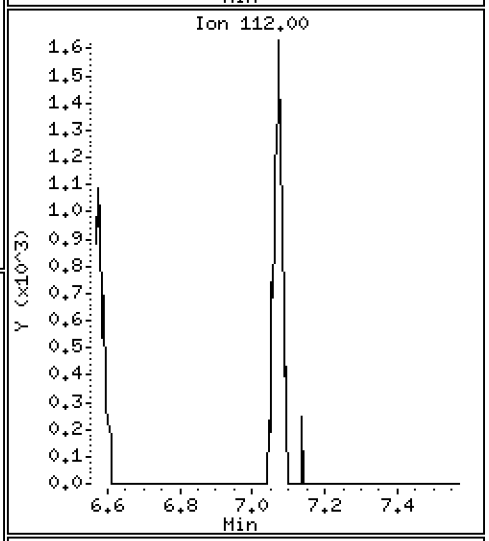


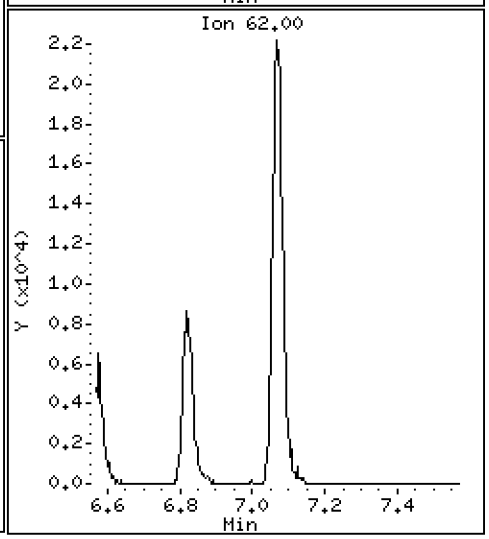












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 41

Date : 04-SEP-2018 17:39

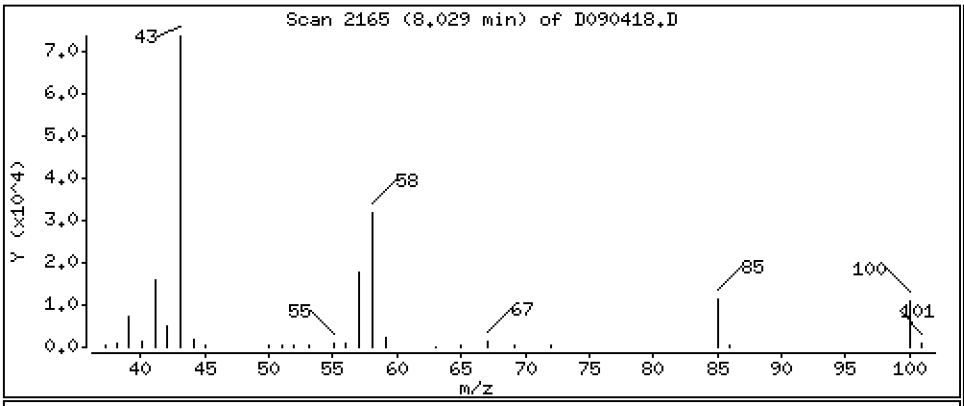
Client ID: HS18081504-01MS Instrument: VOA2.i

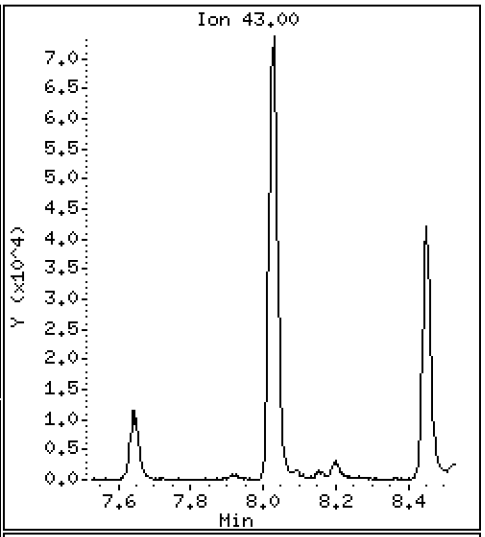
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

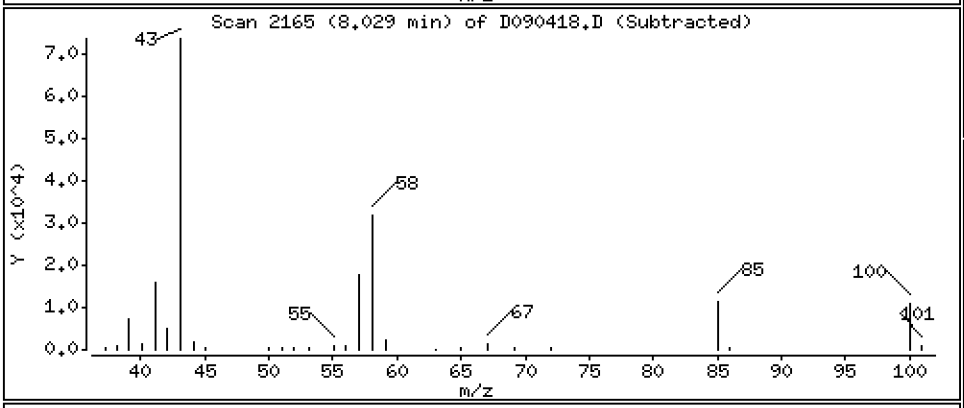
Purge Volume: 5.0 Operator: AP

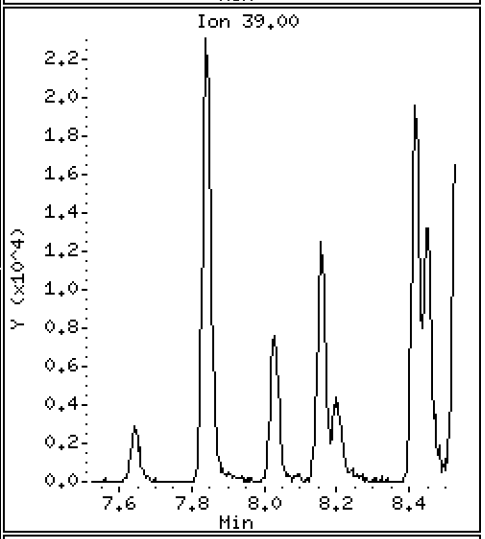
Column phase: DB624 Column diameter: 0.18

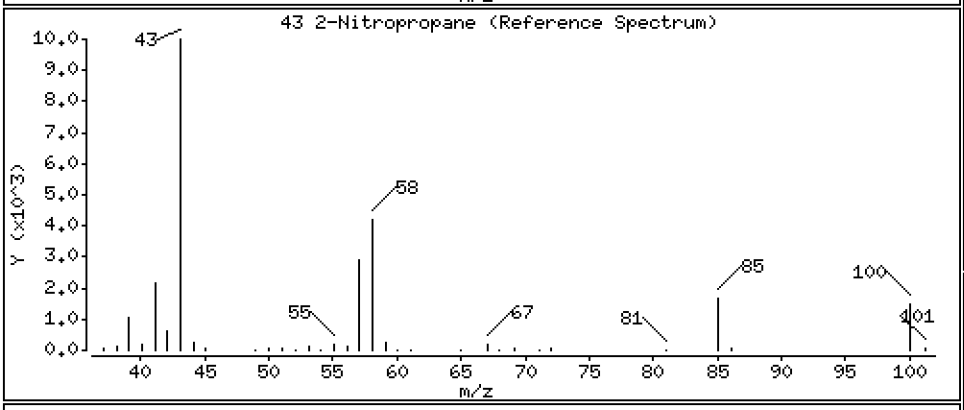
43 2-Nitropropane Concentration: 16.38 ug/l Review Code:

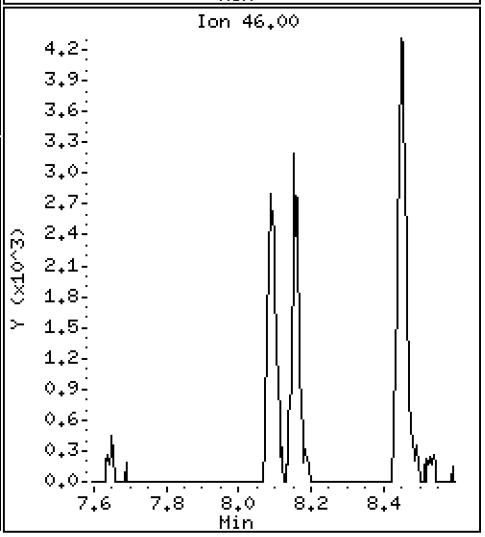


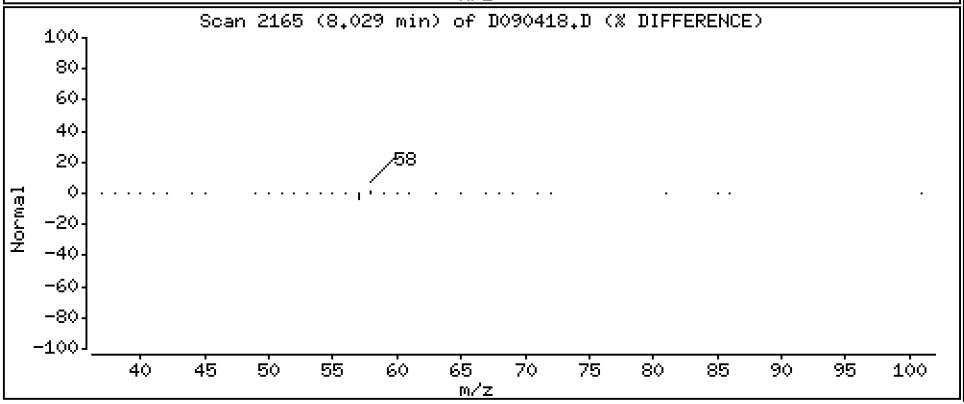












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 42

Date : 04-SEP-2018 17:39

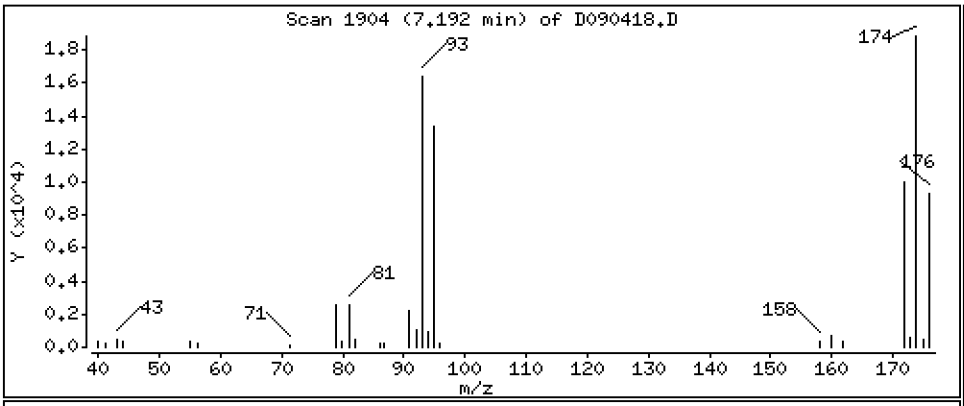
Client ID: HS18081504-01MS Instrument: VOA2.i

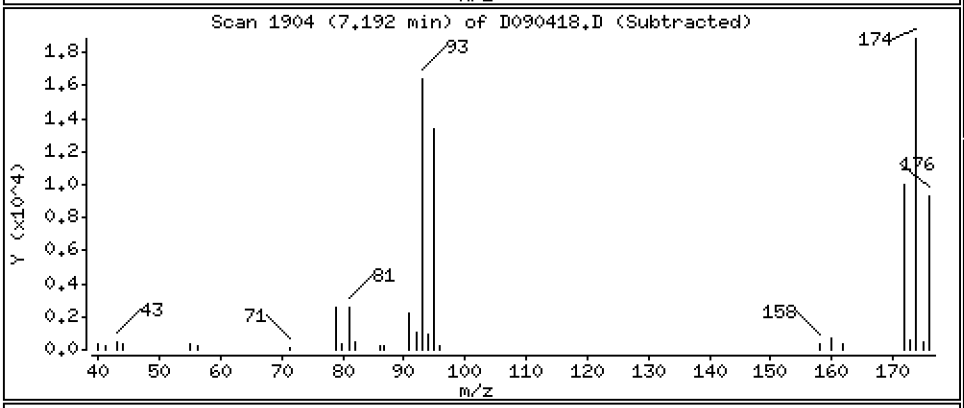
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

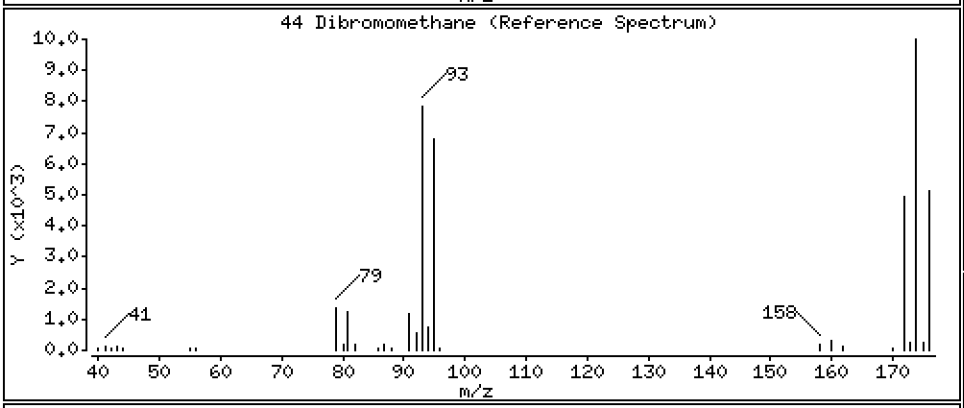
Purge Volume: 5.0 Operator: AP

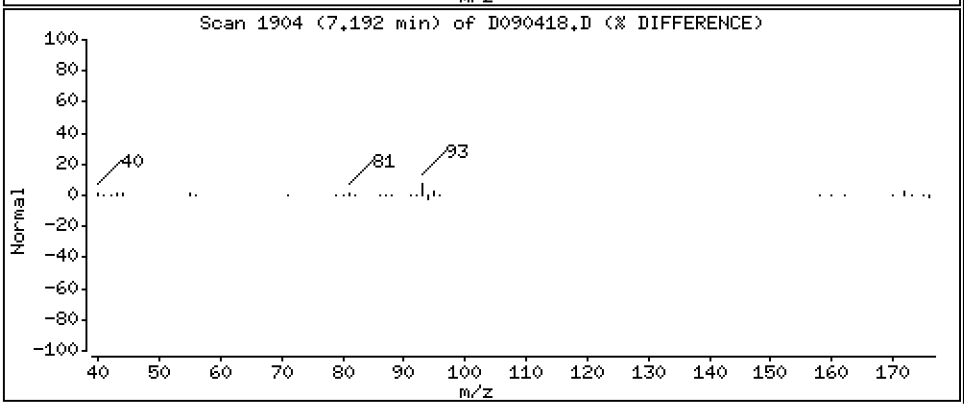
Column phase: DB624 Column diameter: 0.18

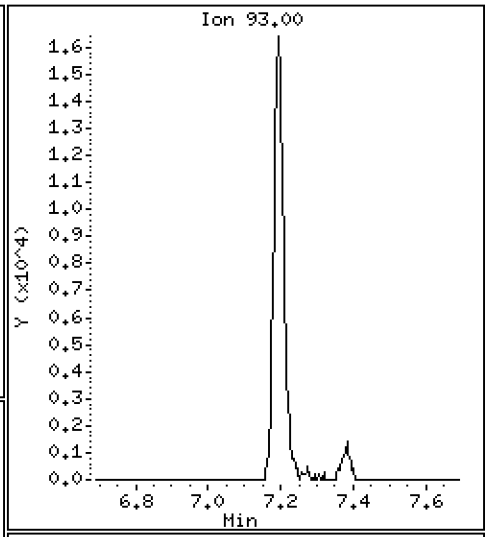
44 Dibromomethane Concentration: 18.42 ug/l Review Code:

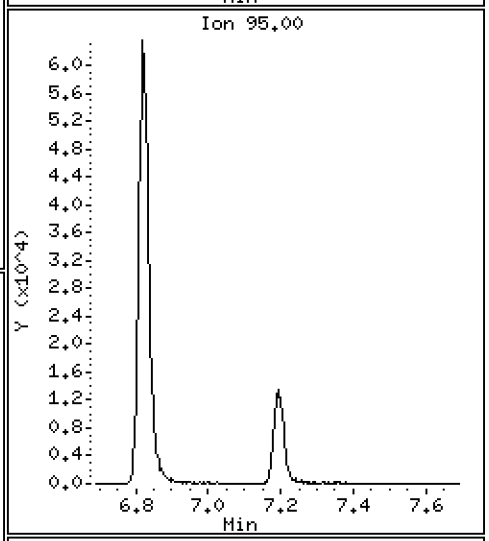


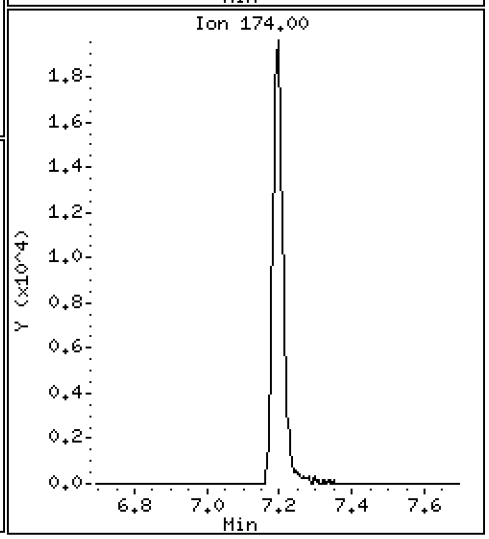












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 43

Date : 04-SEP-2018 17:39

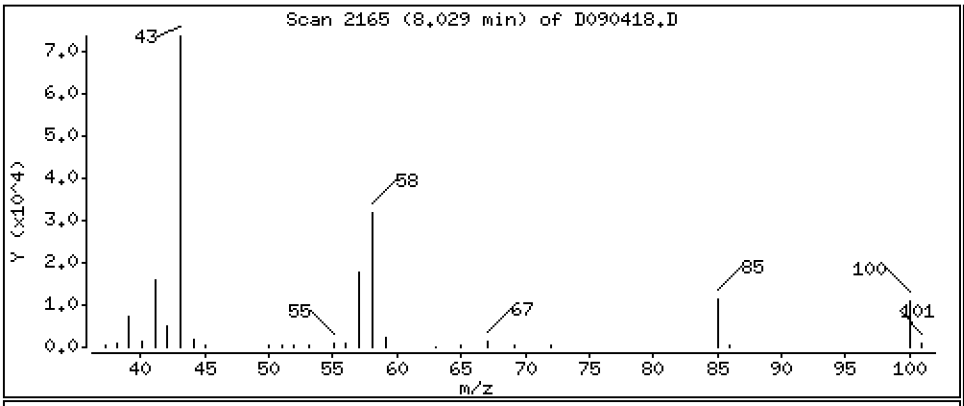
Client ID: HS18081504-01MS Instrument: VOA2.i

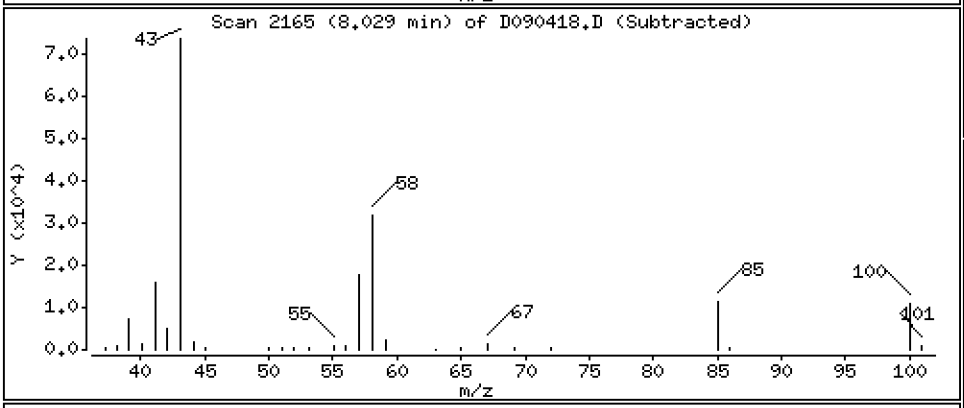
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

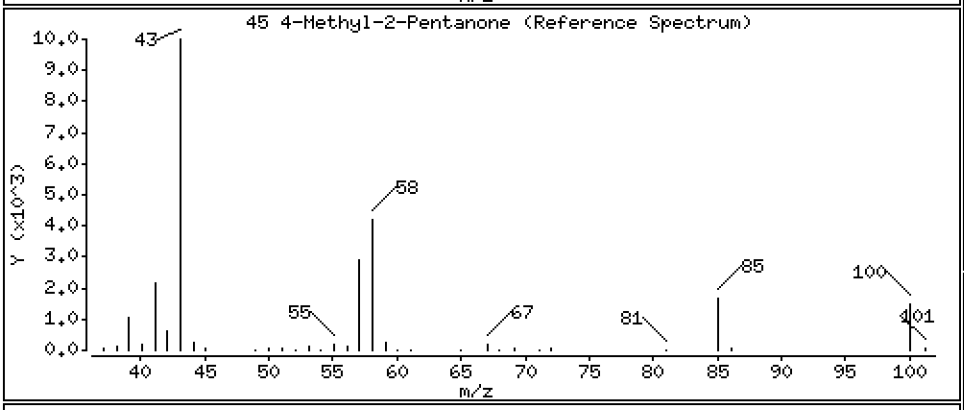
Purge Volume: 5.0 Operator: AP

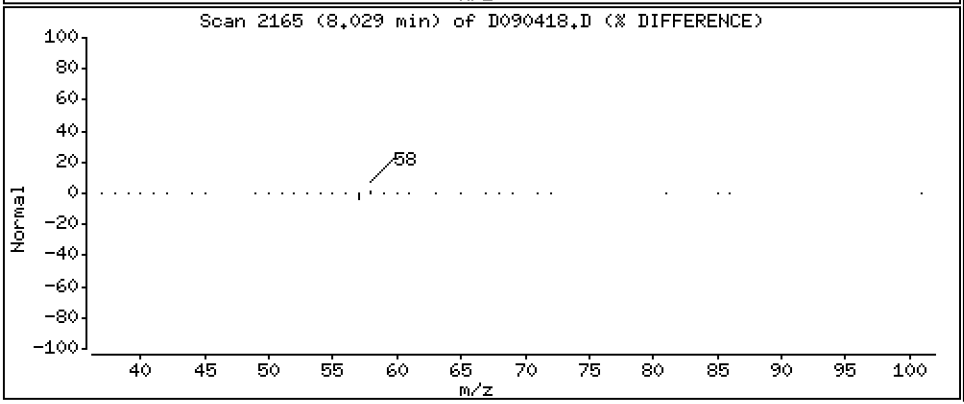
Column phase: DB624 Column diameter: 0.18

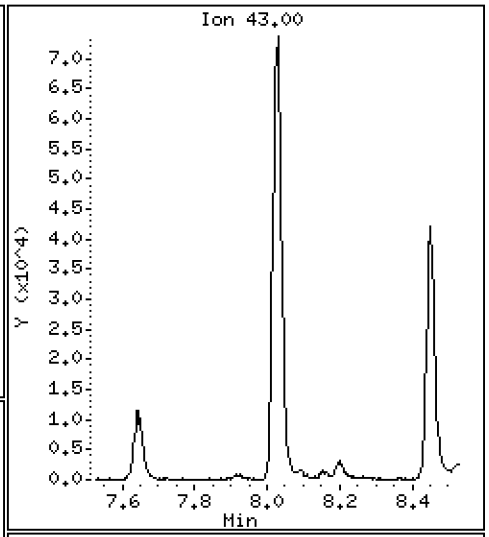
45 4-Methyl-2-Pentanone Concentration: 34.54 ug/l Review Code:

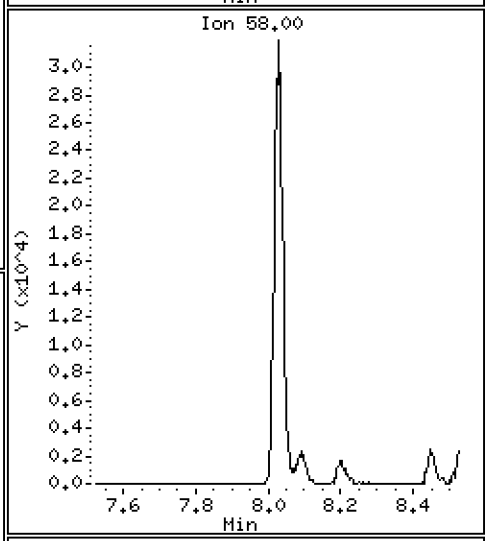


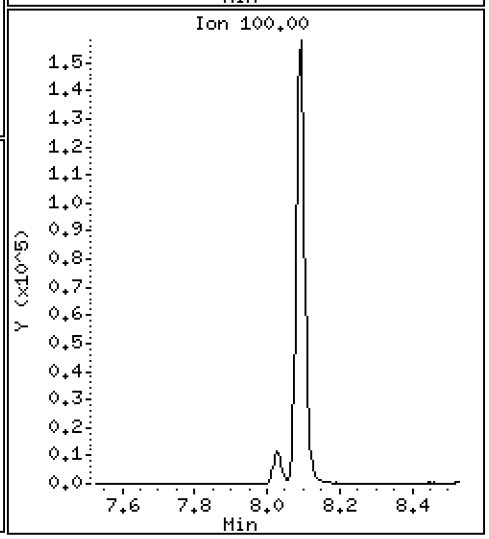












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 44

Date : 04-SEP-2018 17:39

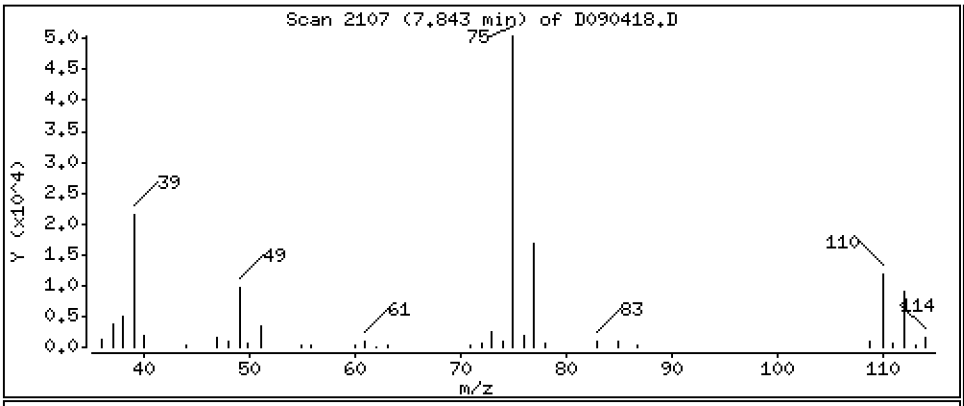
Client ID: HS18081504-01MS Instrument: VOA2.i

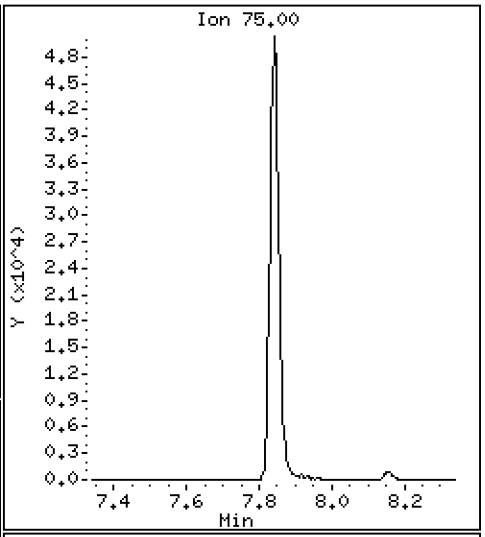
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

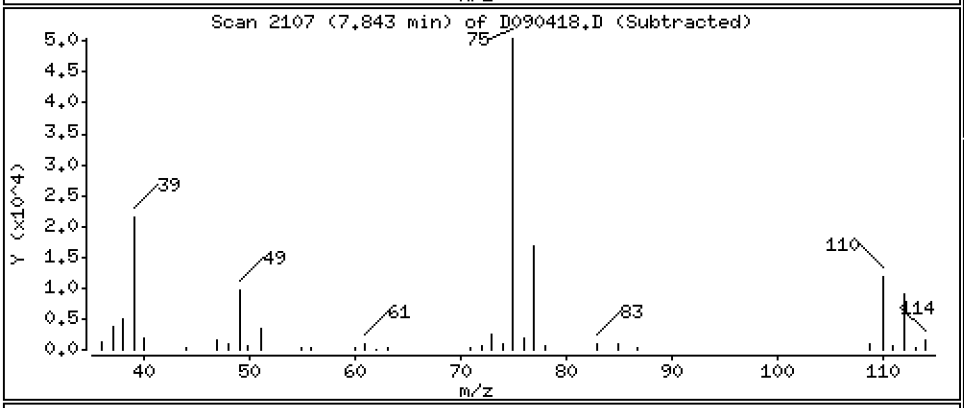
Purge Volume: 5.0 Operator: AP

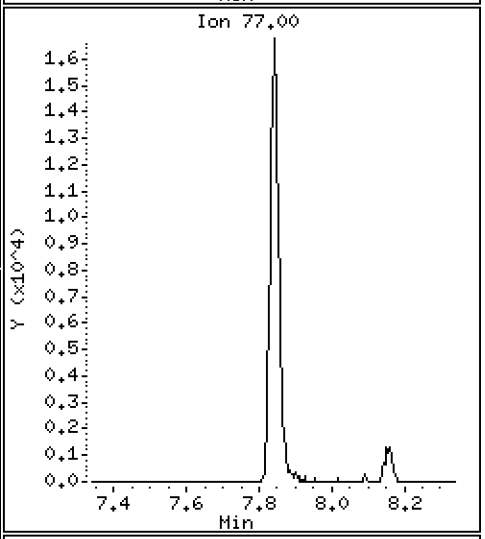
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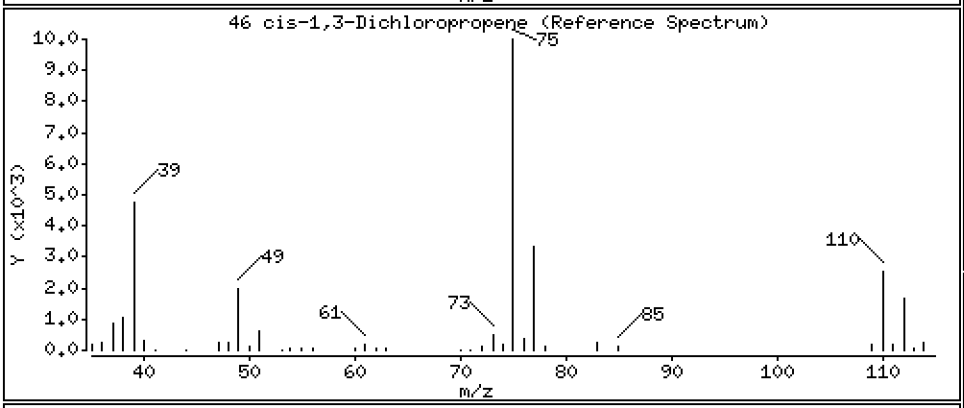
46 cis-1,3-Dichloropropene Concentration: 19.51 ug/l Review Code:

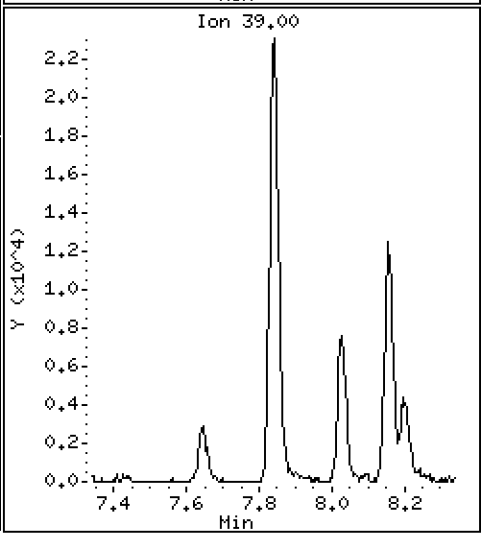


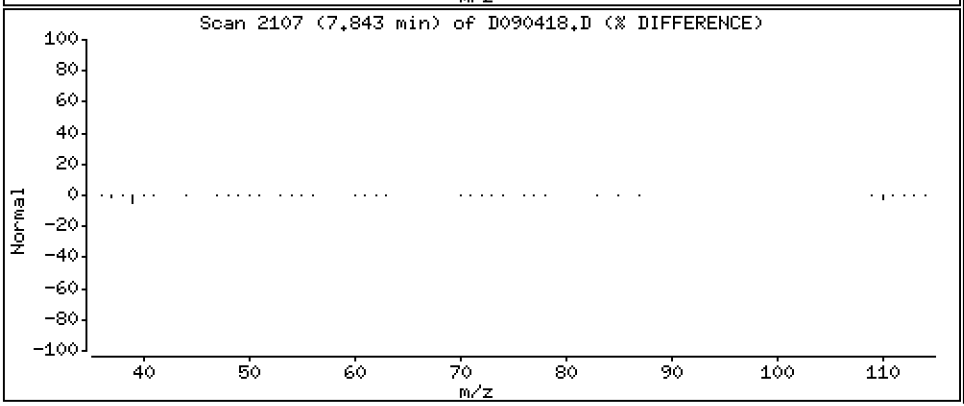












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 45

Date : 04-SEP-2018 17:39

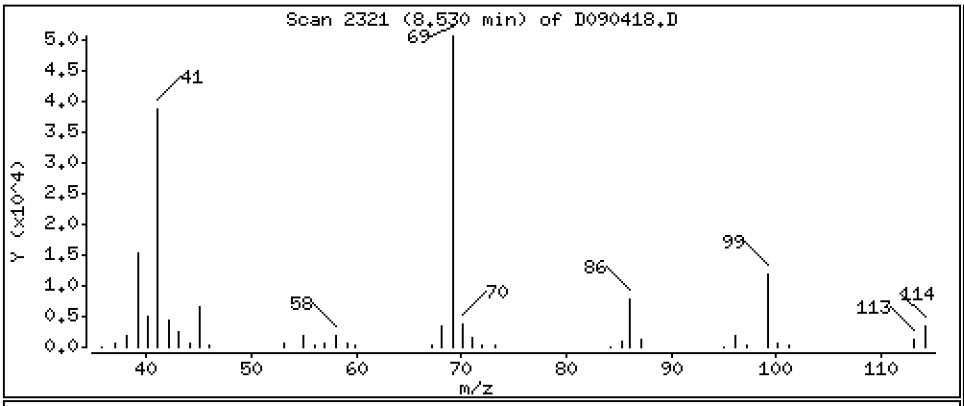
Client ID: HS18081504-01MS Instrument: VOA2.i

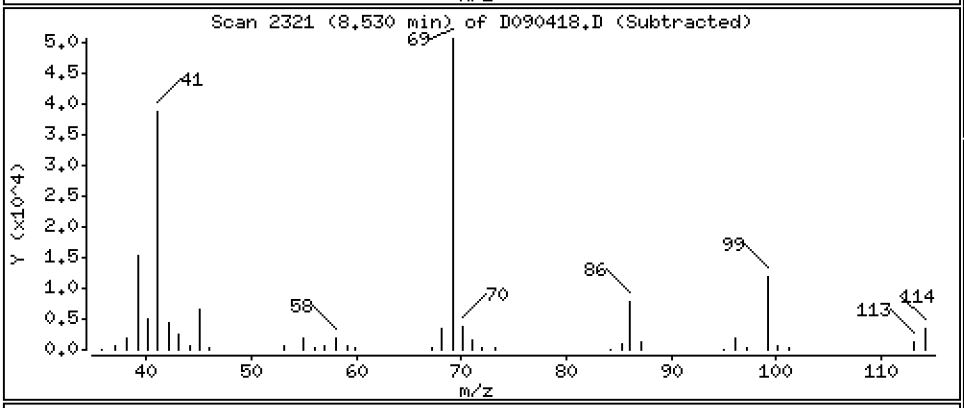
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

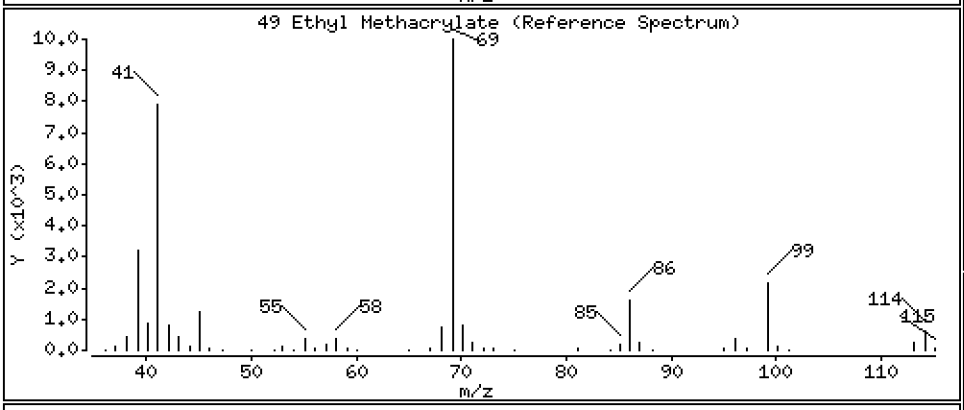
Purge Volume: 5.0 Operator: AP

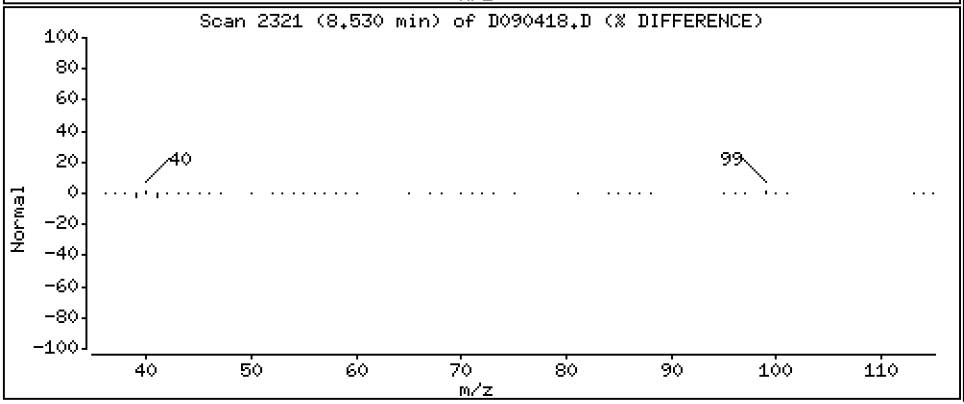
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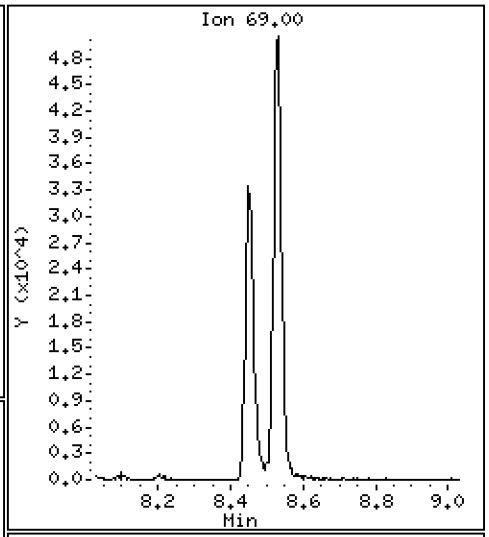
49 Ethyl Methacrylate Concentration: 18.13 ug/l Review Code:

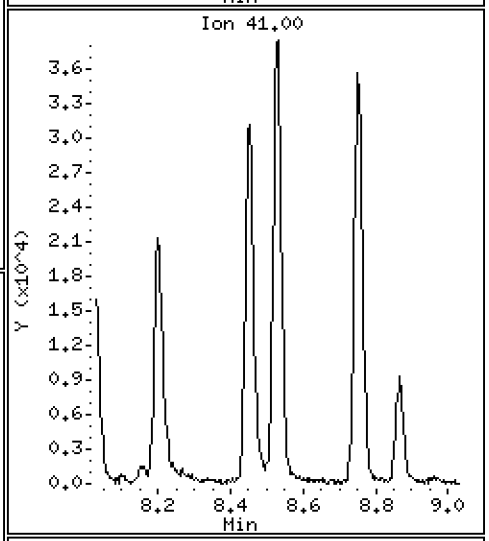


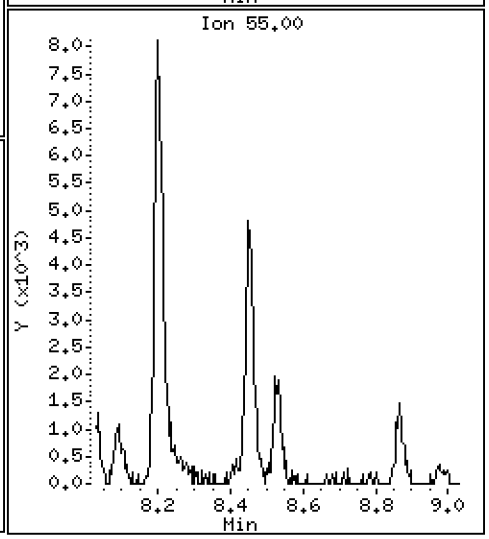












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 46

Date : 04-SEP-2018 17:39

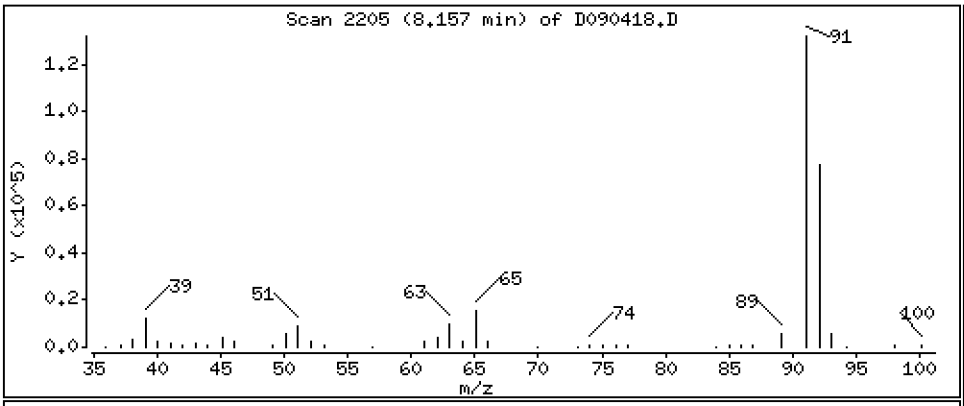
Client ID: HS18081504-01MS Instrument: VOA2.i

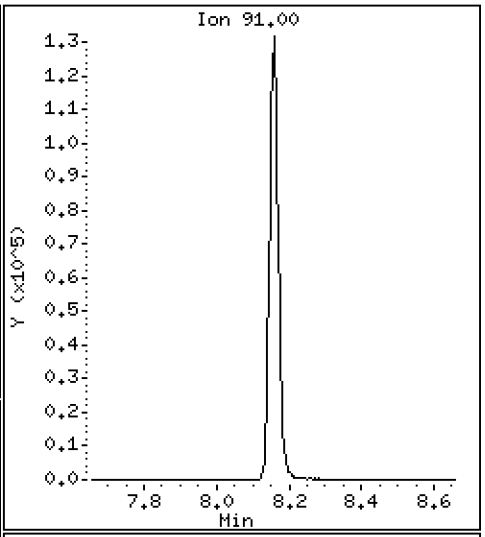
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

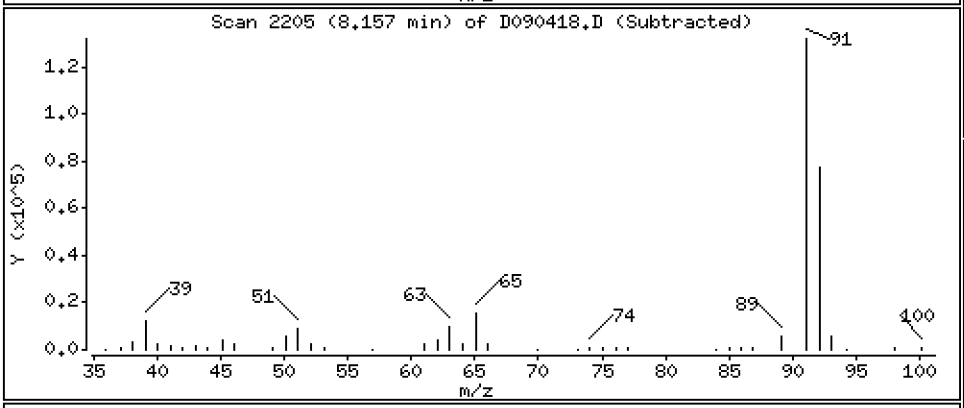
Purge Volume: 5.0 Operator: AP

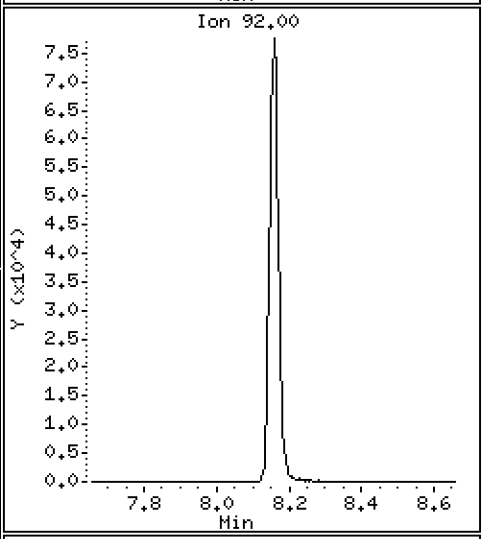
Column phase: DB624 Column diameter: 0.18

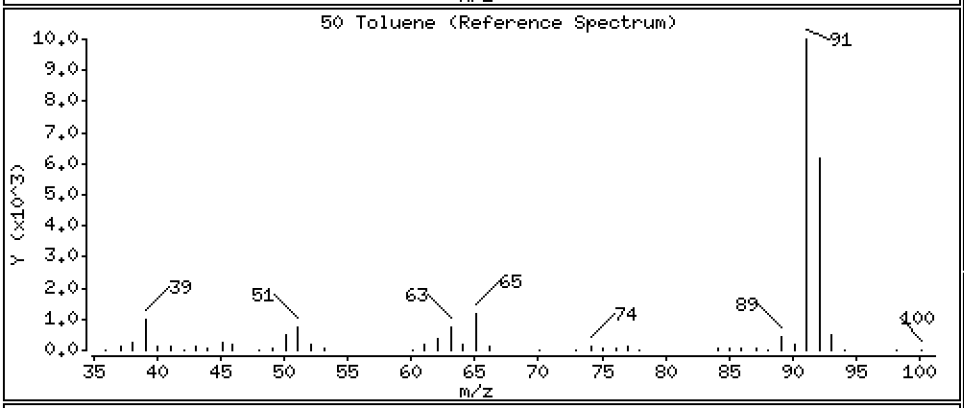
50 Toluene Concentration: 17.59 ug/l Review Code:

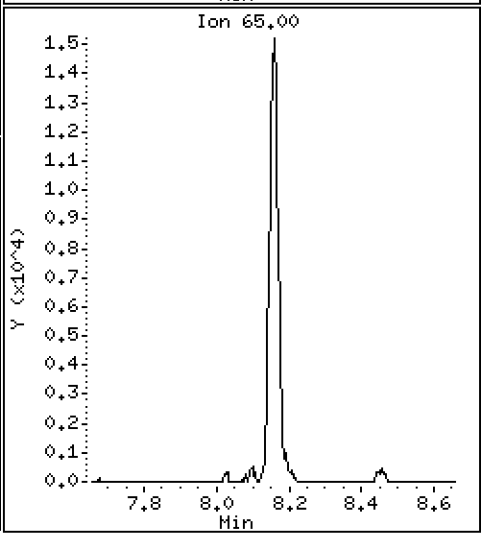


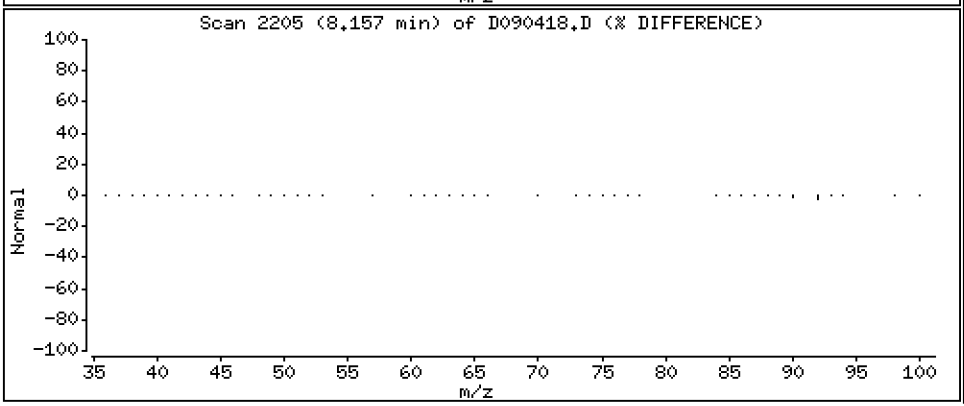












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 47

Date : 04-SEP-2018 17:39

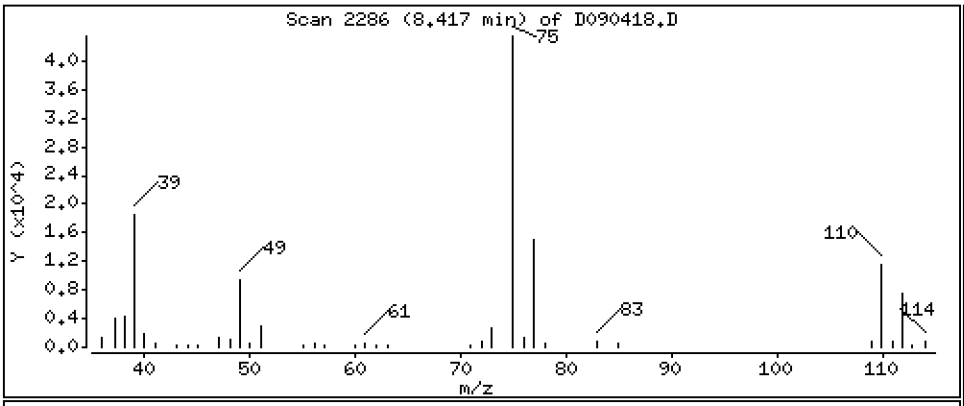
Client ID: HS18081504-01MS Instrument: VOA2.i

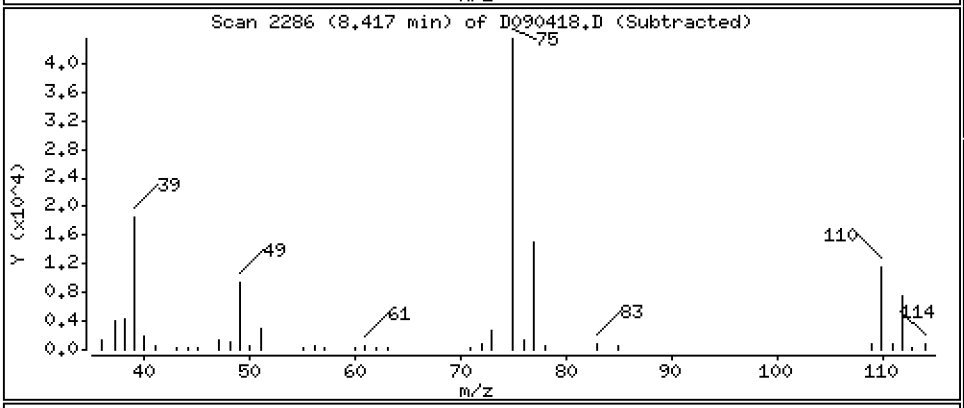
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

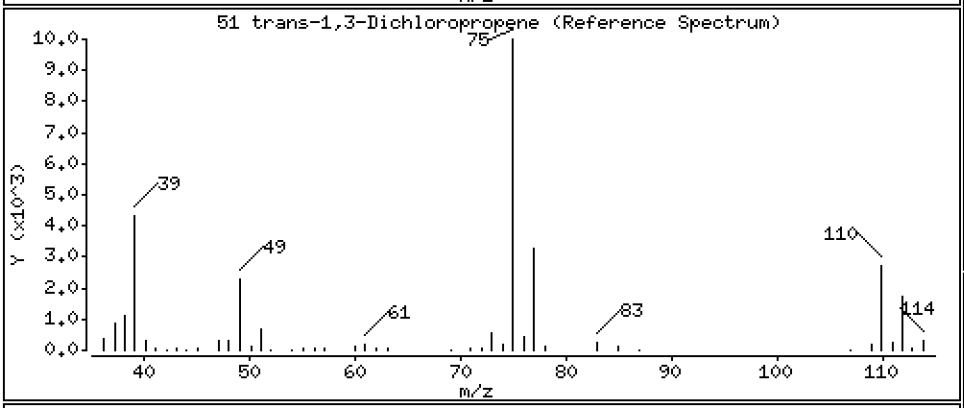
Purge Volume: 5.0 Operator: AP

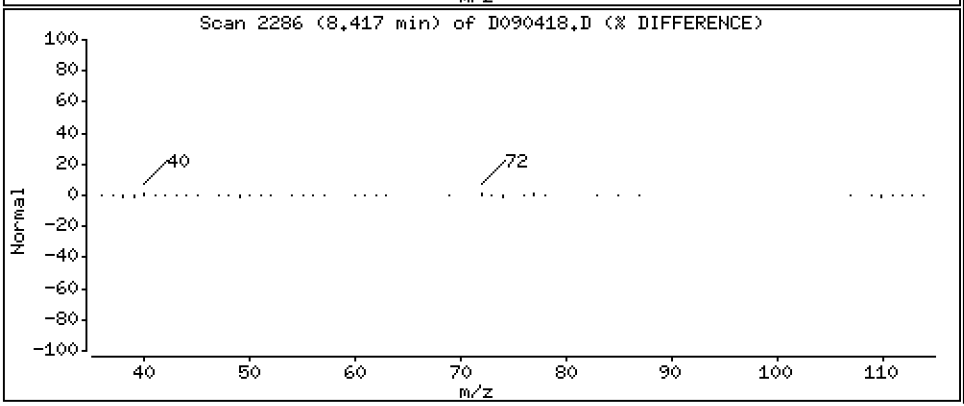
Column phase: DB624 Column diameter: 0.18

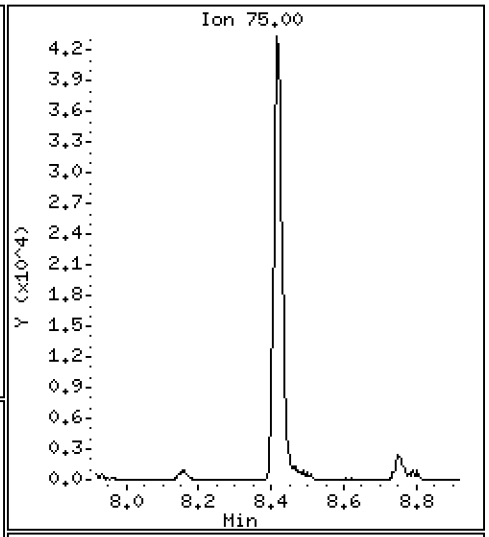
51 trans-1,3-Dichloropropene Concentration: 20.00 ug/l Review Code:

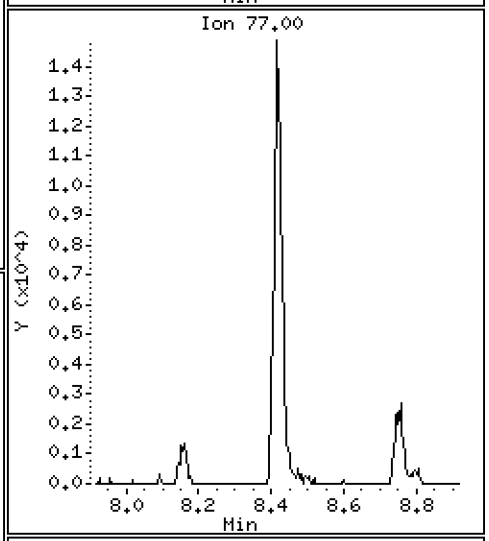


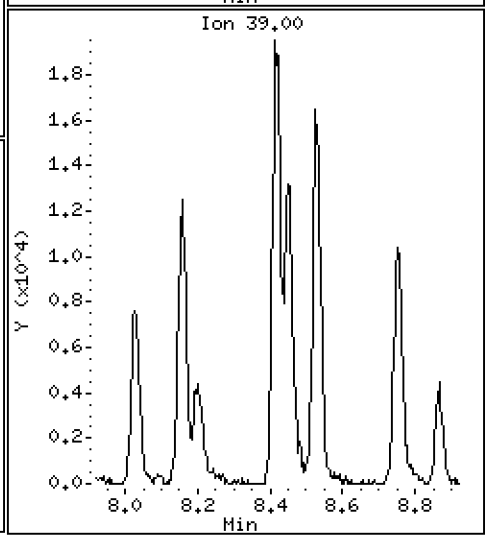












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 48

Date : 04-SEP-2018 17:39

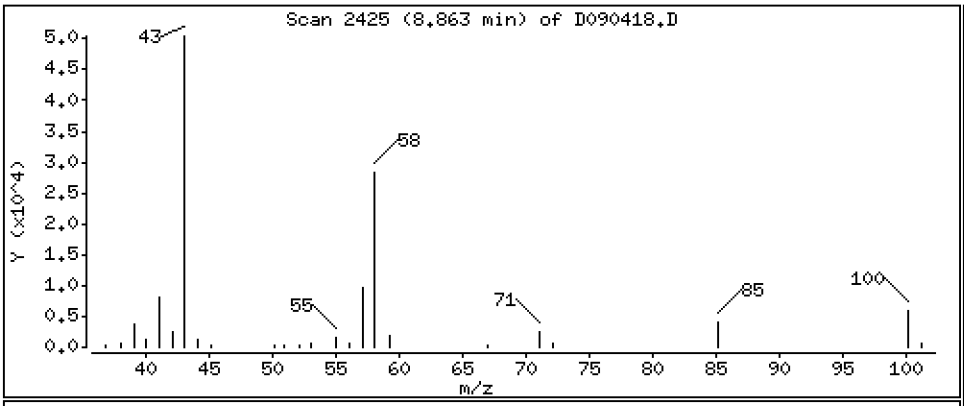
Client ID: HS18081504-01MS Instrument: VOA2.i

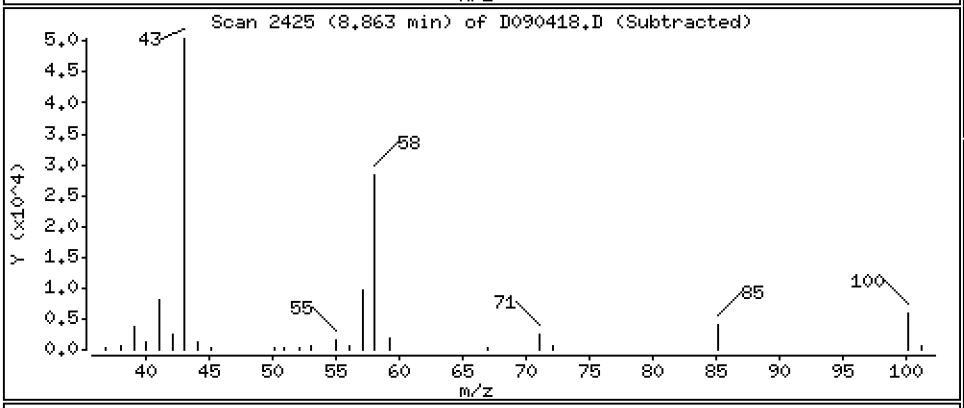
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

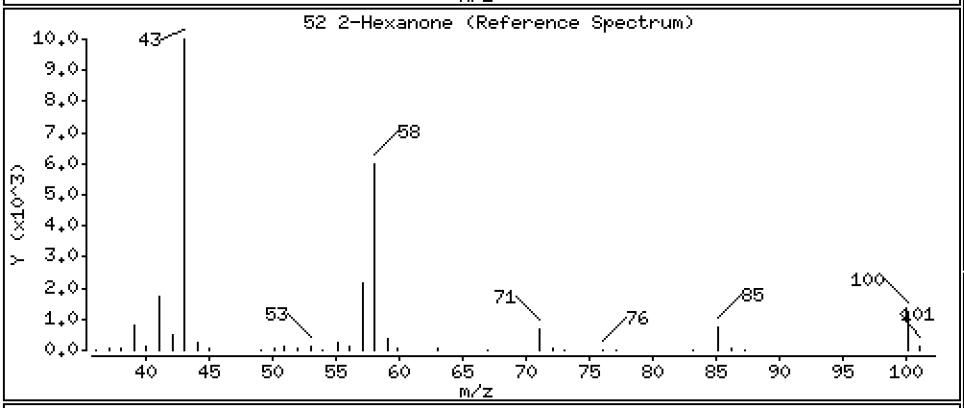
Purge Volume: 5.0 Operator: AP

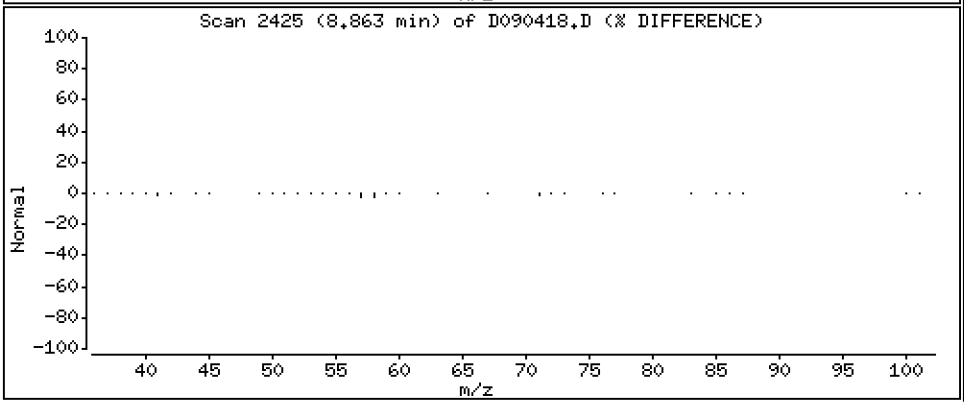
Column phase: DB624 Column diameter: 0.18

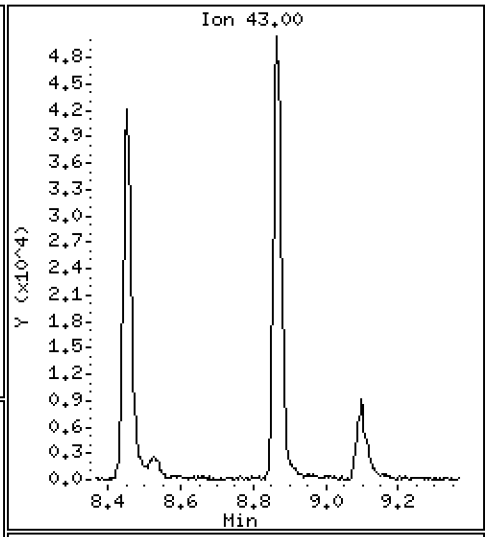
52 2-Hexanone Concentration: 34.24 ug/l Review Code:

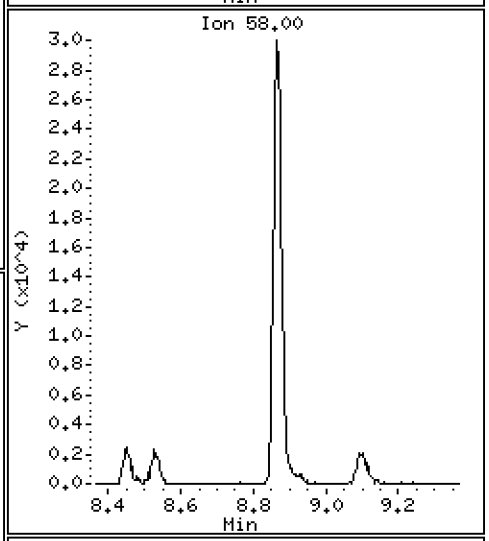


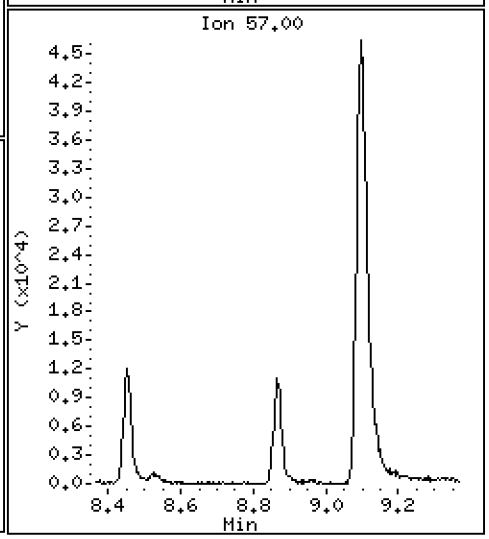












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 49

Date : 04-SEP-2018 17:39

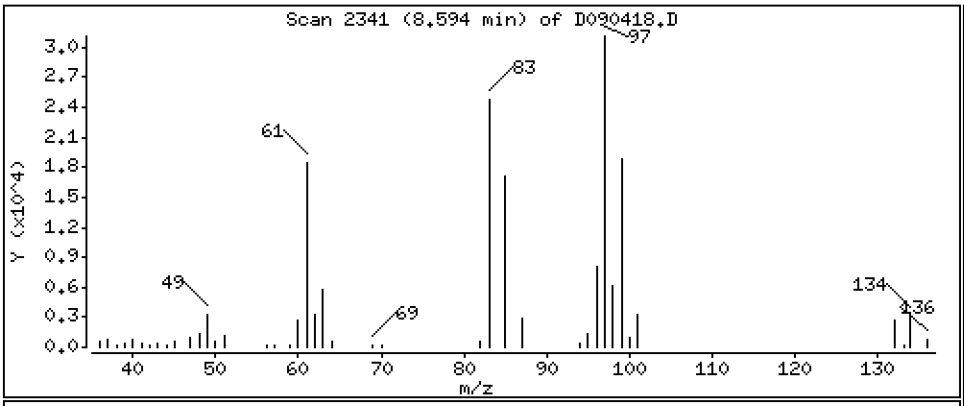
Client ID: HS18081504-01MS Instrument: VOA2.i

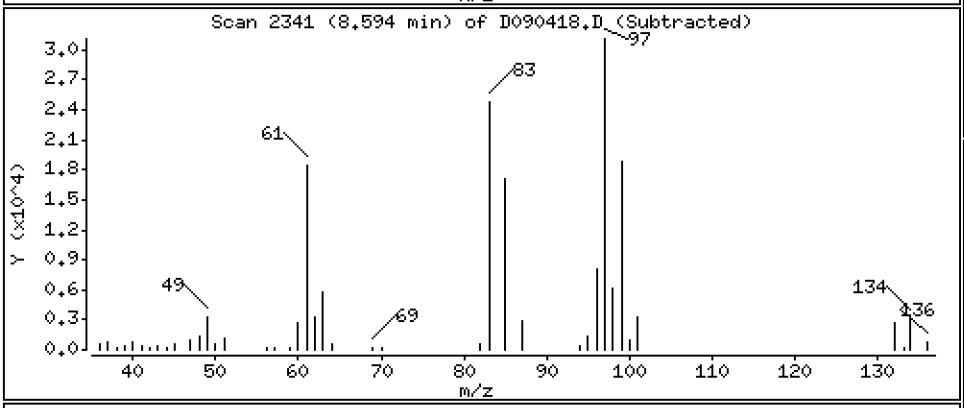
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

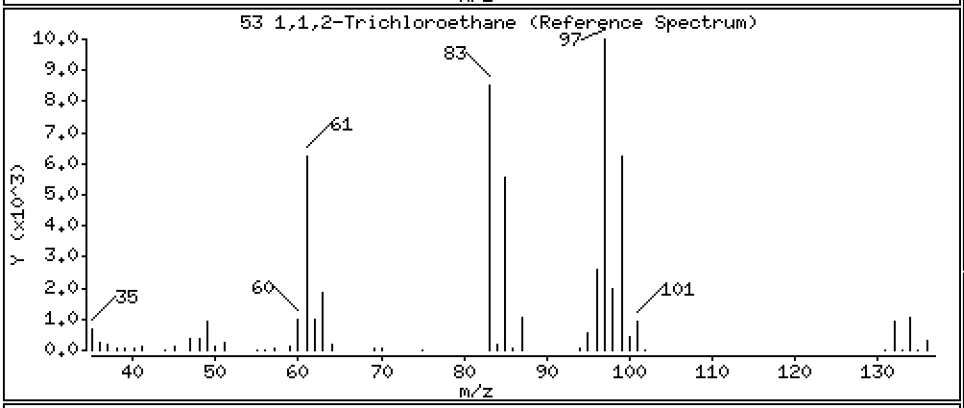
Purge Volume: 5.0 Operator: AP

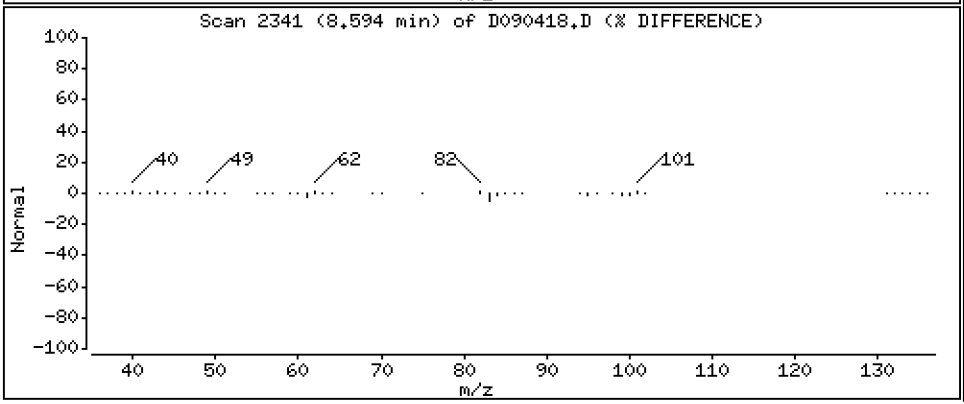
Column phase: DB624 Column diameter: 0.18

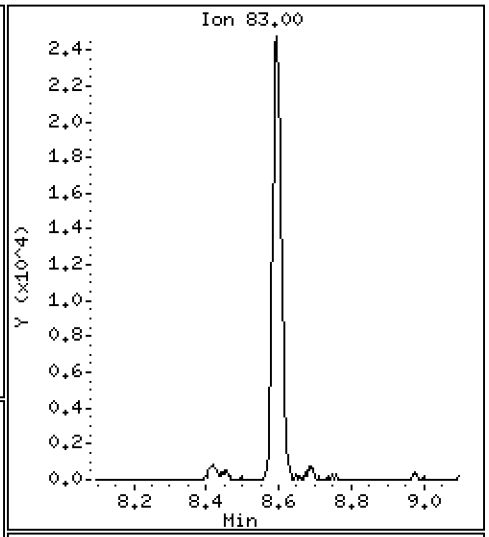
53 1,1,2-Trichloroethane Concentration: 17.22 ug/l Review Code:

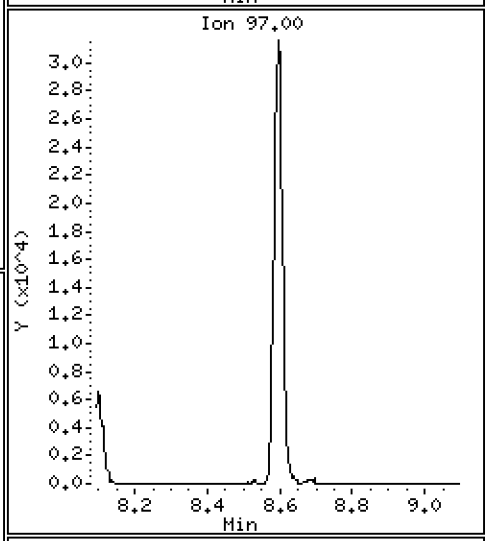


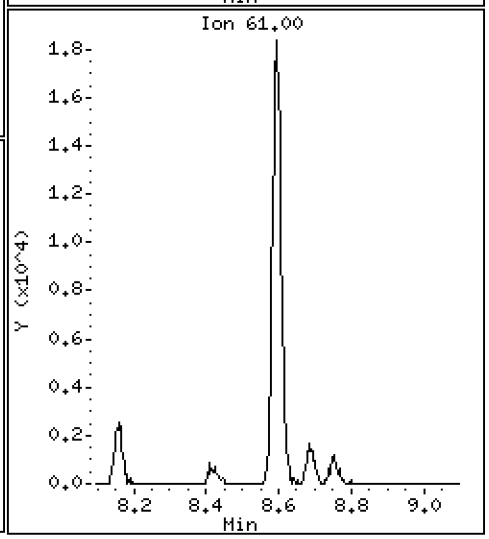












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 50

Date : 04-SEP-2018 17:39

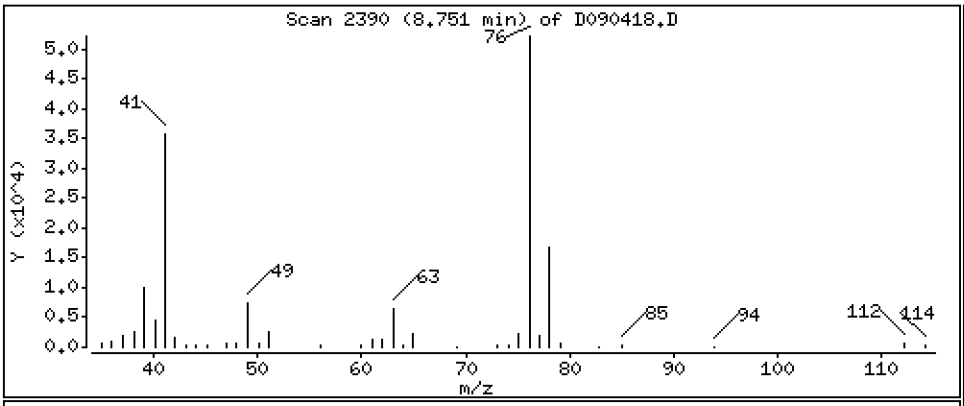
Client ID: HS18081504-01MS Instrument: VOA2.i

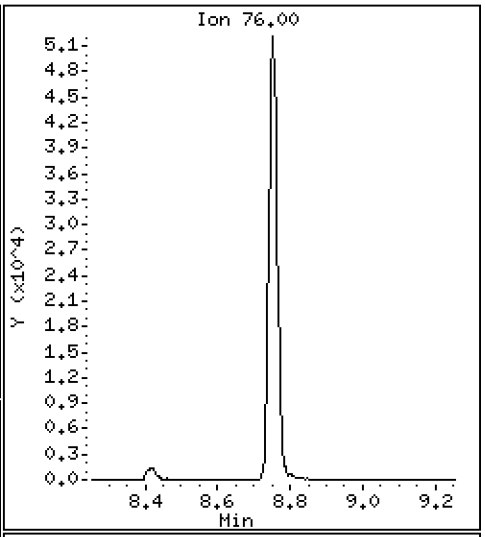
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

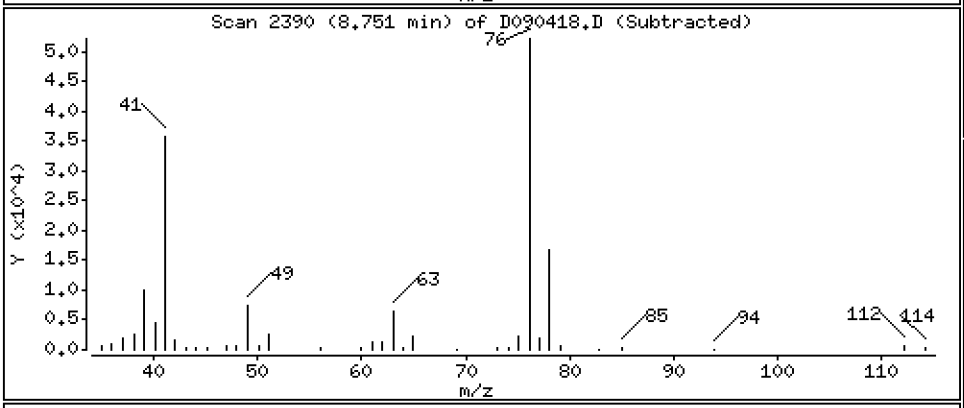
Purge Volume: 5.0 Operator: AP

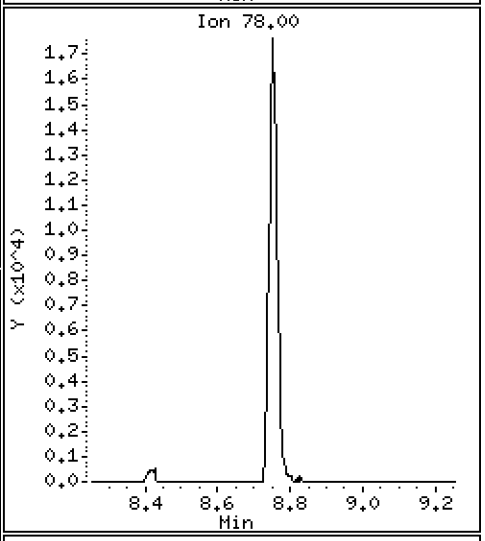
Column phase: DB624 Column diameter: 0.18

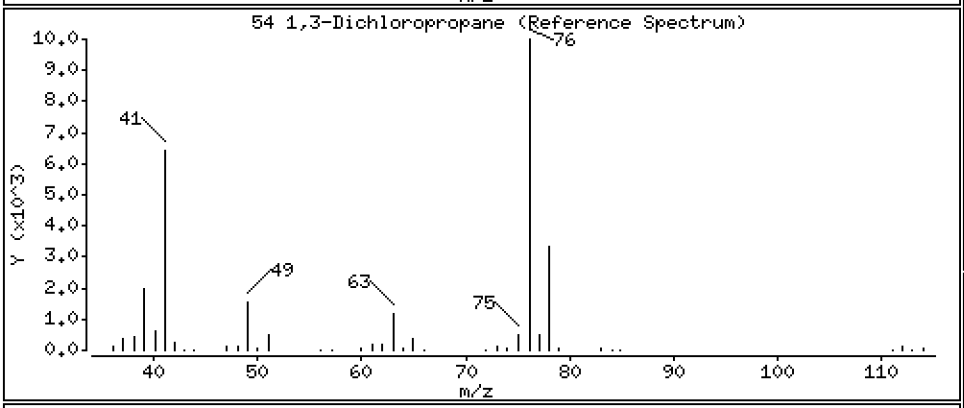
54 1,3-Dichloropropane Concentration: 17.81 ug/l Review Code:

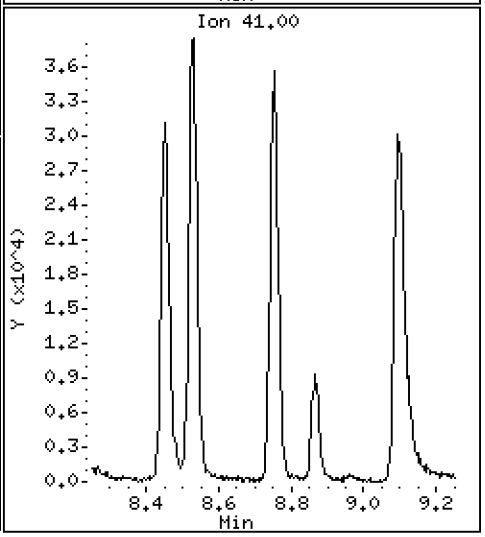


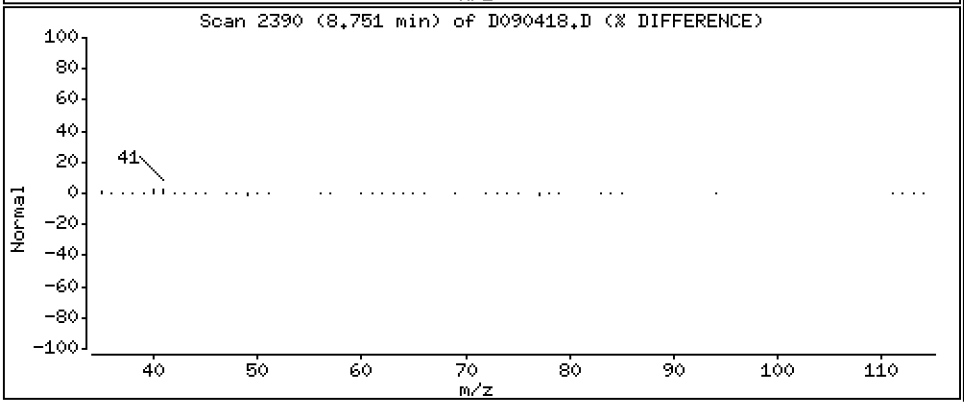












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 51

Date : 04-SEP-2018 17:39

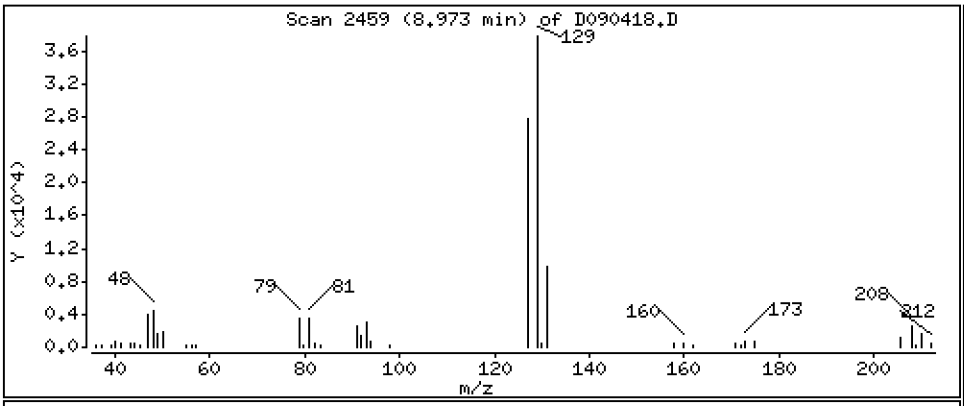
Client ID: HS18081504-01MS Instrument: VOA2.i

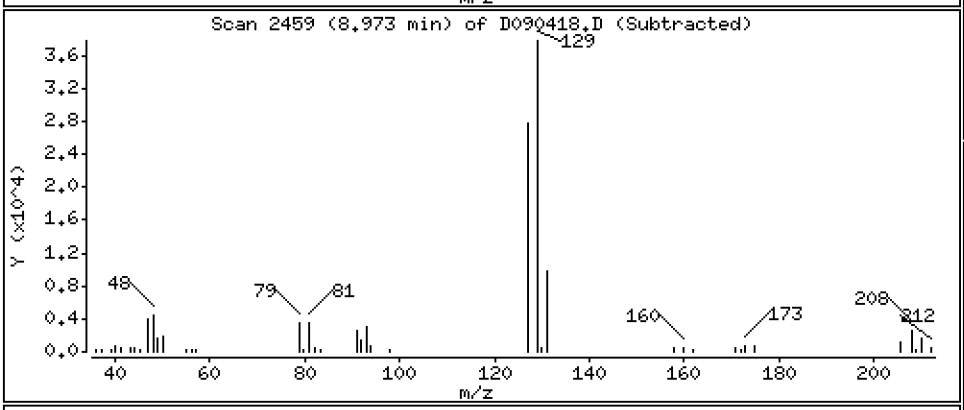
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

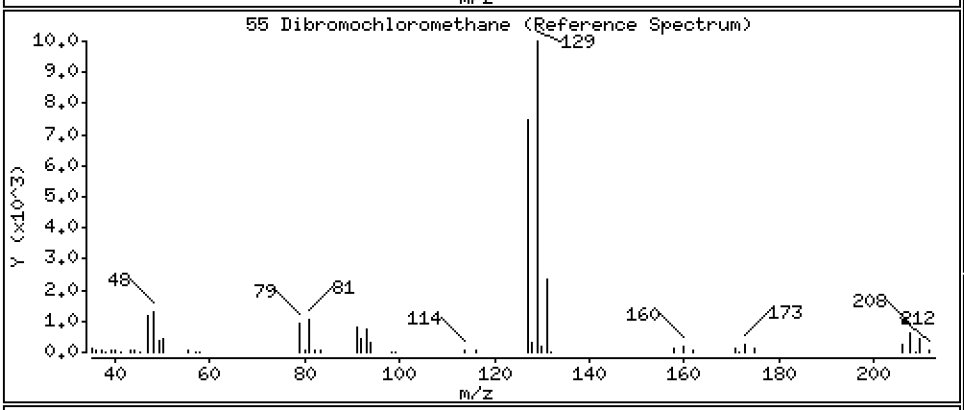
Purge Volume: 5.0 Operator: AP

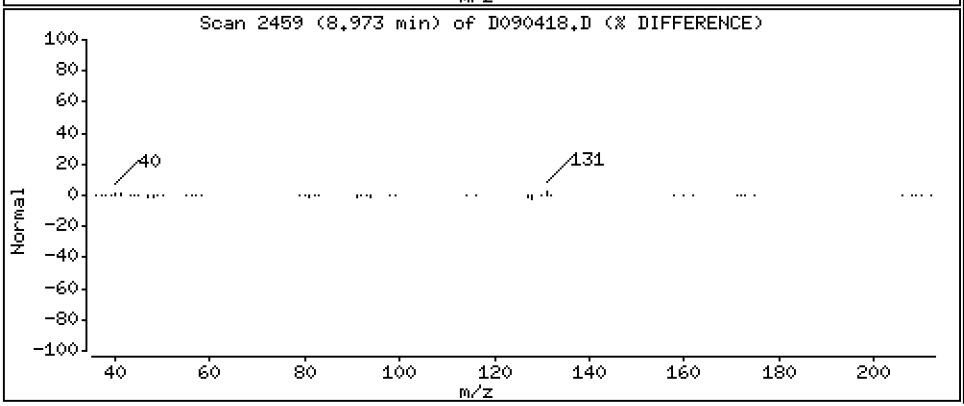
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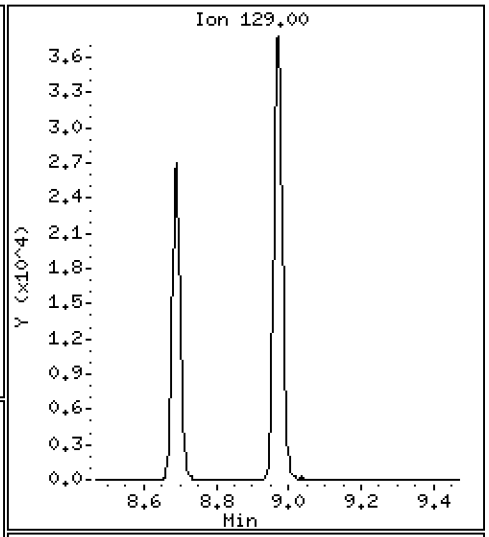
55 Dibromochloromethane Concentration: 18.32 ug/l Review Code:

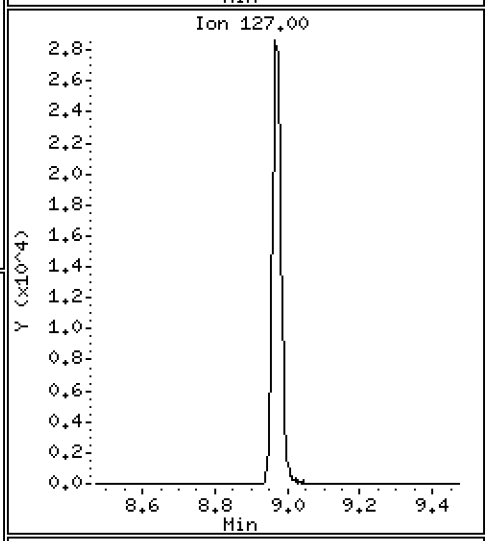


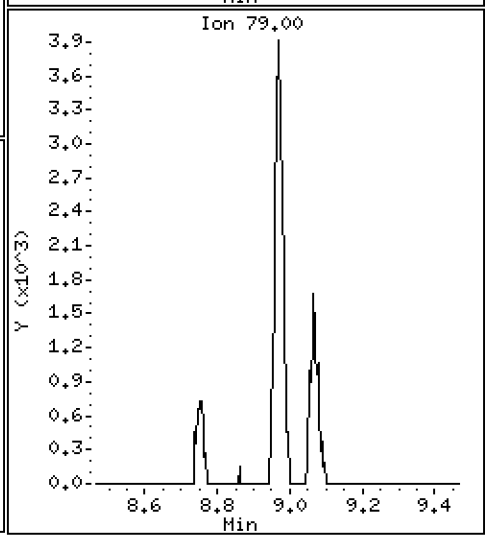












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 52

Date : 04-SEP-2018 17:39

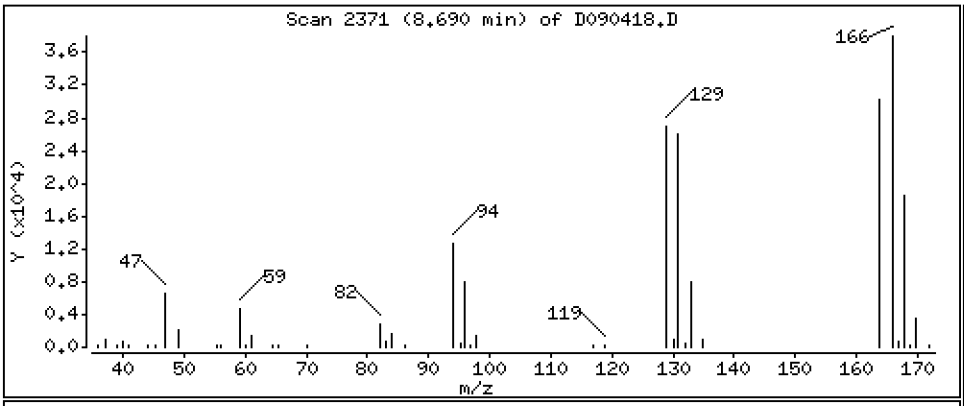
Client ID: HS18081504-01MS Instrument: VOA2.i

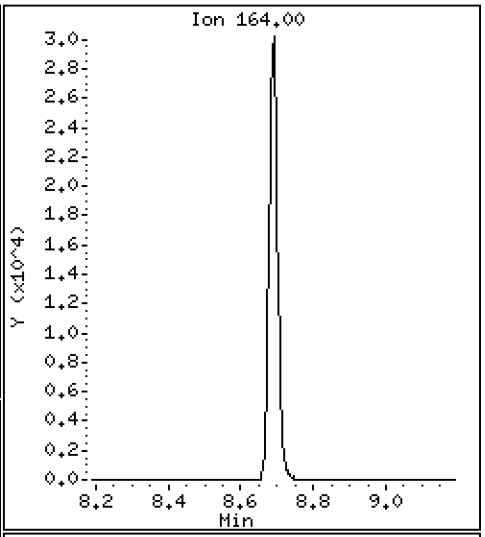
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

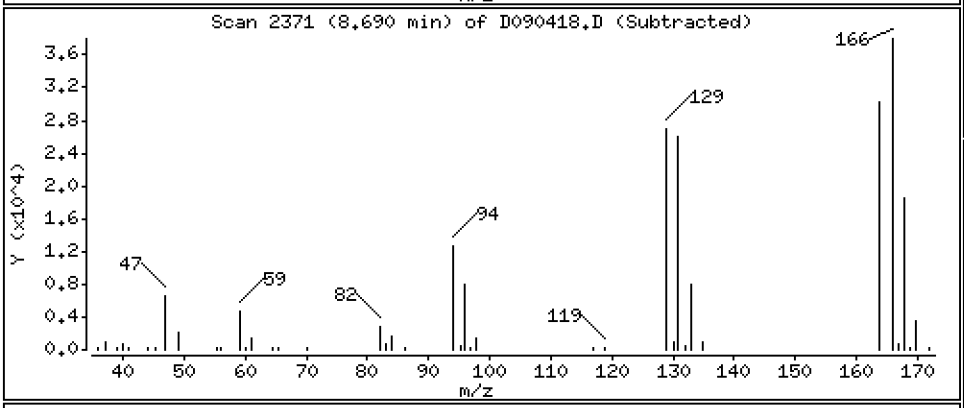
Purge Volume: 5.0 Operator: AP

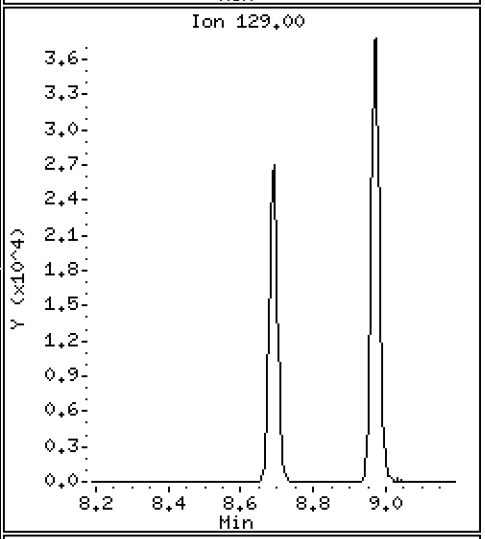
Column phase: DB624 Column diameter: 0.18

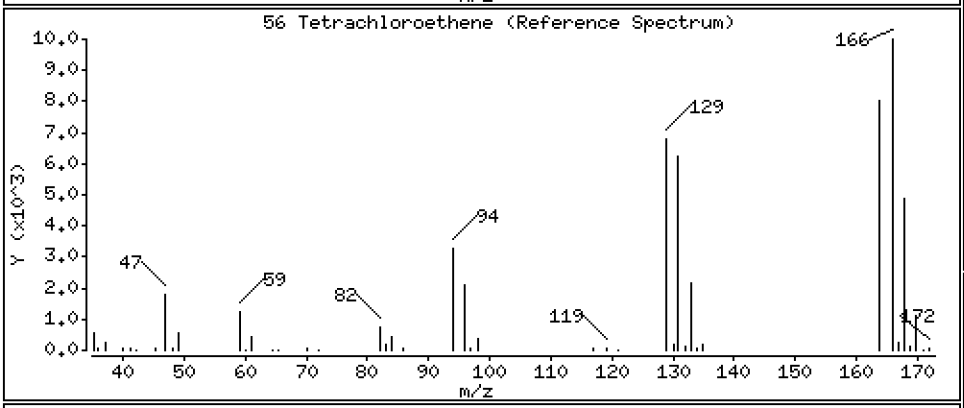
56 Tetrachloroethene Concentration: 19.36 ug/l Review Code:

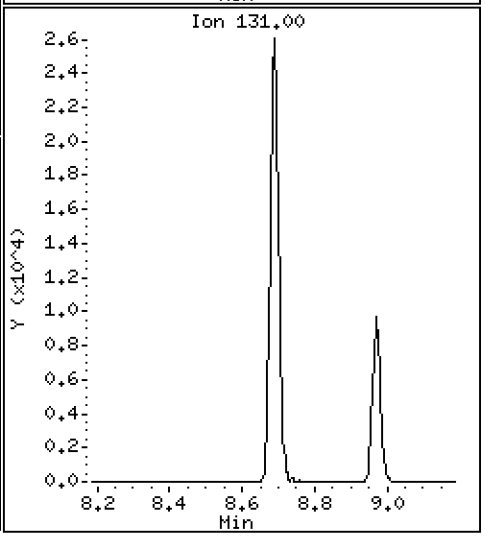


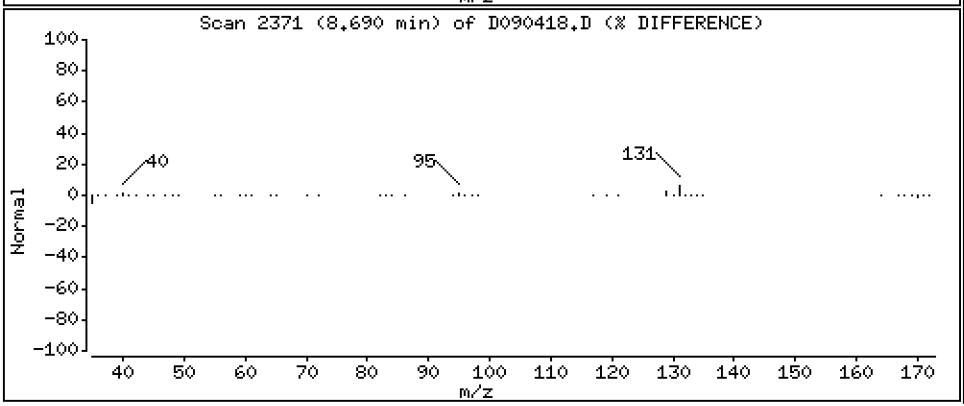












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 53

Date : 04-SEP-2018 17:39

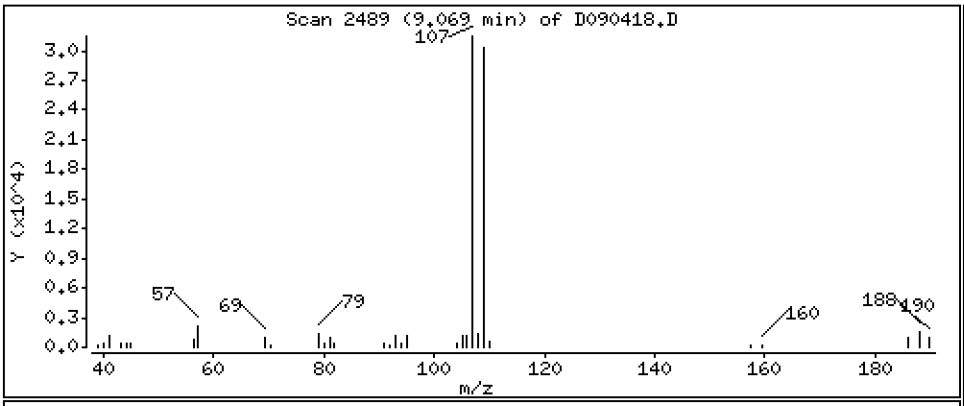
Client ID: HS18081504-01MS Instrument: VOA2.i

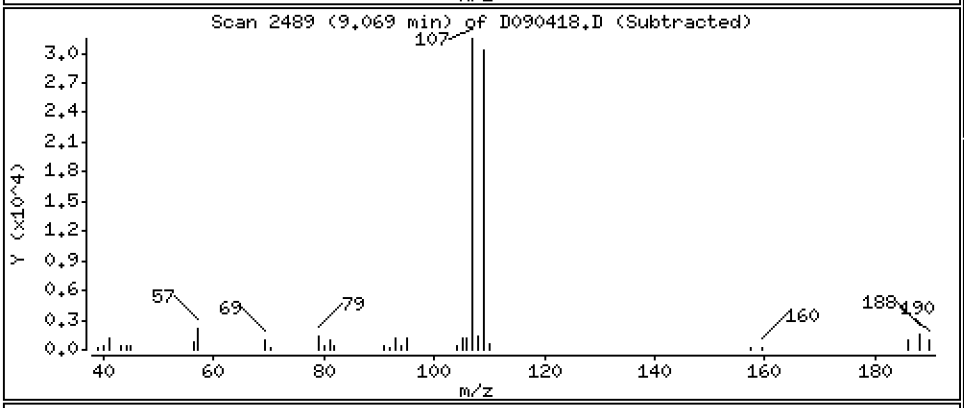
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

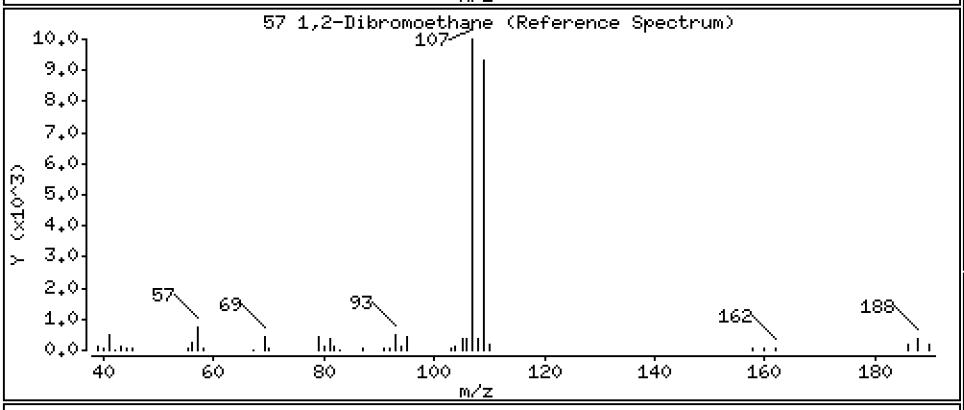
Purge Volume: 5.0 Operator: AP

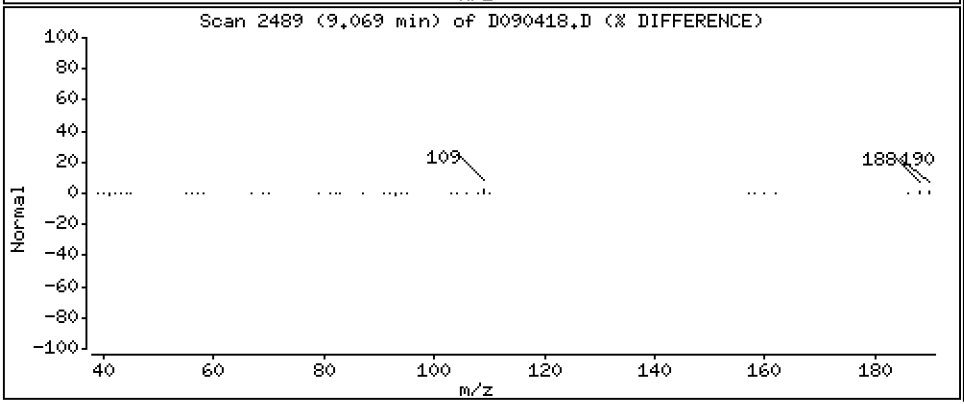
Column phase: DB624 Column diameter: 0.18

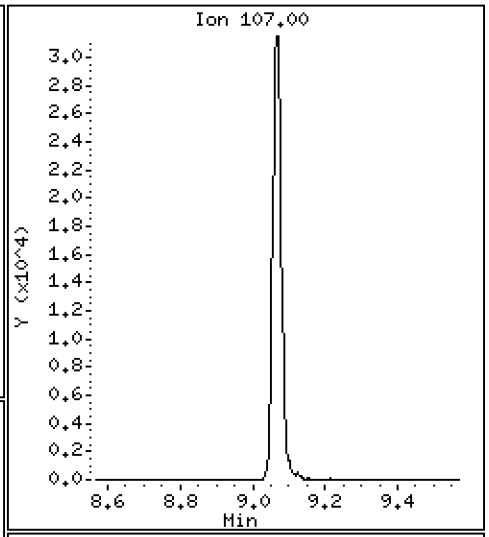
57 1,2-Dibromoethane Concentration: 18.32 ug/l Review Code:

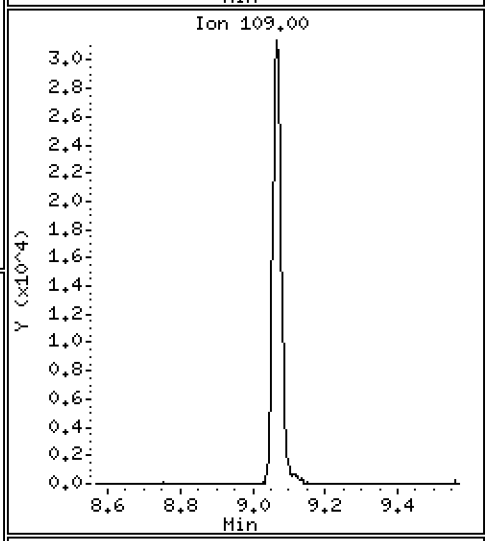


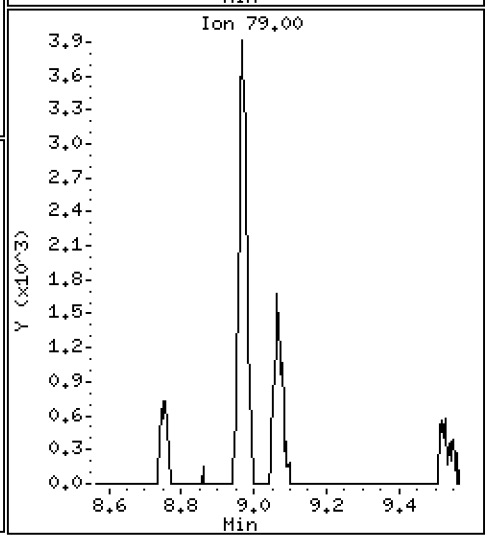












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 54

Date : 04-SEP-2018 17:39

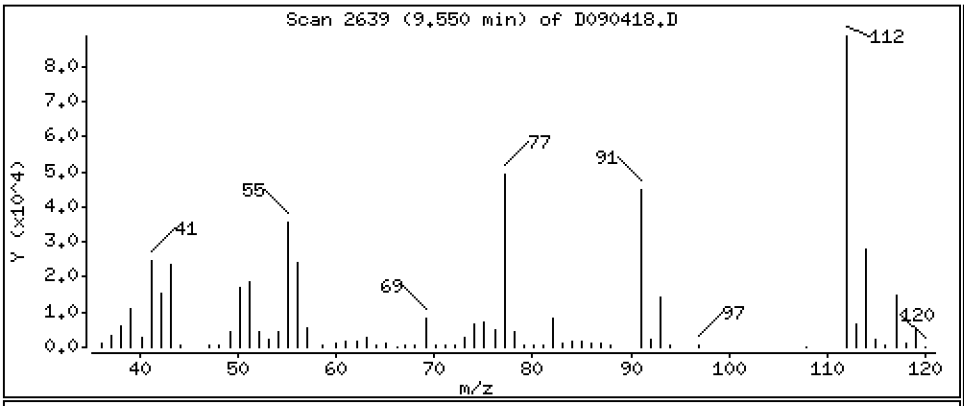
Client ID: HS18081504-01MS Instrument: VOA2.i

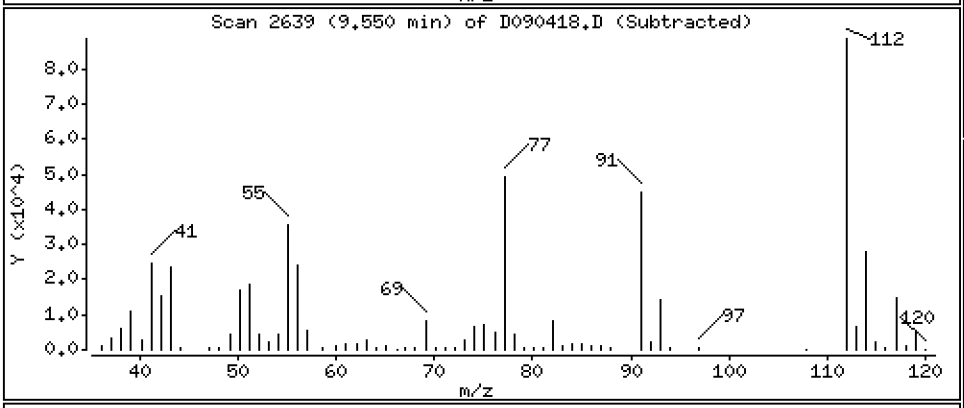
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

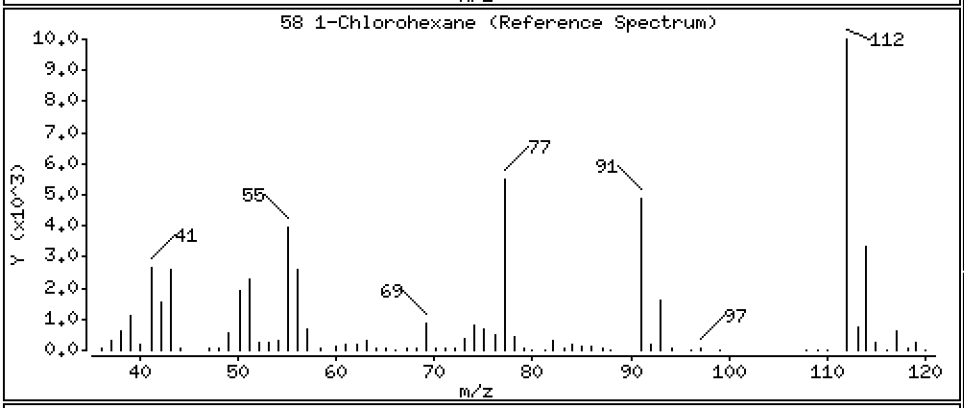
Purge Volume: 5.0 Operator: AP

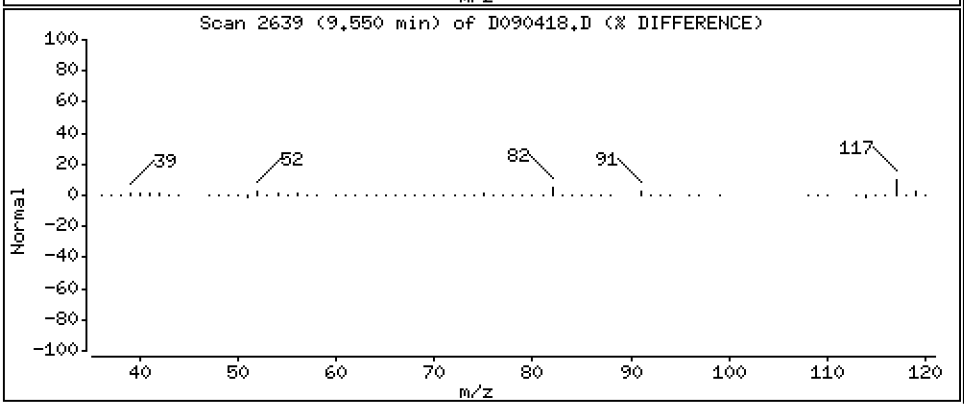
Column phase: DB624 Column diameter: 0.18

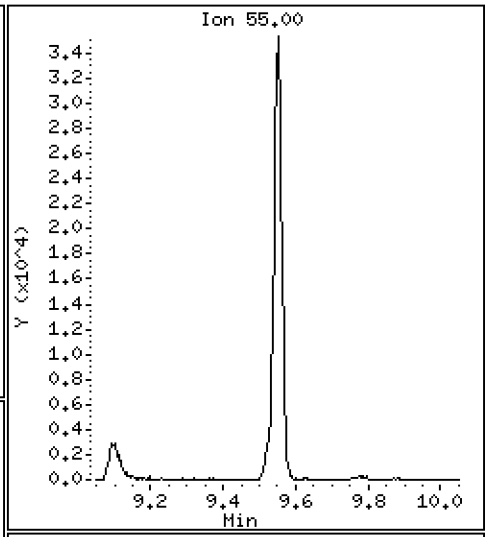
58 1-Chlorohexane Concentration: 19.76 ug/l Review Code:

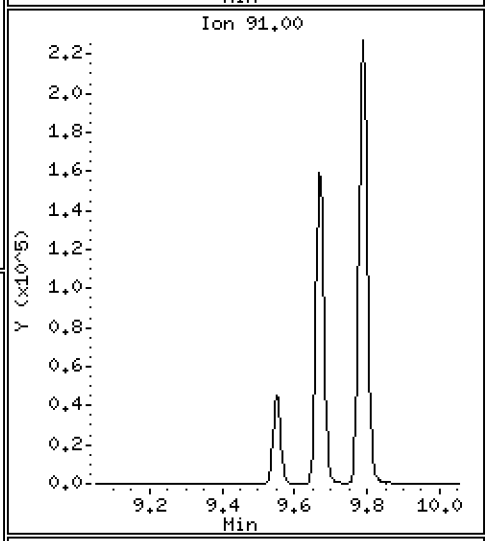


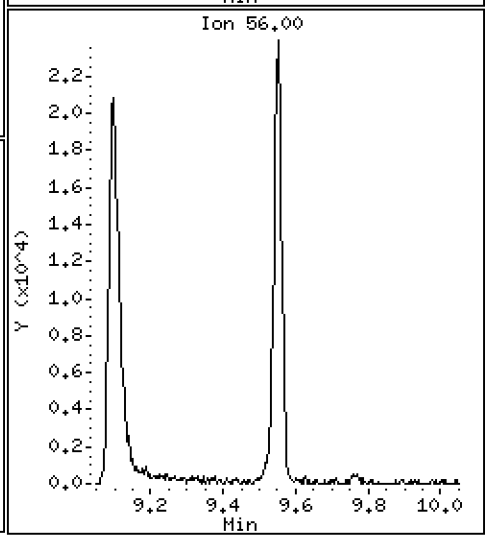












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 55

Date : 04-SEP-2018 17:39

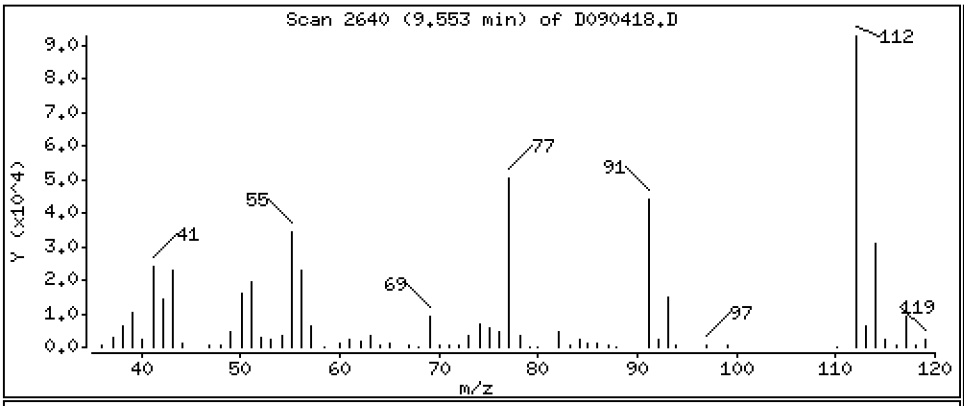
Client ID: HS18081504-01MS Instrument: VOA2.i

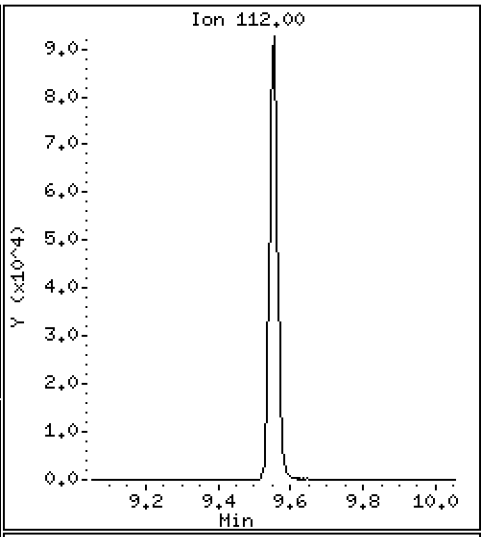
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

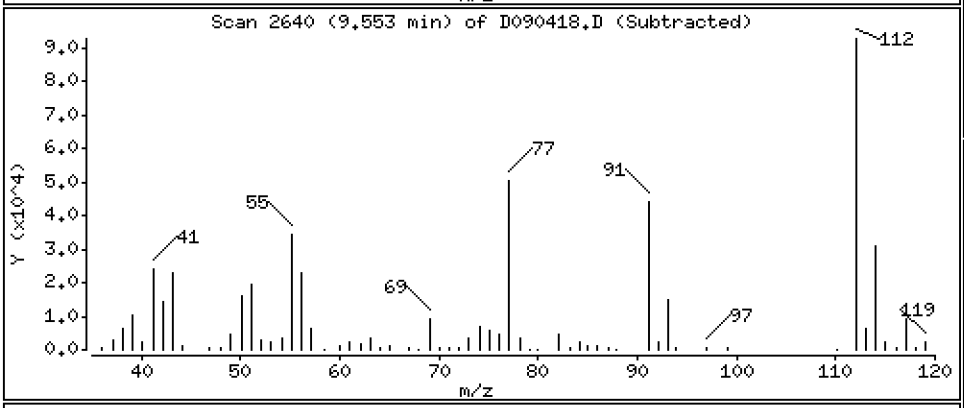
Purge Volume: 5.0 Operator: AP

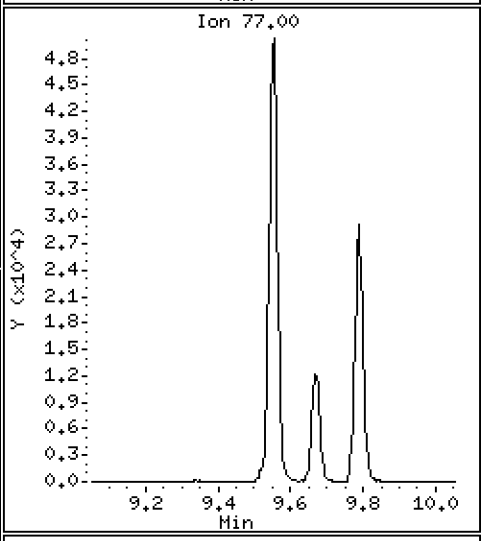
Column phase: DB624 Column diameter: 0.18

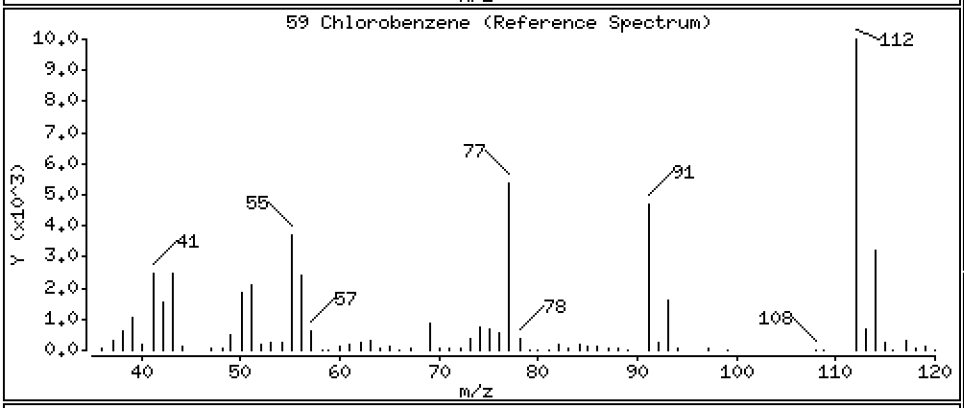
59 Chlorobenzene Concentration: 18.14 ug/l Review Code:

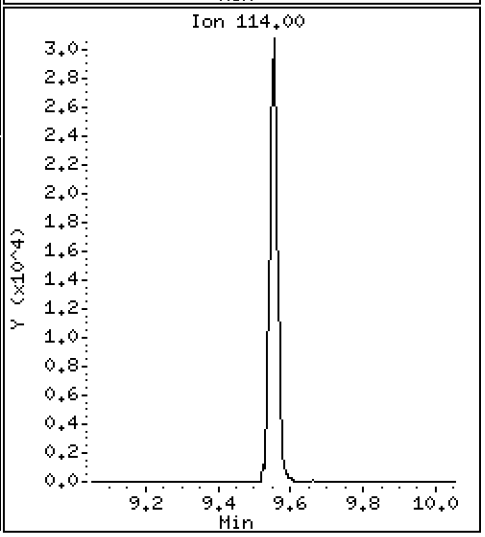


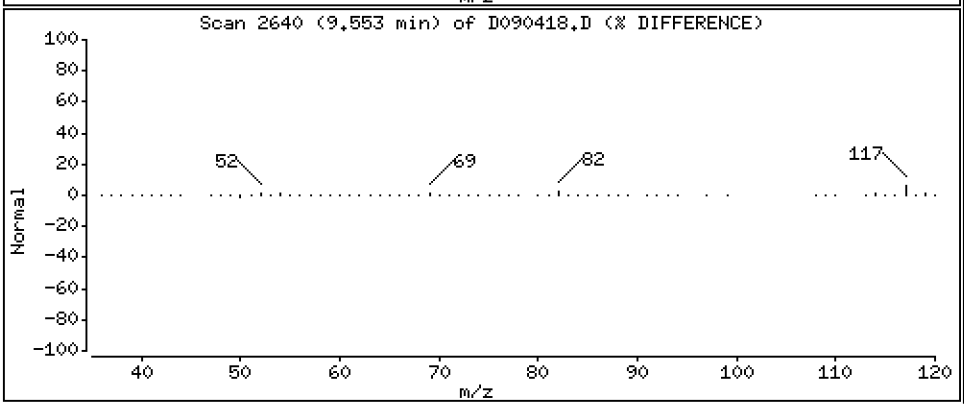












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 56

Date : 04-SEP-2018 17:39

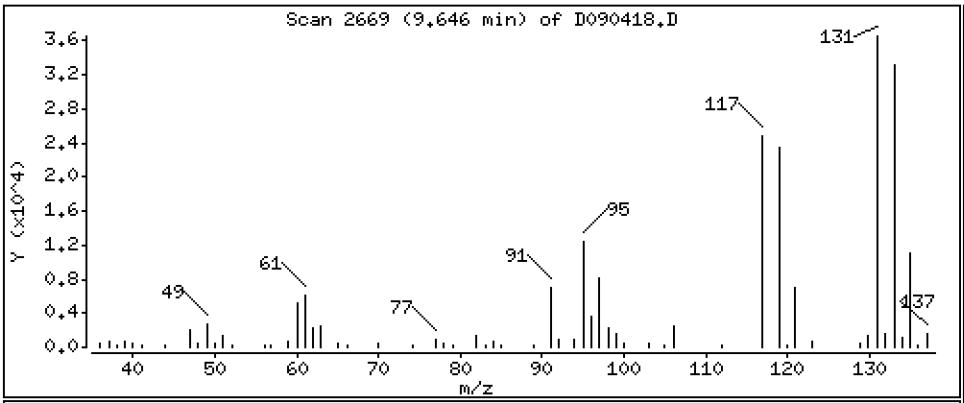
Client ID: HS18081504-01MS Instrument: VOA2.i

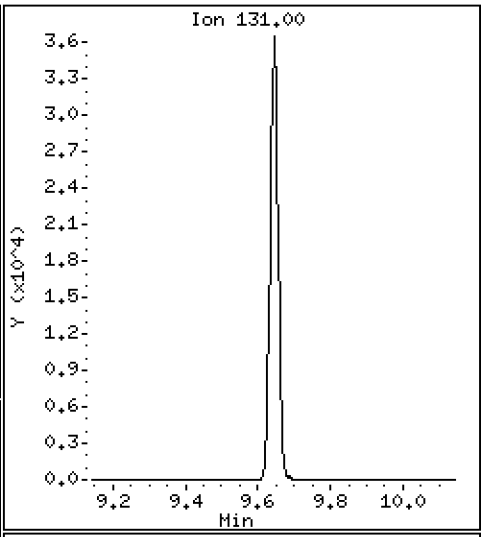
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

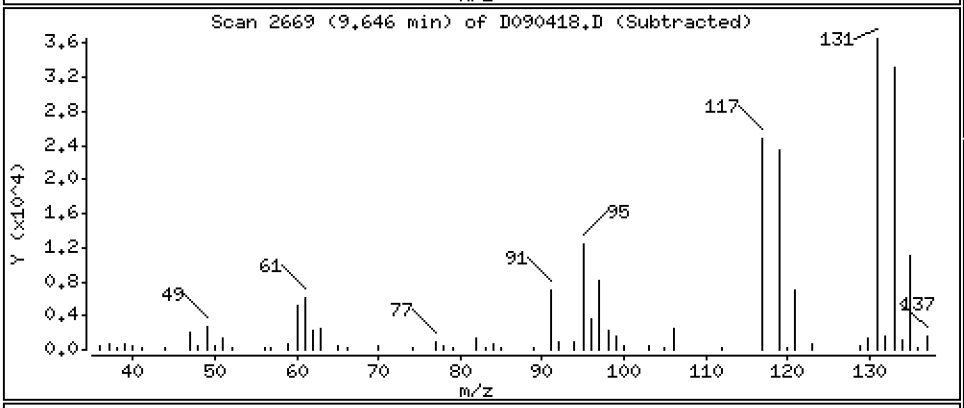
Purge Volume: 5.0 Operator: AP

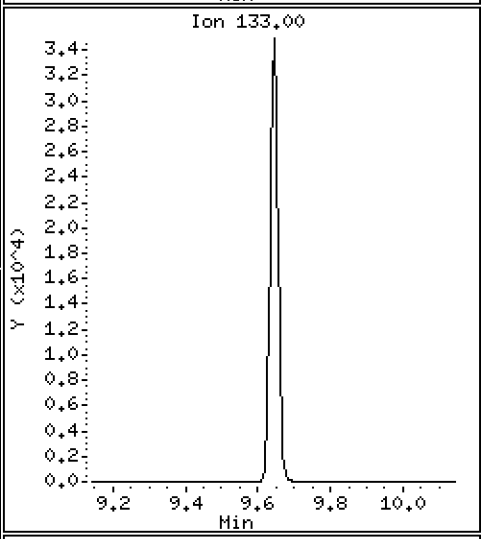
Column phase: DB624 Column diameter: 0.18

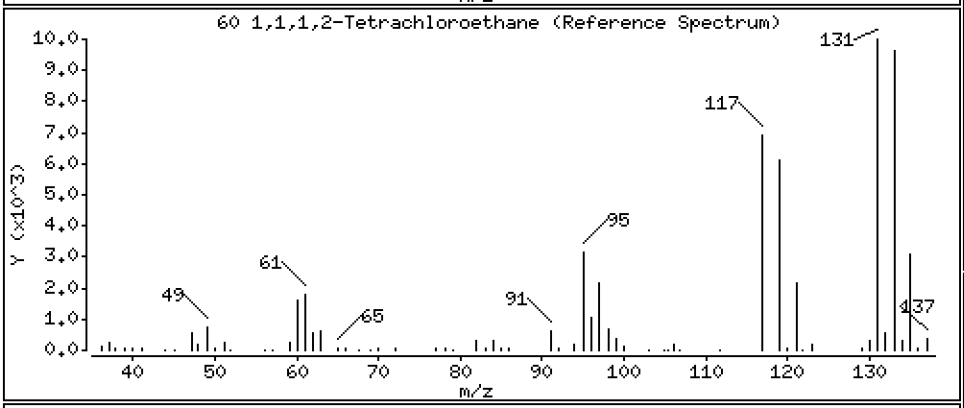
60 1,1,1,2-Tetrachloroethane Concentration: 18.12 ug/l Review Code:

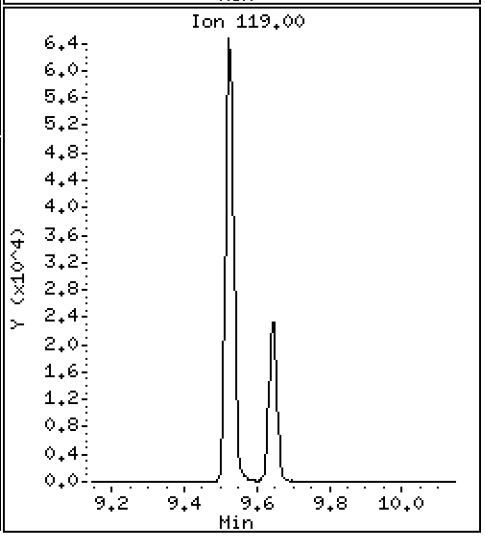


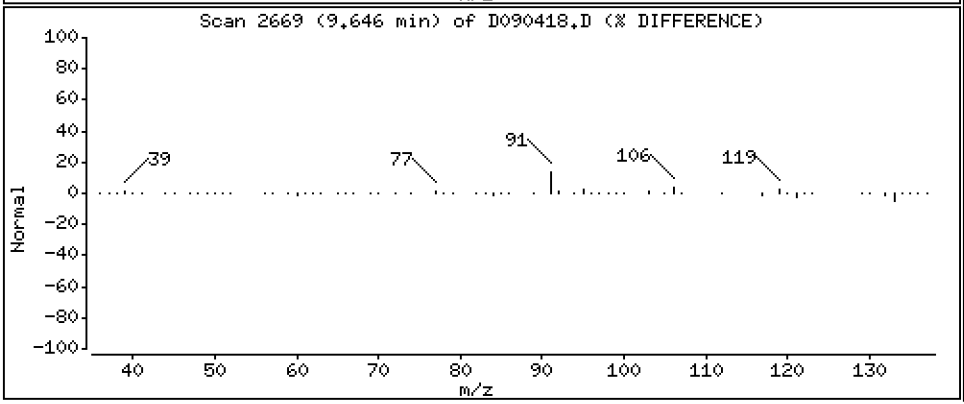












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 57

Date : 04-SEP-2018 17:39

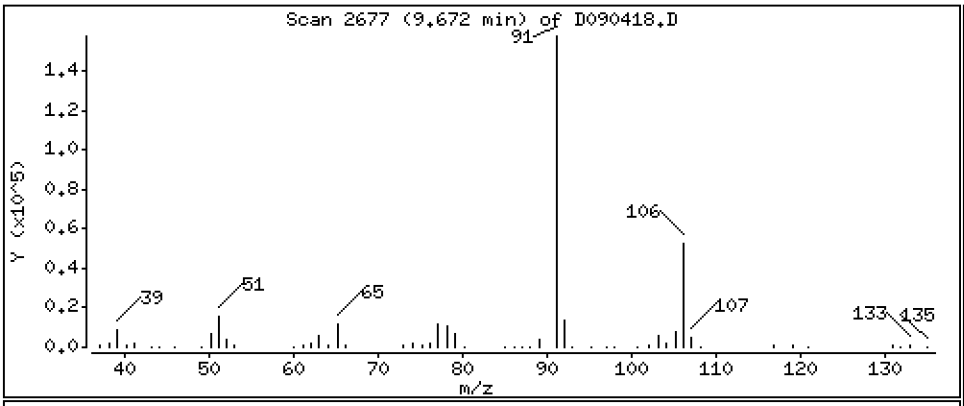
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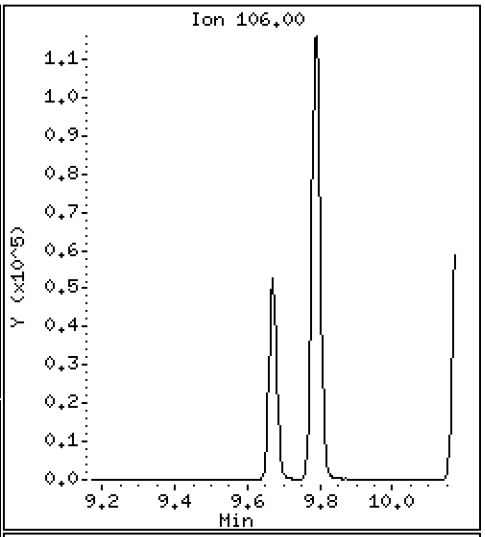
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

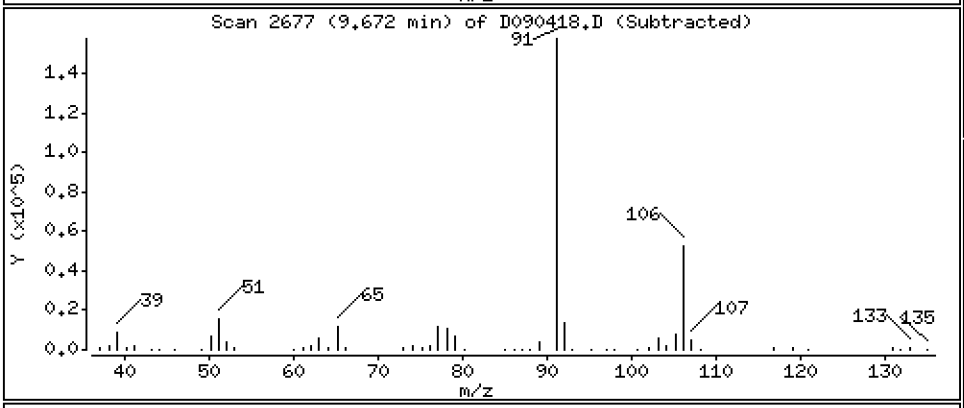
Purge Volume: 5.0 Operator: AP

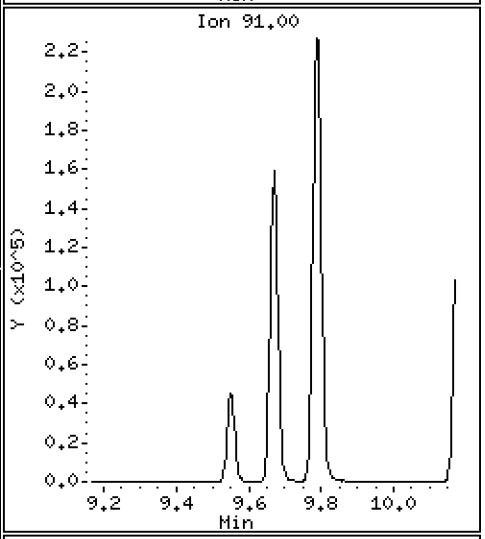
Column phase: DB624 Column diameter: 0.18

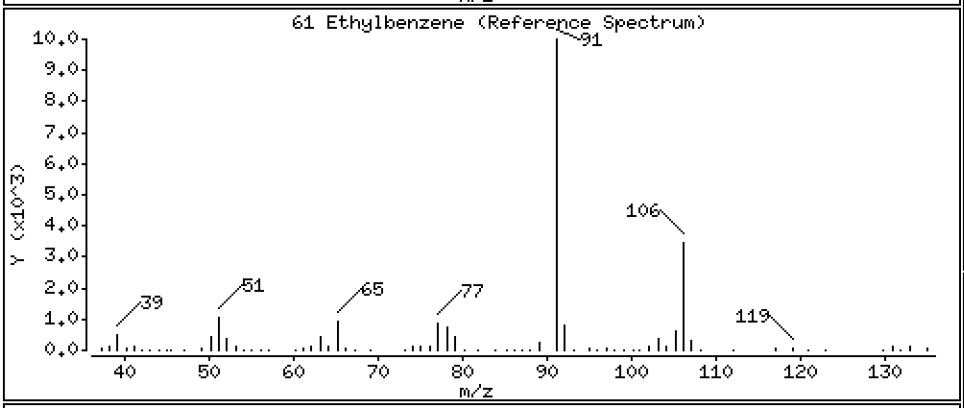
61 Ethylbenzene Concentration: 19.84 ug/l Review Code:

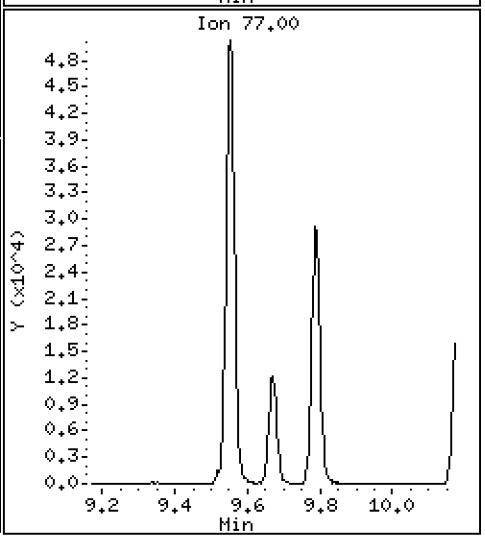


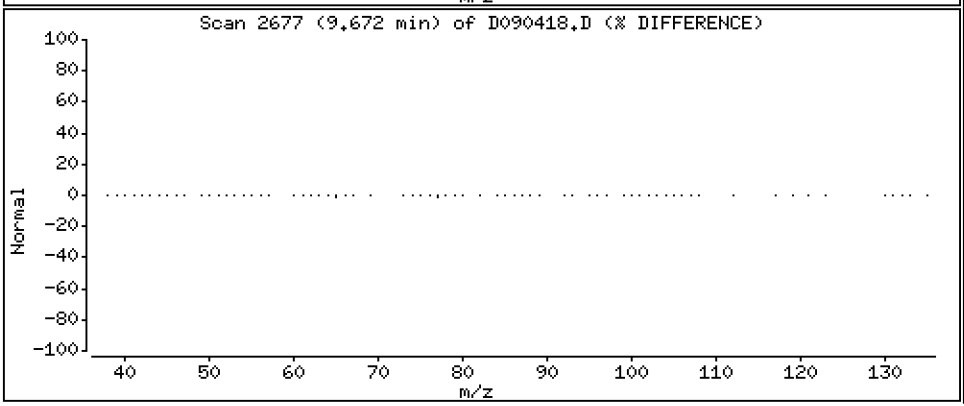












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 58

Date : 04-SEP-2018 17:39

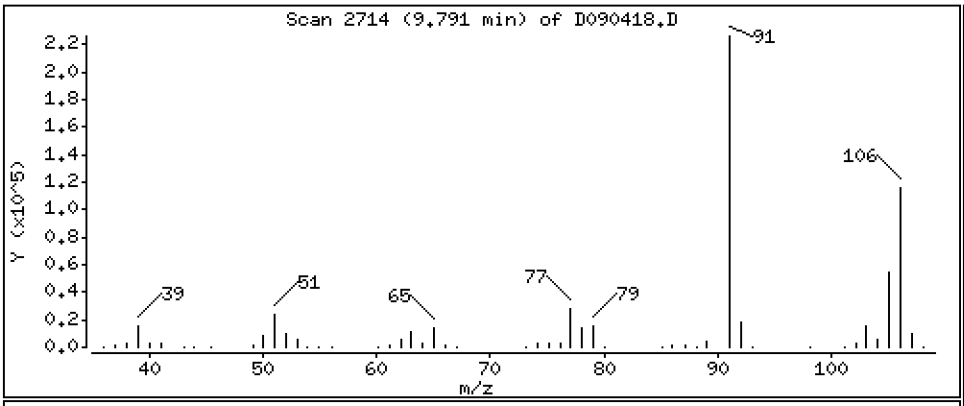
Client ID: HS18081504-01MS Instrument: VOA2.i

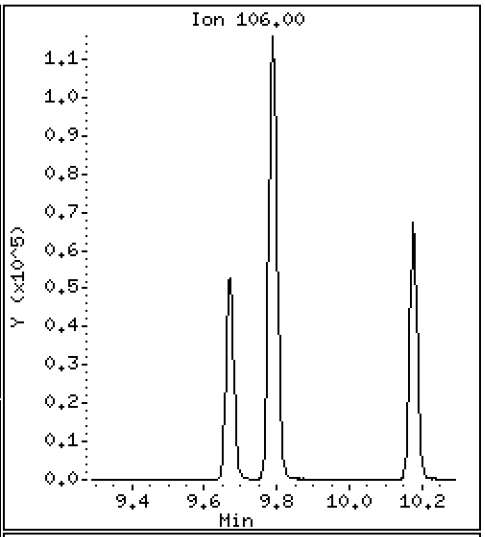
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

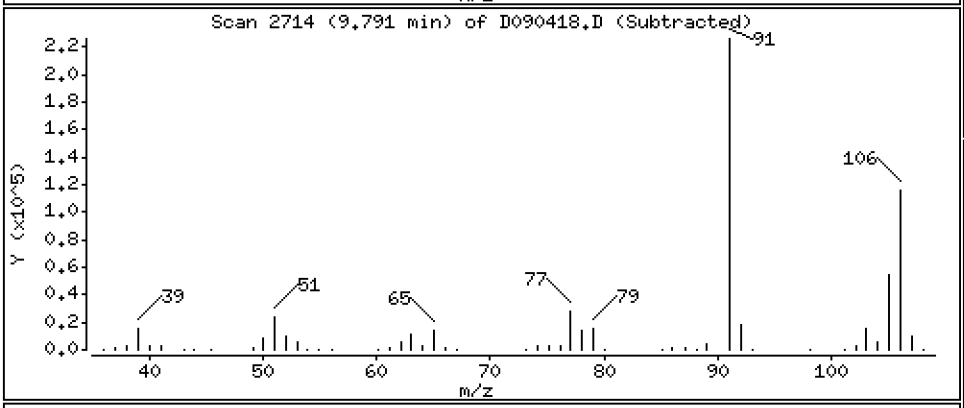
Purge Volume: 5.0 Operator: AP

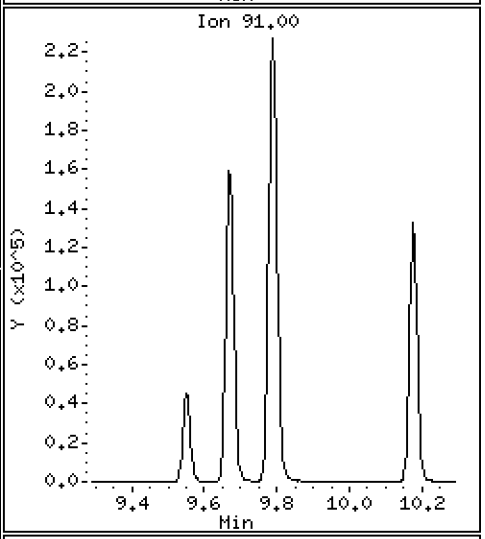
Column phase: DB624 Column diameter: 0.18

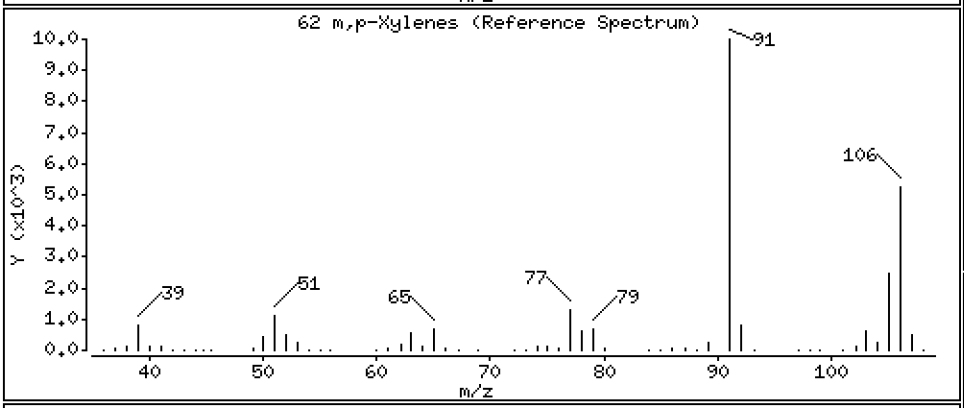
62 m,p-Xylenes Concentration: 39.14 ug/l Review Code:

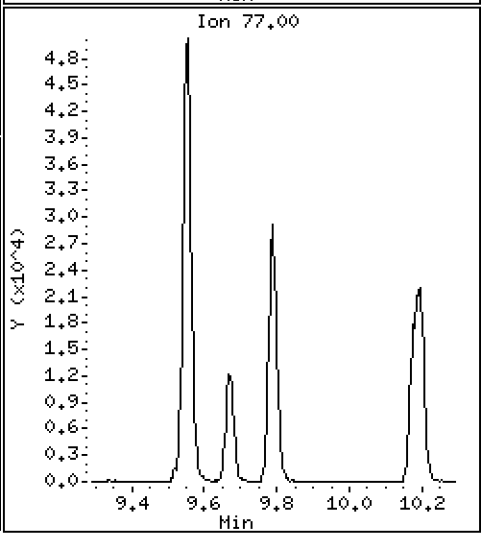


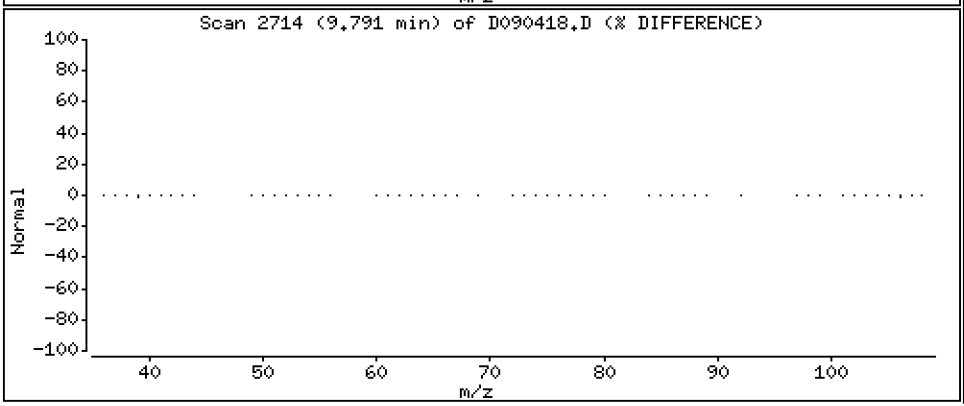












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 59

Date : 04-SEP-2018 17:39

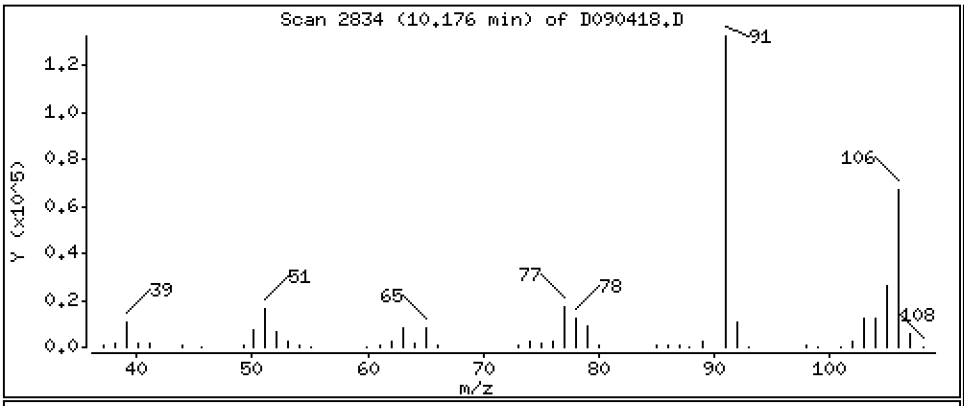
Client ID: HS18081504-01MS Instrument: VOA2.i

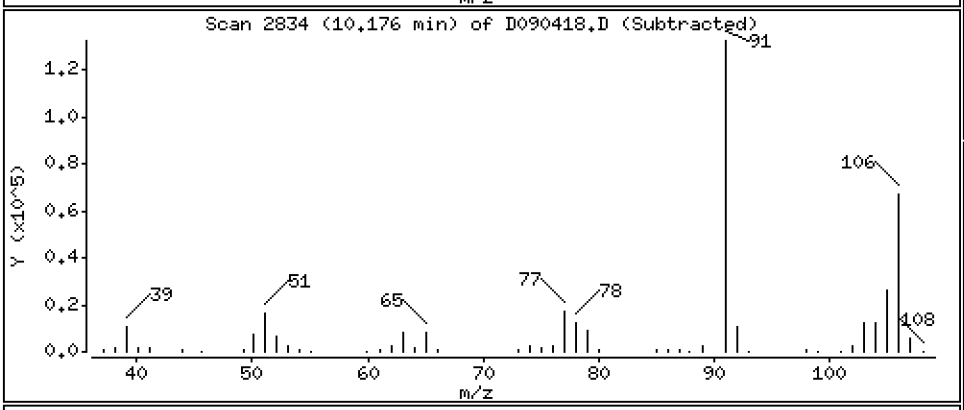
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

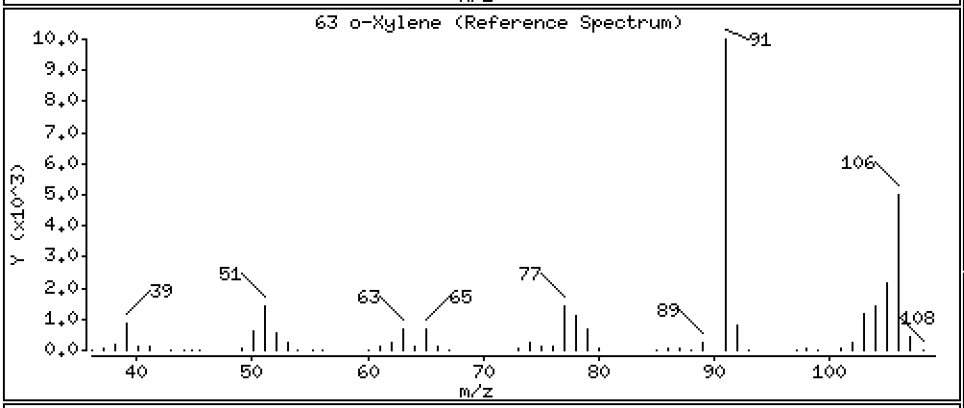
Purge Volume: 5.0 Operator: AP

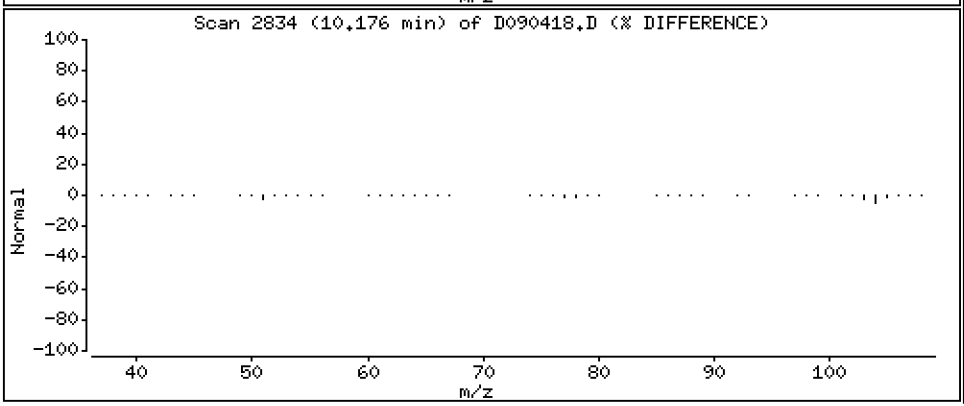
Column phase: DB624 Column diameter: 0.18

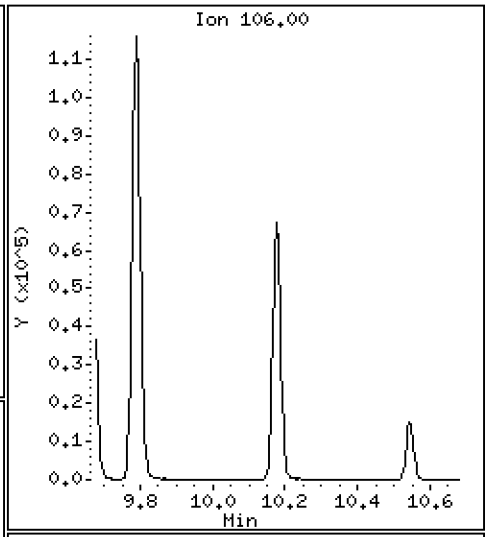
63 o-Xylene Concentration: 19.48 ug/l Review Code:

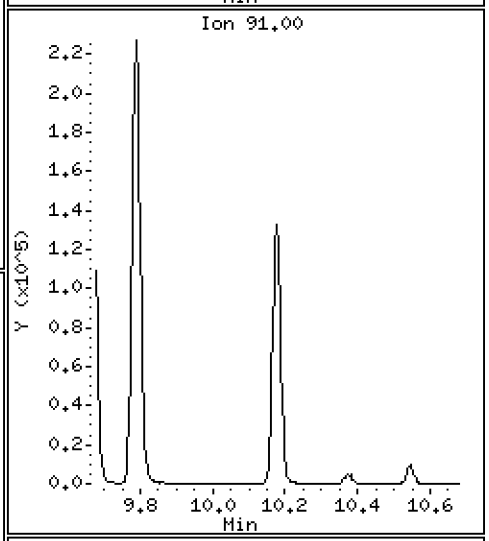


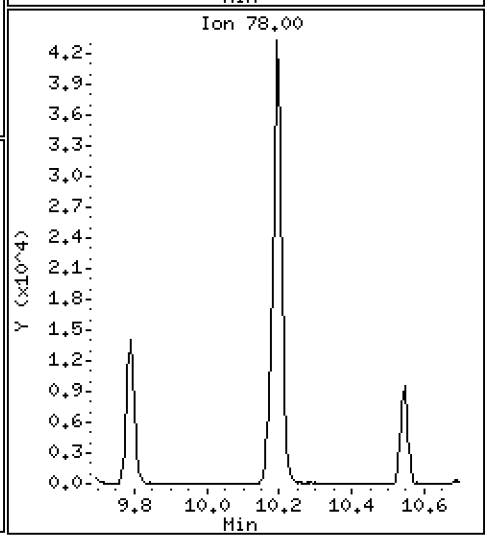












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 60

Date : 04-SEP-2018 17:39

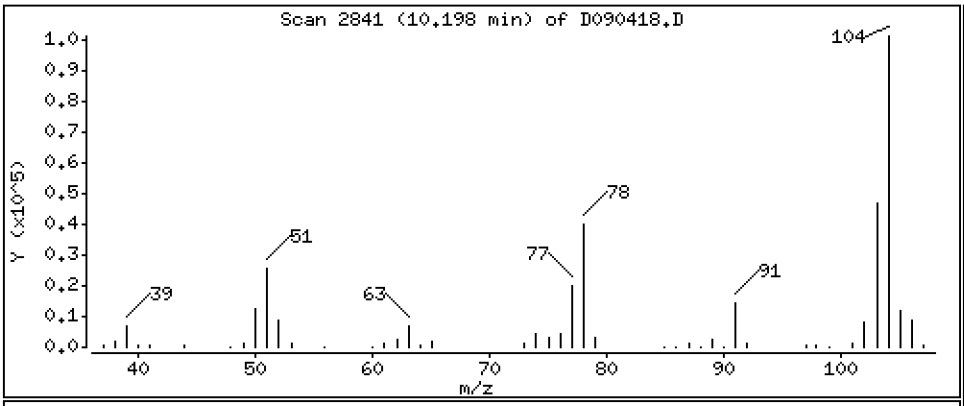
Client ID: HS18081504-01MS Instrument: VOA2.i

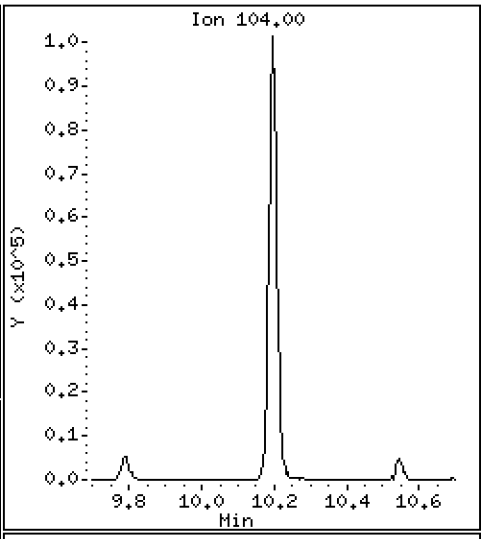
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

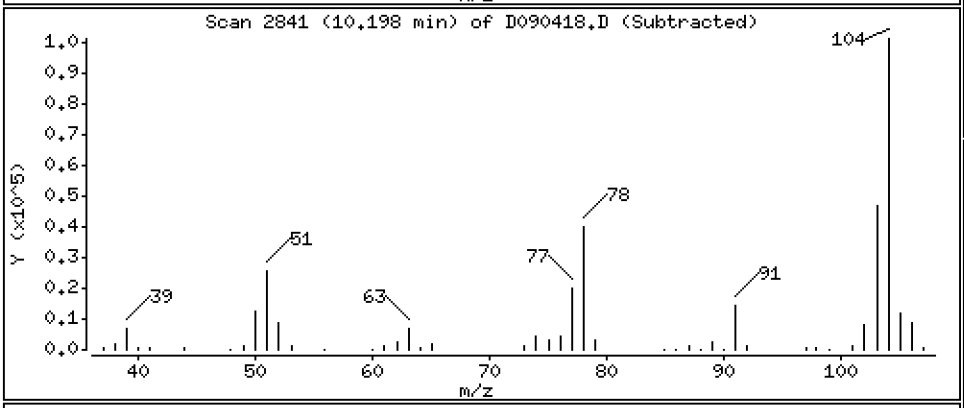
Purge Volume: 5.0 Operator: AP

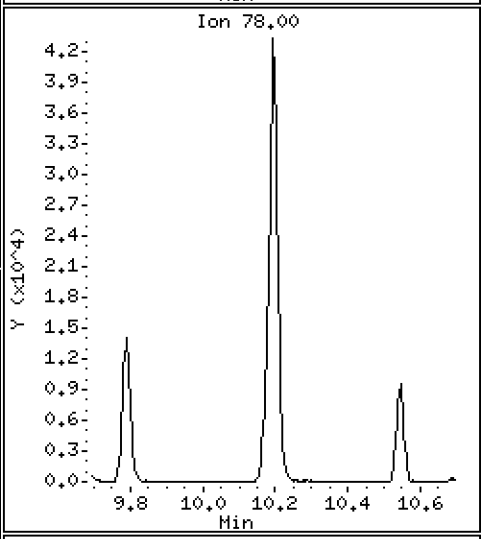
Column phase: DB624 Column diameter: 0.18

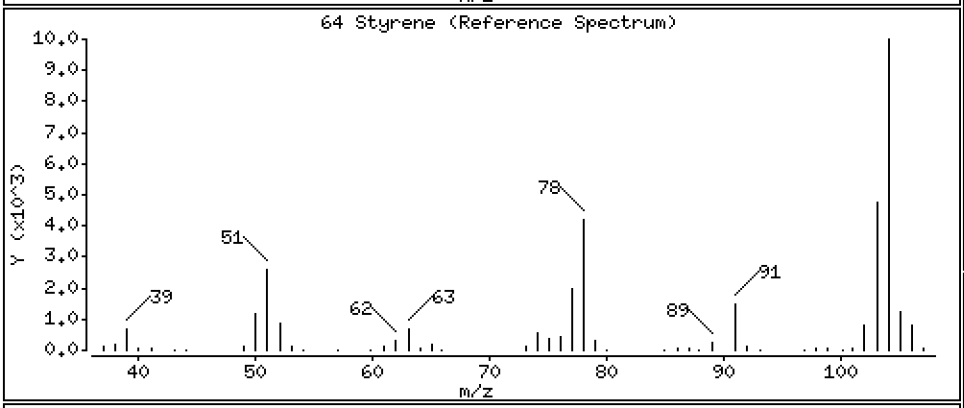
64 Styrene Concentration: 18.64 ug/l Review Code:

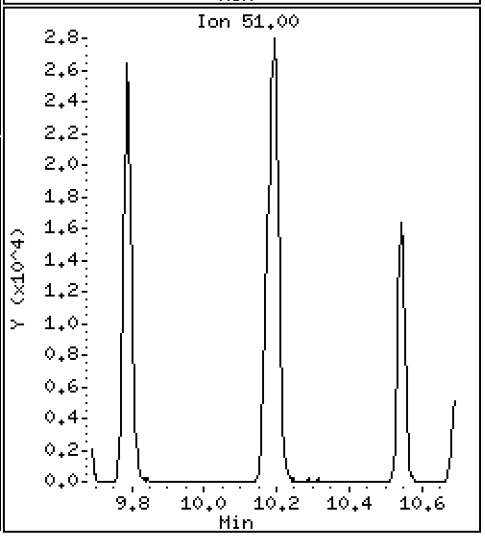


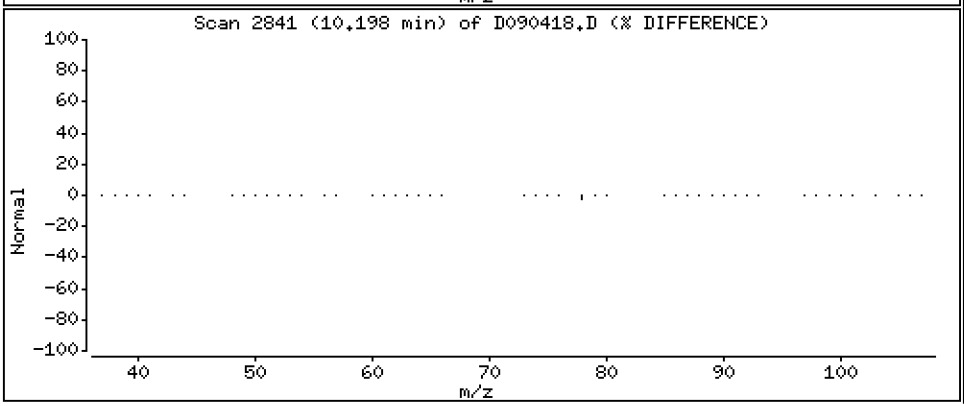












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 61

Date : 04-SEP-2018 17:39

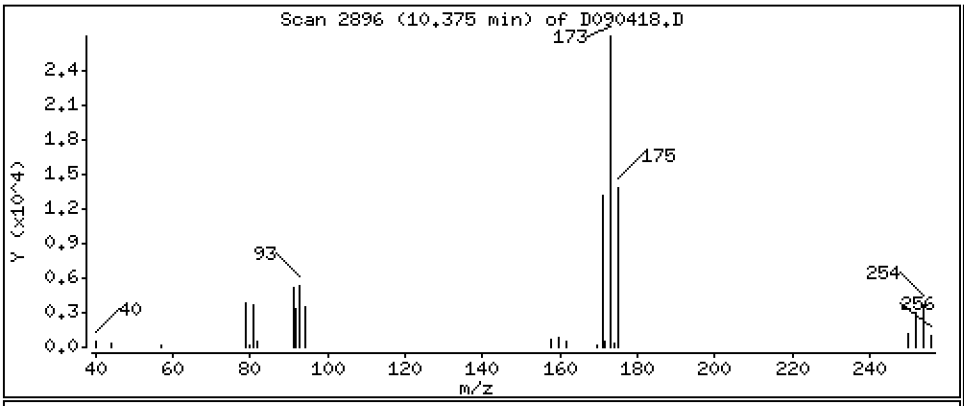
Client ID: HS18081504-01MS Instrument: VOA2.i

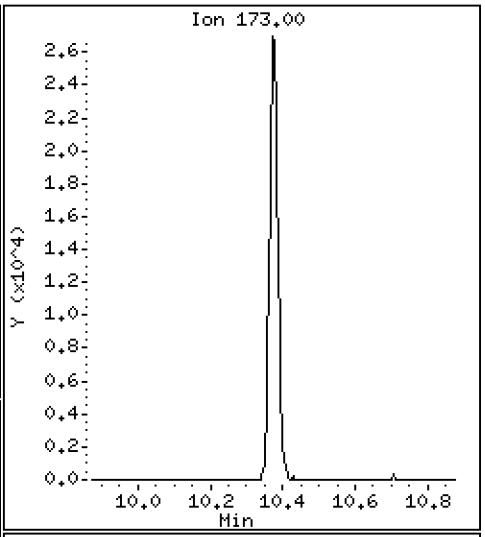
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

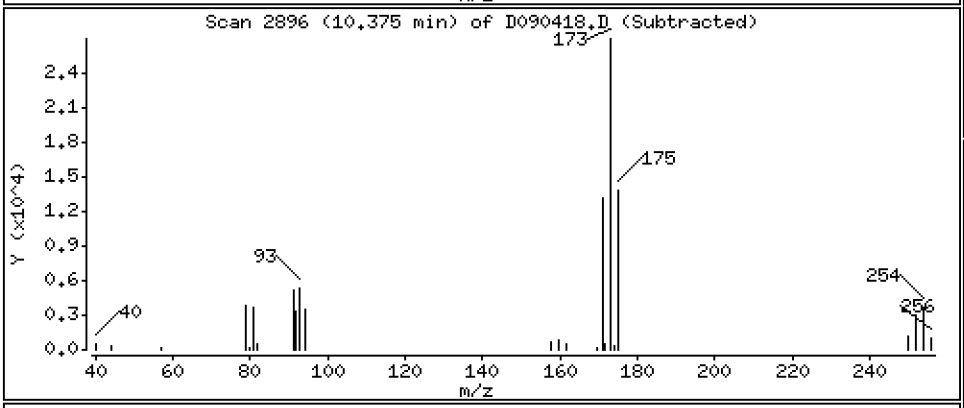
Purge Volume: 5.0 Operator: AP

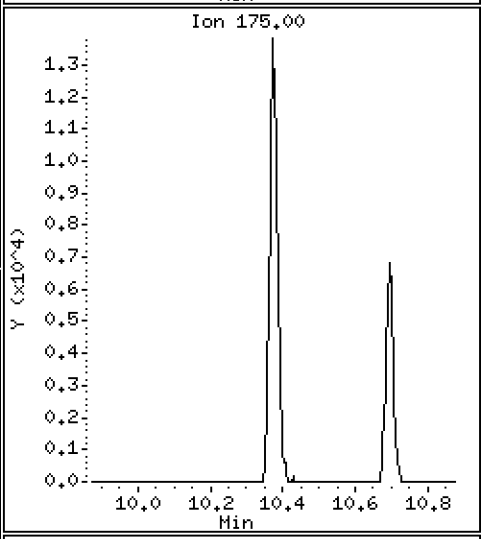
Column phase: DB624 Column diameter: 0.18

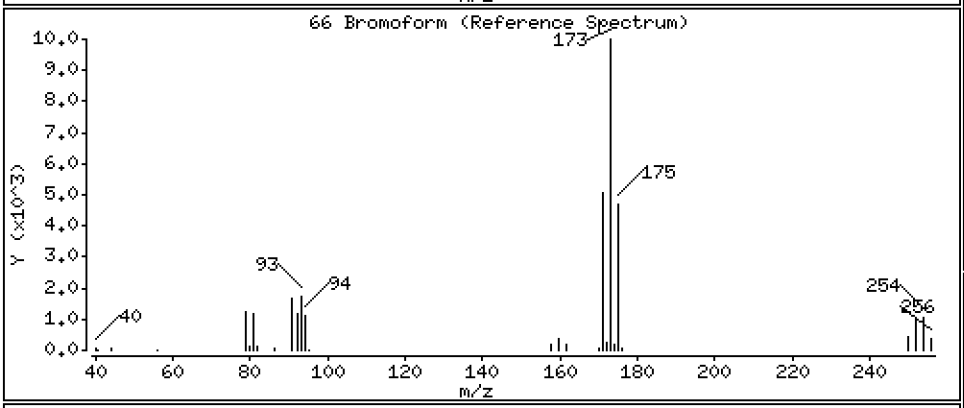
66 Bromoform Concentration: 18.06 ug/l Review Code:

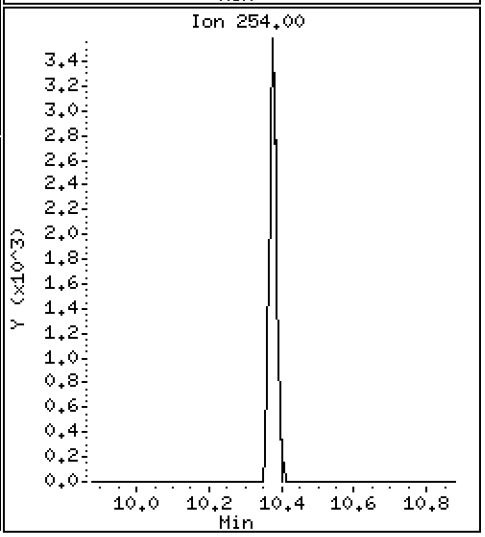


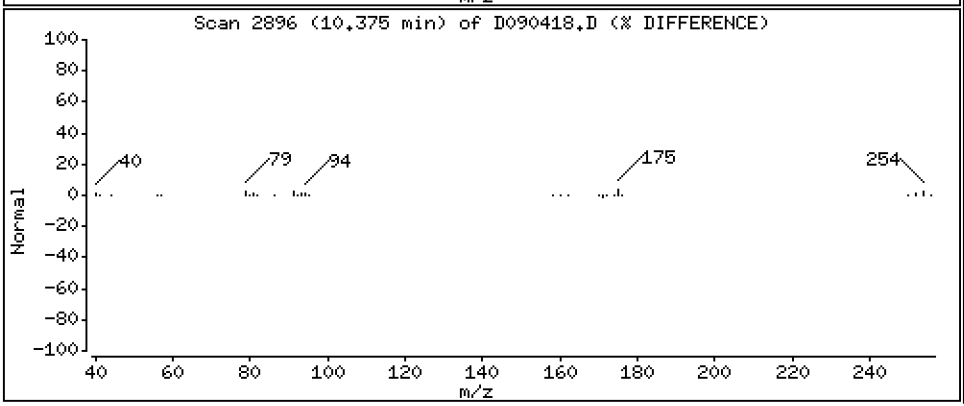












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 62

Date : 04-SEP-2018 17:39

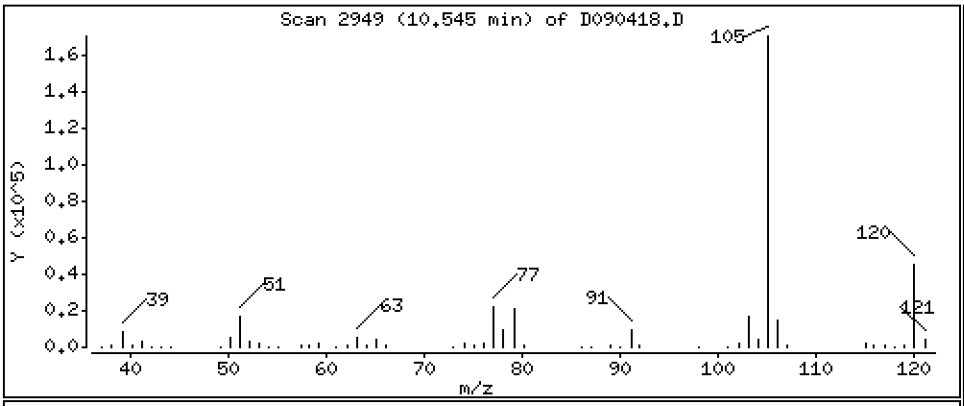
Client ID: HS18081504-01MS Instrument: VOA2.i

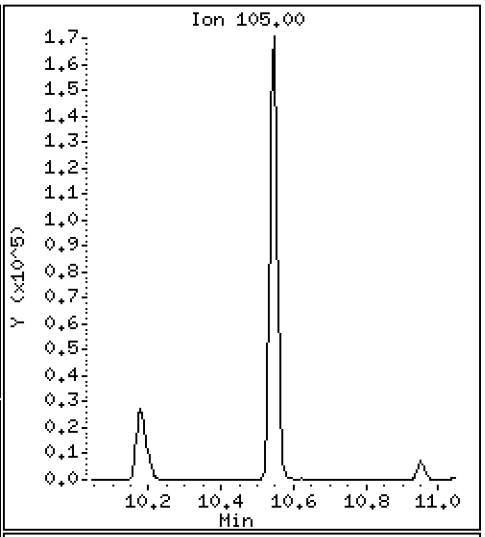
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

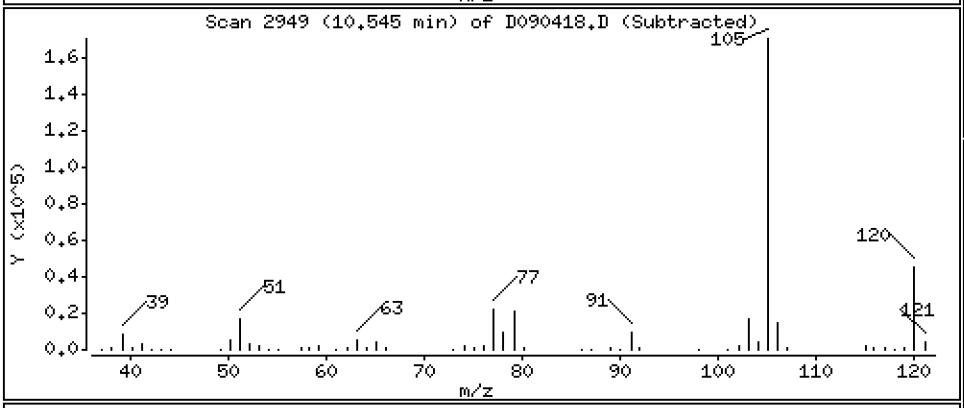
Purge Volume: 5.0 Operator: AP

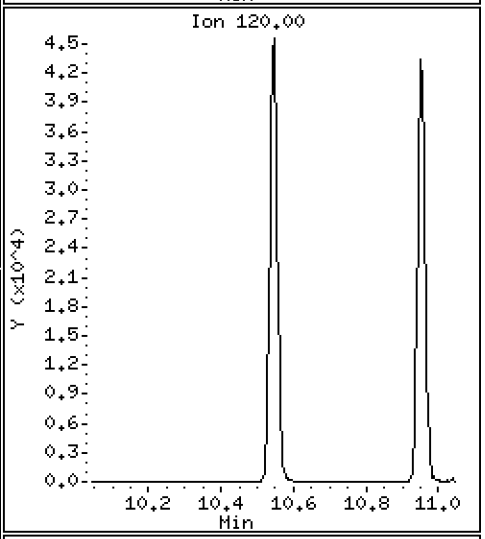
Column phase: DB624 Column diameter: 0.18

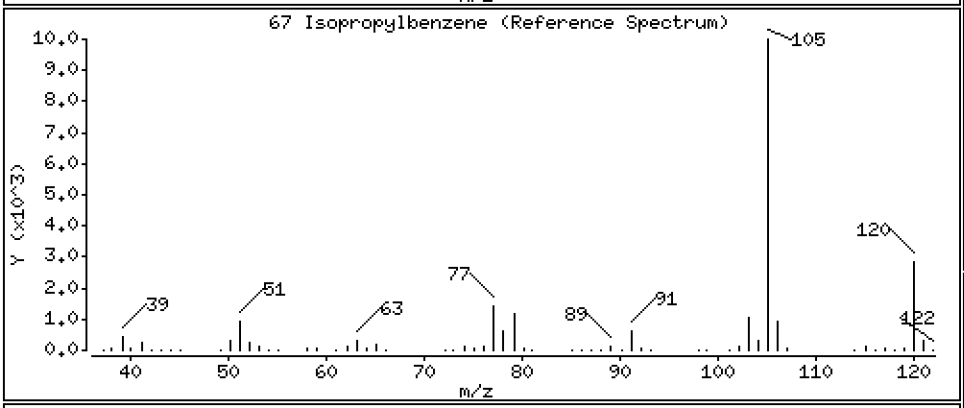
67 Isopropylbenzene Concentration: 18.28 ug/l Review Code:

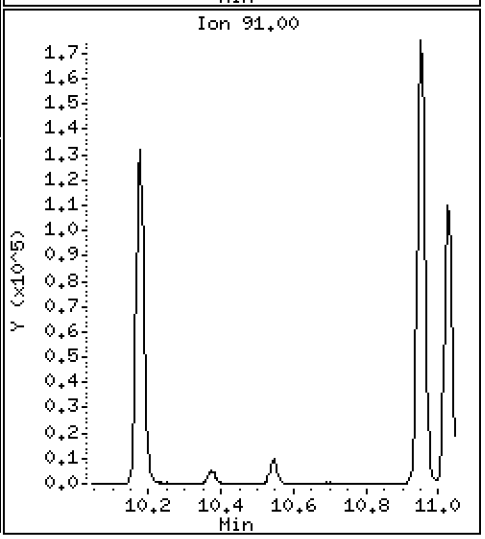


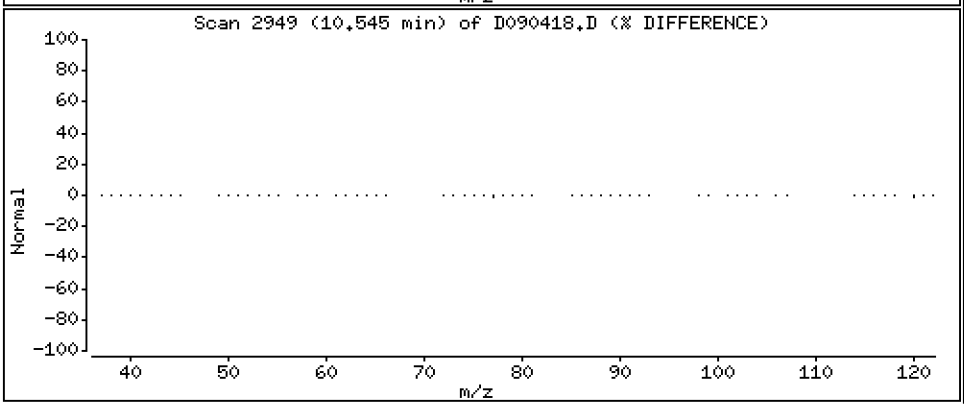












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 63

Date : 04-SEP-2018 17:39

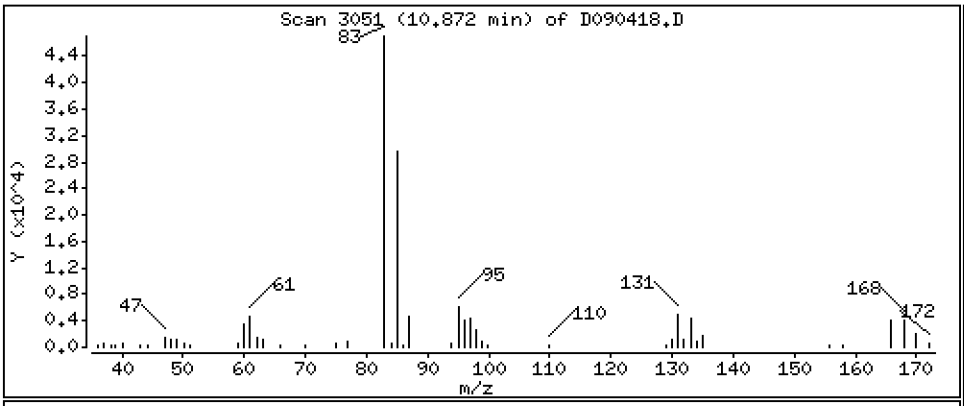
Client ID: HS18081504-01MS Instrument: VOA2.i

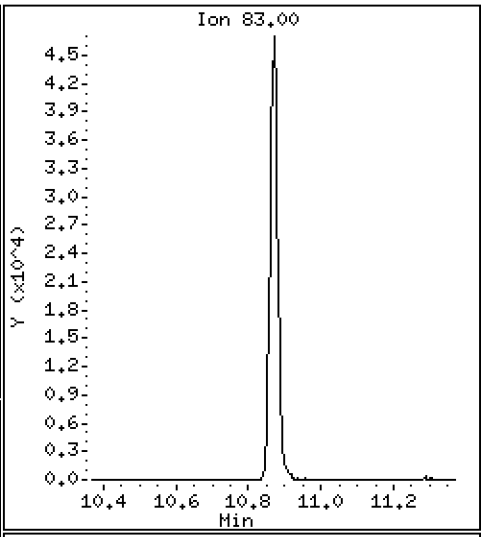
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

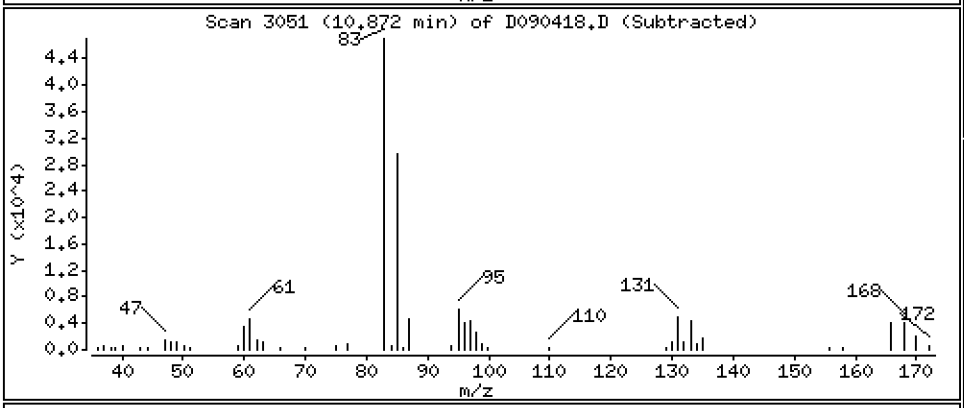
Purge Volume: 5.0 Operator: AP

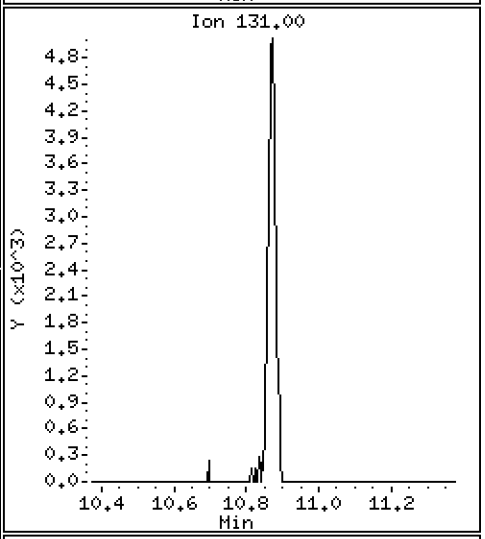
Column phase: DB624 Column diameter: 0.18

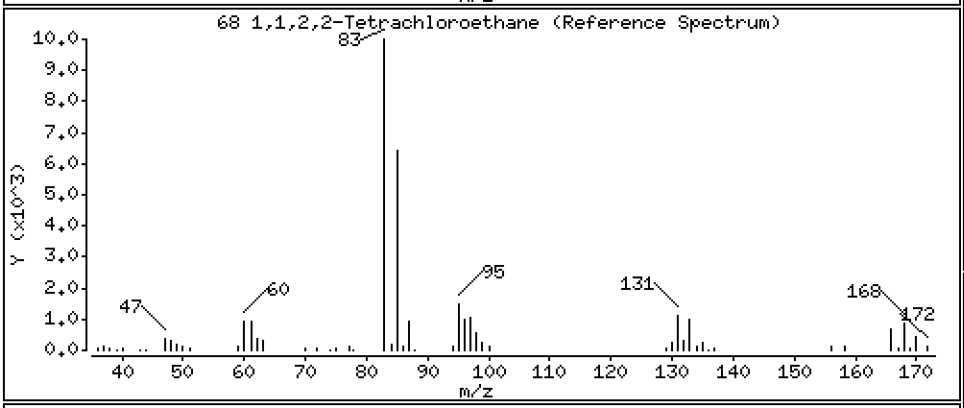
68 1,1,2,2-Tetrachloroethane Concentration: 15.54 ug/l Review Code:

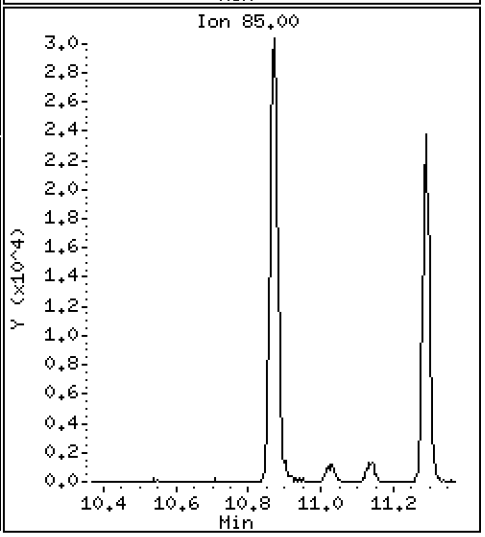


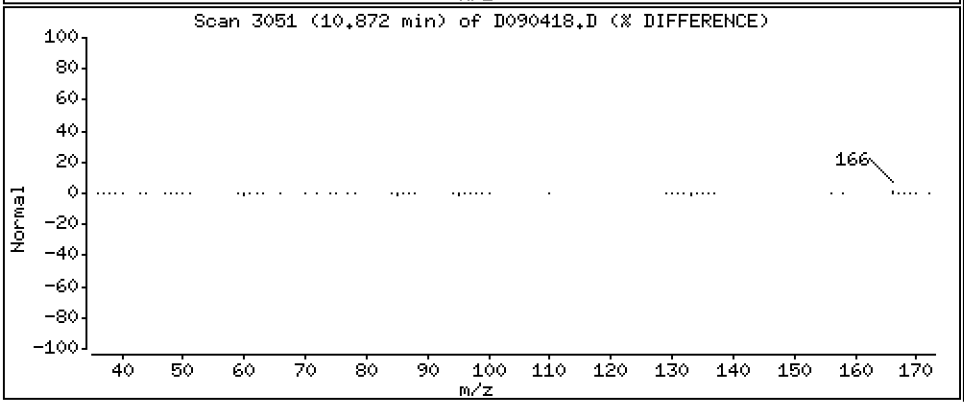












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 64

Date : 04-SEP-2018 17:39

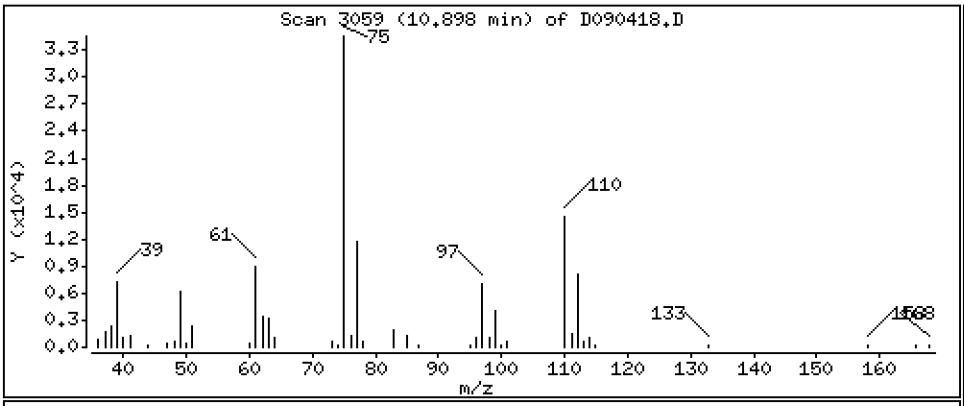
Client ID: HS18081504-01MS Instrument: VOA2.i

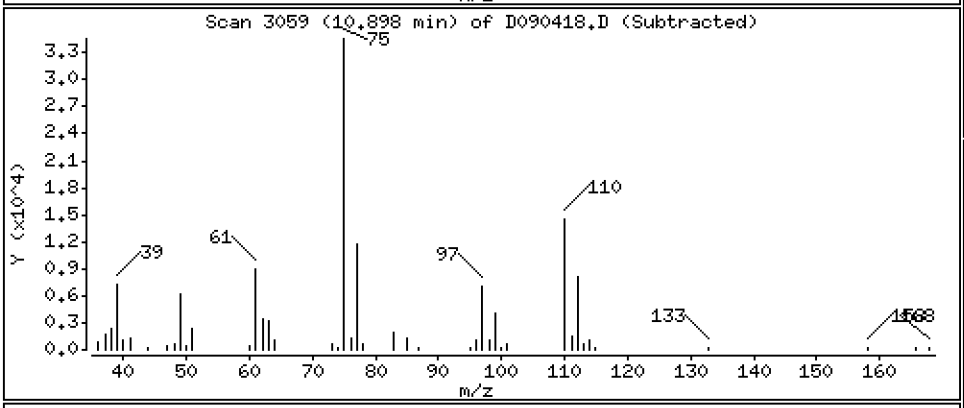
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

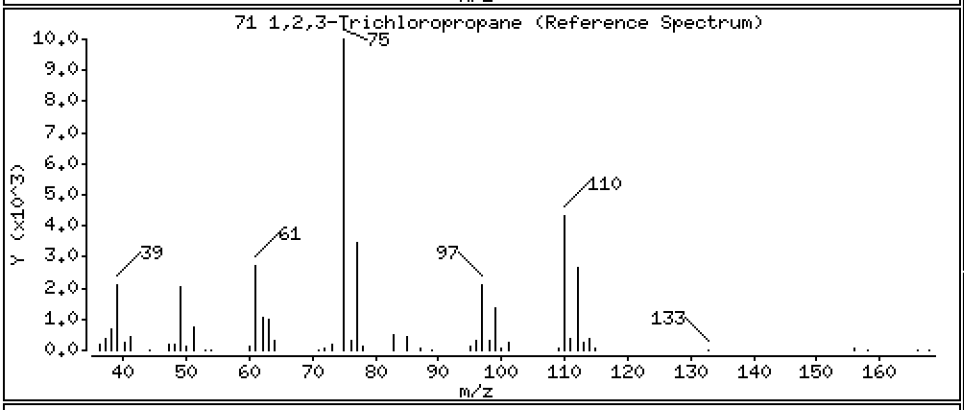
Purge Volume: 5.0 Operator: AP

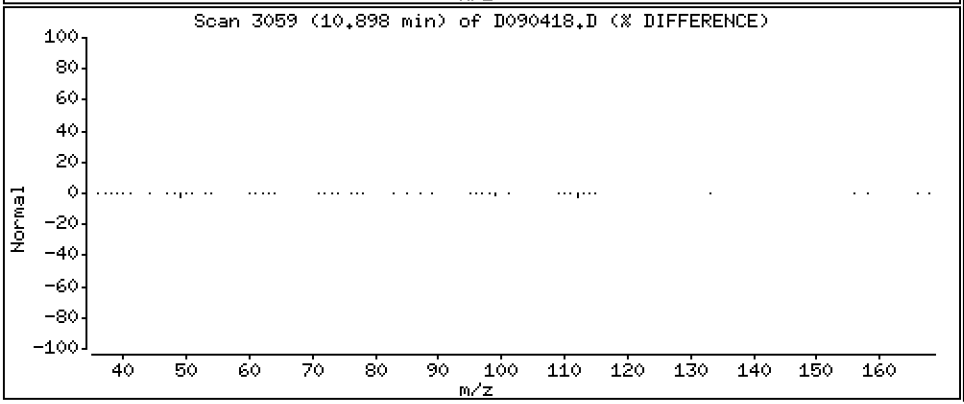
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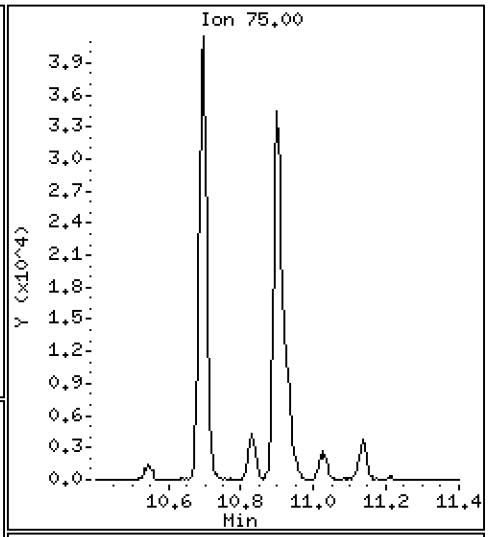
71 1,2,3-Trichloropropane Concentration: 15.98 ug/l Review Code:

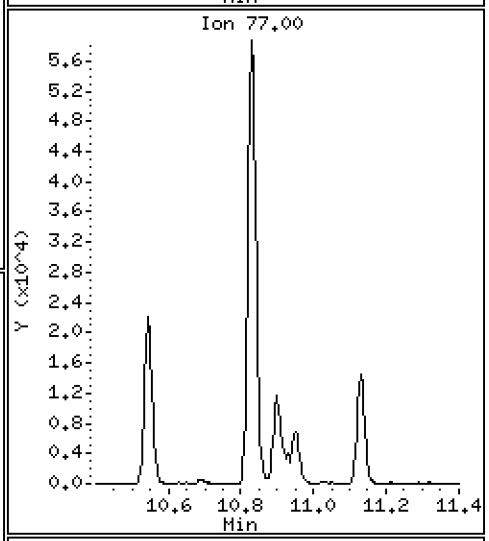


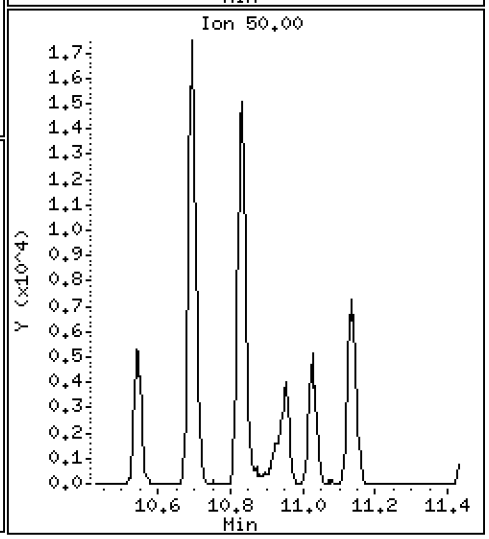












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 65

Date : 04-SEP-2018 17:39

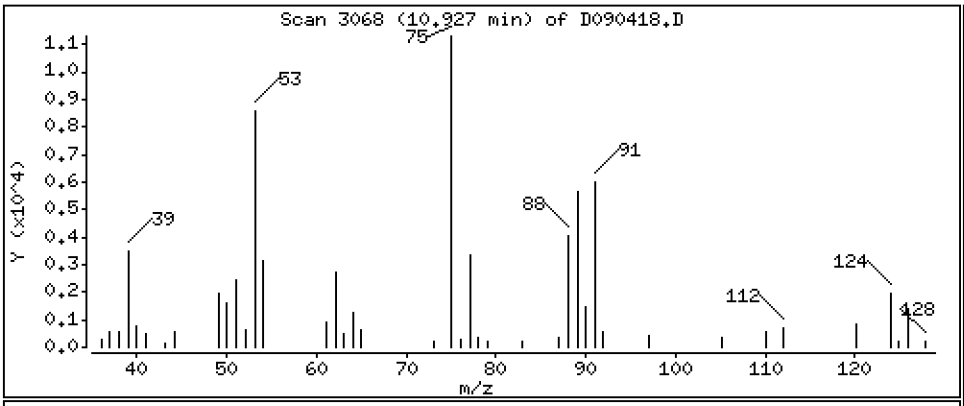
Client ID: HS18081504-01MS Instrument: VOA2.i

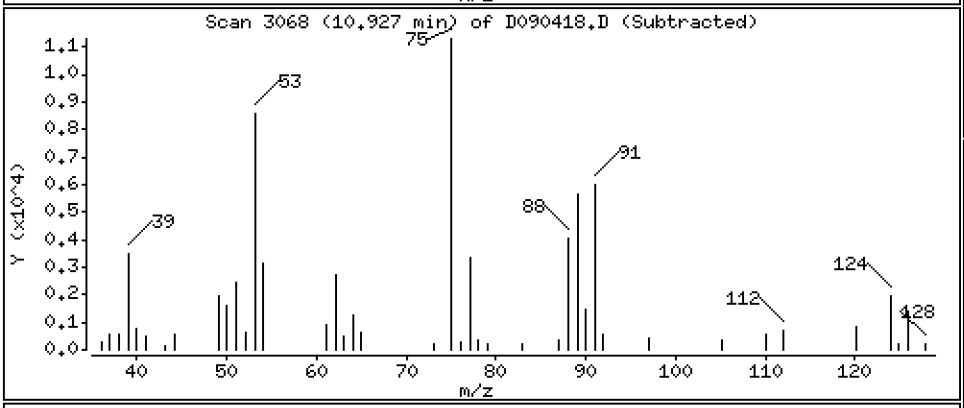
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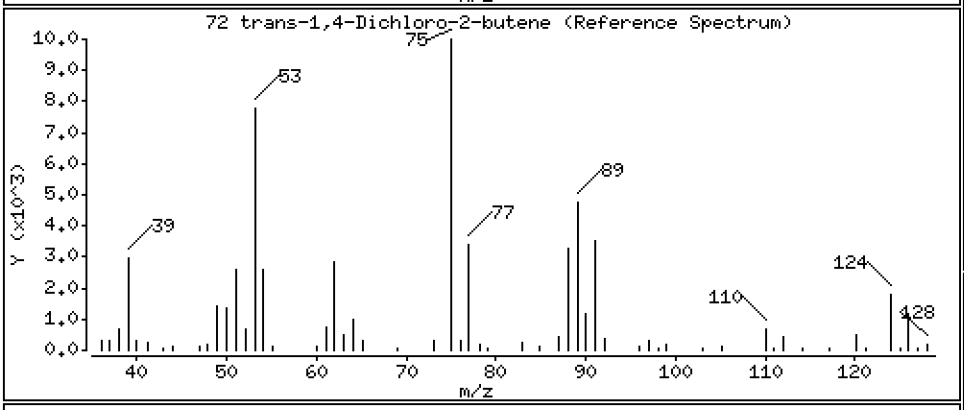
Purge Volume: 5.0 Operator: AP

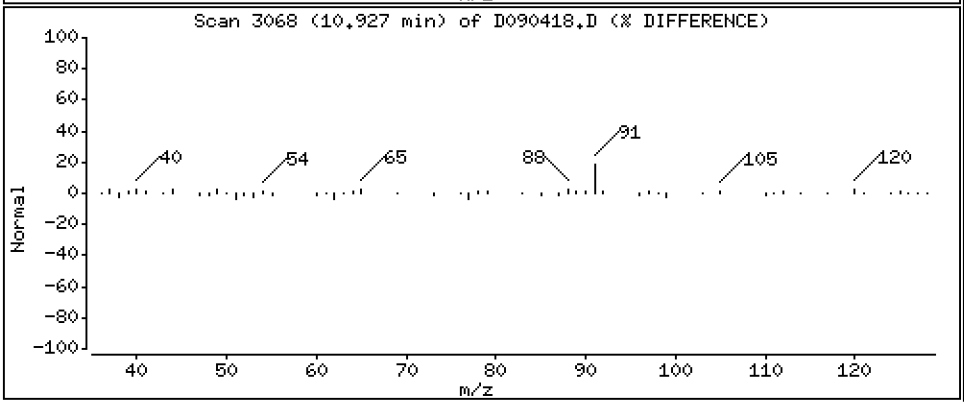
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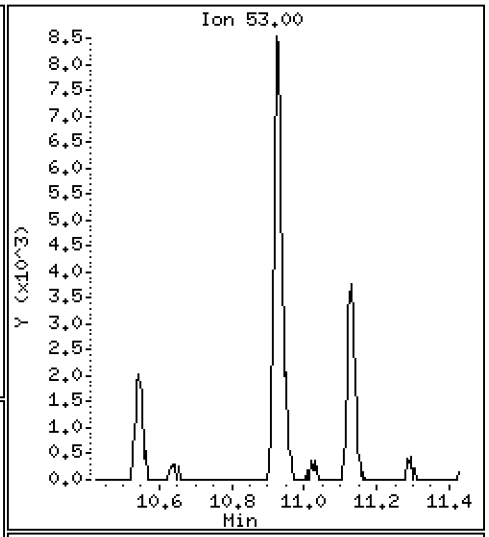
72 trans-1,4-Dichloro-2-butene Concentration: 16.32 ug/l Review Code:

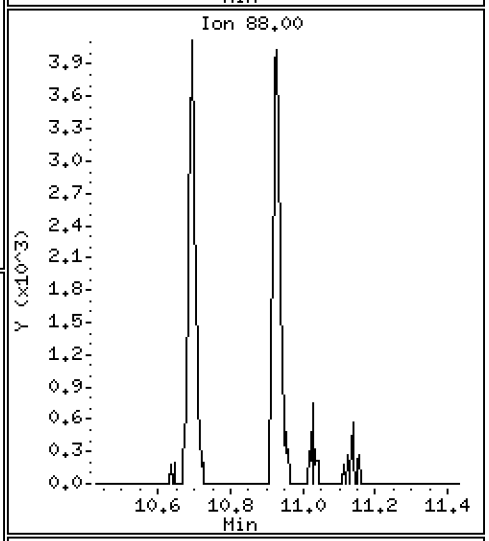


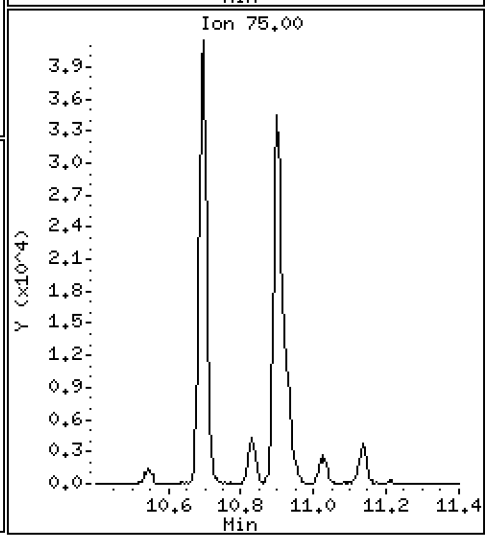












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 66

Date : 04-SEP-2018 17:39

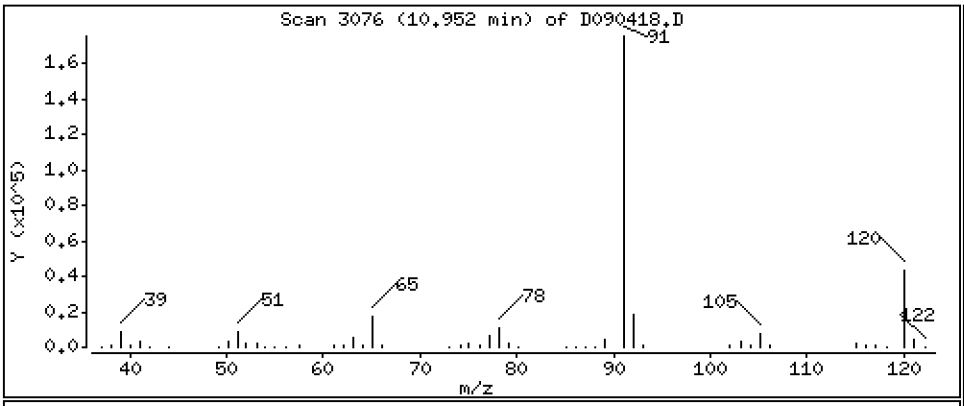
Client ID: HS18081504-01MS Instrument: VOA2.i

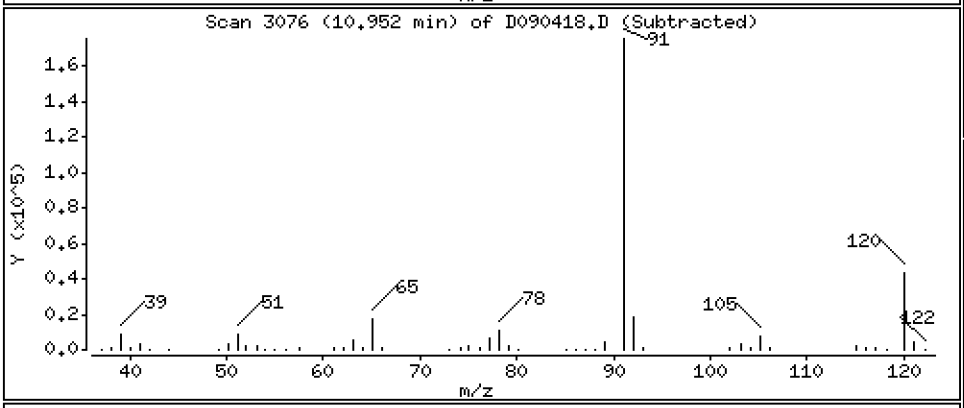
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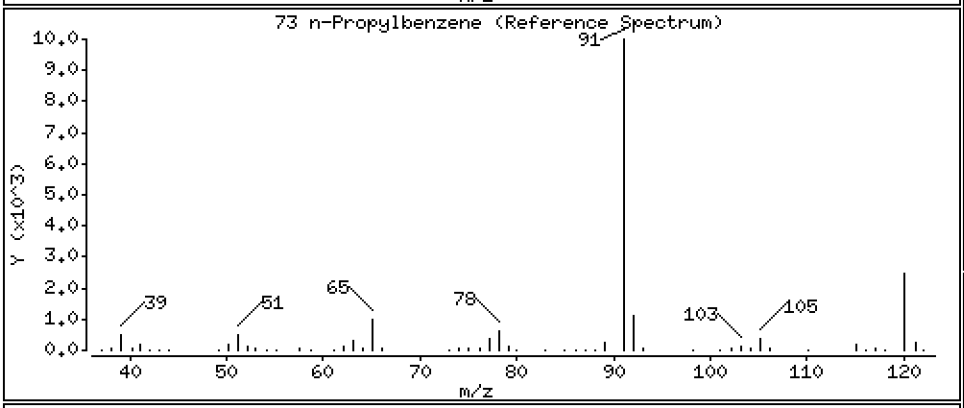
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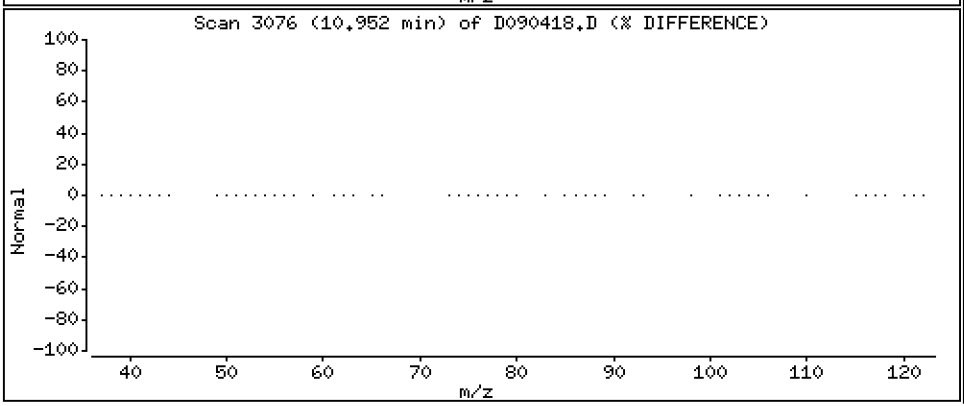
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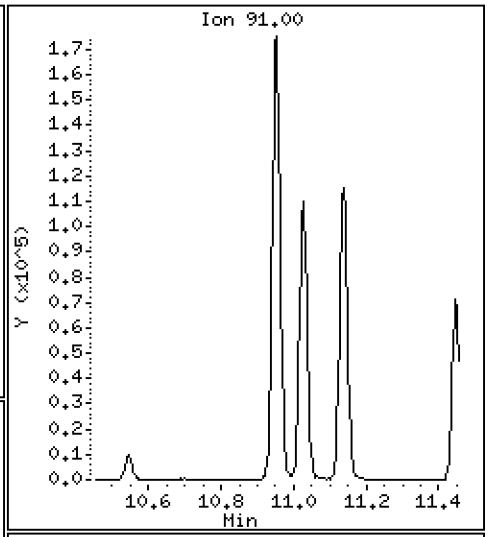
73 n-Propylbenzene Concentration: 18.45 ug/l Review Code:

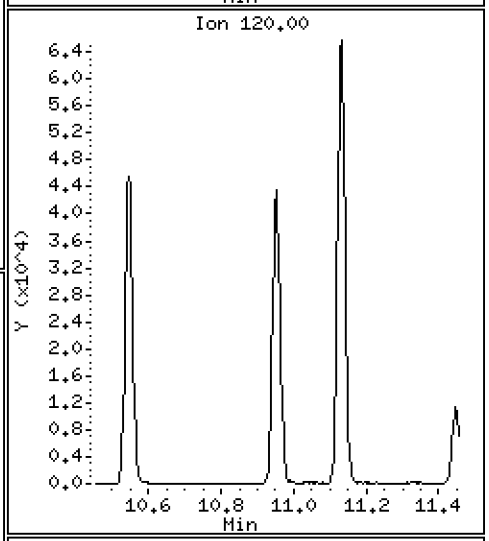


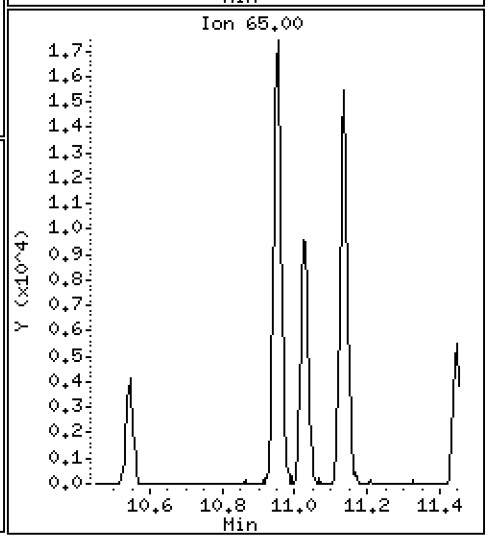












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 67

Date : 04-SEP-2018 17:39

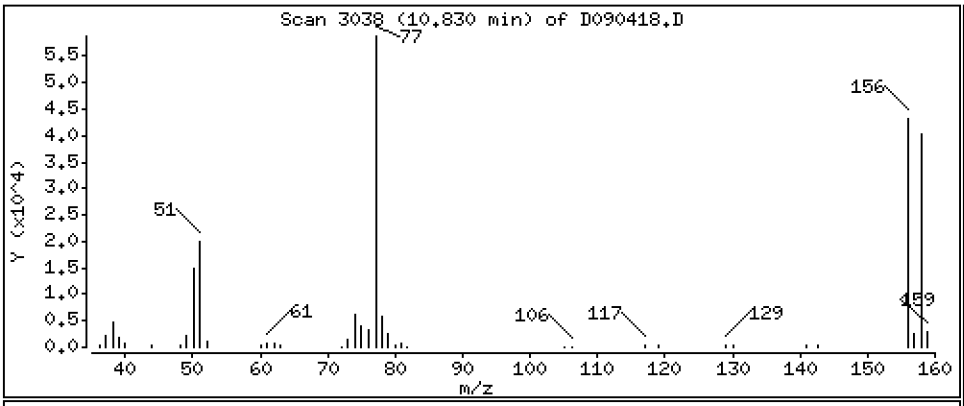
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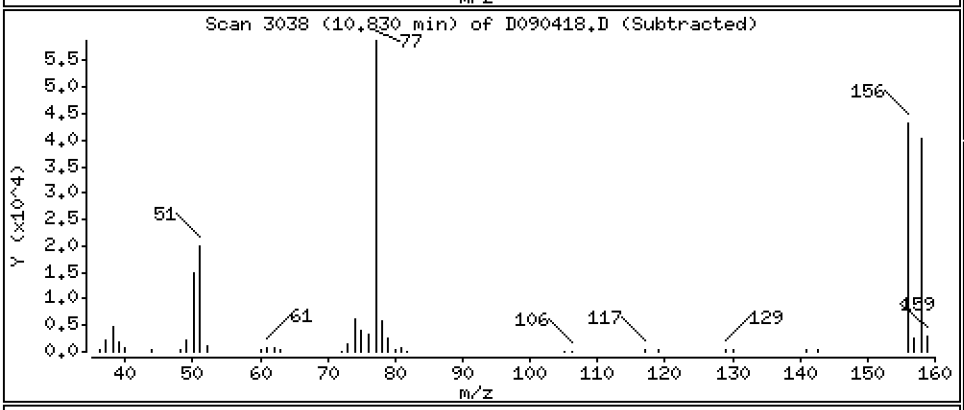
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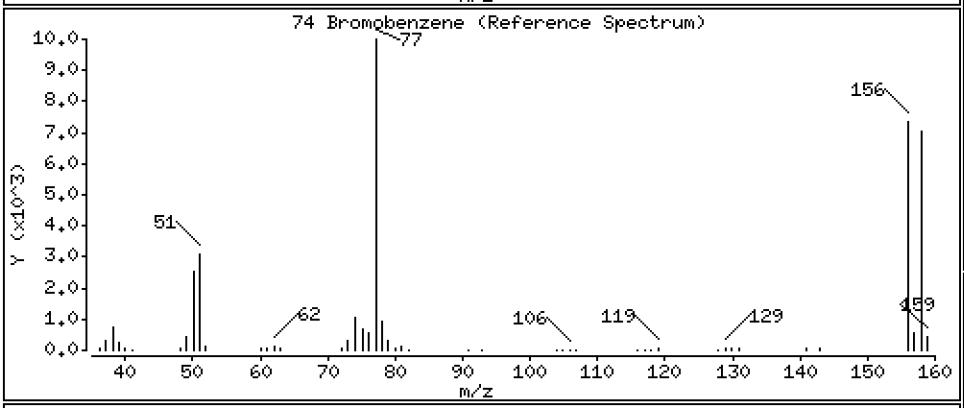
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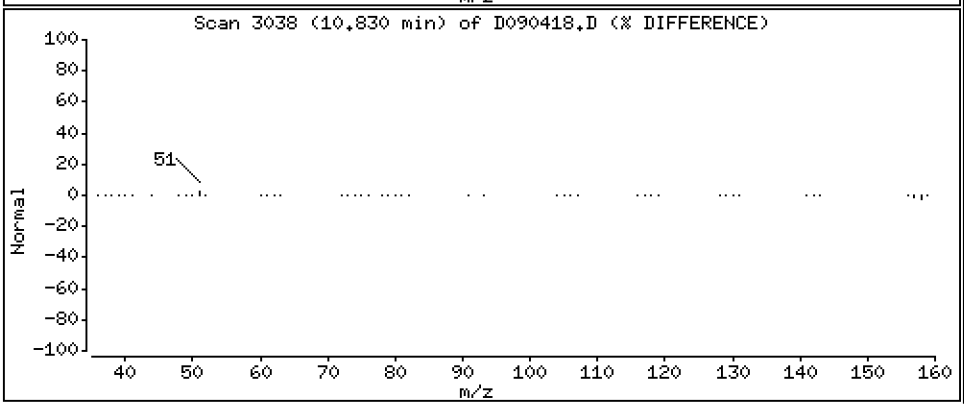
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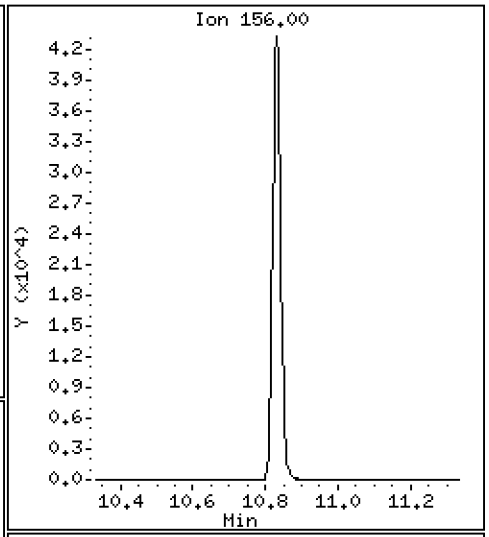
74 Bromobenzene Concentration: 17.31 ug/l Review Code:

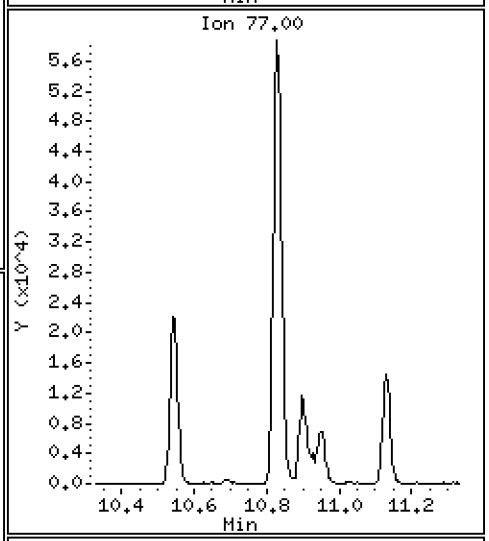


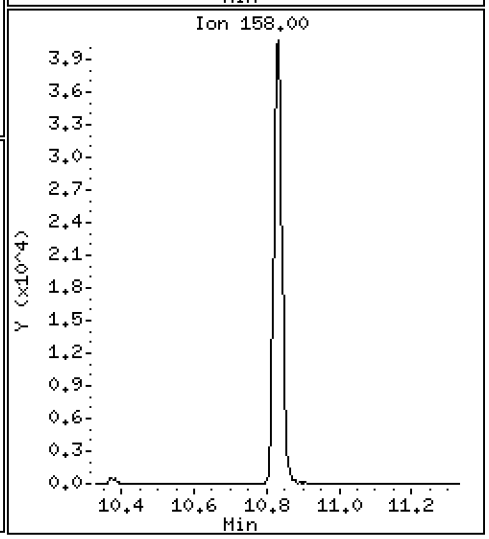












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 68

Date : 04-SEP-2018 17:39

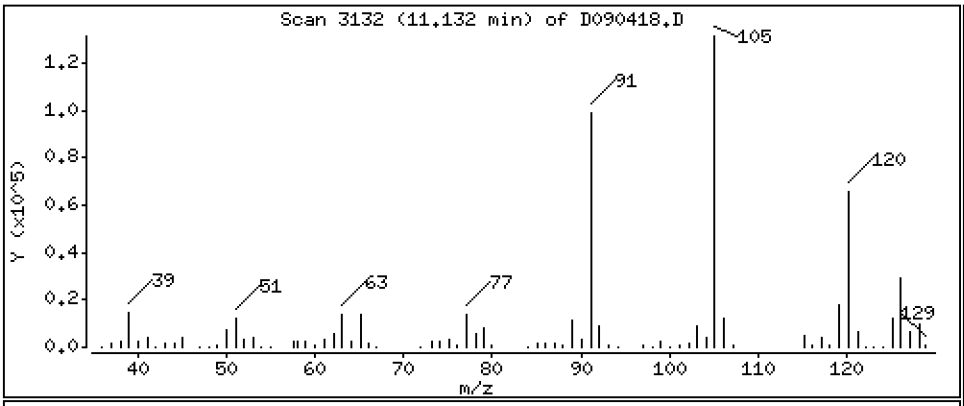
Client ID: HS18081504-01MS Instrument: VOA2.i

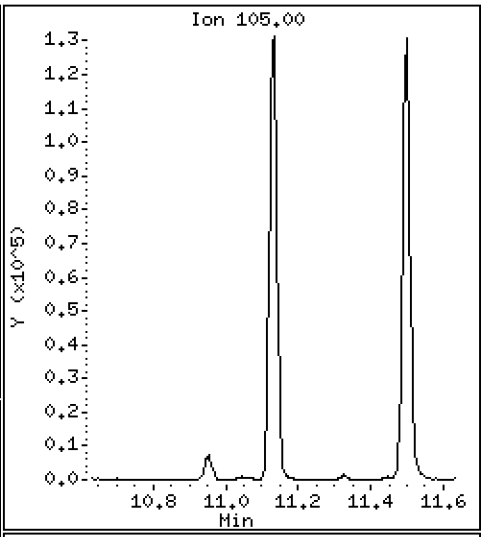
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

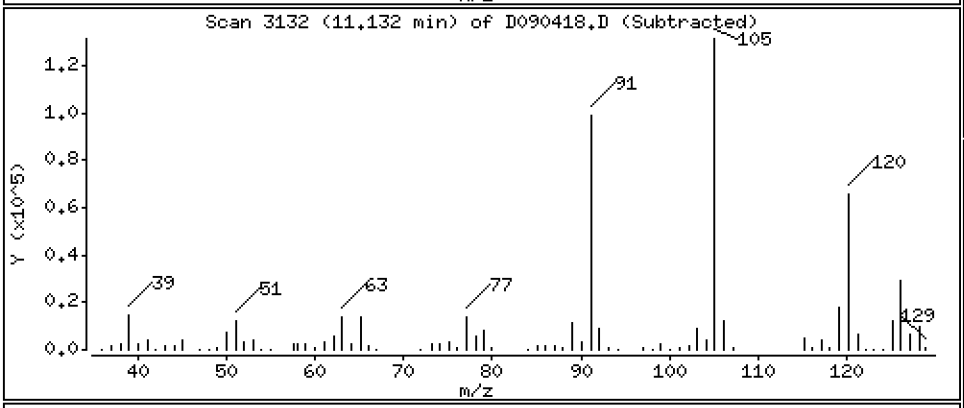
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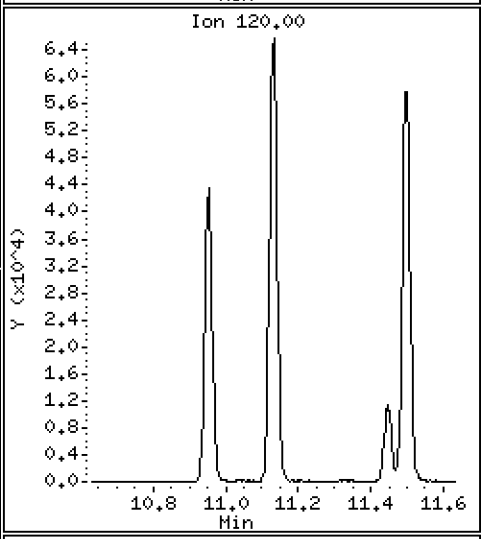
Column phase: DB624 Column diameter: 0.18

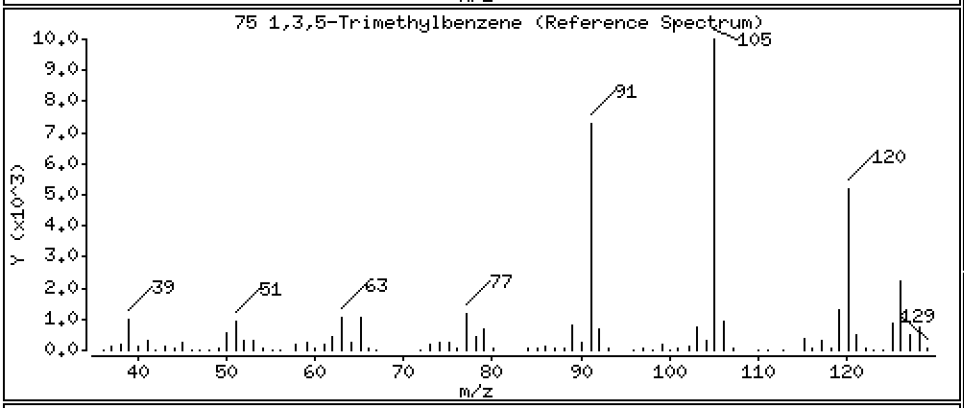
75 1,3,5-Trimethylbenzene Concentration: 16.38 ug/l Review Code:

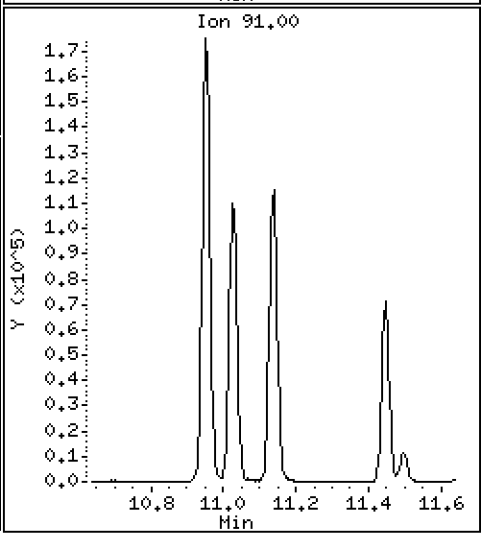


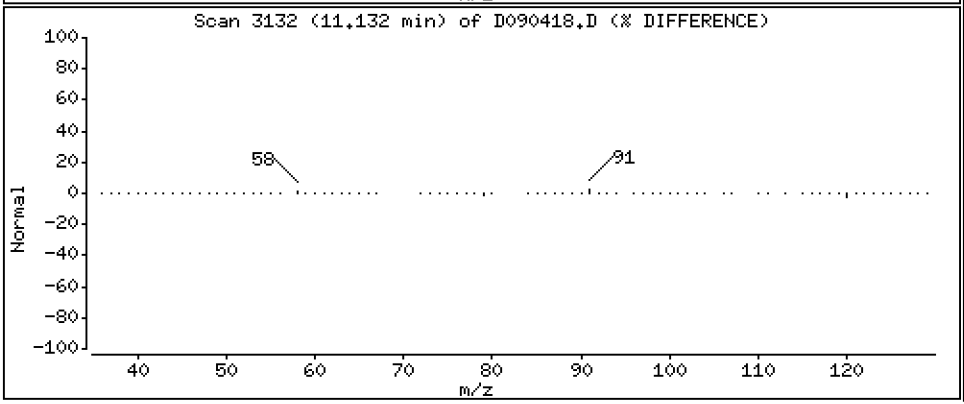












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 69

Date : 04-SEP-2018 17:39

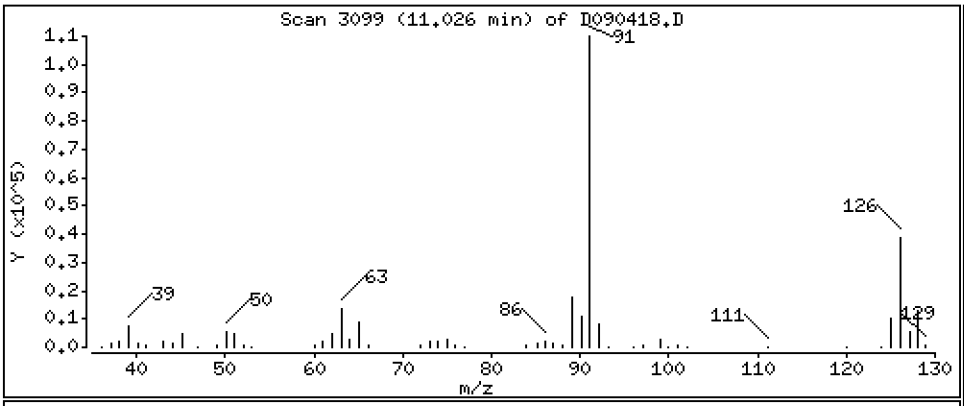
Client ID: HS18081504-01MS Instrument: VOA2.i

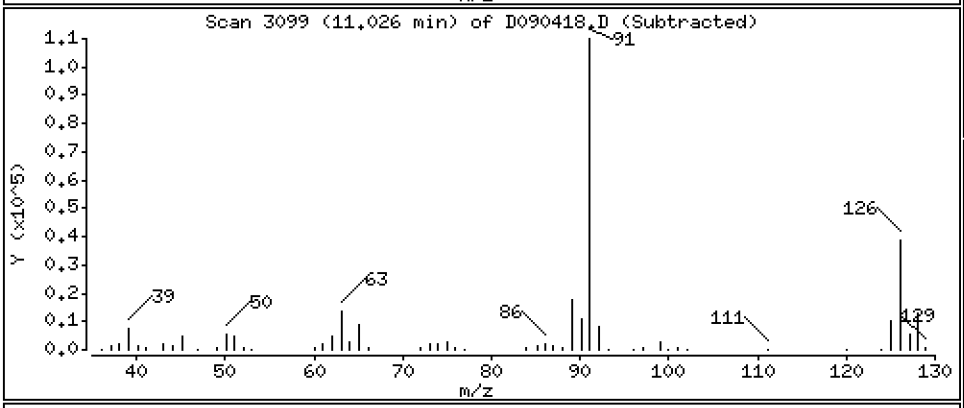
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

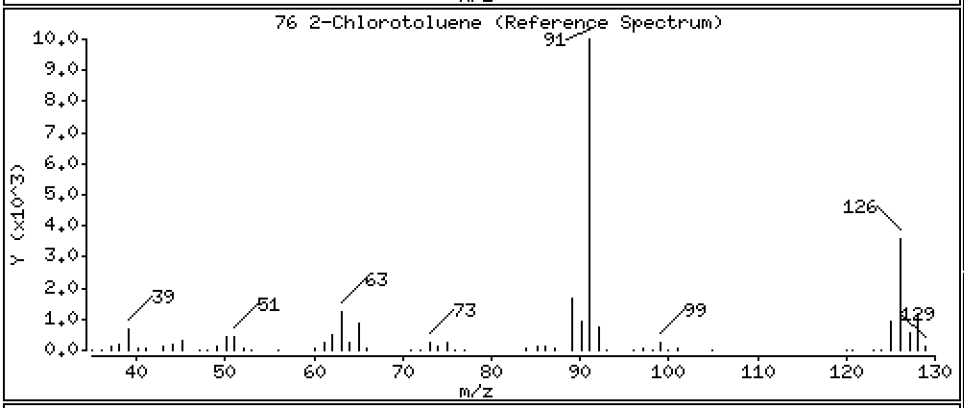
Purge Volume: 5.0 Operator: AP

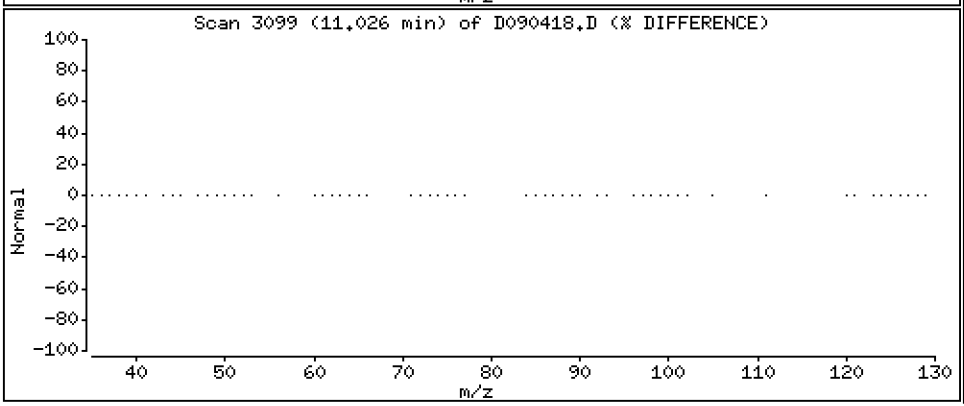
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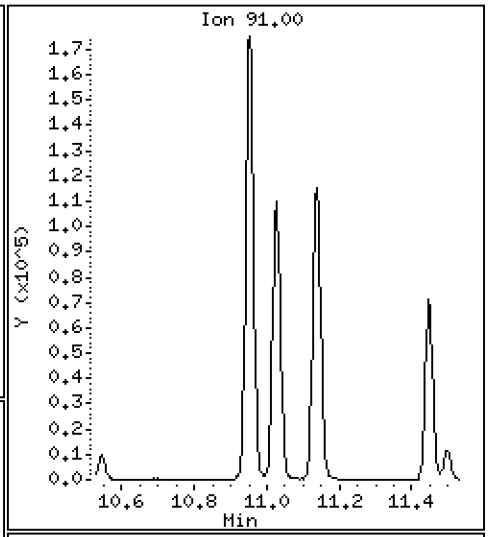
76 2-Chlorotoluene Concentration: 17.87 ug/l Review Code:

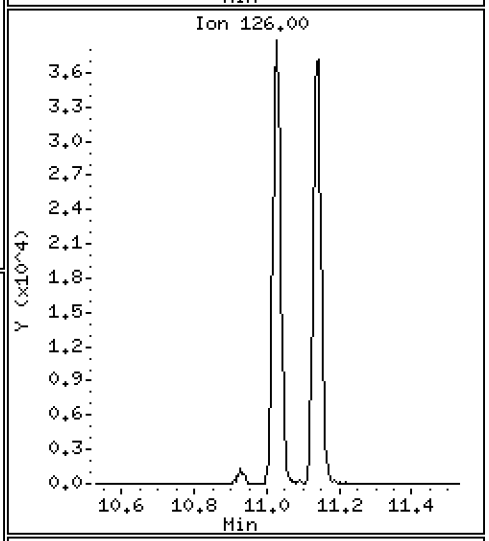


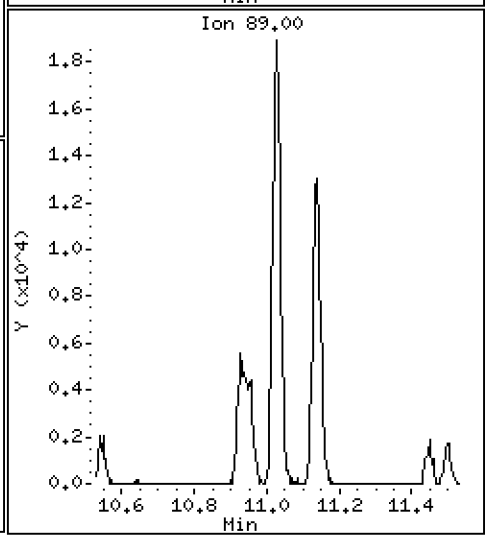












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 70

Date : 04-SEP-2018 17:39

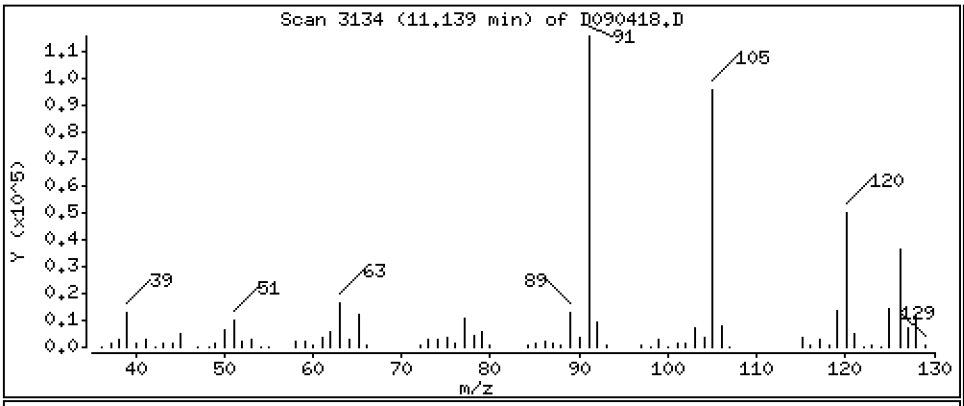
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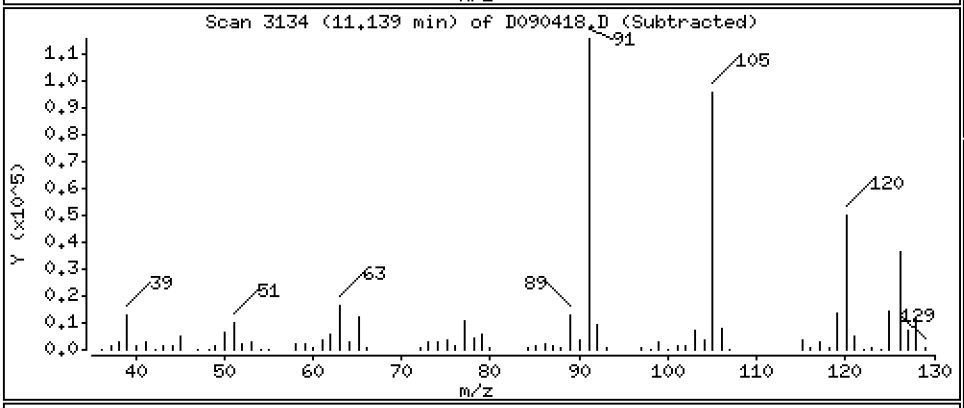
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

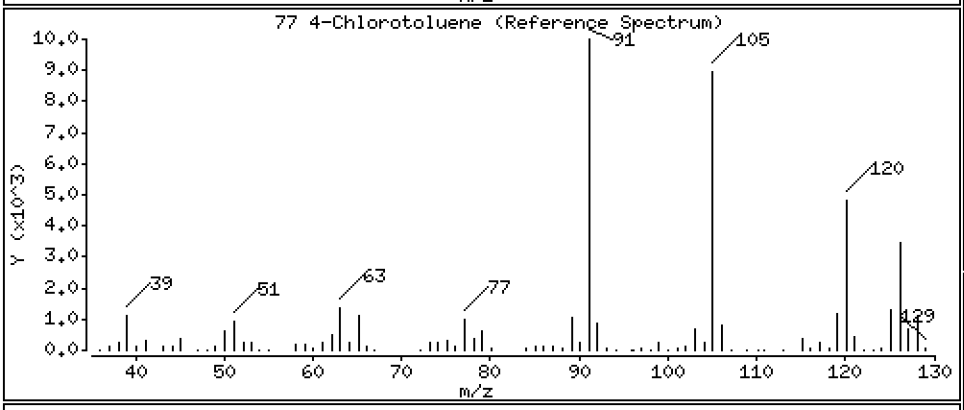
Purge Volume: 5.0 Operator: AP

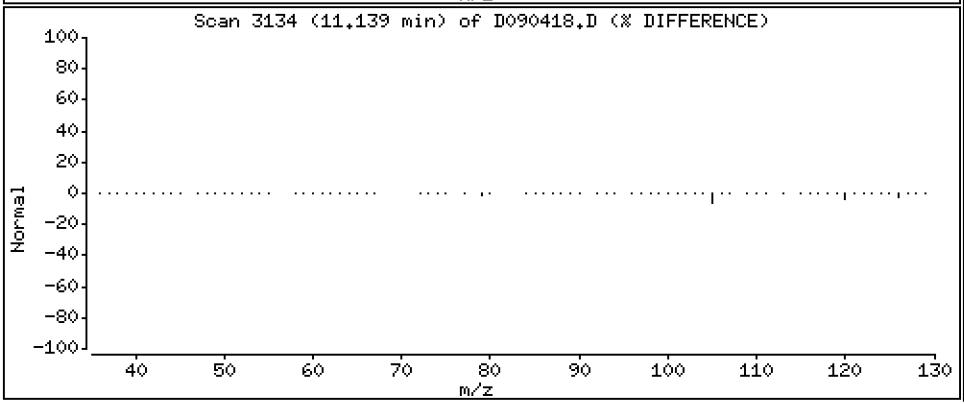
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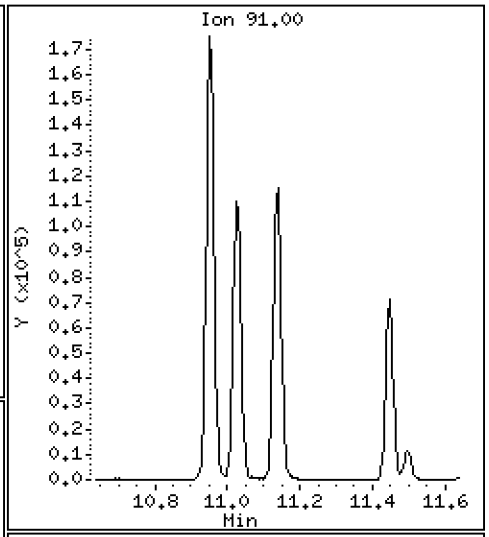
77 4-Chlorotoluene Concentration: 17.61 ug/l Review Code:

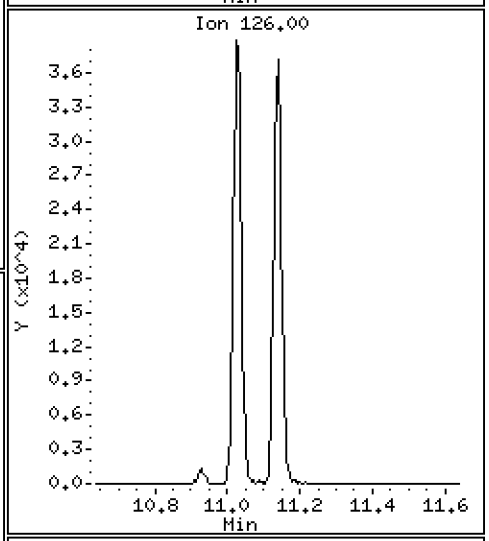


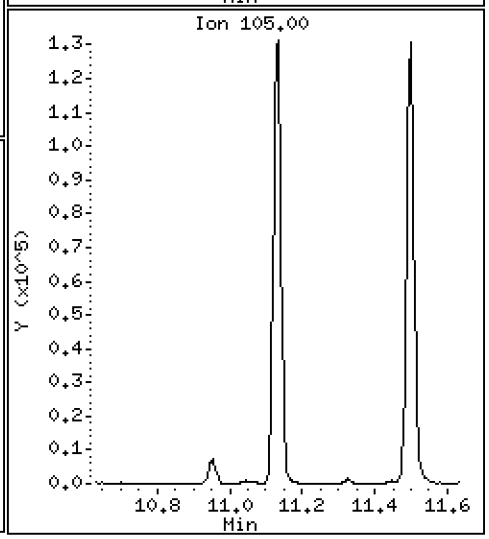












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 71

Date : 04-SEP-2018 17:39

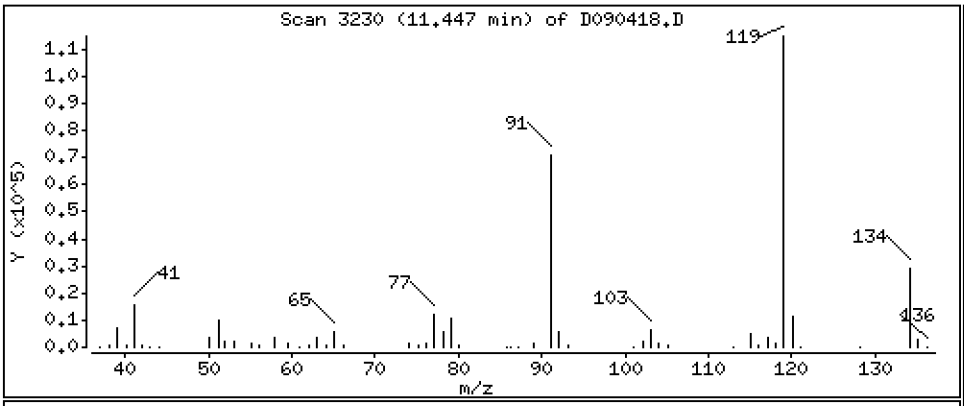
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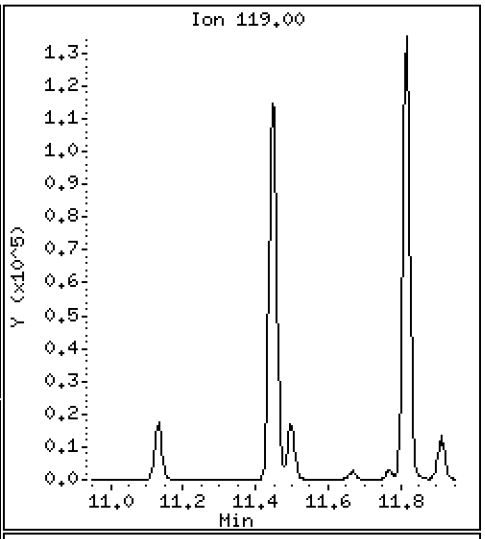
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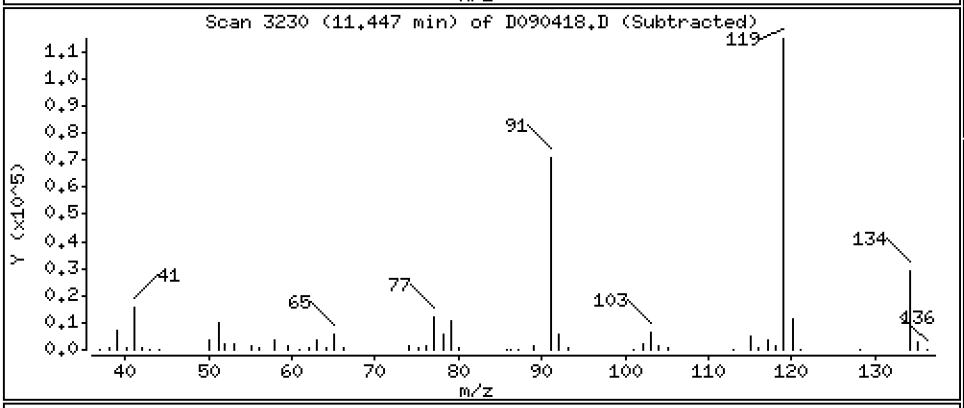
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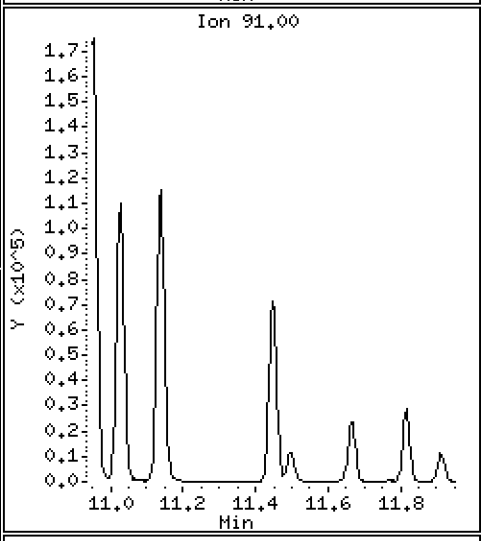
Column phase: DB624 Column diameter: 0.18

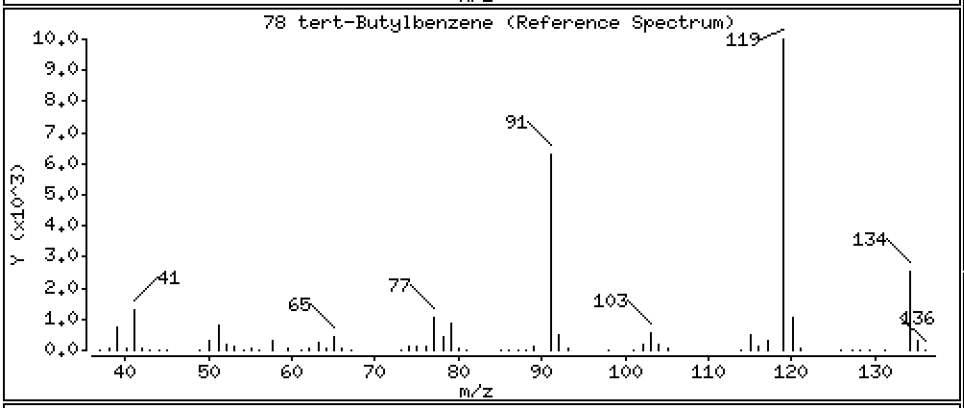
78 tert-Butylbenzene Concentration: 18.42 ug/l Review Code:

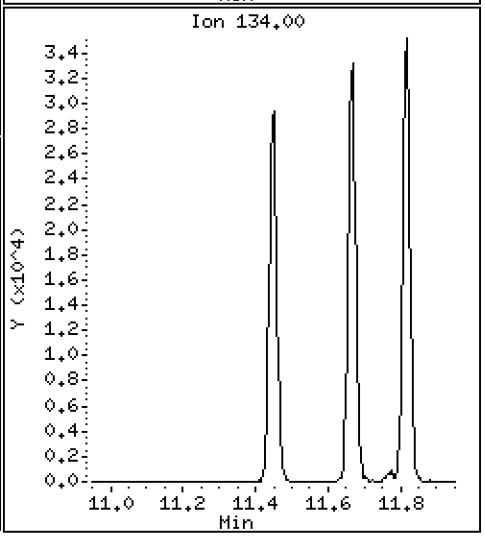


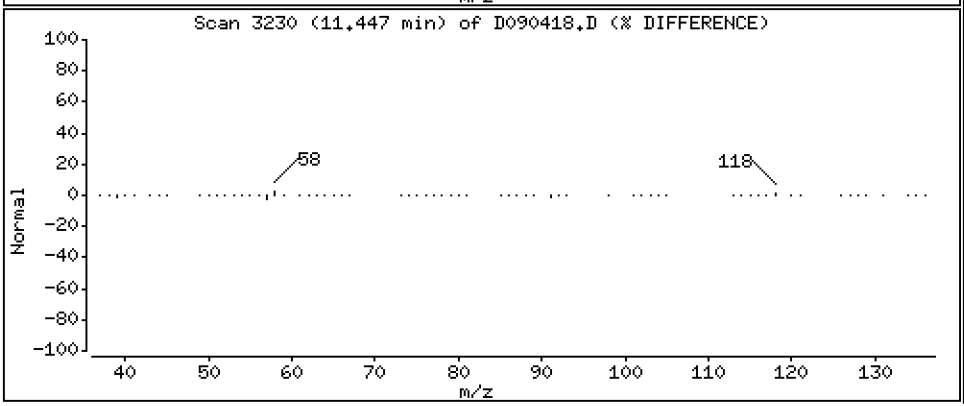












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 72

Date : 04-SEP-2018 17:39

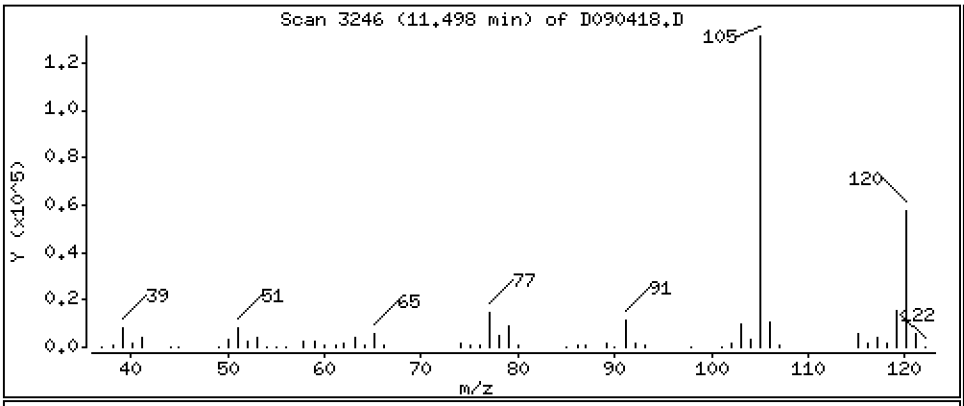
Client ID: HS18081504-01MS Instrument: VOA2.i

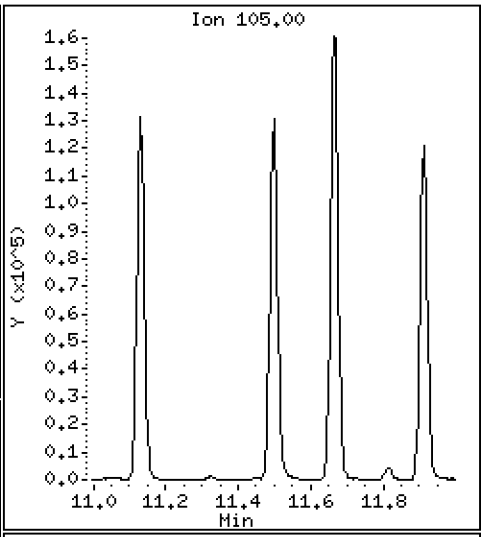
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

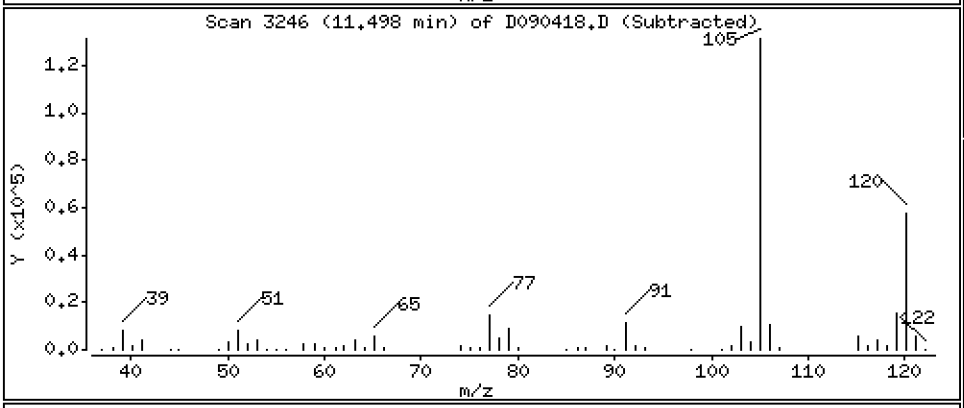
Purge Volume: 5.0 Operator: AP

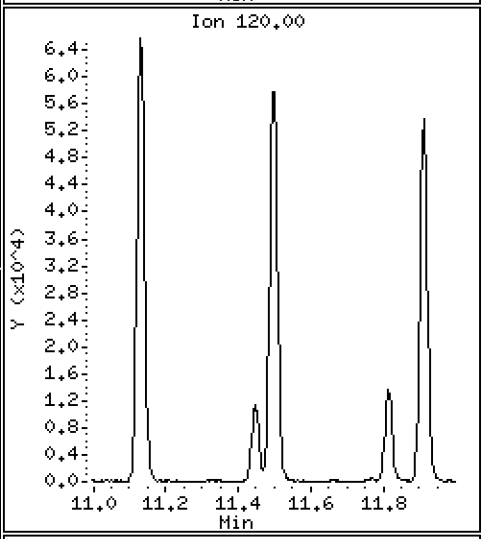
Column phase: DB624 Column diameter: 0.18

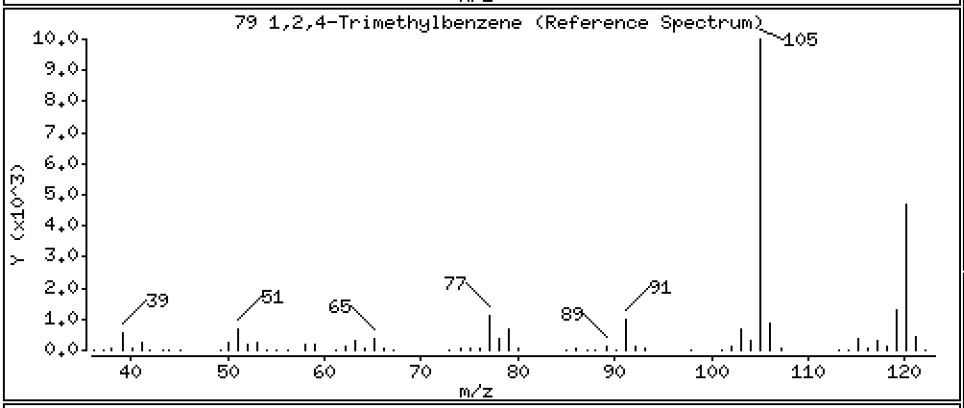
79 1,2,4-Trimethylbenzene Concentration: 17.57 ug/l Review Code:

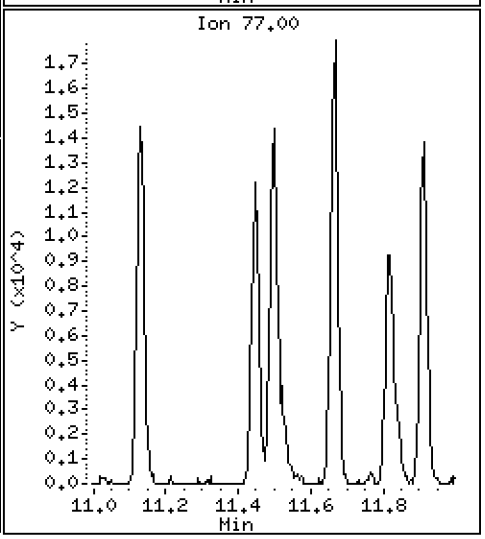


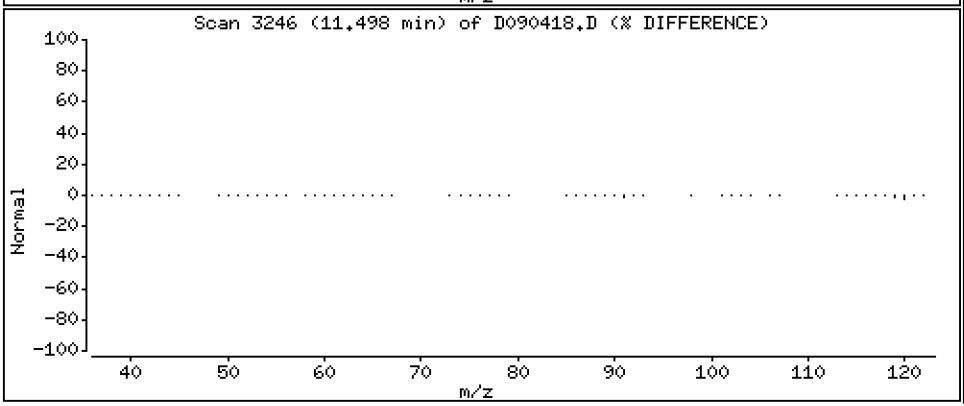












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 73

Date : 04-SEP-2018 17:39

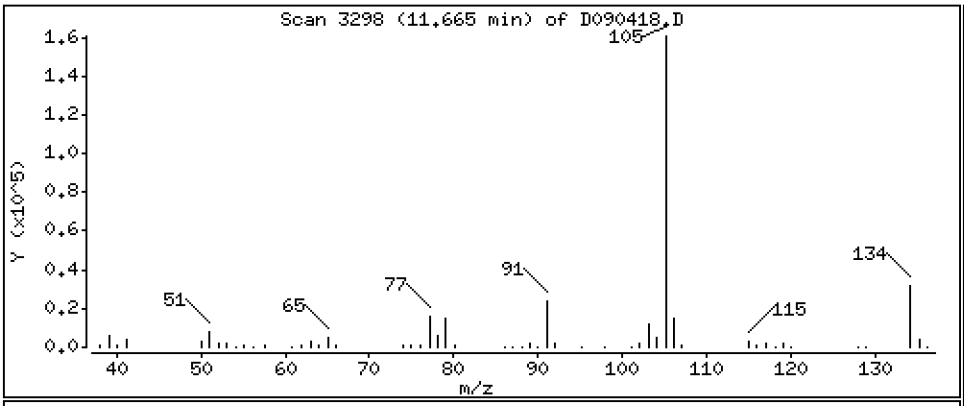
Client ID: HS18081504-01MS Instrument: VOA2.i

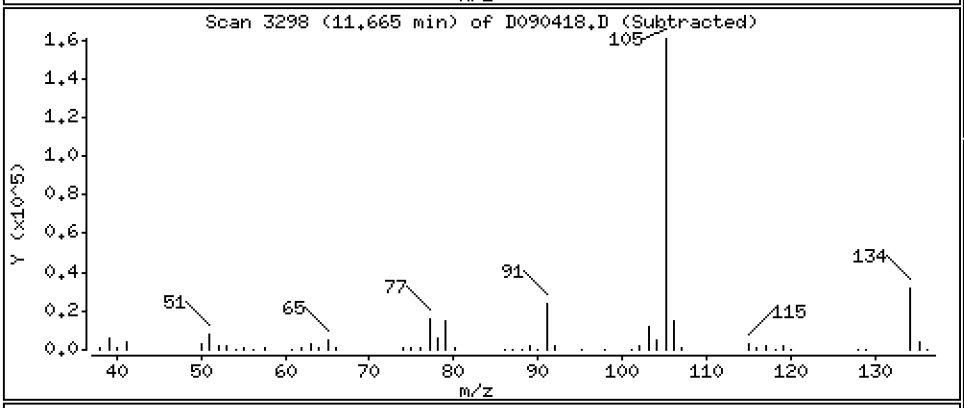
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

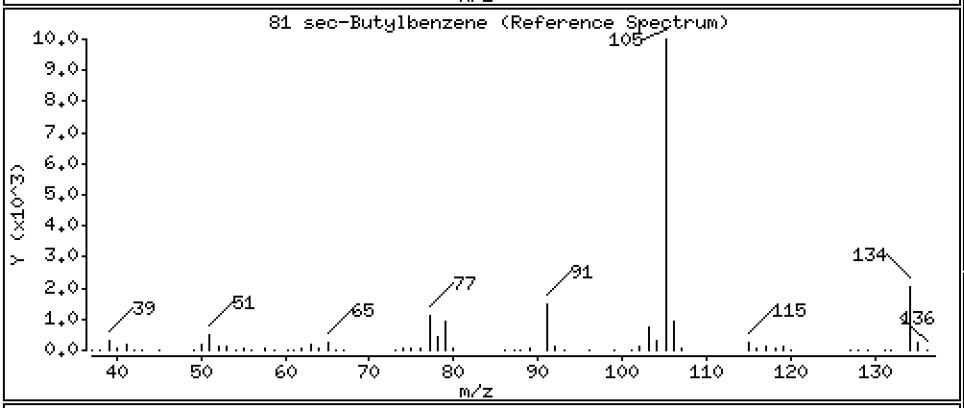
Purge Volume: 5.0 Operator: AP

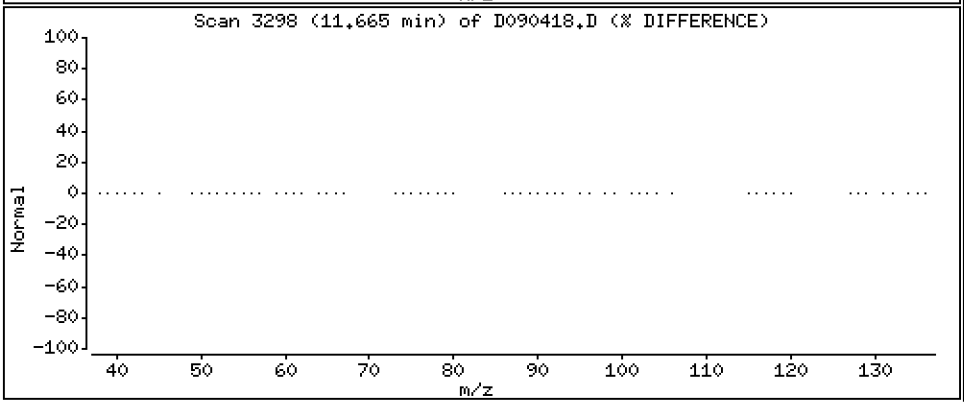
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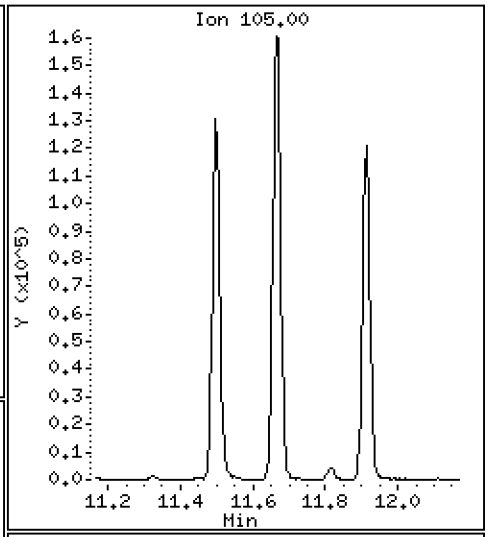
81 sec-Butylbenzene Concentration: 16.73 ug/l Review Code:

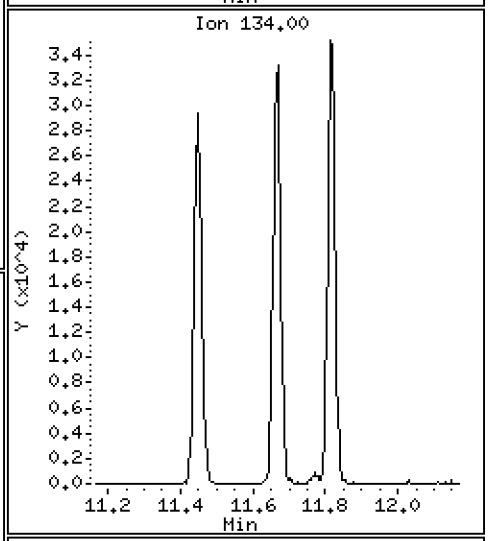


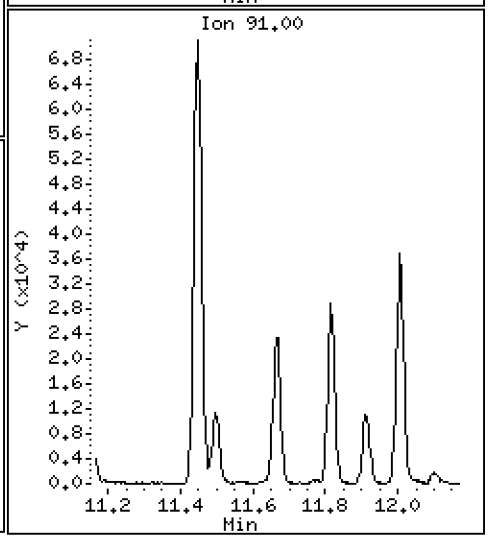












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 74

Date : 04-SEP-2018 17:39

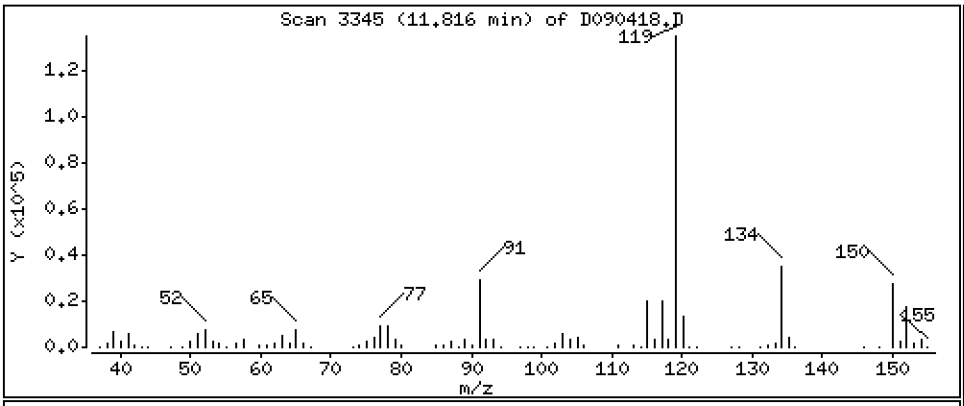
Client ID: HS18081504-01MS Instrument: VOA2.i

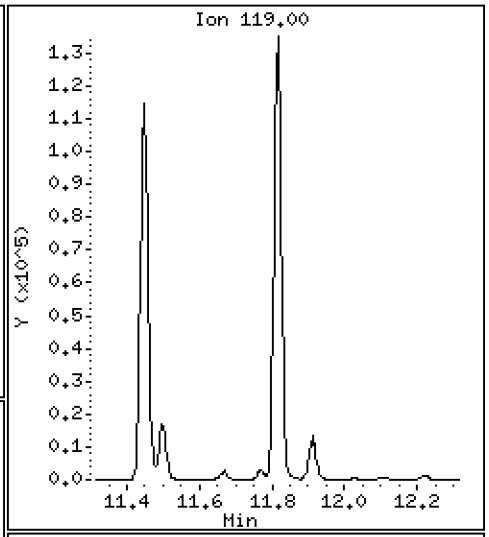
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

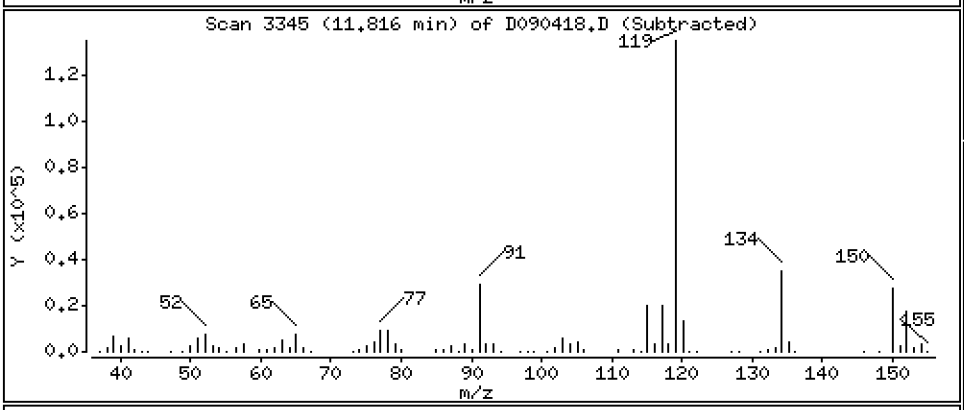
Purge Volume: 5.0 Operator: AP

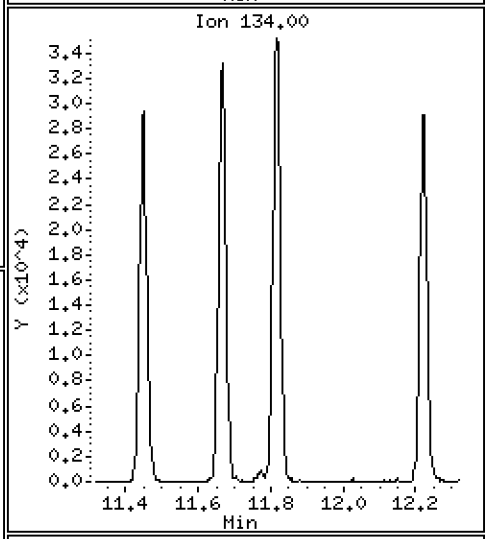
Column phase: DB624 Column diameter: 0.18

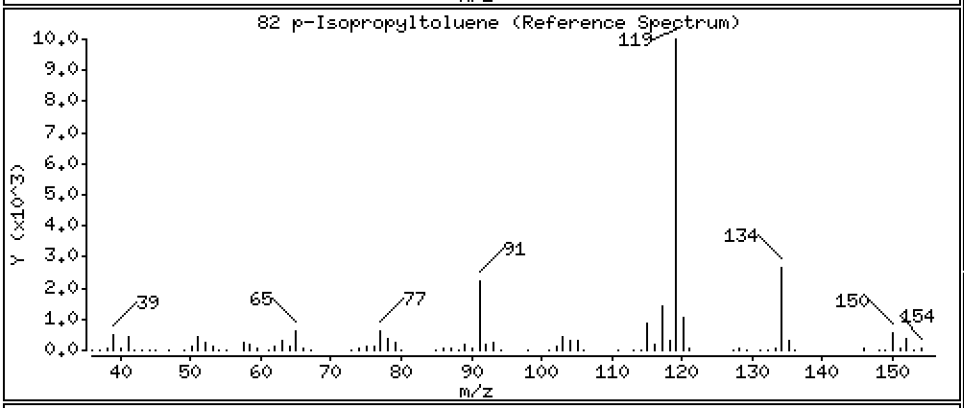
82 p-Isopropyltoluene Concentration: 16.44 ug/l Review Code:

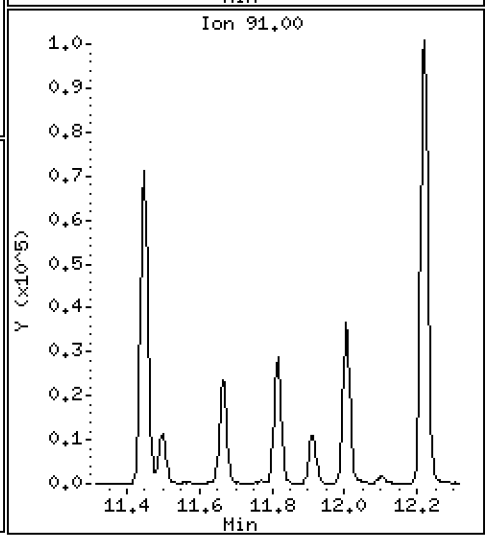


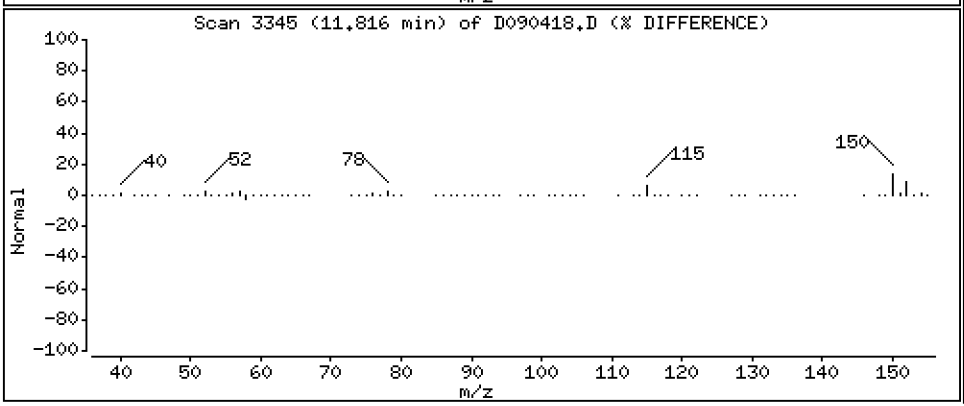












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 75

Date : 04-SEP-2018 17:39

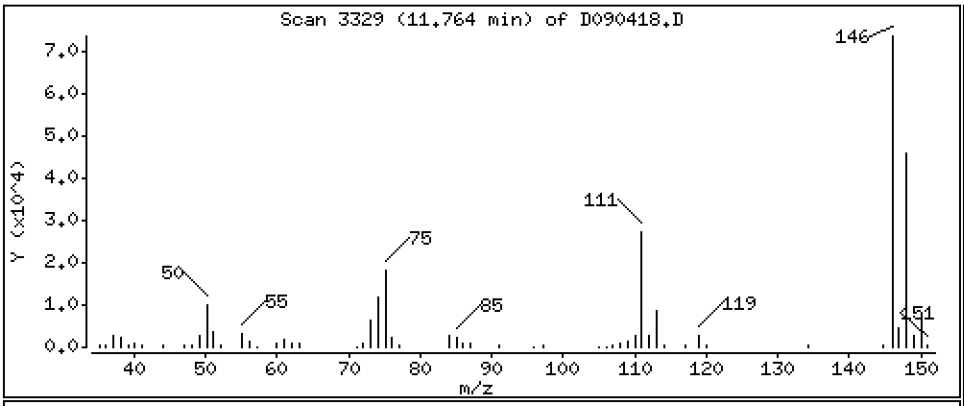
Client ID: HS18081504-01MS Instrument: VOA2.i

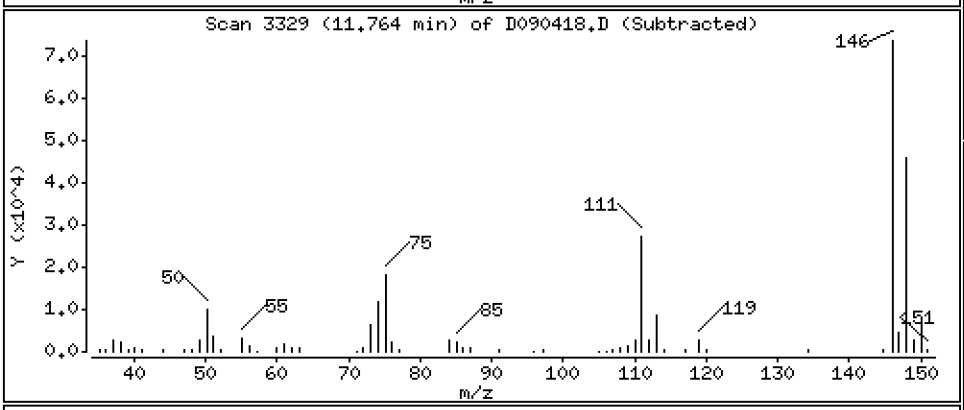
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

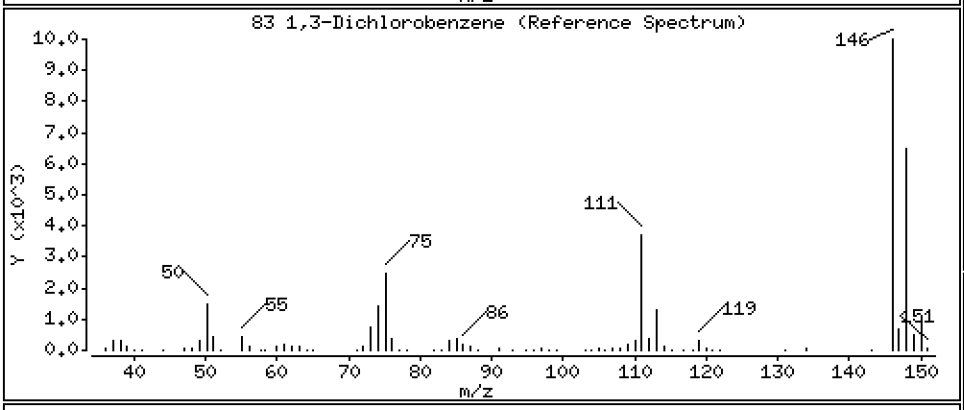
Purge Volume: 5.0 Operator: AP

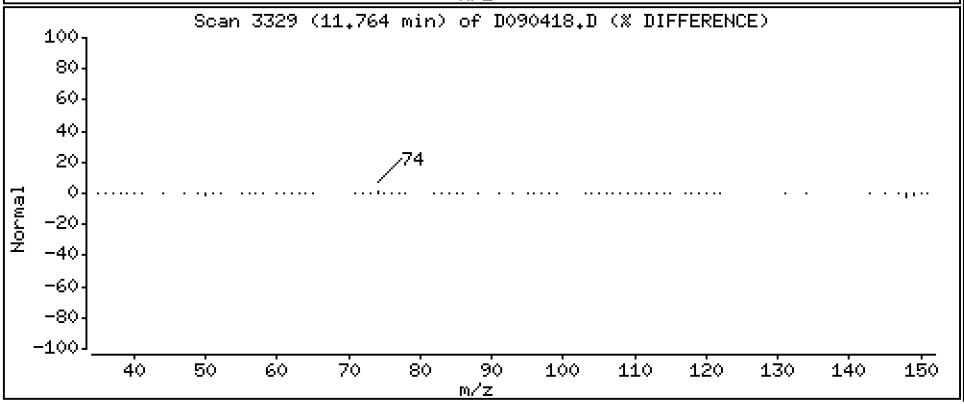
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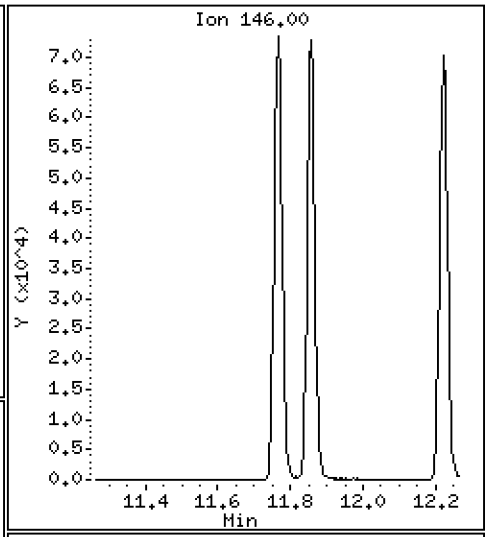
83 1,3-Dichlorobenzene Concentration: 17.35 ug/l Review Code:

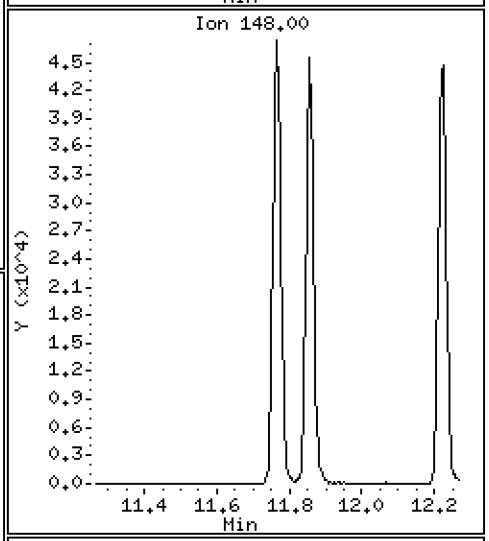


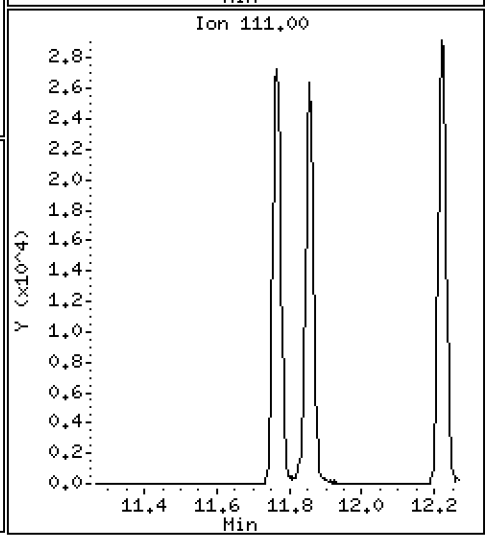












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 76

Date : 04-SEP-2018 17:39

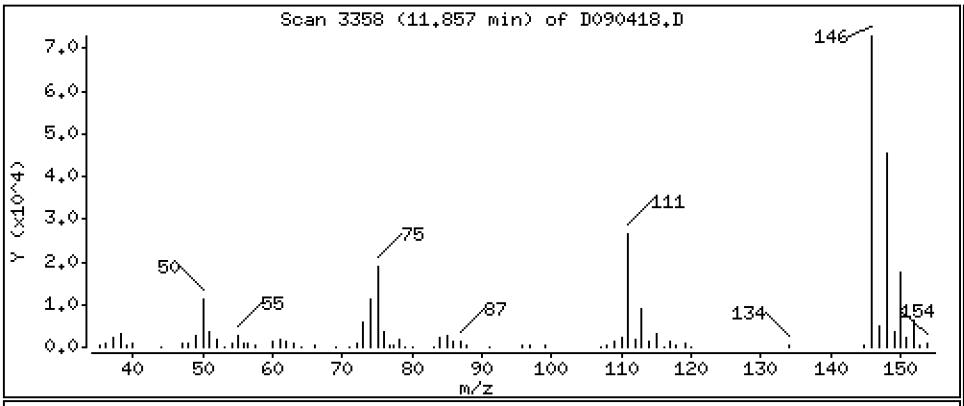
Client ID: HS18081504-01MS Instrument: VOA2.i

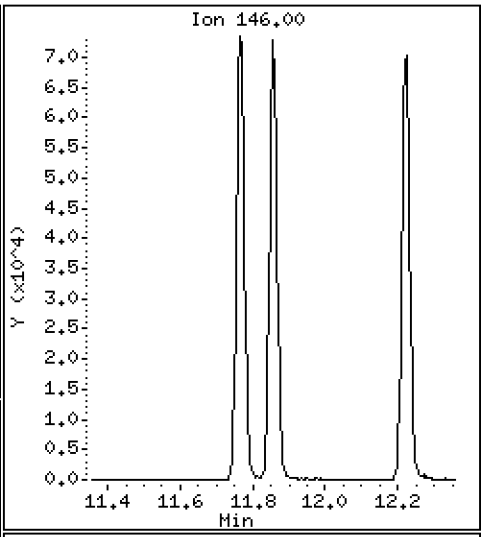
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

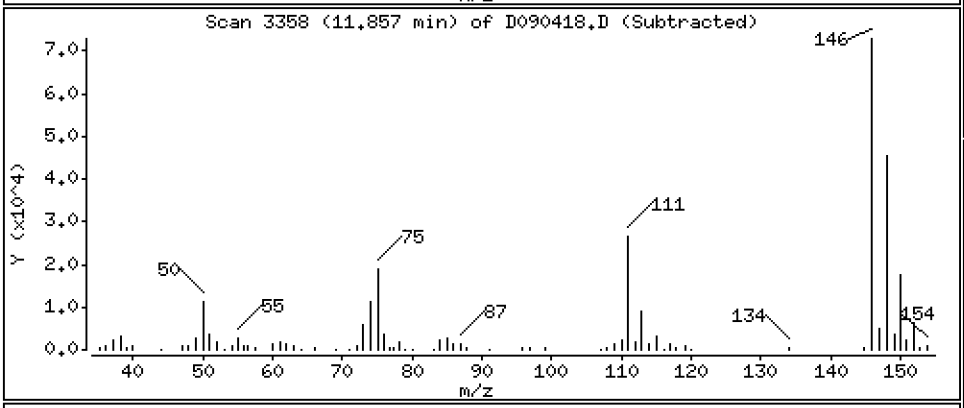
Purge Volume: 5.0 Operator: AP

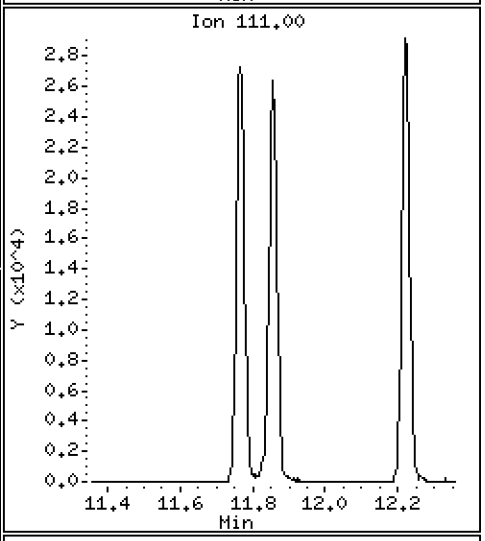
Column phase: DB624 Column diameter: 0.18

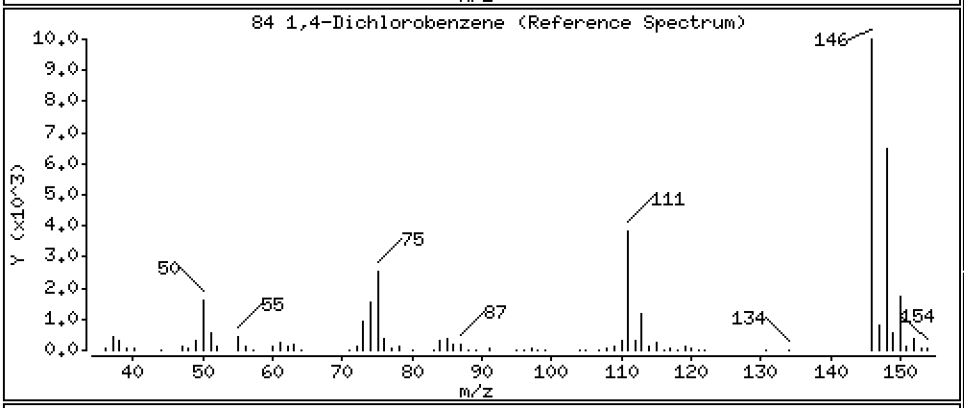
84 1,4-Dichlorobenzene Concentration: 17.27 ug/l Review Code:

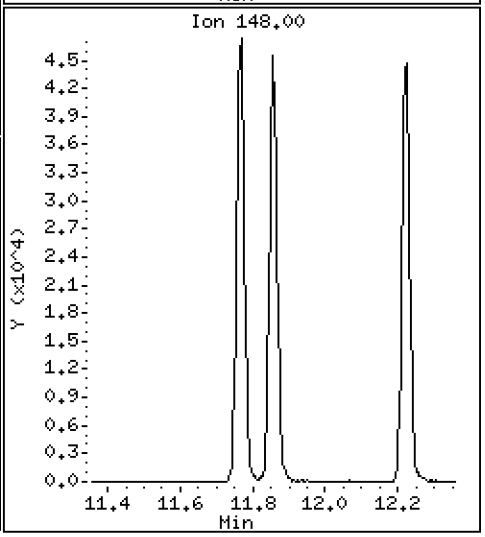


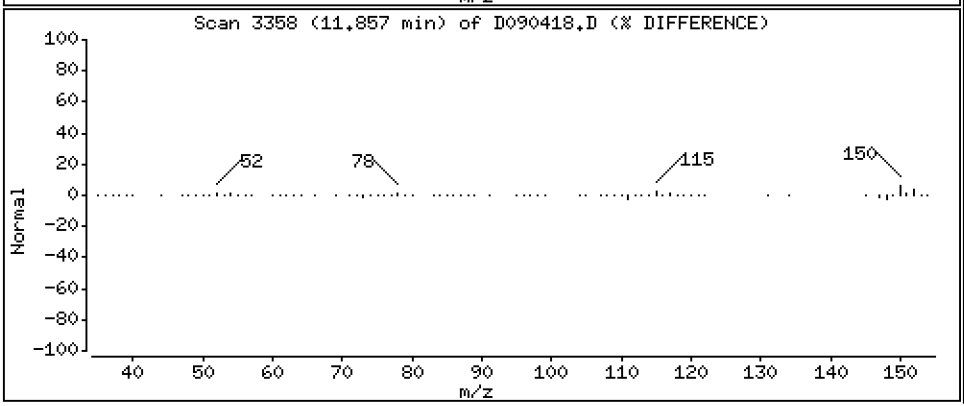












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 77

Date : 04-SEP-2018 17:39

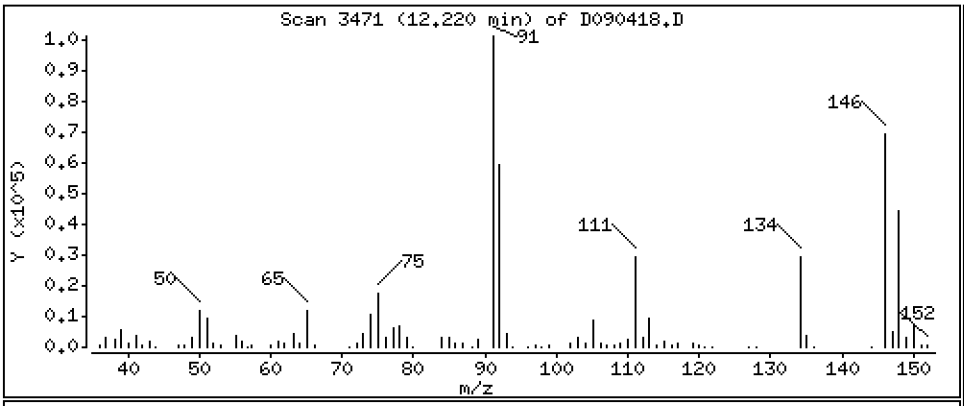
Client ID: HS18081504-01MS Instrument: VOA2.i

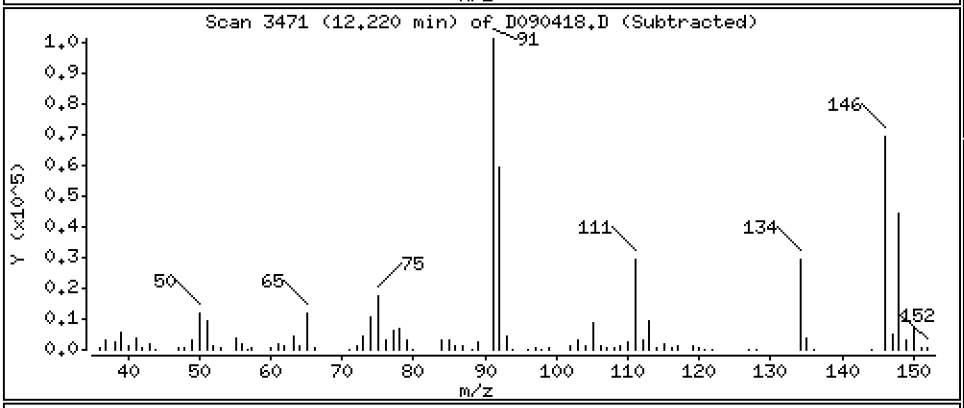
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

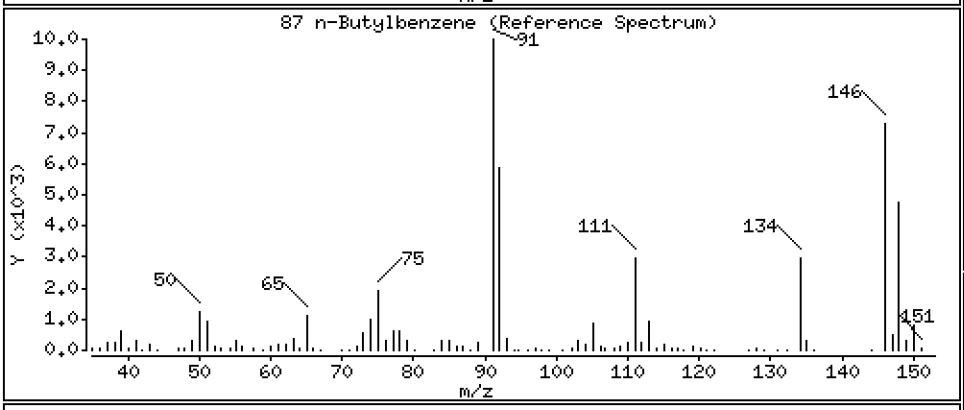
Purge Volume: 5.0 Operator: AP

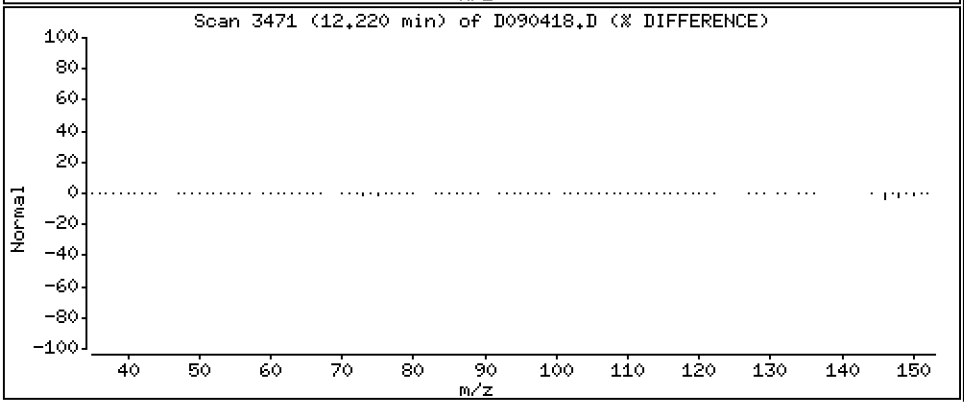
Column phase: DB624 Column diameter: 0.18

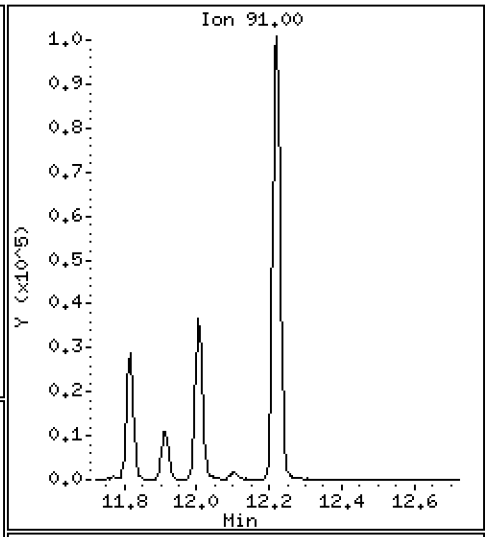
87 n-Butylbenzene Concentration: 17.12 ug/l Review Code:

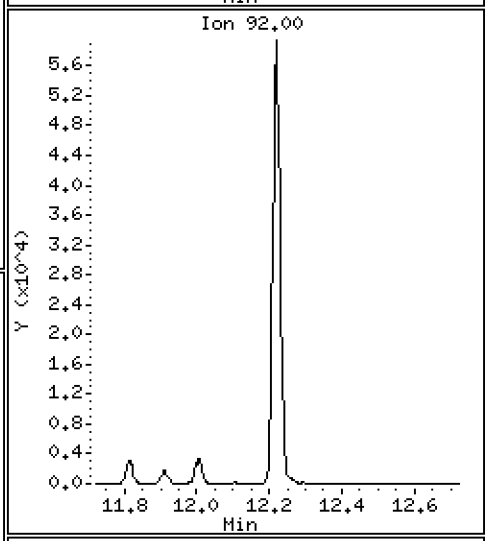


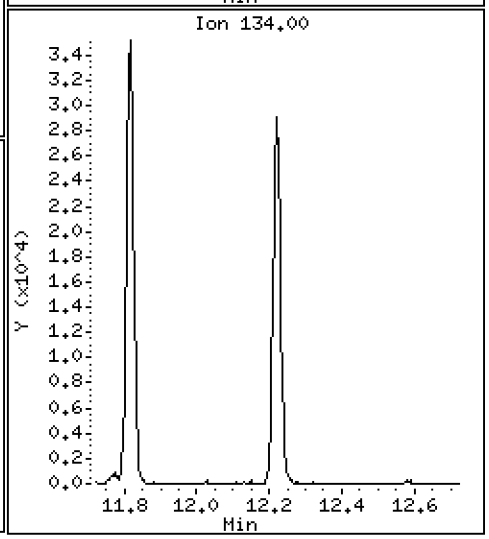












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 78

Date : 04-SEP-2018 17:39

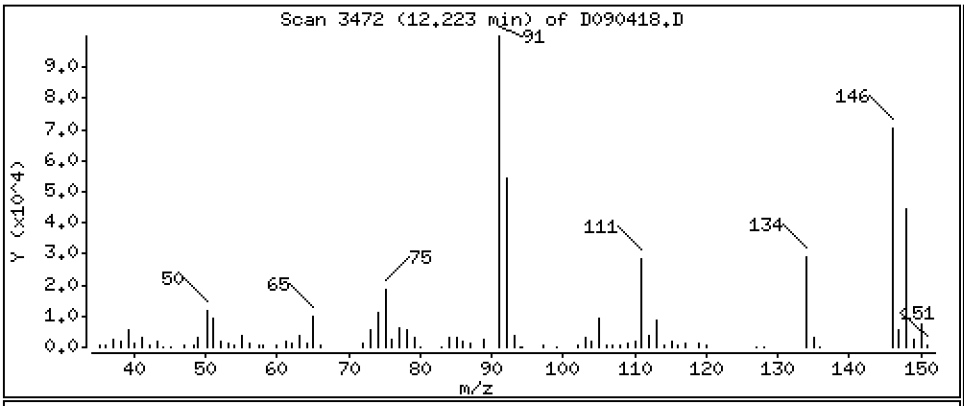
Client ID: HS18081504-01MS Instrument: VOA2.i

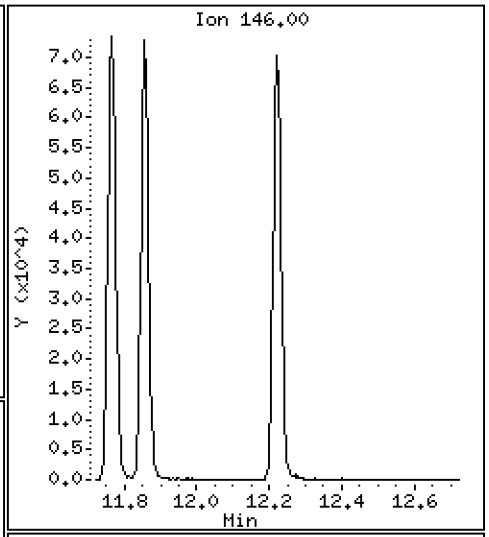
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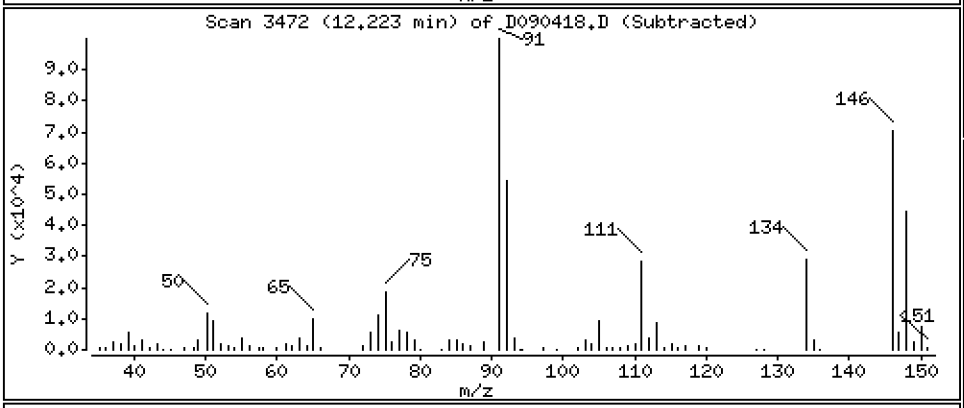
Purge Volume: 5.0 Operator: AP

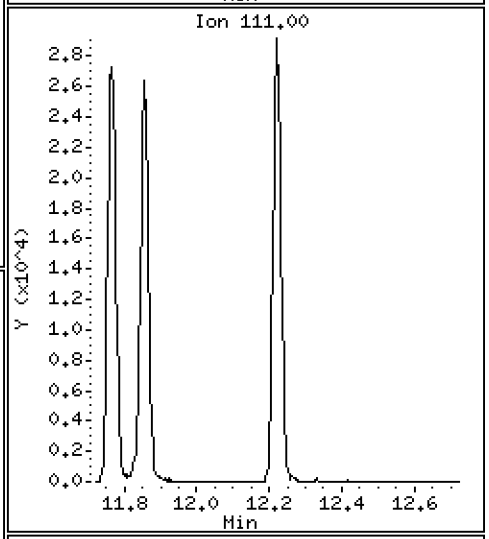
Column phase: DB624 Column diameter: 0.18

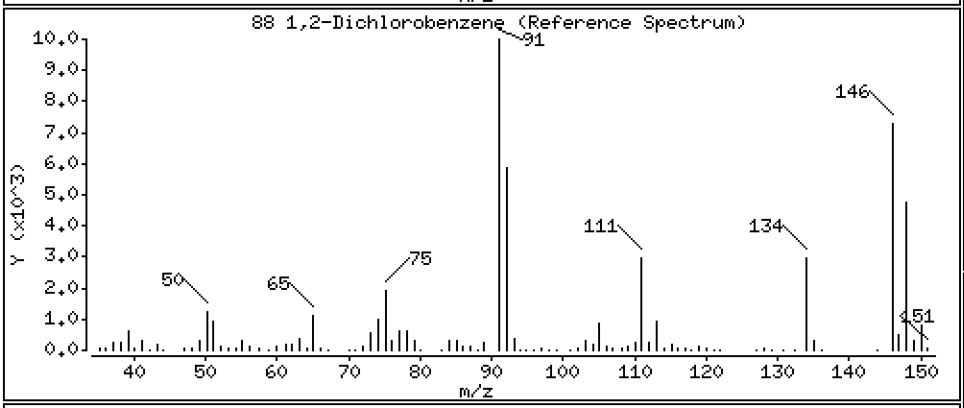
88 1,2-Dichlorobenzene Concentration: 16.86 ug/l Review Code:

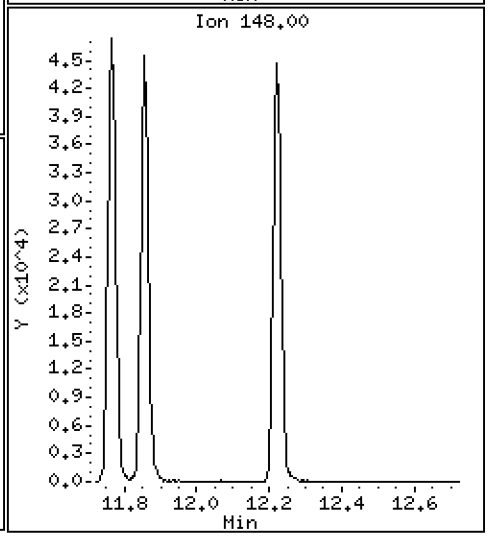


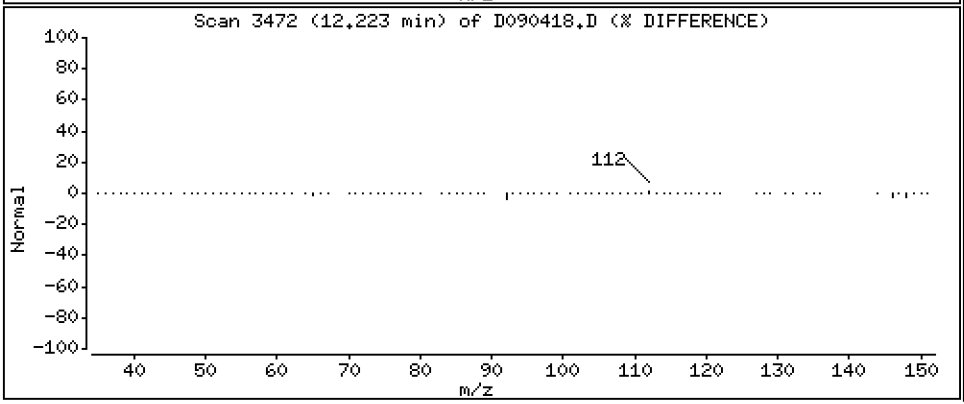












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 79

Date : 04-SEP-2018 17:39

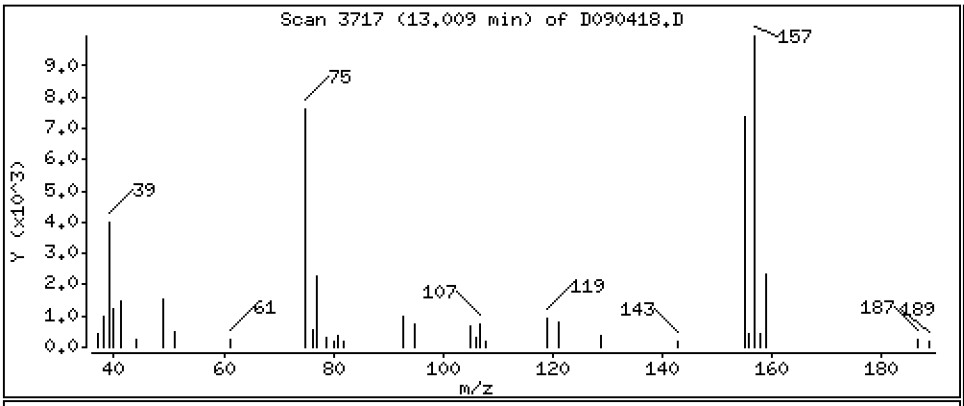
Client ID: HS18081504-01MS Instrument: VOA2.i

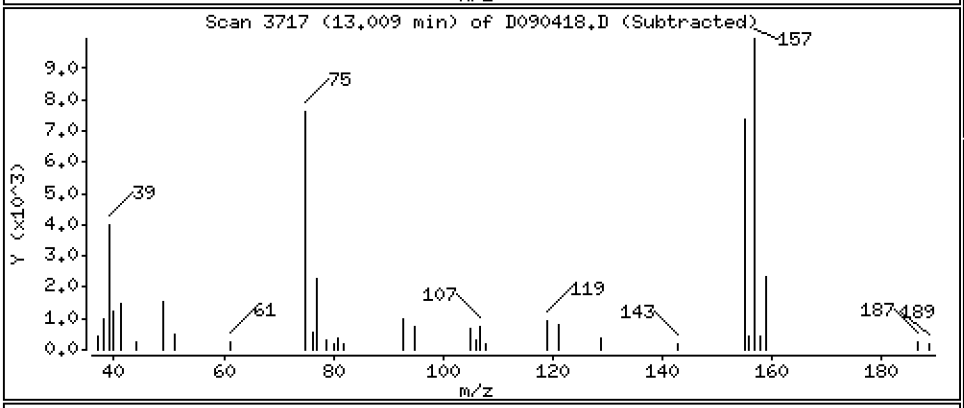
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

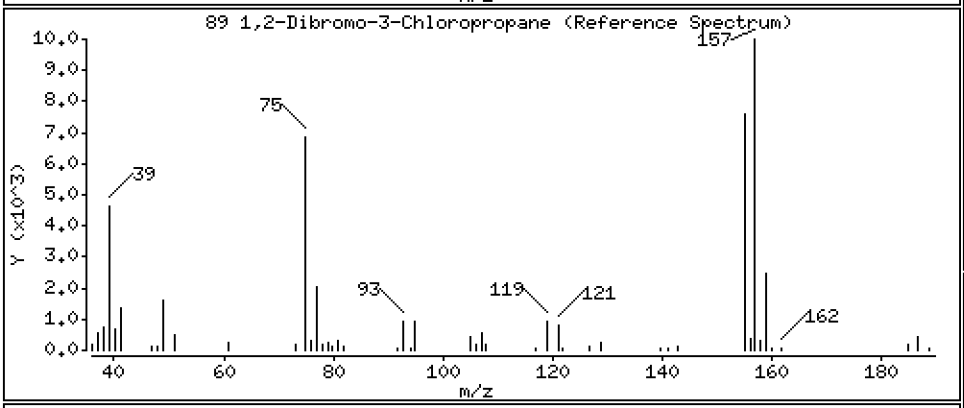
Purge Volume: 5.0 Operator: AP

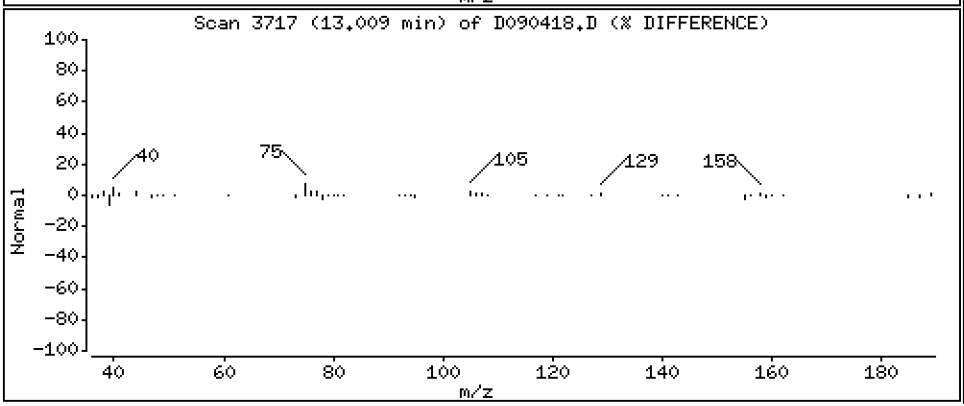
Column phase: DB624 Column diameter: 0.18

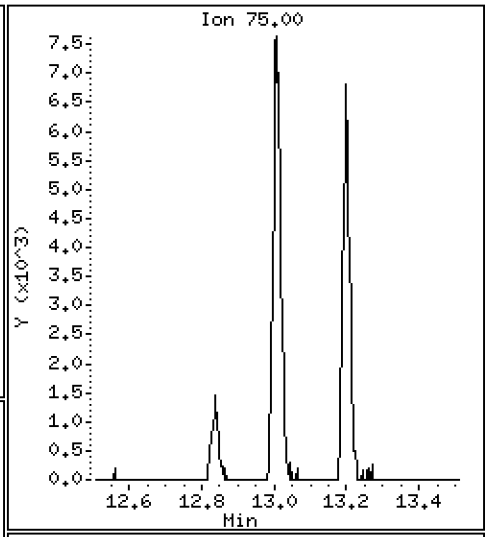
89 1,2-Dibromo-3-Chloropropane Concentration: 15.61 ug/l Review Code:

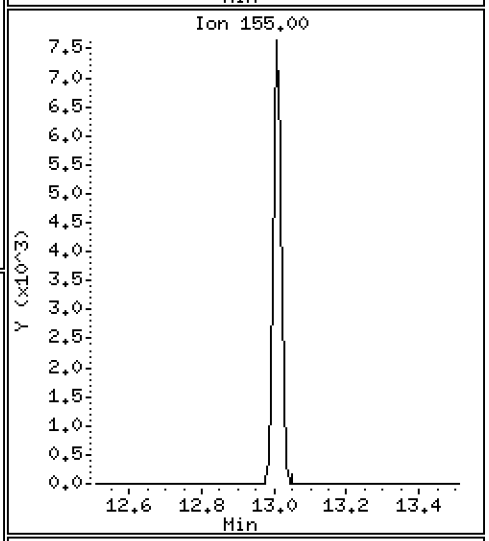


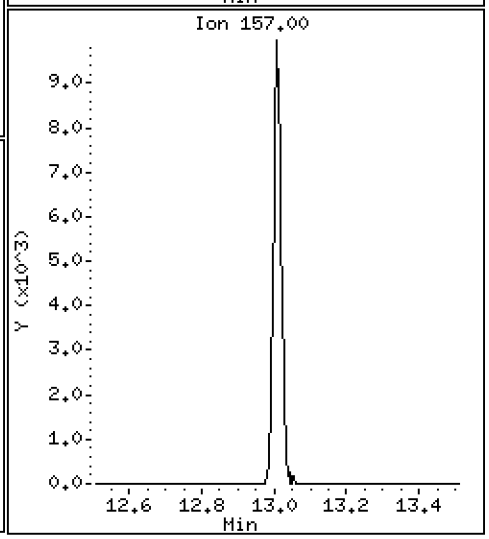












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 80

Date : 04-SEP-2018 17:39

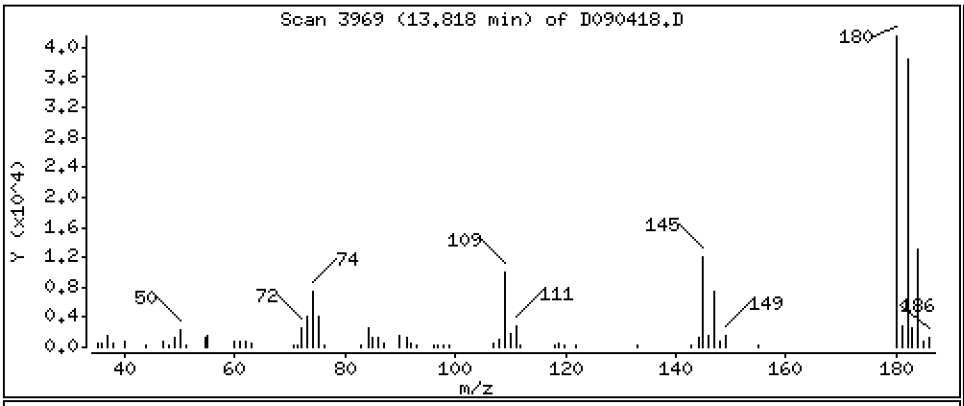
Client ID: HS18081504-01MS Instrument: VOA2.i

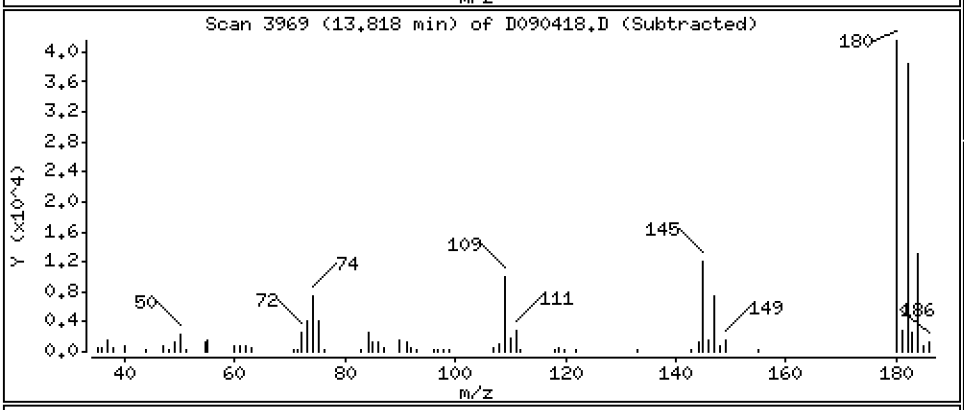
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

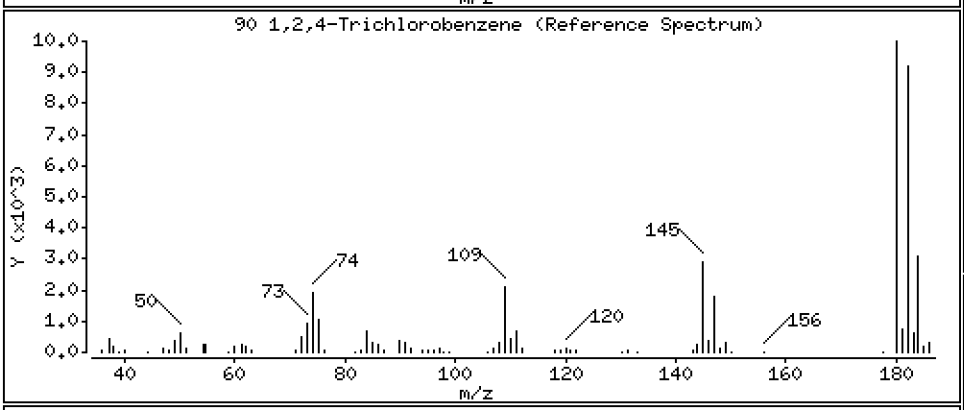
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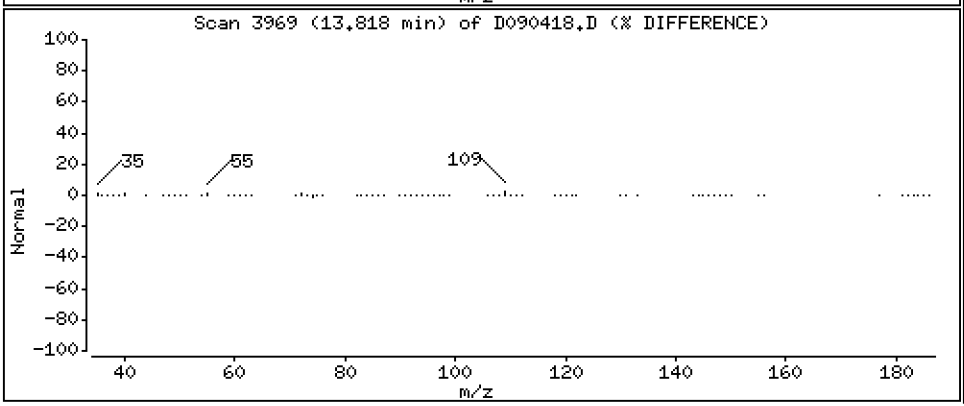
Column phase: DB624 Column diameter: 0.18

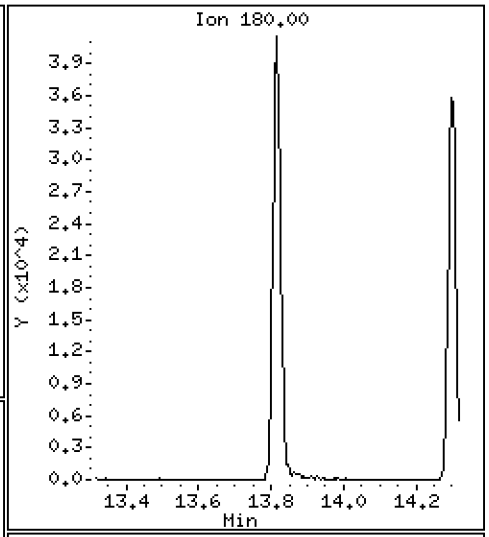
90 1,2,4-Trichlorobenzene Concentration: 17.28 ug/l Review Code:

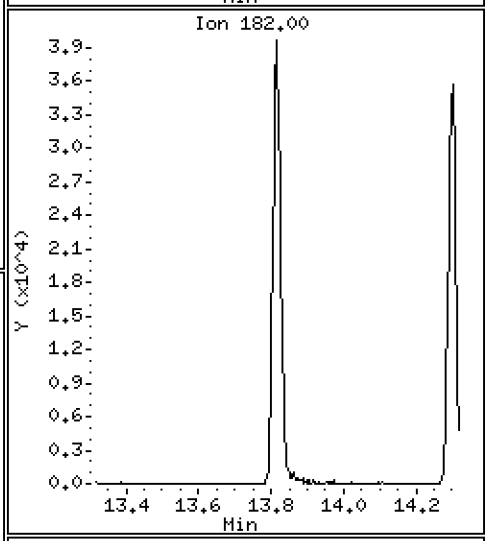


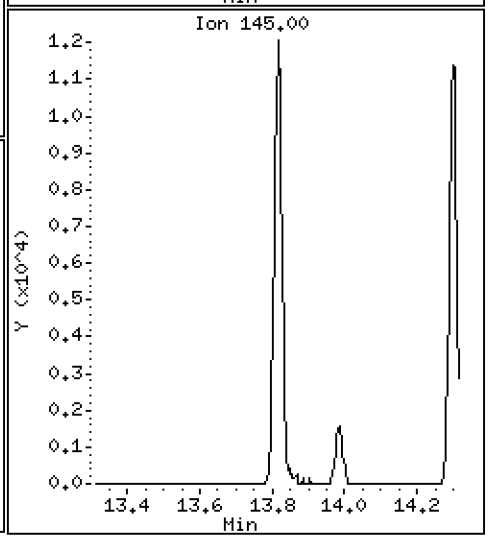












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 81

Date : 04-SEP-2018 17:39

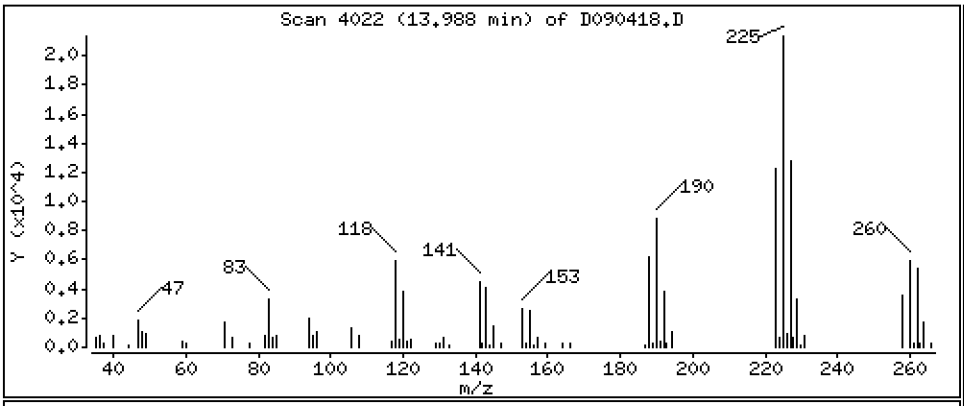
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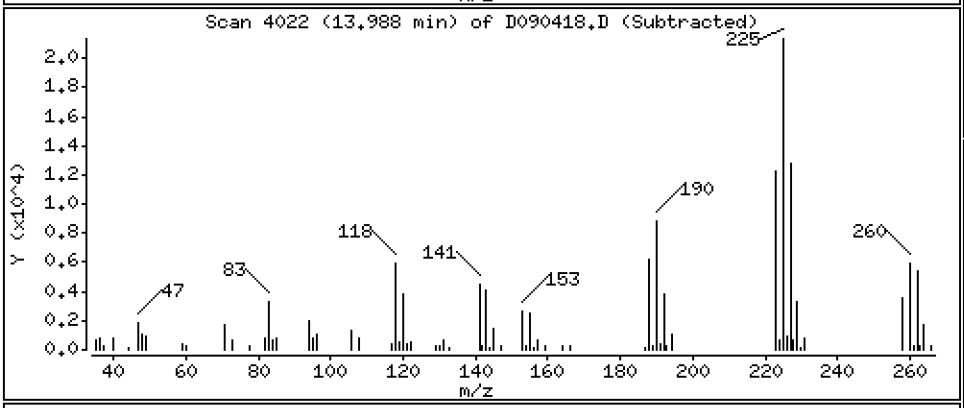
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

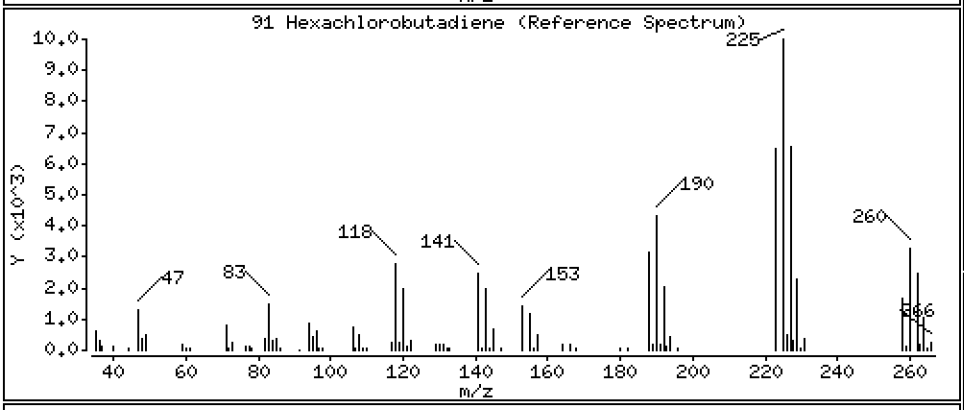
Purge Volume: 5.0 Operator: AP

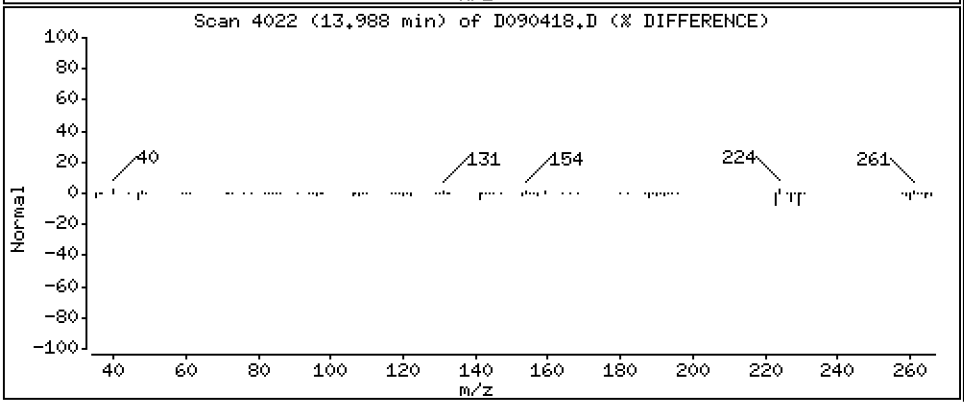
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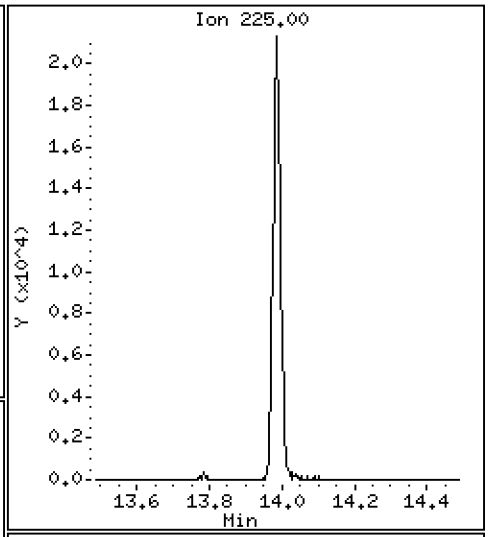
91 Hexachlorobutadiene Concentration: 17.77 ug/l Review Code:

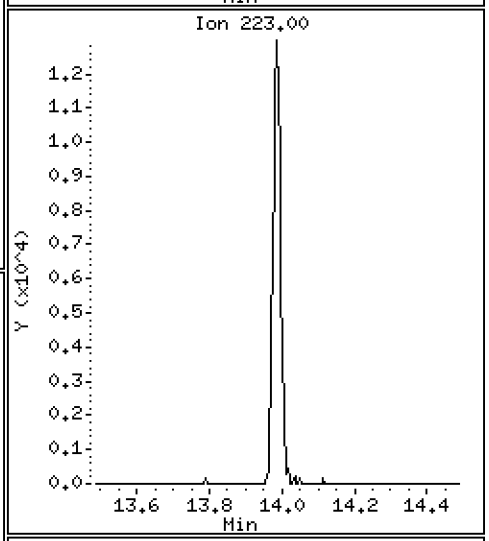


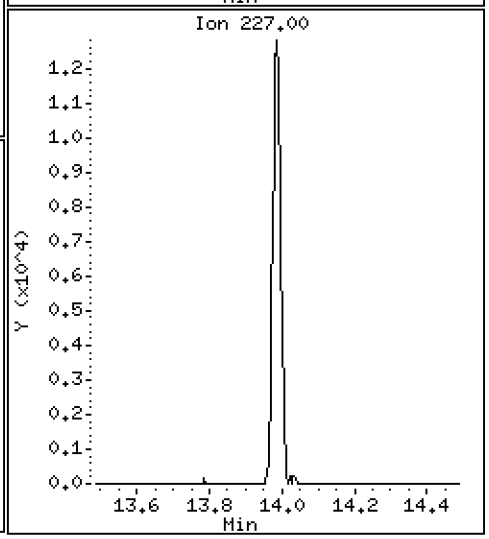












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D

Date : 04-SEP-2018 17:39

Client ID: HS18081504-01MS

Instrument: VOA2.i

Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

Purge Volume: 5.0

Operator: AP

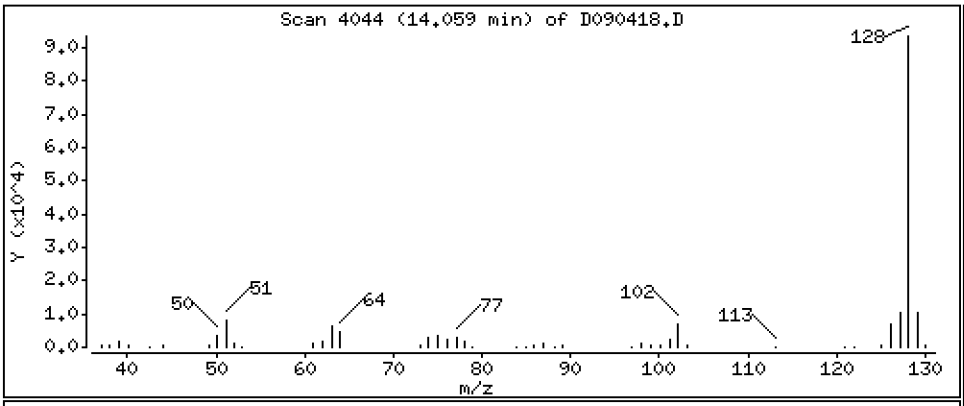
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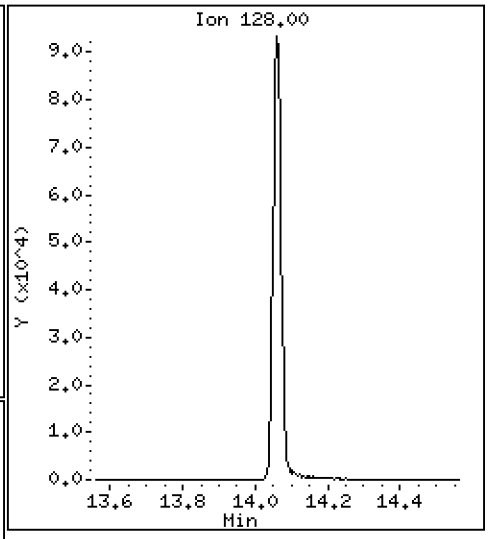
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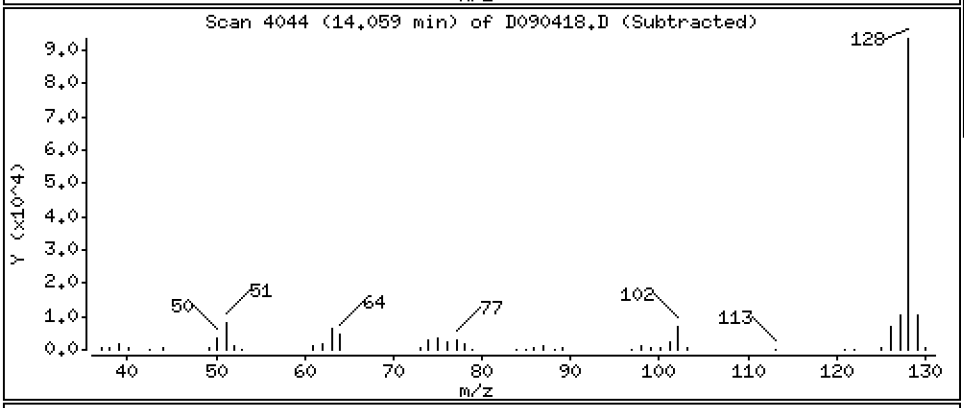
92 Naphthalene

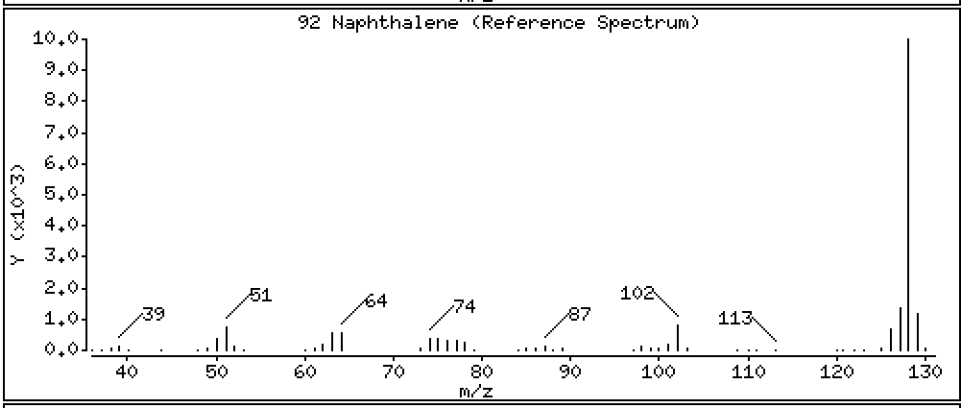
Concentration: 16.32 ug/l

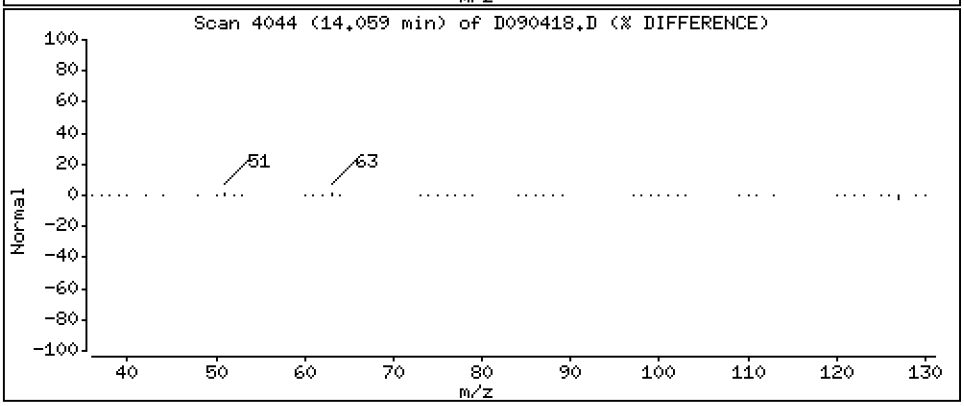
Review Code:











Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 83

Date : 04-SEP-2018 17:39

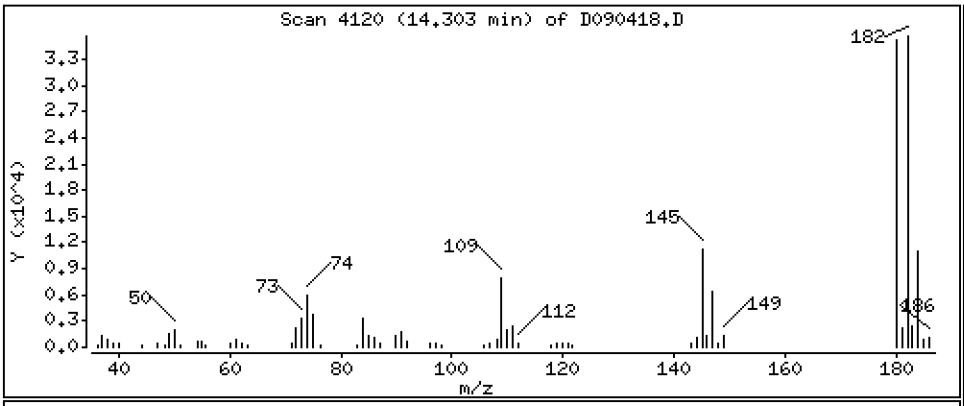
Client ID: HS18081504-01MS Instrument: VOA2.i

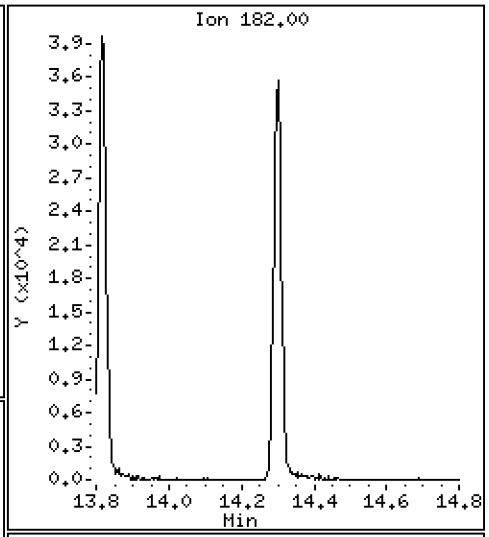
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

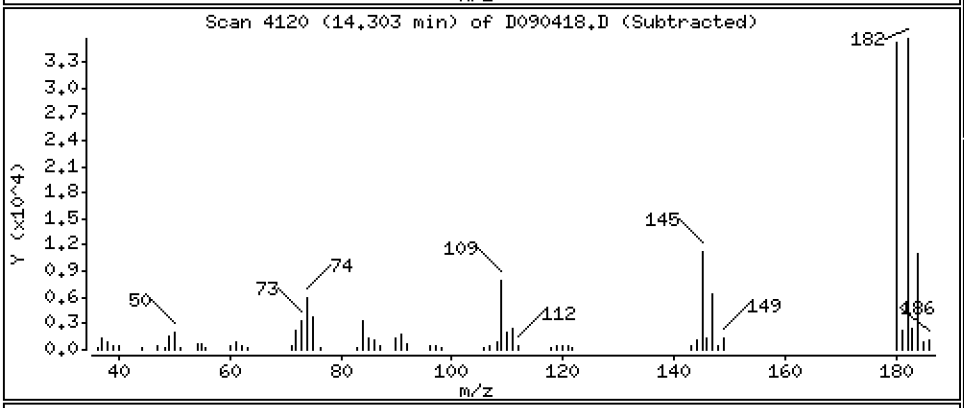
Purge Volume: 5.0 Operator: AP

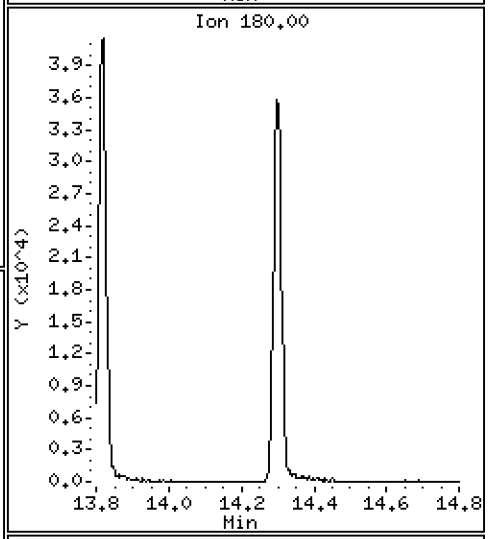
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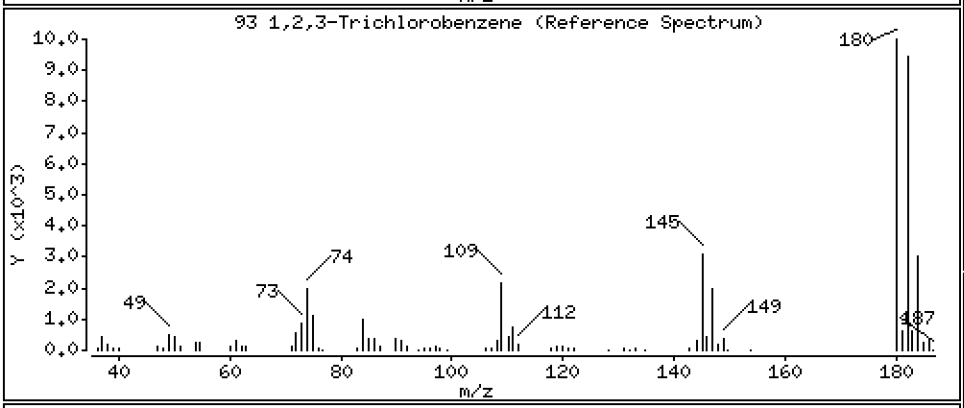
93 1,2,3-Trichlorobenzene Concentration: 16.79 ug/l Review Code:

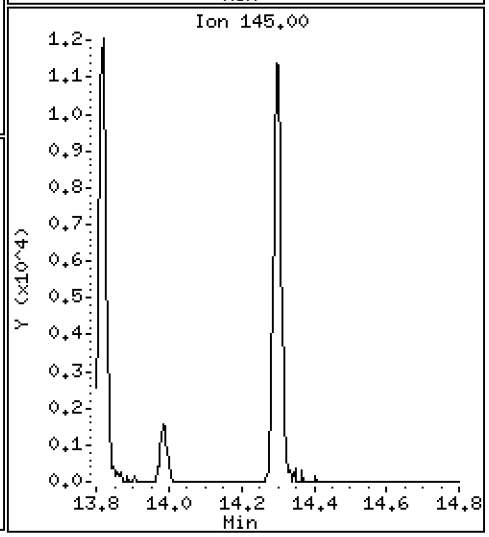


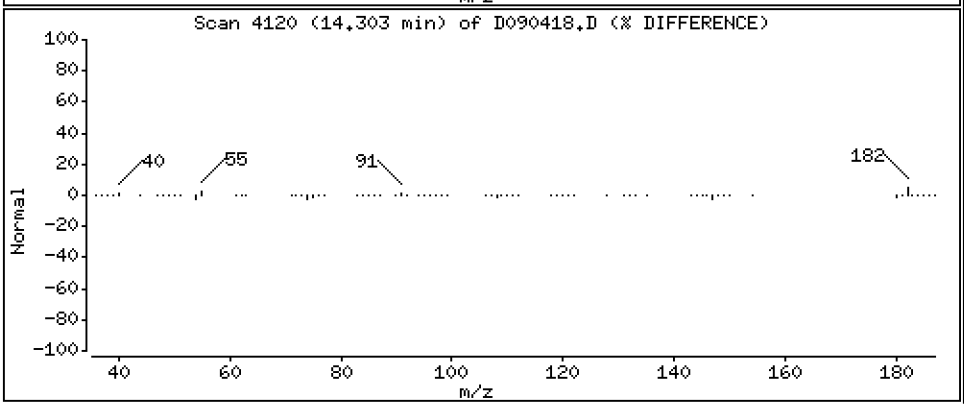












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 84

Date : 04-SEP-2018 17:39

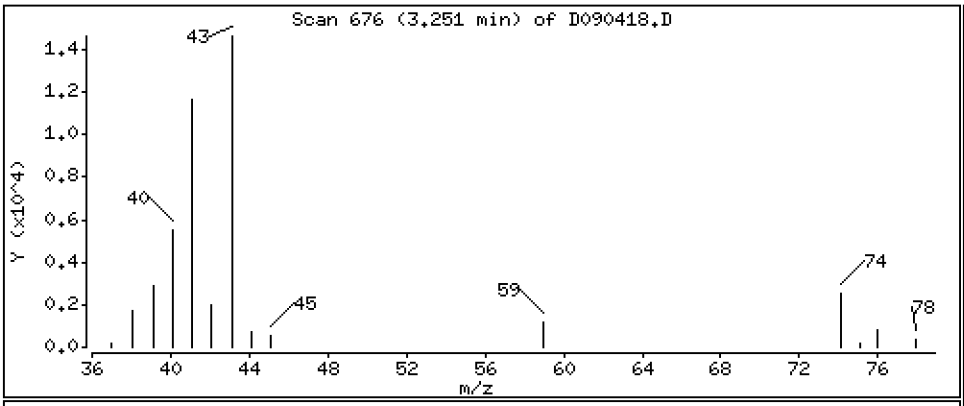
Client ID: HS18081504-01MS Instrument: VOA2.i

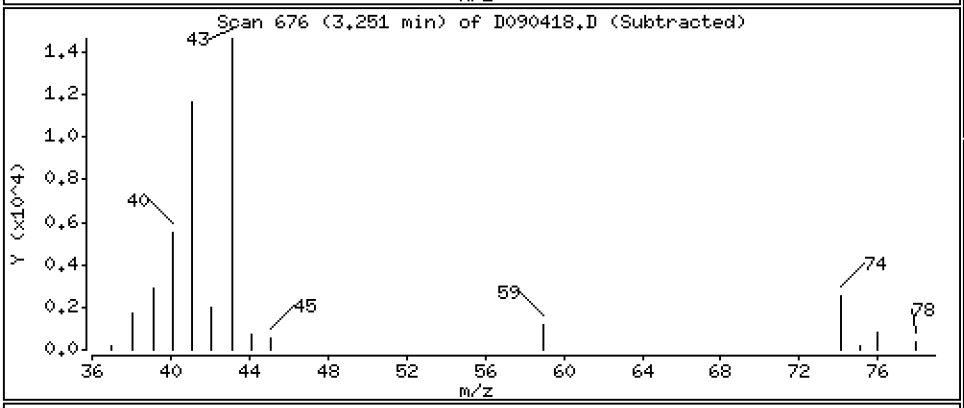
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

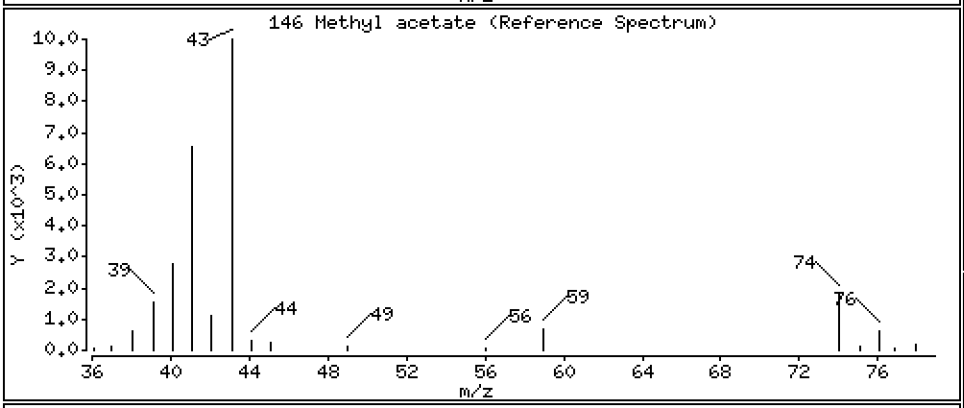
Purge Volume: 5.0 Operator: AP

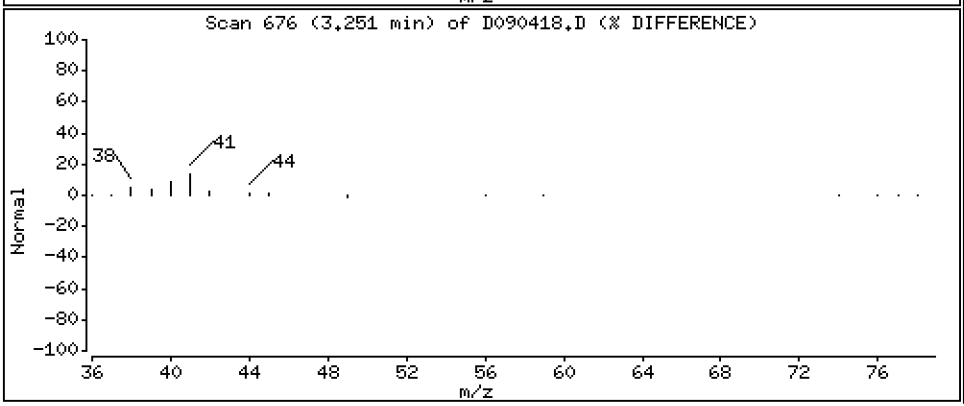
Column phase: DB624 Column diameter: 0.18

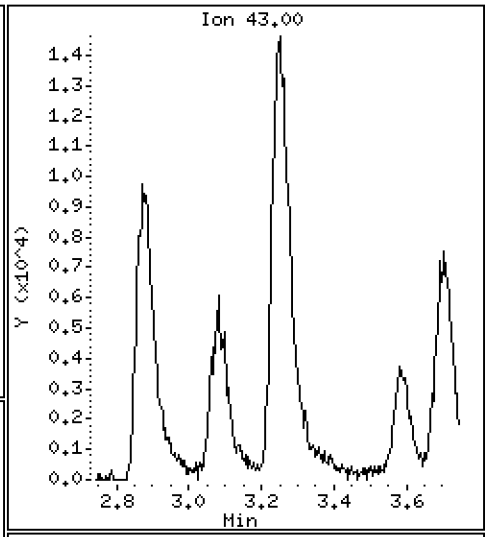
146 Methyl acetate Concentration: 13.49 ug/l Review Code:

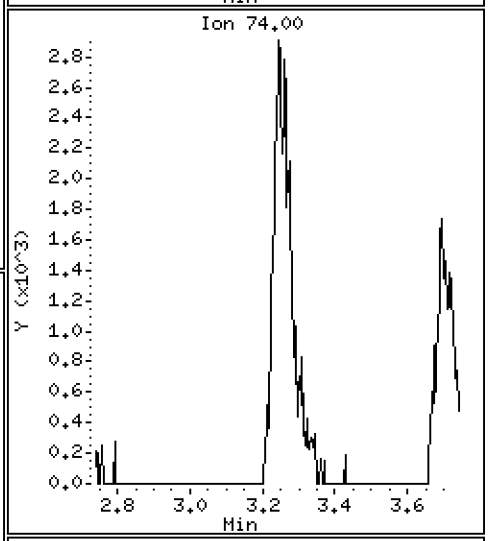


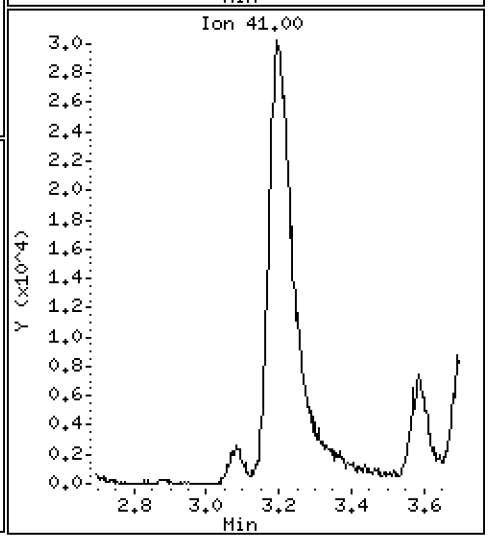












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 85

Date : 04-SEP-2018 17:39

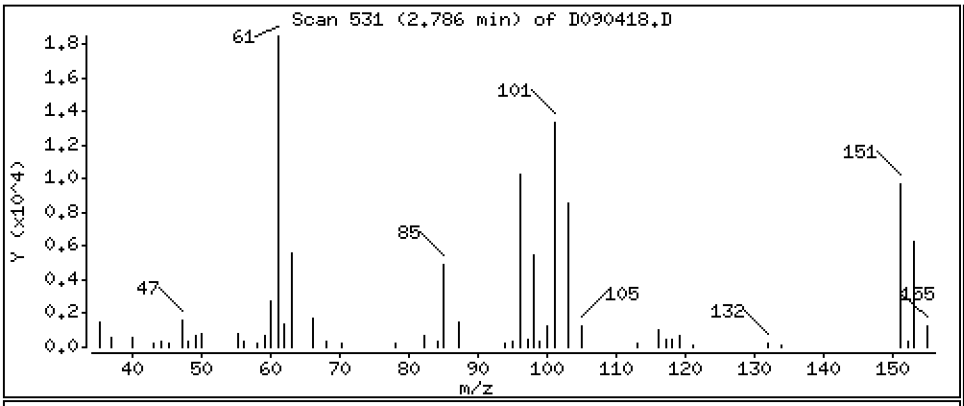
Client ID: HS18081504-01MS Instrument: VOA2.i

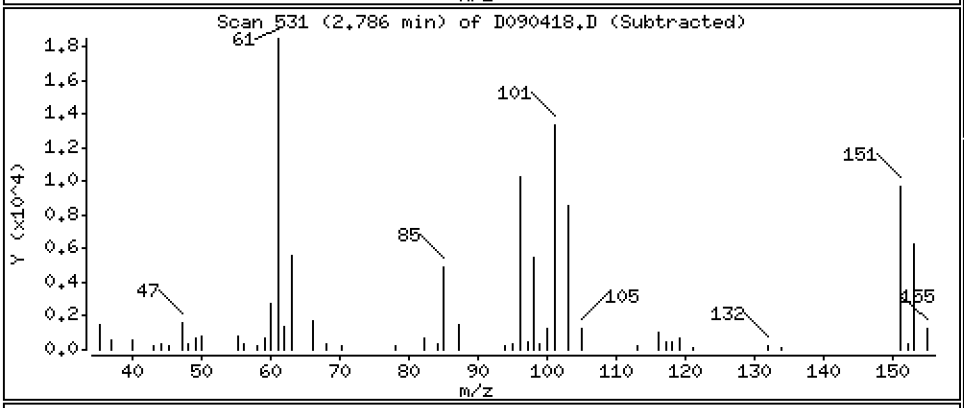
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

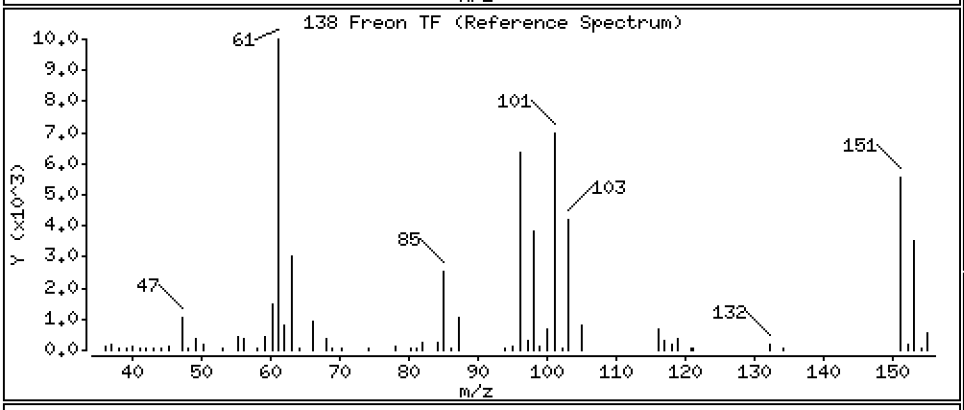
Purge Volume: 5.0 Operator: AP

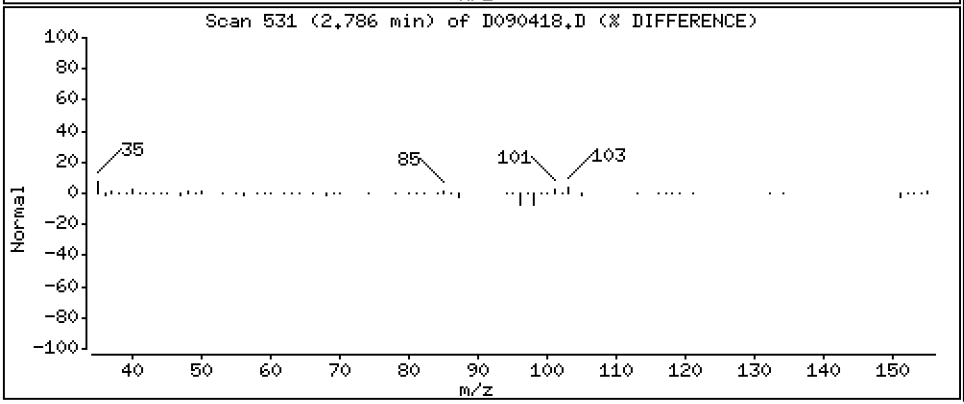
Column phase: DB624 Column diameter: 0.18

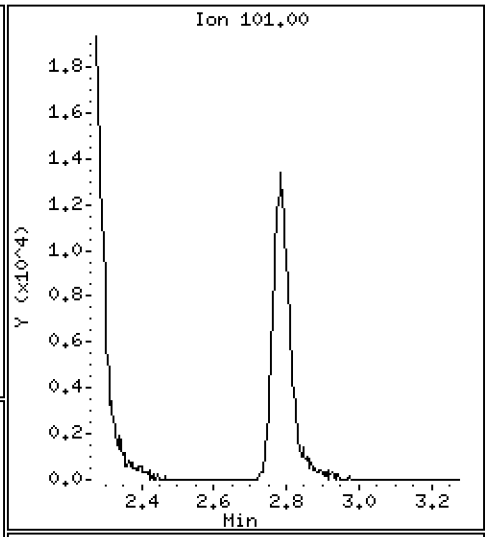
138 Freon TF Concentration: 18.36 ug/l Review Code:

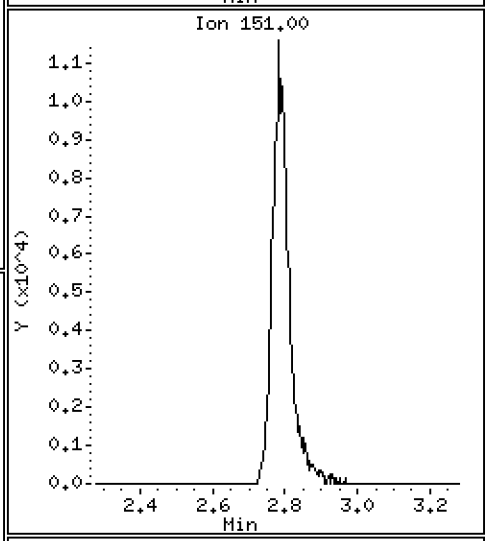


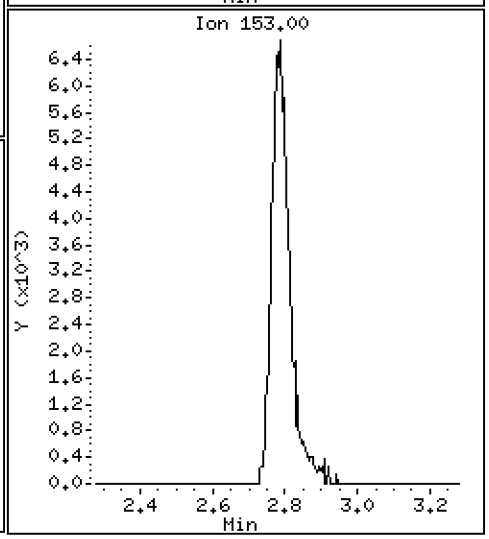












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 86

Date : 04-SEP-2018 17:39

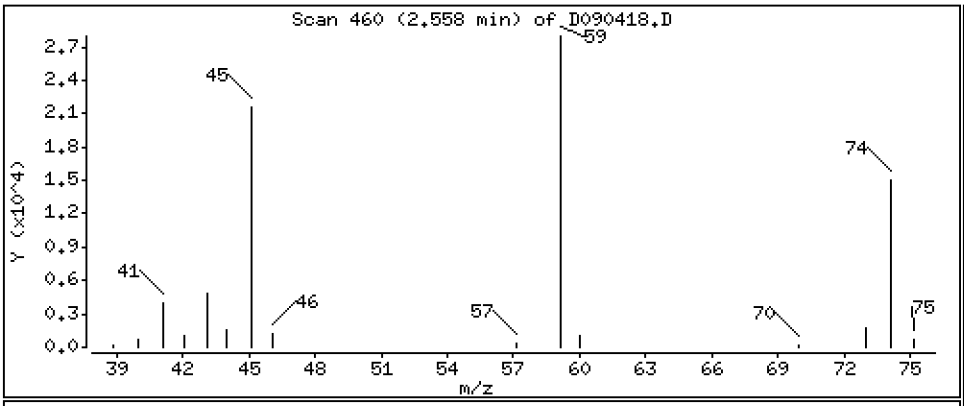
Client ID: HS18081504-01MS Instrument: VOA2.i

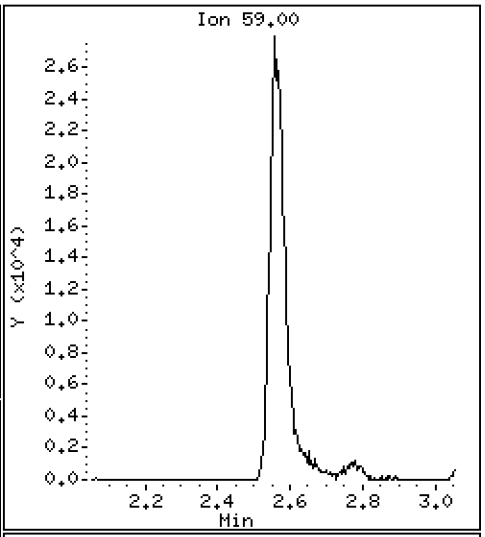
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

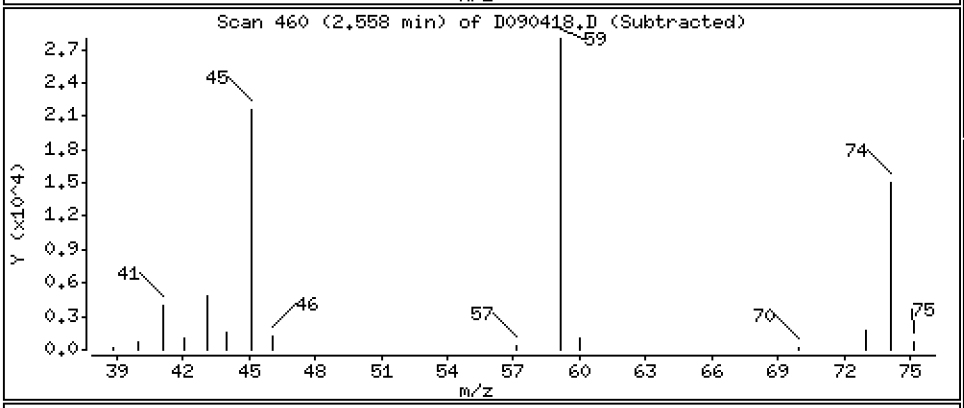
Purge Volume: 5.0 Operator: AP

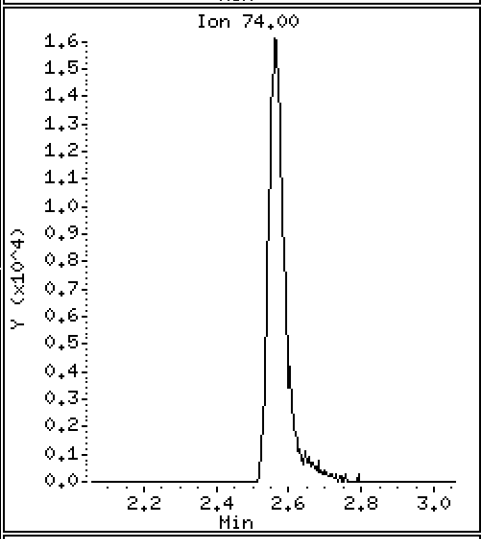
Column phase: DB624 Column diameter: 0.18

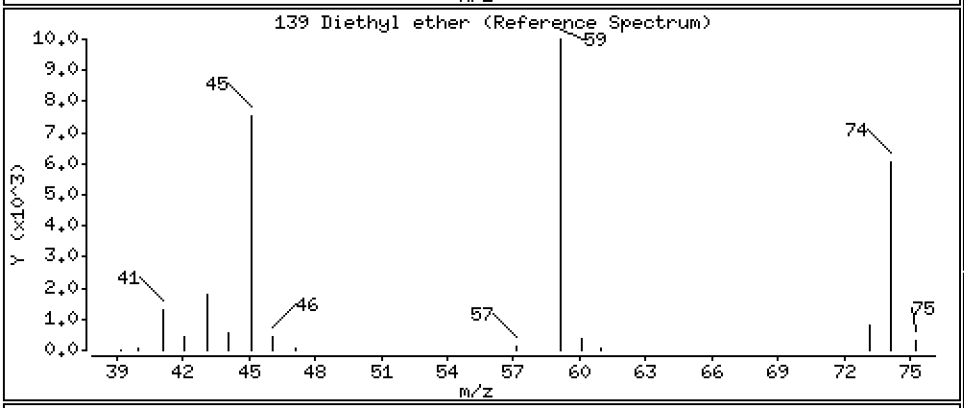
139 Diethyl ether Concentration: 13.99 ug/l Review Code:

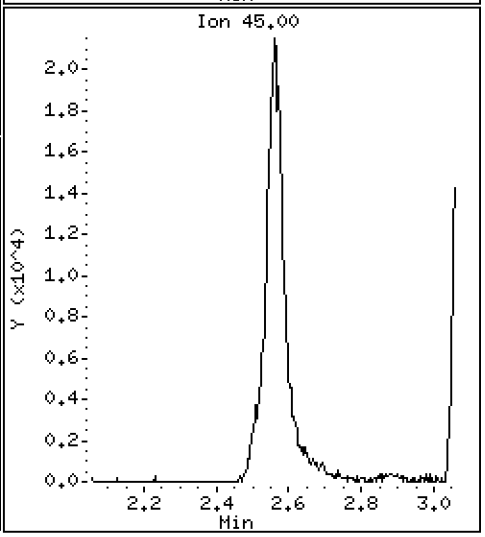


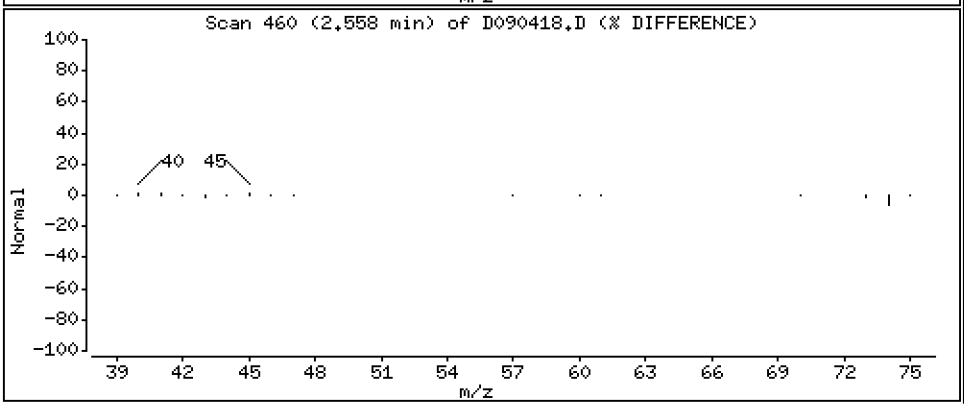












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 87

Date : 04-SEP-2018 17:39

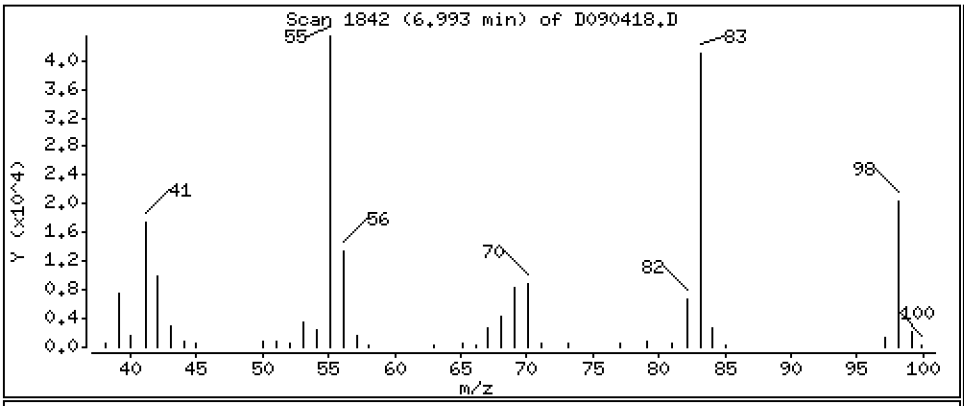
Client ID: HS18081504-01MS Instrument: VOA2.i

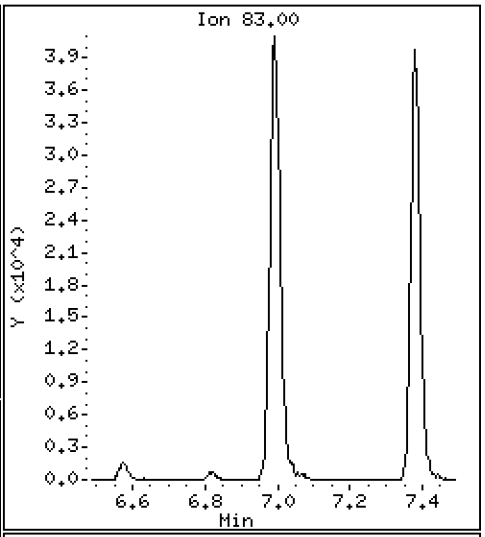
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

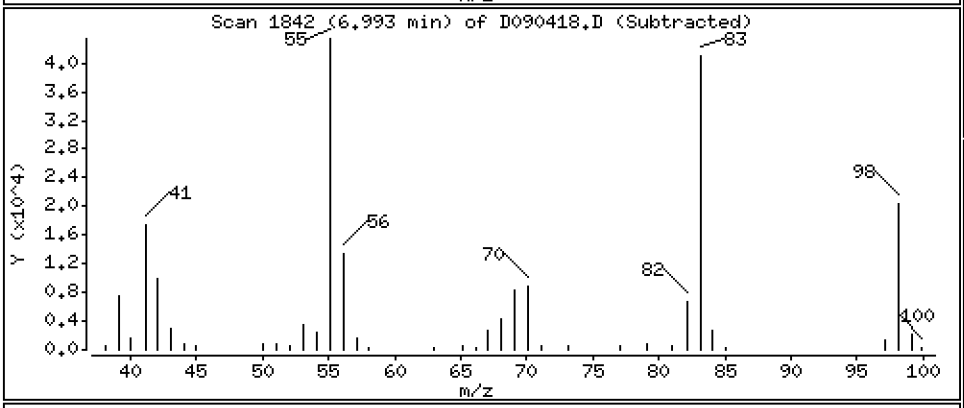
Purge Volume: 5.0 Operator: AP

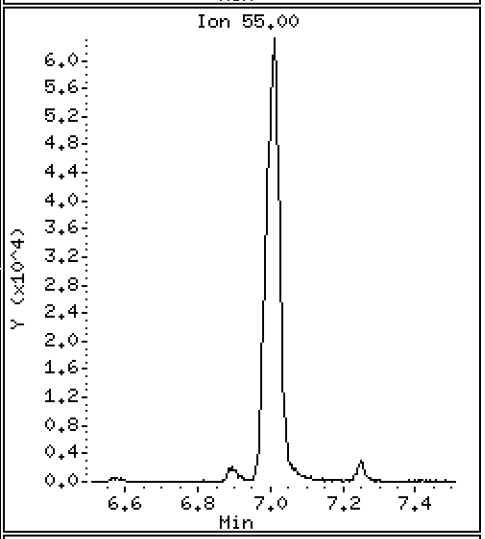
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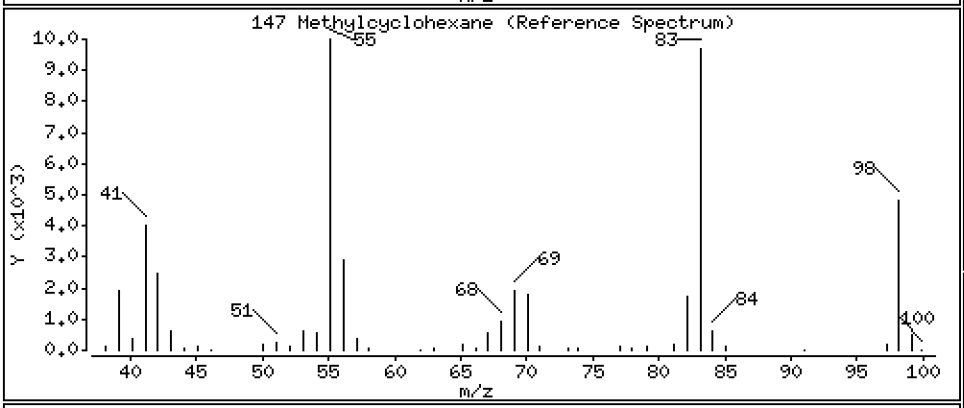
147 Methylcyclohexane Concentration: 20.75 ug/l Review Code:

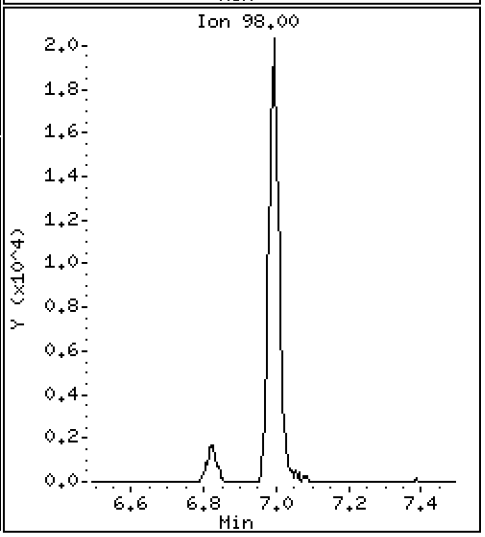


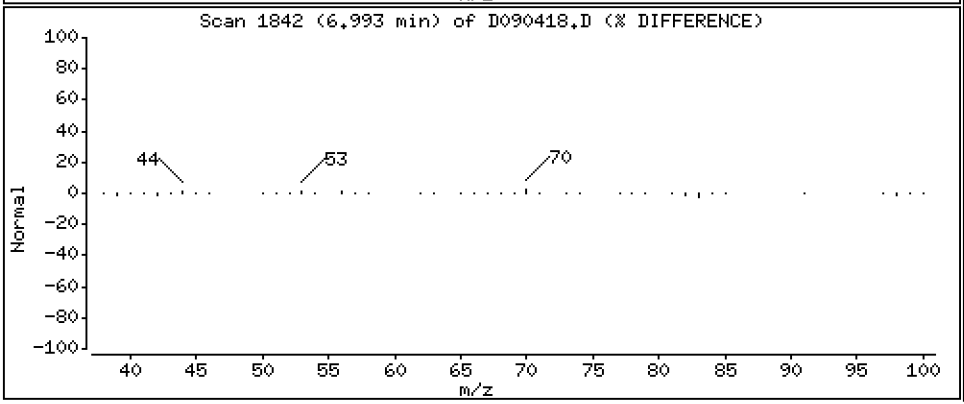












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 88

Date : 04-SEP-2018 17:39

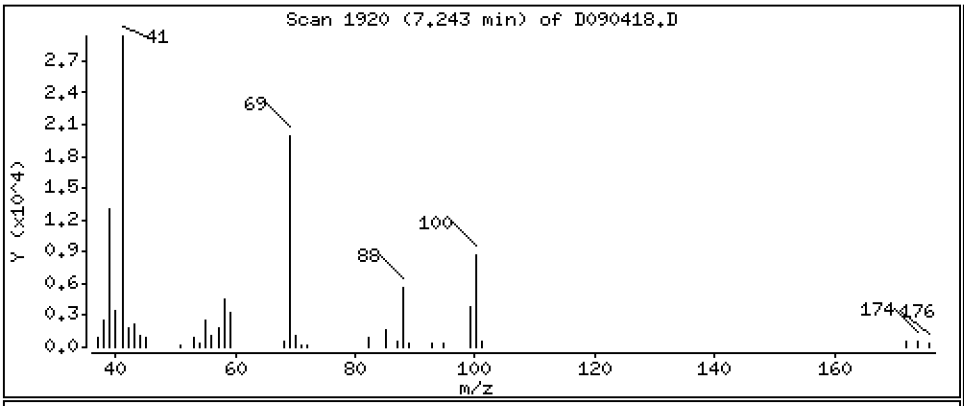
Client ID: HS18081504-01MS Instrument: VOA2.i

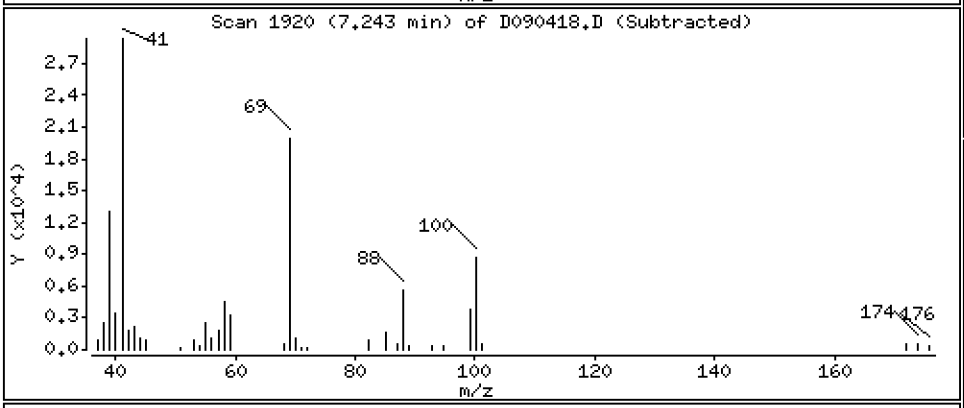
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

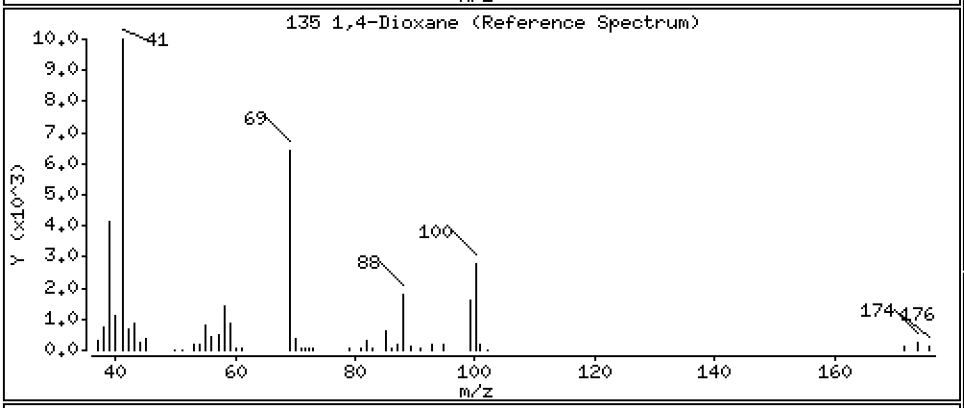
Purge Volume: 5.0 Operator: AP

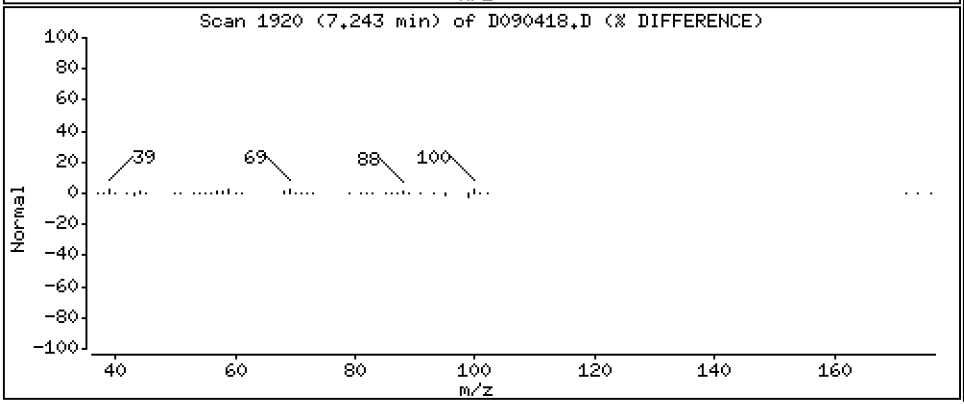
Column phase: DB624 Column diameter: 0.18

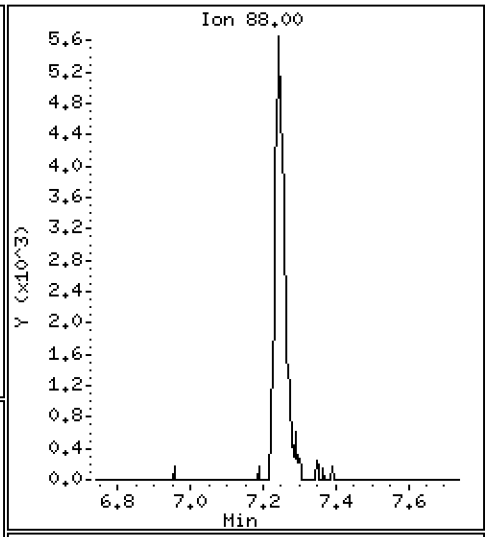
135 1,4-Dioxane Concentration: 319.51 ug/l Review Code:

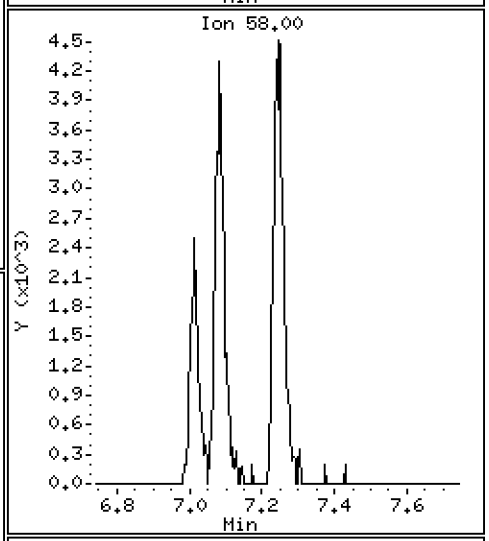


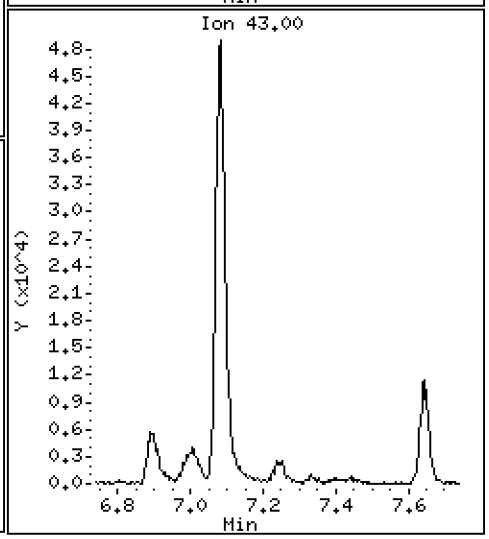












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 89

Date : 04-SEP-2018 17:39

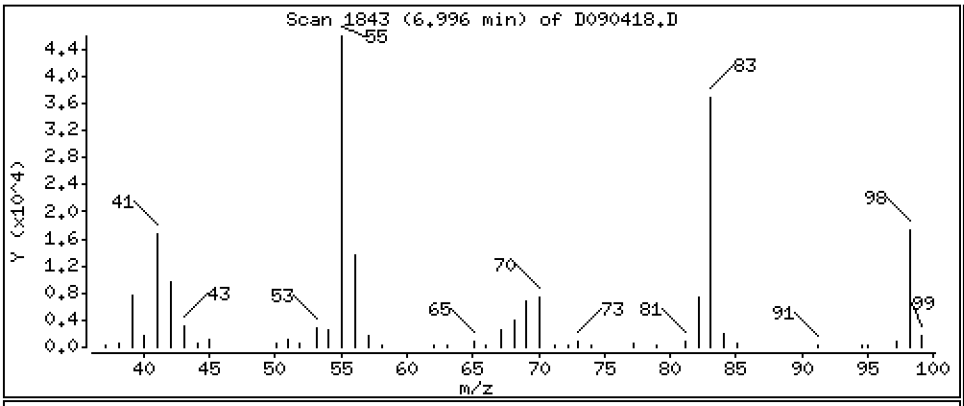
Client ID: HS18081504-01MS Instrument: VOA2.i

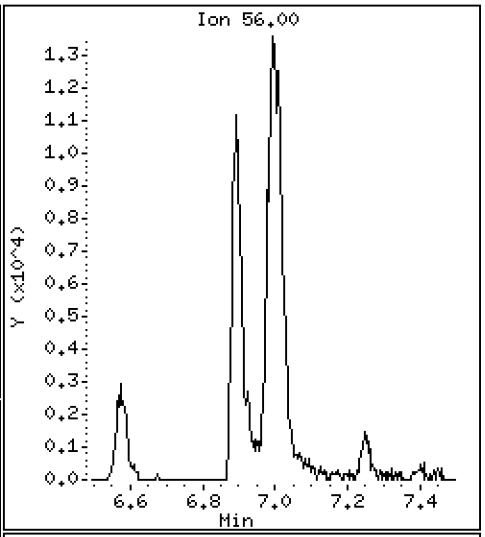
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

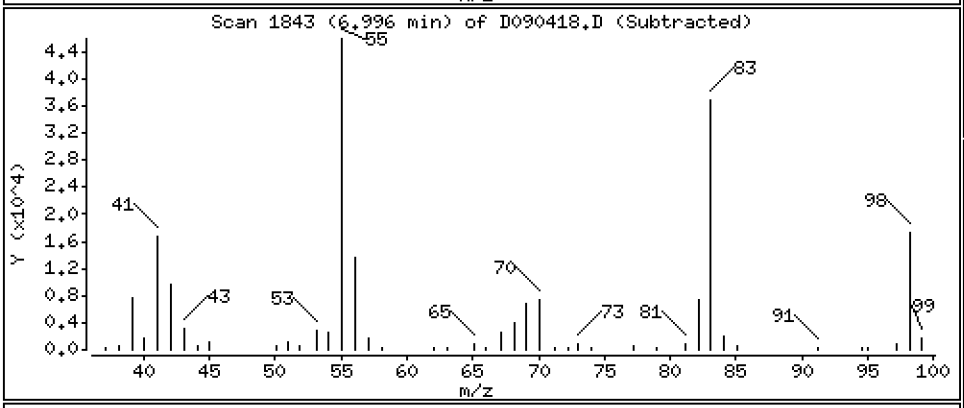
Purge Volume: 5.0 Operator: AP

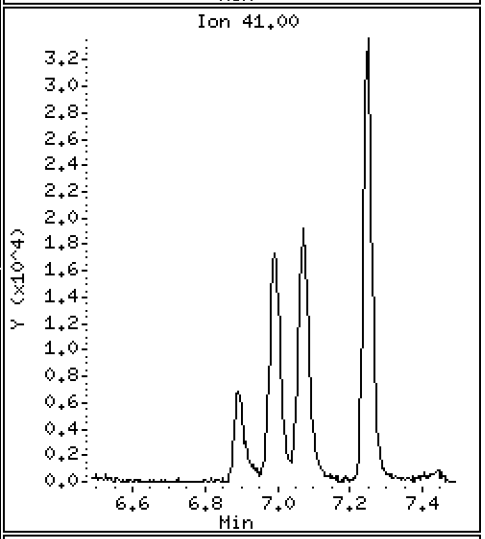
Column phase: DB624 Column diameter: 0.18

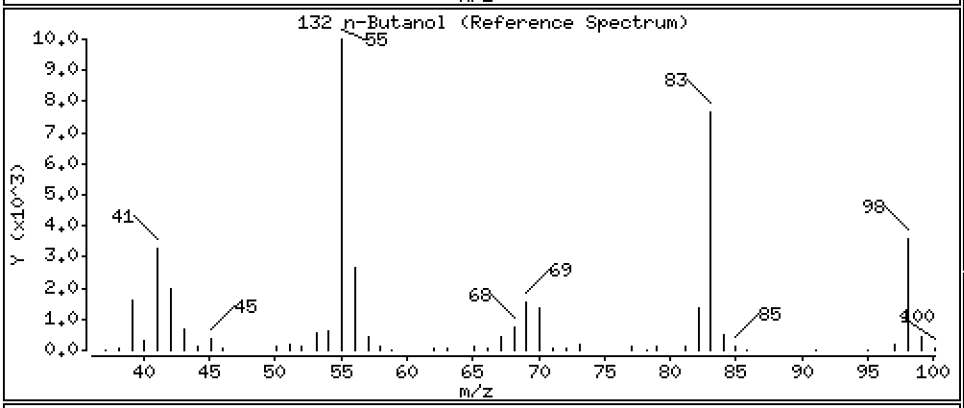
132 n-Butanol Concentration: 313.71 ug/l Review Code:

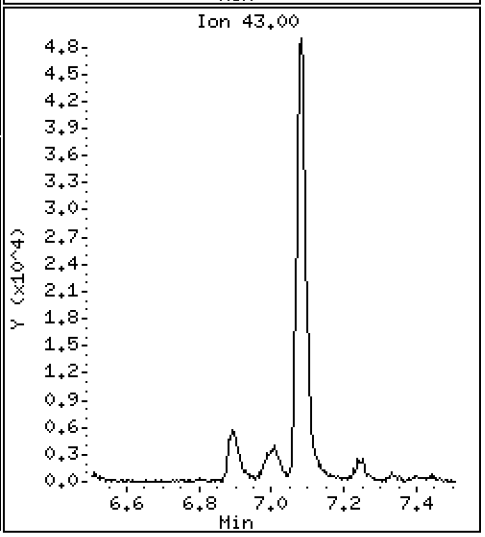


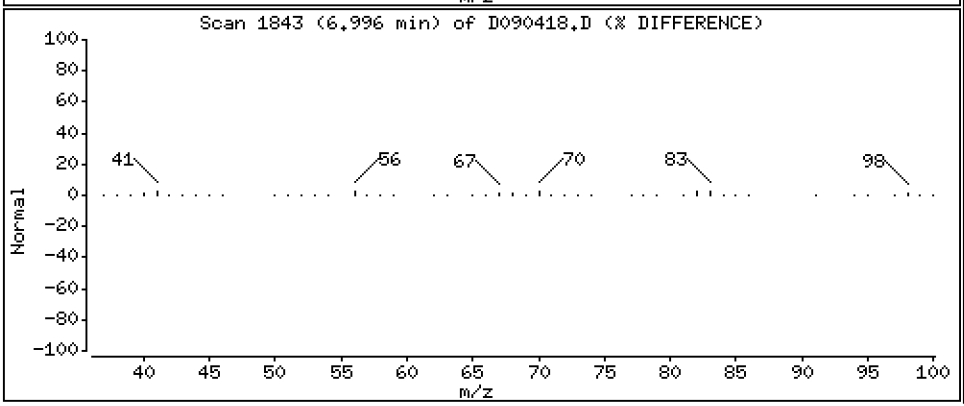












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 90

Date : 04-SEP-2018 17:39

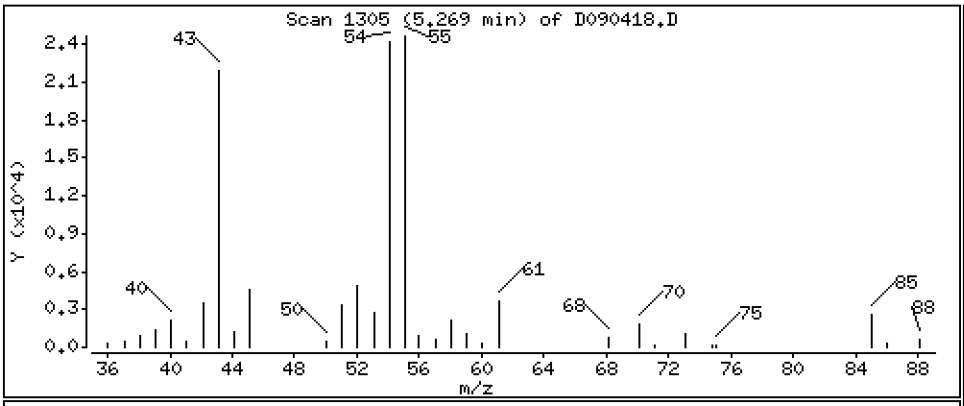
Client ID: HS18081504-01MS Instrument: VOA2.i

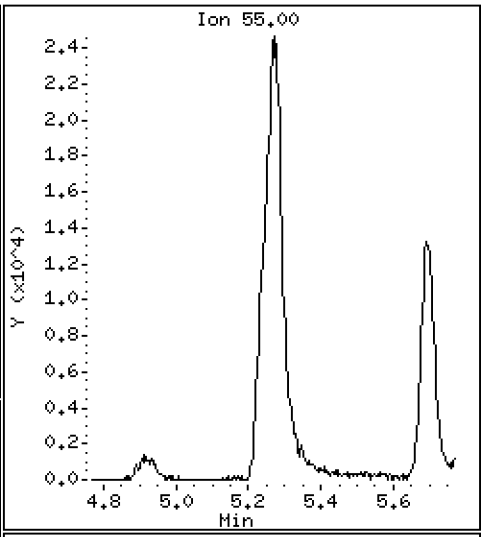
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

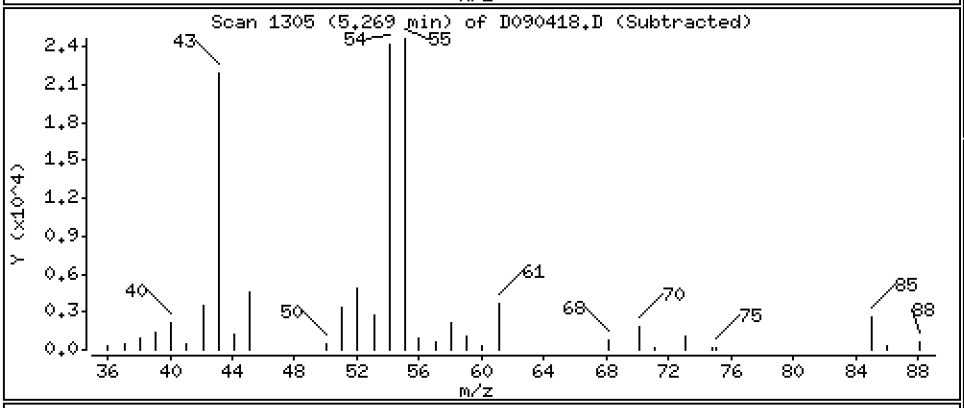
Purge Volume: 5.0 Operator: AP

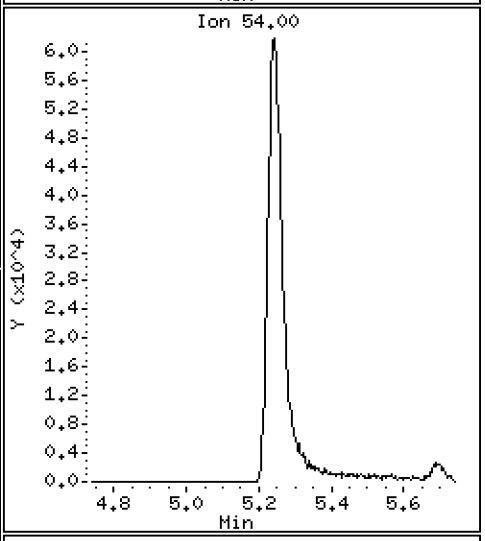
Column phase: DB624 Column diameter: 0.18

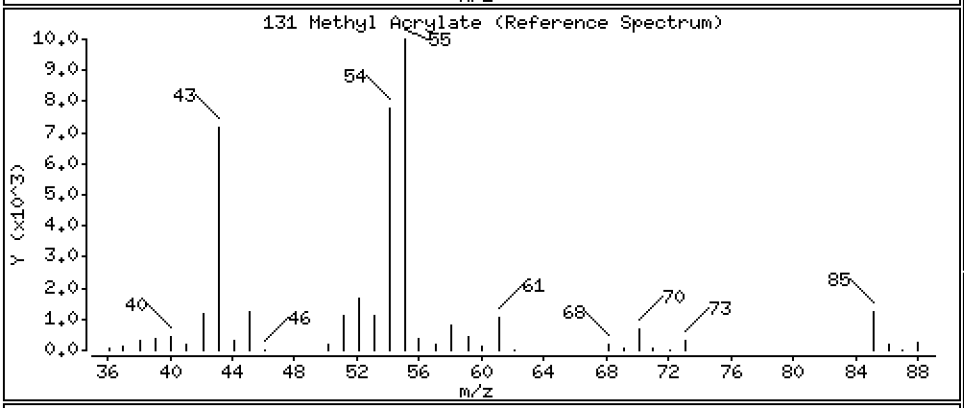
131 Methyl Acrylate Concentration: 16.23 ug/l Review Code:

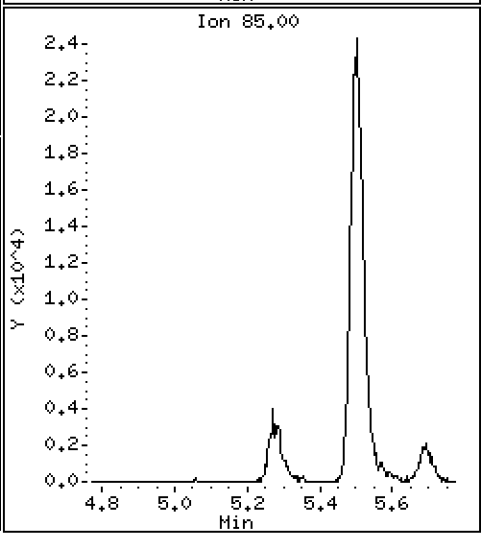


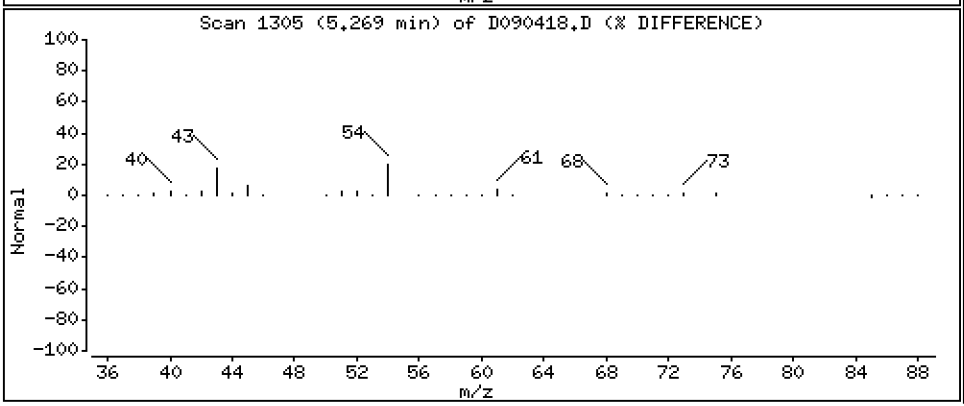












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 91

Date : 04-SEP-2018 17:39

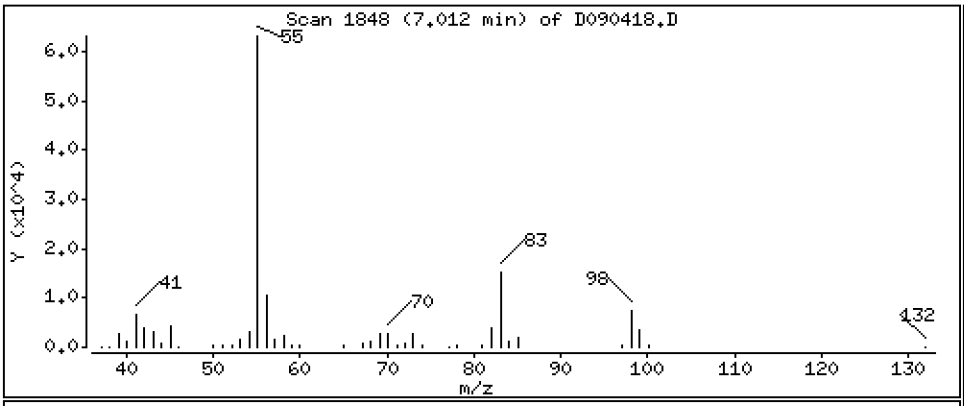
Client ID: HS18081504-01MS Instrument: VOA2.i

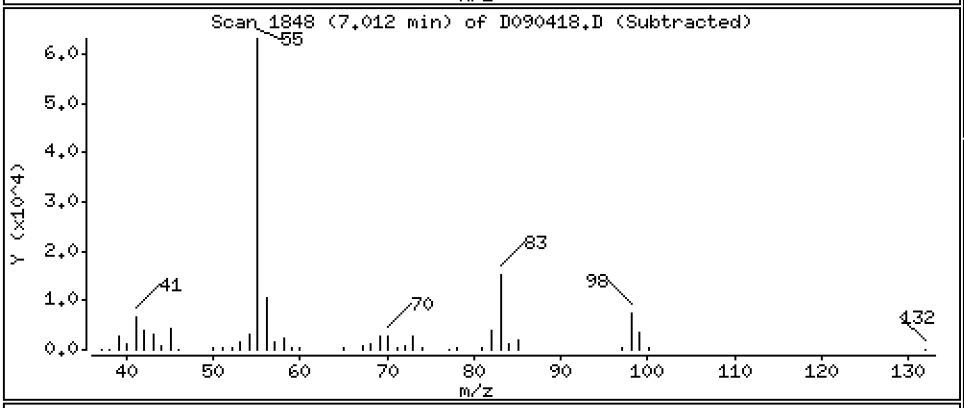
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

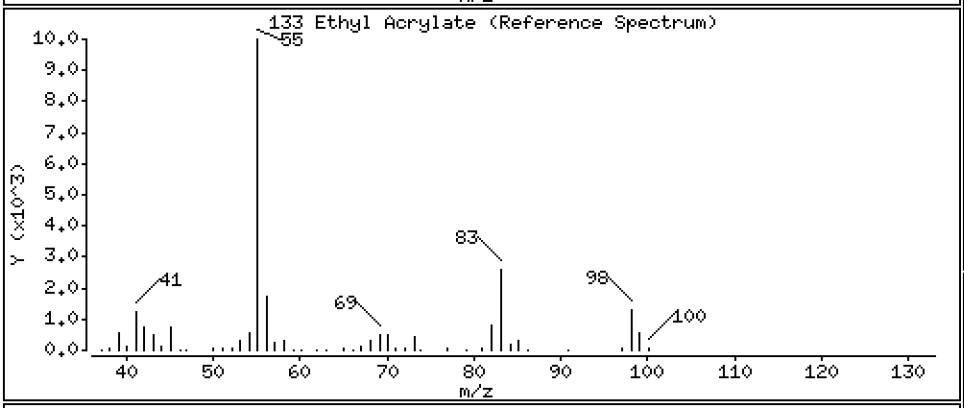
Purge Volume: 5.0 Operator: AP

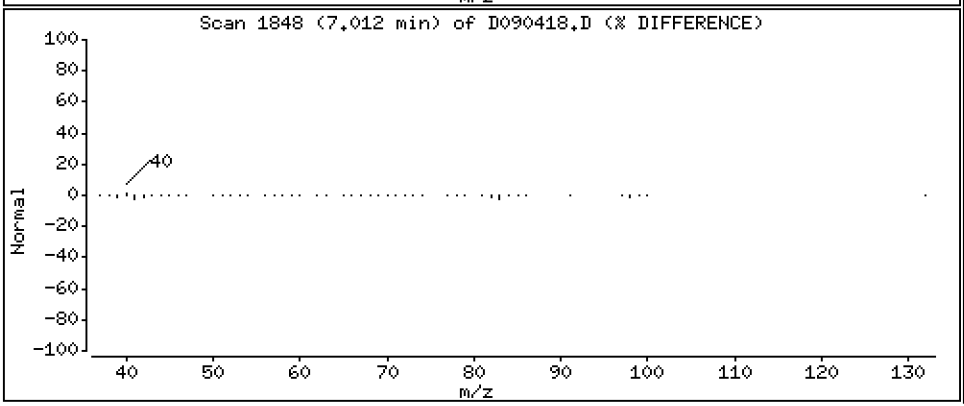
Column phase: DB624 Column diameter: 0.18

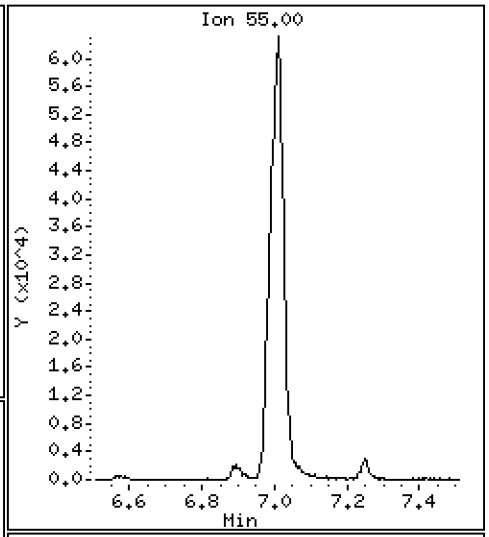
133 Ethyl Acrylate Concentration: 16.33 ug/l Review Code:

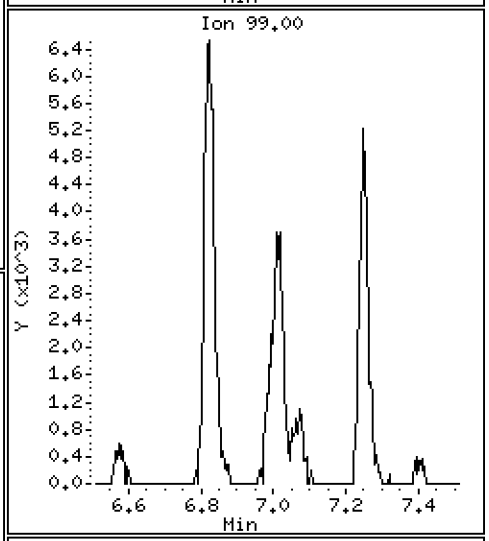


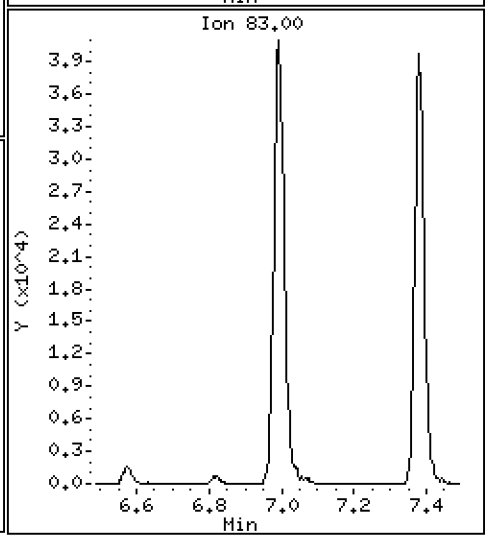












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 92

Date : 04-SEP-2018 17:39

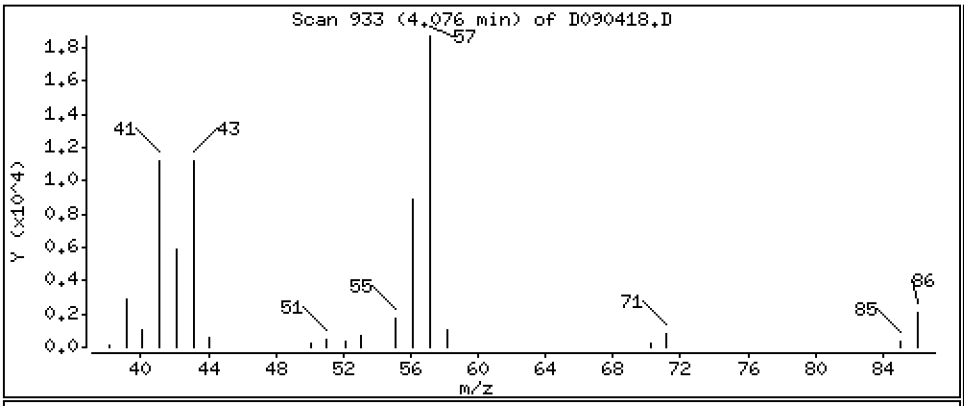
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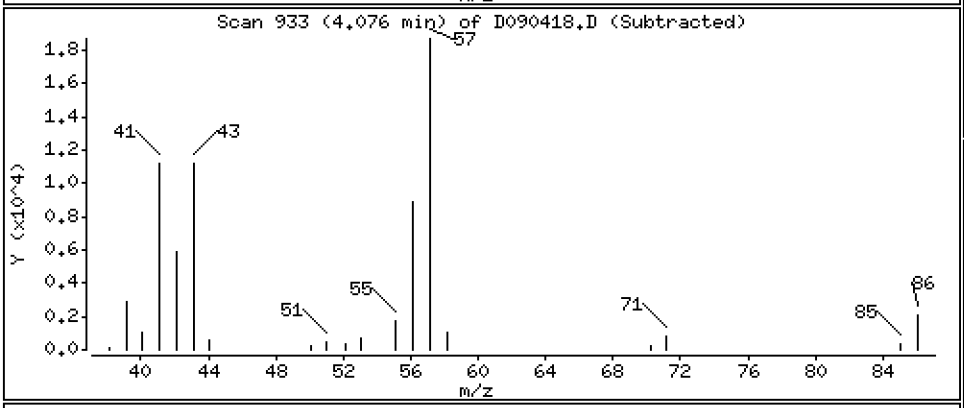
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

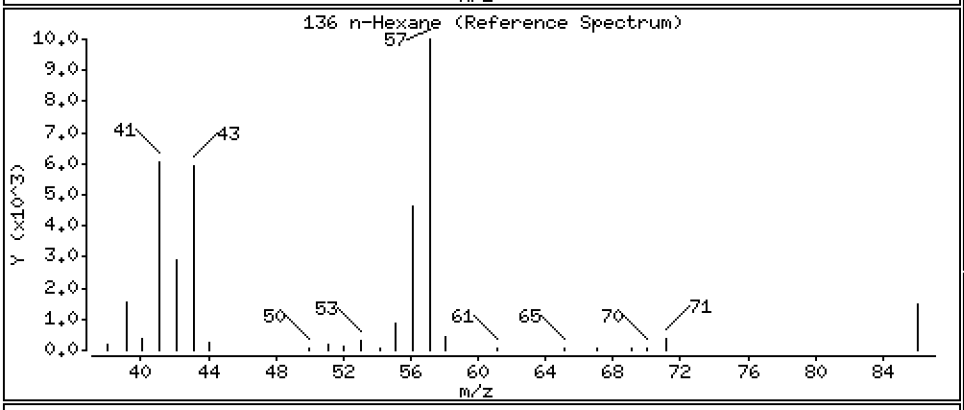
Purge Volume: 5.0 Operator: AP

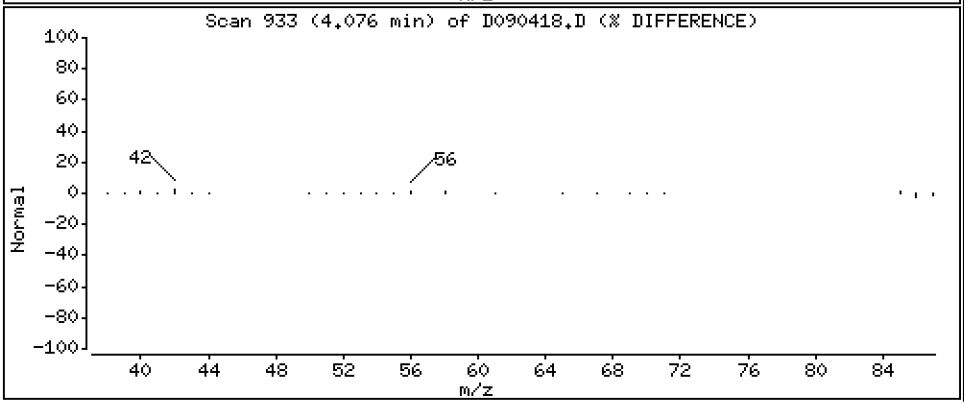
Column phase: DB624 Column diameter: 0.18

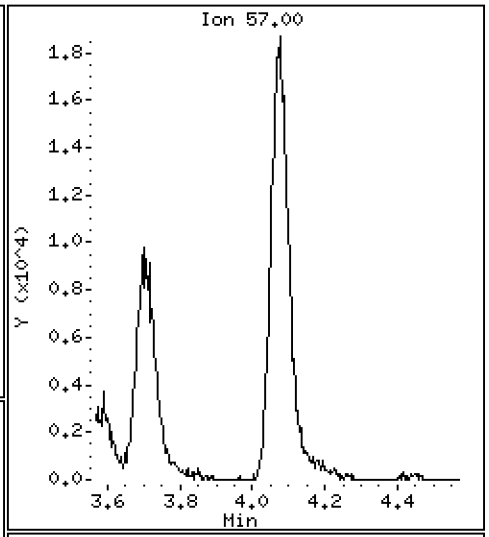
136 n-Hexane Concentration: 16.95 ug/l Review Code:

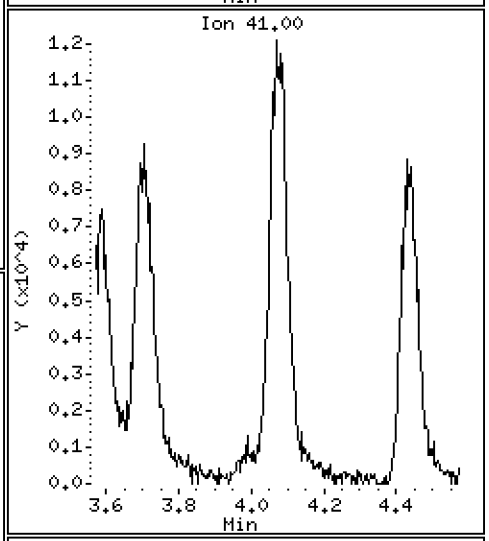


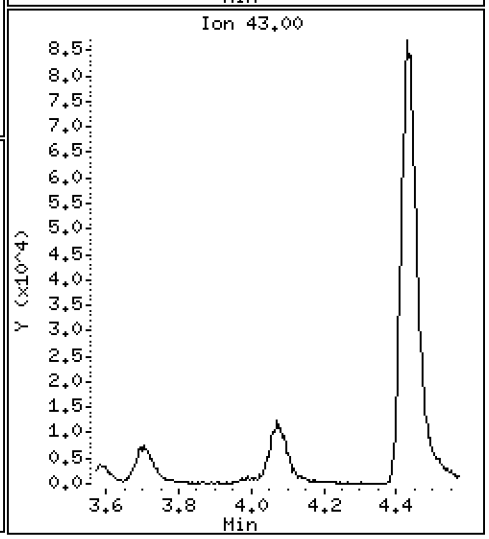












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 93

Date : 04-SEP-2018 17:39

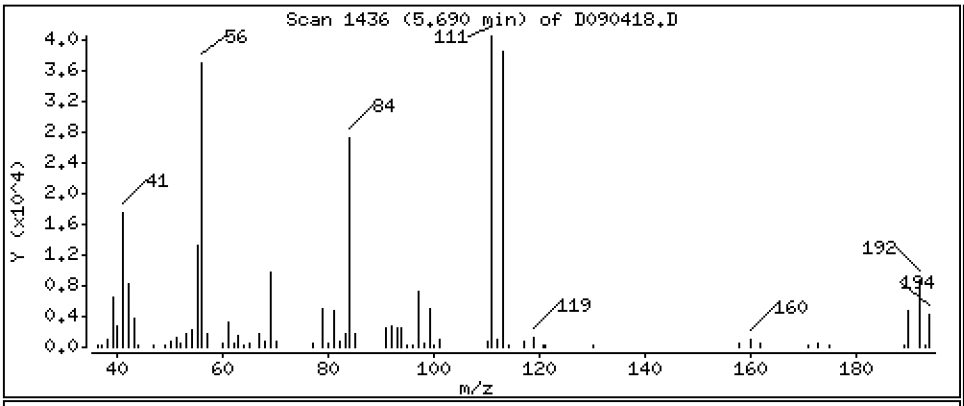
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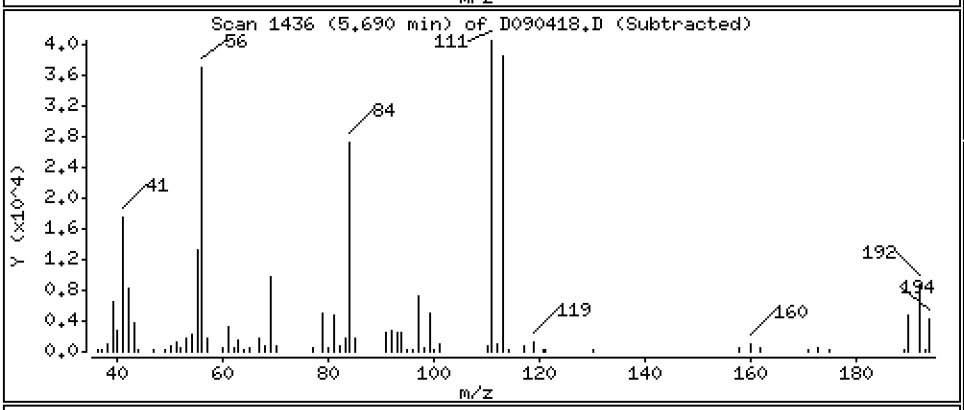
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

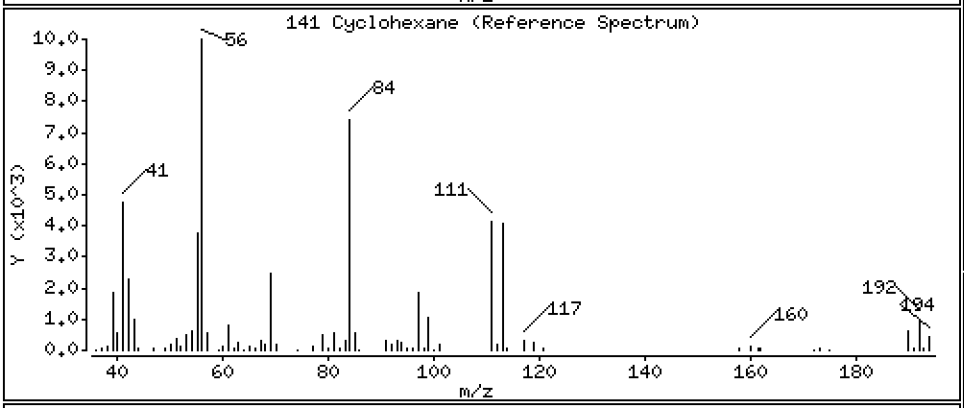
Purge Volume: 5.0 Operator: AP

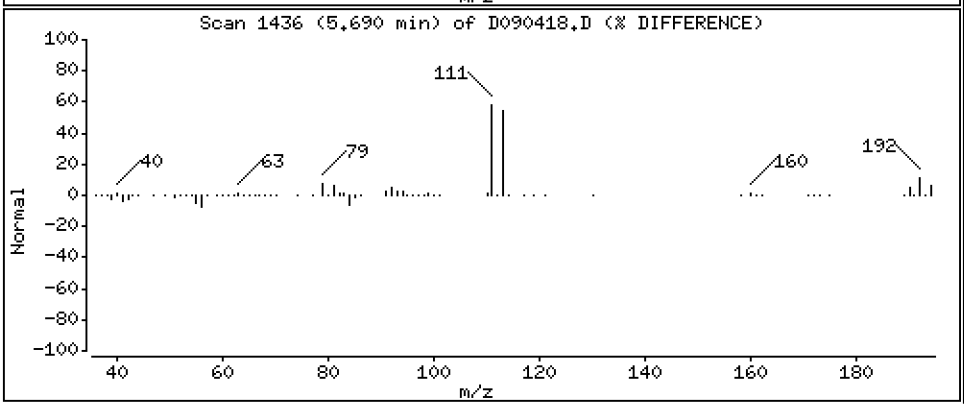
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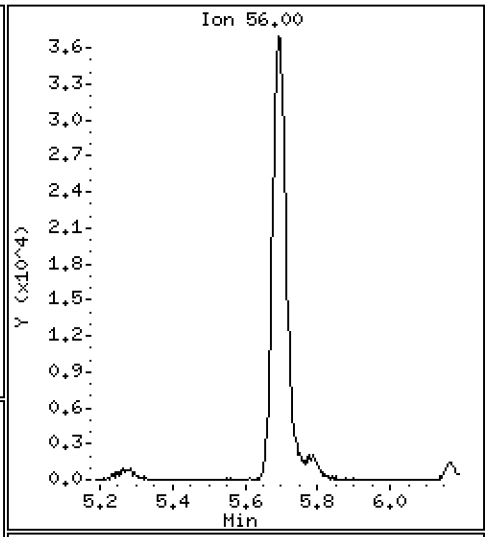
141 Cyclohexane Concentration: 16.61 ug/l Review Code:

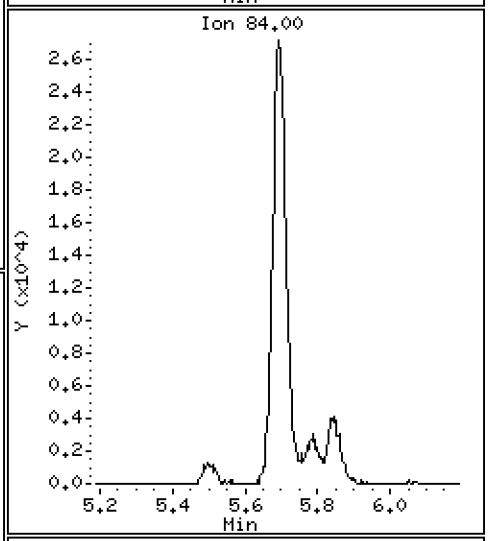


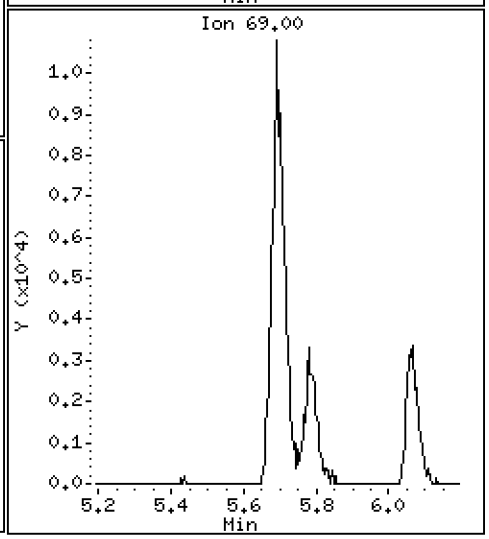












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 94

Date : 04-SEP-2018 17:39

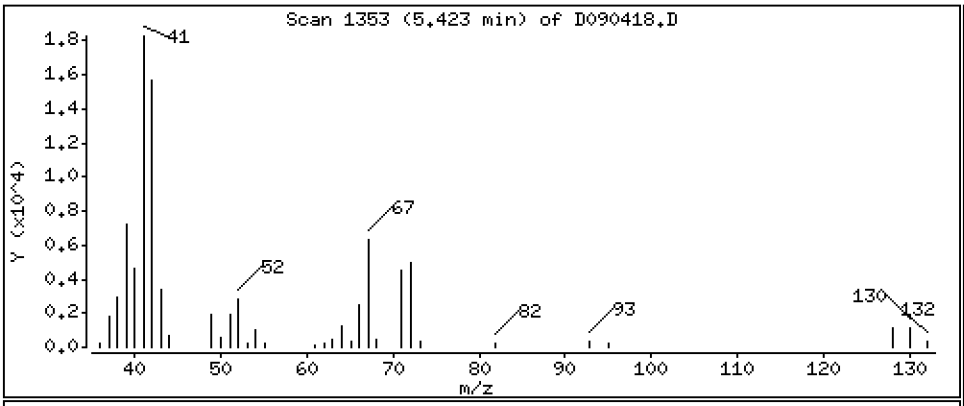
Client ID: HS18081504-01MS Instrument: VOA2.i

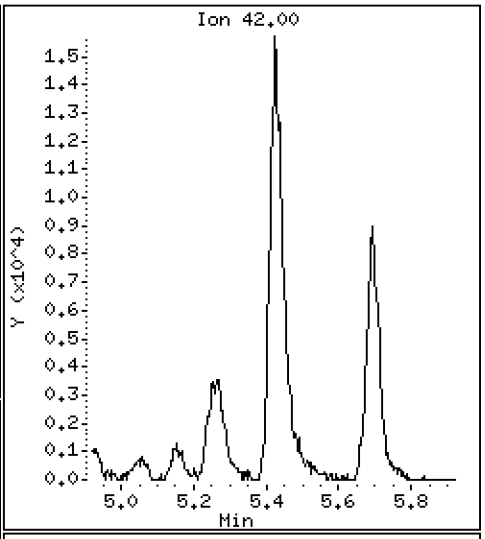
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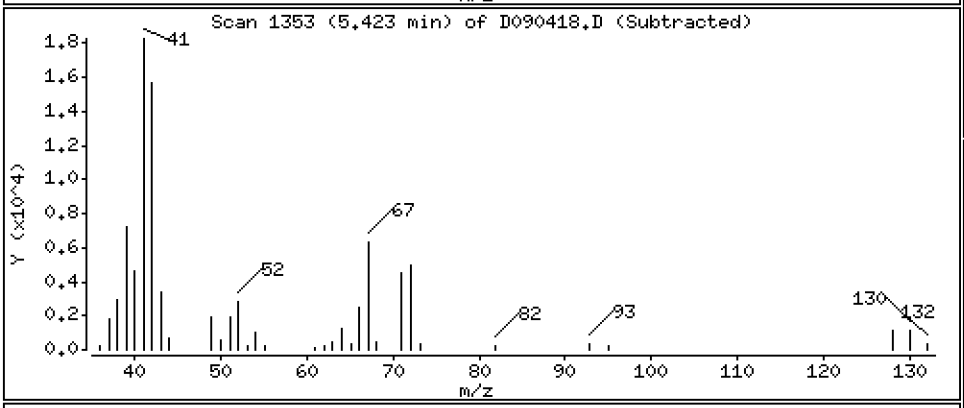
Purge Volume: 5.0 Operator: AP

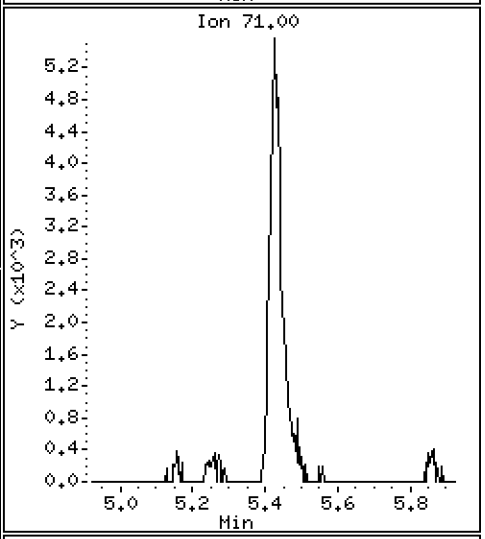
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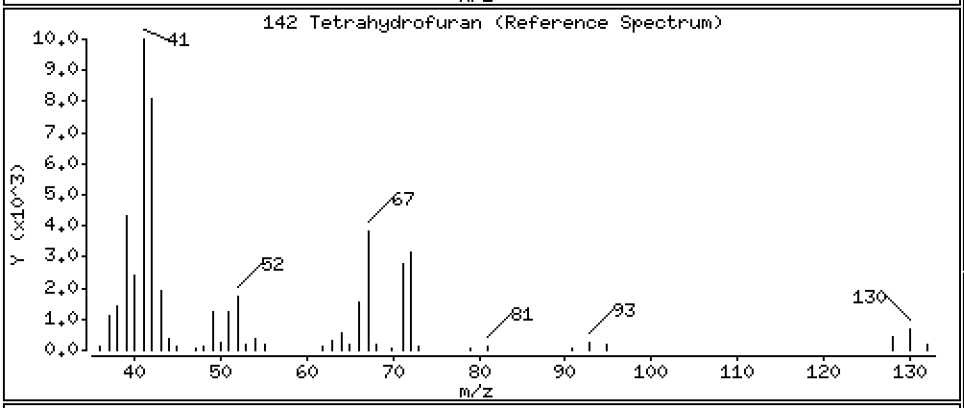
142 Tetrahydrofuran Concentration: 31.89 ug/l Review Code:

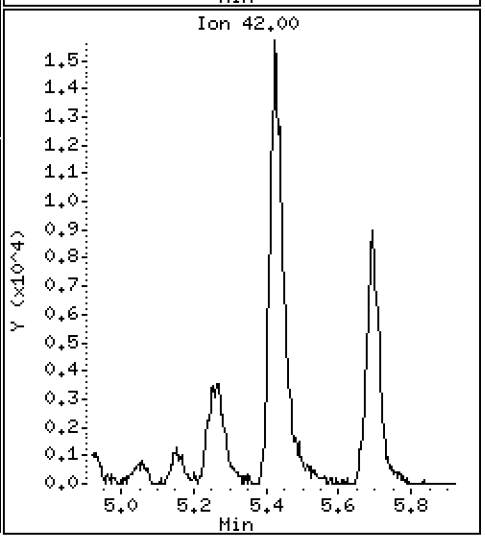


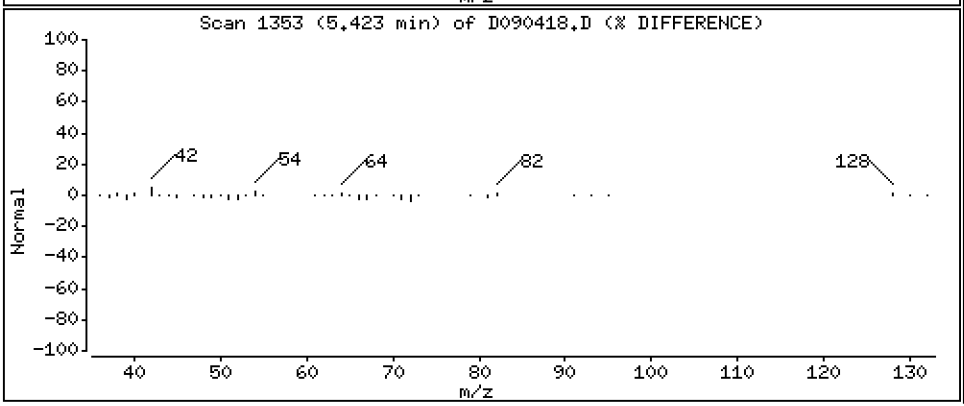












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 95

Date : 04-SEP-2018 17:39

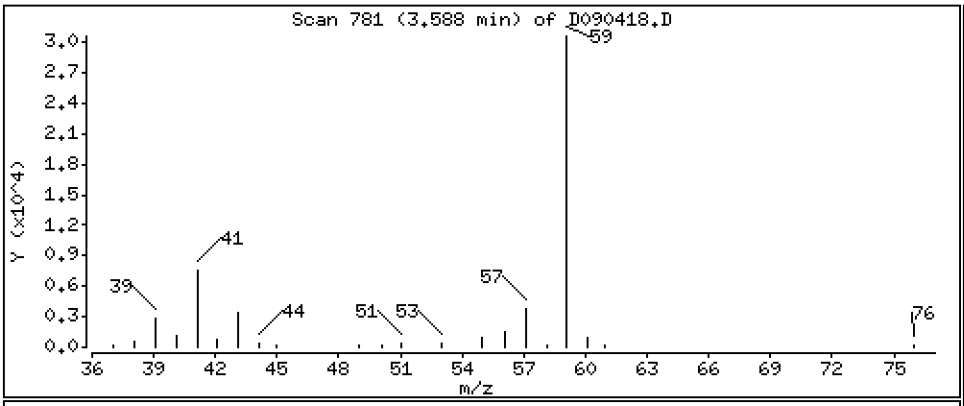
Client ID: HS18081504-01MS Instrument: VOA2.i

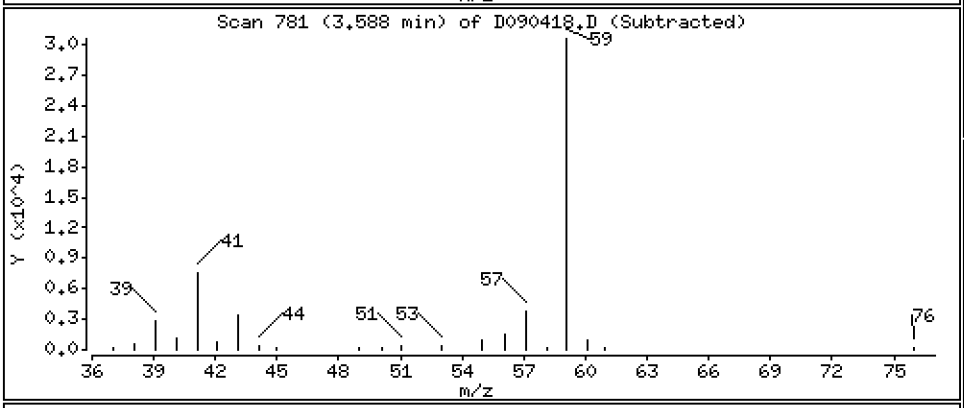
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

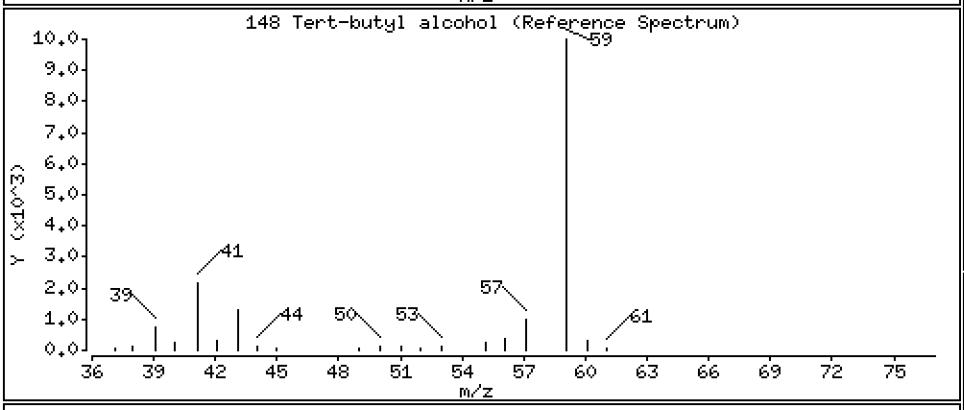
Purge Volume: 5.0 Operator: AP

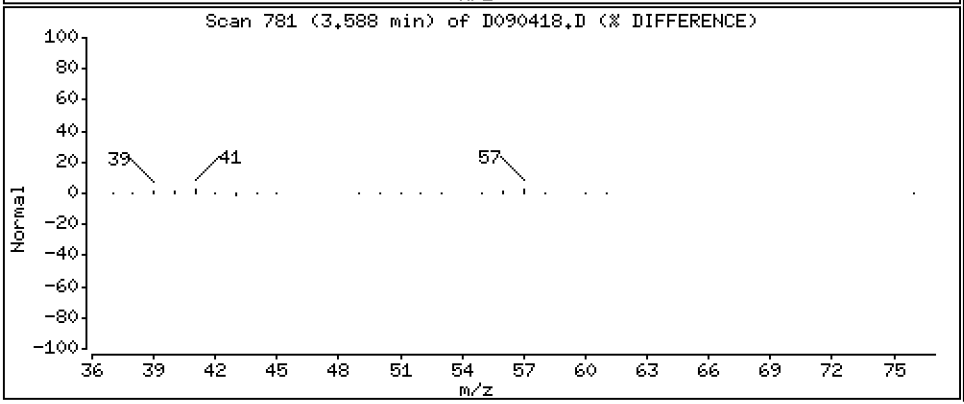
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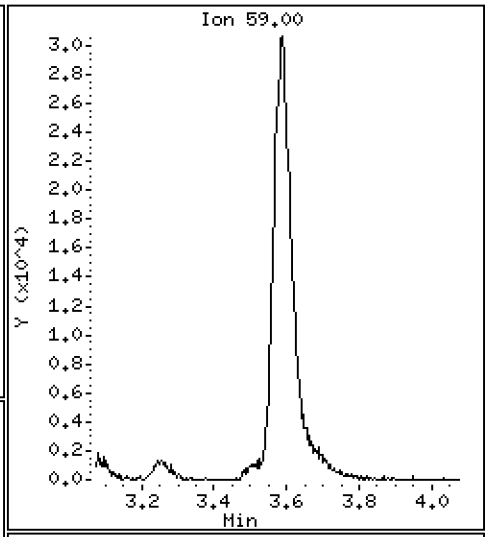
148 Tert-butyl alcohol Concentration: 296.77 ug/l Review Code:

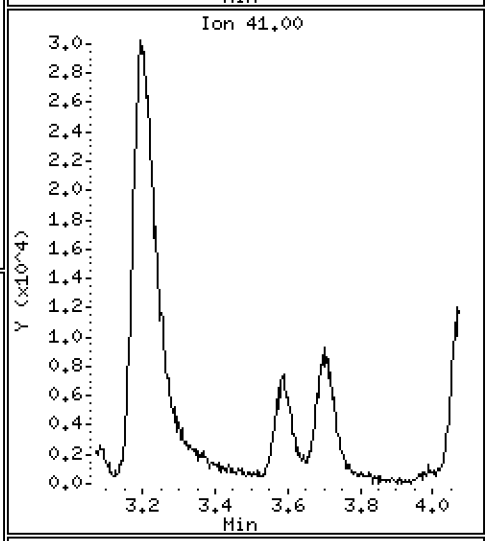


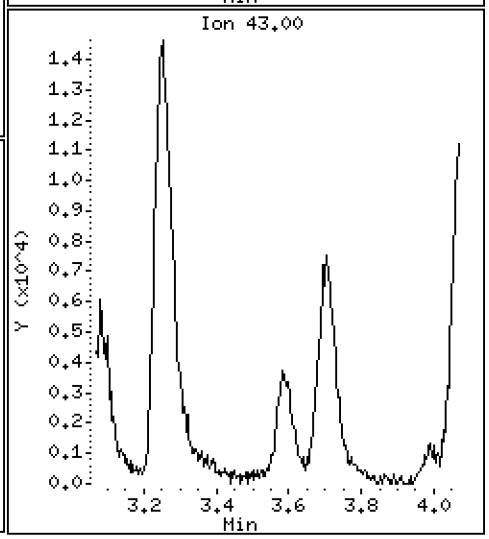












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 96

Date : 04-SEP-2018 17:39

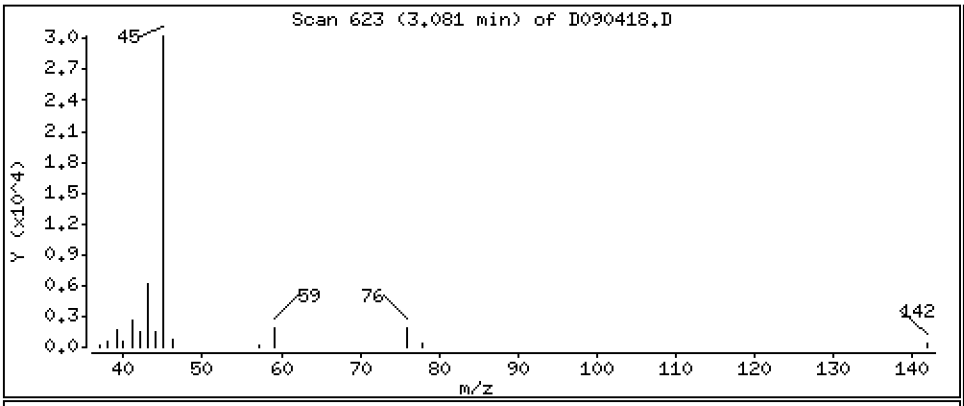
Client ID: HS18081504-01MS Instrument: VOA2.i

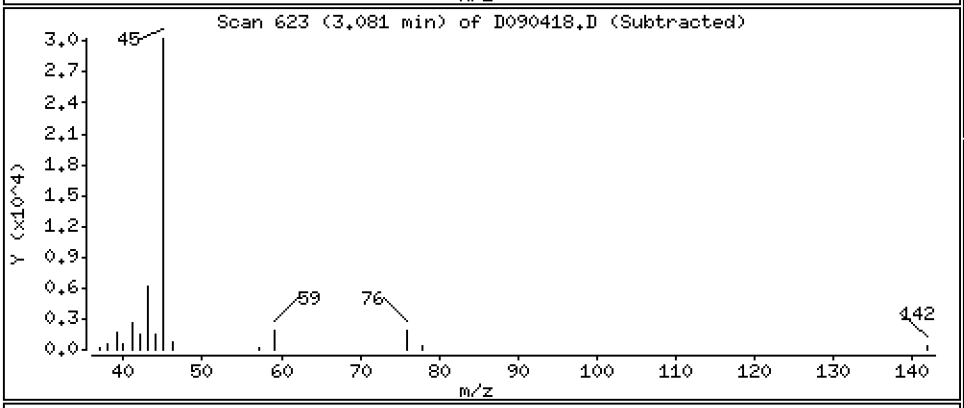
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

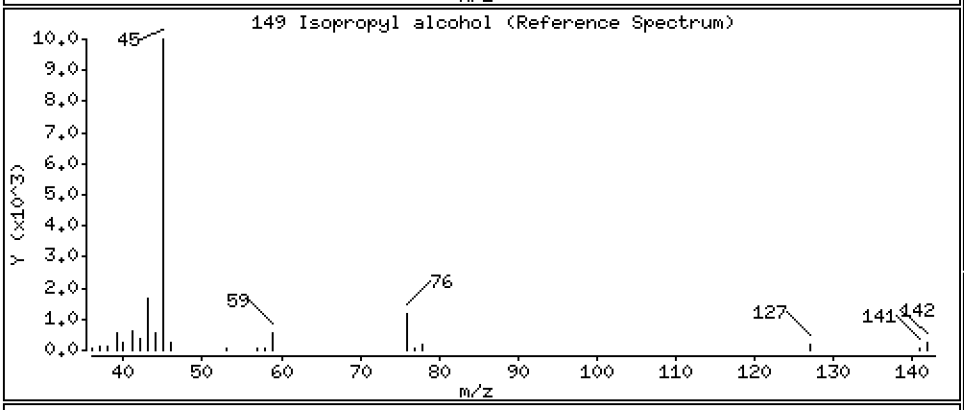
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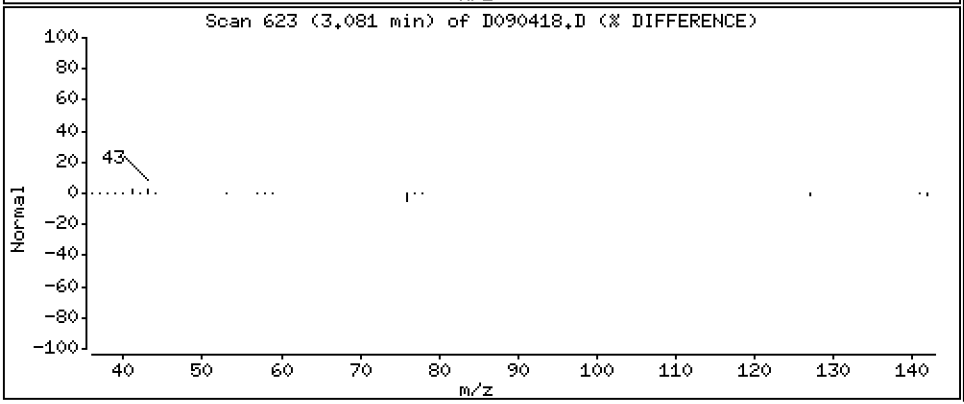
Column phase: DB624 Column diameter: 0.18

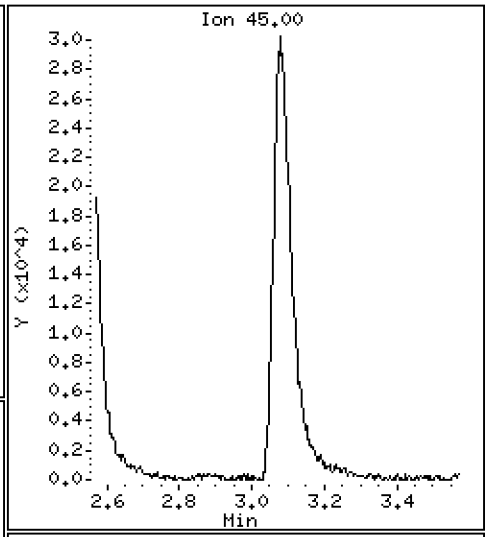
149 Isopropyl alcohol Concentration: 470.66 ug/l Review Code:

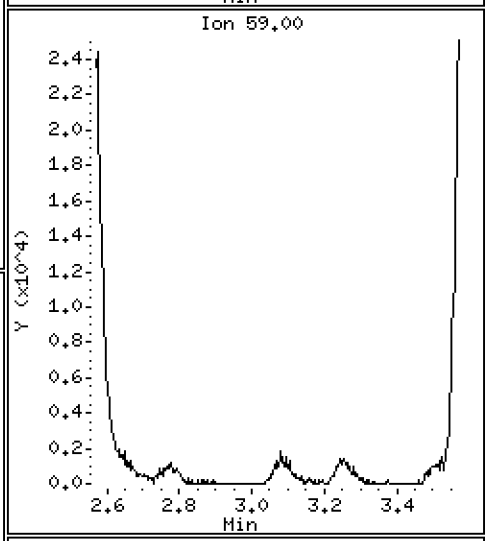


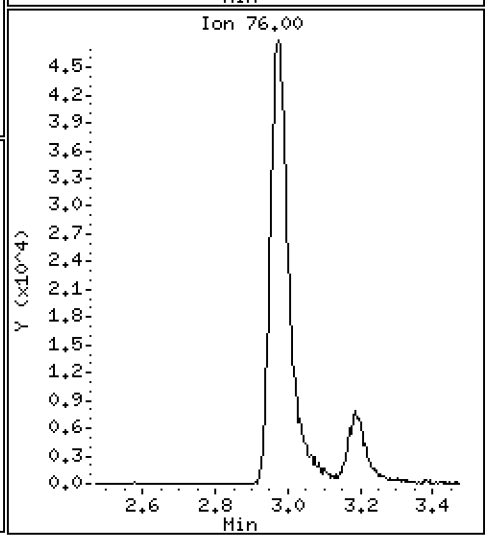












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 97

Date : 04-SEP-2018 17:39

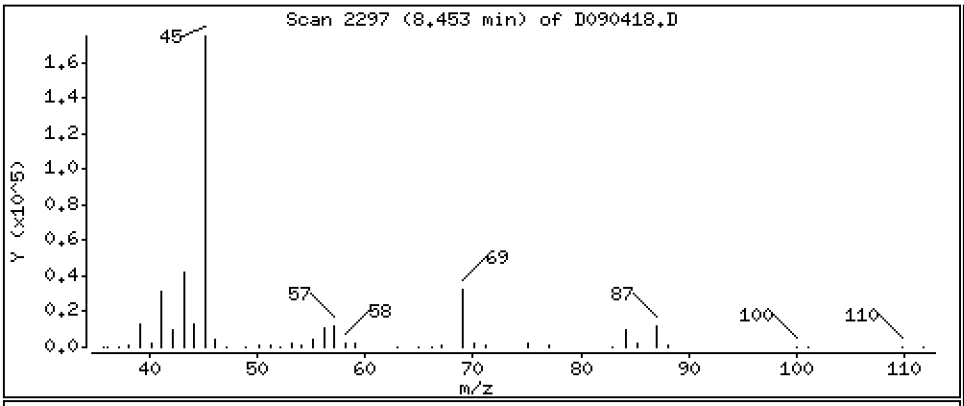
Client ID: HS18081504-01MS Instrument: VOA2.i

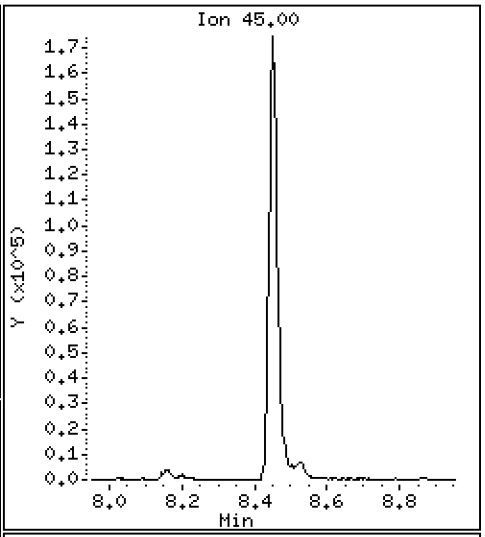
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

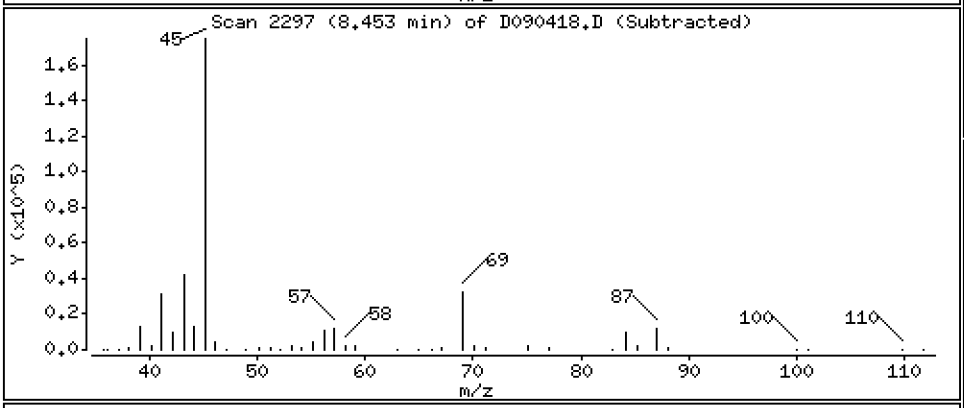
Purge Volume: 5.0 Operator: AP

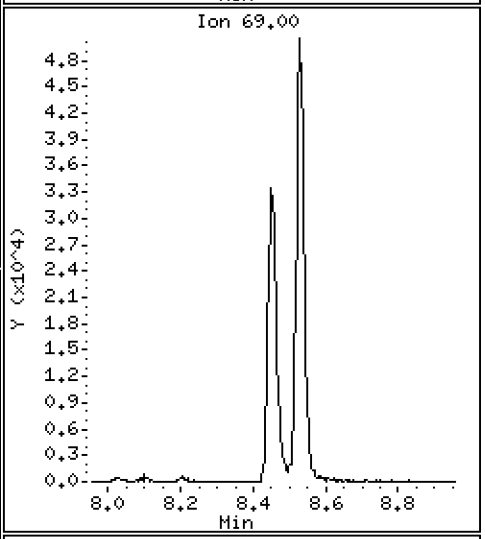
Column phase: DB624 Column diameter: 0.18

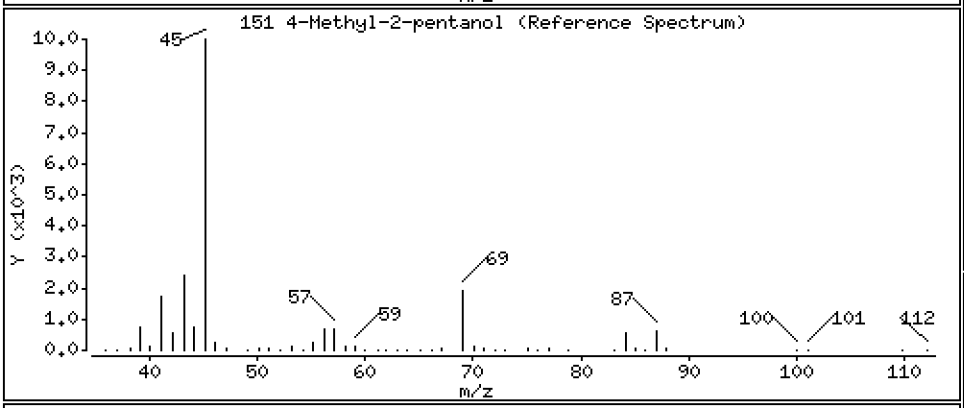
151 4-Methyl-2-pentanol Concentration: 385.36 ug/l Review Code:

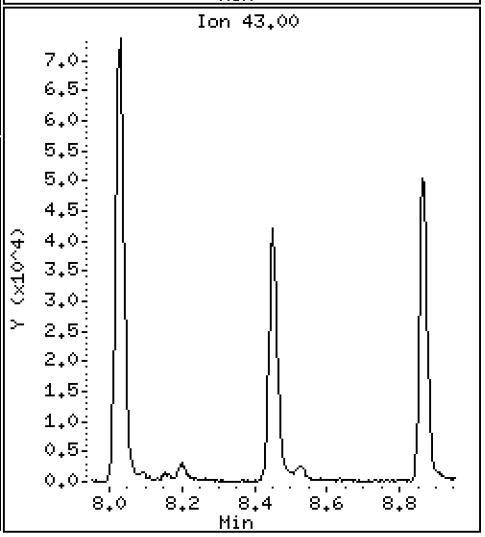


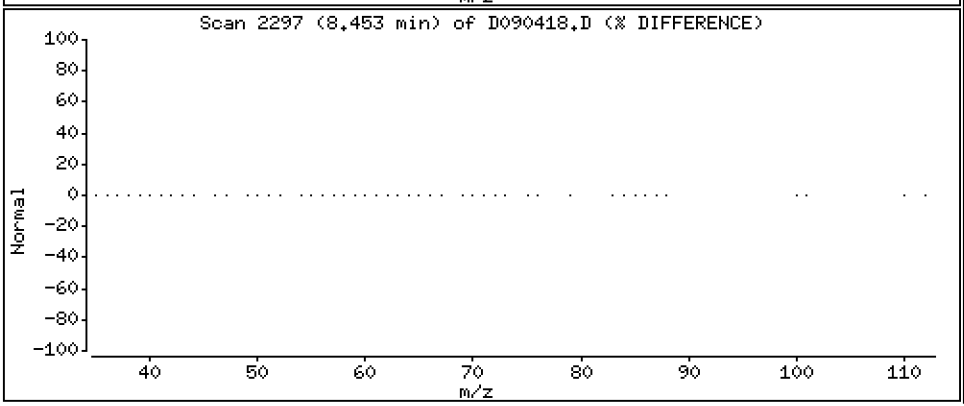












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 98

Date : 04-SEP-2018 17:39

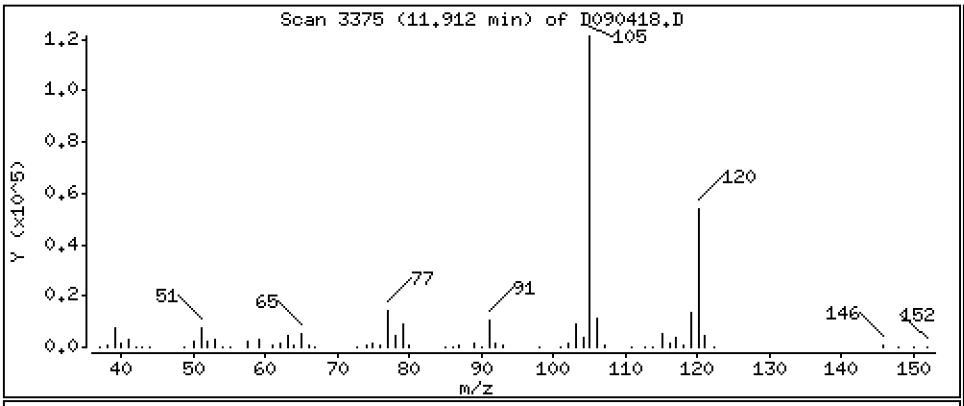
Client ID: HS18081504-01MS Instrument: VOA2.i

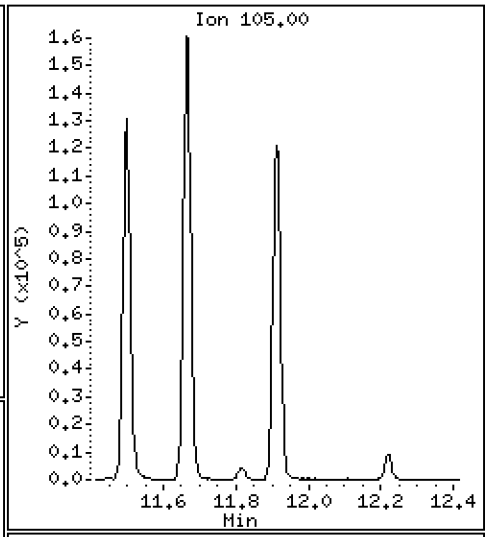
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

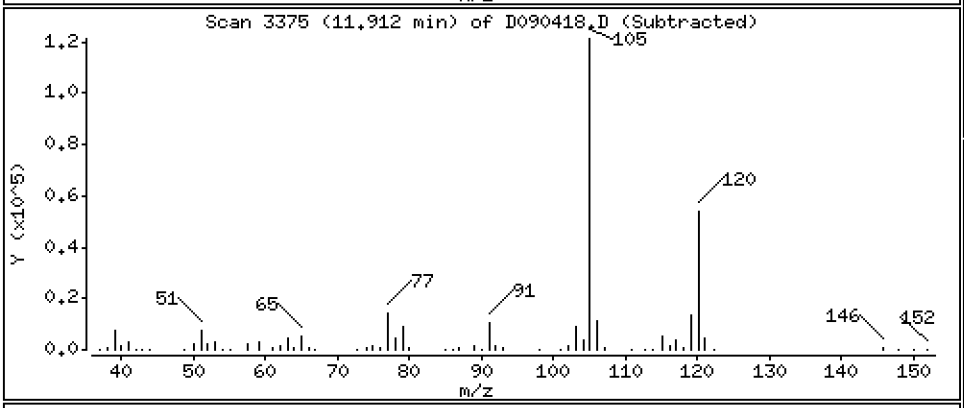
Purge Volume: 5.0 Operator: AP

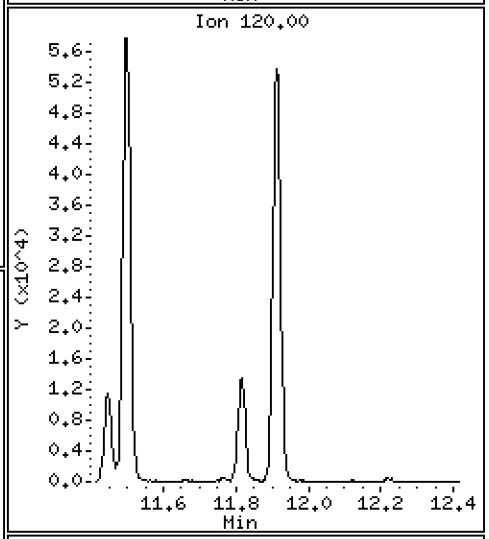
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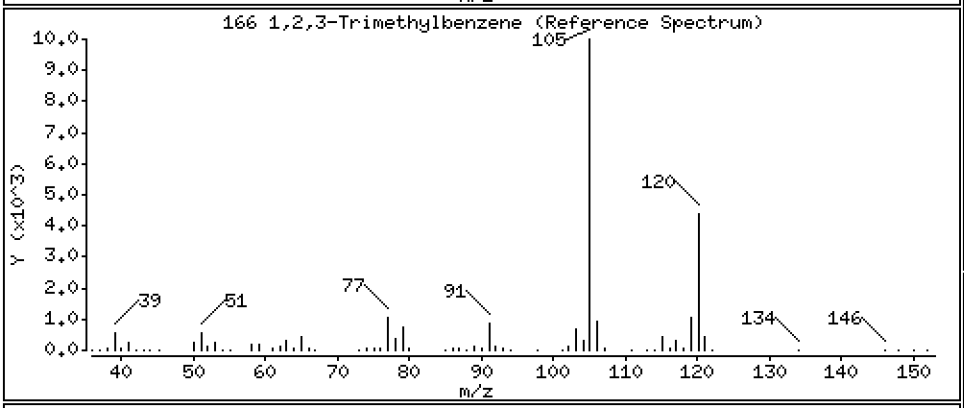
166 1,2,3-Trimethylbenzene Concentration: 17.32 ug/l Review Code:

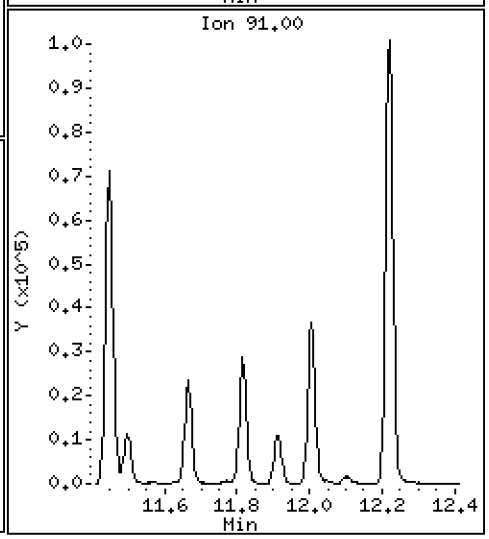


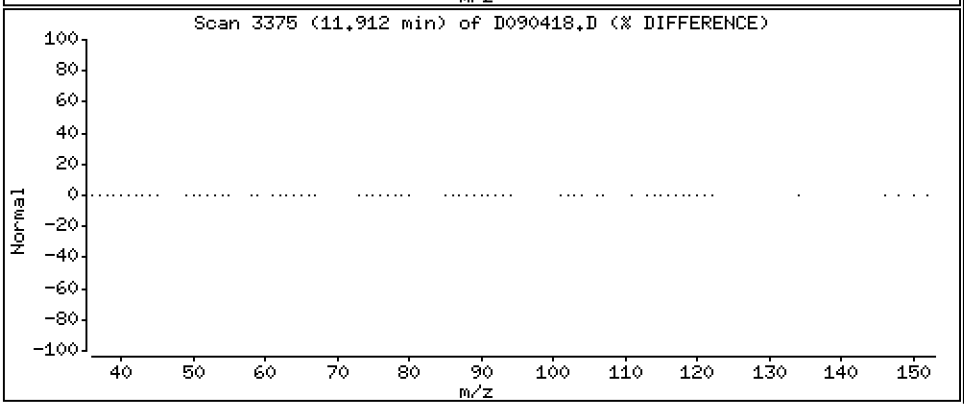












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 99

Date : 04-SEP-2018 17:39

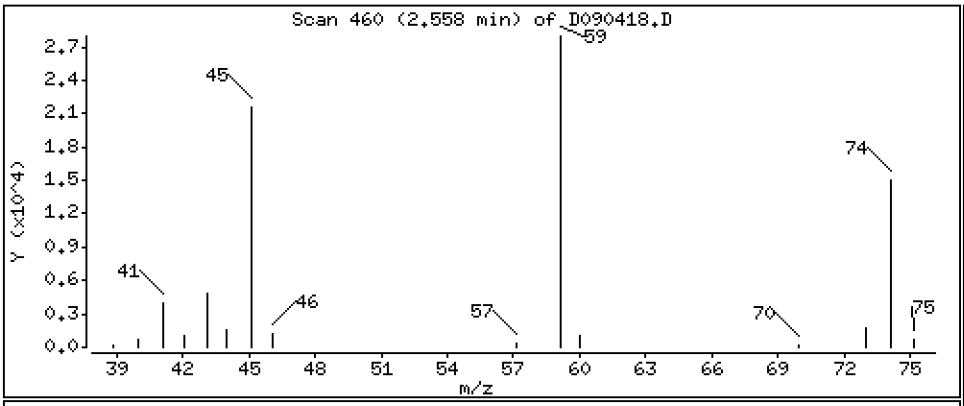
Client ID: HS18081504-01MS Instrument: VOA2.i

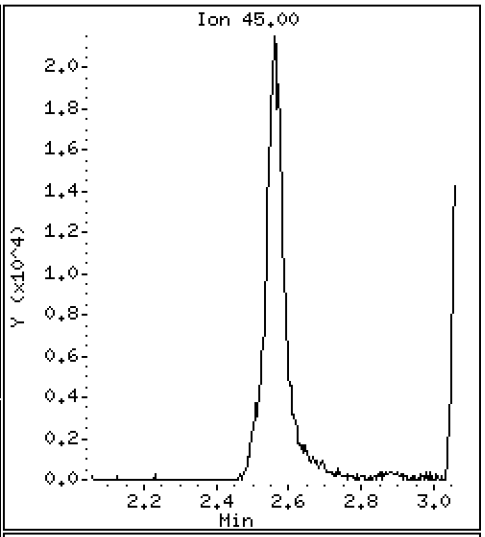
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

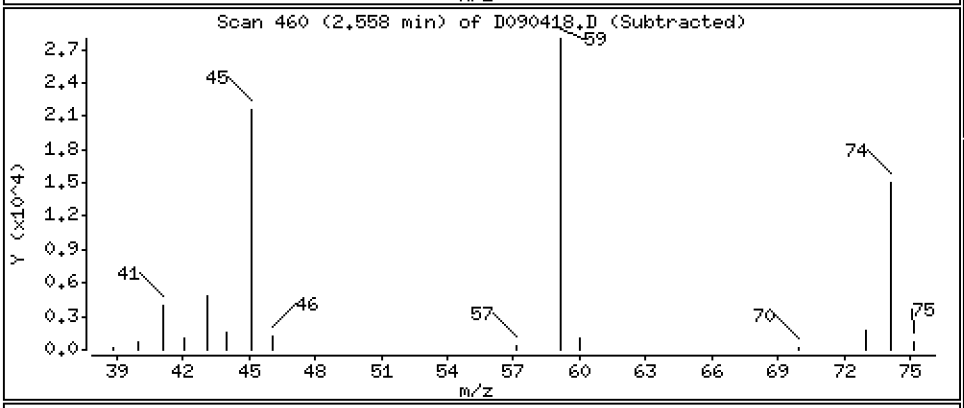
Purge Volume: 5.0 Operator: AP

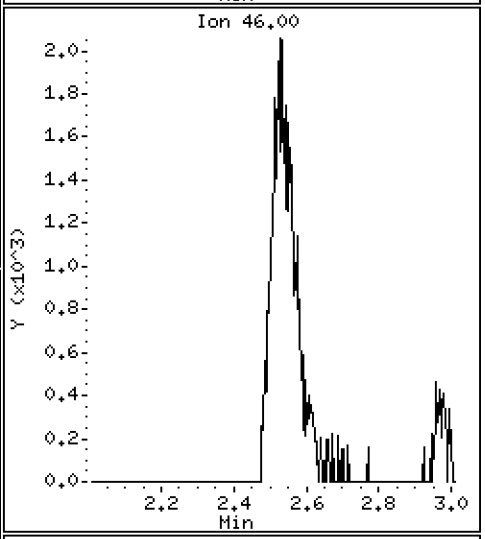
Column phase: DB624 Column diameter: 0.18

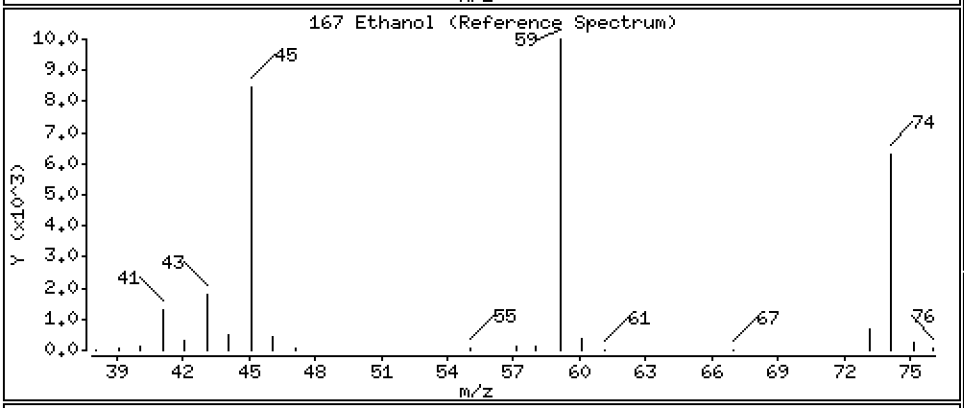
167 Ethanol Concentration: 262.43 ug/l Review Code:

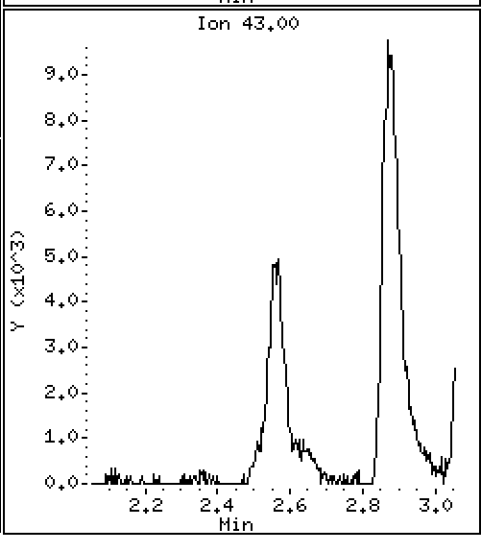


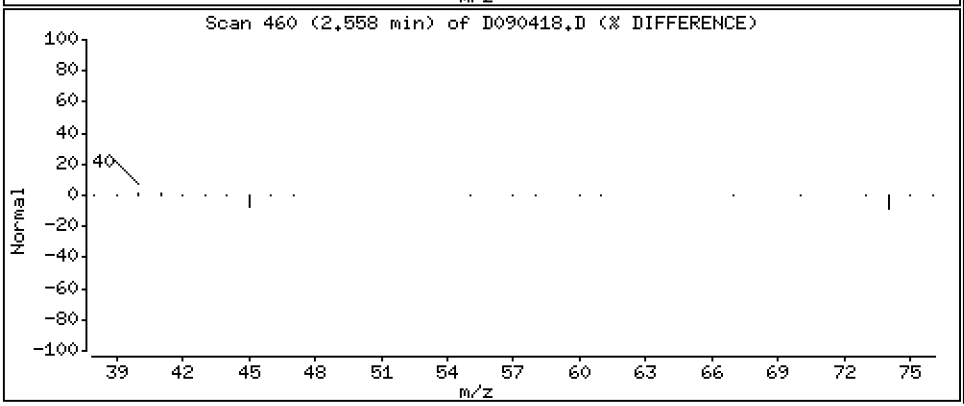












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 100

Date : 04-SEP-2018 17:39

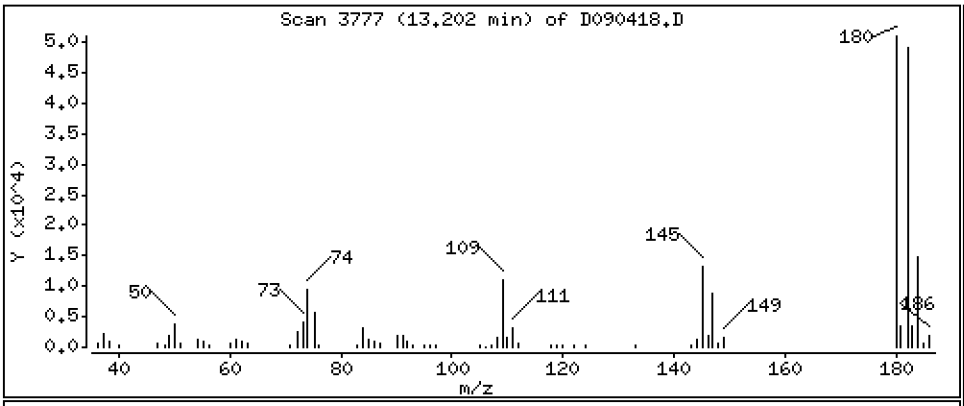
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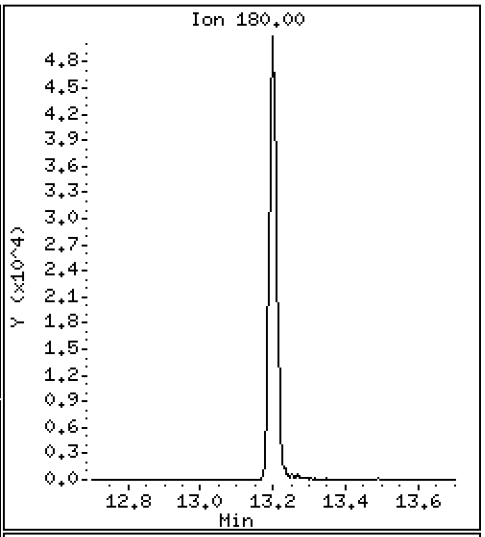
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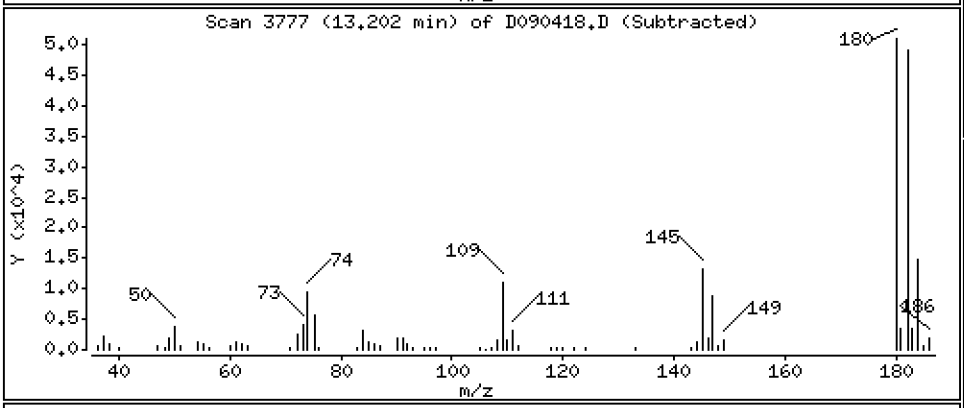
Purge Volume: 5.0 Operator: AP

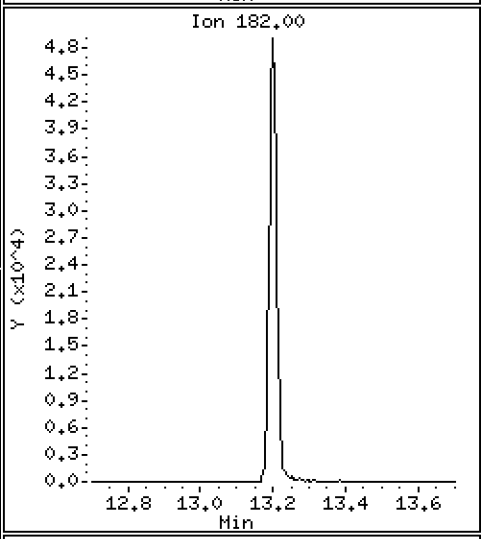
Column phase: DB624 Column diameter: 0.18

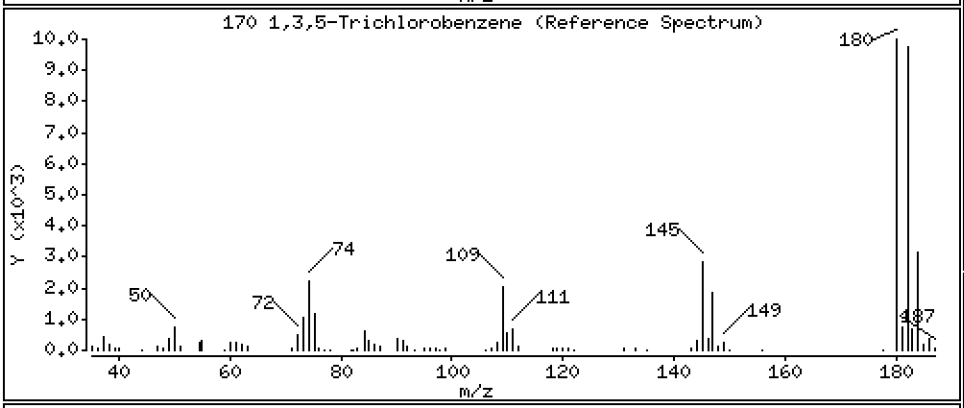
170 1,3,5-Trichlorobenzene Concentration: 17.53 ug/l Review Code:

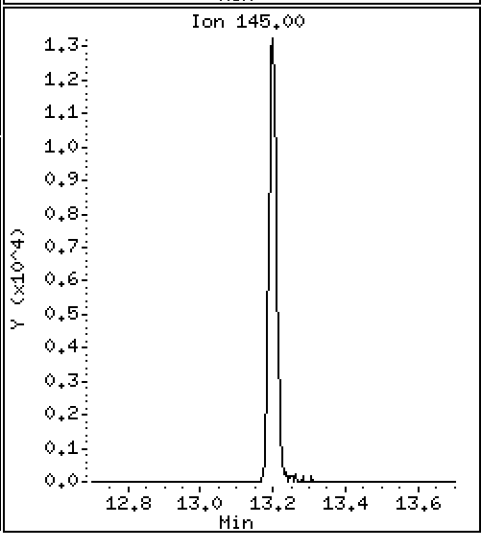


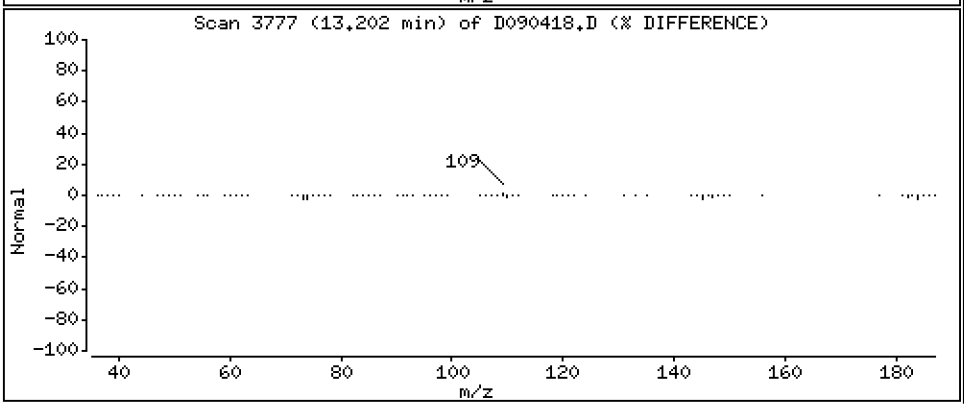












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 101

Date : 04-SEP-2018 17:39

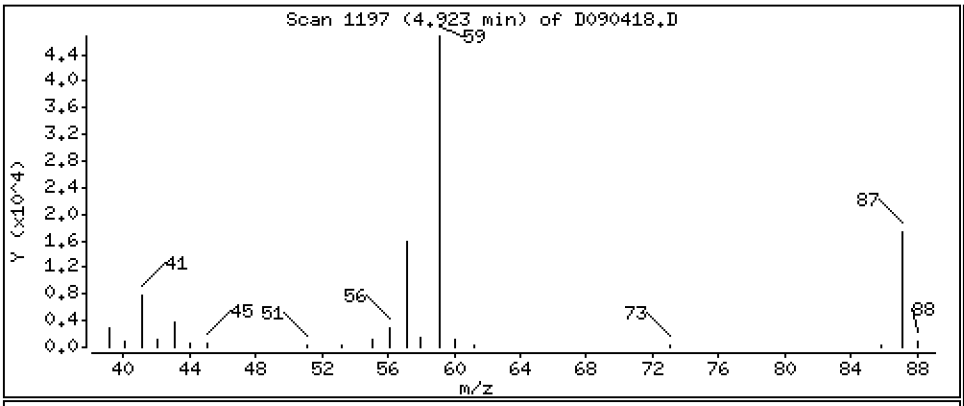
Client ID: HS18081504-01MS Instrument: VOA2.i

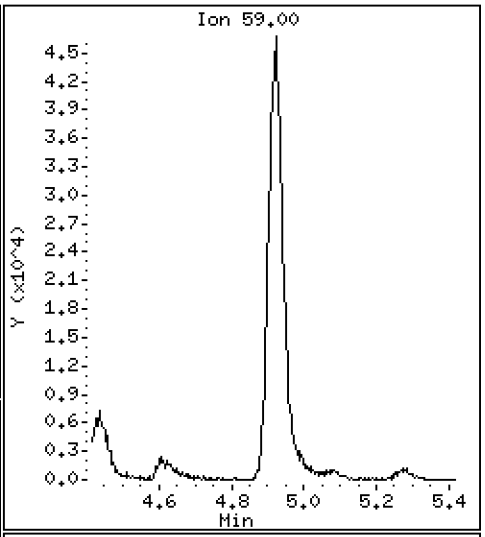
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

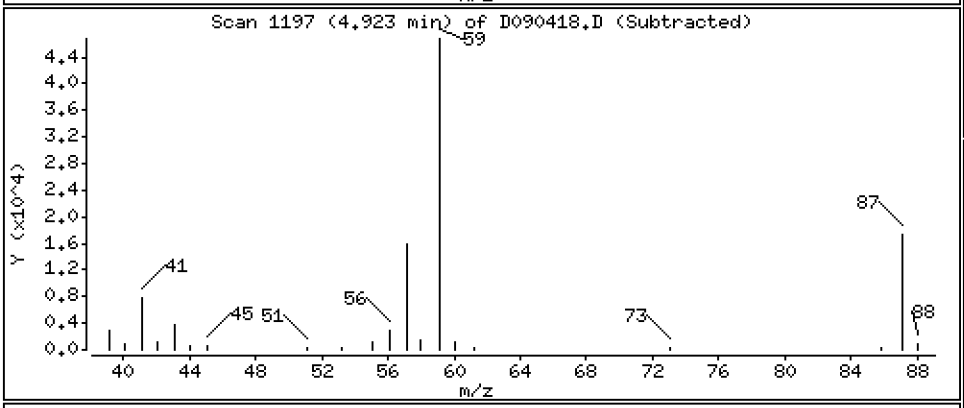
Purge Volume: 5.0 Operator: AP

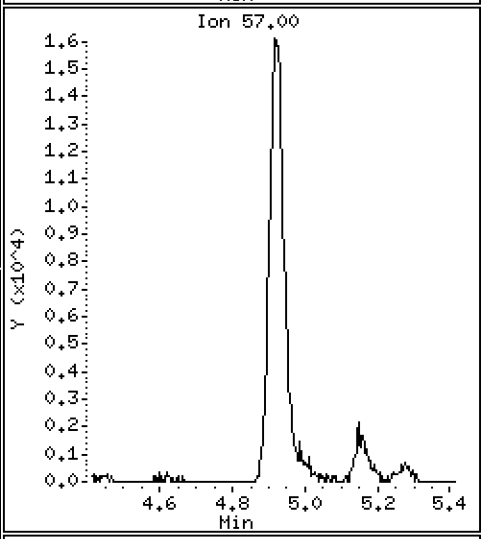
Column phase: DB624 Column diameter: 0.18

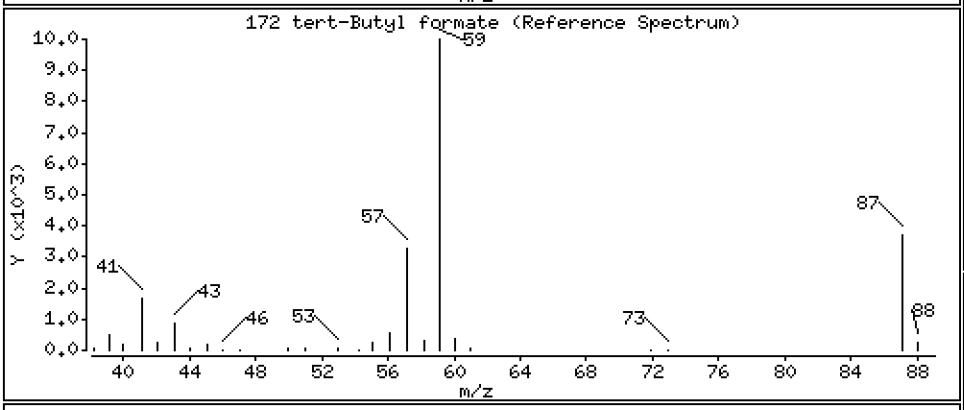
172 tert-Butyl formate Concentration: 32.66 ug/l Review Code:

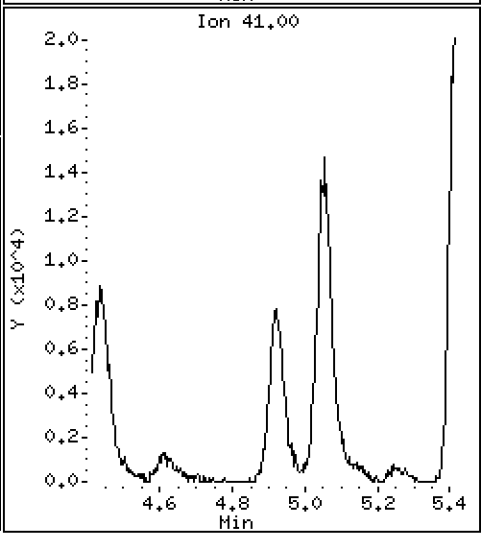


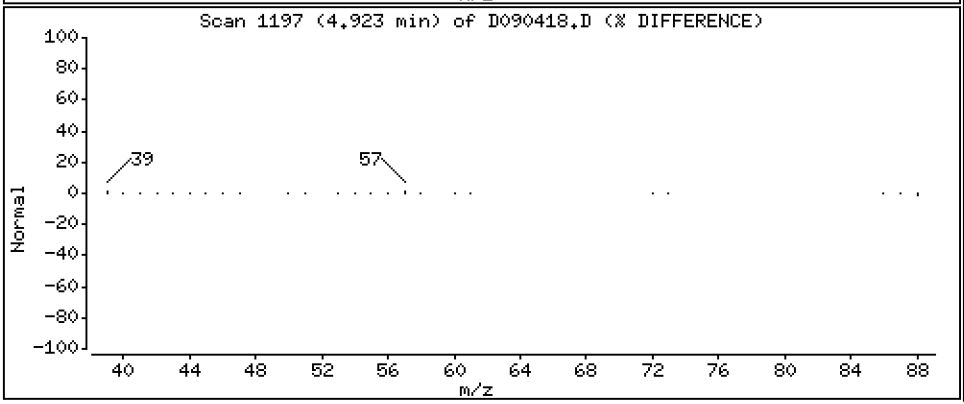












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 102

Date : 04-SEP-2018 17:39

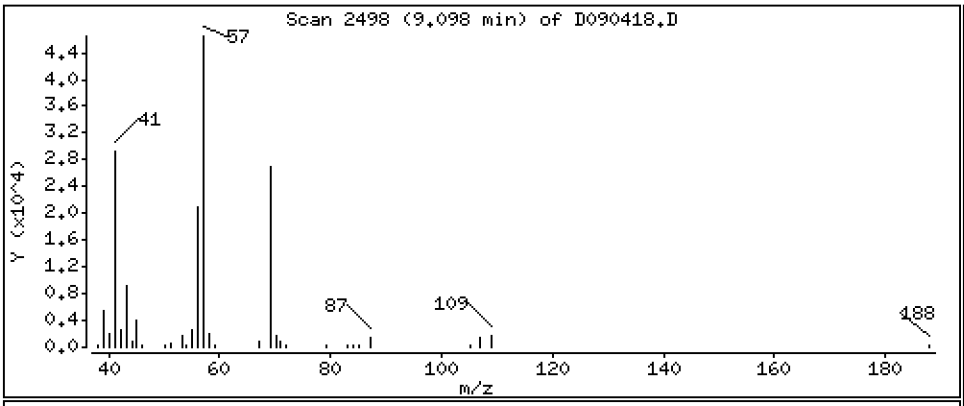
Client ID: HS18081504-01MS Instrument: VOA2.i

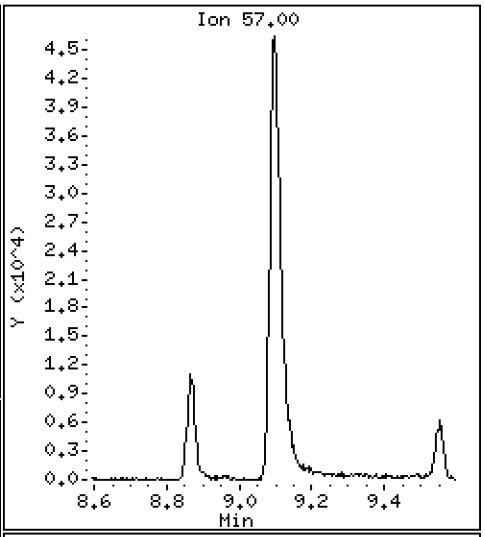
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

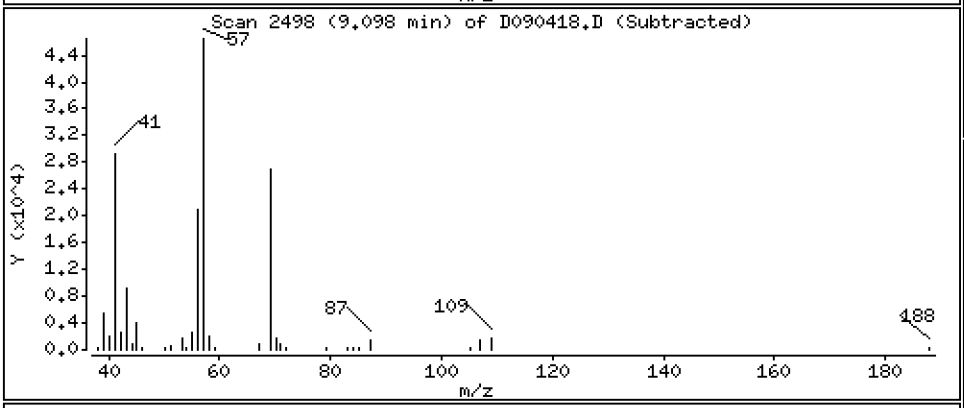
Purge Volume: 5.0 Operator: AP

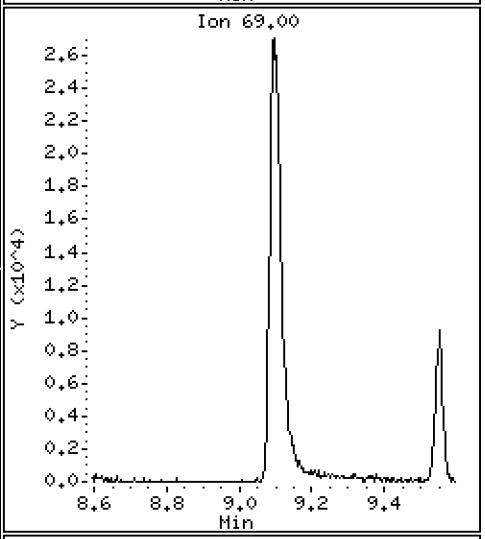
Column phase: DB624 Column diameter: 0.18

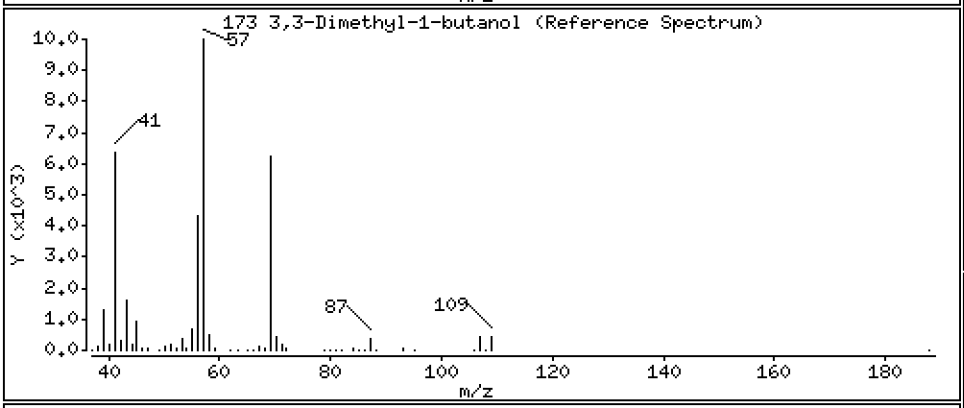
173 3,3-Dimethyl-1-butanol Concentration: 363.57 ug/l Review Code:

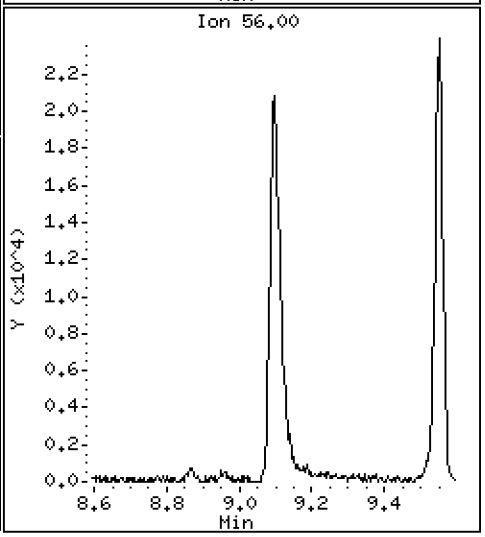


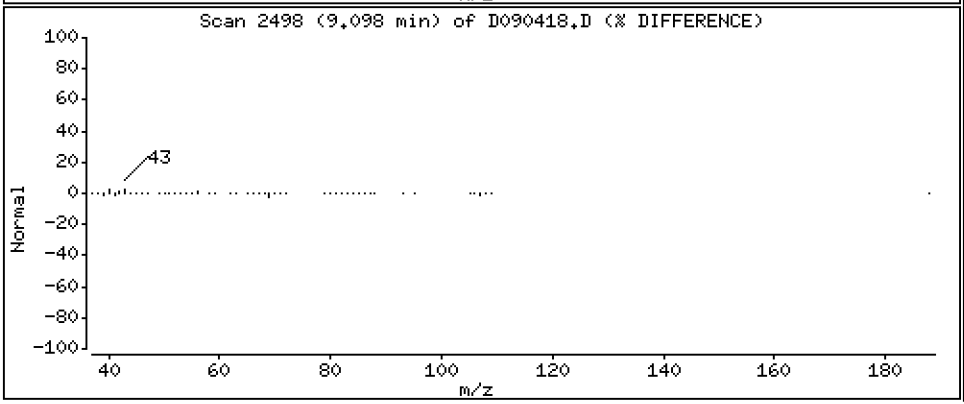












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 103

Date : 04-SEP-2018 17:39

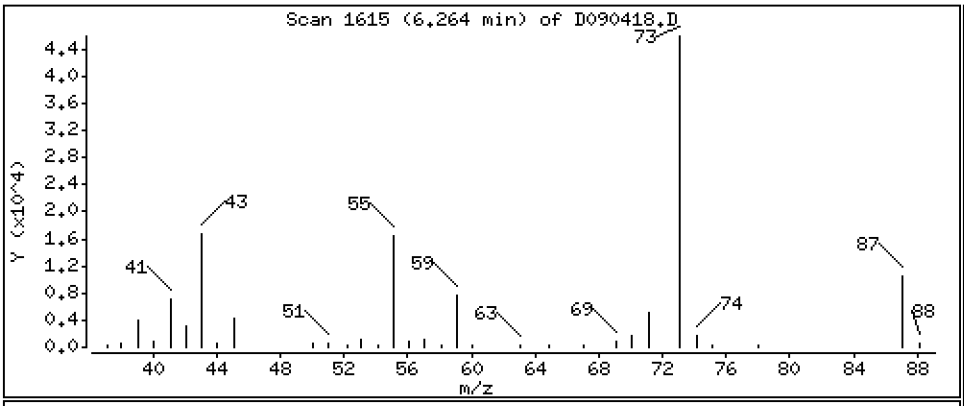
Client ID: HS18081504-01MS Instrument: VOA2.i

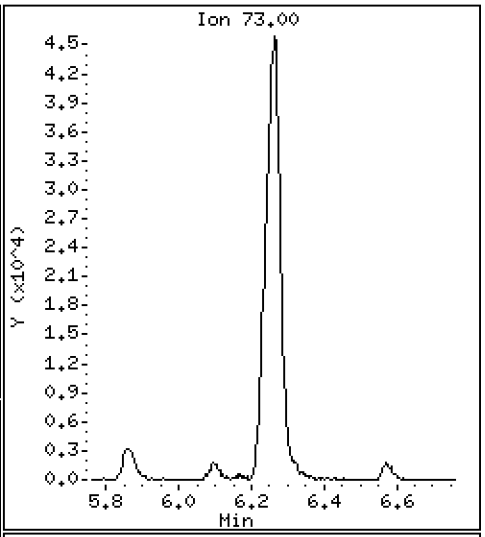
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

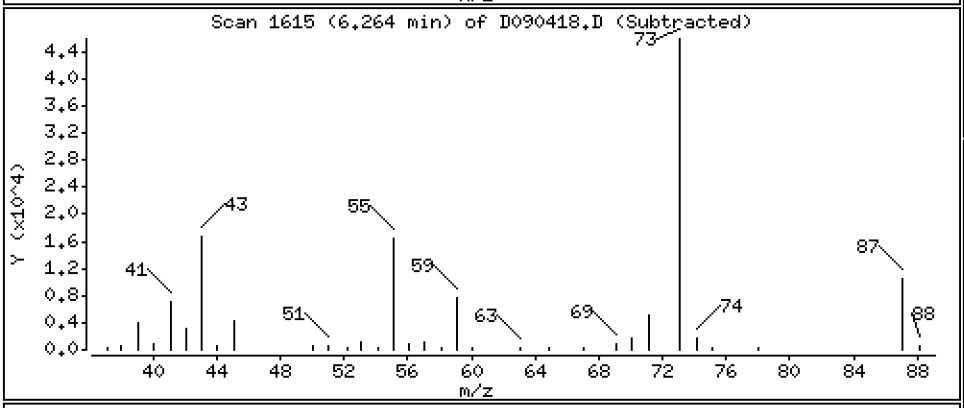
Purge Volume: 5.0 Operator: AP

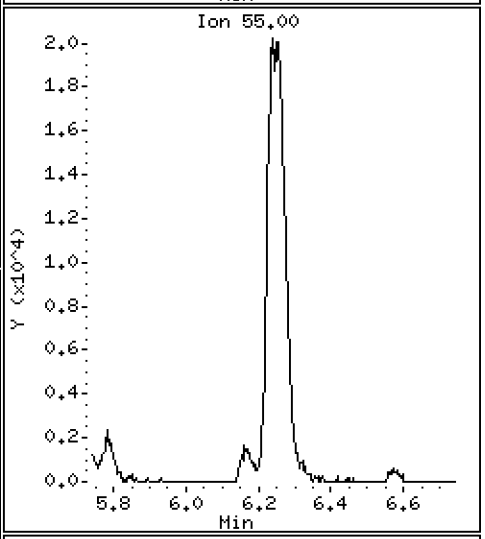
Column phase: DB624 Column diameter: 0.18

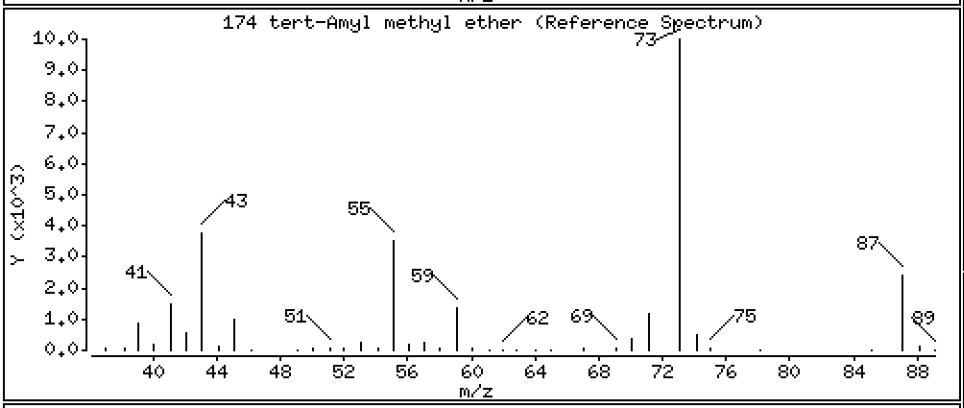
174 tert-Amyl methyl ether Concentration: 16.65 ug/l Review Code:

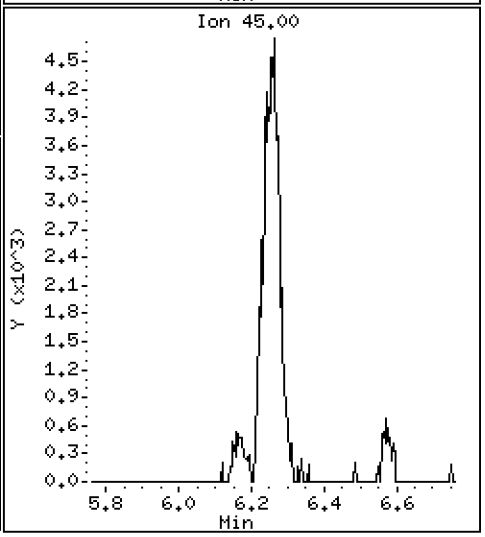


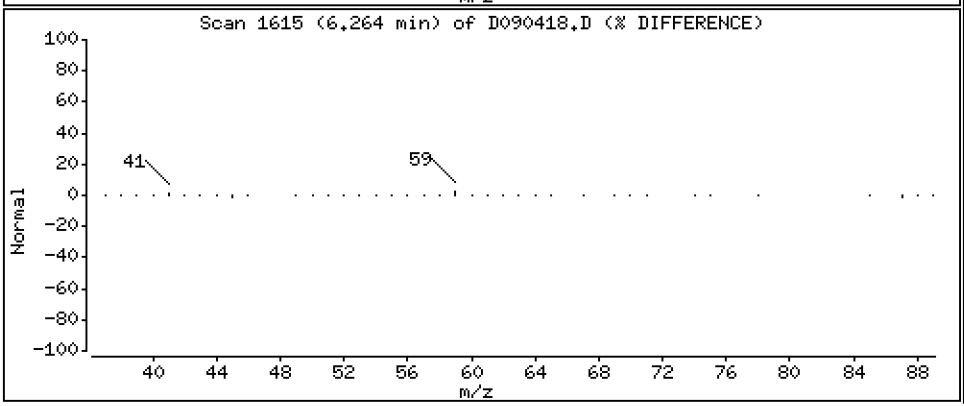












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 104

Date : 04-SEP-2018 17:39

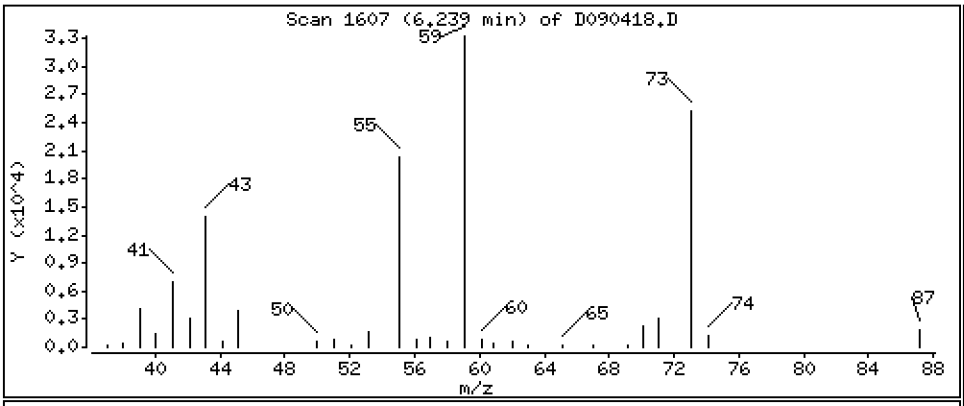
Client ID: HS18081504-01MS Instrument: VOA2.i

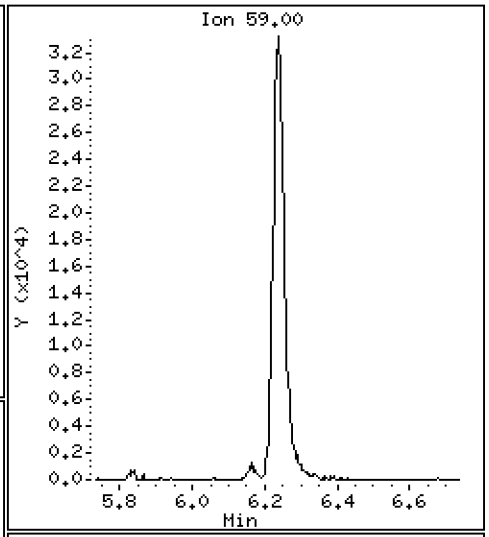
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

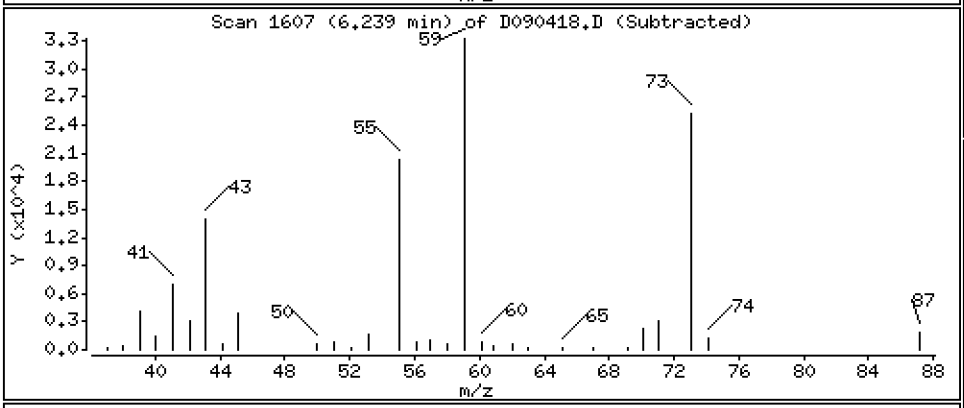
Purge Volume: 5.0 Operator: AP

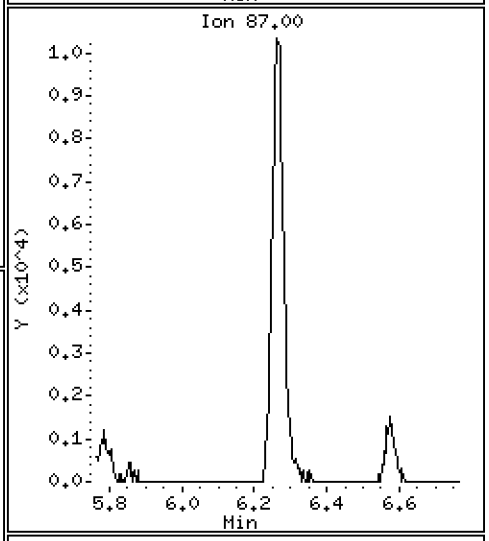
Column phase: DB624 Column diameter: 0.18

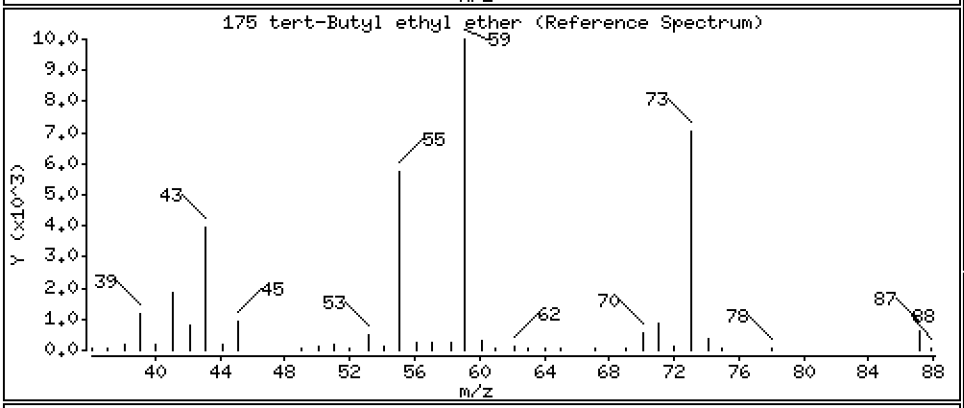
175 tert-Butyl ethyl ether Concentration: 16.55 ug/l Review Code:

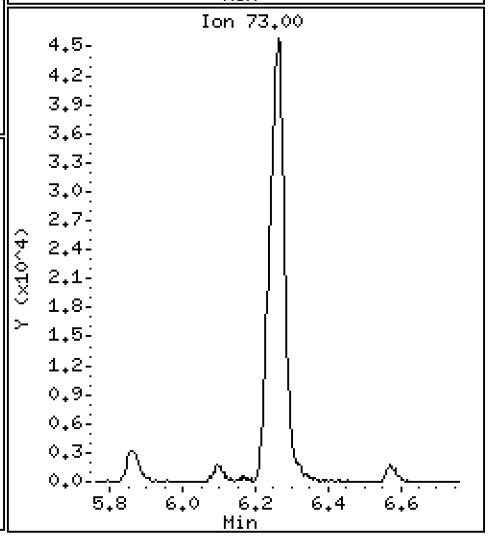


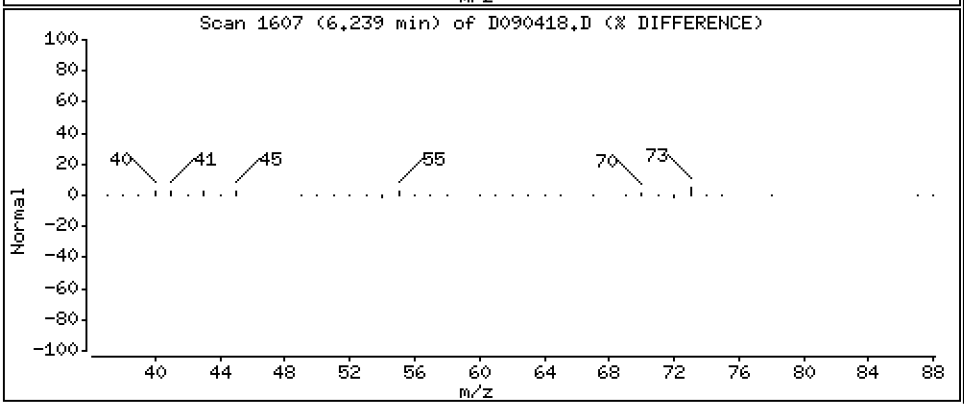












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 105

Date : 04-SEP-2018 17:39

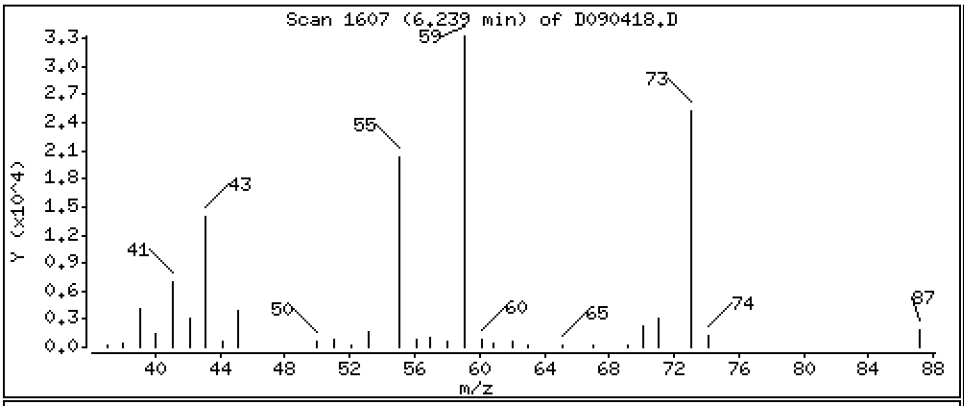
Client ID: HS18081504-01MS Instrument: VOA2.i

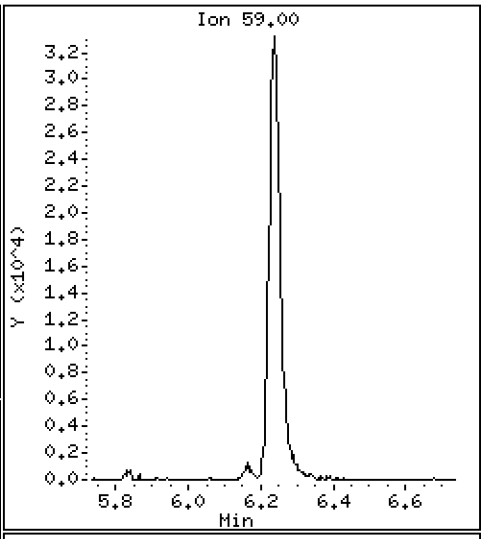
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

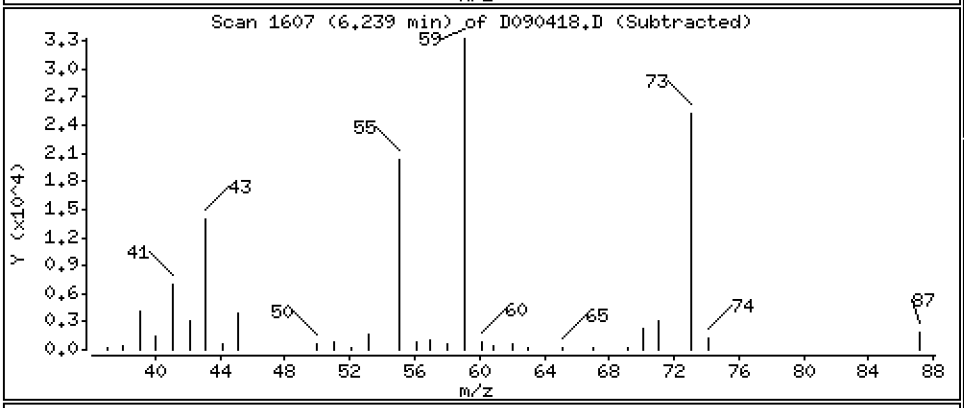
Purge Volume: 5.0 Operator: AP

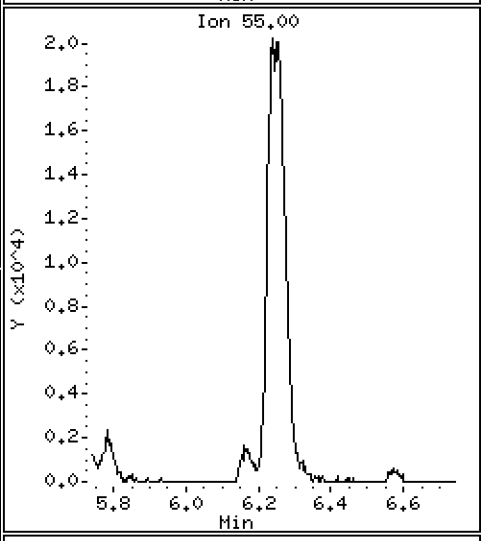
Column phase: DB624 Column diameter: 0.18

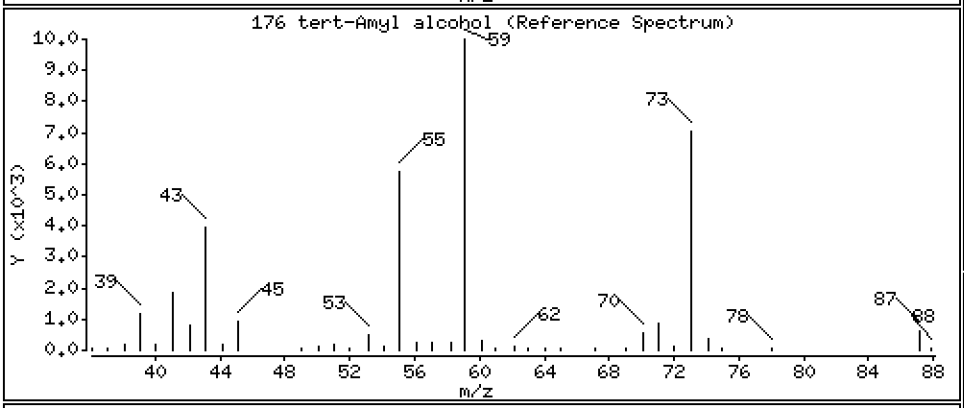
176 tert-Amyl alcohol Concentration: 331.19 ug/l Review Code:

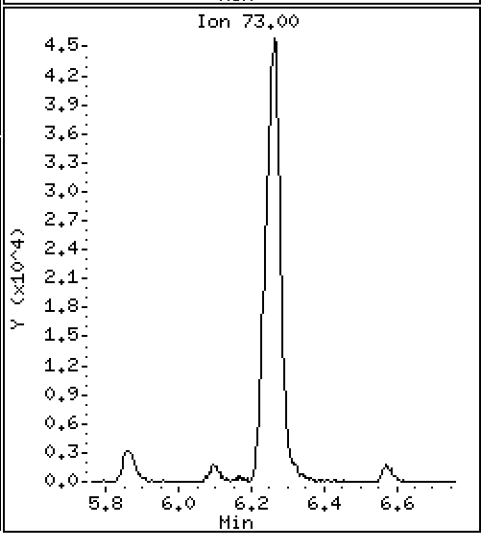


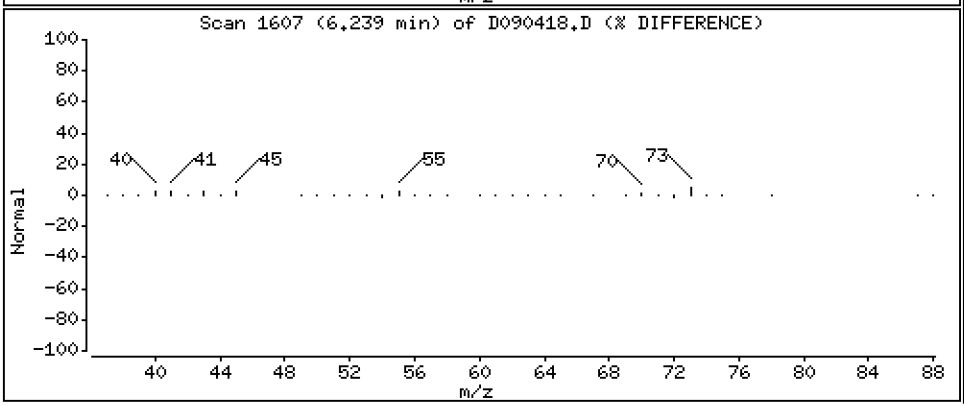












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 106

Date : 04-SEP-2018 17:39

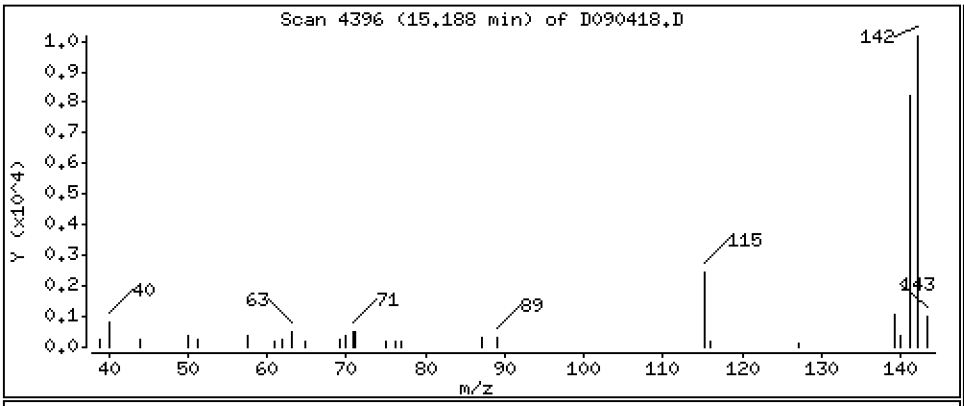
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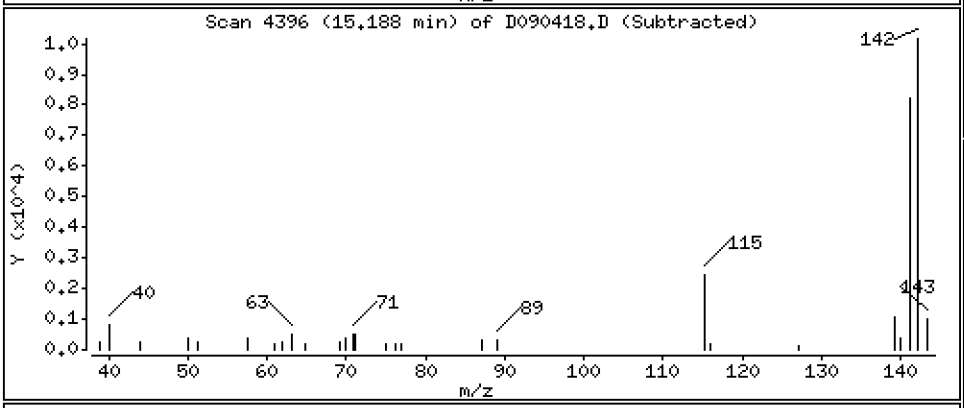
Sample Info: HS18081504-01MS;HS18081504-01MS;3;;MS

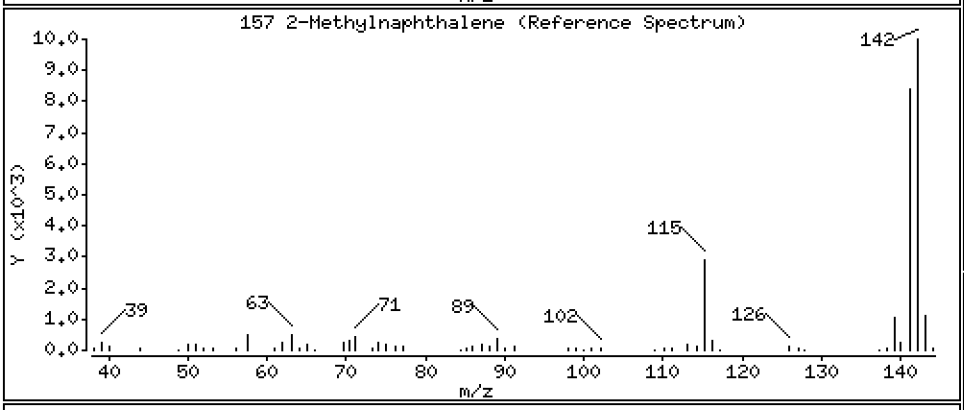
Purge Volume: 5.0 Operator: AP

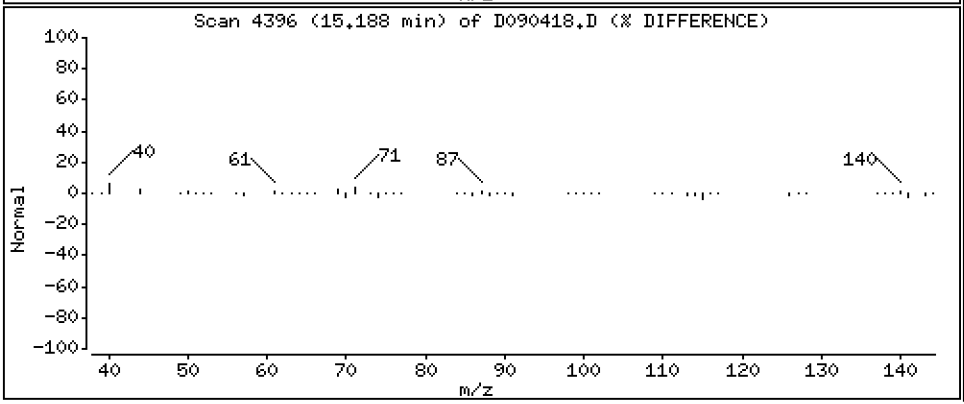
Column phase: DB624 Column diameter: 0.18

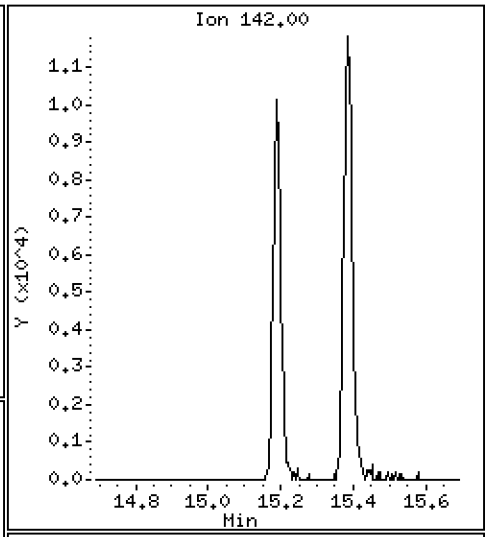
157 2-Methylnaphthalene Concentration: 9.82 ug/l Review Code:

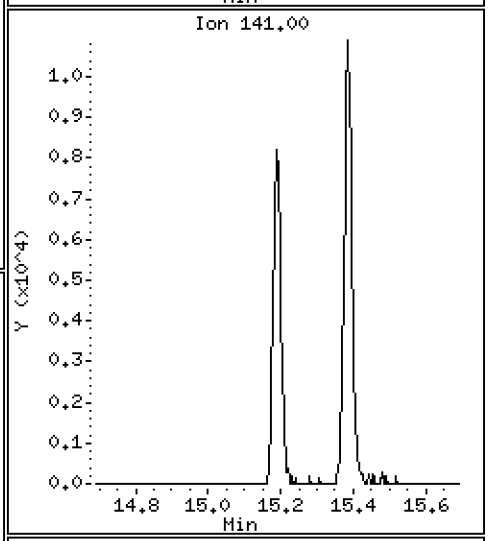


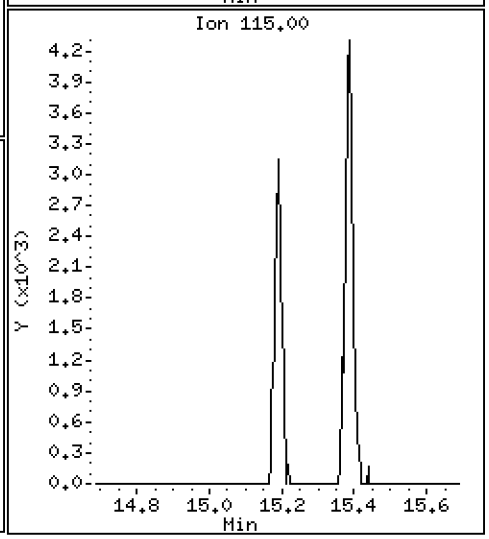












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 107

Date : 04-SEP-2018 17:39

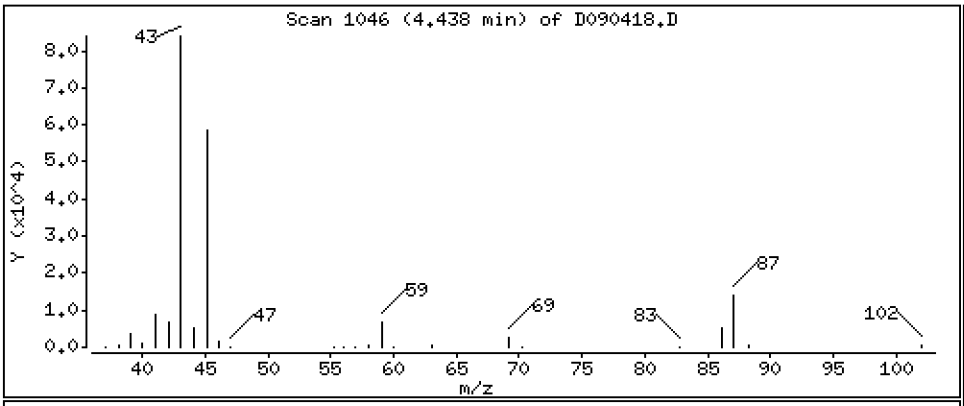
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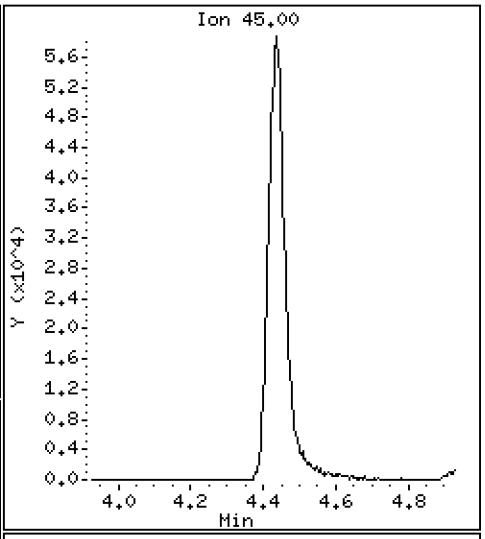
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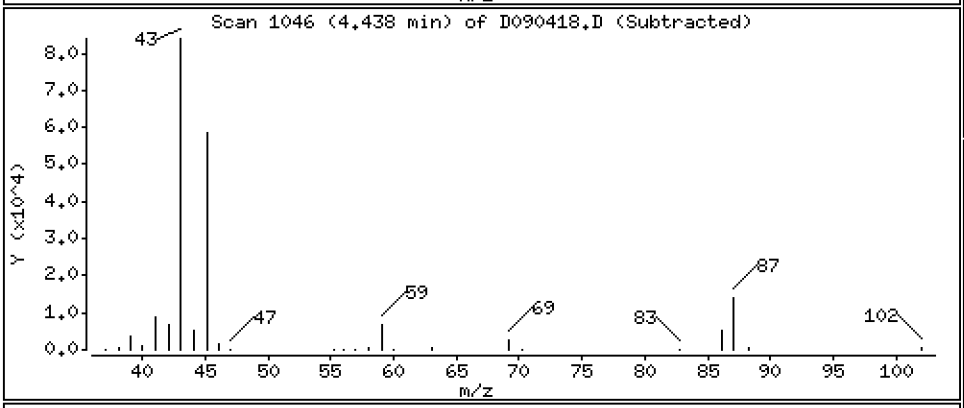
Purge Volume: 5.0 Operator: AP

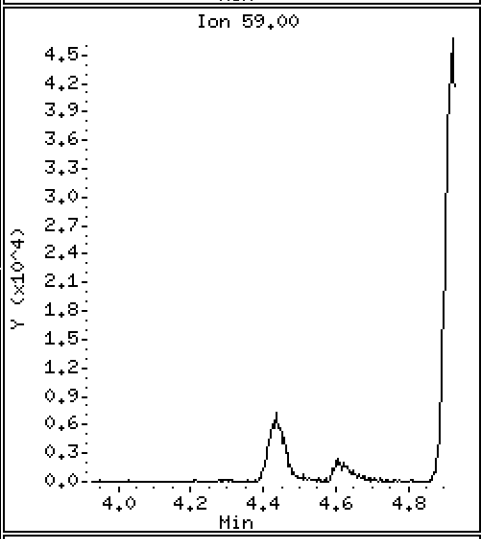
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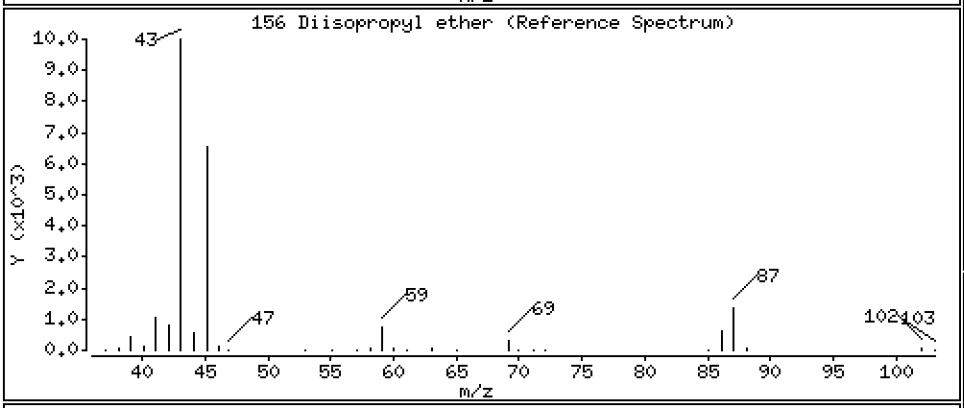
156 Diisopropyl ether Concentration: 15.15 ug/l Review Code:

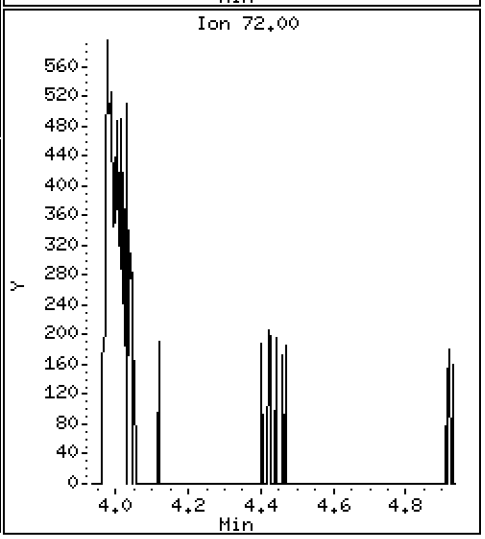


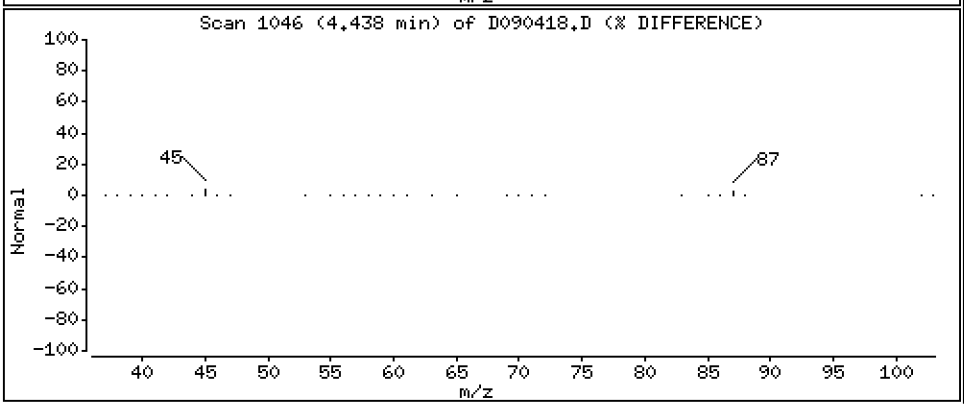












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 108

Date : 04-SEP-2018 17:39

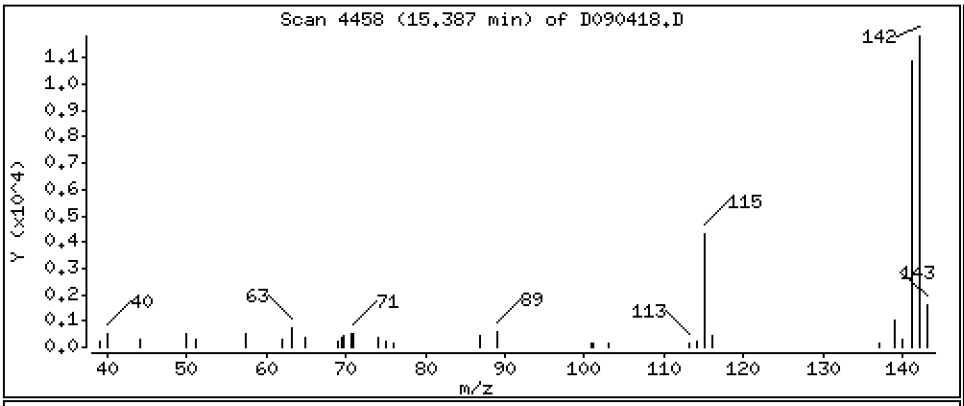
Client ID: HS18081504-01MS Instrument: VOA2.i

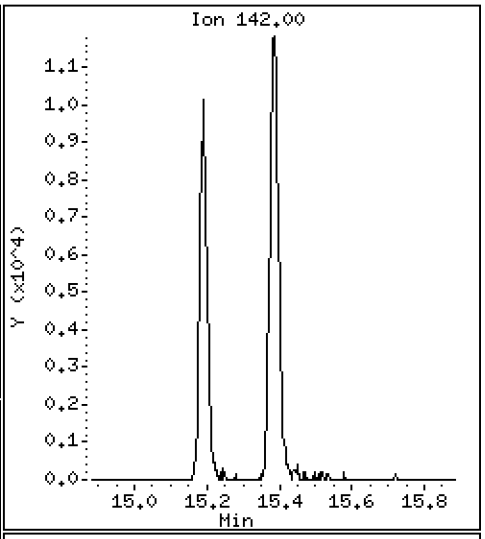
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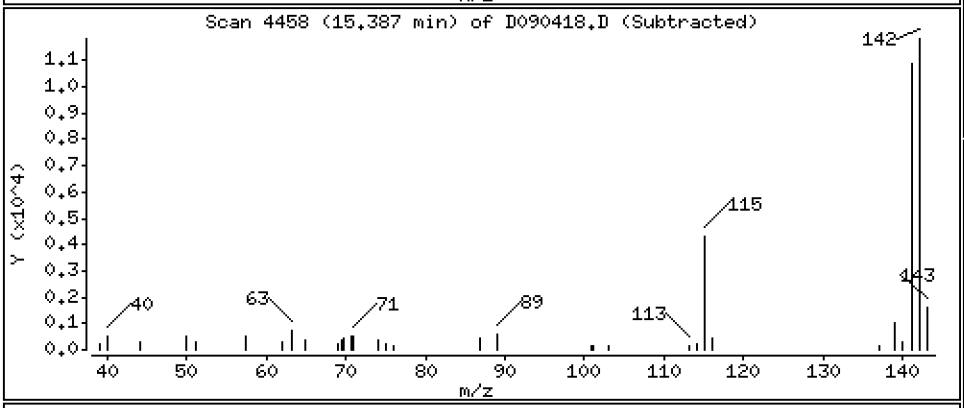
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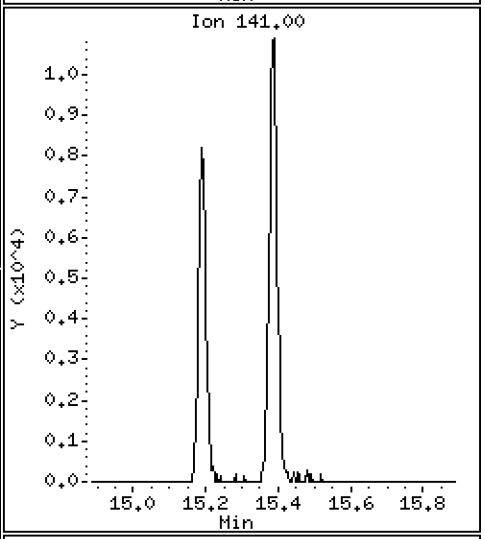
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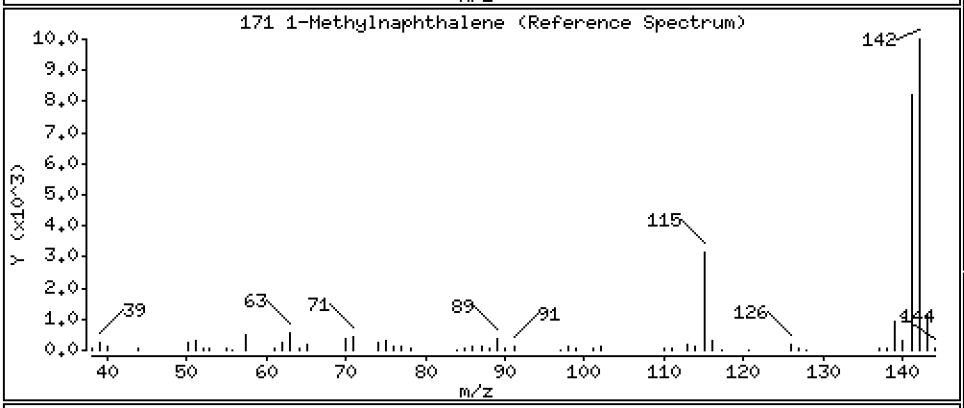
171 1-Methylnaphthalene Concentration: 10.45 ug/l Review Code:

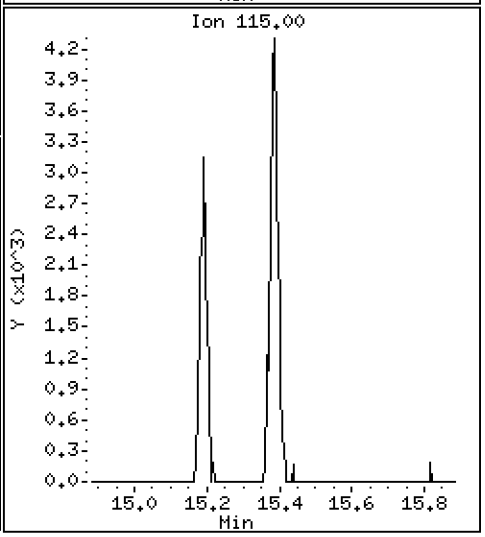


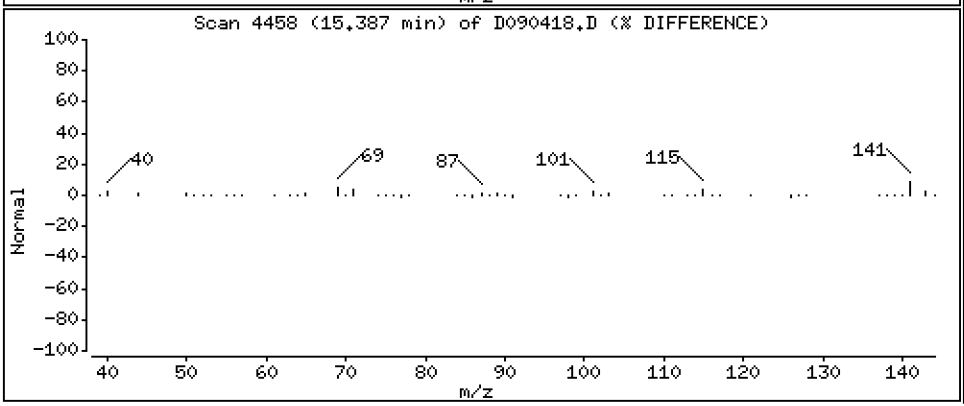












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090418.D Page 109

Date : 04-SEP-2018 17:39

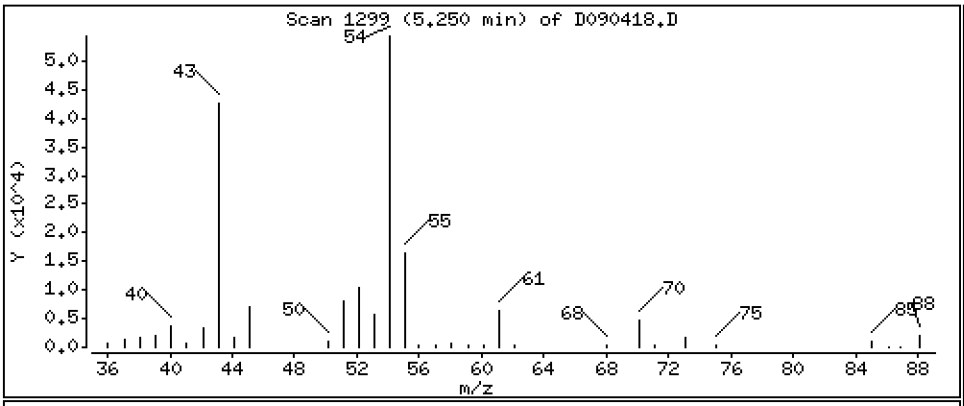
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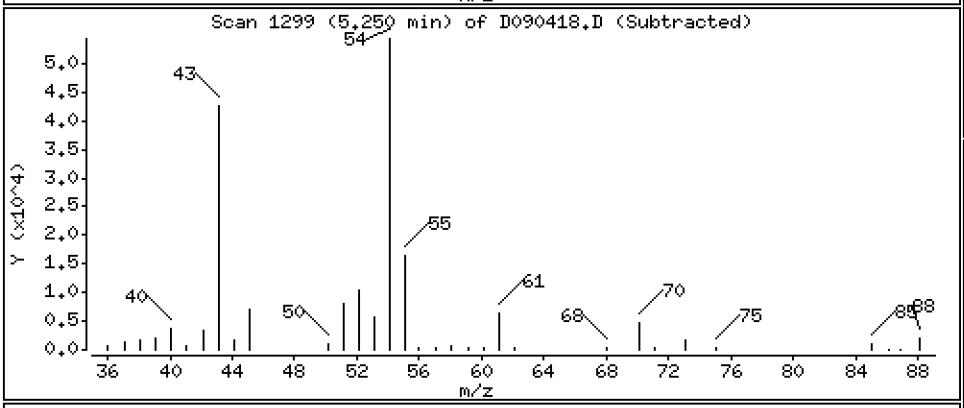
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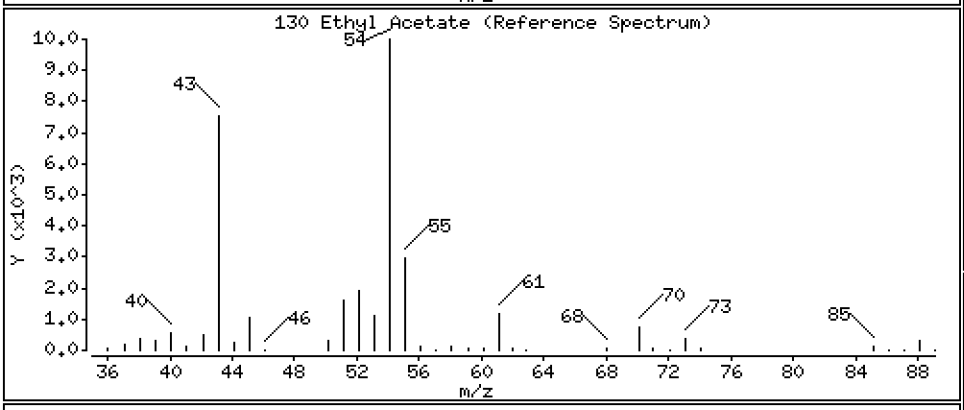
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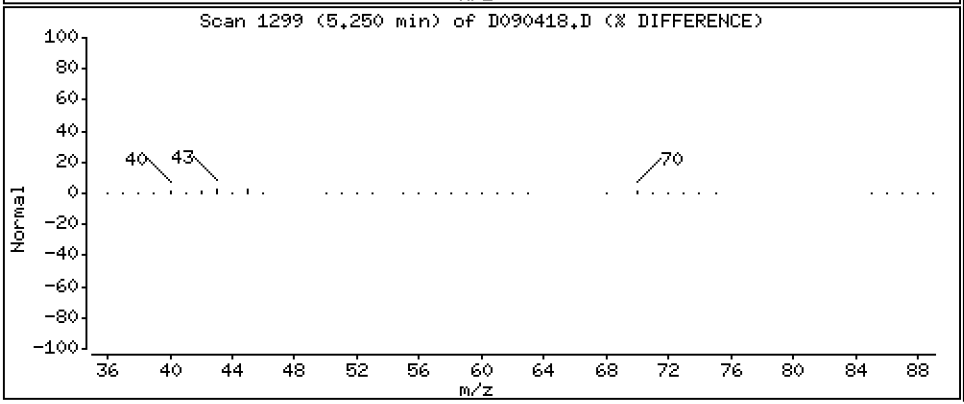
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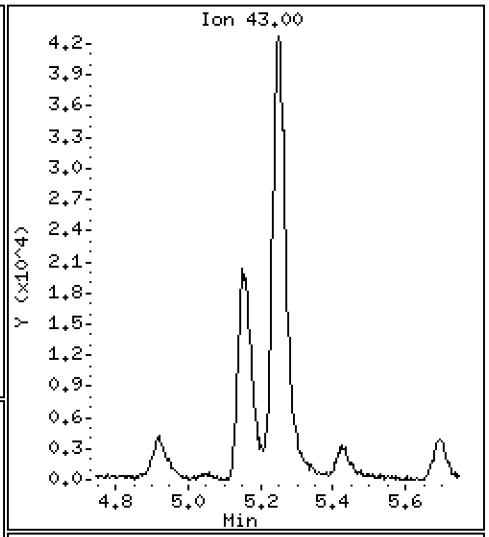
130 Ethyl Acetate Concentration: 14.82 ug/l Review Code:

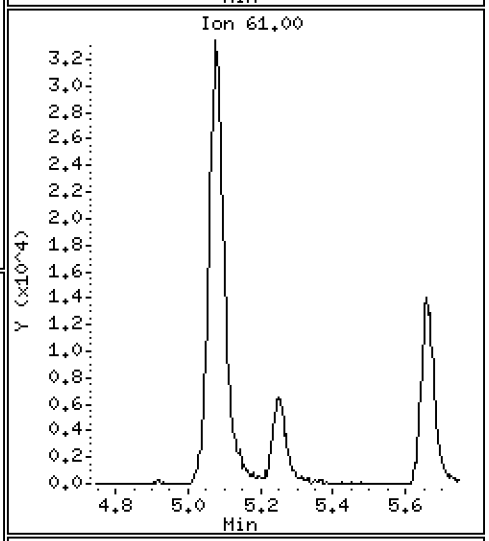


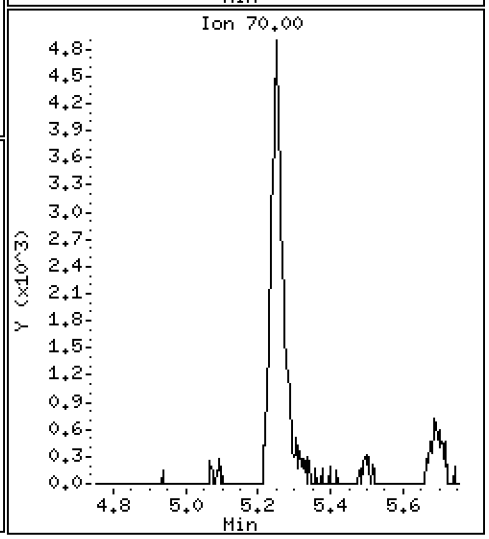












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 1
Report Date: 17-Sep-2018 12:35

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D
Lab Smp Id: HS18081504-01MSD Client Smp ID: HS18081504-01MSD
Inj Date : 04-SEP-2018 18:03
Operator : AP Inst ID: VOA2.i
Smp Info : HS18081504-01MSD;HS18081504-01MSD;3;;MSD
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\nahstws003\Target\chem\voa2.i\D180904.b\8260LL.m
Meth Date : 05-Sep-2018 10:47 VOA2.i Quant Type: ISTD
Cal Date : 03-AUG-2018 02:04 Cal File: E080211.D
Als bottle: 18 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.786	5.782	(1.000)	233772	50.0000	
2	Dichlorodifluoromethane	85	1.470	1.460	(0.254)	41255	17.9262	17.92
186	Isobutylene	56	1.682	1.669	(0.291)	27723	6.67493	6.67(AM)
3	Chloromethane	50	1.614	1.611	(0.279)	79571	13.7945	13.79
4	Propionitrile	54	5.240	5.240	(0.906)	182691	172.883	172.88
5	Vinyl Chloride	62	1.694	1.698	(0.293)	60435	15.6659	15.66
6	Bromomethane	94	1.961	1.954	(0.339)	35466	16.0354	16.03
7	Chloroethane	64	2.057	2.050	(0.356)	34232	13.8903	13.89
159	Dichlorofluoromethane	67	2.246	2.243	(0.388)	84273	14.7238	14.72
8	Trichlorofluoromethane	101	2.272	2.272	(0.393)	62535	16.5911	16.59
9	Acrolein	56	2.708	2.695	(0.468)	16728	21.9820	21.98
10	Acetone	43	2.872	2.866	(0.496)	33776	30.3739	30.37
11	1,1-Dichloroethene	96	2.760	2.769	(0.477)	49417	17.8867	17.88
12	Isobutyl Alcohol	74	6.164	6.158	(1.065)	3651	234.320	234.32(A)
13	Acetonitrile	39	3.183	3.186	(0.550)	51166	151.519	151.51
14	Allyl Chloride	41	3.193	3.196	(0.552)	133423	14.0575	14.05
15	Iodomethane	142	2.920	2.920	(0.505)	71501	29.2795	29.27
16	Acrylonitrile	53	3.703	3.700	(0.640)	45797	31.7559	31.75
17	Methylene Chloride	84	3.350	3.344	(0.579)	51785	15.4946	15.49
18	Methyl tert-butyl ether	73	3.697	3.697	(0.639)	136489	16.2289	16.22
19	Carbon Disulfide	76	2.968	2.971	(0.513)	167037	32.0438	32.04
20	trans-1,2-Dichloroethene	96	3.681	3.677	(0.636)	51736	18.1601	18.16

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 2
Report Date: 17-Sep-2018 12:35

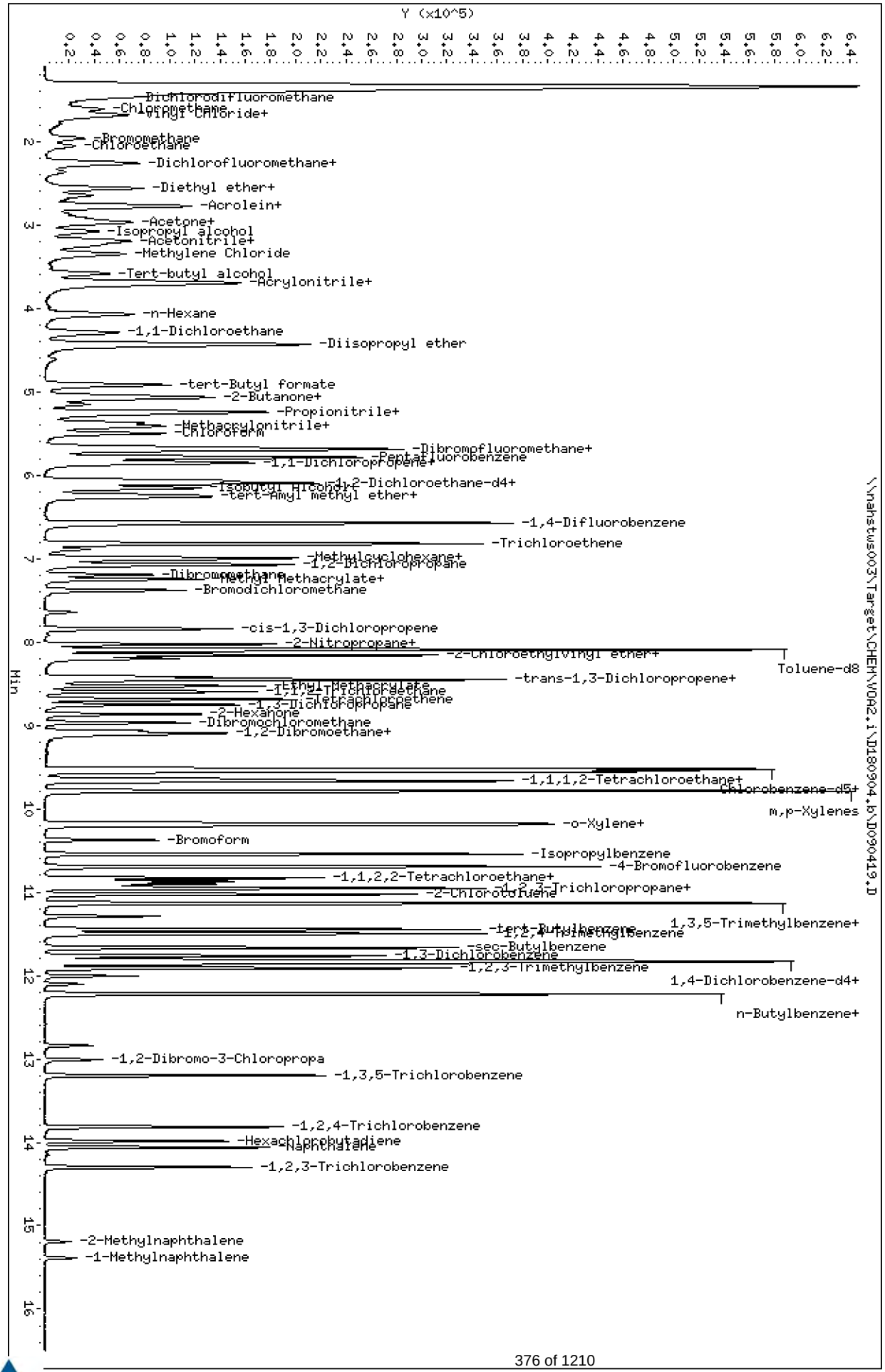
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	21 Vinyl Acetate	43	5.250	5.247	(0.907)	110474	28.7572	28.75(M)
	22 1,1-Dichloroethane	63	4.284	4.290	(0.740)	110483	16.9082	16.90
	24 2-Butanone	43	5.150	5.141	(0.890)	52350	32.6123	32.61
	25 Methacrylonitrile	41	5.410	5.410	(0.935)	59739	17.0034	17.00
	26 2,2-Dichloropropane	77	5.045	5.051	(0.872)	68746	19.3312	19.33
	27 cis-1,2-Dichloroethene	96	5.073	5.073	(0.877)	64347	18.7212	18.72
	28 Chloroform	83	5.500	5.500	(0.951)	90796	16.5775	16.57
	29 Bromochloromethane	128	5.365	5.369	(0.927)	28111	17.5549	17.55
$	30 Dibromofluoromethane	113	5.689	5.689	(0.983)	97949	46.8659	46.86
	31 1,1,1-Trichloroethane	97	5.661	5.654	(0.978)	76412	16.5397	16.53
	32 1,1-Dichloropropene	75	5.856	5.859	(0.891)	64938	19.5619	19.56
	33 1,2-Dichloroethane	62	6.148	6.148	(0.935)	67590	18.0593	18.05
	34 Carbon Tetrachloride	117	5.837	5.837	(0.888)	65146	18.8112	18.81
$	35 1,2-Dichloroethane-d4	65	6.062	6.058	(1.048)	108558	45.5253	45.52
*	36 1,4-Difluorobenzene	114	6.575	6.575	(1.000)	342769	50.0000	
	37 Benzene	78	6.094	6.097	(0.927)	209957	17.9050	17.90
	38 Trichloroethene	130	6.819	6.819	(1.037)	132041	42.1792	42.17
	39 Bromodichloromethane	83	7.381	7.377	(1.122)	73126	18.5382	18.53
	40 Methyl Methacrylate	41	7.246	7.246	(1.252)	58564	16.4713	16.47
	41 2-Chloroethylvinyl ether	63	8.154	8.154	(1.240)	17568	36.9493	36.94
	42 1,2-Dichloropropane	63	7.066	7.069	(1.075)	61669	18.1249	18.12(M)
	43 2-Nitropropane	43	8.026	8.029	(1.387)	123854	16.5651	16.56
	44 Dibromomethane	93	7.191	7.191	(1.094)	31300	18.5905	18.59
	45 4-Methyl-2-Pentanone	43	8.026	8.029	(0.843)	123854	34.4962	34.49
	46 cis-1,3-Dichloropropene	75	7.843	7.839	(1.193)	86778	19.6490	19.64
*	47 Chlorobenzene-d5	117	9.524	9.524	(1.000)	315244	50.0000	
$	48 Toluene-d8	98	8.090	8.093	(0.849)	389379	44.6812	44.68
	49 Ethyl Methacrylate	69	8.529	8.529	(1.297)	78394	18.4032	18.40
	50 Toluene	91	8.157	8.157	(0.856)	221313	17.4022	17.40
	51 trans-1,3-Dichloropropene	75	8.414	8.417	(1.280)	68552	20.0257	20.02
	52 2-Hexanone	43	8.866	8.866	(0.931)	77886	33.4241	33.42
	53 1,1,2-Trichloroethane	83	8.594	8.597	(0.902)	41977	17.3459	17.34
	54 1,3-Dichloropropane	76	8.751	8.754	(0.919)	82288	17.1991	17.19
	55 Dibromochloromethane	129	8.966	8.969	(0.941)	60694	17.9654	17.96
	56 Tetrachloroethene	164	8.687	8.690	(0.912)	48118	18.7644	18.76
	57 1,2-Dibromoethane	107	9.065	9.068	(0.952)	53659	18.4263	18.42
	58 1-Chlorohexane	55	9.550	9.550	(1.452)	53090	19.0976	19.09
	59 Chlorobenzene	112	9.553	9.553	(1.003)	142582	18.0768	18.07
	60 1,1,1,2-Tetrachloroethane	131	9.643	9.643	(1.012)	55844	18.0321	18.03
	61 Ethylbenzene	106	9.669	9.672	(1.015)	78628	19.6449	19.64
	62 m,p-Xylenes	106	9.787	9.790	(1.028)	185978	38.3873	38.38
	63 o-Xylene	106	10.176	10.179	(1.068)	98021	18.8689	18.86
	64 Styrene	104	10.195	10.198	(1.070)	152668	18.1420	18.14
	66 Bromoform	173	10.375	10.374	(1.089)	42957	18.2182	18.21
	67 Isopropylbenzene	105	10.545	10.544	(1.107)	241203	17.8098	17.80
	68 1,1,2,2-Tetrachloroethane	83	10.869	10.869	(0.919)	69758	15.6677	15.66
$	69 4-Bromofluorobenzene	95	10.692	10.695	(1.123)	141791	50.7111	50.71
*	70 1,4-Dichlorobenzene-d4	152	11.831	11.834	(1.000)	139566	50.0000	
	71 1,2,3-Trichloropropane	75	10.901	10.901	(0.921)	65350	15.6459	15.64
	72 trans-1,4-Dichloro-2-butene	53	10.926	10.926	(1.147)	12233	14.9709	14.97
	73 n-Propylbenzene	91	10.952	10.955	(0.926)	256907	18.1143	18.11
	74 Bromobenzene	156	10.830	10.833	(0.915)	63270	16.7756	16.77
	75 1,3,5-Trimethylbenzene	105	11.129	11.132	(0.941)	189276	16.4455	16.44
	76 2-Chlorotoluene	91	11.026	11.029	(0.932)	164258	17.6240	17.62

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 3
Report Date: 17-Sep-2018 12:35

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
77	4-Chlorotoluene	91	11.138	11.138	(0.941)	175629	17.5979	17.59
78	tert-Butylbenzene	119	11.449	11.449	(0.968)	165923	18.2221	18.22
79	1,2,4-Trimethylbenzene	105	11.498	11.498	(0.972)	188256	17.5382	17.53
81	sec-Butylbenzene	105	11.664	11.668	(0.986)	227778	16.3670	16.36
82	p-Isopropyltoluene	119	11.815	11.815	(0.999)	186368	16.1866	16.18
83	1,3-Dichlorobenzene	146	11.767	11.764	(0.995)	109971	16.9547	16.95
84	1,4-Dichlorobenzene	146	11.857	11.857	(1.002)	102230	16.8785	16.87
87	n-Butylbenzene	91	12.220	12.223	(1.033)	142598	16.7408	16.74
88	1,2-Dichlorobenzene	146	12.220	12.223	(1.033)	106236	16.6046	16.60
89	1,2-Dibromo-3-Chloropropane	75	13.006	13.009	(1.099)	10769	15.3917	15.39
90	1,2,4-Trichlorobenzene	180	13.818	13.818	(1.168)	61994	17.3249	17.32
91	Hexachlorobutadiene	225	13.985	13.988	(1.182)	29237	17.2479	17.24
92	Naphthalene	128	14.062	14.061	(1.188)	140780	15.7675	15.76
93	1,2,3-Trichlorobenzene	182	14.302	14.299	(1.209)	51629	16.2761	16.27
146	Methyl acetate	43	3.244	3.244	(0.561)	47894	12.8611	12.86
138	Freon TF	101	2.782	2.776	(0.481)	41318	17.6808	17.68
139	Diethyl ether	59	2.558	2.554	(0.442)	79085	14.0675	14.06
147	Methylcyclohexane	83	6.992	6.989	(1.063)	79113	20.2549	20.25
135	1,4-Dioxane	88	7.243	7.239	(1.252)	9425	284.579	284.57
132	n-Butanol	56	6.999	6.995	(1.210)	35154	317.257	317.25
131	Methyl Acrylate	55	5.272	5.269	(0.911)	87339	15.6795	15.67
133	Ethyl Acrylate	55	7.012	7.008	(1.212)	160546	16.0062	16.00
136	n-Hexane	57	4.069	4.069	(0.703)	67084	17.7544	17.75
141	Cyclohexane	56	5.693	5.689	(0.984)	95415	16.1967	16.19
142	Tetrahydrofuran	42	5.426	5.420	(0.938)	38931	30.4067	30.40
148	Tert-butyl alcohol	59	3.584	3.575	(0.620)	112179	313.382	313.38
149	Isopropyl alcohol	45	3.077	3.071	(0.532)	96990	426.308	426.30
151	4-Methyl-2-pentanol	45	8.449	8.452	(0.887)	268849	359.407	359.40
166	1,2,3-Trimethylbenzene	105	11.912	11.915	(1.007)	175950	17.2281	17.22
167	Ethanol	45	2.558	2.557	(0.442)	78090	271.654	271.65
170	1,3,5-Trichlorobenzene	180	13.198	13.201	(1.116)	72157	17.3316	17.33
172	tert-Butyl formate	59	4.923	4.916	(0.851)	130201	31.7083	31.70
173	3,3-Dimethyl-1-butanol	57	9.094	9.094	(0.955)	98279	354.836	354.83
174	tert-Amyl methyl ether	73	6.261	6.261	(1.082)	124342	15.6433	15.64
175	tert-Butyl ethyl ether	59	6.235	6.235	(1.078)	66806	15.4978	15.49
176	tert-Amyl alcohol	59	6.235	6.235	(1.078)	66806	309.956	309.95
157	2-Methylnaphthalene	142	15.185	15.191	(1.283)	10555	8.58946	8.58
156	Diisopropyl ether	45	4.435	4.428	(0.767)	205637	16.4670	16.46
171	1-Methylnaphthalene	142	15.387	15.384	(1.300)	14027	8.81150	8.81
130	Ethyl Acetate	43	5.250	5.247	(0.907)	107234	14.0410	14.04
M 94	1,2-Dichloroethylene (total)	96				116083	36.8813	36.88
M 95	Xylenes (total)	106				283999	57.2562	57.25

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D
Date : 04-SEP-2018 18:03
Client ID: HS18081504-01MSD
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA2.i
Operator: AP
Column diameter: 0.18

\\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 2

Date : 04-SEP-2018 18:03

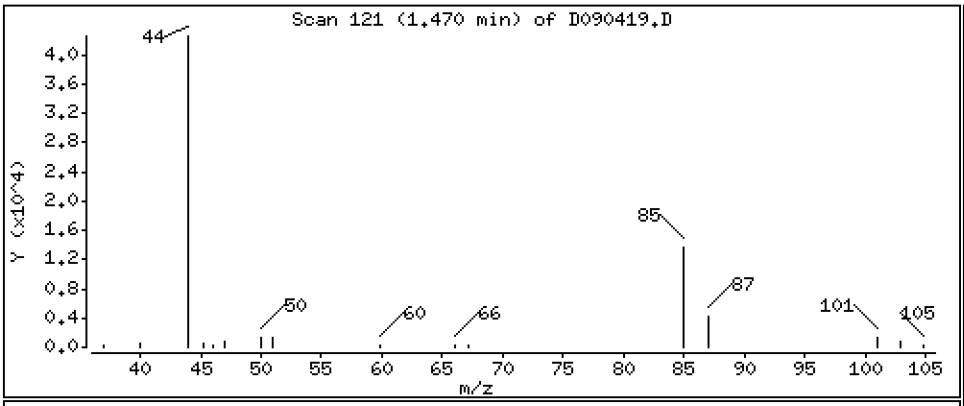
Client ID: HS18081504-01MSD Instrument: VOA2.i

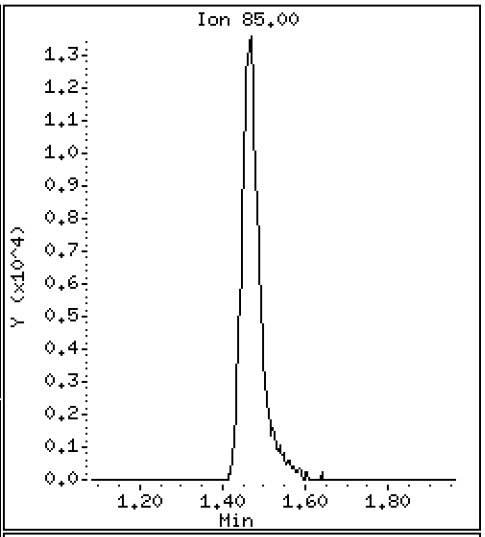
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

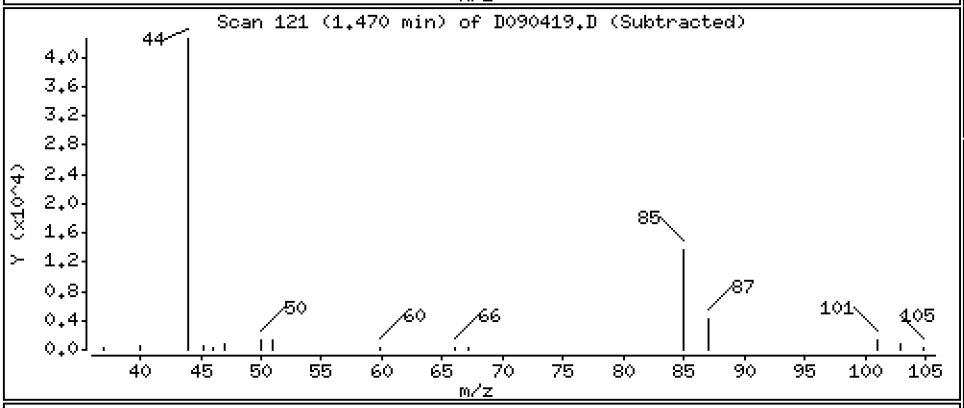
Purge Volume: 5.0 Operator: AP

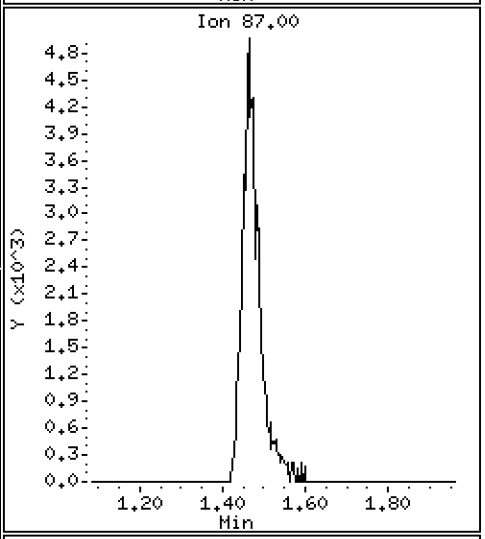
Column phase: DB624 Column diameter: 0.18

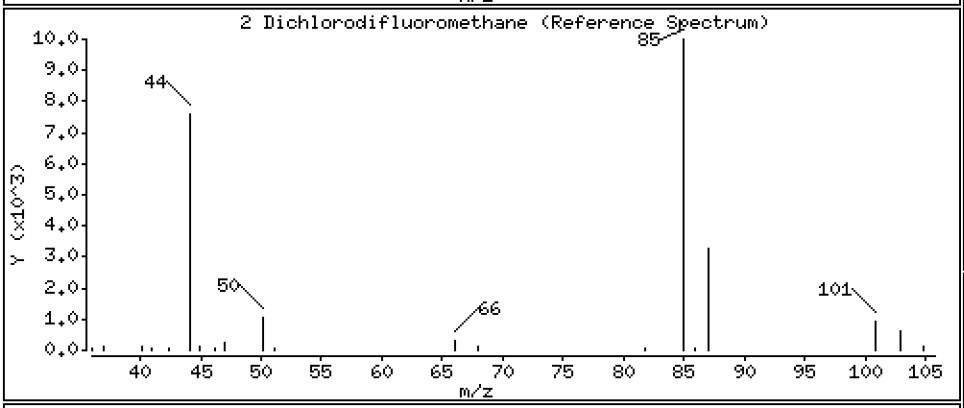
2 Dichlorodifluoromethane Concentration: 17.92 ug/l Review Code:

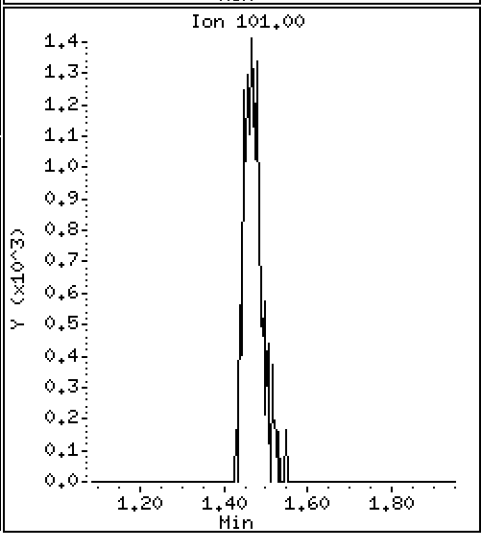


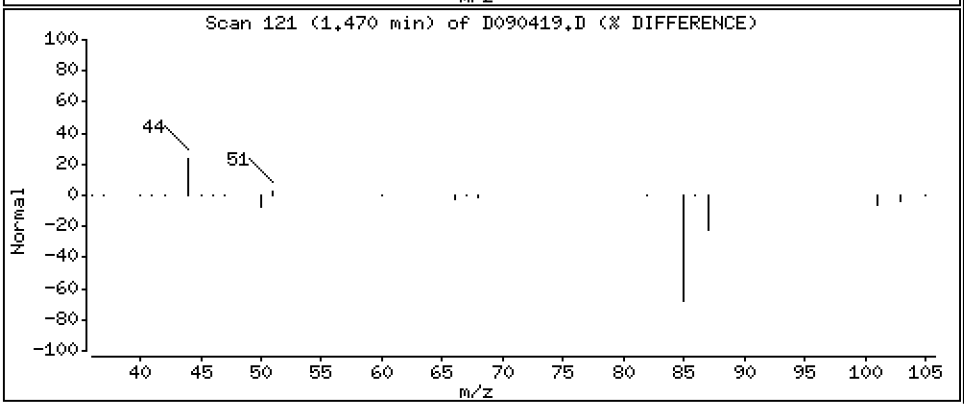












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 3

Date : 04-SEP-2018 18:03

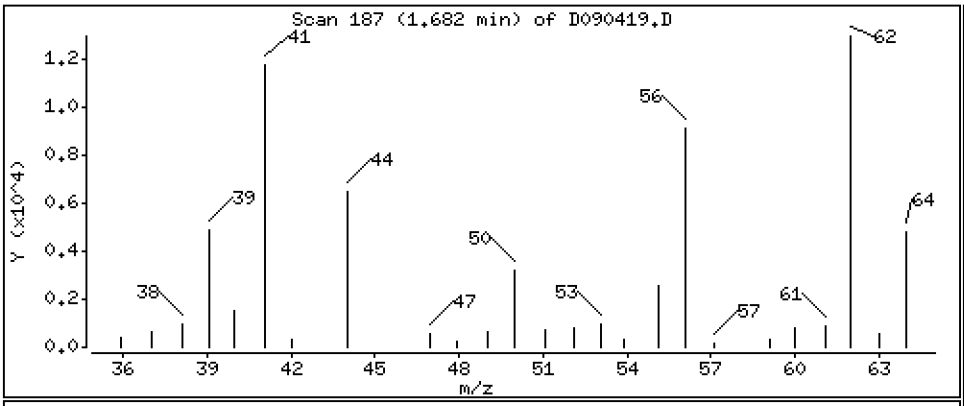
Client ID: HS18081504-01MSD Instrument: VOA2.i

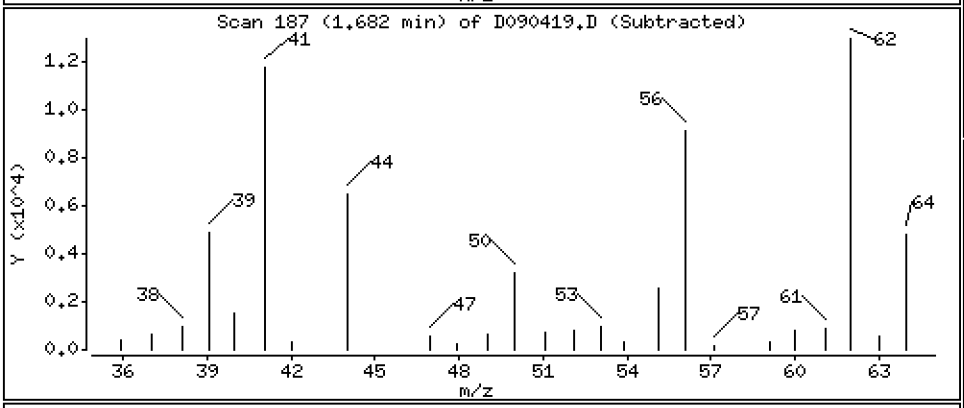
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

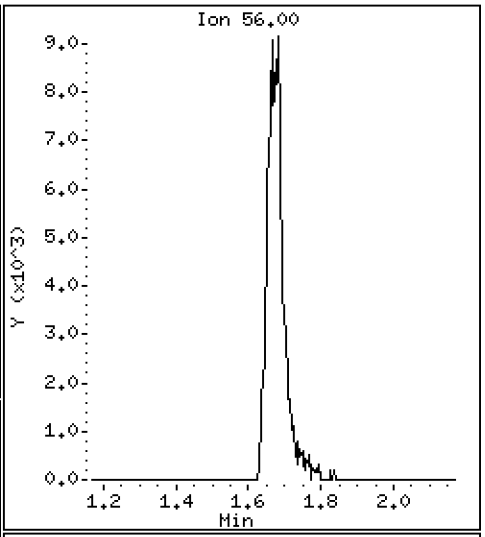
Purge Volume: 5.0 Operator: AP

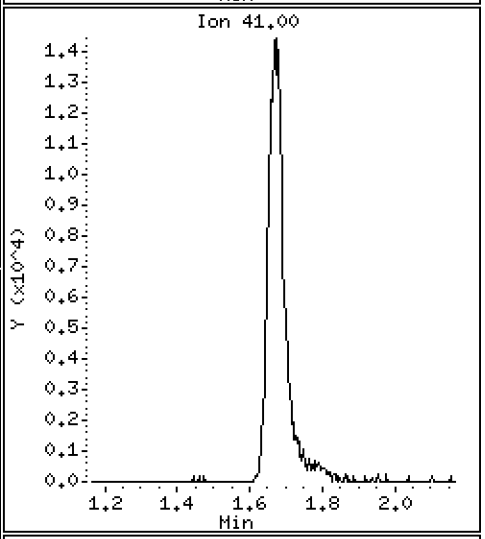
Column phase: DB624 Column diameter: 0.18

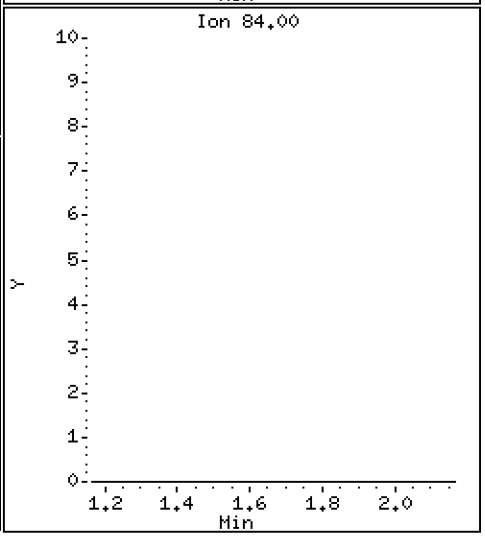
186 Isobutylene Concentration: 6.67 ug/l Review Code:











Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 4

Date : 04-SEP-2018 18:03

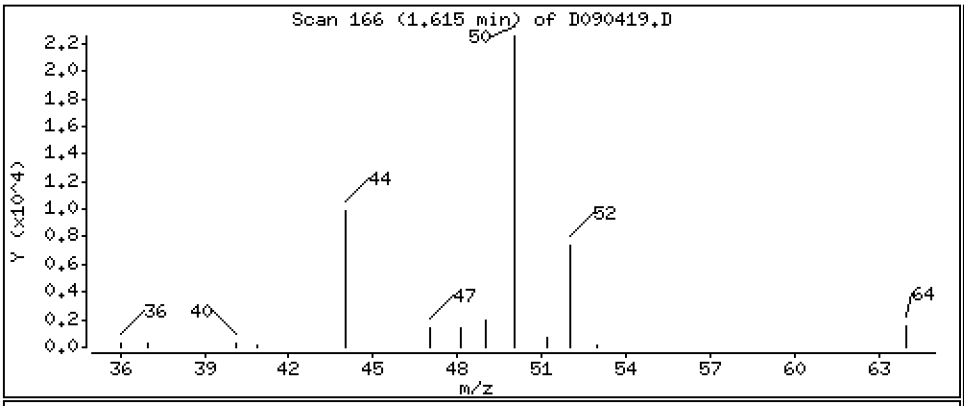
Client ID: HS18081504-01MSD Instrument: VOA2.i

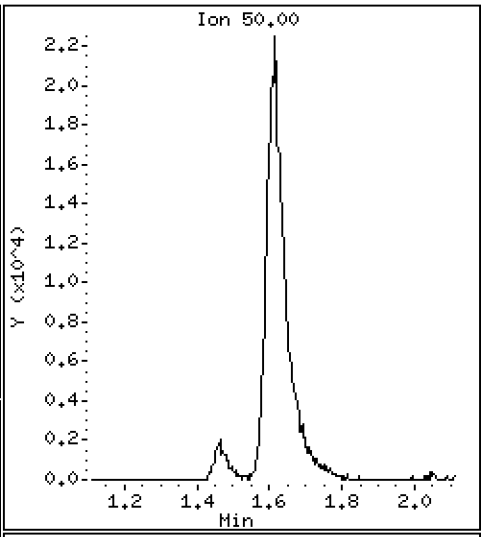
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

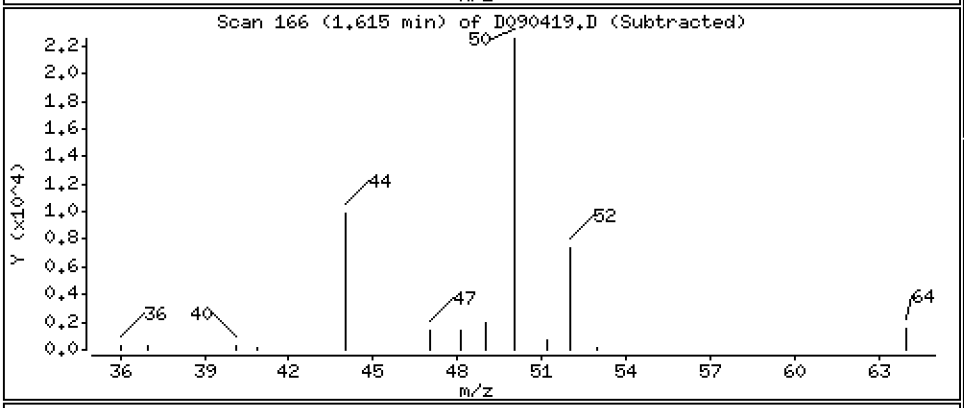
Purge Volume: 5.0 Operator: AP

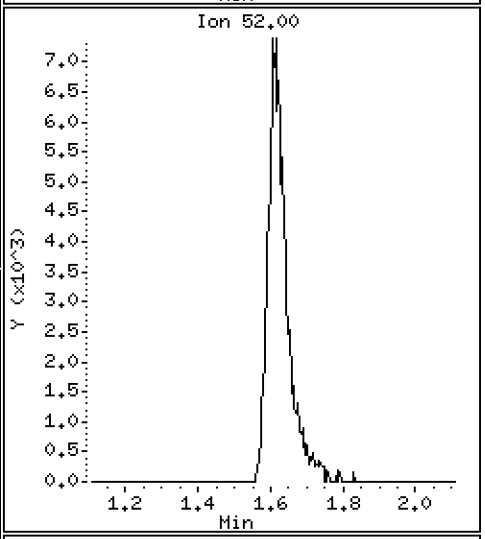
Column phase: DB624 Column diameter: 0.18

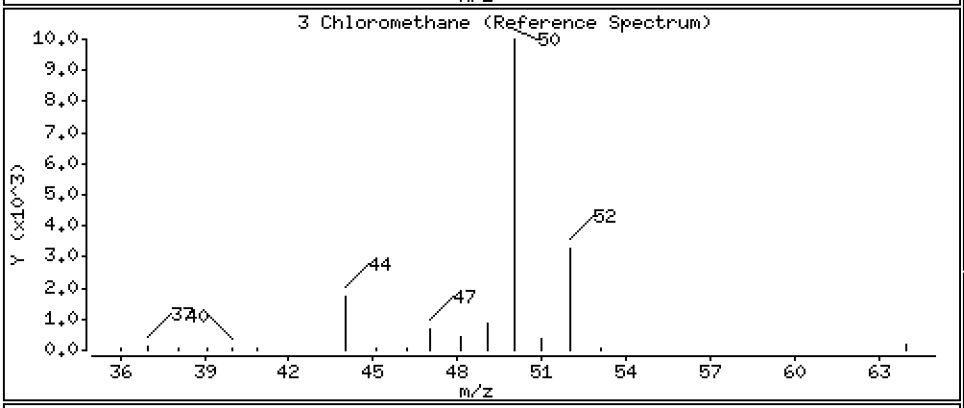
3 Chloromethane Concentration: 13.79 ug/l Review Code:

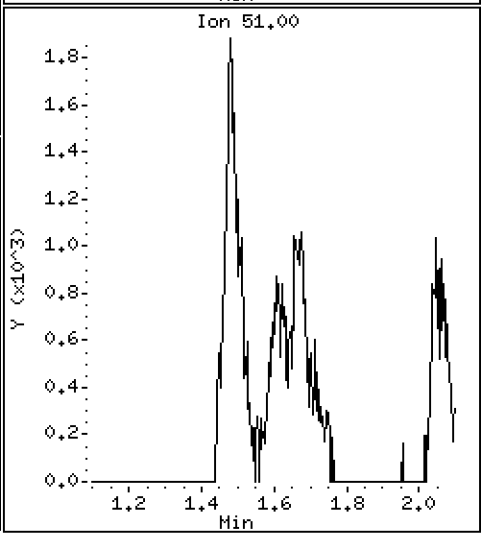


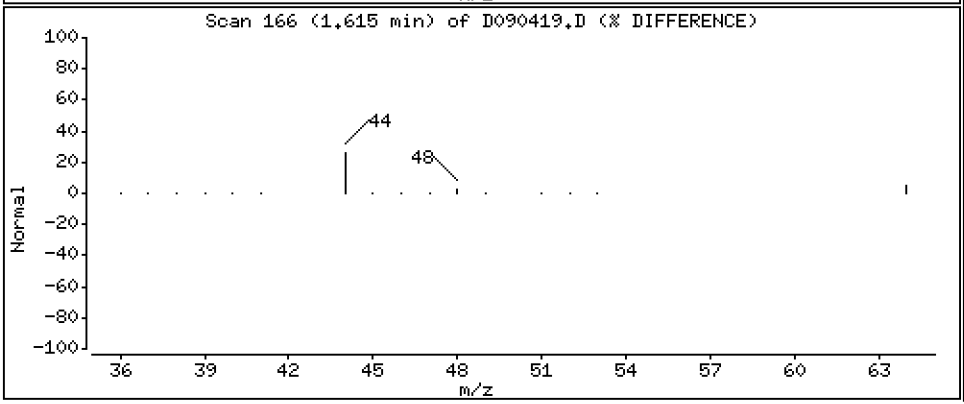












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 5

Date : 04-SEP-2018 18:03

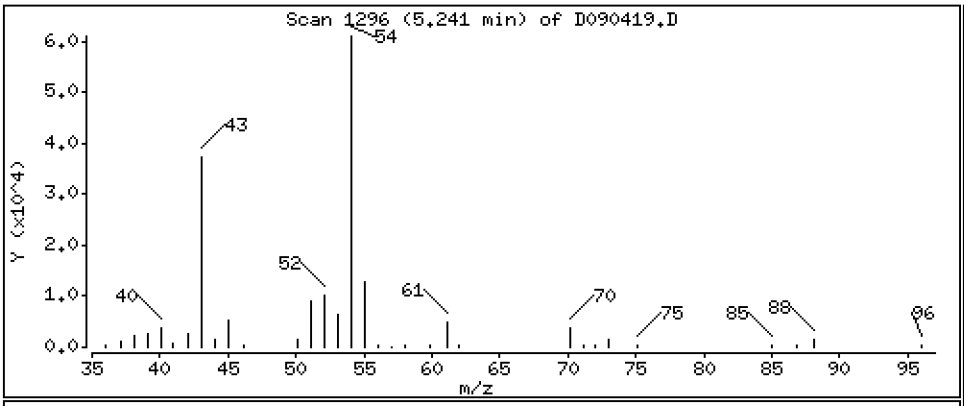
Client ID: HS18081504-01MSD Instrument: VOA2.i

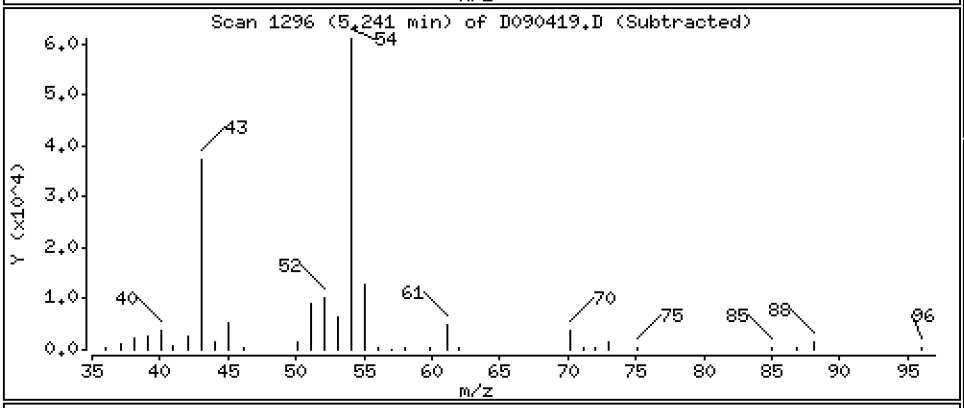
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

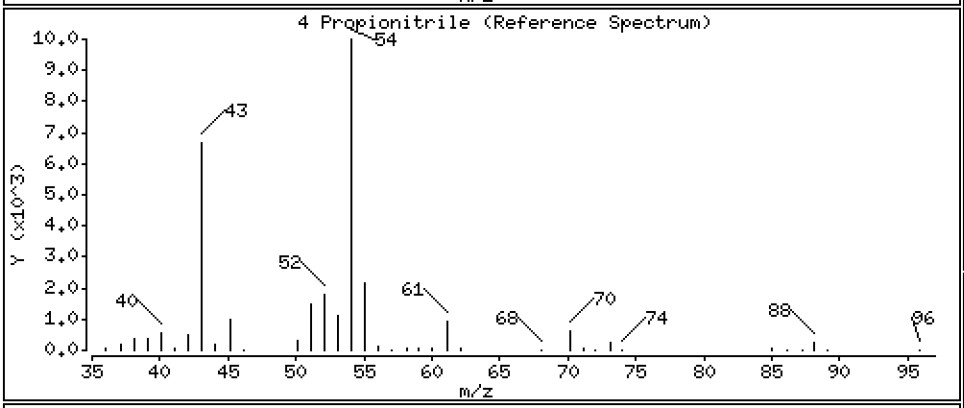
Purge Volume: 5.0 Operator: AP

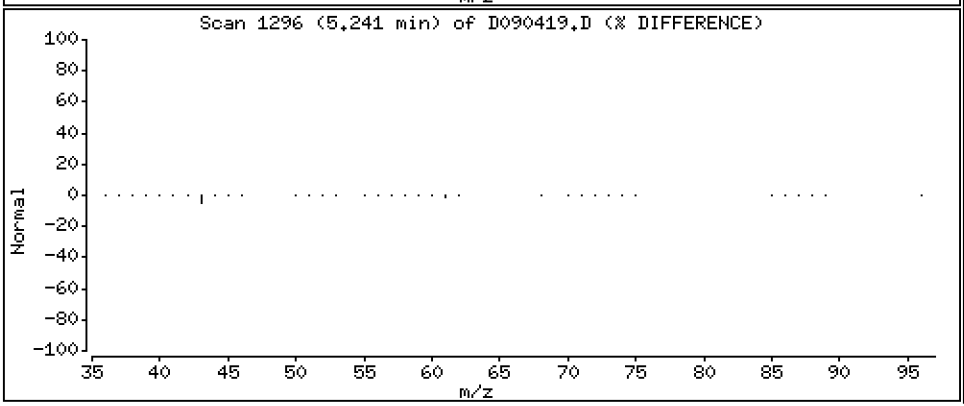
Column phase: DB624 Column diameter: 0.18

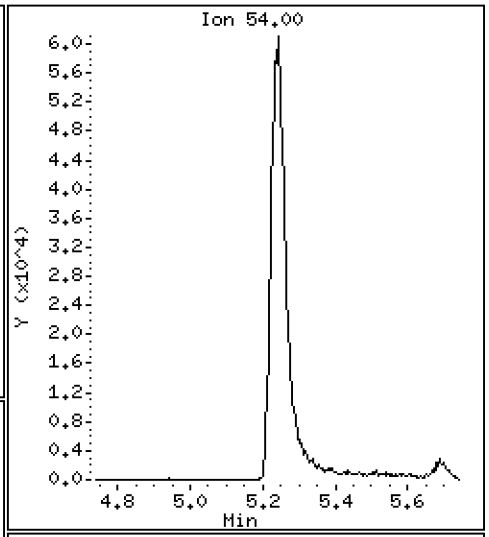
4 Propionitrile Concentration: 172.88 ug/l Review Code:

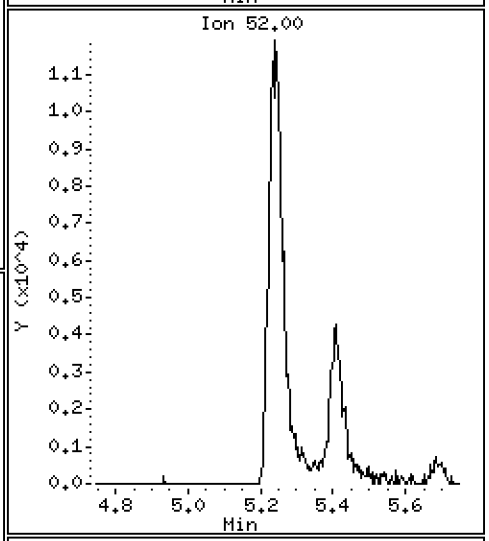


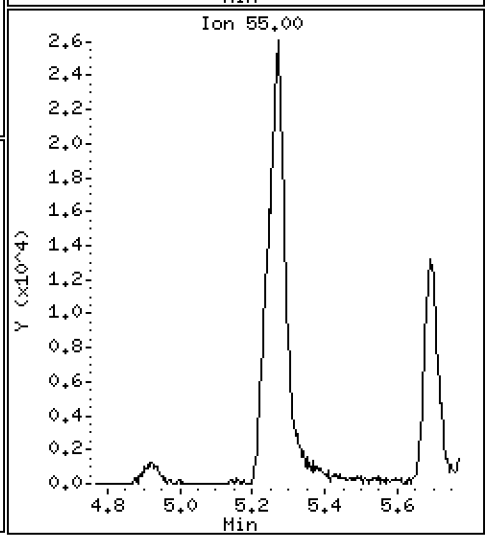












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 6

Date : 04-SEP-2018 18:03

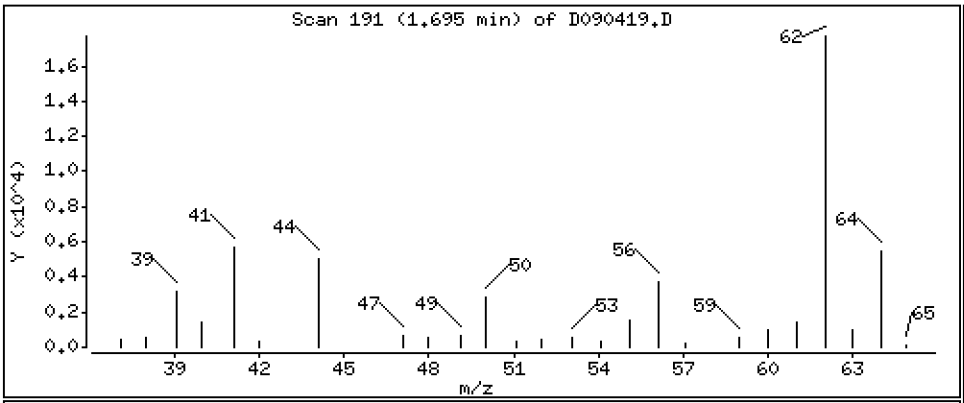
Client ID: HS18081504-01MSD Instrument: VOA2.i

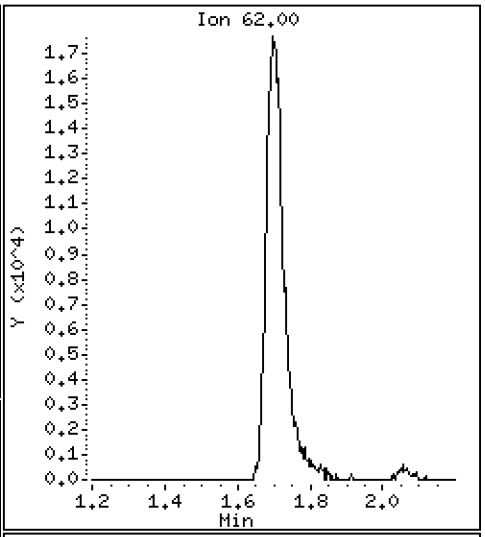
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

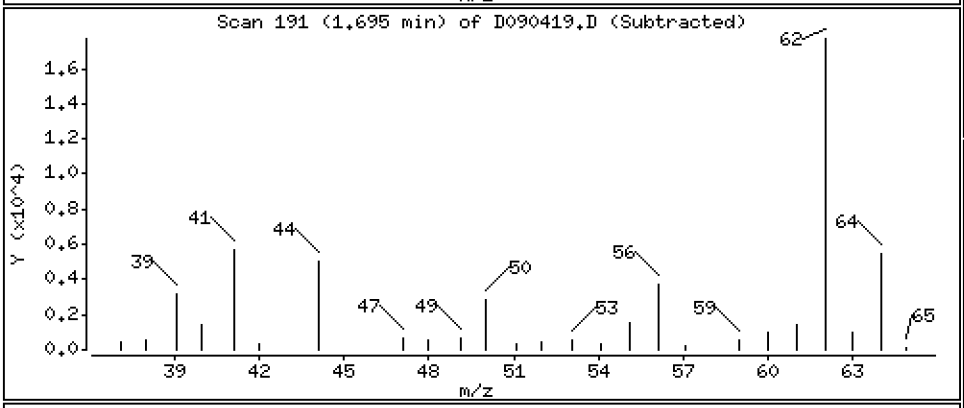
Purge Volume: 5.0 Operator: AP

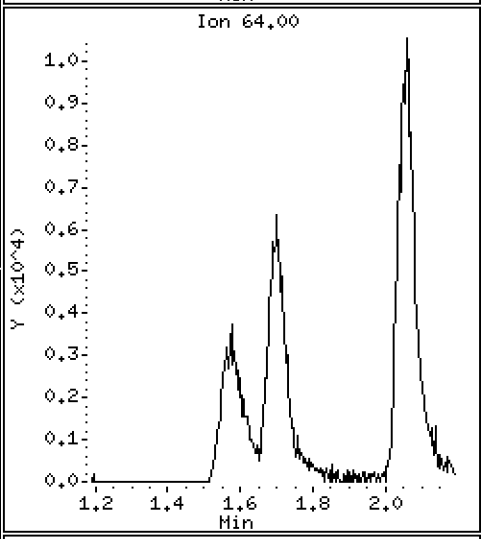
Column phase: DB624 Column diameter: 0.18

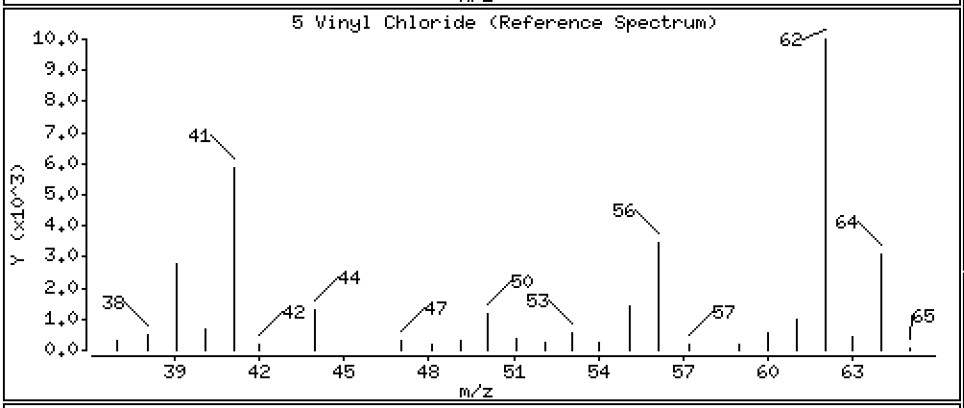
5 Vinyl Chloride Concentration: 15.66 ug/l Review Code:

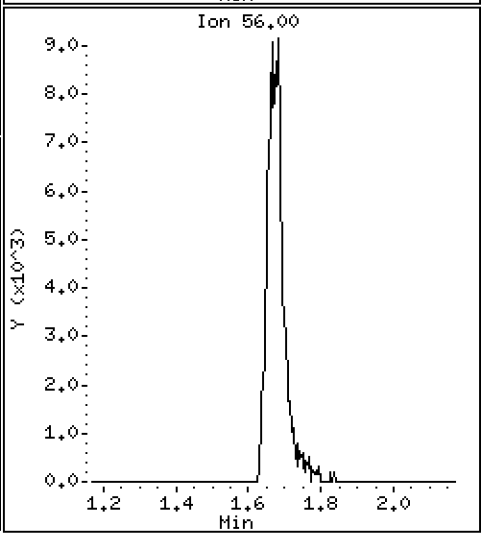


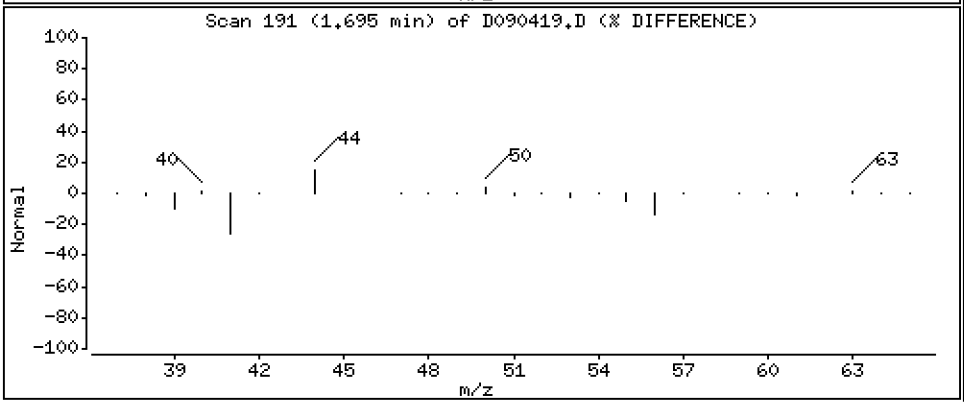












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 7

Date : 04-SEP-2018 18:03

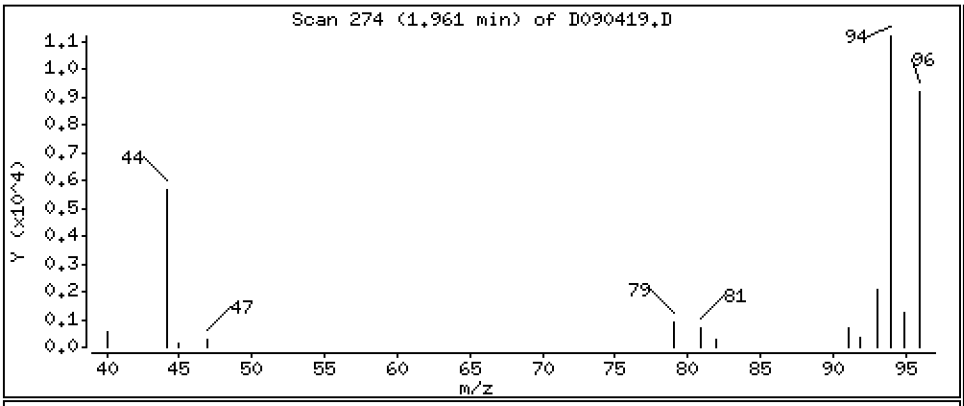
Client ID: HS18081504-01MSD Instrument: VOA2.i

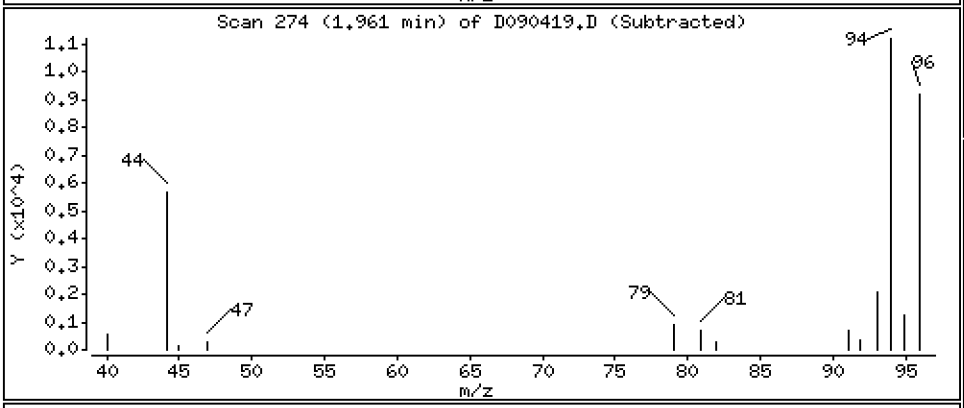
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

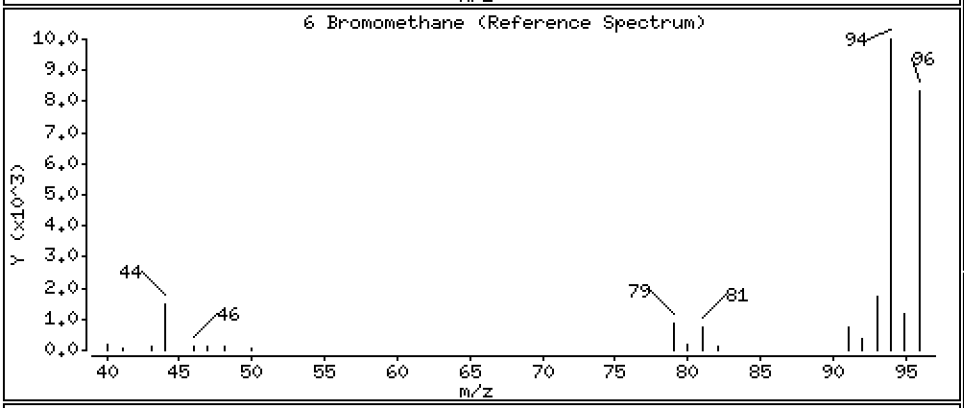
Purge Volume: 5.0 Operator: AP

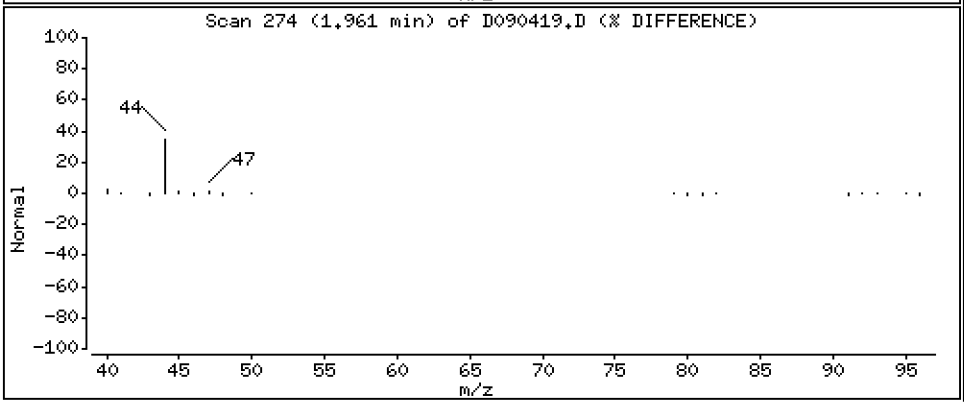
Column phase: DB624 Column diameter: 0.18

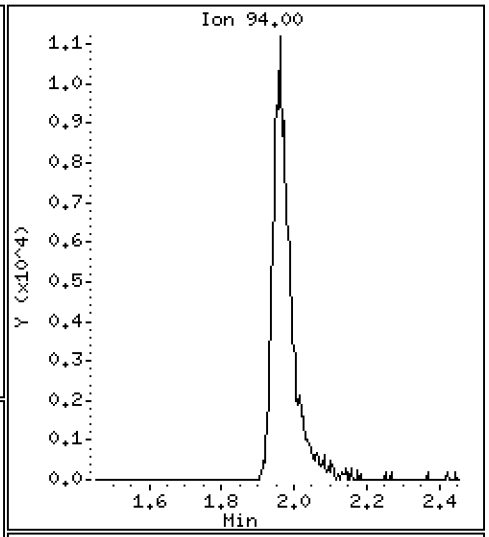
6 Bromomethane Concentration: 16.03 ug/l Review Code:

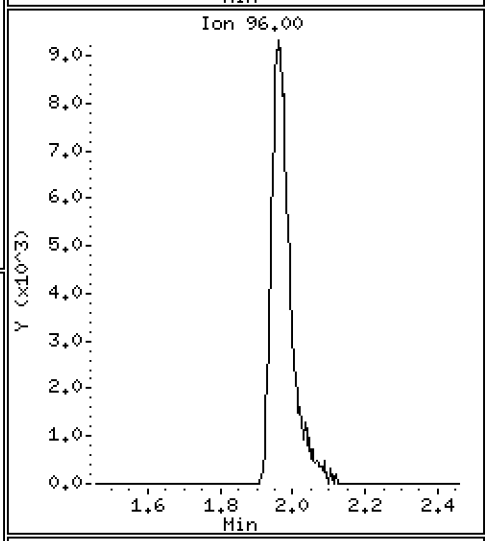


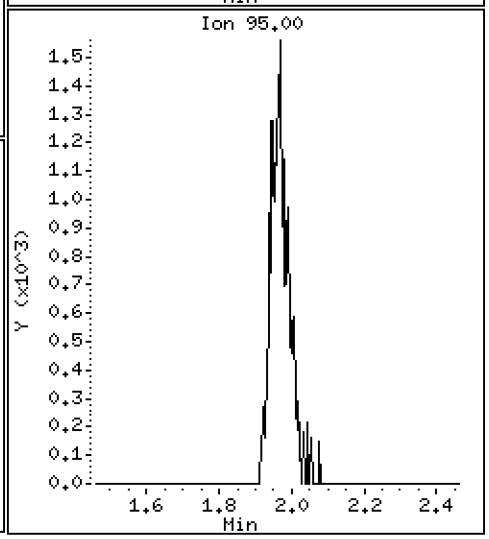












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 8

Date : 04-SEP-2018 18:03

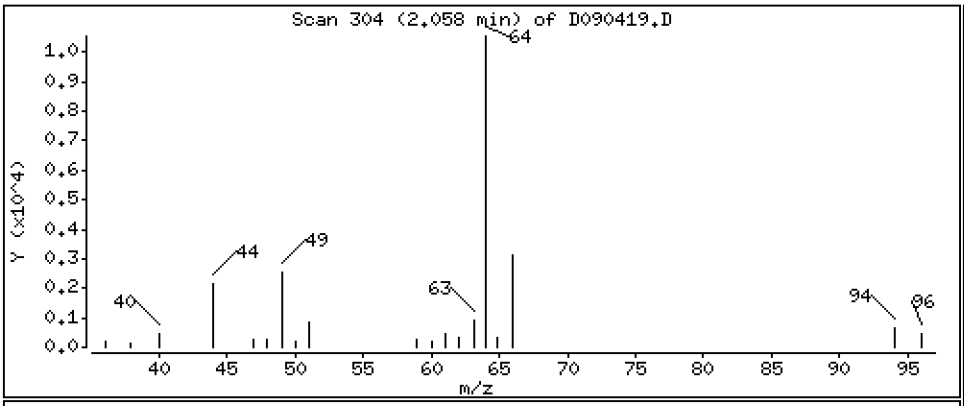
Client ID: HS18081504-01MSD Instrument: VOA2.i

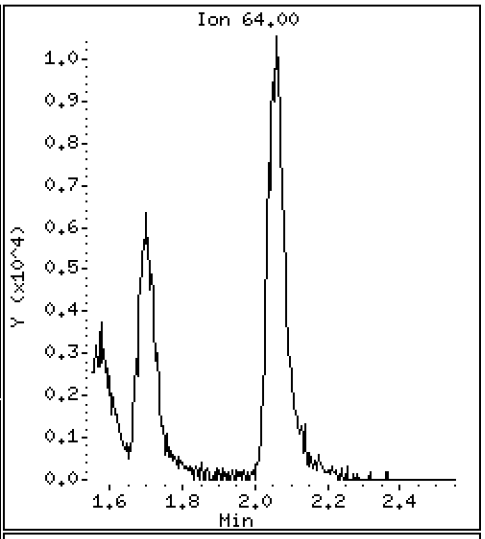
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

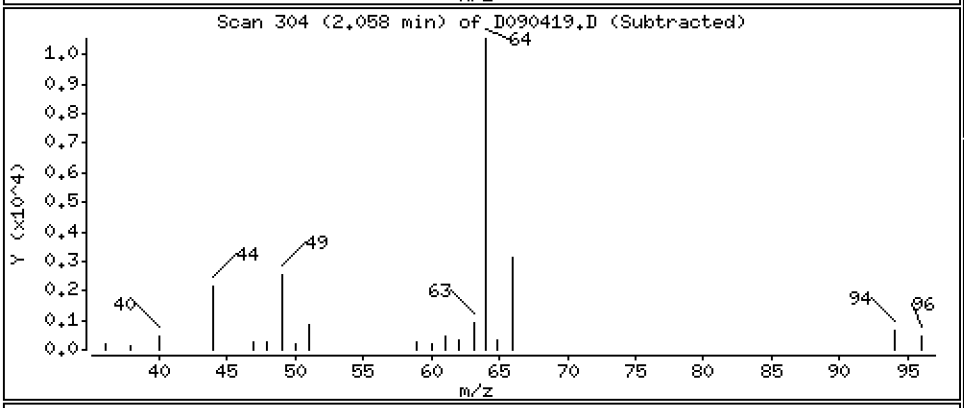
Purge Volume: 5.0 Operator: AP

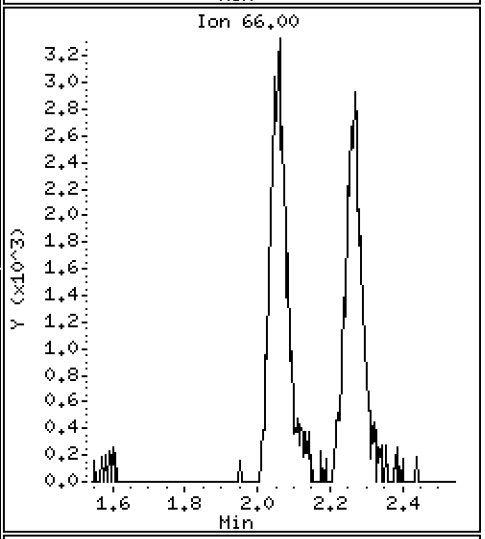
Column phase: DB624 Column diameter: 0.18

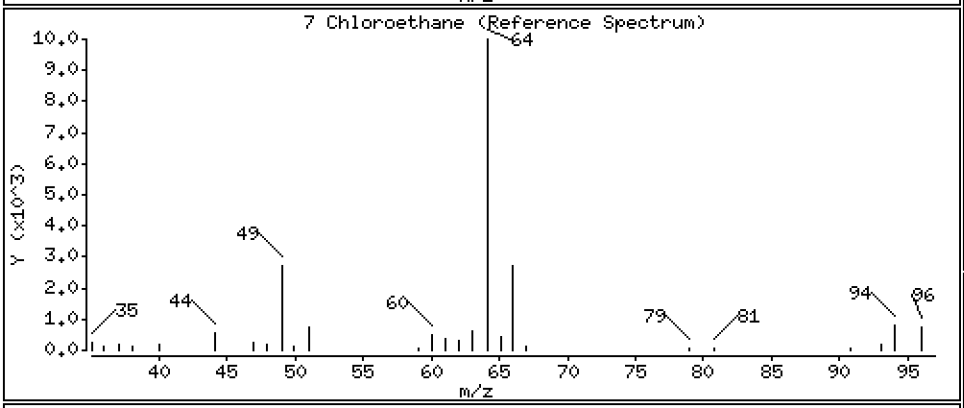
7 Chloroethane Concentration: 13.89 ug/l Review Code:

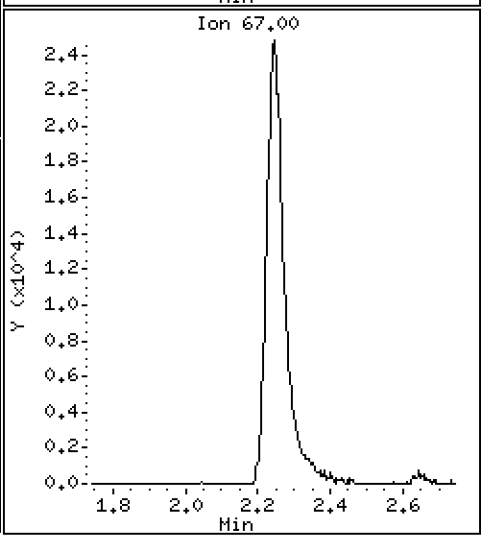


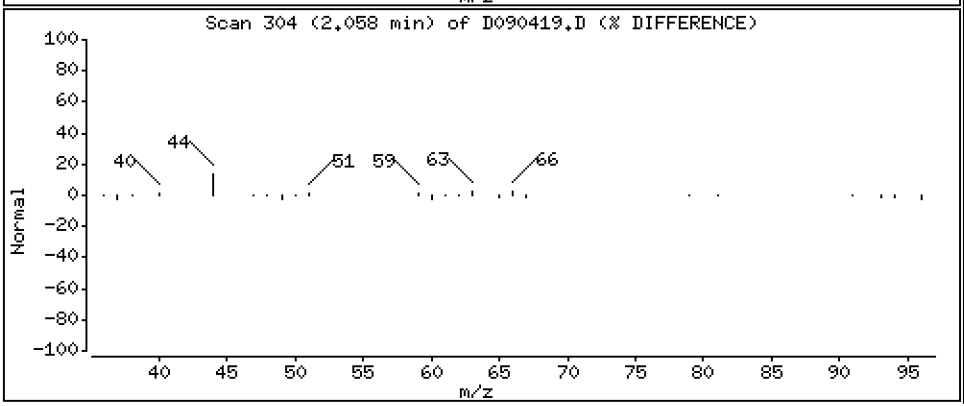












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 9

Date : 04-SEP-2018 18:03

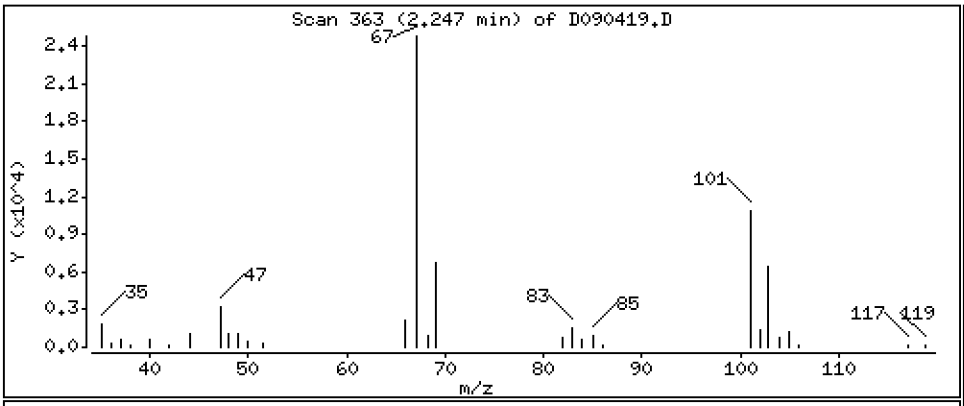
Client ID: HS18081504-01MSD Instrument: VOA2.i

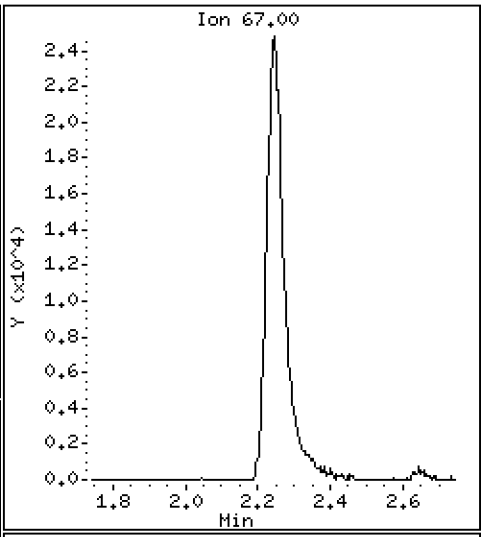
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

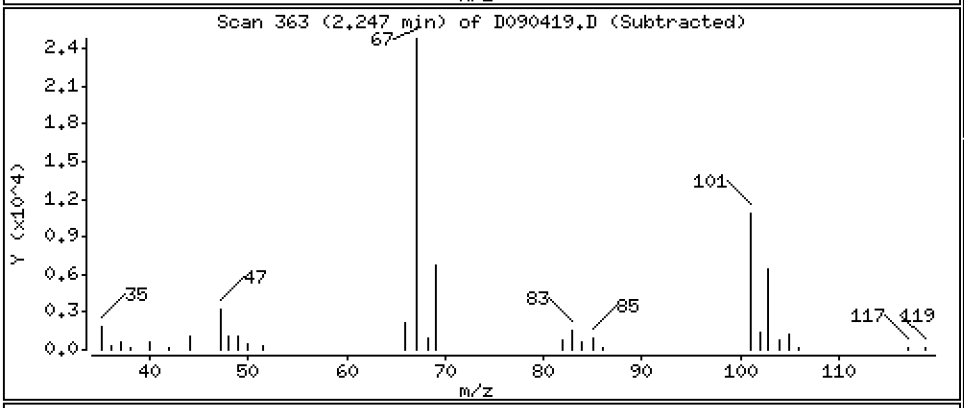
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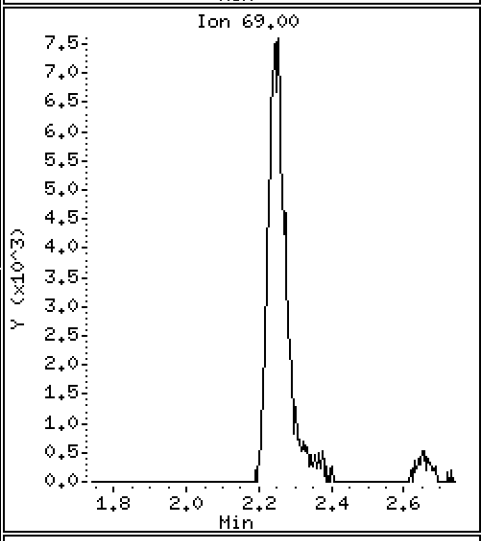
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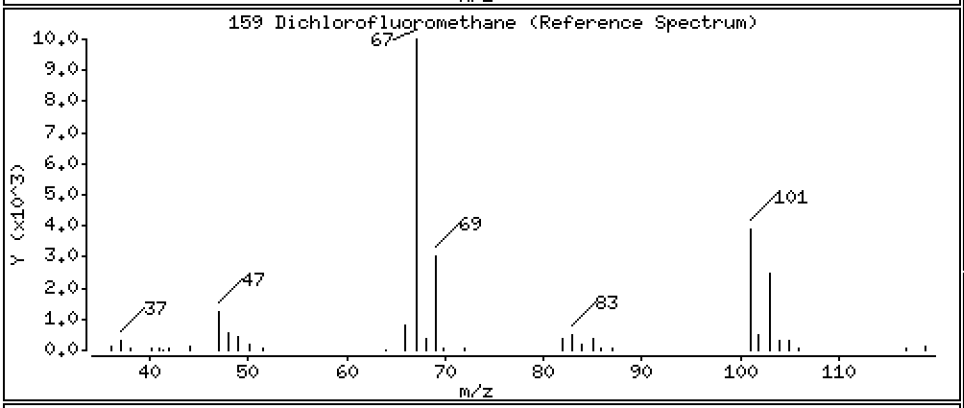
159 Dichlorofluoromethane Concentration: 14.72 ug/l Review Code:

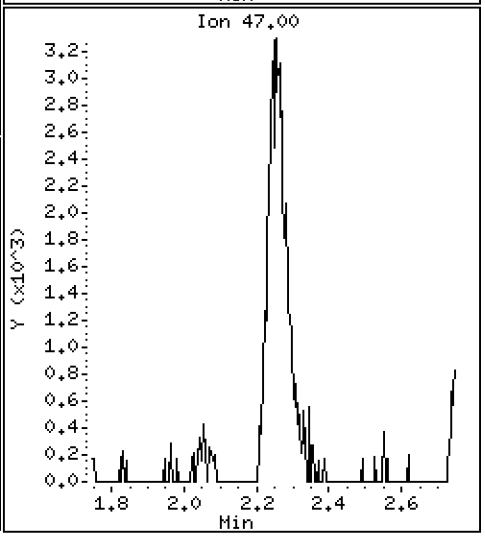


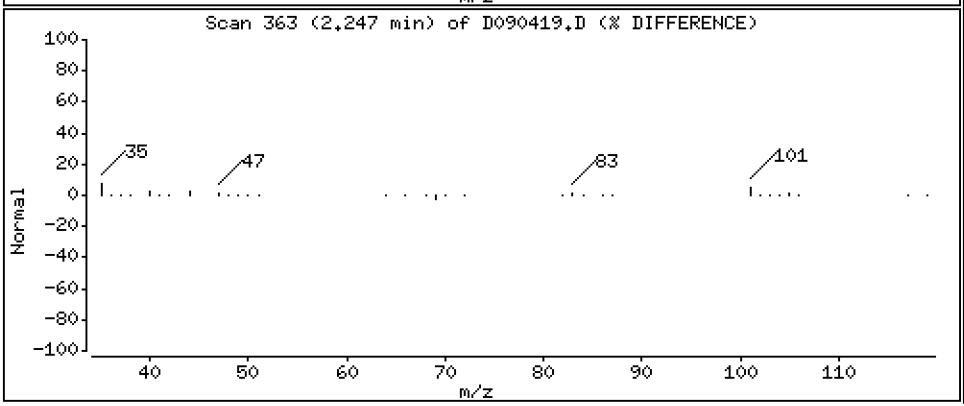












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 10

Date : 04-SEP-2018 18:03

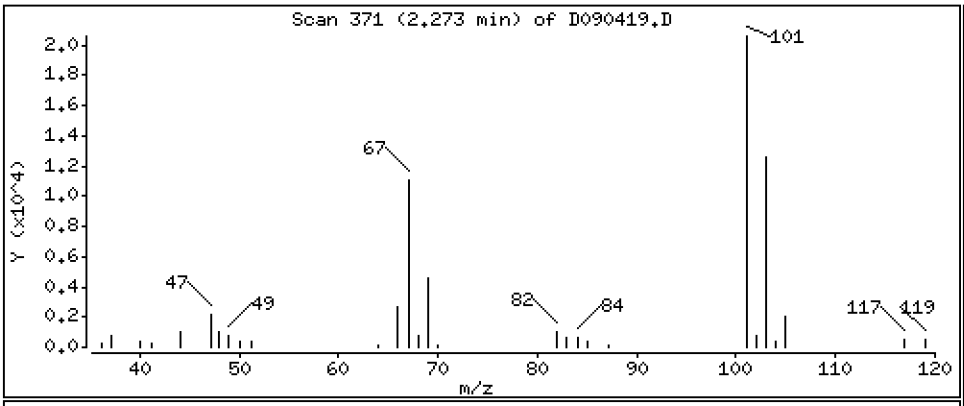
Client ID: HS18081504-01MSD Instrument: VOA2.i

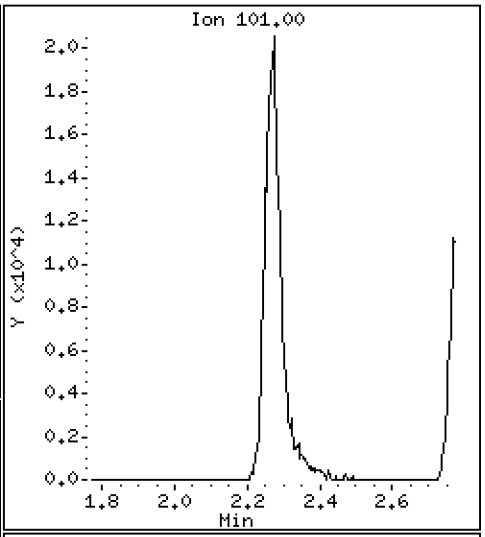
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

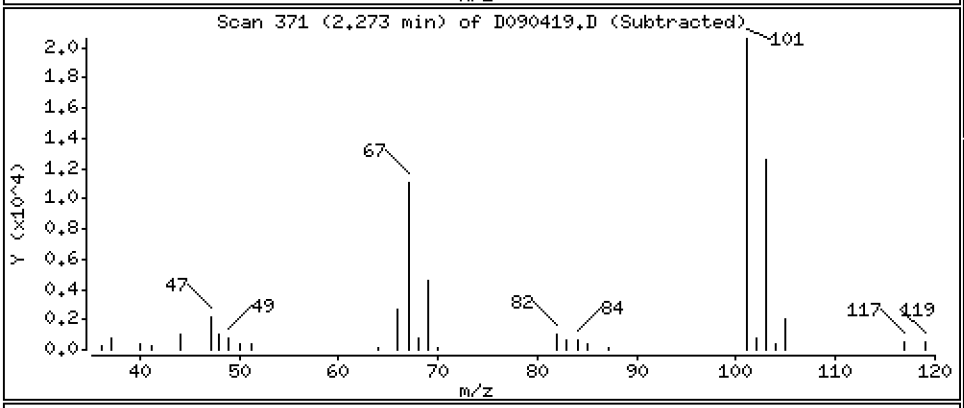
Purge Volume: 5.0 Operator: AP

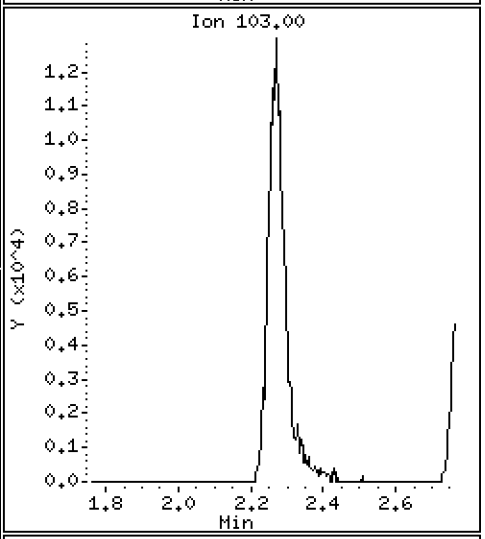
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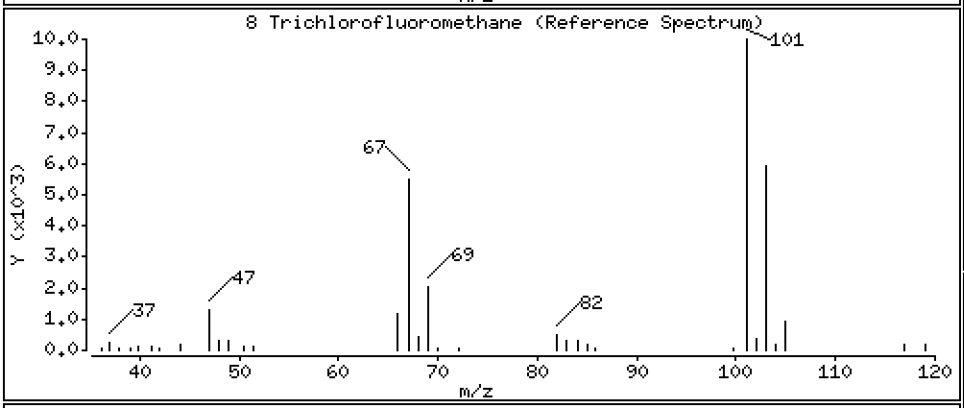
8 Trichlorofluoromethane Concentration: 16.59 ug/l Review Code:

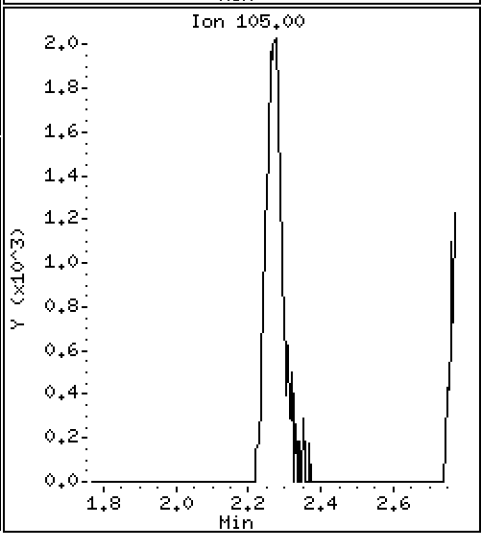


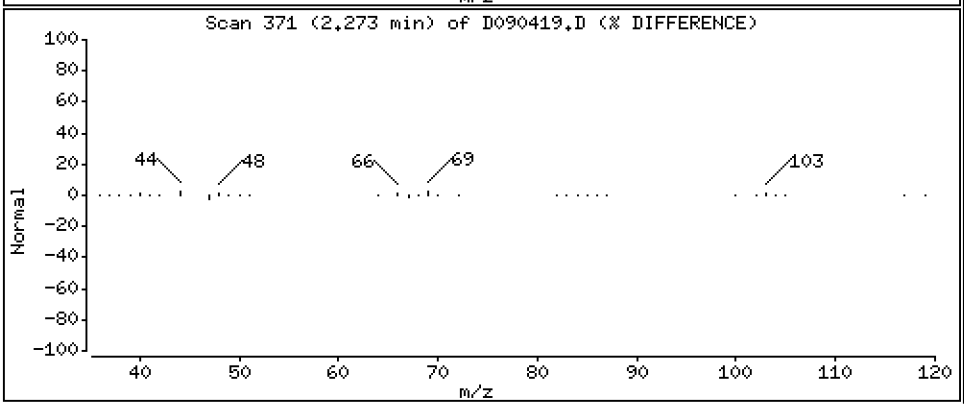












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 11

Date : 04-SEP-2018 18:03

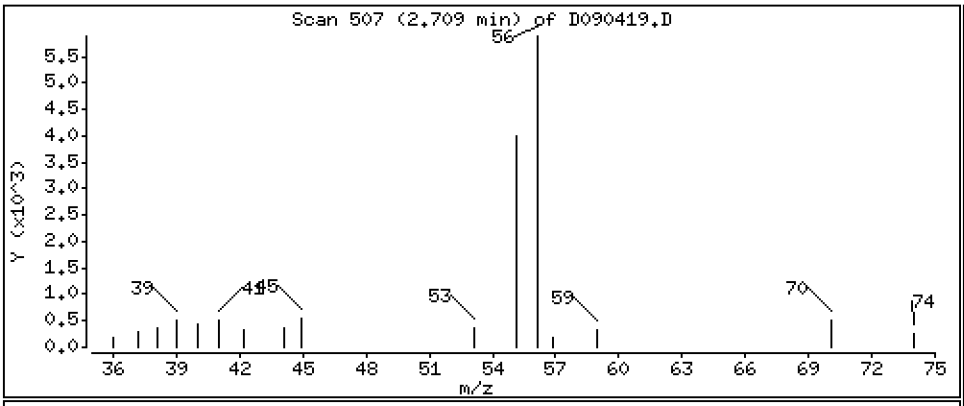
Client ID: HS18081504-01MSD Instrument: VOA2.i

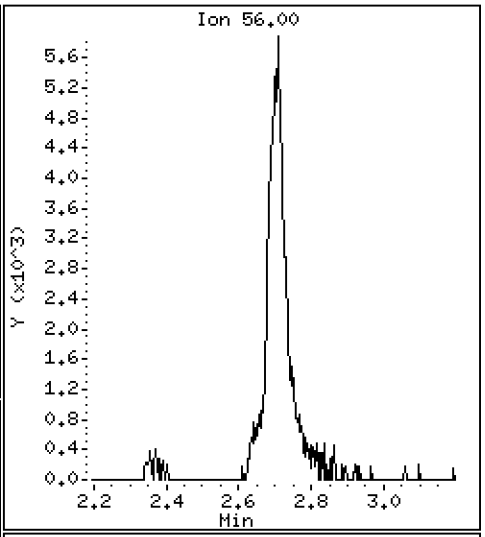
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

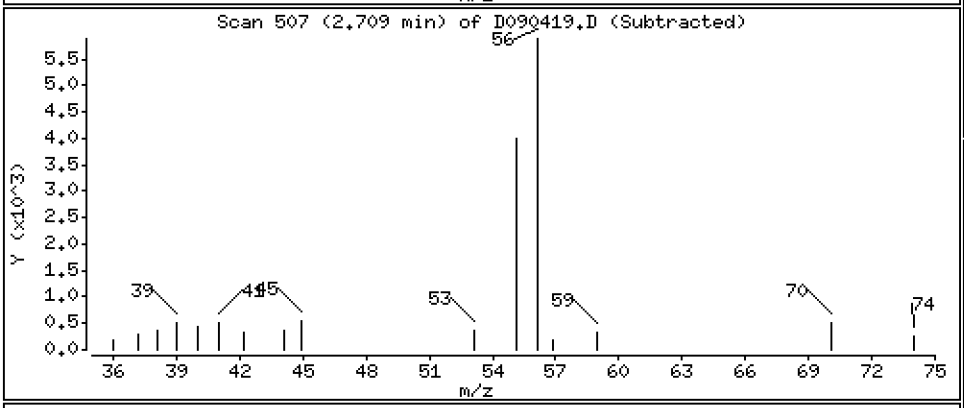
Purge Volume: 5.0 Operator: AP

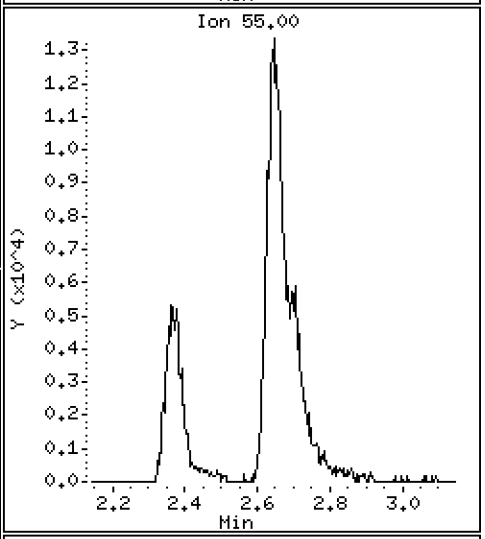
Column phase: DB624 Column diameter: 0.18

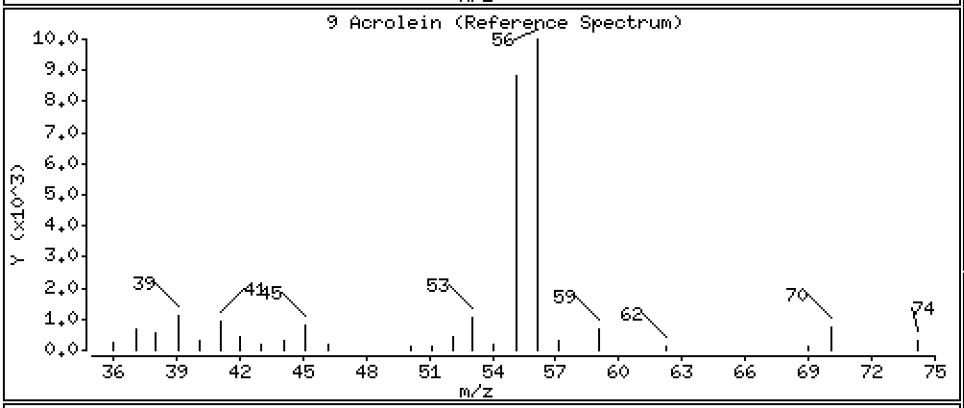
9 Acrolein Concentration: 21.98 ug/l Review Code:

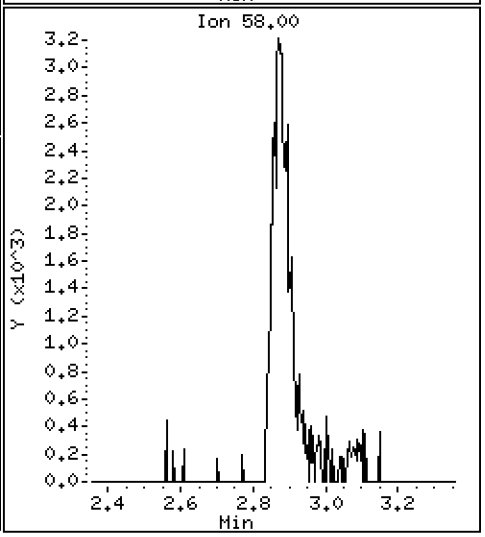


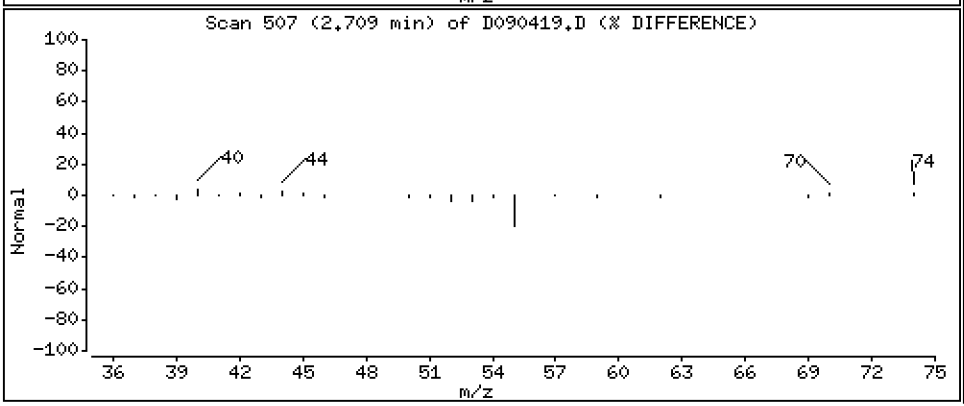












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 12

Date : 04-SEP-2018 18:03

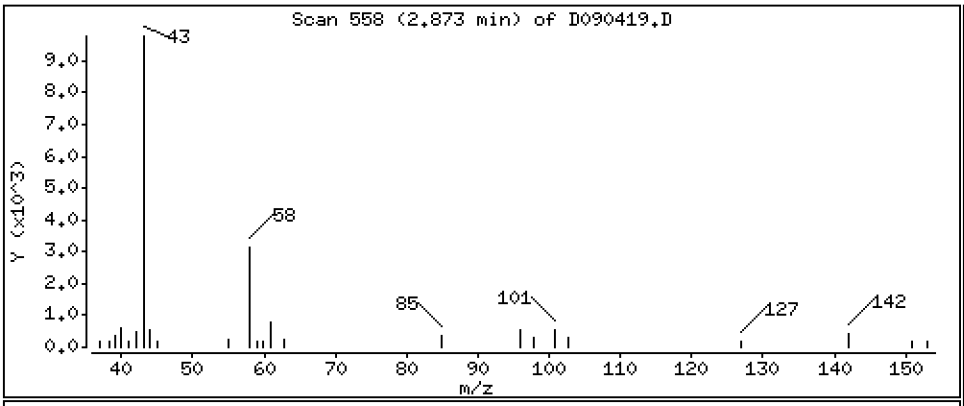
Client ID: HS18081504-01MSD Instrument: VOA2.i

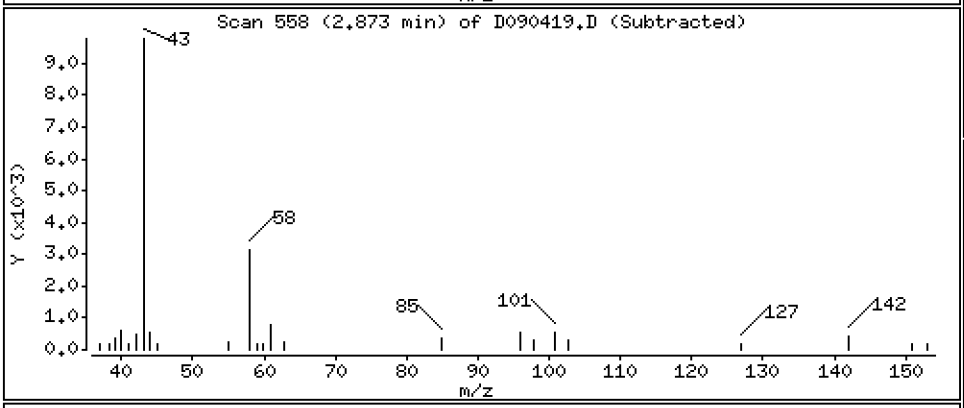
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

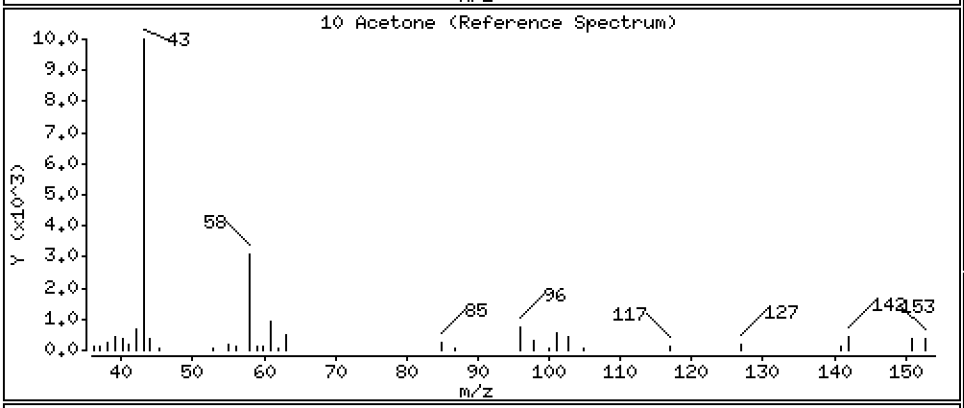
Purge Volume: 5.0 Operator: AP

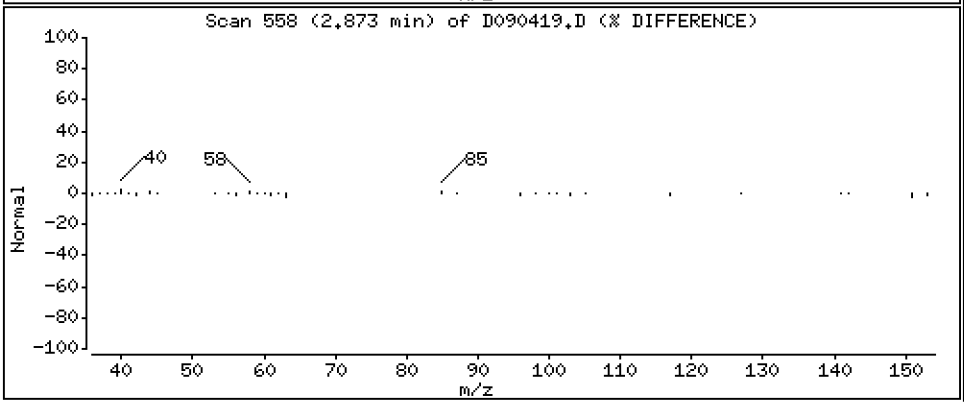
Column phase: DB624 Column diameter: 0.18

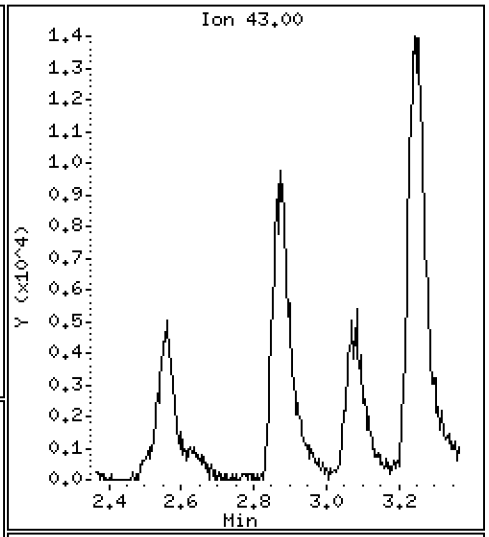
10 Acetone Concentration: 30.37 ug/l Review Code:

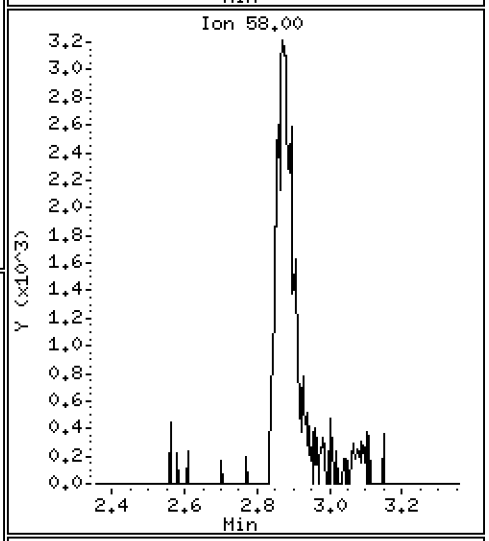


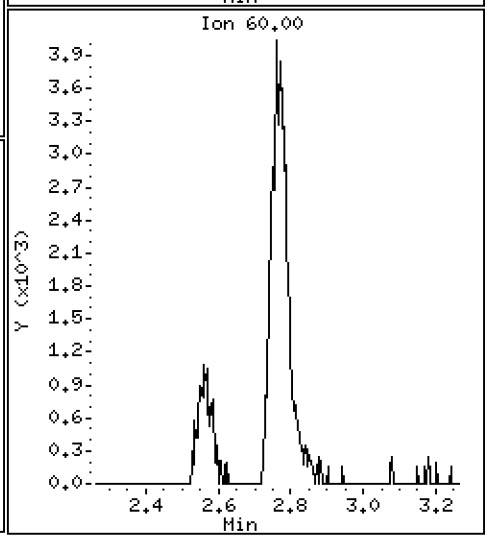












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 13

Date : 04-SEP-2018 18:03

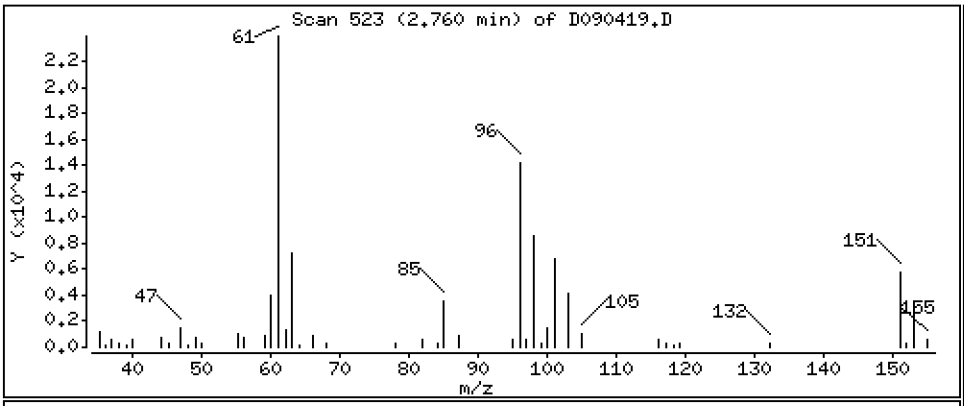
Client ID: HS18081504-01MSD Instrument: VOA2.i

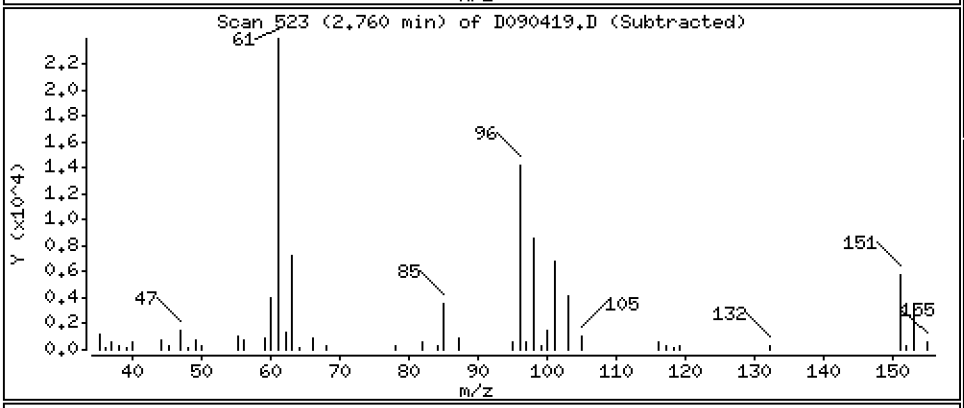
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

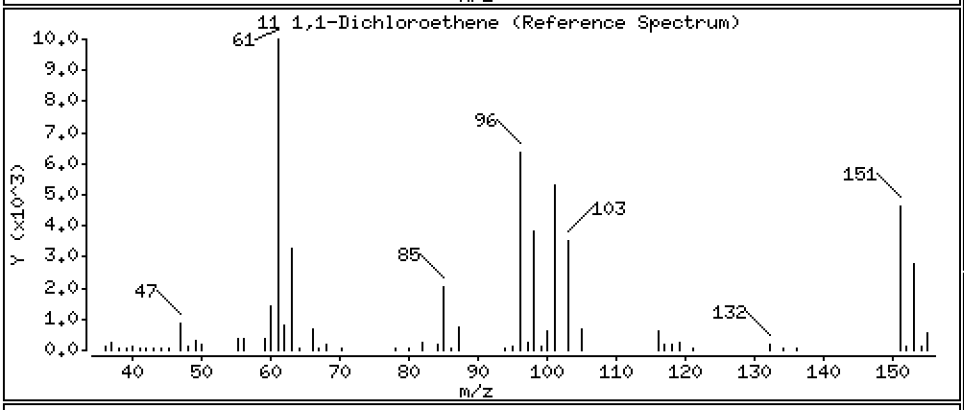
Purge Volume: 5.0 Operator: AP

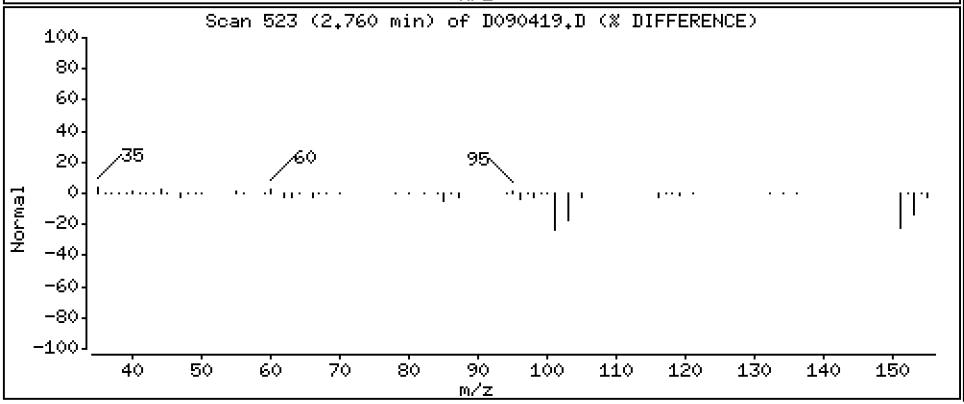
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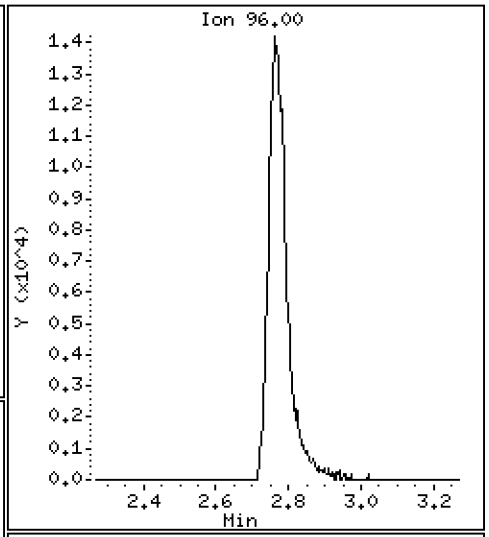
11 1,1-Dichloroethene Concentration: 17.88 ug/l Review Code:

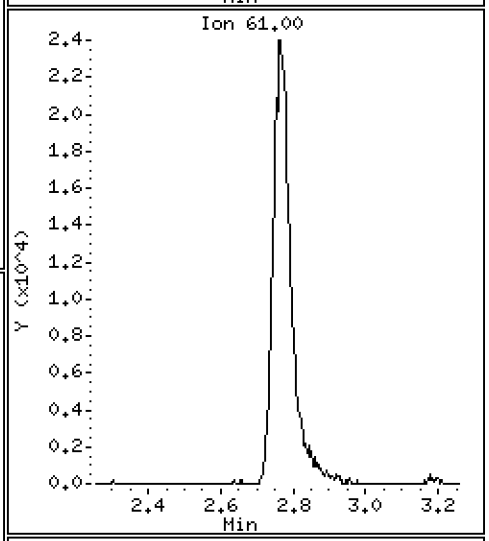


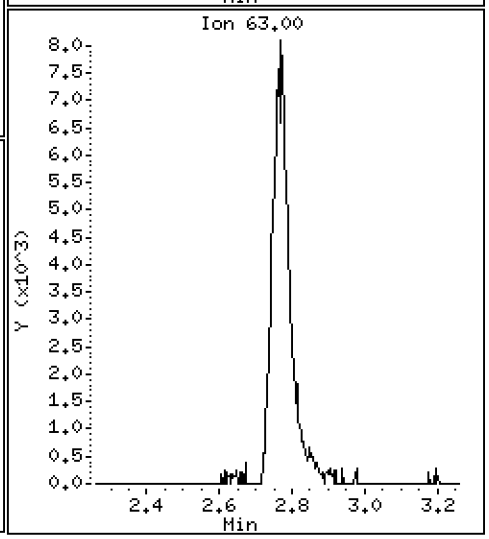












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 14

Date : 04-SEP-2018 18:03

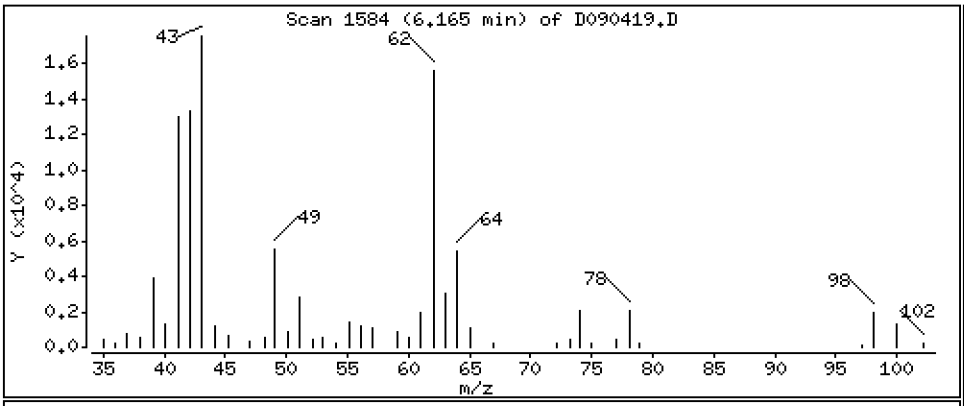
Client ID: HS18081504-01MSD Instrument: VOA2.i

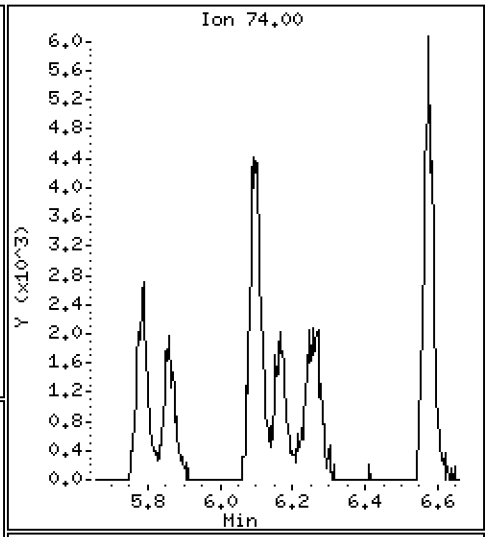
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

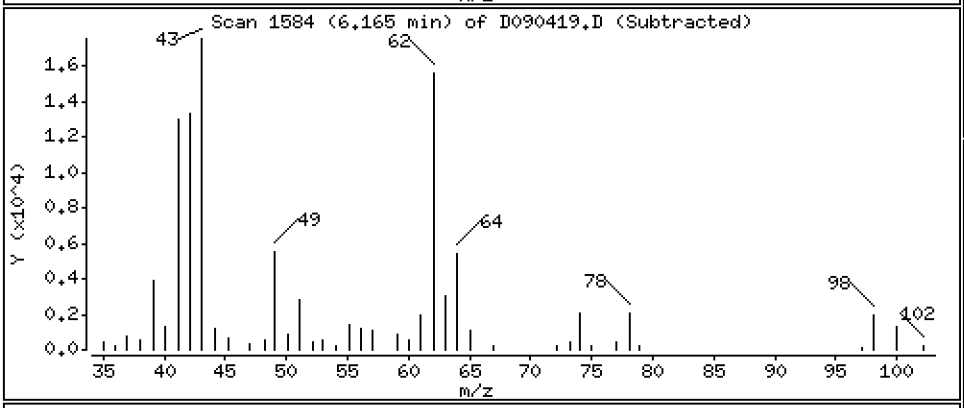
Purge Volume: 5.0 Operator: AP

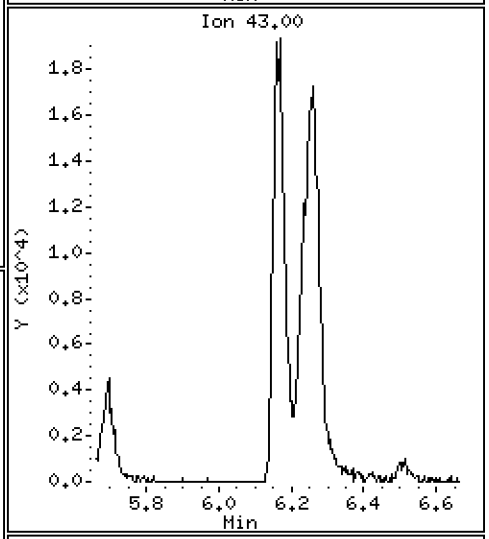
Column phase: DB624 Column diameter: 0.18

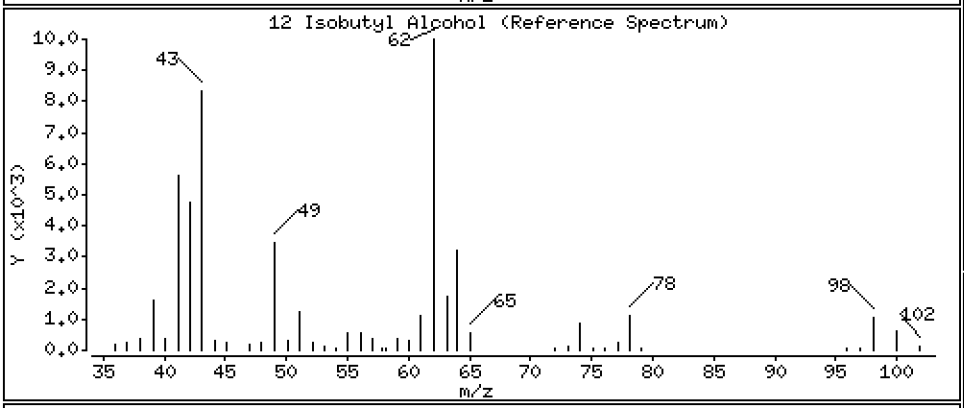
12 Isobutyl Alcohol Concentration: 234.32 ug/l Review Code:

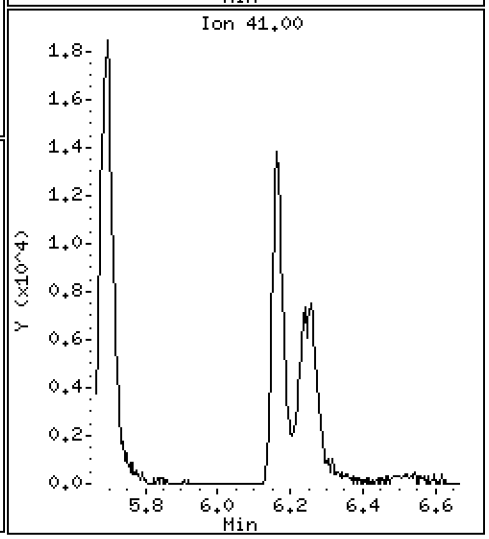


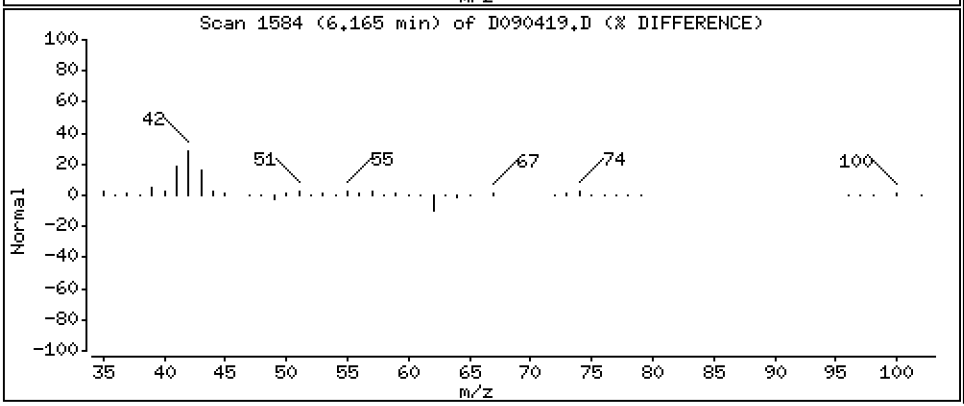












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 15

Date : 04-SEP-2018 18:03

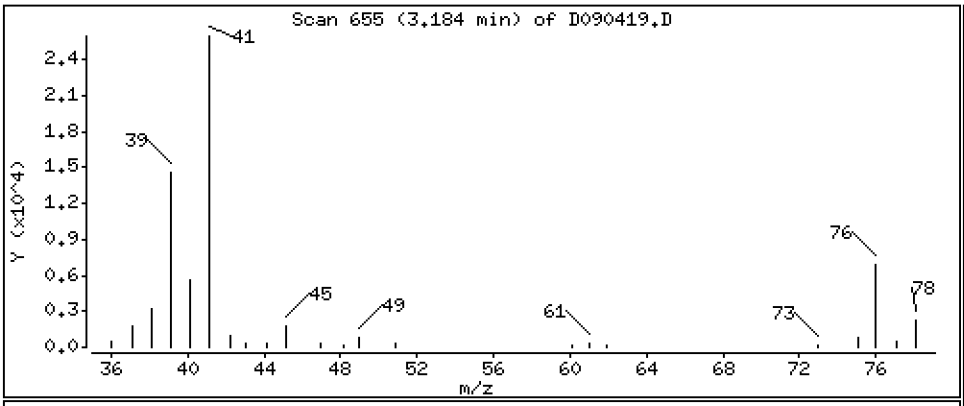
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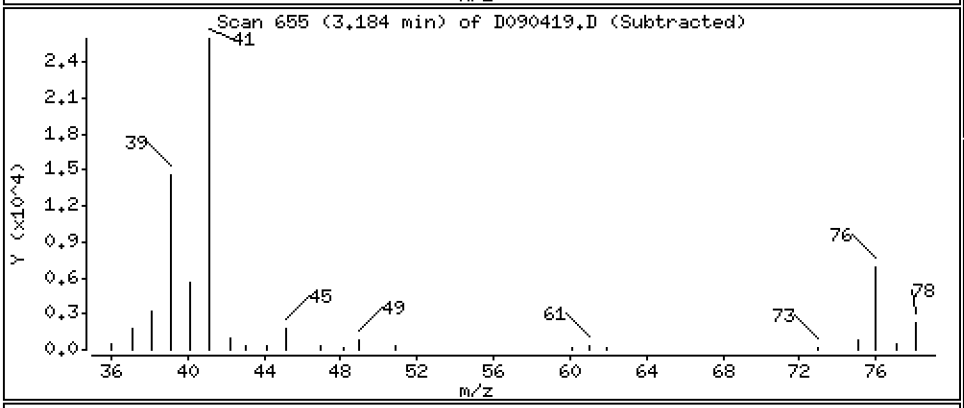
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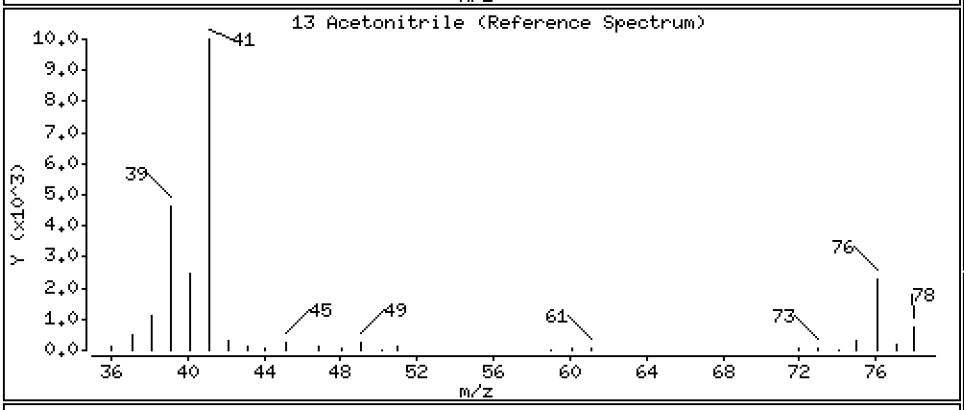
Purge Volume: 5.0 Operator: AP

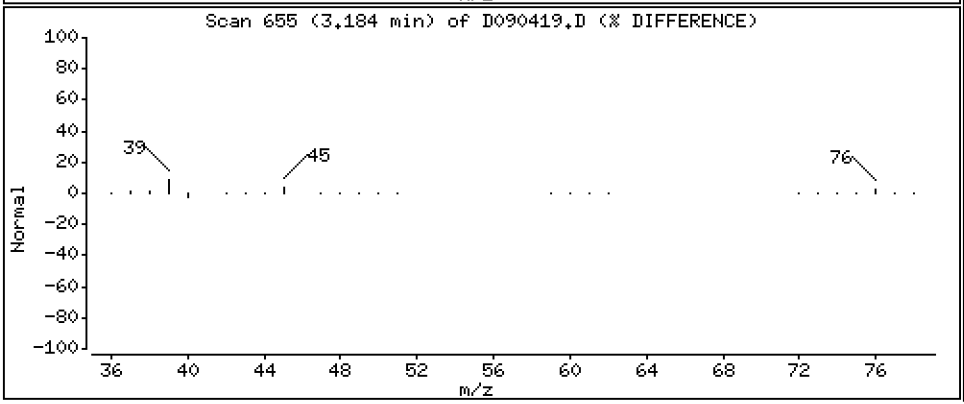
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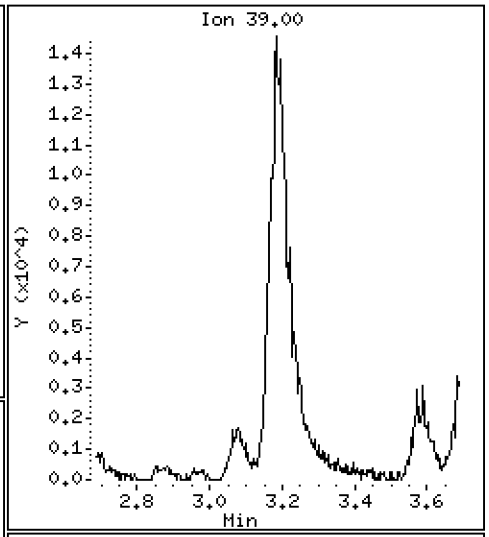
13 Acetonitrile Concentration: 151.51 ug/l Review Code:

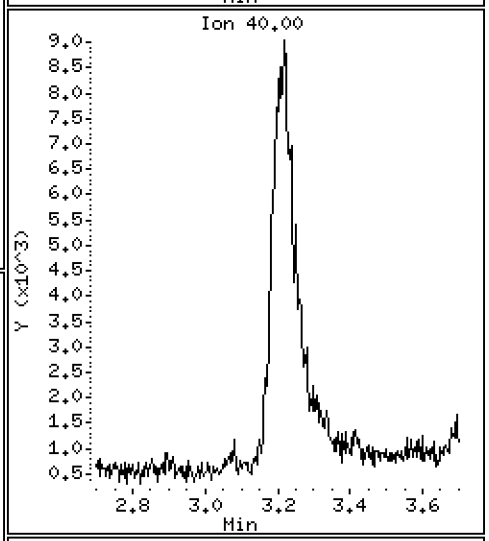


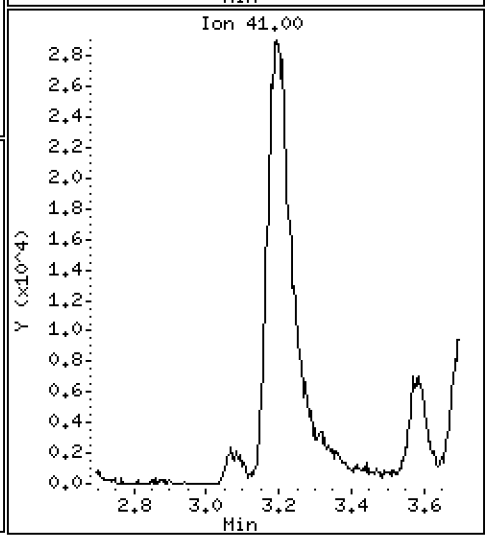












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 16

Date : 04-SEP-2018 18:03

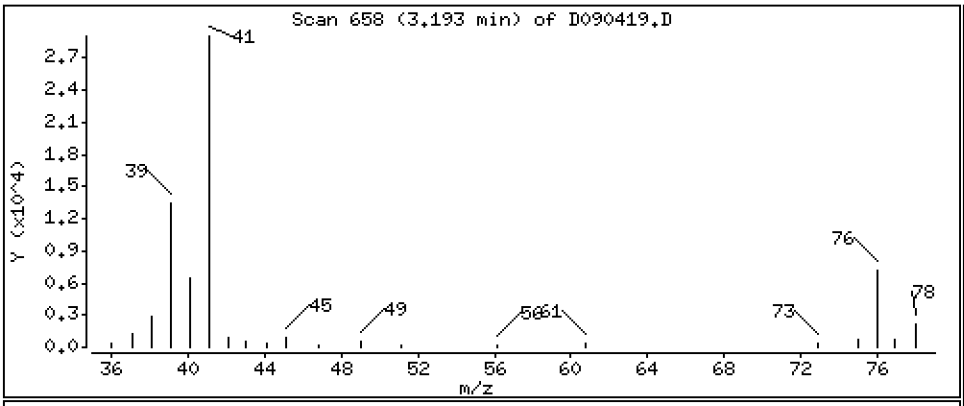
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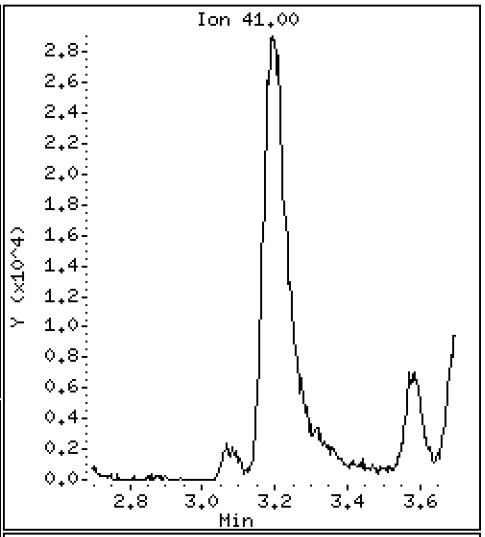
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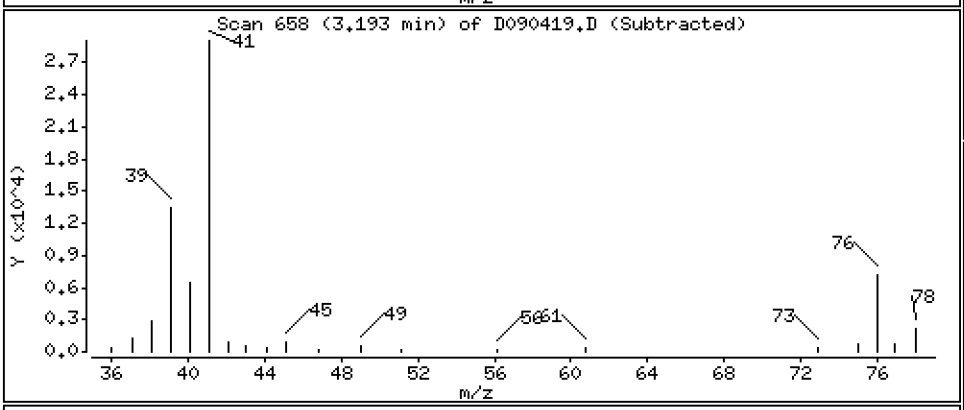
Purge Volume: 5.0 Operator: AP

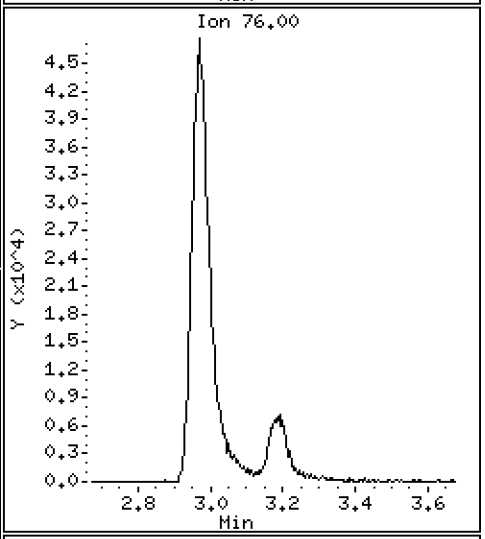
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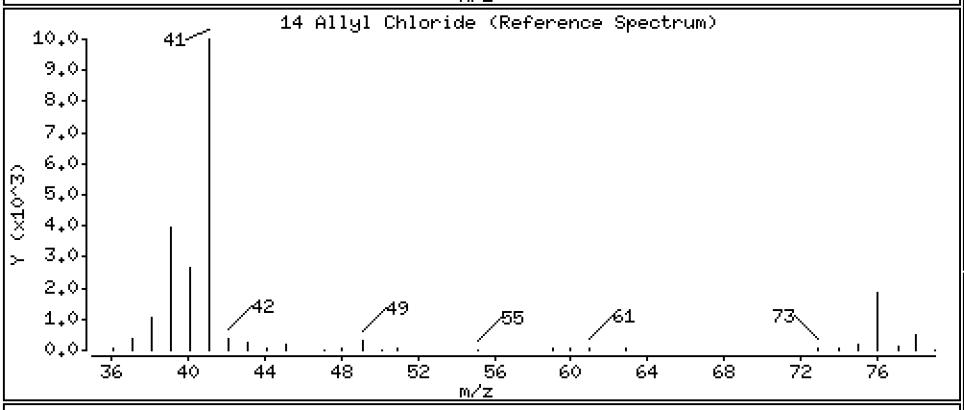
14 Allyl Chloride Concentration: 14.05 ug/l Review Code:

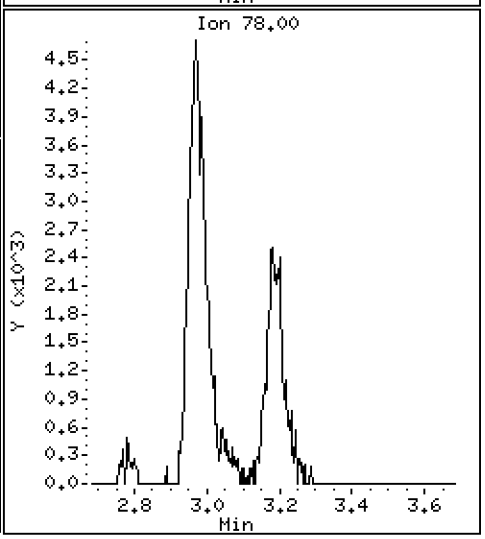


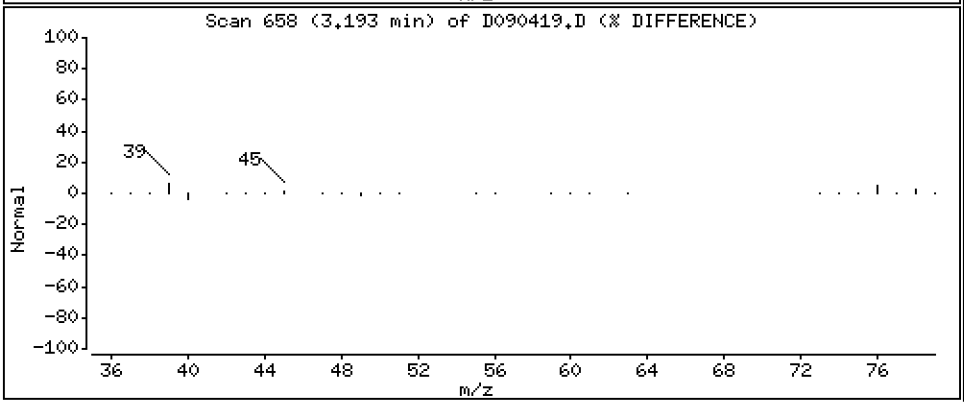












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 17

Date : 04-SEP-2018 18:03

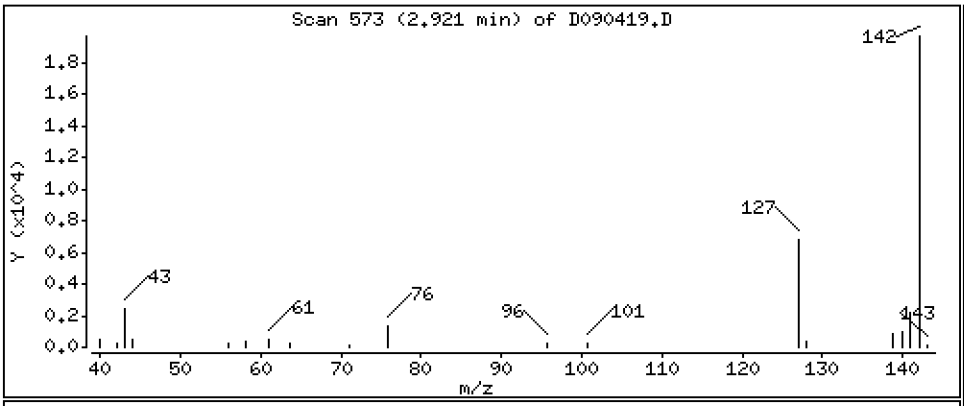
Client ID: HS18081504-01MSD Instrument: VOA2.i

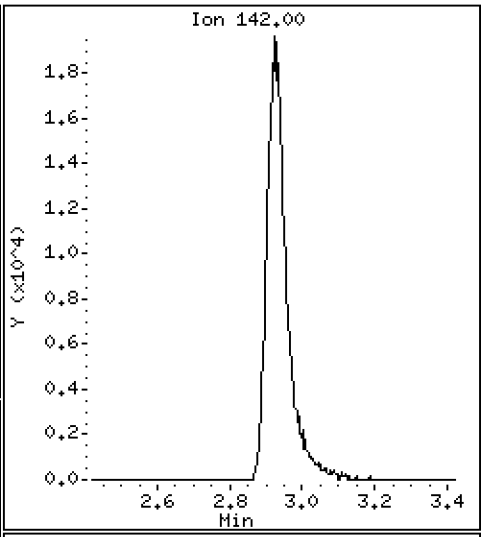
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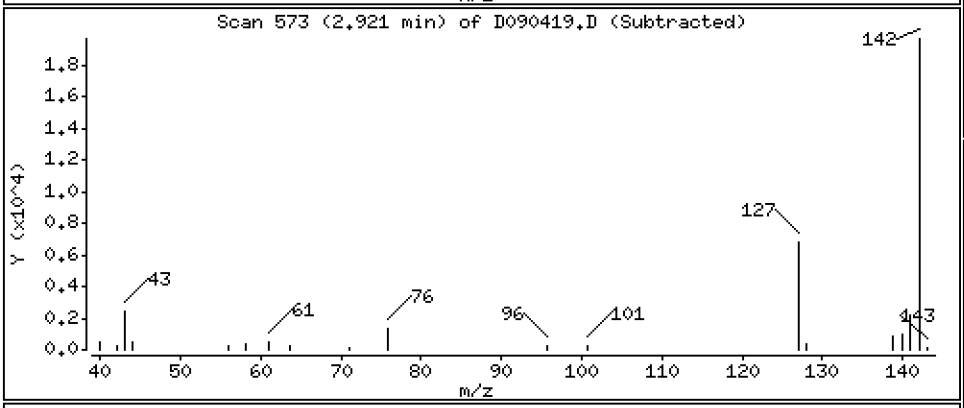
Purge Volume: 5.0 Operator: AP

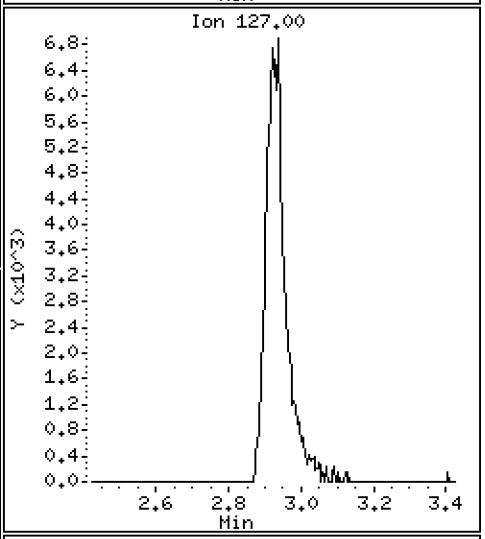
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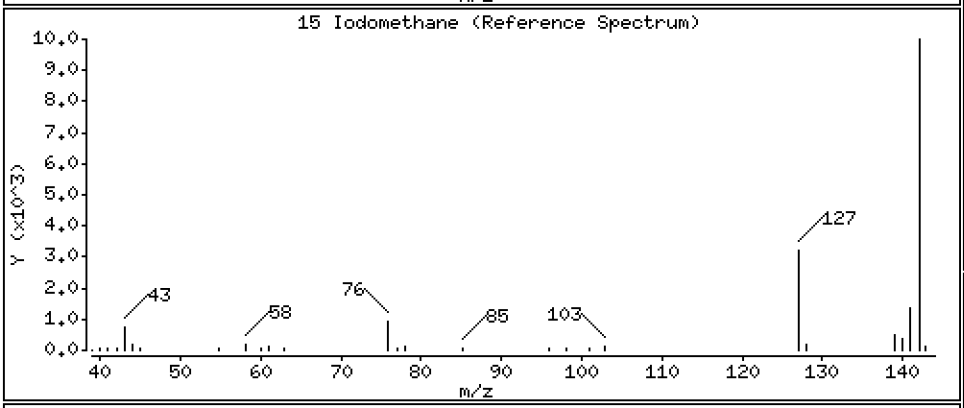
15 Iodomethane Concentration: 29.27 ug/l Review Code:

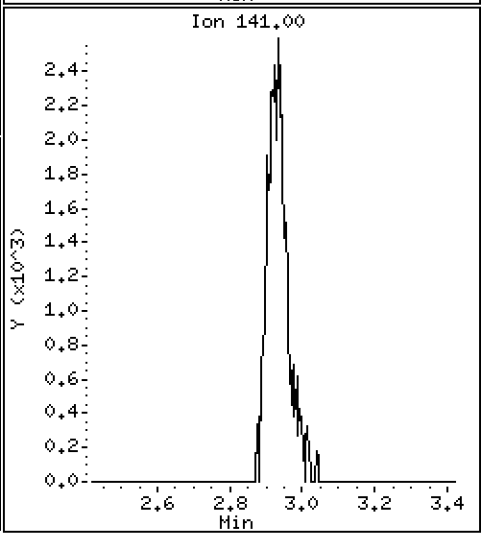


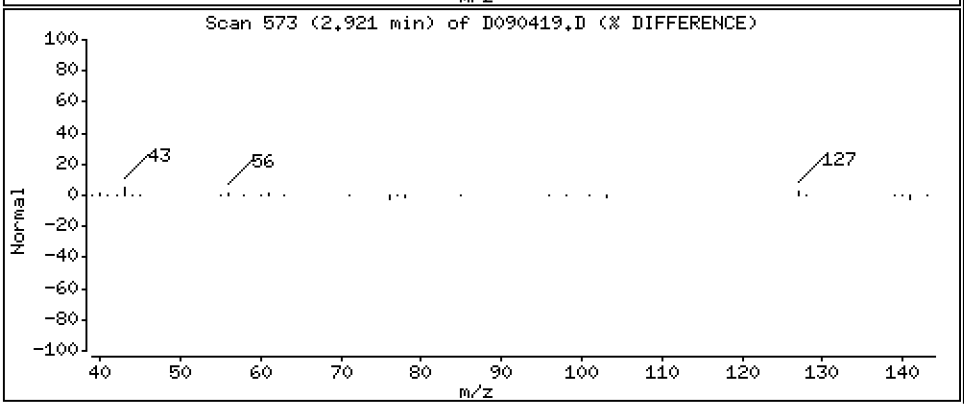












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 18

Date : 04-SEP-2018 18:03

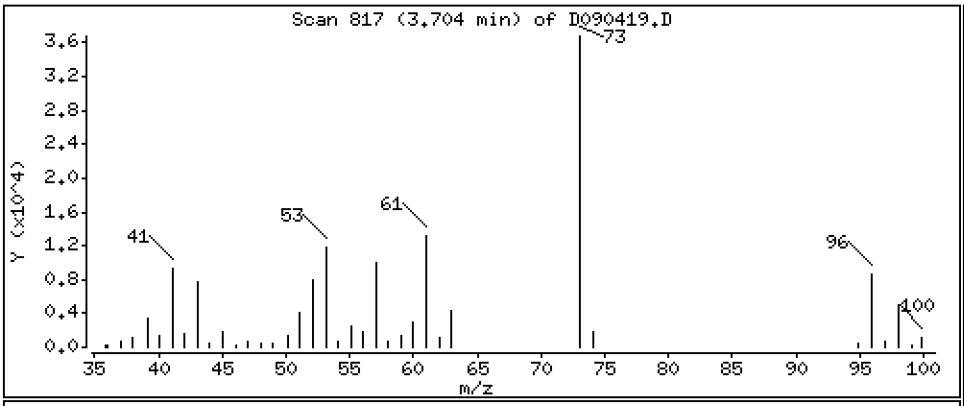
Client ID: HS18081504-01MSD Instrument: VOA2.i

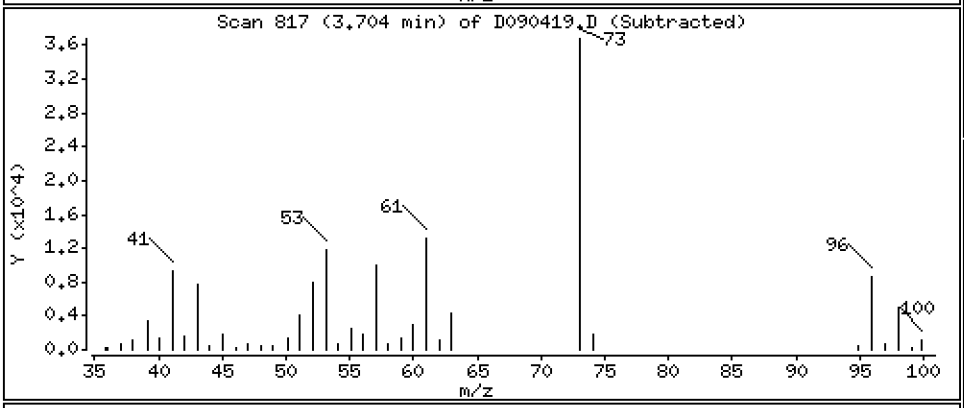
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

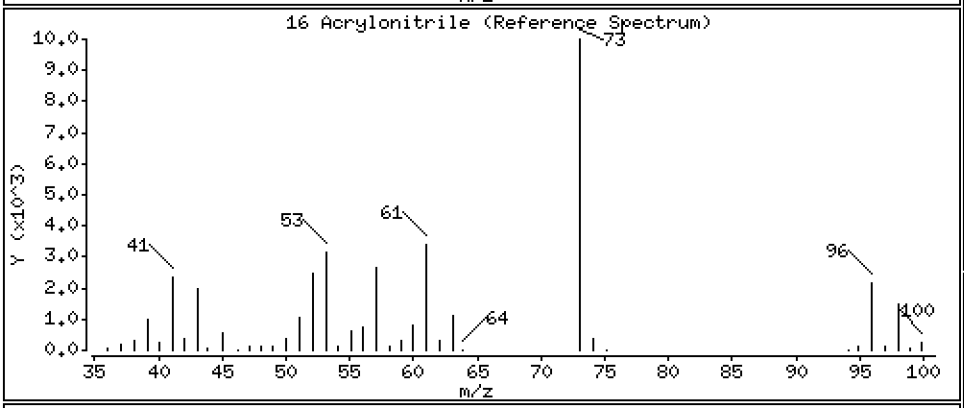
Purge Volume: 5.0 Operator: AP

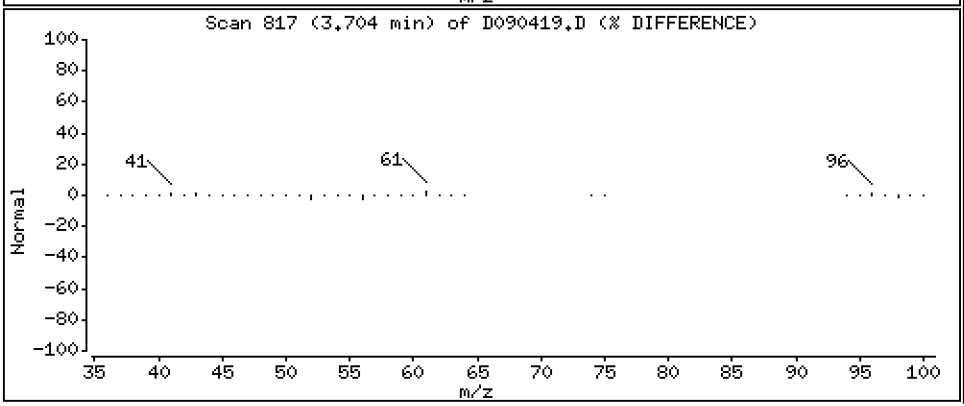
Column phase: DB624 Column diameter: 0.18

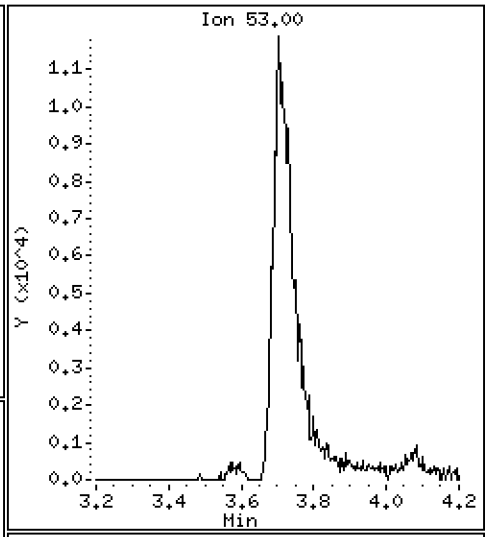
16 Acrylonitrile Concentration: 31.75 ug/l Review Code:

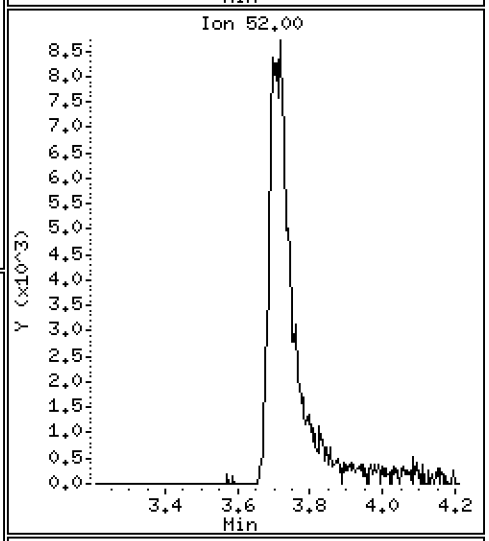


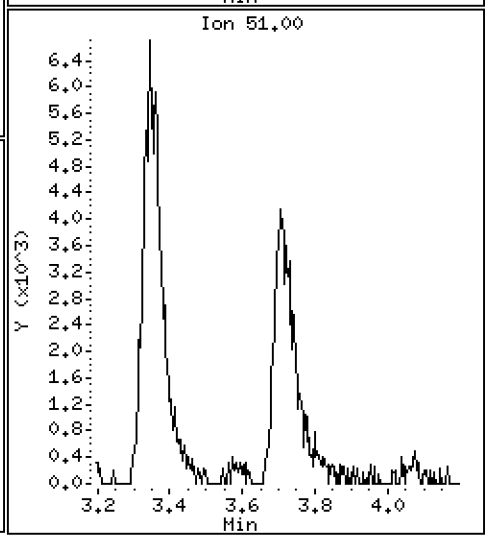












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 19

Date : 04-SEP-2018 18:03

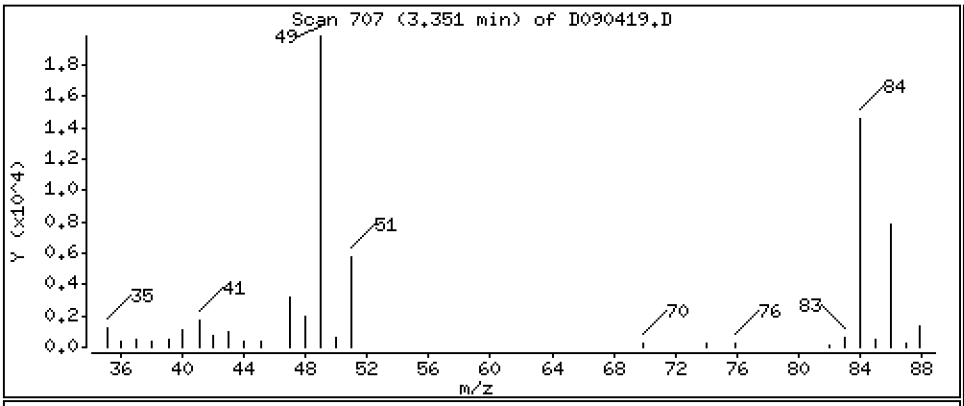
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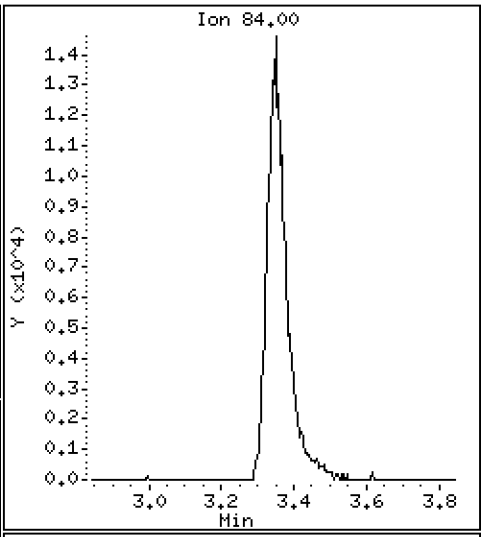
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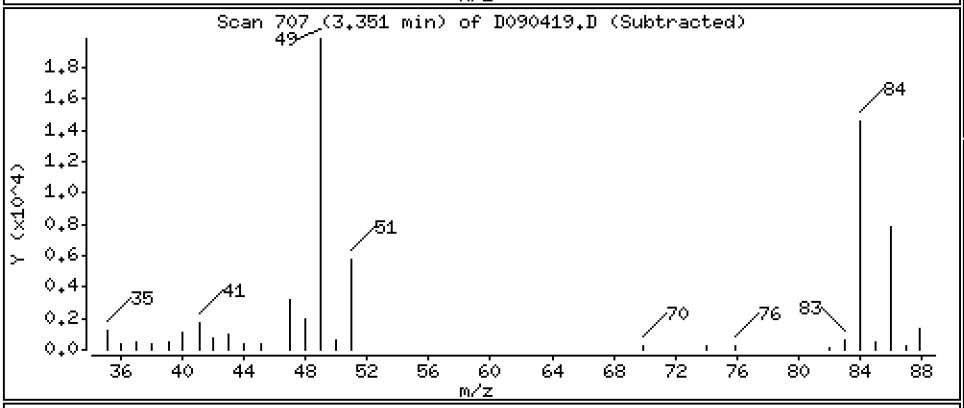
Purge Volume: 5.0 Operator: AP

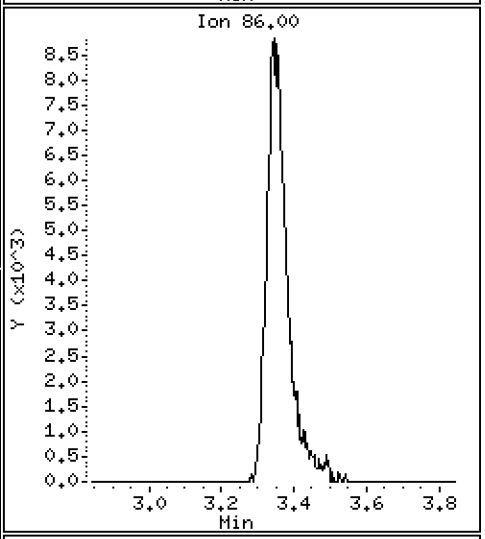
Column phase: DB624 Column diameter: 0.18

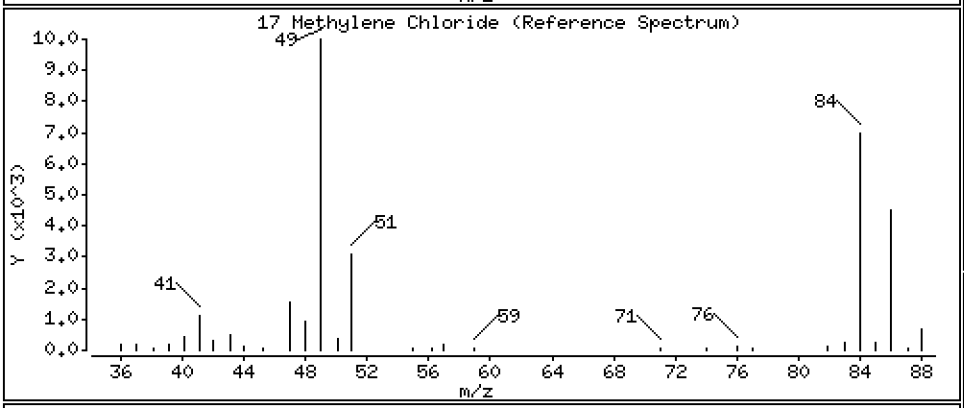
17 Methylene Chloride Concentration: 15.49 ug/l Review Code:

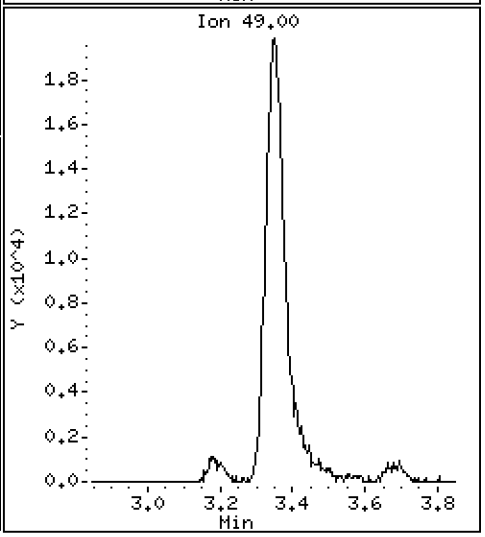


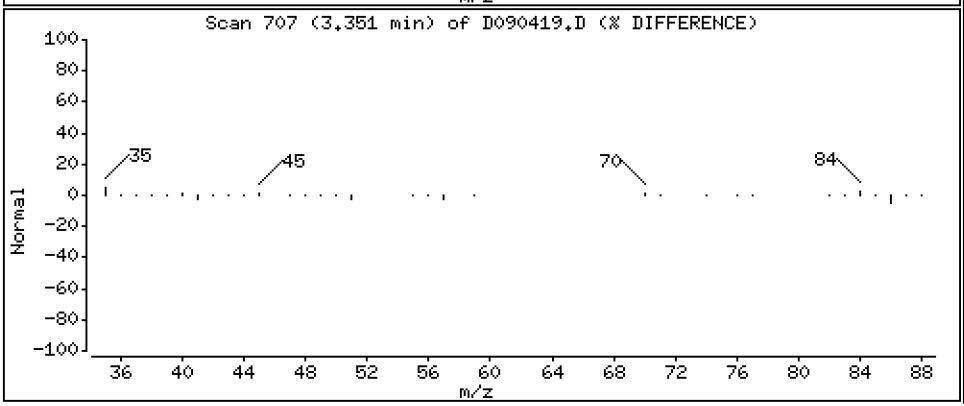












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 20

Date : 04-SEP-2018 18:03

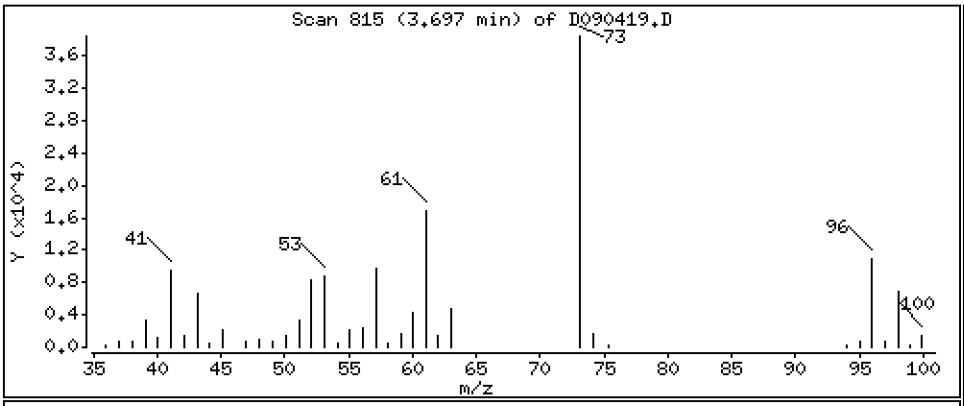
Client ID: HS18081504-01MSD Instrument: VOA2.i

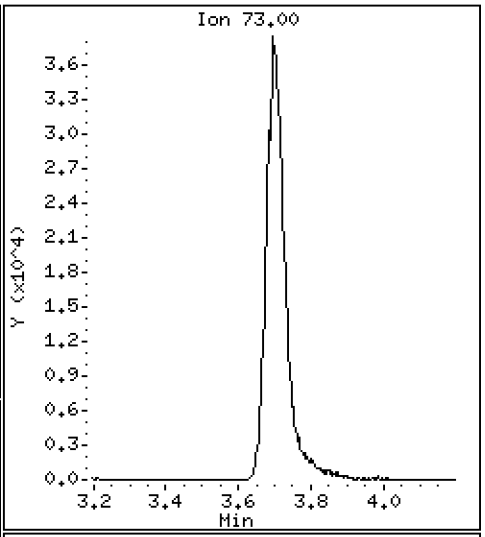
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

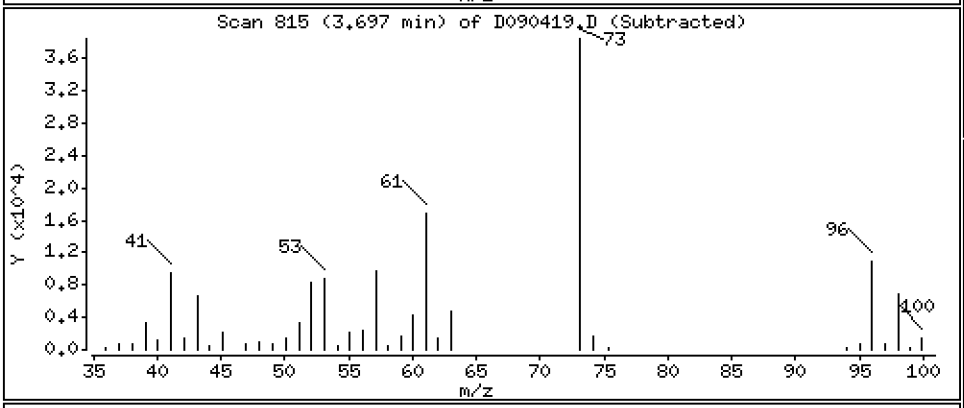
Purge Volume: 5.0 Operator: AP

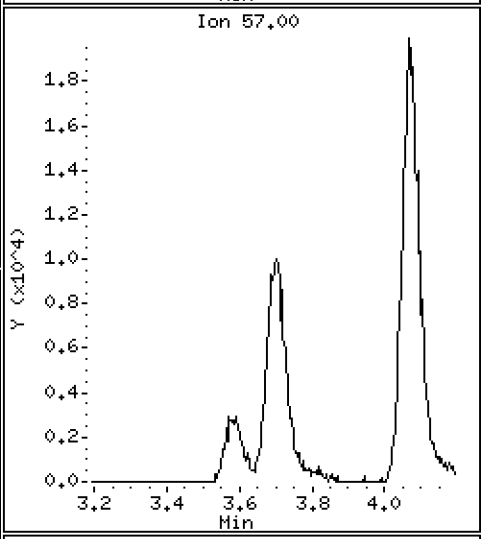
Column phase: DB624 Column diameter: 0.18

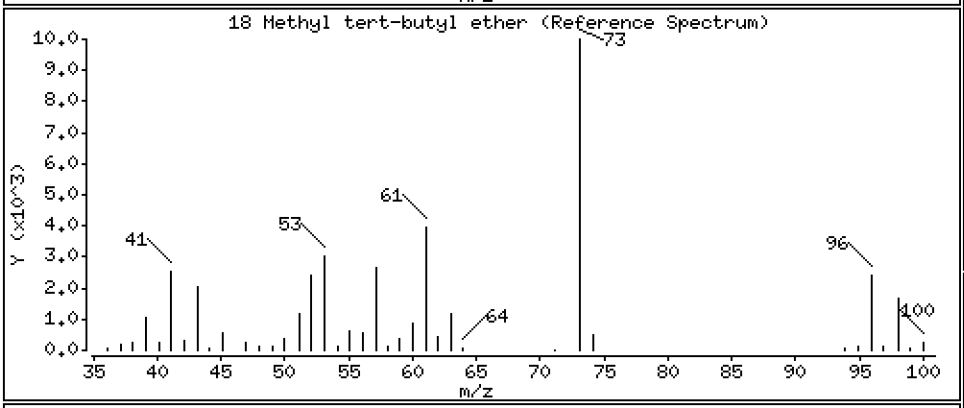
18 Methyl tert-butyl ether Concentration: 16.22 ug/l Review Code:

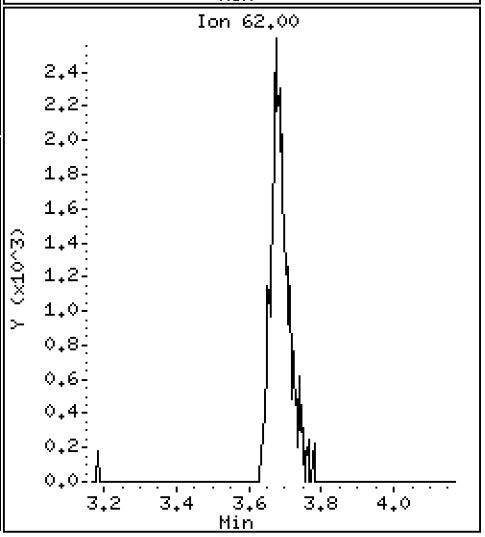


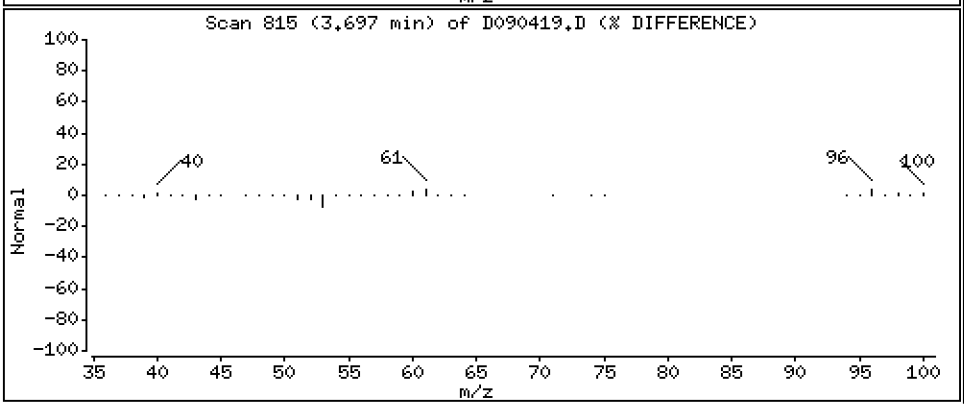












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 21

Date : 04-SEP-2018 18:03

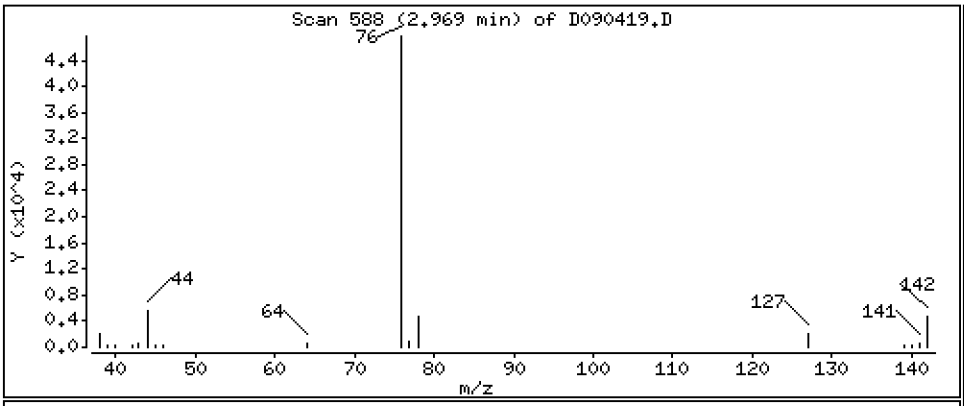
Client ID: HS18081504-01MSD Instrument: VOA2.i

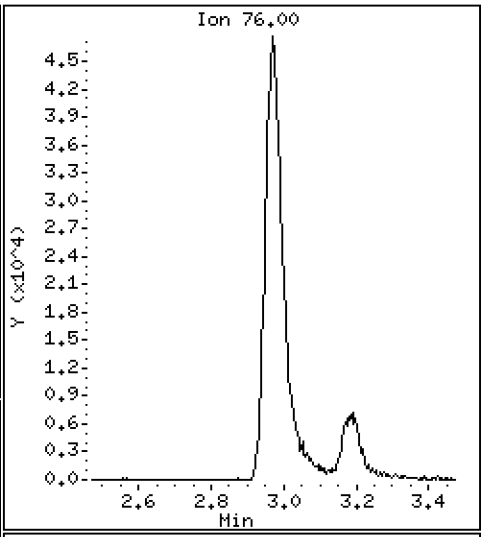
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

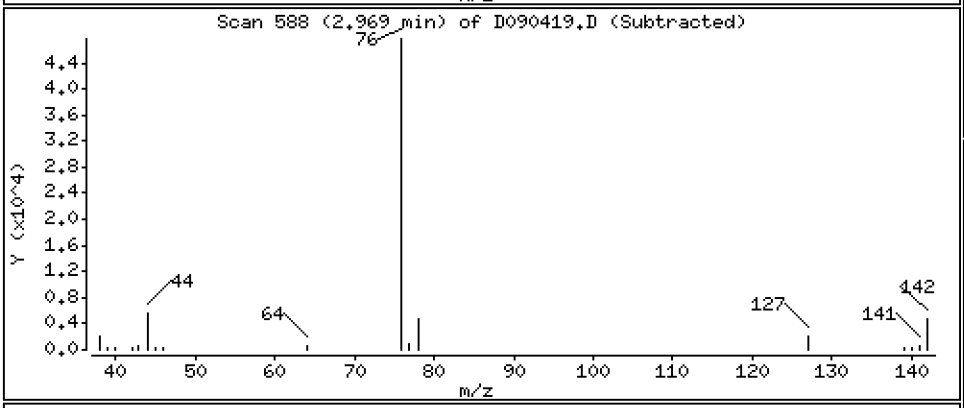
Purge Volume: 5.0 Operator: AP

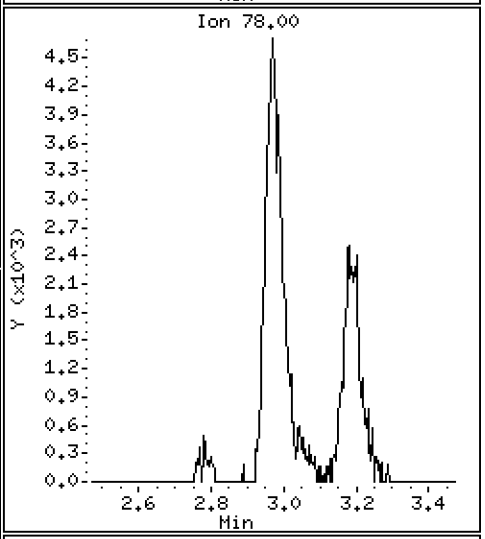
Column phase: DB624 Column diameter: 0.18

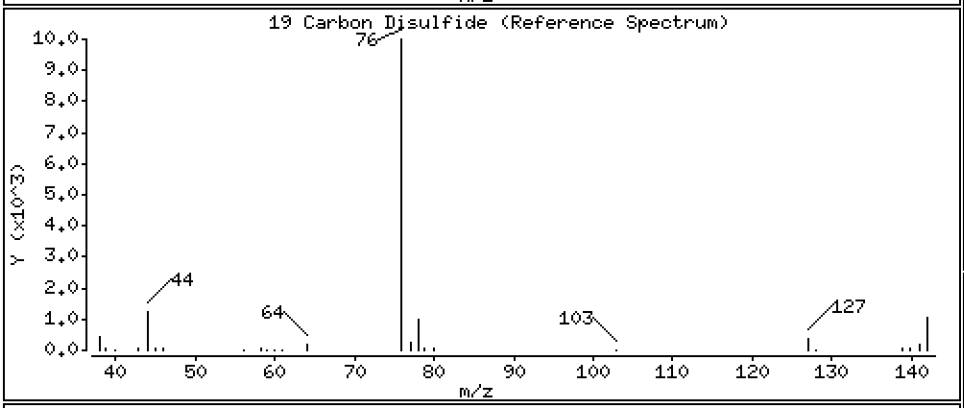
19 Carbon Disulfide Concentration: 32.04 ug/l Review Code:

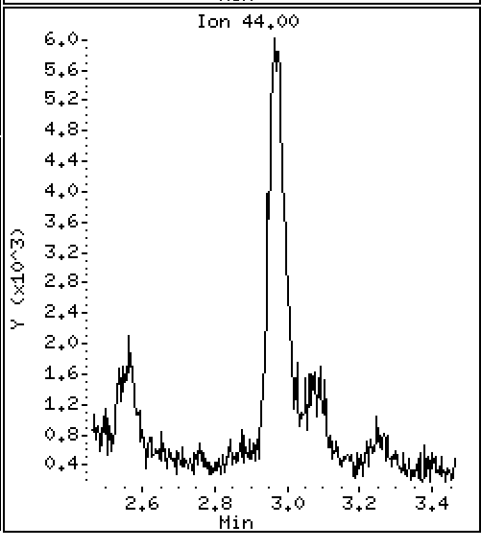


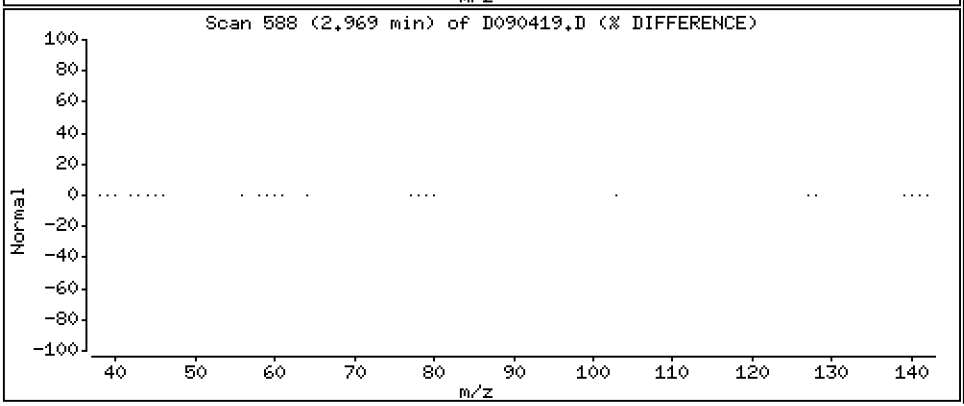












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 22

Date : 04-SEP-2018 18:03

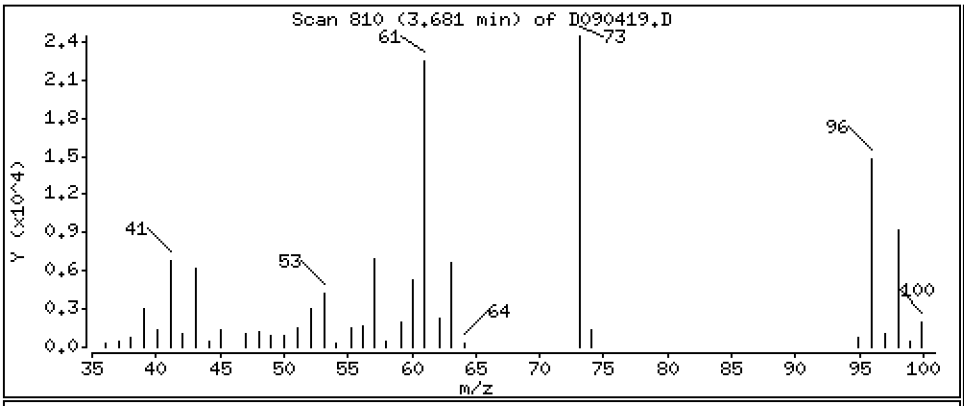
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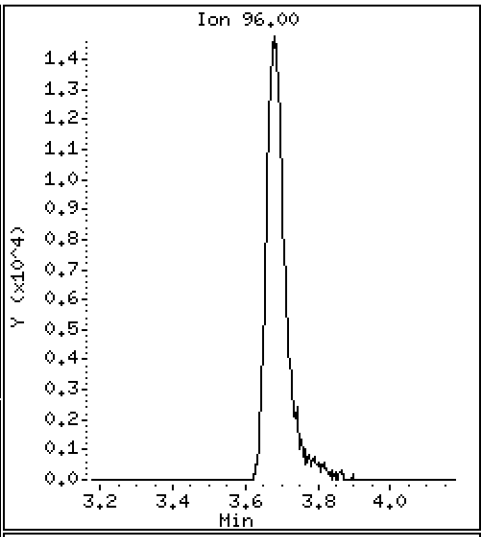
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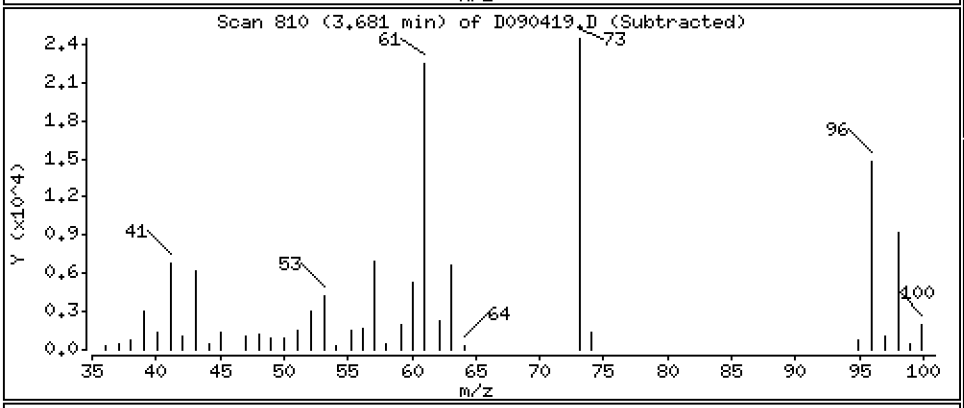
Purge Volume: 5.0 Operator: AP

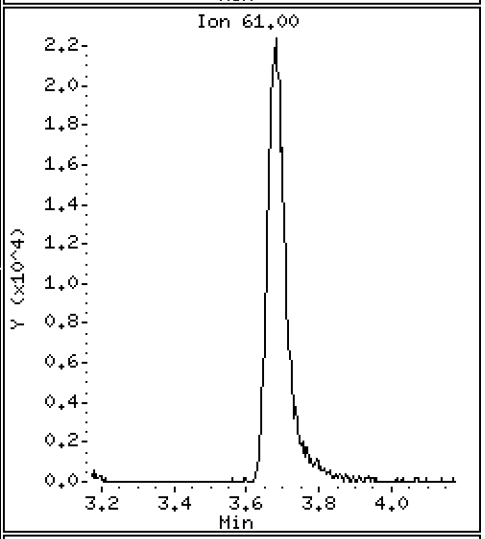
Column phase: DB624 Column diameter: 0.18

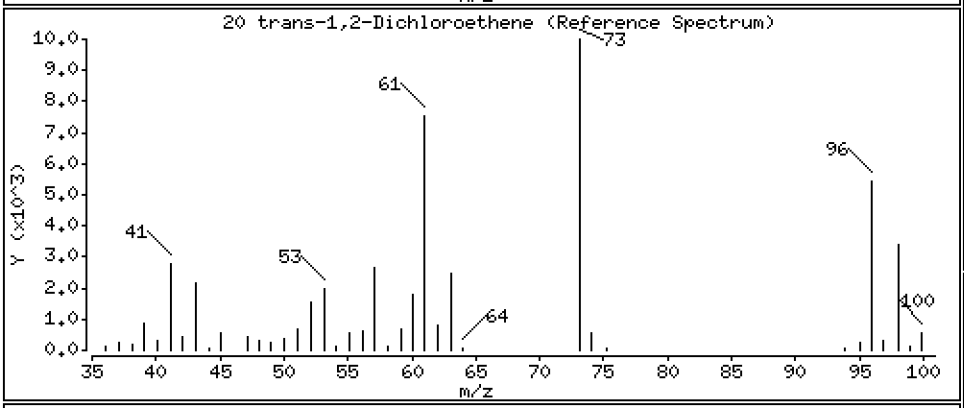
20 trans-1,2-Dichloroethene Concentration: 18.16 ug/l Review Code:

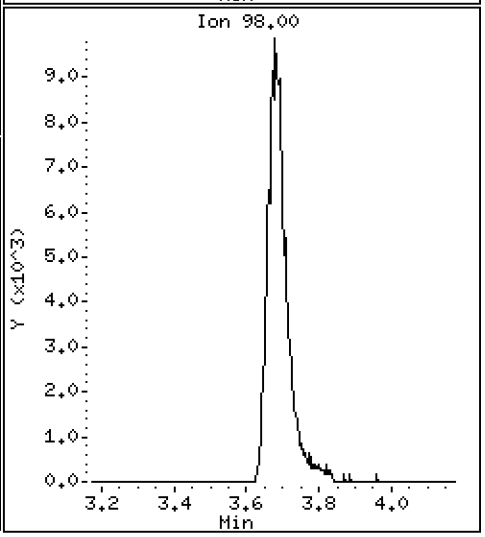


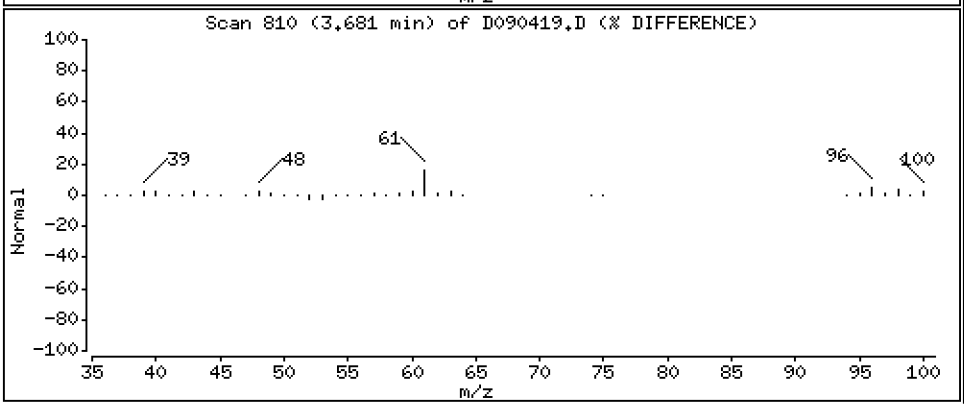












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 23

Date : 04-SEP-2018 18:03

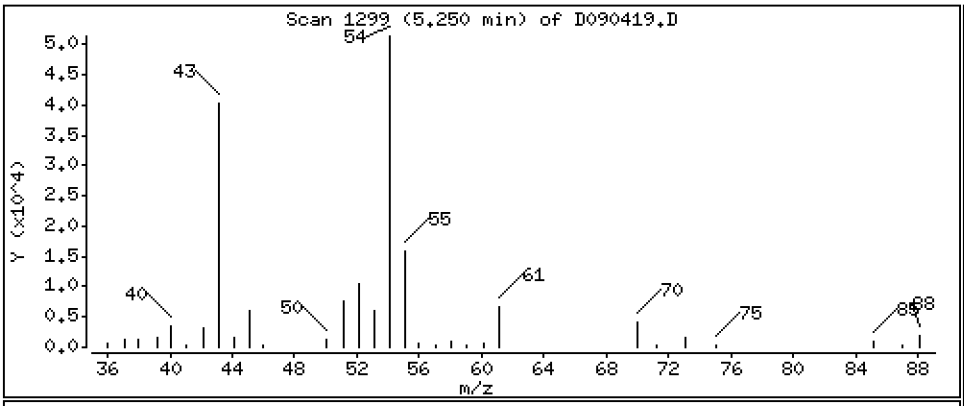
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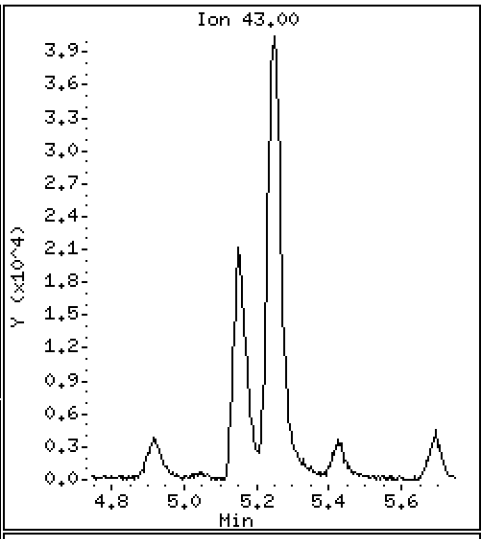
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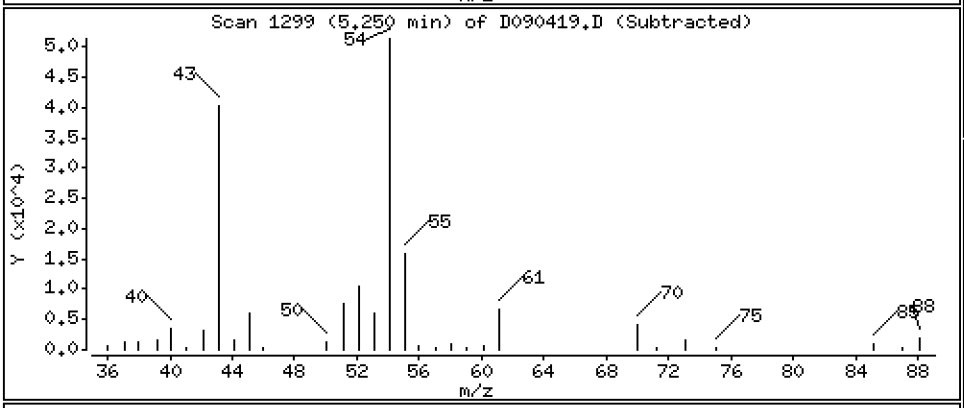
Purge Volume: 5.0 Operator: AP

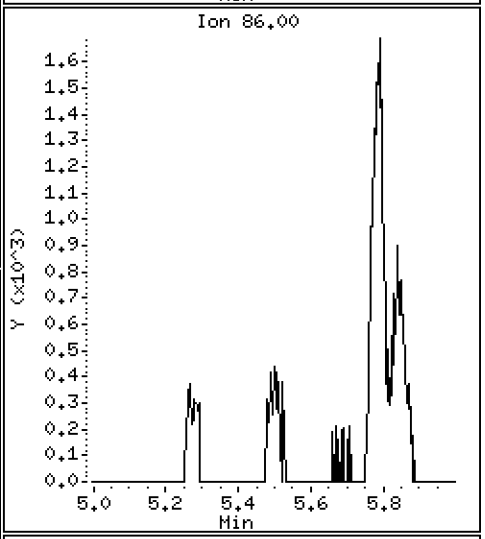
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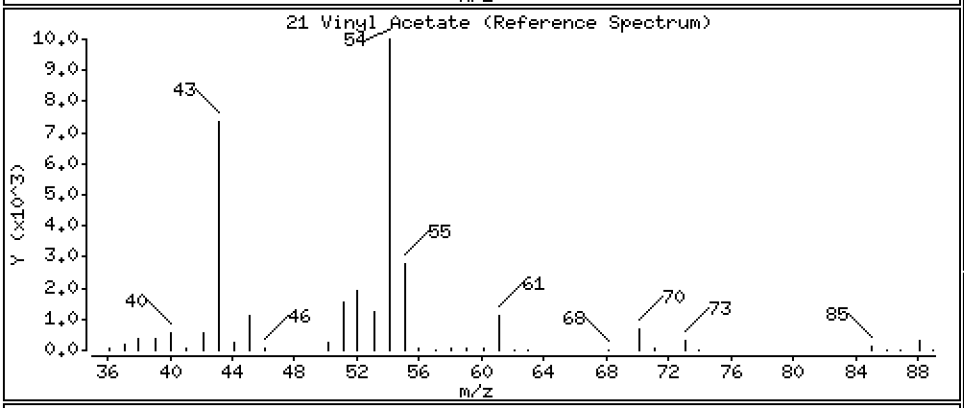
21 Vinyl Acetate Concentration: 28.75 ug/l Review Code:

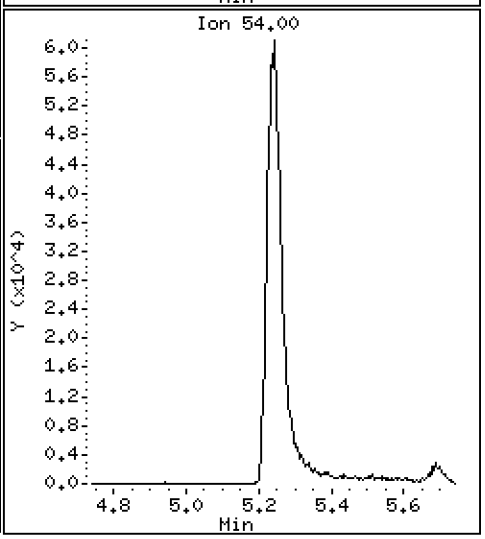


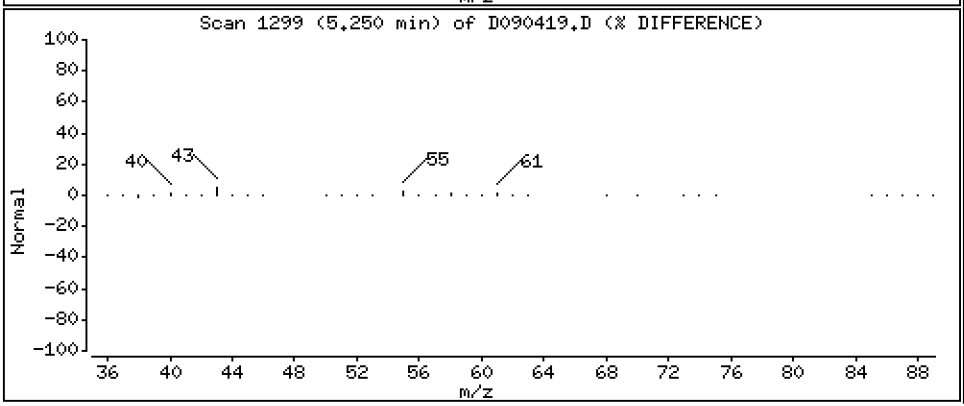












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 24

Date : 04-SEP-2018 18:03

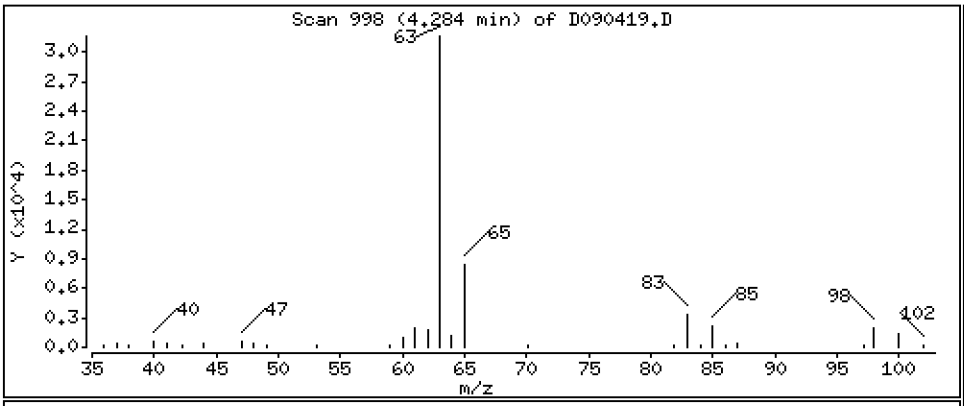
Client ID: HS18081504-01MSD Instrument: VOA2.i

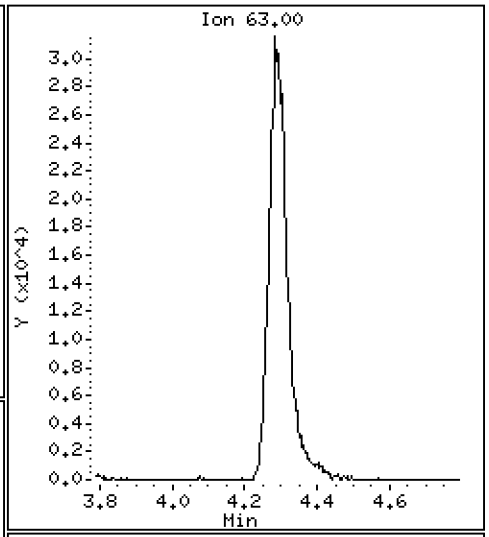
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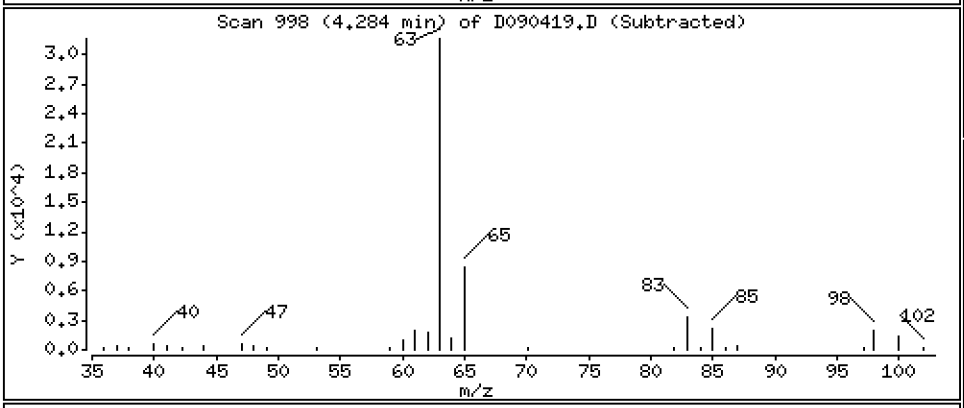
Purge Volume: 5.0 Operator: AP

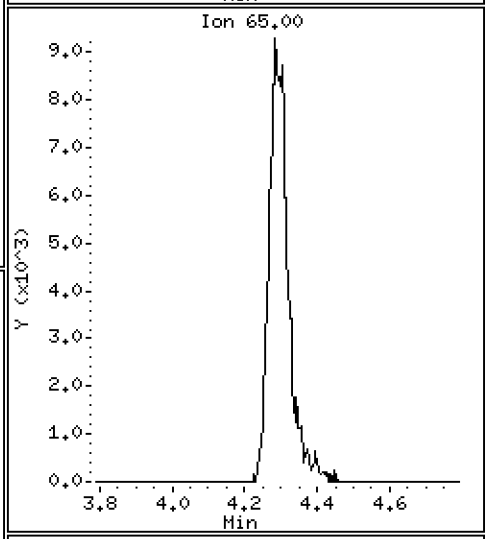
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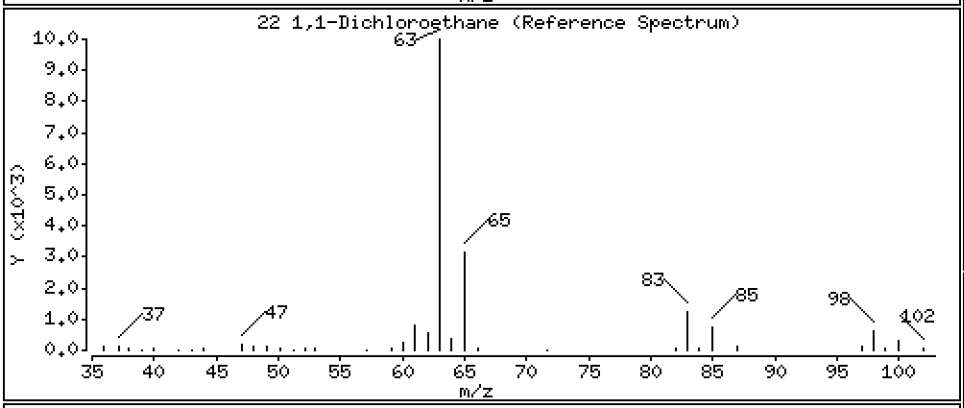
22 1,1-Dichloroethane Concentration: 16.90 ug/l Review Code:

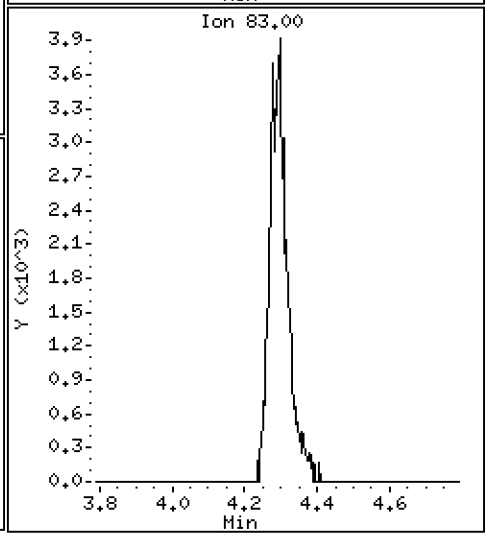


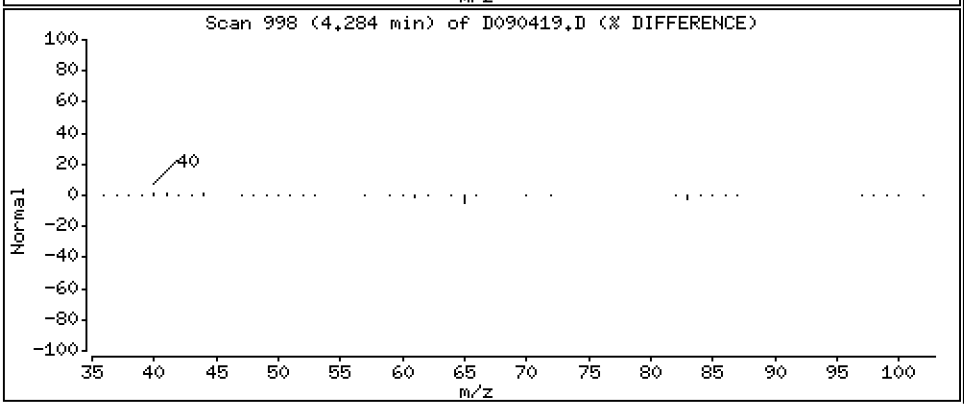












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 25

Date : 04-SEP-2018 18:03

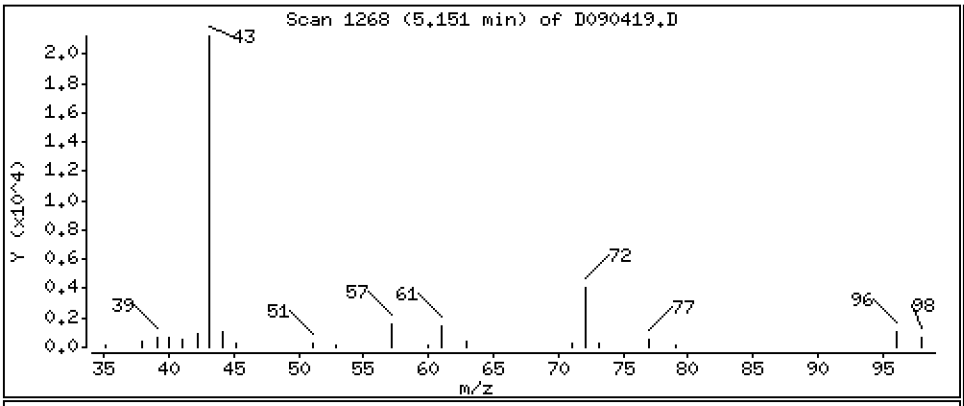
Client ID: HS18081504-01MSD Instrument: VOA2.i

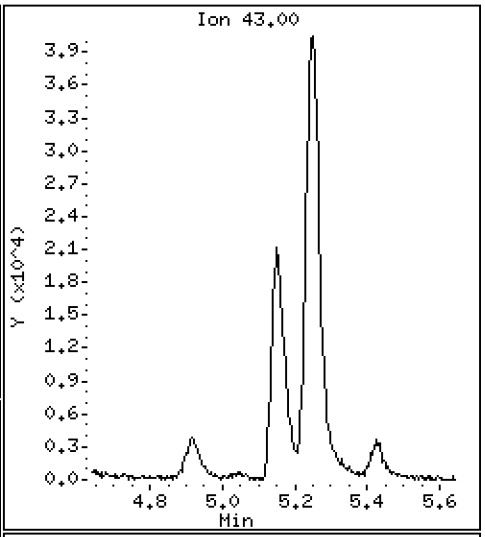
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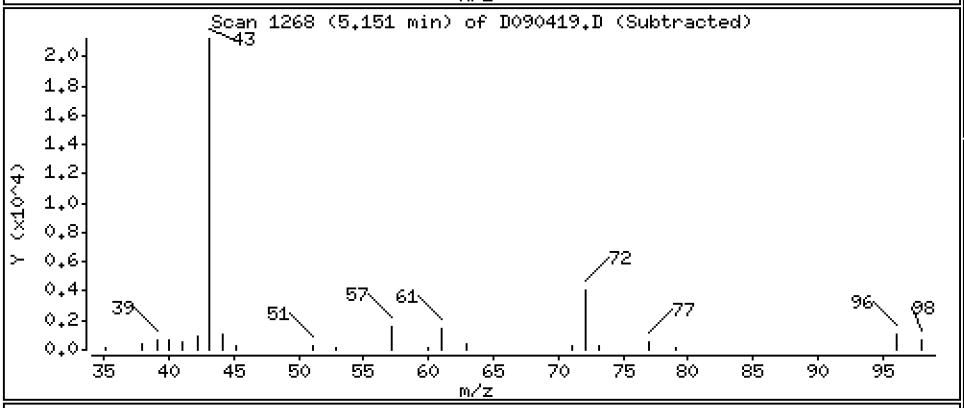
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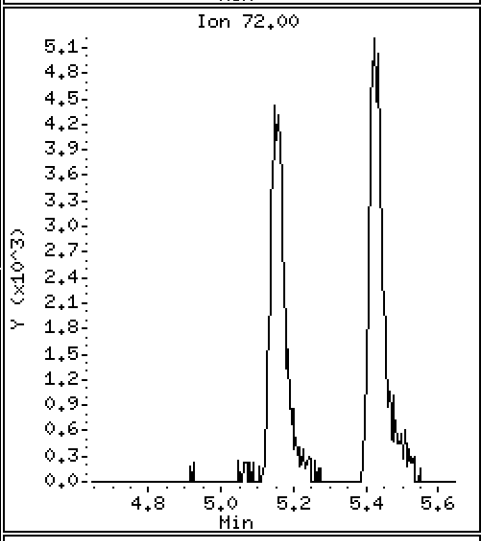
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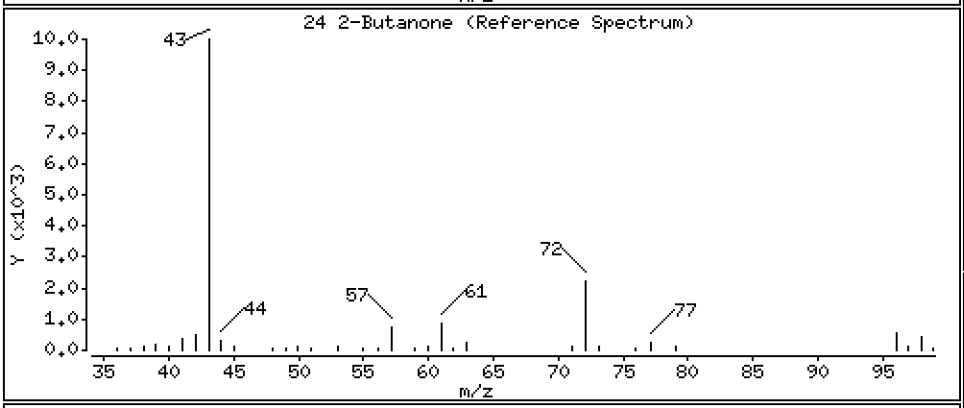
24 2-Butanone Concentration: 32.61 ug/l Review Code:

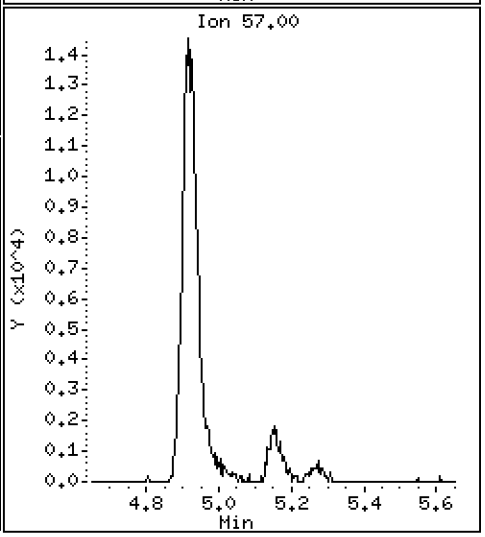


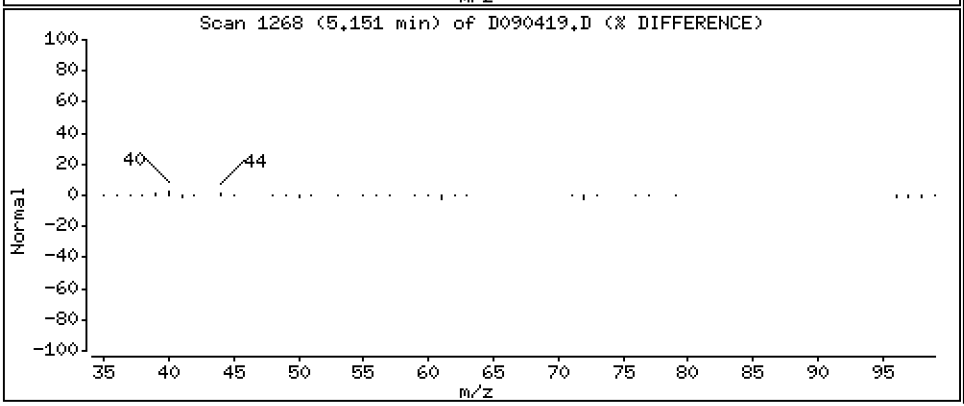












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 26

Date : 04-SEP-2018 18:03

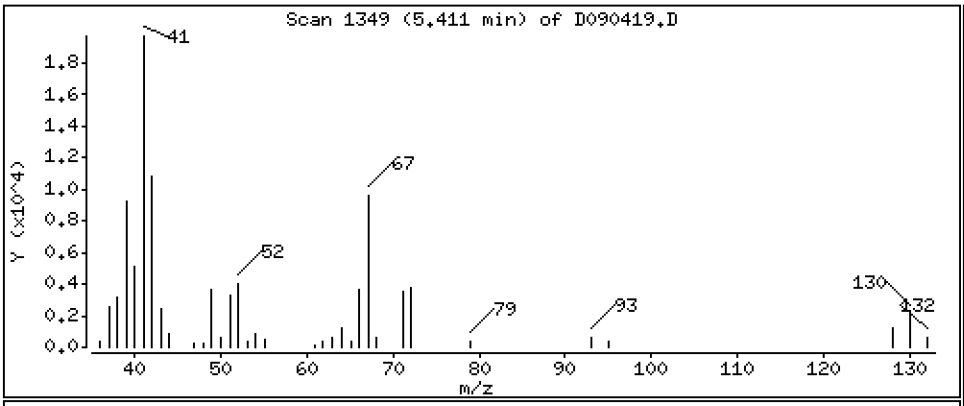
Client ID: HS18081504-01MSD Instrument: VOA2.i

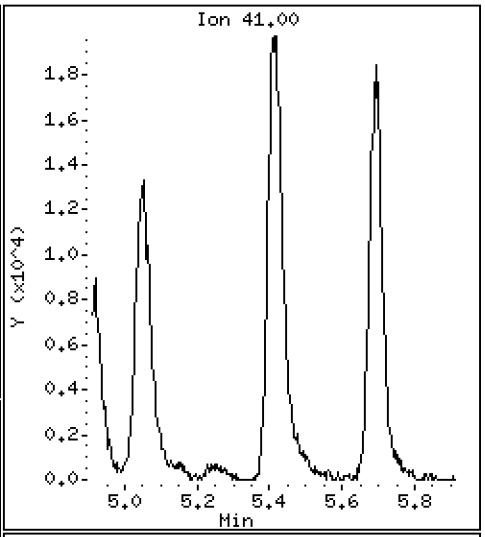
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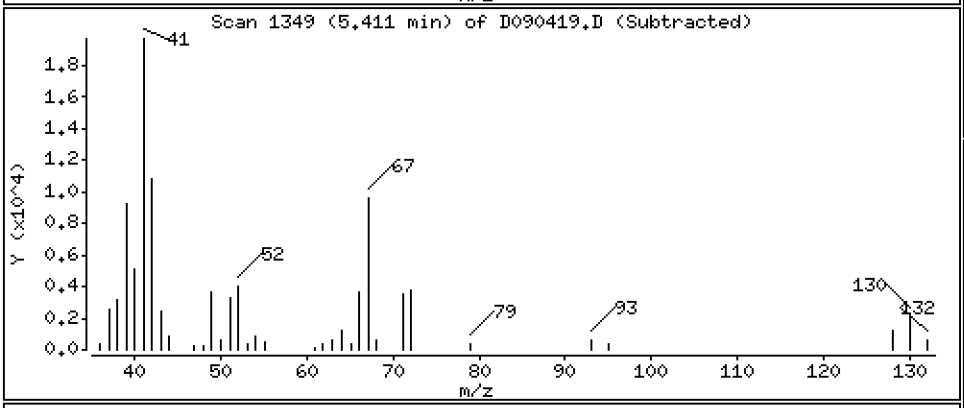
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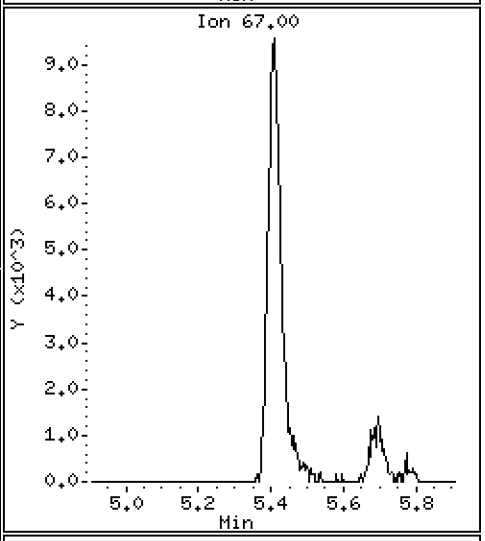
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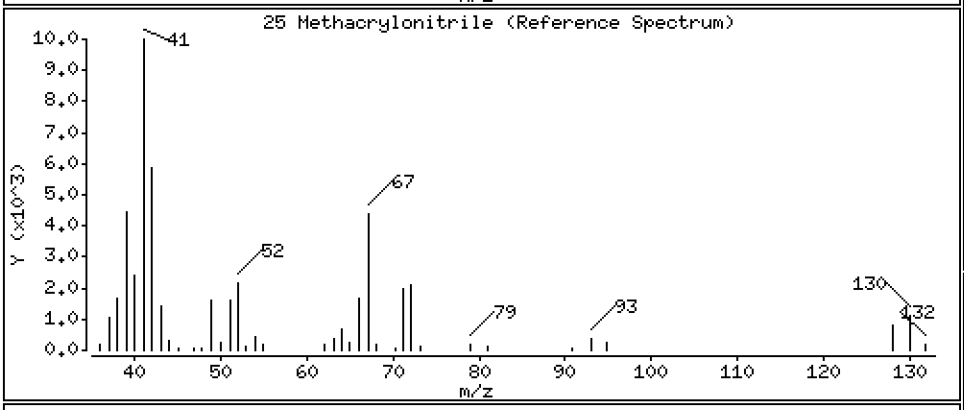
25 Methacrylonitrile Concentration: 17.00 ug/l Review Code:

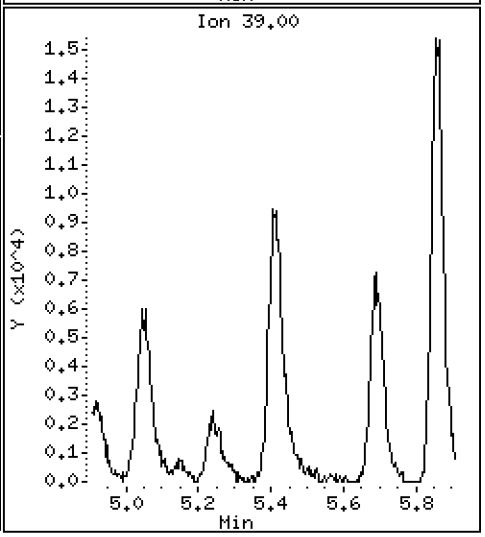


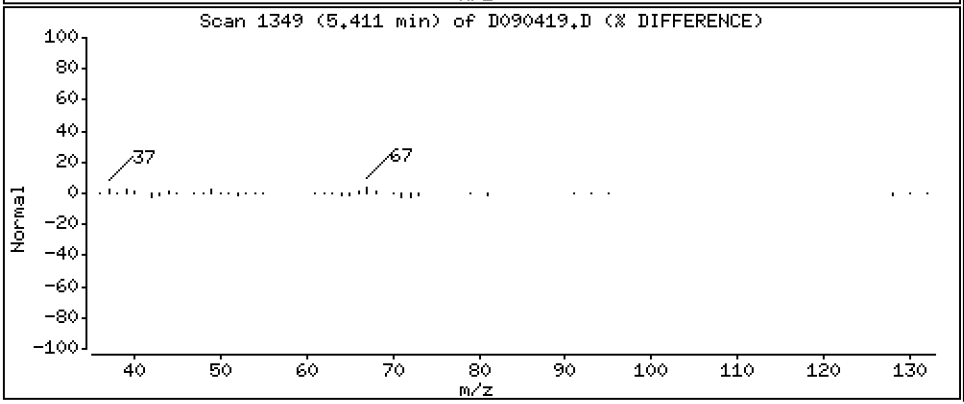












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 27

Date : 04-SEP-2018 18:03

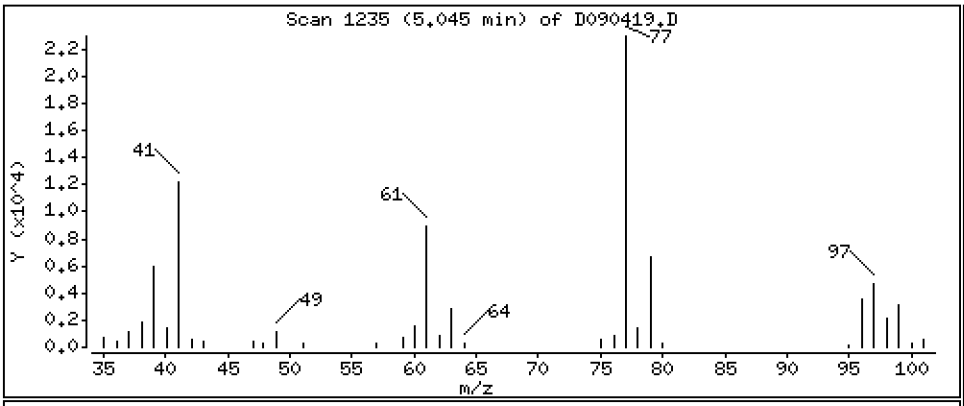
Client ID: HS18081504-01MSD Instrument: VOA2.i

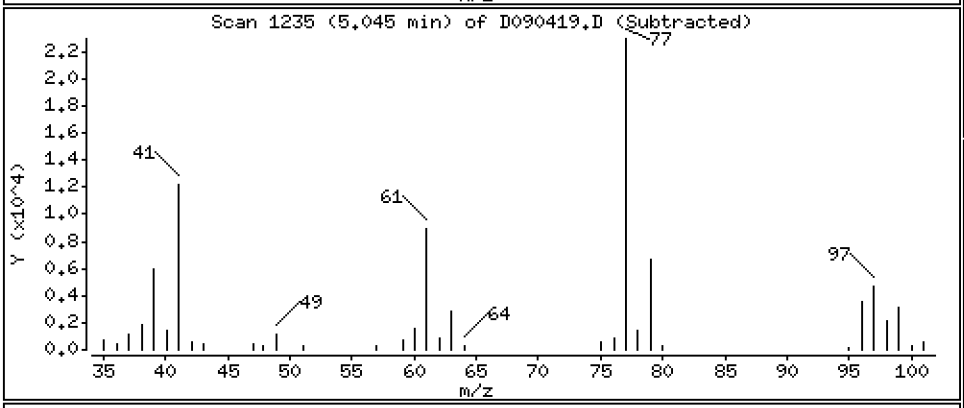
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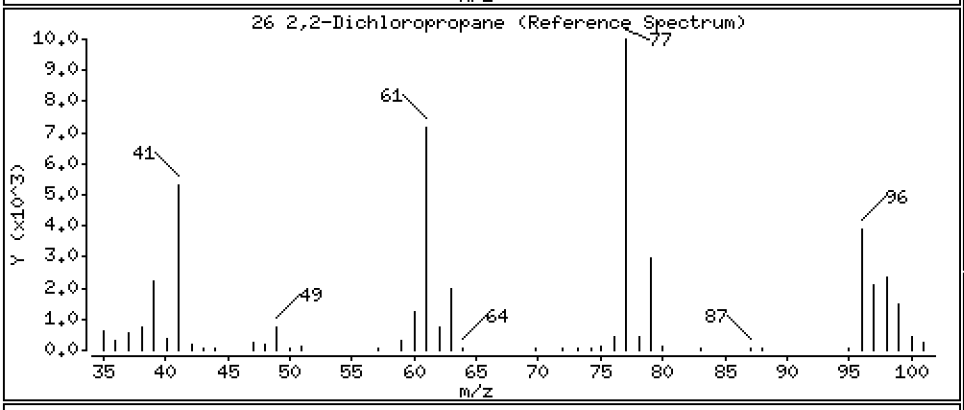
Purge Volume: 5.0 Operator: AP

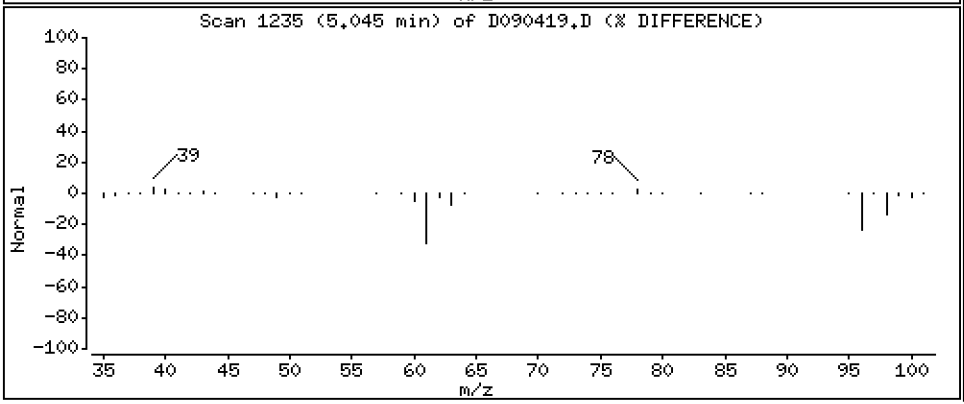
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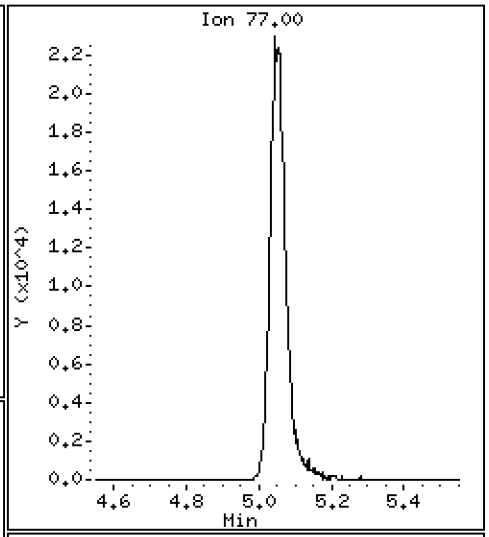
26 2,2-Dichloropropane Concentration: 19.33 ug/l Review Code:

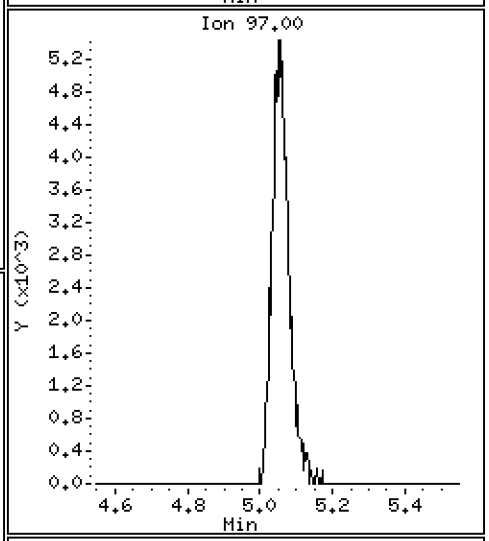


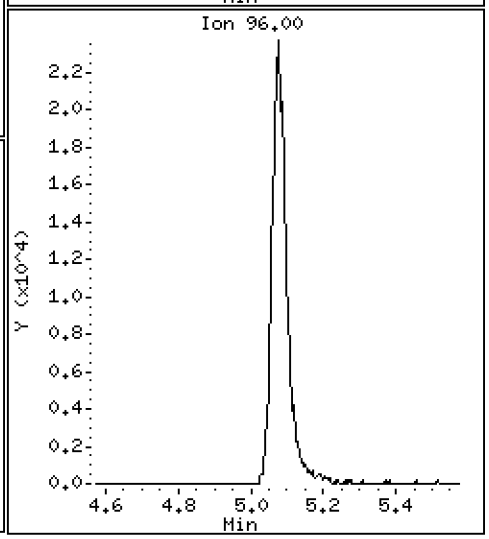












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 28

Date : 04-SEP-2018 18:03

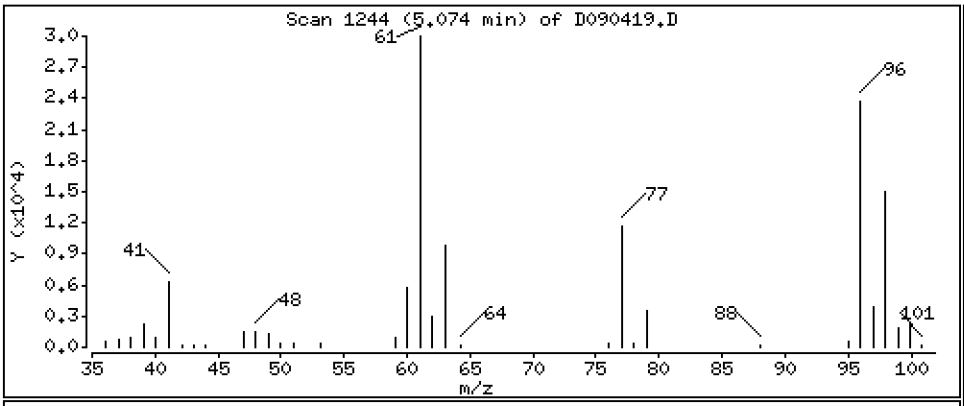
Client ID: HS18081504-01MSD Instrument: VOA2.i

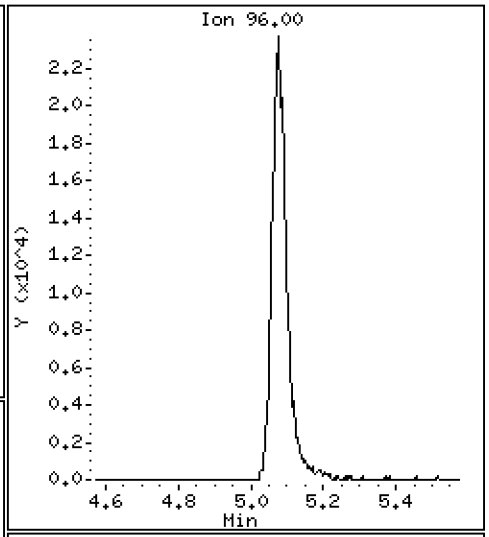
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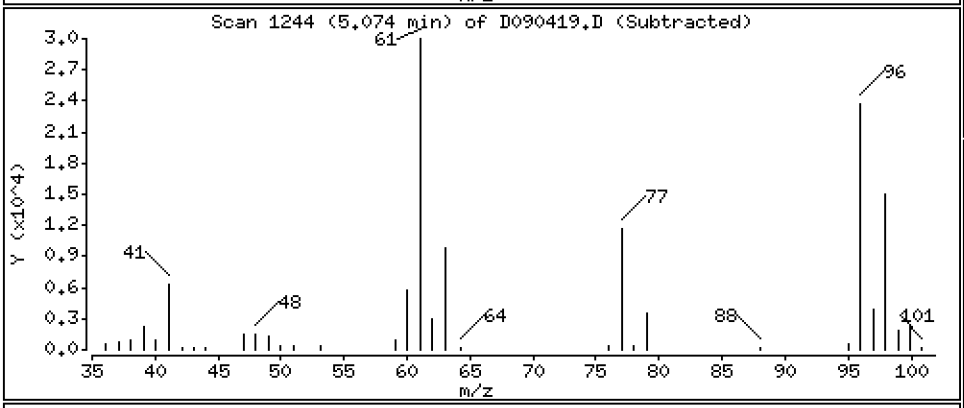
Purge Volume: 5.0 Operator: AP

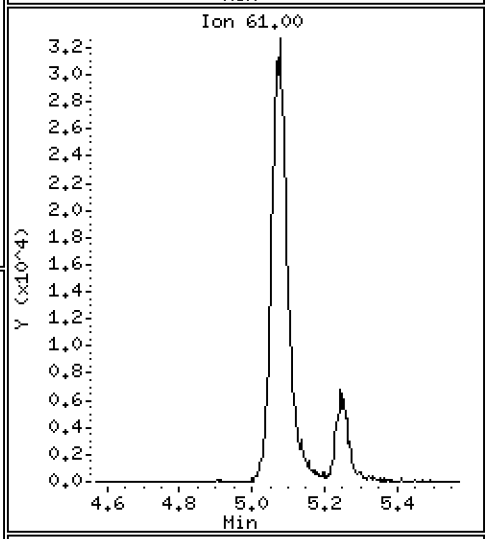
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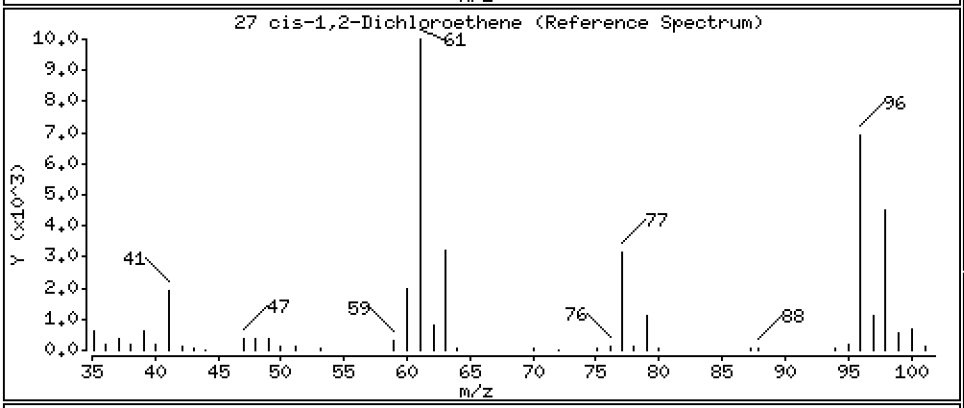
27 cis-1,2-Dichloroethene Concentration: 18.72 ug/l Review Code:

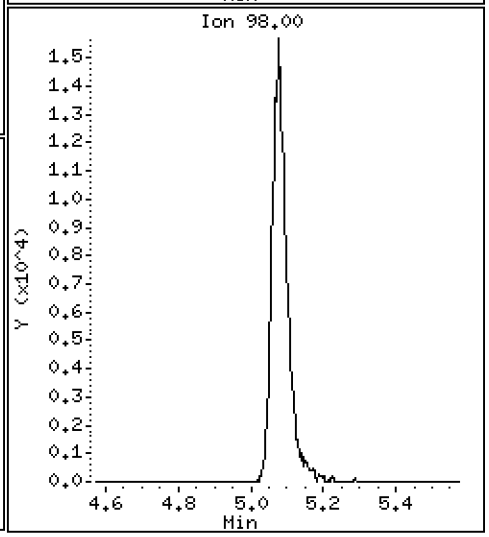


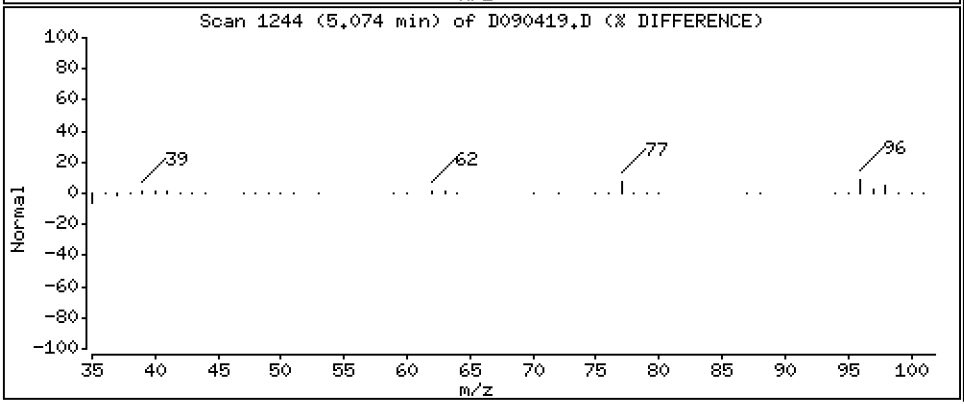












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 29

Date : 04-SEP-2018 18:03

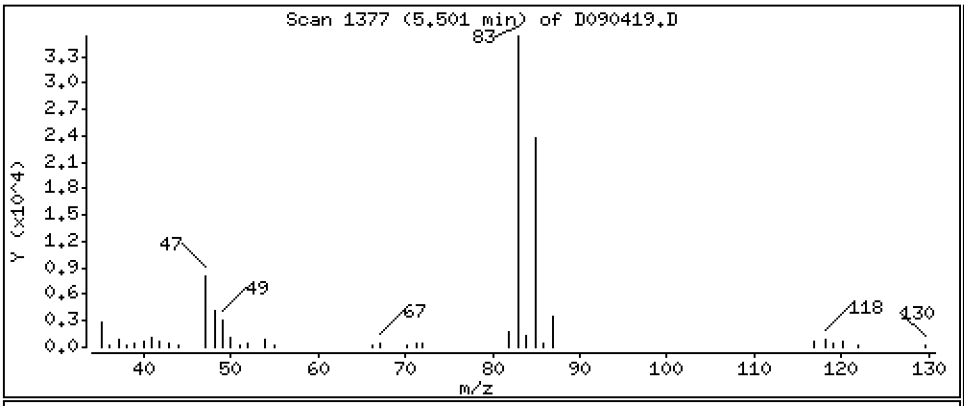
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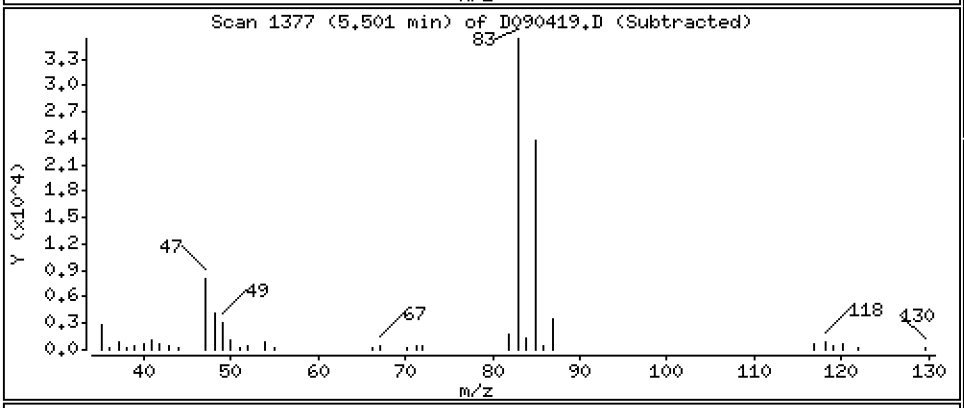
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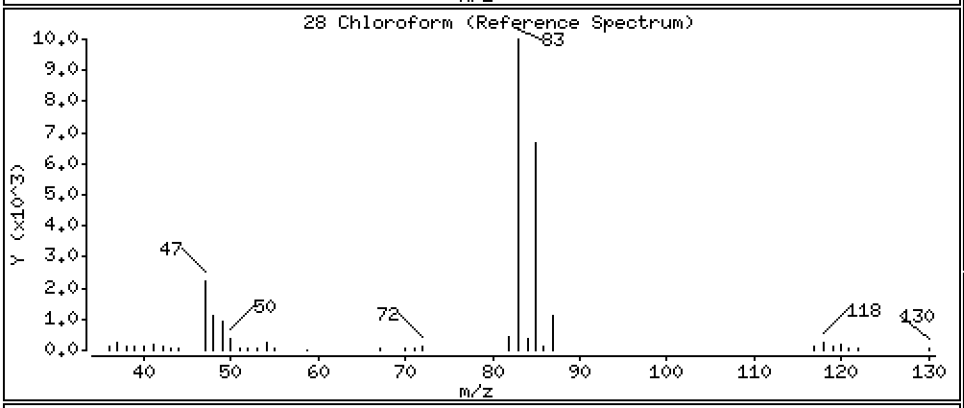
Purge Volume: 5.0 Operator: AP

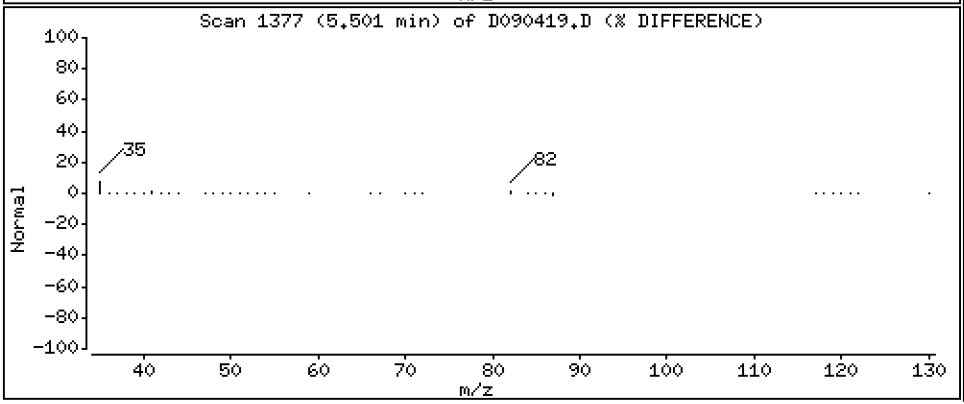
Column phase: DB624 Column diameter: 0.18

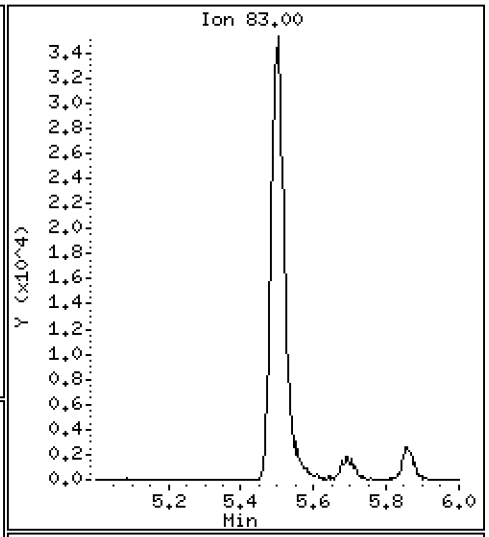
28 Chloroform Concentration: 16.57 ug/l Review Code:

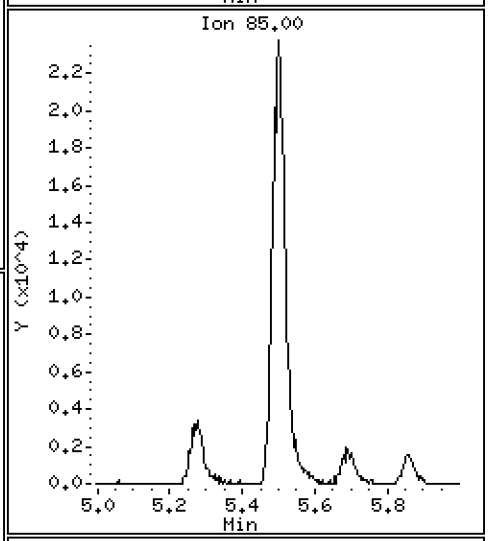


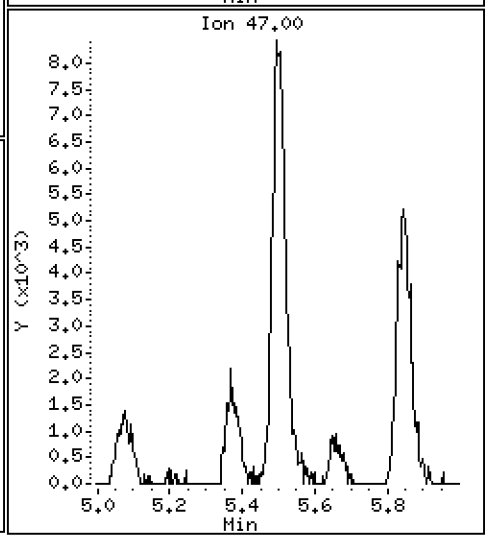












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 30

Date : 04-SEP-2018 18:03

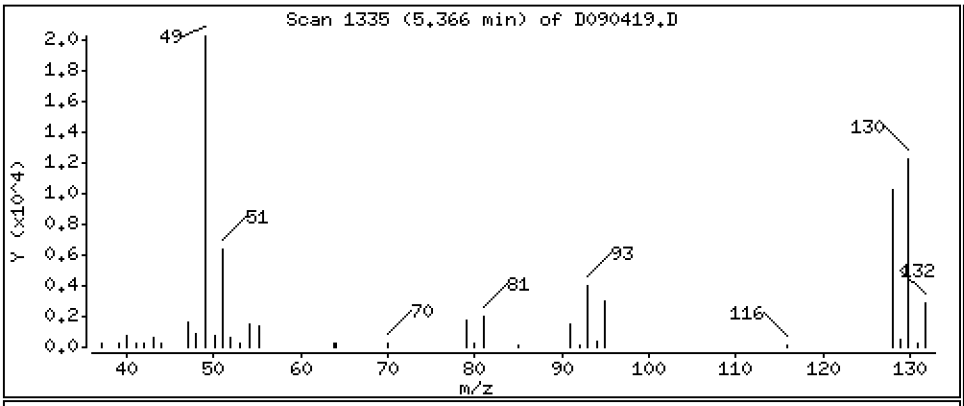
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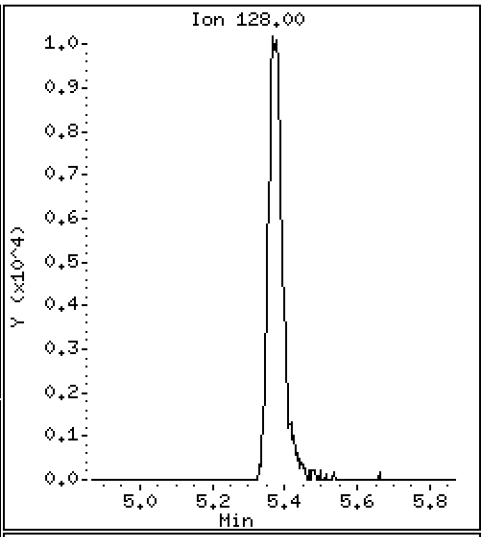
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

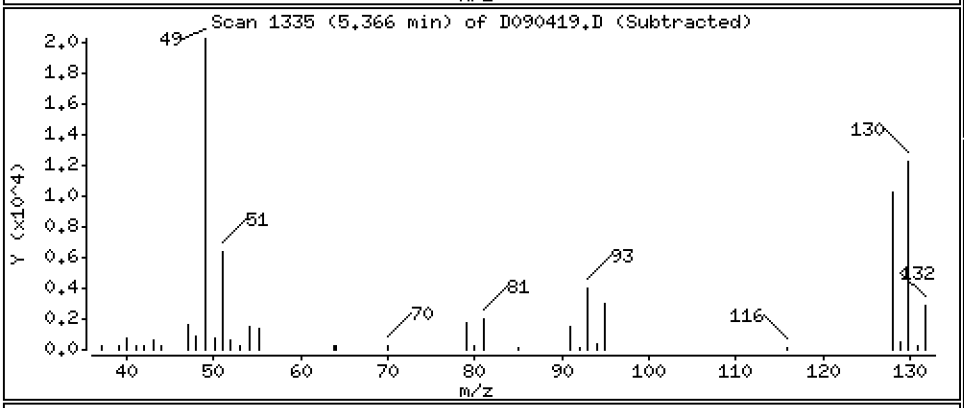
Purge Volume: 5.0 Operator: AP

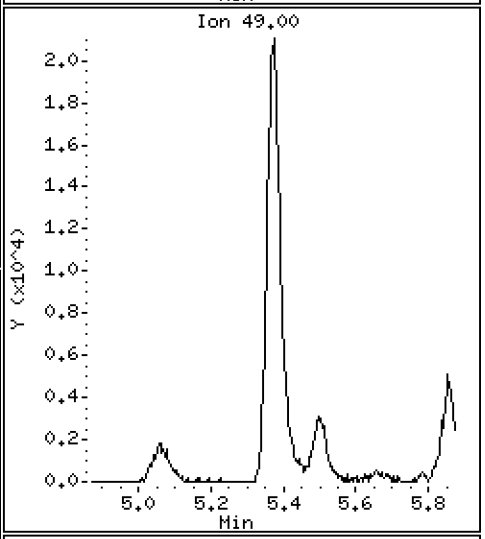
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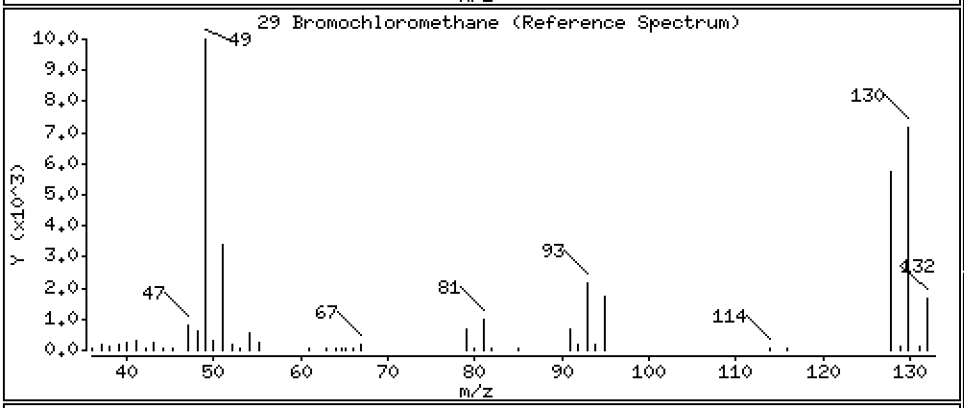
29 Bromochloromethane Concentration: 17.55 ug/l Review Code:

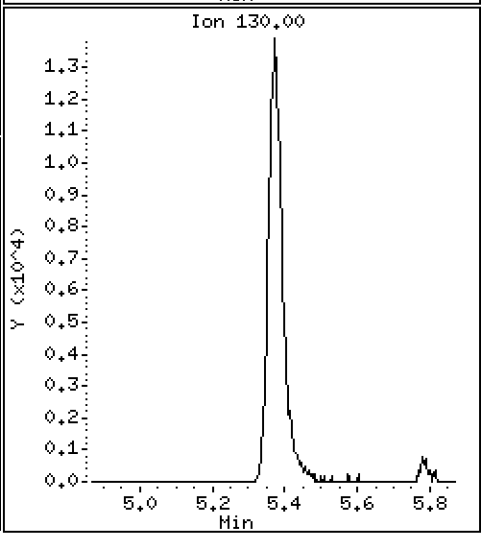


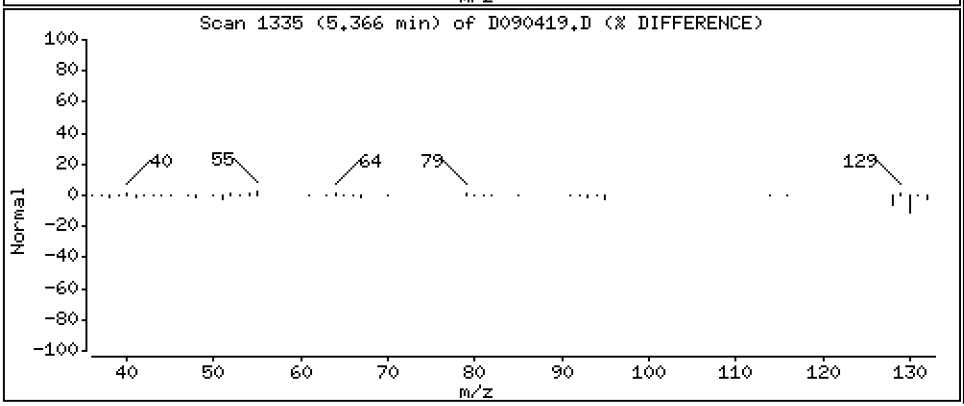












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 31

Date : 04-SEP-2018 18:03

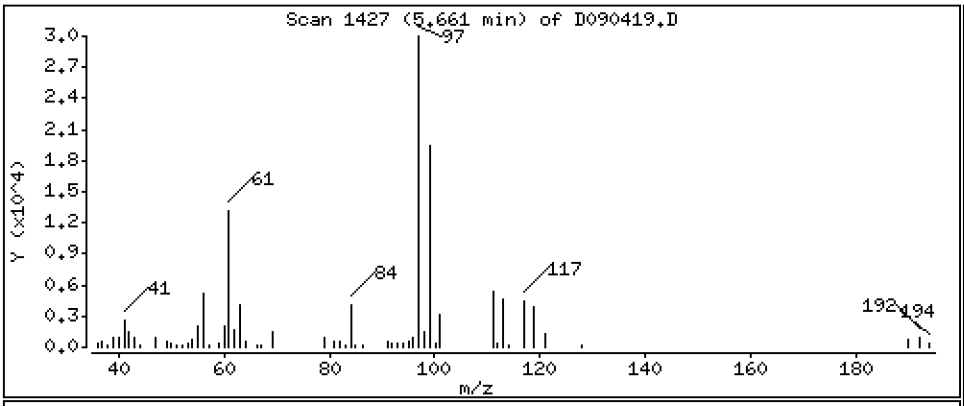
Client ID: HS18081504-01MSD Instrument: VOA2.i

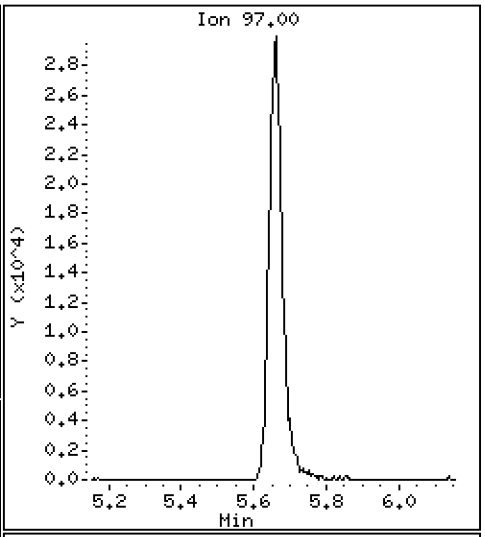
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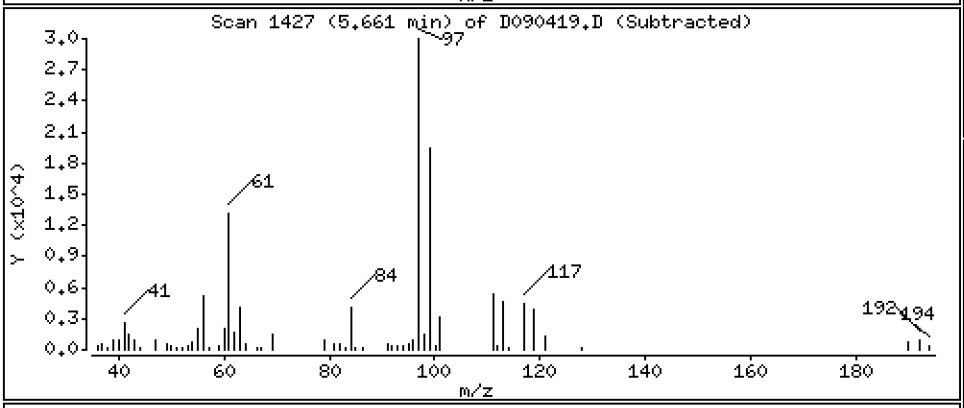
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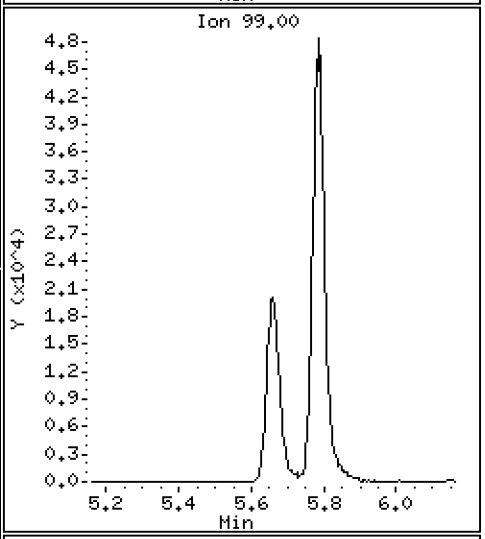
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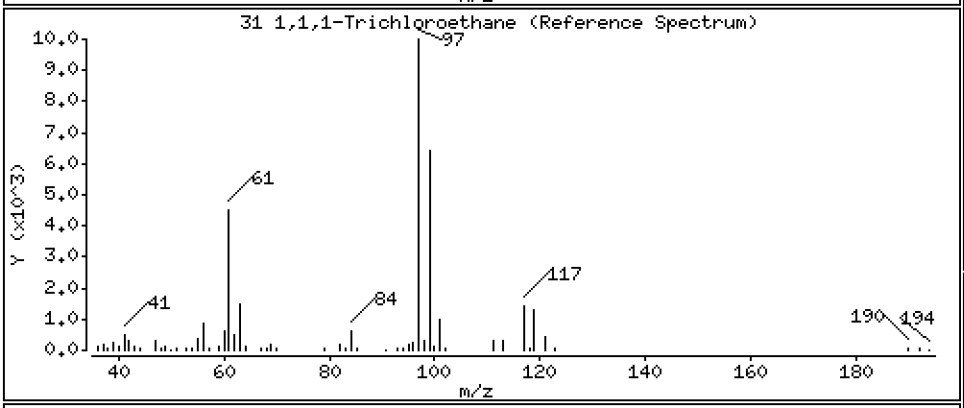
31 1,1,1-Trichloroethane Concentration: 16.53 ug/l Review Code:

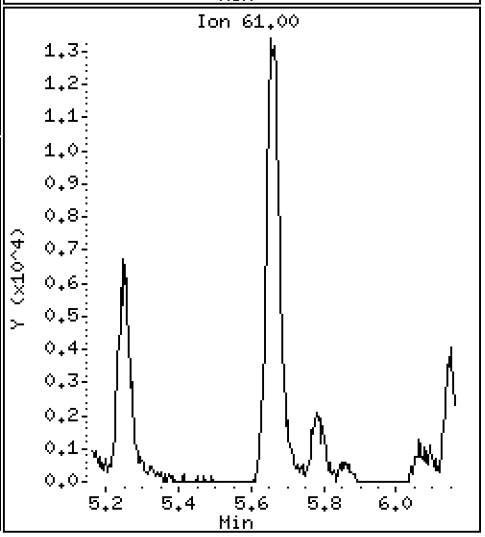


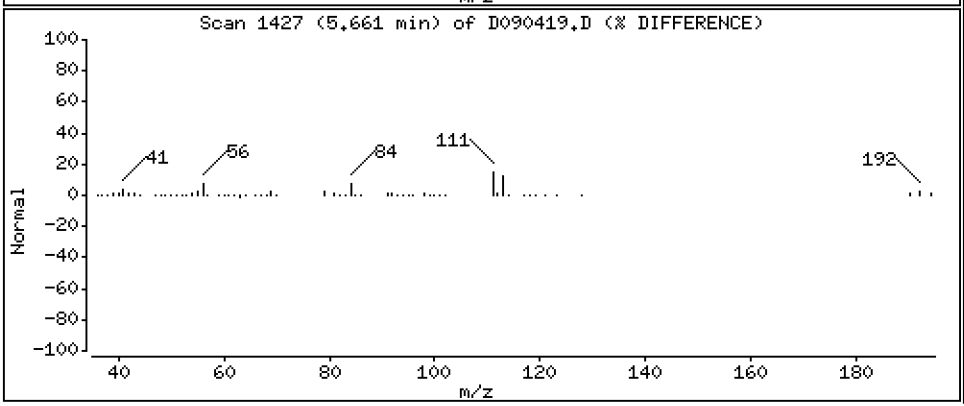












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 32

Date : 04-SEP-2018 18:03

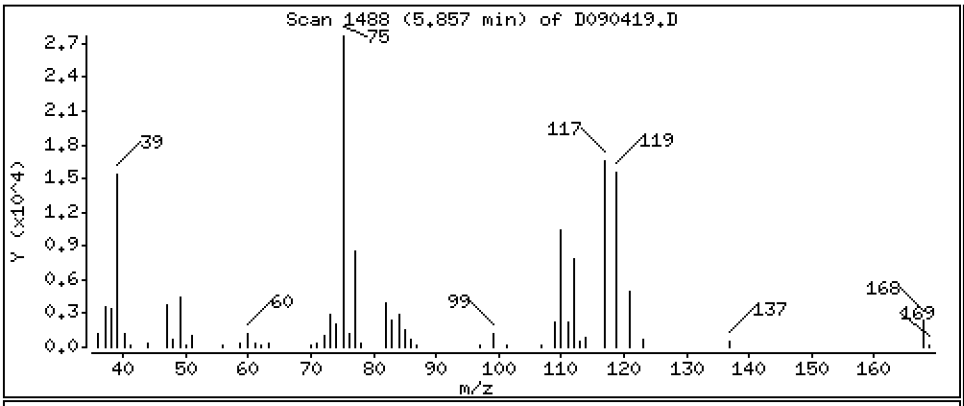
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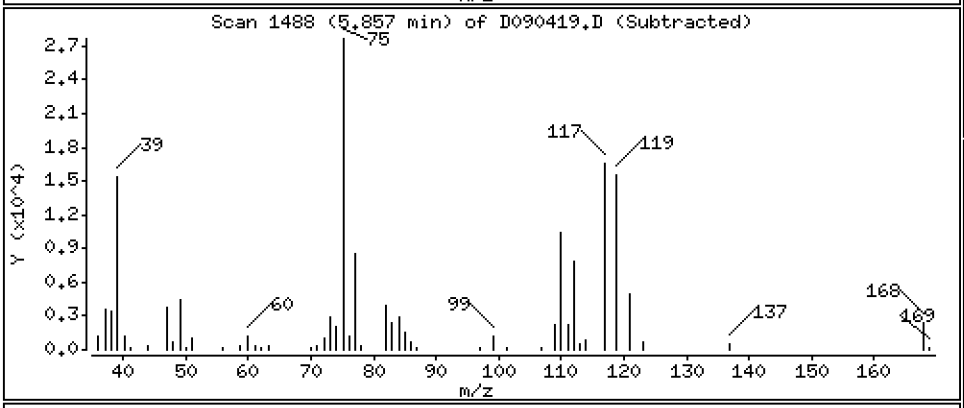
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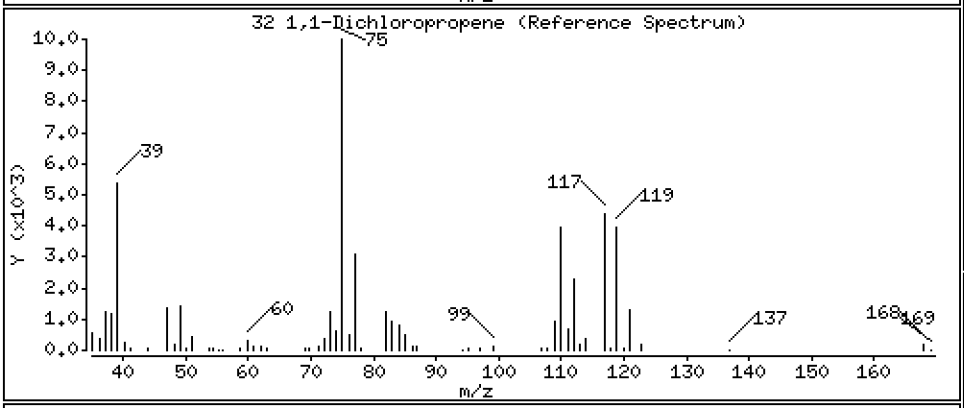
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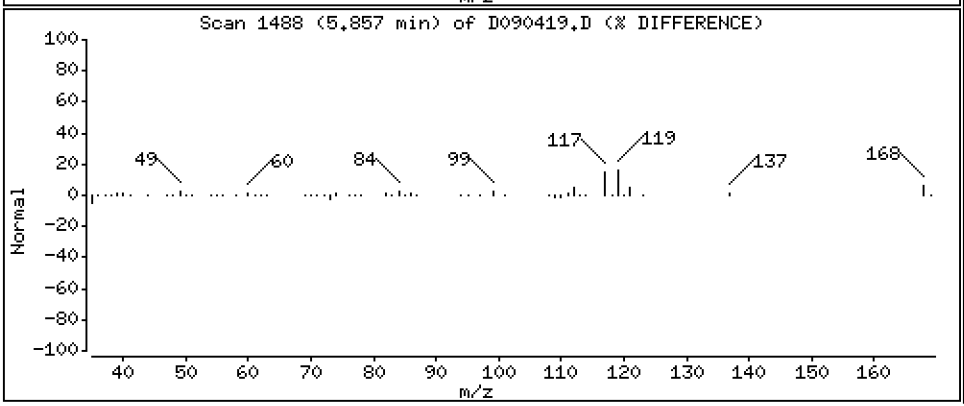
Column phase: DB624 Column diameter: 0.18

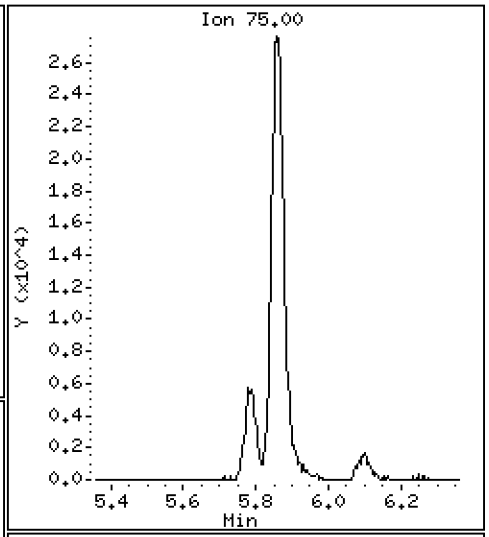
32 1,1-Dichloropropene Concentration: 19.56 ug/l Review Code:

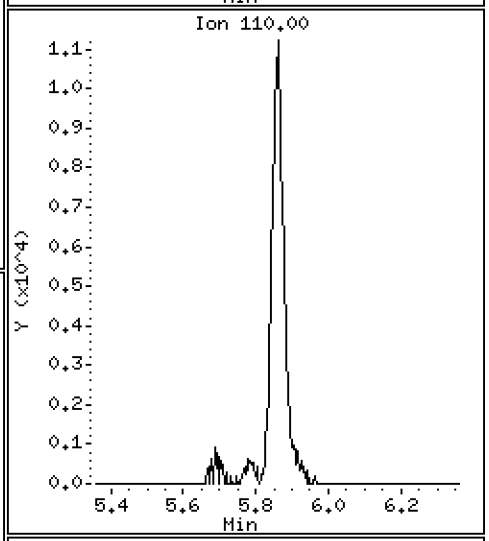


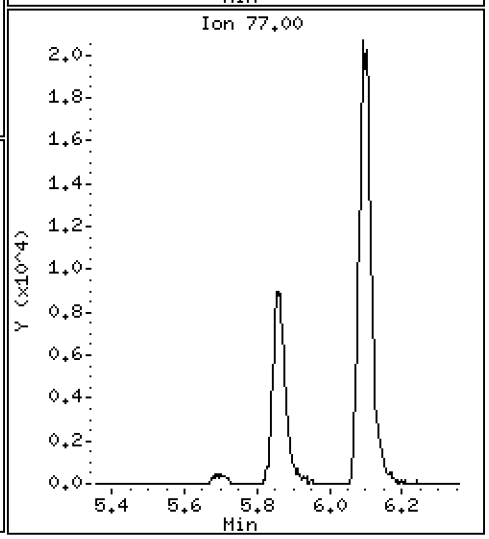












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 33

Date : 04-SEP-2018 18:03

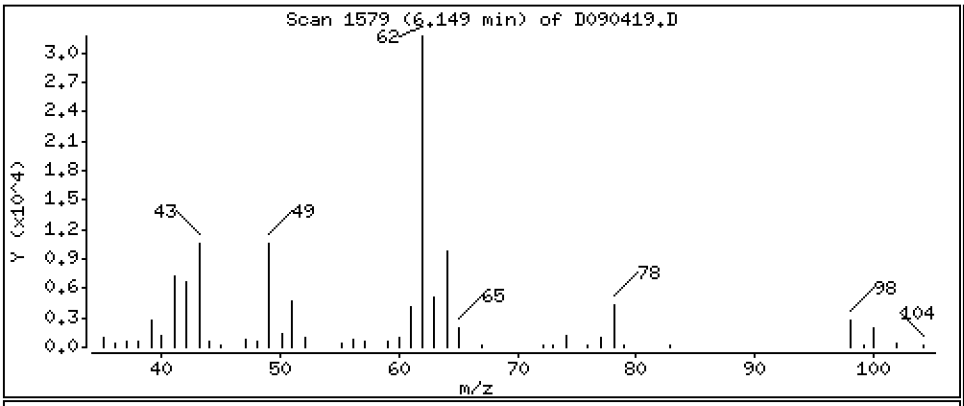
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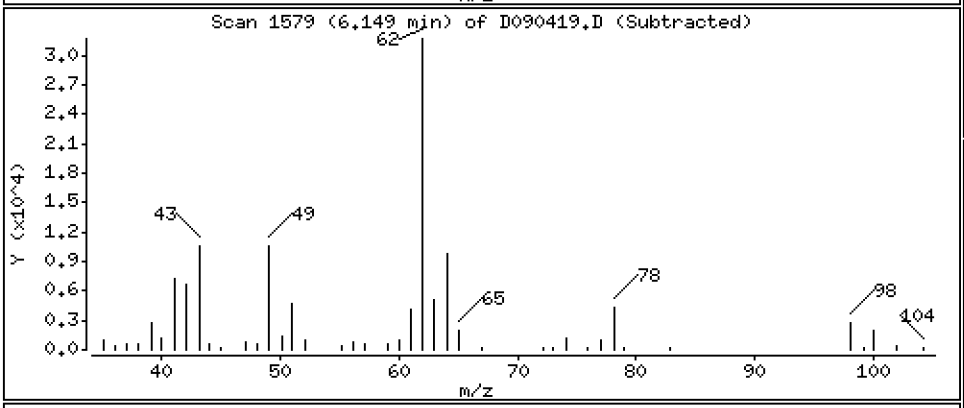
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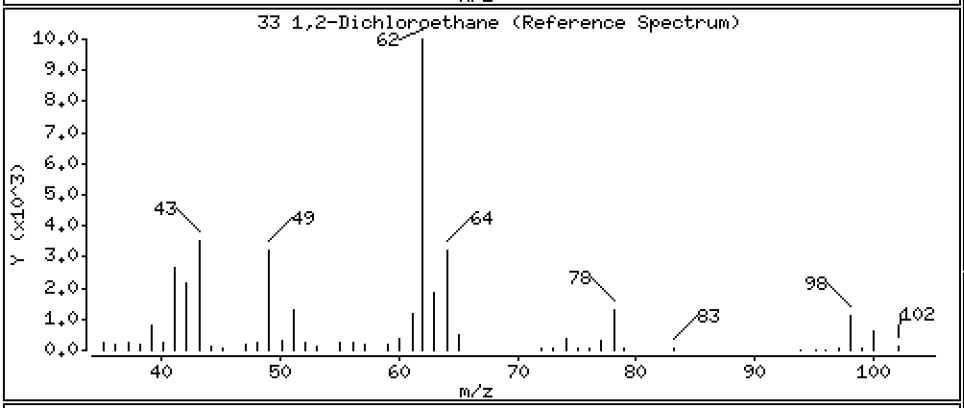
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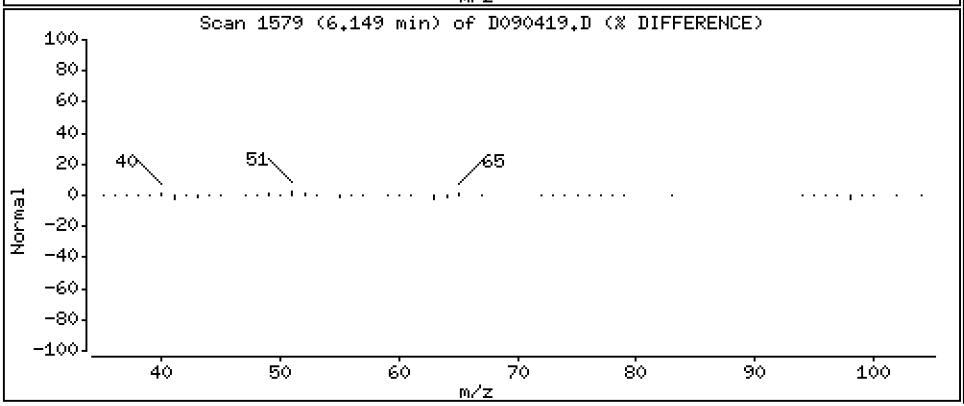
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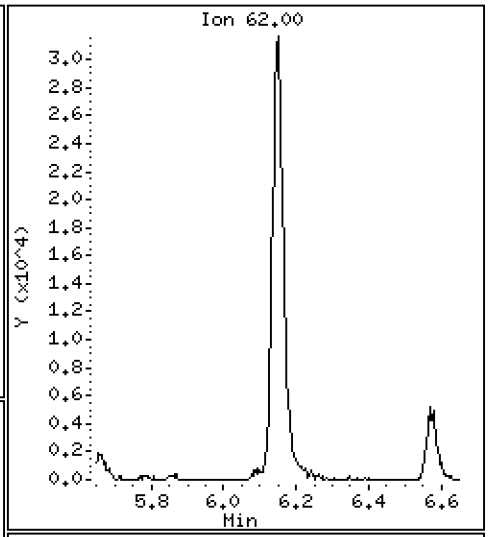
33 1,2-Dichloroethane Concentration: 18.05 ug/l Review Code:

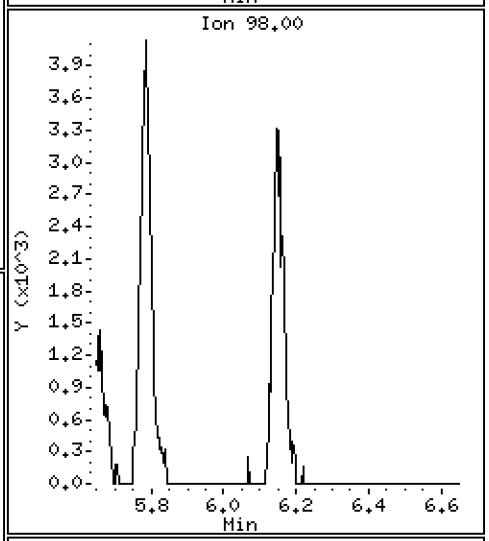


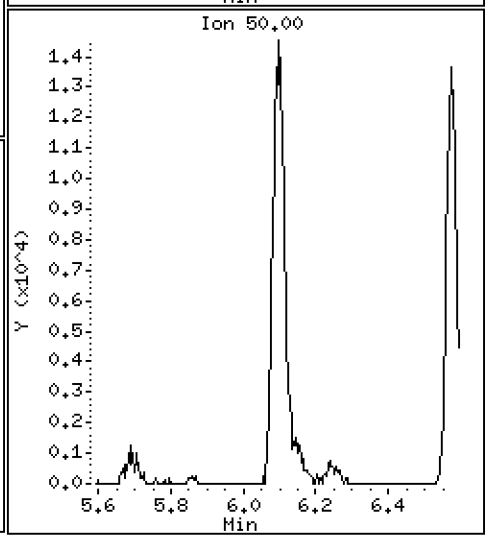












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 34

Date : 04-SEP-2018 18:03

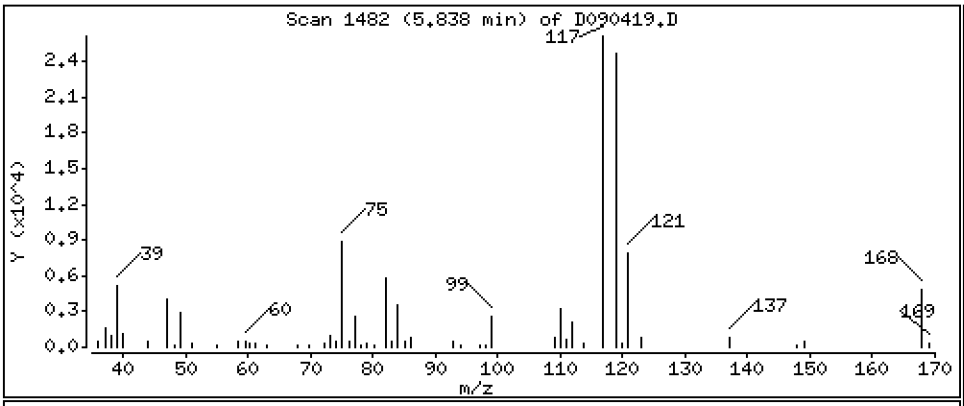
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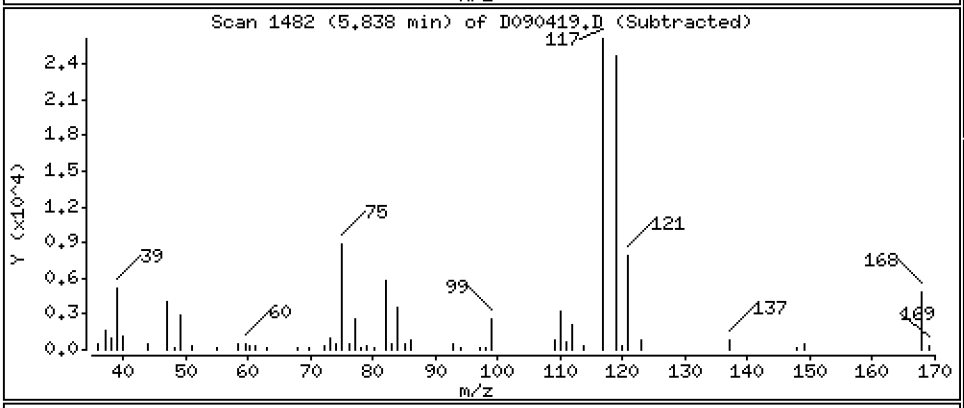
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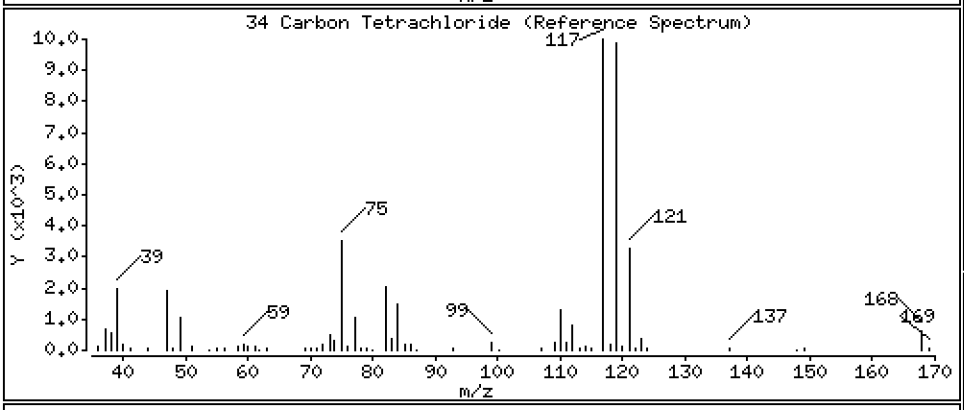
Purge Volume: 5.0 Operator: AP

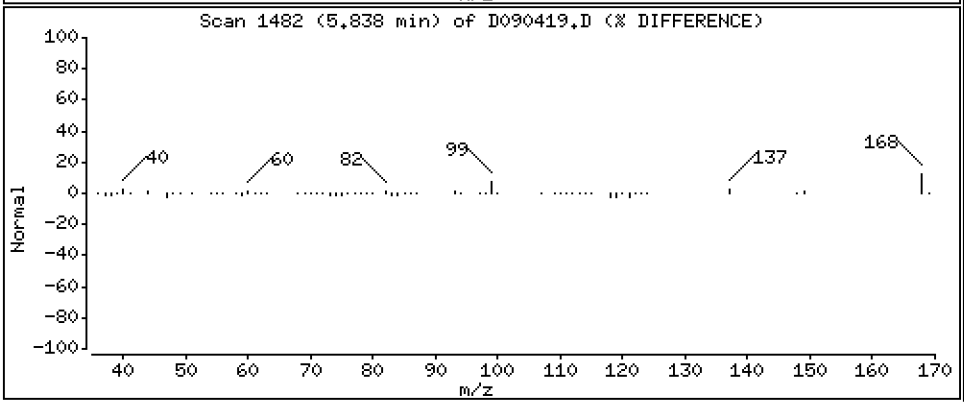
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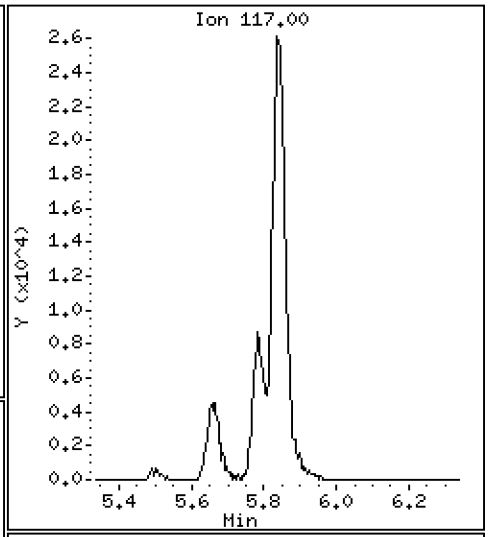
34 Carbon Tetrachloride Concentration: 18.81 ug/l Review Code:

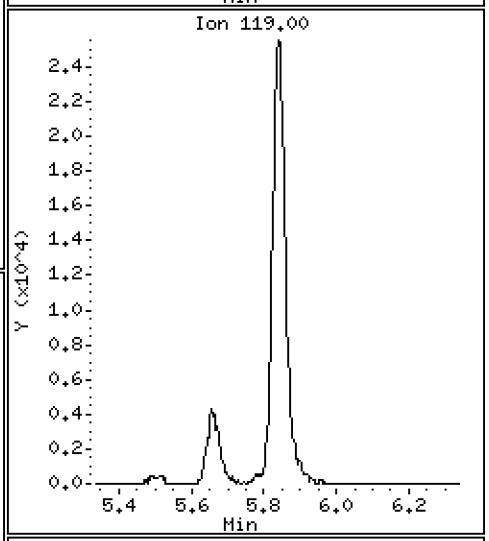


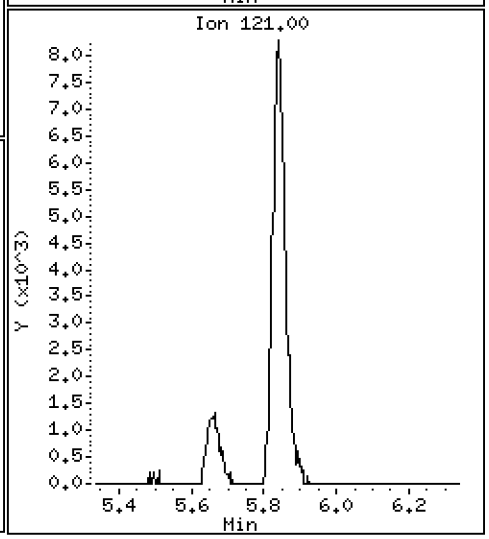












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 35

Date : 04-SEP-2018 18:03

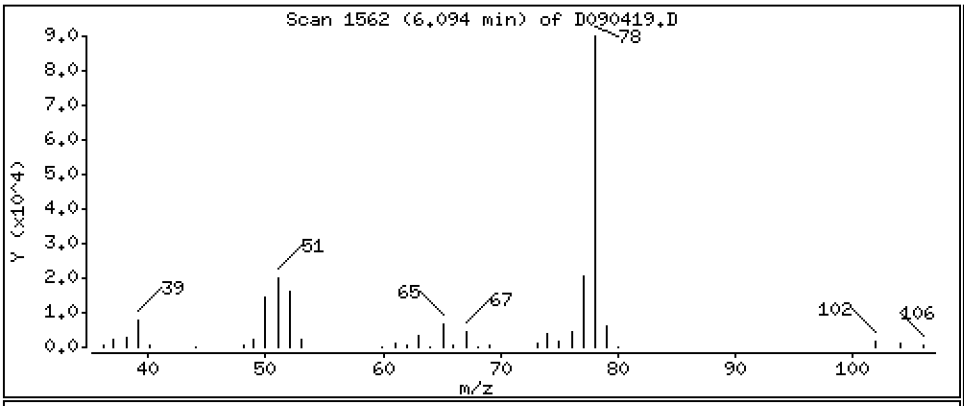
Client ID: HS18081504-01MSD Instrument: VOA2.i

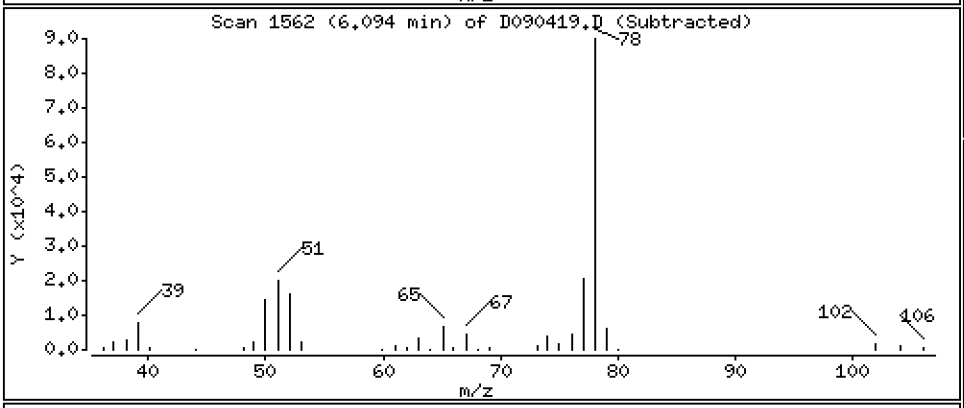
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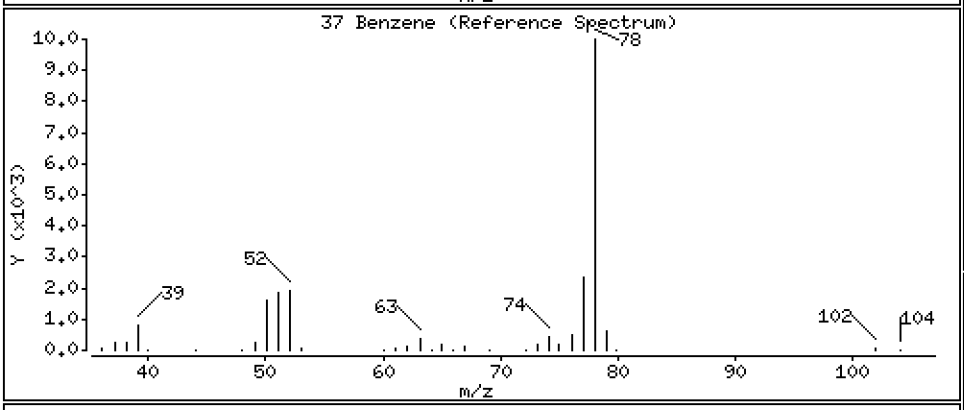
Purge Volume: 5.0 Operator: AP

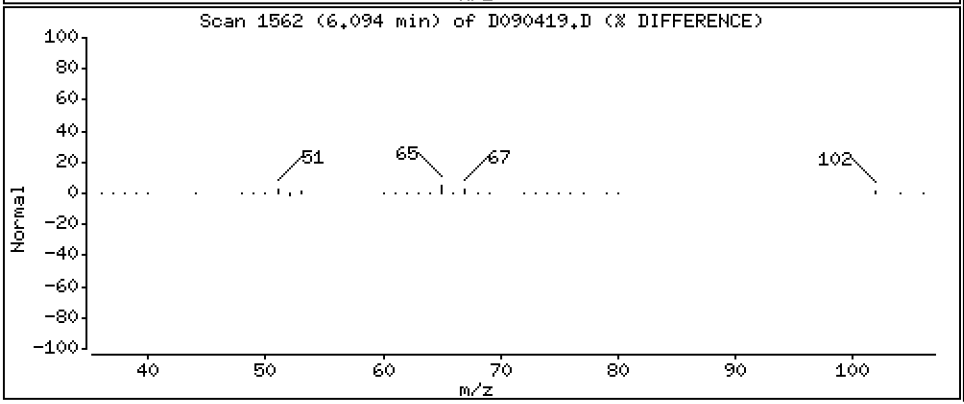
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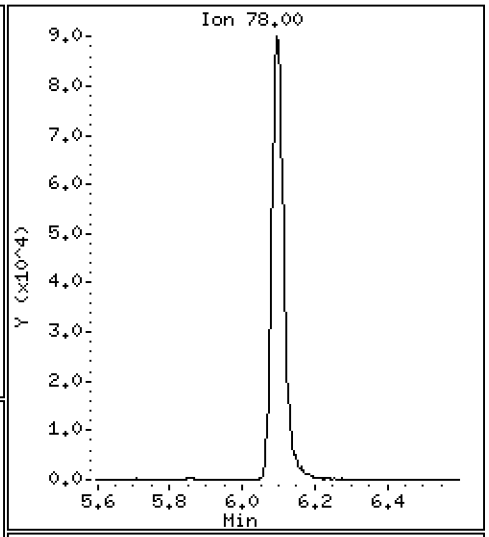
37 Benzene Concentration: 17.90 ug/l Review Code:

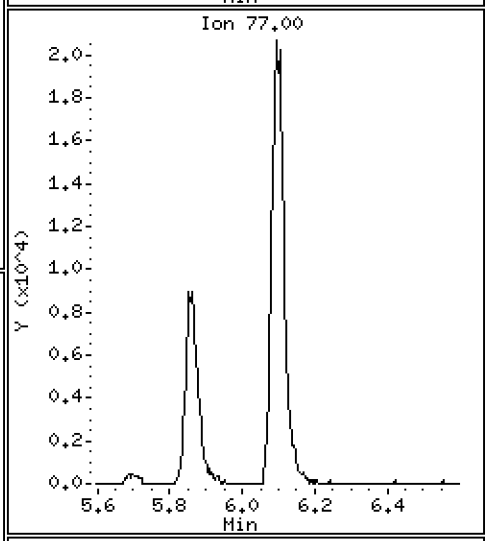


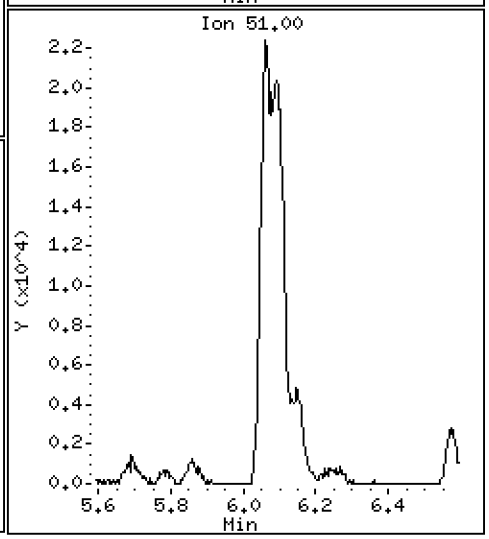












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 36

Date : 04-SEP-2018 18:03

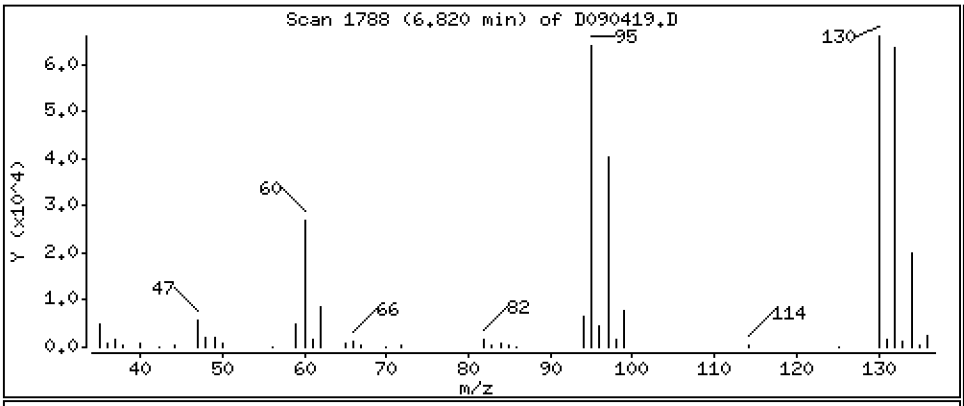
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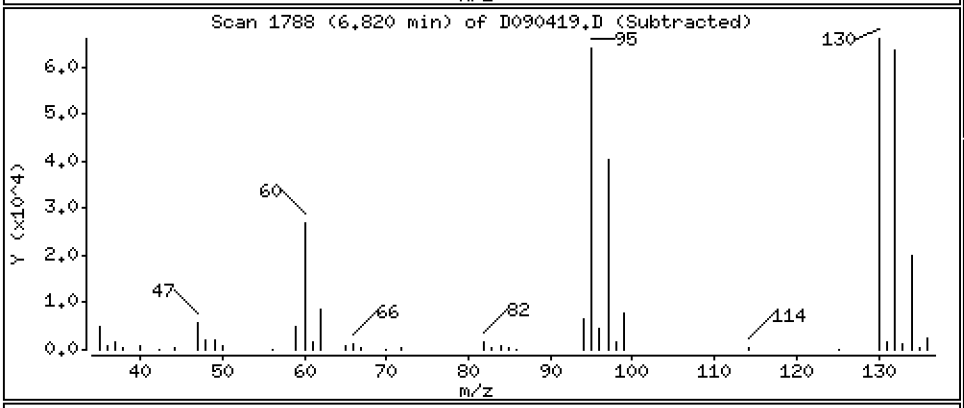
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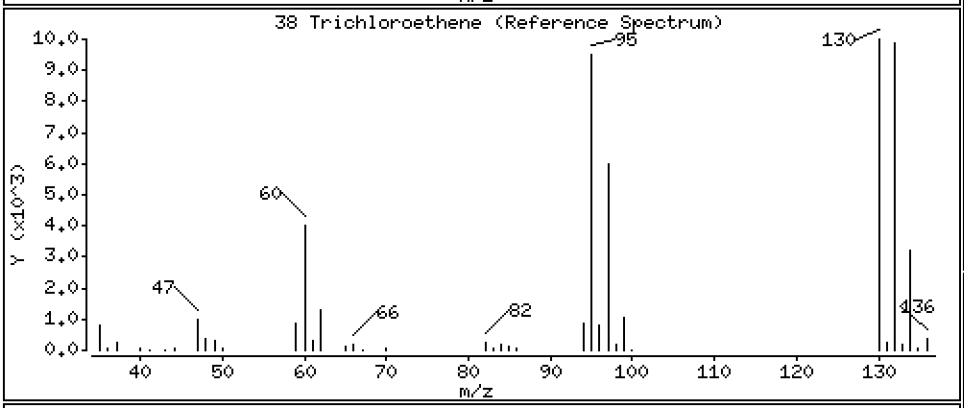
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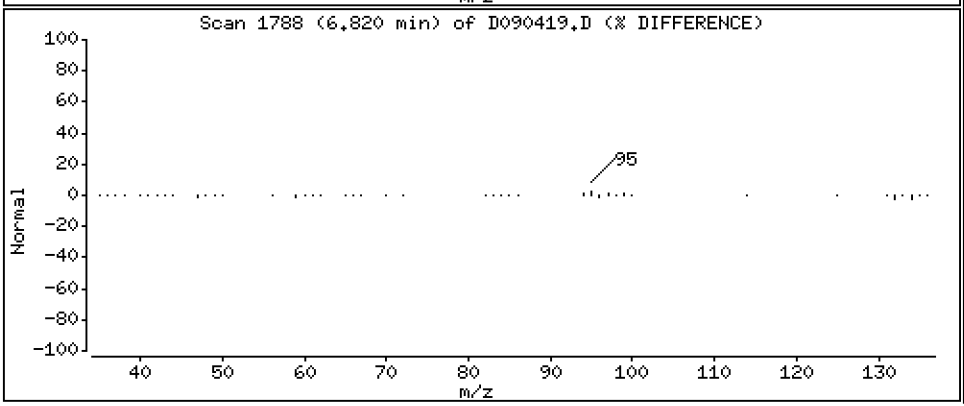
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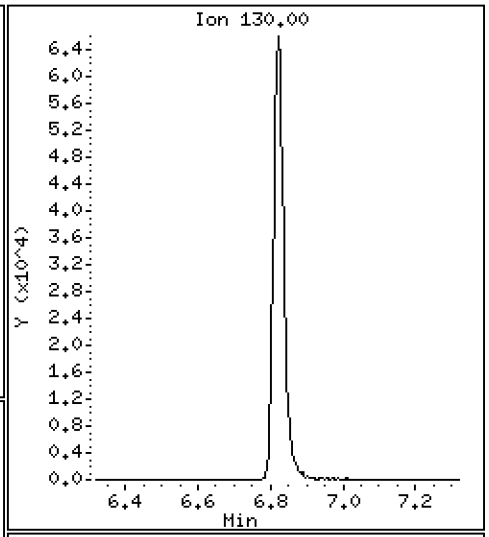
38 Trichloroethene Concentration: 42.17 ug/l Review Code:

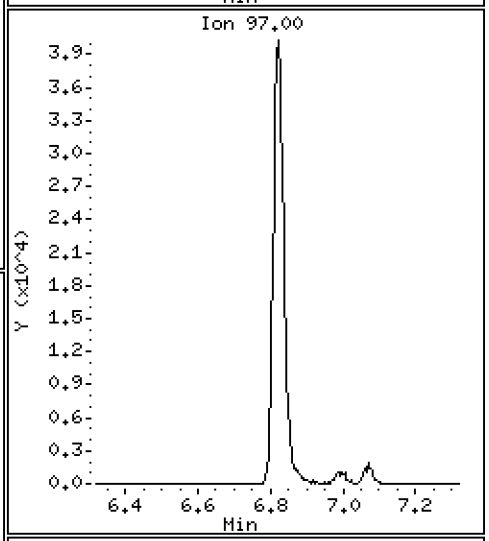


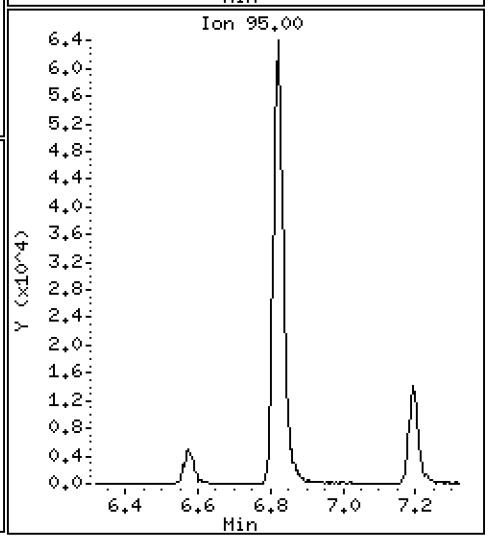












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 37

Date : 04-SEP-2018 18:03

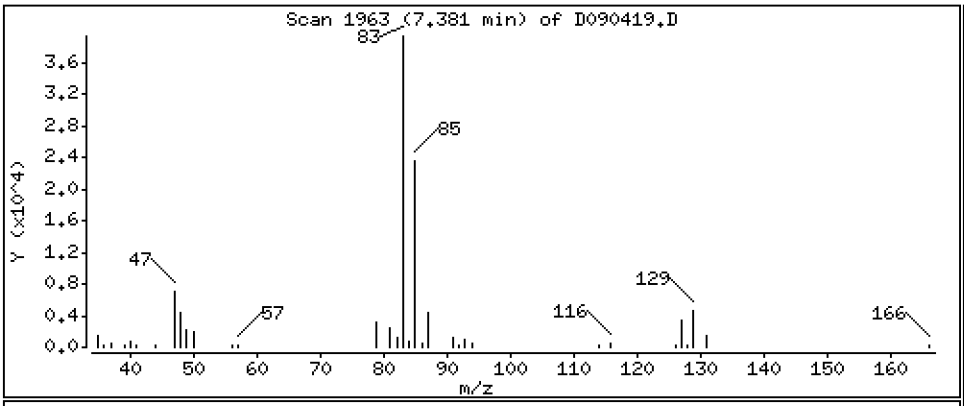
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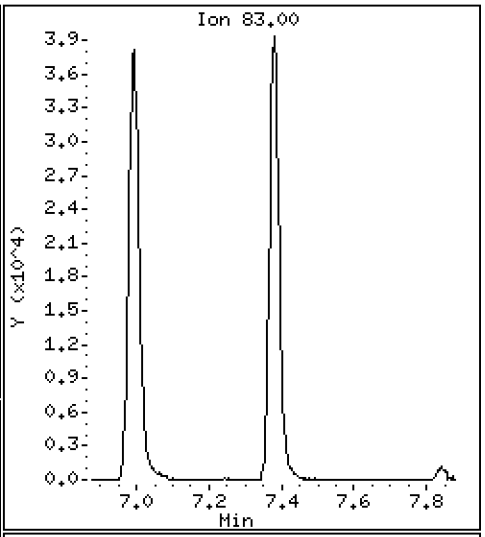
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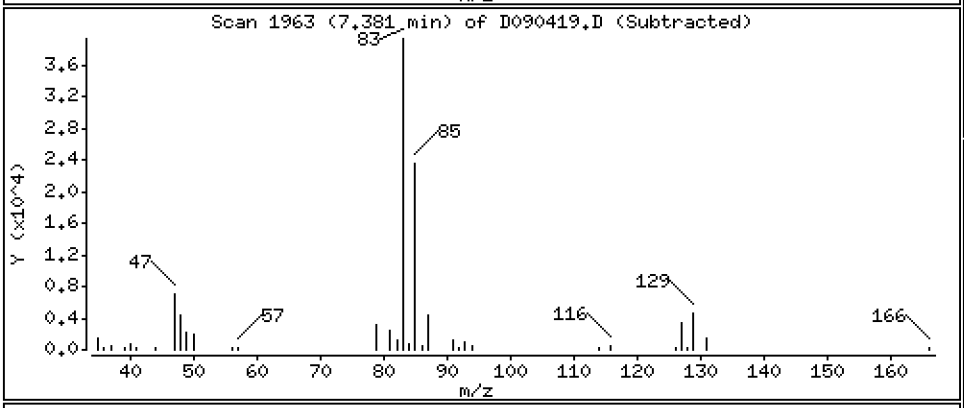
Purge Volume: 5.0 Operator: AP

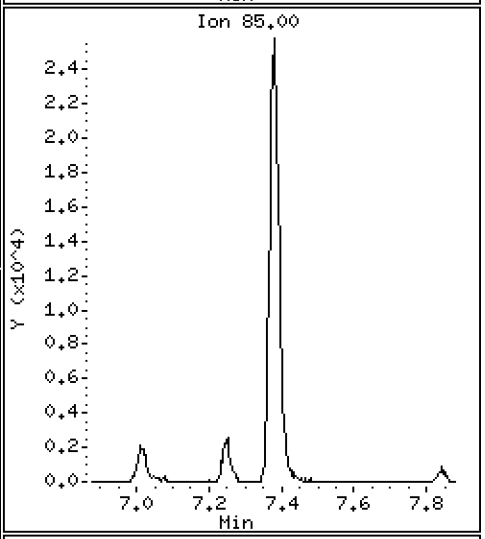
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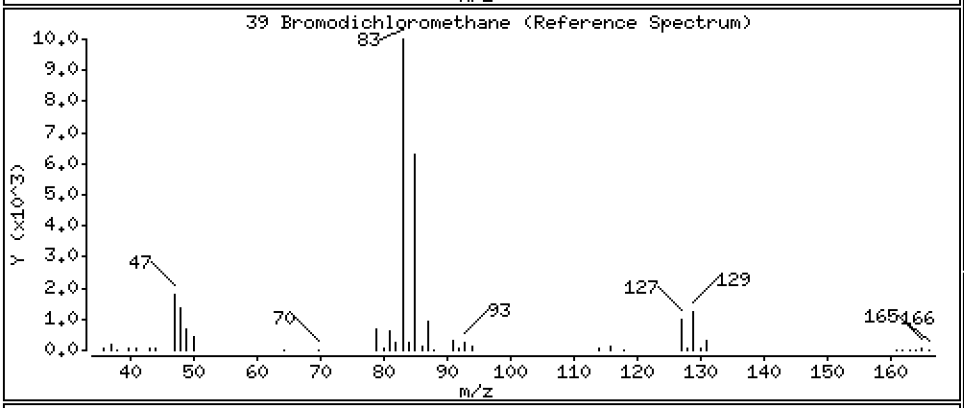
39 Bromodichloromethane Concentration: 18.53 ug/l Review Code:

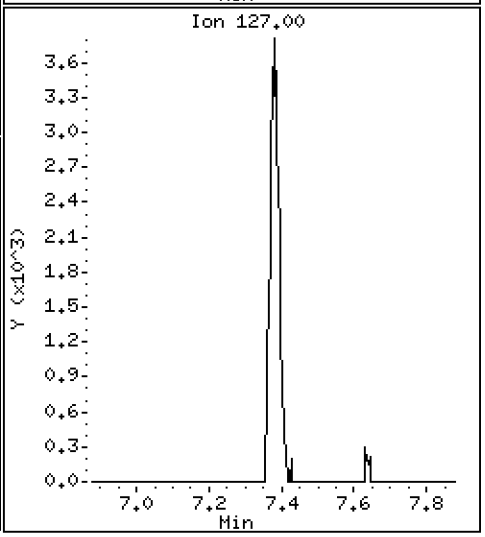


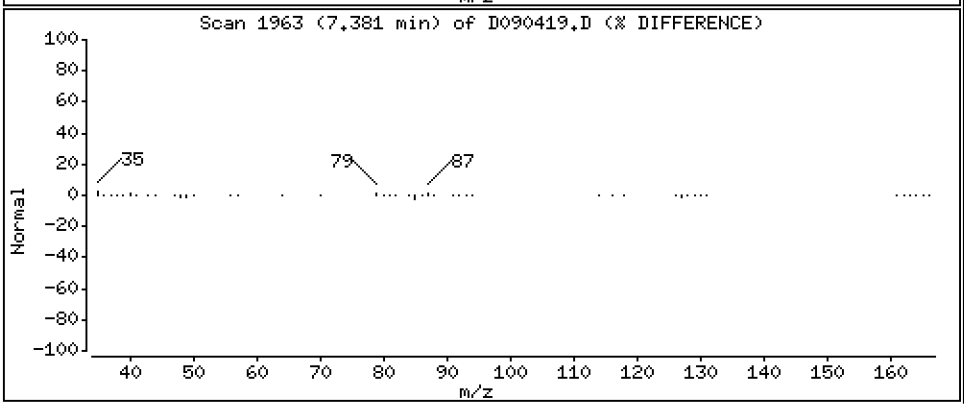












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 38

Date : 04-SEP-2018 18:03

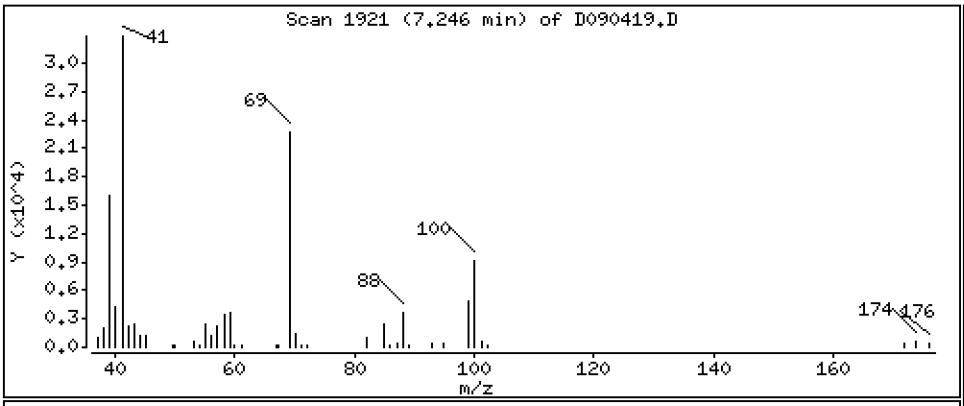
Client ID: HS18081504-01MSD Instrument: VOA2.i

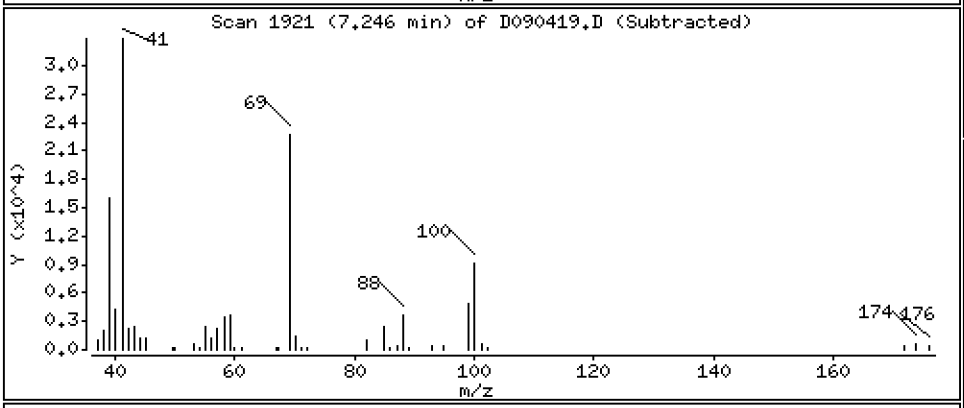
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

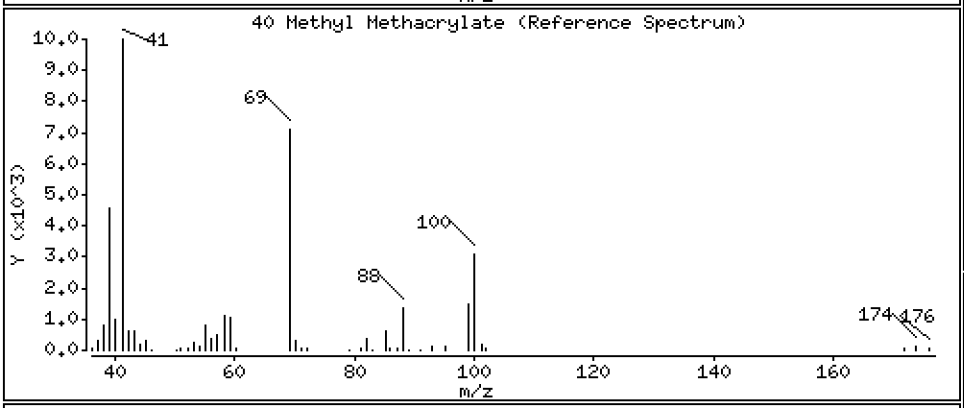
Purge Volume: 5.0 Operator: AP

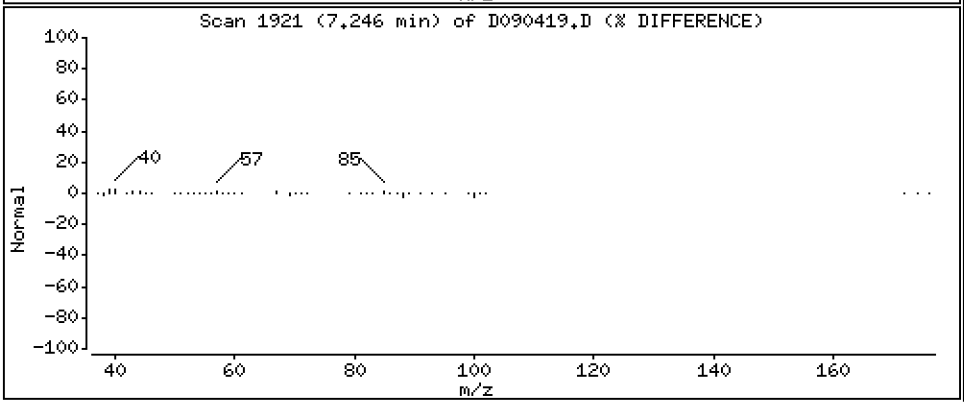
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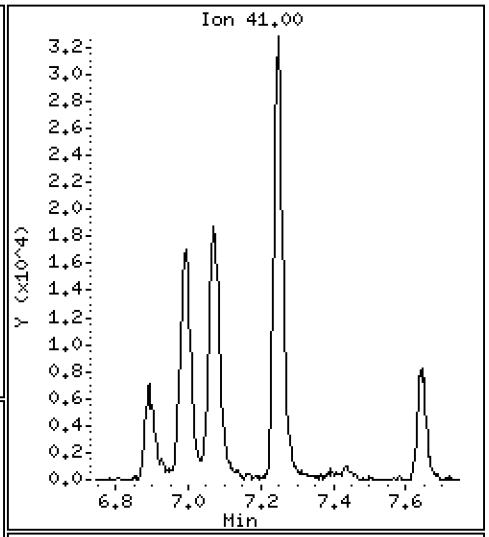
40 Methyl Methacrylate Concentration: 16.47 ug/l Review Code:

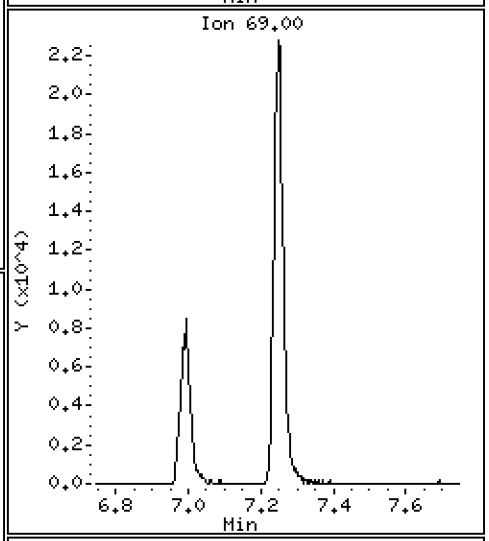


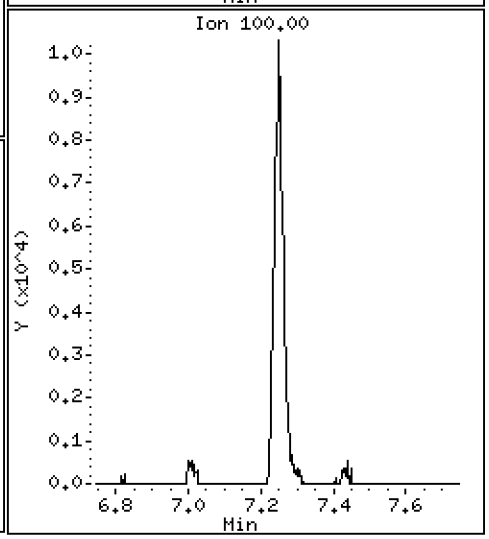












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 39

Date : 04-SEP-2018 18:03

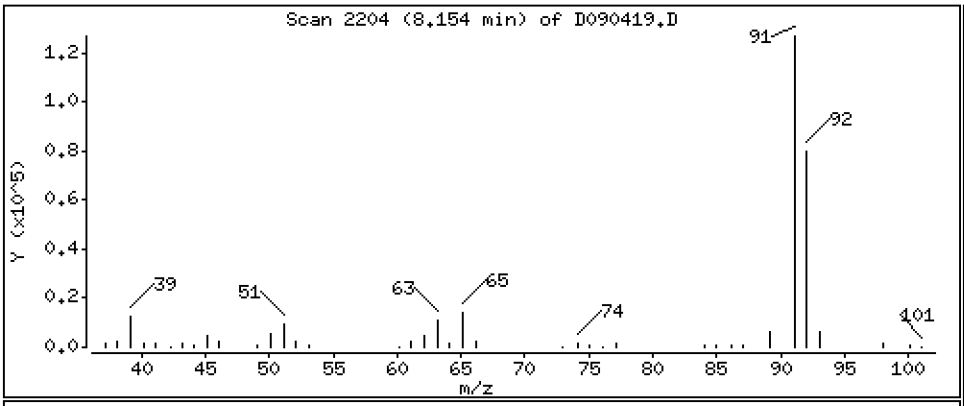
Client ID: HS18081504-01MSD Instrument: VOA2.i

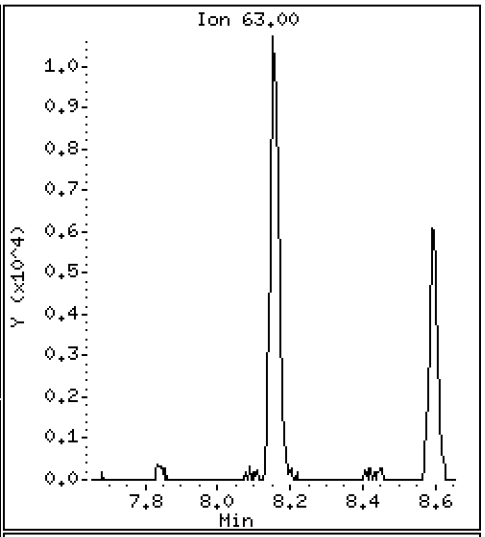
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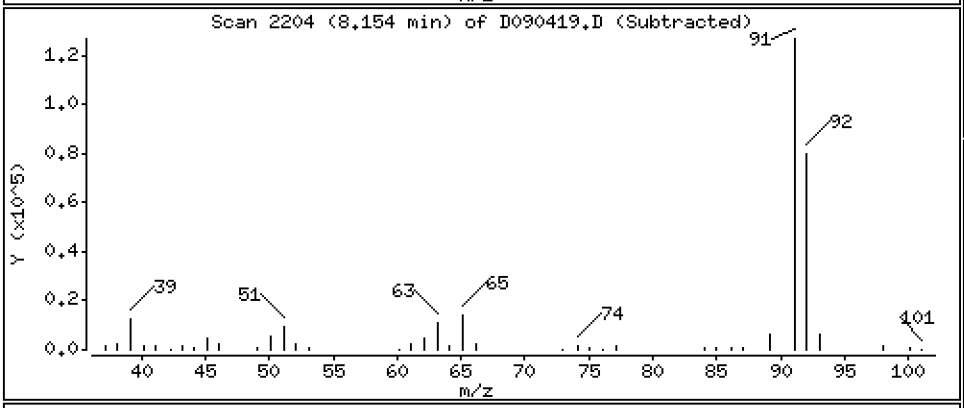
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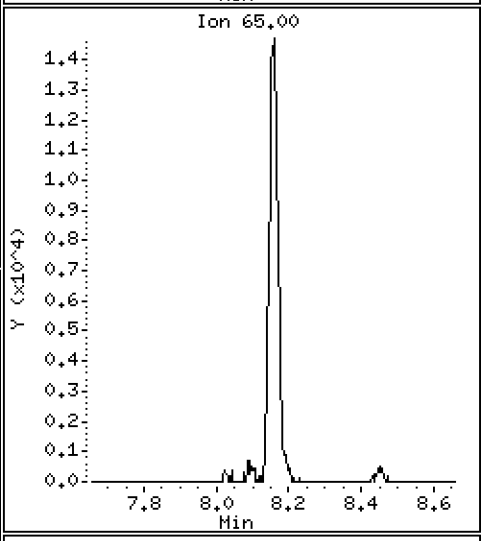
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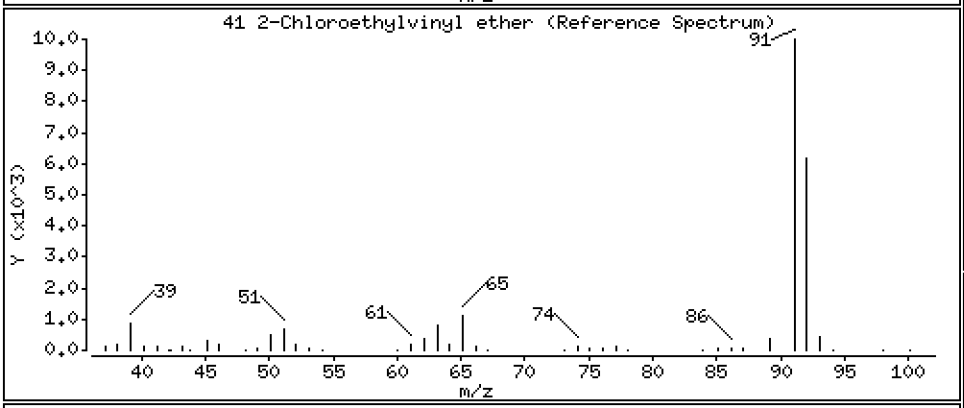
41 2-Chloroethylvinyl ether Concentration: 36.94 ug/l Review Code:

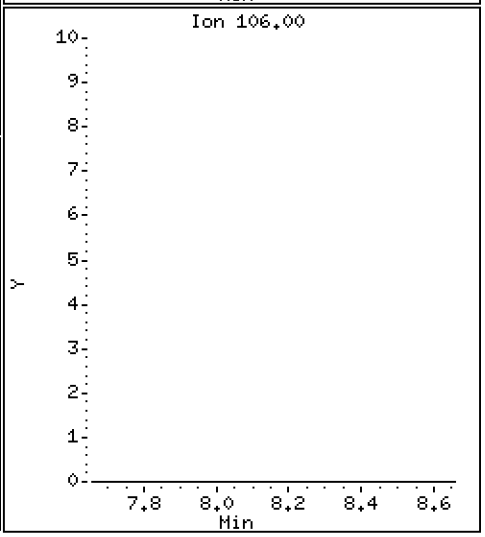


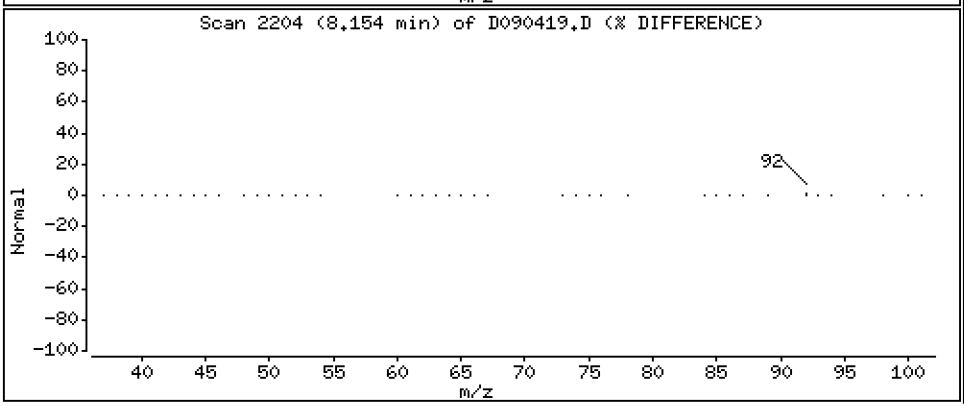












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 40

Date : 04-SEP-2018 18:03

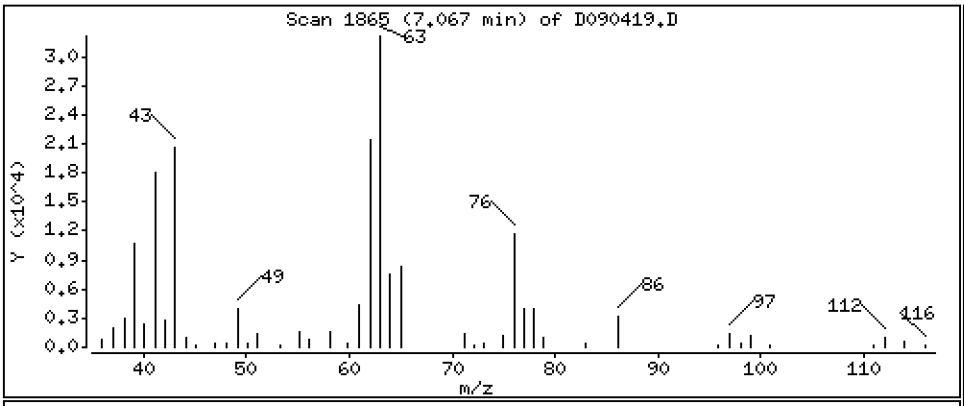
Client ID: HS18081504-01MSD Instrument: VOA2.i

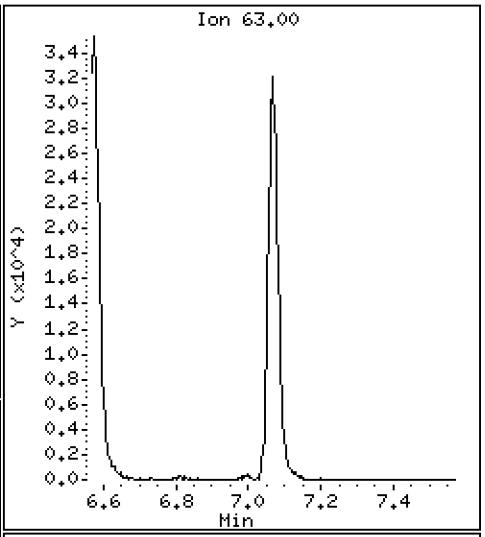
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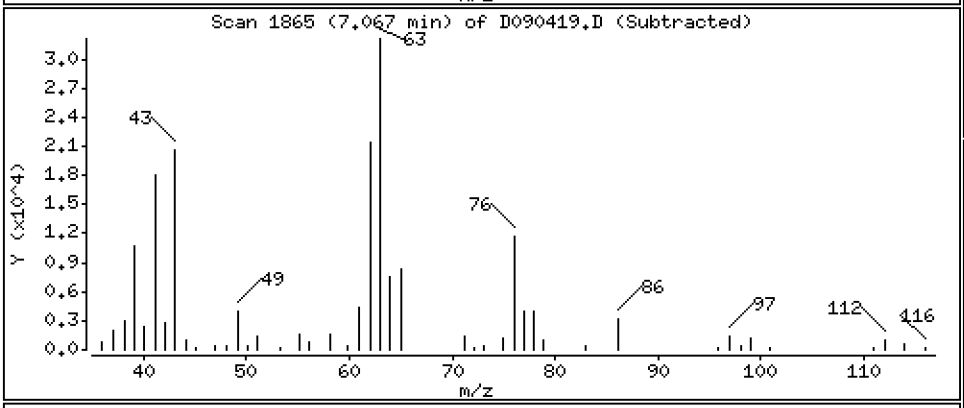
Purge Volume: 5.0 Operator: AP

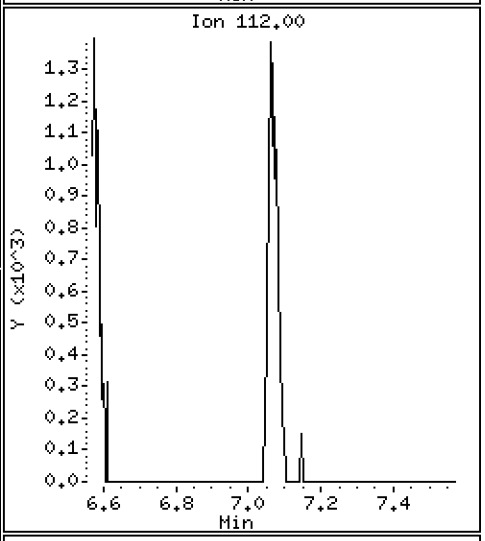
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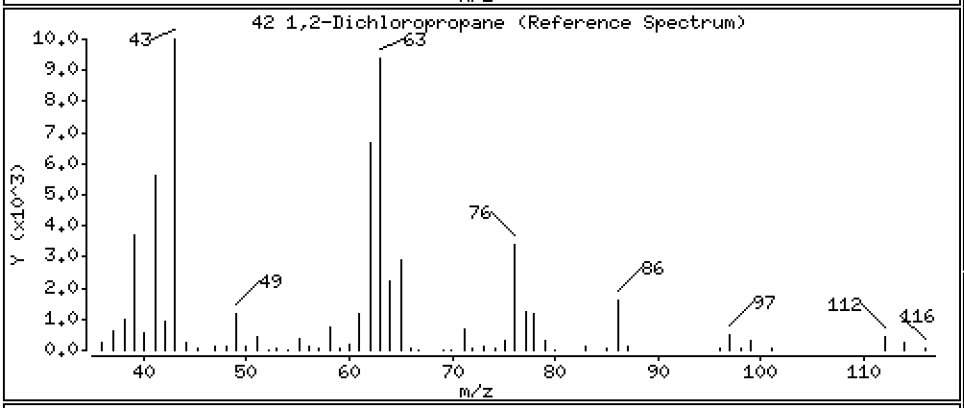
42 1,2-Dichloropropane Concentration: 18.12 ug/l Review Code:

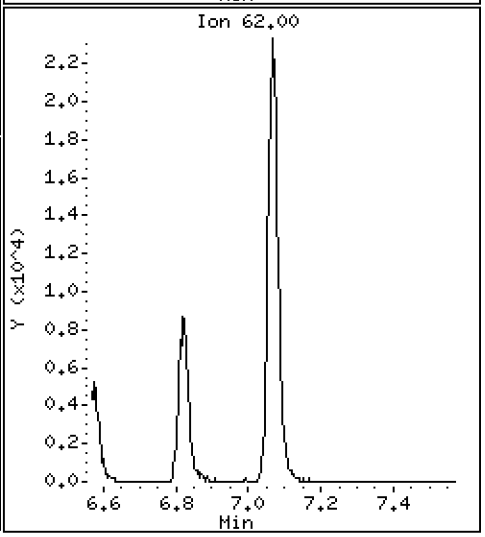


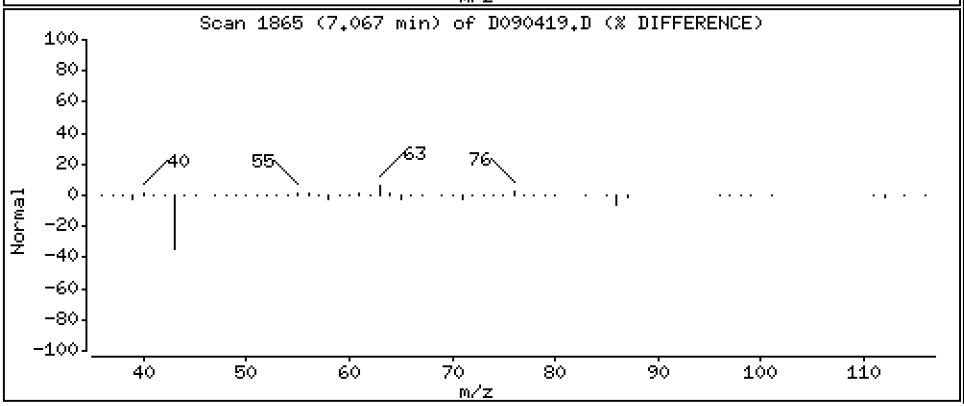












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 41

Date : 04-SEP-2018 18:03

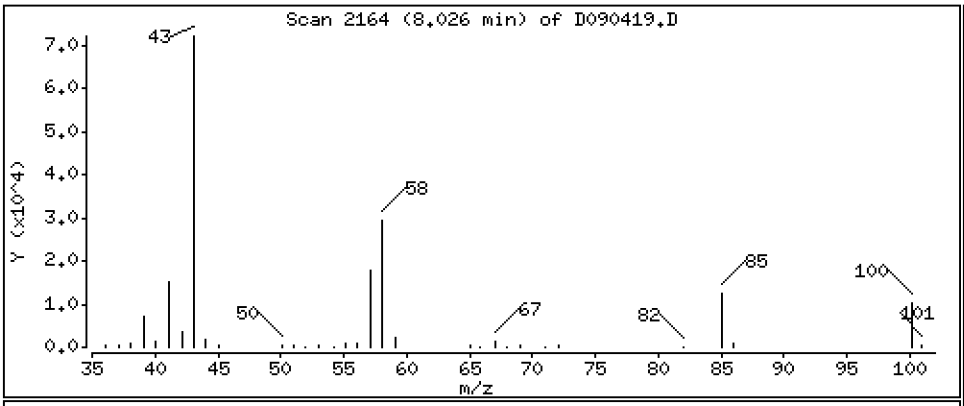
Client ID: HS18081504-01MSD Instrument: VOA2.i

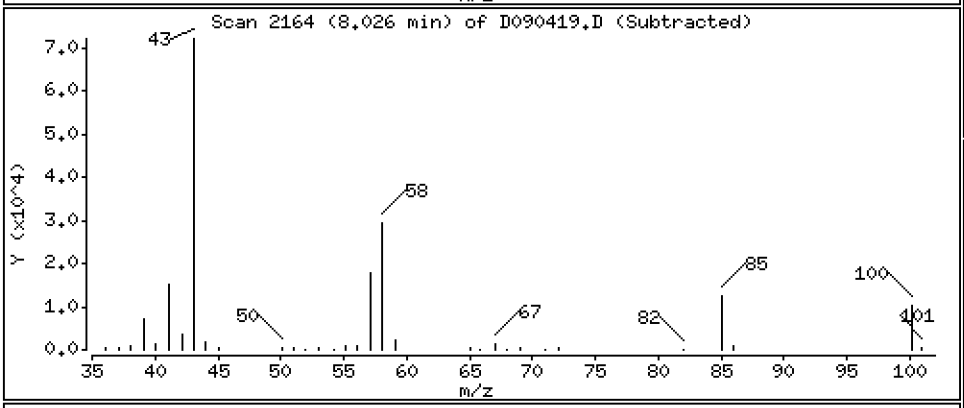
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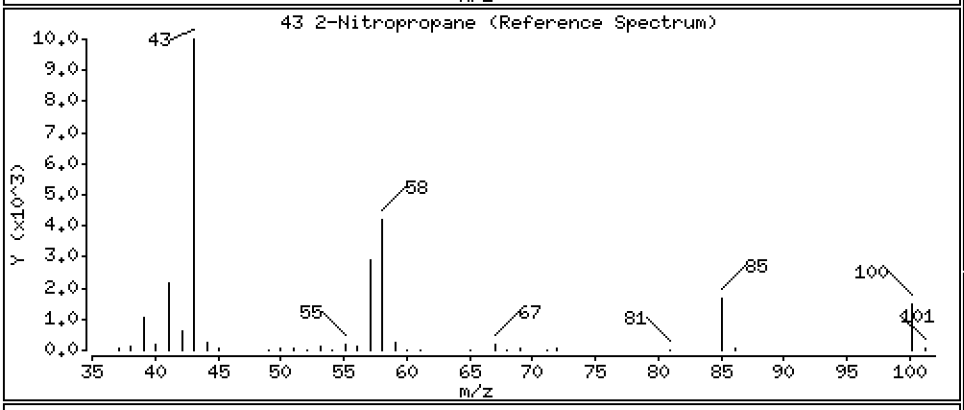
Purge Volume: 5.0 Operator: AP

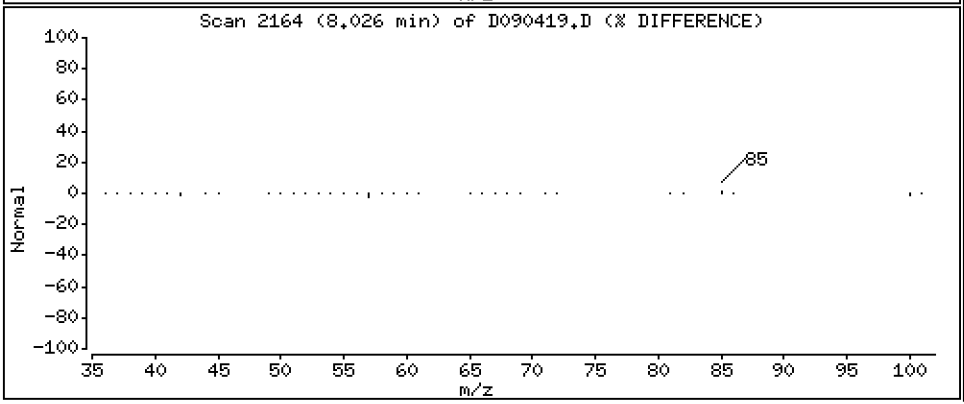
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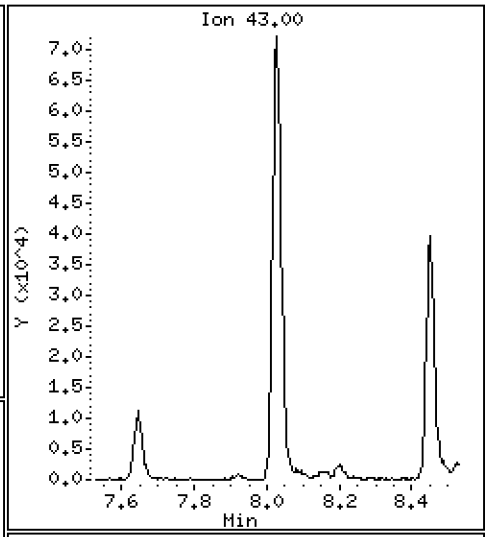
43 2-Nitropropane Concentration: 16.56 ug/l Review Code:

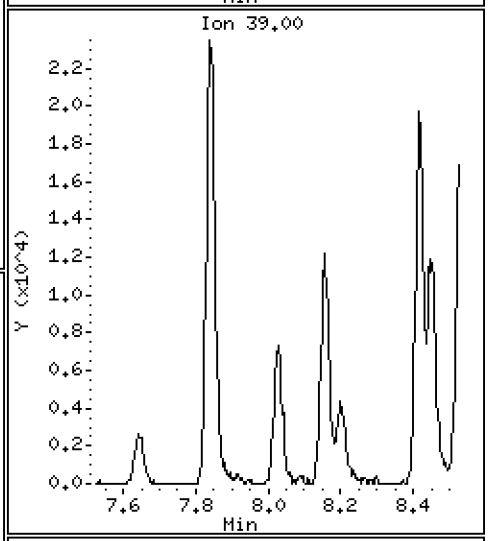


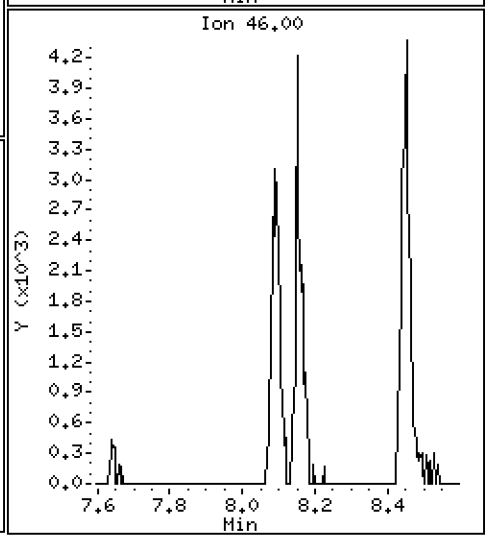












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 42

Date : 04-SEP-2018 18:03

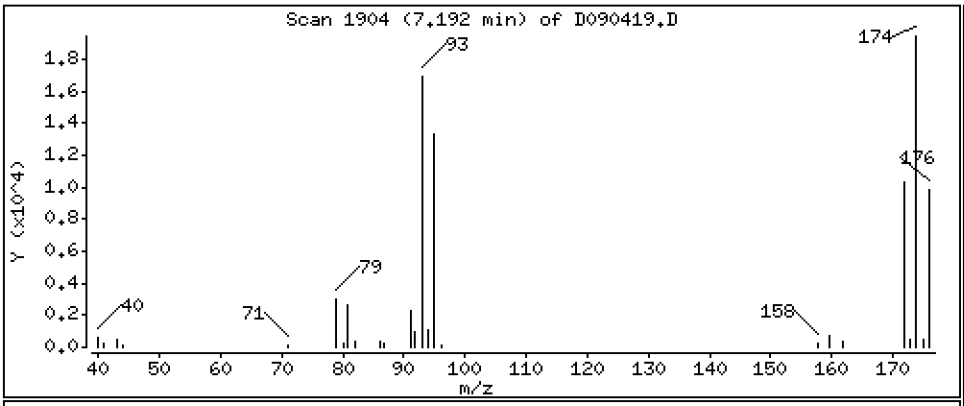
Client ID: HS18081504-01MSD Instrument: VOA2.i

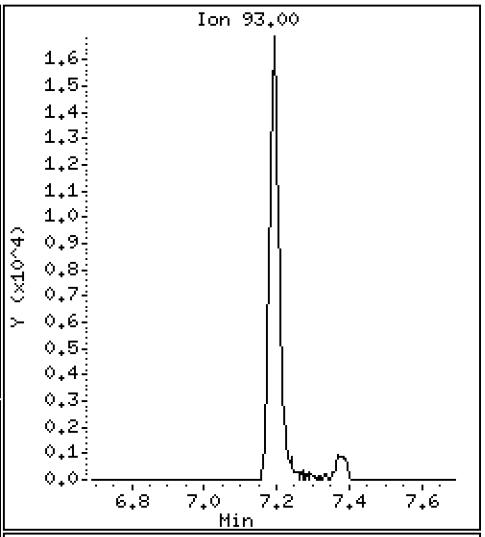
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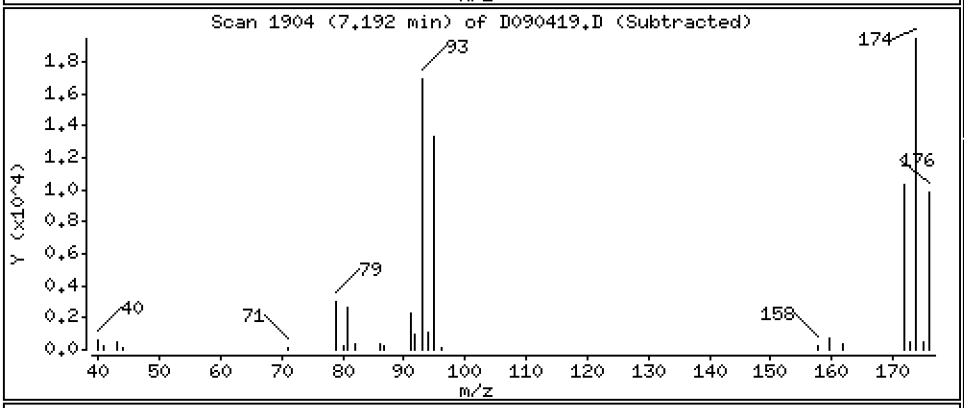
Purge Volume: 5.0 Operator: AP

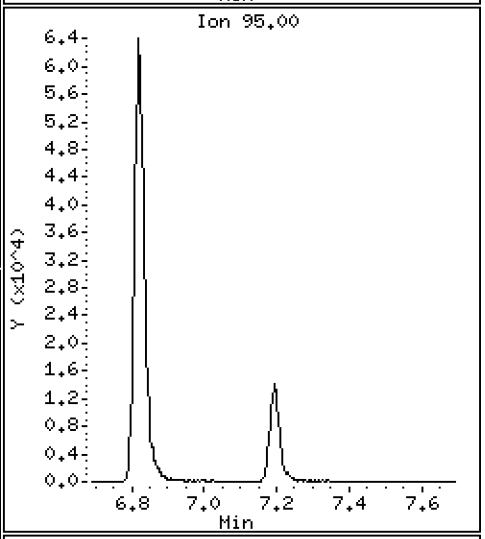
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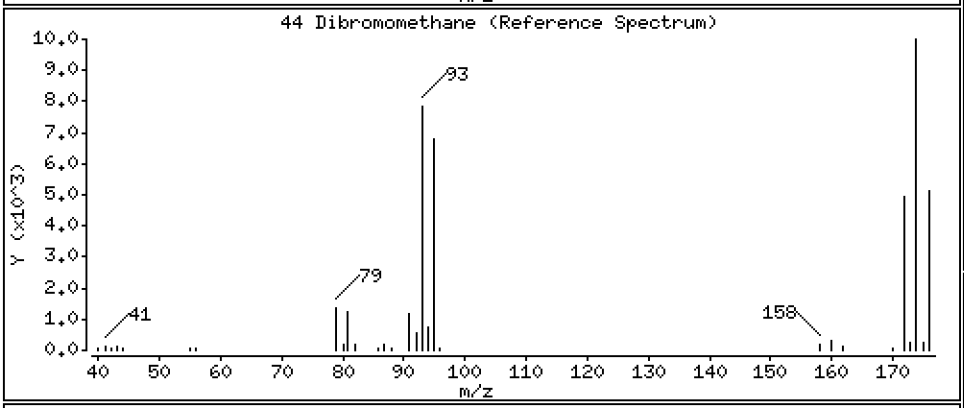
44 Dibromomethane Concentration: 18.59 ug/l Review Code:

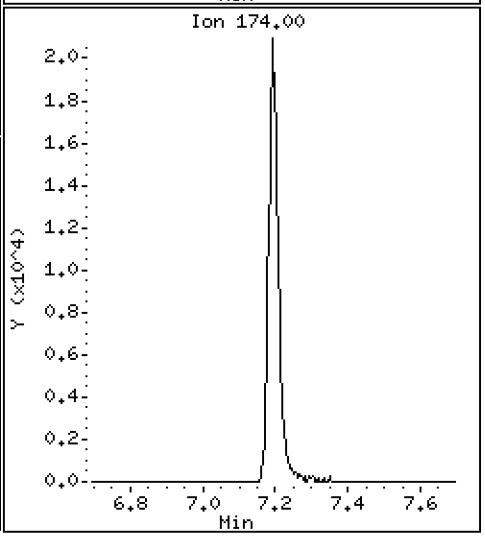


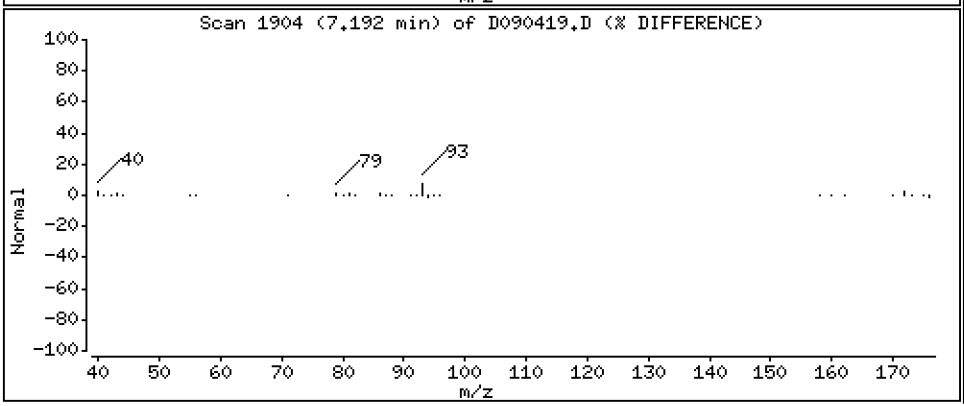












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 43

Date : 04-SEP-2018 18:03

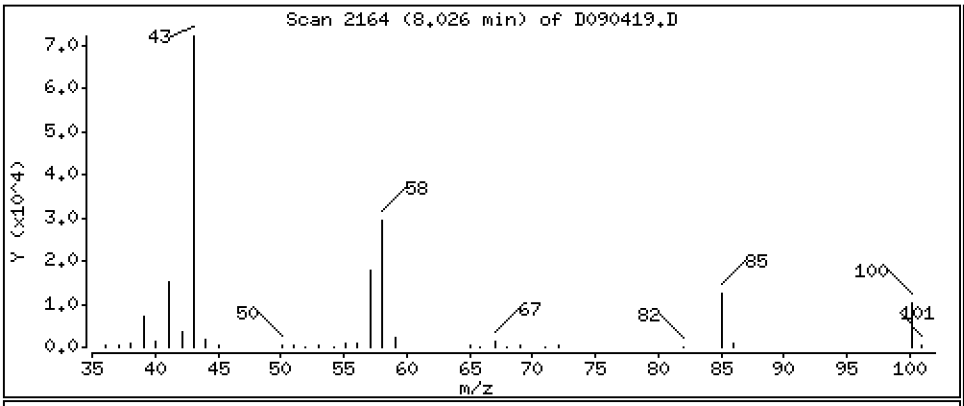
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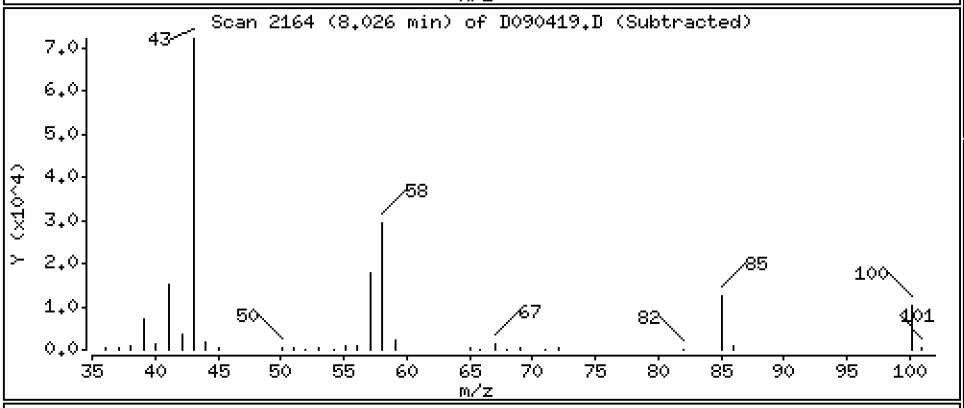
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

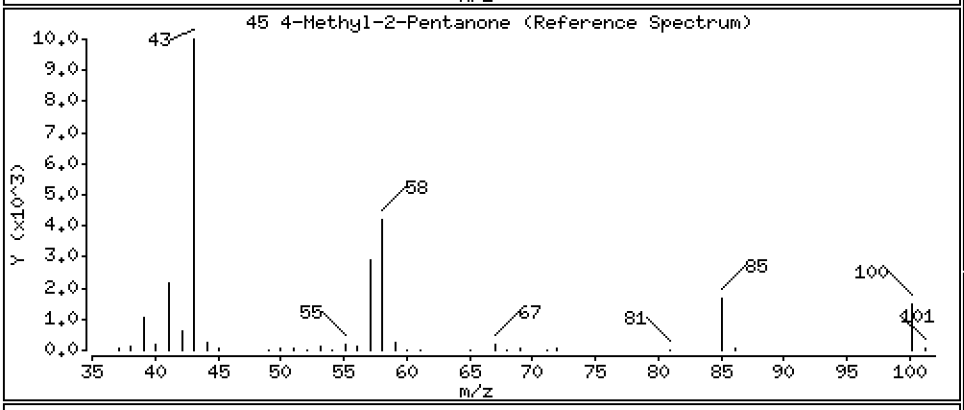
Purge Volume: 5.0 Operator: AP

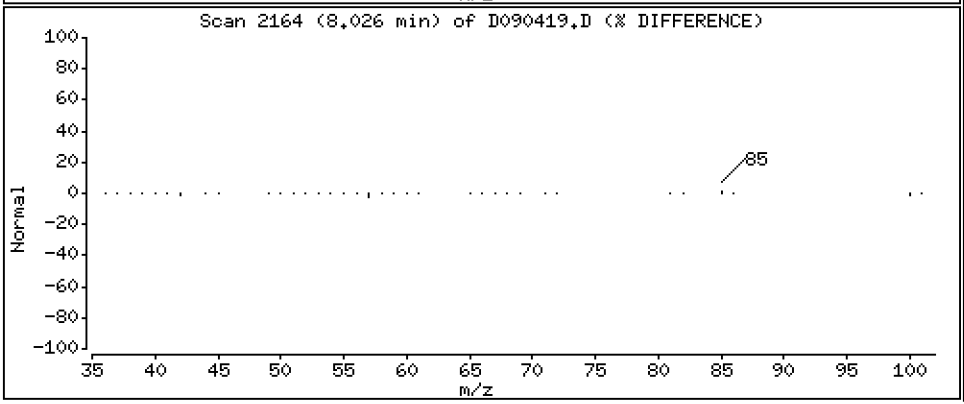
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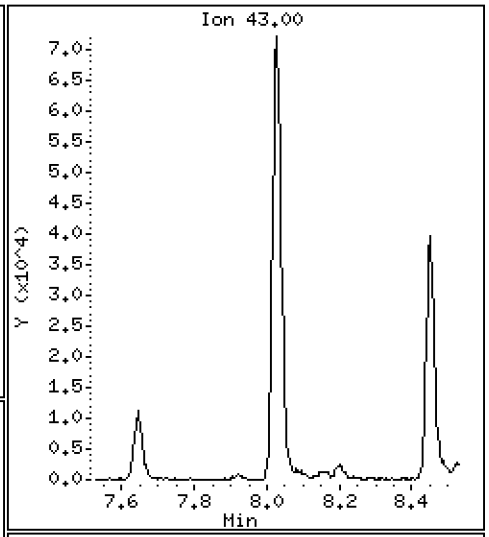
45 4-Methyl-2-Pentanone Concentration: 34.49 ug/l Review Code:

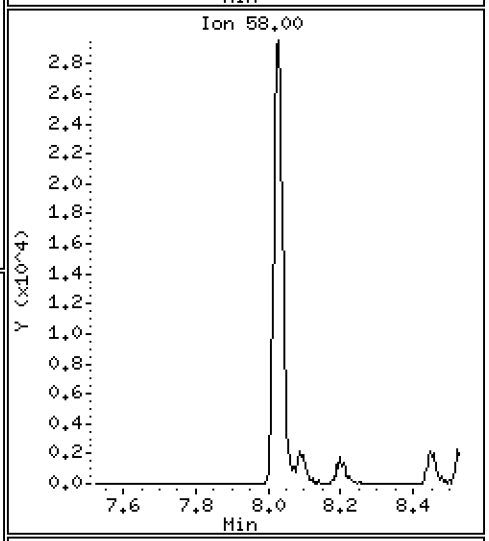


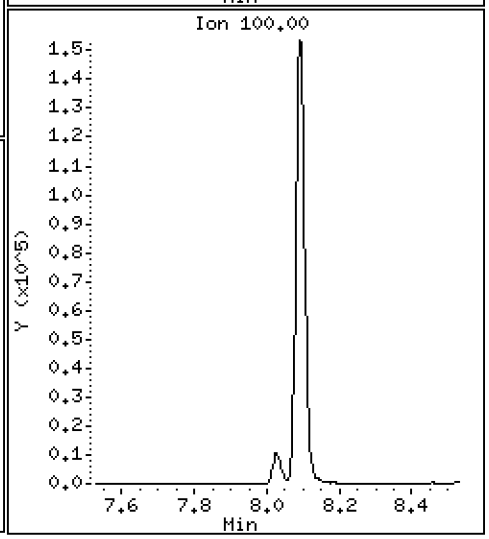












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 44

Date : 04-SEP-2018 18:03

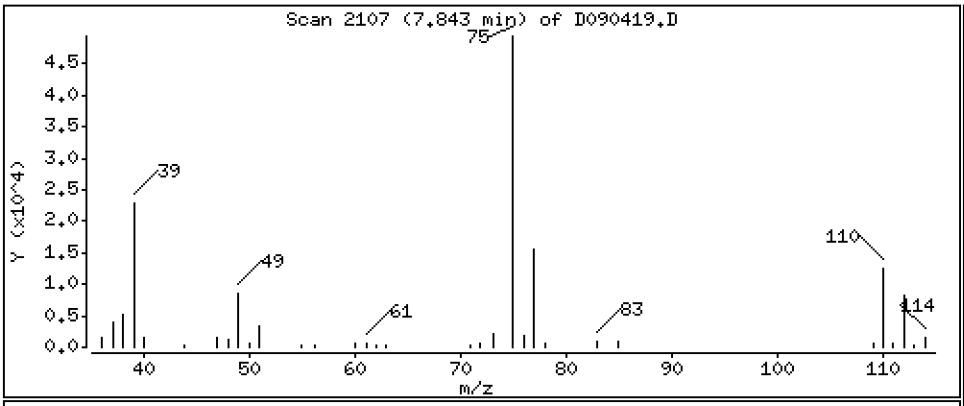
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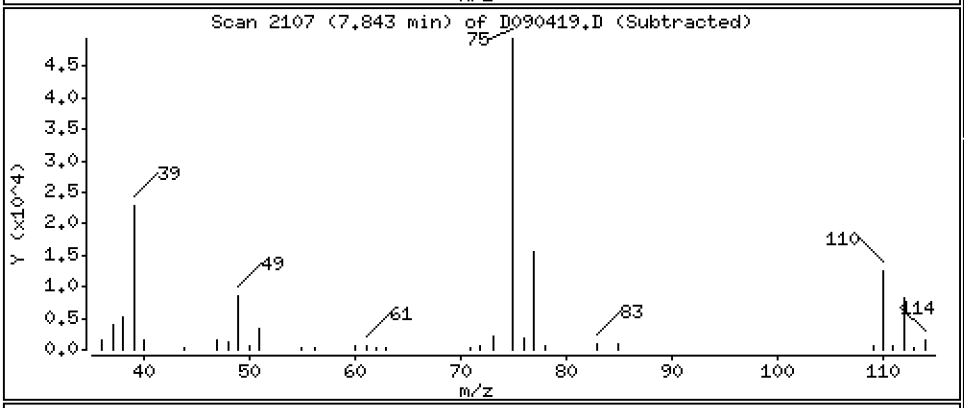
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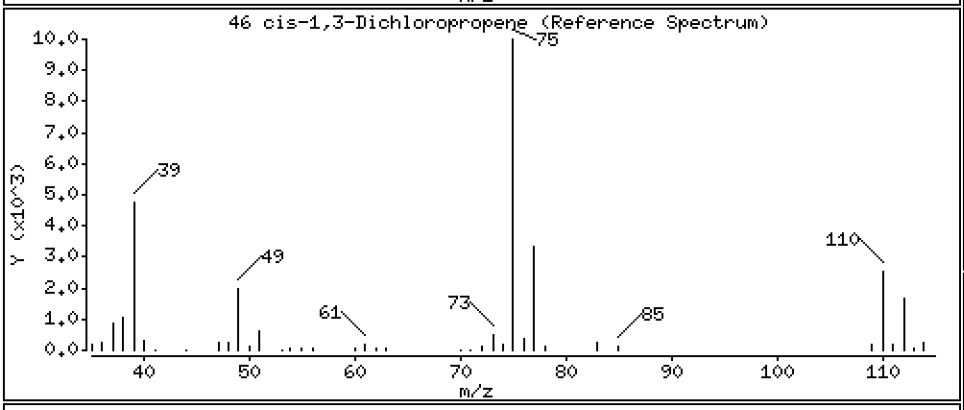
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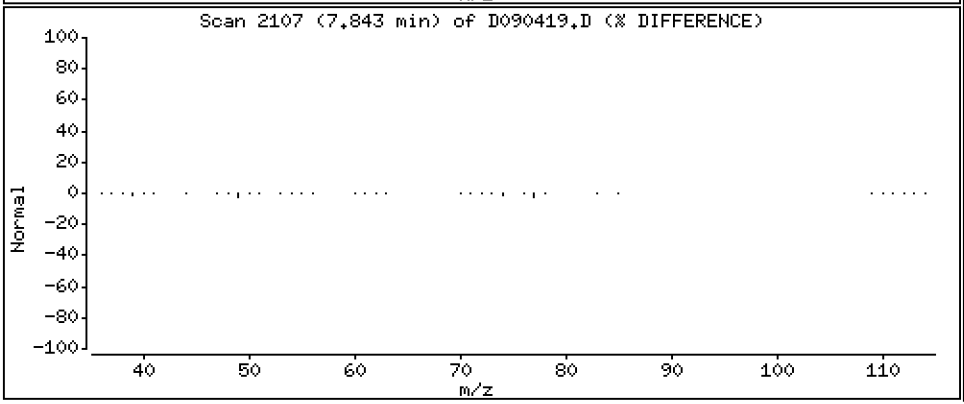
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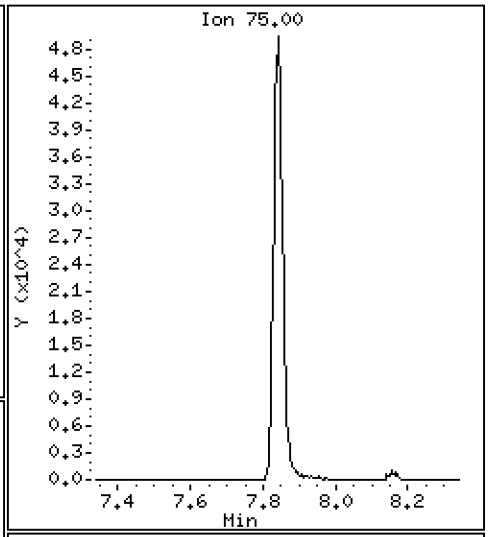
46 cis-1,3-Dichloropropene Concentration: 19.64 ug/l Review Code:

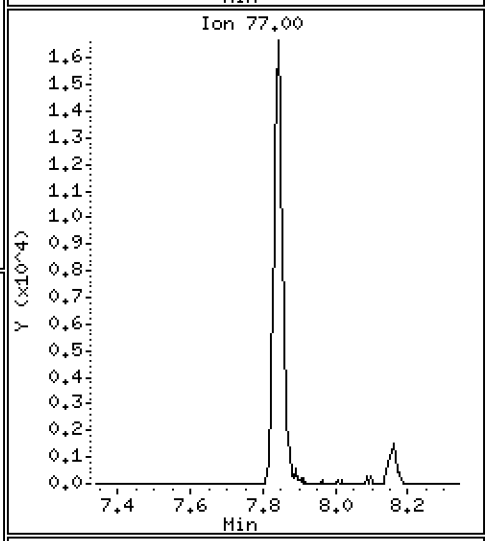


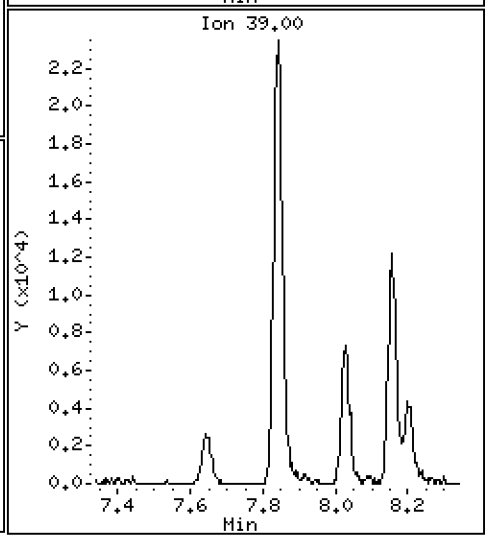












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 45

Date : 04-SEP-2018 18:03

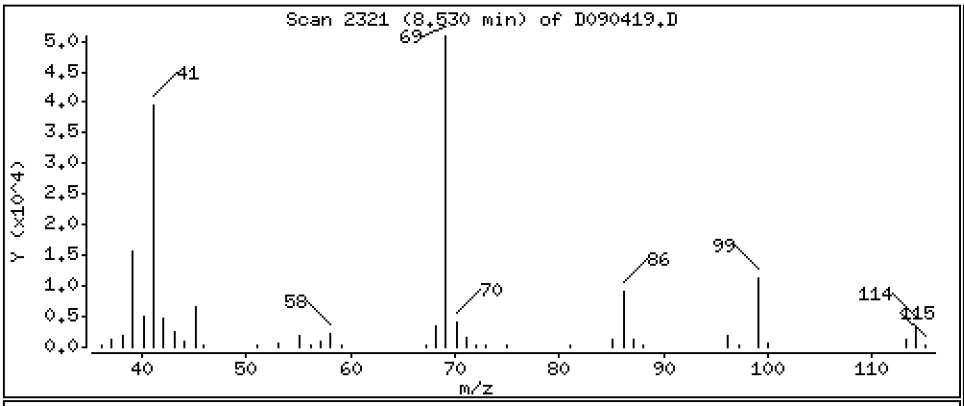
Client ID: HS18081504-01MSD Instrument: VOA2.i

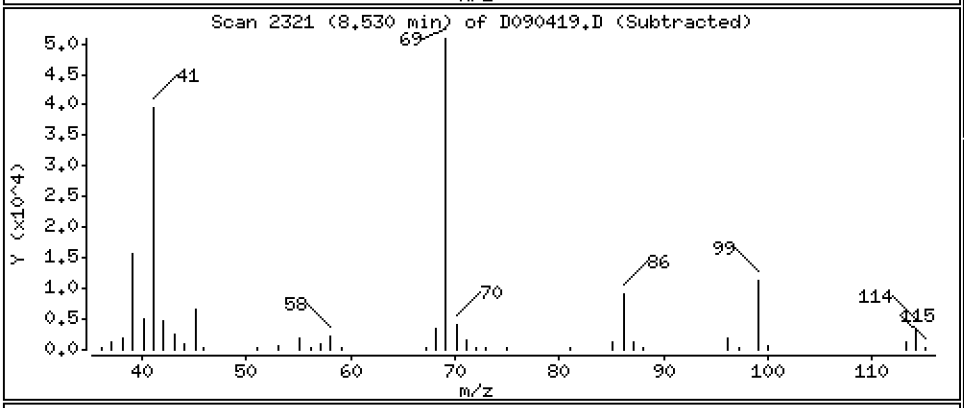
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

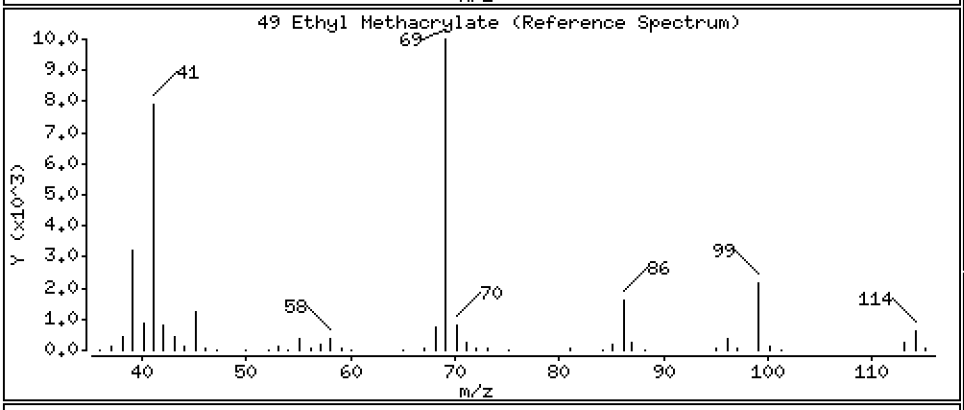
Purge Volume: 5.0 Operator: AP

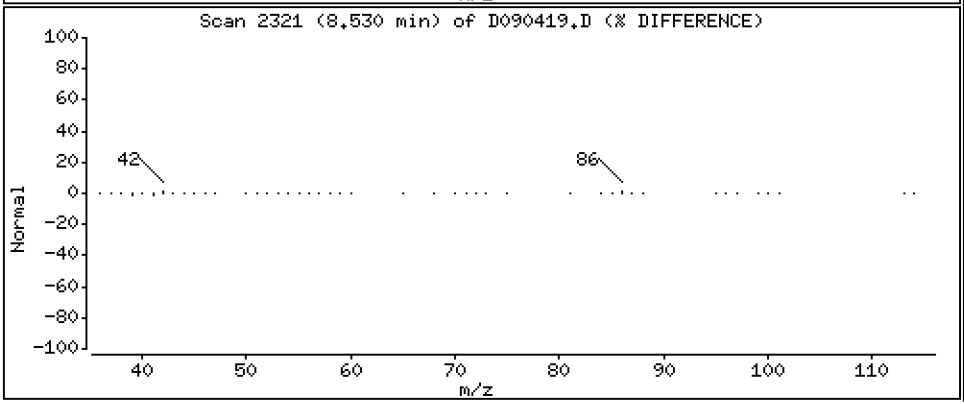
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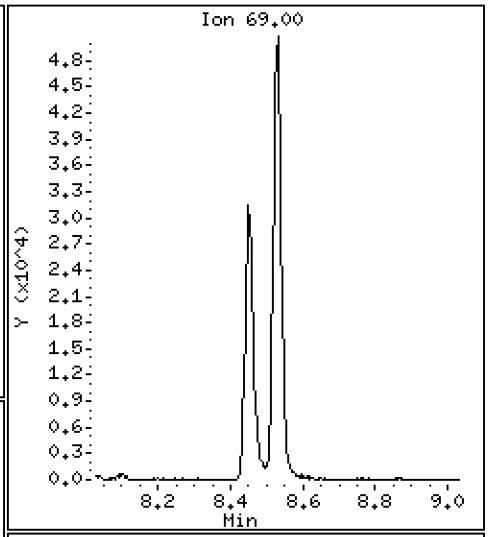
49 Ethyl Methacrylate Concentration: 18.40 ug/l Review Code:

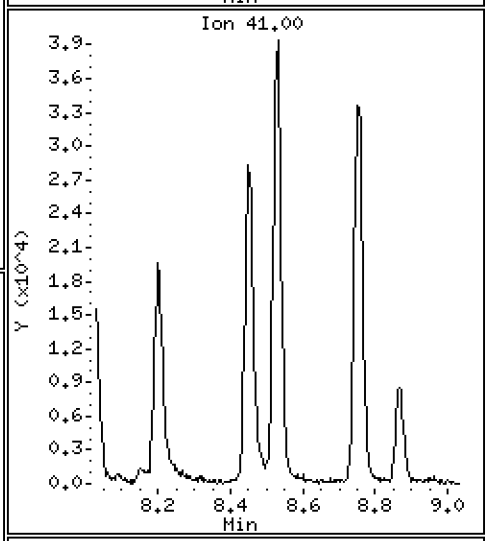


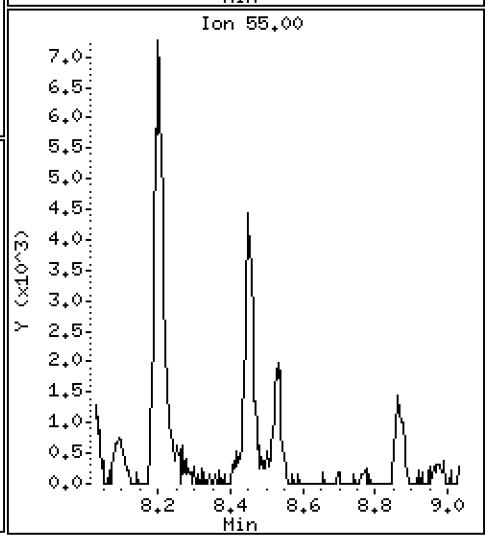












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 46

Date : 04-SEP-2018 18:03

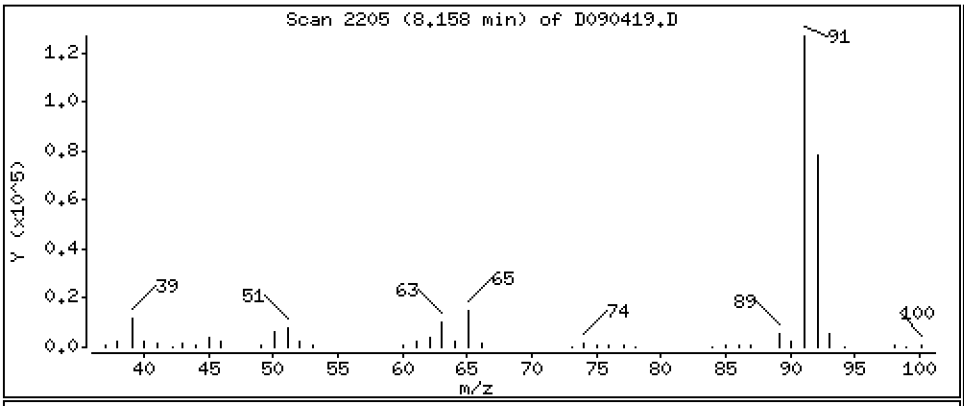
Client ID: HS18081504-01MSD Instrument: VOA2.i

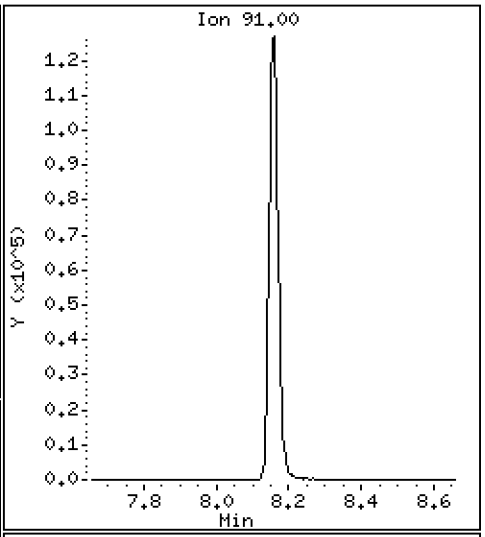
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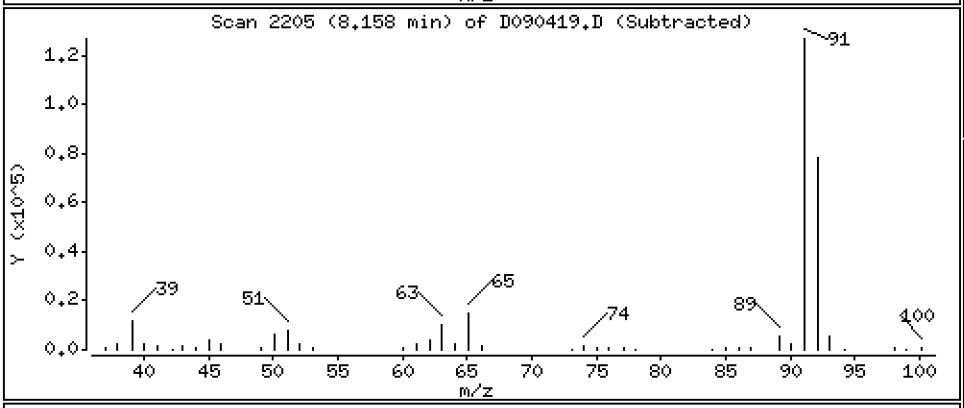
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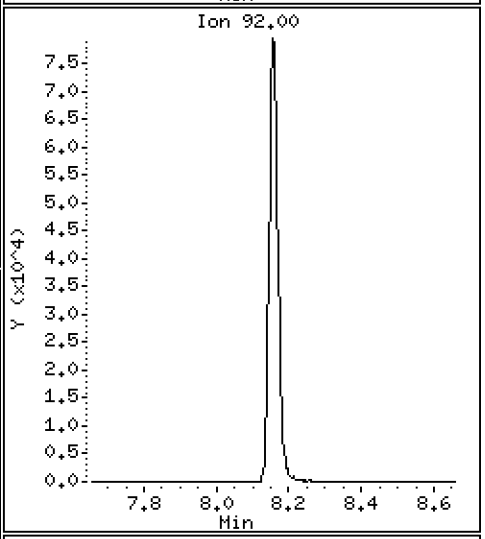
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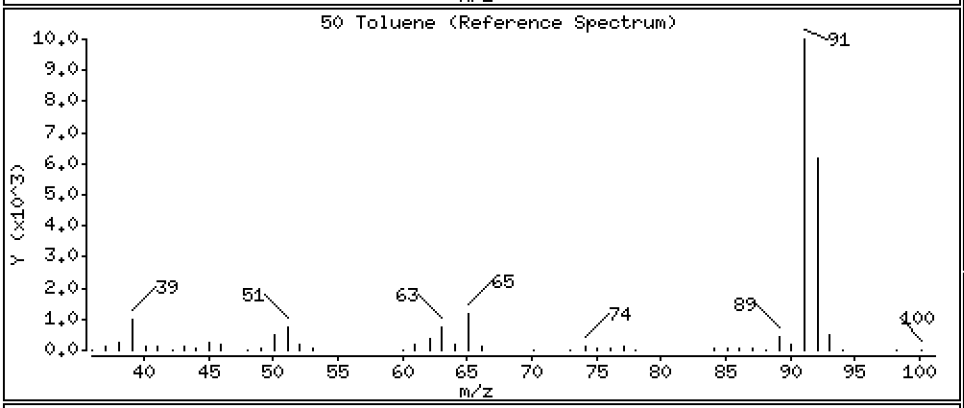
50 Toluene Concentration: 17.40 ug/l Review Code:

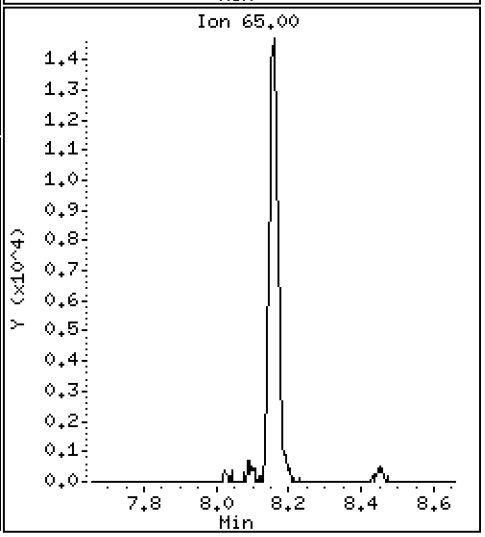


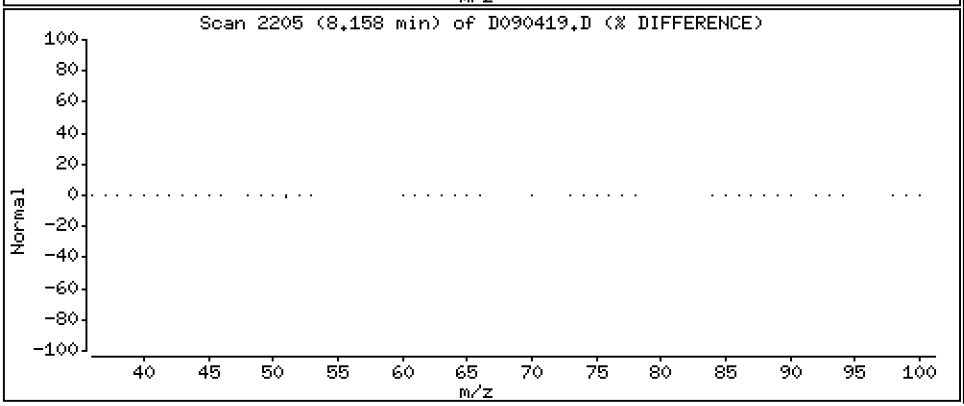












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 47

Date : 04-SEP-2018 18:03

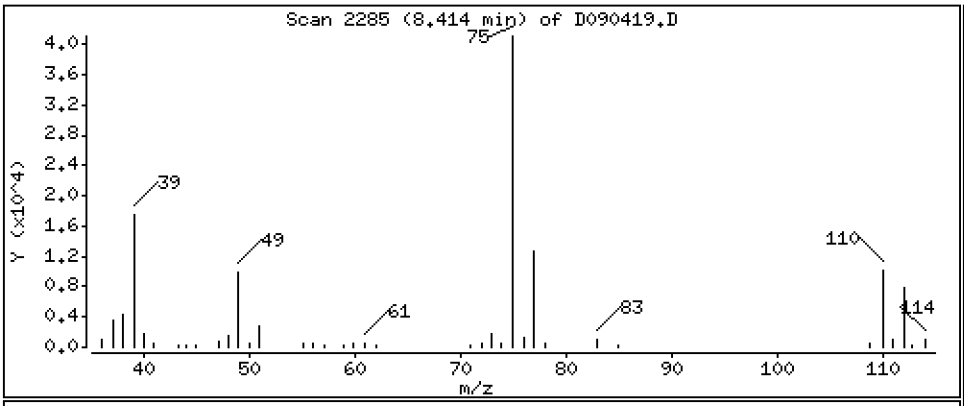
Client ID: HS18081504-01MSD Instrument: VOA2.i

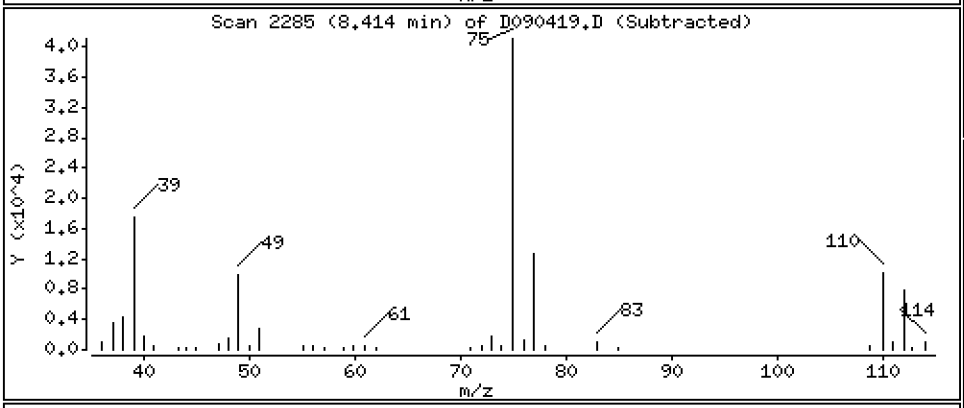
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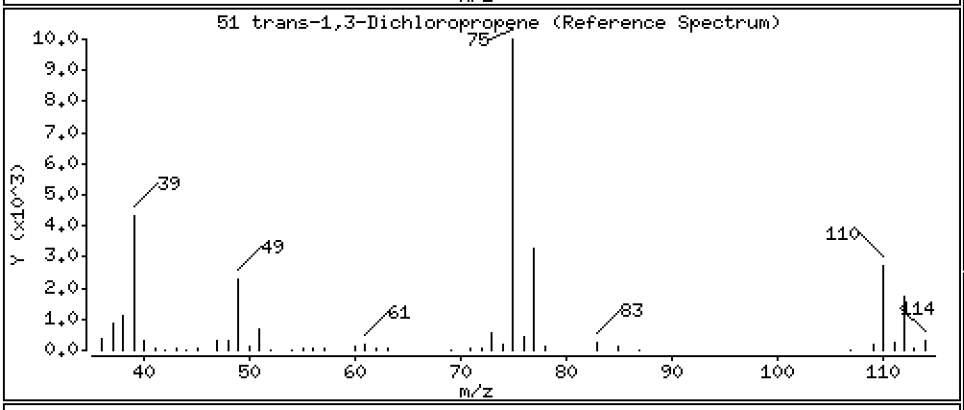
Purge Volume: 5.0 Operator: AP

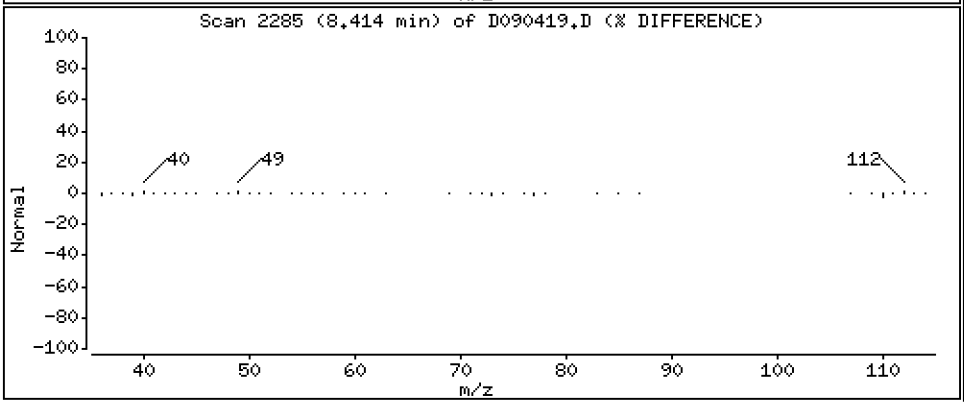
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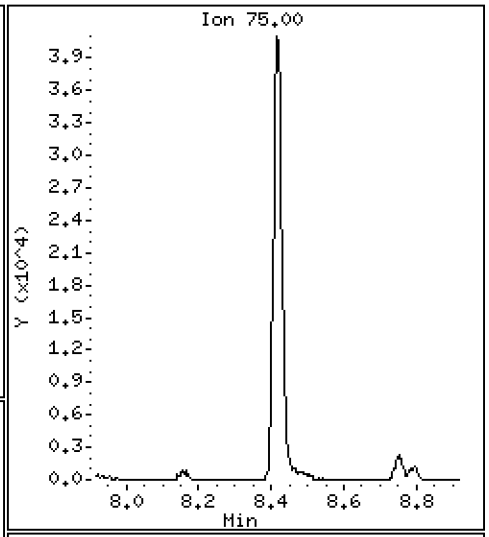
51 trans-1,3-Dichloropropene Concentration: 20.02 ug/l Review Code:

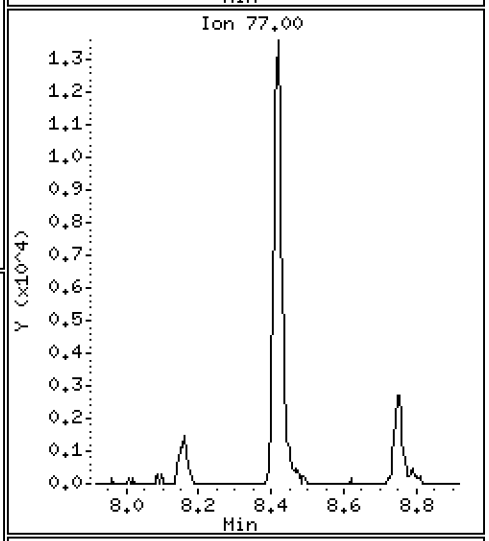


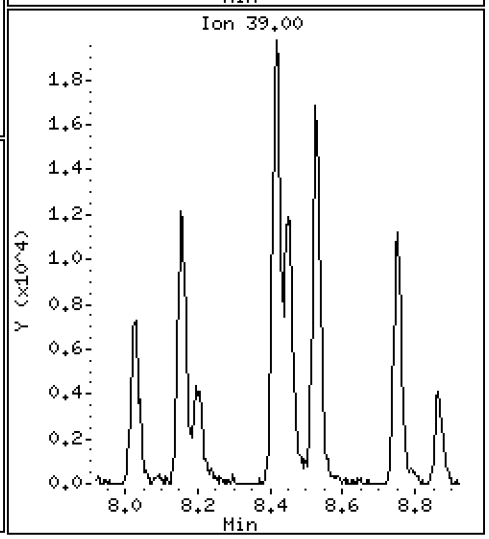












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 48

Date : 04-SEP-2018 18:03

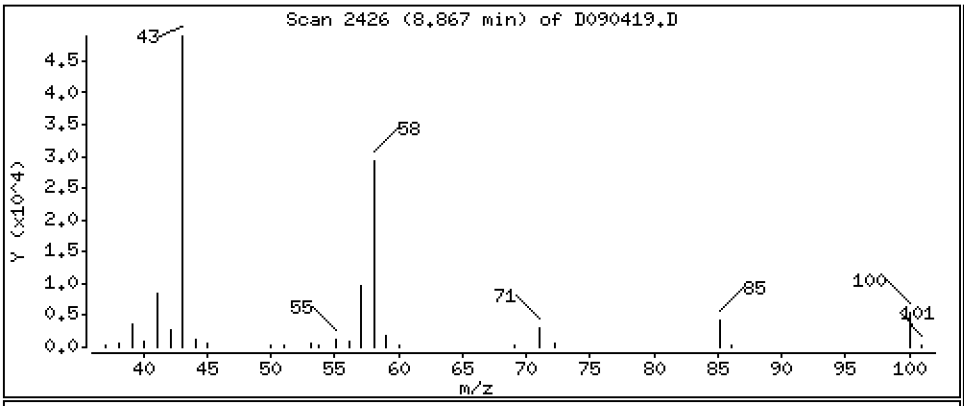
Client ID: HS18081504-01MSD Instrument: VOA2.i

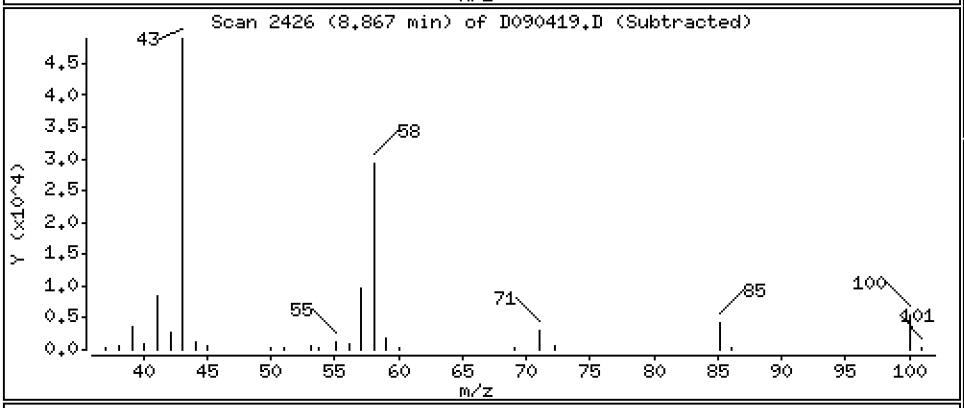
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

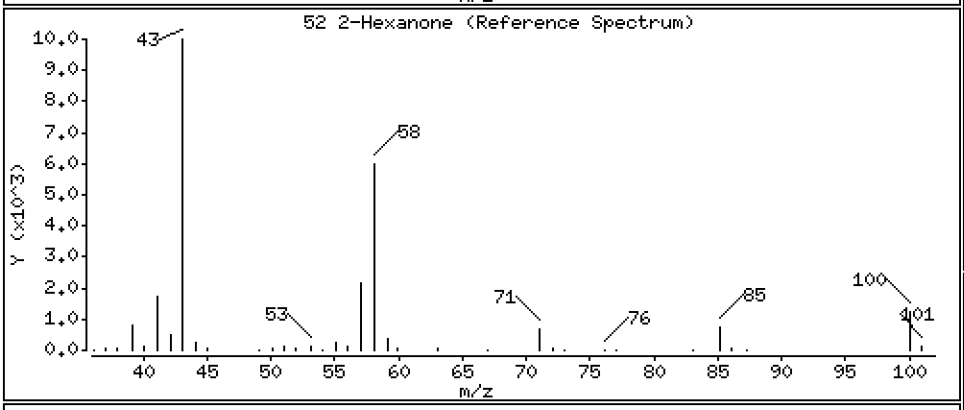
Purge Volume: 5.0 Operator: AP

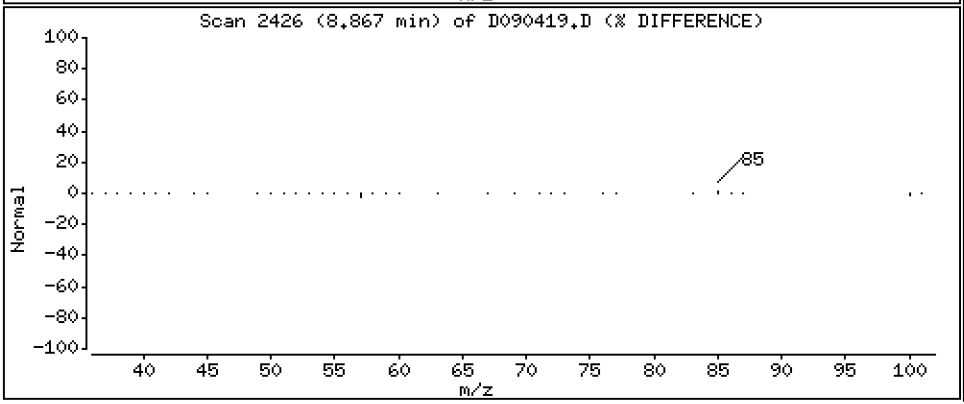
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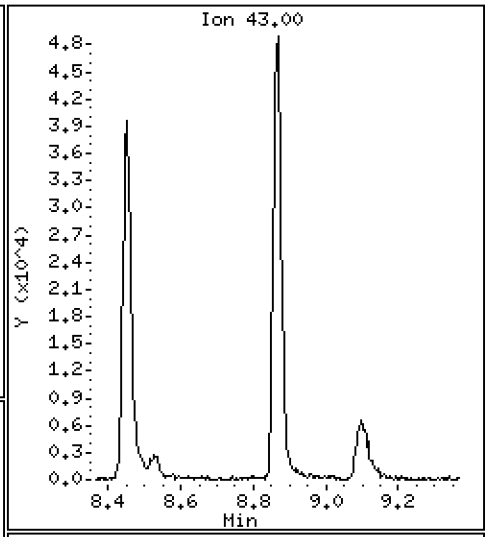
52 2-Hexanone Concentration: 33.42 ug/l Review Code:

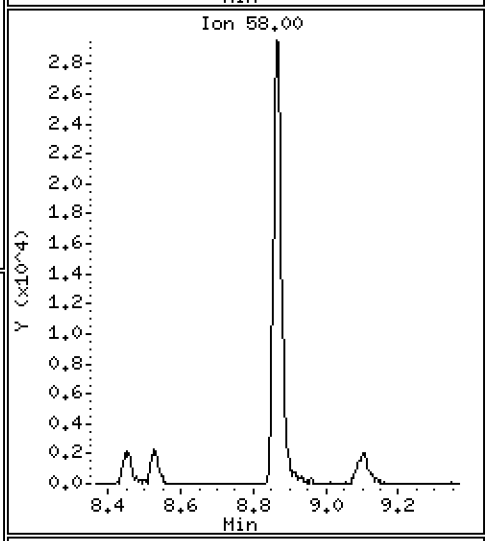


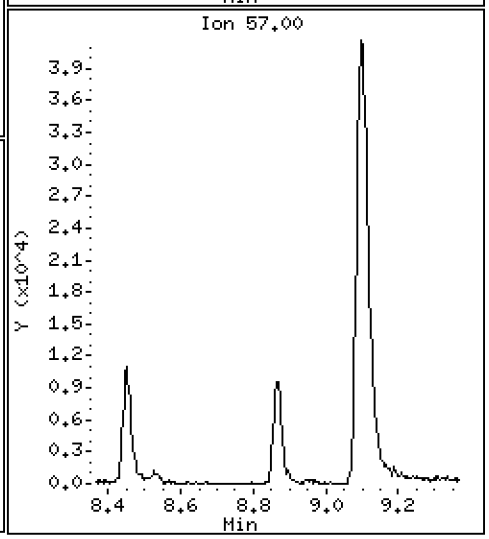












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 49

Date : 04-SEP-2018 18:03

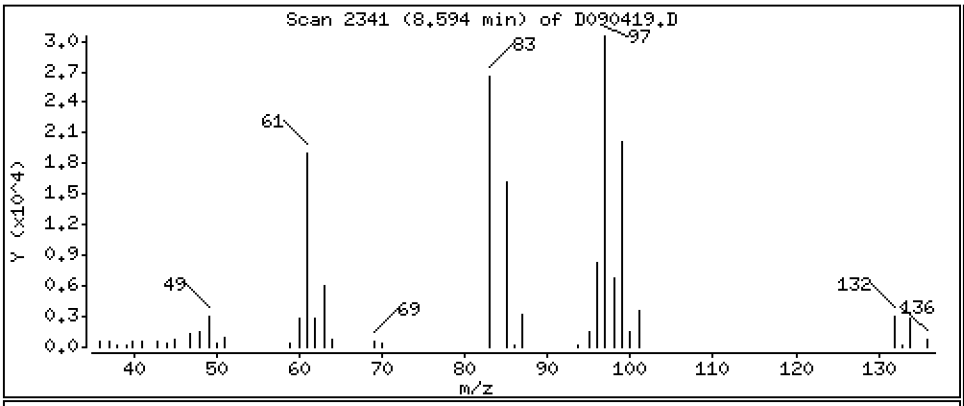
Client ID: HS18081504-01MSD Instrument: VOA2.i

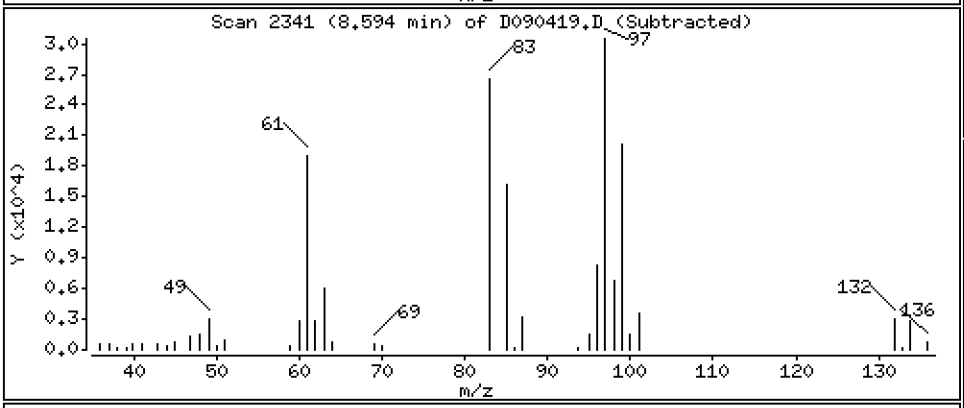
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

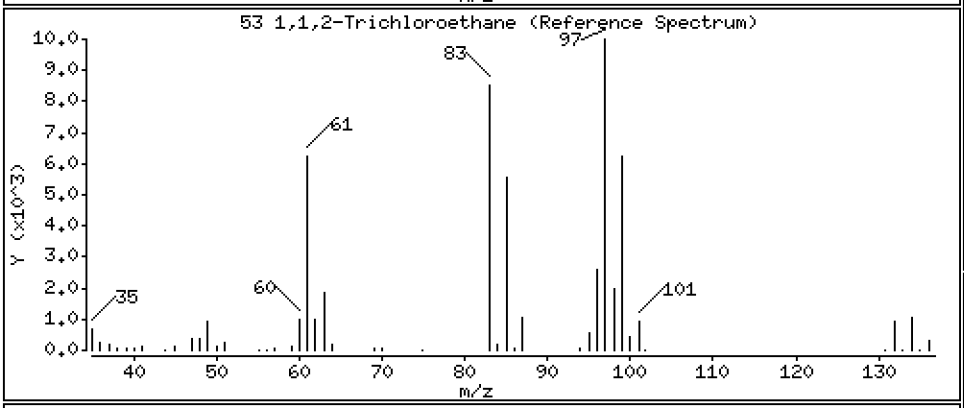
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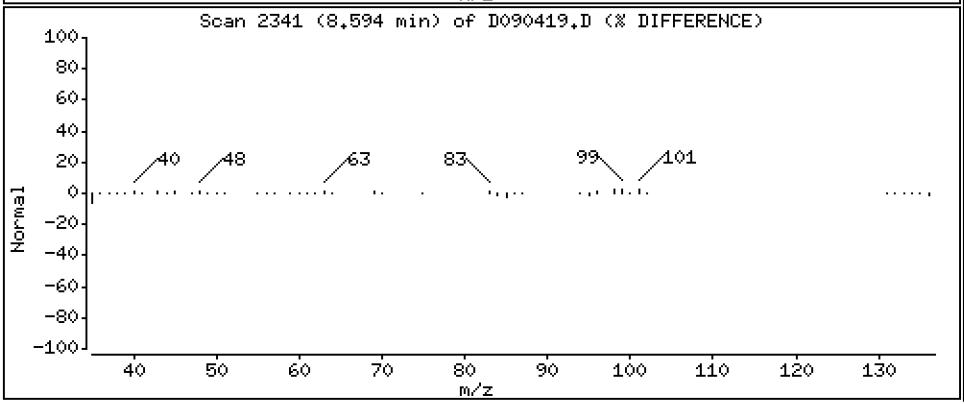
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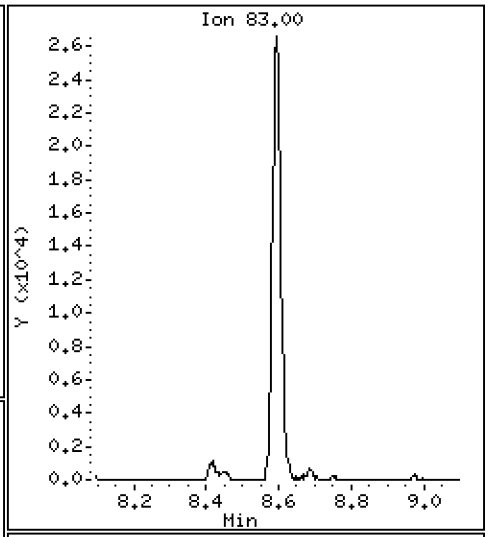
53 1,1,2-Trichloroethane Concentration: 17.34 ug/l Review Code:

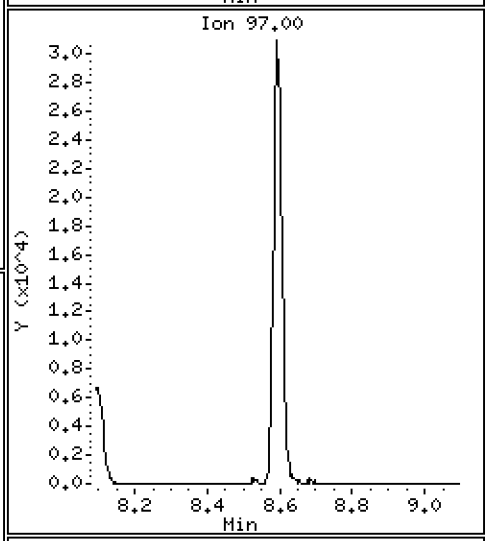


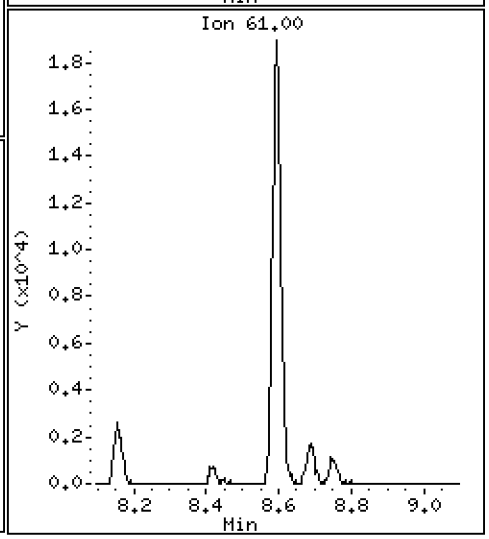












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 50

Date : 04-SEP-2018 18:03

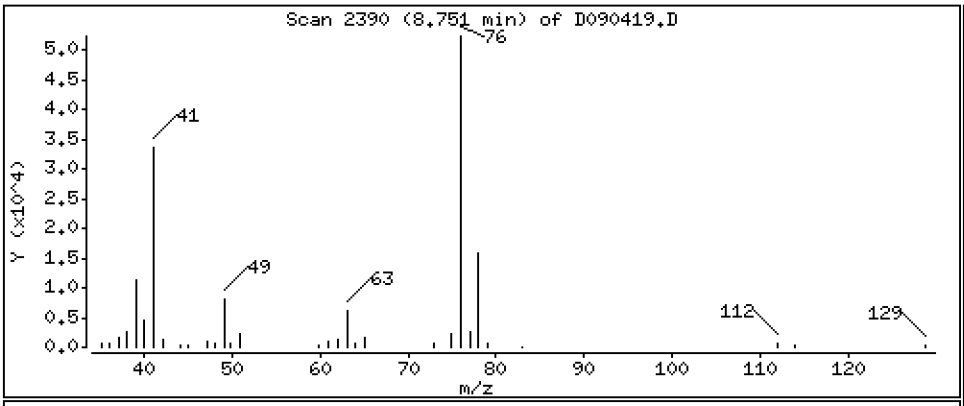
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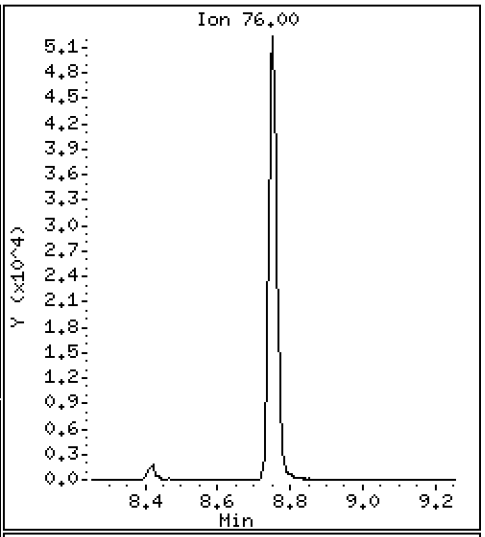
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

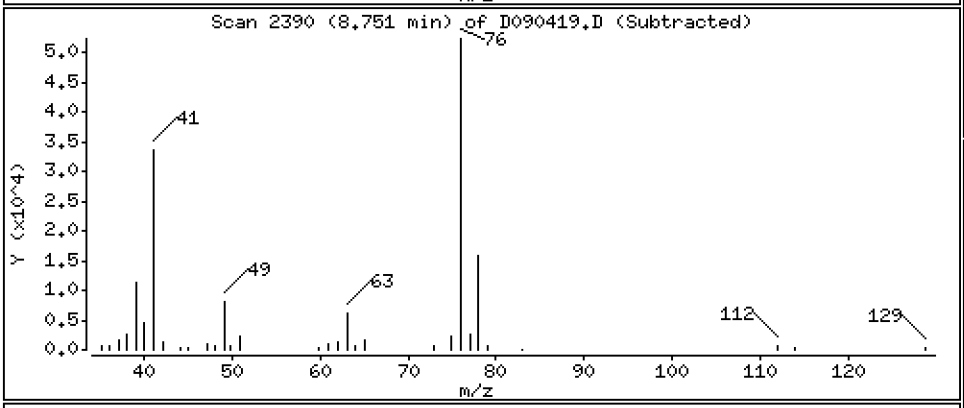
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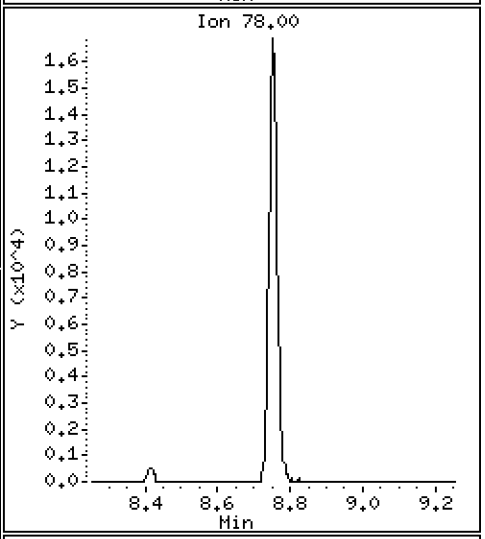
Column phase: DB624 Column diameter: 0.18

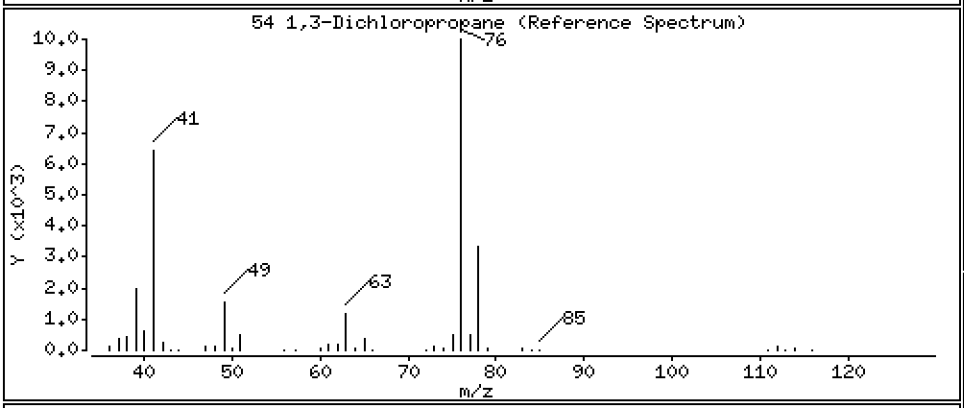
54 1,3-Dichloropropane Concentration: 17.19 ug/l Review Code:

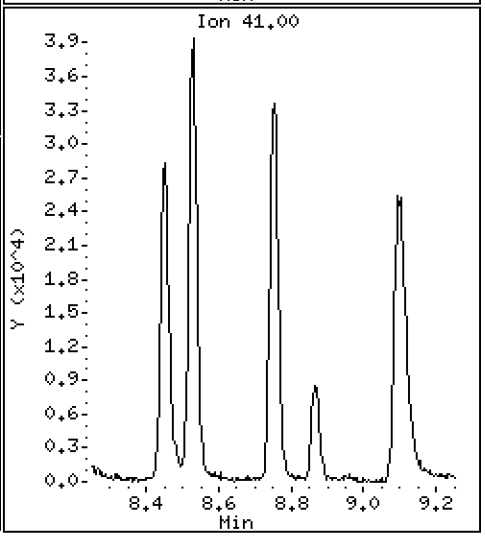


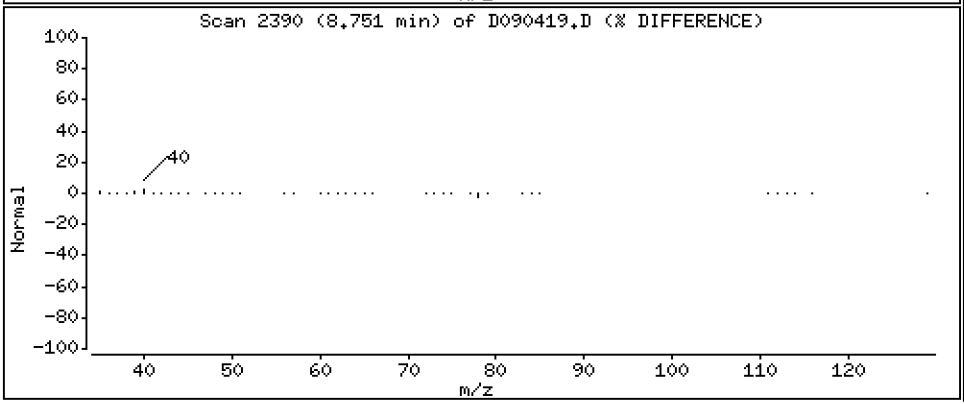












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 51

Date : 04-SEP-2018 18:03

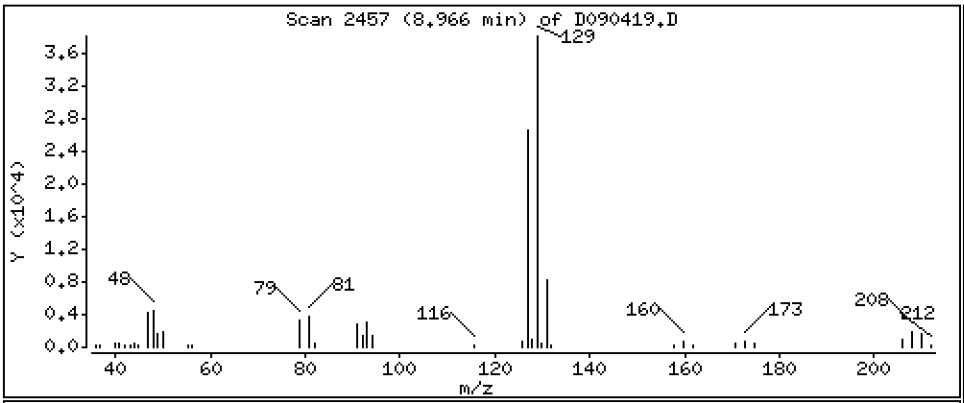
Client ID: HS18081504-01MSD Instrument: VOA2.i

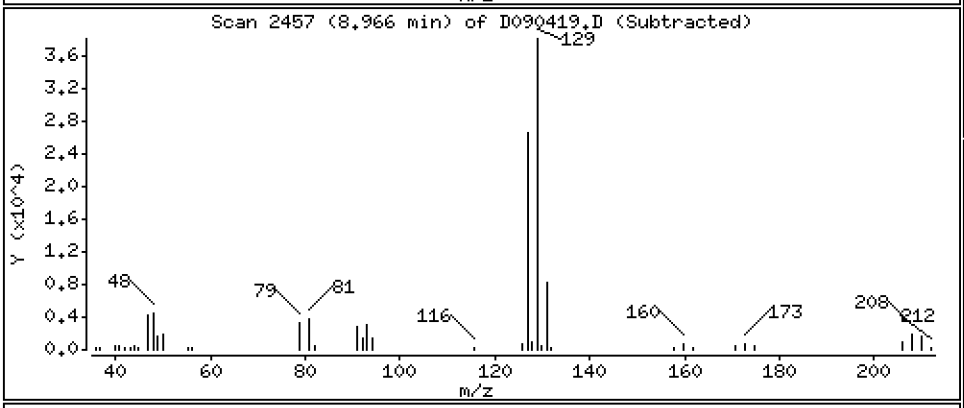
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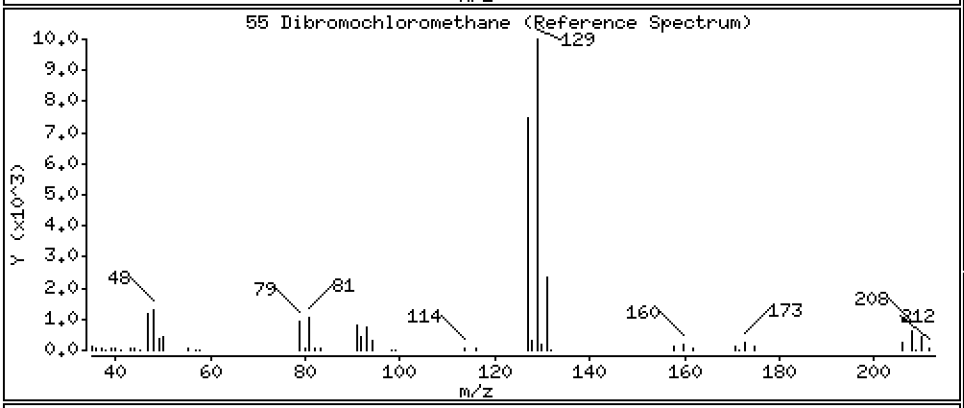
Purge Volume: 5.0 Operator: AP

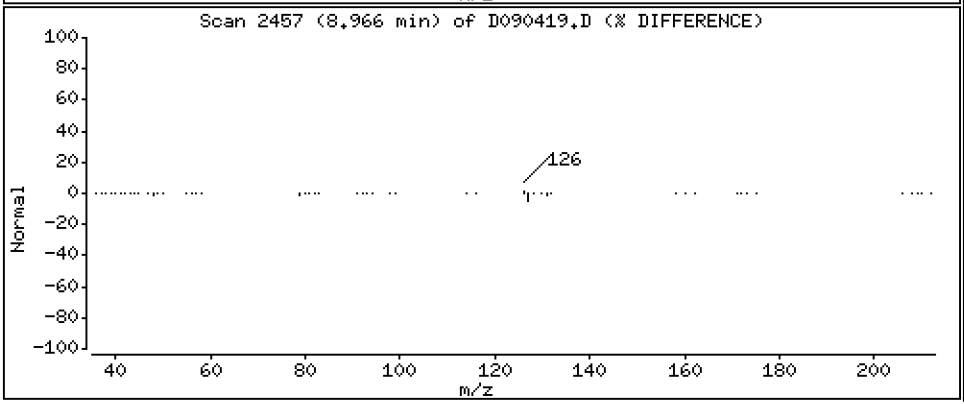
Column phase: DB624 Column diameter: 0.18

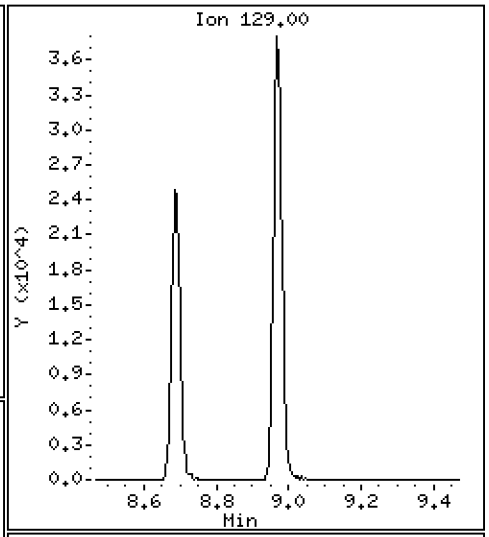
55 Dibromochloromethane Concentration: 17.96 ug/l Review Code:

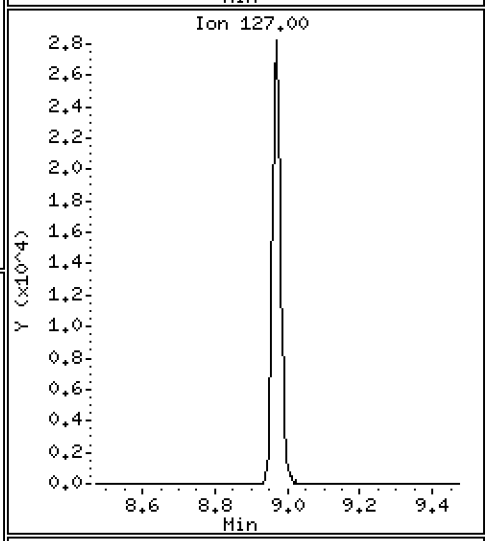


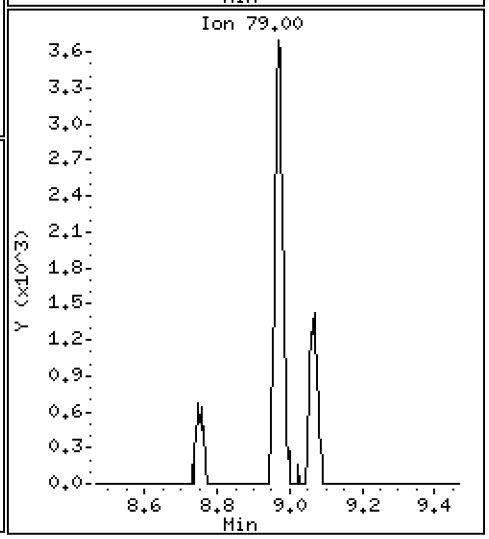












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 52

Date : 04-SEP-2018 18:03

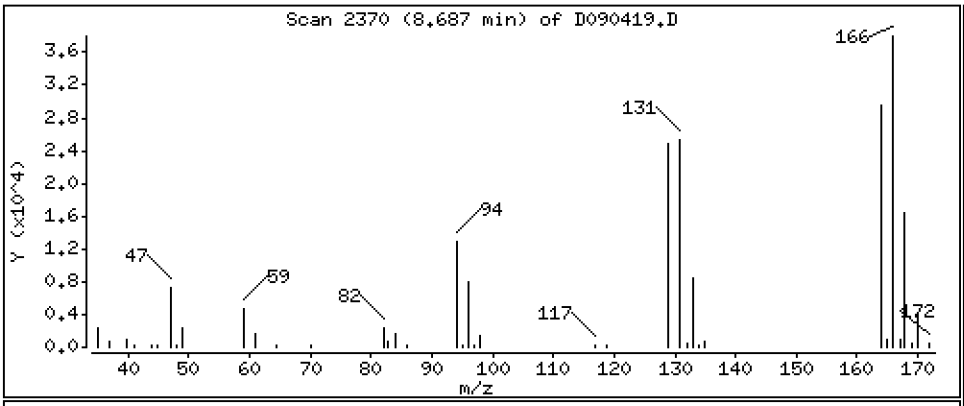
Client ID: HS18081504-01MSD Instrument: VOA2.i

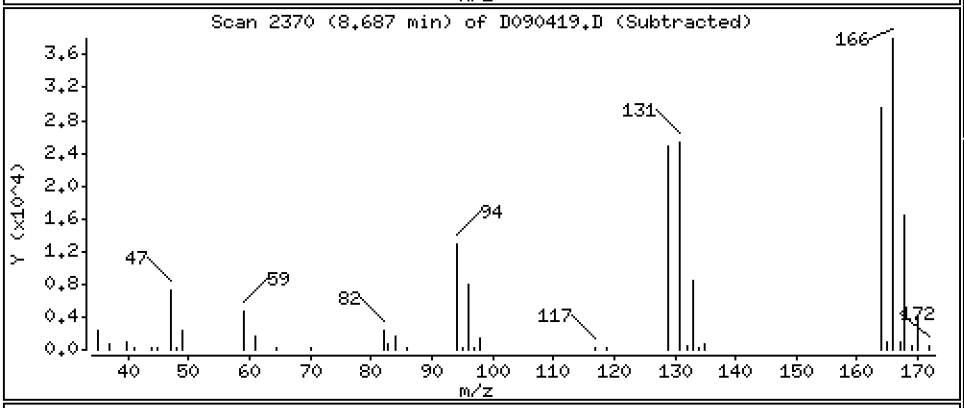
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

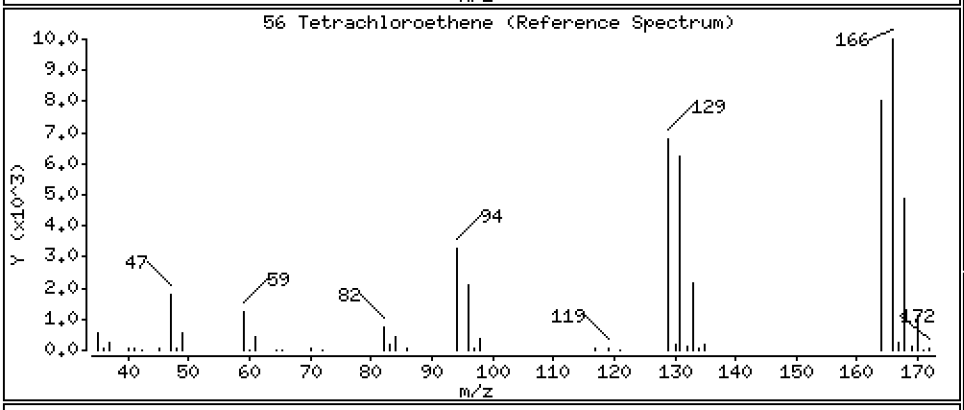
Purge Volume: 5.0 Operator: AP

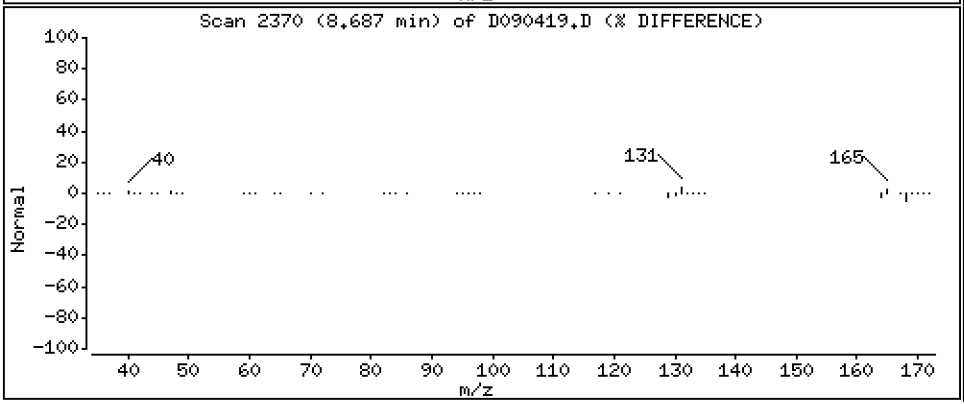
Column phase: DB624 Column diameter: 0.18

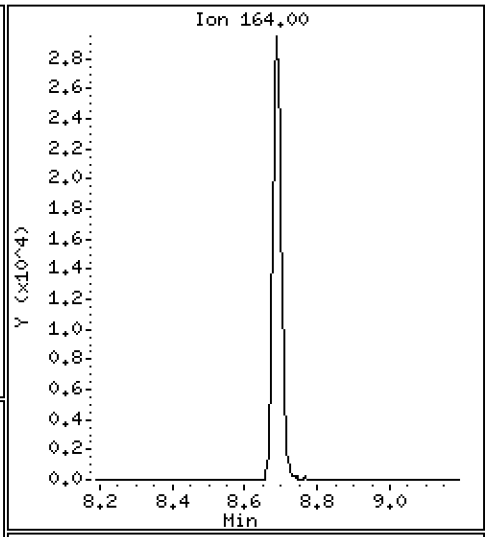
56 Tetrachloroethene Concentration: 18.76 ug/l Review Code:

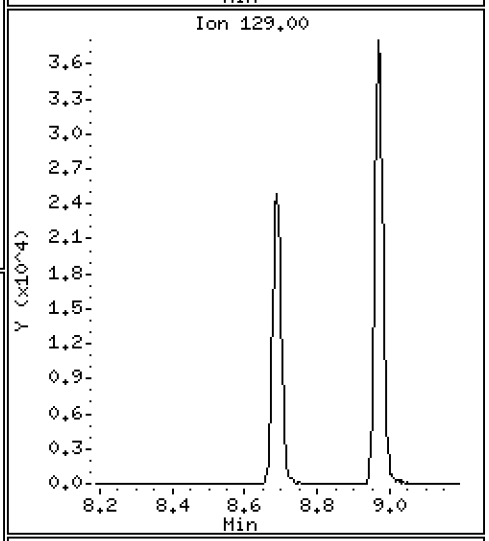


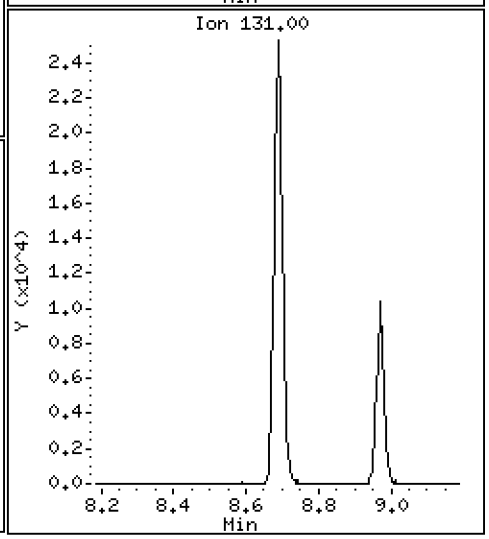












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 53

Date : 04-SEP-2018 18:03

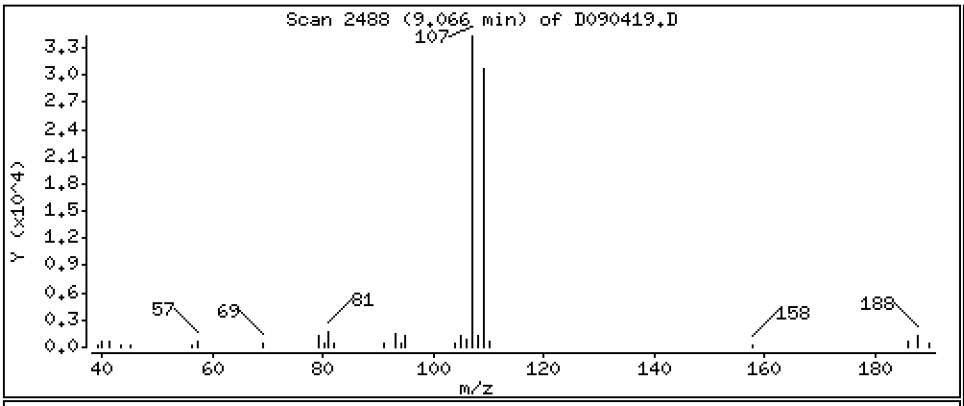
Client ID: HS18081504-01MSD Instrument: VOA2.i

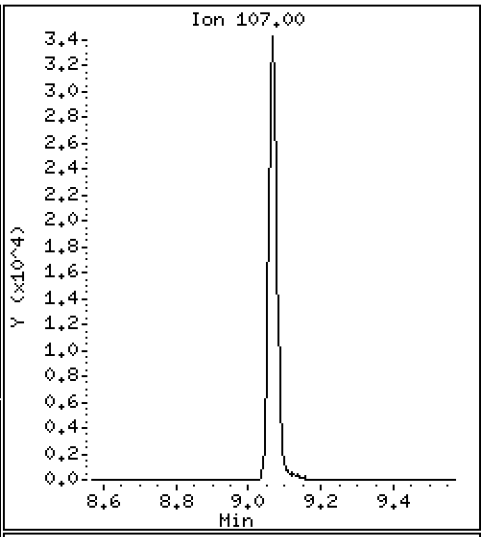
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

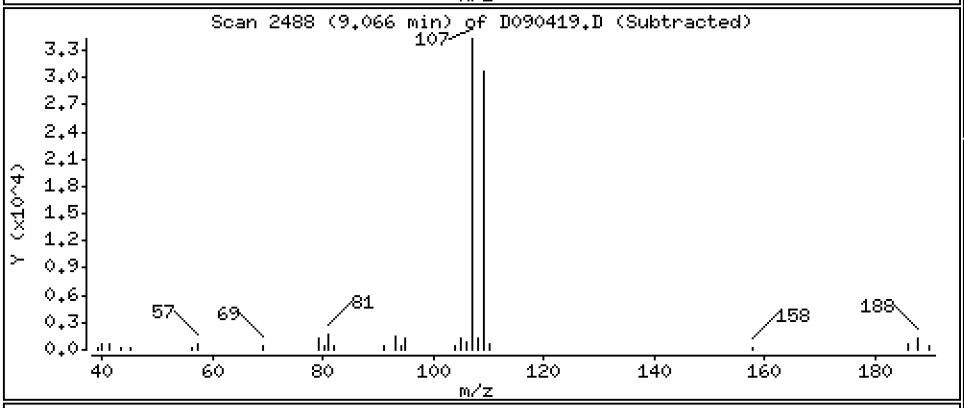
Purge Volume: 5.0 Operator: AP

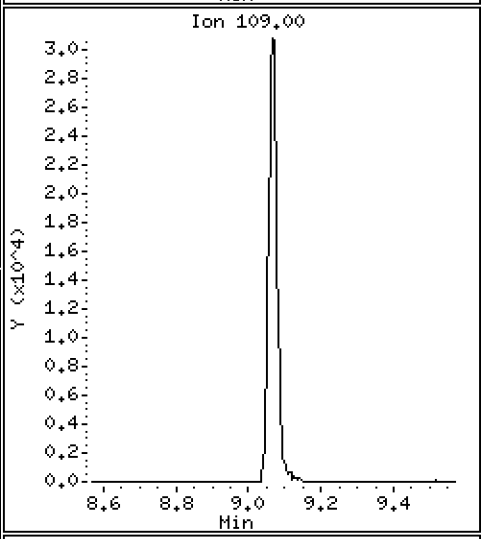
Column phase: DB624 Column diameter: 0.18

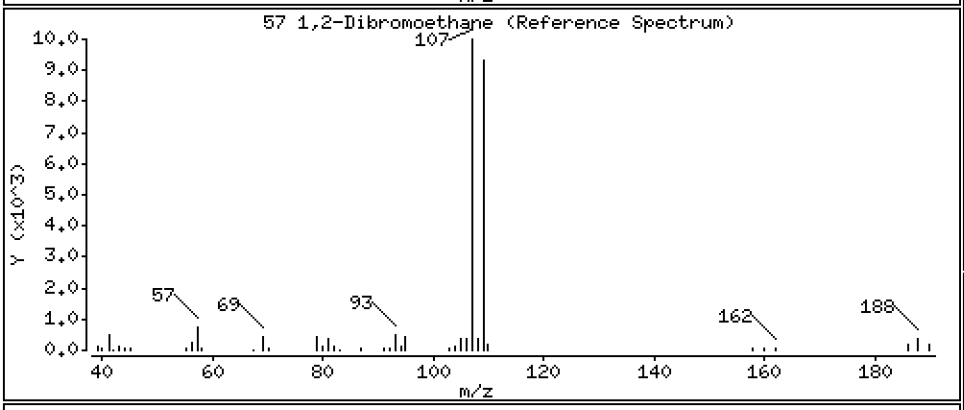
57 1,2-Dibromoethane Concentration: 18.42 ug/l Review Code:

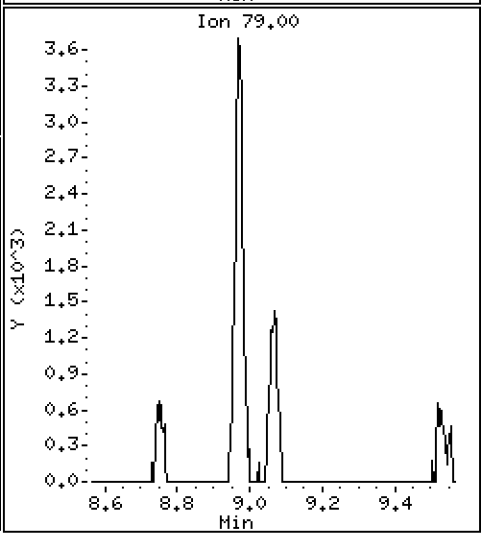


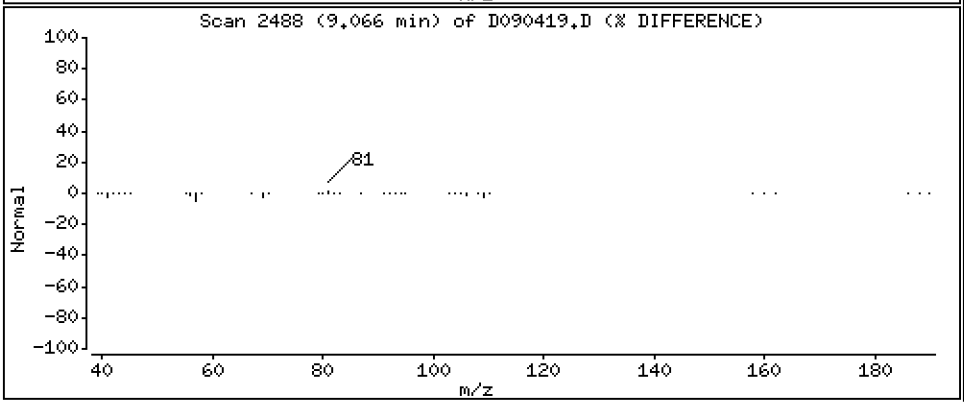












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 54

Date : 04-SEP-2018 18:03

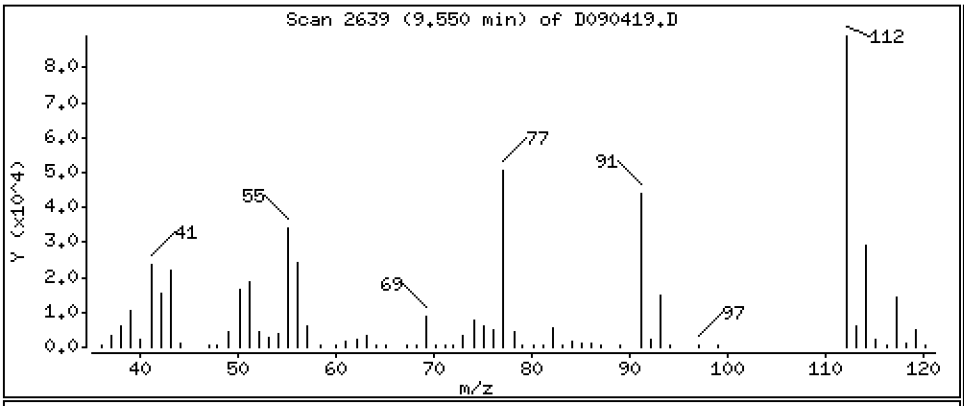
Client ID: HS18081504-01MSD Instrument: VOA2.i

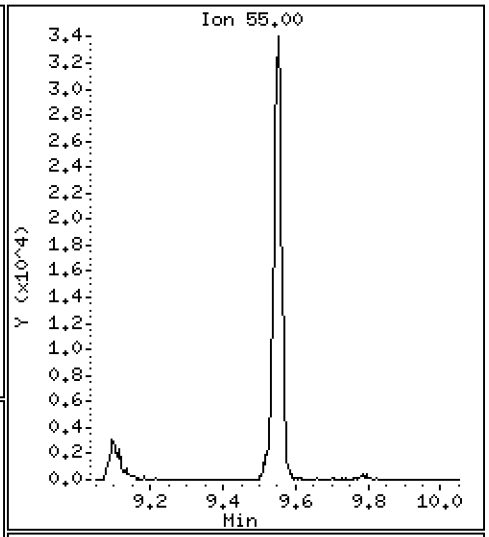
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

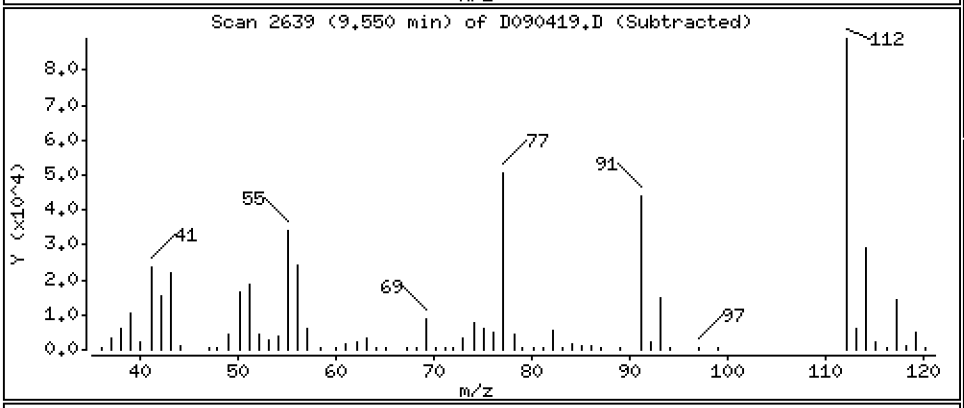
Purge Volume: 5.0 Operator: AP

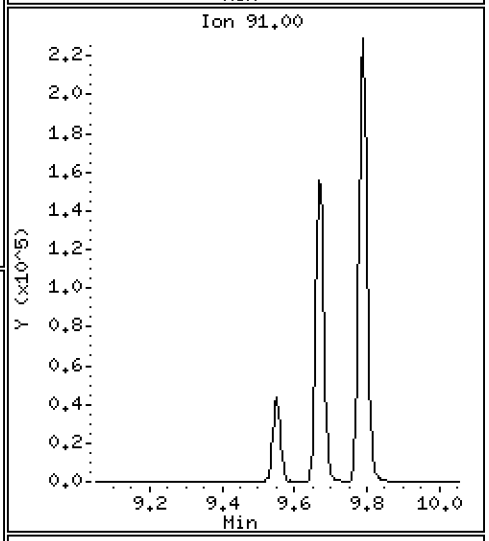
Column phase: DB624 Column diameter: 0.18

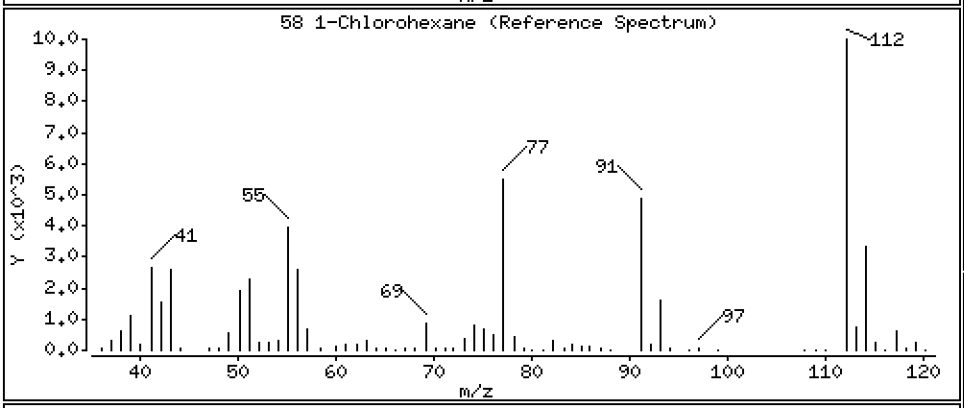
58 1-Chlorohexane Concentration: 19.09 ug/l Review Code:

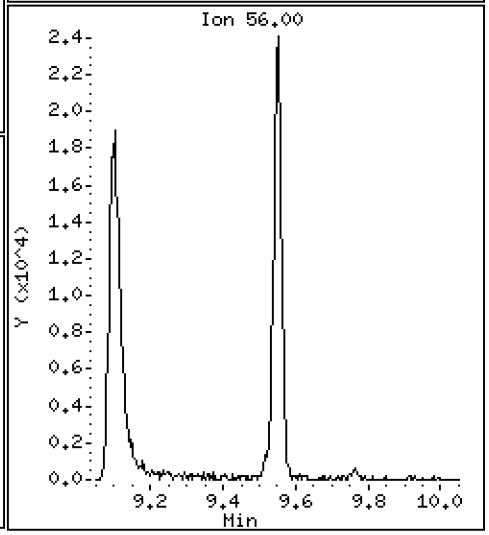


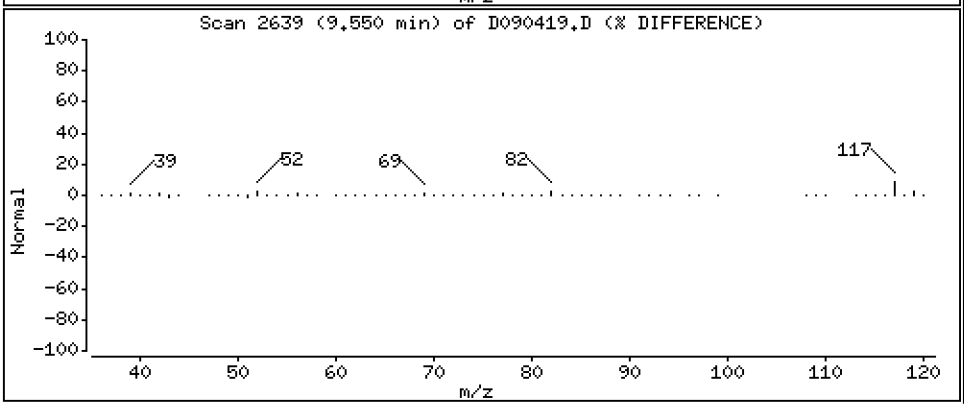












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 55

Date : 04-SEP-2018 18:03

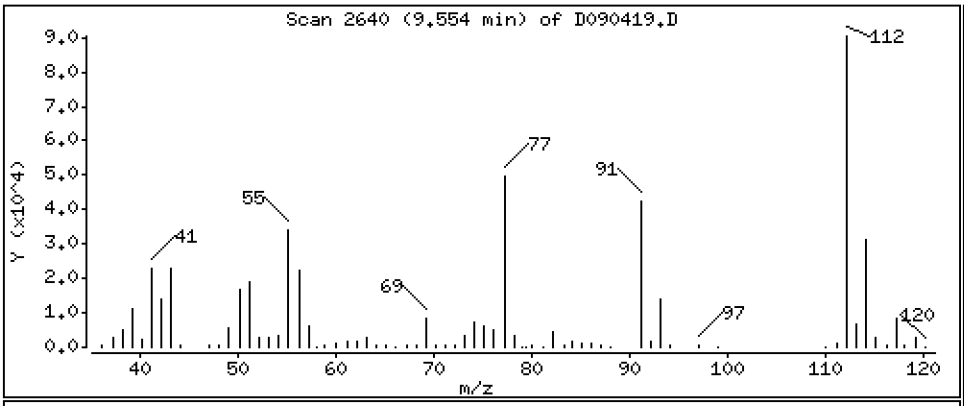
Client ID: HS18081504-01MSD Instrument: VOA2.i

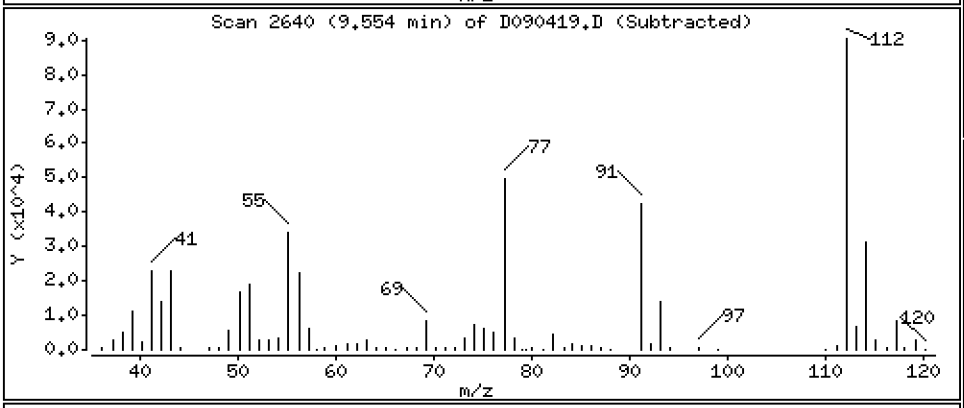
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

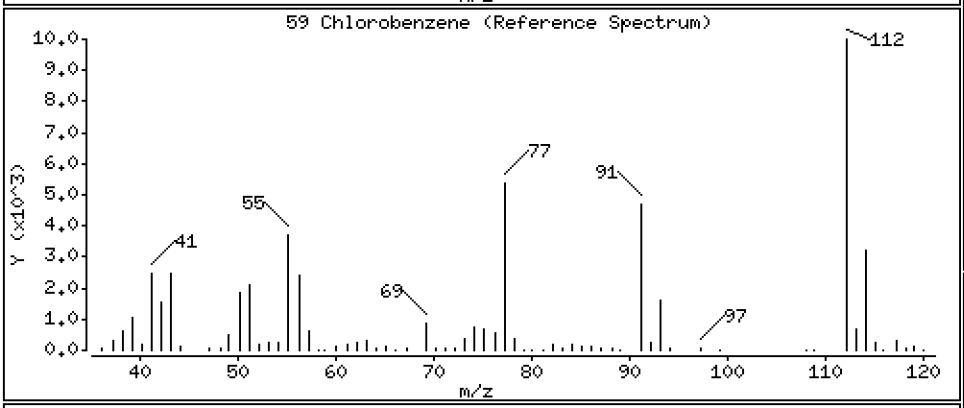
Purge Volume: 5.0 Operator: AP

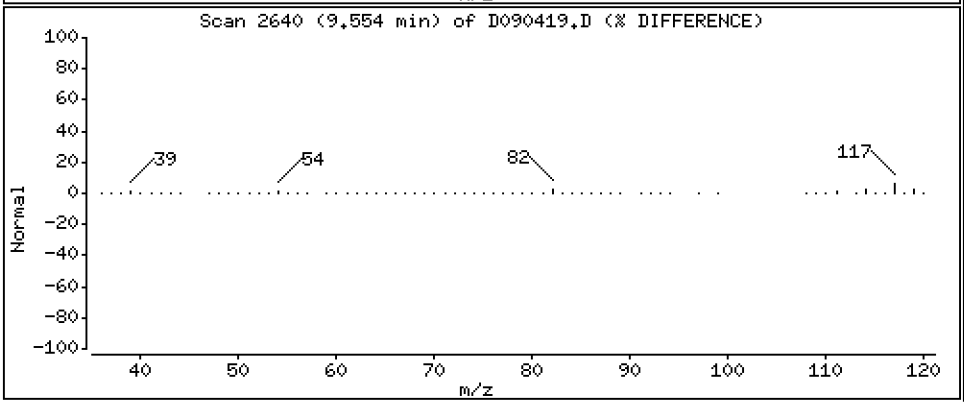
Column phase: DB624 Column diameter: 0.18

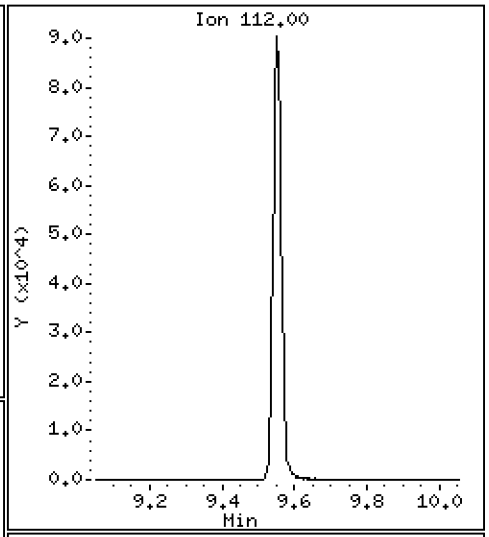
59 Chlorobenzene Concentration: 18.07 ug/l Review Code:

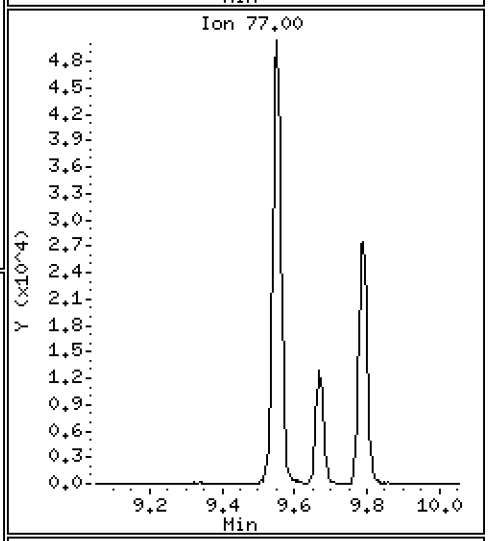


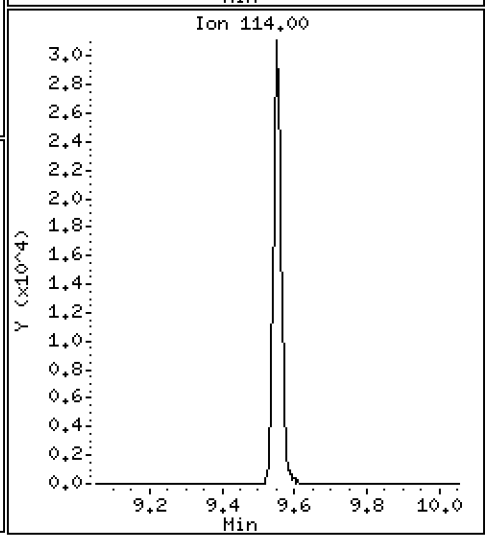












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 56

Date : 04-SEP-2018 18:03

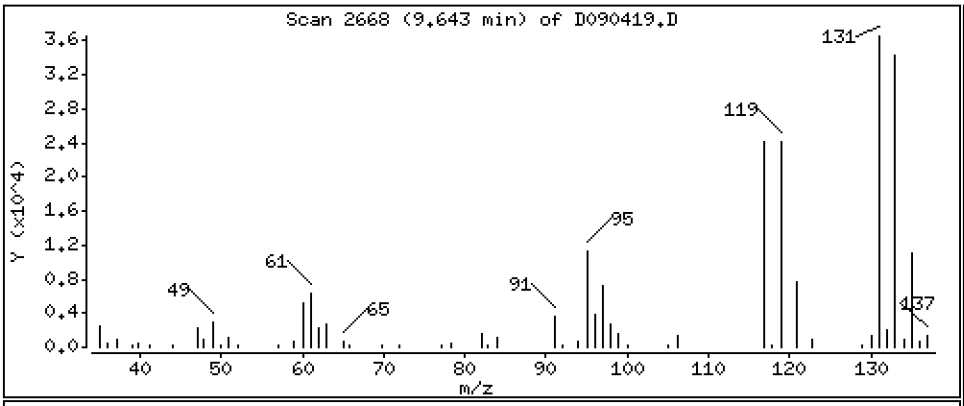
Client ID: HS18081504-01MSD Instrument: VOA2.i

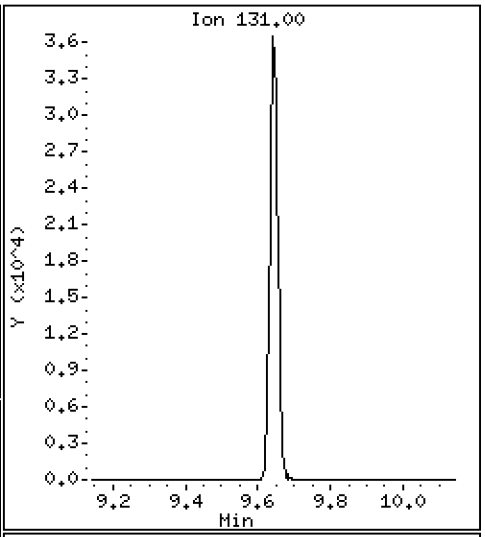
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

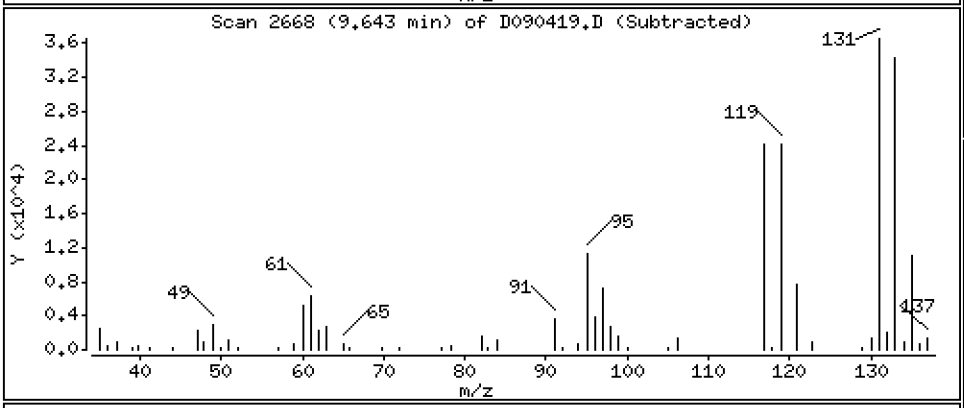
Purge Volume: 5.0 Operator: AP

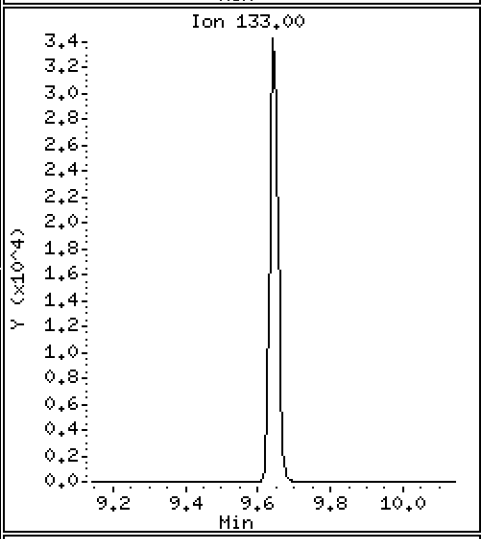
Column phase: DB624 Column diameter: 0.18

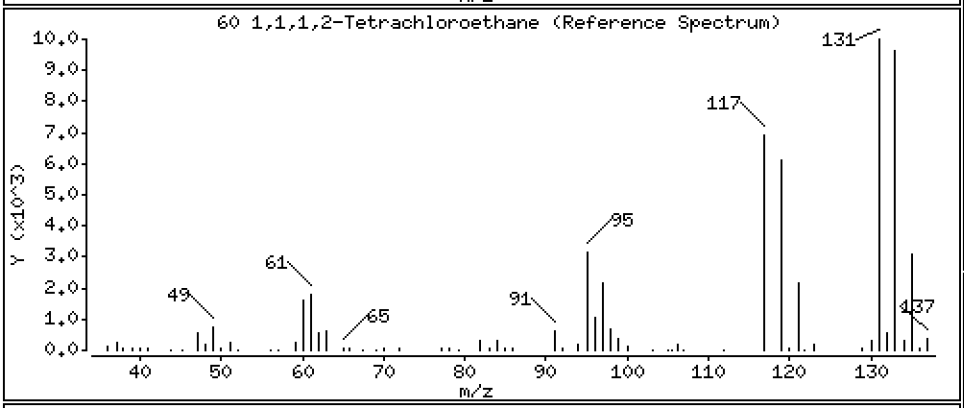
60 1,1,1,2-Tetrachloroethane Concentration: 18.03 ug/l Review Code:

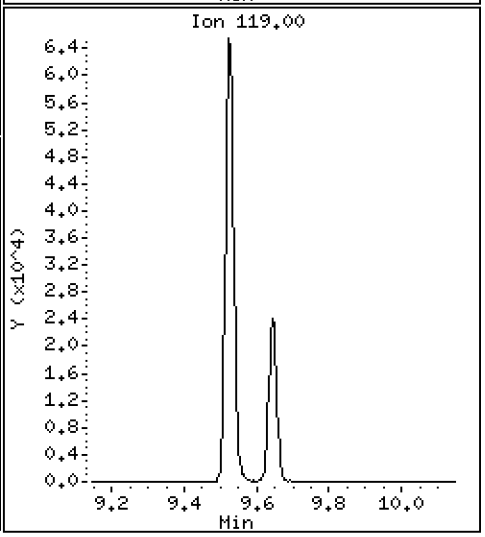


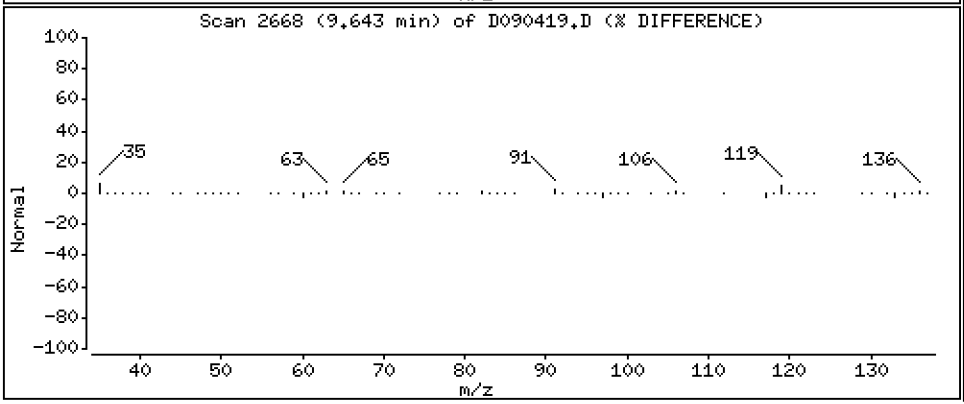












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 57

Date : 04-SEP-2018 18:03

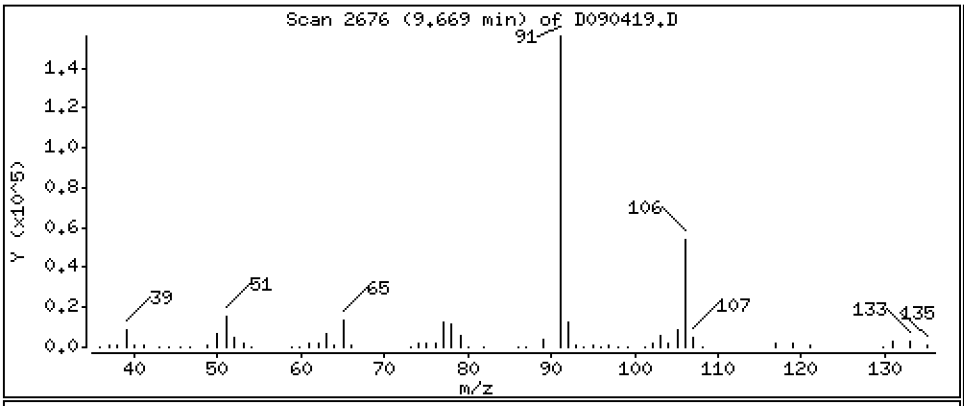
Client ID: HS18081504-01MSD Instrument: VOA2.i

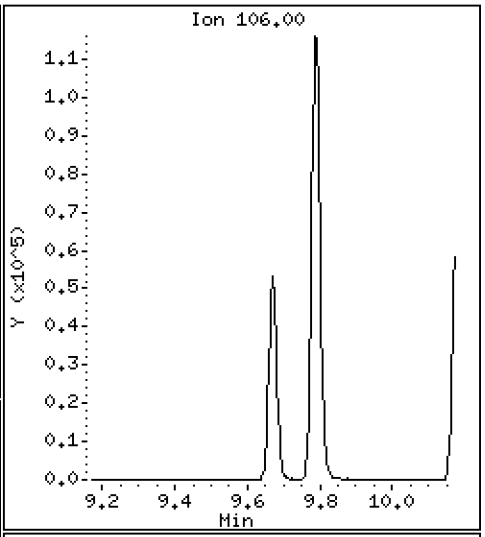
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

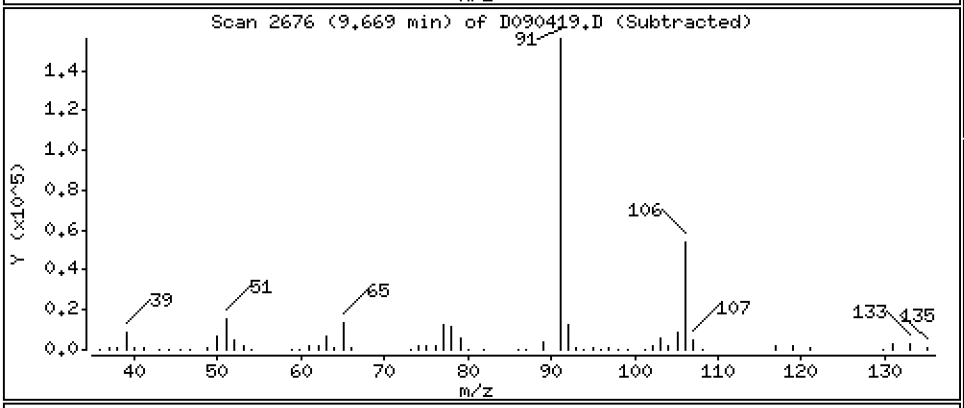
Purge Volume: 5.0 Operator: AP

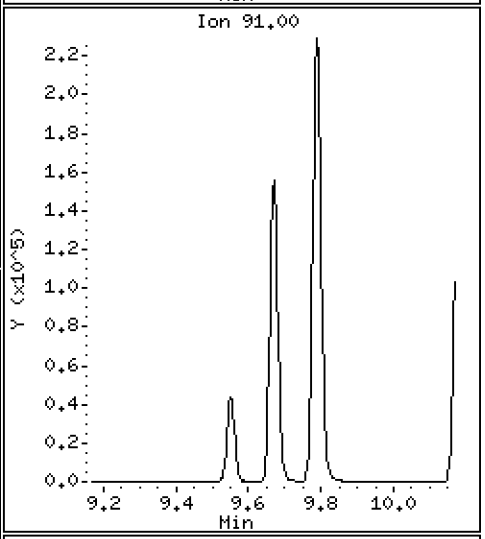
Column phase: DB624 Column diameter: 0.18

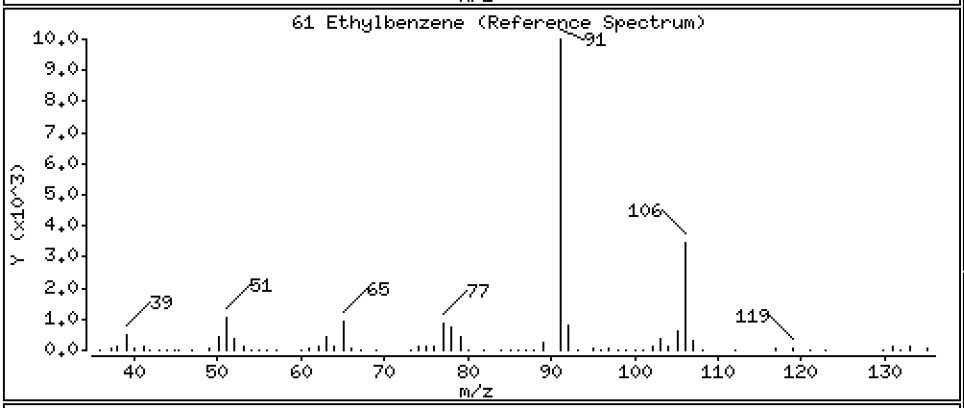
61 Ethylbenzene Concentration: 19.64 ug/l Review Code:

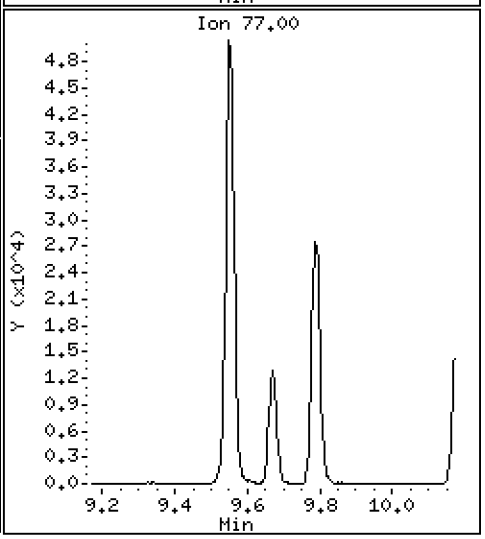


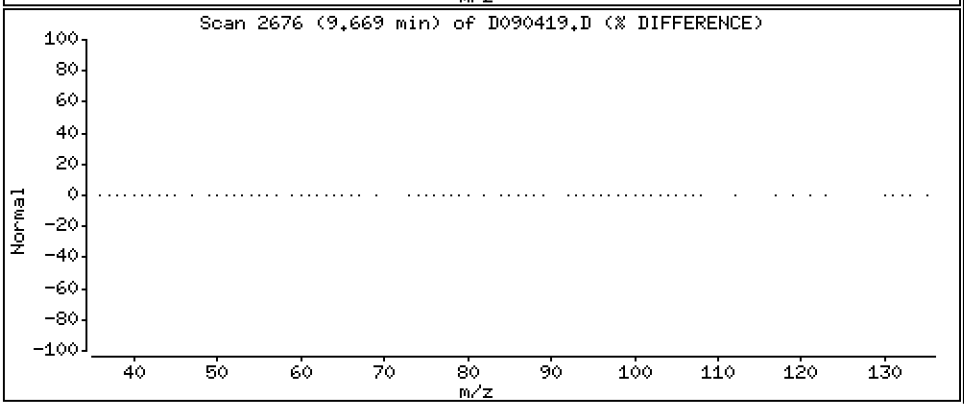












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 58

Date : 04-SEP-2018 18:03

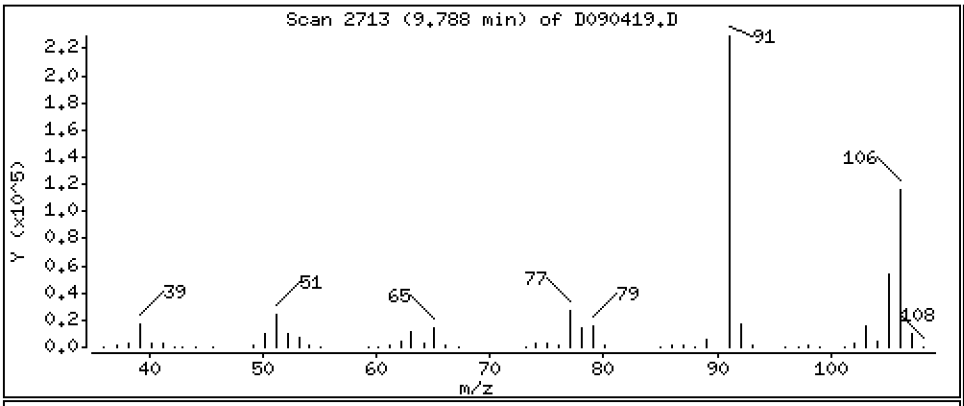
Client ID: HS18081504-01MSD Instrument: VOA2.i

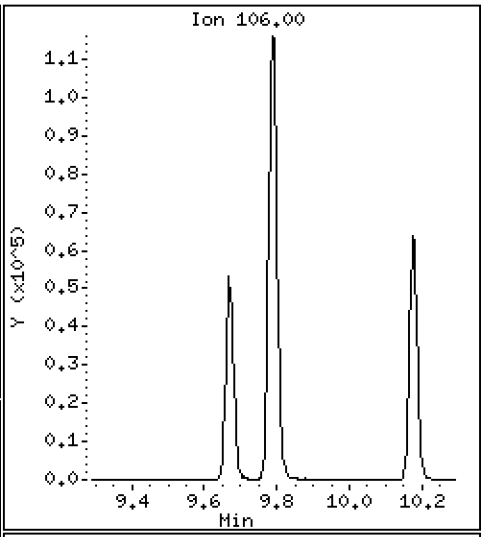
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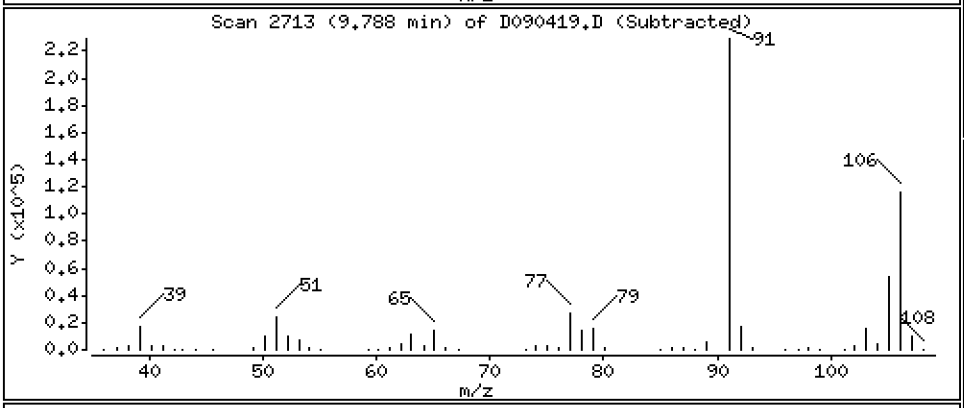
Purge Volume: 5.0 Operator: AP

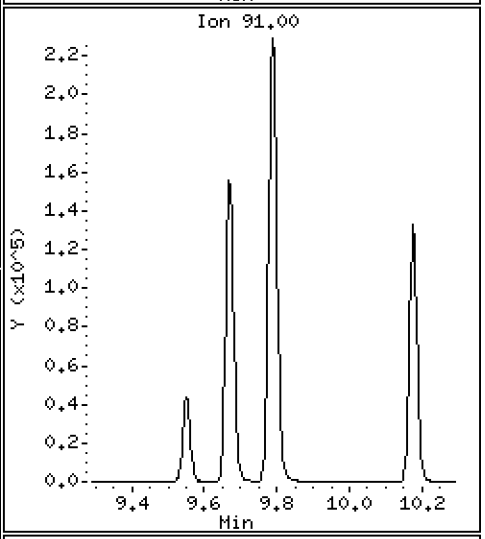
Column phase: DB624 Column diameter: 0.18

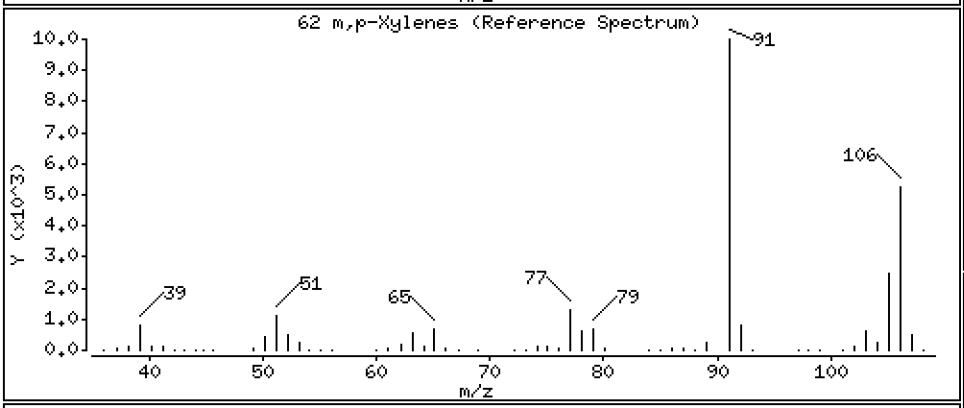
62 m,p-Xylenes Concentration: 38.38 ug/l Review Code:

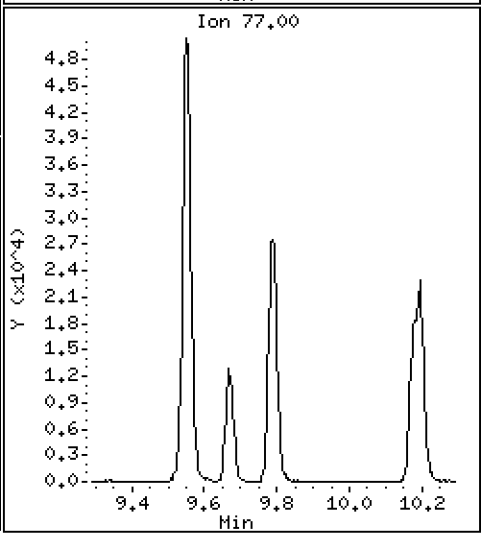


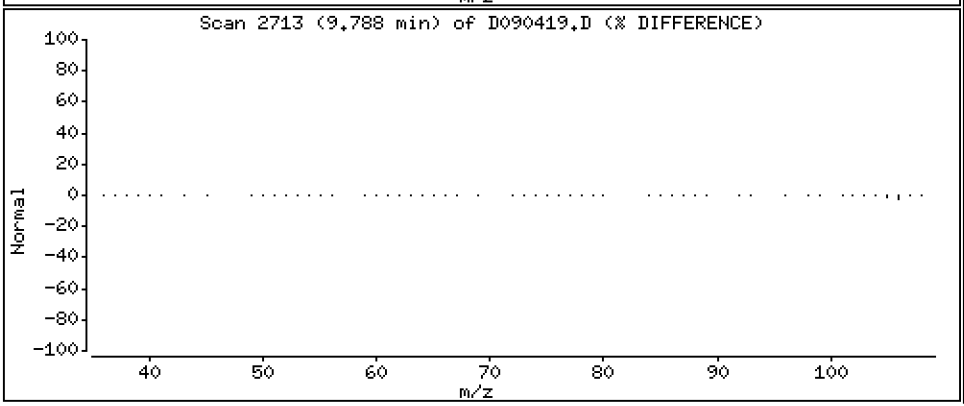












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 59

Date : 04-SEP-2018 18:03

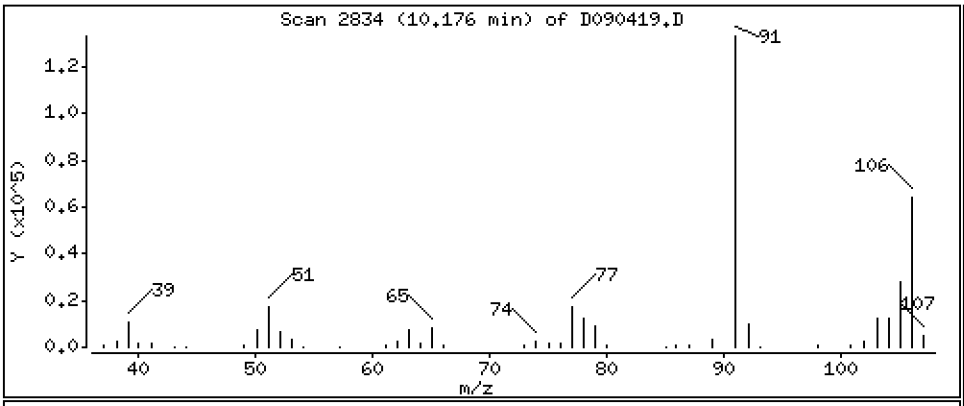
Client ID: HS18081504-01MSD Instrument: VOA2.i

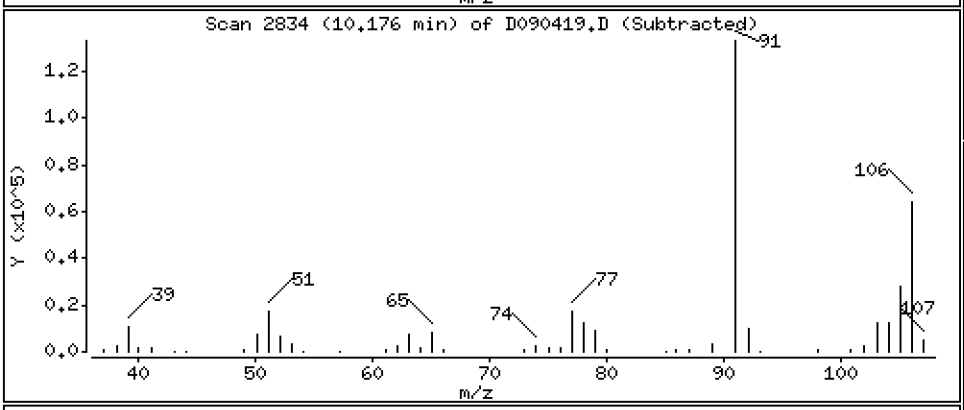
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

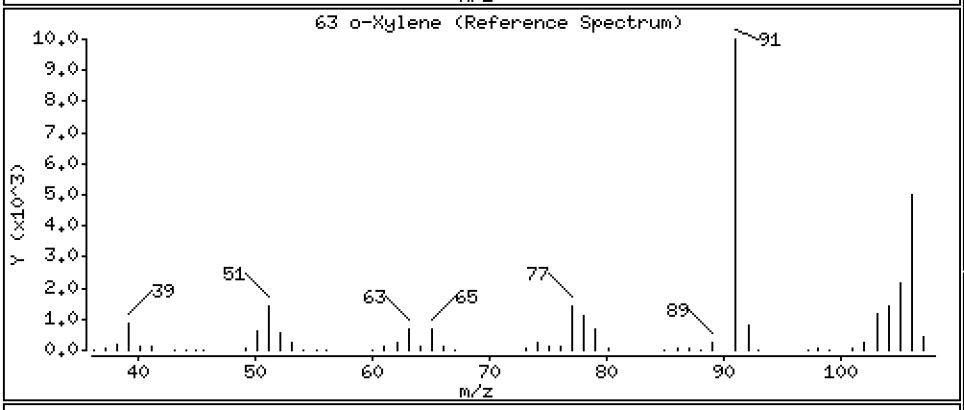
Purge Volume: 5.0 Operator: AP

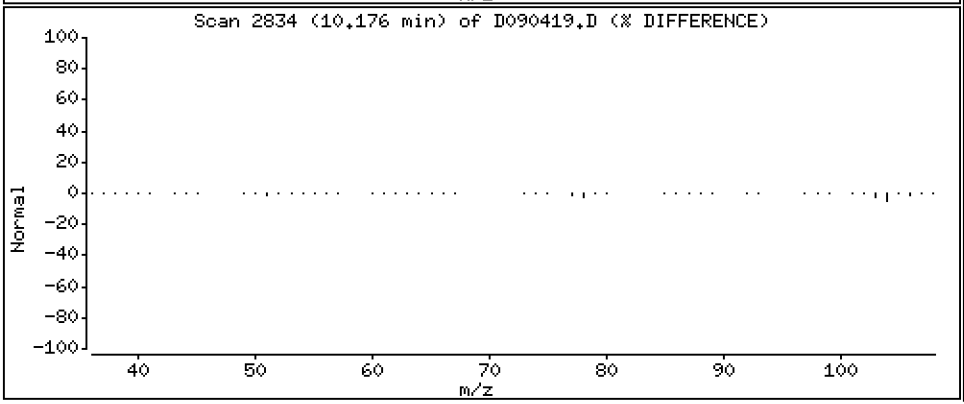
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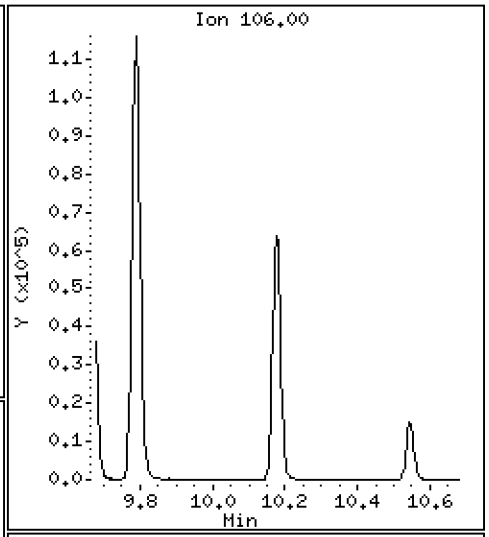
63 o-Xylene Concentration: 18.86 ug/l Review Code:

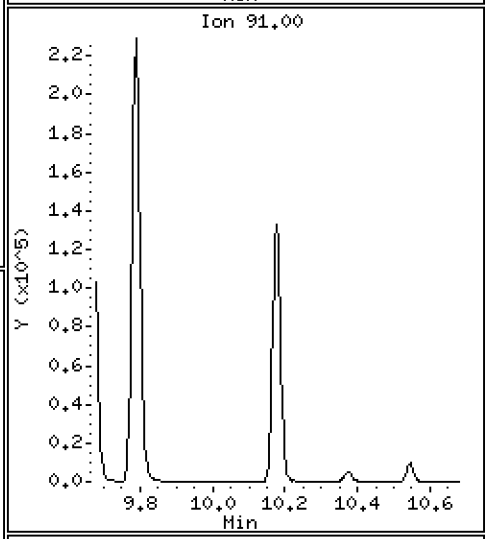


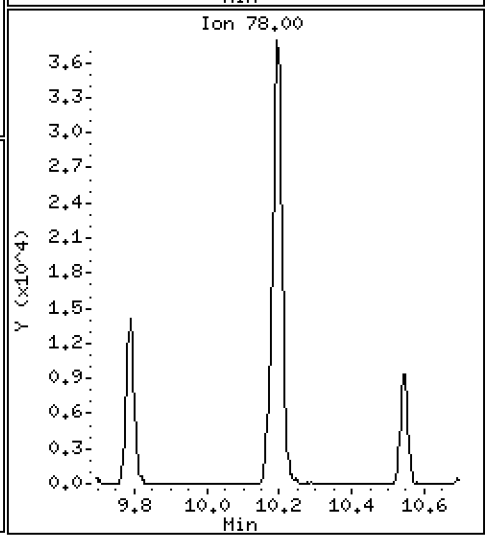












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 60

Date : 04-SEP-2018 18:03

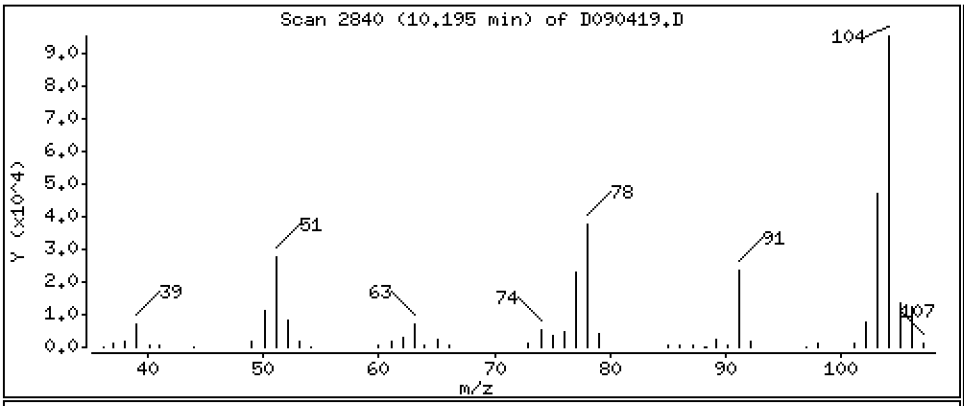
Client ID: HS18081504-01MSD Instrument: VOA2.i

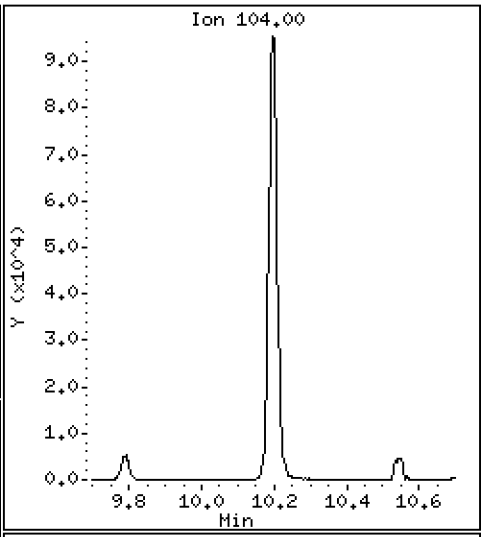
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

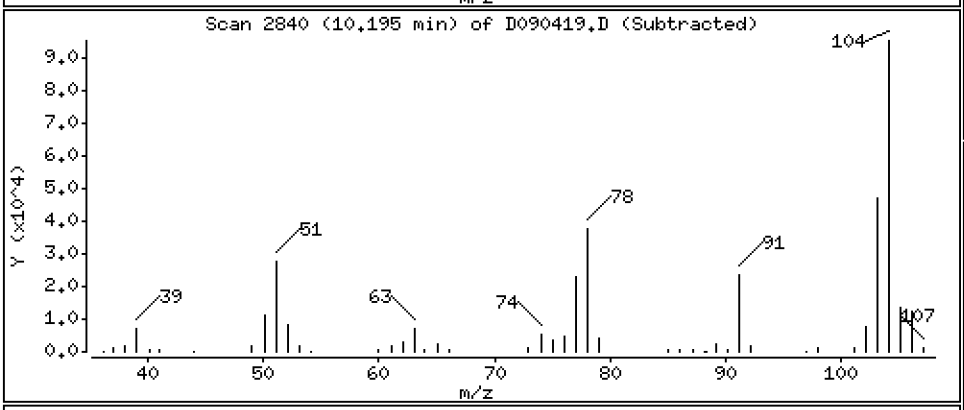
Purge Volume: 5.0 Operator: AP

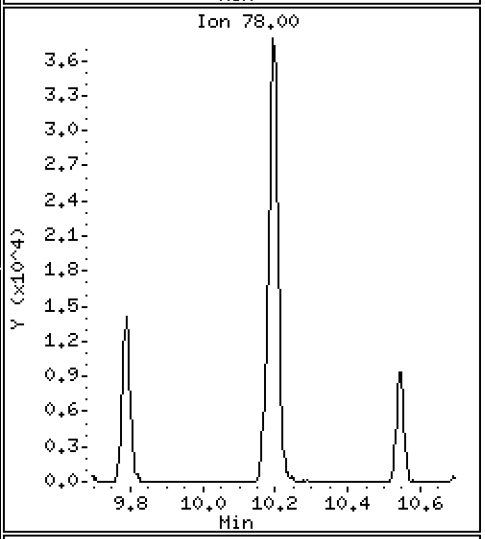
Column phase: DB624 Column diameter: 0.18

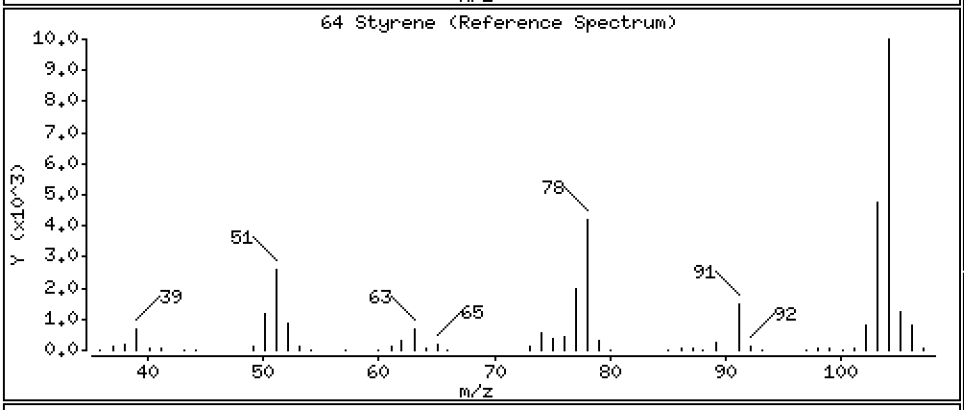
64 Styrene Concentration: 18.14 ug/l Review Code:

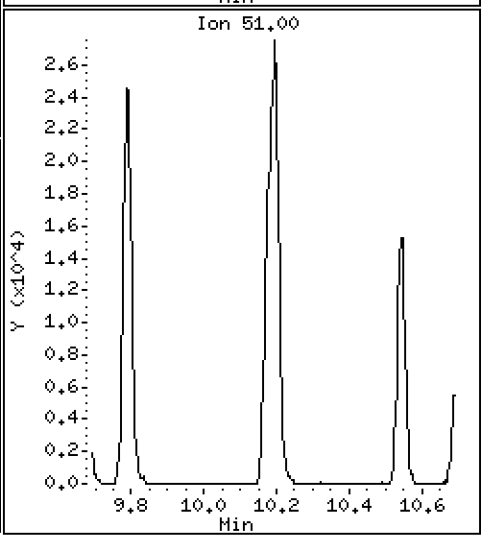


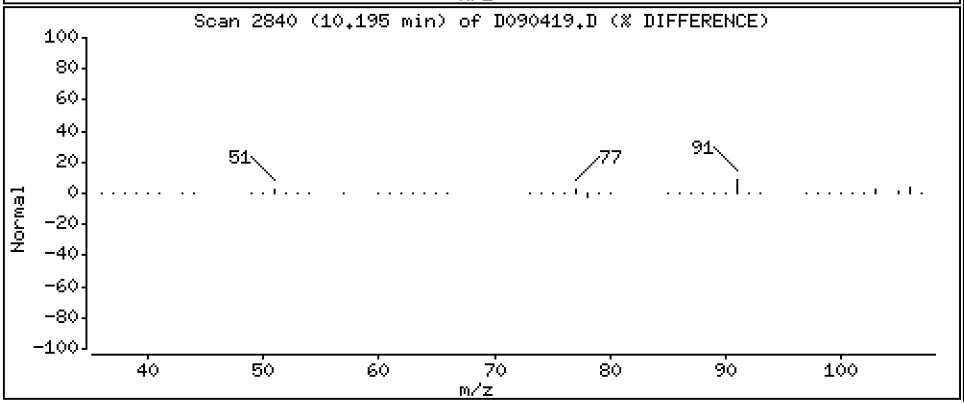












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 61

Date : 04-SEP-2018 18:03

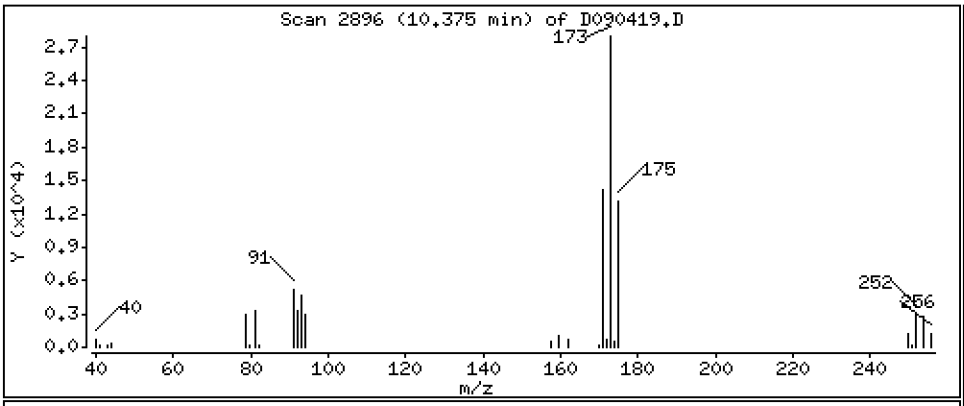
Client ID: HS18081504-01MSD Instrument: VOA2.i

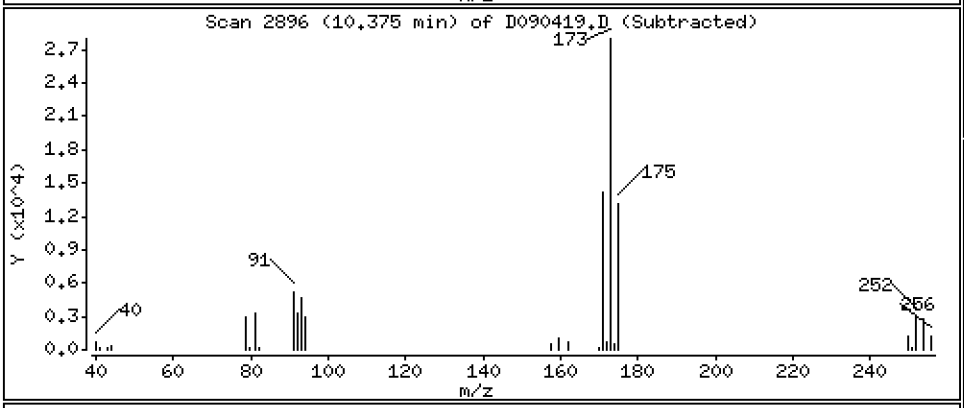
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

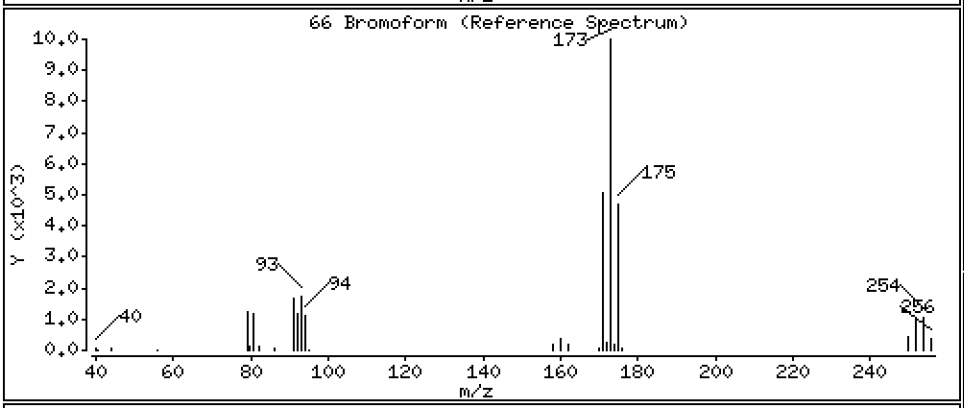
Purge Volume: 5.0 Operator: AP

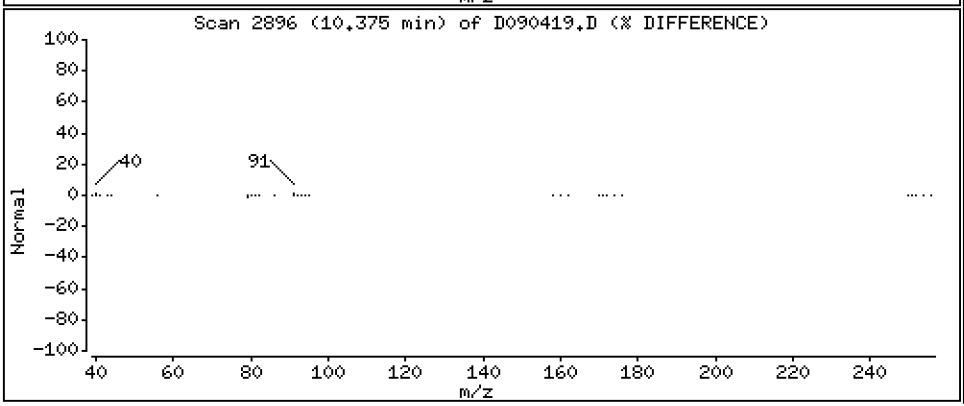
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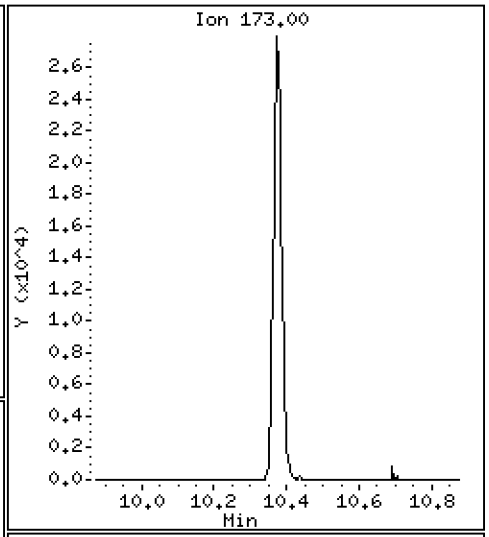
66 Bromoform Concentration: 18.21 ug/l Review Code:

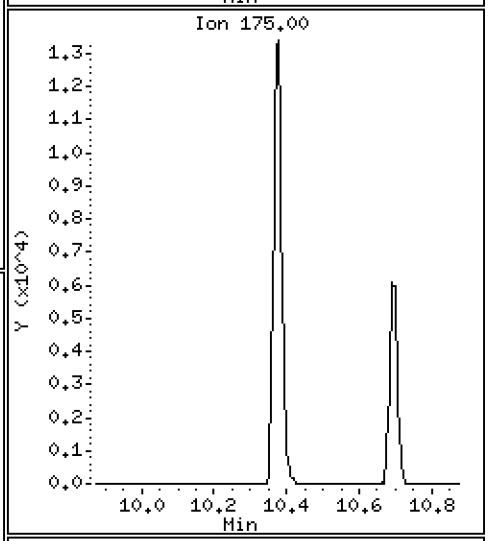


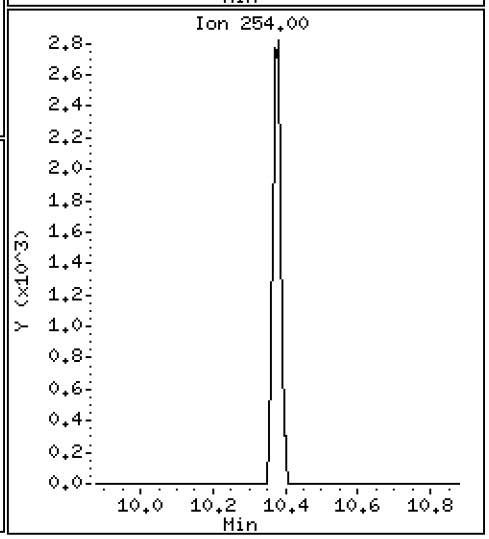












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 62

Date : 04-SEP-2018 18:03

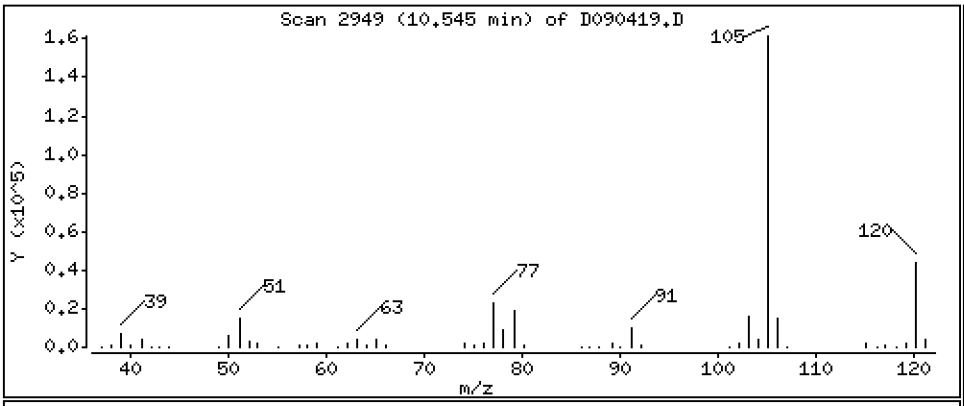
Client ID: HS18081504-01MSD Instrument: VOA2.i

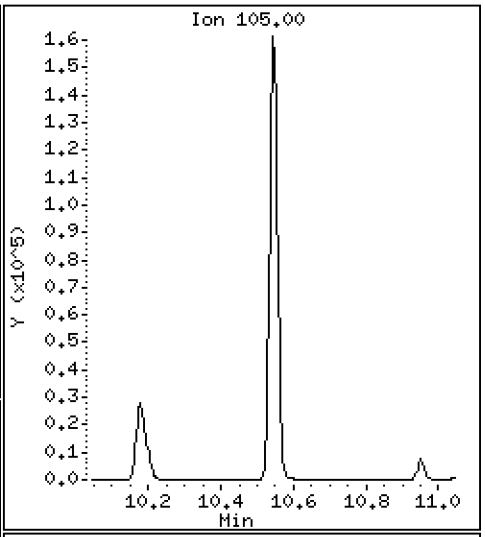
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

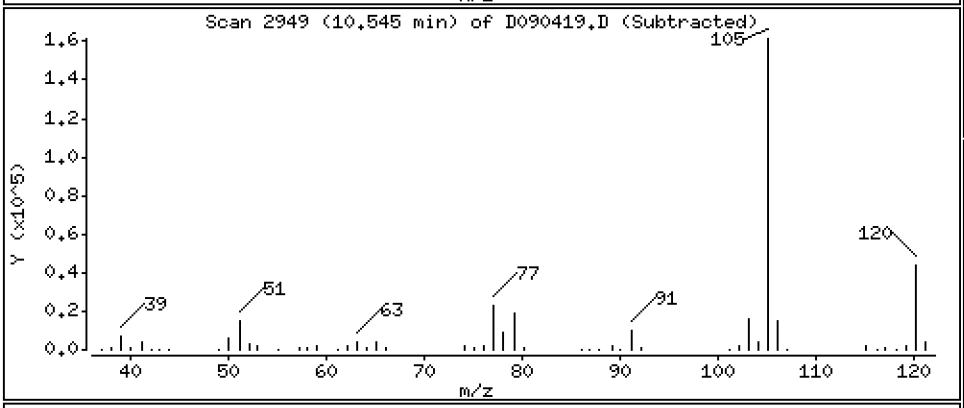
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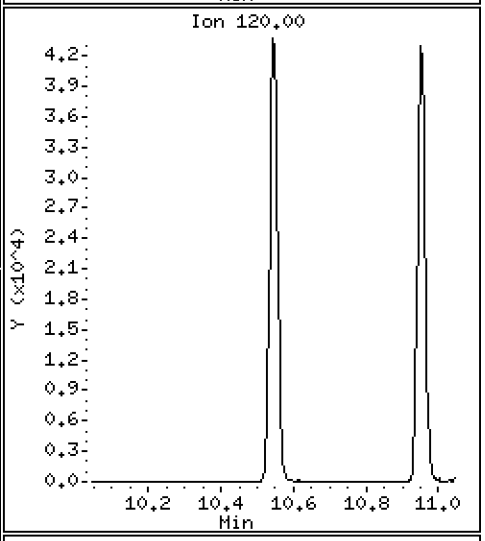
Column phase: DB624 Column diameter: 0.18

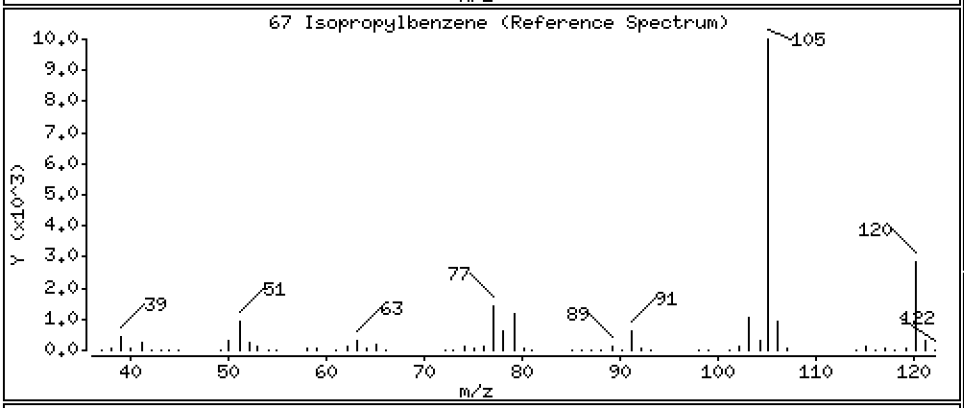
67 Isopropylbenzene Concentration: 17.80 ug/l Review Code:

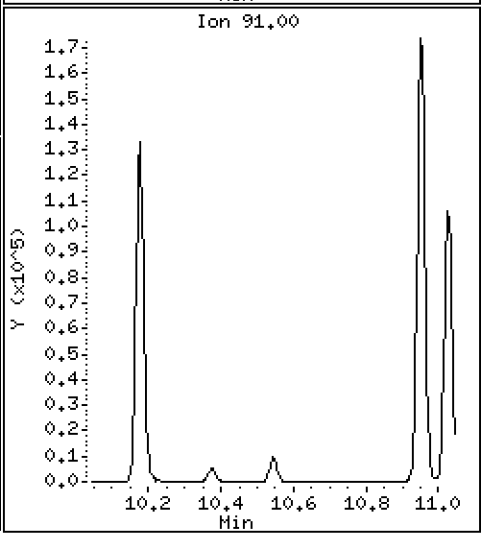


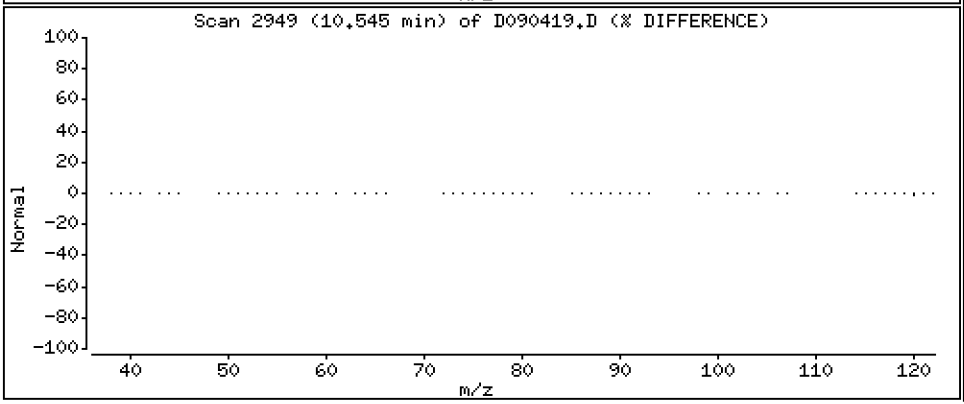












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 63

Date : 04-SEP-2018 18:03

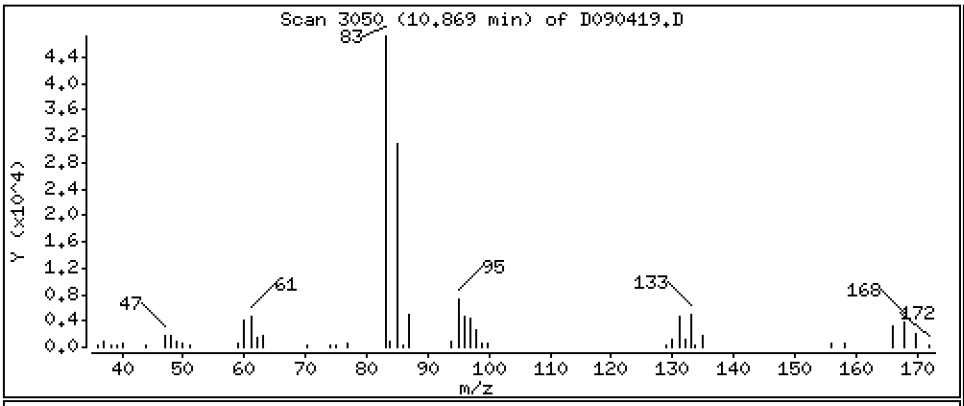
Client ID: HS18081504-01MSD Instrument: VOA2.i

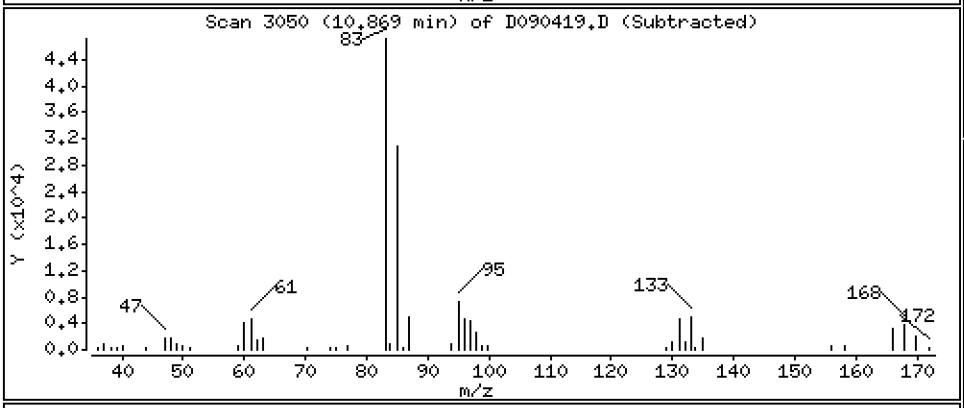
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

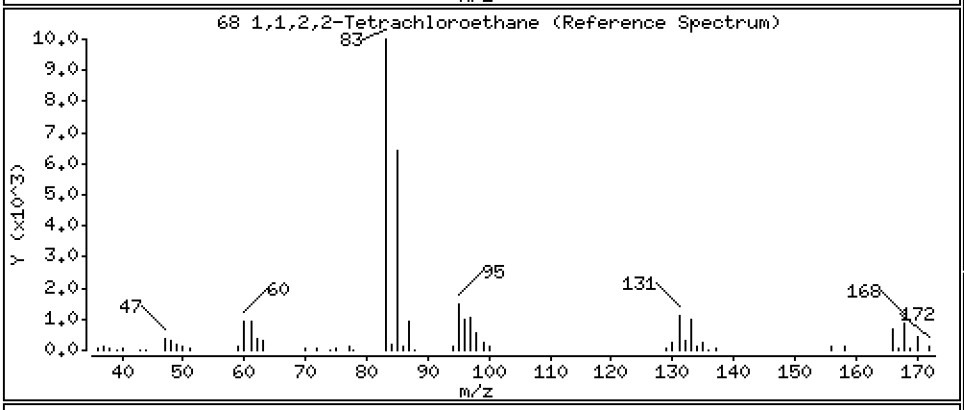
Purge Volume: 5.0 Operator: AP

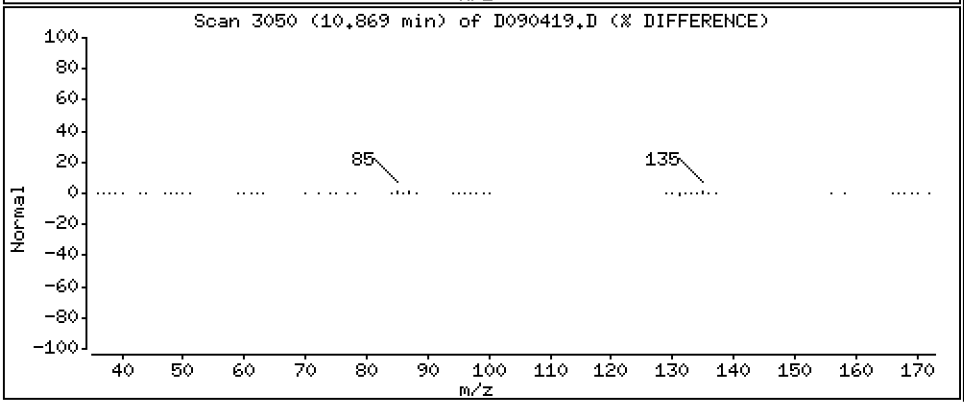
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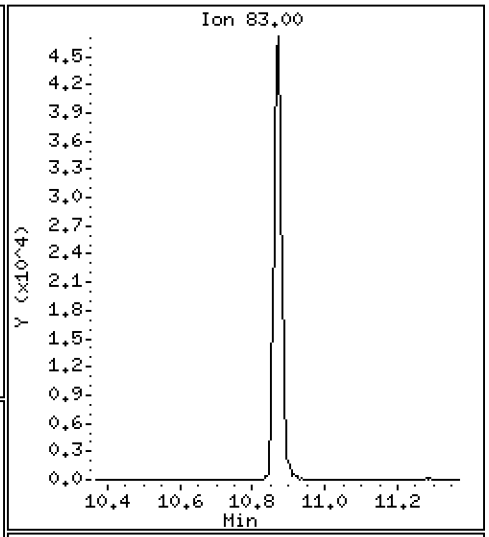
68 1,1,2,2-Tetrachloroethane Concentration: 15.66 ug/l Review Code:

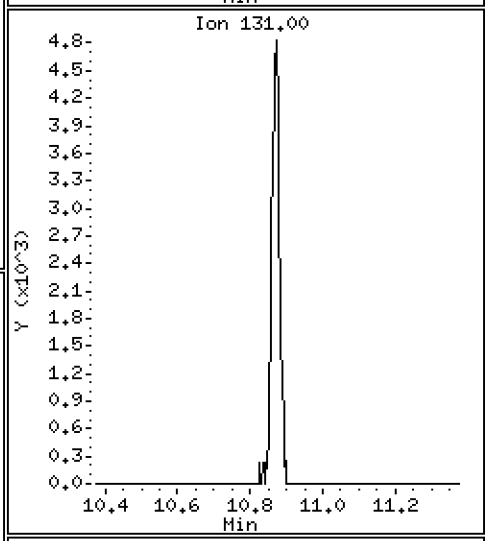


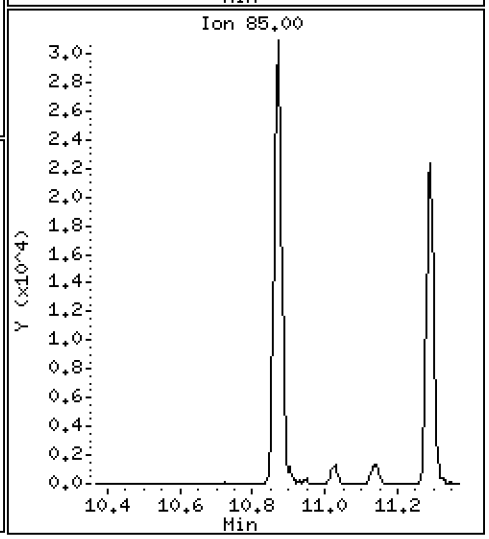












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 64

Date : 04-SEP-2018 18:03

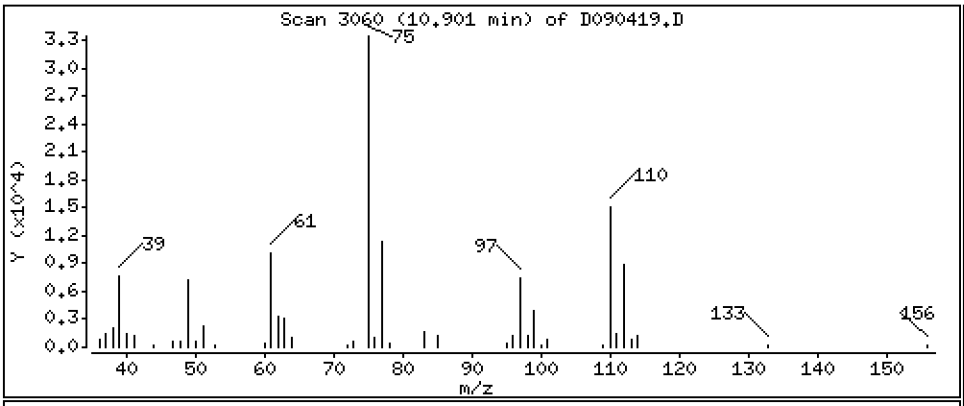
Client ID: HS18081504-01MSD Instrument: VOA2.i

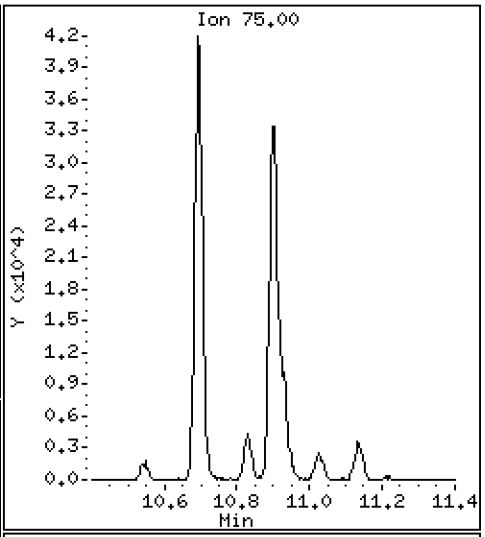
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

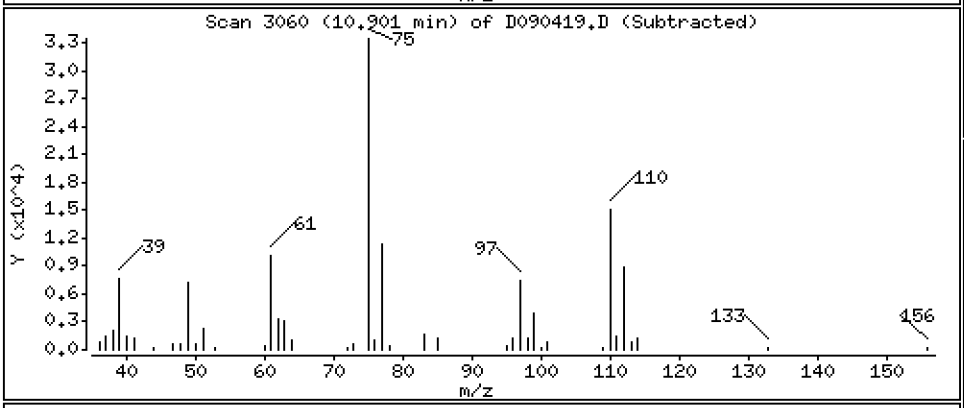
Purge Volume: 5.0 Operator: AP

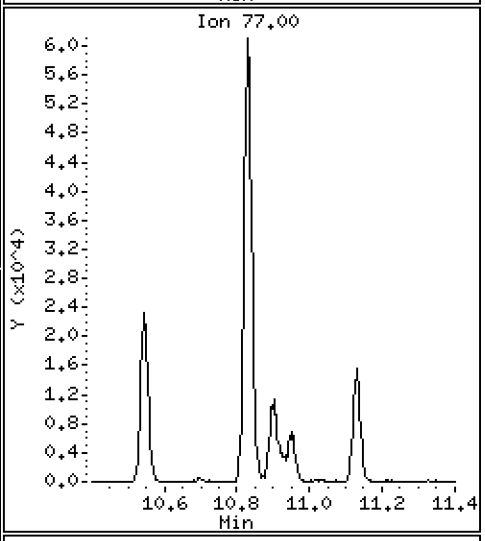
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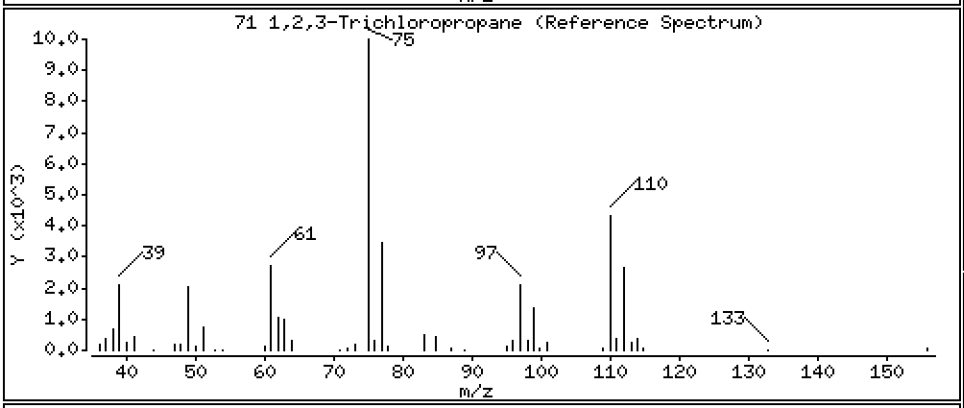
71 1,2,3-Trichloropropane Concentration: 15.64 ug/l Review Code:

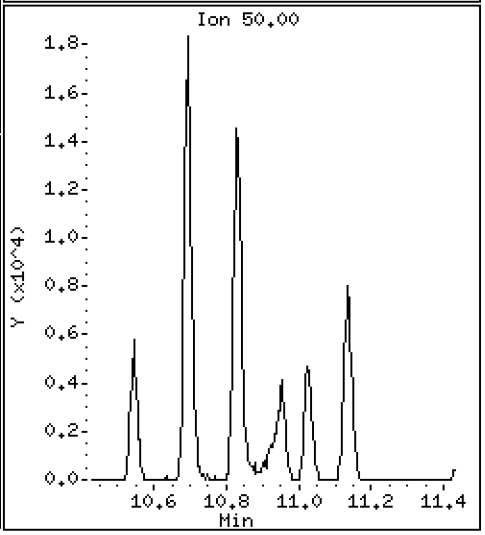


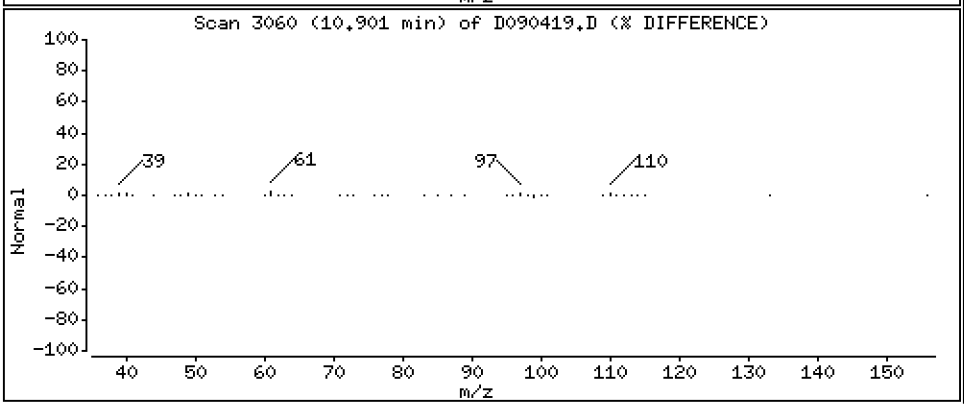












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 65

Date : 04-SEP-2018 18:03

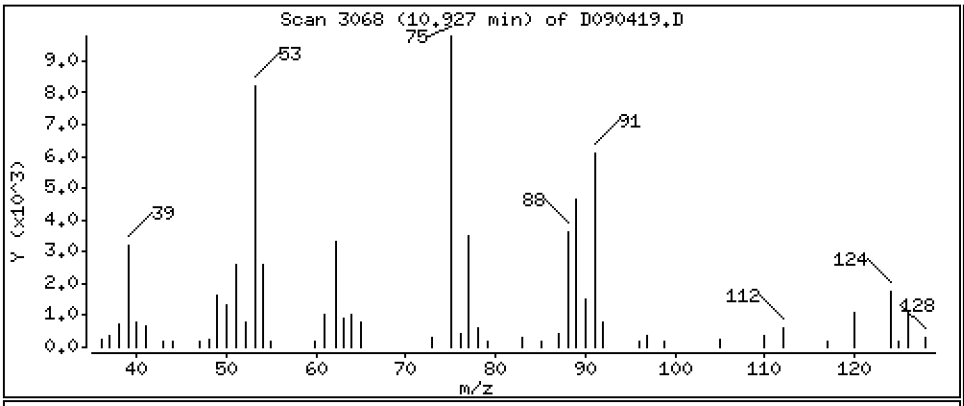
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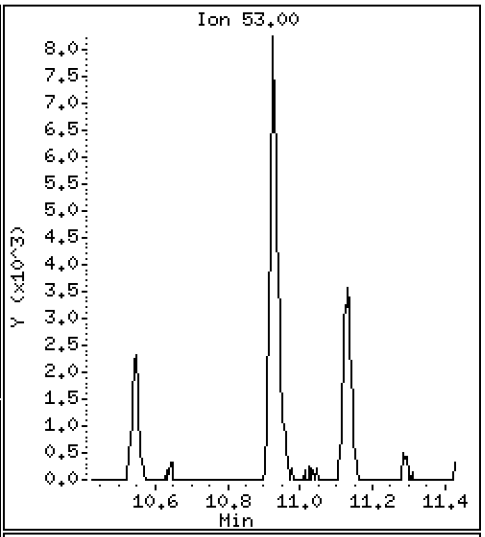
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

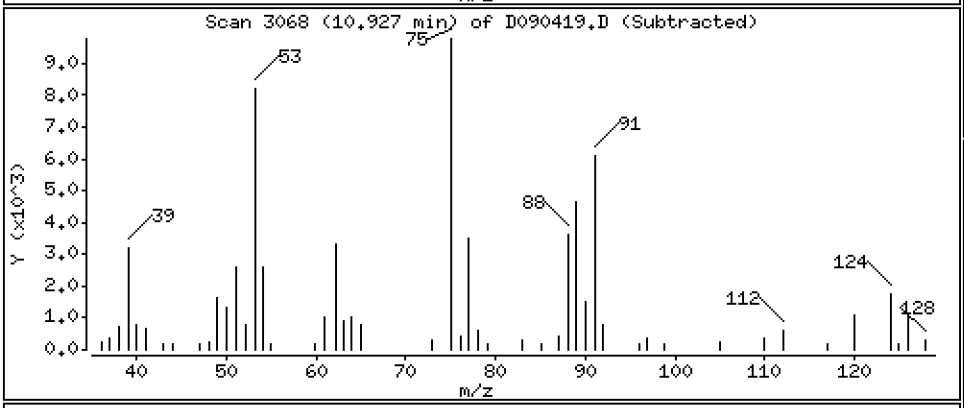
Purge Volume: 5.0 Operator: AP

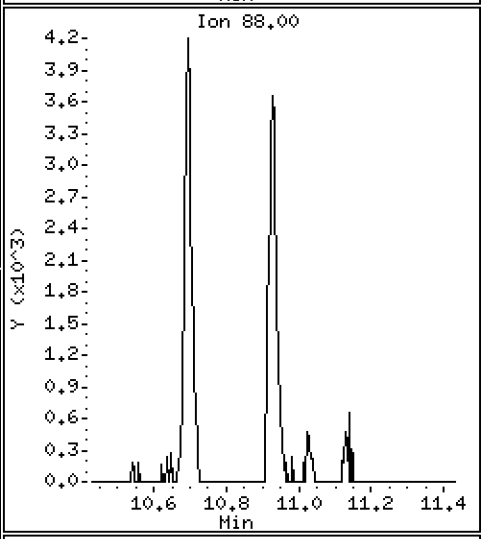
Column phase: DB624 Column diameter: 0.18

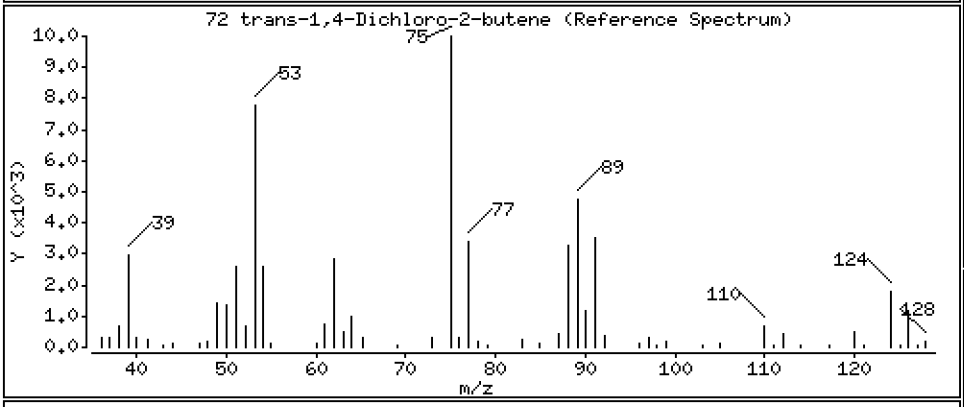
72 trans-1,4-Dichloro-2-butene Concentration: 14.97 ug/l Review Code:

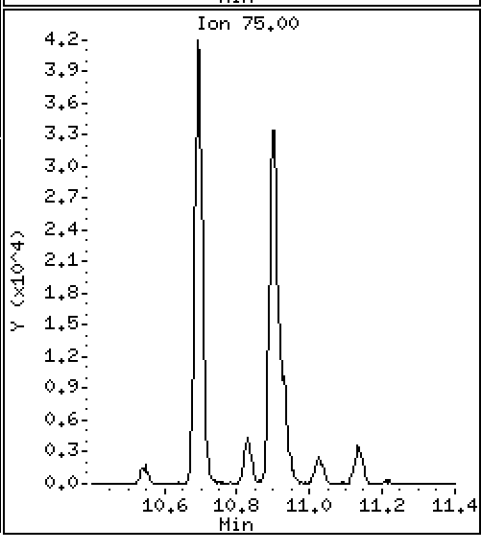


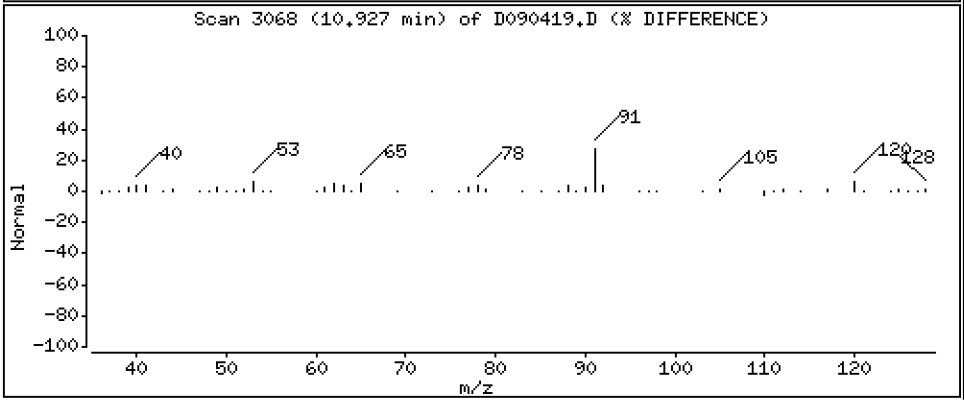












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 66

Date : 04-SEP-2018 18:03

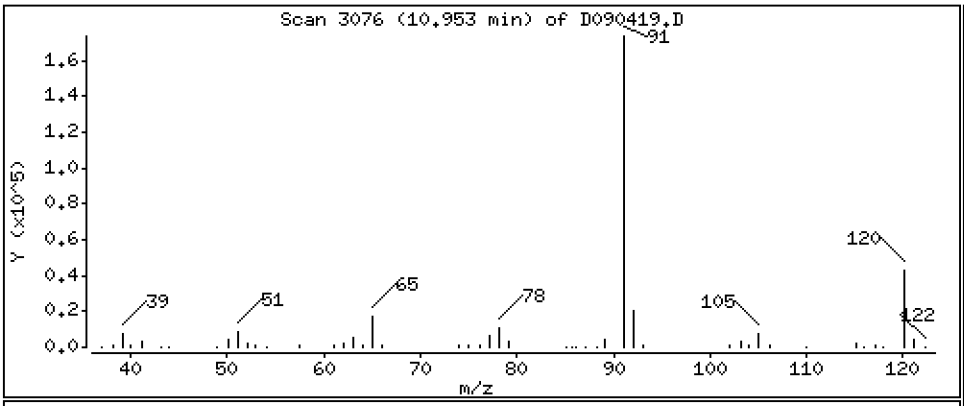
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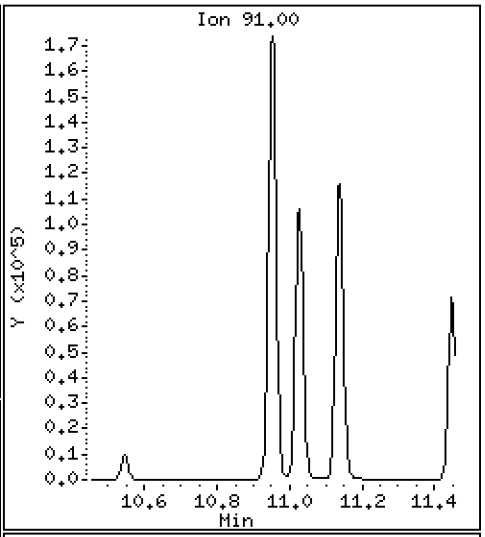
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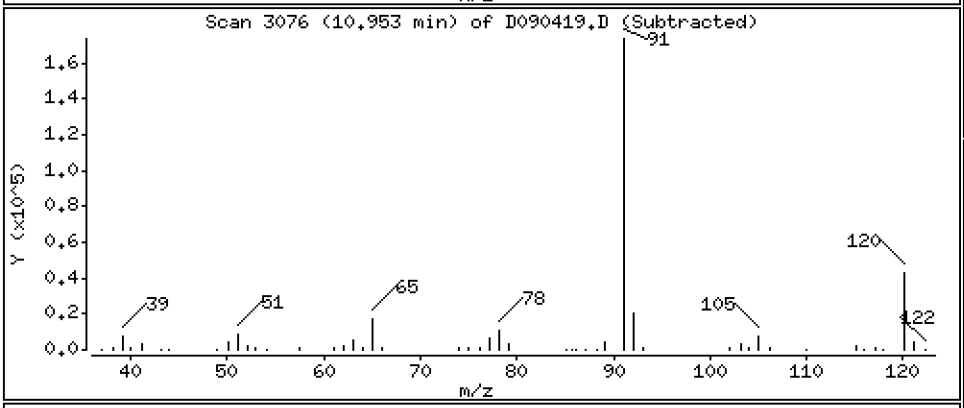
Purge Volume: 5.0 Operator: AP

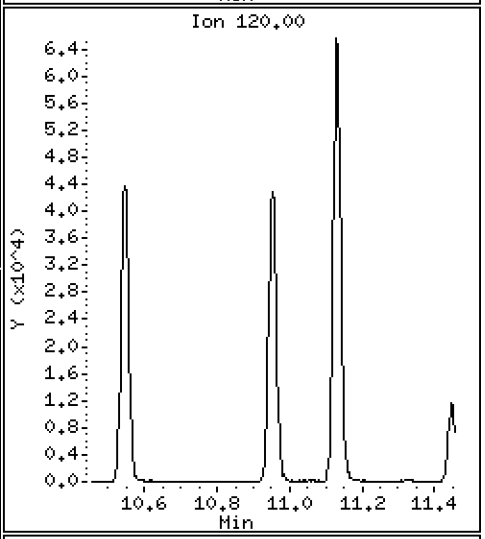
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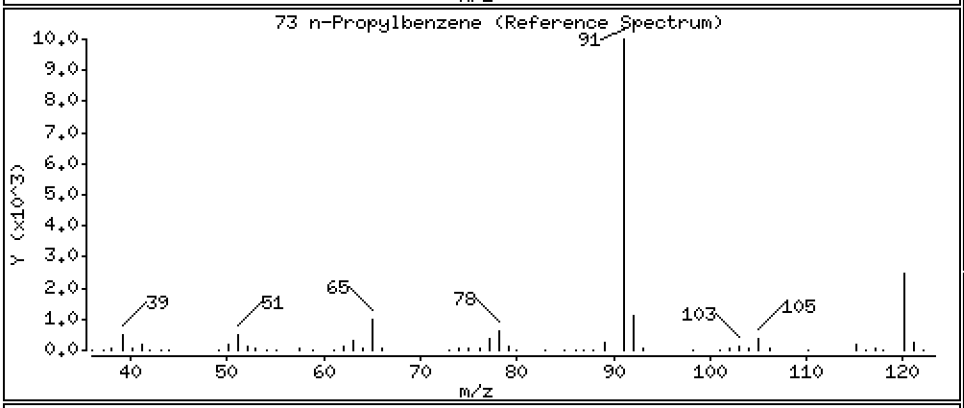
73 n-Propylbenzene Concentration: 18.11 ug/l Review Code:

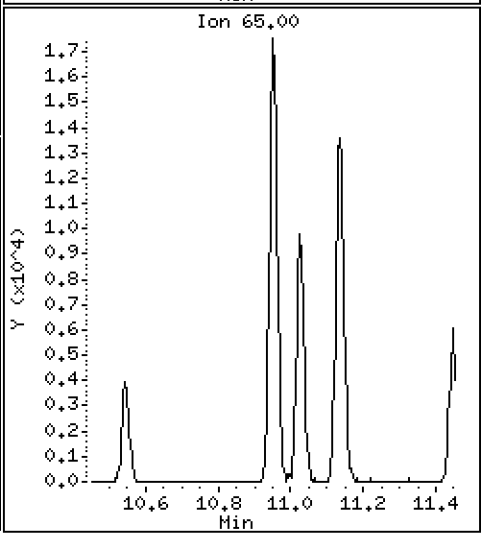


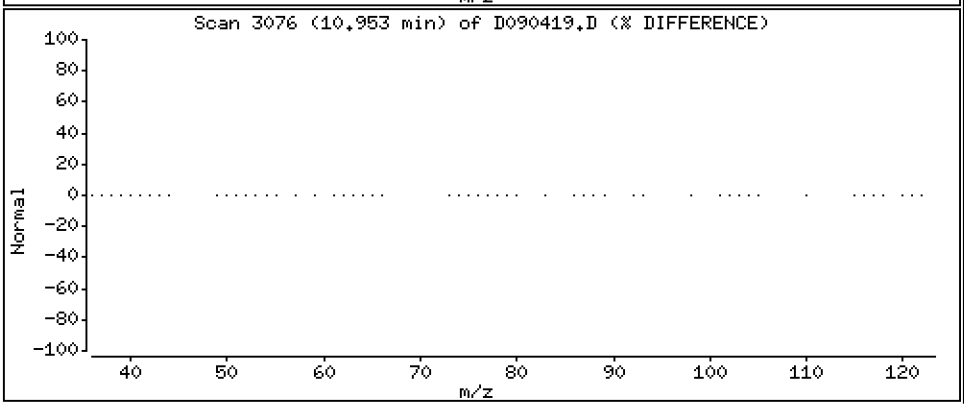












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 67

Date : 04-SEP-2018 18:03

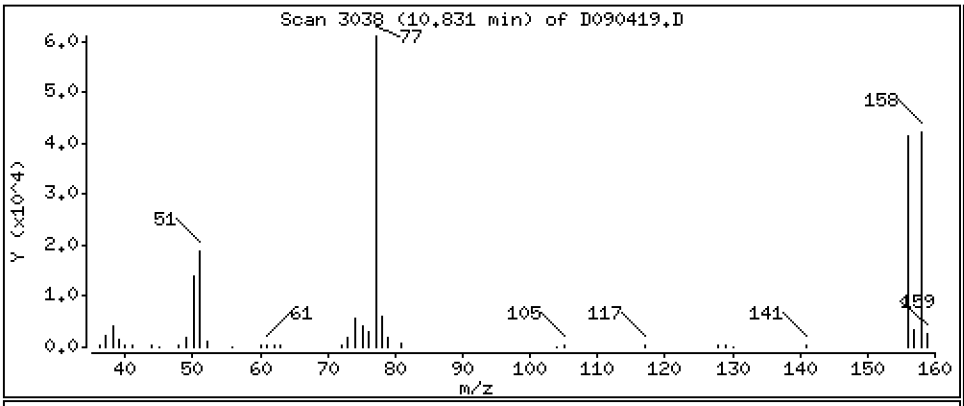
Client ID: HS18081504-01MSD Instrument: VOA2.i

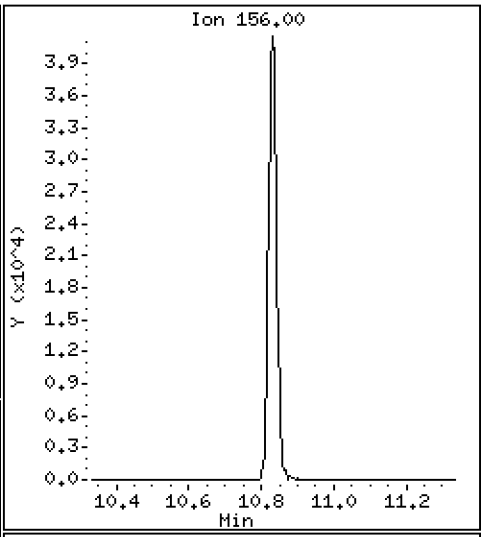
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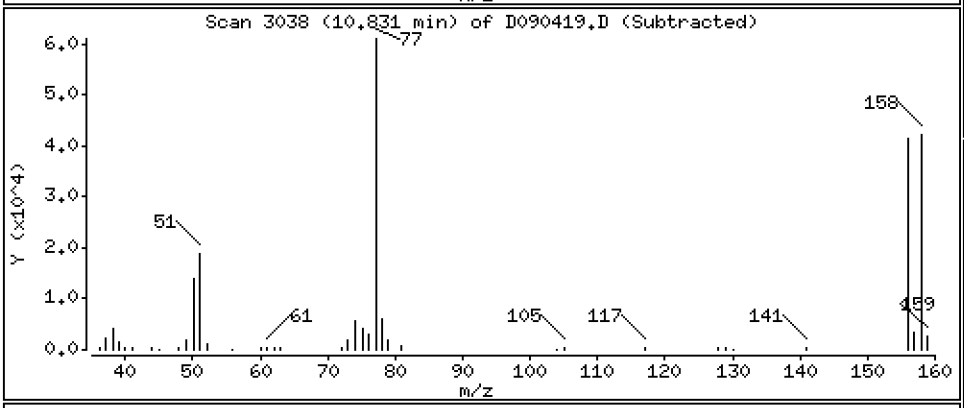
Purge Volume: 5.0 Operator: AP

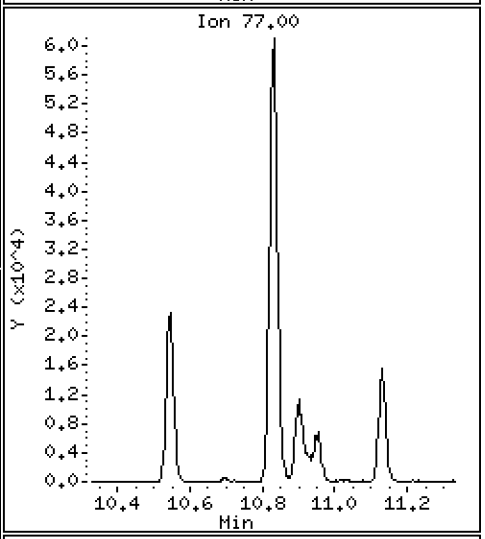
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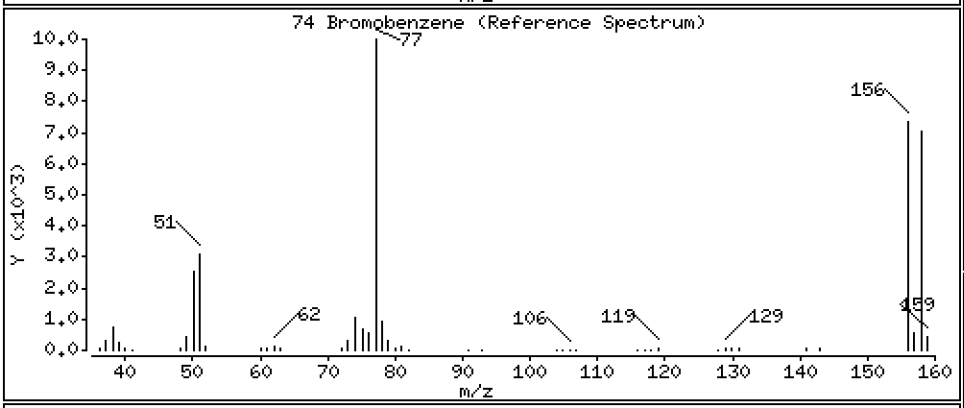
74 Bromobenzene Concentration: 16.77 ug/l Review Code:

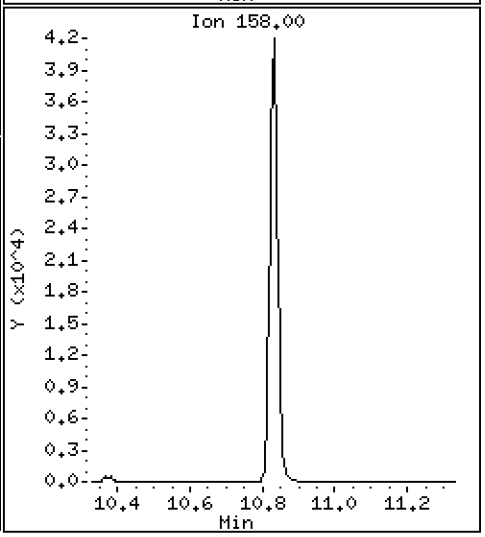


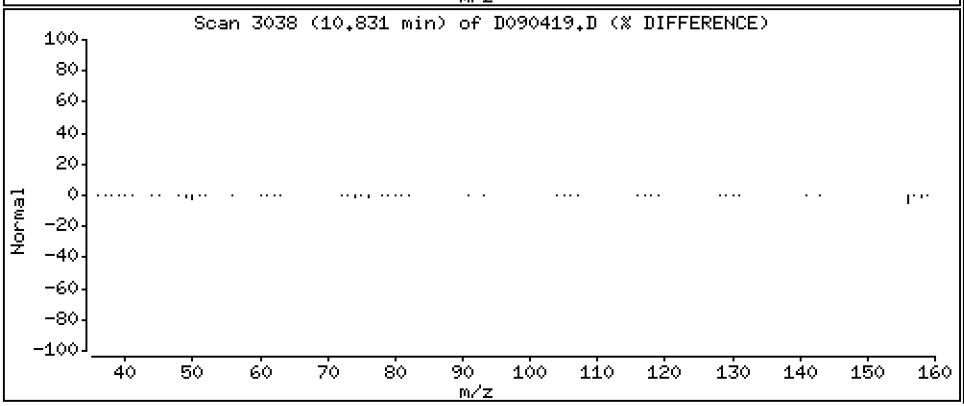












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 68

Date : 04-SEP-2018 18:03

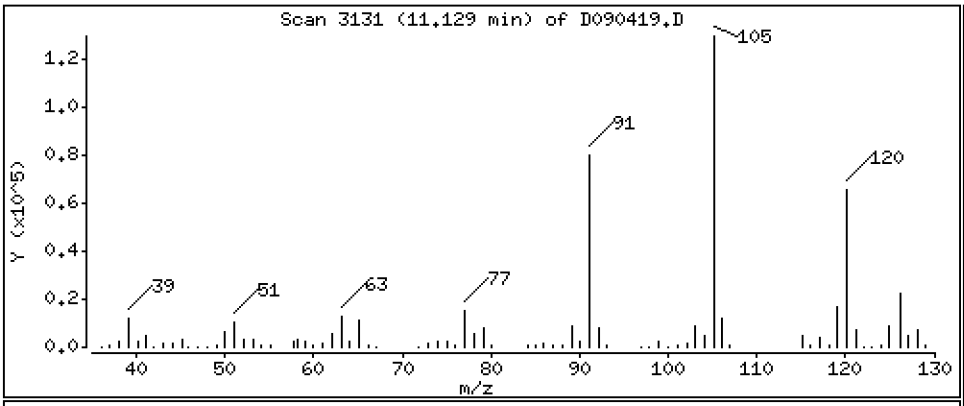
Client ID: HS18081504-01MSD Instrument: VOA2.i

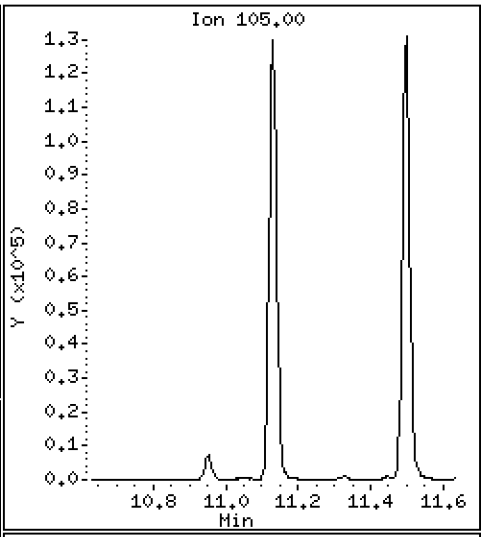
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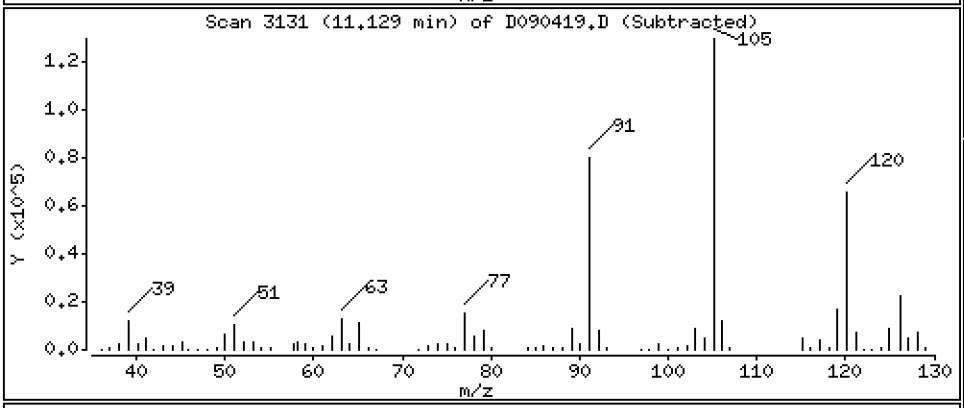
Purge Volume: 5.0 Operator: AP

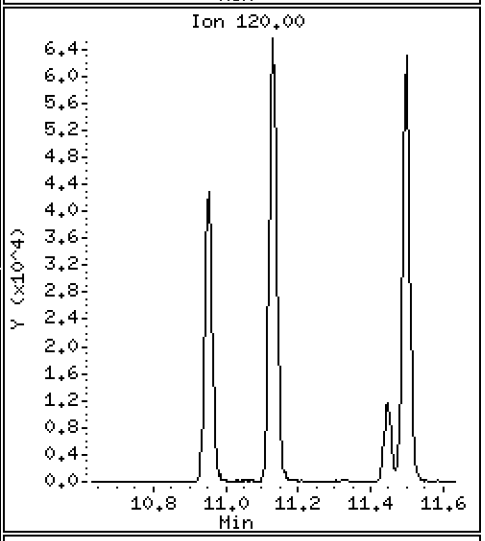
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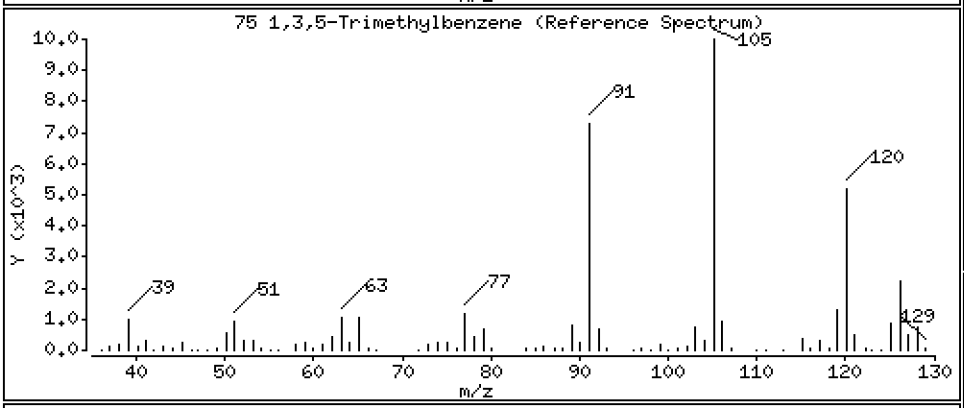
75 1,3,5-Trimethylbenzene Concentration: 16.44 ug/l Review Code:

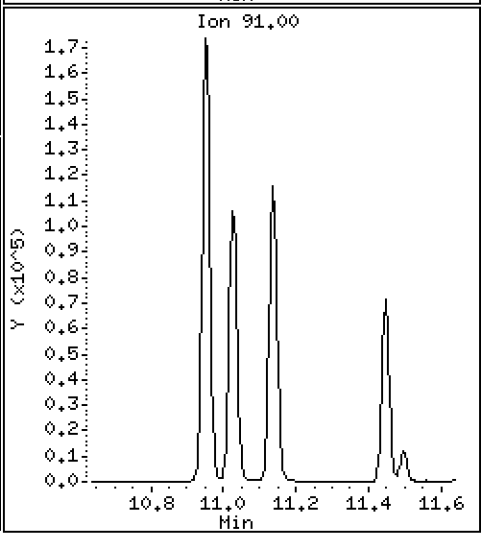


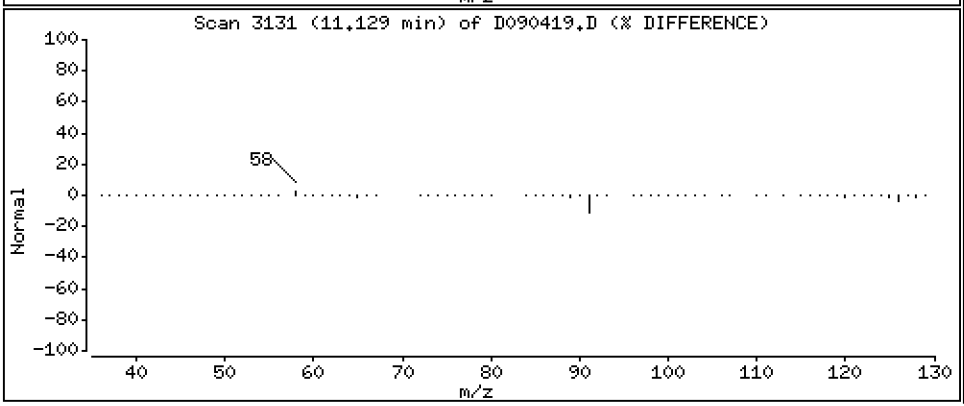












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 69

Date : 04-SEP-2018 18:03

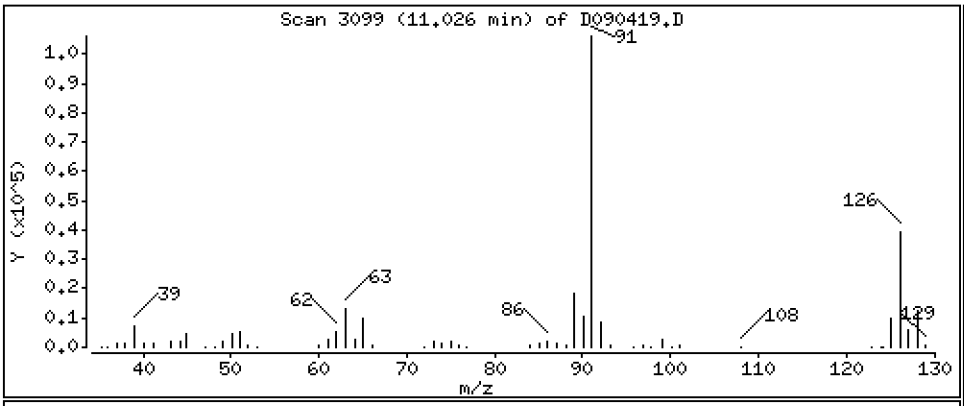
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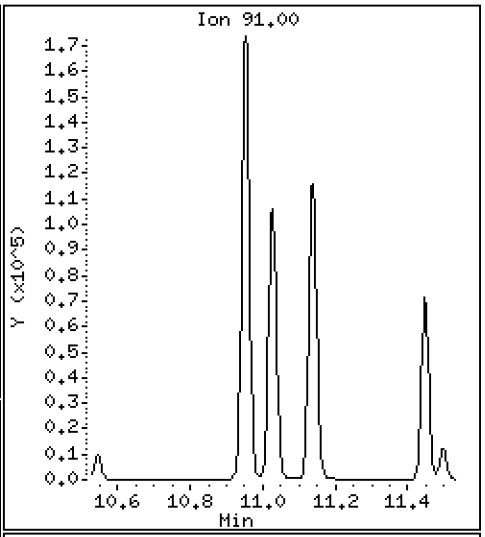
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

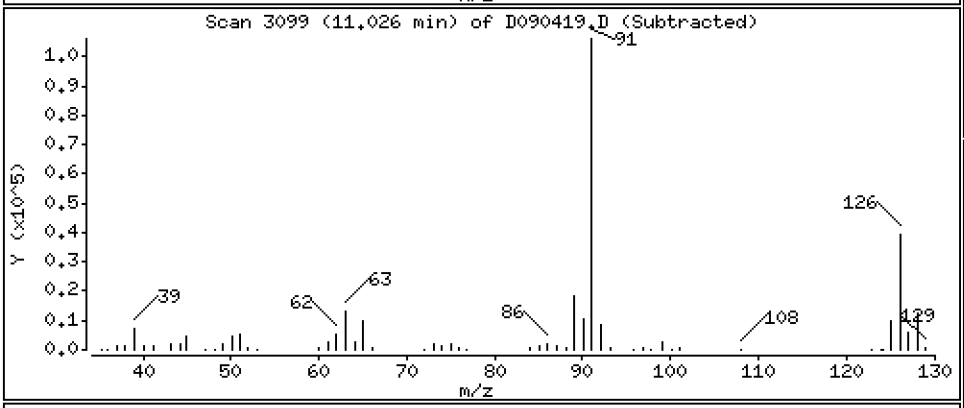
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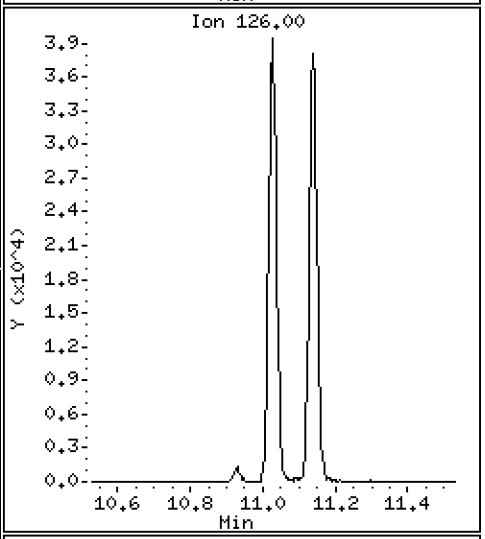
Column phase: DB624 Column diameter: 0.18

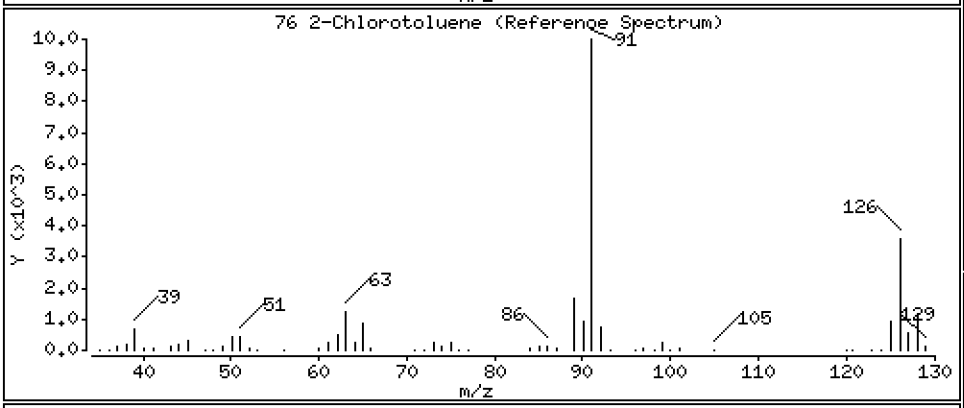
76 2-Chlorotoluene Concentration: 17.62 ug/l Review Code:

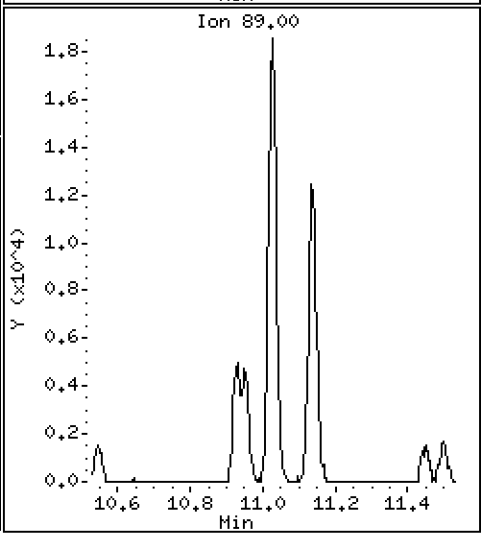


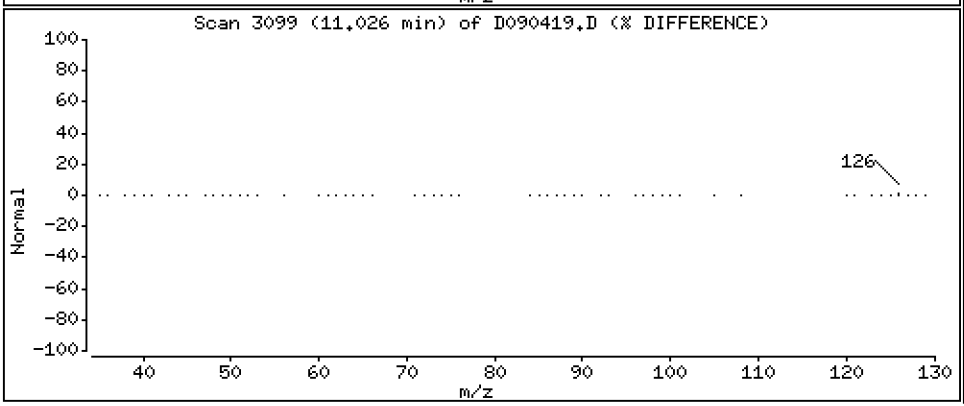












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 70

Date : 04-SEP-2018 18:03

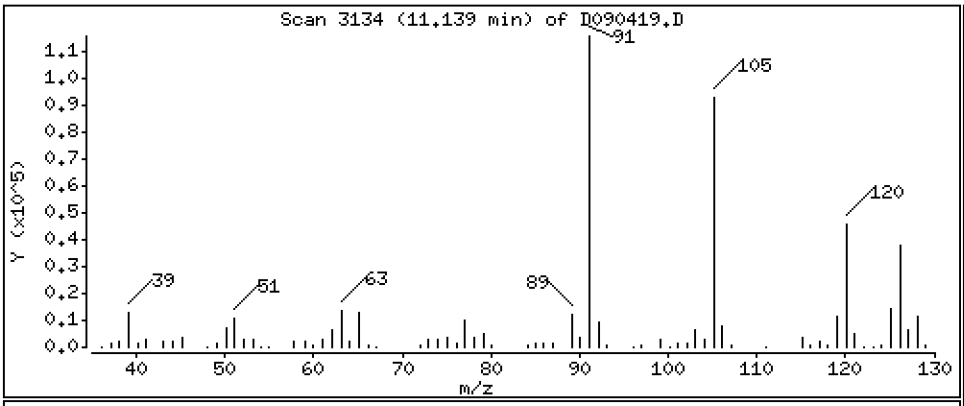
Client ID: HS18081504-01MSD Instrument: VOA2.i

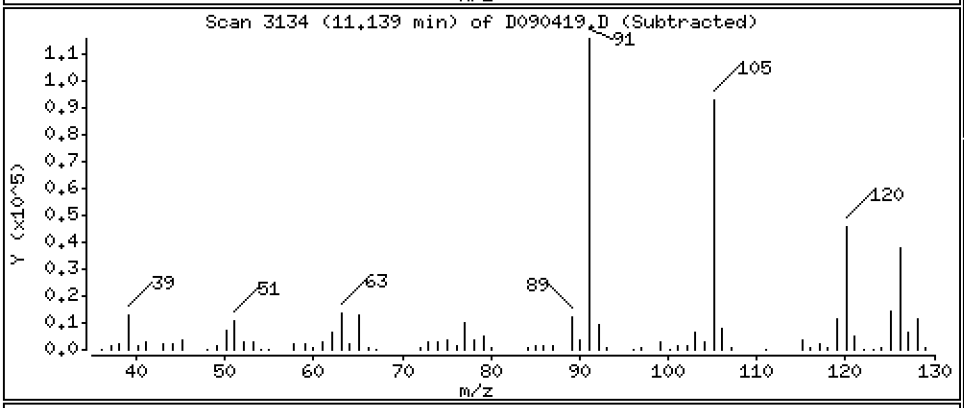
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

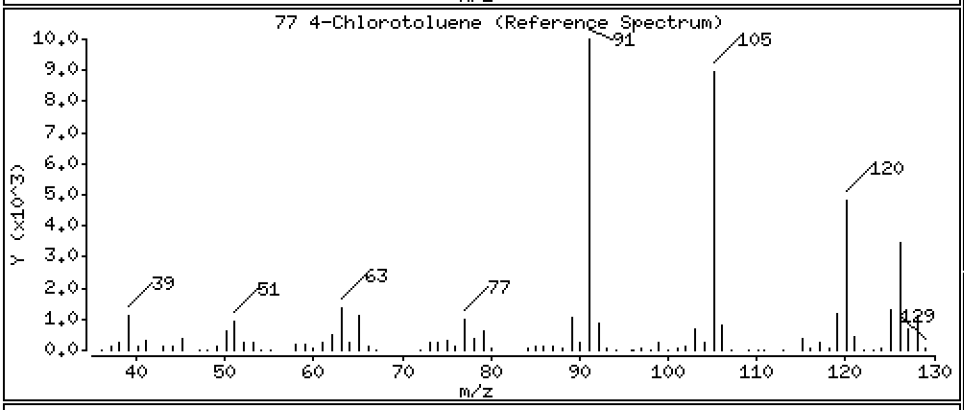
Purge Volume: 5.0 Operator: AP

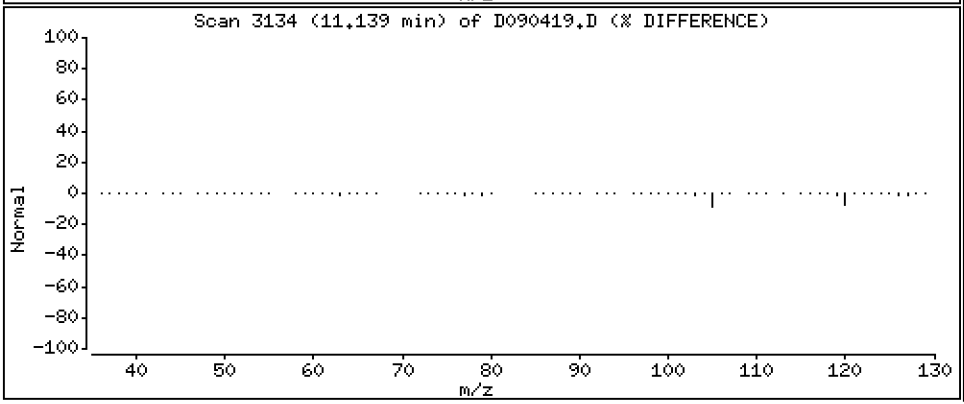
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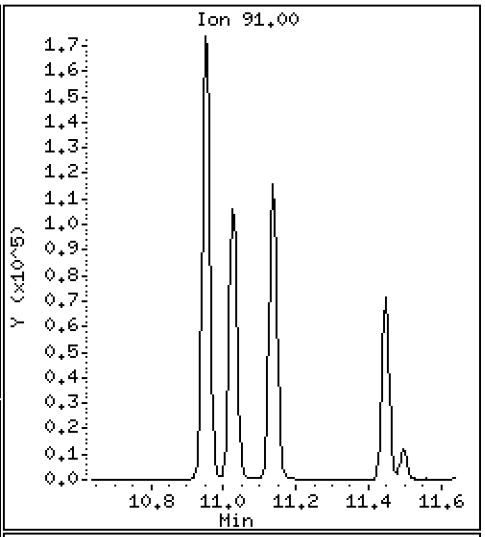
77 4-Chlorotoluene Concentration: 17.59 ug/l Review Code:

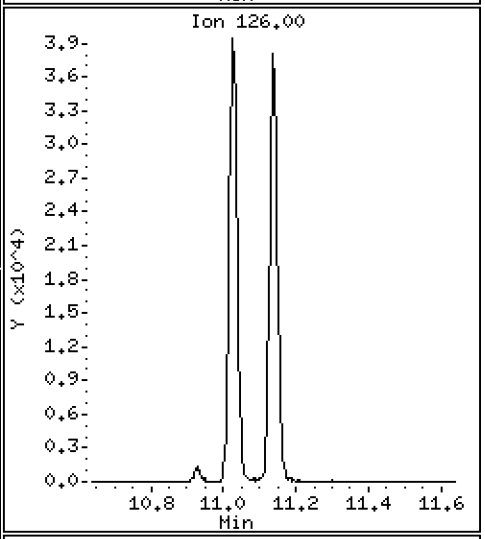


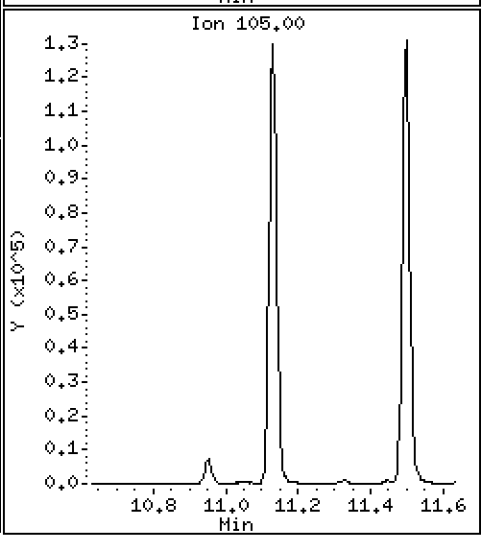












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 71

Date : 04-SEP-2018 18:03

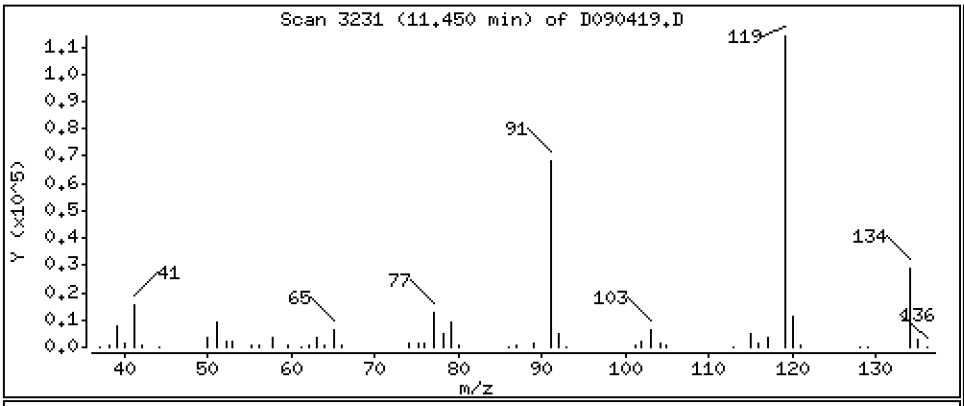
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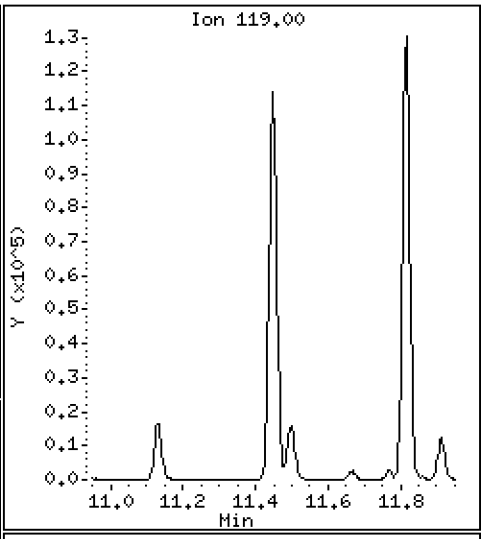
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

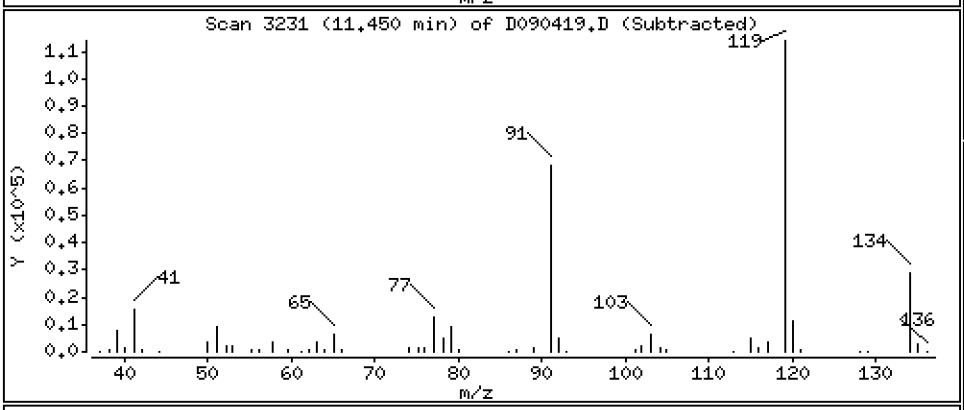
Purge Volume: 5.0 Operator: AP

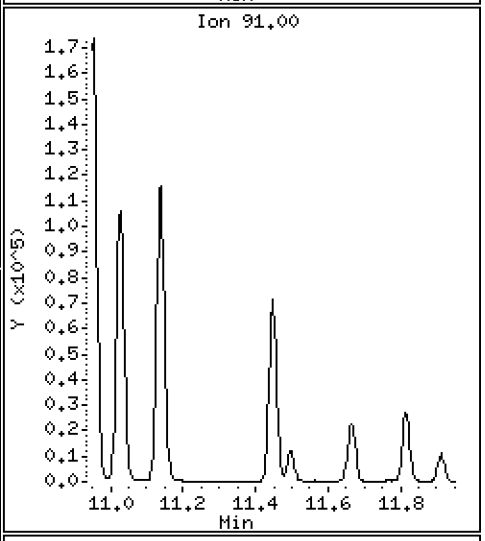
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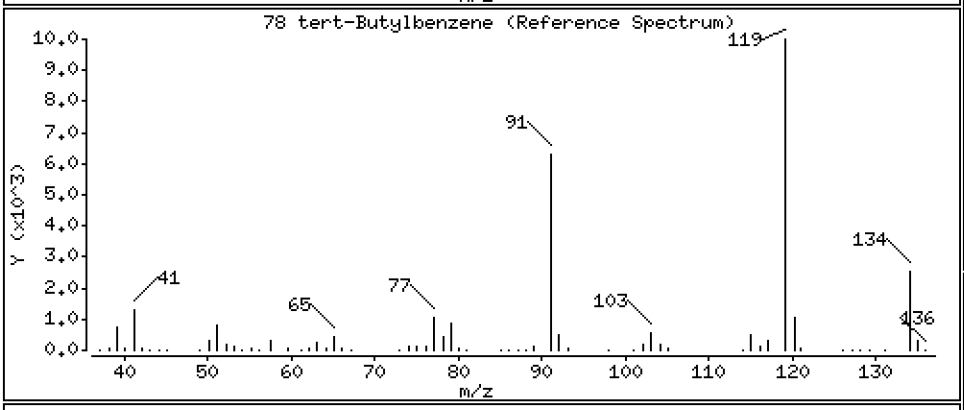
78 tert-Butylbenzene Concentration: 18.22 ug/l Review Code:

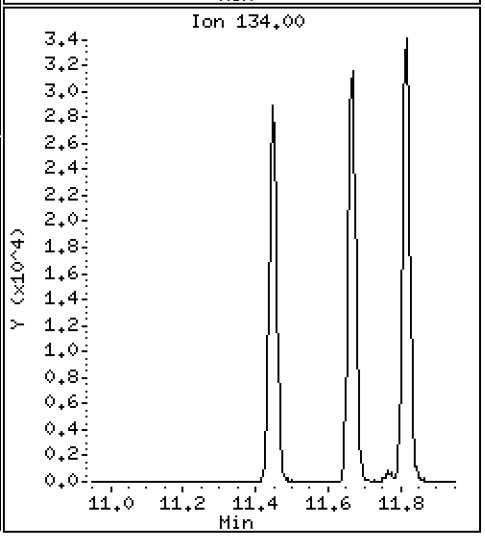


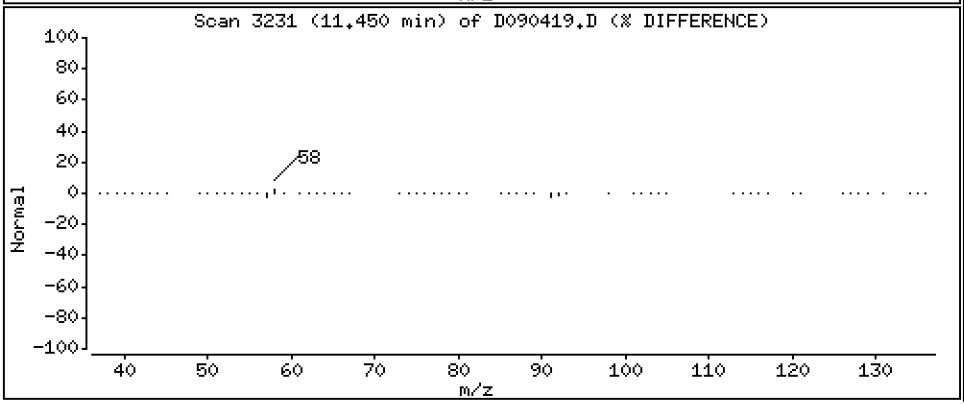












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 72

Date : 04-SEP-2018 18:03

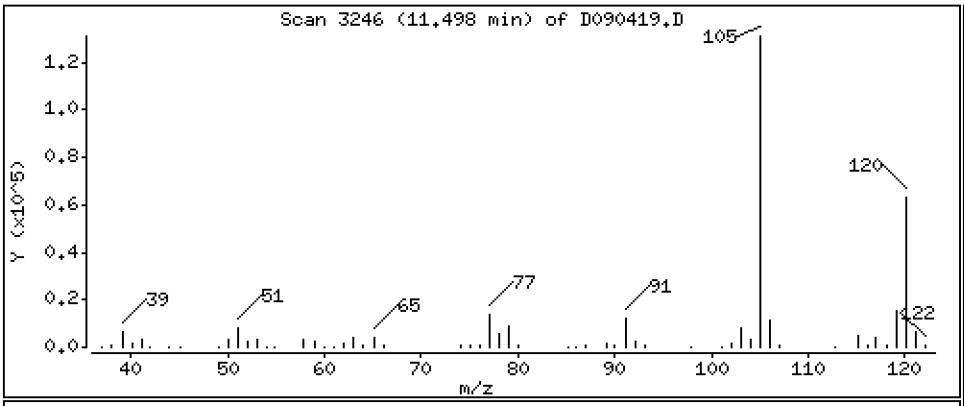
Client ID: HS18081504-01MSD Instrument: VOA2.i

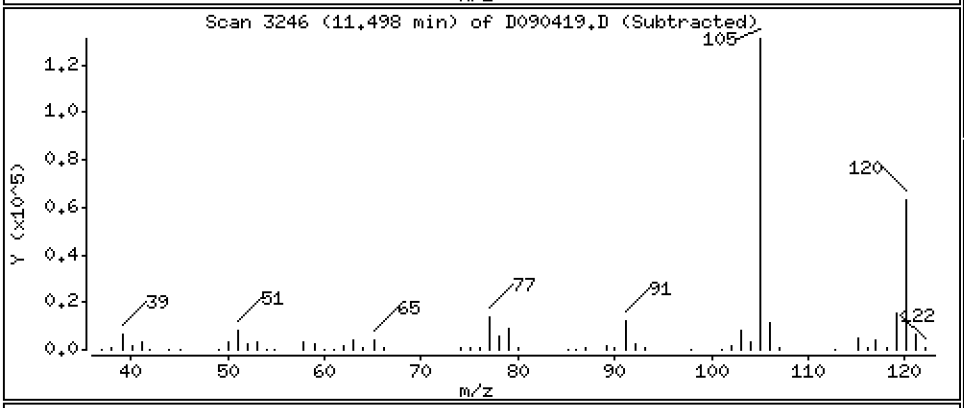
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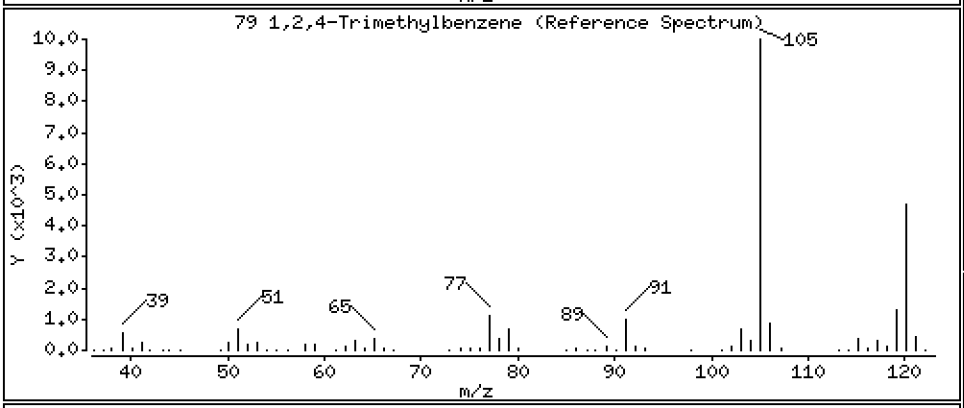
Purge Volume: 5.0 Operator: AP

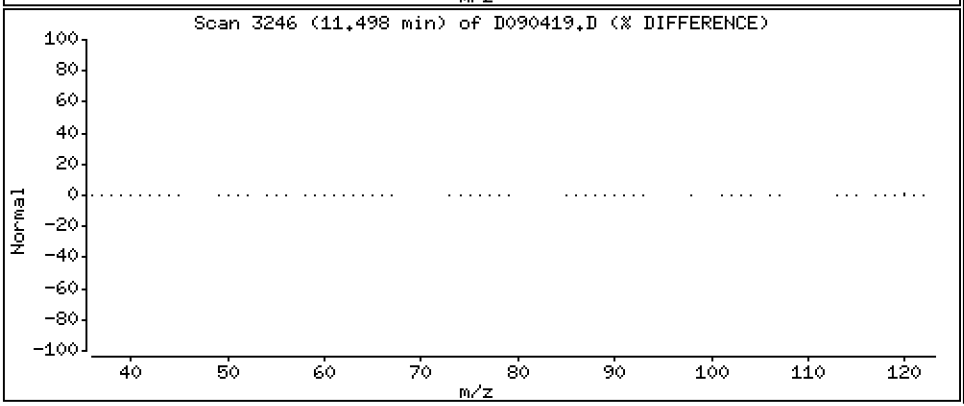
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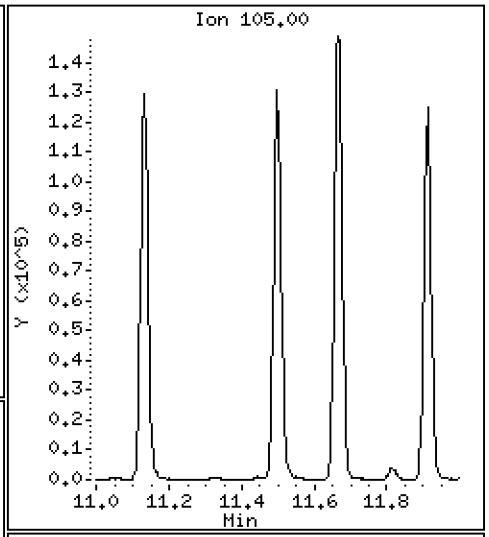
79 1,2,4-Trimethylbenzene Concentration: 17.53 ug/l Review Code:

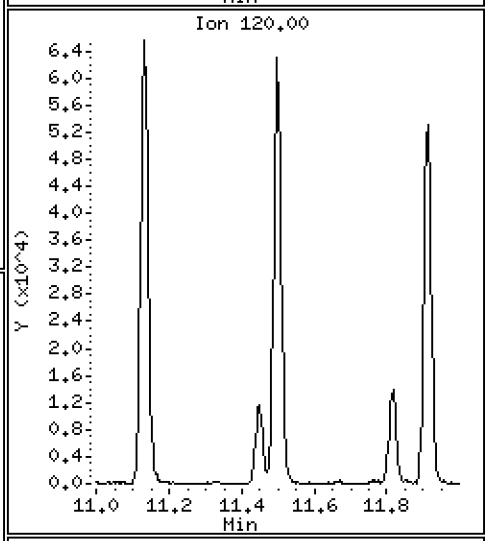


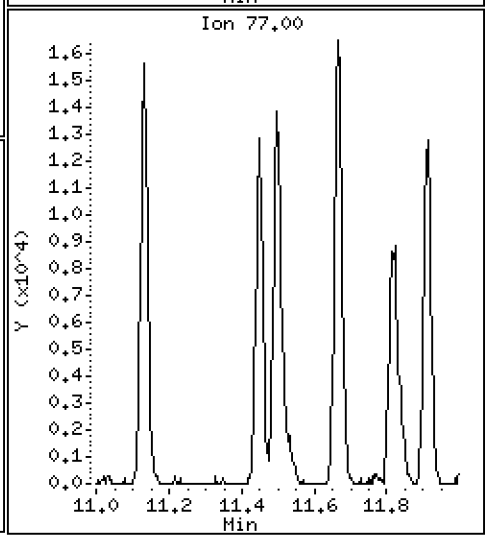












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 73

Date : 04-SEP-2018 18:03

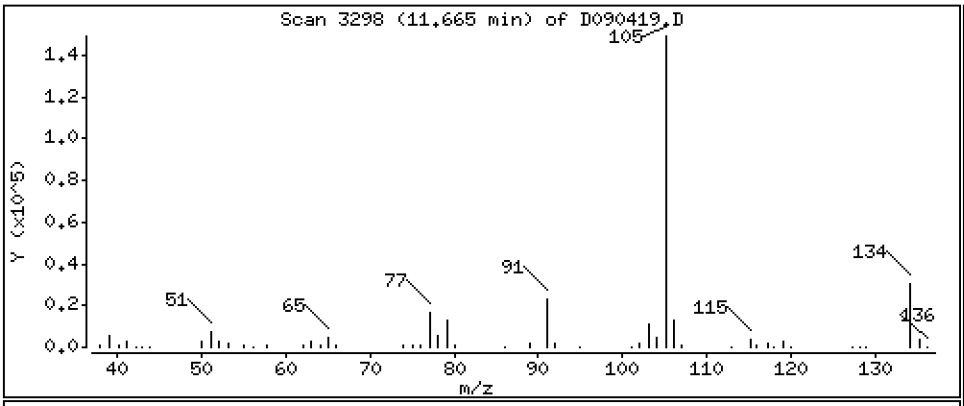
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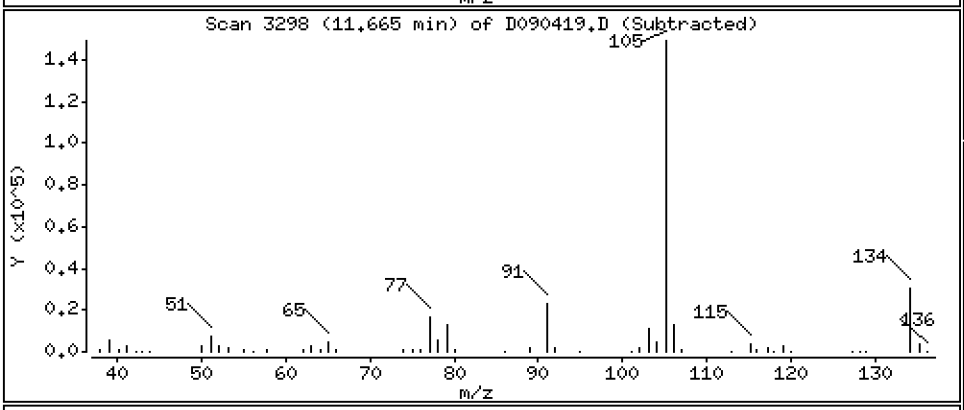
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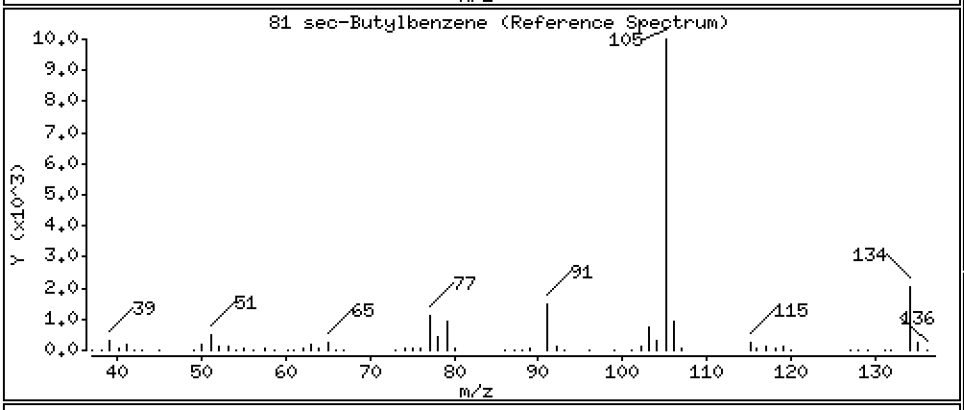
Purge Volume: 5.0 Operator: AP

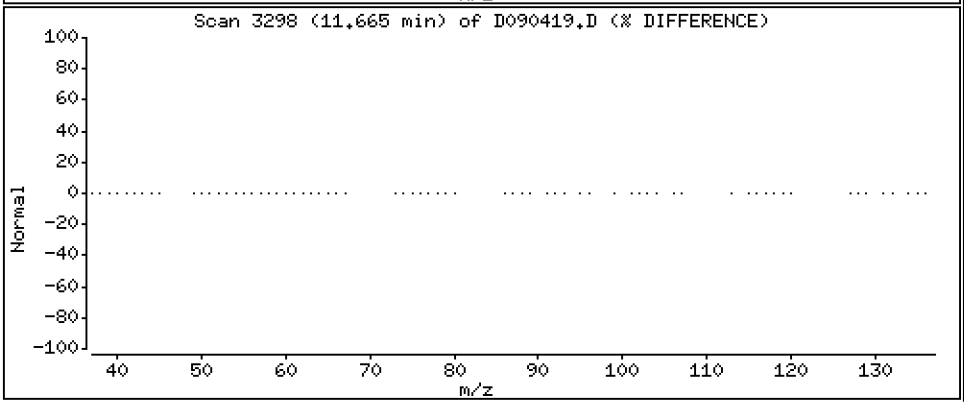
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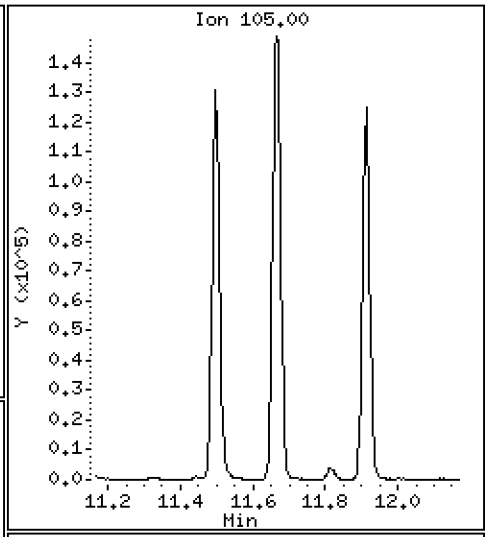
81 sec-Butylbenzene Concentration: 16.36 ug/l Review Code:

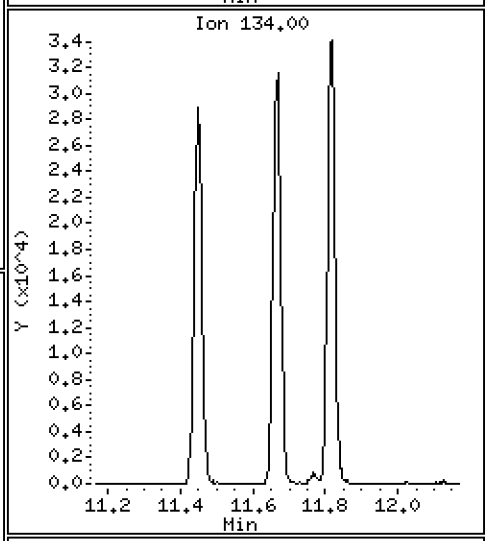


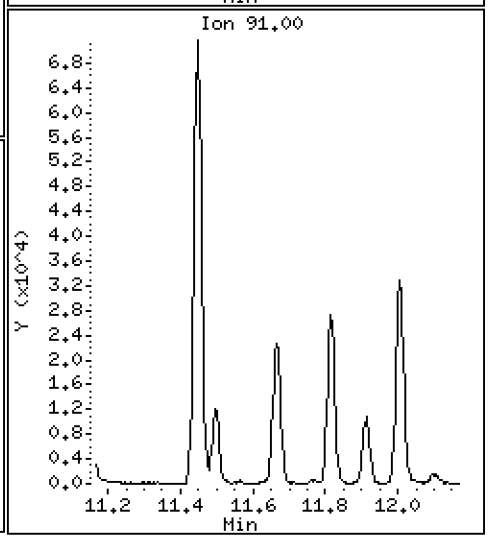












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 74

Date : 04-SEP-2018 18:03

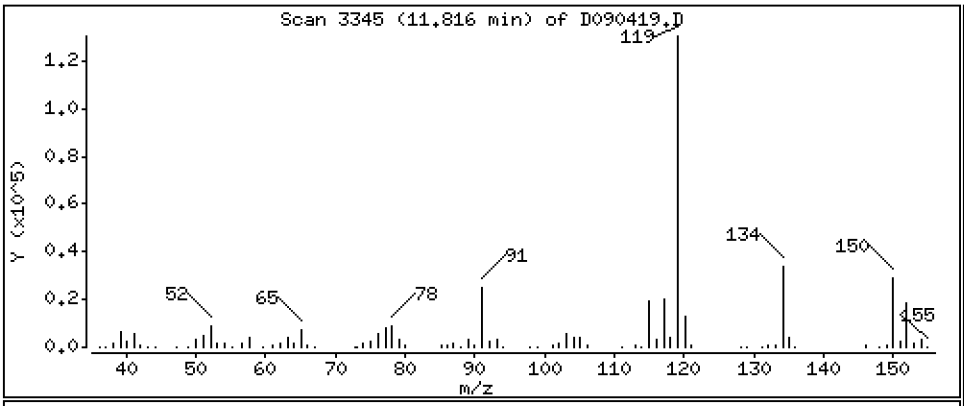
Client ID: HS18081504-01MSD Instrument: VOA2.i

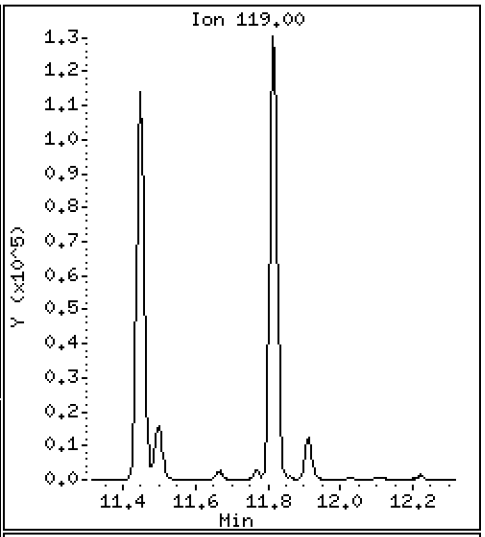
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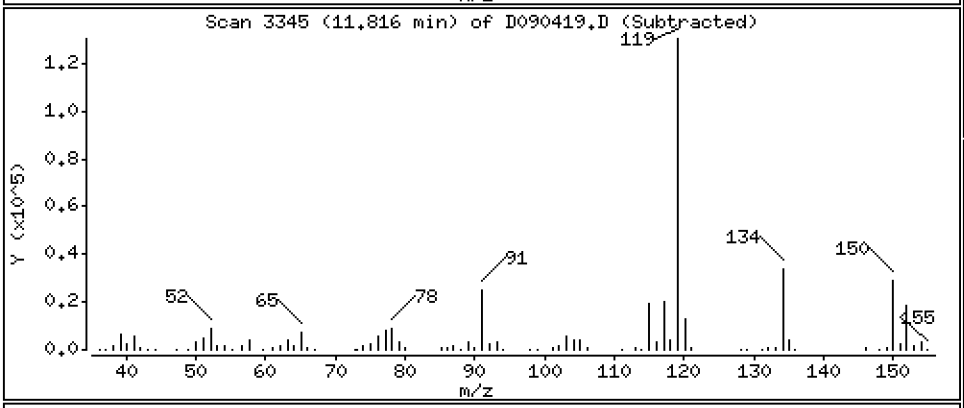
Purge Volume: 5.0 Operator: AP

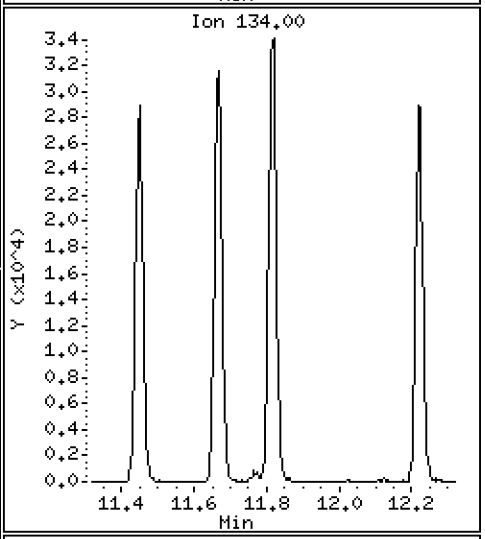
Column phase: DB624 Column diameter: 0.18

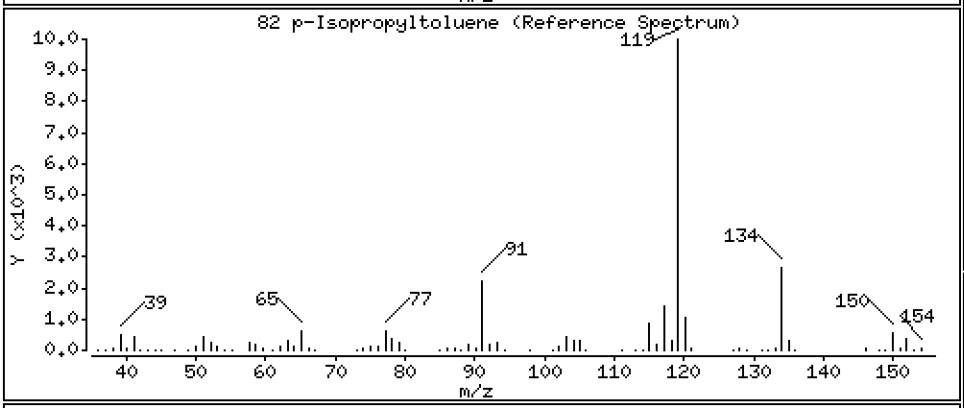
82 p-Isopropyltoluene Concentration: 16.18 ug/l Review Code:

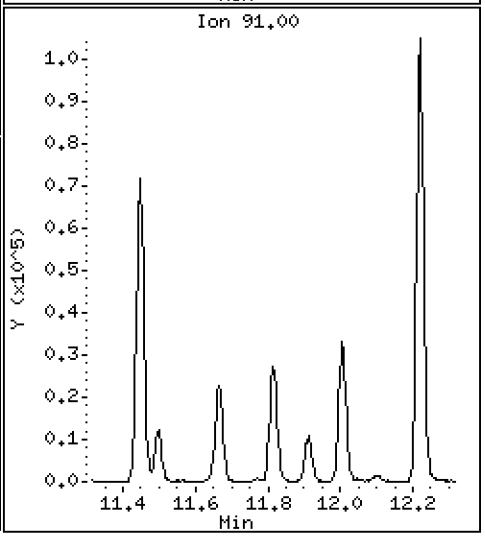


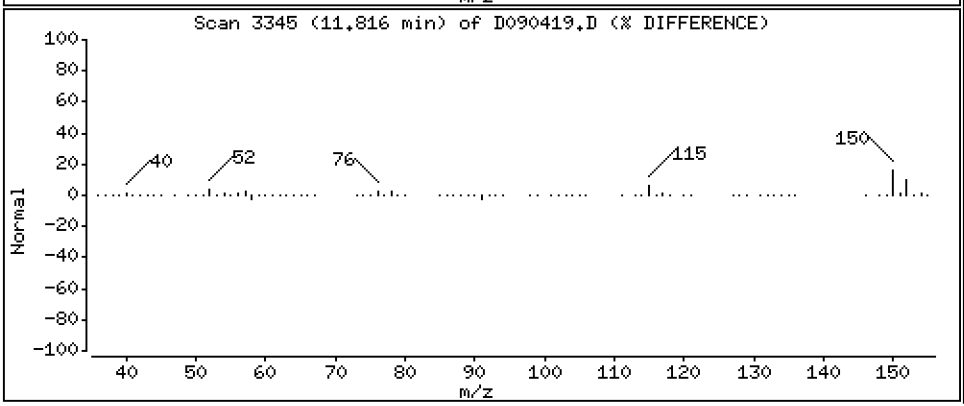












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 75

Date : 04-SEP-2018 18:03

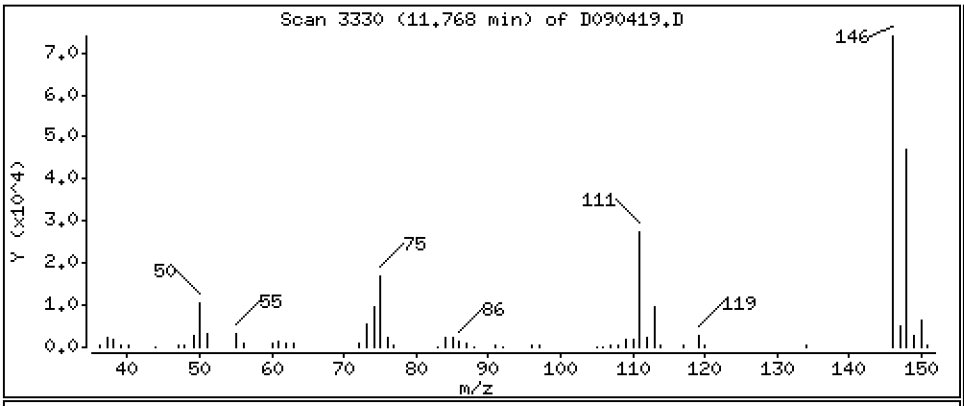
Client ID: HS18081504-01MSD Instrument: VOA2.i

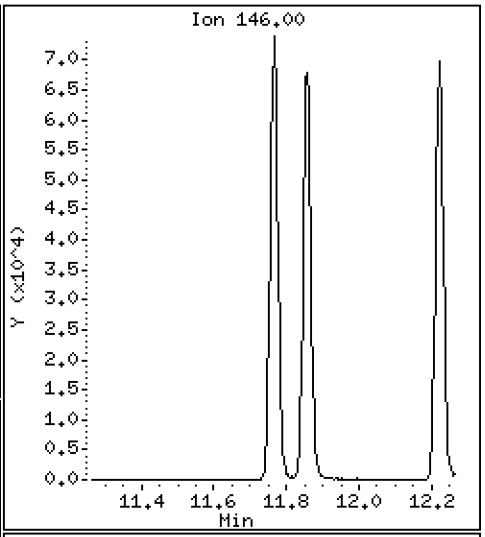
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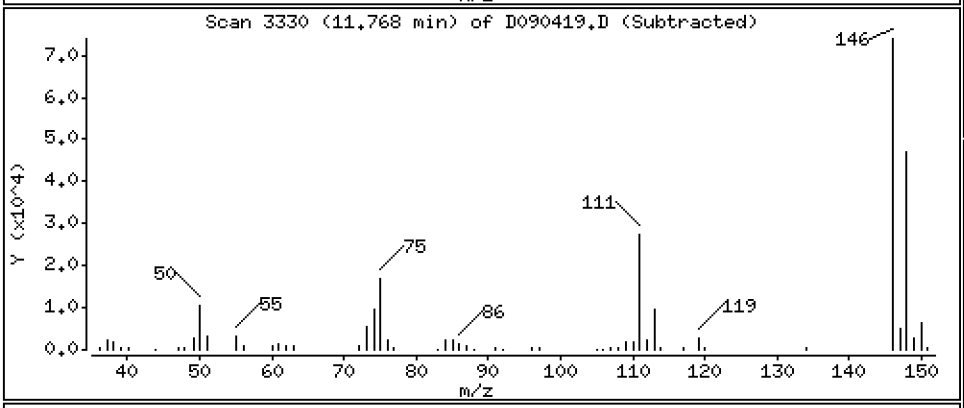
Purge Volume: 5.0 Operator: AP

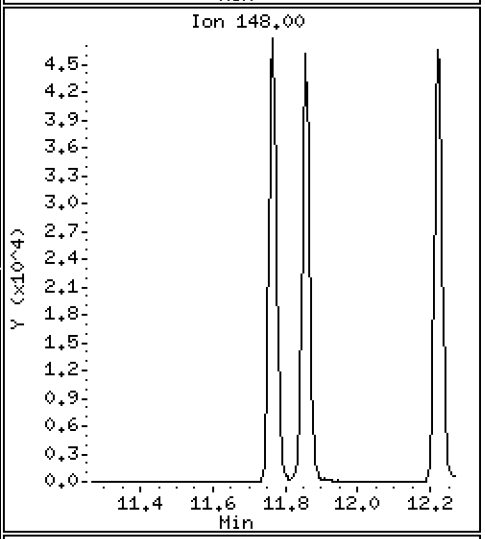
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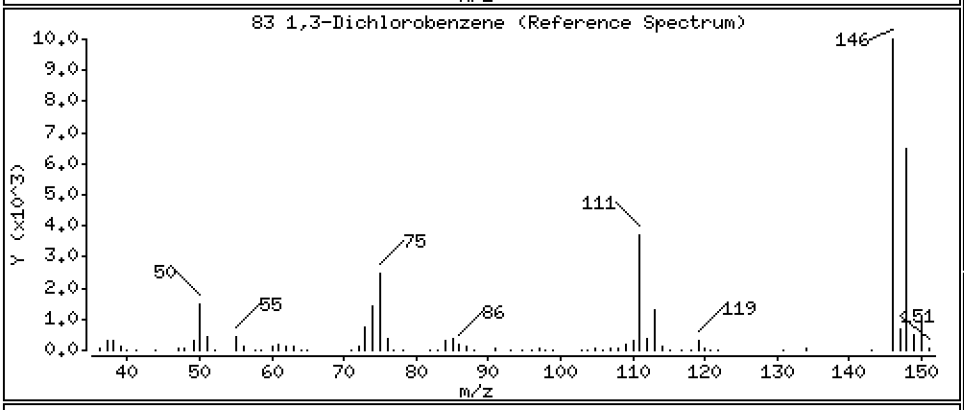
83 1,3-Dichlorobenzene Concentration: 16.95 ug/l Review Code:

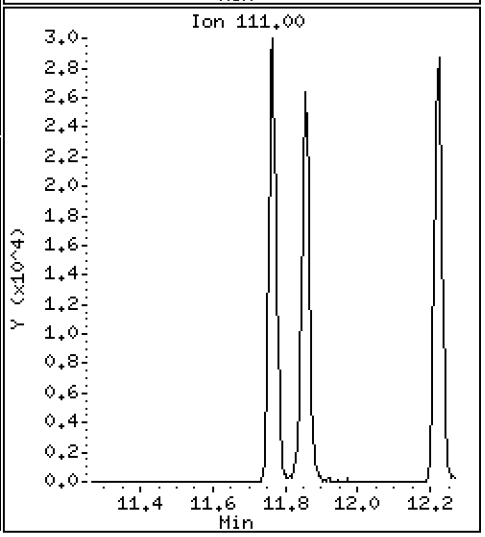


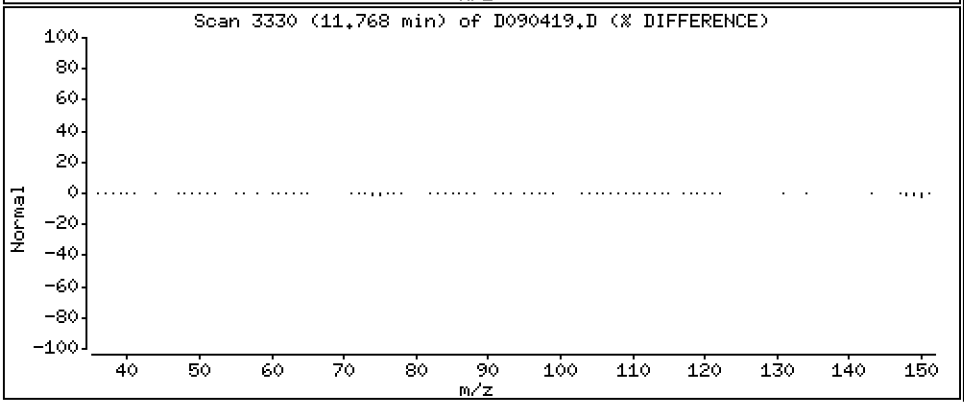












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 76

Date : 04-SEP-2018 18:03

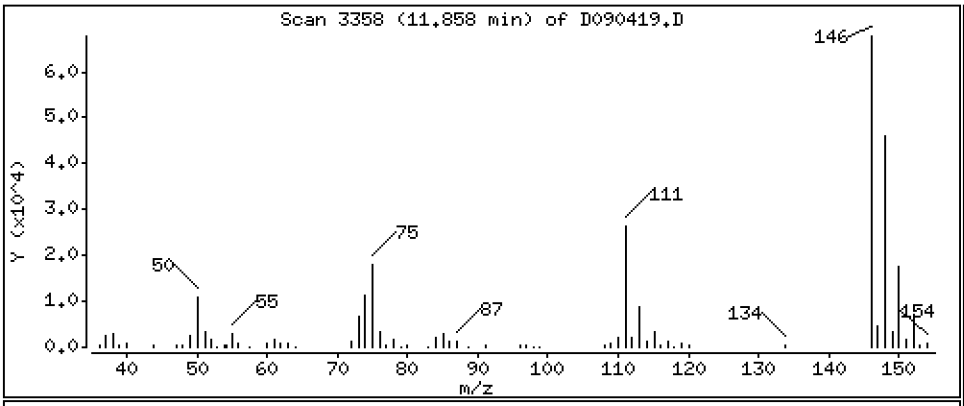
Client ID: HS18081504-01MSD Instrument: VOA2.i

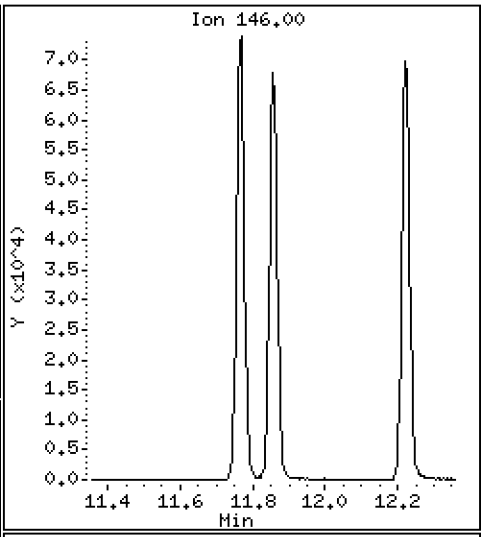
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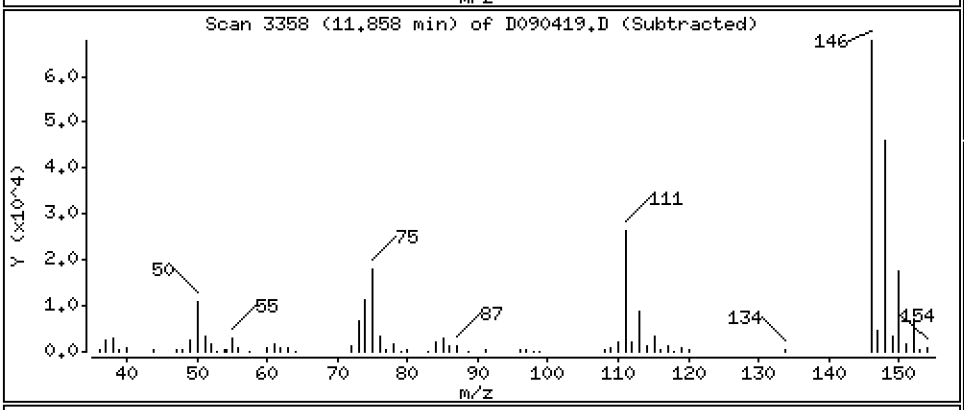
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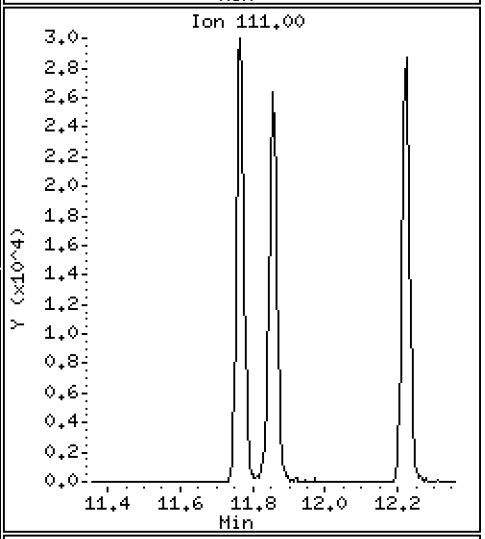
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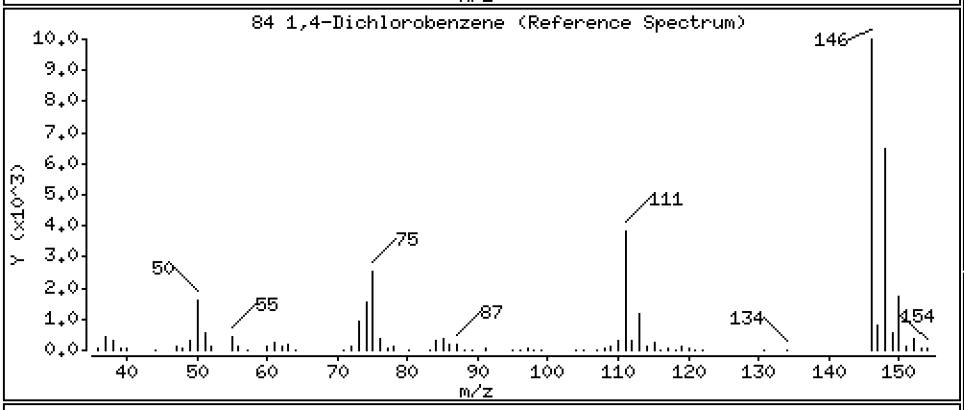
84 1,4-Dichlorobenzene Concentration: 16.87 ug/l Review Code:

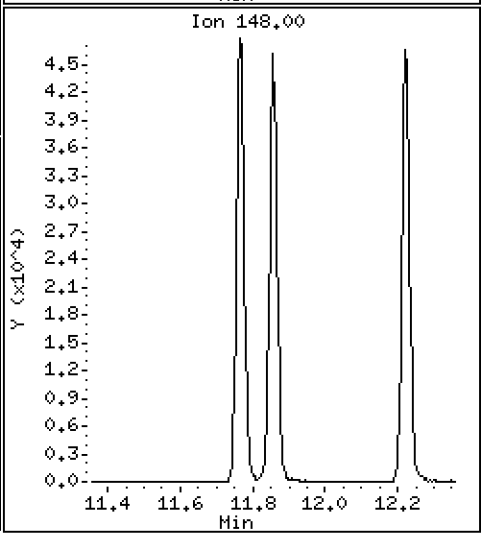


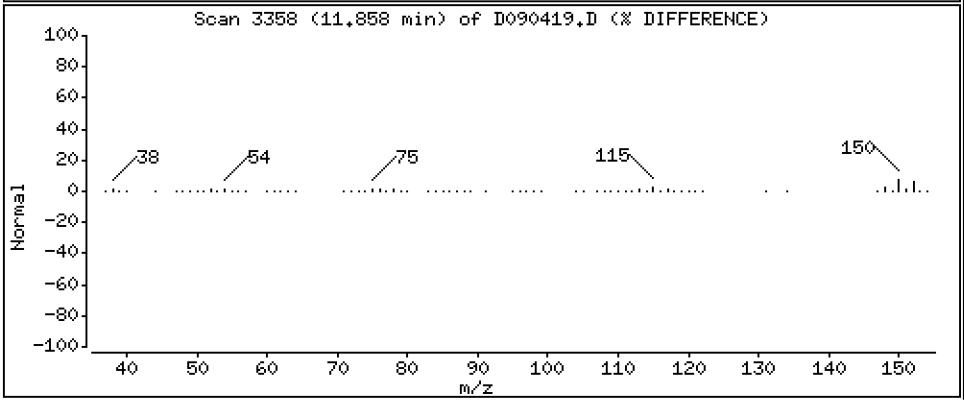












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 77

Date : 04-SEP-2018 18:03

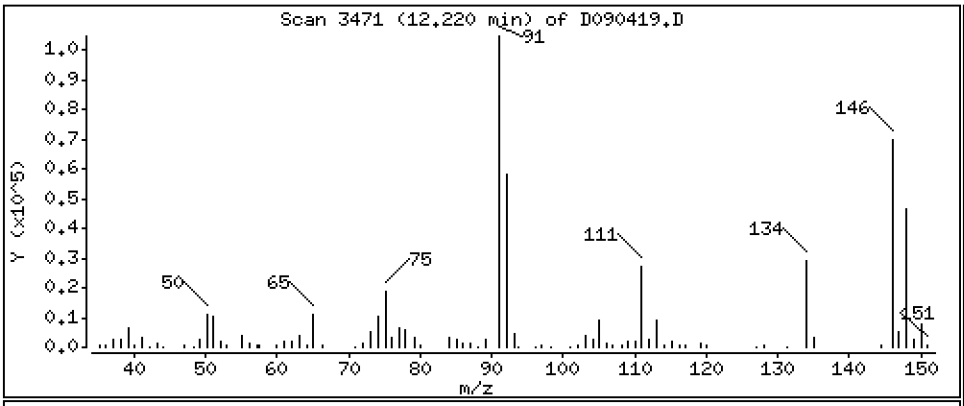
Client ID: HS18081504-01MSD Instrument: VOA2.i

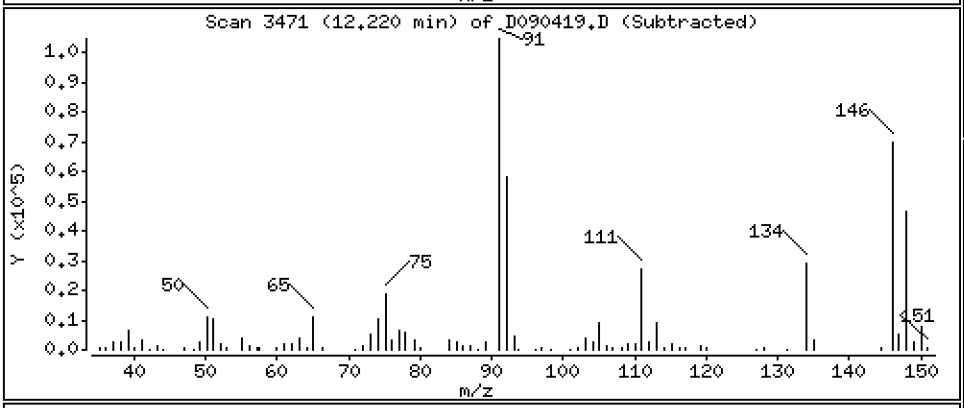
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

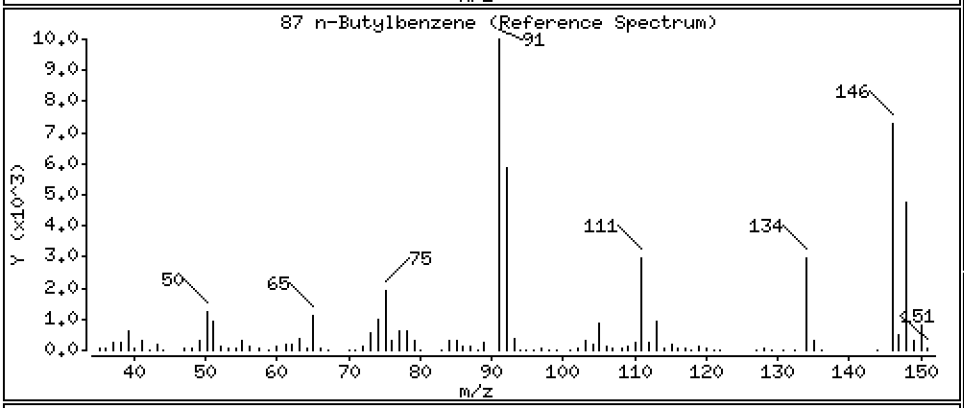
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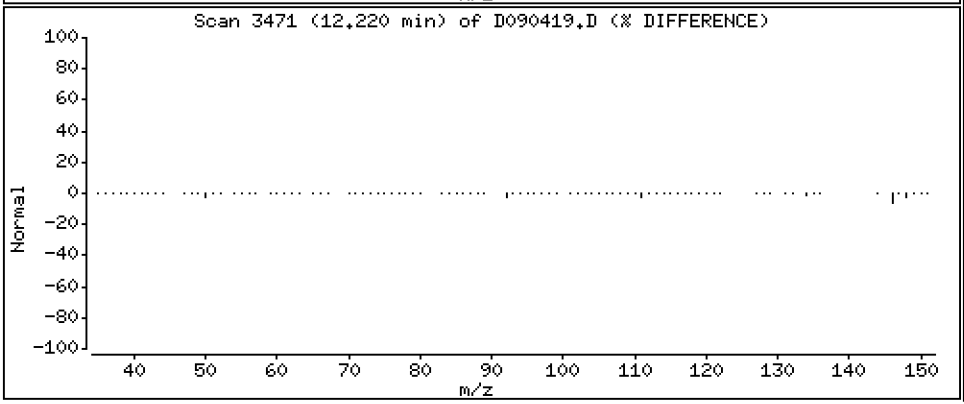
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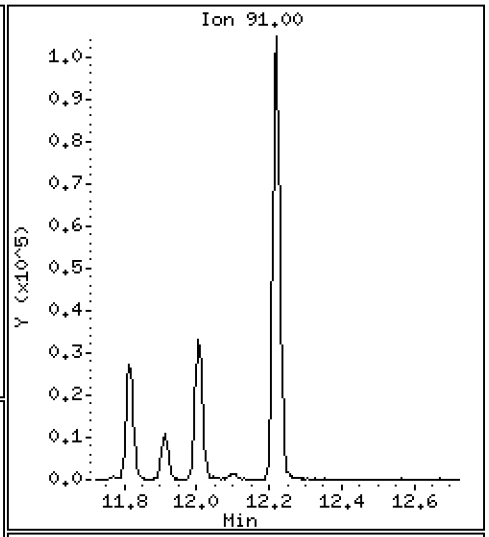
87 n-Butylbenzene Concentration: 16.74 ug/l Review Code:

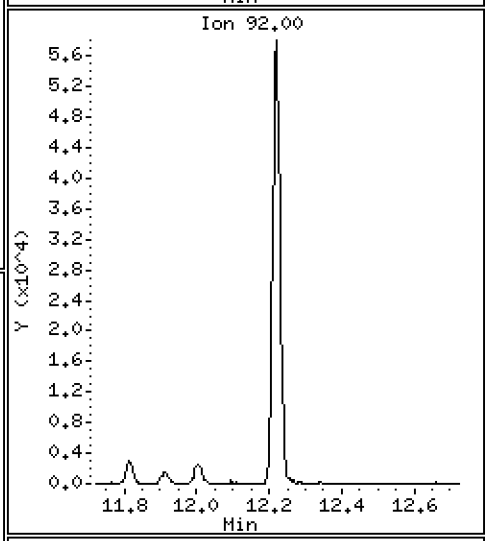


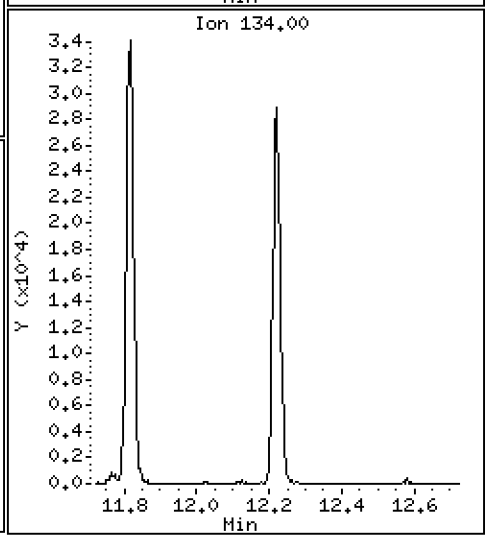












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 78

Date : 04-SEP-2018 18:03

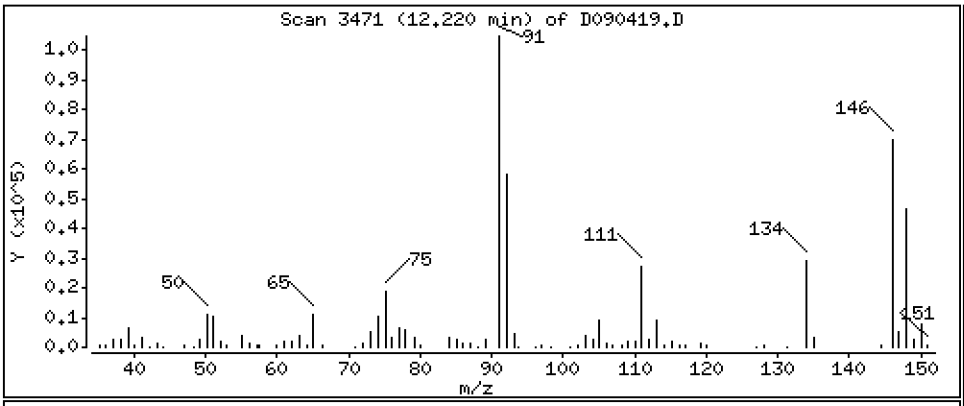
Client ID: HS18081504-01MSD Instrument: VOA2.i

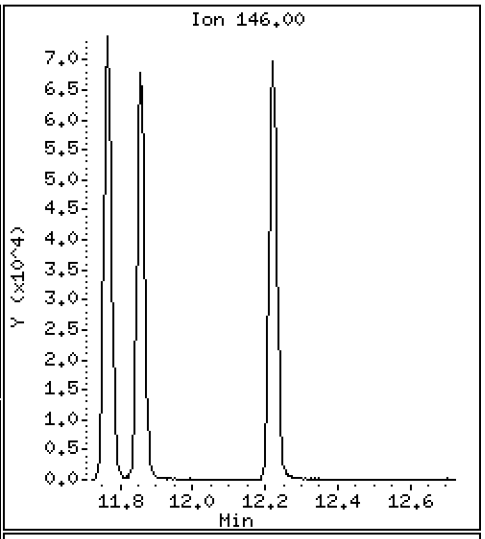
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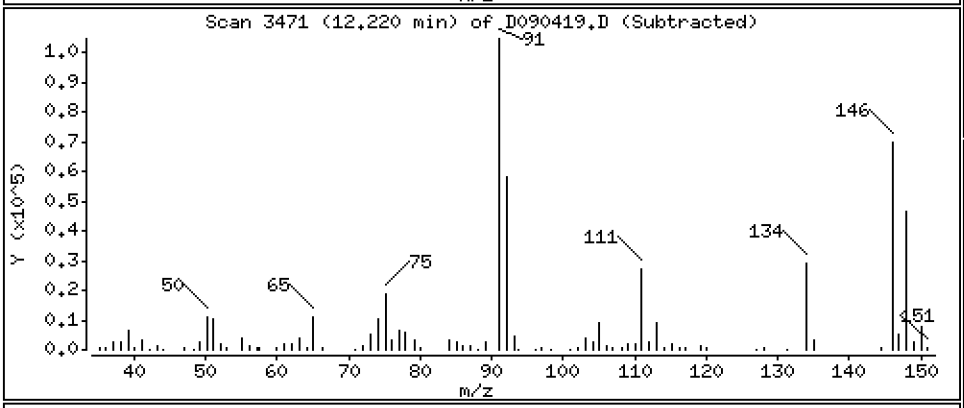
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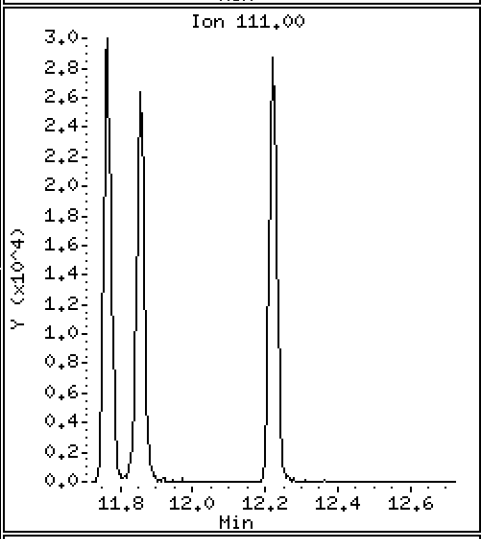
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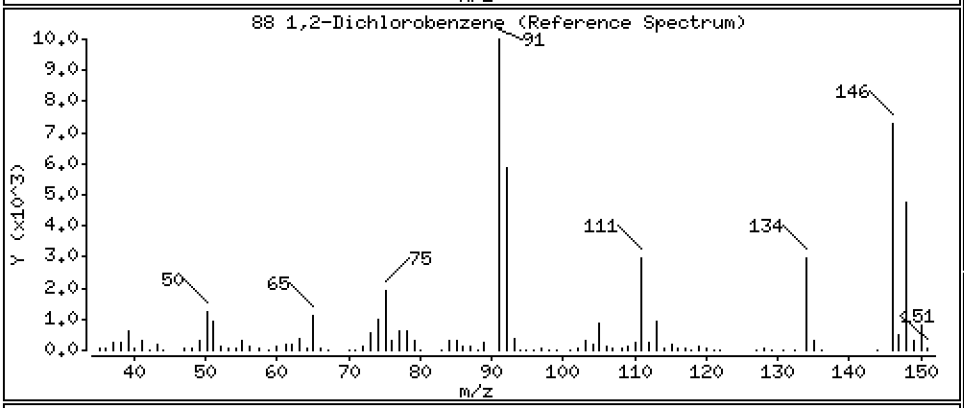
88 1,2-Dichlorobenzene Concentration: 16.60 ug/l Review Code:

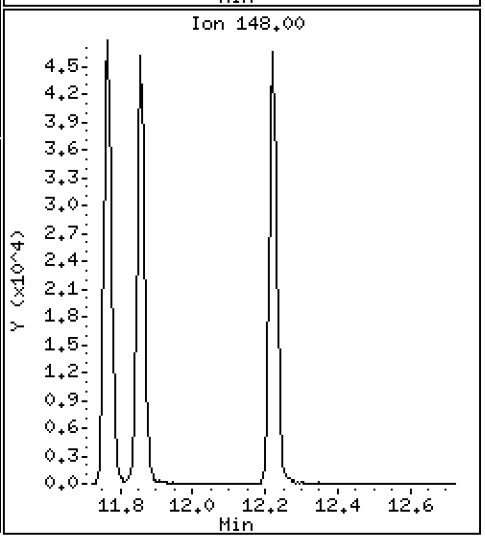


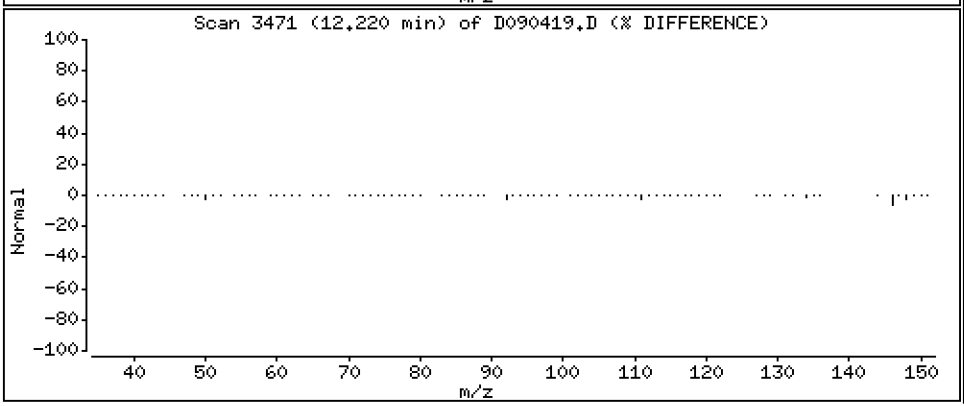












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 79

Date : 04-SEP-2018 18:03

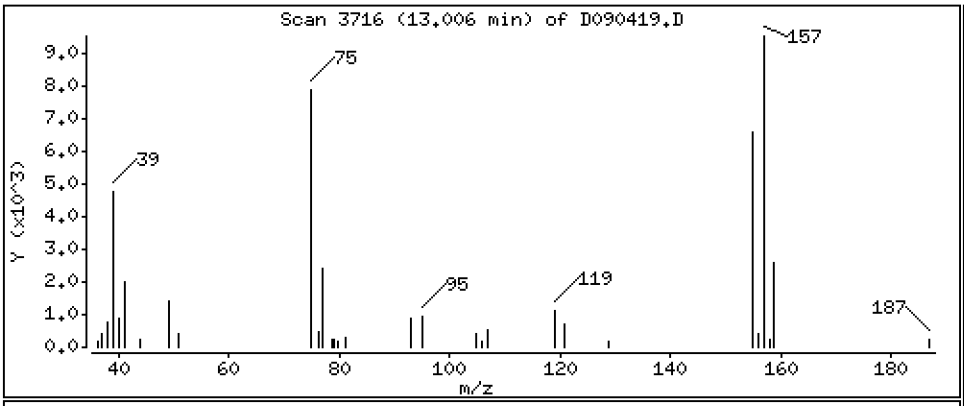
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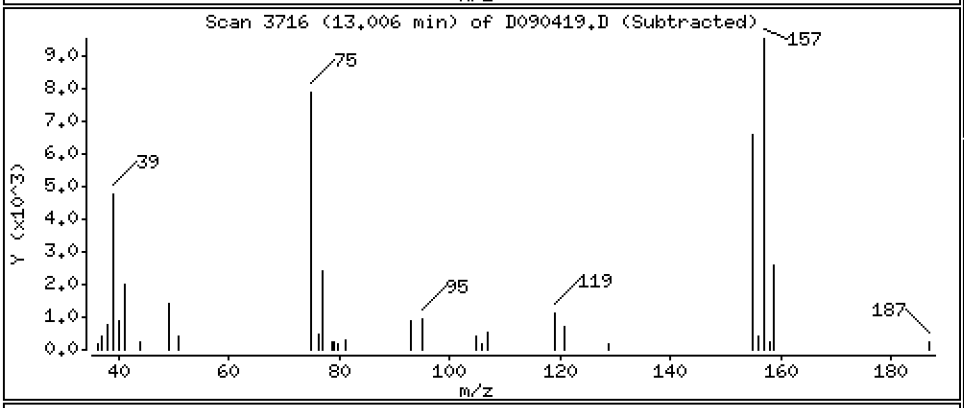
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

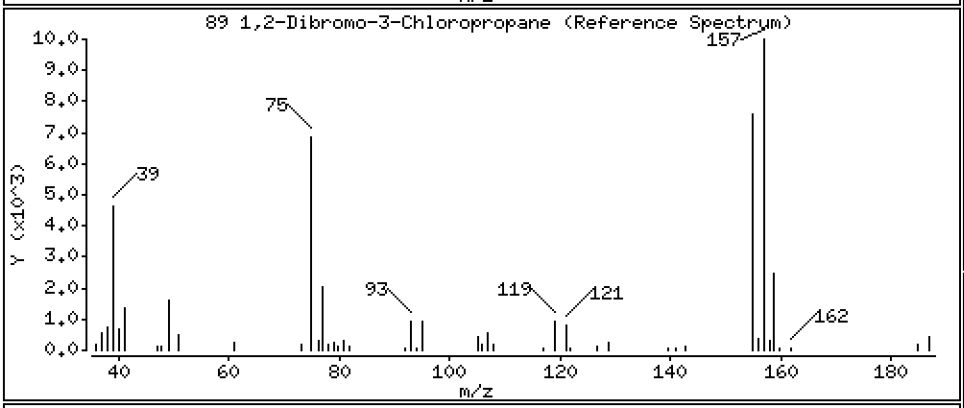
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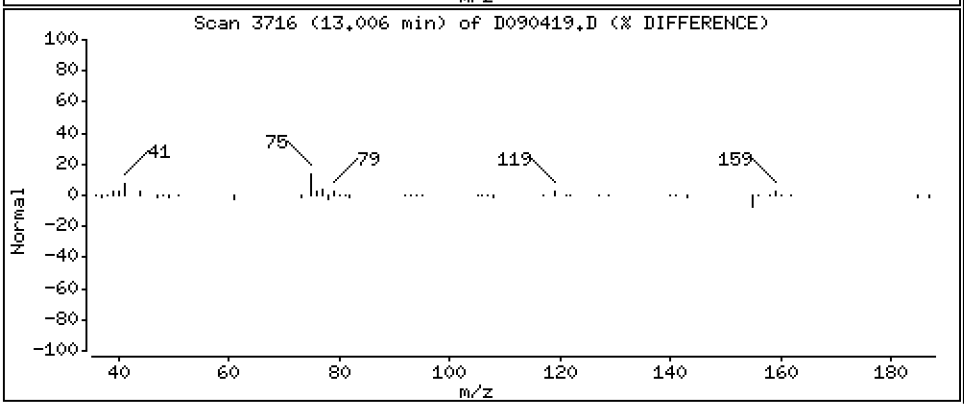
Column phase: DB624 Column diameter: 0.18

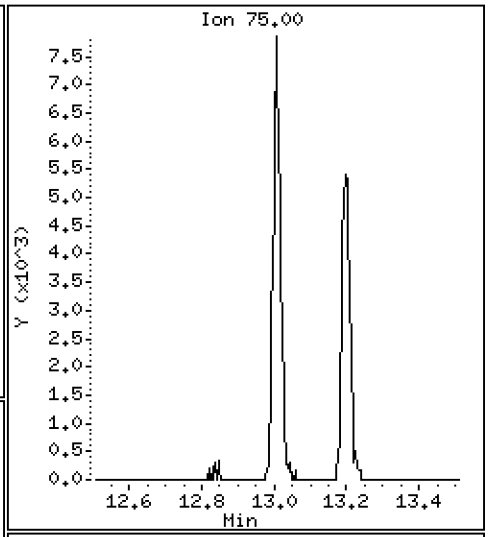
89 1,2-Dibromo-3-Chloropropane Concentration: 15.39 ug/l Review Code:

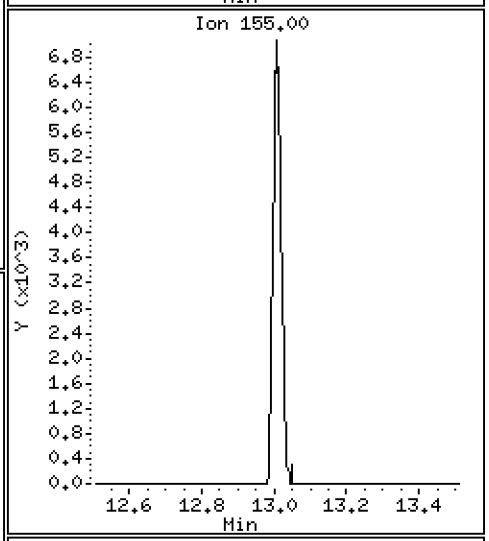


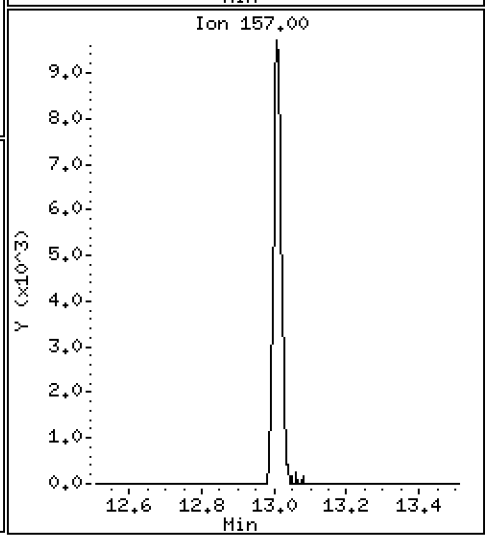












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 80

Date : 04-SEP-2018 18:03

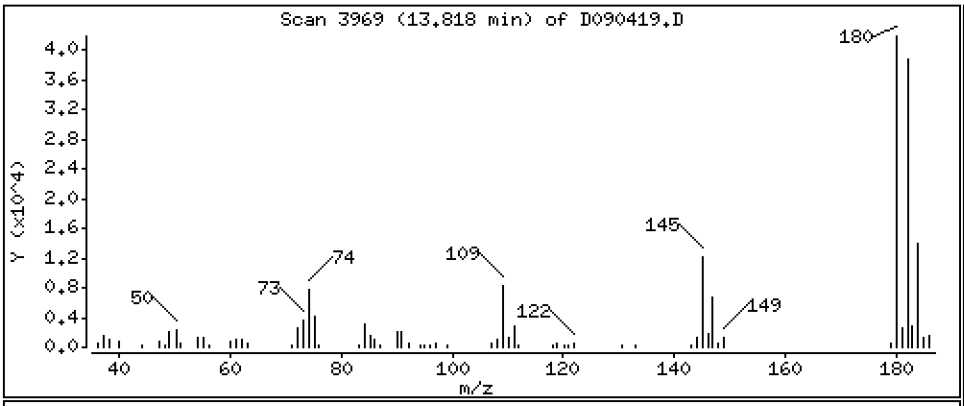
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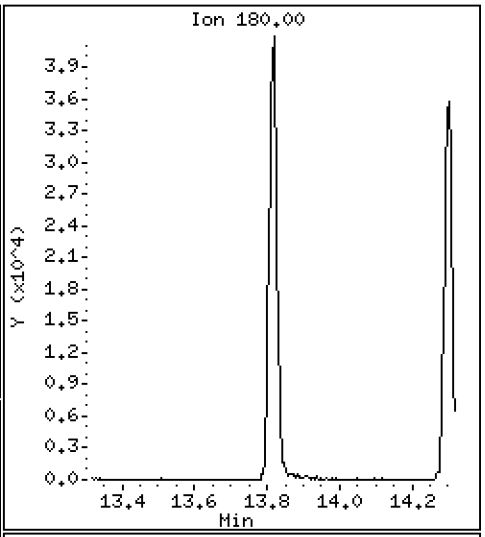
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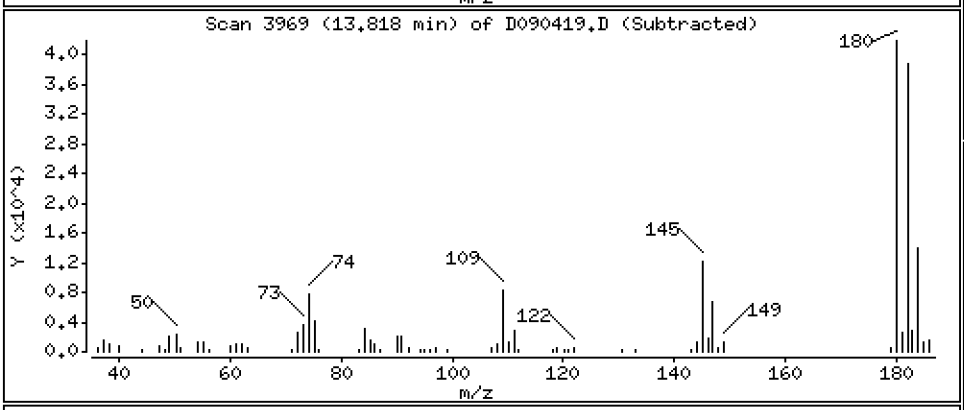
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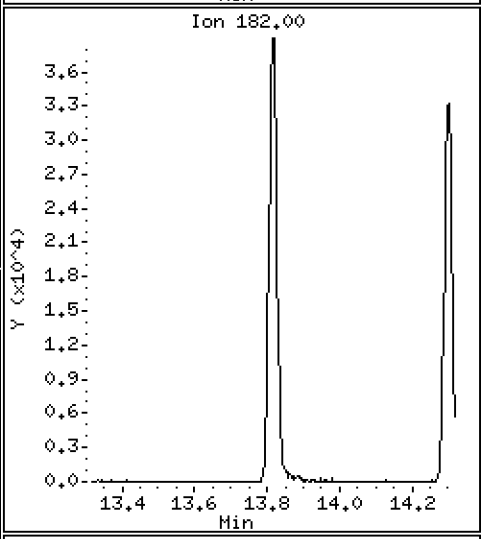
Column phase: DB624 Column diameter: 0.18

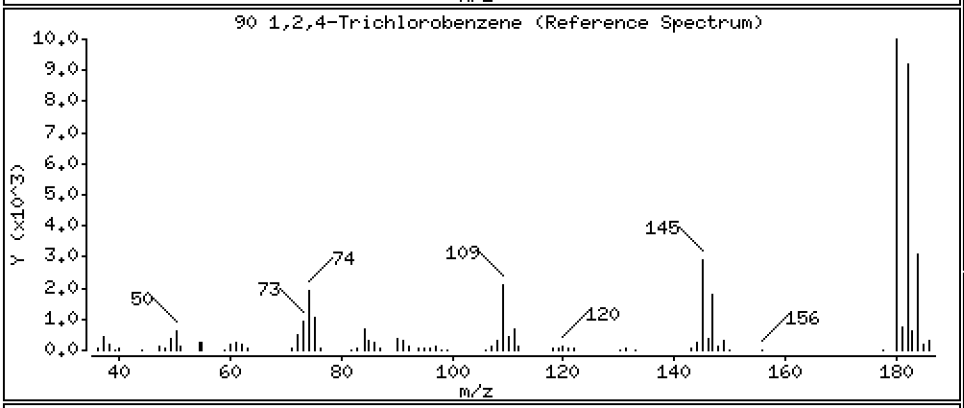
90 1,2,4-Trichlorobenzene Concentration: 17.32 ug/l Review Code:

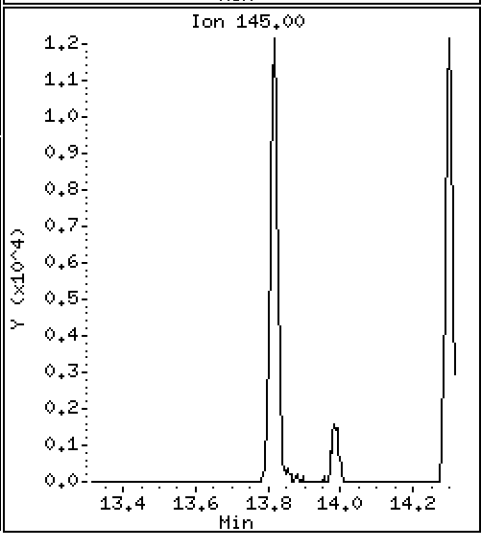


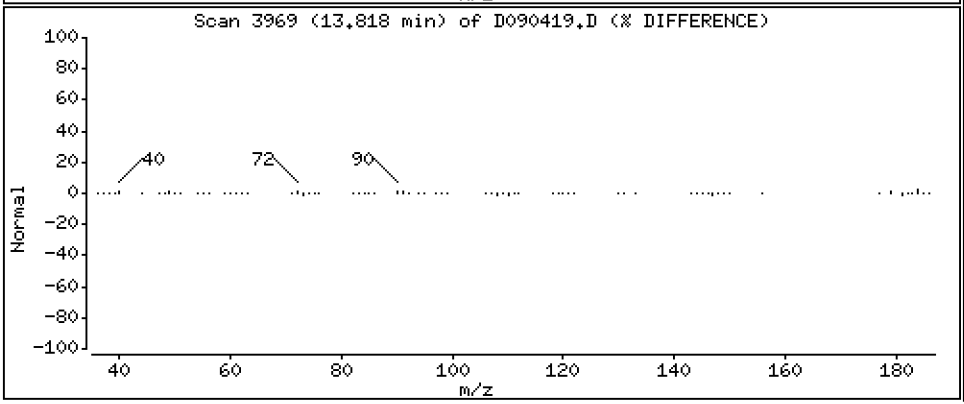












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 81

Date : 04-SEP-2018 18:03

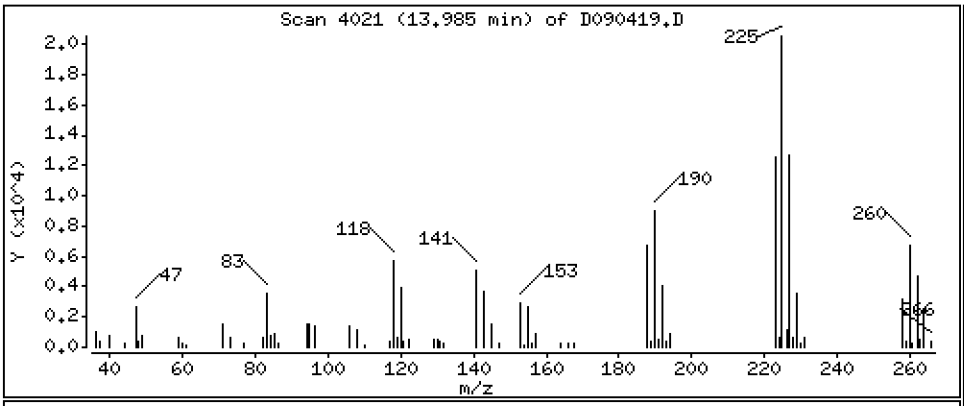
Client ID: HS18081504-01MSD Instrument: VOA2.i

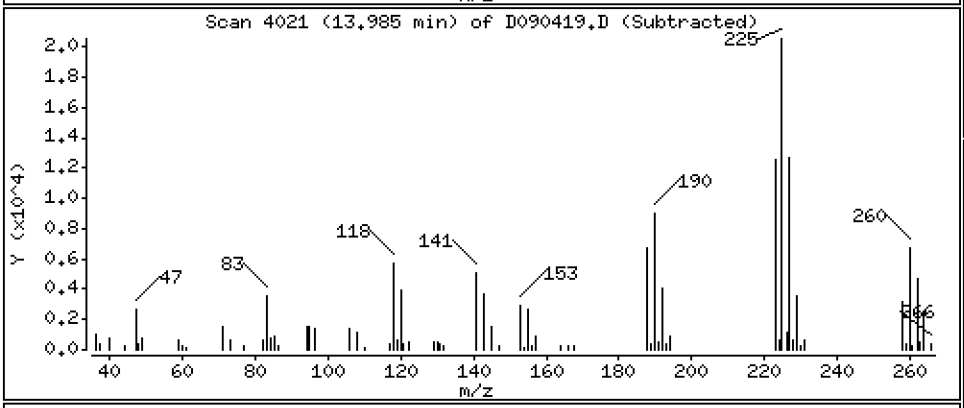
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

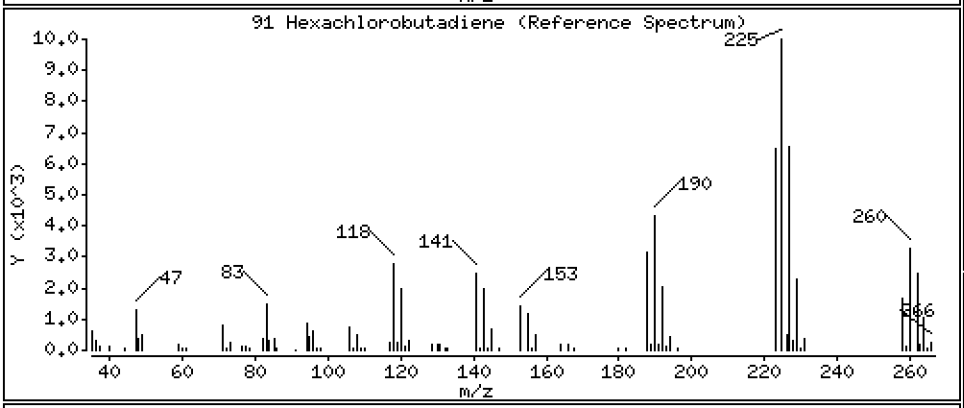
Purge Volume: 5.0 Operator: AP

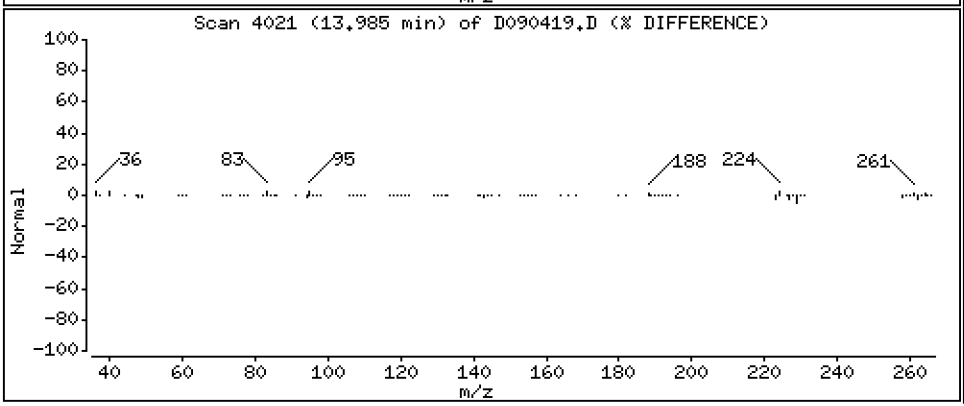
Column phase: DB624 Column diameter: 0.18

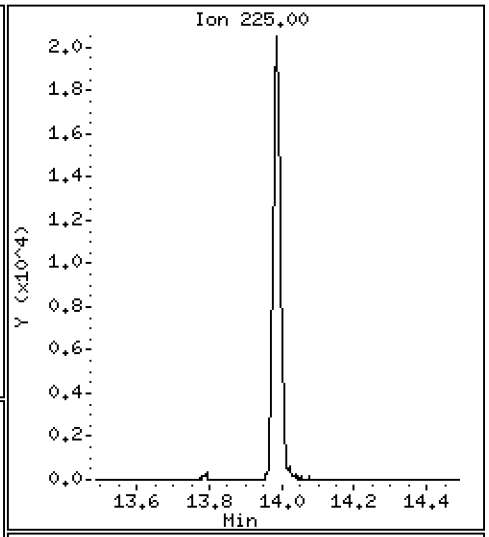
91 Hexachlorobutadiene Concentration: 17.24 ug/l Review Code:

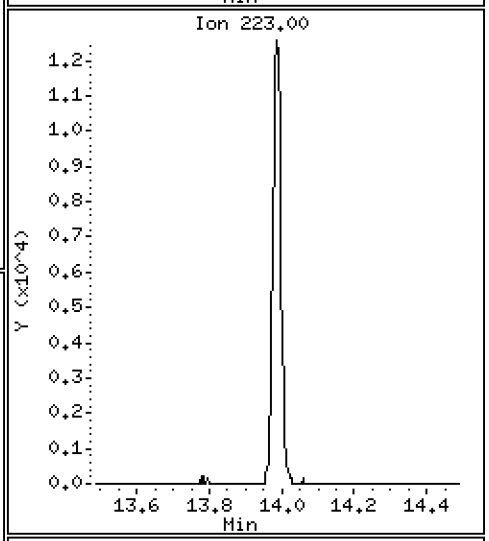


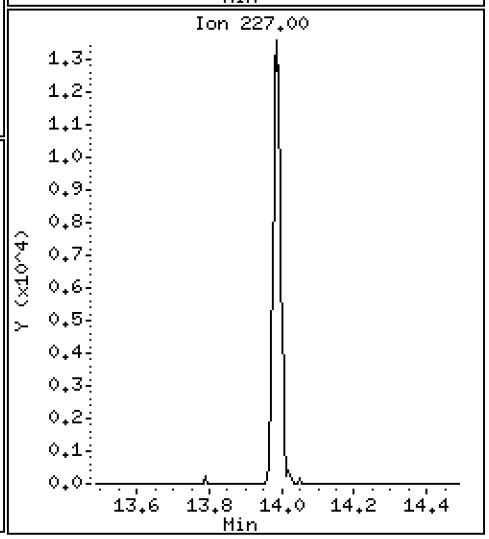












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D

Date : 04-SEP-2018 18:03

Client ID: HS18081504-01MSD

Instrument: VOA2.i

Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

Purge Volume: 5.0

Operator: AP

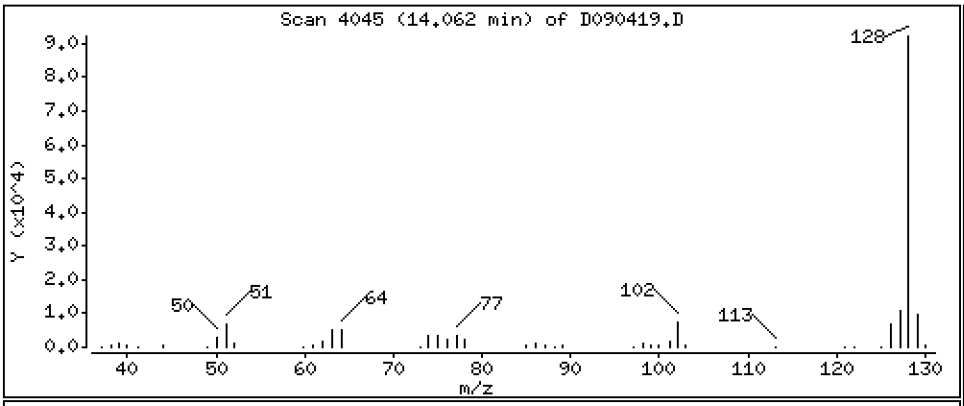
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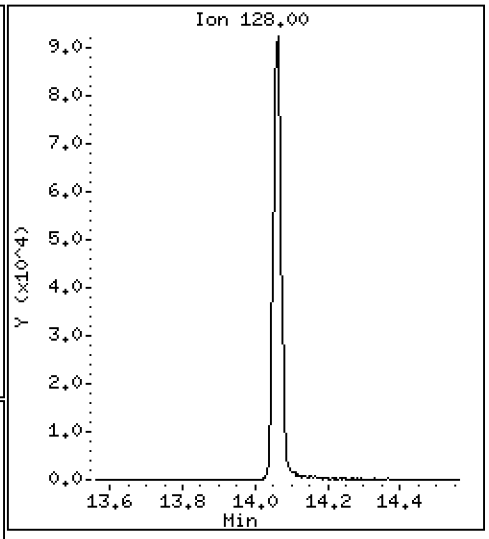
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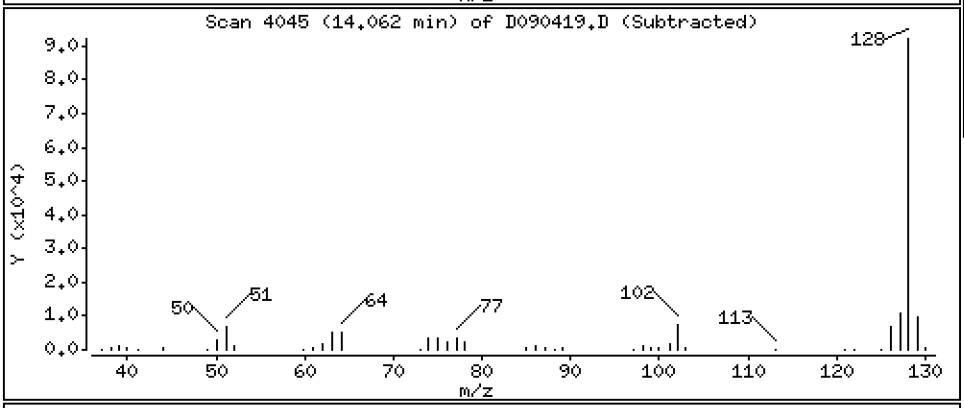
92 Naphthalene

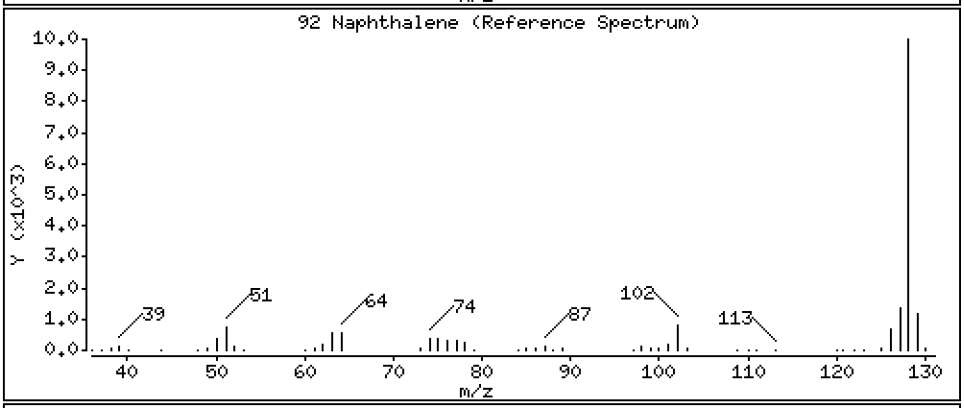
Concentration: 15.76 ug/l

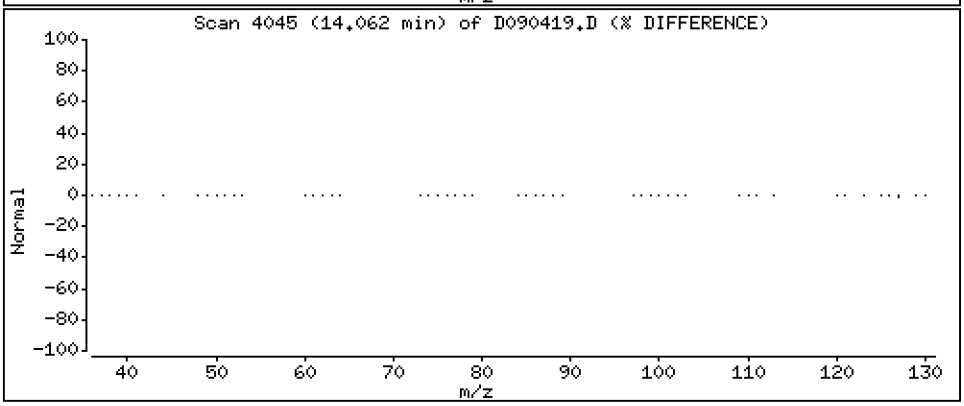
Review Code:











Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 83

Date : 04-SEP-2018 18:03

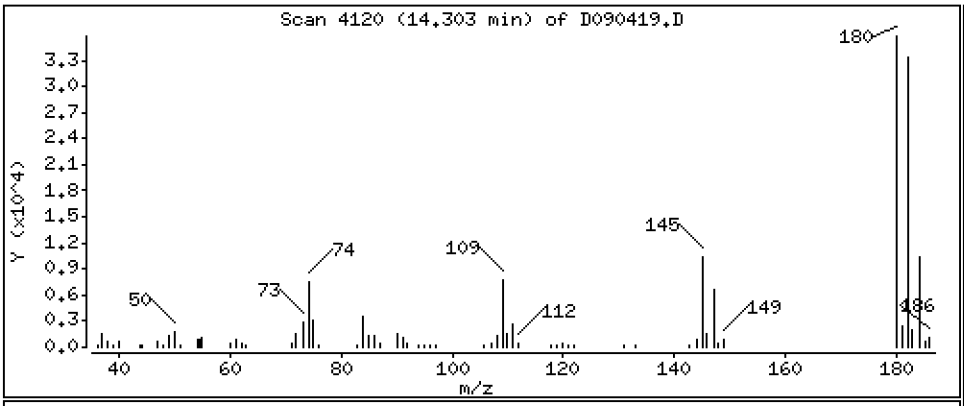
Client ID: HS18081504-01MSD Instrument: VOA2.i

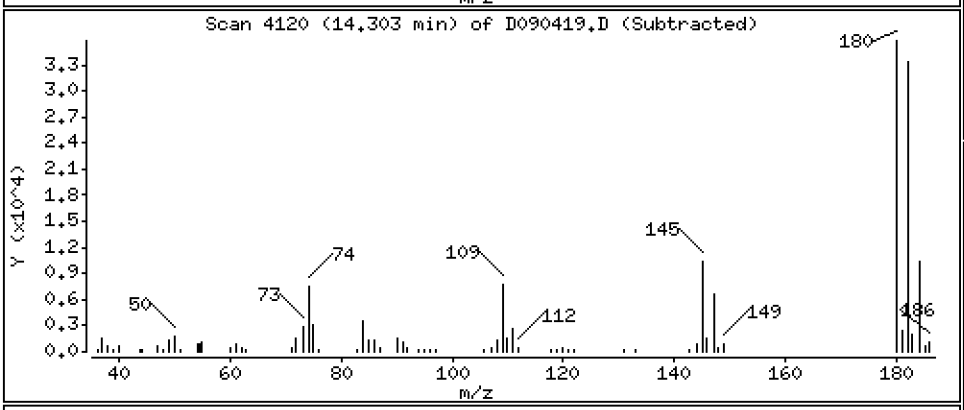
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

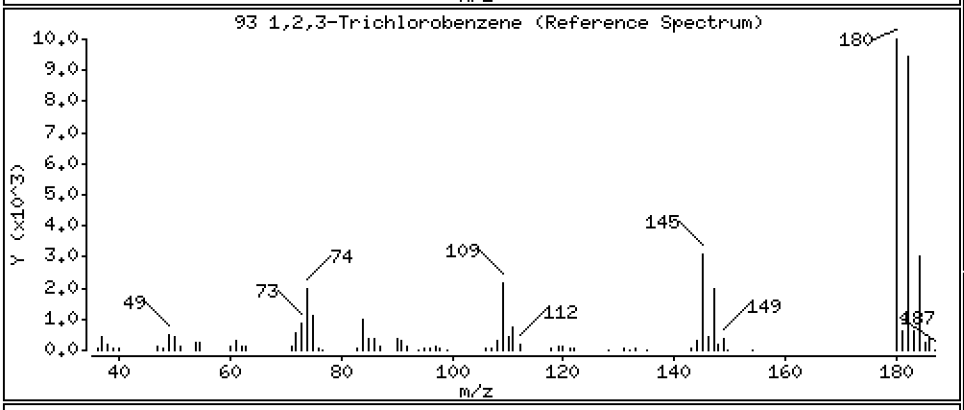
Purge Volume: 5.0 Operator: AP

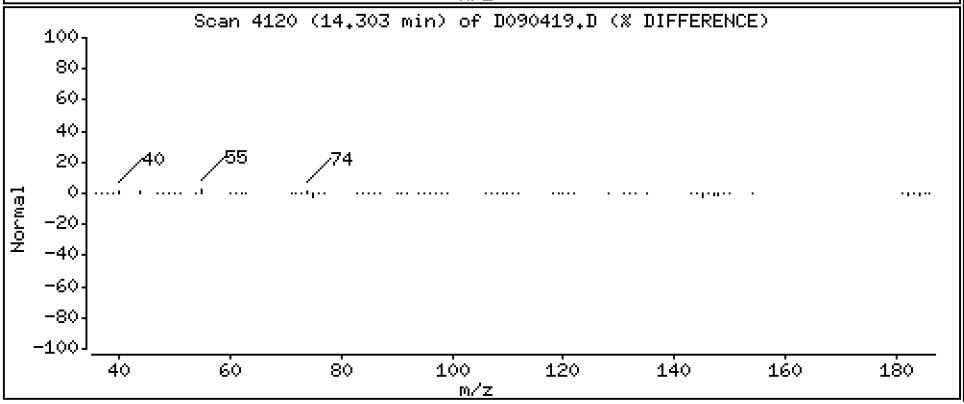
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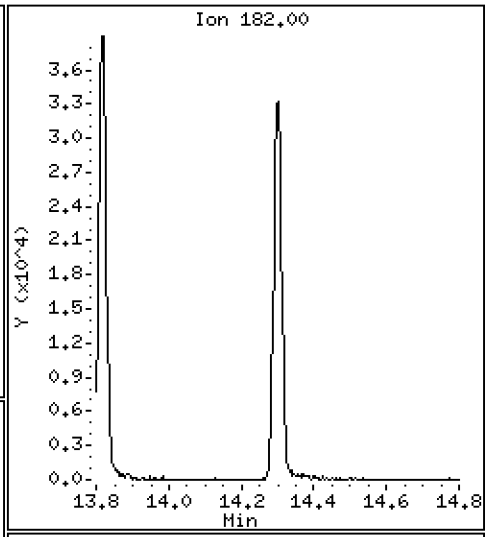
93 1,2,3-Trichlorobenzene Concentration: 16.27 ug/l Review Code:

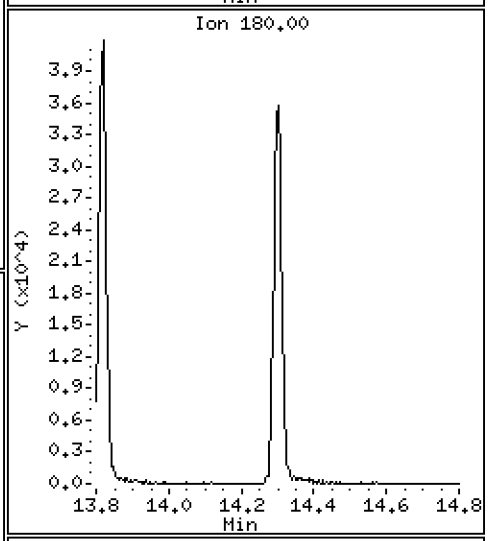


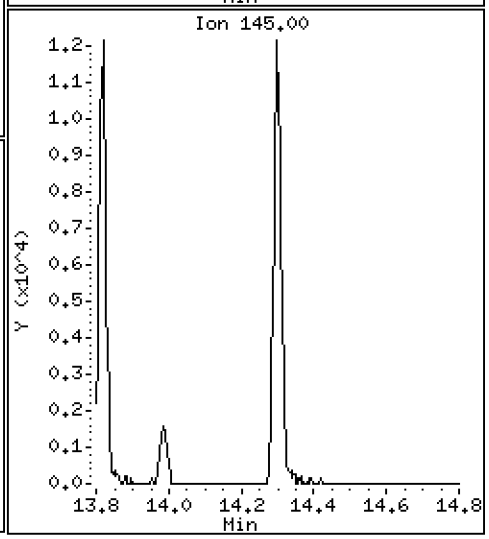












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 84

Date : 04-SEP-2018 18:03

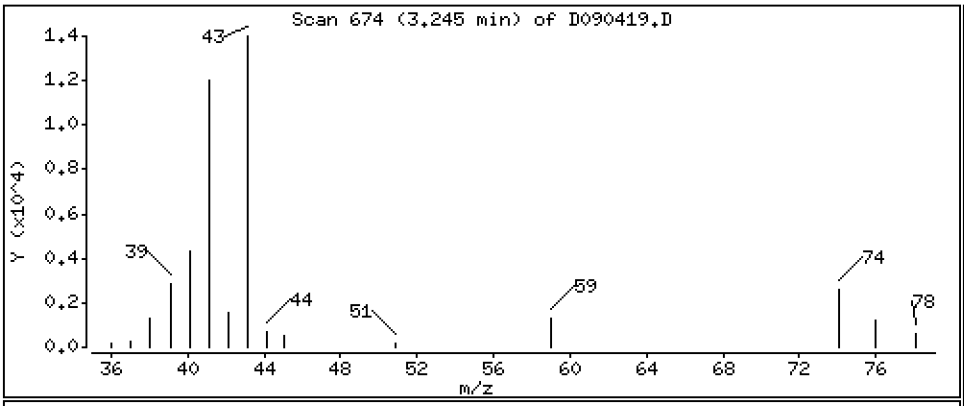
Client ID: HS18081504-01MSD Instrument: VOA2.i

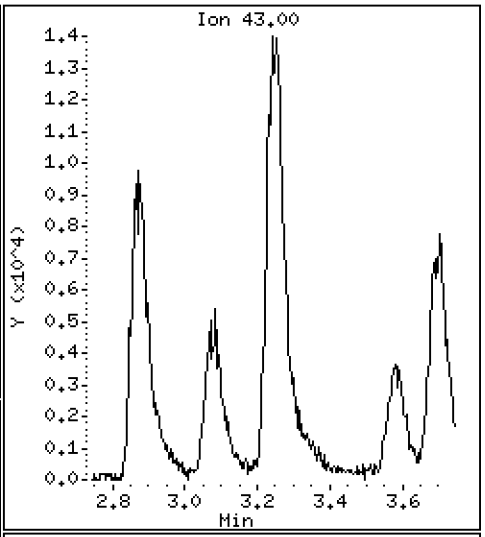
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

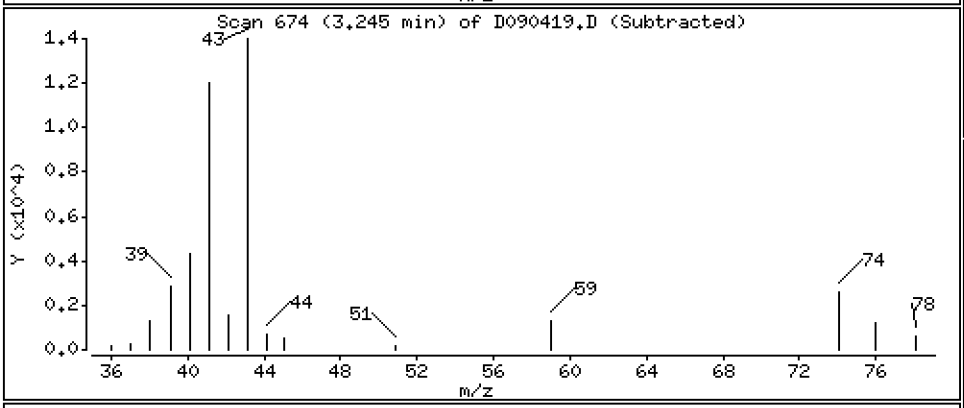
Purge Volume: 5.0 Operator: AP

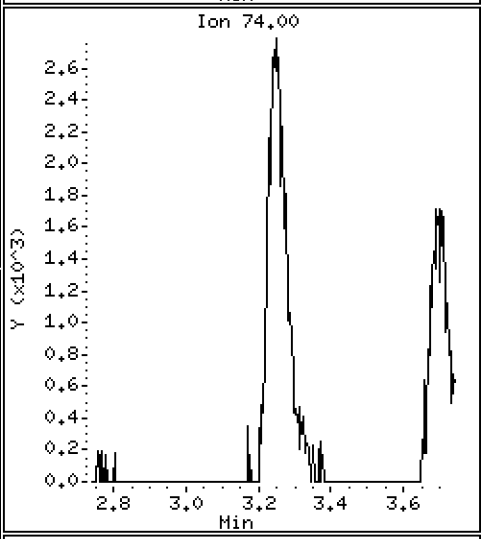
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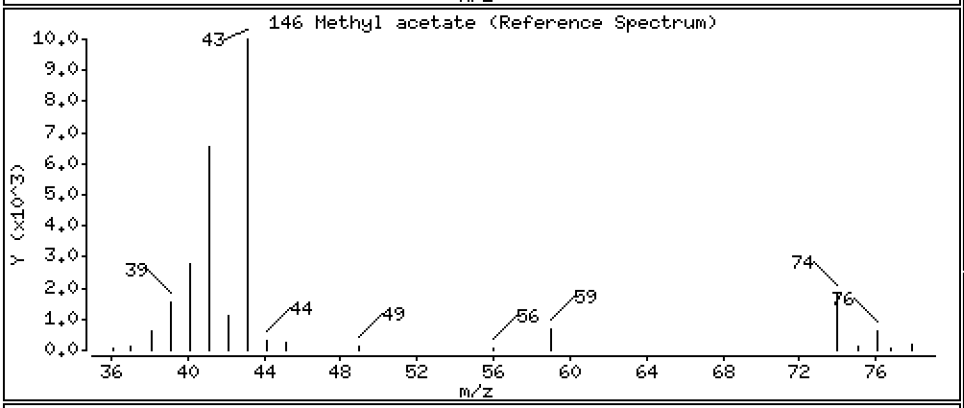
146 Methyl acetate Concentration: 12.86 ug/l Review Code:

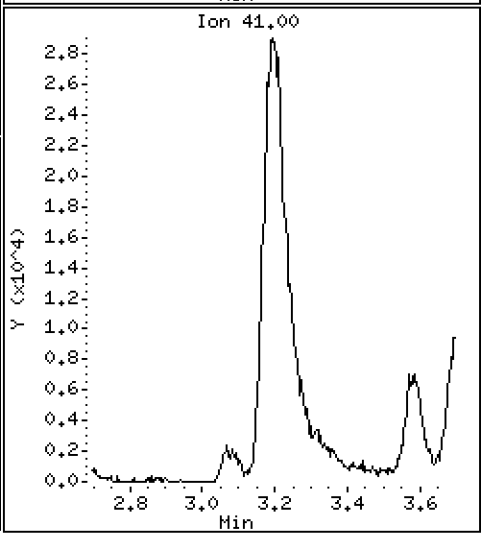


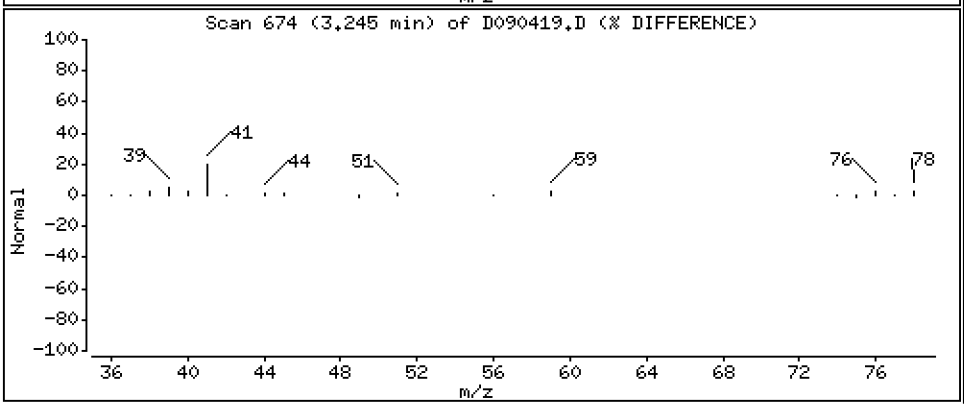












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 85

Date : 04-SEP-2018 18:03

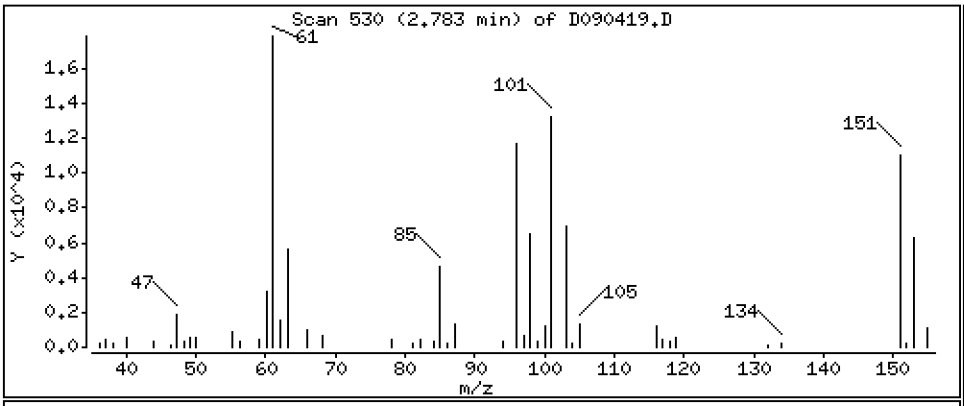
Client ID: HS18081504-01MSD Instrument: VOA2.i

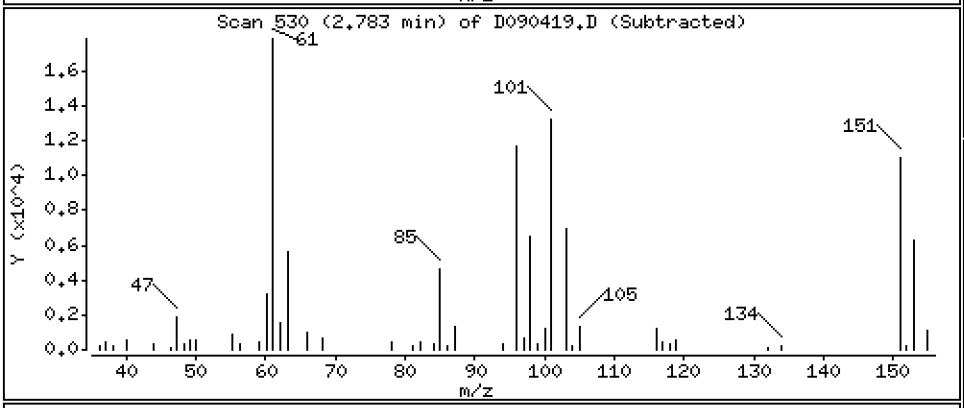
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

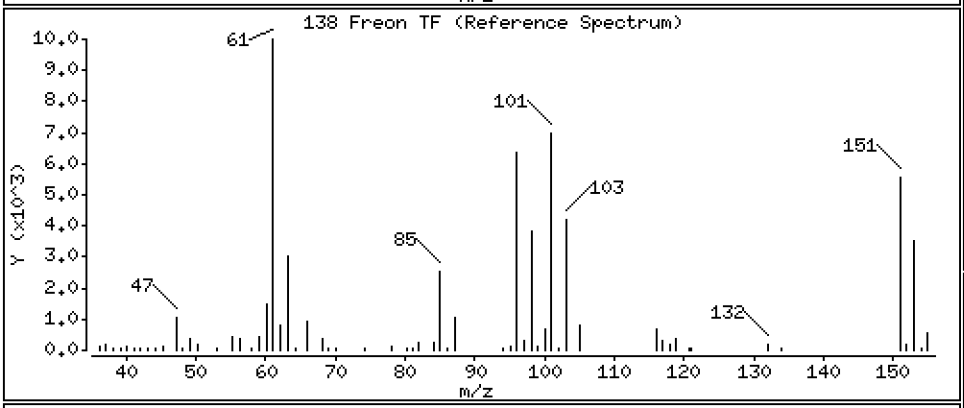
Purge Volume: 5.0 Operator: AP

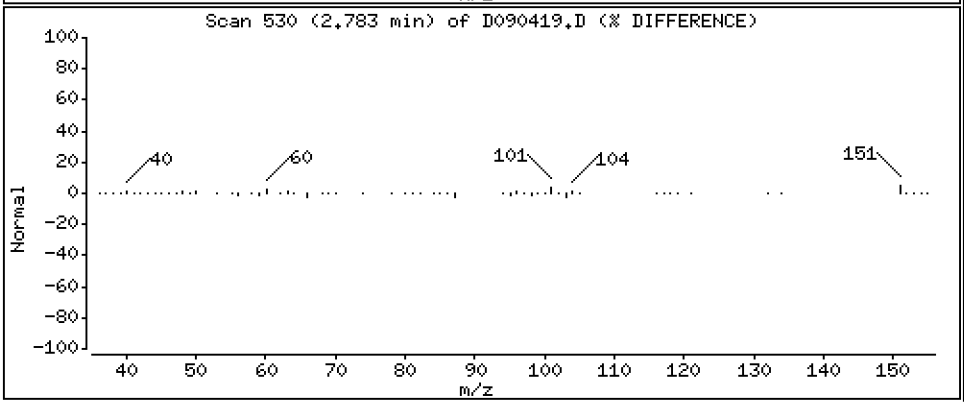
Column phase: DB624 Column diameter: 0.18

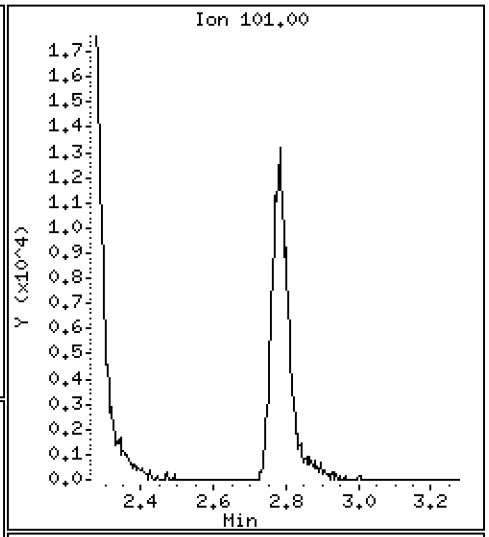
138 Freon TF Concentration: 17.68 ug/l Review Code:

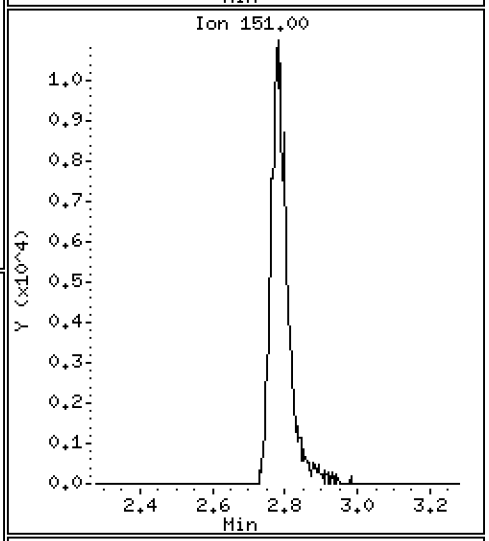


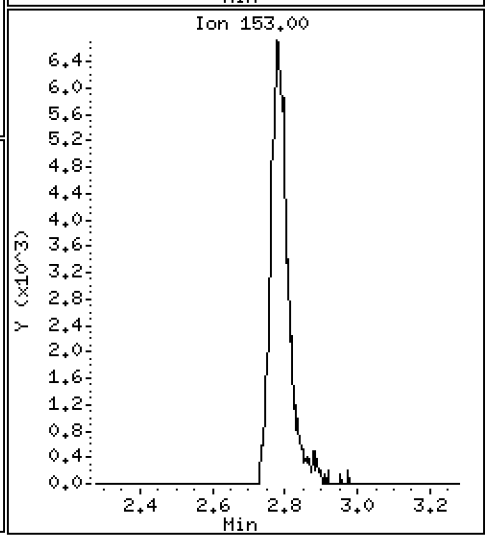












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 86

Date : 04-SEP-2018 18:03

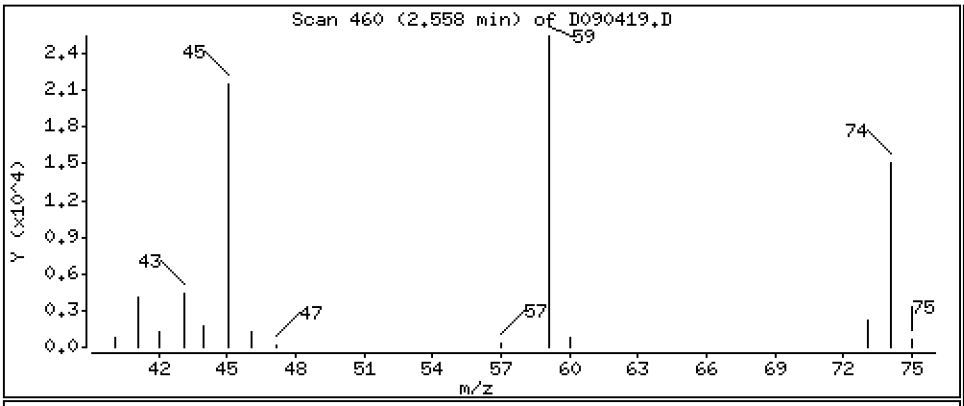
Client ID: HS18081504-01MSD Instrument: VOA2.i

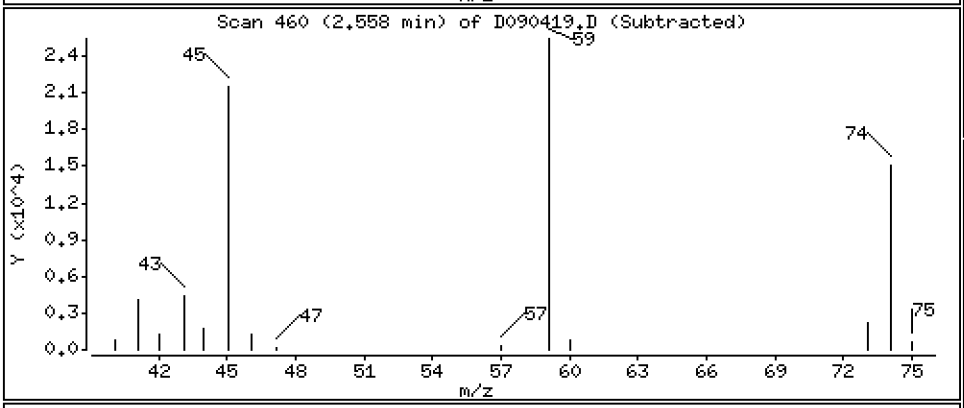
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

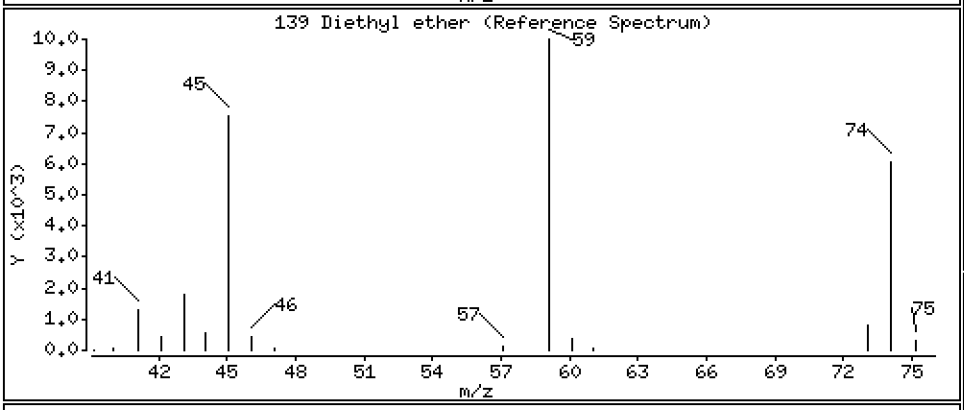
Purge Volume: 5.0 Operator: AP

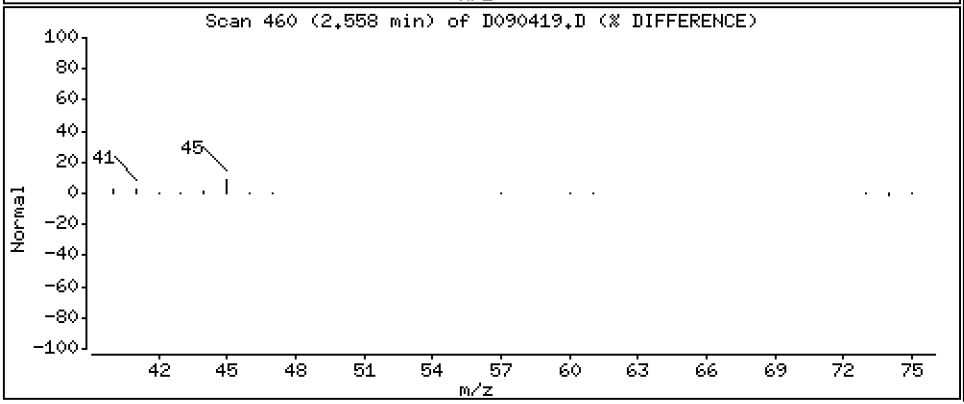
Column phase: DB624 Column diameter: 0.18

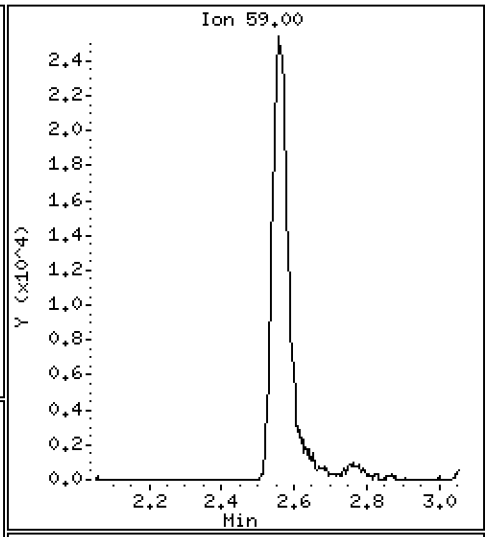
139 Diethyl ether Concentration: 14.06 ug/l Review Code:

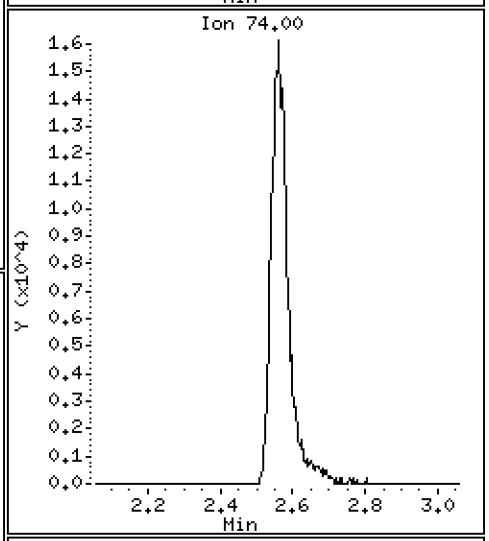


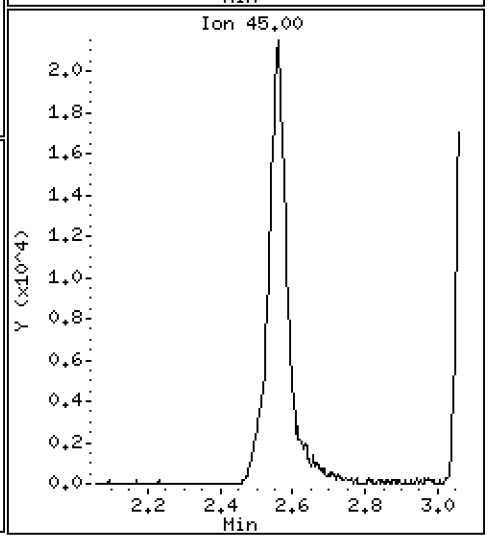












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 87

Date : 04-SEP-2018 18:03

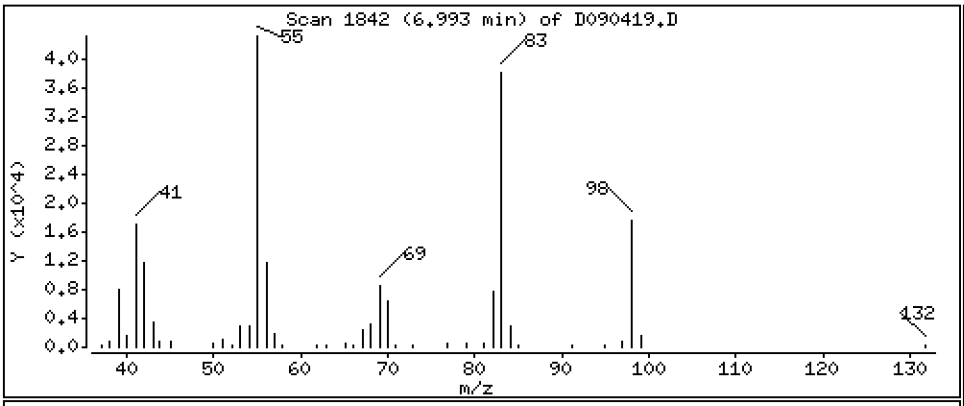
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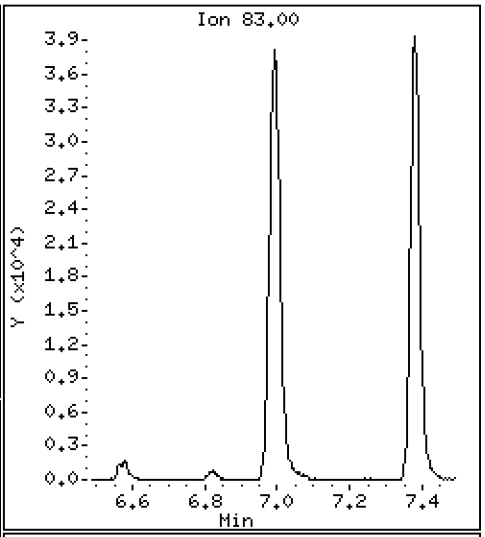
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

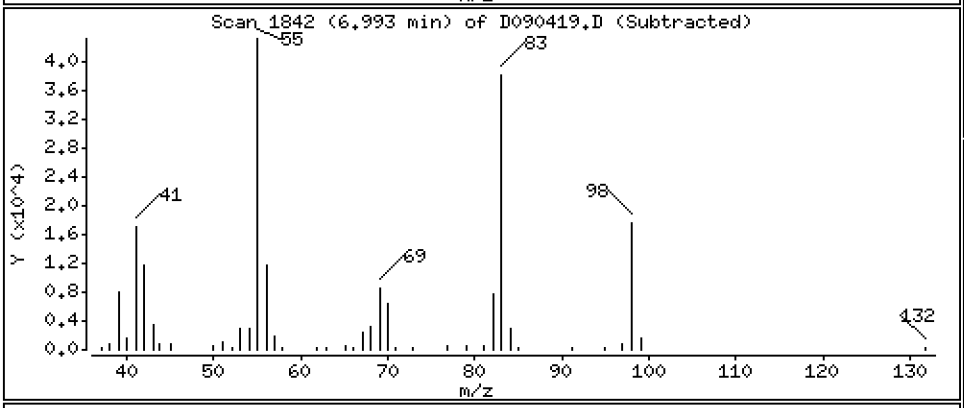
Purge Volume: 5.0 Operator: AP

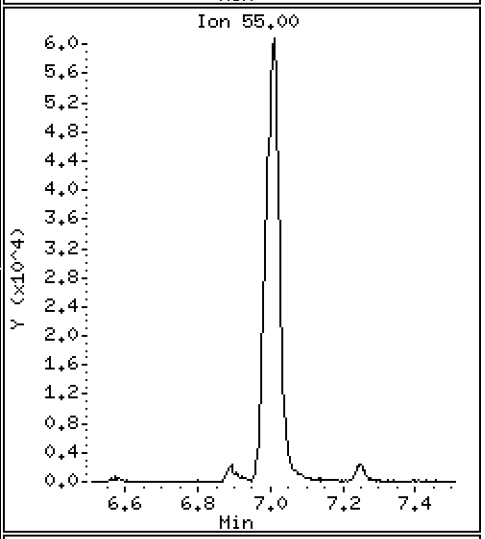
Column phase: DB624 Column diameter: 0.18

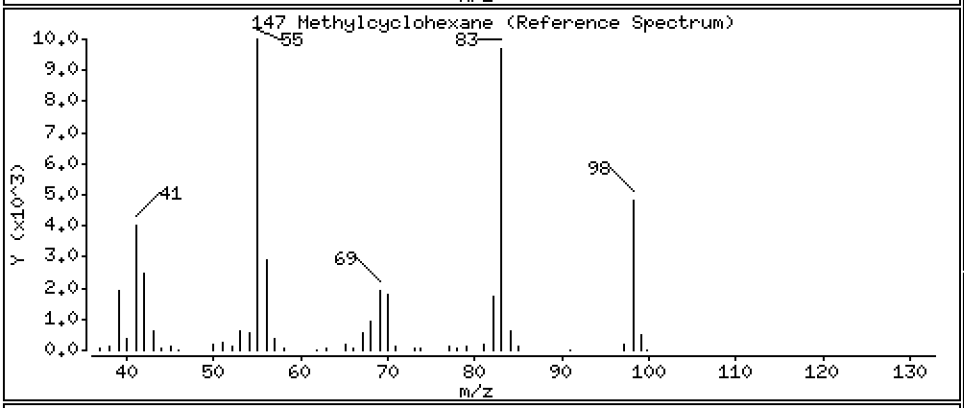
147 Methylcyclohexane Concentration: 20.25 ug/l Review Code:

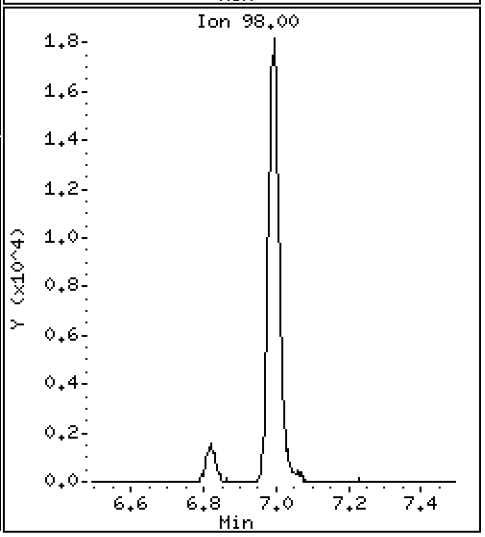


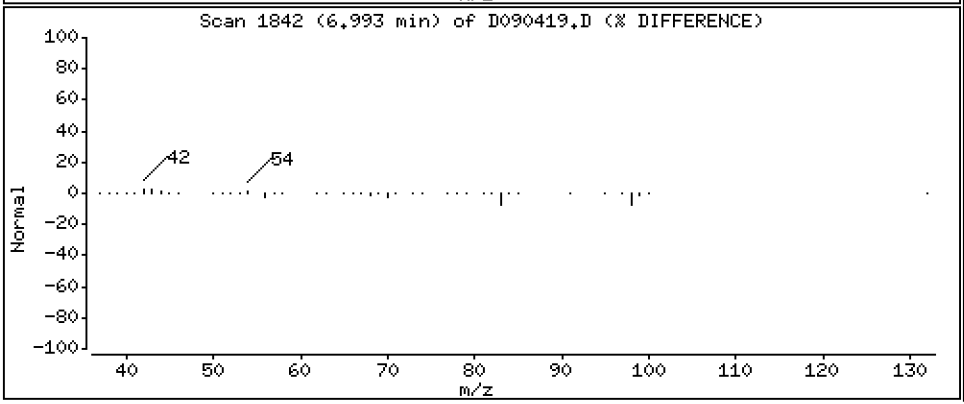












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 88

Date : 04-SEP-2018 18:03

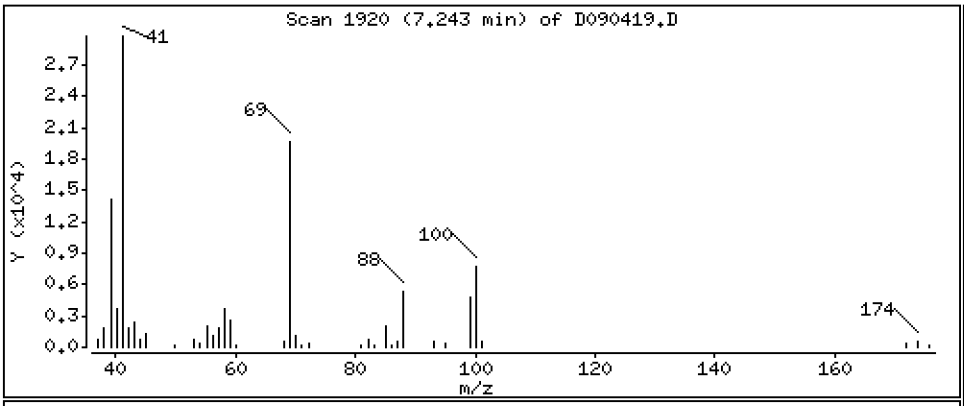
Client ID: HS18081504-01MSD Instrument: VOA2.i

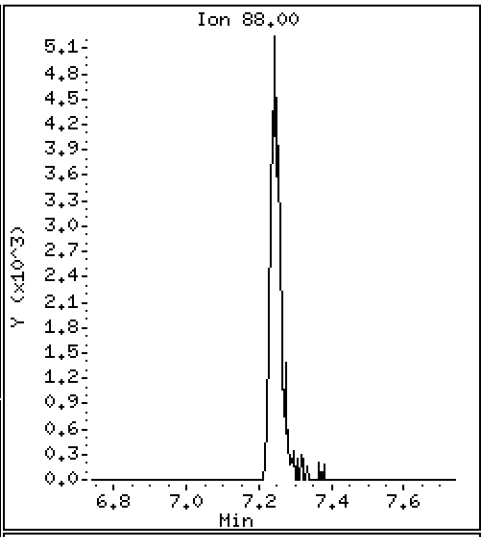
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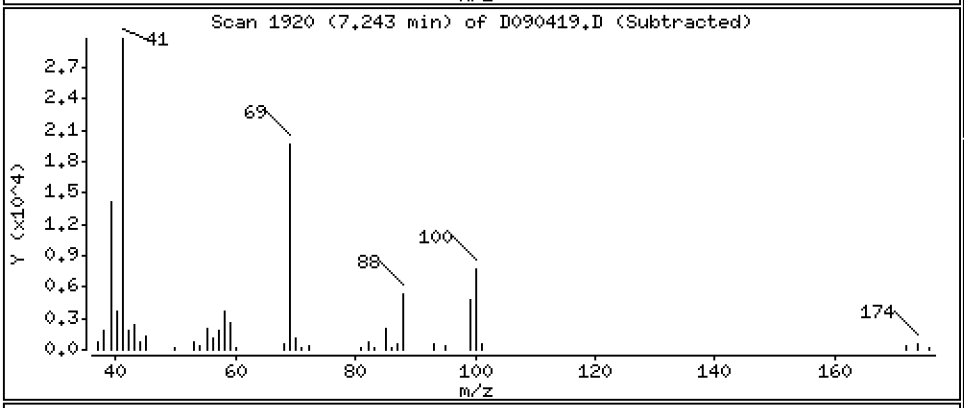
Purge Volume: 5.0 Operator: AP

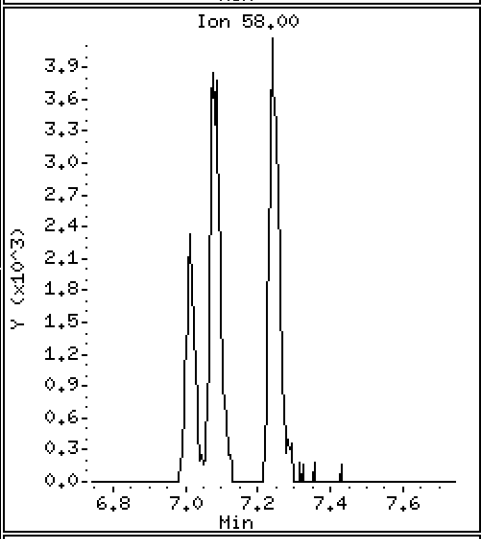
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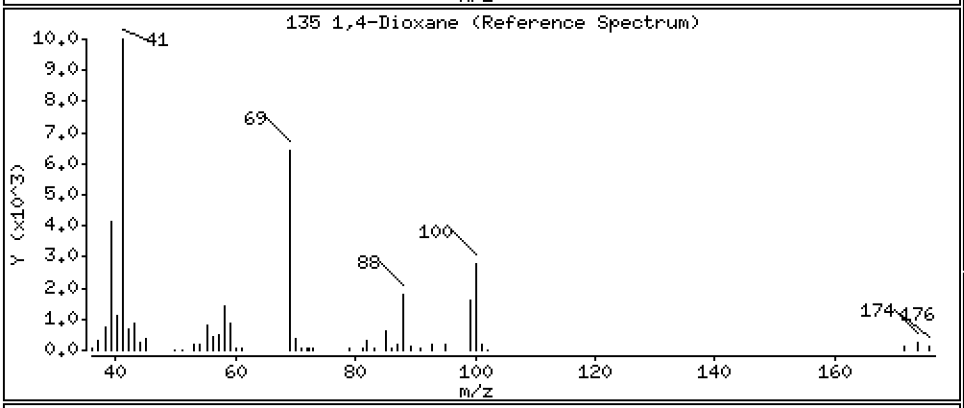
135 1,4-Dioxane Concentration: 284.57 ug/l Review Code:

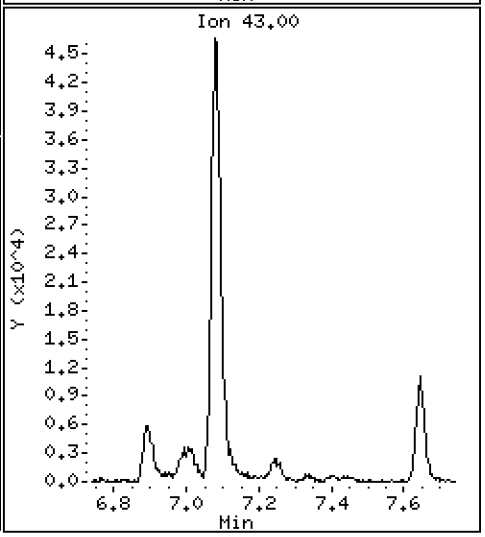


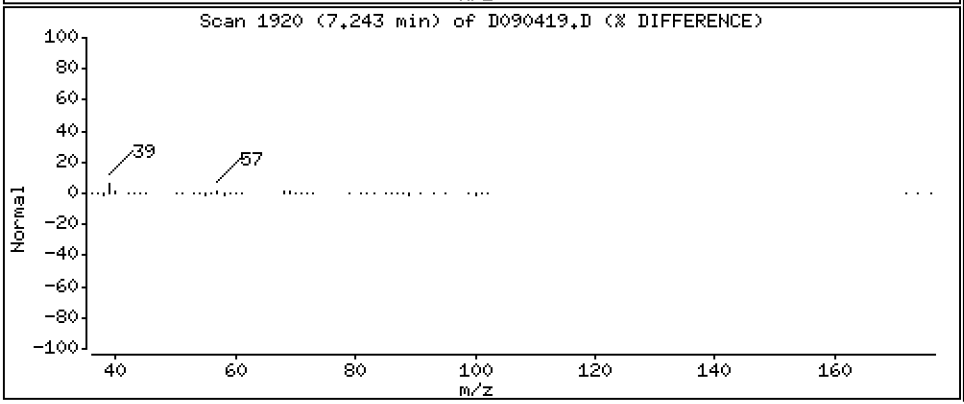












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 89

Date : 04-SEP-2018 18:03

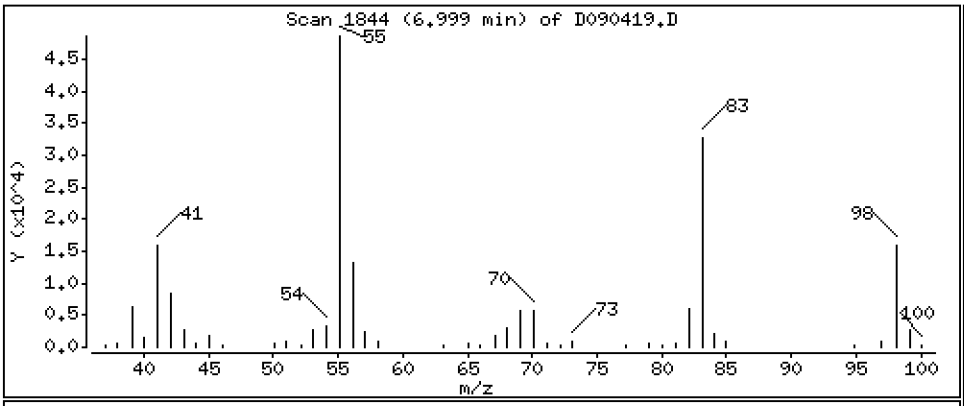
Client ID: HS18081504-01MSD Instrument: VOA2.i

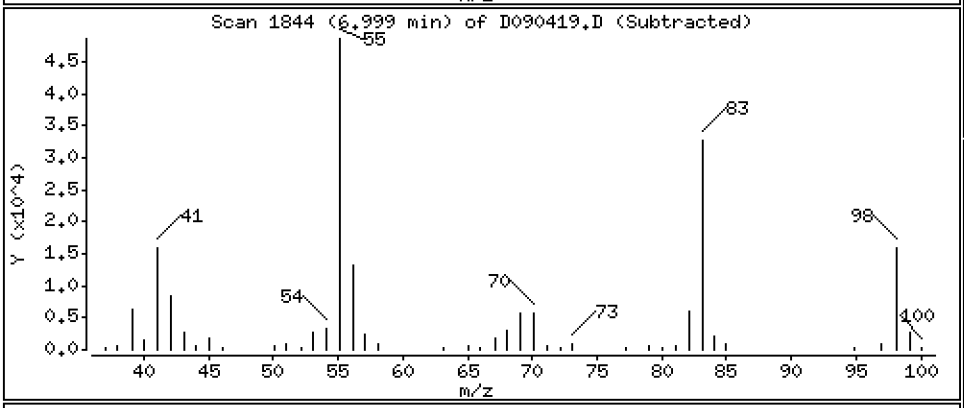
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

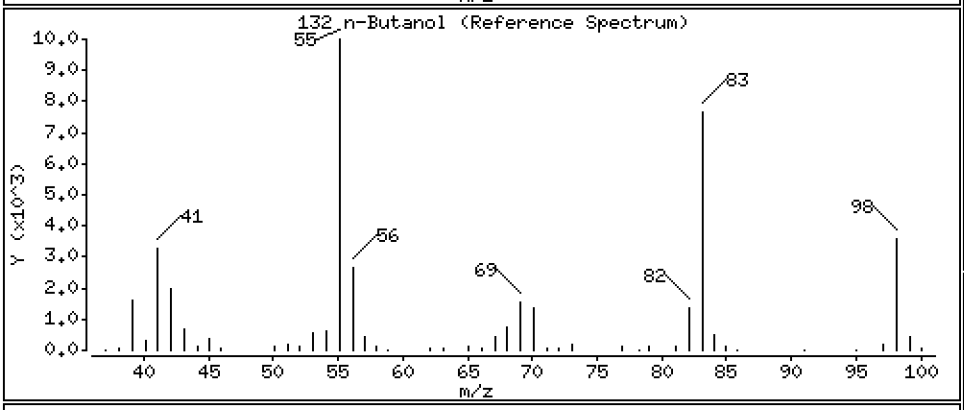
Purge Volume: 5.0 Operator: AP

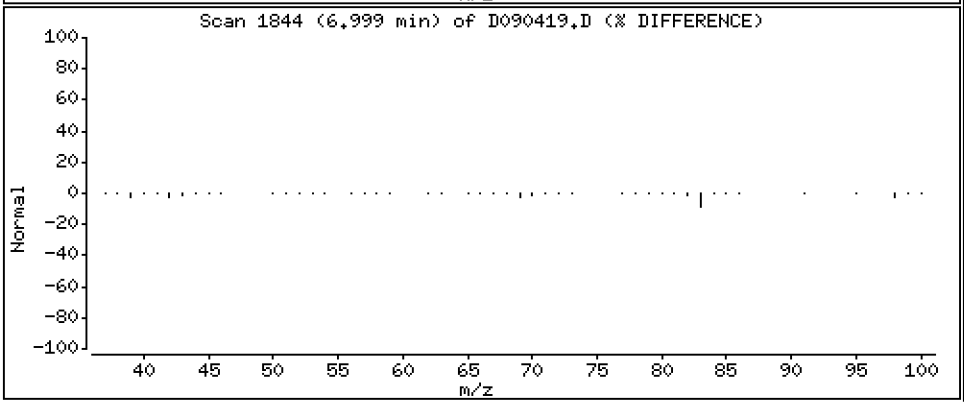
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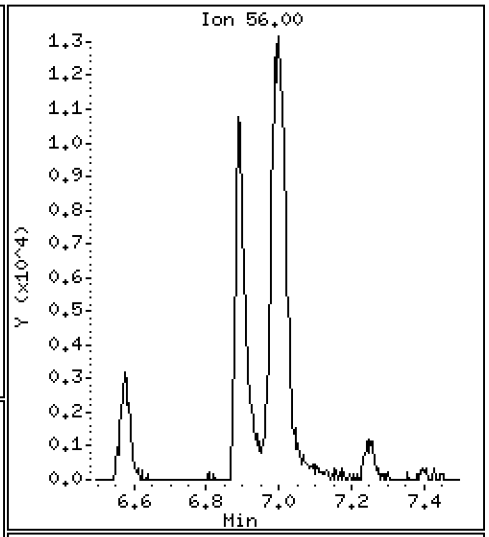
132 n-Butanol Concentration: 317.25 ug/l Review Code:

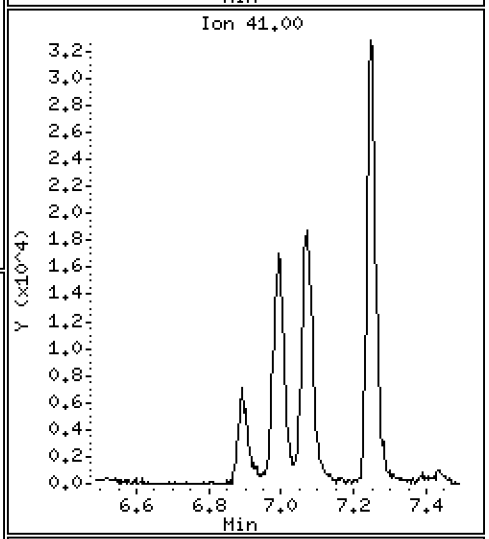


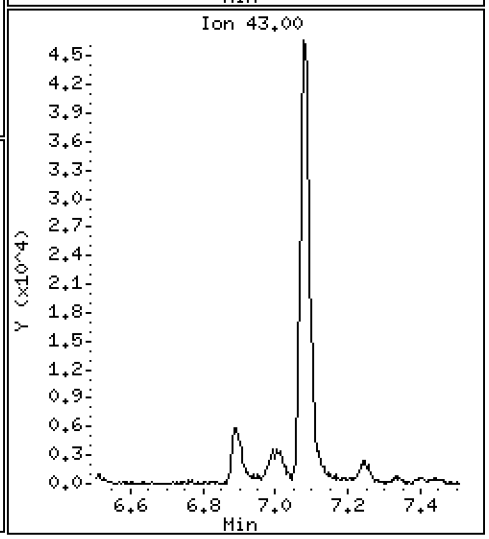












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 90

Date : 04-SEP-2018 18:03

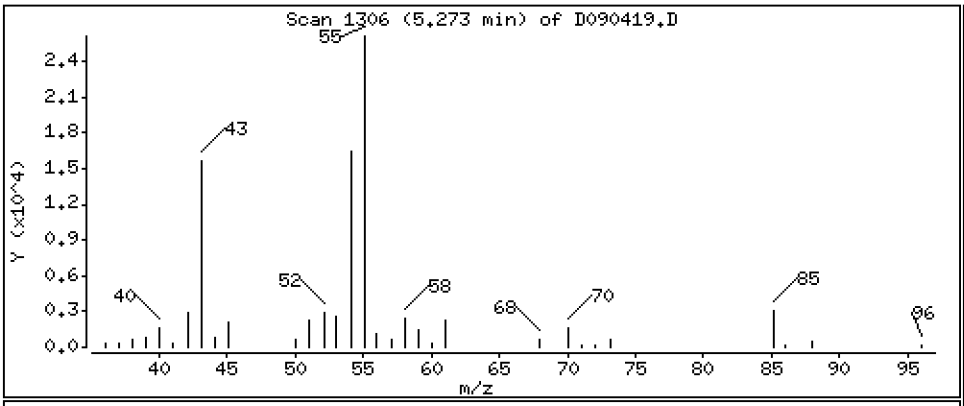
Client ID: HS18081504-01MSD Instrument: VOA2.i

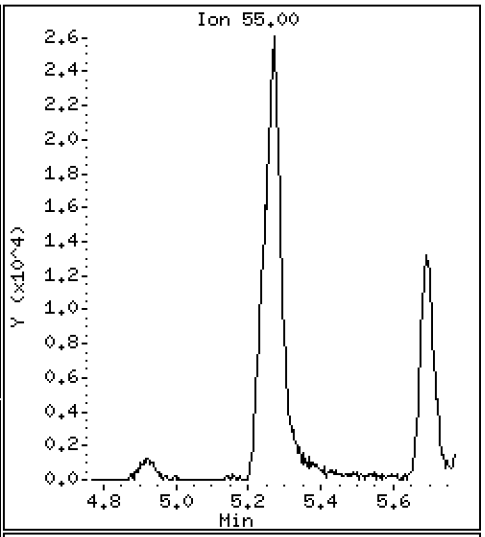
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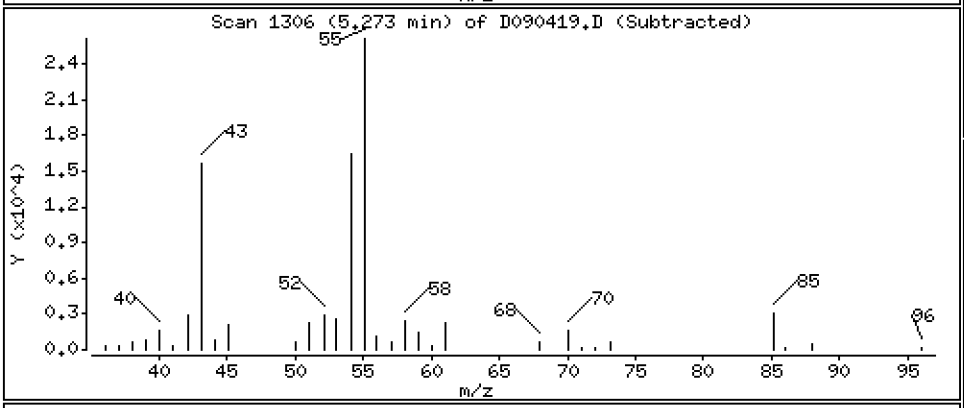
Purge Volume: 5.0 Operator: AP

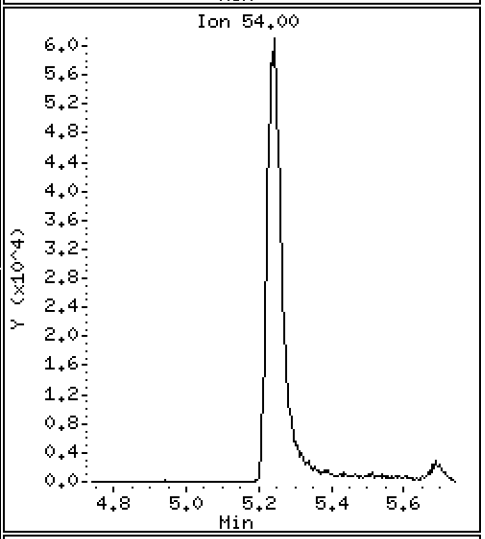
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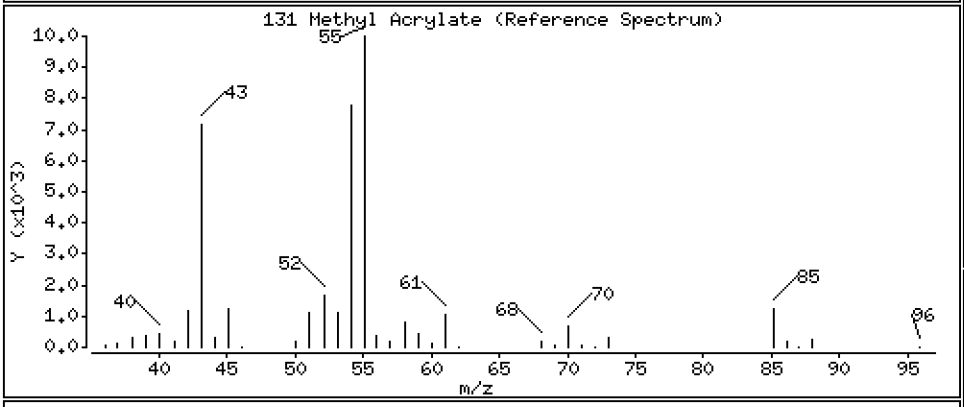
131 Methyl Acrylate Concentration: 15.67 ug/l Review Code:

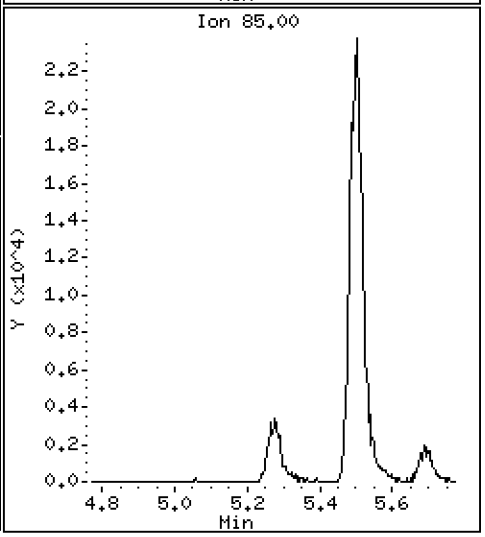


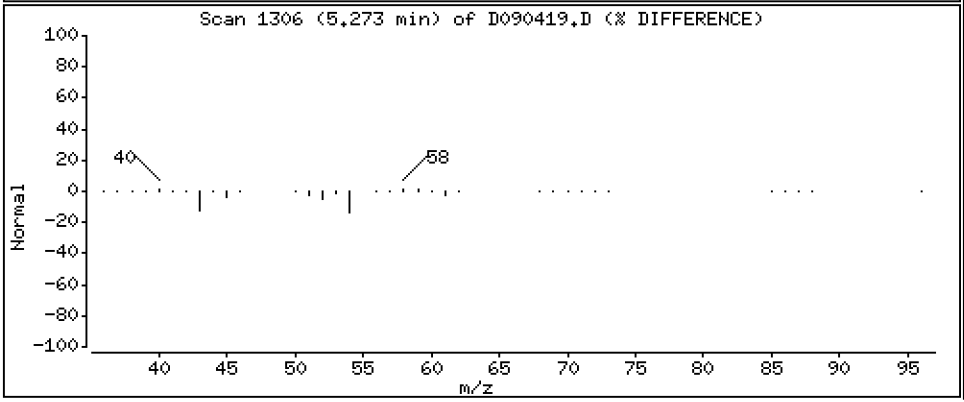












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 91

Date : 04-SEP-2018 18:03

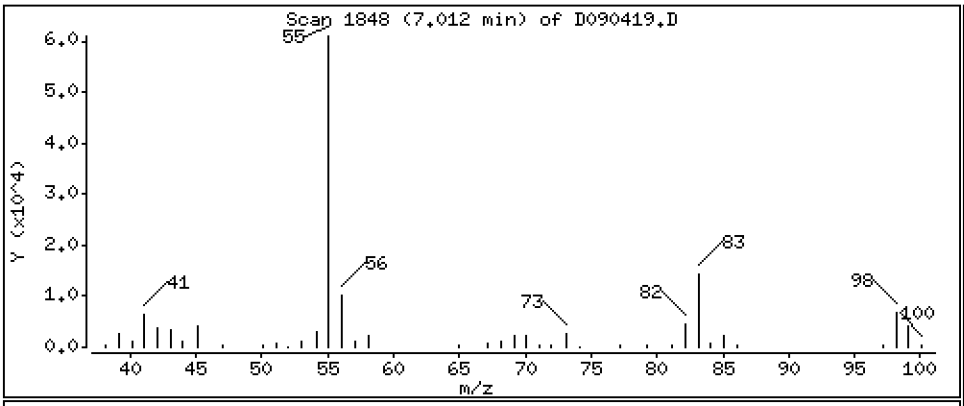
Client ID: HS18081504-01MSD Instrument: VOA2.i

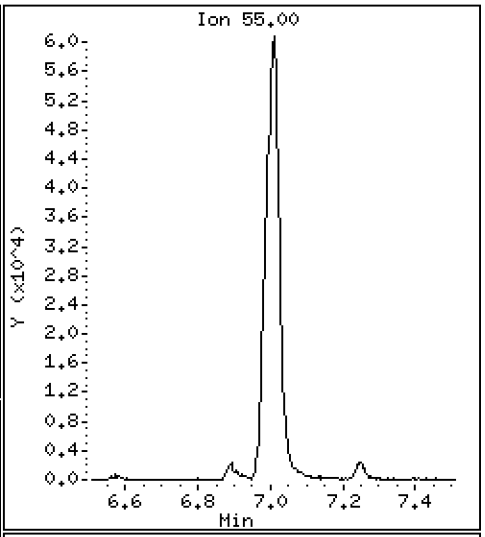
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

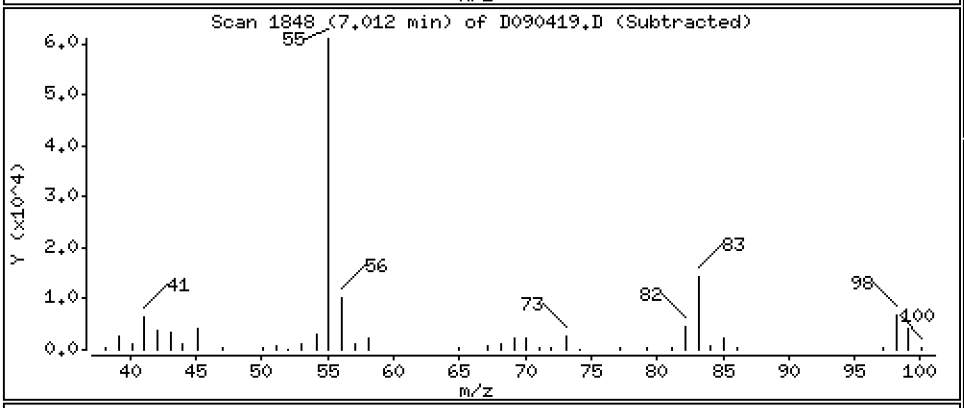
Purge Volume: 5.0 Operator: AP

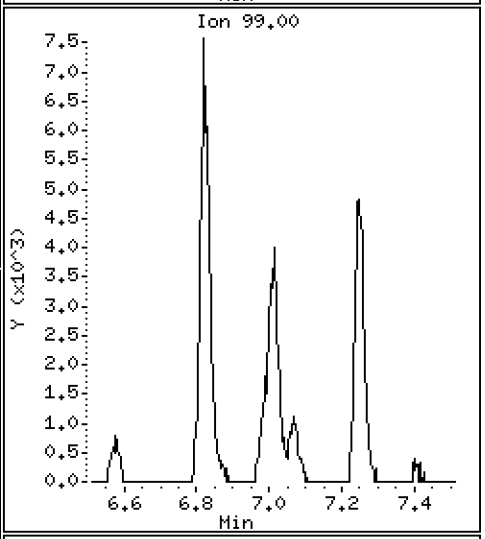
Column phase: DB624 Column diameter: 0.18

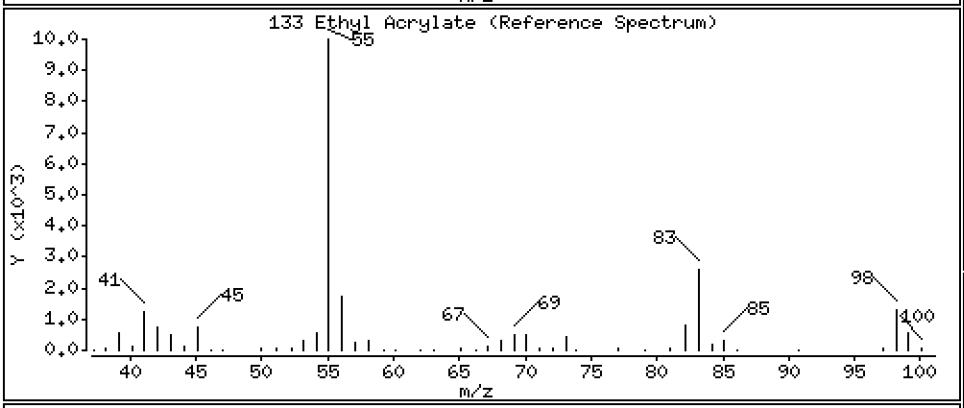
133 Ethyl Acrylate Concentration: 16.00 ug/l Review Code:

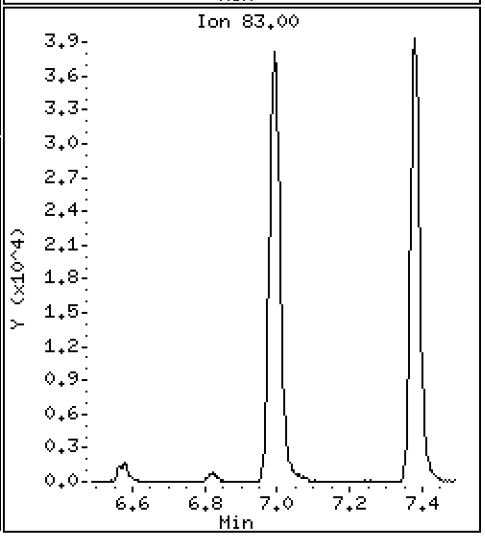


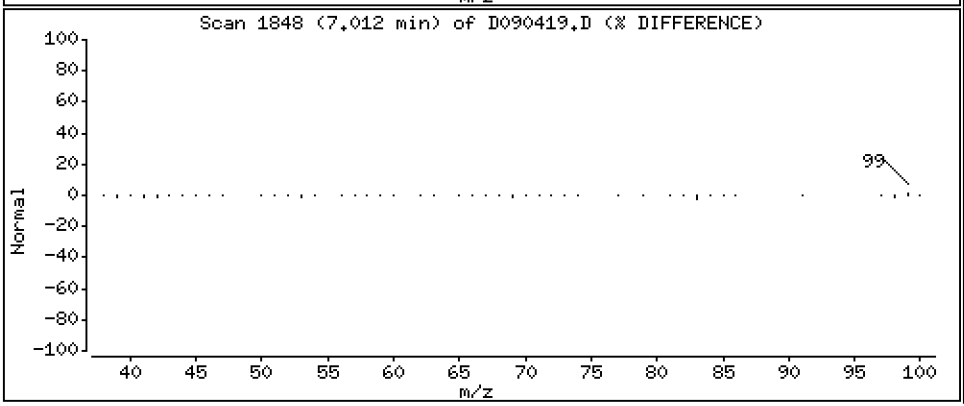












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 92

Date : 04-SEP-2018 18:03

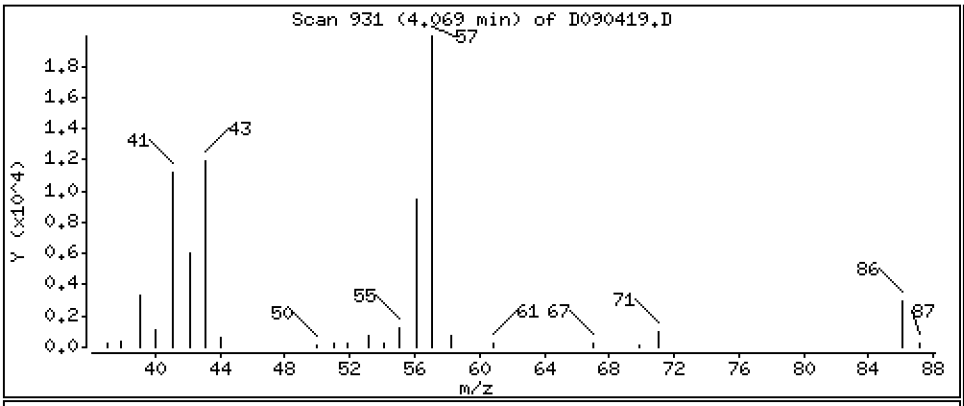
Client ID: HS18081504-01MSD Instrument: VOA2.i

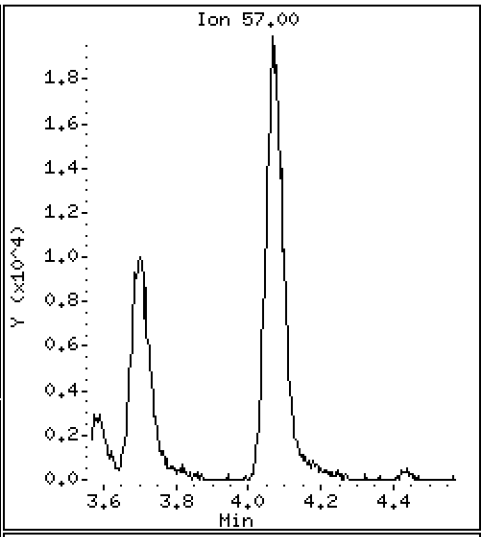
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

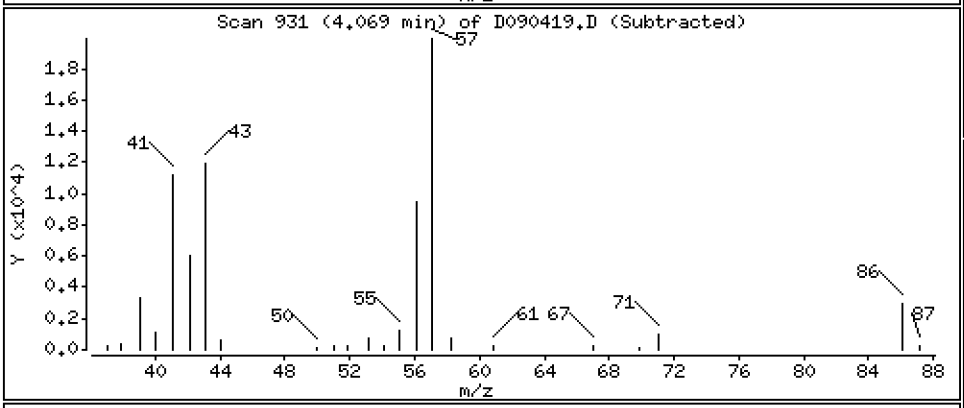
Purge Volume: 5.0 Operator: AP

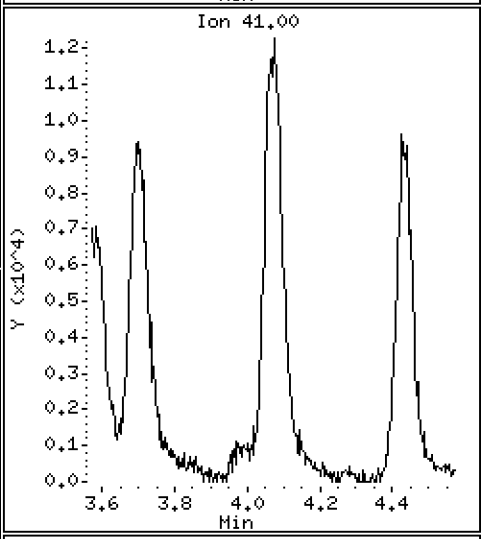
Column phase: DB624 Column diameter: 0.18

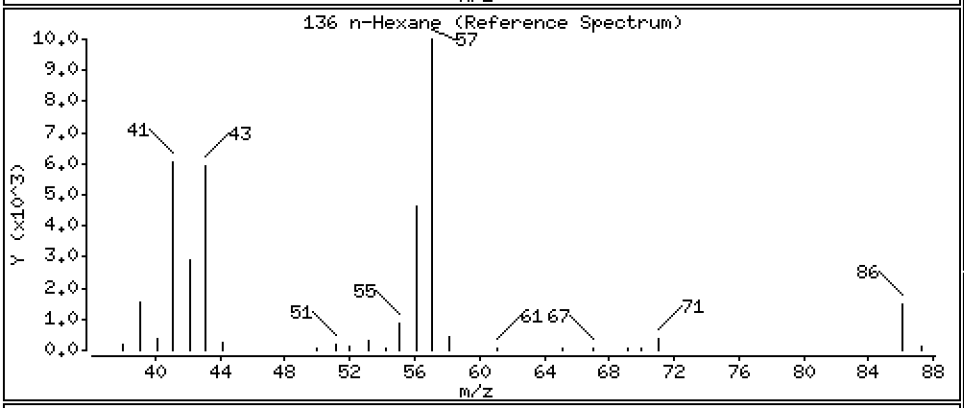
136 n-Hexane Concentration: 17.75 ug/l Review Code:

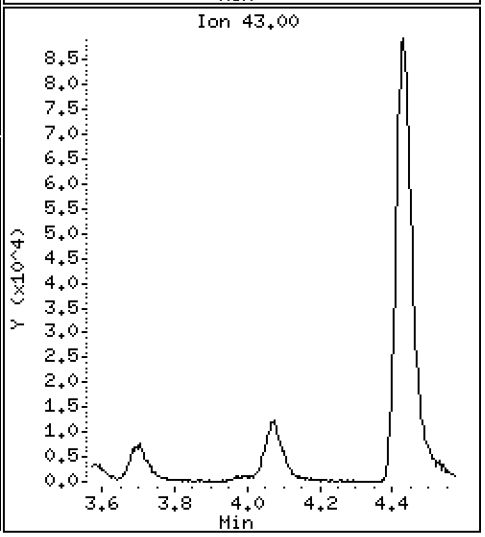


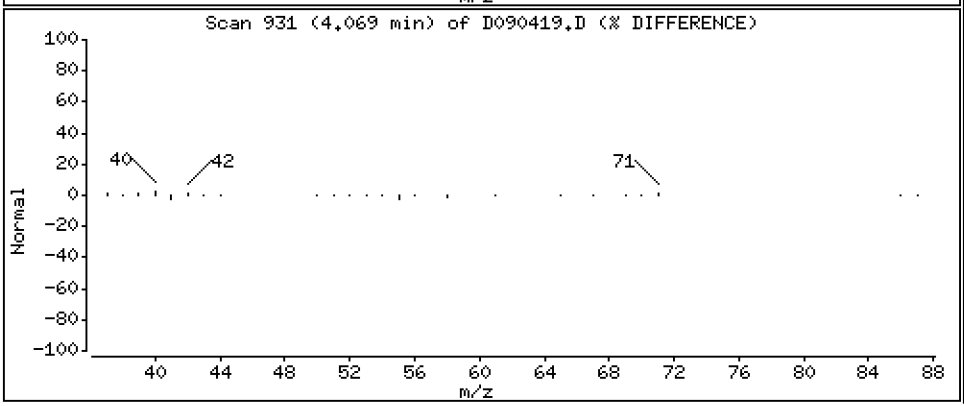












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 93

Date : 04-SEP-2018 18:03

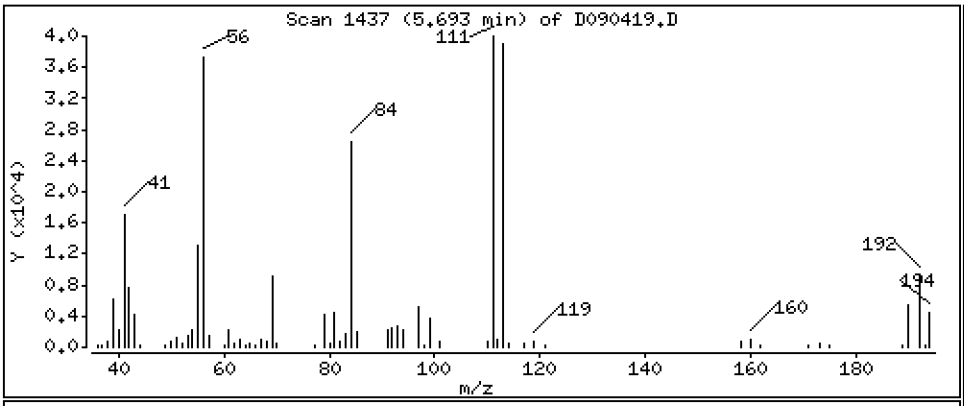
Client ID: HS18081504-01MSD Instrument: VOA2.i

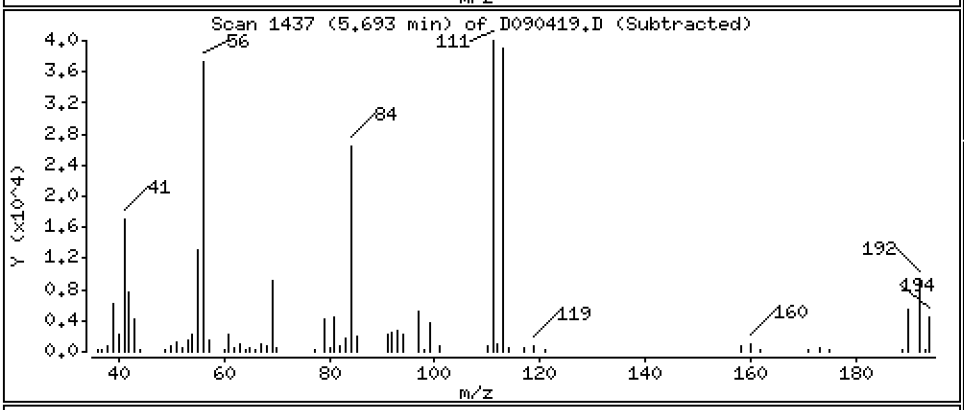
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

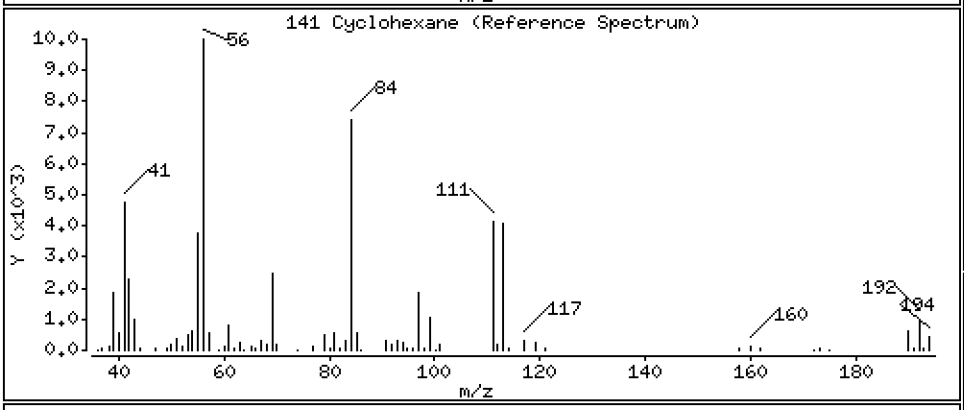
Purge Volume: 5.0 Operator: AP

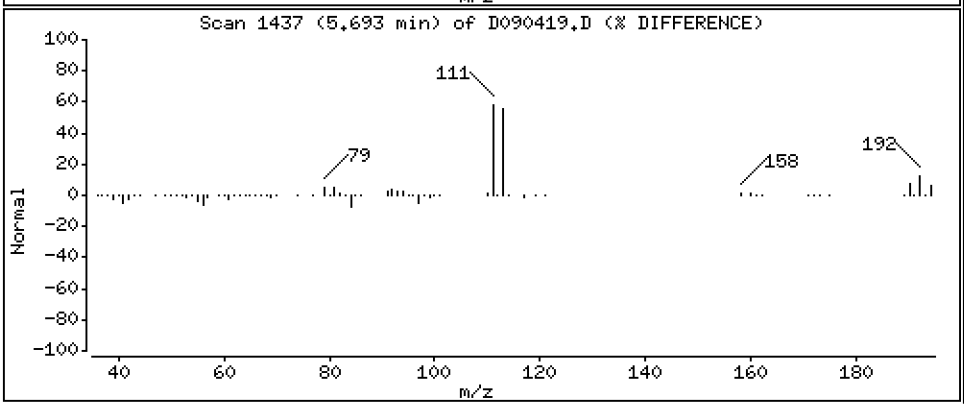
Column phase: DB624 Column diameter: 0.18

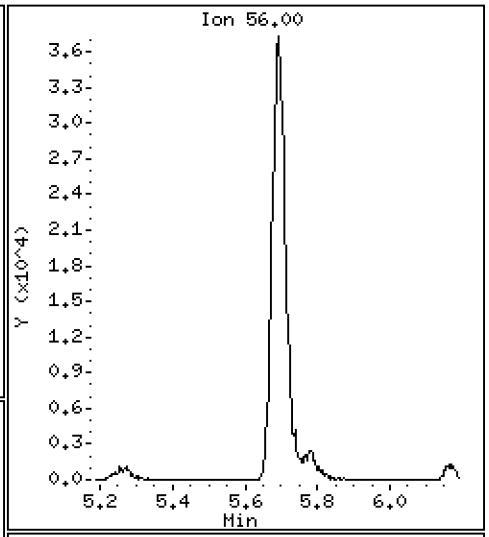
141 Cyclohexane Concentration: 16.19 ug/l Review Code:

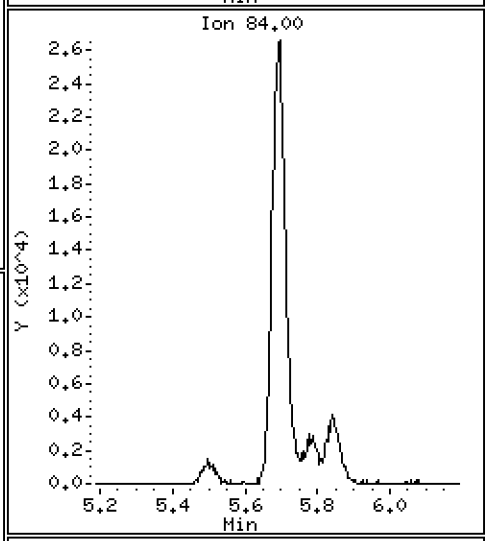


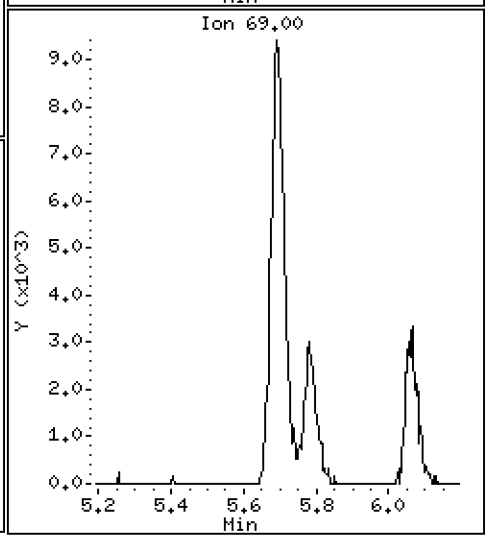












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 94

Date : 04-SEP-2018 18:03

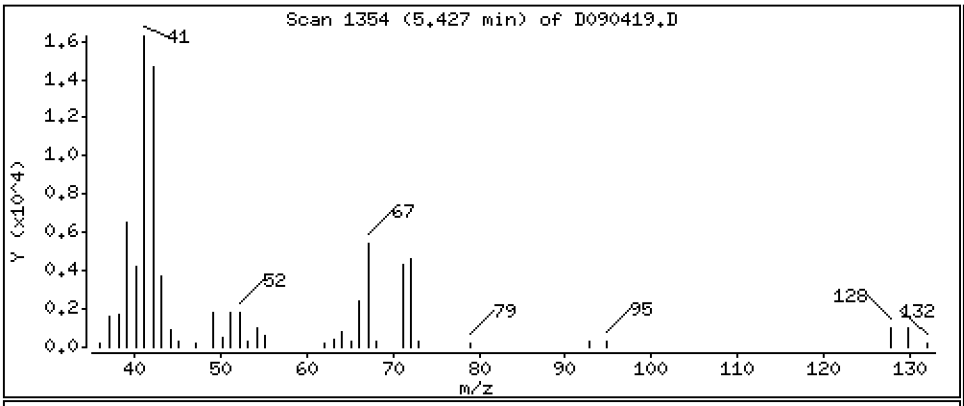
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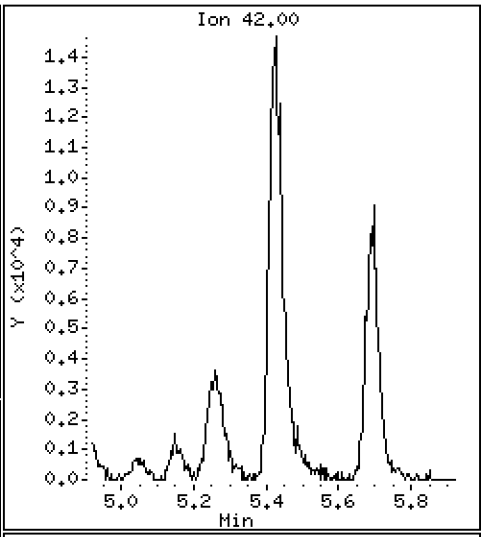
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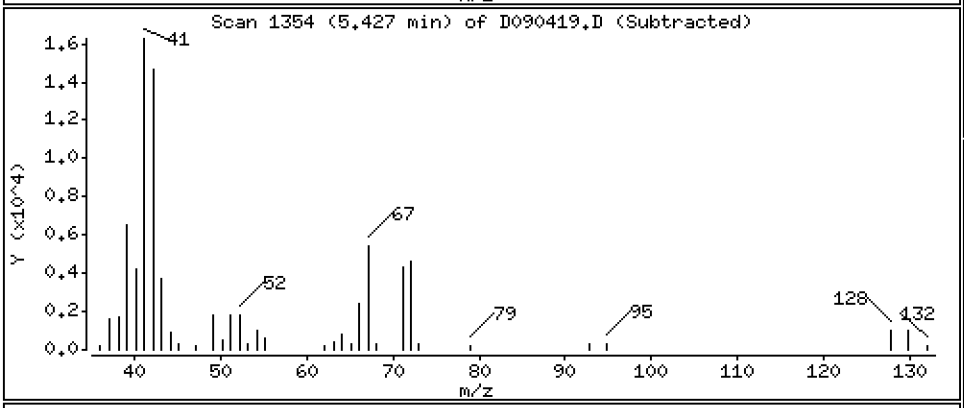
Purge Volume: 5.0 Operator: AP

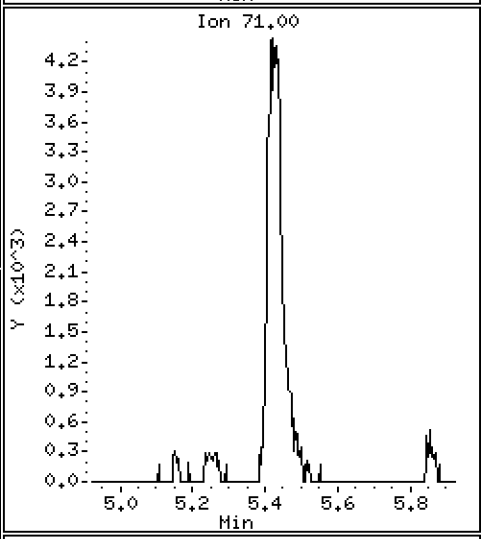
Column phase: DB624 Column diameter: 0.18

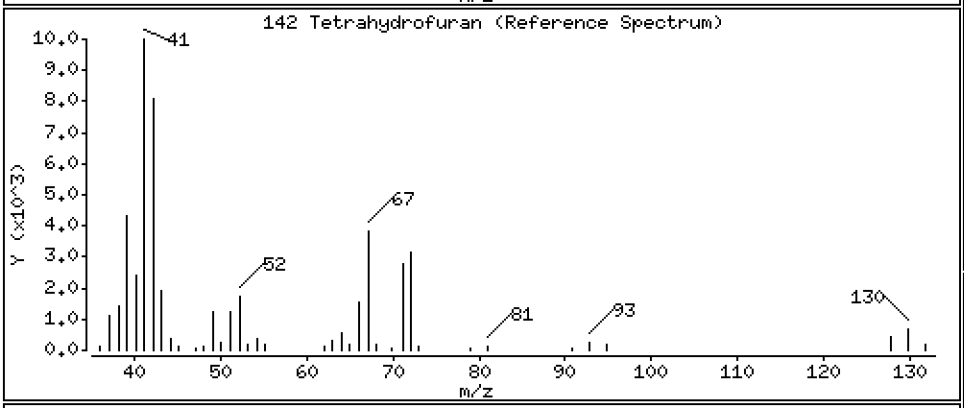
142 Tetrahydrofuran Concentration: 30.40 ug/l Review Code:

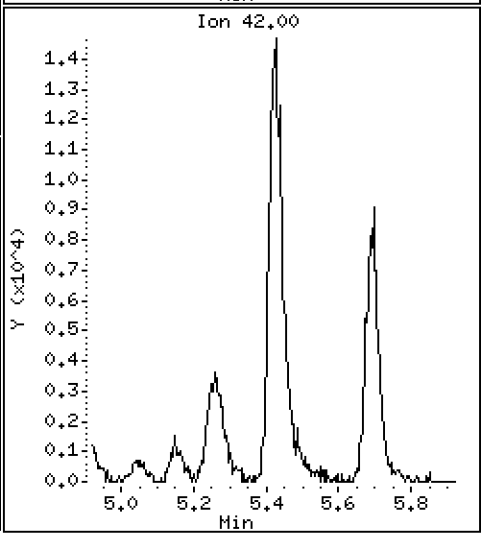


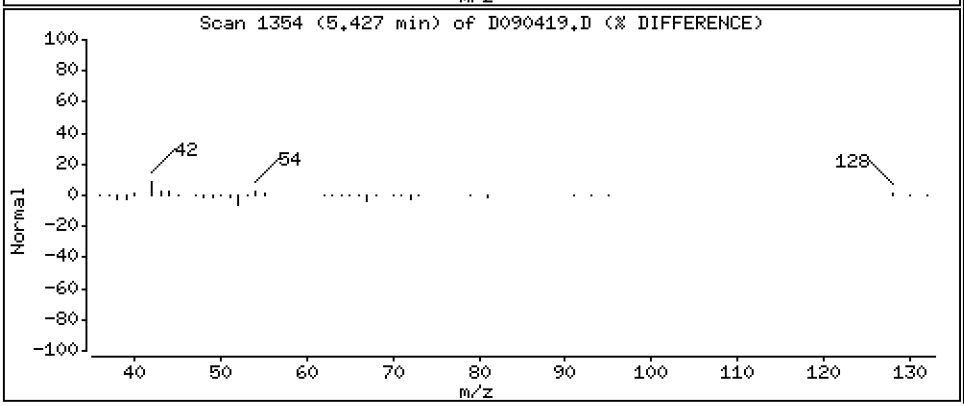












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 95

Date : 04-SEP-2018 18:03

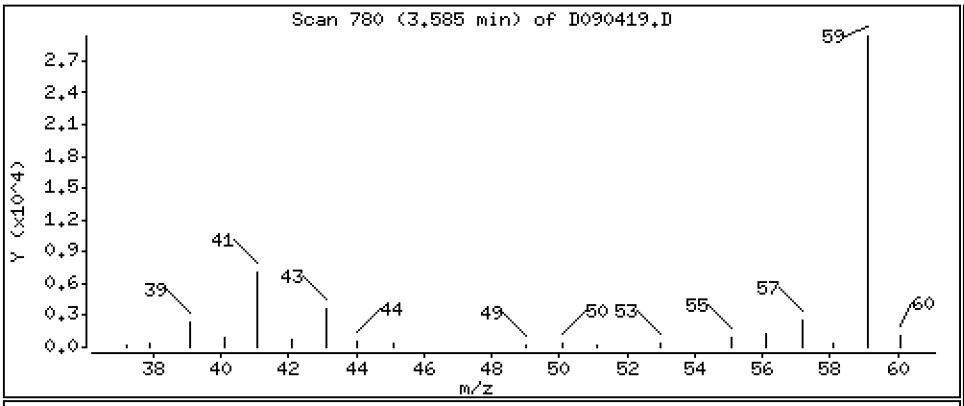
Client ID: HS18081504-01MSD Instrument: VOA2.i

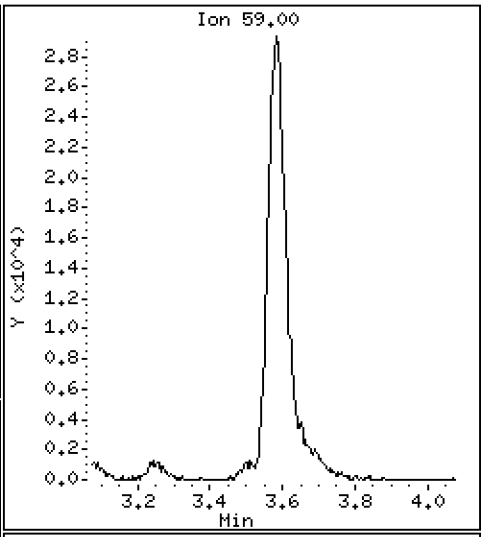
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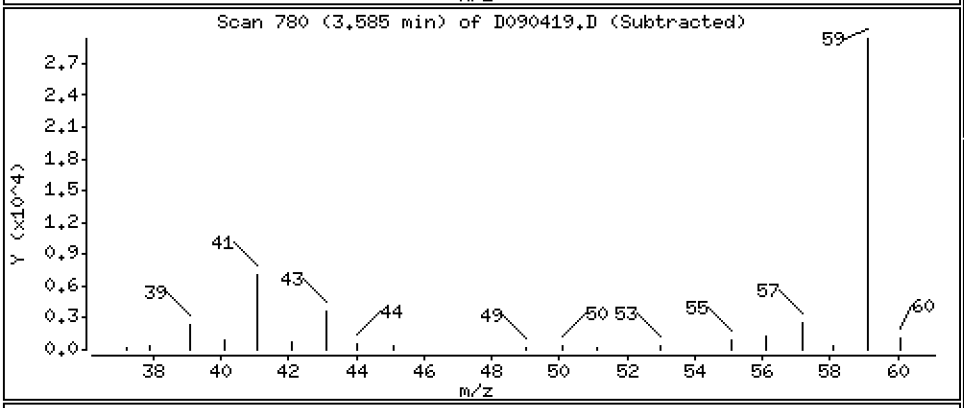
Purge Volume: 5.0 Operator: AP

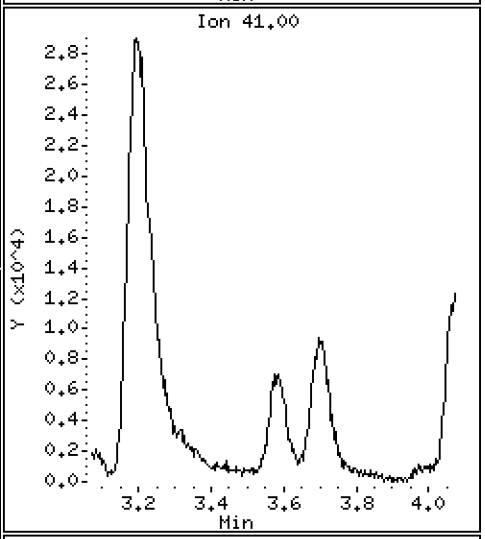
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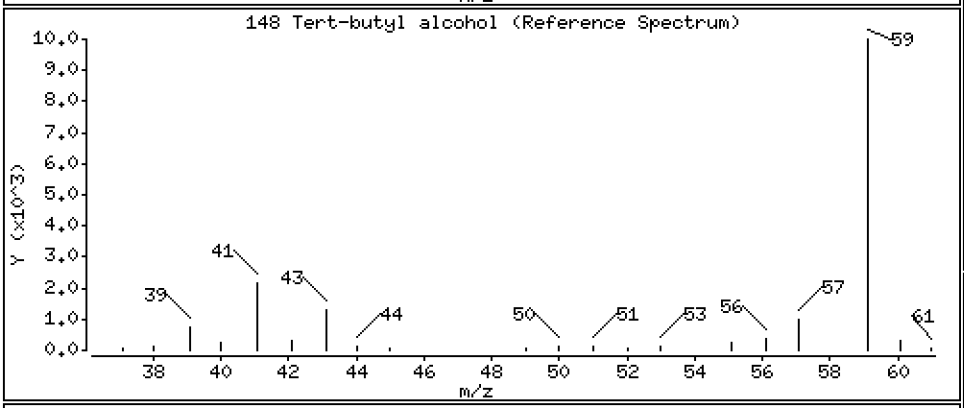
148 Tert-butyl alcohol Concentration: 313.38 ug/l Review Code:

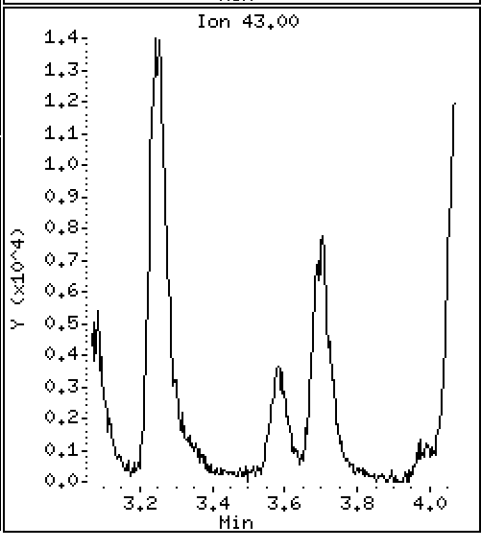


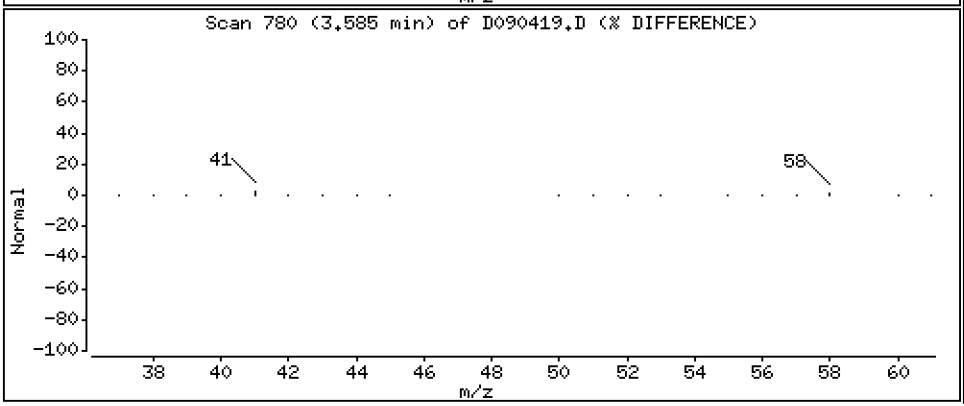












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 96

Date : 04-SEP-2018 18:03

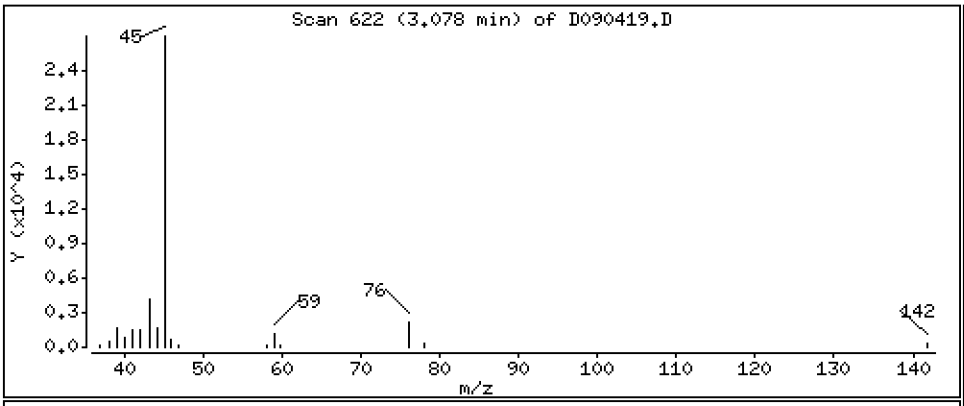
Client ID: HS18081504-01MSD Instrument: VOA2.i

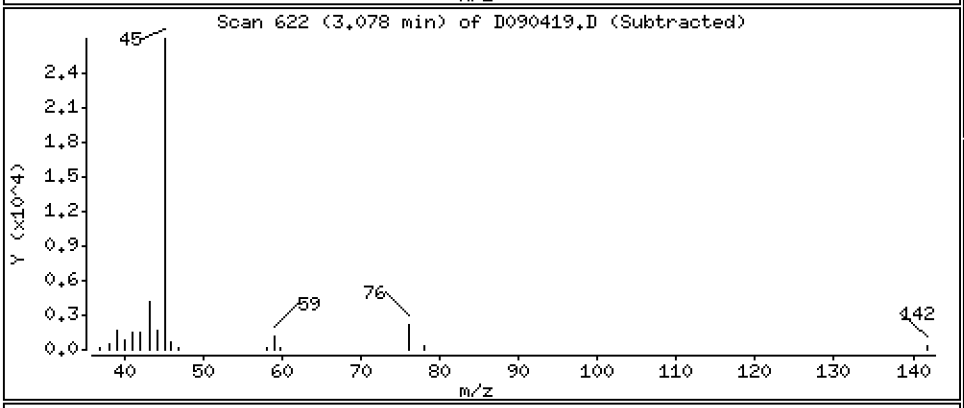
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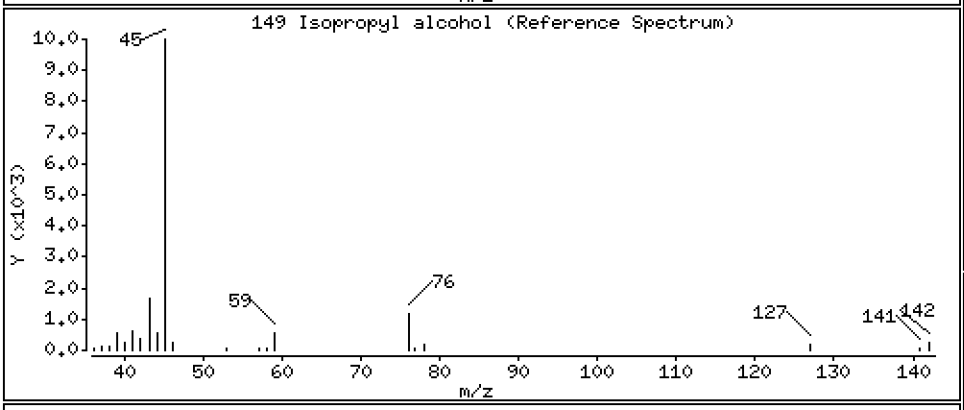
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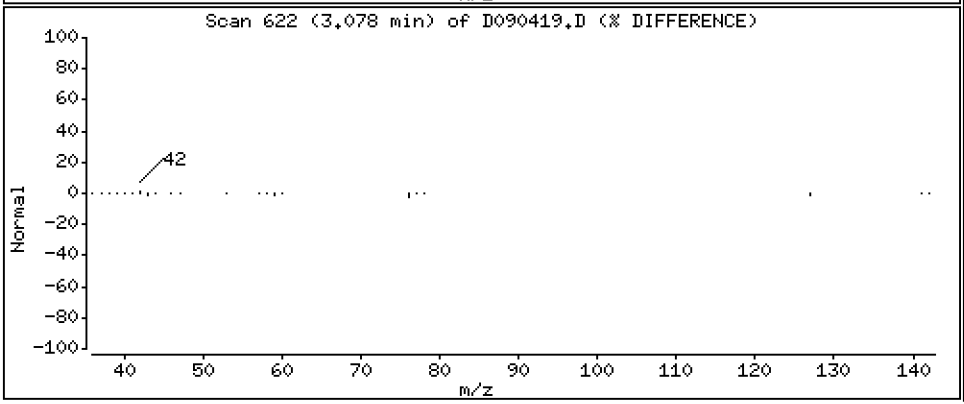
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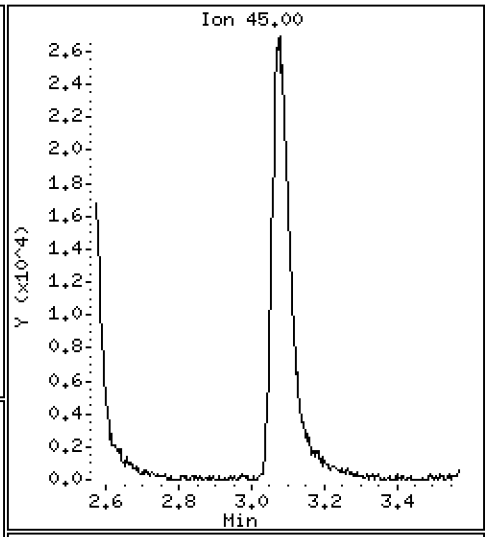
149 Isopropyl alcohol Concentration: 426.30 ug/l Review Code:

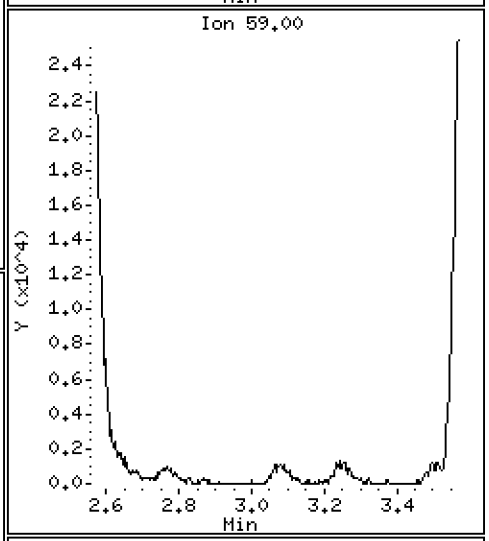


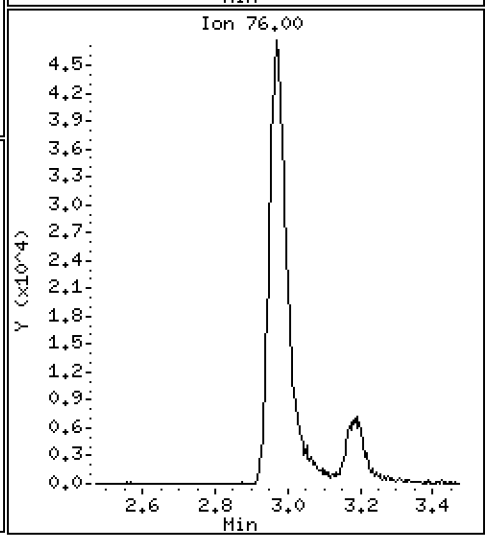












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 97

Date : 04-SEP-2018 18:03

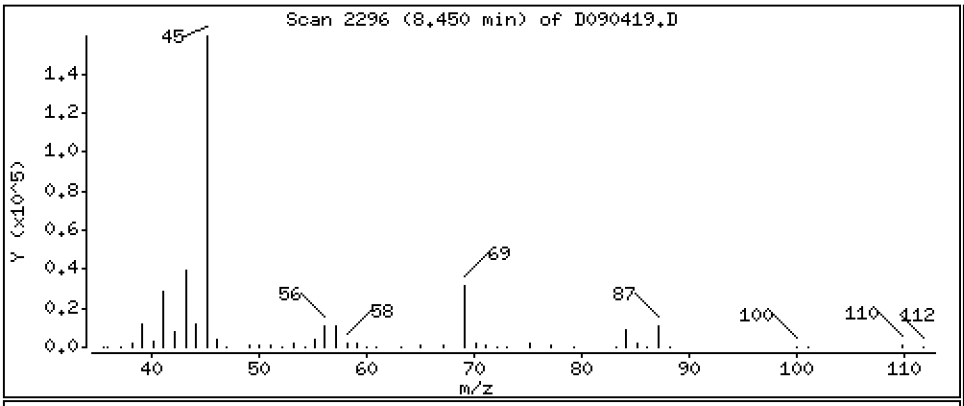
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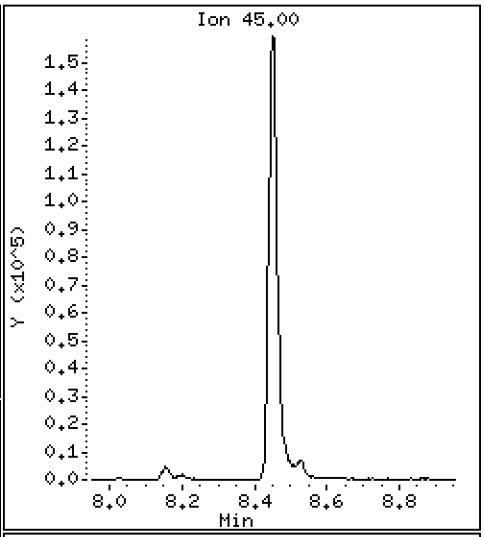
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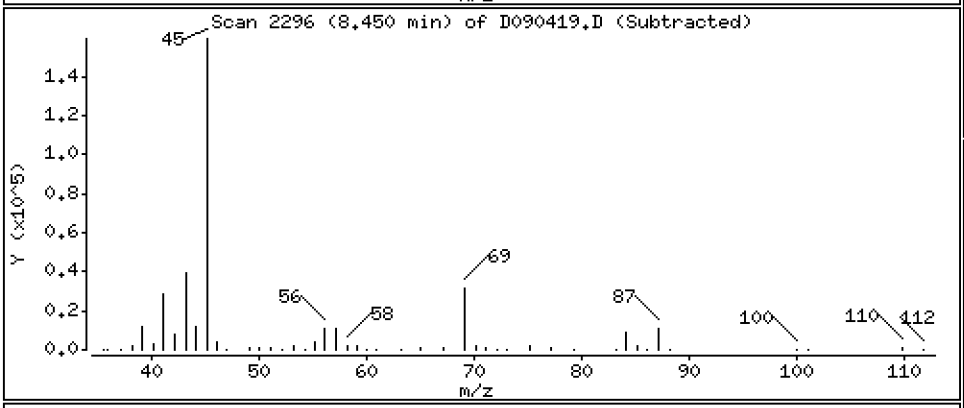
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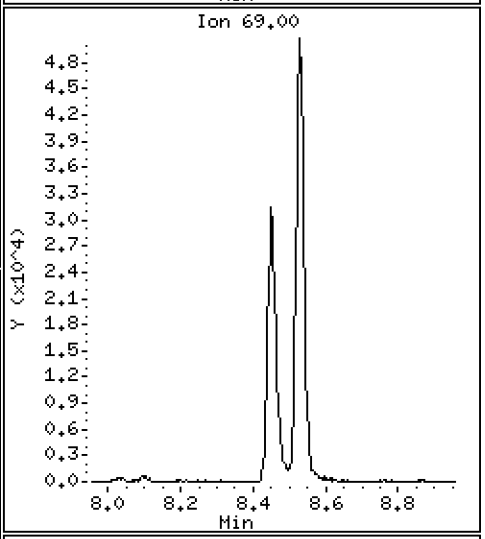
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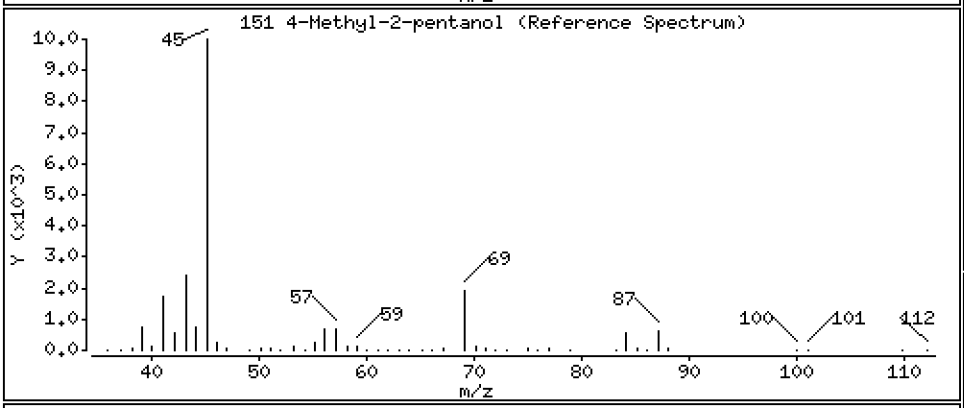
151 4-Methyl-2-pentanol Concentration: 359.40 ug/l Review Code:

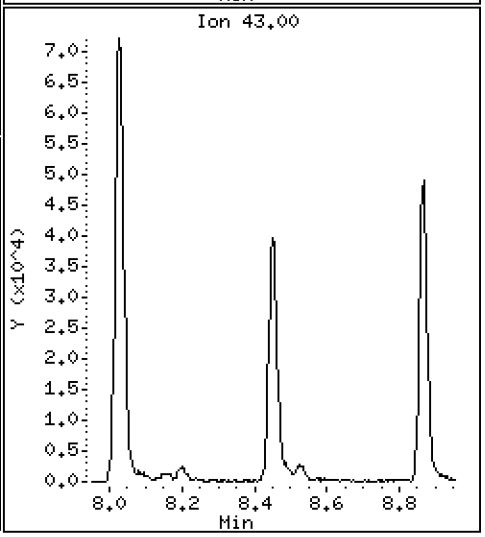


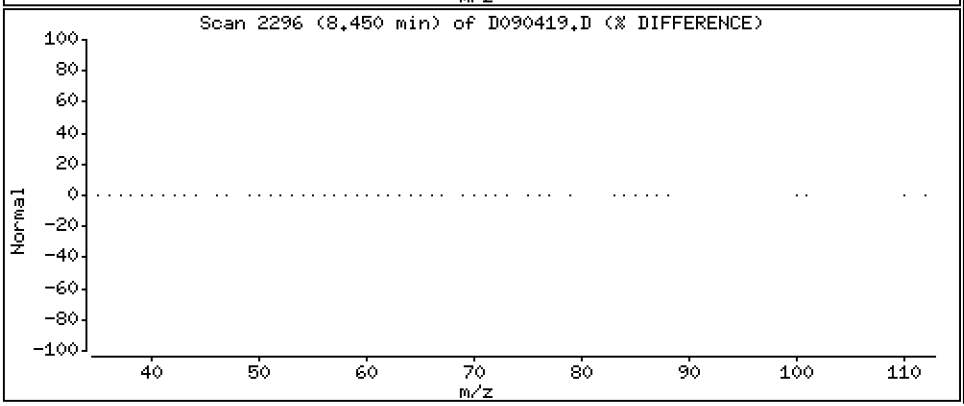












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 98

Date : 04-SEP-2018 18:03

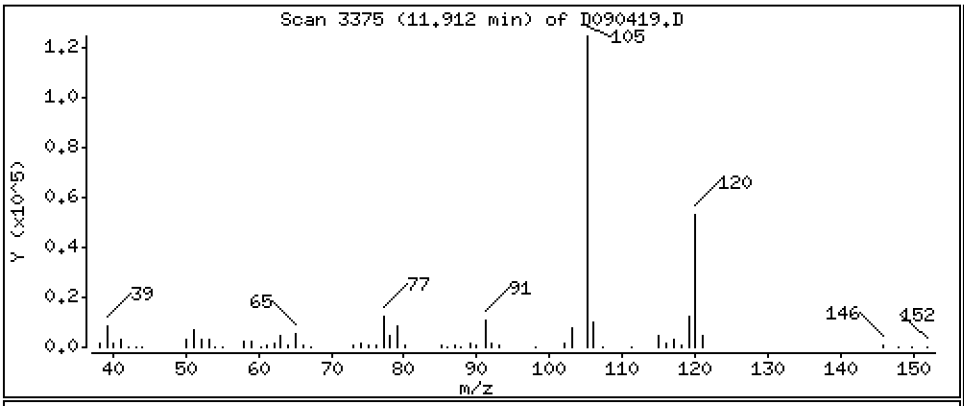
Client ID: HS18081504-01MSD Instrument: VOA2.i

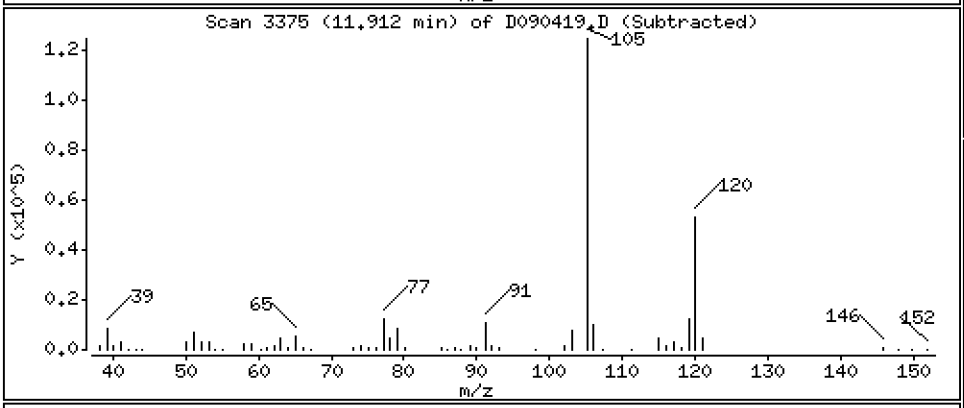
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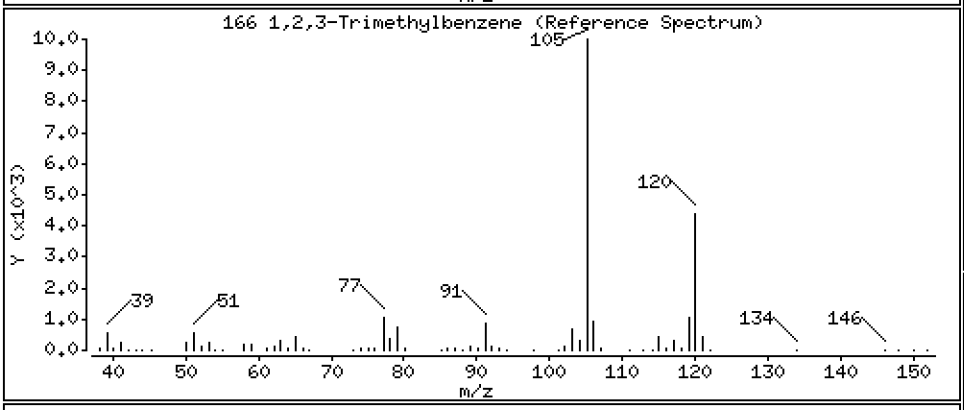
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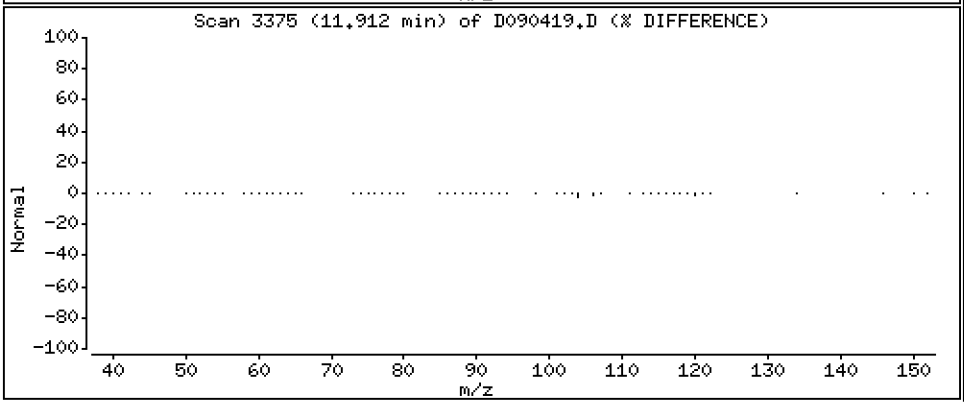
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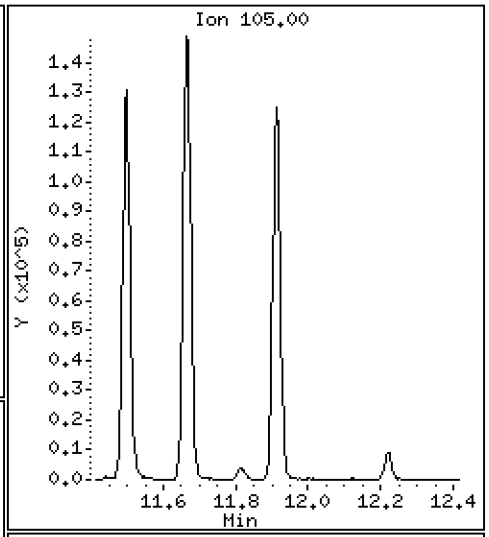
166 1,2,3-Trimethylbenzene Concentration: 17.22 ug/l Review Code:

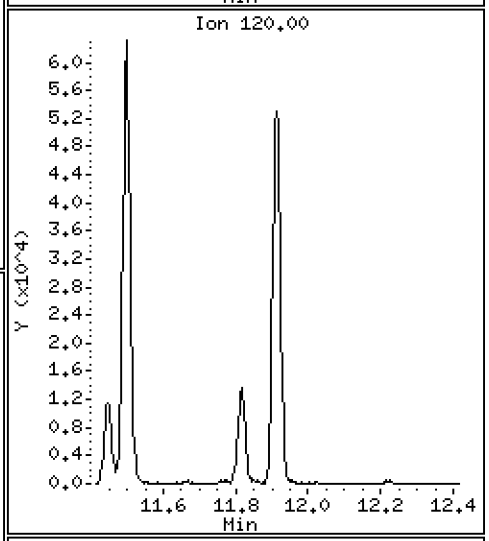


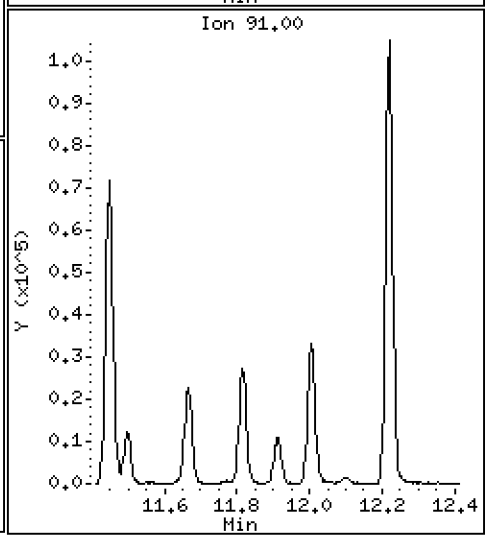












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 99

Date : 04-SEP-2018 18:03

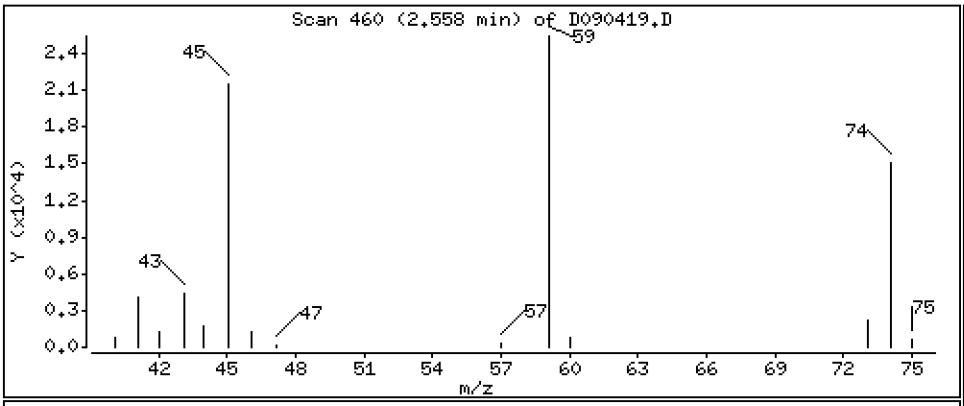
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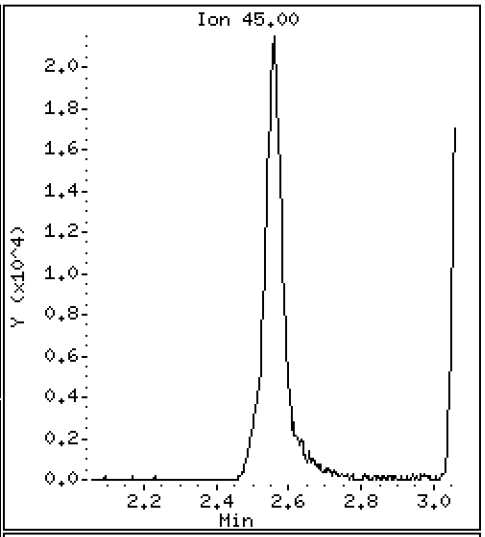
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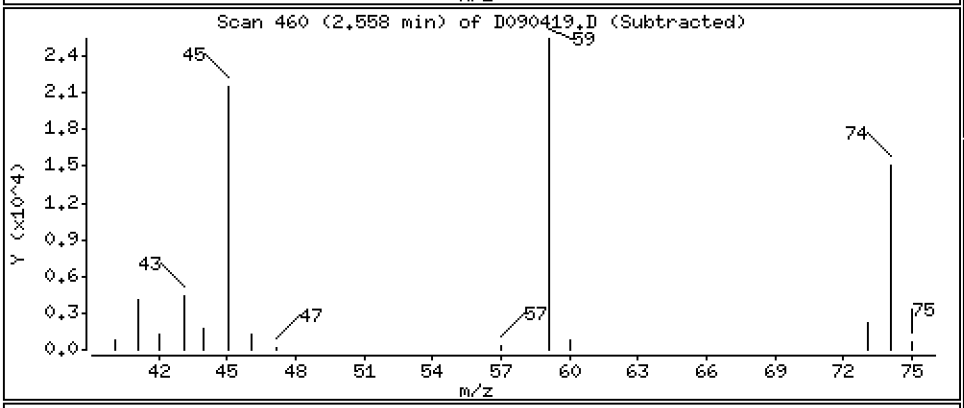
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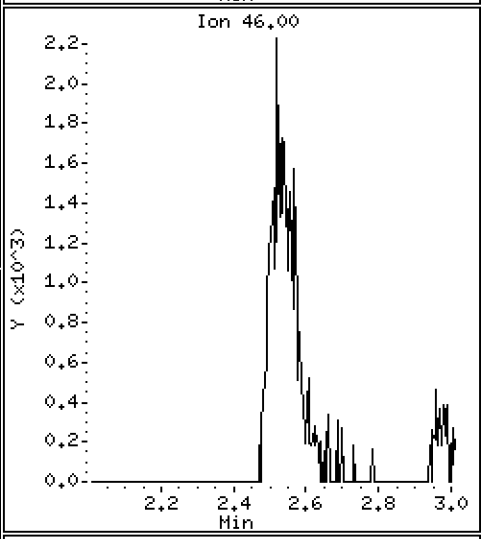
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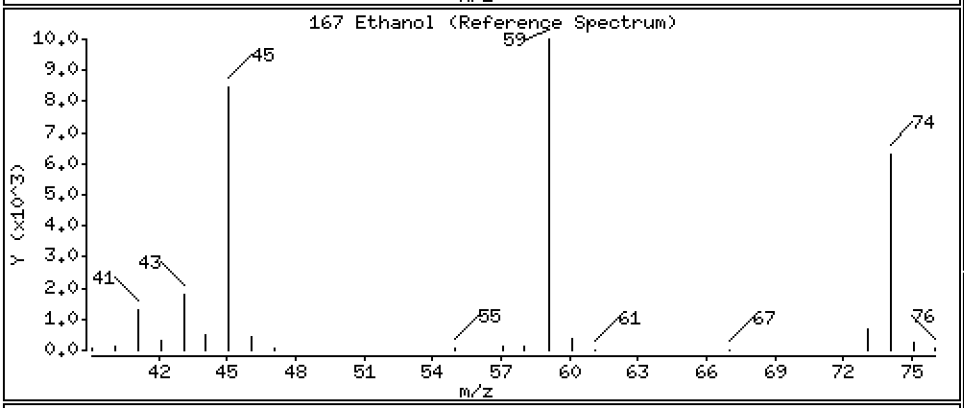
167 Ethanol Concentration: 271.65 ug/l Review Code:

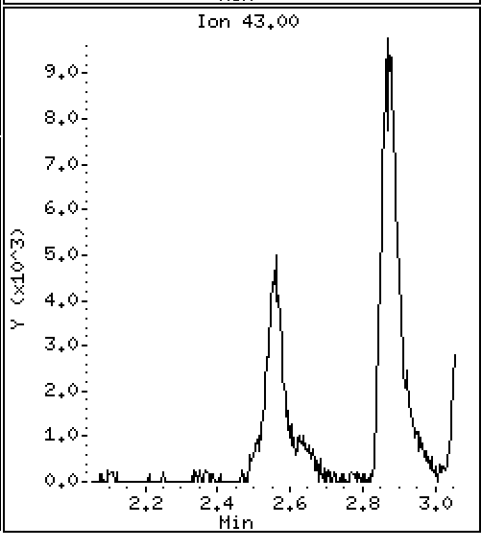


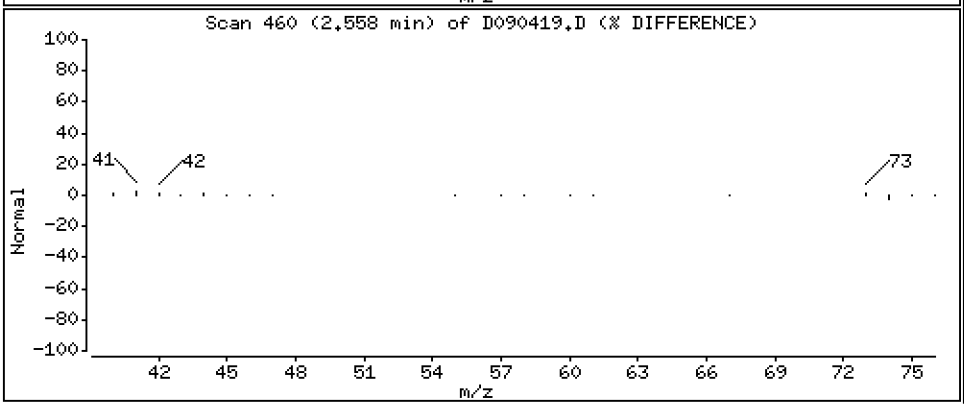












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 100

Date : 04-SEP-2018 18:03

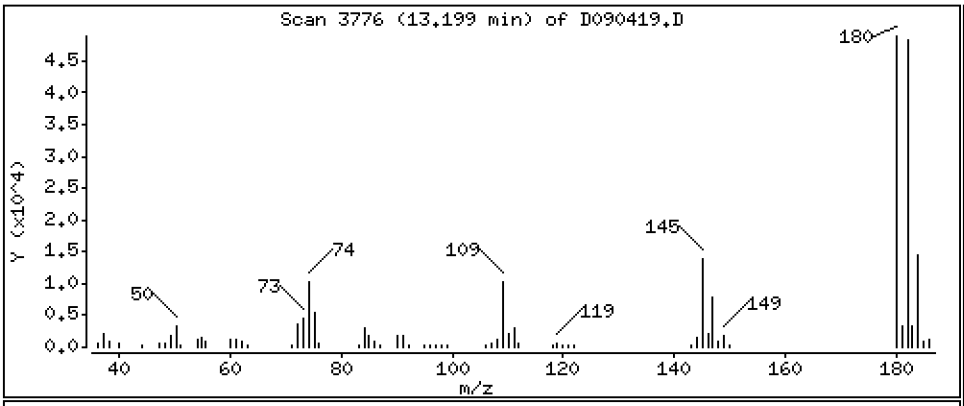
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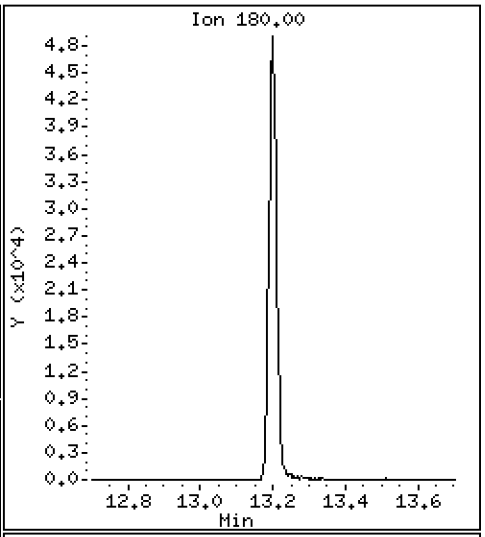
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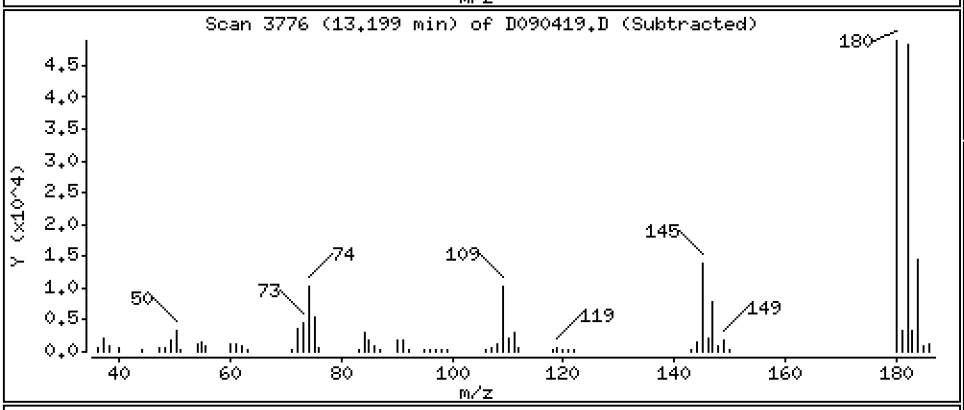
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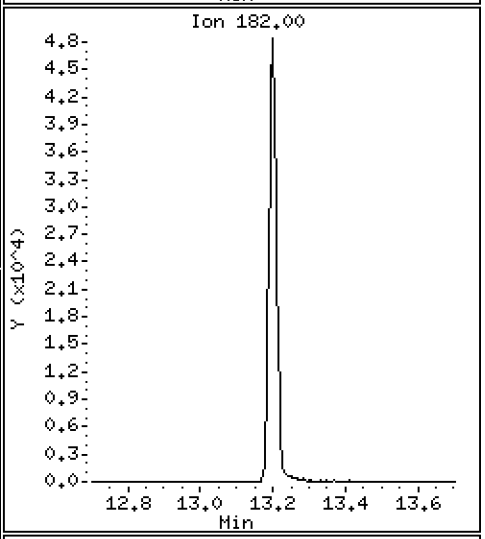
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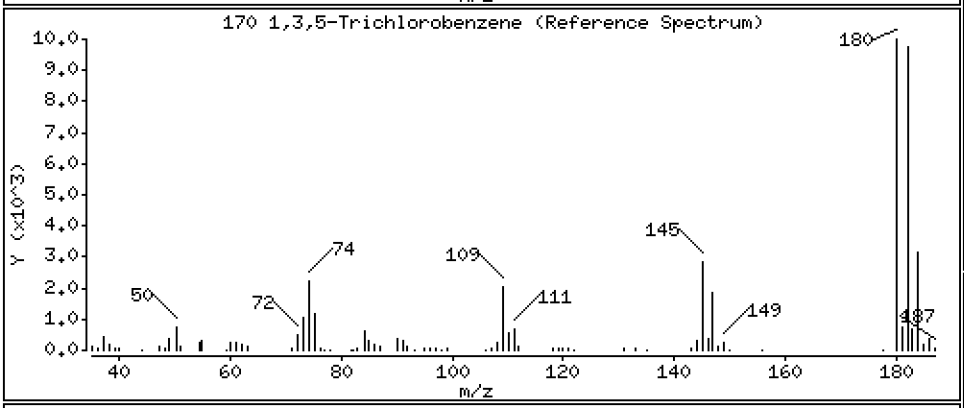
170 1,3,5-Trichlorobenzene Concentration: 17.33 ug/l Review Code:

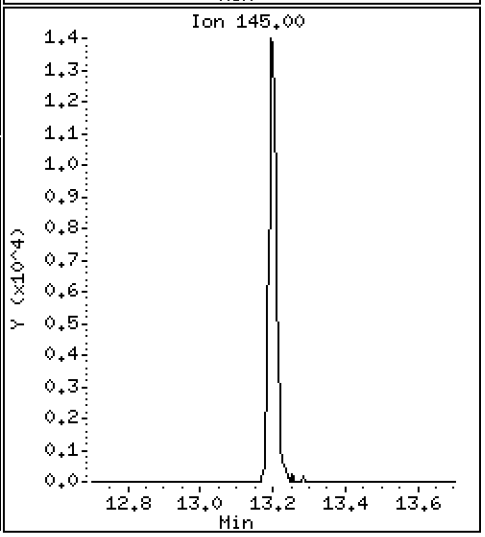


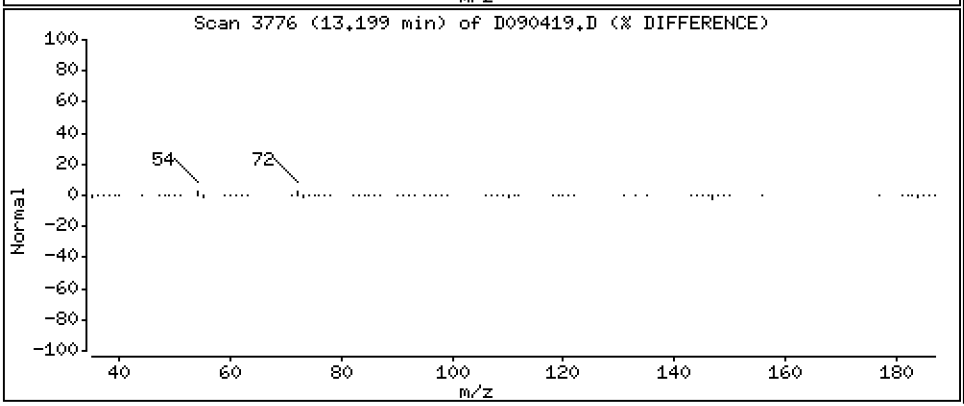












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Date : 04-SEP-2018 18:03

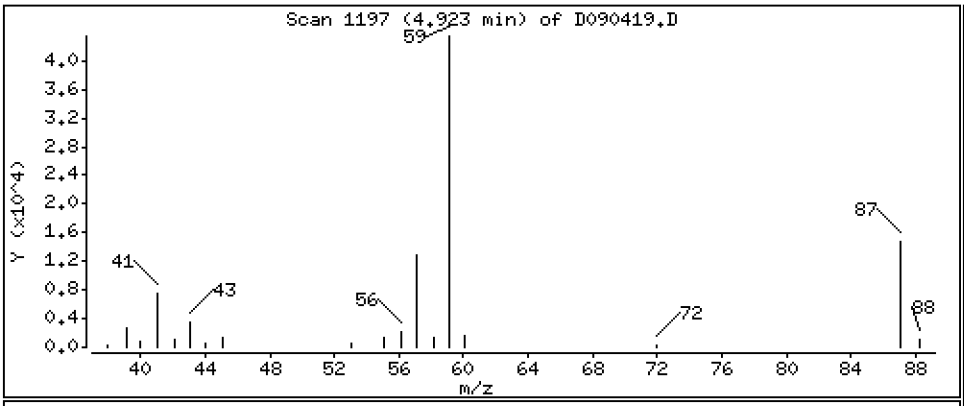
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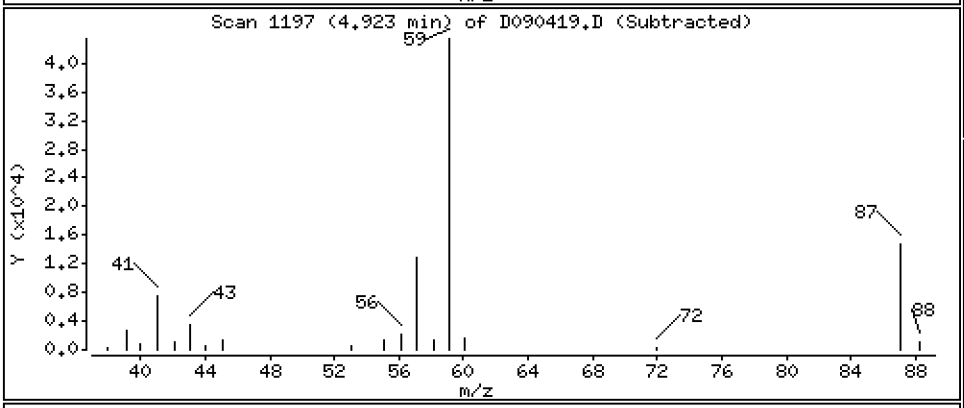
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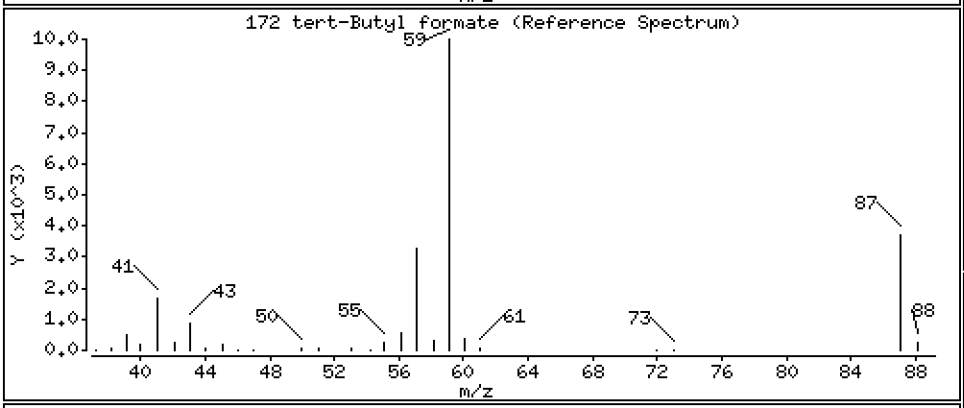
Purge Volume: 5.0 Operator: AP

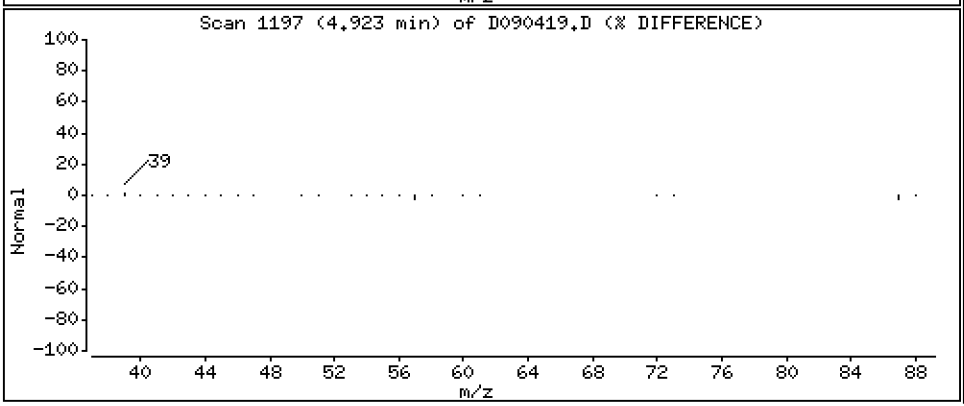
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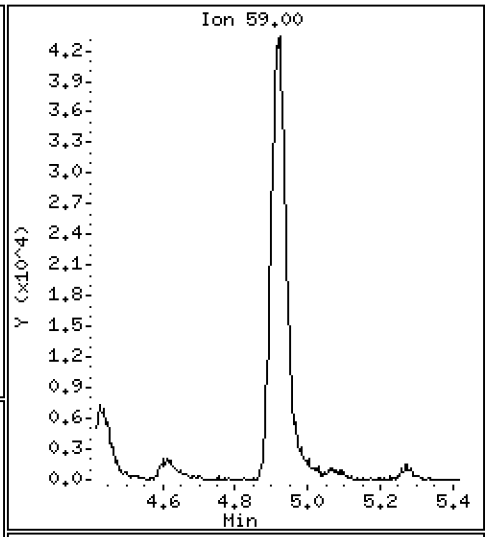
172 tert-Butyl formate Concentration: 31.70 ug/l Review Code:

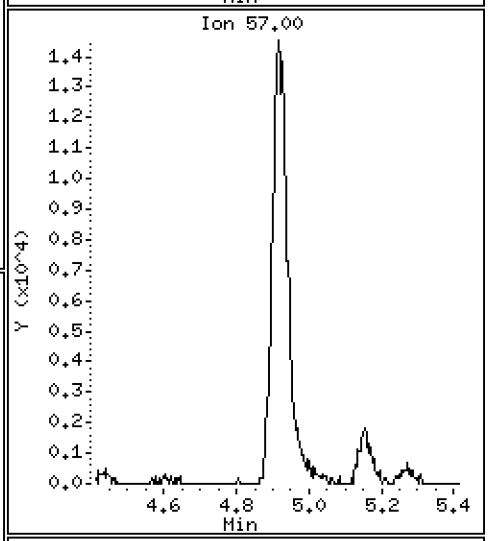


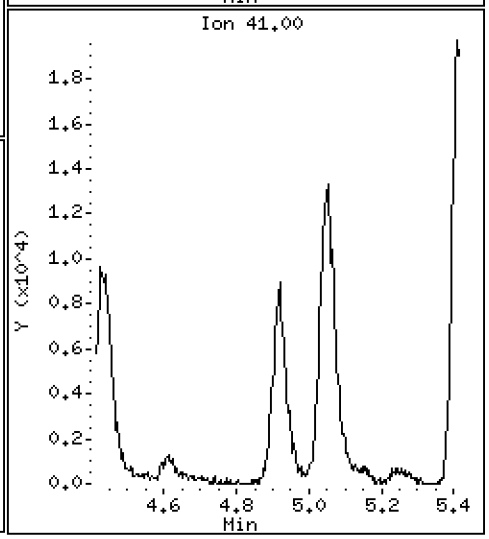












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 102

Date : 04-SEP-2018 18:03

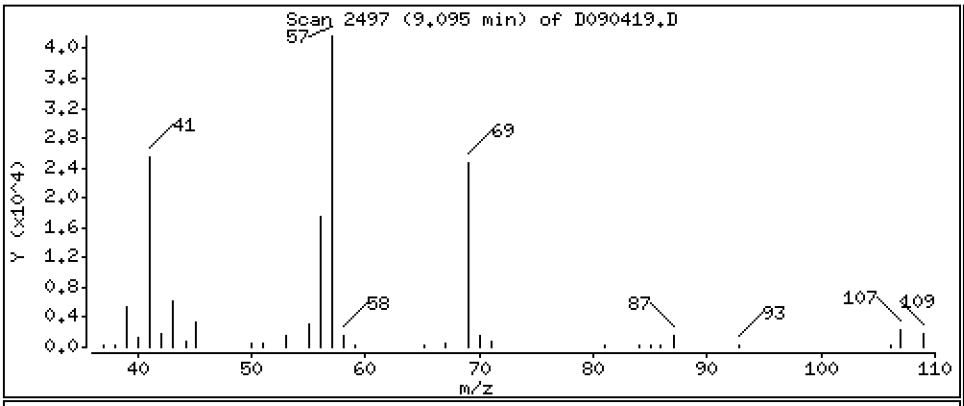
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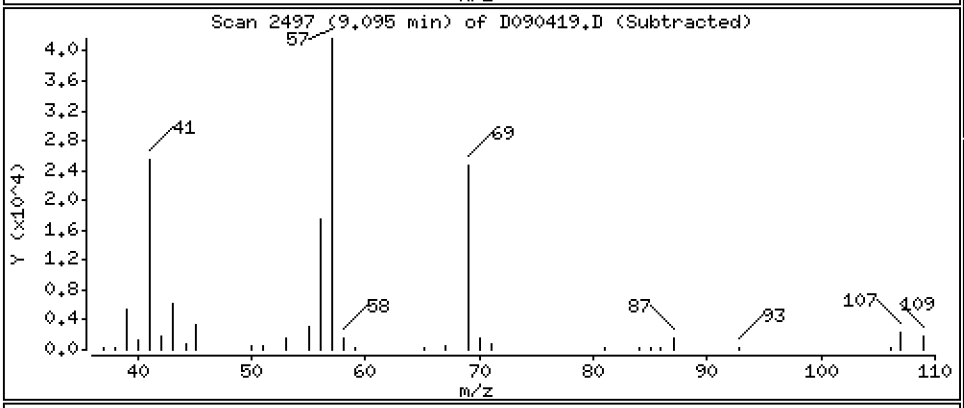
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

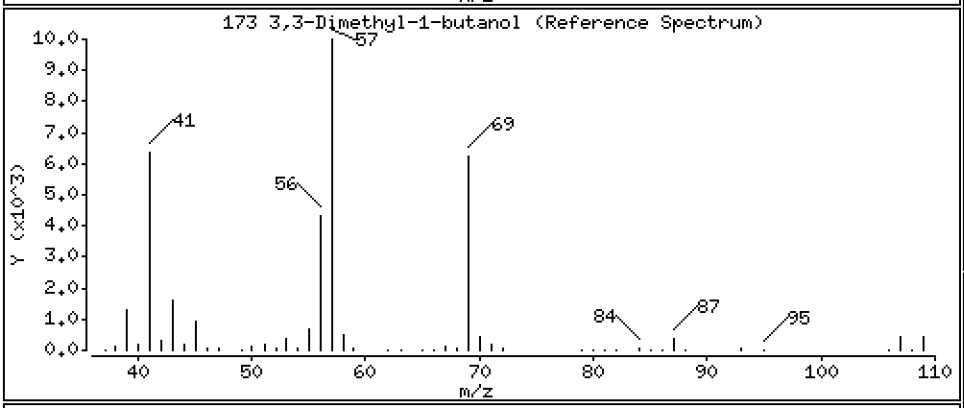
Purge Volume: 5.0 Operator: AP

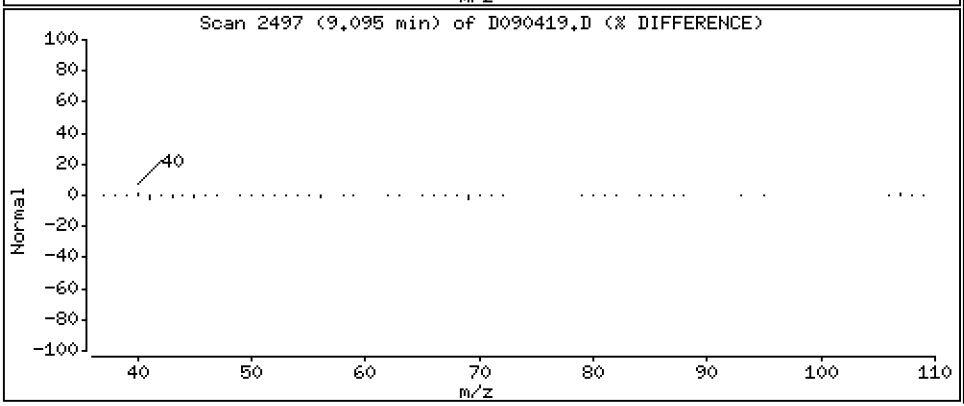
Column phase: DB624 Column diameter: 0.18

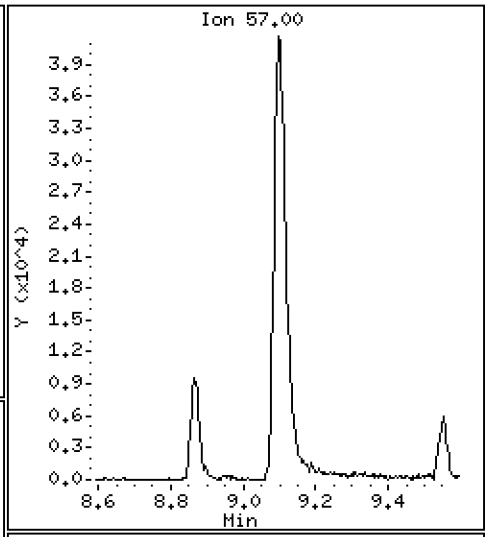
173 3,3-Dimethyl-1-butanol Concentration: 354.83 ug/l Review Code:

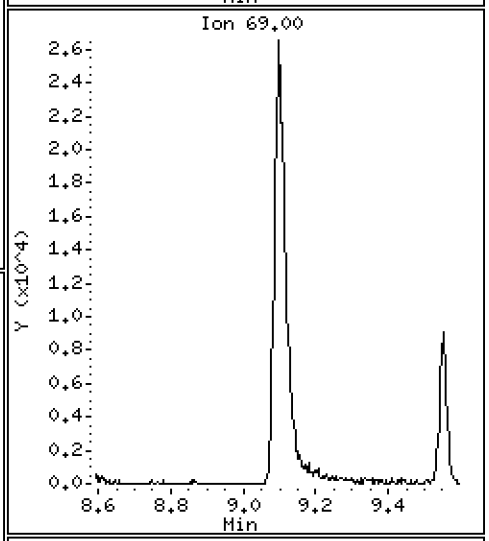


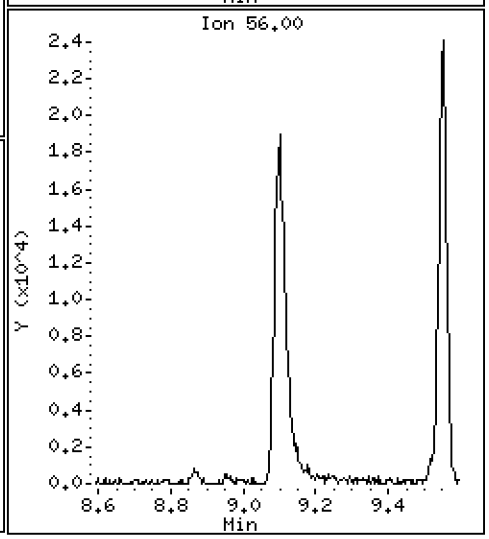












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 103

Date : 04-SEP-2018 18:03

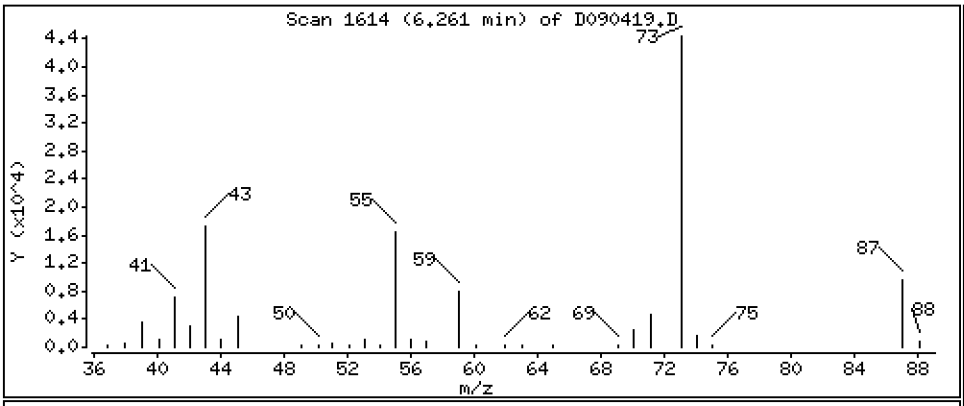
Client ID: HS18081504-01MSD Instrument: VOA2.i

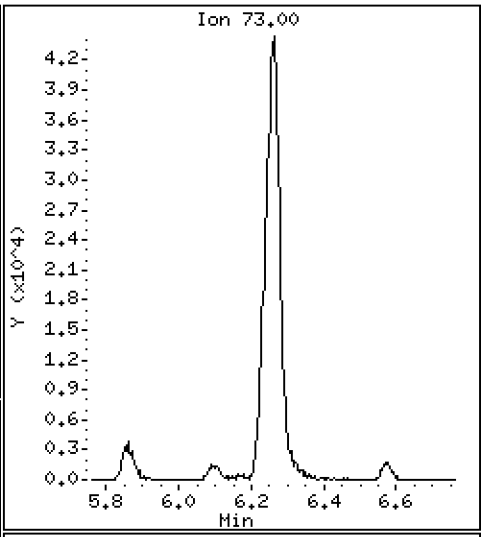
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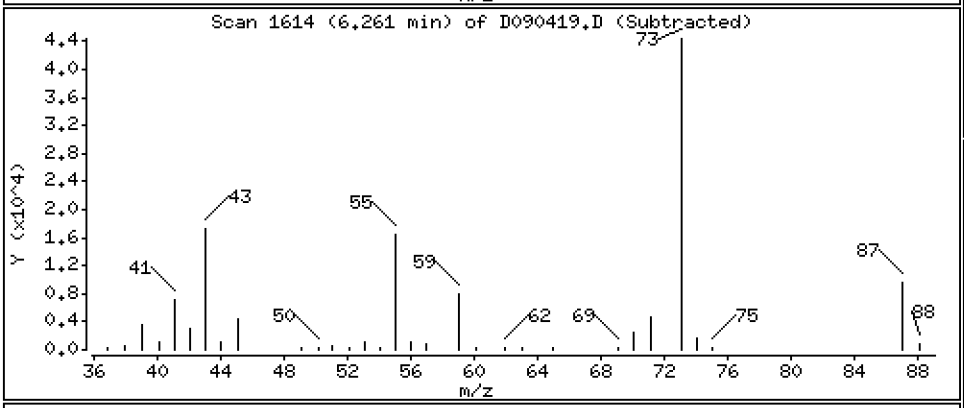
Purge Volume: 5.0 Operator: AP

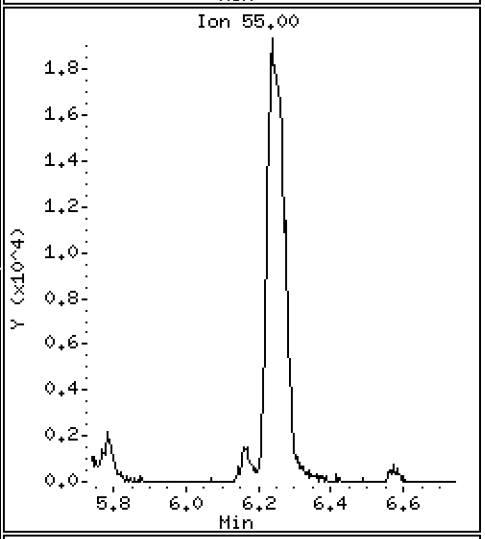
Column phase: DB624 Column diameter: 0.18

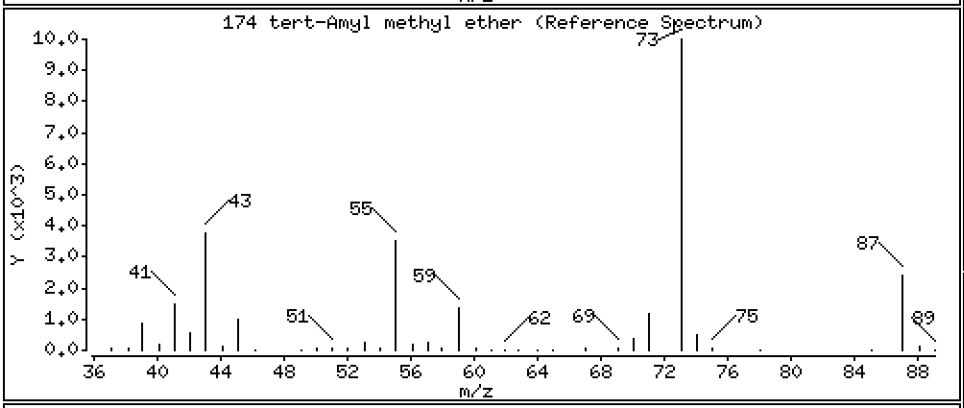
174 tert-Amyl methyl ether Concentration: 15.64 ug/l Review Code:

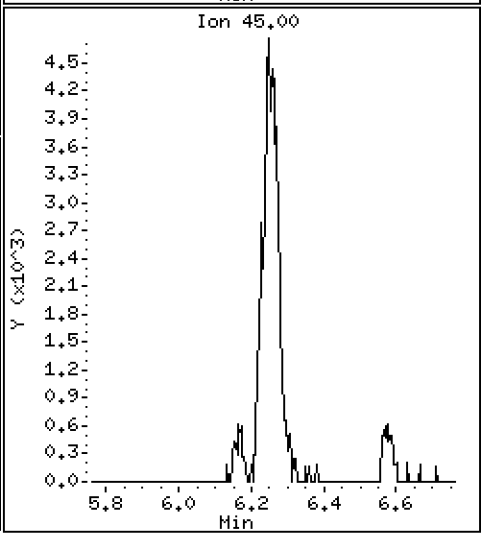


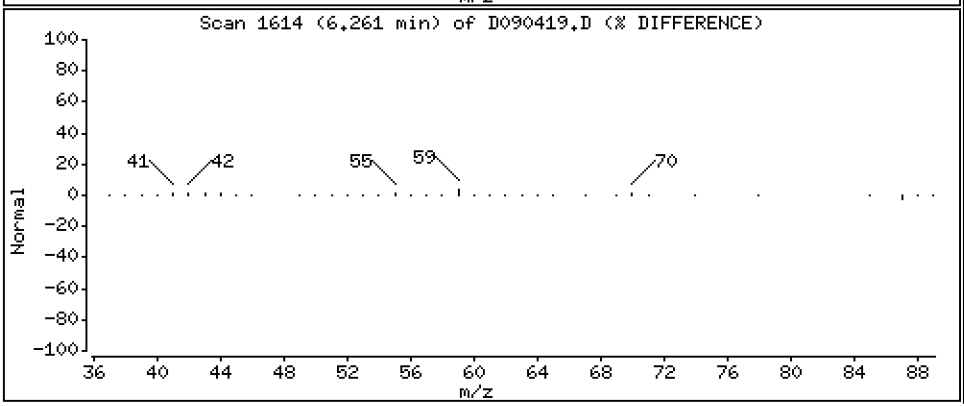












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 104

Date : 04-SEP-2018 18:03

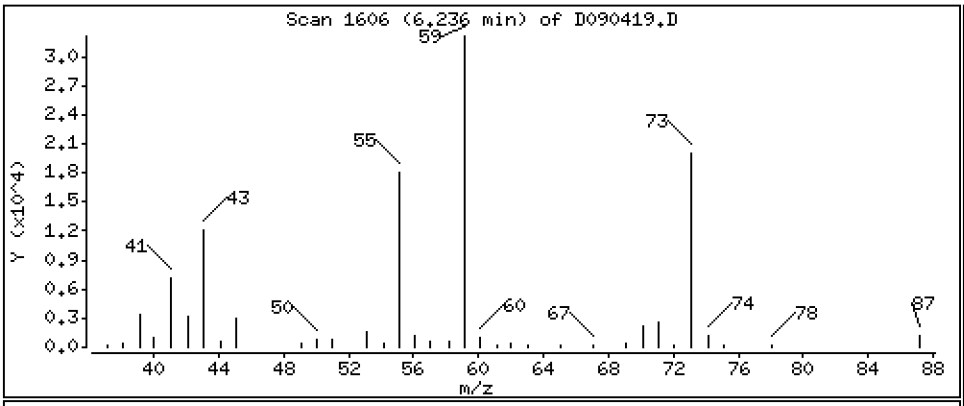
Client ID: HS18081504-01MSD Instrument: VOA2.i

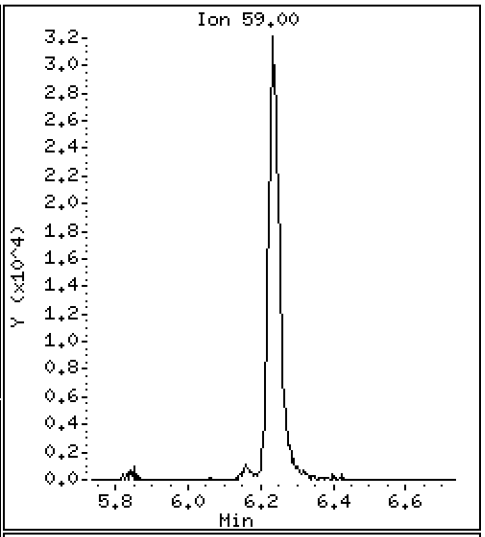
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

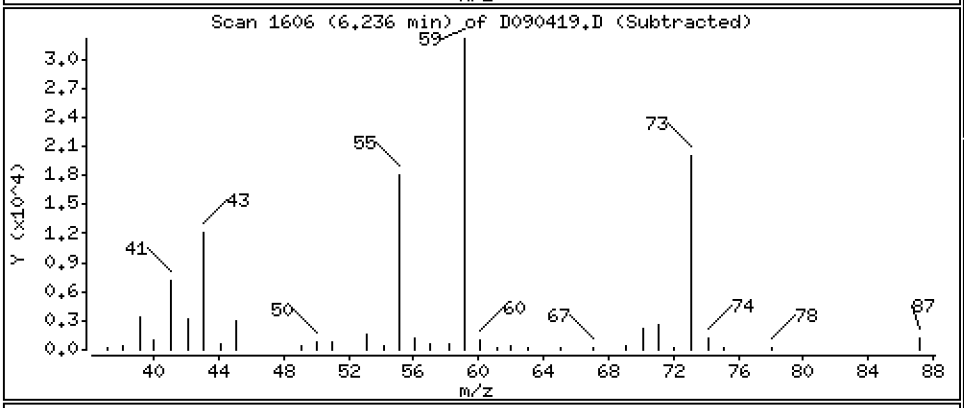
Purge Volume: 5.0 Operator: AP

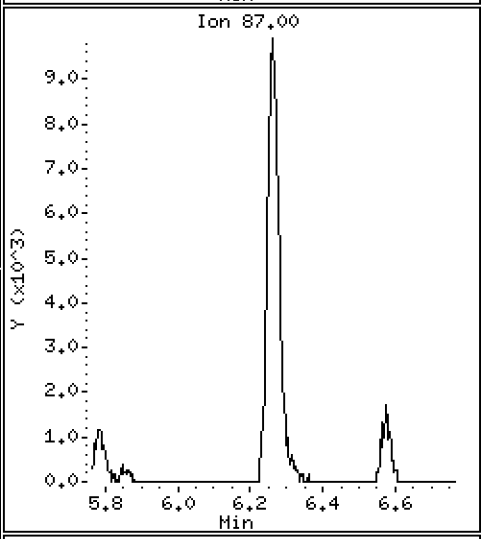
Column phase: DB624 Column diameter: 0.18

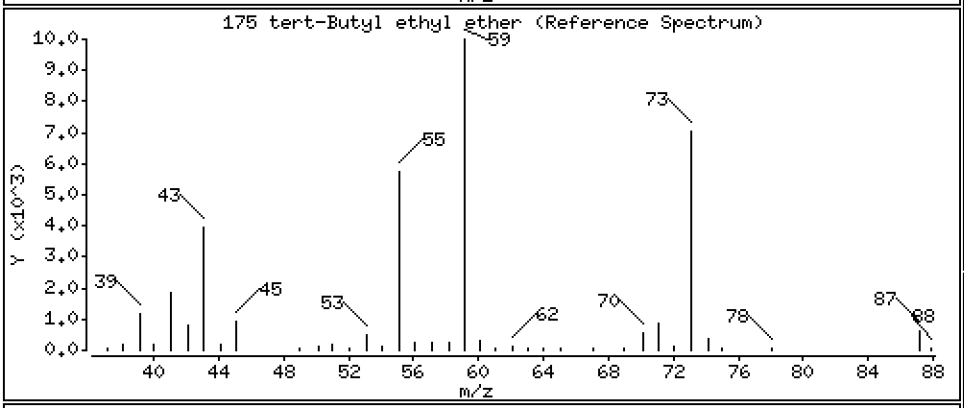
175 tert-Butyl ethyl ether Concentration: 15.49 ug/l Review Code:

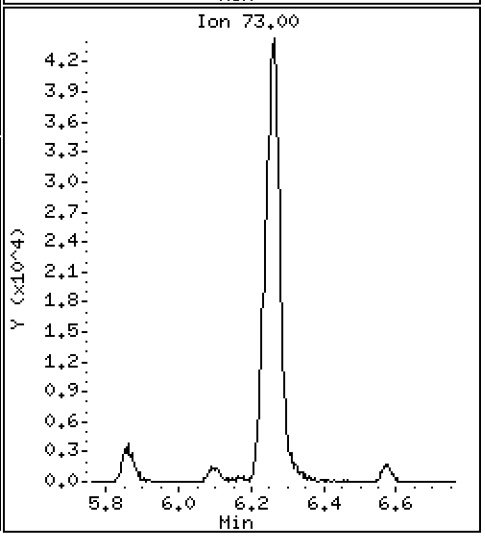


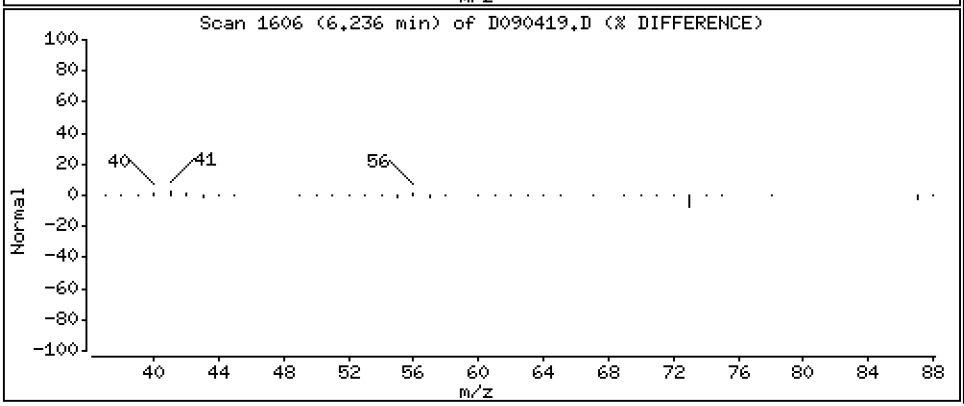












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 105

Date : 04-SEP-2018 18:03

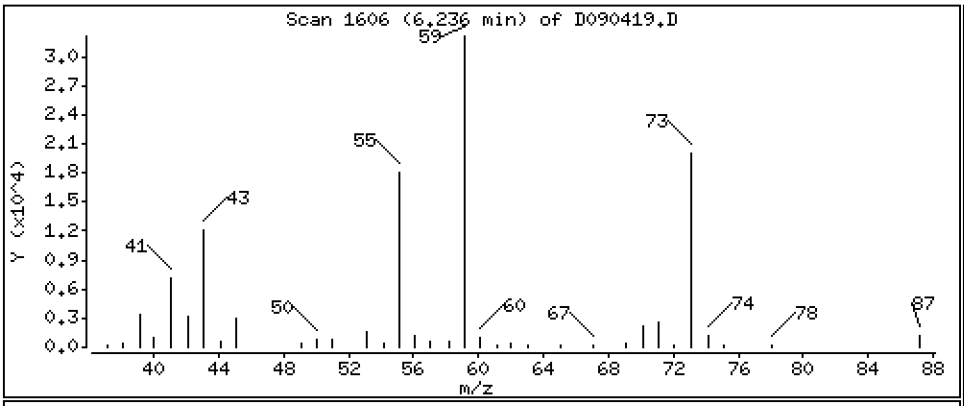
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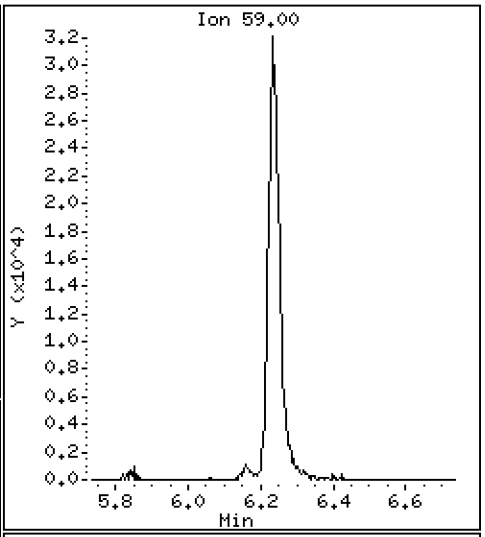
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

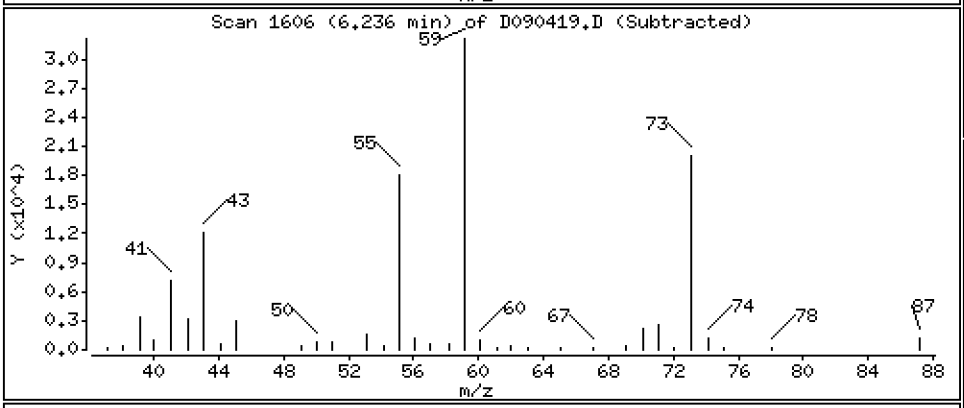
Purge Volume: 5.0 Operator: AP

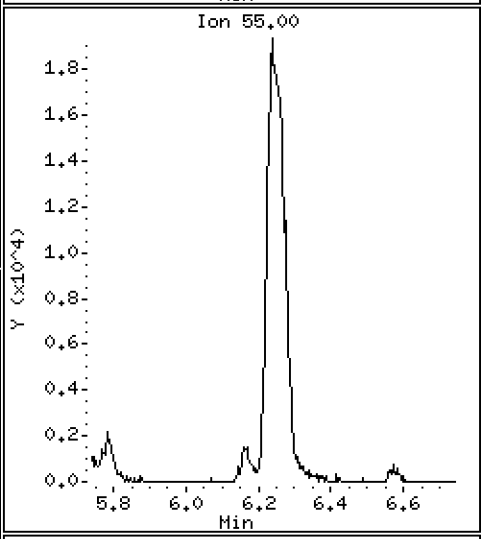
Column phase: DB624 Column diameter: 0.18

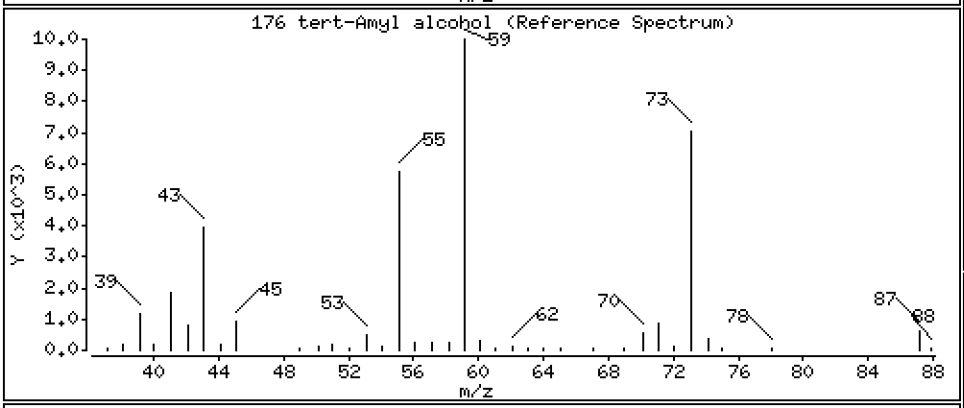
176 tert-Amyl alcohol Concentration: 309.95 ug/l Review Code:

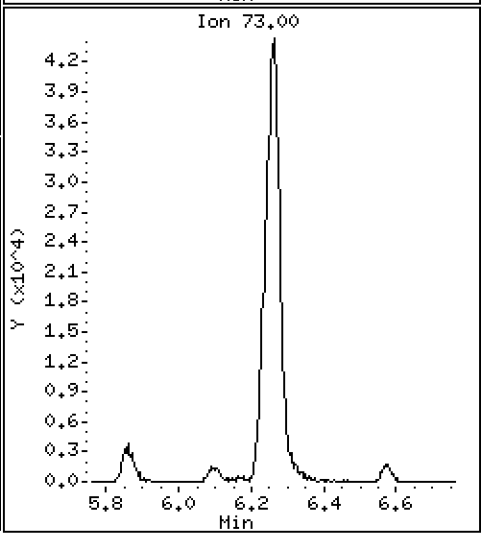


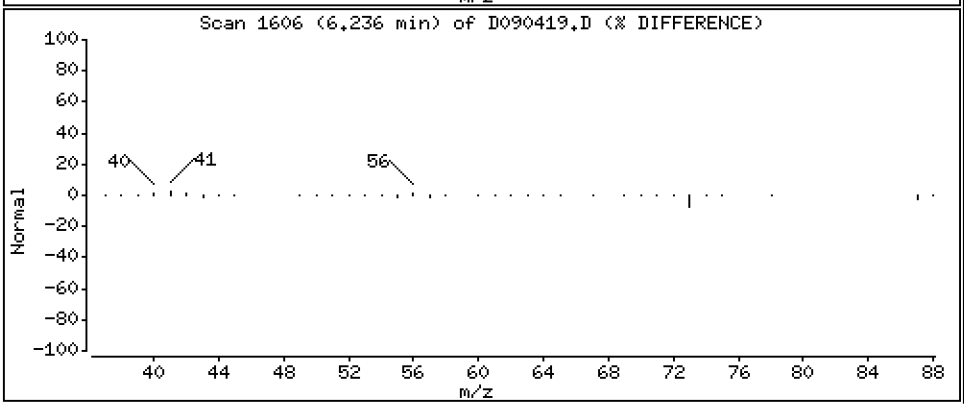












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 106

Date : 04-SEP-2018 18:03

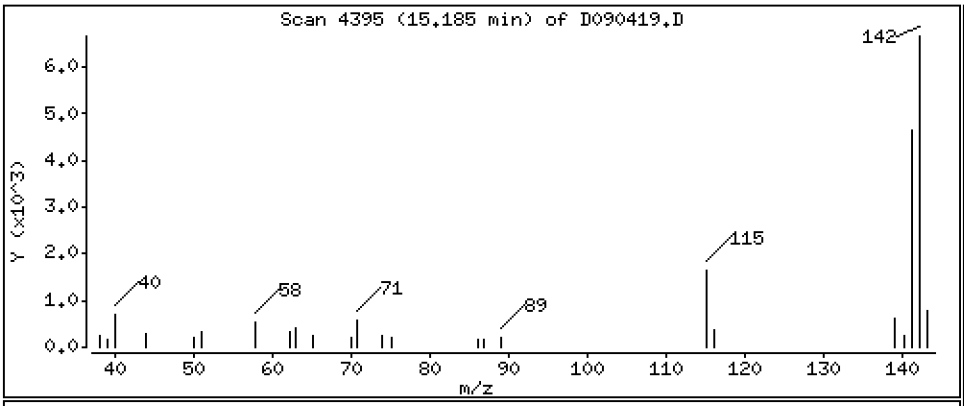
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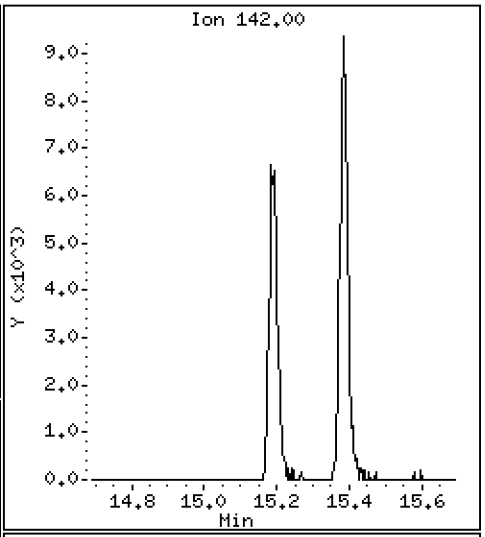
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

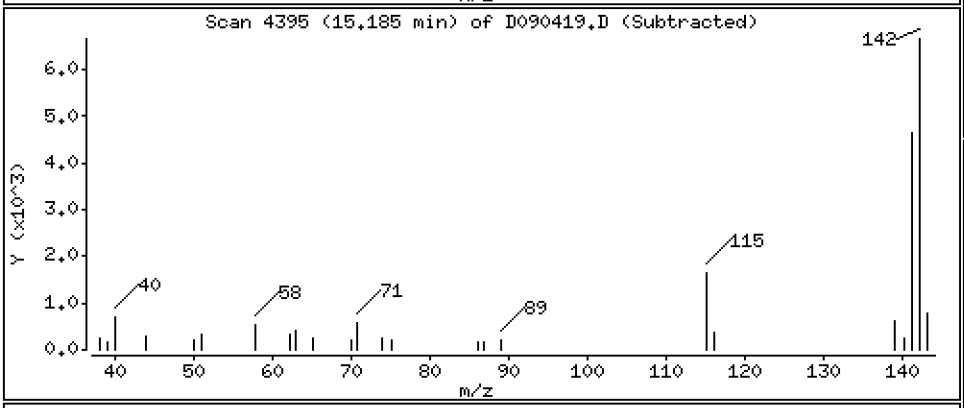
Purge Volume: 5.0 Operator: AP

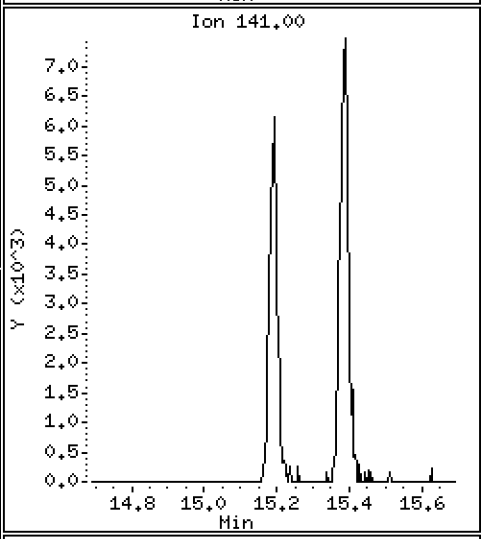
Column phase: DB624 Column diameter: 0.18

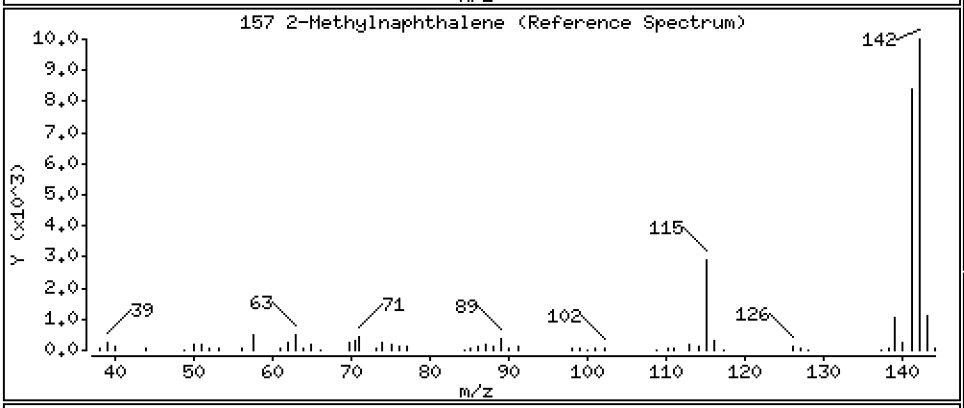
157 2-Methylnaphthalene Concentration: 8.58 ug/l Review Code:

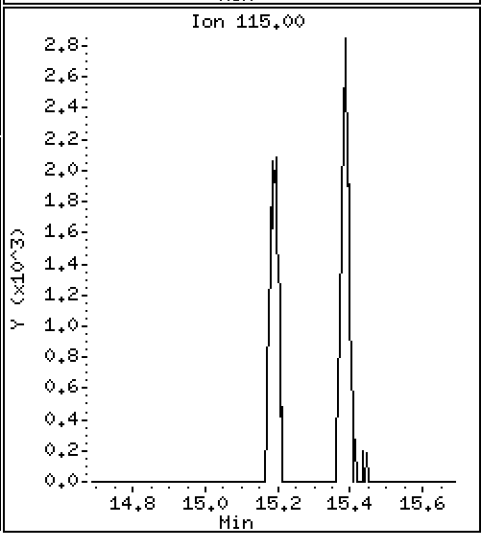


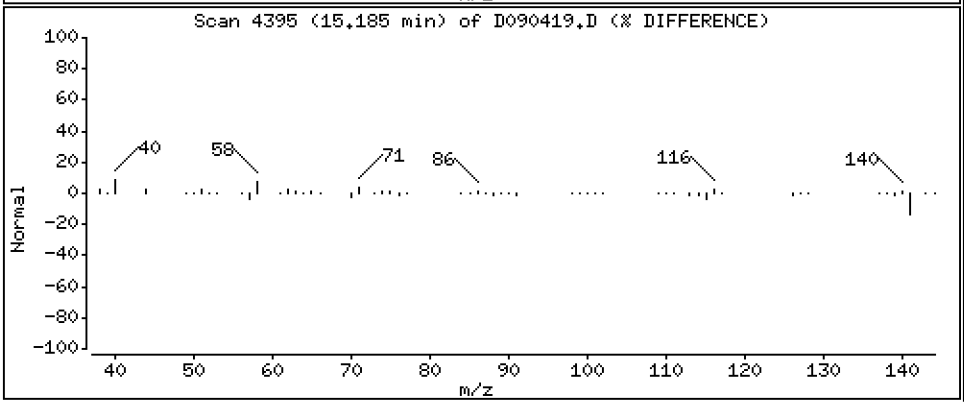












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 107

Date : 04-SEP-2018 18:03

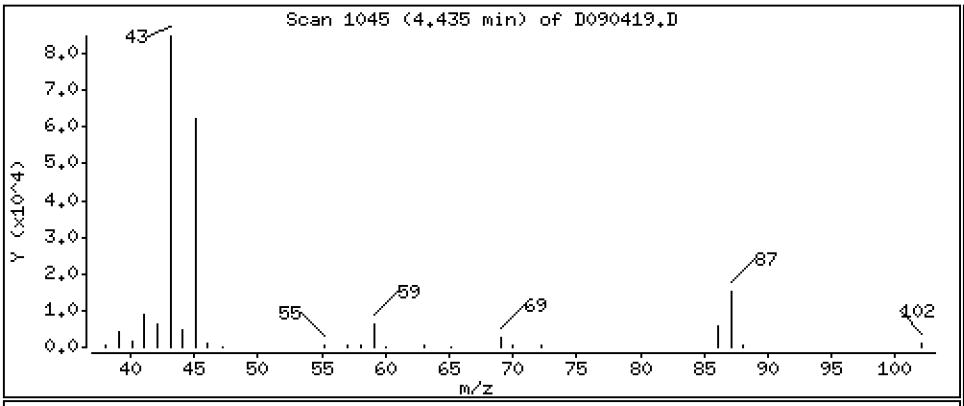
Client ID: HS18081504-01MSD Instrument: VOA2.i

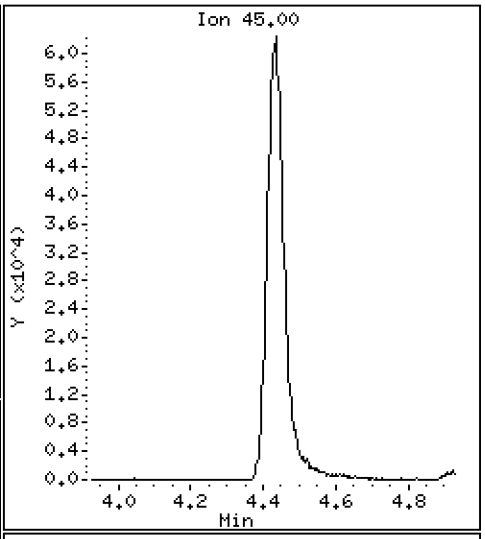
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

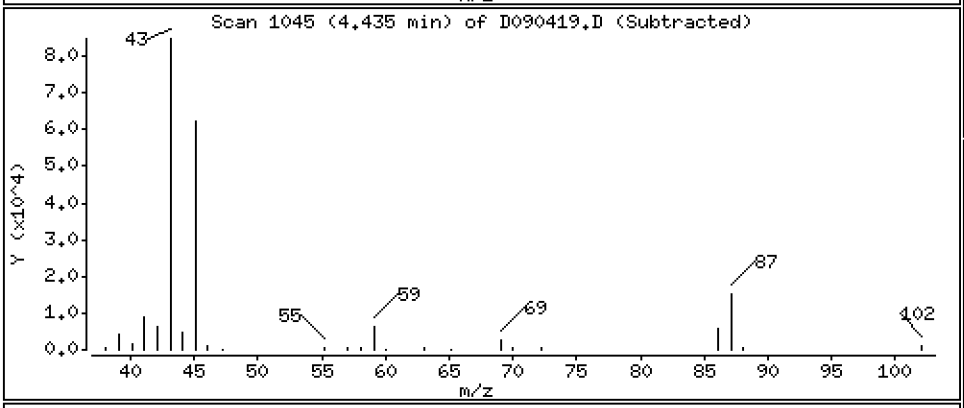
Purge Volume: 5.0 Operator: AP

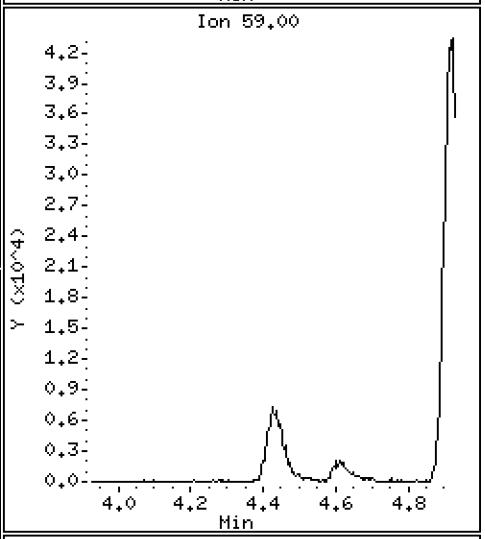
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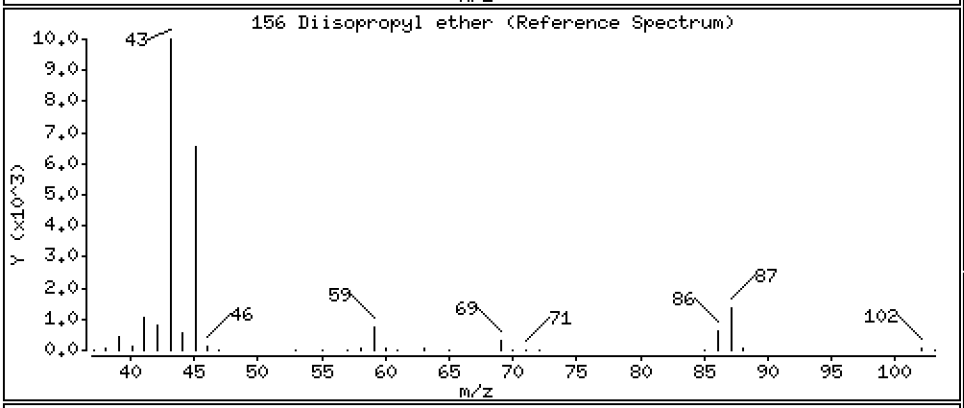
156 Diisopropyl ether Concentration: 16.46 ug/l Review Code:

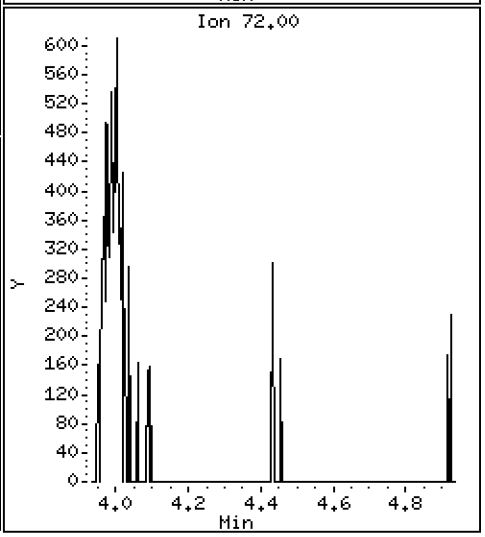


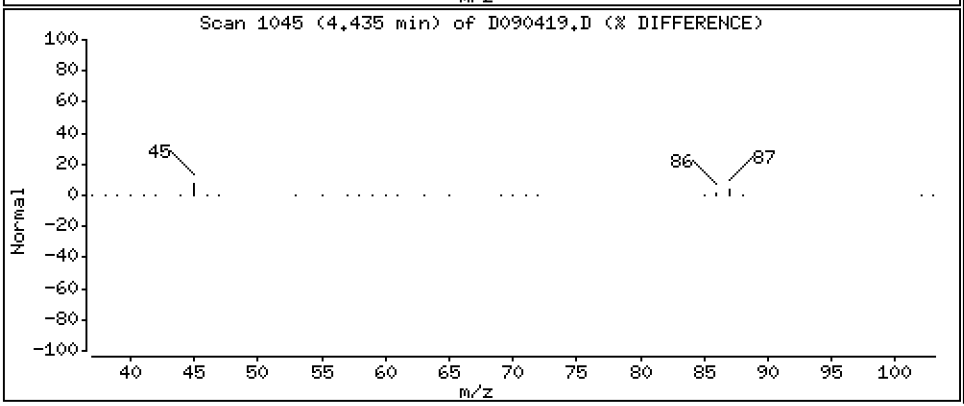












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 108

Date : 04-SEP-2018 18:03

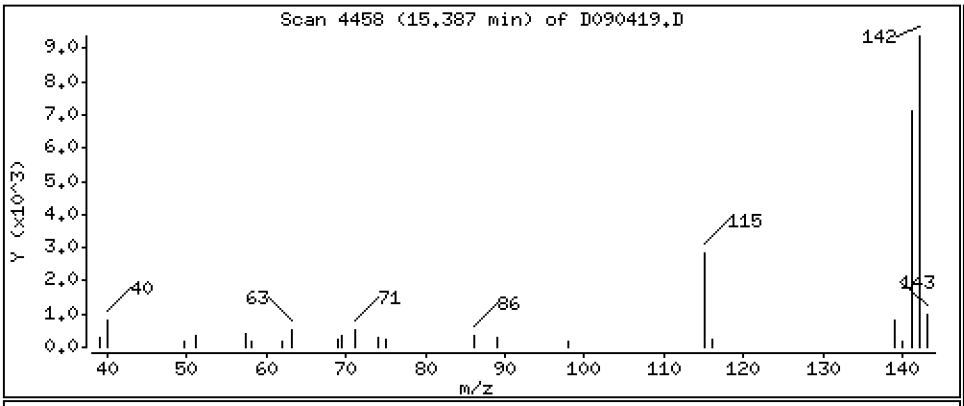
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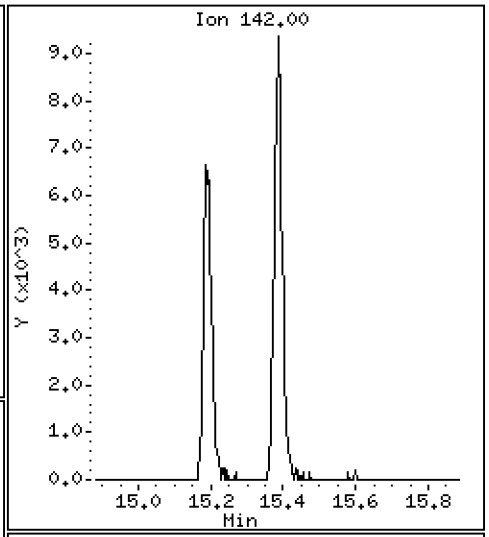
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

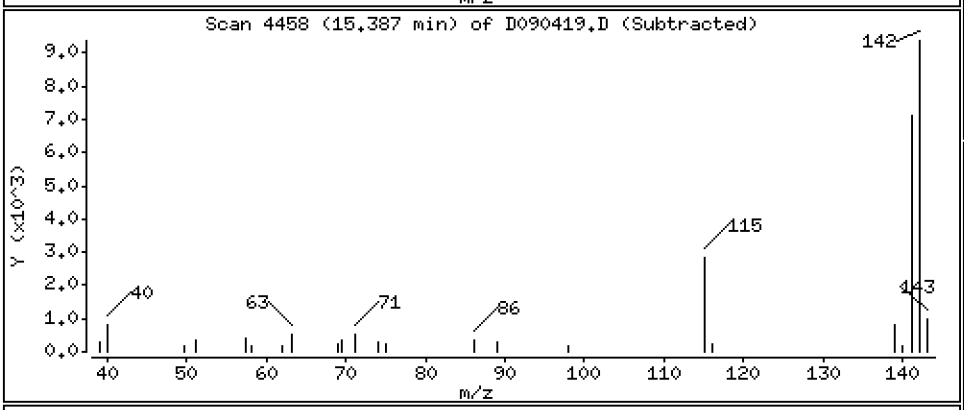
Purge Volume: 5.0 Operator: AP

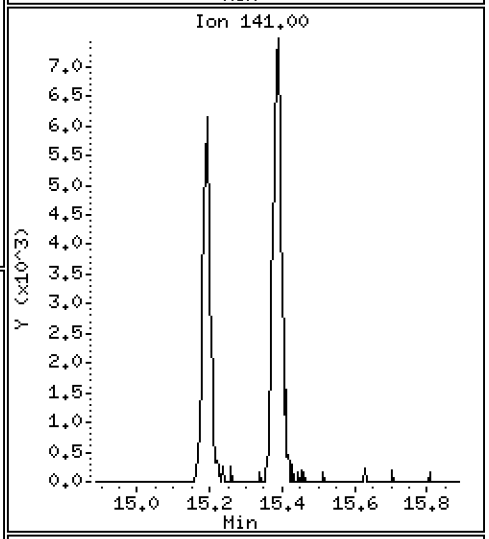
Column phase: DB624 Column diameter: 0.18

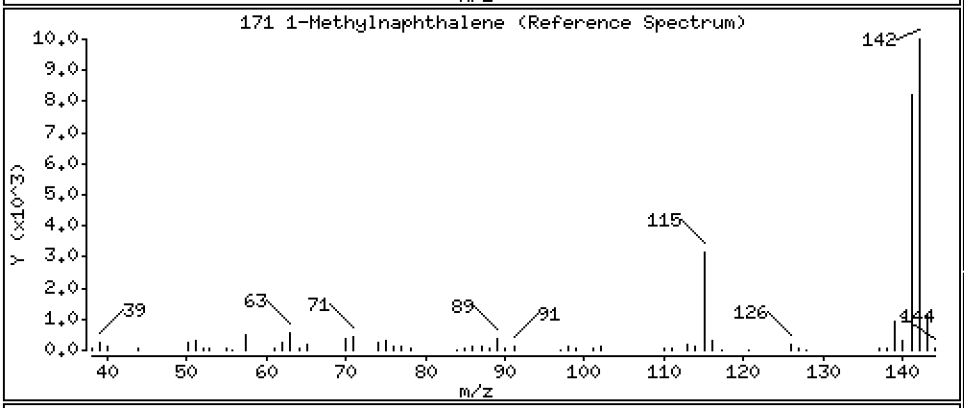
171 1-Methylnaphthalene Concentration: 8.81 ug/l Review Code:

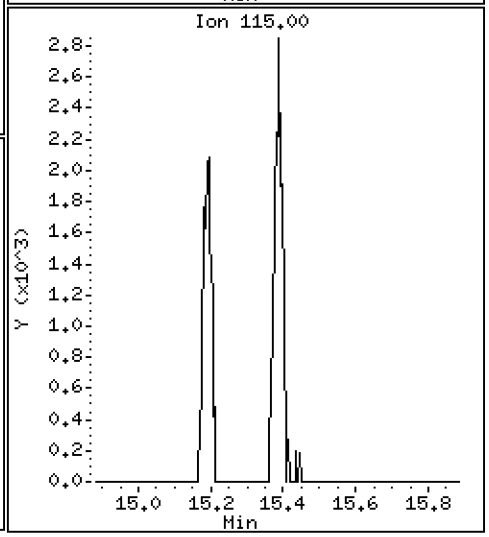


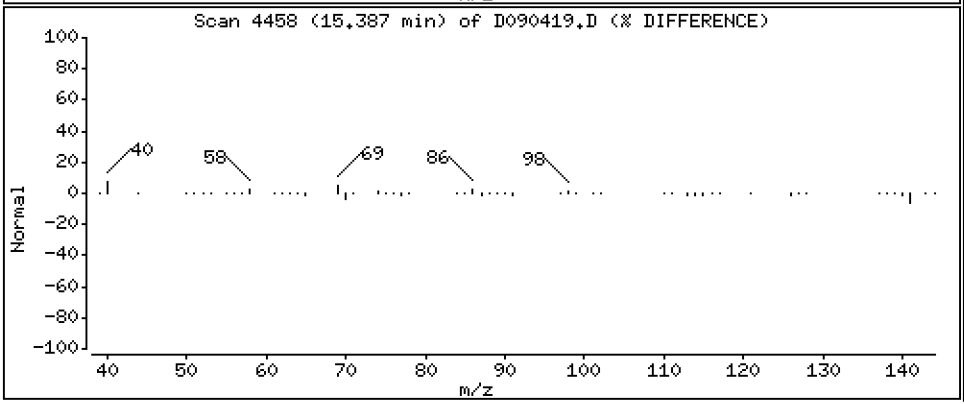












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090419.D Page 109

Date : 04-SEP-2018 18:03

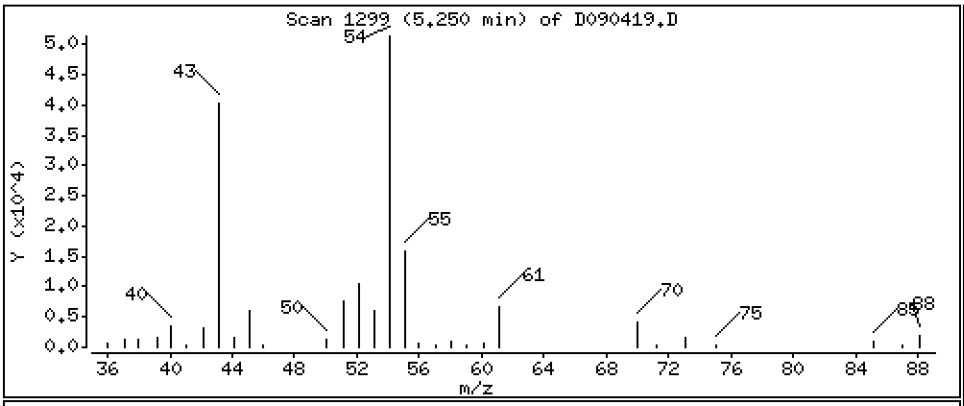
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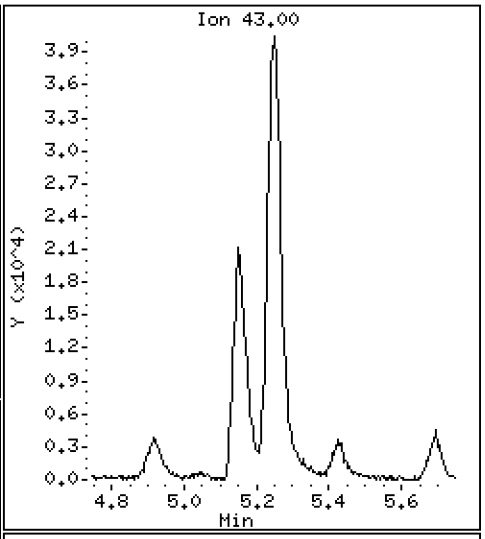
Sample Info: HS18081504-01MSD;HS18081504-01MSD;3;;MSD

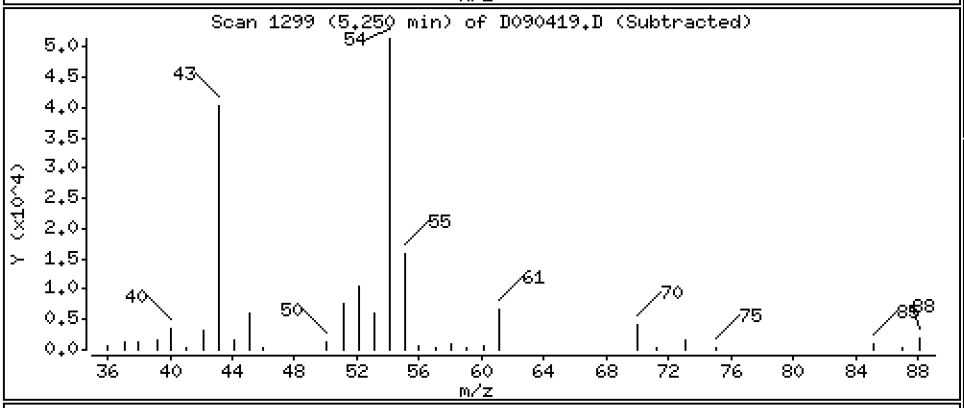
Purge Volume: 5.0 Operator: AP

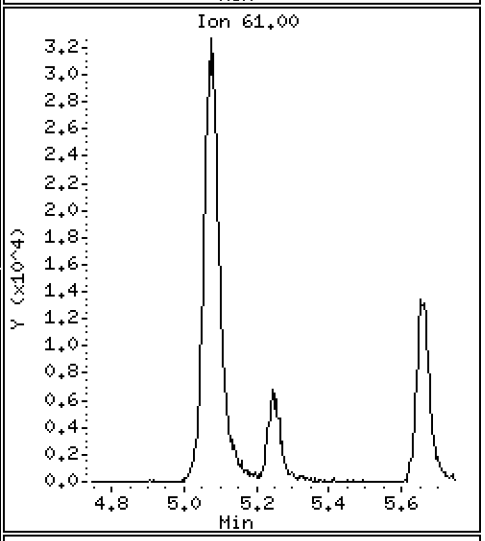
Column phase: DB624 Column diameter: 0.18

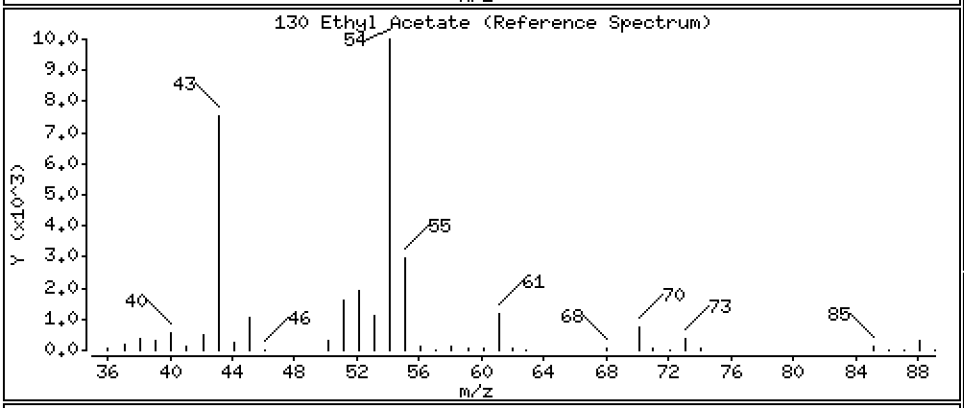
130 Ethyl Acetate Concentration: 14.04 ug/l Review Code:

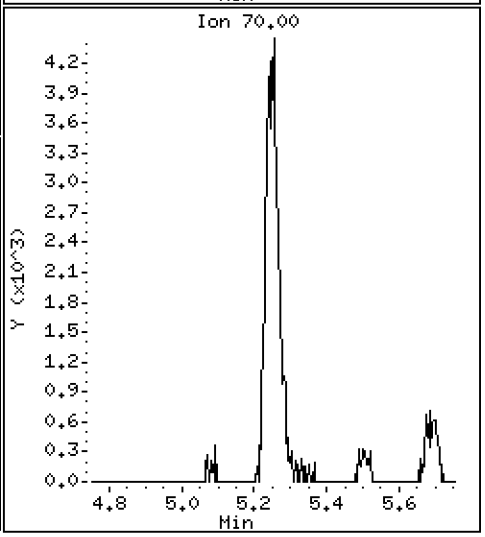


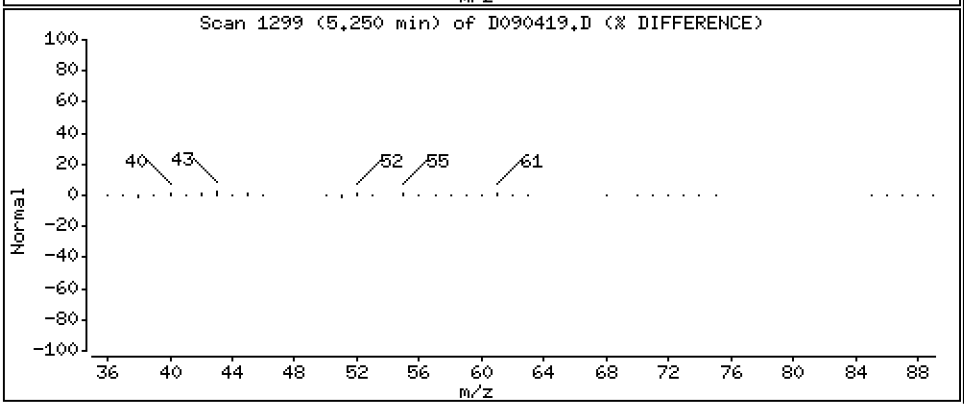












Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090429.D Page 1
Report Date: 17-Sep-2018 12:35

ALS Laboratory Group

Data file : \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090429.D
Lab Smp Id: CCV_END Client Smp ID: CCV_END
Inj Date : 04-SEP-2018 22:11
Operator : AP Inst ID: VOA2.i
Smp Info : CCV_END;CCV_END;2;;
Misc Info : HS15080001;WATER;0;1;
Comment   :
Method   : \\nahstws003\Target\chem\voa2.i\D180904.b\8260LL.m
Meth Date : 05-Sep-2018 10:47 VOA2.i Quant Type: ISTD
Cal Date : 03-AUG-2018 02:04 Cal File: E080211.D
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 00000_8260-LLw.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
Va	0.00000	
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	5.786	5.782	(1.000)	204239	50.0000	
2	Dichlorodifluoromethane	85	1.463	1.460	(0.253)	113244	50.0000	56.32
186	Isobutylene	56	1.662	1.669	(0.287)	147835	50.0000	40.74(AM)
3	Chloromethane	50	1.611	1.611	(0.278)	209384	50.0000	41.54
4	Propionitrile	54	5.240	5.240	(0.906)	406973	500.000	440.81
5	Vinyl Chloride	62	1.694	1.698	(0.293)	163479	50.0000	48.50
6	Bromomethane	94	1.954	1.954	(0.338)	88845	50.0000	52.71
7	Chloroethane	64	2.050	2.050	(0.354)	82252	50.0000	38.20
159	Dichlorofluoromethane	67	2.240	2.243	(0.387)	221247	50.0000	44.24
8	Trichlorofluoromethane	101	2.265	2.272	(0.392)	160809	50.0000	48.83
9	Acrolein	56	2.699	2.695	(0.466)	52457	100.000	81.44
10	Acetone	43	2.866	2.866	(0.495)	67109	100.000	73.65
11	1,1-Dichloroethene	96	2.760	2.769	(0.477)	110938	50.0000	45.96
12	Isobutyl Alcohol	74	6.155	6.158	(1.064)	10054	1000.00	741.67(A)
13	Acetonitrile	39	3.183	3.186	(0.550)	131723	500.000	436.84
14	Allyl Chloride	41	3.190	3.196	(0.551)	355519	50.0000	42.87
15	Iodomethane	142	2.920	2.920	(0.505)	193087	100.000	88.17
16	Acrylonitrile	53	3.703	3.700	(0.640)	96938	100.000	76.21
17	Methylene Chloride	84	3.340	3.344	(0.577)	120608	50.0000	43.95
18	Methyl tert-butyl ether	73	3.690	3.697	(0.638)	307424	50.0000	41.83
19	Carbon Disulfide	76	2.962	2.971	(0.512)	412598	100.000	90.59
20	trans-1,2-Dichloroethene	96	3.674	3.677	(0.635)	119066	50.0000	47.83

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090429.D Page 2
Report Date: 17-Sep-2018 12:35

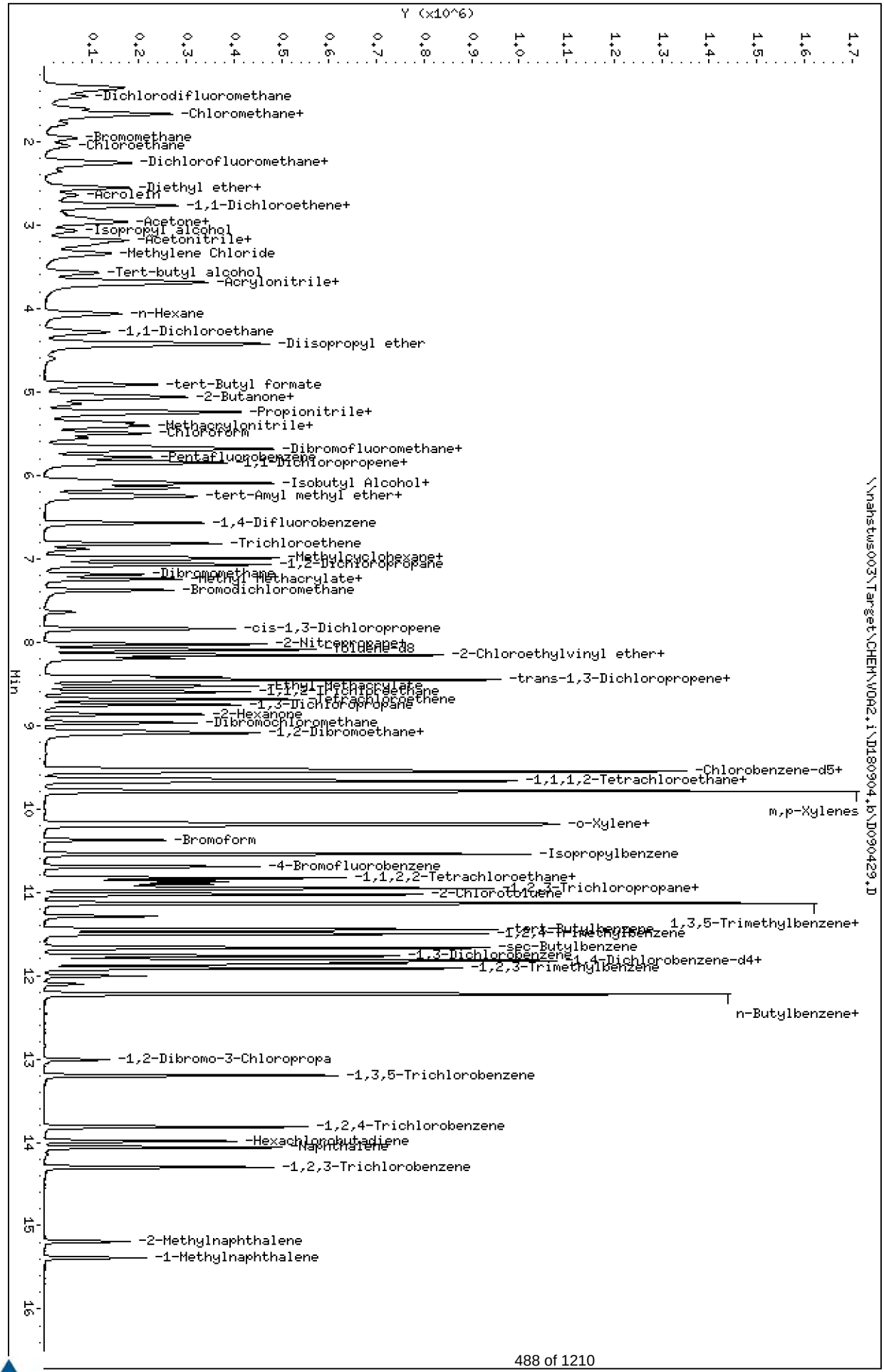
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	21 Vinyl Acetate	43	5.243	5.247	(0.906)	272335	100.000	81.14(M)
	22 1,1-Dichloroethane	63	4.287	4.290	(0.741)	252228	50.0000	44.18
	24 2-Butanone	43	5.144	5.141	(0.889)	114805	100.000	81.86
	25 Methacrylonitrile	41	5.410	5.410	(0.935)	132393	50.0000	43.13
	26 2,2-Dichloropropane	77	5.044	5.051	(0.872)	164945	50.0000	53.08
	27 cis-1,2-Dichloroethene	96	5.070	5.073	(0.876)	140973	50.0000	46.94
	28 Chloroform	83	5.497	5.500	(0.950)	216107	50.0000	45.16
	29 Bromochloromethane	128	5.369	5.369	(0.928)	69960	50.0000	50.00
$	30 Dibromofluoromethane	113	5.686	5.689	(0.983)	83768	50.0000	45.87
	31 1,1,1-Trichloroethane	97	5.657	5.654	(0.978)	192407	50.0000	47.66
	32 1,1-Dichloropropene	75	5.859	5.859	(0.892)	160800	50.0000	58.06
	33 1,2-Dichloroethane	62	6.145	6.148	(0.935)	165184	50.0000	49.43
	34 Carbon Tetrachloride	117	5.837	5.837	(0.888)	165561	50.0000	56.97
$	35 1,2-Dichloroethane-d4	65	6.058	6.058	(1.047)	96088	50.0000	46.12
*	36 1,4-Difluorobenzene	114	6.572	6.575	(1.000)	306000	50.0000	
	37 Benzene	78	6.097	6.097	(0.928)	499469	50.0000	47.71
	38 Trichloroethene	130	6.819	6.819	(1.038)	147462	50.0000	52.76
	39 Bromodichloromethane	83	7.377	7.377	(1.123)	179338	50.0000	50.92
	40 Methyl Methacrylate	41	7.246	7.246	(1.252)	135180	50.0000	43.51
	41 2-Chloroethylvinyl ether	63	8.154	8.154	(1.241)	45798	100.000	107.89(TA)
	42 1,2-Dichloropropane	63	7.066	7.069	(1.075)	146374	50.0000	48.18
	43 2-Nitropropane	43	8.025	8.029	(1.387)	304187	50.0000	46.56
	44 Dibromomethane	93	7.191	7.191	(1.094)	78361	50.0000	52.13
	45 4-Methyl-2-Pentanone	43	8.025	8.029	(0.843)	304187	100.000	85.52
	46 cis-1,3-Dichloropropene	75	7.839	7.839	(1.193)	224819	50.0000	57.02
*	47 Chlorobenzene-d5	117	9.524	9.524	(1.000)	312298	50.0000	
$	48 Toluene-d8	98	8.093	8.093	(0.850)	377118	50.0000	43.68
	49 Ethyl Methacrylate	69	8.529	8.529	(1.298)	201721	50.0000	53.04
	50 Toluene	91	8.157	8.157	(0.856)	587883	50.0000	46.66
	51 trans-1,3-Dichloropropene	75	8.417	8.417	(1.281)	190769	50.0000	62.42
	52 2-Hexanone	43	8.866	8.866	(0.931)	195698	100.000	84.77
	53 1,1,2-Trichloroethane	83	8.597	8.597	(0.903)	111097	50.0000	46.34
	54 1,3-Dichloropropane	76	8.751	8.754	(0.919)	219953	50.0000	46.40
	55 Dibromochloromethane	129	8.969	8.969	(0.942)	165615	50.0000	49.48
	56 Tetrachloroethene	164	8.690	8.690	(0.912)	132135	50.0000	52.01
	57 1,2-Dibromoethane	107	9.068	9.068	(0.952)	145013	50.0000	50.26
	58 1-Chlorohexane	55	9.553	9.550	(1.454)	146013	50.0000	65.55
	59 Chlorobenzene	112	9.553	9.553	(1.003)	381181	50.0000	48.78
	60 1,1,1,2-Tetrachloroethane	131	9.643	9.643	(1.012)	149925	50.0000	48.86
	61 Ethylbenzene	106	9.668	9.672	(1.015)	208761	50.0000	56.60
	62 m,p-Xylenes	106	9.787	9.790	(1.028)	499756	100.000	116.07
	63 o-Xylene	106	10.175	10.179	(1.068)	262879	50.0000	55.78
	64 Styrene	104	10.195	10.198	(1.070)	416277	50.0000	49.93
	66 Bromoform	173	10.374	10.374	(1.089)	118168	50.0000	50.58
	67 Isopropylbenzene	105	10.544	10.544	(1.107)	649242	50.0000	48.39
	68 1,1,2,2-Tetrachloroethane	83	10.872	10.869	(0.919)	178736	50.0000	39.35
$	69 4-Bromofluorobenzene	95	10.695	10.695	(1.123)	144735	50.0000	52.25
*	70 1,4-Dichlorobenzene-d4	152	11.834	11.834	(1.000)	142376	50.0000	
	71 1,2,3-Trichloropropane	75	10.901	10.901	(0.921)	177065	50.0000	41.55
	72 trans-1,4-Dichloro-2-butene	53	10.926	10.926	(1.147)	39019	50.0000	47.62
	73 n-Propylbenzene	91	10.952	10.955	(0.925)	689422	50.0000	53.52
	74 Bromobenzene	156	10.830	10.833	(0.915)	177161	50.0000	46.04
	75 1,3,5-Trimethylbenzene	105	11.132	11.132	(0.941)	505655	50.0000	46.90
	76 2-Chlorotoluene	91	11.026	11.029	(0.932)	442562	50.0000	51.43

Data File: \\nahstws003\Target\CHEM\VOA2.i\D180904.b\D090429.D Page 3
Report Date: 17-Sep-2018 12:35

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
77	4-Chlorotoluene	91	11.138	11.138	(0.941)	476394	50.0000	52.17
78	tert-Butylbenzene	119	11.449	11.449	(0.967)	458101	50.0000	54.96
79	1,2,4-Trimethylbenzene	105	11.498	11.498	(0.972)	502896	50.0000	51.38
81	sec-Butylbenzene	105	11.668	11.668	(0.986)	637846	50.0000	44.92
82	p-Isopropyltoluene	119	11.818	11.815	(0.999)	516879	50.0000	44.00
83	1,3-Dichlorobenzene	146	11.767	11.764	(0.994)	307233	50.0000	46.43
84	1,4-Dichlorobenzene	146	11.857	11.857	(1.002)	289810	50.0000	46.90
87	n-Butylbenzene	91	12.220	12.223	(1.033)	404892	50.0000	46.59
88	1,2-Dichlorobenzene	146	12.220	12.223	(1.033)	291932	50.0000	44.72
89	1,2-Dibromo-3-Chloropropane	75	13.009	13.009	(1.099)	29213	50.0000	41.53
90	1,2,4-Trichlorobenzene	180	13.818	13.818	(1.168)	173578	50.0000	47.86
91	Hexachlorobutadiene	225	13.988	13.988	(1.182)	83556	50.0000	48.31
92	Naphthalene	128	14.058	14.061	(1.188)	394211	50.0000	45.16
93	1,2,3-Trichlorobenzene	182	14.299	14.299	(1.208)	148940	50.0000	46.41
146	Methyl acetate	43	3.238	3.244	(0.560)	117885	50.0000	36.23
138	Freon TF	101	2.776	2.776	(0.480)	103563	50.0000	53.49
139	Diethyl ether	59	2.548	2.554	(0.440)	190887	50.0000	38.86
147	Methylcyclohexane	83	6.992	6.989	(1.064)	196081	50.0000	60.54
135	1,4-Dioxane	88	7.233	7.239	(1.250)	24227	1000.00	838.50
132	n-Butanol	56	6.992	6.995	(1.209)	89570	1000.00	979.36
131	Methyl Acrylate	55	5.266	5.269	(0.910)	205391	50.0000	43.77
133	Ethyl Acrylate	55	7.008	7.008	(1.211)	383903	50.0000	43.80
136	n-Hexane	57	4.069	4.069	(0.703)	157977	50.0000	47.85
141	Cyclohexane	56	5.686	5.689	(0.983)	228268	50.0000	44.35
142	Tetrahydrofuran	42	5.417	5.420	(0.936)	87874	100.000	78.55
148	Tert-butyl alcohol	59	3.575	3.575	(0.618)	251757	1000.00	803.93
149	Isopropyl alcohol	45	3.068	3.071	(0.530)	149239	1000.00	750.81
151	4-Methyl-2-pentanol	45	8.452	8.452	(0.887)	648031	1000.00	874.48
166	1,2,3-Trimethylbenzene	105	11.915	11.915	(1.007)	485869	50.0000	51.69
167	Ethanol	45	2.551	2.557	(0.441)	176657	1000.00	703.40
170	1,3,5-Trichlorobenzene	180	13.201	13.201	(1.116)	208168	50.0000	49.01
172	tert-Butyl formate	59	4.916	4.916	(0.850)	326027	100.000	90.87
173	3,3-Dimethyl-1-butanol	57	9.091	9.094	(0.955)	249190	1000.00	908.18
174	tert-Amyl methyl ether	73	6.261	6.261	(1.082)	315826	50.0000	45.47
175	tert-Butyl ethyl ether	59	6.235	6.235	(1.078)	150698	50.0000	40.01
176	tert-Amyl alcohol	59	6.235	6.235	(1.078)	150698	1000.00	800.28
157	2-Methylnaphthalene	142	15.191	15.191	(1.284)	89580	50.0000	31.58
156	Diisopropyl ether	45	4.425	4.428	(0.765)	447492	50.0000	41.01(T)
171	1-Methylnaphthalene	142	15.387	15.384	(1.300)	109386	50.0000	35.25
130	Ethyl Acetate	43	5.243	5.247	(0.906)	257723	50.0000	38.62
M 94	1,2-Dichloroethylene (total)	96				260039	100.000	94.78
M 95	Xylenes (total)	106				762635	150.000	171.85

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.



Data File: \\nahstws003\Target\CHEM\WOA2,i\D180904,b\D090429,D
Date : 04-SEP-2018 22:11
Client ID: CCV_END
Sample Info: CCV_END;CCV_END;2;;
Purge Volume: 5.0
Column phase: DB624

Instrument: WOA2,i
Operator: AP
Column diameter: 0.18

Metals Data Package

Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
ALS WO#HS18081504

ALS Houston, US Date: 21-Sep-18

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Aptim Environmental & Infrastucture, Inc. Instrument:ICPMS05
Project: LHAAP-46 501032
WorkOrder: HS18081504

Mass	Analyte	Assoc Int Standard 1	Assoc Int Standard 2	Mode
9	Beryllium	Lithium		Ar
9	Beryllium	Lithium		Ar
11	Boron	Lithium		Ar
11	Boron	Lithium		Ar
23	Sodium	Germanium		Ar
23	Sodium	Germanium		Ar
24	Magnesium	Germanium		Ar
24	Magnesium	Germanium		Ar
27	Aluminum	Germanium		Ar
27	Aluminum	Germanium		Ar
39	Potassium	Germanium		Ar
39	Potassium	Germanium		Ar
44	Calcium	Germanium		Ar
44	Calcium	Germanium		Ar
47	Titanium	Germanium		Ar
47	Titanium	Germanium		Ar
51	Vanadium	Germanium		ArHe
51	Vanadium	Germanium		ArHe
52	Chromium	Germanium		ArHe
52	Chromium	Germanium		ArHe
55	Manganese	Germanium		ArHe
55	Manganese	Germanium		ArHe
56	Iron	Germanium		ArHe
56	Iron	Germanium		ArHe
59	Cobalt	Germanium		ArHe
59	Cobalt	Germanium		ArHe
60	Nickel	Germanium		ArHe
60	Nickel	Germanium		ArHe
63	Copper	Germanium		ArHe
63	Copper	Germanium		ArHe
66	Zinc	Germanium		ArHe
66	Zinc	Germanium		ArHe
75	Arsenic	Germanium		ArHe
75	Arsenic	Germanium		ArHe
78	Selenium	Germanium		ArHe
78	Selenium	Germanium		ArHe
88	Strontium	Germanium		Ar
88	Strontium	Germanium		Ar
95	Molybdenum	Germanium		Ar
95	Molybdenum	Germanium		Ar
105	Palladium	Germanium		Ar
105	Palladium	Germanium		Ar
107	Silver	Germanium		Ar
107	Silver	Germanium		Ar
114	Cadmium	Indium		Ar
114	Cadmium	Indium		Ar
118	Tin	Germanium		Ar
118	Tin	Germanium		Ar
121	Antimony	Germanium		ArHe
121	Antimony	Germanium		ArHe
137	Barium	Indium		Ar
137	Barium	Indium		Ar
205	Thallium	Bismuth		Ar
205	Thallium	Bismuth		Ar
208	Lead	Bismuth		Ar

ALS Houston, US

Date: 21-Sep-18

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Aptim Environmental & Infrastucture, Inc.

Project: LHAAP-46 501032

WorkOrder: HS18081504

Instrument:ICPMS05

208	Lead	Bismuth	Ar

ALS Houston, US

Date: 21-Sep-18

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Aptim Environmental & Infrastucture, Inc.

Project: LHAAP-46 501032

WorkOrder: HS18081504

Instrument:ICPMS05

Mass	Analyte	Assoc Int Standard 1	Assoc Int Standard 2	Mode
9	Beryllium	Lithium		Ar
9	Beryllium	Lithium		Ar
11	Boron	Lithium		Ar
11	Boron	Lithium		Ar
23	Sodium	Germanium		Ar
23	Sodium	Germanium		Ar
24	Magnesium	Germanium		Ar
24	Magnesium	Germanium		Ar
27	Aluminum	Germanium		Ar
27	Aluminum	Germanium		Ar
39	Potassium	Germanium		Ar
39	Potassium	Germanium		Ar
44	Calcium	Germanium		Ar
44	Calcium	Germanium		Ar
47	Titanium	Germanium		Ar
47	Titanium	Germanium		Ar
51	Vanadium	Germanium		ArHe
51	Vanadium	Germanium		ArHe
52	Chromium	Germanium		ArHe
52	Chromium	Germanium		ArHe
55	Manganese	Germanium		ArHe
55	Manganese	Germanium		ArHe
56	Iron	Germanium		ArHe
56	Iron	Germanium		ArHe
59	Cobalt	Germanium		ArHe
59	Cobalt	Germanium		ArHe
60	Nickel	Germanium		ArHe
60	Nickel	Germanium		ArHe
63	Copper	Germanium		ArHe
63	Copper	Germanium		ArHe
66	Zinc	Germanium		ArHe
66	Zinc	Germanium		ArHe
75	Arsenic	Germanium		ArHe
75	Arsenic	Germanium		ArHe
78	Selenium	Germanium		ArHe
78	Selenium	Germanium		ArHe
88	Strontium	Germanium		Ar
88	Strontium	Germanium		Ar
95	Molybdenum	Germanium		Ar
95	Molybdenum	Germanium		Ar
105	Palladium	Germanium		Ar
105	Palladium	Germanium		Ar
107	Silver	Germanium		Ar
107	Silver	Germanium		Ar
114	Cadmium	Indium		Ar
114	Cadmium	Indium		Ar
118	Tin	Germanium		Ar
118	Tin	Germanium		Ar
121	Antimony	Germanium		ArHe
121	Antimony	Germanium		ArHe
137	Barium	Indium		Ar
137	Barium	Indium		Ar
205	Thallium	Bismuth		Ar
205	Thallium	Bismuth		Ar
208	Lead	Bismuth		Ar

ALS Houston, US

Date: 21-Sep-18

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Aptim Environmental & Infrastucture, Inc.

Project: LHAAP-46 501032

WorkOrder: HS18081504

Instrument:ICPMS05

208	Lead	Bismuth	Ar

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Aptim Environmental & Infrastucture, Inc.

Project: LHAAP-46 501032

WorkOrder: HS18081504

Instrument:ICPMS05

Mass	Analyte	Assoc Int Standard 1	Assoc Int Standard 2	Mode
9	Beryllium	Lithium		Ar
9	Beryllium	Lithium		Ar
11	Boron	Lithium		Ar
11	Boron	Lithium		Ar
23	Sodium	Germanium		Ar
23	Sodium	Germanium		Ar
24	Magnesium	Germanium		Ar
24	Magnesium	Germanium		Ar
27	Aluminum	Germanium		Ar
27	Aluminum	Germanium		Ar
39	Potassium	Germanium		Ar
39	Potassium	Germanium		Ar
44	Calcium	Germanium		Ar
44	Calcium	Germanium		Ar
47	Titanium	Germanium		Ar
47	Titanium	Germanium		Ar
51	Vanadium	Germanium		ArHe
51	Vanadium	Germanium		ArHe
52	Chromium	Germanium		ArHe
52	Chromium	Germanium		ArHe
55	Manganese	Germanium		ArHe
55	Manganese	Germanium		ArHe
56	Iron	Germanium		ArHe
56	Iron	Germanium		ArHe
59	Cobalt	Germanium		ArHe
59	Cobalt	Germanium		ArHe
60	Nickel	Germanium		ArHe
60	Nickel	Germanium		ArHe
63	Copper	Germanium		ArHe
63	Copper	Germanium		ArHe
66	Zinc	Germanium		ArHe
66	Zinc	Germanium		ArHe
75	Arsenic	Germanium		ArHe
75	Arsenic	Germanium		ArHe
78	Selenium	Germanium		ArHe
78	Selenium	Germanium		ArHe
88	Strontium	Germanium		Ar
88	Strontium	Germanium		Ar
95	Molybdenum	Germanium		Ar
95	Molybdenum	Germanium		Ar
105	Palladium	Germanium		Ar
105	Palladium	Germanium		Ar
107	Silver	Germanium		Ar
107	Silver	Germanium		Ar
114	Cadmium	Indium		Ar
114	Cadmium	Indium		Ar
118	Tin	Germanium		Ar
118	Tin	Germanium		Ar
121	Antimony	Germanium		ArHe
121	Antimony	Germanium		ArHe
137	Barium	Indium		Ar
137	Barium	Indium		Ar
205	Thallium	Bismuth		Ar
205	Thallium	Bismuth		Ar
208	Lead	Bismuth		Ar

ALS Houston, US

Date: 21-Sep-18

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Aptim Environmental & Infrastucture, Inc.

Project: LHAAP-46 501032

WorkOrder: HS18081504

Instrument:ICPMS05

208	Lead	Bismuth	Ar

ALS Houston, US Date: 21-Sep-18

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Aptim Environmental & Infrastucture, Inc. Instrument:ICPMS05
Project: LHAAP-46 501032
WorkOrder: HS18081504

Mass	Analyte	Assoc Int Standard 1	Assoc Int Standard 2	Mode
9	Beryllium	Lithium		Ar
9	Beryllium	Lithium		Ar
11	Boron	Lithium		Ar
11	Boron	Lithium		Ar
23	Sodium	Germanium		Ar
23	Sodium	Germanium		Ar
24	Magnesium	Germanium		Ar
24	Magnesium	Germanium		Ar
27	Aluminum	Germanium		Ar
27	Aluminum	Germanium		Ar
39	Potassium	Germanium		Ar
39	Potassium	Germanium		Ar
44	Calcium	Germanium		Ar
44	Calcium	Germanium		Ar
47	Titanium	Germanium		Ar
47	Titanium	Germanium		Ar
51	Vanadium	Germanium		ArHe
51	Vanadium	Germanium		ArHe
52	Chromium	Germanium		ArHe
52	Chromium	Germanium		ArHe
55	Manganese	Germanium		ArHe
55	Manganese	Germanium		ArHe
56	Iron	Germanium		ArHe
56	Iron	Germanium		ArHe
59	Cobalt	Germanium		ArHe
59	Cobalt	Germanium		ArHe
60	Nickel	Germanium		ArHe
60	Nickel	Germanium		ArHe
63	Copper	Germanium		ArHe
63	Copper	Germanium		ArHe
66	Zinc	Germanium		ArHe
66	Zinc	Germanium		ArHe
75	Arsenic	Germanium		ArHe
75	Arsenic	Germanium		ArHe
78	Selenium	Germanium		ArHe
78	Selenium	Germanium		ArHe
88	Strontium	Germanium		Ar
88	Strontium	Germanium		Ar
95	Molybdenum	Germanium		Ar
95	Molybdenum	Germanium		Ar
105	Palladium	Germanium		Ar
105	Palladium	Germanium		Ar
107	Silver	Germanium		Ar
107	Silver	Germanium		Ar
114	Cadmium	Indium		Ar
114	Cadmium	Indium		Ar
118	Tin	Germanium		Ar
118	Tin	Germanium		Ar
121	Antimony	Germanium		ArHe
121	Antimony	Germanium		ArHe
137	Barium	Indium		Ar
137	Barium	Indium		Ar
205	Thallium	Bismuth		Ar
205	Thallium	Bismuth		Ar
208	Lead	Bismuth		Ar

ALS Houston, US

Date: 21-Sep-18

Form 11 - INTERNAL STANDARD ASSOCIATION

Client: Aptim Environmental & Infrastucture, Inc.

Project: LHAAP-46 501032

WorkOrder: HS18081504

Instrument:ICPMS05

208	Lead	Bismuth	Ar

ALS Houston, US Date: 21-Sep-18

FORM 12 - PREPARATION LOG

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504
Start Date: 04-Sep-2018 13:00 End Date: 04-Sep-2018 17:00

Batch ID: 132119
Prep Code: 3010A
Method: SW3010A
Technician:

SampID	ClientID	Matrix	Init Wt	Init Vol	FinalVol (mL)	PrepFac
HS18081504-01	46WW02-180829	Groundwater		10	10	1
HS18081504-01MS				10	10	1
HS18081504-01MSD				10	10	1
HS18081504-01PDS				10	10	1
HS18081504-01SD				10	10	1
LCS-132119				10	10	1
MBLK-132119				10	10	1

ALS Houston, US Date: 21-Sep-18

FORM 12 - PREPARATION LOG

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504
Start Date: 05-Sep-2018 13:30 End Date: 05-Sep-2018 17:30

Batch ID: 132159
Prep Code: 3010A Diss
Method: SW3010A
Technician:

SampID	ClientID	Matrix	Init Wt	Init Vol	FinalVol (mL)	PrepFac
HS18081504-01	46WW02-180829	Groundwater		10	10	1
HS18081504-01MS				10	10	1
HS18081504-01MSD				10	10	1
HS18081504-01PDS				10	10	1
HS18081504-01SD				10	10	1
HS18081504-02	46WW11-180829	Groundwater		10	10	1
HS18081504-03	46WW11-180829-FD	Groundwater		10	10	1
LCS-132159				10	10	1
MBLK-132159				10	10	1

ALS Houston, US Date: 21-Sep-18

FORM 12 - PREPARATION LOG

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504
Start Date: 05-Sep-2018 13:30 End Date: 05-Sep-2018 17:30

Batch ID: 132160
Prep Code: 3010A
Method: SW3010A
Technician:

SampID	ClientID	Matrix	Init Wt	Init Vol	FinalVol (mL)	PrepFac
HS18081504-01	46WW02-180829	Groundwater		10	10	1
HS18081504-01MS				10	10	1
HS18081504-01MSD				10	10	1
HS18081504-01PDS				10	10	1
HS18081504-01SD				10	10	1
HS18081504-02	46WW11-180829	Groundwater		10	10	1
HS18081504-03	46WW11-180829-FD	Groundwater		10	10	1
LCS-132160				10	10	1
MBLK-132160				10	10	1

ALS Houston, US

Date: 21-Sep-18

FORM 13 - ANALYSIS RUN LOG

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504
Start Date: 05-Sep-2018 End Date: 05-Sep-2018

Run ID:ICPMS05_322873
Instrument:ICPMS05
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS05_322873_Tune	1	05-Sep-2018 00:00	ICPMS05_322873_Tune_1	
CAL BLK	1	05-Sep-2018 11:45	005CALB.d_4715814	FE
2/10/200	1	05-Sep-2018 11:47	006CALS.d_4715815	FE
5/25/500	1	05-Sep-2018 11:49	007CALS.d_4715816	FE
10/50/1000	1	05-Sep-2018 11:51	008CALS.d_4715817	FE
100/500/10K	1	05-Sep-2018 11:53	009CALS.d_4715818	FE
200/1000/20K	1	05-Sep-2018 11:55	010CALS.d_4715819	FE
ICV	1	05-Sep-2018 11:59	012_ICV.d_4715821	FE
LLICV2	1	05-Sep-2018 12:01	013SMPL.d_4715822	FE
LLICV5	1	05-Sep-2018 12:03	014LICV.d_4715823	FE
ICB	1	05-Sep-2018 12:05	015_ICB.d_4715824	FE
ICSA	1	05-Sep-2018 12:07	016ICSA.d_4715825	FE
ICSAB	1	05-Sep-2018 12:10	017ICSB.d_4715826	FE
CCV 1	1	05-Sep-2018 12:35	028_CCV.d_4715969	FE
CCB 1	1	05-Sep-2018 12:37	029_CCB.d_4715970	FE
CCV 2	1	05-Sep-2018 12:52	036_CCV.d_4715977	FE
CCB 2	1	05-Sep-2018 12:54	037_CCB.d_4715978	FE
CCV 3	1	05-Sep-2018 13:10	045_CCV.d_4715986	FE
CCB 3	1	05-Sep-2018 13:12	046_CCB.d_4715987	FE
CAL BLK	1	05-Sep-2018 13:22	051CALB.d_4716179	FE
2/10/200	1	05-Sep-2018 13:24	052CALS.d_4716180	FE
5/25/500	1	05-Sep-2018 13:26	053CALS.d_4716181	FE
10/50/1000	1	05-Sep-2018 13:28	054CALS.d_4716182	FE
100/500/10K	1	05-Sep-2018 13:29	055CALS.d_4716183	FE
200/1000/20K	1	05-Sep-2018 13:31	056CALS.d_4716184	FE
ICCV 4	1	05-Sep-2018 13:35	058_ICV.d_4716186	FE
LLCCV2	1	05-Sep-2018 13:37	059SMPL.d_4716187	FE
LLCCV5	1	05-Sep-2018 13:39	060LICV.d_4716188	FE
ICCB 4	1	05-Sep-2018 13:41	061_ICB.d_4716189	FE
MBLK-132119	1	05-Sep-2018 13:51	063SMPL.d_4716191	FE
LCS-132119	1	05-Sep-2018 13:53	064SMPL.d_4716192	FE
CCV 5	1	05-Sep-2018 14:11	073_CCV.d_4716201	FE
CCB 5	1	05-Sep-2018 14:13	074_CCB.d_4716202	FE
46WW02-180829SD	5	05-Sep-2018 14:17	076SMPL.d_4716204	FE
46WW02-180829MS	1	05-Sep-2018 14:19	077SMPL.d_4716205	FE
46WW02-180829MSD	1	05-Sep-2018 14:21	078SMPL.d_4716206	FE
46WW02-180829PDS	1	05-Sep-2018 14:23	079SMPL.d_4716207	FE
CCV 6	1	05-Sep-2018 14:35	085_CCV.d_4716213	FE
CCB 6	1	05-Sep-2018 14:37	086_CCB.d_4716214	FE
CCV 7	1	05-Sep-2018 14:59	097_CCV.d_4716225	FE
CCB 7	1	05-Sep-2018 15:01	098_CCB.d_4716226	FE
CCV 8	1	05-Sep-2018 15:23	109_CCV.d_4716369	FE
CCB 8	1	05-Sep-2018 15:25	110_CCB.d_4716370	FE
CCV 9	1	05-Sep-2018 15:47	121_CCV.d_4716381	FE
CCB 9	1	05-Sep-2018 15:49	122_CCB.d_4716382	FE
46WW02-180829MS	1	05-Sep-2018 15:59	125SMPL.d_4716386	
CCV 10	1	05-Sep-2018 16:10	130_CCV.d_4716620	FE
CCB 10	1	05-Sep-2018 16:12	131_CCB.d_4716621	FE
CCV 11	1	05-Sep-2018 16:30	140_CCV.d_4716630	FE
CCB 11	1	05-Sep-2018 16:32	141_CCB.d_4716631	FE
LLCCV5	1	05-Sep-2018 16:34	142LICV.d_4716632	FE

ALS Houston, US Date: 21-Sep-18

FORM 13 - ANALYSIS RUN LOG

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504
Start Date: 05-Sep-2018 End Date: 05-Sep-2018

Run ID:ICPMS05_322873
Instrument:ICPMS05
Method:

Sample No.	D/F	Time	FileID	Analytes
LLCCV2	1	05-Sep-2018 16:36	143SMPL.d_4716633	FE
ICSA	1	05-Sep-2018 16:38	144ICSA.d_4716634	FE
ICSAB	1	05-Sep-2018 16:41	145ICSB.d_4716635	FE

ALS Houston, US Date: 21-Sep-18

FORM 13 - ANALYSIS RUN LOG

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504
Start Date: 06-Sep-2018 End Date: 07-Sep-2018

Run ID:ICPMS05_322949
Instrument:ICPMS05
Method:

Sample No.	D/F	Time	FileID	Analytes
ICPMS05_322949_Tune	1	06-Sep-2018 00:00	ICPMS05_322949_Tune_1	
CAL BLK	1	06-Sep-2018 12:41	005CALB.d_4717306	FE MN
2/10/200	1	06-Sep-2018 12:43	006CALS.d_4717307	FE MN
5/25/500	1	06-Sep-2018 12:45	007CALS.d_4717308	FE MN
10/50/1000	1	06-Sep-2018 12:47	008CALS.d_4717309	FE MN
100/500/10K	1	06-Sep-2018 12:49	009CALS.d_4717310	FE MN
200/1000/20K	1	06-Sep-2018 12:55	012CALS.d_4717329	FE MN
ICV	1	06-Sep-2018 12:59	014_ICV.d_4717331	FE MN
LLICV2	1	06-Sep-2018 13:01	015SMPL.d_4717332	FE MN
LLICV5	1	06-Sep-2018 13:03	016LICV.d_4717333	FE MN
ICB	1	06-Sep-2018 13:05	017_ICB.d_4717334	FE MN
ICSA	1	06-Sep-2018 13:07	018ICSA.d_4717335	FE MN
ICSAB	1	06-Sep-2018 13:09	019ICSB.d_4717336	FE MN
CCV 1	1	06-Sep-2018 13:27	026_CCV.d_4717363	FE MN
CCB 1	1	06-Sep-2018 13:29	027_CCB.d_4717364	FE MN
CCV 2	1	06-Sep-2018 13:52	038_CCV.d_4717677	FE MN
CCB 2	1	06-Sep-2018 13:54	039_CCB.d_4717678	FE MN
CCV 3	1	06-Sep-2018 14:08	046_CCV.d_4717685	FE MN
CCB 3	1	06-Sep-2018 14:10	047_CCB.d_4717686	FE MN
CCV 4	1	06-Sep-2018 14:32	058_CCV.d_4717697	FE MN
CCB 4	1	06-Sep-2018 14:34	059_CCB.d_4717698	FE MN
MBLK-132160	1	06-Sep-2018 14:36	060SMPL.d_4718239	FE
LCS-132160	1	06-Sep-2018 14:38	061SMPL.d_4718240	FE
46WW02-180829	1	06-Sep-2018 14:40	062SMPL.d_4718241	FE
46WW02-180829SD	5	06-Sep-2018 14:42	063SMPL.d_4718242	FE
46WW02-180829MS	1	06-Sep-2018 14:44	064SMPL.d_4718243	FE
46WW02-180829MSD	1	06-Sep-2018 14:46	065SMPL.d_4718244	FE
46WW02-180829PDS	1	06-Sep-2018 14:48	066SMPL.d_4718245	FE
46WW11-180829	1	06-Sep-2018 14:50	067SMPL.d_4718246	FE
46WW11-180829-FD	1	06-Sep-2018 14:52	068SMPL.d_4718247	FE
CCV 5	1	06-Sep-2018 14:56	070_CCV.d_4718249	FE MN
CCB 5	1	06-Sep-2018 14:58	071_CCB.d_4718250	FE MN
MBLK-132159	1	06-Sep-2018 15:04	074SMPL.d_4718253	FE MN
LCS-132159	1	06-Sep-2018 15:06	075SMPL.d_4718254	FE MN
46WW02-180829	1	06-Sep-2018 15:08	076SMPL.d_4718255	FE MN
46WW02-180829SD	5	06-Sep-2018 15:10	077SMPL.d_4718256	FE MN
46WW02-180829MS	1	06-Sep-2018 15:12	078SMPL.d_4718257	FE MN
46WW02-180829MSD	1	06-Sep-2018 15:14	079SMPL.d_4718258	FE MN
46WW02-180829PDS	1	06-Sep-2018 15:16	080SMPL.d_4718259	FE MN
46WW11-180829	1	06-Sep-2018 15:18	081SMPL.d_4718260	FE MN
CCV 6	1	06-Sep-2018 15:20	082_CCV.d_4718261	FE MN
CCB 6	1	06-Sep-2018 15:22	083_CCB.d_4718262	FE MN
46WW11-180829-FD	1	06-Sep-2018 15:24	084SMPL.d_4718263	FE MN
CCV 7	1	06-Sep-2018 15:28	086_CCV.d_4718265	FE MN
CCB 7	1	06-Sep-2018 15:30	087_CCB.d_4718266	FE MN
CAL BLK	1	06-Sep-2018 15:40	092CALB.d_4717873	FE MN
2/10/200	1	06-Sep-2018 15:42	093CALS.d_4717874	FE MN
5/25/500	1	06-Sep-2018 15:44	094CALS.d_4717875	FE MN
10/50/1000	1	06-Sep-2018 15:46	095CALS.d_4717876	FE MN
100/500/10K	1	06-Sep-2018 15:48	096CALS.d_4717877	FE MN
200/1000/20K	1	06-Sep-2018 15:50	097CALS.d_4717878	FE MN

ALS Houston, US Date: 21-Sep-18

FORM 13 - ANALYSIS RUN LOG

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504
Start Date: 06-Sep-2018 End Date: 07-Sep-2018

Run ID:ICPMS05_322949
Instrument:ICPMS05
Method:

Sample No.	D/F	Time	FileID	Analytes
200/1000/20K	1	06-Sep-2018 15:55	099CALS.d_4717880	FE MN
ICCV 8	1	06-Sep-2018 15:59	101_ICV.d_4717882	FE MN
LLCCV2	1	06-Sep-2018 16:01	102SMPL.d_4717883	FE MN
LLCCV5	1	06-Sep-2018 16:03	103LICV.d_4717884	FE MN
ICCB 8	1	06-Sep-2018 16:05	104_ICB.d_4717885	FE MN
CCV 9	1	06-Sep-2018 16:28	114_CCV.d_4717903	FE MN
CCB 9	1	06-Sep-2018 16:30	115_CCB.d_4717904	FE MN
CCV 10	1	06-Sep-2018 16:48	123_CCV.d_4717965	FE MN
CCB 10	1	06-Sep-2018 16:50	124_CCB.d_4717966	FE MN
CAL BLK	1	06-Sep-2018 22:16	130CALB.d_4718295	FE MN
2/10/200	1	06-Sep-2018 22:18	131CALS.d_4718296	FE MN
5/25/500	1	06-Sep-2018 22:19	132CALS.d_4718297	FE MN
10/50/1000	1	06-Sep-2018 22:21	133CALS.d_4718298	FE MN
100/500/10K	1	06-Sep-2018 22:23	134CALS.d_4718299	FE MN
200/1000/20K	1	06-Sep-2018 22:25	135CALS.d_4718300	FE MN
ICCV 11	1	06-Sep-2018 22:29	137_ICV.d_4718302	FE MN
LLCCV2	1	06-Sep-2018 22:31	138SMPL.d_4718303	FE MN
LLCCV5	1	06-Sep-2018 22:33	139LICV.d_4718304	FE MN
ICCB 11	1	06-Sep-2018 22:35	140_ICB.d_4718305	FE MN
CCV 12	1	06-Sep-2018 22:51	148_CCV.d_4718319	FE MN
CCB 12	1	06-Sep-2018 22:53	149_CCB.d_4718320	FE MN
CCV 13	1	06-Sep-2018 23:13	159_CCV.d_4718336	FE MN
CCB 13	1	06-Sep-2018 23:15	160_CCB.d_4718337	FE MN
CCV 14	1	06-Sep-2018 23:37	171_CCV.d_4718557	FE MN
CCB 14	1	06-Sep-2018 23:39	172_CCB.d_4718558	FE MN
CCV 15	1	06-Sep-2018 23:55	180_CCV.d_4718566	FE MN
CCB 15	1	06-Sep-2018 23:57	181_CCB.d_4718567	FE MN
LLCCV5	1	06-Sep-2018 23:59	182LICV.d_4718568	FE MN
LLCCV2	1	07-Sep-2018 00:01	183SMPL.d_4718569	FE MN
ICSA	1	07-Sep-2018 00:03	184ICSA.d_4718570	FE MN
ICSAB	1	07-Sep-2018 00:05	185ICSB.d_4718571	FE MN

ALS Houston, US Date: 21-Sep-18

Form 2 - Initial and Continuing Calibration Verification

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Run ID: ICPMS05_322873
Instrument: ICPMS05
Method: SW6020

ICV	Date: 05-Sep-2018 11:59		Seq: 4715821	ICV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9690.671	97	90-110	

CCV1	Date: 05-Sep-2018 12:35		Seq: 4715969	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	10316.384	103	90-110	

CCV2	Date: 05-Sep-2018 12:52		Seq: 4715977	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	10341.958	103	90-110	

CCV3	Date: 05-Sep-2018 13:10		Seq: 4715986	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	10413.354	104	90-110	

ICCV4	Date: 05-Sep-2018 13:35		Seq: 4716186	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9793.256	98	90-110	

CCV5	Date: 05-Sep-2018 14:11		Seq: 4716201	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9950.123	100	90-110	

CCV6	Date: 05-Sep-2018 14:35		Seq: 4716213	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	10758.486	108	90-110	

CCV7	Date: 05-Sep-2018 14:59		Seq: 4716225	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9870.488	99	90-110	

CCV8	Date: 05-Sep-2018 15:23		Seq: 4716369	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9773.027	98	90-110	

CCV9	Date: 05-Sep-2018 15:47		Seq: 4716381	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9722.155	97	90-110	

CCV10	Date: 05-Sep-2018 16:10		Seq: 4716620	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9499.818	95	90-110	

CCV11	Date: 05-Sep-2018 16:30		Seq: 4716630	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9559.293	96	90-110	

ALS Houston, US Date: 21-Sep-18

Form 2 - Initial and Continuing Calibration Verification

Client: Aptim Environmental & Infrastucture, Inc. Run ID: ICPMS05_322949
Project: LHAAP-46 501032 Instrument: ICPMS05
WorkOrder: HS18081504 Method: SW6020

ICV	Date: 06-Sep-2018 12:59		Seq: 4717331	ICV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9652.178	97	90-110	
Manganese	100	100.881	101	90-110	

CCV1	Date: 06-Sep-2018 13:27		Seq: 4717363	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9526.691	95	90-110	
Manganese	100	96.045	96	90-110	

CCV2	Date: 06-Sep-2018 13:52		Seq: 4717677	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9533.521	95	90-110	
Manganese	100	96.294	96	90-110	

CCV3	Date: 06-Sep-2018 14:08		Seq: 4717685	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9876.546	99	90-110	
Manganese	100	98.175	98	90-110	

CCV4	Date: 06-Sep-2018 14:32		Seq: 4717697	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9293.778	93	90-110	
Manganese	100	95.033	95	90-110	

CCV5	Date: 06-Sep-2018 14:56		Seq: 4718249	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9507.008	95	90-110	
Manganese	100	95.385	95	90-110	

CCV6	Date: 06-Sep-2018 15:20		Seq: 4718261	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9675.675	97	90-110	
Manganese	100	96.492	97	90-110	

CCV7	Date: 06-Sep-2018 15:28		Seq: 4718265	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9676.584	97	90-110	
Manganese	100	96.252	96	90-110	

ICCV8	Date: 06-Sep-2018 15:59		Seq: 4717882	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9231.529	92	90-110	
Manganese	100	96.297	96	90-110	

CCV9	Date: 06-Sep-2018 16:28		Seq: 4717903	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	10083.855	101	90-110	
Manganese	100	101.047	101	90-110	

CCV10	Date: 06-Sep-2018 16:48		Seq: 4717965	CCV	Units: ug/L
Analyte	**True**	**Found**	**%R**	**Control Limits**	**Flag**
Iron	10000	9796.088	98	90-110	
Manganese	100	100.279	100	90-110	

ALS Houston, US Date: 21-Sep-18

Form 2 - Initial and Continuing Calibration Verification

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Run ID: ICPMS05_322949
Instrument: ICPMS05
Method: SW6020

ICCV11 Date: 06-Sep-2018 22:29 Seq: 4718302 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Iron	10000	10082.715	101	90-110	
Manganese	100	105.533	106	90-110	

CCV12 Date: 06-Sep-2018 22:51 Seq: 4718319 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Iron	10000	10038.474	100	90-110	
Manganese	100	101.194	101	90-110	

CCV13 Date: 06-Sep-2018 23:13 Seq: 4718336 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Iron	10000	10003.238	100	90-110	
Manganese	100	101.855	102	90-110	

CCV14 Date: 06-Sep-2018 23:37 Seq: 4718557 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Iron	10000	10322.677	103	90-110	
Manganese	100	104.026	104	90-110	

CCV15 Date: 06-Sep-2018 23:55 Seq: 4718566 CCV Units: ug/L

Analyte	True	Found	%R	Control Limits	Flag
Iron	10000	10229.539	102	90-110	
Manganese	100	102.744	103	90-110	

ALS Houston, US Date: 21-Sep-18

Form 3 - BLANKS

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Run ID: ICPMS05_322873
Instrument: ICPMS05
Method: SW6020

ICB	Date: 05-Sep-2018 12:05		Seq: 4715824	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
CCB1	Date: 05-Sep-2018 12:37		Seq: 4715970	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
CCB2	Date: 05-Sep-2018 12:54		Seq: 4715978	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
CCB3	Date: 05-Sep-2018 13:12		Seq: 4715987	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
ICCB4	Date: 05-Sep-2018 13:41		Seq: 4716189	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
MBLK-132119	Date: 05-Sep-2018 13:51		Seq: 4716191	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
CCB5	Date: 05-Sep-2018 14:13		Seq: 4716202	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
CCB6	Date: 05-Sep-2018 14:37		Seq: 4716214	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
CCB7	Date: 05-Sep-2018 15:01		Seq: 4716226	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
CCB8	Date: 05-Sep-2018 15:25		Seq: 4716370	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
CCB9	Date: 05-Sep-2018 15:49		Seq: 4716382	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
CCB10	Date: 05-Sep-2018 16:12		Seq: 4716621	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
CCB11	Date: 05-Sep-2018 16:32		Seq: 4716631	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	

ALS Houston, US Date: 21-Sep-18

Form 3 - BLANKS

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Run ID: ICPMS05_322949
Instrument: ICPMS05
Method: SW6020

ICB	Date: 06-Sep-2018 13:05		Seq: 4717334	ICB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

CCB1	Date: 06-Sep-2018 13:29		Seq: 4717364	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

CCB2	Date: 06-Sep-2018 13:54		Seq: 4717678	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

CCB3	Date: 06-Sep-2018 14:10		Seq: 4717686	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

CCB4	Date: 06-Sep-2018 14:34		Seq: 4717698	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

MBLK-132160	Date: 06-Sep-2018 14:36		Seq: 4718239	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	

CCB5	Date: 06-Sep-2018 14:58		Seq: 4718250	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

MBLK-132159	Date: 06-Sep-2018 15:04		Seq: 4718253	MBLK	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

CCB6	Date: 06-Sep-2018 15:22		Seq: 4718262	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

CCB7	Date: 06-Sep-2018 15:30		Seq: 4718266	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

ICCB8	Date: 06-Sep-2018 16:05		Seq: 4717885	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

CCB9	Date: 06-Sep-2018 16:30		Seq: 4717904	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

Form 3 - BLANKS

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Run ID: ICPMS05_322949
Instrument: ICPMS05
Method: SW6020

CCB10	Date: 06-Sep-2018 16:50		Seq: 4717966	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

ICCB11	Date: 06-Sep-2018 22:35		Seq: 4718305	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

CCB12	Date: 06-Sep-2018 22:53		Seq: 4718320	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

CCB13	Date: 06-Sep-2018 23:15		Seq: 4718337	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

CCB14	Date: 06-Sep-2018 23:39		Seq: 4718558	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

CCB15	Date: 06-Sep-2018 23:57		Seq: 4718567	CCB	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	**Qual**	
Iron	200	12	200	U	
Manganese	5	0.7	5	U	

ALS Houston, US Date: 21-Sep-18

Form 4 - ICP Interference Check Sample

Client: Aptim Environmental & Infrastucture, Inc. Run ID:ICPMS05_322873
Project: LHAAP-46 501032 Instrument:ICPMS05
WorkOrder: HS18081504 Method:SW6020

ICSA	Date: 05-Sep-2018 12:07	Seq: 4715825	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Iron	100000	97990	98.0	

ICSAB	Date: 05-Sep-2018 12:10	Seq: 4715826	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Iron	110000	114000	104	

ICSA	Date: 05-Sep-2018 16:38	Seq: 4716634	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Iron	100000	94040	94.0	

ICSAB	Date: 05-Sep-2018 16:41	Seq: 4716635	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Iron	110000	105900	96.3	

ALS Houston, US Date: 21-Sep-18

Form 4 - ICP Interference Check Sample

Client: Aptim Environmental & Infrastucture, Inc. Run ID: ICPMS05_322949
Project: LHAAP-46 501032 Instrument: ICPMS05
WorkOrder: HS18081504 Method: SW6020

ICSA	Date: 06-Sep-2018 13:07	Seq: 4717335	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Iron	100000	94810	94.8	
Manganese		0.387	0	

ICSAB	Date: 06-Sep-2018 13:09	Seq: 4717336	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Iron	110000	106200	96.6	
Manganese	100	96.5	96.5	

ICSA	Date: 07-Sep-2018 00:03	Seq: 4718570	ICSA	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Iron	100000	96540	96.5	
Manganese		0.363	0	

ICSAB	Date: 07-Sep-2018 00:05	Seq: 4718571	ICSAB	Units: ug/L
Analyte	**True**	**Found**	**%R**	
Iron	110000	111500	101	
Manganese	100	101.5	102	

ALS Houston, US Date: 21-Sep-18

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Date Analyzed: 05-Sep-2018 14:21
Date Extracted: 04-Sep-2018 13:00
Units: ug/L

Matrix Spike: HS18081504-01MS
Client Sample ID: 46WW02-180829

Analysis Method: SW6020

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Iron	790.5	5602	5000	96.2	5951	5000	103	80-120	6.05	20
Manganese	296.9	340.5	50.00	87.2	359.9	50.00	126	80-120	5.55	20

ALS Houston, US Date: 21-Sep-18

Form 5A - Matrix Spike/Matrix Spike Duplicate Recovery

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Date Analyzed: 06-Sep-2018 15:14
Date Extracted: 05-Sep-2018 13:30
Units: ug/L

Matrix Spike: HS18081504-01MS
Client Sample ID: 46WW02-180829

Analysis Method: SW6020

Analyte	Sample Result	MS Result	Spike Amount	% Rec	MSD Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Iron	743.0	5235	5000	89.8	5272	5000	90.6	75-125	0.703	20
Manganese	298.4	337.7	50.00	78.6	331.0	50.00	65.0	75-125	2.03	20
Iron	690.7	5089	5000	88.0	5285	5000	91.9	80-120	3.77	20

ALS Houston, US

Date: 21-Sep-18

Form 5B - Post Digest Sample Recovery

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Date Analyzed: 05-Sep-2018 14:23
Date Extracted: 04-Sep-2018 13:00
Units: ug/L

Lab Sample ID: HS18081504-01PDS
Client Sample ID: 46WW02-180829

Analysis Method: SW6020

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Iron	790.5	10420	10000	96	75-125
Manganese	296.9	398.8	100	102	75-125

ALS Houston, US Date: 21-Sep-18

Form 5B - Post Digest Sample Recovery

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Date Analyzed: 06-Sep-2018 15:16
Date Extracted: 05-Sep-2018 13:30
Units: ug/L

Lab Sample ID: HS18081504-01PDS
Client Sample ID: 46WW02-180829

Analysis Method: SW6020

Analyte	Sample Result	PDS Result	Spike Amount	% Rec	% Rec Limits
Iron	743	10850	10000	101	75-125
Manganese	298.4	399.3	100	101	75-125
Iron	690.7	9228	10000	85	75-125

ALS Houston, US Date: 21-Sep-18

Form 7 - Laboratory Control Sample

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Date Analyzed: 05-Sep-2018 13:53
Date Extracted: 04-Sep-2018 13:00
Units: ug/L

Lab Sample ID: LCS-132119 Analysis Method: SW6020

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Iron	5000	4906	98	80-120
Manganese	50	49.38	99	80-120

ALS Houston, US

Date: 21-Sep-18

Form 7 - Laboratory Control Sample

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Date Analyzed: 06-Sep-2018 15:06
Date Extracted: 05-Sep-2018 13:30
Units: ug/L

Lab Sample ID: LCS-132159 — Analysis Method: SW6020

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Iron	5000	4699	94	80-120
Manganese	50	48.6	97	80-120

Lab Sample ID: LCS-132160 — Analysis Method: SW6020

Analyte	Spike Amount	LCS Result	% Rec	% Rec Limits
Iron	5000	4704	94	80-120

ALS Houston, US

Date: 21-Sep-18

Form 8 - ICP Serial Dilutions

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Date Analyzed: 05-Sep-2018 14:17
Date Extracted: 04-Sep-2018 13:00
Units: ug/L

Lab Sample ID: HS18081504-01SD
Client Sample ID:46WW02-180829

Analysis Method: SW6020

Analyte	Sample Result	C	SD Result	C	RPD	Q
Iron	790.5		857.4	J	8	
Manganese	296.9		304.6		3	

ALS Houston, US

Date: 21-Sep-18

Form 8 - ICP Serial Dilutions

Client: Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
WorkOrder: HS18081504

Date Analyzed: 06-Sep-2018 15:10
Date Extracted: 05-Sep-2018 13:30
Units: ug/L

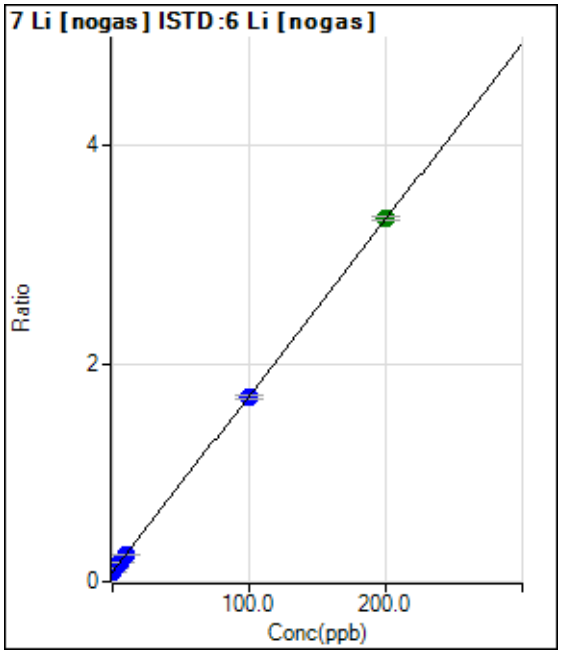
Lab Sample ID: HS18081504-01SD
Client Sample ID:46WW02-180829

Analysis Method: SW6020

Analyte	Sample Result	C	SD Result	C	RPD	Q
Iron	743		784.7	J	6	
Manganese	298.4		300.2		1	
Iron	690.7		779.6	J	13	

Batch Folder: C:\Agilent\ICPMH\1\DATA\090518A.b\
Analysis File: 090518A.batch.bin
DA Date-Time: 2018-09-05 16:21:00
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

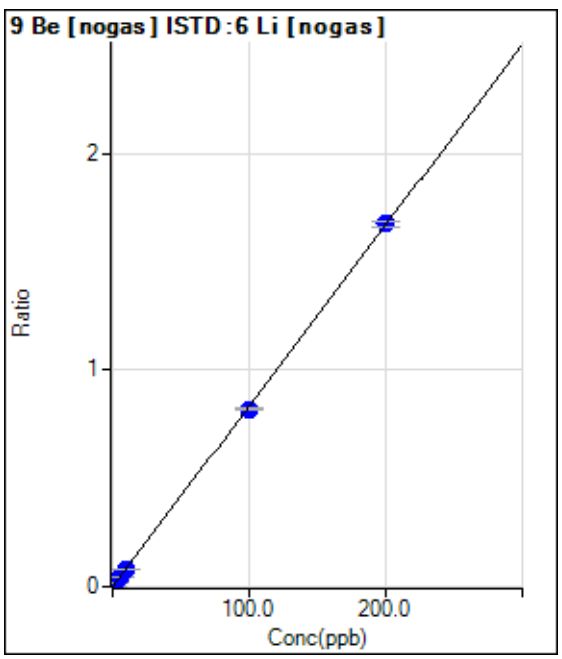
Level	Standard Data File	Sample Name	Acq. Date-Time
1	005CALB.d	CAL BLK	2018-09-05 11:45:44
2	006CALS.d	2/10/200	2018-09-05 11:47:43
3	007CALS.d	5/25/500	2018-09-05 11:49:41
4	008CALS.d	10/50/1000	2018-09-05 11:51:39
5	009CALS.d	100/500/10K	2018-09-05 11:53:37
6	010CALS.d	200/1000/20K	2018-09-05 11:55:38
7			



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53290.70	0.0895	P	2.3
2	☐	2.000	1.758	70164.58	0.1179	P	2.3
3	☐	5.000	5.011	97995.84	0.1704	P	1.1
4	☐	10.000	9.735	145457.34	0.2467	P	3.3
5	☐	100.000	99.240	915351.45	1.6918	P	1.1
6	☐	200.000	200.395	1696613.41	3.3251	A	1.0
7	☐	1.000					

y = 0.0161 * x + 0.0895
R = 1.0000
DL = 0.385
BEC = 5.542

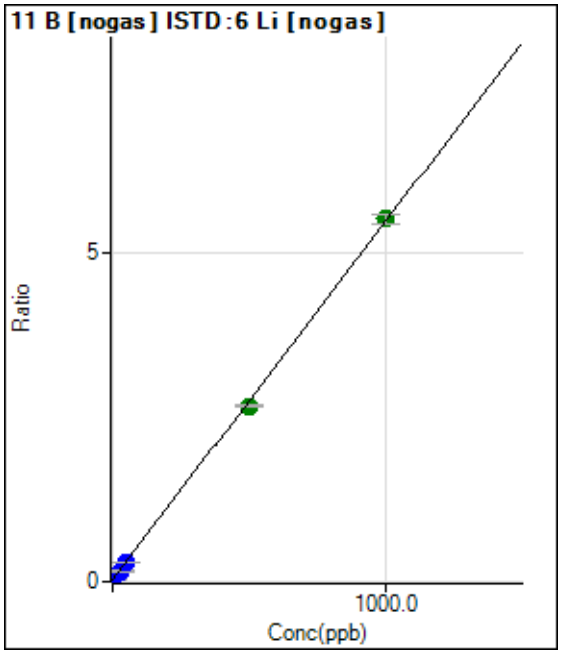
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	160.00	0.0003	P	37.1
2	☐	2.000	1.813	9169.03	0.0154	P	6.3
3	☐	5.000	4.941	23875.06	0.0415	P	1.1
4	☐	10.000	9.497	46897.52	0.0795	P	3.4
5	☐	100.000	98.436	444674.18	0.8219	P	1.3
6	☐	200.000	200.810	855322.28	1.6764	P	1.4
7	☐	1.000					

y = 0.0083 * x + 2.6809E-004
R = 1.0000
DL = 0.03573
BEC = 0.03212

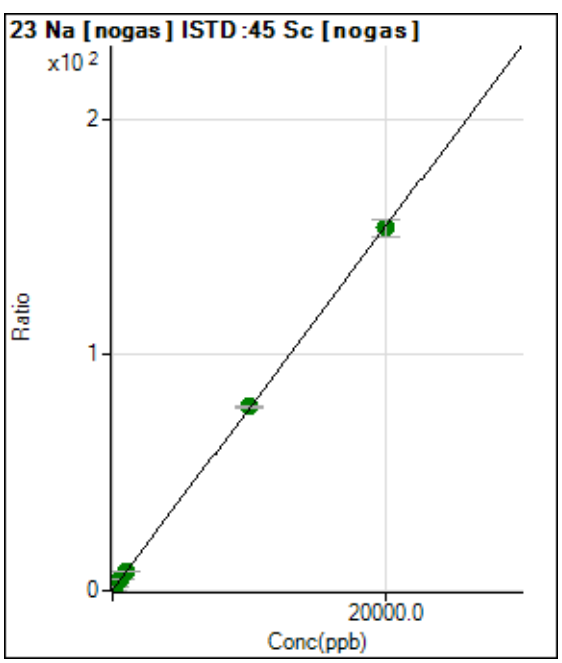
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	18629.31	0.0313	P	1.9
2	☐	10.000	8.451	46065.50	0.0774	P	1.8
3	☐	25.000	23.456	91544.16	0.1593	P	3.7
4	☐	50.000	45.935	166263.78	0.2819	P	1.3
5	☐	500.000	485.349	1449663.68	2.6795	A	1.7
6	☐	1000.000	1007.583	2820628.39	5.5289	A	2.7
7	☐	5.000					

y = 0.0055 * x + 0.0313
R = 0.9999
DL = 0.3194
BEC = 5.734

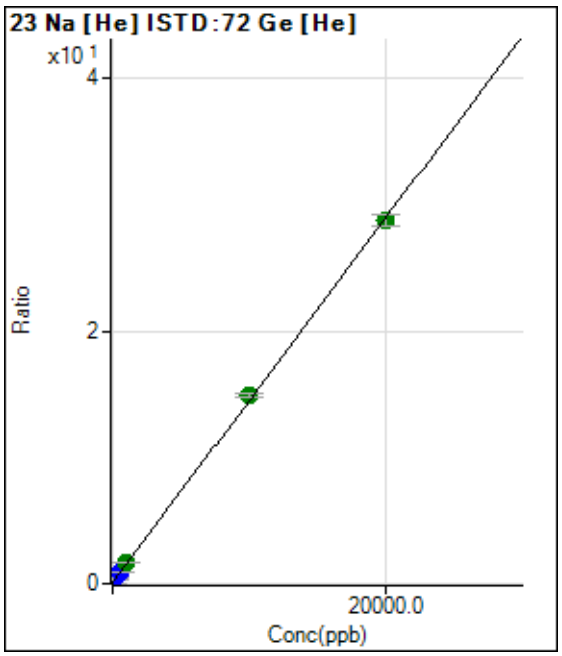
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	622878.01	0.2276	P	4.4
2	☐	200.000	211.121	5213611.18	1.8553	A	1.9
3	☐	500.000	560.394	12107212.51	4.5482	A	2.7
4	☐	1000.000	1064.842	23263136.98	8.4374	A	0.5
5	☐	10000.00	10114.901	211869279.7	78.2126	A	1.1
6	☐	20000.00	19937.686	415436334.2	153.945	A	4.8
7	☐	100.000					

y = 0.0077 * x + 0.2276
R = 1.0000
DL = 3.862
BEC = 29.52

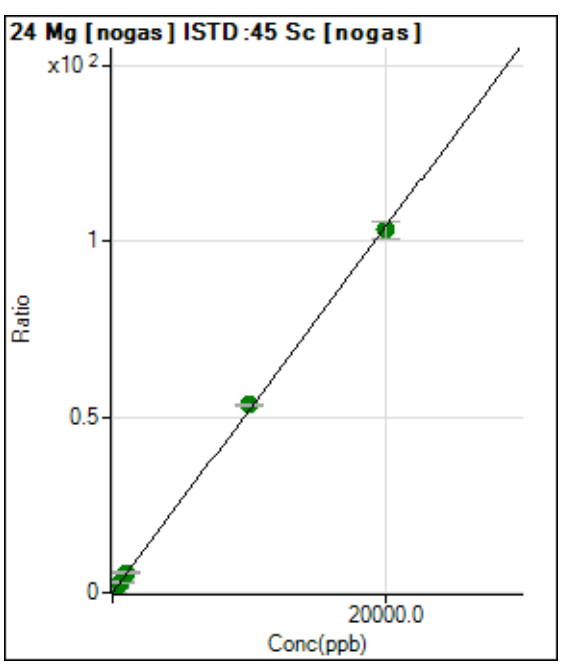
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76985.29	0.0697	P	2.1
2	☐	200.000	218.096	426096.10	0.3843	P	7.7
3	☐	500.000	549.340	944494.73	0.8621	P	0.2
4	☐	1000.000	1128.026	1845957.42	1.6969	A	1.7
5	☐	10000.00	10274.885	16051215.18	14.8913	A	1.5
6	☐	20000.00	19854.742	30805808.71	28.7103	A	3.2
7	☐	100.000					

y = 0.0014 * x + 0.0697
R = 0.9999
DL = 3.109
BEC = 48.33

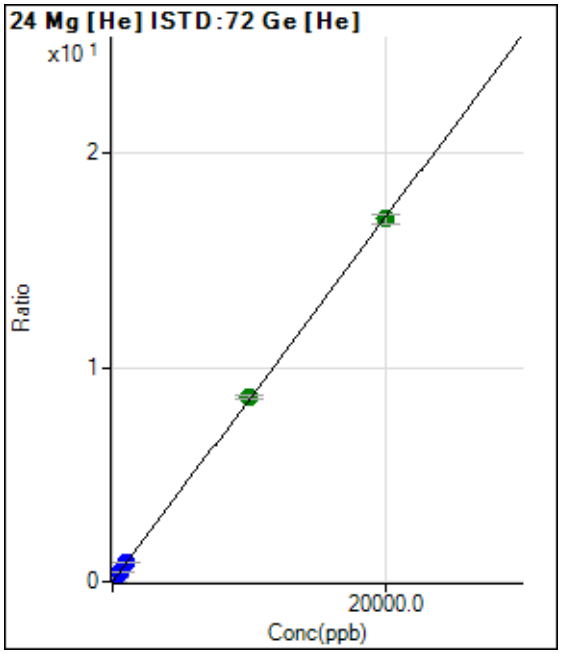
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8236.53	0.0030	P	12.7
2	☐	200.000	218.395	3201789.85	1.1399	A	4.4
3	☐	500.000	570.867	7910490.02	2.9747	A	5.8
4	☐	1000.000	1100.604	15802932.12	5.7323	A	2.1
5	☐	10000.00	10285.553	145058494.9	53.5453	A	0.6
6	☐	20000.00	19850.238	278845572.9	103.335	A	5.0
7	☐	100.000					

y = 0.0052 * x + 0.0030
R = 0.9999
DL = 0.2206
BEC = 0.5786

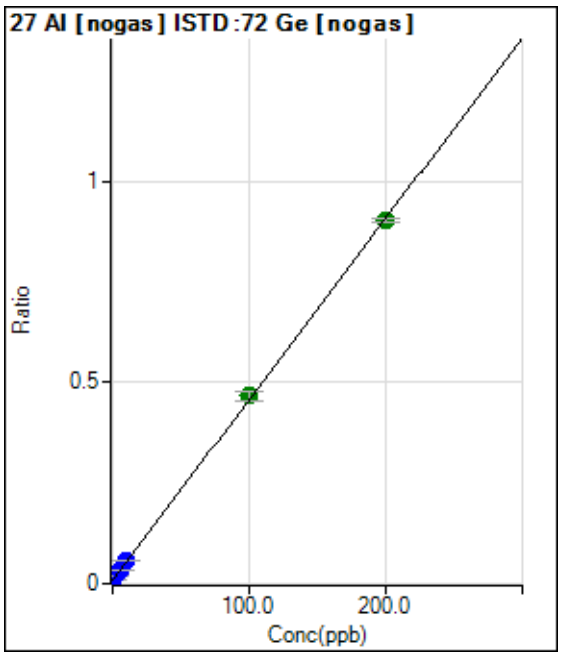
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	680.03	0.0006	P	24.6
2	☐	200.000	214.404	202839.60	0.1830	P	8.7
3	☐	500.000	538.780	502867.81	0.4590	P	1.8
4	☐	1000.000	1091.409	1010775.17	0.9292	P	1.9
5	☐	10000.00	10159.212	9316939.03	8.6443	A	2.5
6	☐	20000.00	19914.710	18182349.73	16.9446	A	2.6
7	☐	100.000					

y = 8.5083E-004 * x + 6.1767E-004
R = 1.0000
DL = 0.5364
BEC = 0.726

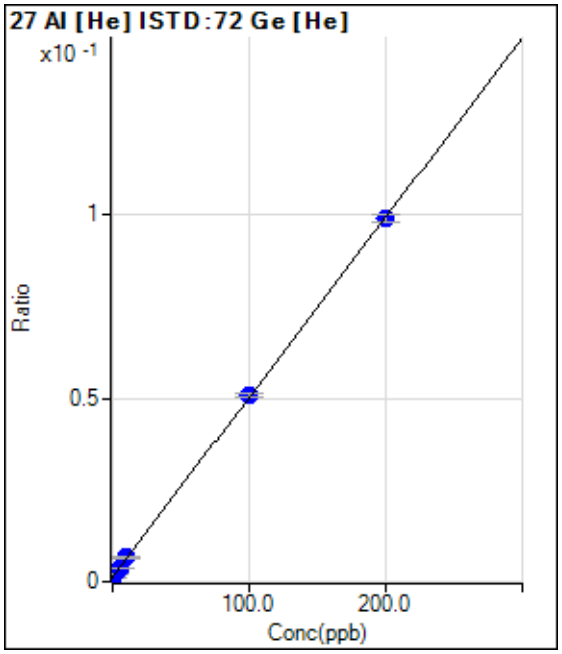
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32034.70	0.0079	P	4.0
2	☐	2.000	2.236	73750.14	0.0179	P	2.2
3	☐	5.000	5.741	131882.77	0.0337	P	5.2
4	☐	10.000	11.257	237766.70	0.0585	P	2.6
5	☐	100.000	102.133	1855410.44	0.4675	A	5.5
6	☐	200.000	198.850	3486444.32	0.9027	A	1.0
7	☐	1.000					

y = 0.0045 * x + 0.0079
R = 0.9999
DL = 0.2114
BEC = 1.751

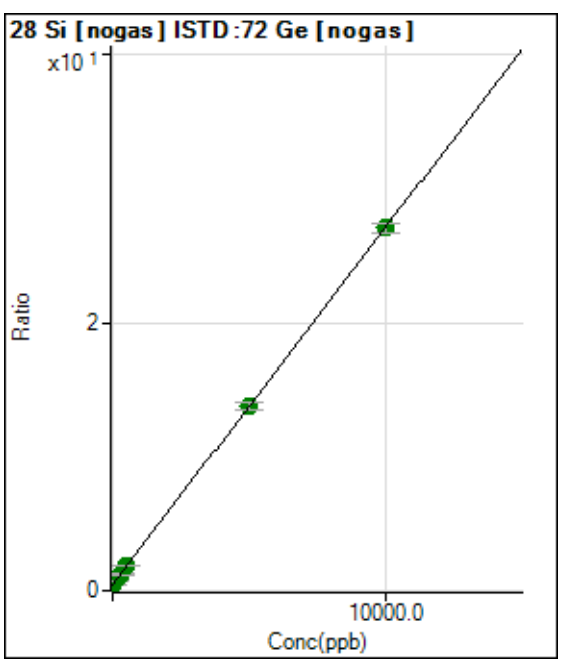
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.777	1013.38	0.0009	P	19.6
2	☐	2.000	1.534	2266.86	0.0021	P	14.7
3	☐	5.000	4.553	3867.12	0.0035	P	5.2
4	☐	10.000	11.014	7284.84	0.0067	P	4.7
5	☐	100.000	101.423	54983.39	0.0510	P	2.5
6	☐	200.000	199.254	106206.22	0.0990	P	2.0
7	☐	1.000					

y = 4.9017E-004 * x + 0.0013
R = 0.9999
DL = 1.102
BEC = 2.651

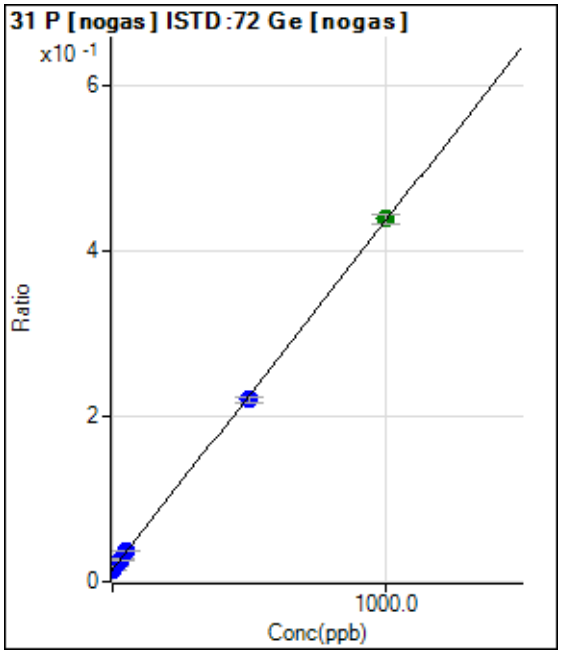
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1846137.53	0.4542	A	2.8
2	☐	100.000	96.973	2929729.54	0.7127	A	1.7
3	☐	250.000	276.295	4654271.70	1.1907	A	7.0
4	☐	500.000	519.810	7473449.47	1.8399	A	2.9
5	☐	5000.000	5015.336	54892154.18	13.8240	A	3.8
6	☐	10000.00	9990.715	104609685.1	27.0873	A	2.6
7	☐	5.000					

y = 0.0027 * x + 0.4542
R = 1.0000
DL = 14.44
BEC = 170.4

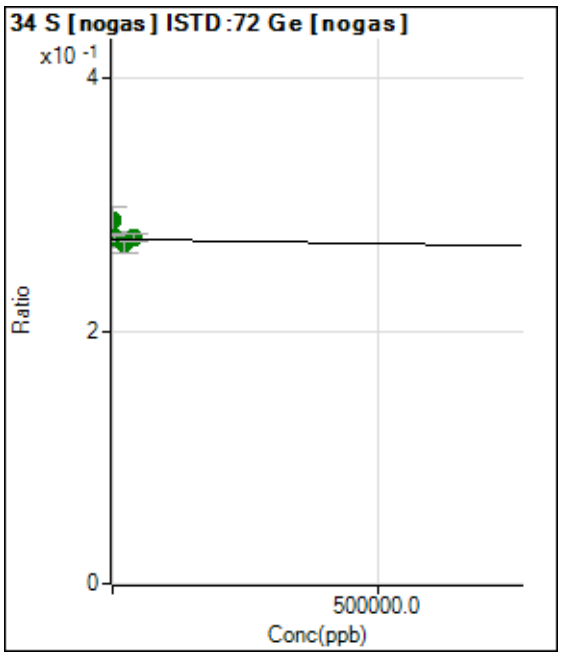
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	59362.97	0.0146	P	1.5
2	☐	10.000	9.578	76621.54	0.0186	P	2.5
3	☐	25.000	28.412	103869.55	0.0266	P	8.0
4	☐	50.000	52.036	148467.65	0.0365	P	2.1
5	☐	500.000	488.121	875425.95	0.2205	P	3.5
6	☐	1000.000	1005.756	1694578.52	0.4388	A	2.4
7	☐	5.000					

y = 4.2173E-004 * x + 0.0146
R = 0.9999
DL = 1.565
BEC = 34.62

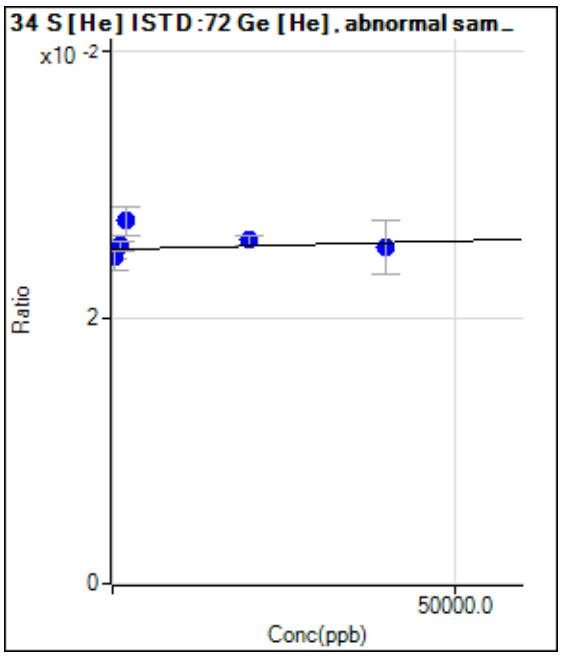
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1108391.30	0.2727	A	2.9
2	☐	400.000	-755.485	1121028.31	0.2727	A	4.2
3	☐	1000.000	-2053145.96	1121801.91	0.2871	A	7.9
4	☐	2000.000	-142786.345	1111920.05	0.2737	A	1.9
5	☐	20000.00	502779.479	1068418.58	0.2692	A	5.1
6	☐	40000.00	-142785.218	1057226.65	0.2737	A	1.9
7	☐	100.000					

y = -7.0167E-009 * x + 0.2727
R = -0.2950
DL = -3.404E+06
BEC = -3.886E+07

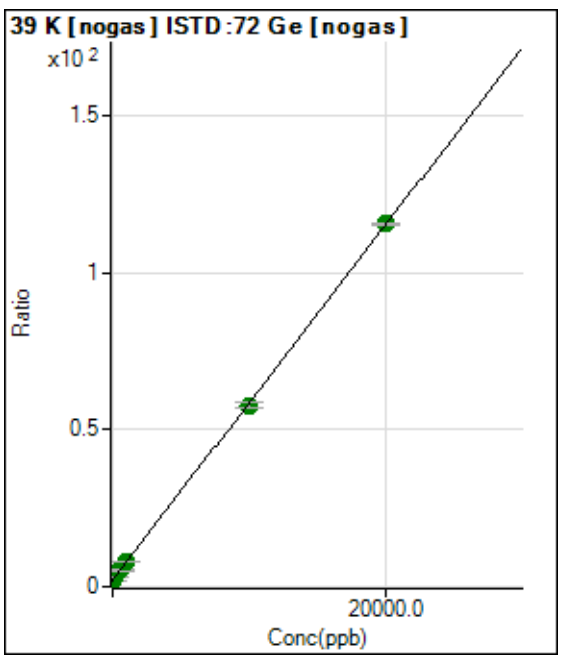
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27759.70	0.0251	P	5.8
2	☐	400.000	-45454.138	27291.29	0.0246	P	8.0
3	☐	1000.000	18967.069	27808.25	0.0254	P	3.2
4	☐	2000.000	169008.484	29661.41	0.0273	P	8.2
5	☐	20000.00	54972.195	27858.06	0.0258	P	3.1
6	☐	40000.00	14172.843	27157.94	0.0253	P	16.2
7	☐	100.000					

y = 1.2638E-008 * x + 0.0251
R = -0.0387
DL = 3.434E+05
BEC = 1.99E+06

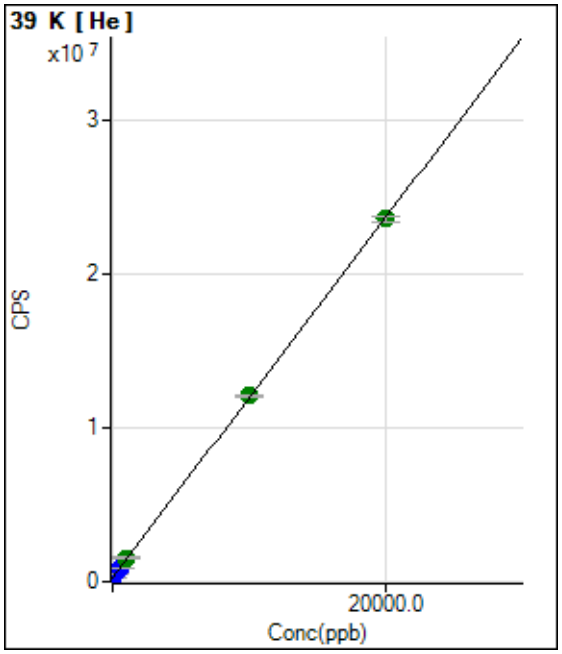
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8469869.72	2.0835	A	1.5
2	☐	200.000	198.449	13176444.57	3.2055	A	0.5
3	☐	500.000	554.173	20391448.37	5.2166	A	6.9
4	☐	1000.000	1026.739	32045815.30	7.8884	A	3.0
5	☐	10000.00	9852.044	229488580.1	57.7843	A	2.9
6	☐	20000.00	20071.302	446364859.9	115.561	A	0.3
7	☐	100.000					

y = 0.0057 * x + 2.0835
R = 1.0000
DL = 16.44
BEC = 368.5

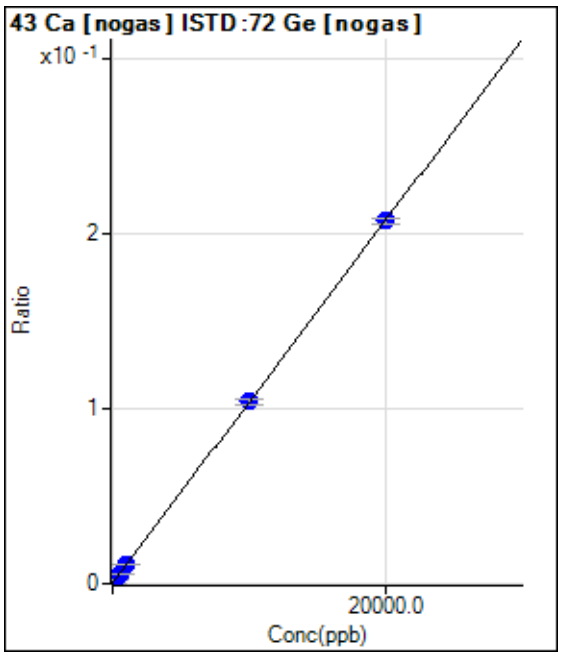
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	256642.47		P	0.4
2	☐	200.000	212.649	505374.72		P	0.5
3	☐	500.000	531.970	878878.43		P	0.9
4	☐	1000.000	1113.078	1558590.45		A	1.8
5	☐	10000.00	10126.038	12100889.82		A	1.2
6	☐	20000.00	19930.401	23568880.48		A	1.9
7	☐	100.000					

y = 1169.6823 * x + 256642.4700
R = 1.0000
DL = 2.802
BEC = 219.4

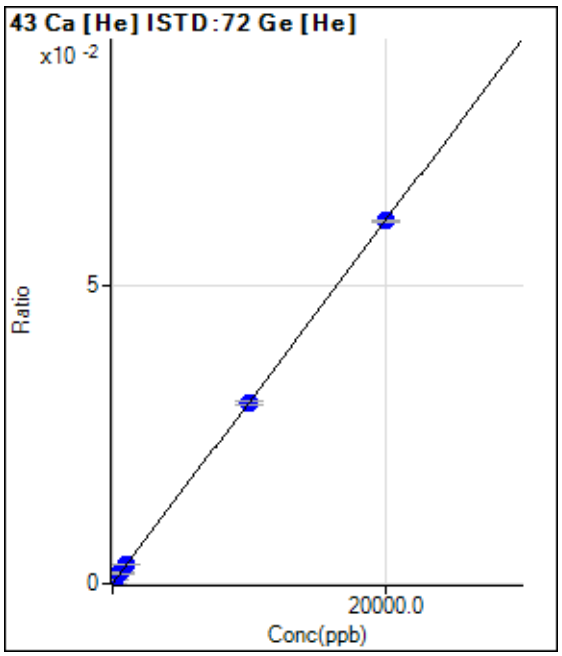
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	760.03	0.0002	P	4.1
2	☐	200.000	204.393	9479.22	0.0023	P	4.7
3	☐	500.000	536.502	22463.78	0.0057	P	8.2
4	☐	1000.000	1052.634	45084.84	0.0111	P	4.7
5	☐	10000.00	10023.843	413416.75	0.1041	P	3.7
6	☐	20000.00	19984.490	800965.95	0.2074	P	1.8
7	☐	100.000					

y = 1.0368E-005 * x + 1.8700E-004
R = 1.0000
DL = 2.192
BEC = 18.04

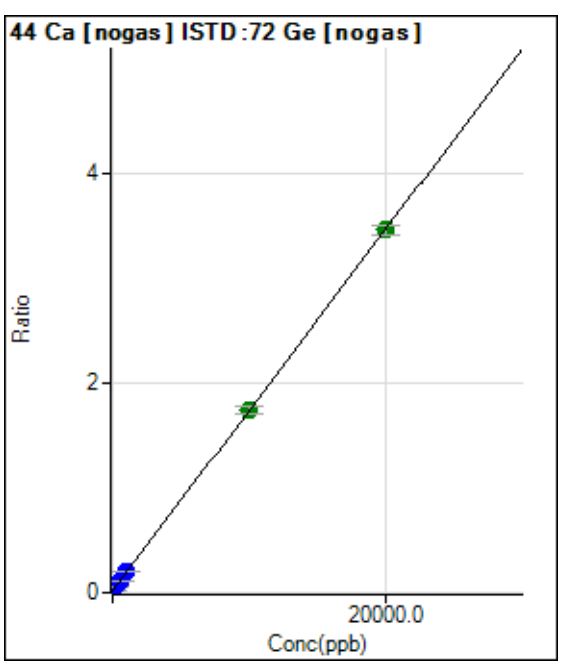
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.00	0.0000	P	65.1
2	☐	200.000	219.567	770.03	0.0007	P	12.4
3	☐	500.000	575.690	1950.14	0.0018	P	10.6
4	☐	1000.000	1079.571	3607.08	0.0033	P	3.5
5	☐	10000.00	10005.517	32885.86	0.0305	P	2.1
6	☐	20000.00	19991.175	65397.57	0.0609	P	0.9
7	☐	100.000					

y = 3.0467E-006 * x + 2.6966E-005
R = 1.0000
DL = 17.28
BEC = 8.851

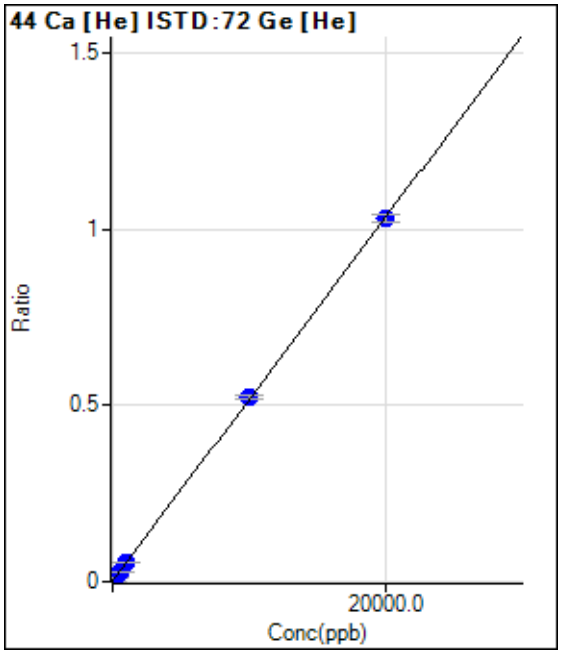
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	71502.87	0.0176	P	2.2
2	☐	200.000	200.265	213903.38	0.0520	P	1.3
3	☐	500.000	541.378	432831.67	0.1107	P	6.5
4	☐	1000.000	1031.838	792481.89	0.1951	P	2.4
5	☐	10000.00	10022.176	6914194.90	1.7416	A	4.5
6	☐	20000.00	19986.283	13345233.13	3.4556	A	2.6
7	☐	100.000					

y = 1.7202E-004 * x + 0.0176
R = 1.0000
DL = 6.75
BEC = 102.3

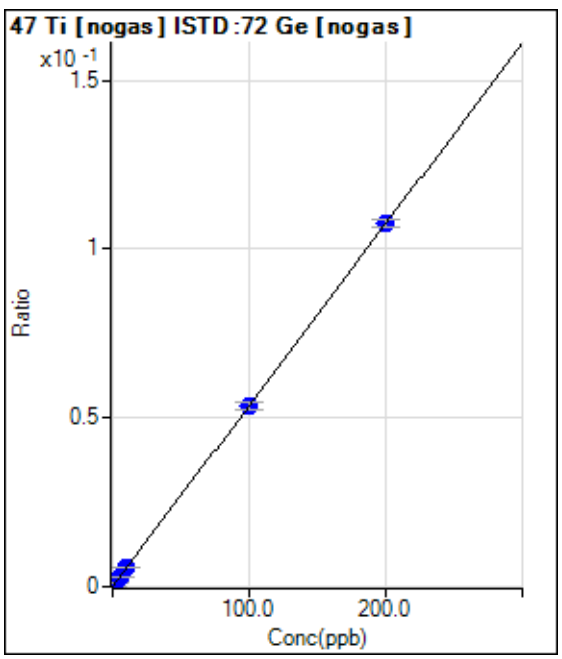
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1540.09	0.0014	P	16.5
2	☐	200.000	209.624	13548.41	0.0122	P	6.4
3	☐	500.000	526.171	31273.12	0.0285	P	2.2
4	☐	1000.000	1056.920	60838.96	0.0559	P	1.4
5	☐	10000.00	10143.725	565601.41	0.5248	P	2.2
6	☐	20000.00	19924.541	1104648.92	1.0294	P	2.2
7	☐	100.000					

y = 5.1595E-005 * x + 0.0014
R = 1.0000
DL = 13.42
BEC = 27.05

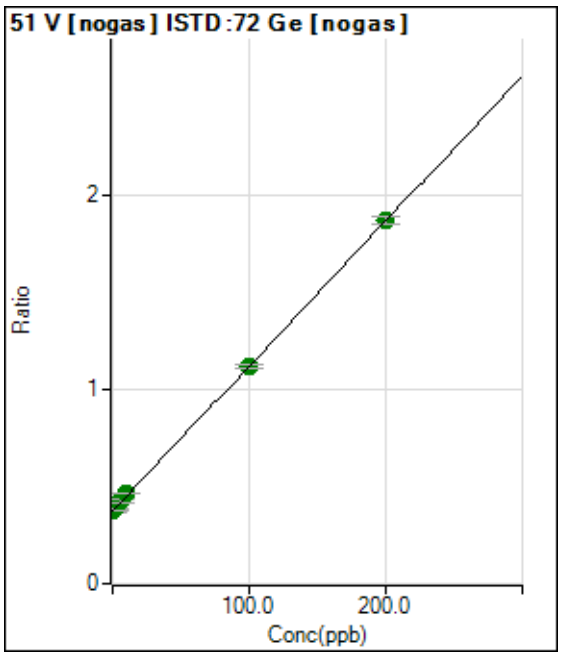
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.34	0.0000	P	18.8
2	☐	2.000	2.106	4810.70	0.0012	P	7.9
3	☐	5.000	5.212	11100.12	0.0028	P	4.8
4	☐	10.000	10.381	22787.54	0.0056	P	5.0
5	☐	100.000	99.556	212322.22	0.0535	P	3.7
6	☐	200.000	200.197	415113.68	0.1075	P	2.1
7	☐	1.000					

y = 5.3669E-004 * x + 4.0138E-005
R = 1.0000
DL = 0.04222
BEC = 0.07479

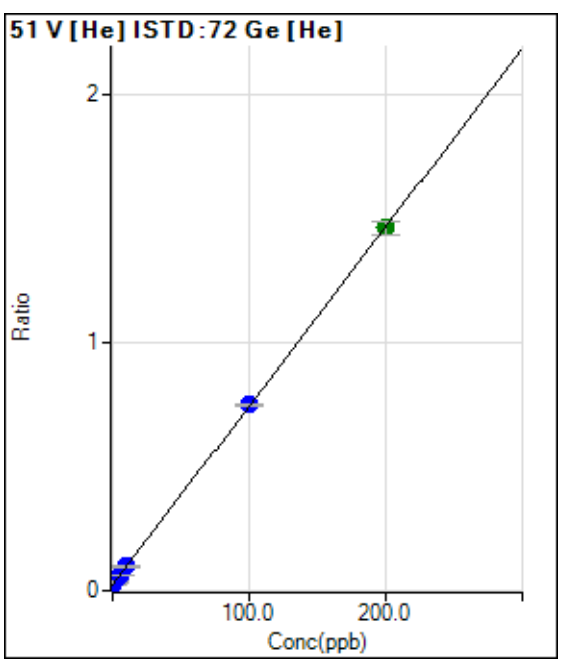
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1513946.16	0.3723	A	1.7
2	☐	2.000	1.184	1566850.17	0.3812	A	2.0
3	☐	5.000	7.400	1672741.06	0.4275	A	4.5
4	☐	10.000	12.587	1894247.96	0.4662	A	1.2
5	☐	100.000	99.665	4430888.77	1.1155	A	2.3
6	☐	200.000	199.986	7197614.74	1.8636	A	1.9
7	☐	1.000					

y = 0.0075 * x + 0.3723
R = 0.9999
DL = 2.521
BEC = 49.93

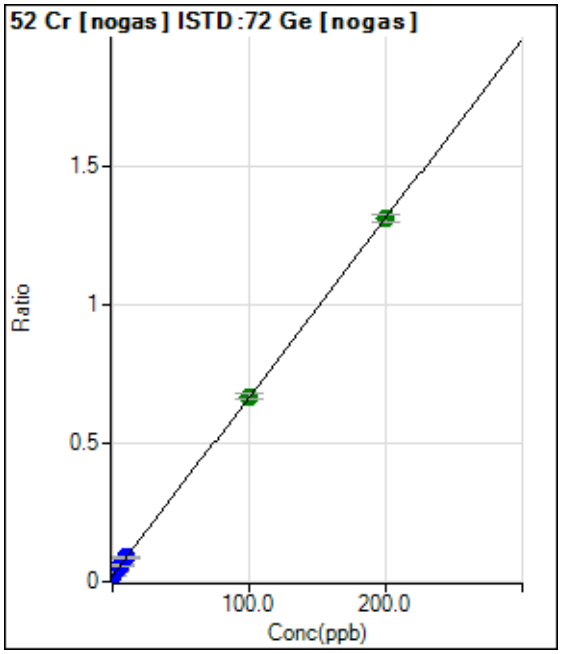
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.319	23421.33	0.0212	P	1.9
2	☐	2.000	1.746	39989.92	0.0361	P	8.0
3	☐	5.000	4.934	64668.67	0.0590	P	1.4
4	☐	10.000	10.295	106210.47	0.0976	P	1.8
5	☐	100.000	100.709	807112.59	0.7488	P	1.1
6	☐	200.000	199.635	1567693.50	1.4612	A	4.0
7	☐	1.000					

y = 0.0072 * x + 0.0235
R = 1.0000
DL = 0.166
BEC = 3.263

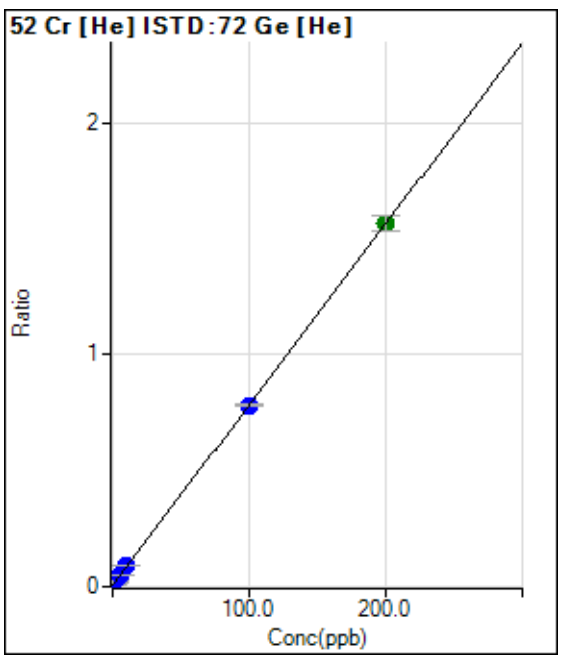
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86895.66	0.0214	P	1.5
2	☐	2.000	2.026	141689.46	0.0345	P	0.5
3	☐	5.000	5.583	224597.46	0.0575	P	6.9
4	☐	10.000	10.259	356119.21	0.0877	P	3.3
5	☐	100.000	100.486	2664507.88	0.6708	A	3.0
6	☐	200.000	199.729	5068116.38	1.3123	A	1.9
7	☐	1.000					

y = 0.0065 * x + 0.0214
R = 1.0000
DL = 0.1497
BEC = 3.307

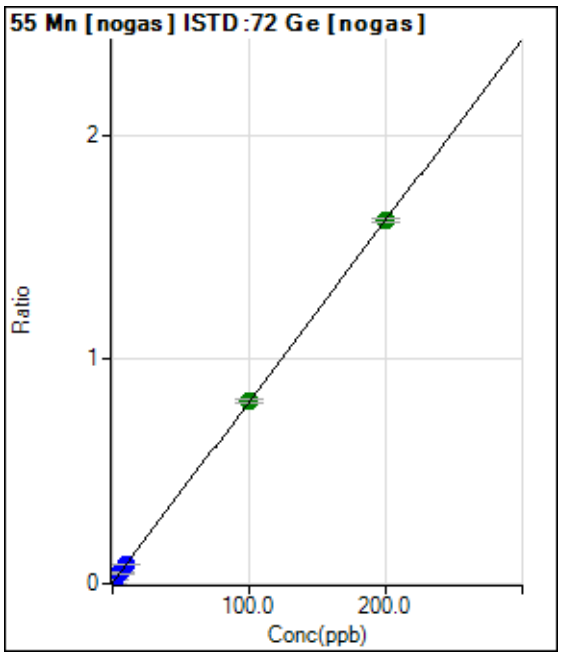
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6021.05	0.0055	P	4.9
2	☐	2.000	1.998	23278.25	0.0210	P	11.0
3	☐	5.000	5.241	50723.02	0.0463	P	2.2
4	☐	10.000	10.685	96529.85	0.0887	P	1.6
5	☐	100.000	99.737	843937.07	0.7829	P	1.7
6	☐	200.000	200.091	1679222.06	1.5651	A	4.2
7	☐	1.000					

y = 0.0078 * x + 0.0055
R = 1.0000
DL = 0.1025
BEC = 0.6995

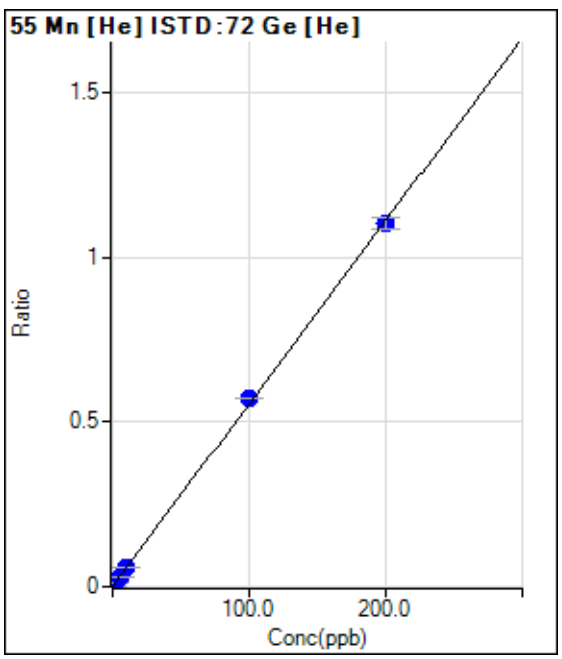
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15393.30	0.0038	P	0.3
2	☐	2.000	2.031	83042.81	0.0202	P	3.1
3	☐	5.000	5.433	186500.22	0.0477	P	6.5
4	☐	10.000	10.350	355192.76	0.0875	P	3.6
5	☐	100.000	100.393	3239168.29	0.8153	A	1.4
6	☐	200.000	199.775	6252818.03	1.6187	A	1.1
7	☐	1.000					

y = 0.0081 * x + 0.0038
R = 1.0000
DL = 0.004911
BEC = 0.4684

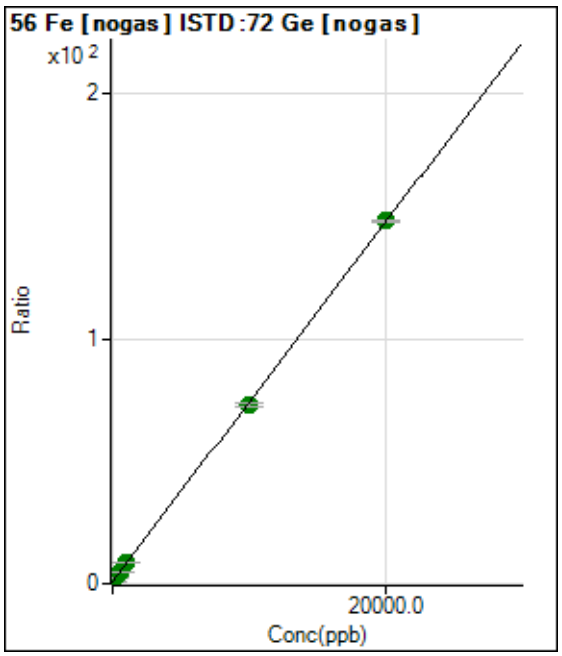
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	730.03	0.0007	P	8.7
2	☐	2.000	2.109	13748.67	0.0124	P	4.8
3	☐	5.000	5.422	33737.60	0.0308	P	1.2
4	☐	10.000	10.846	66298.55	0.0609	P	0.2
5	☐	100.000	103.129	618662.56	0.5739	P	0.6
6	☐	200.000	198.382	1183832.67	1.1033	P	3.0
7	☐	1.000					

y = 0.0056 * x + 6.6048E-004
R = 0.9998
DL = 0.03093
BEC = 0.1188

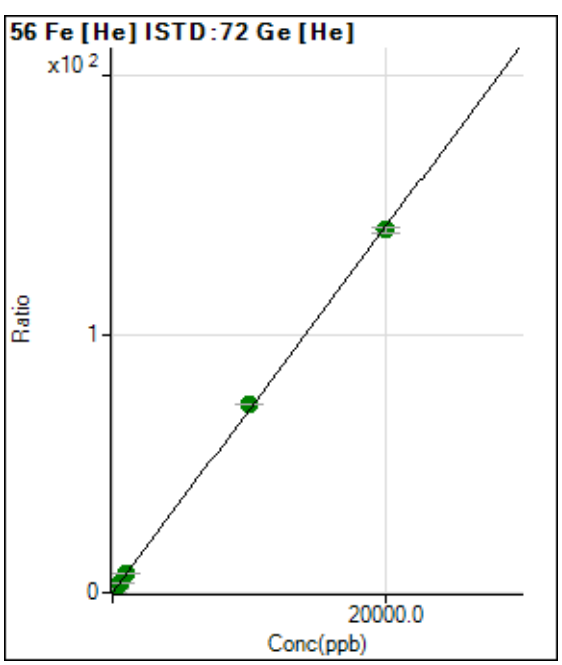
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3456289.40	0.8502	A	2.2
2	☐	200.000	201.329	9565483.29	2.3272	A	2.1
3	☐	500.000	550.637	19115387.93	4.8898	A	6.7
4	☐	1000.000	1036.367	34332119.51	8.4531	A	3.8
5	☐	10000.00	9847.283	290292281.4	73.0913	A	2.9
6	☐	20000.00	20073.261	572113396.1	148.110	A	0.4
7	☐	100.000					

y = 0.0073 * x + 0.8502
R = 1.0000
DL = 7.759
BEC = 115.9

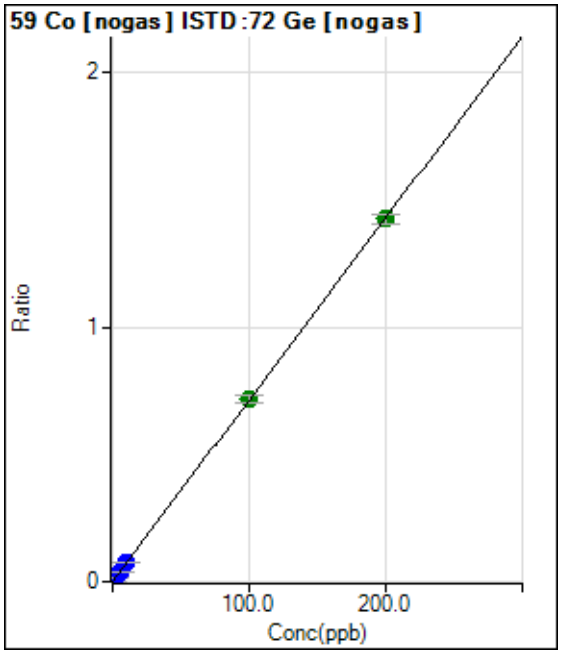
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20538.41	0.0186	P	1.6
2	☐	200.000	212.017	1686626.38	1.5200	A	6.1
3	☐	500.000	542.682	4230748.06	3.8617	A	1.0
4	☐	1000.000	1065.553	8229108.21	7.5645	A	1.1
5	☐	10000.00	10316.536	78782417.16	73.0768	A	0.5
6	☐	20000.00	19837.267	150782911.0	140.499	A	1.5
7	☐	100.000					

y = 0.0071 * x + 0.0186
R = 0.9998
DL = 0.1287
BEC = 2.625

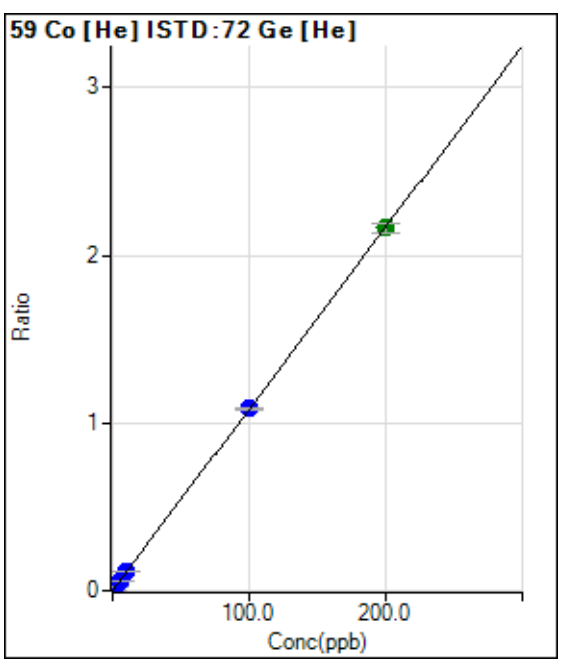
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	500.02	0.0001	P	30.7
2	☐	2.000	2.021	59780.25	0.0145	P	1.7
3	☐	5.000	5.469	153021.45	0.0391	P	6.7
4	☐	10.000	10.533	305802.93	0.0753	P	2.3
5	☐	100.000	100.651	2851928.60	0.7183	A	4.0
6	☐	200.000	199.636	5501282.62	1.4245	A	2.8
7	☐	1.000					

y = 0.0071 * x + 1.2321E-004
R = 1.0000
DL = 0.0159
BEC = 0.01727

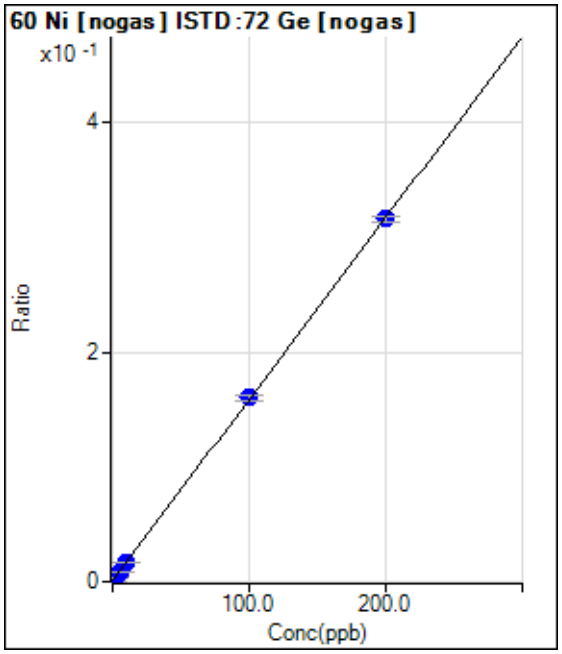
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.33	0.0001	P	18.6
2	☐	2.000	2.093	25200.91	0.0228	P	10.5
3	☐	5.000	5.262	62532.81	0.0571	P	3.9
4	☐	10.000	10.431	122958.39	0.1130	P	1.2
5	☐	100.000	100.323	1170685.84	1.0860	P	1.2
6	☐	200.000	199.810	2320797.05	2.1628	A	2.6
7	☐	1.000					

y = 0.0108 * x + 1.1192E-004
R = 1.0000
DL = 0.005761
BEC = 0.01034

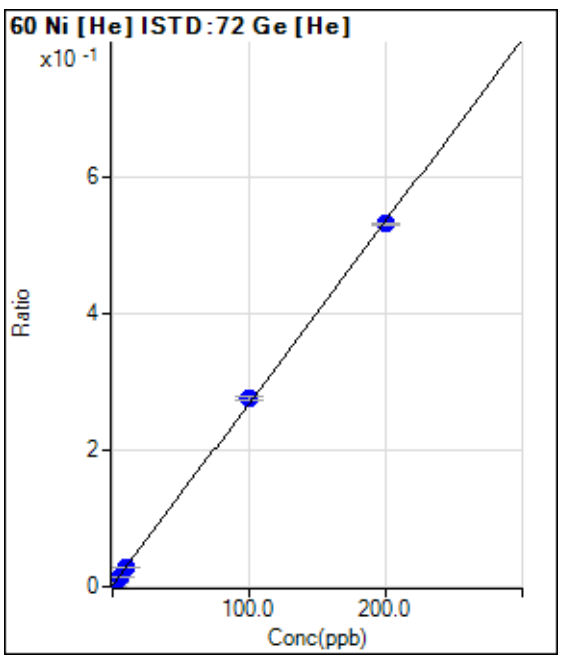
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.458	550.02	0.0001	P	13.7
2	☐	2.000	1.629	14098.95	0.0034	P	1.7
3	☐	5.000	5.090	34783.24	0.0089	P	6.5
4	☐	10.000	10.324	69719.17	0.0172	P	1.6
5	☐	100.000	100.859	635878.74	0.1601	P	3.5
6	☐	200.000	199.556	1220408.94	0.3160	P	1.9
7	☐	1.000					

y = 0.0016 * x + 8.5791E-004
R = 1.0000
DL = 0.03516
BEC = 0.5433

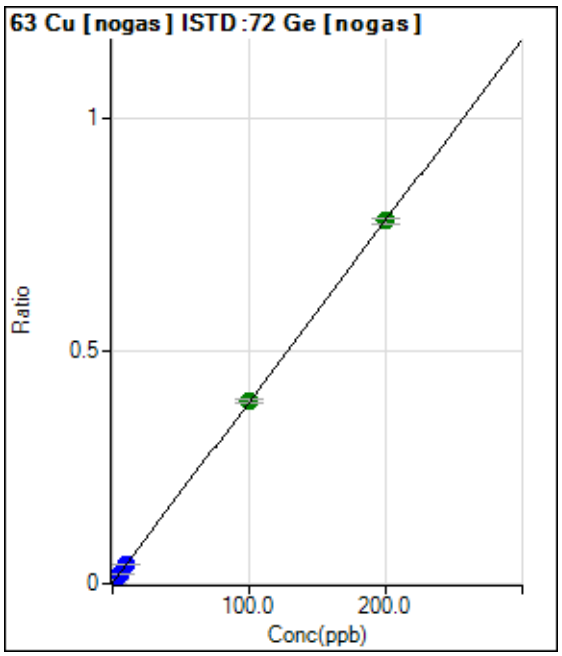
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.705	233.34	0.0002	P	18.9
2	☐	2.000	1.425	6537.93	0.0059	P	9.3
3	☐	5.000	4.679	15990.41	0.0146	P	2.2
4	☐	10.000	10.164	31814.49	0.0292	P	2.4
5	☐	100.000	102.863	298445.24	0.2769	P	2.4
6	☐	200.000	198.574	571624.32	0.5326	P	0.7
7	☐	1.000					

y = 0.0027 * x + 0.0021
R = 0.9998
DL = 0.04504
BEC = 0.7838

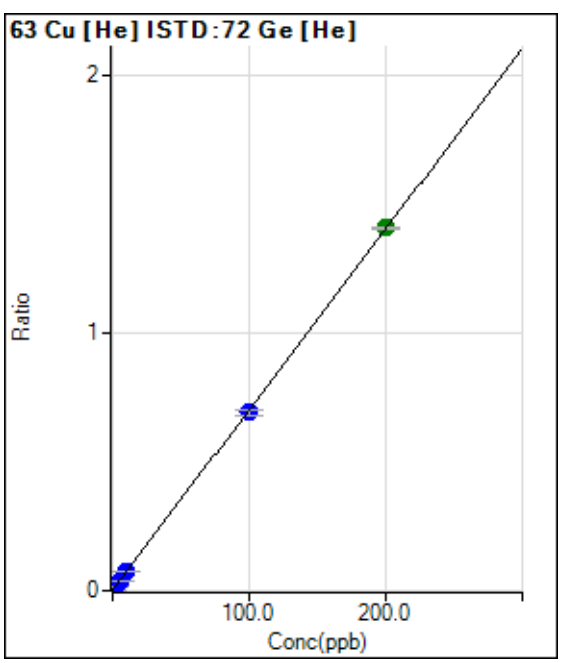
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5867.68	0.0014	P	3.8
2	☐	2.000	1.977	37538.75	0.0091	P	3.2
3	☐	5.000	5.219	84986.67	0.0217	P	7.2
4	☐	10.000	10.165	166518.62	0.0410	P	0.7
5	☐	100.000	100.298	1555373.16	0.3916	A	2.4
6	☐	200.000	199.838	3007804.64	0.7788	A	1.3
7	☐	1.000					

y = 0.0039 * x + 0.0014
R = 1.0000
DL = 0.04185
BEC = 0.371

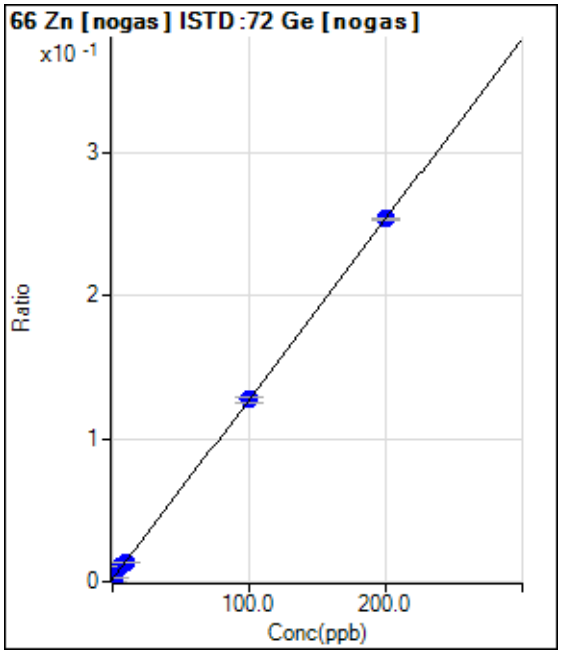
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.010	2566.89	0.0023	P	11.5
2	☐	2.000	2.026	18209.32	0.0164	P	10.1
3	☐	5.000	5.159	42028.35	0.0384	P	1.3
4	☐	10.000	10.551	82786.05	0.0761	P	2.1
5	☐	100.000	98.571	745836.39	0.6921	P	3.6
6	☐	200.000	200.683	1509846.49	1.4066	A	0.7
7	☐	1.000					

y = 0.0070 * x + 0.0023
R = 1.0000
DL = 0.1152
BEC = 0.323

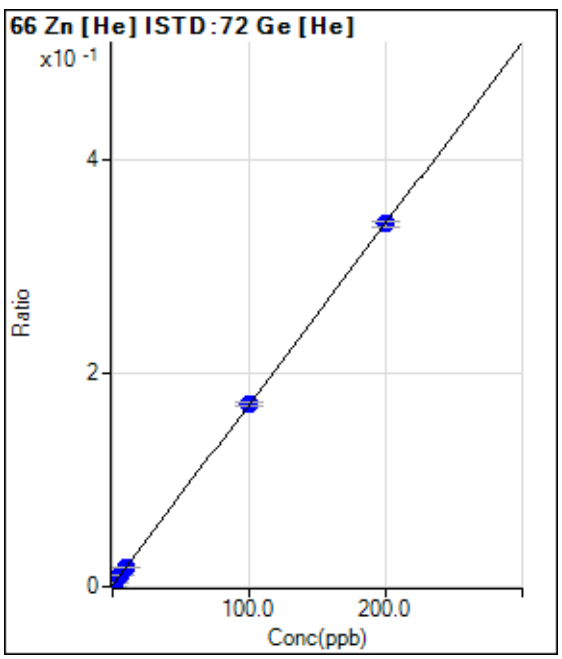
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.971	1490.09	0.0004	P	12.0
2	☐	2.000	1.167	12577.80	0.0031	P	1.3
3	☐	5.000	7.427	42800.25	0.0109	P	7.0
4	☐	10.000	9.587	55507.54	0.0137	P	2.2
5	☐	100.000	99.644	504697.35	0.1271	P	2.8
6	☐	200.000	200.146	979724.41	0.2537	P	0.7
7	☐	1.000					

y = 0.0013 * x + 0.0016
R = 0.9999
DL = 0.1052
BEC = 1.262

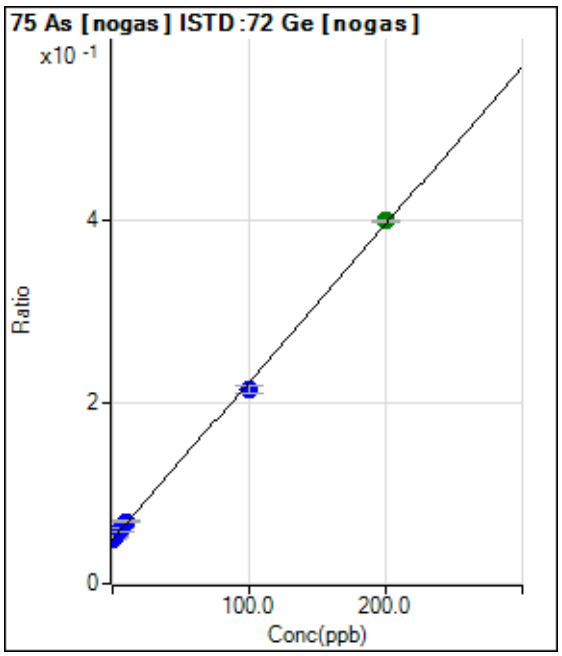
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.514	403.34	0.0004	P	10.2
2	☐	2.000	1.737	4640.68	0.0042	P	10.8
3	☐	5.000	5.572	11713.90	0.0107	P	4.1
4	☐	10.000	10.038	19877.71	0.0183	P	2.8
5	☐	100.000	100.362	184888.56	0.1715	P	1.8
6	☐	200.000	199.806	365159.26	0.3403	P	1.3
7	☐	1.000					

y = 0.0017 * x + 0.0012
R = 1.0000
DL = 0.0657
BEC = 0.729

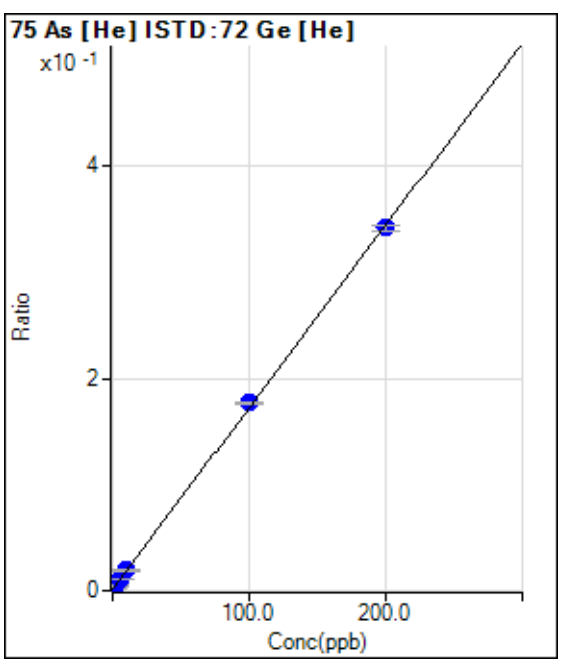
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.264	199992.64	0.0492	P	1.2
2	☐	2.000	1.577	211574.88	0.0515	P	1.7
3	☐	5.000	6.241	233000.85	0.0596	P	5.2
4	☐	10.000	11.311	277719.88	0.0684	P	2.8
5	☐	100.000	95.398	851061.68	0.2143	P	3.4
6	☐	200.000	202.209	1543977.17	0.3997	A	0.7
7	☐	1.000					

y = 0.0017 * x + 0.0487
R = 0.9996
DL = 0.9916
BEC = 28.08

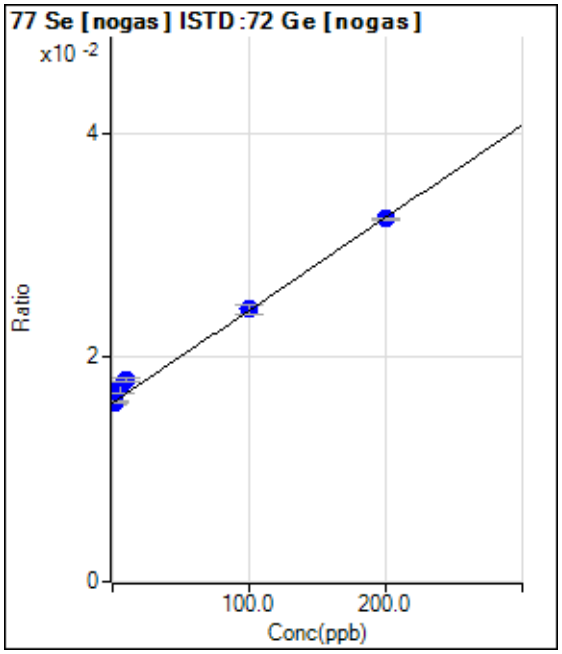
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1078.93	0.0010	P	5.8
2	☐	2.000	2.040	4959.59	0.0045	P	9.2
3	☐	5.000	5.283	10997.79	0.0100	P	1.3
4	☐	10.000	10.599	20835.22	0.0192	P	2.6
5	☐	100.000	102.555	190633.76	0.1769	P	1.4
6	☐	200.000	198.685	366710.21	0.3417	P	1.8
7	☐	1.000					

y = 0.0017 * x + 9.7741E-004
R = 0.9999
DL = 0.0993
BEC = 0.5699

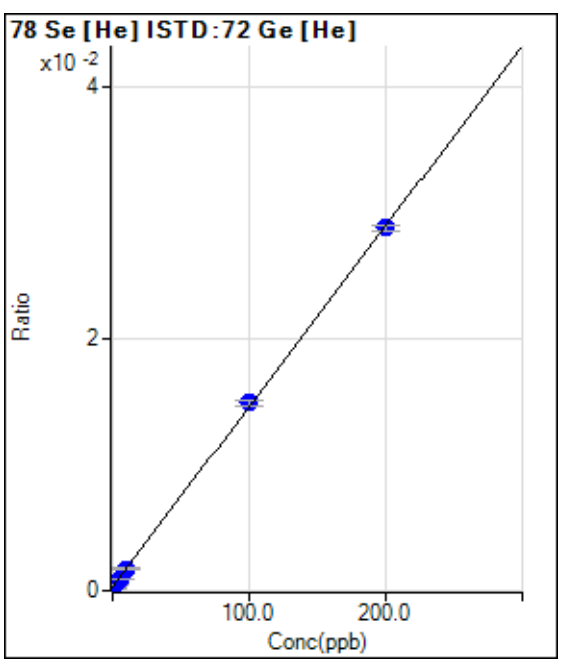
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	64878.99	0.0160	P	2.5
2	☐	2.000	0.949	65919.11	0.0160	P	2.0
3	☐	5.000	17.043	67923.40	0.0174	P	5.6
4	☐	10.000	24.821	73173.45	0.0180	P	2.1
5	☐	100.000	101.037	96534.90	0.0243	P	3.9
6	☐	200.000	198.450	125029.11	0.0324	P	0.6
7	☐	1.000					

y = 8.2684E-005 * x + 0.0160
R = 0.9966
DL = 14.4
BEC = 193

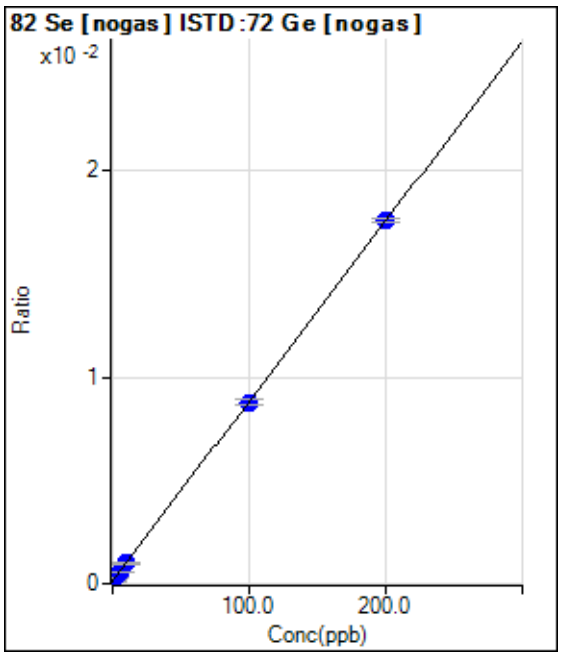
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.458	243.33	0.0002	P	12.0
2	☐	2.000	1.703	588.01	0.0005	P	6.5
3	☐	5.000	4.793	1065.37	0.0010	P	1.1
4	☐	10.000	9.944	1860.10	0.0017	P	5.7
5	☐	100.000	102.015	16053.09	0.0149	P	3.7
6	☐	200.000	199.003	30892.06	0.0288	P	1.4
7	☐	1.000					

y = 1.4321E-004 * x + 2.8606E-004
R = 0.9999
DL = 0.5537
BEC = 1.998

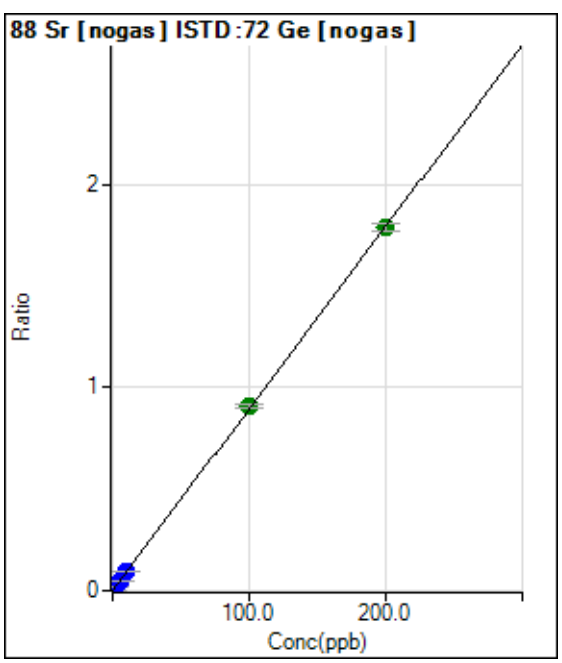
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	523.35	0.0001	P	28.7
2	☐	2.000	1.604	1103.39	0.0003	P	19.1
3	☐	5.000	5.208	2283.51	0.0006	P	2.2
4	☐	10.000	10.130	4103.86	0.0010	P	10.9
5	☐	100.000	99.502	34923.83	0.0088	P	3.9
6	☐	200.000	200.241	67856.78	0.0176	P	0.9
7	☐	1.000					

y = 8.7088E-005 * x + 1.2881E-004
R = 1.0000
DL = 1.275
BEC = 1.479

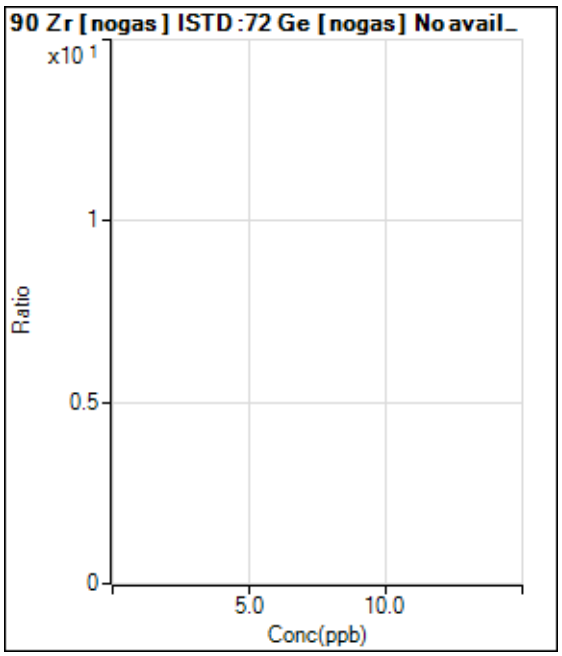
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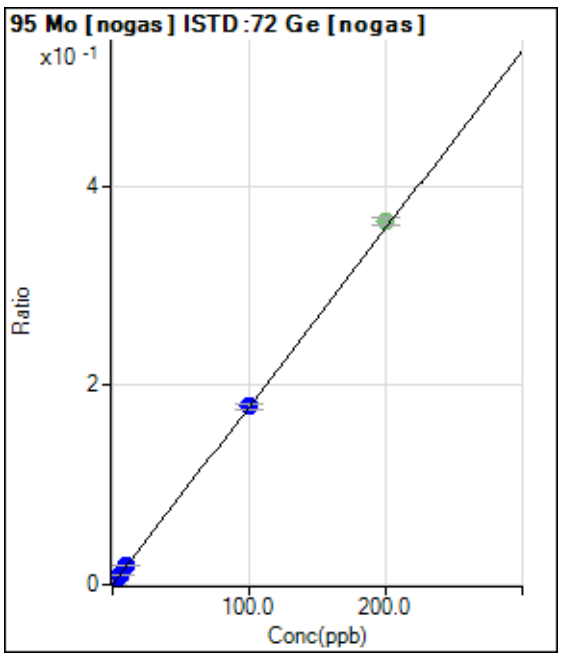
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1773.45	0.0004	P	14.7
2	☐	2.000	1.981	74782.43	0.0182	P	1.4
3	☐	5.000	5.347	189018.48	0.0484	P	7.2
4	☐	10.000	10.323	377706.70	0.0930	P	1.4
5	☐	100.000	101.070	3601432.13	0.9064	A	2.0
6	☐	200.000	199.440	6906295.11	1.7881	A	2.1
7	☐	1.000					

y = 0.0090 * x + 4.3656E-004
R = 1.0000
DL = 0.02151
BEC = 0.0487

Weight: <None>
Min Conc: <None>



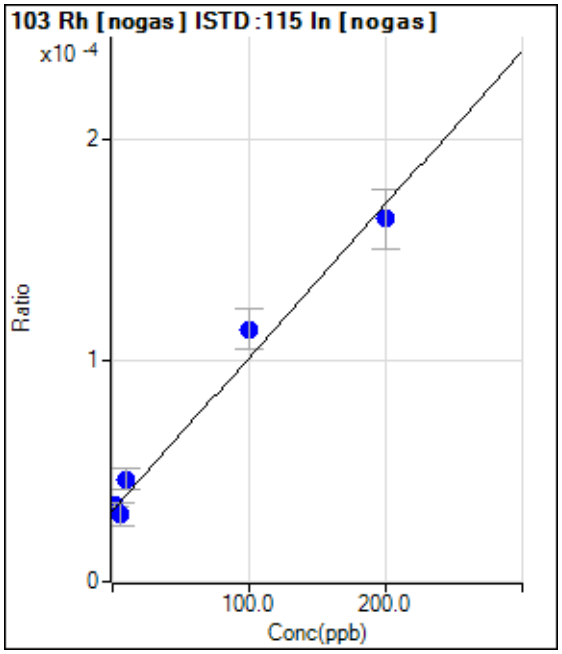
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0000	P	8.9
2	☐	2.000	1.944	14382.65	0.0035	P	1.6
3	☐	5.000	5.325	37295.83	0.0095	P	5.7
4	☐	10.000	10.377	75365.89	0.0186	P	2.3
5	☐	100.000	99.947	708762.91	0.1784	P	2.4
6	☑	200.000		1405652.17	0.3639	A	2.0
7	☐	1.000					

y = 0.0018 * x + 2.8680E-005
R = 1.0000
DL = 0.004309
BEC = 0.01607

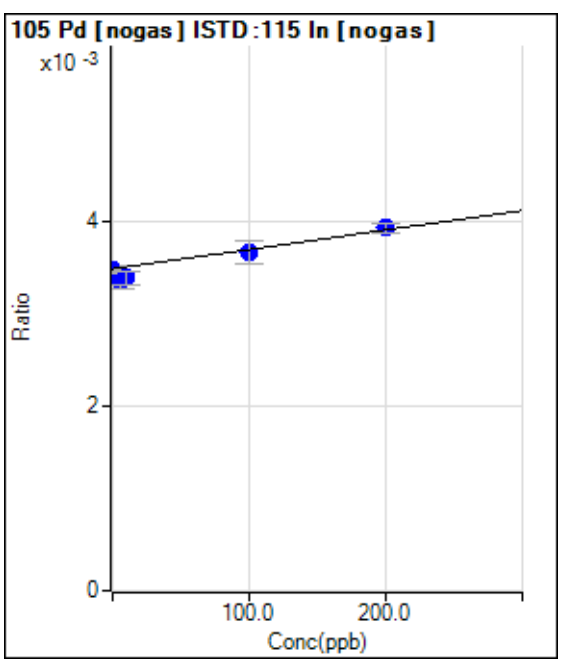
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.33	0.0000	P	12.5
2	☐	2.000	3.608	133.33	0.0000	P	4.2
3	☐	5.000	-2.612	110.00	0.0000	P	34.1
4	☐	10.000	20.616	180.00	0.0000	P	21.9
5	☐	100.000	118.568	423.35	0.0001	P	16.4
6	☐	200.000	190.360	593.35	0.0002	P	16.5
7	☐	1.000					

y = 6.9217E-007 * x + 3.2094E-005
R = 0.9913
DL = 17.36
BEC = 46.37

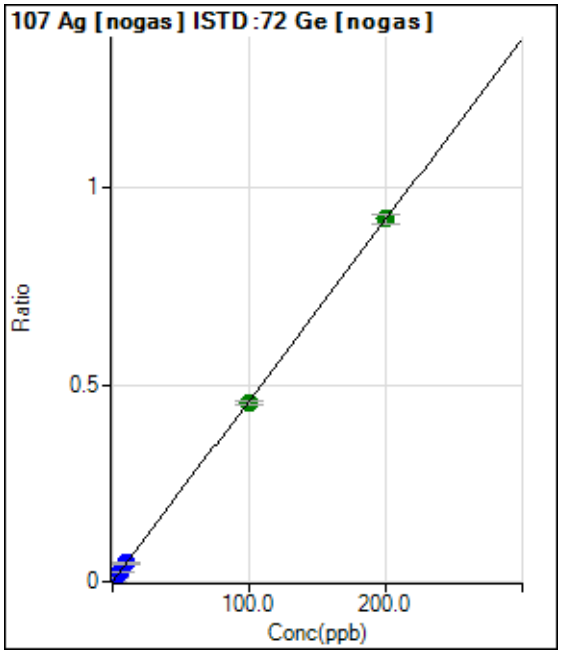
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13378.57	0.0035	P	2.2
2	☐	2.000	-23.357	13225.15	0.0034	P	3.0
3	☐	5.000	-60.434	12194.43	0.0034	P	5.2
4	☐	10.000	-46.001	13195.10	0.0034	P	4.3
5	☐	100.000	88.633	13605.44	0.0037	P	6.9
6	☐	200.000	210.373	14155.90	0.0039	P	2.8
7	☐	1.000					

y = 2.1067E-006 * x + 0.0035
R = 0.9733
DL = 106.6
BEC = 1652

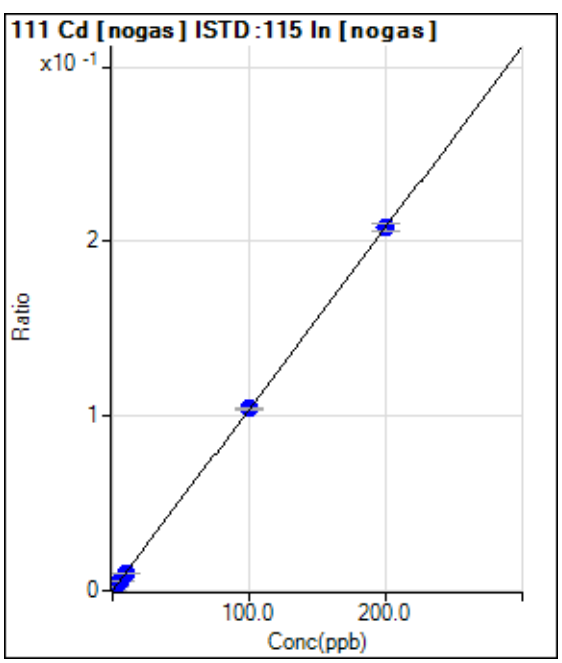
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	193.34	0.0000	P	2.8
2	☐	2.000	1.970	37416.43	0.0091	P	1.0
3	☐	5.000	5.238	94361.45	0.0241	P	4.6
4	☐	10.000	10.153	189755.00	0.0467	P	1.8
5	☐	100.000	99.131	1809848.41	0.4556	A	2.3
6	☐	200.000	200.421	3557429.64	0.9211	A	2.3
7	☐	1.000					

y = 0.0046 * x + 4.7553E-005
R = 1.0000
DL = 0.0008648
BEC = 0.01035

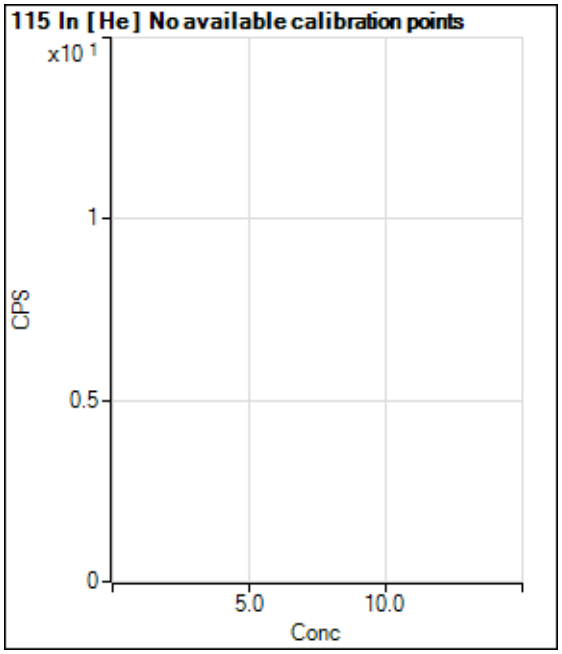
Weight: <None>
Min Conc: <None>



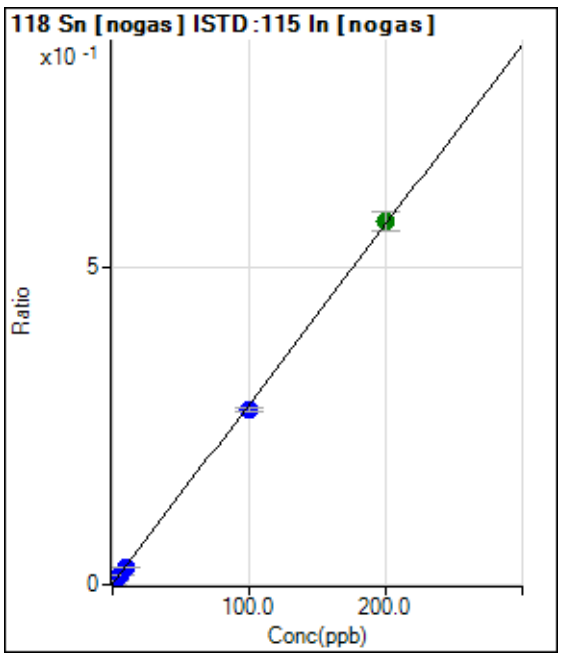
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0000	P	103.
2	☐	2.000	1.962	7898.57	0.0020	P	6.1
3	☐	5.000	5.417	20482.09	0.0056	P	7.1
4	☐	10.000	9.793	39714.89	0.0102	P	4.0
5	☐	100.000	100.190	386577.31	0.1042	P	0.4
6	☐	200.000	199.905	749963.55	0.2079	P	2.0
7	☐	1.000					

y = 0.0010 * x + 9.5714E-006
R = 1.0000
DL = 0.02862
BEC = 0.009206

Weight: <None>
Min Conc: <None>



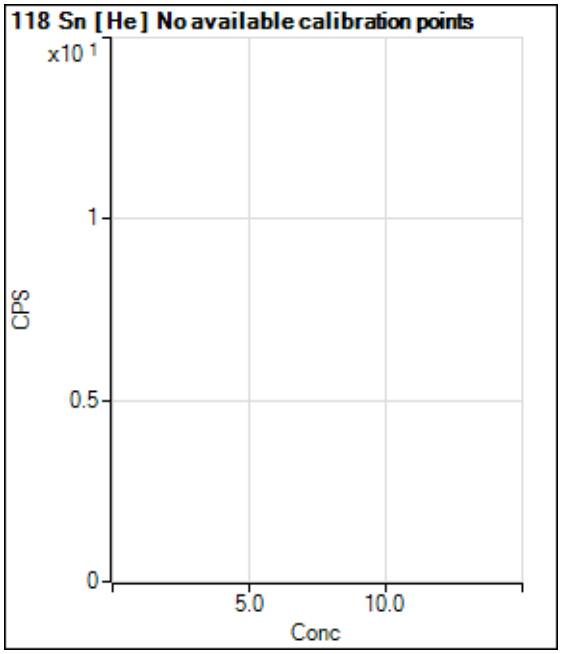
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1460302.08		A	3.8
2	☐			1483192.83		M	10.7
3	☐			1479566.41		A	2.2
4	☐			1429966.52		A	1.1
5	☐			1398997.77		M	4.0
6	☐			1381227.32		A	1.5
7	☐						



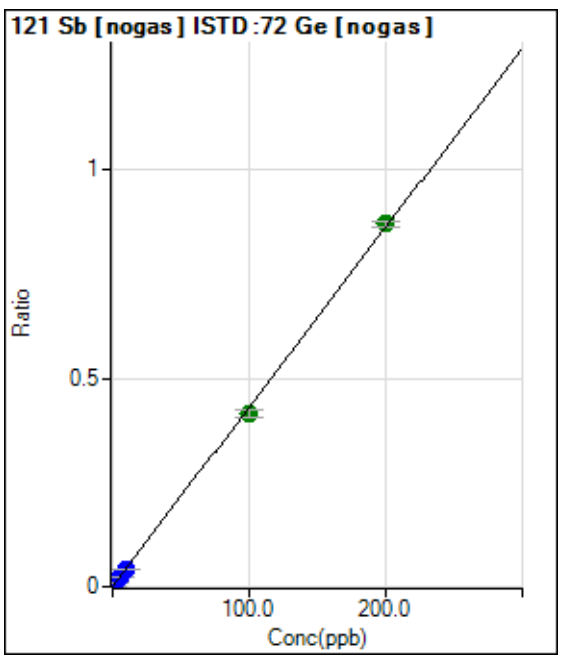
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4794.08	0.0012	P	6.3
2	☐	2.000	1.589	22194.33	0.0058	P	2.0
3	☐	5.000	4.861	54638.59	0.0150	P	7.2
4	☐	10.000	9.416	109061.41	0.0280	P	3.2
5	☐	100.000	97.155	1028027.17	0.2771	P	1.7
6	☐	200.000	201.459	2066594.29	0.5732	A	5.2
7	☐	1.000					

y = 0.0028 * x + 0.0012
R = 0.9999
DL = 0.08296
BEC = 0.4395

Weight: <None>
Min Conc: <None>



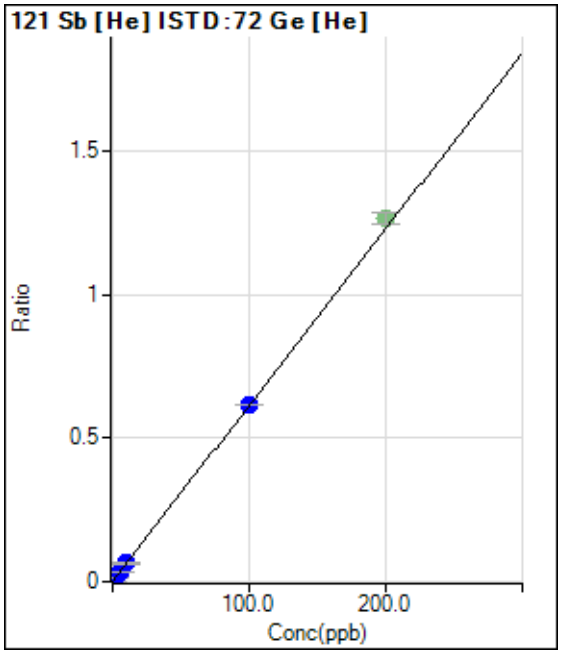
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1936.80		P	11.4
2	☐			9406.01		P	5.0
3	☐			22461.28		P	1.7
4	☐			45425.75		P	2.2
5	☐			432713.52		P	2.3
6	☐			836261.68		P	0.3
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2806.94	0.0007	P	8.1
2	☐	2.000	1.901	36501.71	0.0089	P	0.8
3	☐	5.000	4.935	85832.96	0.0220	P	6.5
4	☐	10.000	9.519	169412.29	0.0417	P	2.3
5	☐	100.000	95.864	1642797.37	0.4137	A	4.5
6	☐	200.000	202.095	3365545.47	0.8714	A	1.9
7	☐	1.000					

y = 0.0043 * x + 6.9086E-004
R = 0.9997
DL = 0.03899
BEC = 0.1604

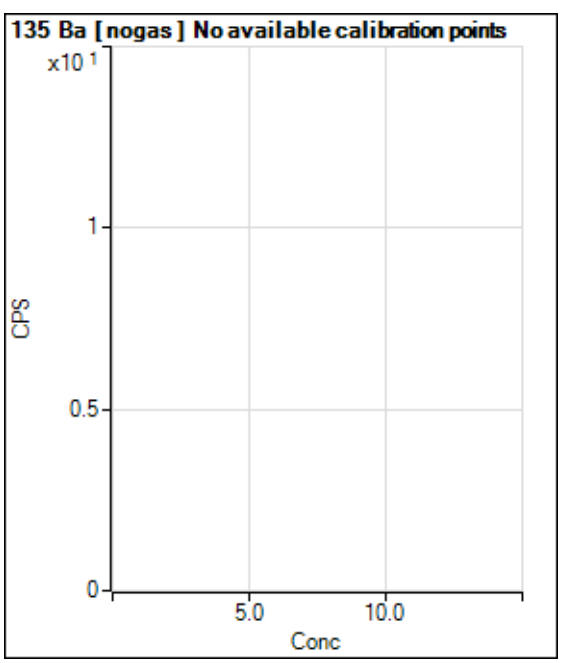
Weight: <None>
Min Conc: <None>



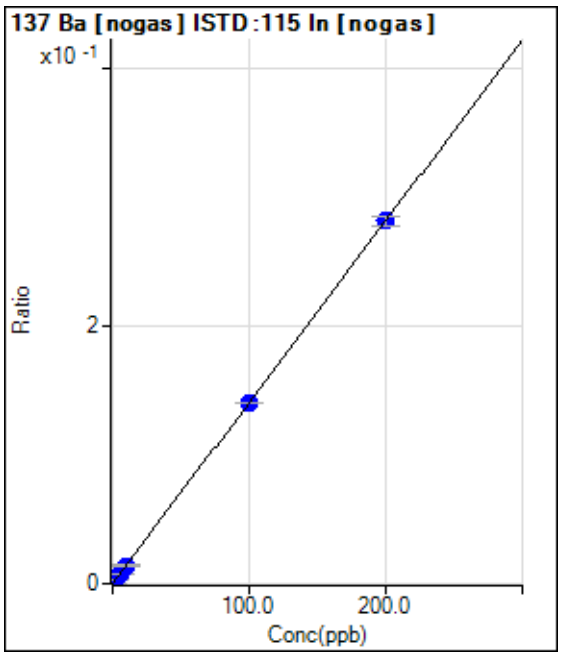
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1240.07	0.0011	P	8.7
2	☐	2.000	2.013	14959.92	0.0135	P	5.3
3	☐	5.000	5.078	35369.32	0.0323	P	1.2
4	☐	10.000	10.257	69698.35	0.0641	P	1.3
5	☐	100.000	99.970	662625.80	0.6147	P	0.2
6	☑	200.000		1357151.70	1.2648	A	3.1
7	☐	1.000					

y = 0.0061 * x + 0.0011
R = 1.0000
DL = 0.04796
BEC = 0.1828

Weight: <None>
Min Conc: <None>



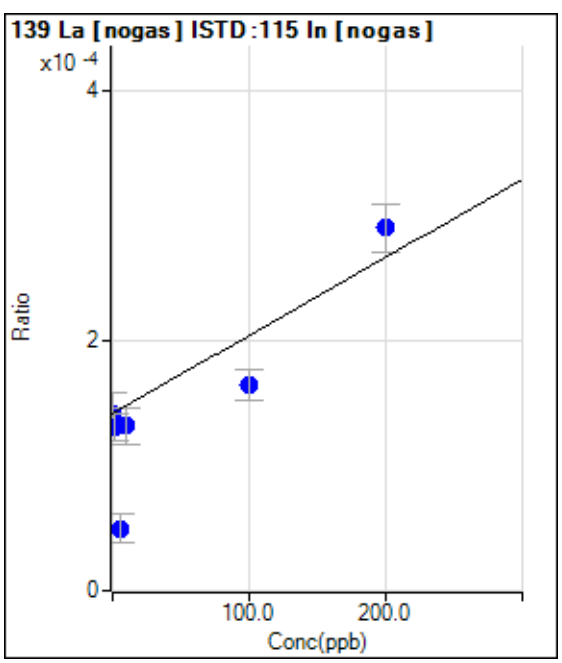
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			90.00		P	11.1
2	☐			5971.14		P	2.6
3	☐			15600.61		P	2.5
4	☐			31485.50		P	1.6
5	☐			295401.93		P	0.2
6	☐			582116.79		P	0.5
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.33	0.0000	P	20.1
2	☐	2.000	2.050	11290.55	0.0029	P	3.9
3	☐	5.000	5.424	27922.87	0.0077	P	3.1
4	☐	10.000	9.901	54516.21	0.0140	P	3.3
5	☐	100.000	99.690	521092.18	0.1404	P	0.5
6	☐	200.000	200.149	1016957.07	0.2819	P	2.3
7	☐	1.000					

y = 0.0014 * x + 4.2522E-005
R = 1.0000
DL = 0.01824
BEC = 0.0302

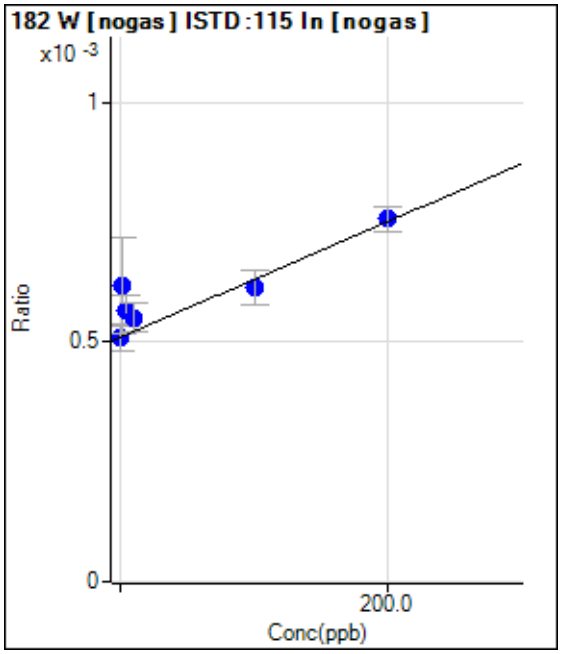
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	546.69	0.0001	P	22.7
2	☐	2.000	-18.240	503.35	0.0001	P	16.0
3	☐	5.000	-147.556	180.00	0.0000	P	45.2
4	☐	10.000	-16.330	516.69	0.0001	P	21.3
5	☐	100.000	35.434	610.02	0.0002	P	15.1
6	☐	200.000	237.616	1046.72	0.0003	P	13.5
7	☐	1.000					

y = 6.2565E-007 * x + 1.4214E-004
R = 0.8842
DL = 154.8
BEC = 227.2

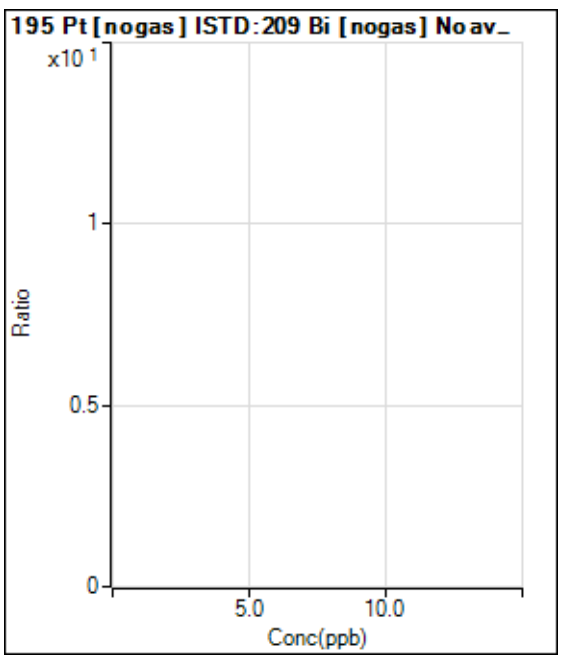
Weight: <None>
Min Conc: <None>



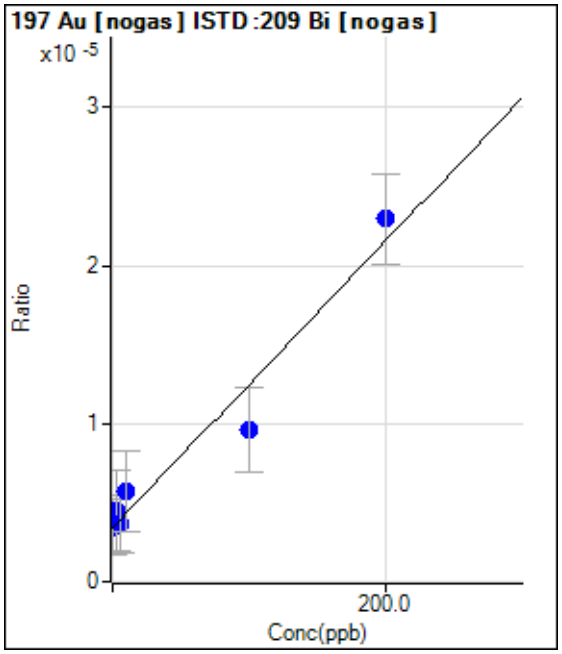
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1956.81	0.0005	P	10.8
2	☐	2.000	89.357	2374.71	0.0006	P	32.0
3	☐	5.000	45.699	2046.83	0.0006	P	11.5
4	☐	10.000	34.380	2150.17	0.0006	P	11.4
5	☐	100.000	85.466	2273.53	0.0006	P	11.9
6	☐	200.000	204.157	2726.94	0.0008	P	6.9
7	☐	1.000					

y = 1.2103E-006 * x + 5.0932E-004
R = 0.8936
DL = 136.3
BEC = 420.8

Weight: <None>
Min Conc: <None>



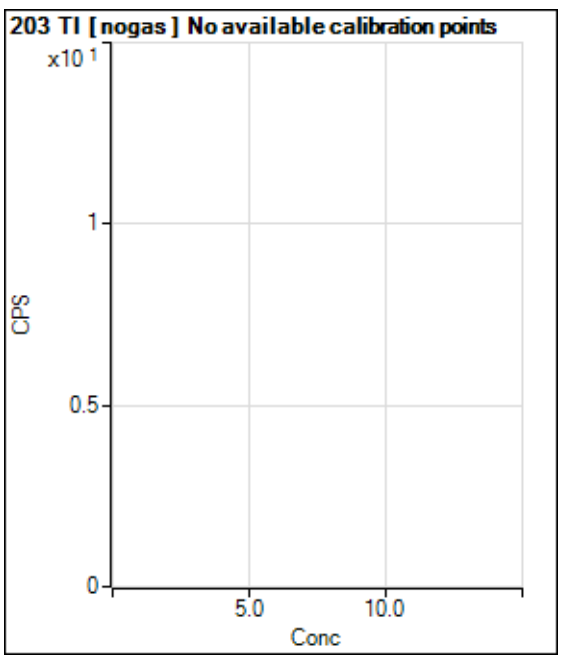
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



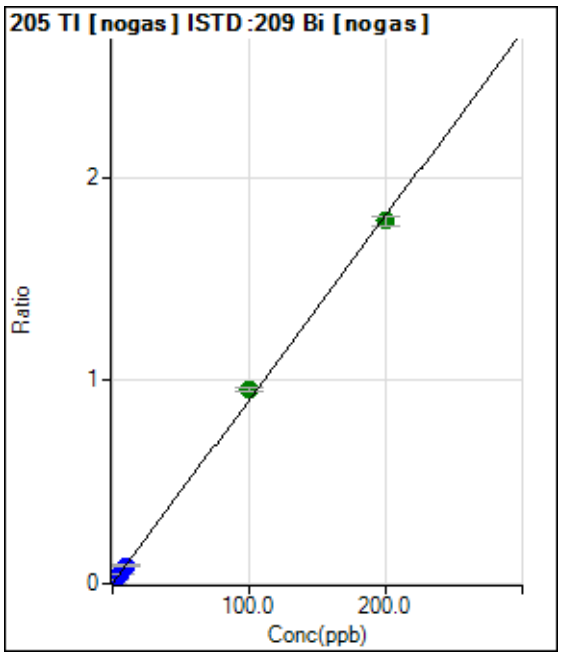
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	102.
2	☐	2.000	11.580	13.33	0.0000	P	114.
3	☐	5.000	2.120	10.00	0.0000	P	102.
4	☐	10.000	24.773	16.67	0.0000	P	90.4
5	☐	100.000	68.075	26.67	0.0000	P	56.5
6	☐	200.000	215.200	63.33	0.0000	P	24.6
7	☐	1.000					

y = 9.0636E-008 * x + 3.4566E-006
R = 0.9770
DL = 116.9
BEC = 38.14

Weight: <None>
Min Conc: <None>



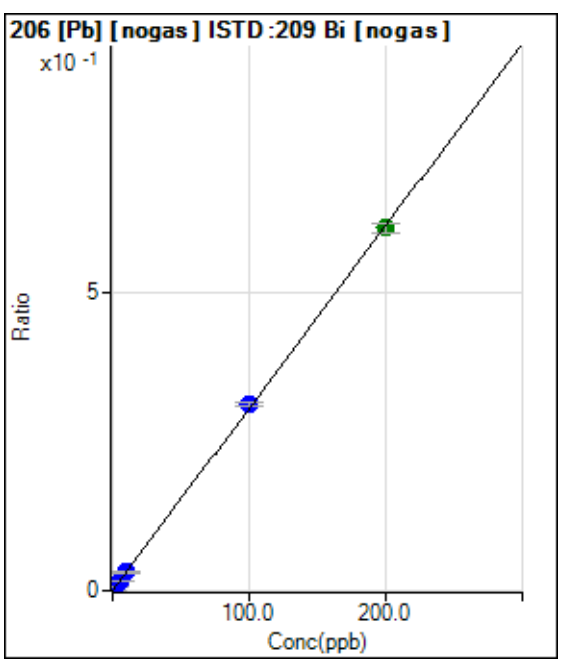
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			66.67		P	43.3
2	☐			22619.28		P	4.5
3	☐			56059.99		P	0.9
4	☐			110197.16		P	3.0
5	☐			1072198.73		P	2.1
6	☐			2095485.54		A	2.5
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	250.01	0.0001	P	10.3
2	☐	2.000	1.978	52538.18	0.0180	P	4.7
3	☐	5.000	5.267	133016.07	0.0477	P	2.0
4	☐	10.000	9.799	259152.39	0.0887	P	4.0
5	☐	100.000	105.529	2632953.14	0.9547	A	2.1
6	☐	200.000	197.239	4924223.99	1.7843	A	2.6
7	☐	1.000					

y = 0.0090 * x + 8.6439E-005
R = 0.9995
DL = 0.002957
BEC = 0.009556

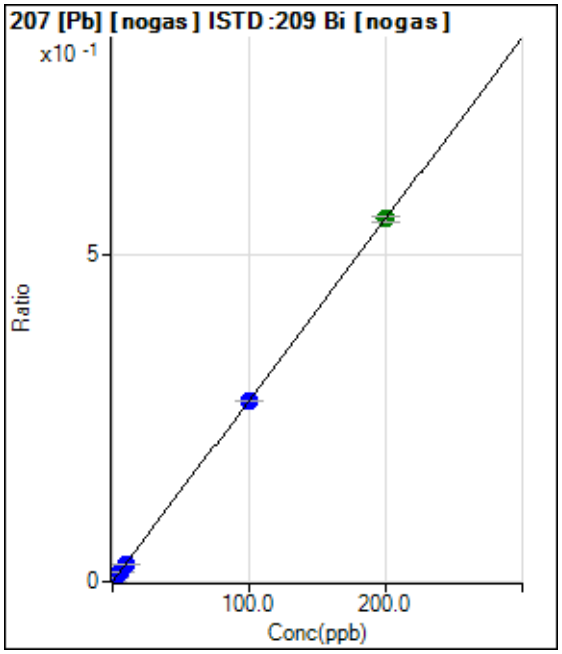
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	266.67	0.0001	P	26.6
2	☐	2.000	2.005	18180.44	0.0062	P	5.5
3	☐	5.000	5.349	45814.27	0.0164	P	3.2
4	☐	10.000	9.997	89563.09	0.0307	P	3.0
5	☐	100.000	102.013	860369.44	0.3120	P	1.8
6	☐	200.000	198.985	1679119.19	0.6084	A	2.6
7	☐	1.000					

y = 0.0031 * x + 9.2198E-005
R = 0.9999
DL = 0.02404
BEC = 0.03016

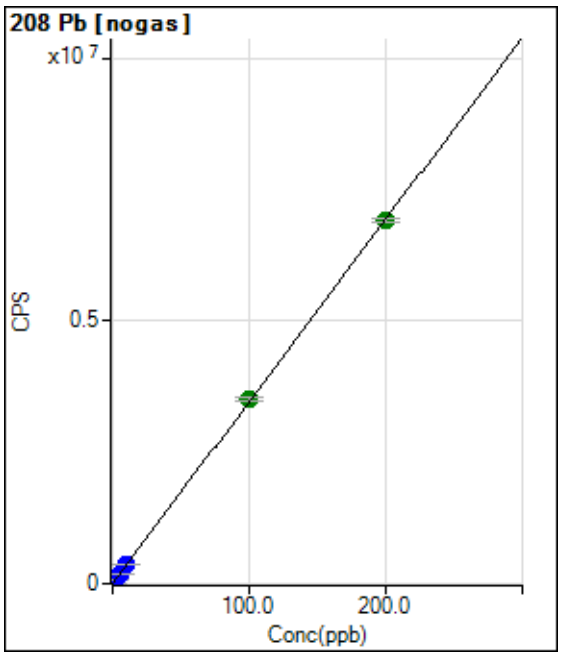
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	206.67	0.0001	P	23.1
2	☐	2.000	1.939	15907.98	0.0054	P	1.6
3	☐	5.000	5.173	40093.15	0.0144	P	4.7
4	☐	10.000	9.878	80157.43	0.0274	P	1.3
5	☐	100.000	99.891	763066.86	0.2767	P	0.3
6	☐	200.000	200.057	1528985.86	0.5540	A	1.7
7	☐	1.000					

y = 0.0028 * x + 7.1664E-005
R = 1.0000
DL = 0.01792
BEC = 0.02588

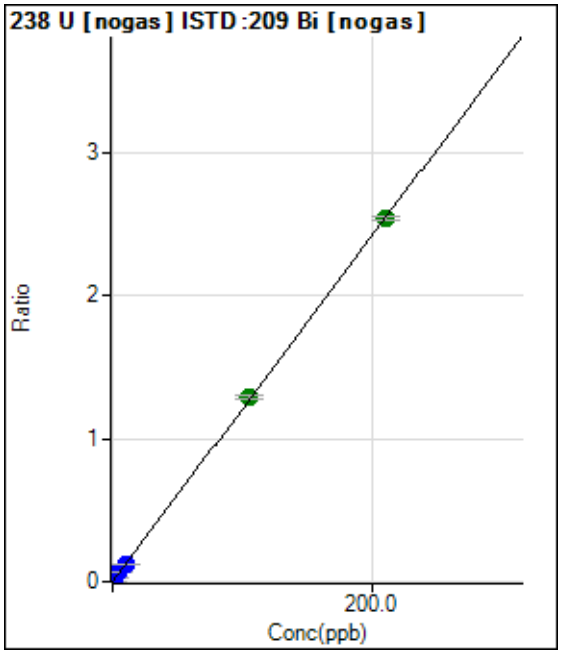
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	903.36		P	6.5
2	☐	2.000	2.088	73182.32		P	1.8
3	☐	5.000	5.267	183220.58		P	1.5
4	☐	10.000	10.513	364789.67		P	2.2
5	☐	100.000	101.336	3508378.56		A	1.7
6	☐	200.000	199.299	6899134.27		A	1.2
7	☐	1.000					

y = 34612.4740 * x + 903.3633
R = 1.0000
DL = 0.005079
BEC = 0.0261

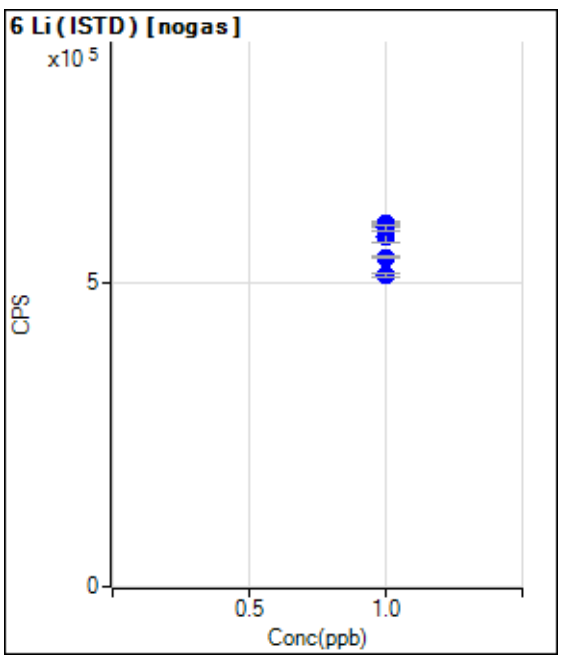
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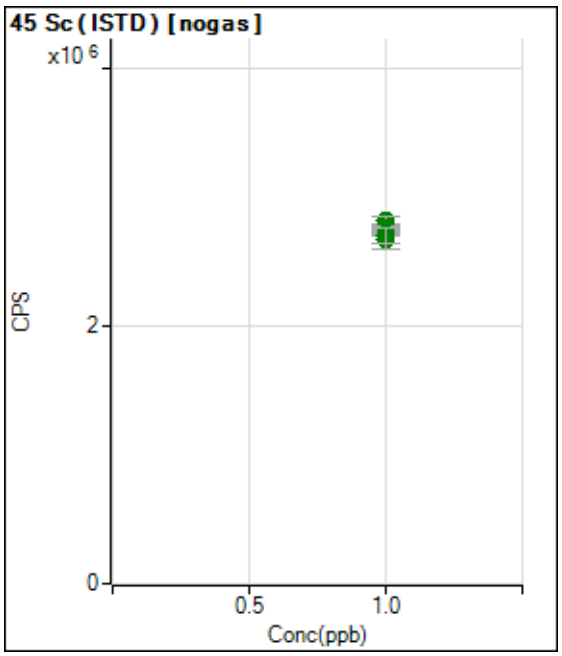
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.00	0.0000	P	8.8
2	☐	2.000	1.906	67640.43	0.0231	P	2.2
3	☐	5.000	5.257	177464.55	0.0638	P	6.1
4	☐	10.000	10.035	355463.95	0.1217	P	2.7
5	☐	105.000	106.189	3549468.07	1.2870	A	1.9
6	☐	210.000	209.399	7004844.06	2.5379	A	1.0
7	☐	1.000					

y = 0.0121 * x + 4.4878E-005
R = 1.0000
DL = 0.0009782
BEC = 0.003703

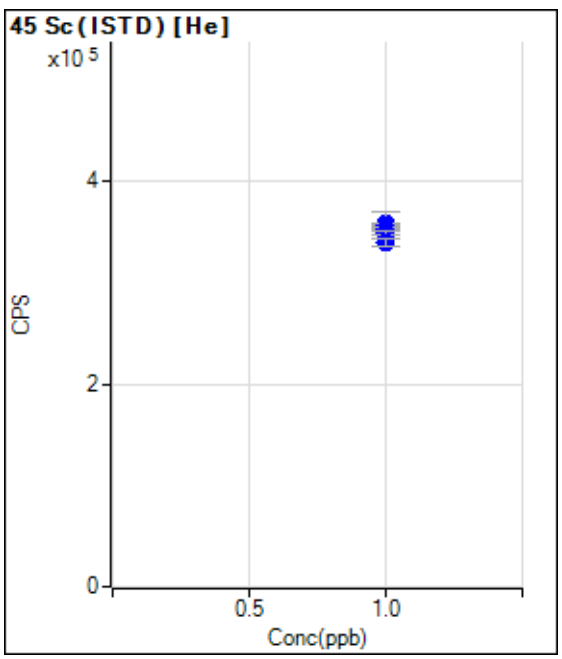
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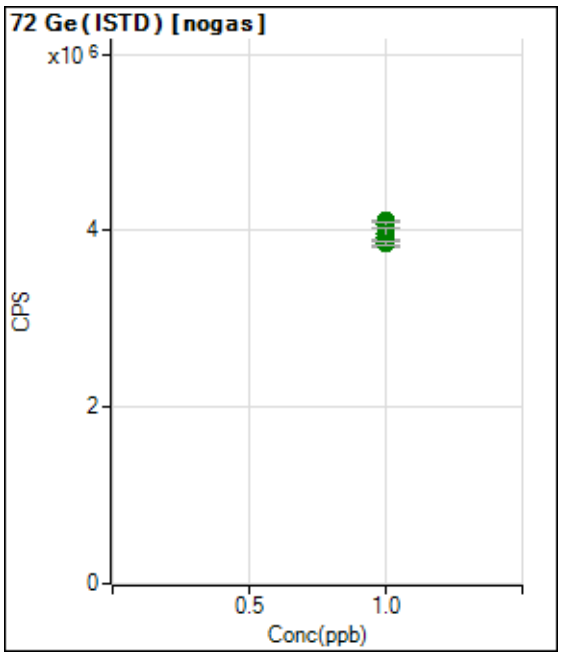
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1	☐	1.000		595542.61		P	1.6
2	☐	1.000		595242.03		P	0.9
3	☐	1.000		575210.80		P	3.1
4	☐	1.000		589824.58		P	1.5
5	☐	1.000		541044.50		P	0.3
6	☐	1.000		510273.09		P	1.3
7	☐	1.000					



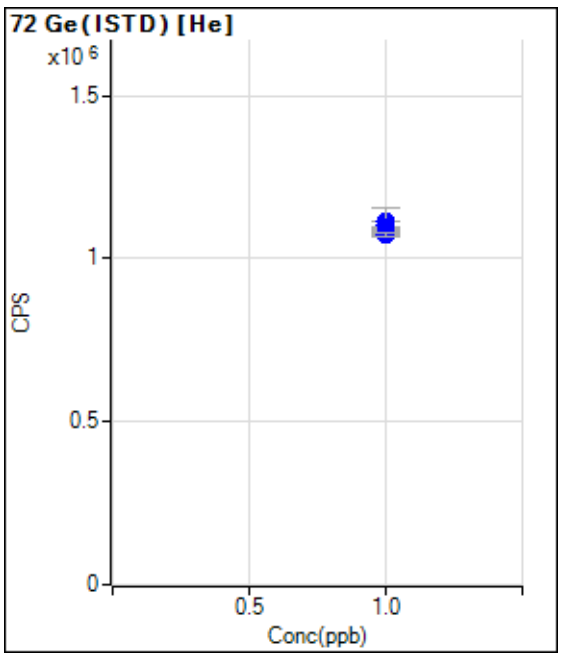
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2739824.54		A	3.7
2	☐	1.000		2811112.04		A	2.8
3	☐	1.000		2664331.05		A	5.0
4	☐	1.000		2757054.96		A	1.1
5	☐	1.000		2709017.46		A	0.7
6	☐	1.000		2702358.61		A	4.3
7	☐	1.000					



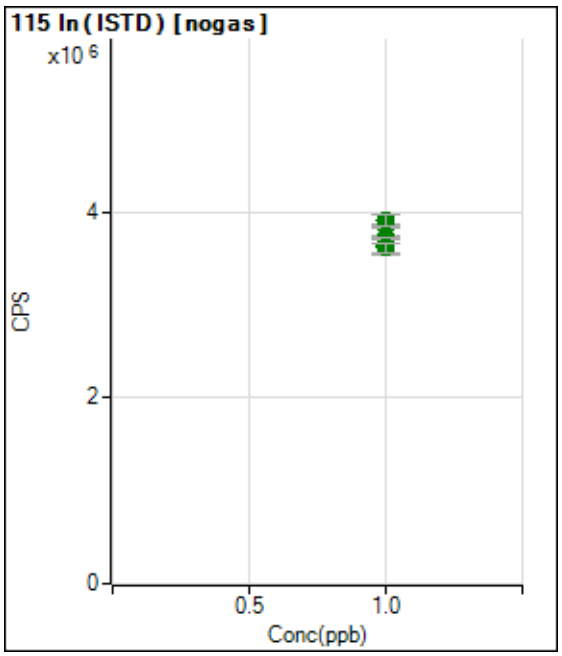
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1	☐	1.000		357691.96		P	0.3
2	☐	1.000		356581.83		P	7.7
3	☐	1.000		355668.97		P	1.4
4	☐	1.000		352615.51		P	1.0
5	☐	1.000		348374.30		P	1.1
6	☐	1.000		339627.33		P	1.9
7	☐	1.000					



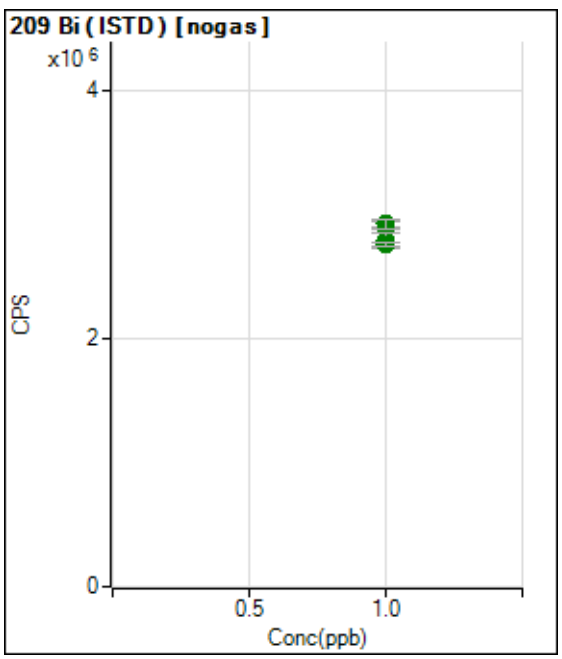
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1	☐	1.000		4065875.04		A	1.6
2	☐	1.000		4110657.13		A	0.6
3	☐	1.000		3919453.48		A	5.9
4	☐	1.000		4063472.65		A	2.0
5	☐	1.000		3973927.13		A	3.3
6	☐	1.000		3862640.98		A	1.1
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1104608.71		P	2.0
2	☐	1.000		1112928.29		P	7.4
3	☐	1.000		1095517.27		P	0.8
4	☐	1.000		1087909.83		P	1.1
5	☐	1.000		1078032.90		P	1.3
6	☐	1.000		1073327.25		P	1.5
7	☐	1.000					



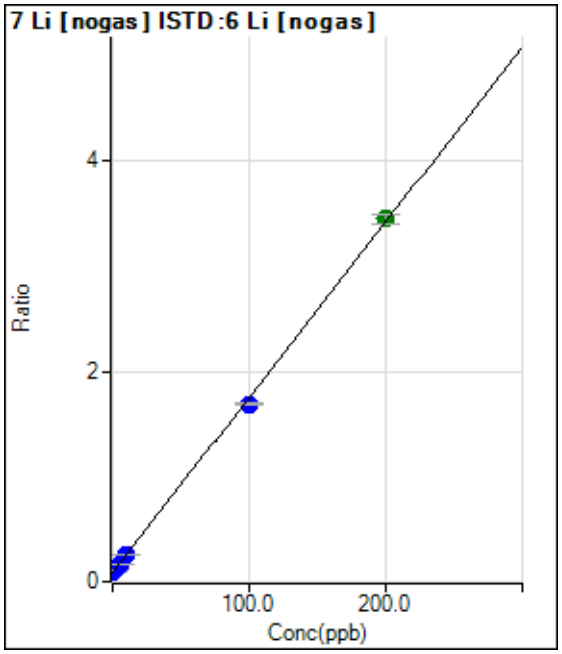
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3843287.31		A	0.5
2	☐	1.000		3854605.58		A	1.1
3	☐	1.000		3639726.36		A	5.5
4	☐	1.000		3900216.21		A	3.2
5	☐	1.000		3710841.73		A	0.7
6	☐	1.000		3609524.82		A	3.1
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2899549.85		A	3.6
2	☐	1.000		2923356.21		A	1.7
3	☐	1.000		2788279.02		A	4.2
4	☐	1.000		2923122.46		A	2.9
5	☐	1.000		2758217.36		A	1.2
6	☐	1.000		2759956.32		A	0.8
7	☐	1.000					

Batch Folder: C:\Agilent\ICPMH\1\DATA\090518A.b\
Analysis File: 090518A.batch.bin
DA Date-Time: 2018-09-05 16:21:00
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

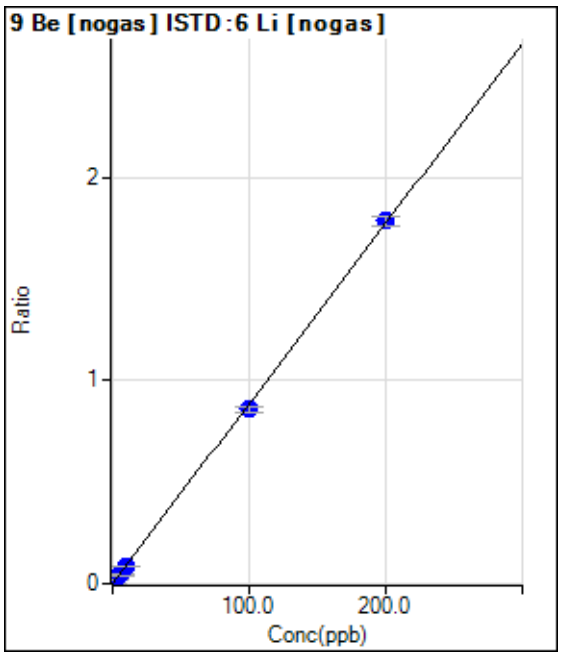
Level	Standard Data File	Sample Name	Acq. Date-Time
1	051CALB.d	CAL BLK	2018-09-05 13:22:04
2	052CALS.d	2/10/200	2018-09-05 13:24:03
3	053CALS.d	5/25/500	2018-09-05 13:26:01
4	054CALS.d	10/50/1000	2018-09-05 13:28:00
5	055CALS.d	100/500/10K	2018-09-05 13:29:58
6	056CALS.d	200/1000/20K	2018-09-05 13:31:58
7			



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46998.01	0.0864	P	0.4
2	☐	2.000	1.894	61599.86	0.1179	P	3.6
3	☐	5.000	4.891	85426.73	0.1678	P	1.7
4	☐	10.000	10.048	127360.47	0.2536	P	1.0
5	☐	100.000	96.224	785077.83	1.6883	P	1.2
6	☐	200.000	201.890	1529869.93	3.4475	A	2.4
7	☐	1.000					

y = 0.0166 * x + 0.0864
R = 0.9998
DL = 0.06425
BEC = 5.188

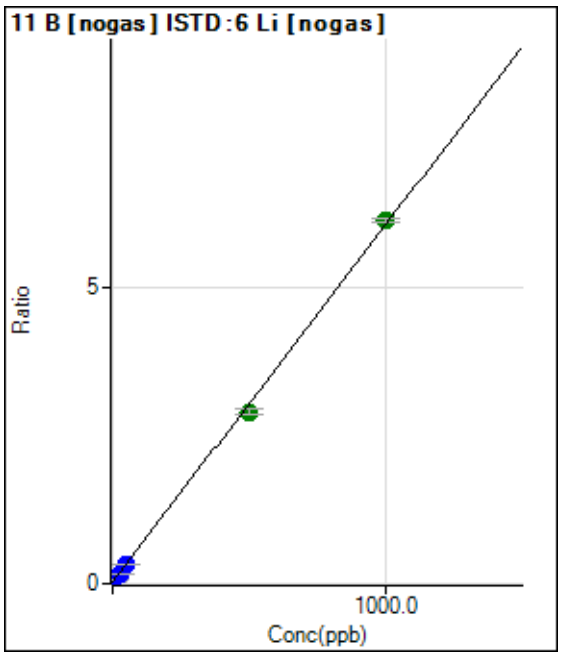
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60.00	0.0001	P	4.2
2	☐	2.000	1.866	8695.44	0.0167	P	6.4
3	☐	5.000	4.827	21832.74	0.0429	P	5.5
4	☐	10.000	9.777	43589.68	0.0868	P	3.3
5	☐	100.000	96.930	399642.42	0.8597	P	2.9
6	☐	200.000	201.552	793259.62	1.7875	P	2.3
7	☐	1.000					

y = 0.0089 * x + 1.1039E-004
R = 0.9998
DL = 0.001576
BEC = 0.01245

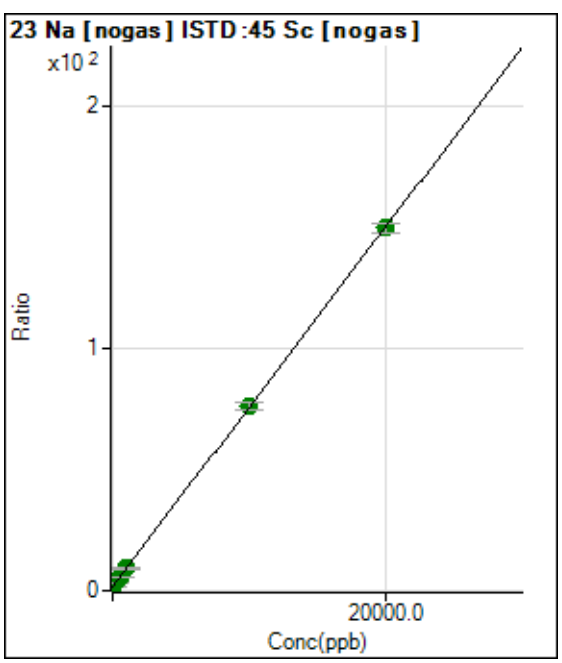
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15880.16	0.0292	P	6.1
2	☐	10.000	8.854	43122.00	0.0826	P	5.3
3	☐	25.000	22.634	84281.25	0.1656	P	3.5
4	☐	50.000	46.907	156605.59	0.3119	P	0.7
5	☐	500.000	477.166	1350133.36	2.9045	A	3.0
6	☐	1000.000	1011.643	2718280.06	6.1251	A	1.0
7	☐	5.000					

y = 0.0060 * x + 0.0292
R = 0.9996
DL = 0.8878
BEC = 4.85

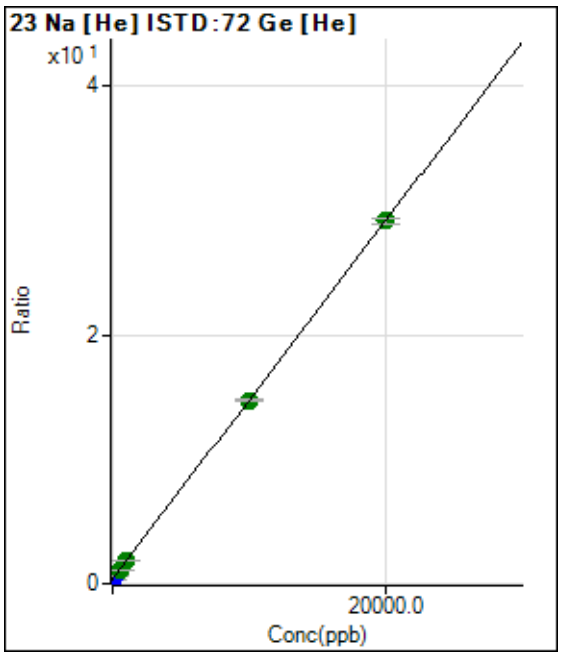
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5066407.41	1.5711	A	4.3
2	☐	200.000	223.252	9668855.68	3.2288	A	7.6
3	☐	500.000	520.053	16590540.47	5.4327	A	0.7
4	☐	1000.000	1029.064	28417499.59	9.2122	A	4.5
5	☐	10000.00	10076.735	224707830.0	76.3938	A	3.6
6	☐	20000.00	19959.445	436914326.4	149.775	A	2.5
7	☐	100.000					

y = 0.0074 * x + 1.5711
R = 1.0000
DL = 27.39
BEC = 211.6

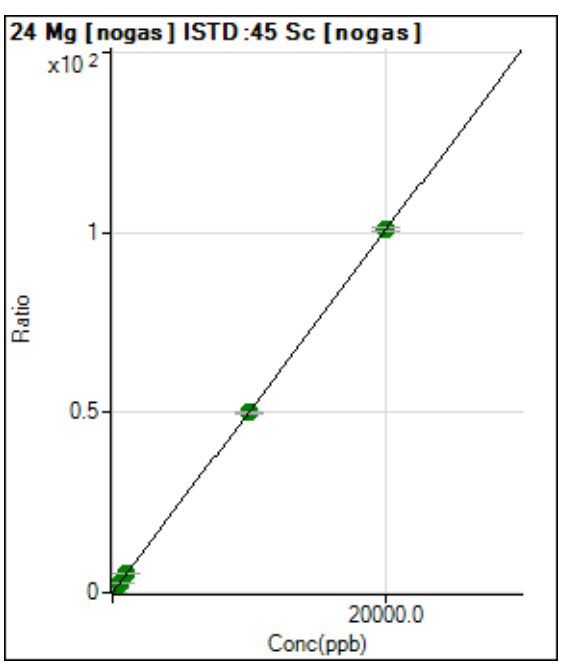
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	454437.97	0.3753	P	2.3
2	☐	200.000	204.697	818245.98	0.6702	P	1.2
3	☐	500.000	533.703	1367416.96	1.1442	A	2.3
4	☐	1000.000	1064.169	2300846.94	1.9085	A	0.6
5	☐	10000.00	9992.227	17406929.74	14.7723	A	0.7
6	☐	20000.00	19999.789	33729791.17	29.1914	A	1.6
7	☐	100.000					

y = 0.0014 * x + 0.3753
R = 1.0000
DL = 18.07
BEC = 260.4

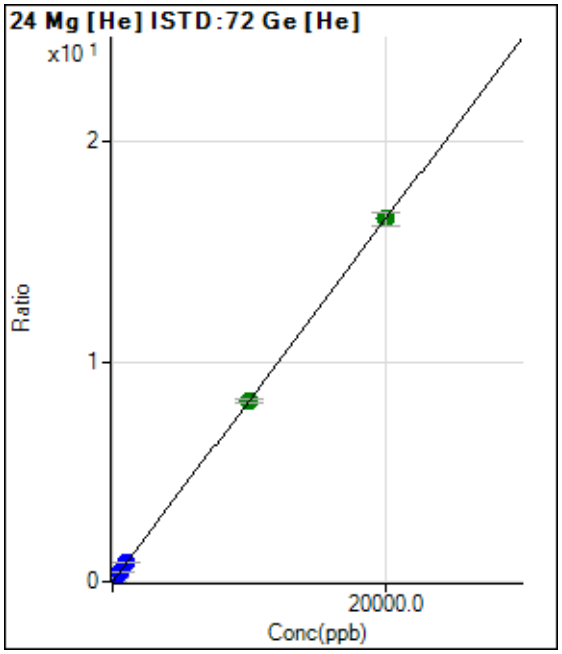
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	18378.73	0.0057	P	4.7
2	☐	200.000	219.582	3323313.74	1.1111	A	10.1
3	☐	500.000	531.198	8183745.50	2.6797	A	1.1
4	☐	1000.000	1040.869	16179964.42	5.2453	A	4.3
5	☐	10000.00	9932.307	147108899.1	50.0041	A	1.7
6	☐	20000.00	20030.828	294238481.5	100.839	A	1.1
7	☐	100.000					

y = 0.0050 * x + 0.0057
R = 1.0000
DL = 0.161
BEC = 1.131

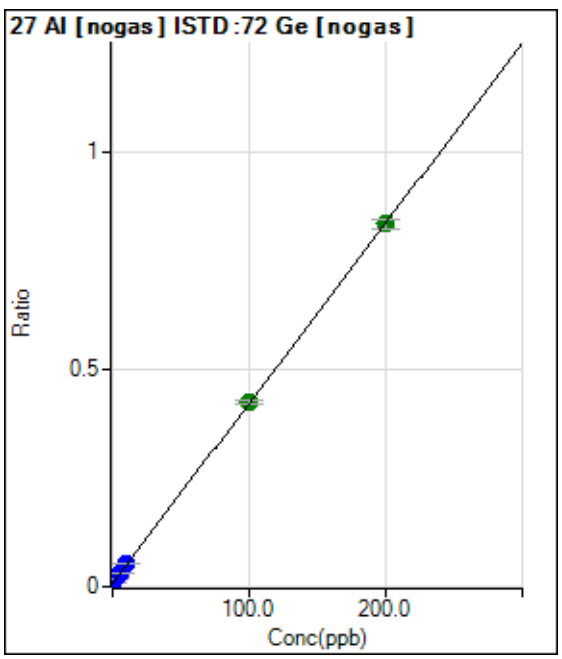
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1326.74	0.0011	P	7.4
2	☐	200.000	212.454	215072.87	0.1762	P	1.8
3	☐	500.000	536.000	529158.23	0.4428	P	1.4
4	☐	1000.000	1058.737	1053068.68	0.8735	P	0.8
5	☐	10000.00	9952.569	9665676.11	8.2023	A	1.7
6	☐	20000.00	20019.754	19060326.38	16.4979	A	3.5
7	☐	100.000					

y = 8.2403E-004 * x + 0.0011
R = 1.0000
DL = 0.2952
BEC = 1.329

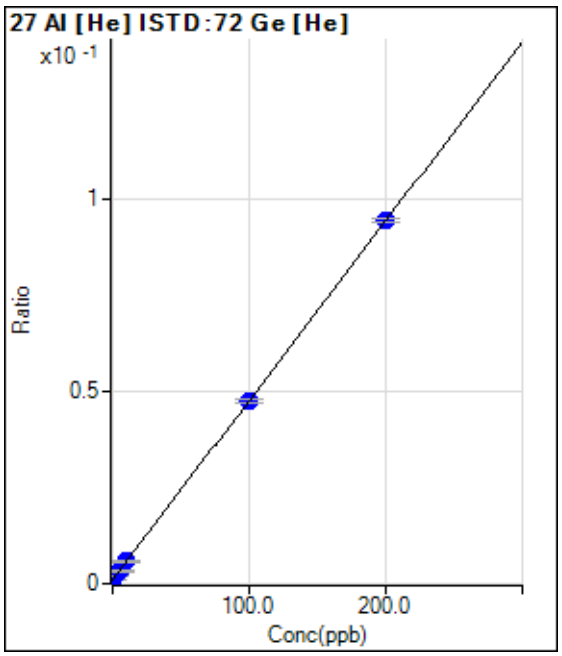
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	34596.24	0.0074	P	3.5
2	☐	2.000	2.445	78348.84	0.0175	P	5.0
3	☐	5.000	5.478	136718.71	0.0301	P	1.6
4	☐	10.000	11.141	241038.25	0.0536	P	2.8
5	☐	100.000	100.453	1891605.34	0.4238	A	2.2
6	☐	200.000	199.700	3603239.63	0.8353	A	2.4
7	☐	1.000					

y = 0.0041 * x + 0.0074
R = 1.0000
DL = 0.1886
BEC = 1.779

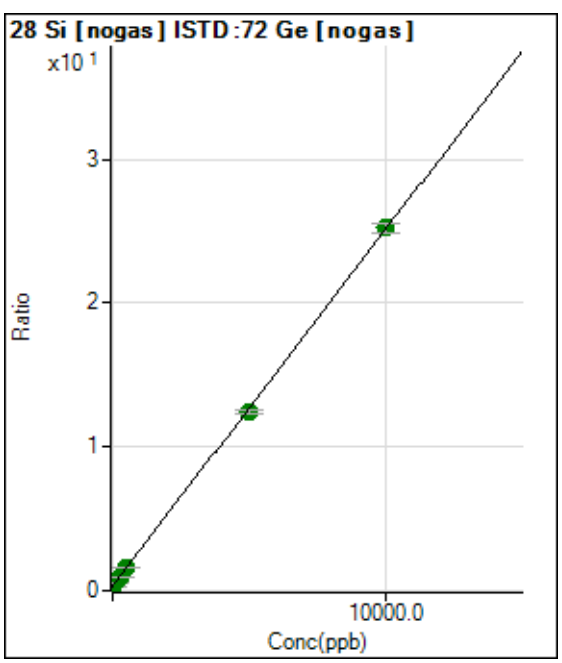
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.364	996.71	0.0008	P	4.6
2	☐	2.000	2.054	2383.52	0.0020	P	2.5
3	☐	5.000	4.871	3907.16	0.0033	P	4.6
4	☐	10.000	10.687	7218.18	0.0060	P	8.2
5	☐	100.000	99.567	55996.17	0.0475	P	1.5
6	☐	200.000	200.185	109236.77	0.0945	P	1.2
7	☐	1.000					

y = 4.6726E-004 * x + 9.9258E-004
R = 1.0000
DL = 0.2422
BEC = 2.124

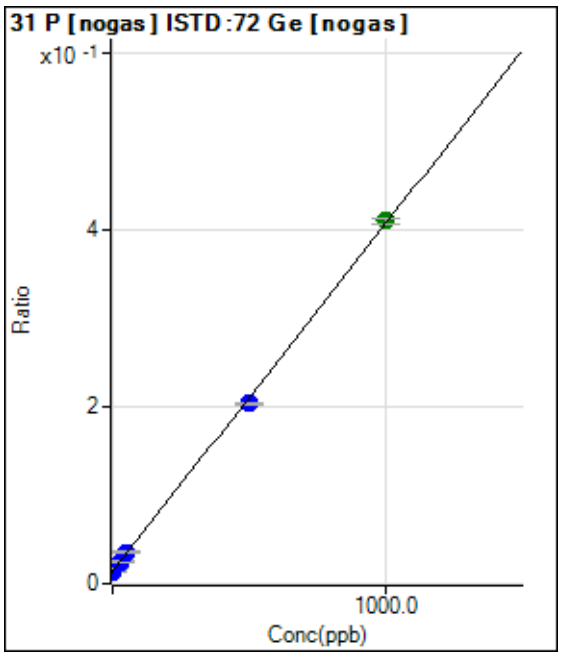
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1509146.07	0.3220	A	5.2
2	☐	100.000	110.059	2661020.27	0.5947	A	4.1
3	☐	250.000	262.016	4413222.12	0.9712	A	2.3
4	☐	500.000	523.295	7284613.23	1.6186	A	2.5
5	☐	5000.000	4906.881	55700227.50	12.4806	A	2.1
6	☐	10000.00	10044.994	108766815.0	25.2123	A	2.6
7	☐	5.000					

y = 0.0025 * x + 0.3220
R = 0.9999
DL = 20.26
BEC = 129.9

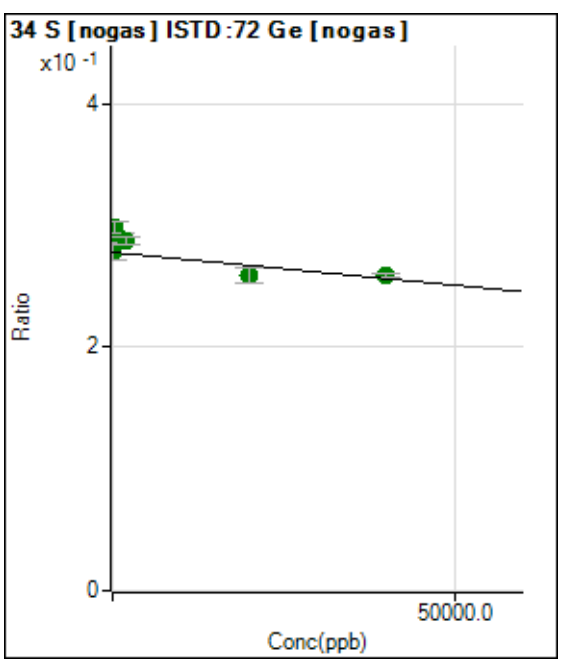
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66098.81	0.0141	P	5.3
2	☐	10.000	12.597	85218.26	0.0191	P	6.3
3	☐	25.000	27.359	112932.15	0.0249	P	2.0
4	☐	50.000	55.336	161294.69	0.0358	P	4.0
5	☐	500.000	481.988	908286.45	0.2035	P	1.8
6	☐	1000.000	1008.654	1770770.02	0.4105	A	1.9
7	☐	5.000					

y = 3.9296E-004 * x + 0.0141
R = 0.9997
DL = 5.744
BEC = 35.89

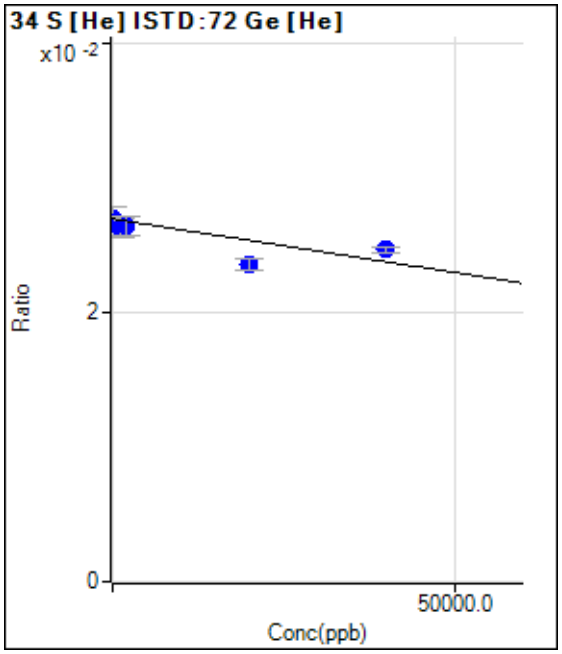
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1303018.45	0.2779	A	4.3
2	☐	400.000	-37137.245	1333331.93	0.2979	A	3.7
3	☐	1000.000	-21254.216	1314604.49	0.2893	A	2.7
4	☐	2000.000	-17380.367	1292760.74	0.2872	A	2.6
5	☐	20000.00	34724.860	1156136.75	0.2591	A	4.9
6	☐	40000.00	34538.316	1118404.58	0.2593	A	0.9
7	☐	100.000					

y = -5.3924E-007 * x + 0.2779
R = -0.8438
DL = -6.572E+04
BEC = -5.153E+05

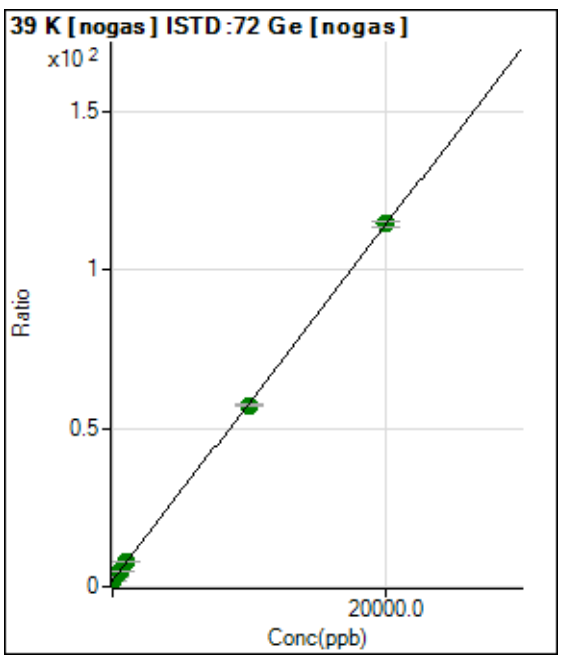
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32634.01	0.0269	P	7.2
2	☐	400.000	3252.647	32567.47	0.0267	P	3.4
3	☐	1000.000	8259.662	31397.83	0.0263	P	5.0
4	☐	2000.000	6945.930	31799.17	0.0264	P	5.2
5	☐	20000.00	42451.365	27757.43	0.0236	P	3.2
6	☐	40000.00	28317.003	28526.38	0.0247	P	1.7
7	☐	100.000					

y = -7.9387E-008 * x + 0.0269
R = -0.7759
DL = -7.323E+04
BEC = -3.392E+05

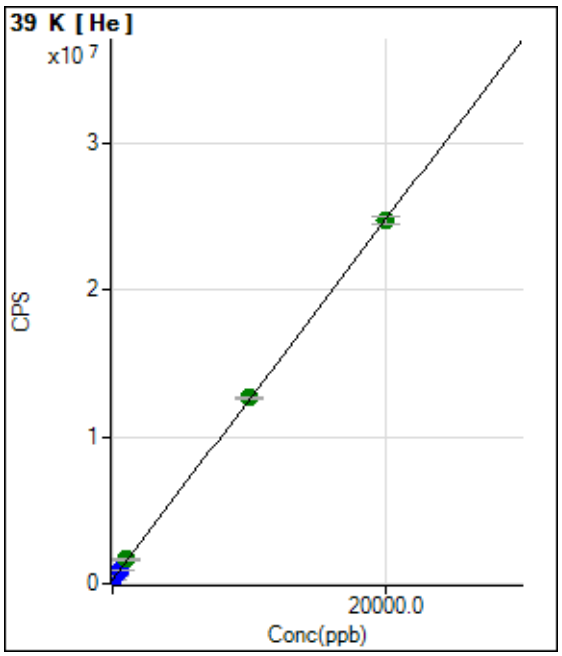
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9160097.08	1.9542	A	4.7
2	☐	200.000	225.877	14410703.97	3.2196	A	3.3
3	☐	500.000	521.047	22142921.85	4.8732	A	1.3
4	☐	1000.000	1049.644	35256146.62	7.8345	A	3.3
5	☐	10000.00	9846.185	254952589.0	57.1149	A	0.9
6	☐	20000.00	20073.640	493571277.7	114.411	A	1.3
7	☐	100.000					

y = 0.0056 * x + 1.9542
R = 1.0000
DL = 49.09
BEC = 348.8

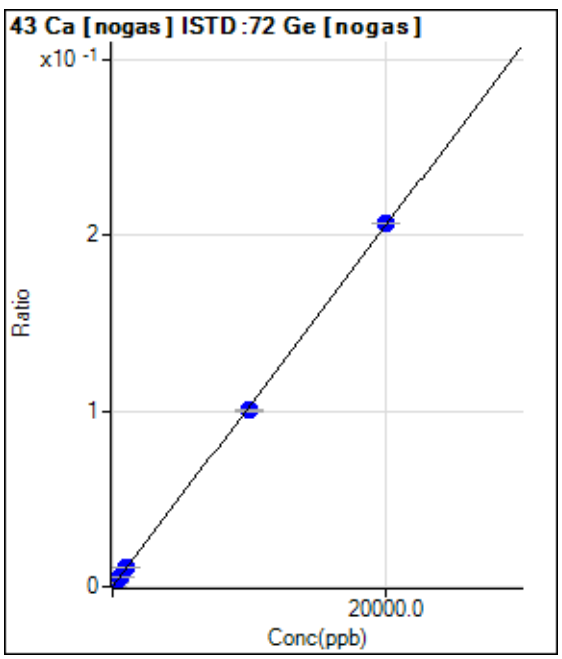
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	275036.63		P	0.7
2	☐	200.000	215.422	538677.10		P	0.9
3	☐	500.000	527.227	920273.74		P	1.1
4	☐	1000.000	1123.745	1650311.95		A	2.0
5	☐	10000.00	10097.789	12633037.31		A	1.2
6	☐	20000.00	19944.083	24683251.30		A	2.0
7	☐	100.000					

y = 1223.8324 * x + 275036.6333
R = 1.0000
DL = 5.02
BEC = 224.7

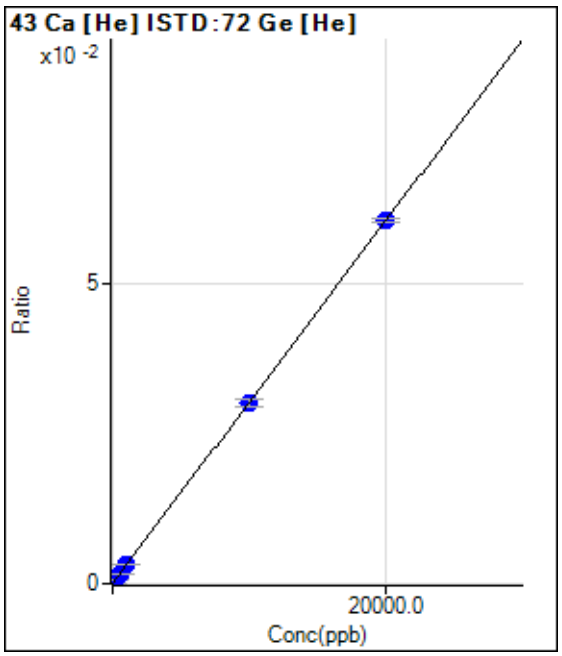
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	776.69	0.0002	P	13.4
2	☐	200.000	226.664	11126.82	0.0025	P	4.4
3	☐	500.000	523.342	25103.92	0.0055	P	3.8
4	☐	1000.000	1066.491	49886.91	0.0111	P	4.4
5	☐	10000.00	9758.382	446851.19	0.1001	P	1.8
6	☐	20000.00	20116.634	889560.09	0.2062	P	0.1
7	☐	100.000					

y = 1.0242E-005 * x + 1.6522E-004
R = 0.9999
DL = 6.479
BEC = 16.13

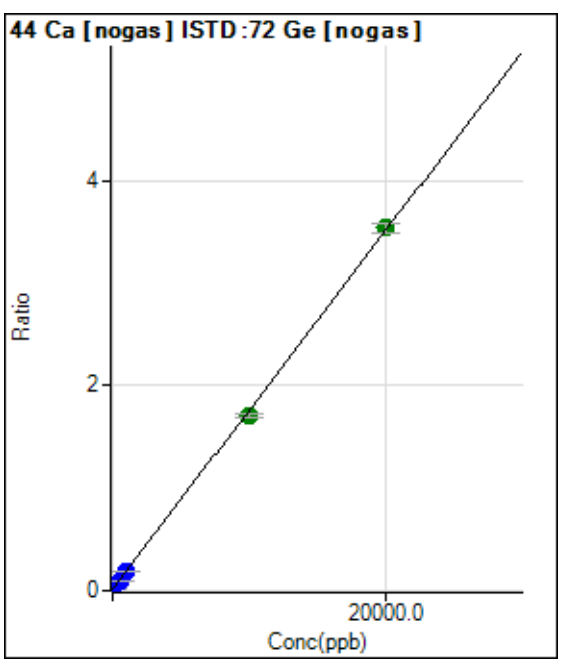
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	61.3
2	☐	200.000	193.768	766.70	0.0006	P	3.1
3	☐	500.000	515.314	1913.46	0.0016	P	4.4
4	☐	1000.000	1044.096	3857.14	0.0032	P	8.7
5	☐	10000.00	9968.612	35577.59	0.0302	P	4.3
6	☐	20000.00	20013.169	70021.17	0.0606	P	1.0
7	☐	100.000					

y = 3.0253E-006 * x + 4.1610E-005
R = 1.0000
DL = 25.29
BEC = 13.75

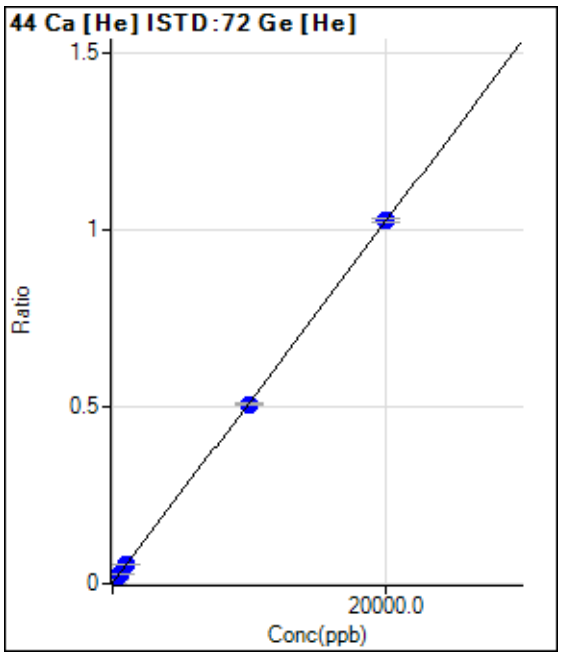
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60029.47	0.0128	P	3.7
2	☐	200.000	210.802	222187.50	0.0496	P	2.6
3	☐	500.000	505.997	459871.76	0.1012	P	2.0
4	☐	1000.000	1027.763	865809.88	0.1924	P	1.9
5	☐	10000.00	9664.125	7593201.35	1.7013	A	1.9
6	☐	20000.00	20166.291	15255333.52	3.5361	A	2.6
7	☐	100.000					

y = 1.7471E-004 * x + 0.0128
R = 0.9998
DL = 8.19
BEC = 73.28

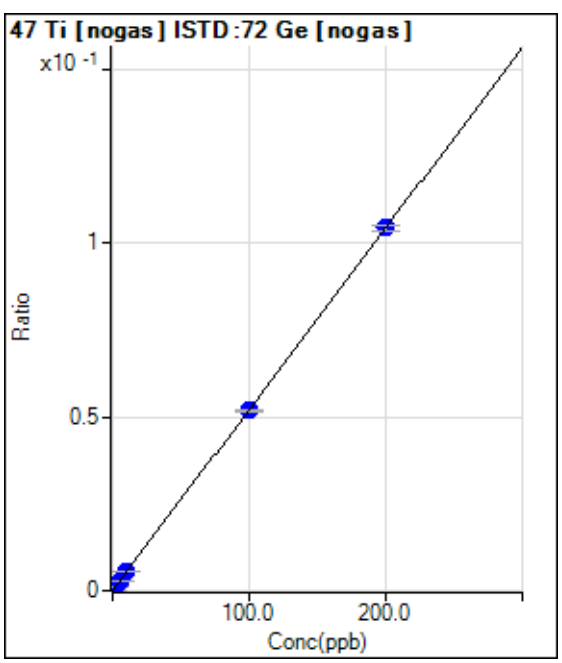
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1333.40	0.0011	P	13.0
2	☐	200.000	205.465	14158.88	0.0116	P	4.4
3	☐	500.000	517.557	32899.34	0.0275	P	1.5
4	☐	1000.000	1053.430	66170.90	0.0549	P	1.7
5	☐	10000.00	9901.545	597019.24	0.5067	P	1.2
6	☐	20000.00	20046.062	1184054.90	1.0247	P	1.0
7	☐	100.000					

y = 5.1061E-005 * x + 0.0011
R = 1.0000
DL = 8.413
BEC = 21.58

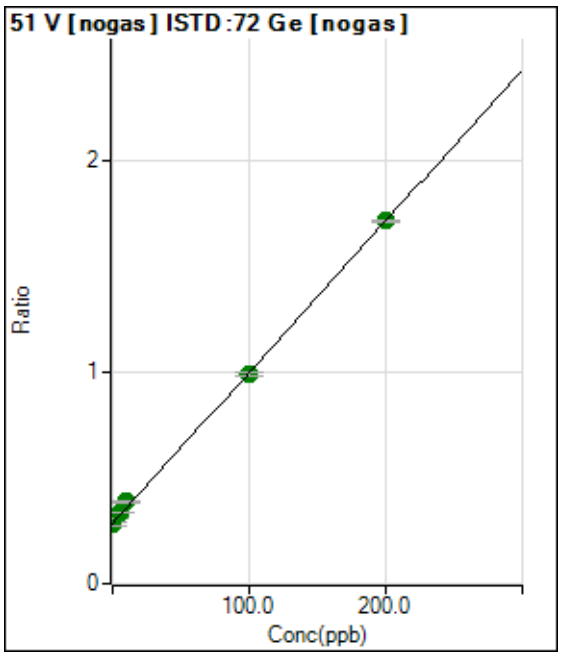
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	303.34	0.0001	P	16.9
2	☐	2.000	2.141	5284.17	0.0012	P	3.1
3	☐	5.000	5.170	12534.45	0.0028	P	4.8
4	☐	10.000	10.667	25304.21	0.0056	P	3.8
5	☐	100.000	99.301	231232.26	0.0518	P	1.7
6	☐	200.000	200.310	450577.51	0.1044	P	1.6
7	☐	1.000					

y = 5.2108E-004 * x + 6.4886E-005
R = 1.0000
DL = 0.06296
BEC = 0.1245

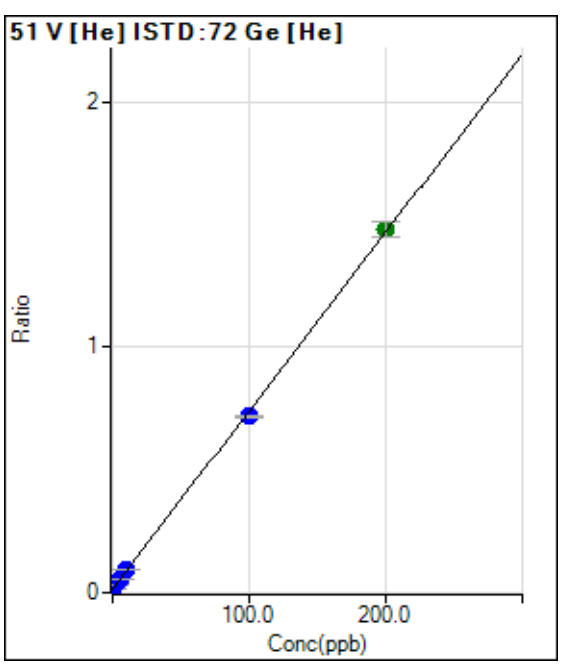
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1334410.05	0.2847	A	5.5
2	☐	2.000	4.605	1420907.32	0.3176	A	5.1
3	☐	5.000	7.274	1529964.36	0.3367	A	2.3
4	☐	10.000	14.500	1748182.98	0.3884	A	1.4
5	☐	100.000	99.295	4439165.99	0.9946	A	1.9
6	☐	200.000	200.044	7398598.60	1.7150	A	0.7
7	☐	1.000					

y = 0.0071 * x + 0.2847
R = 0.9998
DL = 6.606
BEC = 39.82

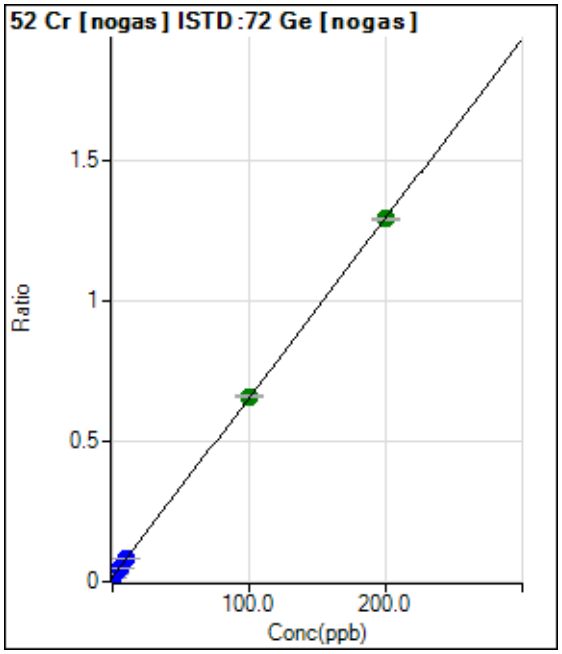
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.307	20314.37	0.0168	P	1.9
2	☐	2.000	2.294	38116.71	0.0312	P	0.9
3	☐	5.000	5.448	64714.85	0.0541	P	0.4
4	☐	10.000	10.565	110122.49	0.0913	P	1.0
5	☐	100.000	96.858	846774.00	0.7186	P	1.8
6	☐	200.000	201.529	1709195.21	1.4795	A	4.4
7	☐	1.000					

y = 0.0073 * x + 0.0145
R = 0.9998
DL = 0.1295
BEC = 2.001

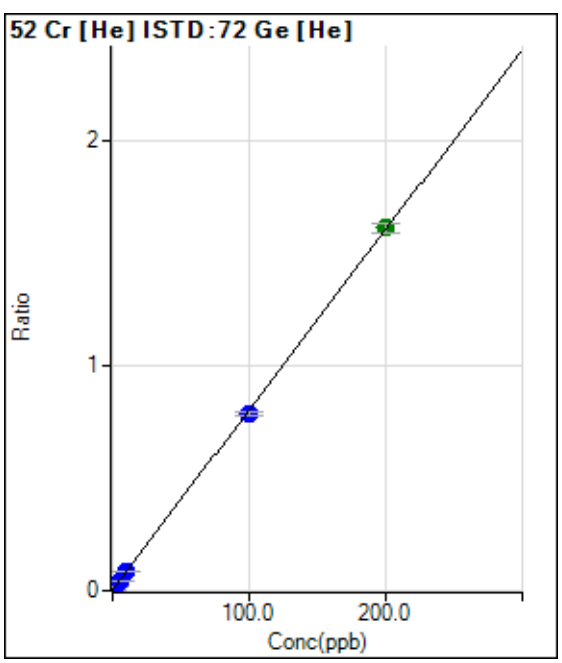
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	75349.36	0.0161	P	5.0
2	☐	2.000	2.300	137604.10	0.0308	P	6.6
3	☐	5.000	5.224	224744.73	0.0495	P	1.0
4	☐	10.000	10.555	375868.38	0.0835	P	2.9
5	☐	100.000	100.651	2942610.37	0.6593	A	1.2
6	☐	200.000	199.638	5572906.59	1.2918	A	0.7
7	☐	1.000					

y = 0.0064 * x + 0.0161
R = 1.0000
DL = 0.374
BEC = 2.516

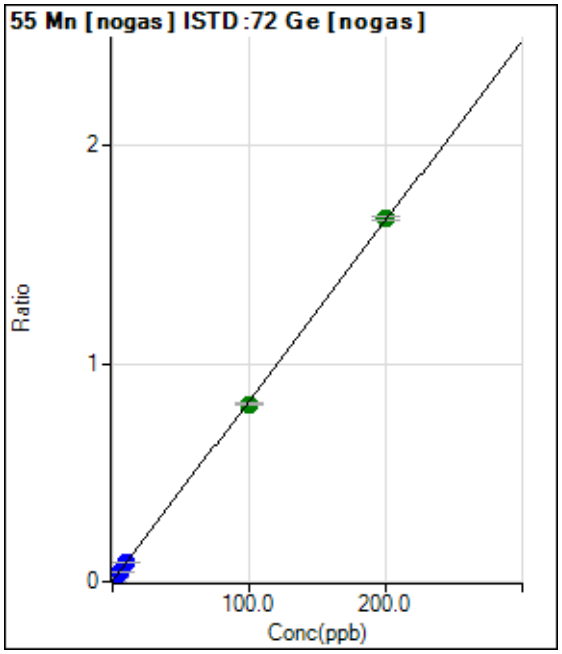
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4403.93	0.0036	P	10.3
2	☐	2.000	2.067	24656.78	0.0202	P	2.3
3	☐	5.000	5.054	52718.61	0.0441	P	1.0
4	☐	10.000	10.307	103886.58	0.0862	P	1.6
5	☐	100.000	97.905	927947.67	0.7876	P	2.8
6	☐	200.000	201.030	1864023.04	1.6134	A	2.9
7	☐	1.000					

y = 0.0080 * x + 0.0036
R = 0.9999
DL = 0.1404
BEC = 0.4546

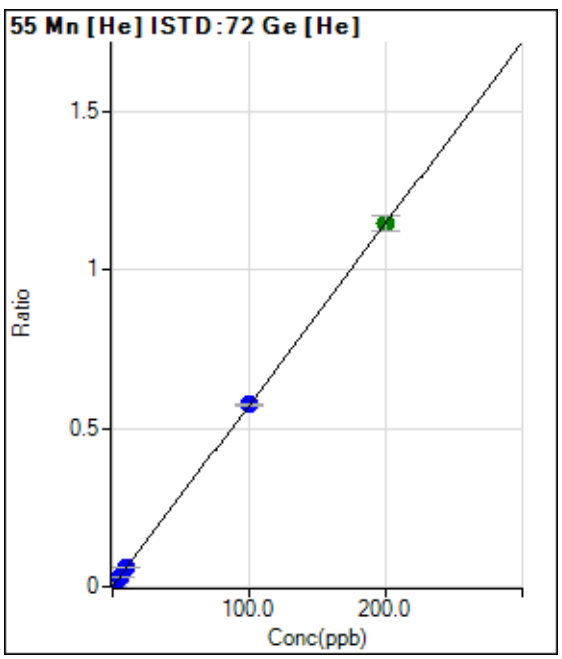
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	18716.37	0.0040	P	9.1
2	☐	2.000	2.135	96745.22	0.0216	P	4.3
3	☐	5.000	5.131	210657.43	0.0464	P	2.0
4	☐	10.000	10.261	399225.01	0.0887	P	3.0
5	☐	100.000	97.965	3628047.76	0.8128	A	1.3
6	☐	200.000	201.000	7176416.77	1.6635	A	1.1
7	☐	1.000					

y = 0.0083 * x + 0.0040
R = 0.9999
DL = 0.1318
BEC = 0.4841

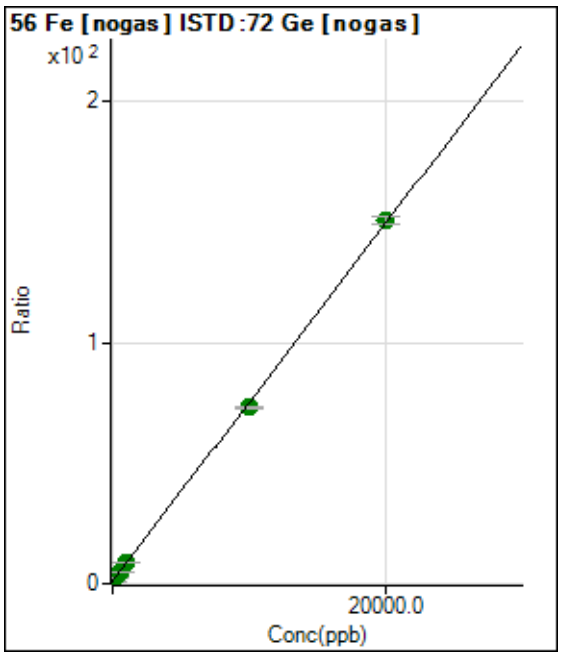
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	770.03	0.0006	P	3.9
2	☐	2.000	2.029	14962.92	0.0123	P	5.0
3	☐	5.000	5.228	36556.58	0.0306	P	2.9
4	☐	10.000	10.395	72562.34	0.0602	P	1.5
5	☐	100.000	100.350	678221.35	0.5756	P	1.2
6	☐	200.000	199.799	1323152.40	1.1454	A	4.3
7	☐	1.000					

y = 0.0057 * x + 6.3582E-004
R = 1.0000
DL = 0.01288
BEC = 0.111

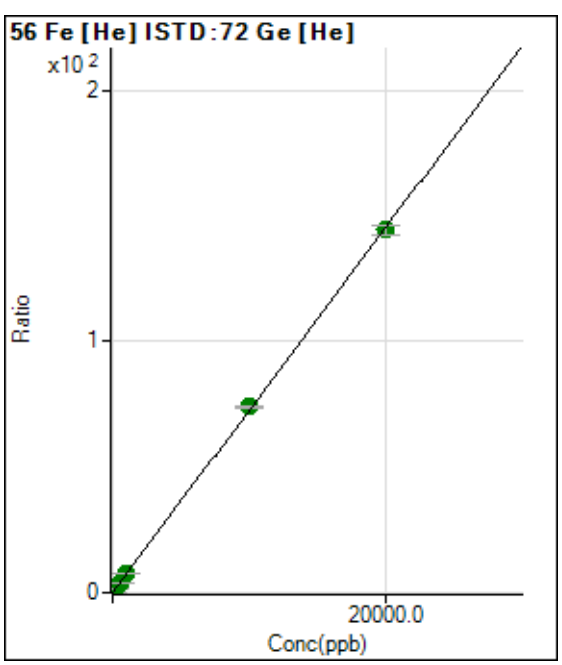
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4743578.62	1.0118	A	4.1
2	☐	200.000	220.521	11847176.83	2.6480	A	4.8
3	☐	500.000	522.612	22215606.23	4.8894	A	2.5
4	☐	1000.000	1004.542	38105433.14	8.4652	A	1.5
5	☐	10000.00	9708.761	326066932.2	73.0483	A	1.8
6	☐	20000.00	20144.622	649164647.8	150.479	A	2.0
7	☐	100.000					

y = 0.0074 * x + 1.0118
R = 0.9998
DL = 16.93
BEC = 136.4

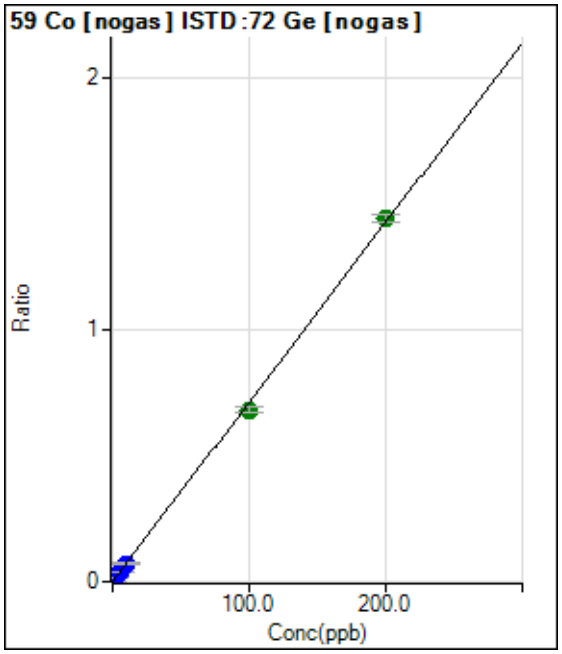
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30852.68	0.0255	P	1.8
2	☐	200.000	213.559	1924717.84	1.5764	A	0.4
3	☐	500.000	527.375	4607704.62	3.8554	A	0.7
4	☐	1000.000	1036.693	9106686.95	7.5541	A	1.0
5	☐	10000.00	10205.536	87366485.36	74.1397	A	1.4
6	☐	20000.00	19894.577	166962490.8	144.503	A	2.7
7	☐	100.000					

y = 0.0073 * x + 0.0255
R = 0.9999
DL = 0.1864
BEC = 3.508

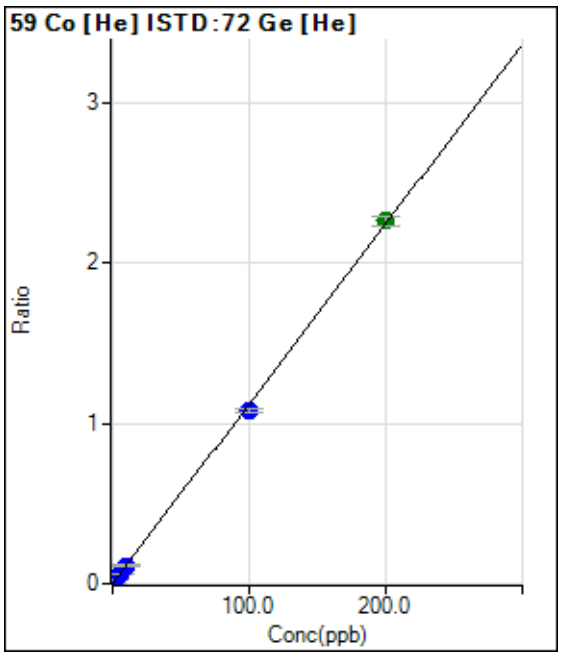
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	440.01	0.0001	P	4.8
2	☐	2.000	2.105	67701.71	0.0151	P	3.0
3	☐	5.000	5.090	165574.57	0.0364	P	0.9
4	☐	10.000	10.139	326198.76	0.0725	P	2.9
5	☐	100.000	95.844	3053931.10	0.6844	A	3.4
6	☐	200.000	202.068	6224374.49	1.4428	A	2.1
7	☐	1.000					

y = 0.0071 * x + 9.3574E-005
R = 0.9997
DL = 0.001874
BEC = 0.01311

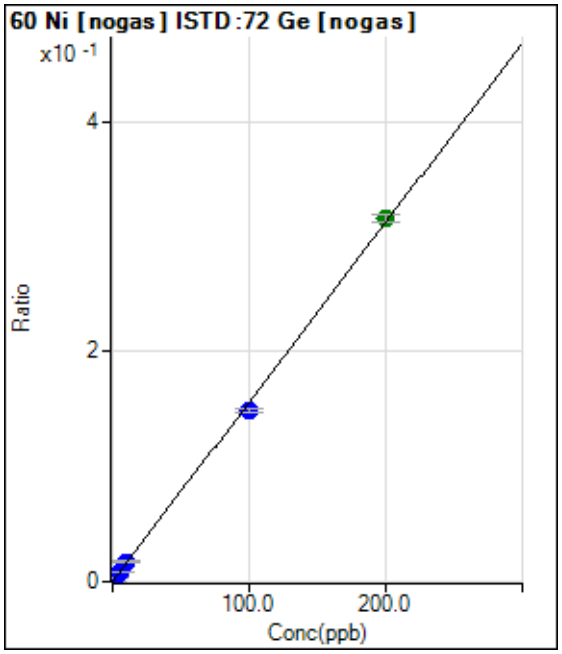
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.00	0.0001	P	14.1
2	☐	2.000	1.968	26993.40	0.0221	P	0.9
3	☐	5.000	5.062	67845.00	0.0568	P	4.1
4	☐	10.000	10.128	136859.21	0.1135	P	1.2
5	☐	100.000	96.353	1272166.15	1.0796	P	1.3
6	☐	200.000	201.816	2612653.92	2.2613	A	2.4
7	☐	1.000					

y = 0.0112 * x + 5.7775E-005
R = 0.9998
DL = 0.002181
BEC = 0.005157

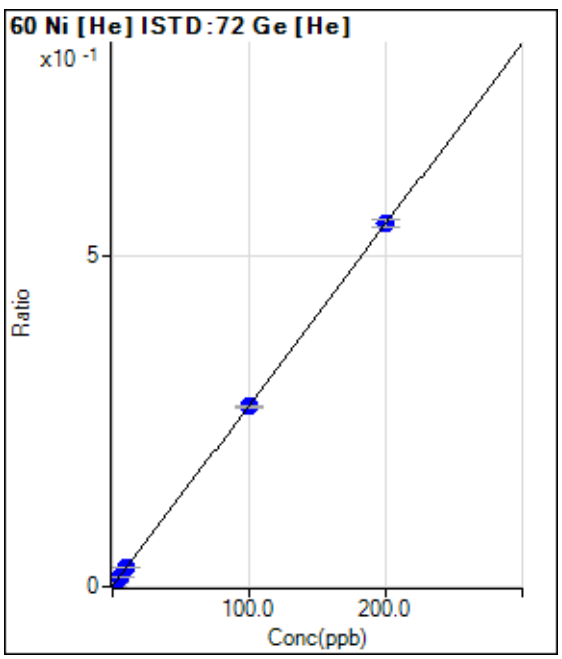
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.367	3560.40	0.0008	P	6.4
2	☐	2.000	2.479	18129.22	0.0041	P	8.1
3	☐	5.000	5.542	40137.49	0.0088	P	1.2
4	☐	10.000	10.862	77057.97	0.0171	P	5.4
5	☐	100.000	95.623	666537.75	0.1494	P	2.2
6	☐	200.000	202.127	1360980.24	0.3155	A	2.0
7	☐	1.000					

y = 0.0016 * x + 1.8779E-004
R = 0.9996
DL = 0.09327
BEC = 0.1204

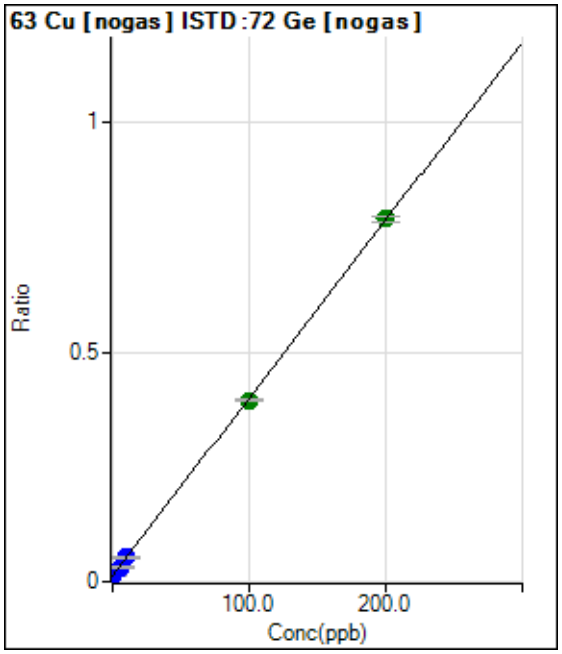
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.169	203.34	0.0002	P	5.4
2	☐	2.000	1.972	7338.23	0.0060	P	2.0
3	☐	5.000	5.129	17475.26	0.0146	P	2.9
4	☐	10.000	10.366	34853.36	0.0289	P	0.9
5	☐	100.000	99.447	320474.05	0.2720	P	1.0
6	☐	200.000	200.255	632031.28	0.5470	P	2.0
7	☐	1.000					

y = 0.0027 * x + 6.2905E-004
R = 1.0000
DL = 0.01004
BEC = 0.2306

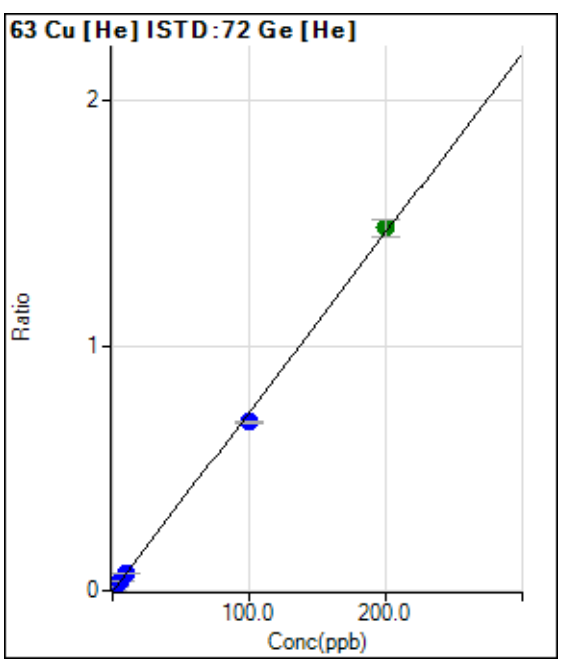
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61656.76	0.0132	P	6.9
2	☐	2.000	2.076	94862.80	0.0212	P	5.0
3	☐	5.000	4.703	142600.56	0.0314	P	0.7
4	☐	10.000	10.180	236606.73	0.0526	P	4.7
5	☐	100.000	98.422	1760340.76	0.3944	A	1.2
6	☐	200.000	200.787	3411916.93	0.7909	A	1.4
7	☐	1.000					

y = 0.0039 * x + 0.0132
R = 1.0000
DL = 0.704
BEC = 3.398

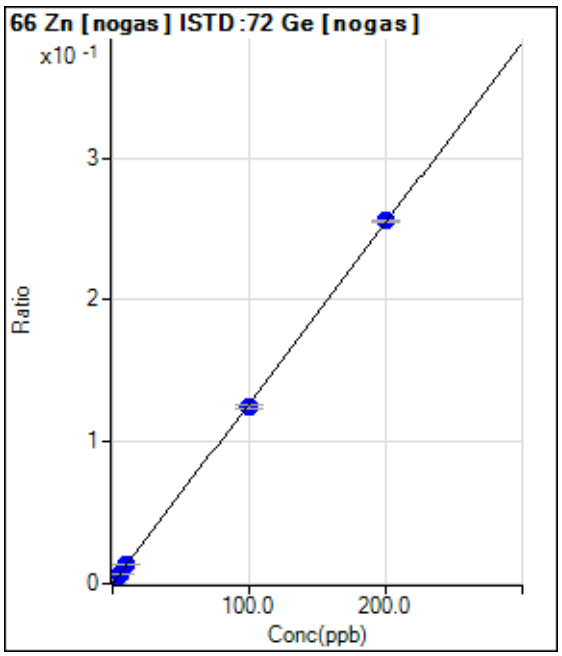
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.788	1846.79	0.0015	P	9.8
2	☐	2.000	2.795	19824.27	0.0162	P	5.3
3	☐	5.000	5.635	44290.53	0.0371	P	1.6
4	☐	10.000	10.661	89096.25	0.0739	P	1.6
5	☐	100.000	94.355	810181.27	0.6875	P	1.2
6	☐	200.000	202.766	1712438.83	1.4823	A	5.0
7	☐	1.000					

y = 0.0073 * x - 0.0043
R = 0.9994
DL = 0.06093
BEC = -0.5801

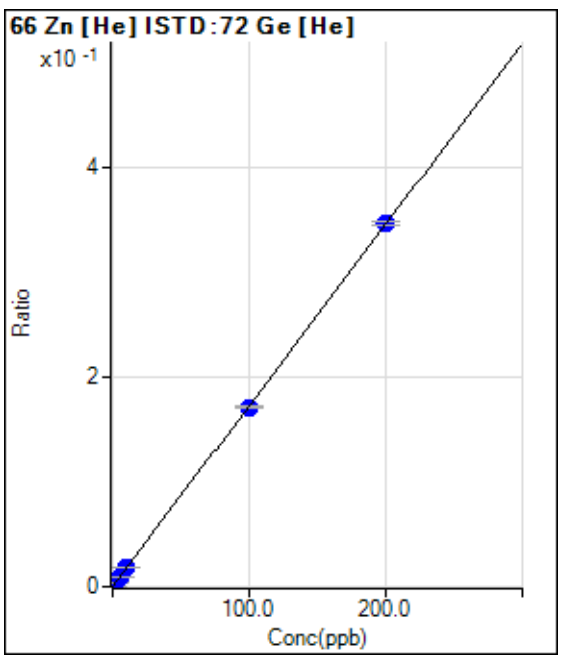
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.057	1023.38	0.0002	P	15.8
2	☐	2.000	2.281	13631.87	0.0030	P	4.0
3	☐	5.000	5.316	31360.47	0.0069	P	1.6
4	☐	10.000	10.460	60486.46	0.0134	P	0.7
5	☐	100.000	97.841	555444.47	0.1245	P	2.0
6	☐	200.000	201.046	1102527.46	0.2556	P	0.5
7	☐	1.000					

y = 0.0013 * x + 1.4725E-004
R = 0.9999
DL = 0.08163
BEC = 0.1159

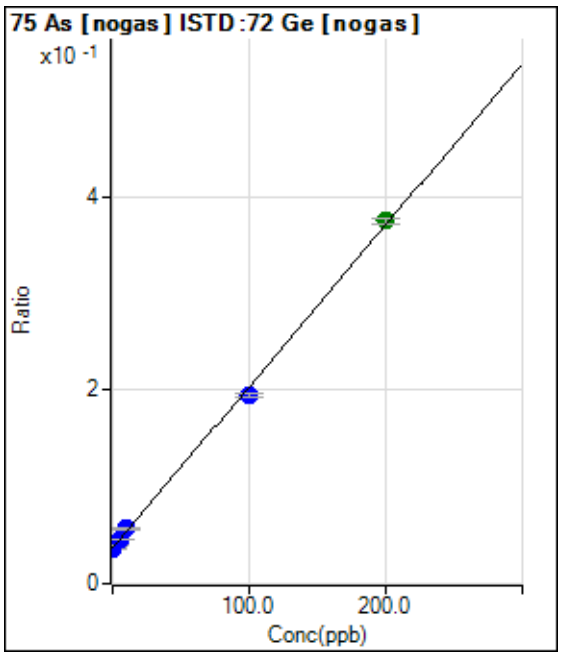
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.059	283.34	0.0002	P	27.7
2	☐	2.000	2.155	4707.33	0.0039	P	8.6
3	☐	5.000	4.942	10366.43	0.0087	P	2.2
4	☐	10.000	10.287	21596.35	0.0179	P	2.6
5	☐	100.000	99.141	202077.83	0.1715	P	0.3
6	☐	200.000	200.415	400440.40	0.3465	P	1.1
7	☐	1.000					

y = 0.0017 * x + 1.3218E-004
R = 1.0000
DL = 0.1129
BEC = 0.07647

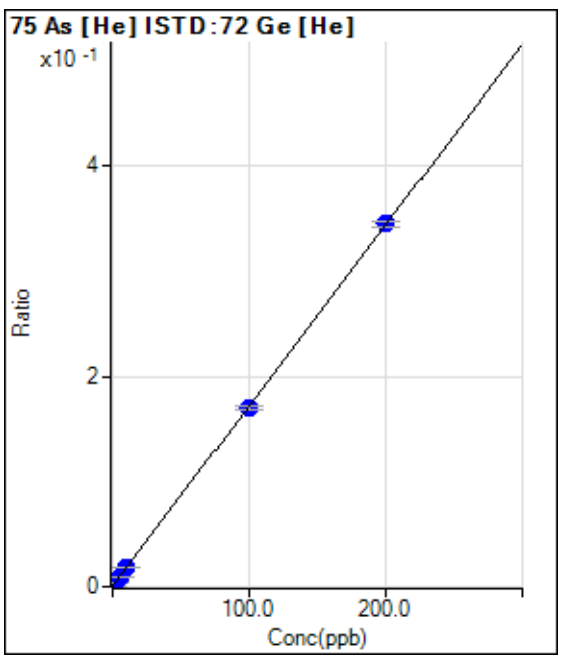
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.402	169022.30	0.0361	P	6.1
2	☐	2.000	2.660	184203.74	0.0412	P	5.5
3	☐	5.000	5.470	208423.36	0.0459	P	0.3
4	☐	10.000	12.141	256412.04	0.0570	P	3.7
5	☐	100.000	94.514	867261.76	0.1943	P	2.0
6	☐	200.000	202.618	1615800.76	0.3746	A	1.3
7	☐	1.000					

y = 0.0017 * x + 0.0367
R = 0.9994
DL = 3.95
BEC = 22.04

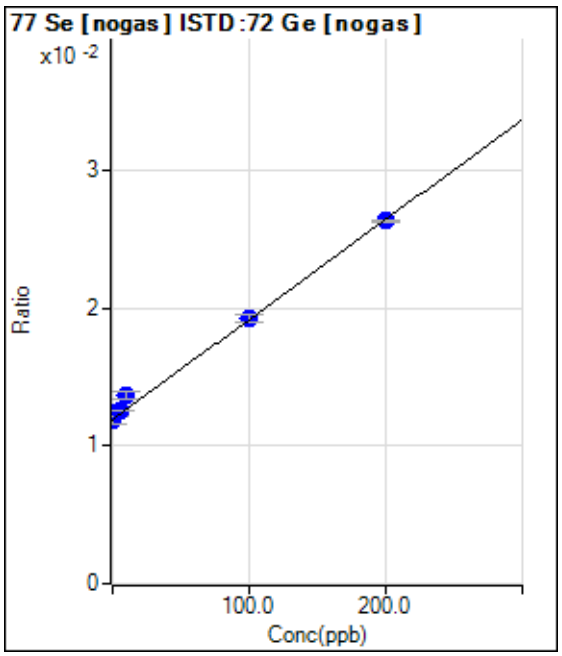
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	961.14	0.0008	P	5.4
2	☐	2.000	1.962	5079.62	0.0042	P	2.3
3	☐	5.000	5.152	11513.68	0.0096	P	3.6
4	☐	10.000	10.161	21977.68	0.0182	P	1.6
5	☐	100.000	98.636	200387.09	0.1701	P	1.5
6	☐	200.000	200.670	398846.66	0.3452	P	1.5
7	☐	1.000					

y = 0.0017 * x + 7.9288E-004
R = 1.0000
DL = 0.07423
BEC = 0.462

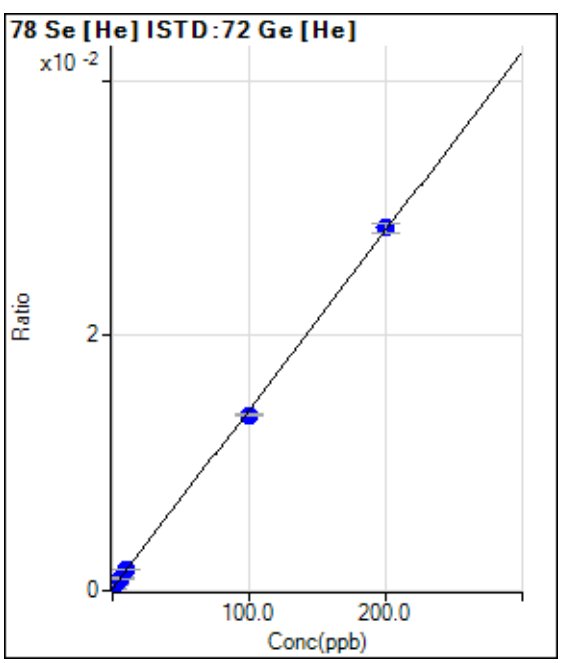
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55905.91	0.0119	P	6.6
2	☐	2.000	7.458	55792.15	0.0125	P	6.3
3	☐	5.000	8.407	57002.75	0.0125	P	0.6
4	☐	10.000	24.323	61641.25	0.0137	P	3.7
5	☐	100.000	101.227	86042.14	0.0193	P	2.4
6	☐	200.000	198.530	113632.09	0.0263	P	0.5
7	☐	1.000					

y = 7.2563E-005 * x + 0.0119
R = 0.9981
DL = 32.61
BEC = 164.5

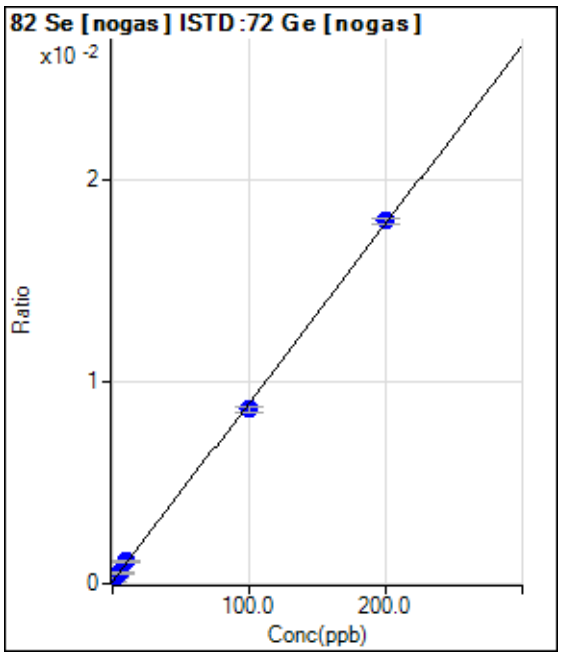
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.282	259.33	0.0002	P	4.1
2	☐	2.000	2.120	576.01	0.0005	P	6.7
3	☐	5.000	5.628	1152.04	0.0010	P	5.7
4	☐	10.000	10.635	2008.78	0.0017	P	2.4
5	☐	100.000	96.768	16202.54	0.0137	P	0.9
6	☐	200.000	201.567	32872.22	0.0285	P	2.8
7	☐	1.000					

y = 1.4029E-004 * x + 1.7450E-004
R = 0.9998
DL = 0.1871
BEC = 1.244

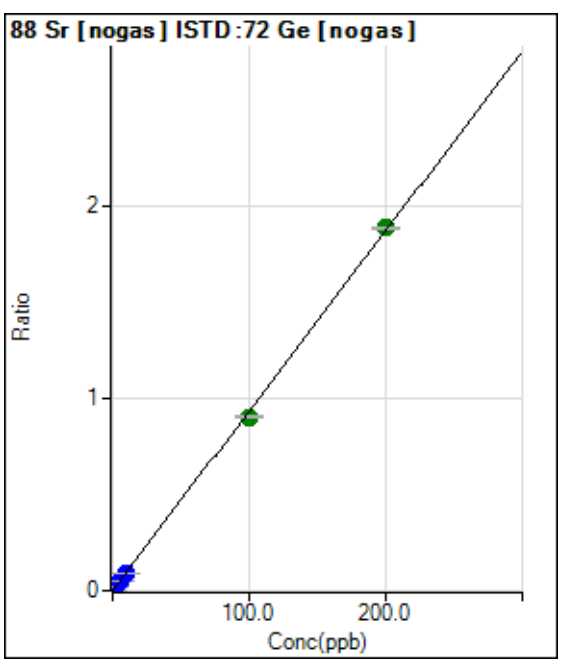
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	503.35	0.0001	P	18.2
2	☐	2.000	2.095	1310.06	0.0003	P	5.4
3	☐	5.000	4.835	2430.20	0.0005	P	4.5
4	☐	10.000	11.196	4934.07	0.0011	P	9.5
5	☐	100.000	96.377	38564.71	0.0086	P	2.7
6	☐	200.000	201.755	77512.20	0.0180	P	1.6
7	☐	1.000					

y = 8.8531E-005 * x + 1.0657E-004
R = 0.9997
DL = 0.6558
BEC = 1.204

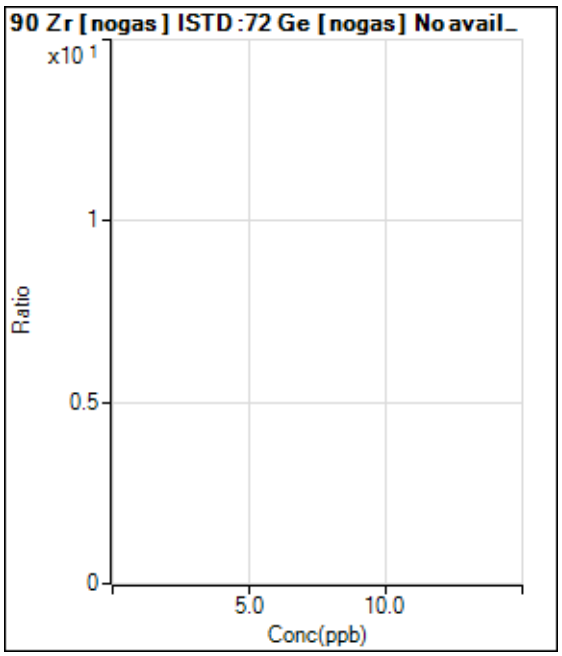
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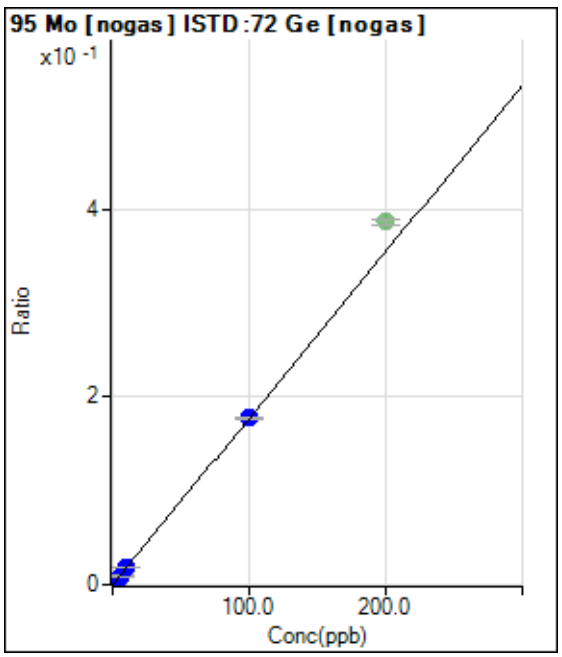
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2173.51	0.0005	P	2.8
2	☐	2.000	2.009	85952.41	0.0192	P	4.2
3	☐	5.000	4.926	210908.66	0.0464	P	2.0
4	☐	10.000	9.959	420245.40	0.0934	P	2.6
5	☐	100.000	96.455	4019069.32	0.9004	A	0.8
6	☐	200.000	201.776	8123252.17	1.8830	A	0.7
7	☐	1.000					

y = 0.0093 * x + 4.6295E-004
R = 0.9998
DL = 0.00424
BEC = 0.04962

Weight: <None>
Min Conc: <None>



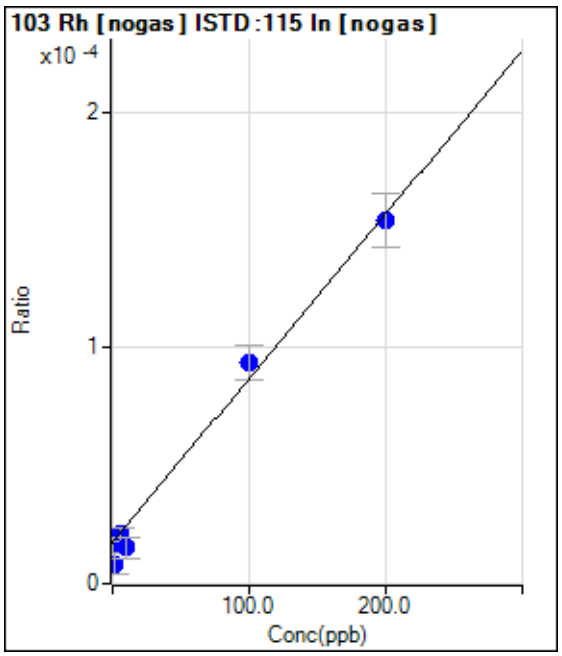
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	160.00	0.0000	P	29.6
2	☐	2.000	2.080	16634.63	0.0037	P	6.5
3	☐	5.000	5.140	41548.74	0.0091	P	2.3
4	☐	10.000	10.296	82263.45	0.0183	P	3.3
5	☐	100.000	99.962	790893.74	0.1772	P	1.1
6	☑	200.000		1667047.58	0.3864	A	1.5
7	☐	1.000					

y = 0.0018 * x + 3.4124E-005
R = 1.0000
DL = 0.01712
BEC = 0.01925

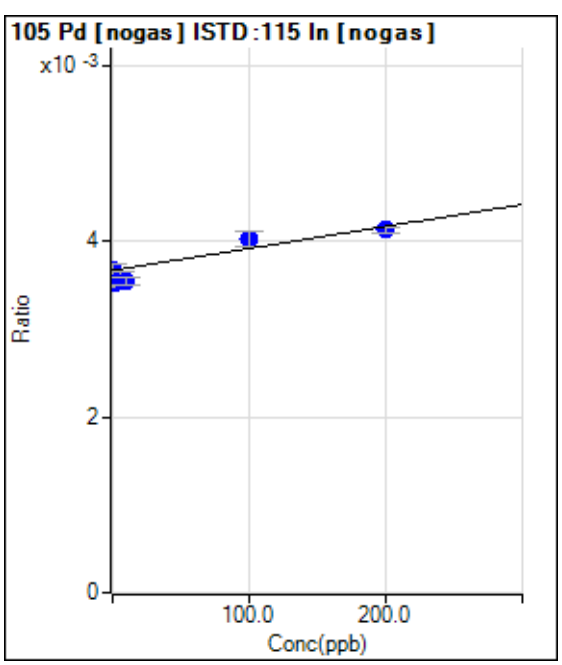
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0000	P	51.8
2	☐	2.000	-12.901	36.67	0.0000	P	107.
3	☐	5.000	4.819	90.00	0.0000	P	30.2
4	☐	10.000	-3.338	66.67	0.0000	P	55.3
5	☐	100.000	109.786	380.01	0.0001	P	15.9
6	☐	200.000	195.928	633.36	0.0002	P	14.9
7	☐	1.000					

y = 6.9589E-007 * x + 1.7528E-005
R = 0.9947
DL = 39.17
BEC = 25.19

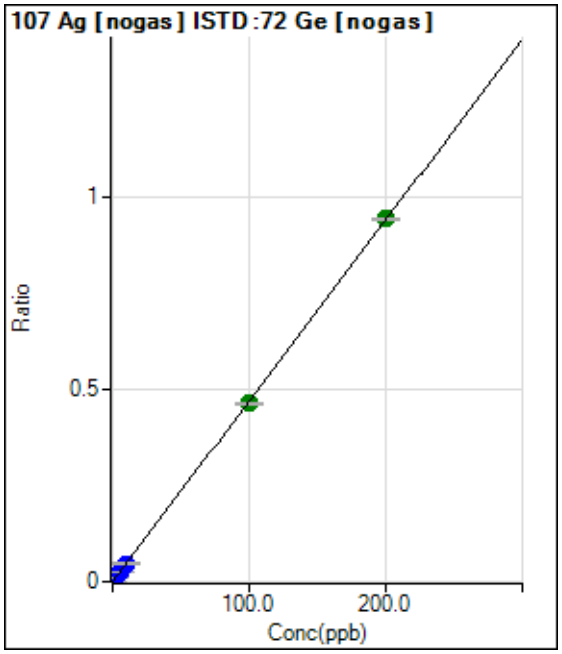
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16791.68	0.0037	P	3.7
2	☐	2.000	-54.765	15126.88	0.0035	P	2.7
3	☐	5.000	-37.132	15426.99	0.0036	P	4.3
4	☐	10.000	-53.069	15420.29	0.0035	P	2.5
5	☐	100.000	141.848	16261.11	0.0040	P	4.0
6	☐	200.000	183.850	16988.50	0.0041	P	1.3
7	☐	1.000					

y = 2.5008E-006 * x + 0.0037
R = 0.9413
DL = 160.6
BEC = 1466

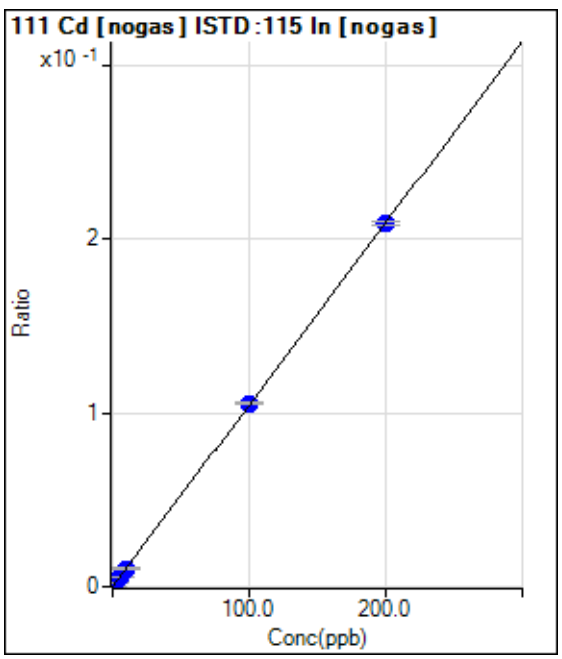
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	160.00	0.0000	P	25.3
2	☐	2.000	2.086	43975.08	0.0098	P	4.6
3	☐	5.000	4.976	106322.17	0.0234	P	2.0
4	☐	10.000	10.033	212117.19	0.0471	P	3.2
5	☐	100.000	98.495	2064185.18	0.4625	A	1.9
6	☐	200.000	200.751	4066238.48	0.9426	A	0.7
7	☐	1.000					

y = 0.0047 * x + 3.4233E-005
R = 1.0000
DL = 0.005538
BEC = 0.007291

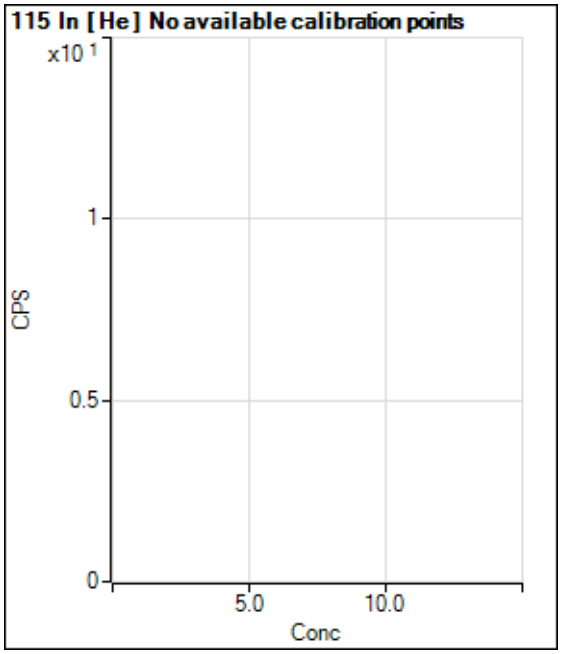
Weight: <None>
Min Conc: <None>



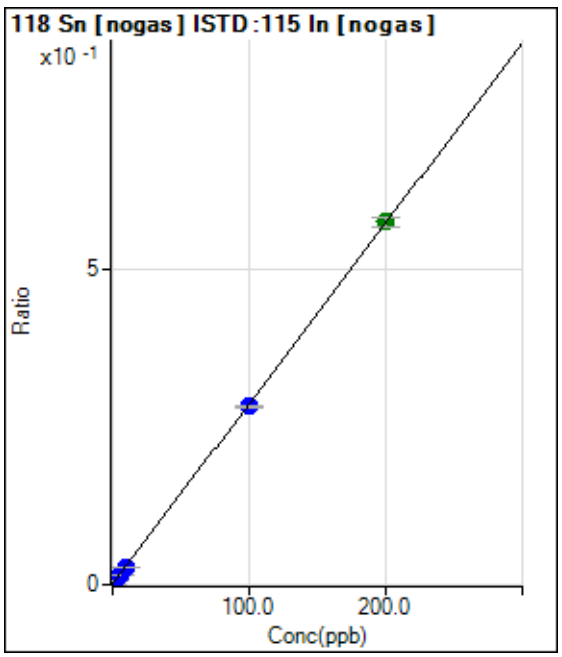
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	125.
2	☐	2.000	2.134	9566.10	0.0022	P	5.0
3	☐	5.000	5.148	23265.70	0.0054	P	2.0
4	☐	10.000	9.991	45602.68	0.0105	P	1.6
5	☐	100.000	100.766	426163.68	0.1054	P	1.0
6	☐	200.000	199.613	859483.03	0.2087	P	0.9
7	☐	1.000					

y = 0.0010 * x + 3.7591E-006
R = 1.0000
DL = 0.01348
BEC = 0.003595

Weight: <None>
Min Conc: <None>



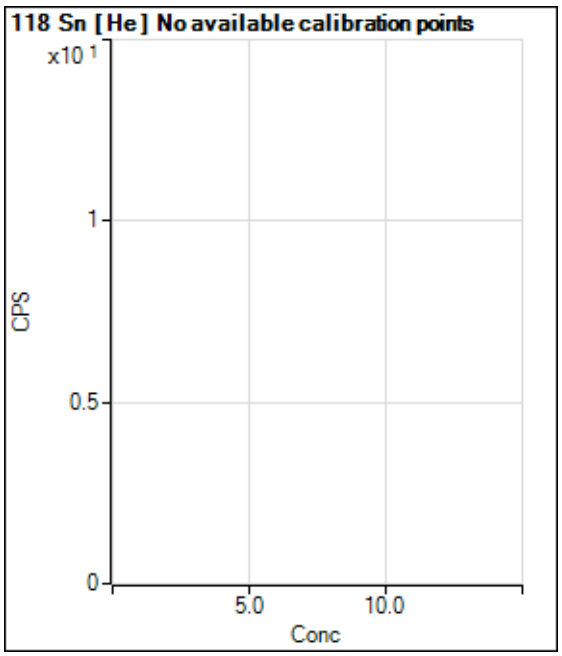
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1588542.06		A	1.8
2	☐			1632631.00		A	2.4
3	☐			1547050.72		A	2.4
4	☐			1613929.27		A	1.4
5	☐			1537580.07		A	2.6
6	☐			1485930.54		A	4.4
7	☐						



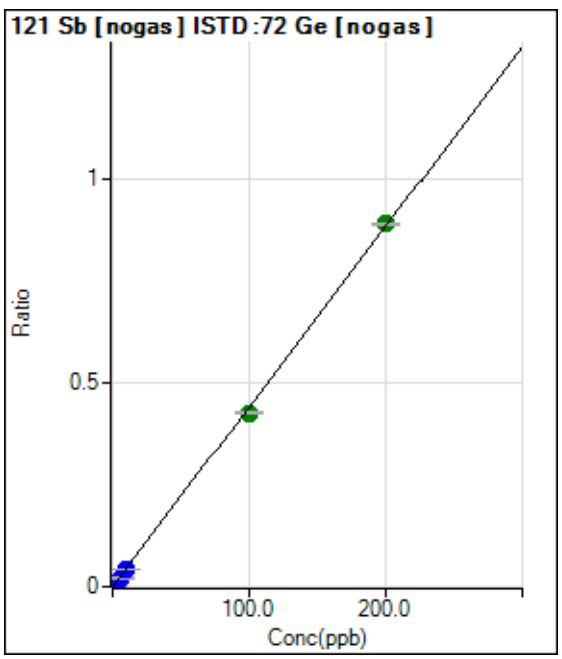
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5060.80	0.0011	P	6.0
2	☐	2.000	1.682	25281.92	0.0059	P	5.8
3	☐	5.000	4.569	61103.76	0.0142	P	2.7
4	☐	10.000	9.494	123079.89	0.0282	P	1.8
5	☐	100.000	98.653	1143494.20	0.2827	P	1.2
6	☐	200.000	200.713	2364256.94	0.5741	A	2.9
7	☐	1.000					

y = 0.0029 * x + 0.0011
R = 1.0000
DL = 0.06946
BEC = 0.3882

Weight: <None>
Min Conc: <None>



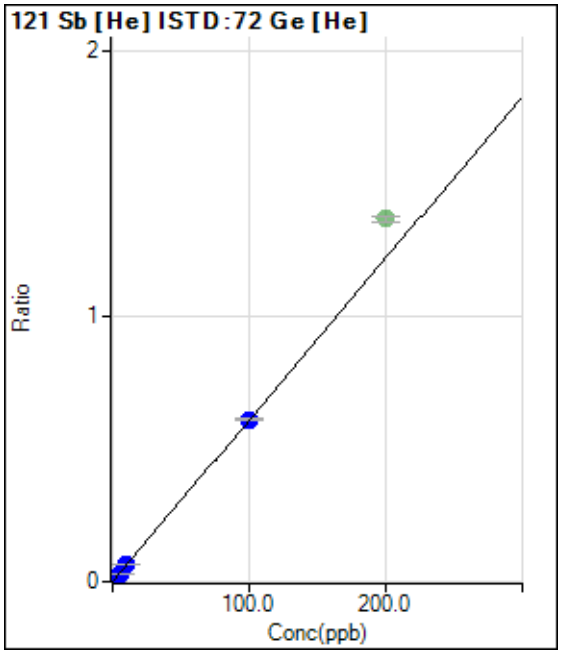
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1890.13		P	3.7
2	☐			10373.24		P	2.0
3	☐			24437.31		P	3.8
4	☐			49202.79		P	1.7
5	☐			468583.47		P	1.3
6	☐			925937.93		P	0.6
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1163.39	0.0002	P	15.3
2	☐	2.000	1.955	39708.82	0.0089	P	3.0
3	☐	5.000	4.710	95503.49	0.0210	P	3.2
4	☐	10.000	9.718	193953.19	0.0431	P	3.3
5	☐	100.000	96.697	1905151.17	0.4267	A	2.1
6	☐	200.000	201.673	3837784.01	0.8896	A	0.6
7	☐	1.000					

y = 0.0044 * x + 2.4818E-004
R = 0.9998
DL = 0.02579
BEC = 0.05628

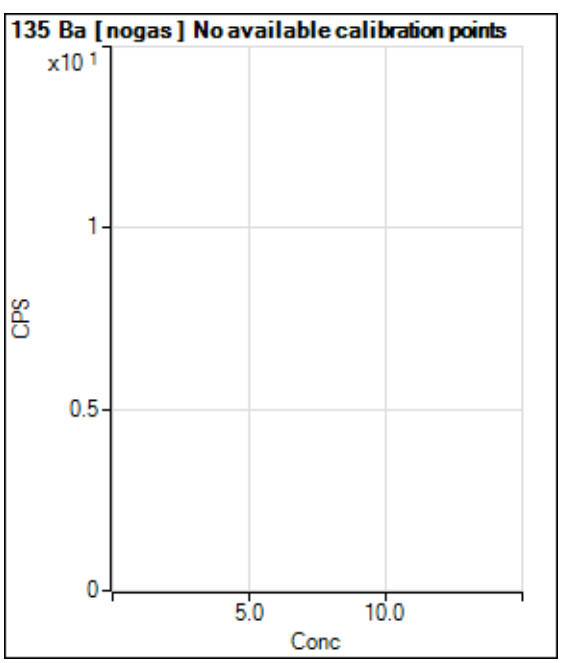
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Min Conc: <None>



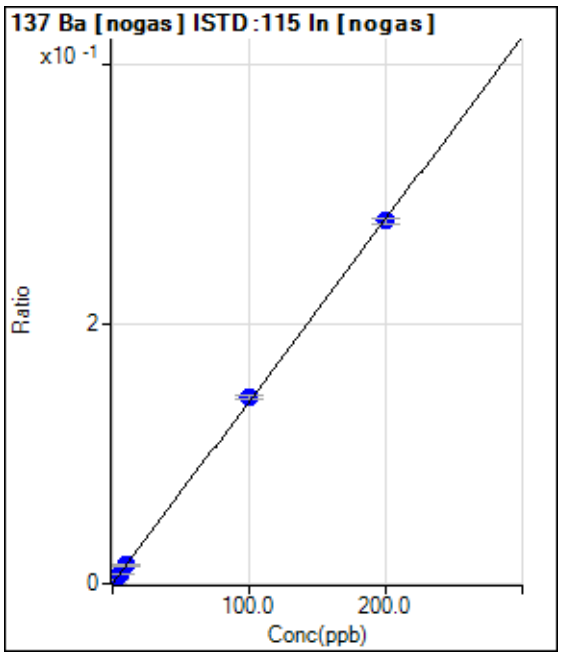
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	526.68	0.0004	P	13.8
2	☐	2.000	2.117	16254.48	0.0133	P	4.9
3	☐	5.000	5.216	38425.73	0.0322	P	1.5
4	☐	10.000	10.351	76409.91	0.0634	P	1.3
5	☐	100.000	99.952	716709.73	0.6083	P	1.1
6	☑	200.000		1577862.84	1.3654	A	1.3
7	☐	1.000					

y = 0.0061 * x + 4.3545E-004
R = 1.0000
DL = 0.02967
BEC = 0.07161

Weight: <None>
Min Conc: <None>



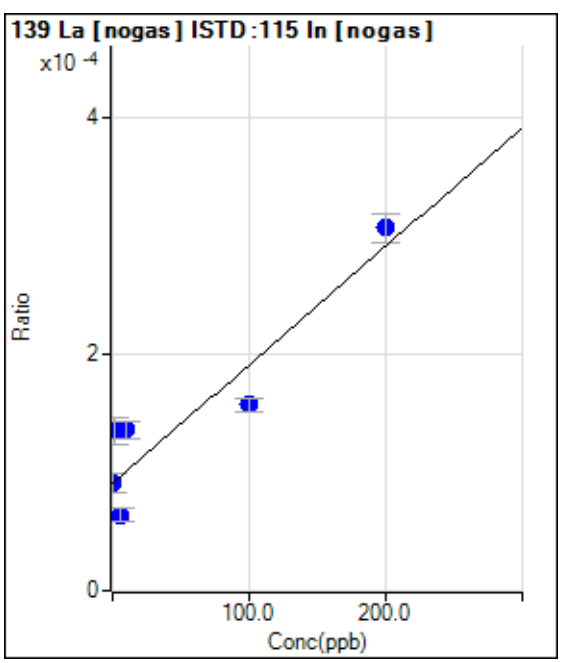
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			116.67		P	21.6
2	☐			7341.67		P	1.0
3	☐			17465.66		P	4.0
4	☐			35199.53		P	0.3
5	☐			329324.94		P	1.1
6	☐			657568.91		P	0.8
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	206.67	0.0000	P	21.5
2	☐	2.000	1.972	12051.05	0.0028	P	6.6
3	☐	5.000	4.948	30230.17	0.0070	P	2.9
4	☐	10.000	10.013	61610.07	0.0141	P	3.0
5	☐	100.000	101.901	579445.08	0.1433	P	2.1
6	☐	200.000	199.051	1152311.39	0.2799	P	1.4
7	☐	1.000					

y = 0.0014 * x + 4.4973E-005
R = 0.9999
DL = 0.02067
BEC = 0.03199

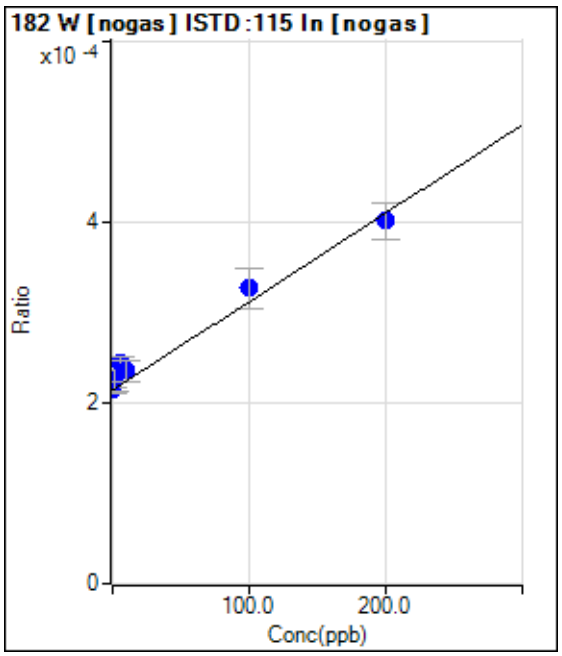
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	413.34	0.0001	P	17.9
2	☐	2.000	43.883	576.69	0.0001	P	17.2
3	☐	5.000	-26.716	276.68	0.0001	P	19.1
4	☐	10.000	44.854	593.36	0.0001	P	10.6
5	☐	100.000	66.428	636.69	0.0002	P	7.3
6	☐	200.000	215.418	1263.40	0.0003	P	7.7
7	☐	1.000					

y = 1.0017E-006 * x + 9.0913E-005
R = 0.9251
DL = 48.61
BEC = 90.76

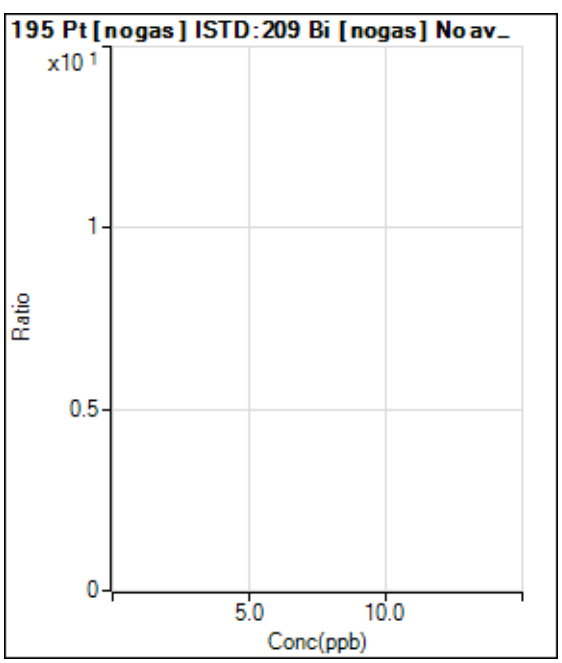
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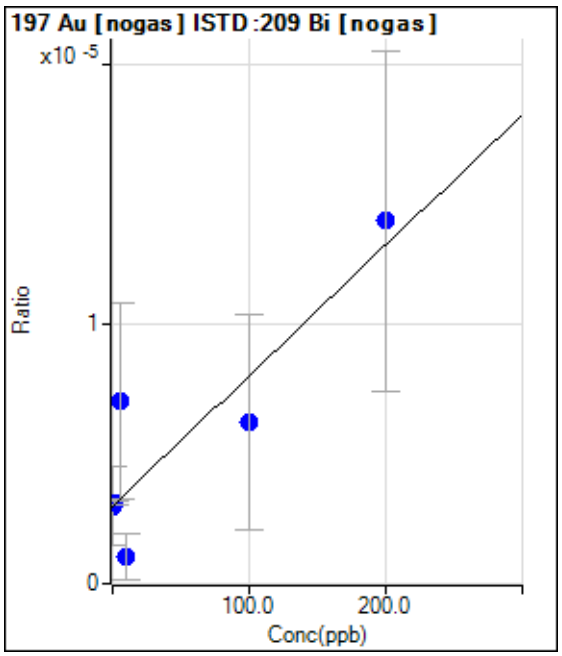
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	980.05	0.0002	P	3.2
2	☐	2.000	10.967	960.05	0.0002	P	10.8
3	☐	5.000	30.655	1053.39	0.0002	P	6.1
4	☐	10.000	21.934	1026.71	0.0002	P	10.3
5	☐	100.000	115.031	1320.07	0.0003	P	13.9
6	☐	200.000	191.157	1650.11	0.0004	P	10.0
7	☐	1.000					

y = 9.7822E-007 * x + 2.1404E-004
R = 0.9914
DL = 21.18
BEC = 218.8

Weight: <None>
Min Conc: <None>



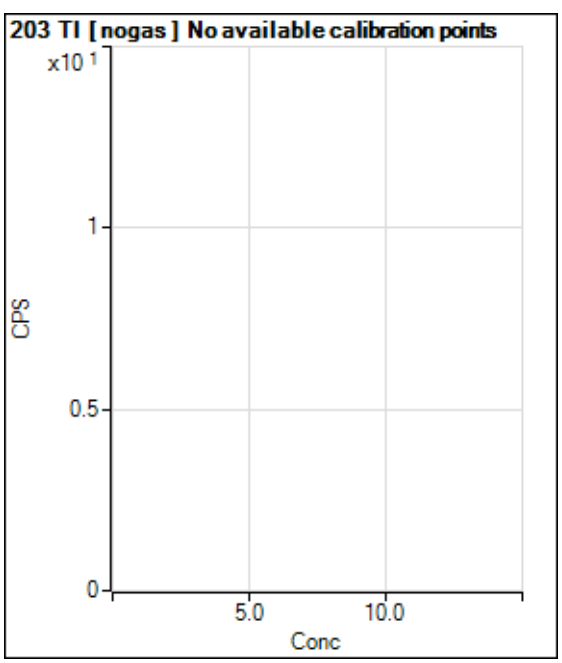
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



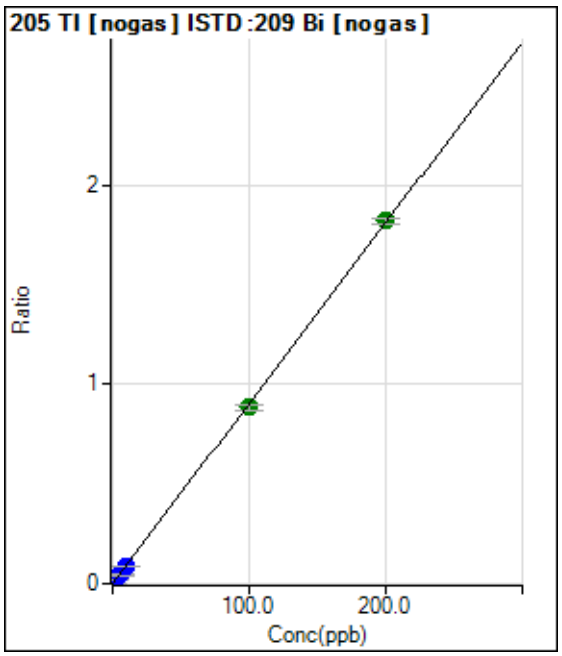
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	99.5
2	☐	2.000	2.406	10.00	0.0000	P	5.8
3	☐	5.000	80.284	23.33	0.0000	P	106.
4	☐	10.000	-39.322	3.33	0.0000	P	173.
5	☐	100.000	64.295	20.00	0.0000	P	132.
6	☐	200.000	218.432	43.33	0.0000	P	93.6
7	☐	1.000					

y = 5.0280E-008 * x + 2.9969E-006
R = 0.8774
DL = 178
BEC = 59.6

Weight: <None>
Min Conc: <None>



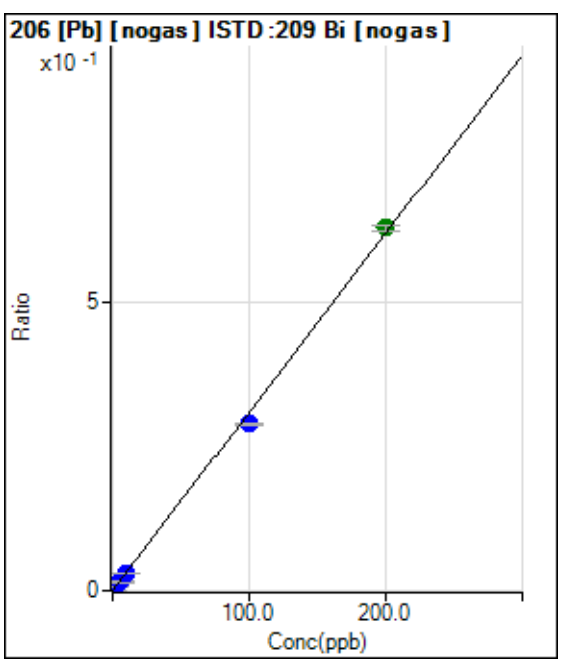
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			43.33		P	58.1
2	☐			24769.04		P	1.7
3	☐			61994.12		P	1.7
4	☐			122322.47		P	2.0
5	☐			1167020.35		P	0.5
6	☐			2429018.35		A	3.1
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	146.67	0.0000	P	53.7
2	☐	2.000	2.014	58588.88	0.0183	P	7.9
3	☐	5.000	4.832	143043.23	0.0438	P	2.4
4	☐	10.000	9.823	291467.03	0.0890	P	4.1
5	☐	100.000	97.591	2835438.50	0.8837	A	2.2
6	☐	200.000	201.217	5662069.92	1.8220	A	1.8
7	☐	1.000					

y = 0.0091 * x + 4.1919E-005
R = 0.9999
DL = 0.007453
BEC = 0.004629

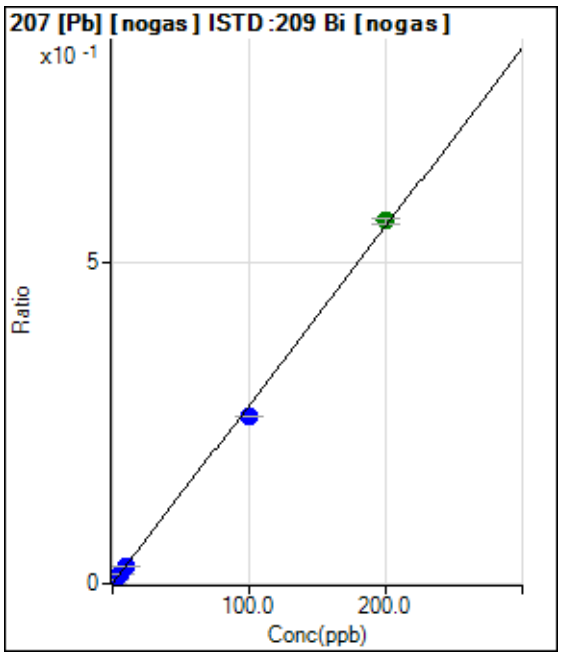
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0000	P	12.5
2	☐	2.000	2.001	19939.17	0.0062	P	7.5
3	☐	5.000	4.902	49572.36	0.0152	P	3.3
4	☐	10.000	9.853	99808.37	0.0305	P	3.8
5	☐	100.000	93.464	926299.52	0.2887	P	0.8
6	☐	200.000	203.278	1950886.53	0.6278	A	1.4
7	☐	1.000					

y = 0.0031 * x + 4.0816E-005
R = 0.9993
DL = 0.004943
BEC = 0.01322

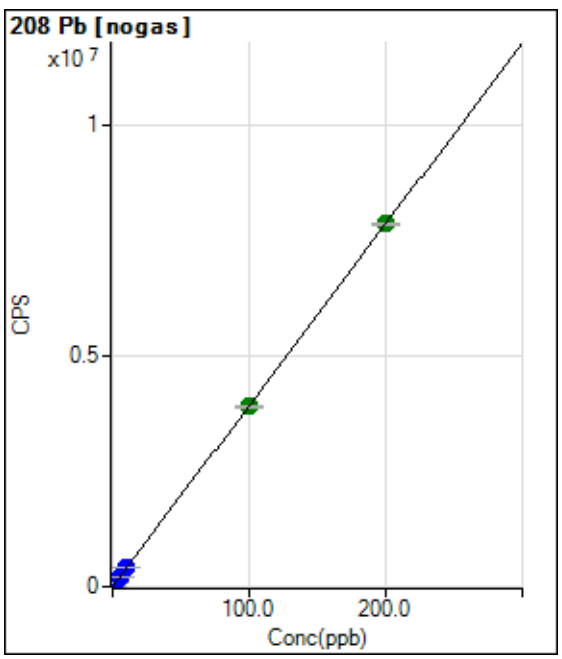
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.33	0.0000	P	62.6
2	☐	2.000	1.974	17613.08	0.0055	P	7.0
3	☐	5.000	4.919	44621.67	0.0137	P	1.3
4	☐	10.000	9.876	89709.73	0.0274	P	4.5
5	☐	100.000	93.575	832234.39	0.2593	P	0.4
6	☐	200.000	203.221	1750222.00	0.5632	A	1.6
7	☐	1.000					

y = 0.0028 * x + 2.4717E-005
R = 0.9993
DL = 0.01674
BEC = 0.008919

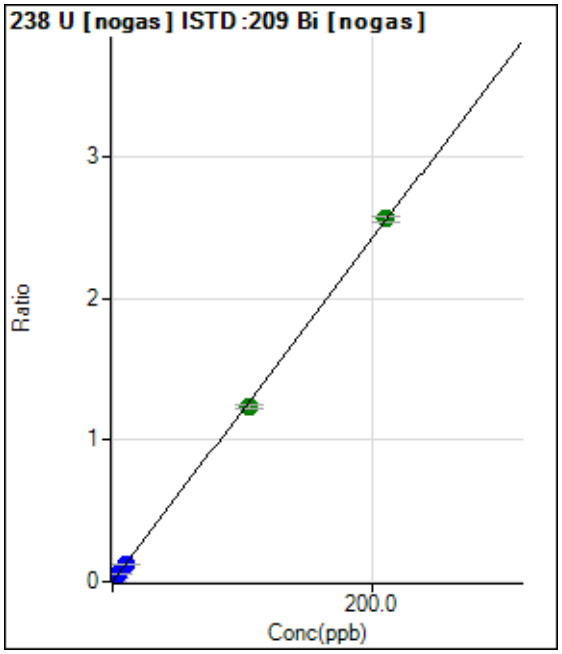
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	520.01		P	8.4
2	☐	2.000	2.042	80786.43		P	1.2
3	☐	5.000	5.163	203473.15		P	1.1
4	☐	10.000	10.339	406958.17		P	0.8
5	☐	100.000	99.504	3912173.66		A	1.1
6	☐	200.000	200.226	7871714.00		A	0.8
7	☐	1.000					

y = 39311.4533 * x + 520.0100
R = 1.0000
DL = 0.003326
BEC = 0.01323

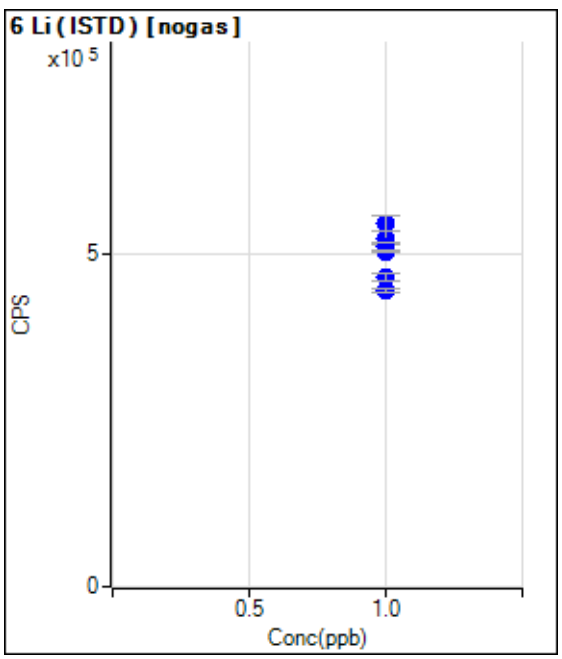
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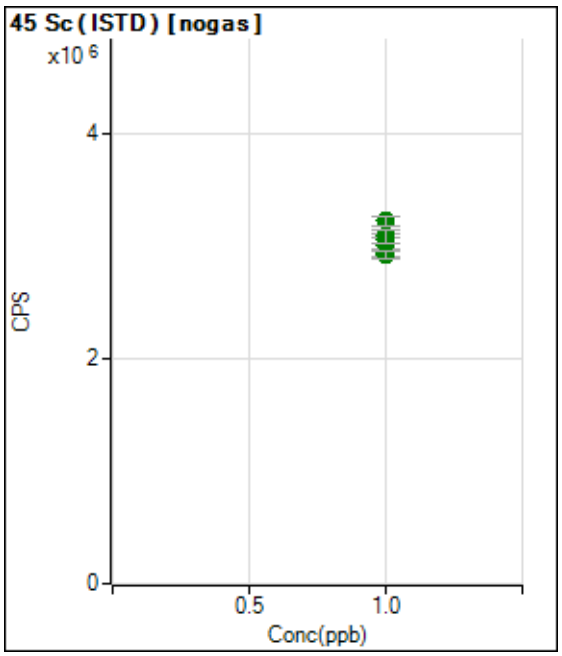
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.33	0.0000	P	32.5
2	☐	2.000	1.971	76783.24	0.0240	P	7.3
3	☐	5.000	4.817	191048.86	0.0585	P	2.9
4	☐	10.000	9.667	384458.58	0.1174	P	2.5
5	☐	105.000	102.290	3983392.44	1.2415	A	2.4
6	☐	210.000	211.376	7972173.00	2.5655	A	1.7
7	☐	1.000					

y = 0.0121 * x + 2.6813E-005
R = 0.9999
DL = 0.002155
BEC = 0.002209

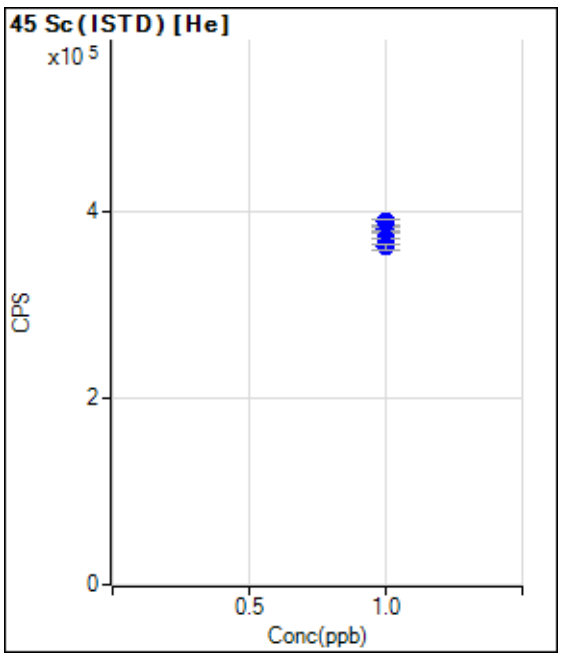
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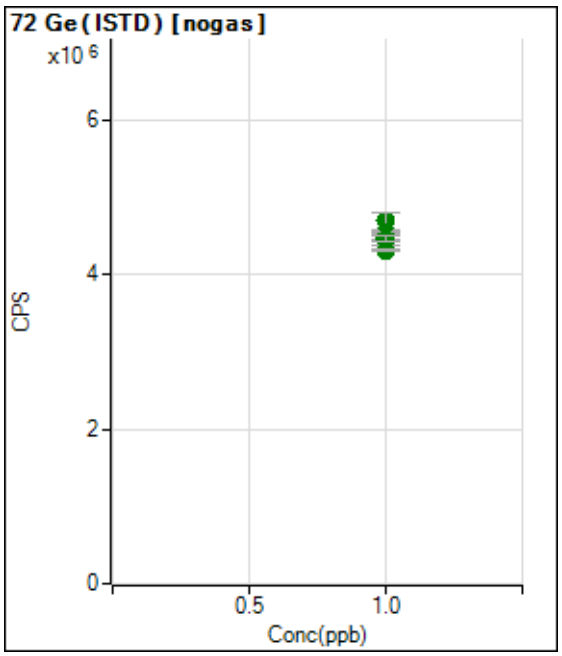
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		544171.82		P	4.3
2	☐	1.000		522848.28		P	3.6
3	☐	1.000		509199.99		P	2.5
4	☐	1.000		502132.67		P	0.6
5	☐	1.000		465061.19		P	2.4
6	☐	1.000		443824.68		P	1.2
7	☐	1.000					



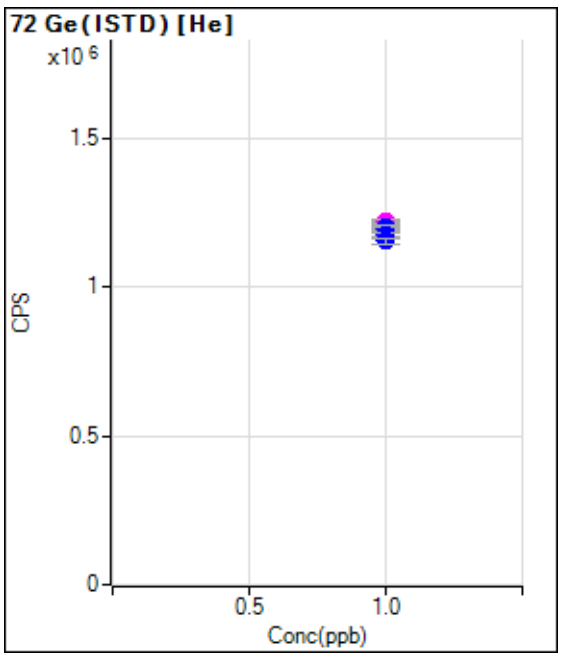
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3227297.97		A	2.8
2	☐	1.000		3004677.98		A	6.7
3	☐	1.000		3054106.00		A	2.2
4	☐	1.000		3088246.93		A	4.2
5	☐	1.000		2942485.06		A	2.2
6	☐	1.000		2918233.18		A	2.2
7	☐	1.000					



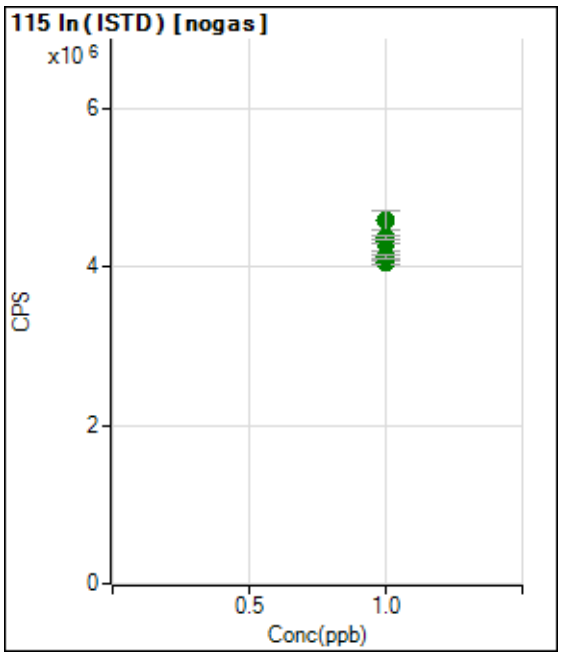
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		388954.99		P	1.3
2	☐	1.000		380578.40		P	1.8
3	☐	1.000		381065.19		P	1.5
4	☐	1.000		377858.43		P	0.5
5	☐	1.000		370859.71		P	0.4
6	☐	1.000		362374.83		P	1.5
7	☐	1.000					



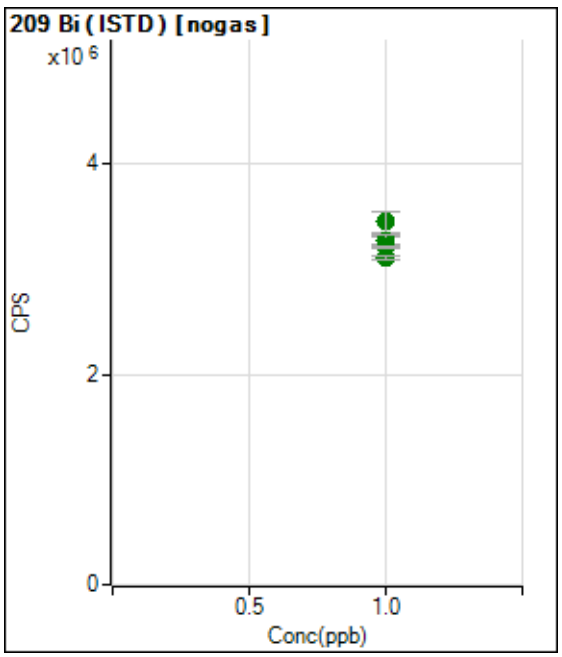
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4694788.16		A	5.0
2	☐	1.000		4479805.66		A	4.1
3	☐	1.000		4544189.41		A	1.0
4	☐	1.000		4502355.87		A	2.6
5	☐	1.000		4464144.20		A	2.0
6	☐	1.000		4314009.52		A	0.3
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1211365.37		M	2.1
2	☐	1.000		1221002.72		M	0.9
3	☐	1.000		1195185.04		P	0.9
4	☐	1.000		1205541.57		P	0.4
5	☐	1.000		1178370.35		P	0.9
6	☐	1.000		1155623.16		P	1.2
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4574578.14		A	5.2
2	☐	1.000		4285105.78		A	4.8
3	☐	1.000		4318046.67		A	1.0
4	☐	1.000		4363766.40		A	1.4
5	☐	1.000		4044495.50		A	1.5
6	☐	1.000		4117661.17		A	1.1
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3446413.39		A	5.9
2	☐	1.000		3214315.48		A	5.6
3	☐	1.000		3267445.16		A	2.2
4	☐	1.000		3277440.78		A	2.7
5	☐	1.000		3208901.62		A	0.7
6	☐	1.000		3107747.98		A	1.2
7	☐	1.000					

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	005CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T11:45:44-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	160	23.76
Na	23	1	nogas	622878	0.00
Mg	24	1	nogas	8237	0.13
Al	27	1	nogas	32035	0.01
K	39	1	nogas	8469870	0.00
Ti	47	1	nogas	163	12.05
V	51	1	nogas	1513946	0.00
Cr	52	1	nogas	86896	0.00
Mn	55	1	nogas	15393	0.01
Co	59	1	nogas	500	5.97
Ni	60	1	nogas	550	2.38
Cu	63	1	nogas	5868	0.08
Zn	66	1	nogas	1490	0.79
As	75	1	nogas	199993	0.00
Sr	88	1	nogas	1773	0.78
Ag	107	1	nogas	193	1.55
Cd	111	1	nogas	37	281.60
Sb	121	1	nogas	2807	0.24
Tl	205	1	nogas	250	2.77
Pb	208	1	nogas	903	0.72
[Pb]	206	1	nogas	267	9.36
[Pb]	207	1	nogas	207	9.75
Na	23	2	He	76985	0.00
Mg	24	2	He	680	3.38
Al	27	2	He	1013	1.86
K	39	2	He	256642	0.00
Ca	43	2	He	30	222.22
Ca	44	2	He	1540	1.01
V	51	2	He	23421	0.00
Cr	52	2	He	6021	0.07
Mn	55	2	He	730	1.35
Fe	56	2	He	20538	0.02
Co	59	2	He	123	13.69
Ni	60	2	He	233	7.42
Cu	63	2	He	2567	0.38
Zn	66	2	He	403	2.48
As	75	2	He	1079	0.39
Se	78	2	He	243	4.68
B	11	1	nogas	18629	0.00
Si	28	1	nogas	1846138	0.00
Ca	43	1	nogas	760	0.35
Ca	44	1	nogas	71503	0.00

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	3456289	0.00
Se	77	1	nogas	64879	0.00
Se	82	1	nogas	523	5.48
Mo	95	1	nogas	117	8.48
Sn	118	1	nogas	4794	0.12
Ba	137	1	nogas	163	12.05
Sb	121	2	He	1240	0.81
Li	7	1	nogas	53291	0.01
P	31	1	nogas	59363	0.00
La	139	1	nogas	547	4.24

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	nogas	595543	1.56
Ge	72	1	nogas	4065875	1.60
In	115	1	nogas	3843287	0.49
Bi	209	1	nogas	2899550	3.62
Ge	72	2	He	1104609	2.02

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	006CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T11:47:43-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	9169	0.08
Na	23	1	nogas	5213611	0.00
Mg	24	1	nogas	3201790	0.00
Al	27	1	nogas	73750	0.00
K	39	1	nogas	13176445	0.00
Ti	47	1	nogas	4811	0.15
V	51	1	nogas	1566850	0.00
Cr	52	1	nogas	141689	0.00
Mn	55	1	nogas	83043	0.00
Co	59	1	nogas	59780	0.00
Ni	60	1	nogas	14099	0.02
Cu	63	1	nogas	37539	0.01
Zn	66	1	nogas	12578	0.01
As	75	1	nogas	211575	0.00
Sr	88	1	nogas	74782	0.00
Ag	107	1	nogas	37416	0.00
Cd	111	1	nogas	7899	0.08
Sb	121	1	nogas	36502	0.00
Tl	205	1	nogas	52538	0.01
Pb	208	1	nogas	73182	0.00
[Pb]	206	1	nogas	18180	0.02
[Pb]	207	1	nogas	15908	0.02
Na	23	2	He	426096	0.00
Mg	24	2	He	202840	0.00
Al	27	2	He	2267	0.35
K	39	2	He	505375	0.00
Ca	43	2	He	770	0.84
Ca	44	2	He	13548	0.01
V	51	2	He	39990	0.00
Cr	52	2	He	23278	0.02
Mn	55	2	He	13749	0.02
Fe	56	2	He	1686626	0.00
Co	59	2	He	25201	0.01
Ni	60	2	He	6538	0.05
Cu	63	2	He	18209	0.02
Zn	66	2	He	4641	0.17
As	75	2	He	4960	0.06
Se	78	2	He	588	0.46
B	11	1	nogas	46065	0.00
Si	28	1	nogas	2929730	0.00

Calibration Standard Report

Ca	43	1	nogas	9479	0.05
Ca	44	1	nogas	213903	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	9565483	0.00
Se	77	1	nogas	65919	0.00
Se	82	1	nogas	1103	1.72
Mo	95	1	nogas	14383	0.01
Sn	118	1	nogas	22194	0.01
Ba	137	1	nogas	11291	0.03
Sb	121	2	He	14960	0.01
P	31	1	nogas	76622	0.00
La	139	1	nogas	503	2.96

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	595242	0.89	595543	99.95	70	125	
Ge	72	1	nogas	4110657	0.57	4065875	101.10	70	125	
In	115	1	nogas	3854606	1.08	3843287	100.29	70	125	
Bi	209	1	nogas	2923356	1.73	2899550	100.82	70	125	
Ge	72	2	He	1112928	7.41	1104609	100.75	70	125	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	007CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T11:49:41-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	23875	0.01
Na	23	1	nogas	12107213	0.00
Mg	24	1	nogas	7910490	0.00
Al	27	1	nogas	131883	0.00
K	39	1	nogas	20391448	0.00
Ti	47	1	nogas	11100	0.01
V	51	1	nogas	1672741	0.00
Cr	52	1	nogas	224597	0.00
Mn	55	1	nogas	186500	0.00
Co	59	1	nogas	153021	0.00
Ni	60	1	nogas	34783	0.01
Cu	63	1	nogas	84987	0.00
Zn	66	1	nogas	42800	0.01
As	75	1	nogas	233001	0.00
Sr	88	1	nogas	189018	0.00
Ag	107	1	nogas	94361	0.00
Cd	111	1	nogas	20482	0.01
Sb	121	1	nogas	85833	0.00
Tl	205	1	nogas	133016	0.00
Pb	208	1	nogas	183221	0.00
[Pb]	206	1	nogas	45814	0.00
[Pb]	207	1	nogas	40093	0.01
Na	23	2	He	944495	0.00
Mg	24	2	He	502868	0.00
Al	27	2	He	3867	0.11
K	39	2	He	878878	0.00
Ca	43	2	He	1950	0.51
Ca	44	2	He	31273	0.01
V	51	2	He	64669	0.00
Cr	52	2	He	50723	0.00
Mn	55	2	He	33738	0.00
Fe	56	2	He	4230748	0.00
Co	59	2	He	62533	0.01
Ni	60	2	He	15990	0.02
Cu	63	2	He	42028	0.00
Zn	66	2	He	11714	0.04
As	75	2	He	10998	0.02
Se	78	2	He	1065	0.03
B	11	1	nogas	91544	0.00
Si	28	1	nogas	4654272	0.00

Calibration Standard Report

Ca	43	1	nogas	22464	0.01
Ca	44	1	nogas	432832	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	19115388	0.00
Se	77	1	nogas	67923	0.00
Se	82	1	nogas	2284	0.31
Mo	95	1	nogas	37296	0.01
Sn	118	1	nogas	54639	0.01
Ba	137	1	nogas	27923	0.01
Sb	121	2	He	35369	0.00
P	31	1	nogas	103870	0.00
La	139	1	nogas	180	23.30

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	575211	3.06	595543	96.59	70	125	
Ge	72	1	nogas	3919453	5.88	4065875	96.40	70	125	
In	115	1	nogas	3639726	5.47	3843287	94.70	70	125	
Bi	209	1	nogas	2788279	4.19	2899550	96.16	70	125	
Ge	72	2	He	1095517	0.81	1104609	99.18	70	125	

Calibration Standard Report

Sample Table

Sample Name	10/50/1000
Data File Name	008CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T11:51:39-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	46898	0.00
Na	23	1	nogas	23263137	0.00
Mg	24	1	nogas	15802932	0.00
Al	27	1	nogas	237767	0.00
K	39	1	nogas	32045815	0.00
Ti	47	1	nogas	22788	0.01
V	51	1	nogas	1894248	0.00
Cr	52	1	nogas	356119	0.00
Mn	55	1	nogas	355193	0.00
Co	59	1	nogas	305803	0.00
Ni	60	1	nogas	69719	0.00
Cu	63	1	nogas	166519	0.00
Zn	66	1	nogas	55508	0.00
As	75	1	nogas	277720	0.00
Sr	88	1	nogas	377707	0.00
Ag	107	1	nogas	189755	0.00
Cd	111	1	nogas	39715	0.00
Sb	121	1	nogas	169412	0.00
Tl	205	1	nogas	259152	0.00
Pb	208	1	nogas	364790	0.00
[Pb]	206	1	nogas	89563	0.00
[Pb]	207	1	nogas	80157	0.00
Na	23	2	He	1845957	0.00
Mg	24	2	He	1010775	0.00
Al	27	2	He	7285	0.05
K	39	2	He	1558590	0.00
Ca	43	2	He	3607	0.08
Ca	44	2	He	60839	0.00
V	51	2	He	106210	0.00
Cr	52	2	He	96530	0.00
Mn	55	2	He	66299	0.00
Fe	56	2	He	8229108	0.00
Co	59	2	He	122958	0.00
Ni	60	2	He	31814	0.01
Cu	63	2	He	82786	0.00
Zn	66	2	He	19878	0.02
As	75	2	He	20835	0.01
Se	78	2	He	1860	0.28
B	11	1	nogas	166264	0.00
Si	28	1	nogas	7473449	0.00

Calibration Standard Report

Ca	43	1	nogas	45085	0.01
Ca	44	1	nogas	792482	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	34332120	0.00
Se	77	1	nogas	73173	0.00
Se	82	1	nogas	4104	0.24
Mo	95	1	nogas	75366	0.00
Sn	118	1	nogas	109061	0.00
Ba	137	1	nogas	54516	0.00
Sb	121	2	He	69698	0.00
P	31	1	nogas	148468	0.00
La	139	1	nogas	517	4.71

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	589825	1.51	595543	99.04	70	125	
Ge	72	1	nogas	4063473	1.98	4065875	99.94	70	125	
In	115	1	nogas	3900216	3.16	3843287	101.48	70	125	
Bi	209	1	nogas	2923122	2.94	2899550	100.81	70	125	
Ge	72	2	He	1087910	1.06	1104609	98.49	70	125	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	009CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T11:53:37-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	444674	0.00
Na	23	1	nogas	211869280	0.00
Mg	24	1	nogas	145058495	0.00
Al	27	1	nogas	1855410	0.00
K	39	1	nogas	229488580	0.00
Ti	47	1	nogas	212322	0.00
V	51	1	nogas	4430889	0.00
Cr	52	1	nogas	2664508	0.00
Mn	55	1	nogas	3239168	0.00
Co	59	1	nogas	2851929	0.00
Ni	60	1	nogas	635879	0.00
Cu	63	1	nogas	1555373	0.00
Zn	66	1	nogas	504697	0.00
As	75	1	nogas	851062	0.00
Sr	88	1	nogas	3601432	0.00
Ag	107	1	nogas	1809848	0.00
Cd	111	1	nogas	386577	0.00
Sb	121	1	nogas	1642797	0.00
Tl	205	1	nogas	2632953	0.00
Pb	208	1	nogas	3508379	0.00
[Pb]	206	1	nogas	860369	0.00
[Pb]	207	1	nogas	763067	0.00
Na	23	2	He	16051215	0.00
Mg	24	2	He	9316939	0.00
Al	27	2	He	54983	0.00
K	39	2	He	12100890	0.00
Ca	43	2	He	32886	0.00
Ca	44	2	He	565601	0.00
V	51	2	He	807113	0.00
Cr	52	2	He	843937	0.00
Mn	55	2	He	618663	0.00
Fe	56	2	He	78782417	0.00
Co	59	2	He	1170686	0.00
Ni	60	2	He	298445	0.00
Cu	63	2	He	745836	0.00
Zn	66	2	He	184889	0.00
As	75	2	He	190634	0.00
Se	78	2	He	16053	0.02
B	11	1	nogas	1449664	0.00
Si	28	1	nogas	54892154	0.00

Calibration Standard Report

Ca	43	1	nogas	413417	0.00
Ca	44	1	nogas	6914195	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	290292281	0.00
Se	77	1	nogas	96535	0.00
Se	82	1	nogas	34924	0.01
Mo	95	1	nogas	708763	0.00
Sn	118	1	nogas	1028027	0.00
Ba	137	1	nogas	521092	0.00
Sb	121	2	He	662626	0.00
P	31	1	nogas	875426	0.00
La	139	1	nogas	610	2.56

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	541045	0.32	595543	90.85	70	125	
Ge	72	1	nogas	3973927	3.32	4065875	97.74	70	125	
In	115	1	nogas	3710842	0.75	3843287	96.55	70	125	
Bi	209	1	nogas	2758217	1.24	2899550	95.13	70	125	
Ge	72	2	He	1078033	1.34	1104609	97.59	70	125	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	010CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T11:55:38-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	855322	0.00
Na	23	1	nogas	415436334	0.00
Mg	24	1	nogas	278845573	0.00
Al	27	1	nogas	3486444	0.00
K	39	1	nogas	446364860	0.00
Ti	47	1	nogas	415114	0.00
V	51	1	nogas	7197615	0.00
Cr	52	1	nogas	5068116	0.00
Mn	55	1	nogas	6252818	0.00
Co	59	1	nogas	5501283	0.00
Ni	60	1	nogas	1220409	0.00
Cu	63	1	nogas	3007805	0.00
Zn	66	1	nogas	979724	0.00
As	75	1	nogas	1543977	0.00
Sr	88	1	nogas	6906295	0.00
Ag	107	1	nogas	3557430	0.00
Cd	111	1	nogas	749964	0.00
Sb	121	1	nogas	3365545	0.00
Tl	205	1	nogas	4924224	0.00
Pb	208	1	nogas	6899134	0.00
[Pb]	206	1	nogas	1679119	0.00
[Pb]	207	1	nogas	1528986	0.00
Na	23	2	He	30805809	0.00
Mg	24	2	He	18182350	0.00
Al	27	2	He	106206	0.00
K	39	2	He	23568880	0.00
Ca	43	2	He	65398	0.00
Ca	44	2	He	1104649	0.00
V	51	2	He	1567694	0.00
Cr	52	2	He	1679222	0.00
Mn	55	2	He	1183833	0.00
Fe	56	2	He	150782911	0.00
Co	59	2	He	2320797	0.00
Ni	60	2	He	571624	0.00
Cu	63	2	He	1509846	0.00
Zn	66	2	He	365159	0.00
As	75	2	He	366710	0.00
Se	78	2	He	30892	0.00
B	11	1	nogas	2820628	0.00
Si	28	1	nogas	104609685	0.00

Calibration Standard Report

Ca	43	1	nogas	800966	0.00
Ca	44	1	nogas	13345233	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	572113396	0.00
Se	77	1	nogas	125029	0.00
Se	82	1	nogas	67857	0.00
Mo	95	1	nogas	1405652	0.00
Sn	118	1	nogas	2066594	0.00
Ba	137	1	nogas	1016957	0.00
Sb	121	2	He	1357152	0.00
P	31	1	nogas	1694579	0.00
La	139	1	nogas	1047	0.98

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	510273	1.28	595543	85.68	70	125	
Ge	72	1	nogas	3862641	1.06	4065875	95.00	70	125	
In	115	1	nogas	3609525	3.15	3843287	93.92	70	125	
Bi	209	1	nogas	2759956	0.80	2899550	95.19	70	125	
Ge	72	2	He	1073327	1.50	1104609	97.17	70	125	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	012_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T11:59:35-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	99.979	3.469	451936	0.65	100	100.0	90	110	
Na	23	1	nogas	9744.993	3.435	214041913	1.36	10000	97.4	90	110	
Mg	24	1	nogas	9835.580	2.790	145439857	0.58	10000	98.4	90	110	
Al	27	1	nogas	103.954	0.267	1948726	1.63	100	104.0	90	110	
K	39	1	nogas	9734.147	1.948	233967272	0.90	10000	97.3	90	110	
Ti	47	1	nogas	97.260	2.263	214010	2.47	100	97.3	90	110	
V	51	1	nogas	84.255	3.927	4098593	1.40	100	84.3	90	110	ICV Main CR1 Failed
Cr	52	1	nogas	97.780	2.713	2676186	1.89	100	97.8	90	110	
Mn	55	1	nogas	97.694	2.271	3250334	1.40	100	97.7	90	110	
Co	59	1	nogas	101.145	0.905	2957307	2.28	100	101.1	90	110	
Ni	60	1	nogas	99.021	0.258	644164	1.63	100	99.0	90	110	
Cu	63	1	nogas	97.331	0.868	1557051	2.19	100	97.3	90	110	
Zn	66	1	nogas	98.084	2.584	512473	1.48	100	98.1	90	110	
As	75	1	nogas	87.407	3.045	821068	1.27	100	87.4	90	110	ICV Main CR1 Failed
Sr	88	1	nogas	96.789	2.754	3556925	4.04	100	96.8	90	110	
Ag	107	1	nogas	100.167	0.862	1885915	0.59	100	100.2	90	110	
Cd	111	1	nogas	98.483	5.805	395036	1.94	100	98.5	90	110	
Sb	121	1	nogas	101.364	3.734	1792438	4.75	100	101.4	90	110	
Tl	205	1	nogas	102.666	1.265	2743104	2.52	100	102.7	90	110	
Pb	208	1	nogas	103.313	1.393	3576830	1.39	100	103.3	90	110	
U	238	1	nogas	99.864	2.173	3573744	1.17	100	99.9	90	110	
[Pb]	206	1	nogas	99.677	0.078	900189	1.58	100	99.7	90	110	
[Pb]	207	1	nogas	91.527	1.557	748494	0.08	100	91.5	90	110	
Na	23	2	He	9633.968	2.130	15853442	1.96	10000	96.3	90	110	
Mg	24	2	He	9692.020	0.724	9361044	0.67	10000	96.9	90	110	
Al	27	2	He	97.976	0.985	55990	1.33	100	98.0	90	110	
K	39	2	He	10229.009	2.664	12221333	2.61	10000	102.3	90	110	
Ca	43	2	He	9604.484	2.255	33243	1.40	10000	96.0	90	110	
Ca	44	2	He	9645.506	1.340	566453	0.27	10000	96.5	90	110	
V	51	2	He	97.972	1.051	827637	2.08	100	98.0	90	110	
Cr	52	2	He	97.731	0.766	870904	0.35	100	97.7	90	110	
Mn	55	2	He	101.197	2.139	639124	1.12	100	101.2	90	110	
Fe	56	2	He	9690.671	2.349	77909241	1.29	10000	96.9	90	110	
Co	59	2	He	96.735	1.838	1188487	0.76	100	96.7	90	110	
Ni	60	2	He	99.960	2.154	305492	1.73	100	100.0	90	110	
Cu	63	2	He	96.629	1.743	770128	1.57	100	96.6	90	110	
Zn	66	2	He	98.525	0.122	191170	1.14	100	98.5	90	110	
As	75	2	He	99.922	0.097	195634	1.06	100	99.9	90	110	
Se	78	2	He	97.096	0.590	16108	0.58	100	97.1	90	110	
B	11	1	nogas	499.271	3.267	1492651	4.08	500	99.9	90	110	
Si	28	1	nogas	497.482	1.644	7293081	0.22	5000	9.9	90	110	ICV Main CR1 Failed
Ca	43	1	nogas	9731.809	2.173	414140	2.55	10000	97.3	90	110	
Ca	44	1	nogas	9653.837	1.463	6875278	1.87	10000	96.5	90	110	
Fe	56	1	nogas	9548.562	3.337	290383998	2.07	10000	95.5	90	110	
Se	77	1	nogas	46.943	4.671	81281	1.37	100	46.9	90	110	ICV Main CR1 Failed
Se	82	1	nogas	97.949	0.478	35475	1.57	100	97.9	90	110	
Mo	95	1	nogas	96.541	0.656	717016	2.02	100	96.5	90	110	
Sn	118	1	nogas	93.587	3.633	1030319	0.72	100	93.6	90	110	
Ba	137	1	nogas	97.905	4.283	532223	1.12	100	97.9	90	110	
Sb	121	2	He	98.310	1.030	702291	1.05	100	98.3	90	110	
Li	7	1	nogas	98.590	1.575	910612	1.52	100	98.6	90	110	
P	31	1	nogas	485.960	1.218	899419	1.53	500	97.2	90	110	
La	139	1	nogas	190.545	19.681	1010	10.05	100	190.5	90	110	ICV Main CR1 Failed
Au	197	1	nogas	-0.388	-9774.560	10	100.00	100	-0.4	90	110	ICV 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	nogas	541740	2.86	595543	90.97	70	125	
Ge	72	1	nogas	4096861	1.37	4065875	100.76	70	125	
In	115	1	nogas	3863983	4.39	3843287	100.54	70	125	
Bi	209	1	nogas	2953156	1.54	2899550	101.85	70	125	

Initial Calibration Verification (ICV) Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Ge	72	2	He	1135153	1.08	1104609	102.77	70	125	

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	013SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T12:01:33-05:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	005CALB.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
Be	9	1	nogas	1.956	1.956	3.76	9779	0.02	2000	
Na	23	1	nogas	217.711	217.711	3.51	5417654	0.00	200000	
Mg	24	1	nogas	224.041	224.041	2.42	3323631	0.01	200000	
Al	27	1	nogas	2.206	2.206	0.74	75313	0.00	2000	
K	39	1	nogas	195.851	195.851	3.59	13492807	0.00	200000	
Ti	47	1	nogas	2.126	2.126	1.10	4994	0.04	2000	
V	51	1	nogas	-9.788	-9.788	-19.97	1265815	0.00	2000	
Cr	52	1	nogas	1.514	1.514	4.61	131751	0.00	2000	
Mn	55	1	nogas	2.077	2.077	3.19	86994	0.00	2000	
Co	59	1	nogas	2.061	2.061	1.75	62717	0.00	2000	
Ni	60	1	nogas	1.615	1.615	5.09	14413	0.01	2000	
Cu	63	1	nogas	1.991	1.991	1.62	38845	0.01	2000	
Zn	66	1	nogas	1.298	1.298	3.43	13635	0.01	2000	
As	75	1	nogas	-3.065	-3.065	-18.13	183586	0.00	2000	
Sr	88	1	nogas	2.074	2.074	0.40	80459	0.00	2000	
Ag	107	1	nogas	2.074	2.074	2.55	40503	0.01	2000	
Cd	111	1	nogas	2.001	2.001	2.99	8439	0.02	2000	
Sb	121	1	nogas	2.187	2.187	1.52	42776	0.01	2000	
Tl	205	1	nogas	2.004	2.004	2.65	56625	0.00	2000	
Pb	208	1	nogas	2.283	2.283	0.23	79918	0.00	2000	
U	238	1	nogas	2.001	2.001	1.58	75550	0.00	2000	
[Pb]	206	1	nogas	1.991	1.991	5.29	19205	0.01	2000	
[Pb]	207	1	nogas	2.040	2.040	0.91	17783	0.01	2000	
Na	23	2	He	225.937	225.937	10.54	436490	0.05	200000	
Mg	24	2	He	221.603	221.603	8.13	208762	0.11	200000	
Al	27	2	He	1.930	1.930	28.99	2474	0.08	2000	
K	39	2	He	213.931	213.931	1.63	506874	0.04	200000	
Ca	43	2	He	192.102	192.102	12.24	680	28.25	200000	
Ca	44	2	He	212.627	212.627	9.54	13645	1.56	200000	
V	51	2	He	1.264	1.264	31.26	35974	0.00	2000	
Cr	52	2	He	2.057	2.057	16.71	23662	0.01	2000	
Mn	55	2	He	2.307	2.307	6.65	14896	0.02	2000	
Fe	56	2	He	235.460	235.460	10.55	1858569	0.01	200000	
Co	59	2	He	2.227	2.227	11.56	26680	0.01	2000	
Ni	60	2	He	1.486	1.486	13.25	6691	0.02	2000	
Cu	63	2	He	2.030	2.030	10.07	18173	0.01	2000	
Zn	66	2	He	1.793	1.793	14.90	4717	0.04	2000	
As	75	2	He	1.968	1.968	13.40	4797	0.04	2000	
Se	78	2	He	1.633	1.633	26.18	573	0.29	2000	
B	11	1	nogas	17.474	17.474	5.00	74591	0.02	2000	
Si	28	1	nogas	90.344	90.344	3.45	2939204	0.00	2000	
Ca	43	1	nogas	209.809	209.809	1.73	9989	2.10	200000	

Sample Report

Ca	44	1	nogas	198.712	198.712	1.16	218930	0.09	200000	
Fe	56	1	nogas	183.715	183.715	4.78	9295107	0.00	200000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Se	77	1	nogas	-34.221	-34.221	-16.30	55518	-0.06	2000	
Se	82	1	nogas	1.859	1.859	23.16	1230	0.15	2000	
Mo	95	1	nogas	2.195	2.195	3.06	16942	0.01	2000	
Sn	118	1	nogas	1.737	1.737	3.48	24955	0.01	2000	
Ba	137	1	nogas	2.069	2.069	4.28	11934	0.02	2000	
Sb	121	2	He	2.348	2.348	8.16	17519	0.01	2000	
La	139	1	nogas	15.683	15.683	183.22	613	2.56	2000	
Au	197	1	nogas	44.666	44.666	121.89	23	191.42	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	589206	1.32	595543	98.94	70	125	
Ge	72	1	nogas	4228896	0.59	4065875	104.01	70	125	
In	115	1	nogas	4039793	1.95	3843287	105.11	70	125	
Bi	209	1	nogas	3108571	1.05	2899550	107.21	70	125	
Ge	72	2	He	1108194	7.67	1104609	100.32	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	LLICV5
Data File Name	014LICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T12:03:31-05:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	4.678	4.289	23745	4.97	5	93.6	70	130	
Na	23	1	nogas	529.051	2.007	12542919	0.43	500	105.8	70	130	
Mg	24	1	nogas	533.137	2.173	8092220	1.53	500	106.6	70	130	
Al	27	1	nogas	5.466	4.249	133515	2.33	5	109.3	70	130	
K	39	1	nogas	527.186	1.763	20820156	0.12	500	105.4	70	130	
Ti	47	1	nogas	5.169	2.355	11570	1.78	5	103.4	70	130	
V	51	1	nogas	-2.476	-55.992	1454788	2.12	5	-49.5	70	130	LLICV Main CR1 Failed
Cr	52	1	nogas	4.926	4.117	218739	1.40	5	98.5	70	130	
Mn	55	1	nogas	5.262	0.671	190456	1.66	5	105.2	70	130	
Co	59	1	nogas	5.240	0.911	154228	0.90	5	104.8	70	130	
Ni	60	1	nogas	4.993	0.975	35949	0.80	5	99.9	70	130	
Cu	63	1	nogas	5.170	0.909	88620	1.44	5	103.4	70	130	
Zn	66	1	nogas	4.101	1.432	27771	1.15	5	82.0	70	130	
As	75	1	nogas	2.014	39.322	214715	1.60	5	40.3	70	130	LLICV Main CR1 Failed
Sr	88	1	nogas	5.341	3.198	198594	2.14	5	106.8	70	130	
Ag	107	1	nogas	5.257	1.517	99526	1.60	5	105.1	70	130	
Cd	111	1	nogas	4.943	3.444	20709	5.53	5	98.9	70	130	
Sb	121	1	nogas	4.914	5.270	89890	4.99	5	98.3	70	130	
Tl	205	1	nogas	4.984	0.928	138342	1.76	5	99.7	70	130	
Pb	208	1	nogas	5.478	2.523	190522	2.51	5	109.6	70	130	
U	238	1	nogas	4.896	1.484	181883	2.69	5	97.9	70	130	
[Pb]	206	1	nogas	5.040	2.334	47460	1.41	5	100.8	70	130	
[Pb]	207	1	nogas	4.895	1.717	41727	1.95	5	97.9	70	130	
Na	23	2	He	531.154	0.730	962278	0.59	500	106.2	70	130	
Mg	24	2	He	518.804	2.327	508833	1.99	500	103.8	70	130	
Al	27	2	He	4.635	8.715	4111	5.27	5	92.7	70	130	
K	39	2	He	530.601	0.524	877277	0.37	500	106.1	70	130	
Ca	43	2	He	520.591	4.161	1857	3.78	500	104.1	70	130	
Ca	44	2	He	514.213	1.110	32148	0.81	500	102.8	70	130	
V	51	2	He	4.142	0.722	61391	0.74	5	82.8	70	130	
Cr	52	2	He	4.867	1.362	49954	1.05	5	97.3	70	130	
Mn	55	2	He	5.260	1.066	34416	1.66	5	105.2	70	130	
Fe	56	2	He	532.858	1.496	4365349	1.33	500	106.6	70	130	
Co	59	2	He	5.161	2.034	64433	1.58	5	103.2	70	130	
Ni	60	2	He	4.614	1.044	16601	1.16	5	92.3	70	130	
Cu	63	2	He	4.946	2.101	42446	2.17	5	98.9	70	130	
Zn	66	2	He	4.740	1.457	10683	1.78	5	94.8	70	130	
As	75	2	He	4.915	3.850	10827	2.82	5	98.3	70	130	
Se	78	2	He	4.336	7.073	1044	4.24	5	86.7	70	130	
B	11	1	nogas	27.302	1.357	108851	2.09	25	109.2	70	130	
Si	28	1	nogas	249.868	4.188	4605390	1.46	25	999.5	70	130	LLICV Main CR1 Failed
Ca	43	1	nogas	532.638	2.255	23472	1.10	500	106.5	70	130	
Ca	44	1	nogas	518.687	1.477	439169	1.43	500	103.7	70	130	
Fe	56	1	nogas	509.188	1.014	18855194	1.56	500	101.8	70	130	
Se	77	1	nogas	-13.563	-47.481	60992	2.67	5	-271.3	70	130	LLICV Main CR1 Failed
Se	82	1	nogas	5.011	4.649	2324	2.93	5	100.2	70	130	
Mo	95	1	nogas	5.147	0.330	38472	1.27	5	102.9	70	130	
Sn	118	1	nogas	4.473	2.257	56047	1.11	5	89.5	70	130	
Ba	137	1	nogas	4.923	2.774	28026	0.81	5	98.5	70	130	
Sb	121	2	He	4.853	0.801	36385	1.37	5	97.1	70	130	
Li	7	1	nogas	4.753	2.079	100368	1.02	5	95.1	70	130	
P	31	1	nogas	26.762	2.515	106438	0.27	25	107.0	70	130	
La	139	1	nogas	-171.249	-14.333	140	42.86	5	-3425.0	70	130	LLICV Main CR1 Failed
Au	197	1	nogas	-14.288	-144.554	7	86.60	5	-285.8	70	130	LLICV 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	nogas	603841	1.22	595543	101.39	70	125	
Ge	72	1	nogas	4111676	1.10	4065875	101.13	70	125	
In	115	1	nogas	4020193	2.33	3843287	104.60	70	125	
Bi	209	1	nogas	3062267	1.24	2899550	105.61	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Ge	72	2	He	1151197	0.63	1104609	104.22	70	125	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	015_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T12:05:28-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.013	121.0	223	38.1	1	
Na	23	1	nogas	-0.440	-393.5	626516	0.8	100	
Mg	24	1	nogas	0.326	62.2	13074	17.1	100	
Al	27	1	nogas	0.479	29.1	41857	1.9	5	
K	39	1	nogas	-14.183	-187.1	8348150	0.7	100	
Ti	47	1	nogas	0.019	151.8	207	22.9	2.5	
V	51	1	nogas	-7.449	-32.5	1321248	1.5	2.5	
Cr	52	1	nogas	-0.361	-34.7	79456	2.7	2.5	
Mn	55	1	nogas	-0.025	-115.8	14929	0.6	2.5	
Co	59	1	nogas	0.004	137.8	640	21.0	2.5	
Ni	60	1	nogas	-0.467	-2.6	507	18.3	2.5	
Cu	63	1	nogas	-0.115	-24.5	4141	5.8	2.5	
Zn	66	1	nogas	-1.042	-3.6	1150	10.3	2.5	
As	75	1	nogas	-3.716	-37.4	176358	1.7	2.5	
Sr	88	1	nogas	0.010	34.3	2180	3.3	2.5	
Ag	107	1	nogas	0.011	16.7	420	13.3	2.5	
Cd	111	1	nogas	0.002	197.8	47	44.6	1	
Sb	121	1	nogas	0.101	23.0	4684	2.0	2.5	
Tl	205	1	nogas	0.015	49.7	653	23.2	1	
Pb	208	1	nogas	0.010	26.4	1243	7.2	2.5	
U	238	1	nogas	0.005	36.9	320	20.5	2.5	
[Pb]	206	1	nogas	0.004	29.8	310	6.5	2.5	
[Pb]	207	1	nogas	0.007	171.5	263	26.9	2.5	
Na	23	2	He	-1.734	-30.8	76858	1.3	100	
Mg	24	2	He	0.301	44.6	1000	13.9	100	
Al	27	2	He	-0.616	-22.7	1140	6.1	5	
K	39	2	He	-5.679	-31.4	250000	0.8	100	
Ca	43	2	He	3.557	256.5	43	74.2	100	
Ca	44	2	He	-0.681	-420.3	1557	11.7	100	
V	51	2	He	-0.791	-4.4	20360	0.6	2.5	
Cr	52	2	He	-0.148	-21.1	4911	4.8	2.5	
Mn	55	2	He	-0.031	-20.4	560	6.2	2.5	
Fe	56	2	He	0.071	137.2	21833	2.7	100	
Co	59	2	He	0.000	-150.0	123	4.7	2.5	
Ni	60	2	He	-0.704	-1.4	243	13.2	2.5	
Cu	63	2	He	-0.111	-16.4	1700	9.2	2.5	
Zn	66	2	He	-0.483	-10.3	477	19.8	2.5	
As	75	2	He	-0.095	-10.5	932	2.7	2.5	
Se	78	2	He	-0.312	-29.1	276	5.7	2.5	
B	11	1	nogas	3.373	20.7	29380	2.7	10	
Si	28	1	nogas	-14.172	-77.9	1735684	1.5	5	
Ca	43	1	nogas	5.443	43.4	1013	3.7	100	
Ca	44	1	nogas	-6.947	-117.2	68288	1.6	100	
Fe	56	1	nogas	-11.280	-62.8	3199834	2.5	100	
Se	77	1	nogas	-26.382	-28.9	57491	2.6	2.5	
Se	82	1	nogas	-0.168	-159.7	473	15.3	2.5	

Initial Calibration Blank (ICB) Report

Mo	95	1	nogas	0.017	43.2	247	26.1	2.5	
Sn	118	1	nogas	-0.311	-2.7	1393	12.7	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.006	121.9	193	20.9	2.5	
Sb	121	2	He	0.102	24.3	2013	8.5	2.5	
P	31	1	nogas	-0.355	-678.7	60259	3.3	10	
La	139	1	nogas	-116.424	-30.2	260	23.4	2.5	
Au	197	1	nogas	46.639	80.8	23	49.5	2.5	ICB 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	nogas	592755	4.90	595543	99.53	70	125	
Ge	72	1	nogas	4181156	6.71	4065875	102.84	70	125	
In	115	1	nogas	3812645	7.64	3843287	99.20	70	125	
Bi	209	1	nogas	2962666	8.59	2899550	102.18	70	125	
Ge	72	2	He	1143501	0.91	1104609	103.52	70	125	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	016ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T12:07:55-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	-0.011	-107.2	100	52.9	0	ICSA Main CR1 Failed
Na	23	1	nogas	100052.929	2.3	2081507447	0.8	0	
Mg	24	1	nogas	99819.575	4.1	1401377098	2.1	0	
Al	27	1	nogas	96288.590	2.6	1734418534	1.4	0	
K	39	1	nogas	95933.422	1.8	2179596515	0.4	0	
Ti	47	1	nogas	2099.294	1.7	4510487	0.5	0	
V	51	1	nogas	-10.230	-4.6	1185384	2.0	0	ICSA Main CR1 Failed
Cr	52	1	nogas	0.467	13.3	97645	0.1	0	ICSA Main CR1 Failed
Mn	55	1	nogas	0.309	4.5	25164	0.6	0	ICSA Main CR1 Failed
Co	59	1	nogas	0.214	8.9	6595	6.6	0	ICSA Main CR1 Failed
Ni	60	1	nogas	0.787	7.7	8405	3.1	0	ICSA Main CR1 Failed
Cu	63	1	nogas	0.996	4.0	21279	2.3	0	ICSA Main CR1 Failed
Zn	66	1	nogas	0.863	14.2	10713	4.3	0	ICSA Main CR1 Failed
As	75	1	nogas	-3.321	-25.6	171989	1.8	0	ICSA Main CR1 Failed
Sr	88	1	nogas	0.921	2.2	34784	0.9	0	ICSA Main CR1 Failed
Ag	107	1	nogas	0.034	22.6	813	15.9	0	ICSA Main CR1 Failed
Cd	111	1	nogas	2.077	9.8	7829	9.6	0	
Sb	121	1	nogas	0.123	7.7	4881	3.6	0	ICSA Main CR1 Failed
Tl	205	1	nogas	0.003	16.5	317	4.8	0	ICSA Main CR1 Failed
Pb	208	1	nogas	0.109	6.9	4664	5.6	0	ICSA Main CR1 Failed
[Pb]	206	1	nogas	0.127	11.1	1323	9.7	0	ICSA Main CR1 Failed
[Pb]	207	1	nogas	0.119	13.5	1103	9.9	0	ICSA Main CR1 Failed
Na	23	2	He	97482.644	0.8	150446711	1.0	0	
Mg	24	2	He	95957.523	0.7	87305782	0.7	0	
Al	27	2	He	98289.058	0.9	51519814	0.7	0	
K	39	2	He	98904.624	0.4	115943632	0.4	0	
Ca	43	2	He	94400.958	1.4	307586	1.3	0	
Ca	44	2	He	97769.423	3.2	5395829	3.2	0	
V	51	2	He	-0.742	-3.0	19421	0.8	0	ICSA Main CR1 Failed
Cr	52	2	He	0.136	35.7	6968	5.6	0	ICSA Main CR1 Failed
Mn	55	2	He	0.407	12.4	3127	9.5	0	ICSA Main CR1 Failed
Fe	56	2	He	97990.211	0.2	742075589	0.2	0	
Co	59	2	He	0.019	24.2	340	15.6	0	ICSA Main CR1 Failed
Ni	60	2	He	-0.468	-9.3	903	13.8	0	ICSA Main CR1 Failed
Cu	63	2	He	0.371	9.7	5191	4.9	0	ICSA Main CR1 Failed
Zn	66	2	He	0.265	56.8	1803	15.0	0	ICSA Main CR1 Failed
As	75	2	He	0.040	133.9	1118	9.0	0	ICSA Main CR1 Failed
Se	78	2	He	-0.235	-12.2	270	2.0	0	ICSA Main CR1 Failed
B	11	1	nogas	3.011	10.0	26622	3.8	0	ICSA Main CR1 Failed
Si	28	1	nogas	41.350	16.0	2259098	1.5	0	
Ca	43	1	nogas	95325.635	5.3	3955771	3.6	0	
Ca	44	1	nogas	97007.532	4.5	66850744	2.9	0	
Fe	56	1	nogas	94086.246	2.8	2766334062	1.7	0	
Se	77	1	nogas	-24.801	-24.8	55665	2.0	0	ICSA Main CR1 Failed
Se	82	1	nogas	-0.074	-217.1	490	12.2	0	ICSA Main CR1 Failed
Mo	95	1	nogas	1945.009	1.1	14113614	1.0	0	
Sn	118	1	nogas	-0.256	-3.9	1880	7.0	0	ICSA Main CR1 Failed
Ba	137	1	nogas	0.059	33.5	457	23.6	0	ICSA Main CR1 Failed
Sb	121	2	He	0.134	12.1	2097	5.5	0	ICSA Main CR1 Failed

Interference Check Solution A (ICS-A) Report

P	31	1	nogas	94354.672	2.7	159337254	1.1	0	
La	139	1	nogas	232.028	19.1	1037	9.0	0	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	557891	0.67	595543	93.68	70	125	
Ge	72	1	nogas	4003930	1.63	4065875	98.48	70	125	
In	115	1	nogas	3610236	1.82	3843287	93.94	70	125	
Bi	209	1	nogas	2750727	1.25	2899550	94.87	70	125	
Ge	72	2	He	1069352	0.34	1104609	96.81	70	125	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	017ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T12:10:00-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	97.933	0.741	415175	0.92	100	97.9	80	120	
Na	23	1	nogas	112386.518	1.260	2313760052	0.51	100	112386.5	80	120	ICSB Main CR1 Failed
Mg	24	1	nogas	109457.218	0.788	1521145434	0.55	100	109457.2	80	120	
Al	27	1	nogas	94926.381	1.971	1691121255	1.14	100	94926.4	80	120	ICSB Main CR1 Failed
K	39	1	nogas	109568.826	1.633	2460811055	0.80	100	109568.8	80	120	ICSB Main CR1 Failed
Ti	47	1	nogas	2223.723	1.334	4725274	0.54	100	2223.7	80	120	ICSB Main CR1 Failed
V	51	1	nogas	96.647	1.197	4327837	1.22	100	96.6	80	120	
Cr	52	1	nogas	97.188	0.955	2571665	0.62	100	97.2	80	120	
Mn	55	1	nogas	97.691	0.142	3141773	0.88	100	97.7	80	120	
Co	59	1	nogas	98.194	2.331	2774165	1.50	100	98.2	80	120	
Ni	60	1	nogas	95.996	2.097	603568	1.32	100	96.0	80	120	
Cu	63	1	nogas	96.342	2.882	1489327	2.36	100	96.3	80	120	
Zn	66	1	nogas	98.372	0.986	496806	0.75	100	98.4	80	120	
As	75	1	nogas	94.082	0.606	839554	0.90	100	94.1	80	120	
Sr	88	1	nogas	98.093	0.422	3483146	0.99	100	98.1	80	120	
Ag	107	1	nogas	96.382	1.887	1753826	1.43	100	96.4	80	120	
Cd	111	1	nogas	104.017	2.355	381963	0.67	100	104.0	80	120	
Sb	121	1	nogas	98.360	0.980	1680703	1.44	100	98.4	80	120	
Tl	205	1	nogas	103.044	2.801	2436391	2.30	100	103.0	80	120	
Pb	208	1	nogas	96.754	1.685	3349792	1.69	100	96.8	80	120	
U	238	1	nogas	108.702	2.169	3443976	2.81	100	108.7	80	120	
[Pb]	206	1	nogas	101.299	2.127	809652	1.73	100	101.3	80	120	
[Pb]	207	1	nogas	98.812	1.997	715268	1.59	100	98.8	80	120	
Na	23	2	He	113348.338	1.561	170921424	0.47	100	113348.3	80	120	ICSB Main CR1 Failed
Mg	24	2	He	110300.101	0.874	98066499	0.28	100	110300.1	80	120	ICSB Main CR1 Failed
Al	27	2	He	102752.324	1.434	52629599	0.41	100	102752.3	80	120	ICSB Main CR1 Failed
K	39	2	He	110152.401	0.919	129099958	0.92	100	110152.4	80	120	
Ca	43	2	He	109204.762	1.709	347699	1.23	100	109204.8	80	120	ICSB Main CR1 Failed
Ca	44	2	He	115173.376	2.184	6210443	1.09	100	115173.4	80	120	ICSB Main CR1 Failed
V	51	2	He	101.420	1.236	787764	0.66	100	101.4	80	120	
Cr	52	2	He	99.106	2.170	812877	1.06	100	99.1	80	120	
Mn	55	2	He	101.278	1.751	588869	0.72	100	101.3	80	120	
Fe	56	2	He	114019.175	2.171	843715001	1.43	100	114019.2	80	120	ICSB Main CR1 Failed
Co	59	2	He	99.202	1.049	1122098	0.20	100	99.2	80	120	
Ni	60	2	He	101.010	0.385	284195	1.13	100	101.0	80	120	
Cu	63	2	He	97.256	0.923	713570	0.56	100	97.3	80	120	
Zn	66	2	He	100.060	0.455	178716	1.37	100	100.1	80	120	
As	75	2	He	103.144	1.350	185857	0.27	100	103.1	80	120	
Se	78	2	He	101.969	1.660	15559	1.51	100	102.0	80	120	
B	11	1	nogas	485.561	0.572	1361059	0.87	100	485.6	80	120	
Si	28	1	nogas	4842.302	0.696	52907273	0.15	100	4842.3	80	120	ICSB Main CR1 Failed
Ca	43	1	nogas	106763.801	1.561	4383441	1.36	100	106763.8	80	120	
Ca	44	1	nogas	108395.135	1.078	73892802	0.41	100	108395.1	80	120	
Fe	56	1	nogas	108248.779	1.550	3147878670	2.21	100	108248.8	80	120	ICSB Main CR1 Failed
Se	77	1	nogas	99.729	0.608	95837	0.66	100	99.7	80	120	ICSB Main CR1 Failed
Se	82	1	nogas	97.940	1.280	34279	0.48	100	97.9	80	120	
Mo	95	1	nogas	2104.475	0.758	15102685	1.14	100	2104.5	80	120	ICSB Main CR1 Failed
Sn	118	1	nogas	98.039	1.304	987573	1.96	100	98.0	80	120	
Ba	137	1	nogas	99.605	1.591	495549	0.92	100	99.6	80	120	
Sb	121	2	He	100.077	0.559	658140	0.88	100	100.1	80	120	
La	139	1	nogas	249.886	17.393	1053	7.61	100	249.9	80	120	ICSB 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	nogas	507732	0.31	595543	85.26	70	125	
Ge	72	1	nogas	3959467	0.82	4065875	97.38	70	125	
In	115	1	nogas	3532579	1.71	3843287	91.92	70	125	
Bi	209	1	nogas	2613799	0.65	2899550	90.14	70	125	
Ge	72	2	He	1045028	1.09	1104609	94.61	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	028_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T12:35:42-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	99.408	3.284	433099	1.31	100	99.4	90	110	
Na	23	1	nogas	10221.532	2.890	225800722	0.64	10000	102.2	90	110	
Mg	24	1	nogas	9831.207	4.062	146189907	1.50	10000	98.3	90	110	
Al	27	1	nogas	101.301	0.776	1893089	0.47	100	101.3	90	110	
K	39	1	nogas	10362.156	2.936	247708631	3.42	10000	103.6	90	110	
Ti	47	1	nogas	100.100	0.246	219489	0.55	100	100.1	90	110	
V	51	1	nogas	103.534	1.923	4671872	1.07	100	103.5	90	110	
Cr	52	1	nogas	105.888	2.979	2881217	2.87	100	105.9	90	110	
Mn	55	1	nogas	104.055	1.052	3449536	1.47	100	104.1	90	110	
Co	59	1	nogas	103.892	0.333	3026710	0.48	100	103.9	90	110	
Ni	60	1	nogas	102.079	0.673	661609	0.59	100	102.1	90	110	
Cu	63	1	nogas	104.145	2.014	1659790	2.40	100	104.1	90	110	
Zn	66	1	nogas	101.028	1.169	525908	0.81	100	101.0	90	110	
As	75	1	nogas	94.910	1.055	871513	0.88	100	94.9	90	110	
Sr	88	1	nogas	104.125	0.719	3812211	1.23	100	104.1	90	110	
Ag	107	1	nogas	102.231	2.163	1918299	2.57	100	102.2	90	110	
Cd	111	1	nogas	98.593	1.392	396184	0.85	100	98.6	90	110	
Sb	121	1	nogas	98.487	0.968	1735105	0.69	100	98.5	90	110	
Tl	205	1	nogas	103.745	0.527	2673294	0.87	100	103.7	90	110	
Pb	208	1	nogas	102.928	0.715	3563487	0.71	100	102.9	90	110	
U	238	1	nogas	103.123	1.939	3559595	0.86	100	103.1	90	110	
[Pb]	206	1	nogas	100.473	1.178	875106	0.36	100	100.5	90	110	
[Pb]	207	1	nogas	97.265	1.362	767228	0.54	100	97.3	90	110	
Na	23	2	He	10425.040	2.290	16916471	1.76	10000	104.3	90	110	
Mg	24	2	He	10160.838	1.487	9681126	1.17	10000	101.6	90	110	
Al	27	2	He	101.980	1.388	57434	1.97	100	102.0	90	110	
K	39	2	He	10554.830	0.415	12602440	0.41	10000	105.5	90	110	
Ca	43	2	He	9972.644	3.108	34051	2.70	10000	99.7	90	110	
Ca	44	2	He	10137.858	0.057	587295	0.67	10000	101.4	90	110	
V	51	2	He	100.894	1.562	839905	0.92	100	100.9	90	110	
Cr	52	2	He	102.774	1.198	903172	1.02	100	102.8	90	110	
Mn	55	2	He	105.223	1.348	655631	1.39	100	105.2	90	110	
Fe	56	2	He	10316.384	0.775	81829552	0.78	10000	103.2	90	110	
Co	59	2	He	99.415	0.887	1205027	0.66	100	99.4	90	110	
Ni	60	2	He	101.867	0.614	307094	0.88	100	101.9	90	110	
Cu	63	2	He	99.912	1.168	785451	0.67	100	99.9	90	110	
Zn	66	2	He	102.300	1.458	195751	1.18	100	102.3	90	110	
As	75	2	He	101.179	1.360	195391	0.74	100	101.2	90	110	
Se	78	2	He	100.634	2.541	16457	2.08	100	100.6	90	110	
B	11	1	nogas	506.203	2.992	1457591	1.05	500	101.2	90	110	
Si	28	1	nogas	5139.038	2.261	57778529	1.62	5000	102.8	90	110	
Ca	43	1	nogas	10190.021	1.464	432074	1.18	10000	101.9	90	110	
Ca	44	1	nogas	10267.967	1.947	7282095	1.33	10000	102.7	90	110	
Fe	56	1	nogas	10183.842	0.451	308474440	0.38	10000	101.8	90	110	
Se	77	1	nogas	86.541	2.265	94363	0.28	100	86.5	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	99.920	4.175	36046	3.62	100	99.9	90	110	
Mo	95	1	nogas	101.104	1.290	748198	0.72	100	101.1	90	110	
Sn	118	1	nogas	98.575	0.886	1086413	1.64	100	98.6	90	110	
Ba	137	1	nogas	98.694	1.773	537254	1.53	100	98.7	90	110	
Sb	121	2	He	96.568	1.168	680533	0.55	100	96.6	90	110	
Li	7	1	nogas	97.958	2.410	872136	0.87	100	98.0	90	110	
P	31	1	nogas	489.813	1.083	902901	0.42	500	98.0	90	110	
La	139	1	nogas	220.944	29.469	1083	14.31	100	220.9	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	335.706	25.639	97	23.89	100	335.7	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	522026	1.99	595543	87.66	70	125	
Ge	72	1	nogas	4082547	0.60	4065875	100.41	70	125	
In	115	1	nogas	3864846	0.81	3843287	100.56	70	125	
Bi	209	1	nogas	2848356	1.07	2899550	98.23	70	125	

Continuing Calibration Verification (CCV) Report

Ge	72	2	He	1119805	0.62	1104609	101.38	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	029_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T12:37:41-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.040	47.4	347	27.7	1	
Na	23	1	nogas	105.600	8.0	2938860	9.1	100	CCB Main CR1 Failed
Mg	24	1	nogas	5.820	28.5	94261	28.7	100	
Al	27	1	nogas	1.545	6.5	62366	1.1	5	
K	39	1	nogas	8.576	184.4	8959755	0.4	100	
Ti	47	1	nogas	0.091	45.2	377	28.4	2.5	
V	51	1	nogas	-3.728	-56.8	1447824	0.7	2.5	
Cr	52	1	nogas	-0.266	-51.7	82593	0.4	2.5	
Mn	55	1	nogas	0.093	11.6	19097	2.2	2.5	
Co	59	1	nogas	0.053	25.4	2117	23.0	2.5	
Ni	60	1	nogas	-0.322	-11.7	1477	20.3	2.5	
Cu	63	1	nogas	0.018	166.7	6385	11.9	2.5	
Zn	66	1	nogas	-0.808	-3.5	2404	5.7	2.5	
As	75	1	nogas	-2.091	-80.4	189448	2.4	2.5	
Sr	88	1	nogas	0.068	26.3	4417	19.3	2.5	
Ag	107	1	nogas	0.063	35.9	1420	34.7	2.5	
Cd	111	1	nogas	0.039	89.9	207	78.7	1	
Sb	121	1	nogas	1.142	15.7	23697	17.8	2.5	
Tl	205	1	nogas	0.103	30.3	3137	30.5	1	
Pb	208	1	nogas	0.068	40.5	3250	29.3	2.5	
U	238	1	nogas	0.062	24.7	2467	26.6	2.5	
[Pb]	206	1	nogas	0.054	33.2	790	24.2	2.5	
[Pb]	207	1	nogas	0.058	55.2	717	41.3	2.5	
Na	23	2	He	85.614	5.0	225242	1.9	100	
Mg	24	2	He	3.440	8.3	4131	5.7	100	
Al	27	2	He	1.044	31.8	2110	7.5	5	
K	39	2	He	19.468	5.8	279414	0.5	100	
Ca	43	2	He	12.796	68.9	77	39.8	100	
Ca	44	2	He	6.200	50.4	2000	9.2	100	
V	51	2	He	-0.408	-20.2	23971	1.4	2.5	
Cr	52	2	He	-0.145	-18.3	5037	3.1	2.5	
Mn	55	2	He	0.034	26.5	987	4.2	2.5	
Fe	56	2	He	5.016	8.1	63073	4.0	100	
Co	59	2	He	0.018	17.2	360	12.1	2.5	
Ni	60	2	He	-0.677	-0.5	333	4.6	2.5	
Cu	63	2	He	-0.011	-133.2	2550	5.9	2.5	
Zn	66	2	He	-0.340	-13.0	770	10.3	2.5	
As	75	2	He	0.014	192.8	1169	5.5	2.5	
Se	78	2	He	-0.376	-18.5	271	3.8	2.5	
B	11	1	nogas	9.588	5.6	48114	5.0	10	
Si	28	1	nogas	5.575	82.8	1972289	2.5	5	CCB Main CR1 Failed
Ca	43	1	nogas	20.550	15.3	1683	9.3	100	
Ca	44	1	nogas	0.823	576.9	74514	1.6	100	
Fe	56	1	nogas	-8.959	-45.0	3297244	0.6	100	
Se	77	1	nogas	-16.477	-76.2	61293	2.9	2.5	
Se	82	1	nogas	0.140	91.1	593	9.3	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.188	26.0	1563	27.5	2.5	
Sn	118	1	nogas	-0.186	-20.5	2884	19.6	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.074	17.8	587	7.9	2.5	
Sb	121	2	He	0.857	4.0	7592	5.1	2.5	
P	31	1	nogas	-0.895	-147.9	59798	2.5	10	
La	139	1	nogas	-20.981	-29.6	517	9.1	2.5	
Au	197	1	nogas	71.117	90.8	30	57.7	2.5	CCB 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	nogas	575347	1.73	595543	96.61	70	125	
Ge	72	1	nogas	4207383	4.12	4065875	103.48	70	125	
In	115	1	nogas	4000051	6.08	3843287	104.08	70	125	
Bi	209	1	nogas	3067027	3.10	2899550	105.78	70	125	
Ge	72	2	He	1166147	1.78	1104609	105.57	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	036_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T12:52:10-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	98.892	3.596	427996	1.83	100	98.9	90	110	
Na	23	1	nogas	9923.541	0.431	223615797	1.34	10000	99.2	90	110	
Mg	24	1	nogas	9755.208	0.815	147977566	0.26	10000	97.6	90	110	
Al	27	1	nogas	103.968	2.550	2027550	1.81	100	104.0	90	110	
K	39	1	nogas	9992.725	1.931	249690797	1.58	10000	99.9	90	110	
Ti	47	1	nogas	98.010	0.395	224390	0.67	100	98.0	90	110	
V	51	1	nogas	97.155	1.296	4675431	1.39	100	97.2	90	110	
Cr	52	1	nogas	100.501	4.238	2860092	4.35	100	100.5	90	110	
Mn	55	1	nogas	101.810	0.879	3524324	1.38	100	101.8	90	110	
Co	59	1	nogas	101.543	2.429	3089165	3.15	100	101.5	90	110	
Ni	60	1	nogas	97.575	1.204	660492	1.58	100	97.6	90	110	
Cu	63	1	nogas	99.755	2.717	1660283	3.24	100	99.8	90	110	
Zn	66	1	nogas	98.302	1.027	534515	1.75	100	98.3	90	110	
As	75	1	nogas	90.371	0.600	876361	0.33	100	90.4	90	110	
Sr	88	1	nogas	101.637	2.187	3885330	2.47	100	101.6	90	110	
Ag	107	1	nogas	103.300	2.169	2023730	2.25	100	103.3	90	110	
Cd	111	1	nogas	98.733	0.985	414943	0.70	100	98.7	90	110	
Sb	121	1	nogas	97.217	3.840	1788551	4.28	100	97.2	90	110	
Tl	205	1	nogas	101.268	3.078	2783868	1.53	100	101.3	90	110	
Pb	208	1	nogas	109.469	2.148	3789910	2.15	100	109.5	90	110	
U	238	1	nogas	103.650	1.118	3818145	0.69	100	103.6	90	110	
[Pb]	206	1	nogas	97.518	2.174	906283	0.64	100	97.5	90	110	
[Pb]	207	1	nogas	95.964	3.002	807685	2.04	100	96.0	90	110	
Na	23	2	He	10212.247	1.591	16748581	2.64	10000	102.1	90	110	
Mg	24	2	He	9917.856	2.148	9549856	3.21	10000	99.2	90	110	
Al	27	2	He	103.999	1.959	59156	2.91	100	104.0	90	110	
K	39	2	He	10711.775	1.175	12786016	1.15	10000	107.1	90	110	
Ca	43	2	He	10031.411	2.450	34606	1.42	10000	100.3	90	110	
Ca	44	2	He	10084.138	1.026	590234	0.54	10000	100.8	90	110	
V	51	2	He	99.738	1.583	839188	0.45	100	99.7	90	110	
Cr	52	2	He	99.466	0.568	883407	1.01	100	99.5	90	110	
Mn	55	2	He	103.508	1.248	651636	0.95	100	103.5	90	110	
Fe	56	2	He	10341.958	0.754	82891219	1.76	10000	103.4	90	110	
Co	59	2	He	105.877	6.324	1297332	7.39	100	105.9	90	110	
Ni	60	2	He	102.948	0.751	313543	0.36	100	102.9	90	110	
Cu	63	2	He	99.061	1.303	786855	0.43	100	99.1	90	110	
Zn	66	2	He	99.240	3.162	191906	2.95	100	99.2	90	110	
As	75	2	He	101.057	1.095	197186	0.09	100	101.1	90	110	
Se	78	2	He	97.542	0.784	16128	0.78	100	97.5	90	110	
B	11	1	nogas	502.163	2.818	1436546	0.80	500	100.4	90	110	
Si	28	1	nogas	4879.896	1.326	57383894	0.56	5000	97.6	90	110	
Ca	43	1	nogas	9835.281	2.963	435415	2.31	10000	98.4	90	110	
Ca	44	1	nogas	10022.016	0.773	7423644	1.24	10000	100.2	90	110	
Fe	56	1	nogas	9905.276	1.258	313375840	1.49	10000	99.1	90	110	
Se	77	1	nogas	81.813	7.014	96856	1.79	100	81.8	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	99.947	0.477	37653	1.26	100	99.9	90	110	
Mo	95	1	nogas	98.377	0.883	760207	1.64	100	98.4	90	110	
Sn	118	1	nogas	94.203	1.179	1085995	1.45	100	94.2	90	110	
Ba	137	1	nogas	98.769	0.723	562321	0.62	100	98.8	90	110	
Sb	121	2	He	97.908	0.261	697165	0.88	100	97.9	90	110	
Li	7	1	nogas	97.238	2.580	860463	2.39	100	97.2	90	110	
P	31	1	nogas	468.429	1.097	904282	0.44	500	93.7	90	110	
La	139	1	nogas	319.961	26.262	1383	15.17	100	320.0	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	289.557	58.226	90	50.92	100	289.6	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	518650	2.91	595543	87.09	70	125	
Ge	72	1	nogas	4262639	0.79	4065875	104.84	70	125	
In	115	1	nogas	4041940	0.55	3843287	105.17	70	125	
Bi	209	1	nogas	3039639	1.59	2899550	104.83	70	125	

Ge	72	2	He	1131463	1.08	1104609	102.43	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	037_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T12:54:10-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.037	65.3	327	35.3	1	
Na	23	1	nogas	89.757	11.5	2676542	5.1	100	
Mg	24	1	nogas	5.578	24.0	93020	18.3	100	
Al	27	1	nogas	1.730	4.3	67798	3.1	5	
K	39	1	nogas	12.482	63.4	9320749	1.3	100	
Ti	47	1	nogas	0.044	81.5	277	30.7	2.5	
V	51	1	nogas	-8.713	-18.0	1329709	2.2	2.5	
Cr	52	1	nogas	-0.673	-10.3	73666	2.6	2.5	
Mn	55	1	nogas	0.075	19.3	19010	2.8	2.5	
Co	59	1	nogas	0.043	33.4	1847	23.8	2.5	
Ni	60	1	nogas	-0.303	-8.1	1643	8.5	2.5	
Cu	63	1	nogas	0.169	13.1	9082	3.5	2.5	
Zn	66	1	nogas	-0.838	-2.0	2317	5.6	2.5	
As	75	1	nogas	-4.355	-17.9	178141	1.8	2.5	
Sr	88	1	nogas	0.080	11.0	4987	8.6	2.5	
Ag	107	1	nogas	0.056	19.9	1327	18.5	2.5	
Cd	111	1	nogas	0.045	50.2	237	42.5	1	
Sb	121	1	nogas	1.143	12.8	24321	12.5	2.5	
Tl	205	1	nogas	0.094	30.5	2964	29.5	1	
Pb	208	1	nogas	0.055	30.8	2810	20.9	2.5	
U	238	1	nogas	0.061	38.3	2490	38.2	2.5	
[Pb]	206	1	nogas	0.037	34.4	653	19.0	2.5	
[Pb]	207	1	nogas	0.045	25.0	623	15.7	2.5	
Na	23	2	He	83.396	2.4	217895	0.7	100	
Mg	24	2	He	3.562	2.6	4184	1.3	100	
Al	27	2	He	1.735	102.3	2468	40.9	5	
K	39	2	He	35.456	2.4	298115	0.3	100	
Ca	43	2	He	18.777	45.6	97	31.6	100	
Ca	44	2	He	6.290	45.4	1973	9.2	100	
V	51	2	He	-0.682	-3.6	21324	1.3	2.5	
Cr	52	2	He	-0.188	-20.1	4571	7.2	2.5	
Mn	55	2	He	0.055	13.4	1107	5.0	2.5	
Fe	56	2	He	6.418	3.7	73432	1.9	100	
Co	59	2	He	0.031	10.3	510	7.1	2.5	
Ni	60	2	He	-0.652	-3.6	403	18.6	2.5	
Cu	63	2	He	-0.058	-14.5	2123	2.3	2.5	
Zn	66	2	He	-0.295	-27.1	843	18.0	2.5	
As	75	2	He	-0.045	-63.2	1032	4.6	2.5	
Se	78	2	He	-0.337	-80.7	273	16.5	2.5	
B	11	1	nogas	7.550	5.3	41011	3.4	10	
Si	28	1	nogas	-22.192	-23.9	1709339	3.3	5	
Ca	43	1	nogas	14.058	9.3	1440	4.3	100	
Ca	44	1	nogas	-7.164	-20.8	70780	0.3	100	
Fe	56	1	nogas	-5.646	-15.2	3500167	1.4	100	
Se	77	1	nogas	-32.686	-20.7	57347	2.9	2.5	
Se	82	1	nogas	0.091	614.0	593	36.3	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.161	27.0	1387	26.1	2.5	
Sn	118	1	nogas	-0.192	-17.5	2927	12.8	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.080	36.8	650	28.2	2.5	
Sb	121	2	He	0.861	3.6	7492	2.8	2.5	
P	31	1	nogas	-0.753	-97.1	61808	0.6	10	
La	139	1	nogas	-10.264	-17.9	567	3.7	2.5	
Au	197	1	nogas	54.664	34.0	27	21.7	2.5	CCB 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	nogas	565764	0.96	595543	95.00	70	125	
Ge	72	1	nogas	4327878	1.72	4065875	106.44	70	125	
In	115	1	nogas	4175638	3.72	3843287	108.65	70	125	
Bi	209	1	nogas	3162532	2.31	2899550	109.07	70	125	
Ge	72	2	He	1146824	0.86	1104609	103.82	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	045_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:10:08-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	101.316	6.965	458270	2.63	100	101.3	90	110	
Na	23	1	nogas	10019.998	5.857	257039847	1.83	10000	100.2	90	110	
Mg	24	1	nogas	9483.835	9.401	163501429	2.77	10000	94.8	90	110	
Al	27	1	nogas	97.496	8.998	2147610	3.63	100	97.5	90	110	
K	39	1	nogas	10000.713	6.194	282219915	0.77	10000	100.0	90	110	
Ti	47	1	nogas	98.169	6.626	253771	1.51	100	98.2	90	110	
V	51	1	nogas	85.591	8.826	4865826	0.98	100	85.6	90	110	CCV Main CR1-2 Failed
Cr	52	1	nogas	97.881	7.268	3147243	2.03	100	97.9	90	110	
Mn	55	1	nogas	98.519	7.141	3850469	1.95	100	98.5	90	110	
Co	59	1	nogas	100.037	7.923	3434194	2.74	100	100.0	90	110	
Ni	60	1	nogas	98.910	6.923	755855	2.01	100	98.9	90	110	
Cu	63	1	nogas	103.881	6.192	1952074	1.41	100	103.9	90	110	
Zn	66	1	nogas	97.730	5.379	600311	0.58	100	97.7	90	110	
As	75	1	nogas	84.735	8.713	942441	1.22	100	84.7	90	110	CCV Main CR1-2 Failed
Sr	88	1	nogas	101.214	6.923	4367950	1.61	100	101.2	90	110	
Ag	107	1	nogas	99.660	4.833	2205952	0.82	100	99.7	90	110	
Cd	111	1	nogas	98.389	7.446	462053	1.52	100	98.4	90	110	
Sb	121	1	nogas	98.495	7.609	2045160	2.77	100	98.5	90	110	
Tl	205	1	nogas	100.587	8.180	3043221	1.28	100	100.6	90	110	
Pb	208	1	nogas	117.547	1.652	4069504	1.65	100	117.5	90	110	CCV Main CR1-2 Failed
U	238	1	nogas	102.422	7.362	4154725	3.64	100	102.4	90	110	
[Pb]	206	1	nogas	96.790	7.644	990112	0.90	100	96.8	90	110	
[Pb]	207	1	nogas	93.819	7.285	869440	2.19	100	93.8	90	110	
Na	23	2	He	10484.001	1.438	19374149	1.13	10000	104.8	90	110	
Mg	24	2	He	9829.956	1.644	10665762	1.00	10000	98.3	90	110	
Al	27	2	He	98.687	3.394	63322	0.83	100	98.7	90	110	
K	39	2	He	12010.375	1.802	14304966	1.77	10000	120.1	90	110	CCV Main CR1-2 Failed
Ca	43	2	He	10152.617	4.715	39462	2.76	10000	101.5	90	110	
Ca	44	2	He	10135.041	4.410	668301	2.23	10000	101.4	90	110	
V	51	2	He	100.255	2.588	950486	0.38	100	100.3	90	110	
Cr	52	2	He	100.424	3.566	1004831	1.20	100	100.4	90	110	
Mn	55	2	He	103.919	3.847	737091	1.56	100	103.9	90	110	
Fe	56	2	He	10413.354	3.536	94039392	2.14	10000	104.1	90	110	
Co	59	2	He	101.356	9.819	1398005	8.64	100	101.4	90	110	
Ni	60	2	He	103.717	3.792	355874	1.32	100	103.7	90	110	
Cu	63	2	He	99.538	3.338	890874	0.95	100	99.5	90	110	
Zn	66	2	He	100.485	2.844	218971	1.95	100	100.5	90	110	
As	75	2	He	102.530	3.082	225413	0.71	100	102.5	90	110	
Se	78	2	He	99.995	3.462	18621	1.55	100	100.0	90	110	
B	11	1	nogas	527.473	6.792	1576392	3.00	500	105.5	90	110	
Si	28	1	nogas	4707.445	7.237	62574577	1.77	5000	94.1	90	110	
Ca	43	1	nogas	9803.906	8.243	489832	3.04	10000	98.0	90	110	
Ca	44	1	nogas	9989.310	7.318	8352959	2.11	10000	99.9	90	110	
Fe	56	1	nogas	9719.454	7.215	347205066	2.01	10000	97.2	90	110	
Se	77	1	nogas	39.397	38.840	92497	2.18	100	39.4	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	99.806	6.514	42457	1.31	100	99.8	90	110	
Mo	95	1	nogas	97.751	7.188	852645	1.88	100	97.8	90	110	
Sn	118	1	nogas	94.561	8.230	1217687	2.33	100	94.6	90	110	
Ba	137	1	nogas	96.623	5.725	615149	0.76	100	96.6	90	110	
Sb	121	2	He	96.524	2.305	774548	0.38	100	96.5	90	110	
Li	7	1	nogas	98.405	6.996	909330	2.44	100	98.4	90	110	
P	31	1	nogas	468.225	7.287	1020579	1.53	500	93.6	90	110	
La	139	1	nogas	265.620	21.150	1390	5.19	100	265.6	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	279.011	28.612	97	26.03	100	279.0	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	542864	4.51	595543	91.15	70	125	
Ge	72	1	nogas	4824611	5.54	4065875	118.66	70	125	
In	115	1	nogas	4531210	6.61	3843287	117.90	70	125	
Bi	209	1	nogas	3357921	7.58	2899550	115.81	70	125	

Ge	72	2	He	1275511	2.53	1104609	115.47	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	046_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:12:07-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.046	15.3	377	5.5	1	
Na	23	1	nogas	295.619	4.3	8154937	3.2	100	CCB Main CR1 Failed
Mg	24	1	nogas	6.468	17.1	120180	21.5	100	
Al	27	1	nogas	1.302	19.6	65332	5.5	5	
K	39	1	nogas	1.459	1108.8	9953015	1.2	100	
Ti	47	1	nogas	0.150	16.9	577	17.1	2.5	
V	51	1	nogas	-18.664	-9.8	1108865	0.6	2.5	
Cr	52	1	nogas	-1.054	-16.7	69179	2.4	2.5	
Mn	55	1	nogas	0.096	32.4	21696	2.7	2.5	
Co	59	1	nogas	0.058	17.5	2560	16.3	2.5	
Ni	60	1	nogas	0.201	16.4	5598	4.4	2.5	
Cu	63	1	nogas	4.992	9.1	99100	3.1	2.5	CCB Main CR1 Failed
Zn	66	1	nogas	-0.817	-5.1	2674	9.2	2.5	
As	75	1	nogas	-9.357	-11.6	154543	1.4	2.5	
Sr	88	1	nogas	0.090	15.0	5931	15.0	2.5	
Ag	107	1	nogas	0.063	7.2	1613	9.7	2.5	
Cd	111	1	nogas	0.048	58.9	277	58.8	1	
Sb	121	1	nogas	1.014	16.7	24224	19.6	2.5	
Tl	205	1	nogas	0.120	29.2	4001	34.2	1	
Pb	208	1	nogas	0.074	27.9	3467	20.6	2.5	
U	238	1	nogas	0.071	27.1	3080	33.2	2.5	
[Pb]	206	1	nogas	0.055	24.3	887	23.0	2.5	
[Pb]	207	1	nogas	0.056	26.4	777	26.1	2.5	
Na	23	2	He	338.781	13.4	680755	0.6	100	CCB Main CR1 Failed
Mg	24	2	He	5.094	13.8	6048	7.7	100	
Al	27	2	He	0.663	81.4	1973	4.8	5	
K	39	2	He	42.845	4.1	306758	0.7	100	
Ca	43	2	He	16.624	56.9	93	27.0	100	
Ca	44	2	He	10.138	30.6	2347	5.9	100	
V	51	2	He	-1.263	-20.8	17545	1.5	2.5	
Cr	52	2	He	-0.195	-31.6	4794	1.7	2.5	
Mn	55	2	He	0.048	28.5	1133	6.7	2.5	
Fe	56	2	He	8.021	28.9	94055	33.1	100	
Co	59	2	He	0.032	9.5	570	13.7	2.5	
Ni	60	2	He	-0.647	-6.2	443	20.3	2.5	
Cu	63	2	He	0.001	2791.5	2770	3.2	2.5	
Zn	66	2	He	-0.303	-30.3	880	15.8	2.5	
As	75	2	He	-0.087	-88.0	1009	7.7	2.5	
Se	78	2	He	-0.576	-10.6	251	15.9	2.5	
B	11	1	nogas	3.647	8.7	29733	3.6	10	
Si	28	1	nogas	-41.889	-6.9	1631214	3.8	5	
Ca	43	1	nogas	15.146	25.0	1637	10.3	100	
Ca	44	1	nogas	-11.304	-42.5	74428	1.8	100	
Fe	56	1	nogas	9.983	72.4	4391792	0.7	100	
Se	77	1	nogas	-66.722	-7.4	49695	1.8	2.5	
Se	82	1	nogas	-0.076	-394.8	580	18.2	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.191	27.7	1800	30.6	2.5	
Sn	118	1	nogas	-0.189	-10.4	3254	17.1	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.080	8.3	707	13.6	2.5	
Sb	121	2	He	0.793	12.2	7455	3.0	2.5	
P	31	1	nogas	1.328	150.2	72134	2.7	10	
La	139	1	nogas	-45.385	-68.9	513	10.0	2.5	
Au	197	1	nogas	-5.477	-622.0	10	100.0	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	581463	5.77	595543	97.64	70	125	
Ge	72	1	nogas	4766106	5.66	4065875	117.22	70	125	
In	115	1	nogas	4556709	9.11	3843287	118.56	70	125	
Bi	209	1	nogas	3382596	7.56	2899550	116.66	70	125	
Ge	72	2	He	1230712	12.16	1104609	111.42	70	125	

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	051CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:22:04-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	60	0.00
Na	23	1	nogas	5066407	0.00
Mg	24	1	nogas	18379	0.03
Al	27	1	nogas	34596	0.01
K	39	1	nogas	9160097	0.00
Ti	47	1	nogas	303	4.52
V	51	1	nogas	1334410	0.00
Cr	52	1	nogas	75349	0.00
Mn	55	1	nogas	18716	0.03
Co	59	1	nogas	440	2.25
Ni	60	1	nogas	3560	0.07
Cu	63	1	nogas	61657	0.00
Zn	66	1	nogas	1023	1.10
As	75	1	nogas	169022	0.00
Sr	88	1	nogas	2174	0.27
Ag	107	1	nogas	160	14.08
Cd	111	1	nogas	17	749.40
Sb	121	1	nogas	1163	1.23
Tl	205	1	nogas	147	39.54
Pb	208	1	nogas	520	1.61
[Pb]	206	1	nogas	140	5.10
[Pb]	207	1	nogas	83	72.48
Na	23	2	He	454438	0.00
Mg	24	2	He	1327	0.55
Al	27	2	He	997	0.61
K	39	2	He	275037	0.00
Ca	43	2	He	50	120.00
Ca	44	2	He	1333	0.87
V	51	2	He	20314	0.00
Cr	52	2	He	4404	0.20
Mn	55	2	He	770	0.45
Fe	56	2	He	30853	0.00
Co	59	2	He	70	20.41
Ni	60	2	He	203	3.70
Cu	63	2	He	1847	0.43
Zn	66	2	He	283	9.18
As	75	2	He	961	0.77
Se	78	2	He	259	1.74
B	11	1	nogas	15880	0.02
Si	28	1	nogas	1509146	0.00
Ca	43	1	nogas	777	1.96
Ca	44	1	nogas	60029	0.00

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	4743579	0.00
Se	77	1	nogas	55906	0.00
Se	82	1	nogas	503	4.68
Mo	95	1	nogas	160	17.90
Sn	118	1	nogas	5061	0.06
Ba	137	1	nogas	207	12.02
Sb	121	2	He	527	2.35
Li	7	1	nogas	46998	0.01
P	31	1	nogas	66099	0.00
La	139	1	nogas	413	3.22

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	nogas	544172	4.33
Ge	72	1	nogas	4694788	5.03
In	115	1	nogas	4574578	5.17
Bi	209	1	nogas	3446413	5.92
Ge	72	2	He	1211365	2.05

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	052CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:24:03-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	8695	0.03
Na	23	1	nogas	9668856	0.00
Mg	24	1	nogas	3323314	0.00
Al	27	1	nogas	78349	0.00
K	39	1	nogas	14410704	0.00
Ti	47	1	nogas	5284	0.04
V	51	1	nogas	1420907	0.00
Cr	52	1	nogas	137604	0.00
Mn	55	1	nogas	96745	0.00
Co	59	1	nogas	67702	0.00
Ni	60	1	nogas	18129	0.02
Cu	63	1	nogas	94863	0.00
Zn	66	1	nogas	13632	0.03
As	75	1	nogas	184204	0.00
Sr	88	1	nogas	85952	0.00
Ag	107	1	nogas	43975	0.01
Cd	111	1	nogas	9566	0.03
Sb	121	1	nogas	39709	0.00
Tl	205	1	nogas	58589	0.00
Pb	208	1	nogas	80786	0.00
[Pb]	206	1	nogas	19939	0.01
[Pb]	207	1	nogas	17613	0.01
Na	23	2	He	818246	0.00
Mg	24	2	He	215073	0.00
Al	27	2	He	2384	0.07
K	39	2	He	538677	0.00
Ca	43	2	He	767	0.52
Ca	44	2	He	14159	0.04
V	51	2	He	38117	0.00
Cr	52	2	He	24657	0.01
Mn	55	2	He	14963	0.03
Fe	56	2	He	1924718	0.00
Co	59	2	He	26993	0.00
Ni	60	2	He	7338	0.03
Cu	63	2	He	19824	0.02
Zn	66	2	He	4707	0.17
As	75	2	He	5080	0.05
Se	78	2	He	576	1.02
B	11	1	nogas	43122	0.00
Si	28	1	nogas	2661020	0.00

Calibration Standard Report

Ca	43	1	nogas	11127	0.01
Ca	44	1	nogas	222187	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	11847177	0.00
Se	77	1	nogas	55792	0.00
Se	82	1	nogas	1310	0.72
Mo	95	1	nogas	16635	0.01
Sn	118	1	nogas	25282	0.01
Ba	137	1	nogas	12051	0.03
Sb	121	2	He	16254	0.04
P	31	1	nogas	85218	0.00
La	139	1	nogas	577	2.86

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	522848	3.64	544172	96.08	70	125	
Ge	72	1	nogas	4479806	4.09	4694788	95.42	70	125	
In	115	1	nogas	4285106	4.77	4574578	93.67	70	125	
Bi	209	1	nogas	3214315	5.61	3446413	93.27	70	125	
Ge	72	2	He	1221003	0.94	1211365	100.80	70	125	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	053CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:26:01-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	21833	0.02
Na	23	1	nogas	16590540	0.00
Mg	24	1	nogas	8183745	0.00
Al	27	1	nogas	136719	0.00
K	39	1	nogas	22142922	0.00
Ti	47	1	nogas	12534	0.03
V	51	1	nogas	1529964	0.00
Cr	52	1	nogas	224745	0.00
Mn	55	1	nogas	210657	0.00
Co	59	1	nogas	165575	0.00
Ni	60	1	nogas	40137	0.00
Cu	63	1	nogas	142601	0.00
Zn	66	1	nogas	31360	0.01
As	75	1	nogas	208423	0.00
Sr	88	1	nogas	210909	0.00
Ag	107	1	nogas	106322	0.00
Cd	111	1	nogas	23266	0.01
Sb	121	1	nogas	95503	0.00
Tl	205	1	nogas	143043	0.00
Pb	208	1	nogas	203473	0.00
[Pb]	206	1	nogas	49572	0.00
[Pb]	207	1	nogas	44622	0.00
Na	23	2	He	1367417	0.00
Mg	24	2	He	529158	0.00
Al	27	2	He	3907	0.13
K	39	2	He	920274	0.00
Ca	43	2	He	1913	0.27
Ca	44	2	He	32899	0.00
V	51	2	He	64715	0.00
Cr	52	2	He	52719	0.00
Mn	55	2	He	36557	0.01
Fe	56	2	He	4607705	0.00
Co	59	2	He	67845	0.00
Ni	60	2	He	17475	0.01
Cu	63	2	He	44291	0.00
Zn	66	2	He	10366	0.02
As	75	2	He	11514	0.02
Se	78	2	He	1152	0.48
B	11	1	nogas	84281	0.00
Si	28	1	nogas	4413222	0.00

Calibration Standard Report

Ca	43	1	nogas	25104	0.01
Ca	44	1	nogas	459872	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	22215606	0.00
Se	77	1	nogas	57003	0.00
Se	82	1	nogas	2430	0.22
Mo	95	1	nogas	41549	0.00
Sn	118	1	nogas	61104	0.00
Ba	137	1	nogas	30230	0.01
Sb	121	2	He	38426	0.00
P	31	1	nogas	112932	0.00
La	139	1	nogas	277	6.58

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	509200	2.46	544172	93.57	70	125	
Ge	72	1	nogas	4544189	0.97	4694788	96.79	70	125	
In	115	1	nogas	4318047	0.96	4574578	94.39	70	125	
Bi	209	1	nogas	3267445	2.17	3446413	94.81	70	125	
Ge	72	2	He	1195185	0.89	1211365	98.66	70	125	

Calibration Standard Report

Sample Table

Sample Name	10/50/1000
Data File Name	054CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:28:00-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	43590	0.01
Na	23	1	nogas	28417500	0.00
Mg	24	1	nogas	16179964	0.00
Al	27	1	nogas	241038	0.00
K	39	1	nogas	35256147	0.00
Ti	47	1	nogas	25304	0.01
V	51	1	nogas	1748183	0.00
Cr	52	1	nogas	375868	0.00
Mn	55	1	nogas	399225	0.00
Co	59	1	nogas	326199	0.00
Ni	60	1	nogas	77058	0.00
Cu	63	1	nogas	236607	0.00
Zn	66	1	nogas	60486	0.00
As	75	1	nogas	256412	0.00
Sr	88	1	nogas	420245	0.00
Ag	107	1	nogas	212117	0.00
Cd	111	1	nogas	45603	0.00
Sb	121	1	nogas	193953	0.00
Tl	205	1	nogas	291467	0.00
Pb	208	1	nogas	406958	0.00
[Pb]	206	1	nogas	99808	0.00
[Pb]	207	1	nogas	89710	0.00
Na	23	2	He	2300847	0.00
Mg	24	2	He	1053069	0.00
Al	27	2	He	7218	0.12
K	39	2	He	1650312	0.00
Ca	43	2	He	3857	0.21
Ca	44	2	He	66171	0.00
V	51	2	He	110122	0.00
Cr	52	2	He	103887	0.00
Mn	55	2	He	72562	0.00
Fe	56	2	He	9106687	0.00
Co	59	2	He	136859	0.00
Ni	60	2	He	34853	0.00
Cu	63	2	He	89096	0.00
Zn	66	2	He	21596	0.01
As	75	2	He	21978	0.01
Se	78	2	He	2009	0.10
B	11	1	nogas	156606	0.00
Si	28	1	nogas	7284613	0.00

Calibration Standard Report

Ca	43	1	nogas	49887	0.00
Ca	44	1	nogas	865810	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	38105433	0.00
Se	77	1	nogas	61641	0.00
Se	82	1	nogas	4934	0.14
Mo	95	1	nogas	82263	0.00
Sn	118	1	nogas	123080	0.00
Ba	137	1	nogas	61610	0.00
Sb	121	2	He	76410	0.00
P	31	1	nogas	161295	0.00
La	139	1	nogas	593	2.02

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	502133	0.59	544172	92.27	70	125	
Ge	72	1	nogas	4502356	2.65	4694788	95.90	70	125	
In	115	1	nogas	4363766	1.37	4574578	95.39	70	125	
Bi	209	1	nogas	3277441	2.66	3446413	95.10	70	125	
Ge	72	2	He	1205542	0.43	1211365	99.52	70	125	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	055CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:29:58-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	399642	0.00
Na	23	1	nogas	224707830	0.00
Mg	24	1	nogas	147108899	0.00
Al	27	1	nogas	1891605	0.00
K	39	1	nogas	254952589	0.00
Ti	47	1	nogas	231232	0.00
V	51	1	nogas	4439166	0.00
Cr	52	1	nogas	2942610	0.00
Mn	55	1	nogas	3628048	0.00
Co	59	1	nogas	3053931	0.00
Ni	60	1	nogas	666538	0.00
Cu	63	1	nogas	1760341	0.00
Zn	66	1	nogas	555444	0.00
As	75	1	nogas	867262	0.00
Sr	88	1	nogas	4019069	0.00
Ag	107	1	nogas	2064185	0.00
Cd	111	1	nogas	426164	0.00
Sb	121	1	nogas	1905151	0.00
Tl	205	1	nogas	2835439	0.00
Pb	208	1	nogas	3912174	0.00
[Pb]	206	1	nogas	926300	0.00
[Pb]	207	1	nogas	832234	0.00
Na	23	2	He	17406930	0.00
Mg	24	2	He	9665676	0.00
Al	27	2	He	55996	0.00
K	39	2	He	12633037	0.00
Ca	43	2	He	35578	0.01
Ca	44	2	He	597019	0.00
V	51	2	He	846774	0.00
Cr	52	2	He	927948	0.00
Mn	55	2	He	678221	0.00
Fe	56	2	He	87366485	0.00
Co	59	2	He	1272166	0.00
Ni	60	2	He	320474	0.00
Cu	63	2	He	810181	0.00
Zn	66	2	He	202078	0.00
As	75	2	He	200387	0.00
Se	78	2	He	16203	0.01
B	11	1	nogas	1350133	0.00
Si	28	1	nogas	55700228	0.00

Calibration Standard Report

Ca	43	1	nogas	446851	0.00
Ca	44	1	nogas	7593201	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	326066932	0.00
Se	77	1	nogas	86042	0.00
Se	82	1	nogas	38565	0.01
Mo	95	1	nogas	790894	0.00
Sn	118	1	nogas	1143494	0.00
Ba	137	1	nogas	579445	0.00
Sb	121	2	He	716710	0.00
P	31	1	nogas	908286	0.00
La	139	1	nogas	637	1.11

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	465061	2.42	544172	85.46	70	125	
Ge	72	1	nogas	4464144	1.99	4694788	95.09	70	125	
In	115	1	nogas	4044496	1.53	4574578	88.41	70	125	
Bi	209	1	nogas	3208902	0.75	3446413	93.11	70	125	
Ge	72	2	He	1178370	0.90	1211365	97.28	70	125	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	056CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:31:58-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	793260	0.00
Na	23	1	nogas	436914326	0.00
Mg	24	1	nogas	294238482	0.00
Al	27	1	nogas	3603240	0.00
K	39	1	nogas	493571278	0.00
Ti	47	1	nogas	450578	0.00
V	51	1	nogas	7398599	0.00
Cr	52	1	nogas	5572907	0.00
Mn	55	1	nogas	7176417	0.00
Co	59	1	nogas	6224374	0.00
Ni	60	1	nogas	1360980	0.00
Cu	63	1	nogas	3411917	0.00
Zn	66	1	nogas	1102527	0.00
As	75	1	nogas	1615801	0.00
Sr	88	1	nogas	8123252	0.00
Ag	107	1	nogas	4066238	0.00
Cd	111	1	nogas	859483	0.00
Sb	121	1	nogas	3837784	0.00
Tl	205	1	nogas	5662070	0.00
Pb	208	1	nogas	7871714	0.00
[Pb]	206	1	nogas	1950887	0.00
[Pb]	207	1	nogas	1750222	0.00
Na	23	2	He	33729791	0.00
Mg	24	2	He	19060326	0.00
Al	27	2	He	109237	0.00
K	39	2	He	24683251	0.00
Ca	43	2	He	70021	0.00
Ca	44	2	He	1184055	0.00
V	51	2	He	1709195	0.00
Cr	52	2	He	1864023	0.00
Mn	55	2	He	1323152	0.00
Fe	56	2	He	166962491	0.00
Co	59	2	He	2612654	0.00
Ni	60	2	He	632031	0.00
Cu	63	2	He	1712439	0.00
Zn	66	2	He	400440	0.00
As	75	2	He	398847	0.00
Se	78	2	He	32872	0.00
B	11	1	nogas	2718280	0.00
Si	28	1	nogas	108766815	0.00

Calibration Standard Report

Ca	43	1	nogas	889560	0.00
Ca	44	1	nogas	15255334	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	649164648	0.00
Se	77	1	nogas	113632	0.00
Se	82	1	nogas	77512	0.00
Mo	95	1	nogas	1667048	0.00
Sn	118	1	nogas	2364257	0.00
Ba	137	1	nogas	1152311	0.00
Sb	121	2	He	1577863	0.00
P	31	1	nogas	1770770	0.00
La	139	1	nogas	1263	0.68

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	443825	1.19	544172	81.56	70	125	
Ge	72	1	nogas	4314010	0.30	4694788	91.89	70	125	
In	115	1	nogas	4117661	1.12	4574578	90.01	70	125	
Bi	209	1	nogas	3107748	1.21	3446413	90.17	70	125	
Ge	72	2	He	1155623	1.23	1211365	95.40	70	125	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICCV
Data File Name	058_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:35:55-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	051CALB.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
Be	9	1	nogas	106.105	4.856	425294	0.48	100	106.1	90	110	
Na	23	1	nogas	10531.741	7.318	229879280	0.61	10000	105.3	90	110	
Mg	24	1	nogas	10496.893	7.528	152263395	0.71	10000	105.0	90	110	
Al	27	1	nogas	109.095	8.903	2018352	2.32	100	109.1	90	110	
K	39	1	nogas	10270.644	6.925	261468681	1.22	10000	102.7	90	110	
Ti	47	1	nogas	103.322	6.556	236913	0.27	100	103.3	90	110	
V	51	1	nogas	93.807	9.329	4199229	1.17	100	93.8	90	110	
Cr	52	1	nogas	105.781	6.503	3041828	0.34	100	105.8	90	110	
Mn	55	1	nogas	103.977	6.894	3790077	0.59	100	104.0	90	110	
Co	59	1	nogas	105.407	5.963	3309043	0.98	100	105.4	90	110	
Ni	60	1	nogas	105.343	6.366	723112	0.35	100	105.3	90	110	
Cu	63	1	nogas	105.141	7.063	1847740	2.23	100	105.1	90	110	
Zn	66	1	nogas	103.348	6.775	577684	1.05	100	103.3	90	110	
As	75	1	nogas	94.225	8.803	851743	1.00	100	94.2	90	110	
Sr	88	1	nogas	103.370	7.592	4238907	1.05	100	103.4	90	110	
Ag	107	1	nogas	107.150	7.494	2210328	0.92	100	107.1	90	110	
Cd	111	1	nogas	103.339	5.990	453257	1.91	100	103.3	90	110	
Sb	121	1	nogas	109.349	8.628	2118755	2.74	100	109.3	90	110	
Tl	205	1	nogas	108.952	4.786	3176190	1.75	100	109.0	90	110	
Pb	208	1	nogas	107.358	1.039	4220926	1.04	100	107.4	90	110	
U	238	1	nogas	105.806	5.811	4133627	3.14	100	105.8	90	110	
[Pb]	206	1	nogas	103.485	3.653	1029381	2.28	100	103.5	90	110	
[Pb]	207	1	nogas	97.844	4.739	872993	1.26	100	97.8	90	110	
Na	23	2	He	9806.700	2.101	17601636	0.58	10000	98.1	90	110	
Mg	24	2	He	10056.130	2.658	10056480	1.36	10000	100.6	90	110	
Al	27	2	He	100.008	2.726	57915	2.46	100	100.0	90	110	
K	39	2	He	10345.550	2.574	12936255	2.52	10000	103.5	90	110	
Ca	43	2	He	9618.766	1.562	35374	2.87	10000	96.2	90	110	
Ca	44	2	He	9664.853	2.652	600181	1.61	10000	96.6	90	110	
V	51	2	He	99.213	2.391	892812	0.77	100	99.2	90	110	
Cr	52	2	He	97.747	0.768	954350	0.85	100	97.7	90	110	
Mn	55	2	He	99.278	1.677	691033	0.19	100	99.3	90	110	
Fe	56	2	He	9793.256	2.713	86330099	1.43	10000	97.9	90	110	
Co	59	2	He	96.241	13.455	1307173	11.99	100	96.2	90	110	
Ni	60	2	He	100.821	2.489	334570	1.48	100	100.8	90	110	
Cu	63	2	He	96.839	2.379	856335	0.87	100	96.8	90	110	
Zn	66	2	He	100.206	2.293	210333	1.27	100	100.2	90	110	
As	75	2	He	100.710	1.847	210700	0.31	100	100.7	90	110	
Se	78	2	He	98.790	2.172	17031	1.60	100	98.8	90	110	
B	11	1	nogas	524.654	5.098	1441958	1.67	500	104.9	90	110	
Si	28	1	nogas	539.382	7.504	7290990	1.13	5000	10.8	90	110	ICV Main CR1 Failed
Ca	43	1	nogas	10228.683	7.853	460915	1.28	10000	102.3	90	110	
Ca	44	1	nogas	10035.161	6.680	7761857	0.28	10000	100.4	90	110	
Fe	56	1	nogas	10185.187	6.849	336559441	0.21	10000	101.9	90	110	
Se	77	1	nogas	56.935	27.338	70596	0.43	100	56.9	90	110	ICV Main CR1 Failed
Se	82	1	nogas	104.524	9.012	41097	2.19	100	104.5	90	110	
Mo	95	1	nogas	99.377	7.017	829709	0.52	100	99.4	90	110	
Sn	118	1	nogas	100.231	6.475	1204405	1.12	100	100.2	90	110	
Ba	137	1	nogas	104.881	7.861	618026	1.02	100	104.9	90	110	
Sb	121	2	He	93.926	2.590	761242	1.00	100	93.9	90	110	
Li	7	1	nogas	105.055	5.860	829264	1.23	100	105.1	90	110	
P	31	1	nogas	514.951	7.185	951299	0.30	500	103.0	90	110	
La	139	1	nogas	157.496	2.548	1047	8.67	100	157.5	90	110	ICV Main CR1 Failed
Au	197	1	nogas	82.217	109.070	23	65.47	100	82.2	90	110	ICV 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	nogas	452696	5.32	544172	83.19	70	125	
Ge	72	1	nogas	4407496	6.45	4694788	93.88	70	125	
In	115	1	nogas	4206786	7.55	4574578	91.96	70	125	
Bi	209	1	nogas	3224507	5.25	3446413	93.56	70	125	

Initial Calibration Verification (ICV) Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Ge	72	2	He	1213748	1.60	1211365	100.20	70	125	

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	059SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:37:55-05:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	051CALB.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
Be	9	1	nogas	1.889	1.889	9.20	8765	0.02	2000	
Na	23	1	nogas	160.800	160.800	28.34	8247962	0.00	200000	
Mg	24	1	nogas	230.942	230.942	14.16	3479163	0.01	200000	
Al	27	1	nogas	2.436	2.436	11.85	80297	0.00	2000	
K	39	1	nogas	211.935	211.935	18.03	14431901	0.00	200000	
Ti	47	1	nogas	2.083	2.083	10.37	5288	0.04	2000	
V	51	1	nogas	-13.150	-13.150	-13.29	876089	0.00	2000	
Cr	52	1	nogas	1.560	1.560	15.22	119686	0.00	2000	
Mn	55	1	nogas	2.163	2.163	8.88	100402	0.00	2000	
Co	59	1	nogas	2.121	2.121	5.88	70034	0.00	2000	
Ni	60	1	nogas	2.409	2.409	6.91	18126	0.01	2000	
Cu	63	1	nogas	0.455	0.455	60.36	68561	0.00	2000	
Zn	66	1	nogas	2.384	2.384	6.40	14609	0.02	2000	
As	75	1	nogas	-3.825	-3.825	-34.69	139499	0.00	2000	
Sr	88	1	nogas	2.099	2.099	6.34	92122	0.00	2000	
Ag	107	1	nogas	2.115	2.115	7.18	45776	0.00	2000	
Cd	111	1	nogas	2.071	2.071	12.80	9503	0.02	2000	
Sb	121	1	nogas	2.156	2.156	6.63	44828	0.00	2000	
Tl	205	1	nogas	2.155	2.155	10.81	65317	0.00	2000	
Pb	208	1	nogas	2.266	2.266	1.67	89584	0.00	2000	
U	238	1	nogas	2.108	2.108	10.90	85536	0.00	2000	
[Pb]	206	1	nogas	2.159	2.159	12.20	22386	0.01	2000	
[Pb]	207	1	nogas	2.108	2.108	10.46	19599	0.01	2000	
Na	23	2	He	125.773	125.773	3.74	679168	0.02	200000	
Mg	24	2	He	215.917	215.917	1.76	218486	0.10	200000	
Al	27	2	He	1.923	1.923	17.47	2307	0.08	2000	
K	39	2	He	206.413	206.413	2.07	527652	0.04	200000	
Ca	43	2	He	217.017	217.017	18.11	853	25.43	200000	
Ca	44	2	He	210.132	210.132	2.97	14439	1.46	200000	
V	51	2	He	1.555	1.555	3.50	31551	0.00	2000	
Cr	52	2	He	2.129	2.129	7.23	25237	0.01	2000	
Mn	55	2	He	2.125	2.125	2.27	15640	0.01	2000	
Fe	56	2	He	216.833	216.833	3.03	1952704	0.01	200000	
Co	59	2	He	2.078	2.078	1.28	28489	0.01	2000	
Ni	60	2	He	2.052	2.052	5.42	7598	0.03	2000	
Cu	63	2	He	2.819	2.819	0.59	20038	0.01	2000	
Zn	66	2	He	2.317	2.317	5.29	5047	0.05	2000	
As	75	2	He	1.886	1.886	1.74	4918	0.04	2000	
Se	78	2	He	2.294	2.294	9.99	606	0.38	2000	
B	11	1	nogas	16.801	16.801	8.75	67917	0.02	2000	
Si	28	1	nogas	102.756	102.756	12.89	2649932	0.00	2000	
Ca	43	1	nogas	215.910	215.910	7.20	10920	1.98	200000	

Sample Report

Ca	44	1	nogas	201.786	201.786	9.03	220791	0.09	200000	
Fe	56	1	nogas	171.142	171.142	12.46	10481409	0.00	200000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Se	77	1	nogas	-41.986	-41.986	-21.01	40843	-0.10	2000	
Se	82	1	nogas	2.288	2.288	15.10	1427	0.16	2000	
Mo	95	1	nogas	2.108	2.108	5.44	18563	0.01	2000	
Sn	118	1	nogas	1.884	1.884	14.72	28414	0.01	2000	
Ba	137	1	nogas	2.074	2.074	12.24	12972	0.02	2000	
Sb	121	2	He	2.028	2.028	4.26	17049	0.01	2000	
La	139	1	nogas	58.494	58.494	82.18	660	8.86	2000	
Au	197	1	nogas	81.076	81.076	178.38	23	347.47	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	522068	7.36	544172	95.94	70	125	
Ge	72	1	nogas	4605870	5.67	4694788	98.11	70	125	
In	115	1	nogas	4416300	9.98	4574578	96.54	70	125	
Bi	209	1	nogas	3364223	10.21	3446413	97.62	70	125	
Ge	72	2	He	1220604	1.28	1211365	100.76	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	LLCCV5
Data File Name	060LICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:39:56-05:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	051CALB.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
Be	9	1	nogas	5.345	16.722	22307	3.33	5	106.9	70	130	
Na	23	1	nogas	539.652	26.727	15563212	2.68	500	107.9	70	130	
Mg	24	1	nogas	597.640	20.181	8401555	3.22	500	119.5	70	130	
Al	27	1	nogas	6.285	19.196	139867	0.36	5	125.7	70	130	
K	39	1	nogas	607.814	24.473	22409542	0.97	500	121.6	70	130	
Ti	47	1	nogas	5.903	19.448	13088	4.06	5	118.1	70	130	
V	51	1	nogas	-1.515	-394.682	1145079	0.55	5	-30.3	70	130	LLICV Main CR1 Failed
Cr	52	1	nogas	5.556	25.754	215219	2.33	5	111.1	70	130	
Mn	55	1	nogas	5.741	16.703	214919	0.38	5	114.8	70	130	
Co	59	1	nogas	5.749	16.403	171888	0.98	5	115.0	70	130	
Ni	60	1	nogas	6.145	18.198	40775	2.62	5	122.9	70	130	
Cu	63	1	nogas	4.209	30.705	123036	1.64	5	84.2	70	130	
Zn	66	1	nogas	5.850	16.948	31661	3.17	5	117.0	70	130	
As	75	1	nogas	2.705	127.162	172773	1.40	5	54.1	70	130	LLICV Main CR1 Failed
Sr	88	1	nogas	5.703	17.191	224101	2.56	5	114.1	70	130	
Ag	107	1	nogas	5.720	15.920	112446	3.36	5	114.4	70	130	
Cd	111	1	nogas	5.874	18.924	24180	1.26	5	117.5	70	130	
Sb	121	1	nogas	5.406	15.093	100772	0.70	5	108.1	70	130	
Tl	205	1	nogas	5.543	10.867	153642	1.19	5	110.9	70	130	
Pb	208	1	nogas	5.522	3.158	217607	3.15	5	110.4	70	130	
U	238	1	nogas	5.614	14.676	207904	3.23	5	112.3	70	130	
[Pb]	206	1	nogas	5.705	12.889	53936	1.67	5	114.1	70	130	
[Pb]	207	1	nogas	5.566	13.552	47172	3.51	5	111.3	70	130	
Na	23	2	He	426.103	6.688	1233683	1.20	500	85.2	70	130	
Mg	24	2	He	517.234	5.055	532757	0.87	500	103.4	70	130	
Al	27	2	He	5.355	8.103	4364	7.41	5	107.1	70	130	
K	39	2	He	527.346	1.372	920419	0.96	500	105.5	70	130	
Ca	43	2	He	480.802	4.863	1870	8.61	500	96.2	70	130	
Ca	44	2	He	502.256	4.057	33360	0.89	500	100.5	70	130	
V	51	2	He	4.520	5.697	59118	0.53	5	90.4	70	130	
Cr	52	2	He	4.873	3.606	53213	1.21	5	97.5	70	130	
Mn	55	2	He	5.000	3.694	36533	3.10	5	100.0	70	130	
Fe	56	2	He	513.925	3.586	4687223	1.45	500	102.8	70	130	
Co	59	2	He	5.115	5.141	71532	2.22	5	102.3	70	130	
Ni	60	2	He	5.129	4.451	18239	2.58	5	102.6	70	130	
Cu	63	2	He	5.669	3.129	46539	0.95	5	113.4	70	130	
Zn	66	2	He	5.099	5.863	11150	1.89	5	102.0	70	130	
As	75	2	He	4.911	6.301	11495	1.60	5	98.2	70	130	
Se	78	2	He	5.112	8.226	1111	3.48	5	102.2	70	130	
B	11	1	nogas	30.839	19.510	100944	3.11	25	123.4	70	130	
Si	28	1	nogas	293.310	23.915	4380635	1.47	25	1173.2	70	130	LLICV Main CR1 Failed
Ca	43	1	nogas	607.260	16.179	26709	4.55	500	121.5	70	130	
Ca	44	1	nogas	581.176	19.864	477124	2.19	500	116.2	70	130	
Fe	56	1	nogas	547.105	20.276	21189452	1.09	500	109.4	70	130	
Se	77	1	nogas	-16.624	-112.065	44986	3.00	5	-332.5	70	130	LLICV Main CR1 Failed
Se	82	1	nogas	5.838	25.175	2594	5.24	5	116.8	70	130	
Mo	95	1	nogas	5.548	16.929	44158	2.28	5	111.0	70	130	
Sn	118	1	nogas	5.382	20.960	64753	1.04	5	107.6	70	130	
Ba	137	1	nogas	5.886	24.079	32531	4.71	5	117.7	70	130	
Sb	121	2	He	4.642	4.898	39174	0.51	5	92.8	70	130	
Li	7	1	nogas	5.352	12.457	83125	7.10	5	107.0	70	130	
P	31	1	nogas	36.154	31.588	118355	1.46	25	144.6	70	130	LLICV Main CR1 Failed
La	139	1	nogas	-25.652	-133.547	247	38.32	5	-513.0	70	130	LLICV Main CR1 Failed
Au	197	1	nogas	51.062	191.362	17	91.65	5	1021.2	70	130	LLICV 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	nogas	476293	12.99	544172	87.53	70	125	
Ge	72	1	nogas	4243711	14.22	4694788	90.39	70	125	
In	115	1	nogas	4023467	17.70	4574578	87.95	70	125	
Bi	209	1	nogas	3082212	10.65	3446413	89.43	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Ge	72	2	He	1248629	4.46	1211365	103.08	70	125	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICCB
Data File Name	061_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:41:55-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	051CALB.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
Be	9	1	nogas	0.010	67.0	107	30.1	1	
Na	23	1	nogas	-77.418	-12.0	3057778	2.6	100	
Mg	24	1	nogas	0.034	446.3	17979	8.7	100	
Al	27	1	nogas	0.447	11.3	42782	1.6	5	
K	39	1	nogas	-4.291	-150.2	8945985	0.8	100	
Ti	47	1	nogas	-0.010	-258.6	277	21.2	2.5	
V	51	1	nogas	-10.912	-32.4	957376	11.3	2.5	
Cr	52	1	nogas	-0.422	-15.2	62020	2.1	2.5	
Mn	55	1	nogas	-0.026	-89.6	17545	4.6	2.5	
Co	59	1	nogas	0.006	22.6	647	7.9	2.5	
Ni	60	1	nogas	0.214	7.4	2417	3.8	2.5	
Cu	63	1	nogas	-1.786	-4.0	28960	5.2	2.5	
Zn	66	1	nogas	0.078	54.0	1143	22.8	2.5	
As	75	1	nogas	-4.437	-4.3	136039	0.2	2.5	
Sr	88	1	nogas	0.009	39.6	2514	4.6	2.5	
Ag	107	1	nogas	0.012	41.0	413	26.1	2.5	
Cd	111	1	nogas	0.008	69.0	57	50.9	1	
Sb	121	1	nogas	0.093	3.4	3050	1.7	2.5	
Tl	205	1	nogas	0.021	26.6	787	25.1	1	
Pb	208	1	nogas	0.014	23.5	1067	12.1	2.5	
U	238	1	nogas	0.005	4.9	287	7.3	2.5	
[Pb]	206	1	nogas	0.014	28.1	280	14.3	2.5	
[Pb]	207	1	nogas	0.013	10.1	203	5.7	2.5	
Na	23	2	He	-95.256	-9.1	296615	1.2	100	
Mg	24	2	He	0.115	73.7	1483	2.4	100	
Al	27	2	He	-0.038	-615.9	1213	8.3	5	
K	39	2	He	-9.458	-10.9	263462	0.5	100	
Ca	43	2	He	4.990	156.7	70	37.8	100	
Ca	44	2	He	2.161	94.3	1510	5.9	100	
V	51	2	He	-0.421	-22.7	14309	1.7	2.5	
Cr	52	2	He	-0.040	-110.7	4131	6.7	2.5	
Mn	55	2	He	-0.033	-20.1	560	10.7	2.5	
Fe	56	2	He	-0.329	-43.0	28786	2.8	100	
Co	59	2	He	0.005	35.2	140	14.3	2.5	
Ni	60	2	He	-0.161	-8.0	237	23.3	2.5	
Cu	63	2	He	0.735	1.9	1410	4.7	2.5	
Zn	66	2	He	0.134	19.6	453	13.3	2.5	
As	75	2	He	-0.127	-21.1	718	7.0	2.5	
Se	78	2	He	0.256	47.8	263	12.8	2.5	
B	11	1	nogas	2.277	7.1	22874	2.4	10	

Initial Calibration Blank (ICB) Report

Si	28	1	nogas	-7.002	-89.4	1412387	6.0	5	
Ca	43	1	nogas	5.005	32.7	1003	7.5	100	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ca	44	1	nogas	-2.870	-15.4	57024	1.5	100	
Fe	56	1	nogas	-28.666	-4.3	3704185	1.4	100	
Se	77	1	nogas	-34.838	-10.4	43596	1.6	2.5	
Se	82	1	nogas	0.168	98.7	563	12.8	2.5	
Mo	95	1	nogas	0.022	41.6	350	22.7	2.5	
Sn	118	1	nogas	-0.269	-2.8	1543	2.7	5	
Ba	137	1	nogas	0.007	145.4	247	23.8	2.5	
Sb	121	2	He	0.061	35.0	1050	14.7	2.5	
P	31	1	nogas	2.374	16.2	69702	0.3	10	
La	139	1	nogas	-42.467	-16.9	220	18.2	2.5	
Au	197	1	nogas	-3.384	-2877.6	10	173.2	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	532609	0.16	544172	97.88	70	125	
Ge	72	1	nogas	4635646	1.24	4694788	98.74	70	125	
In	115	1	nogas	4532560	3.66	4574578	99.08	70	125	
Bi	209	1	nogas	3390479	3.85	3446413	98.38	70	125	
Ge	72	2	He	1248124	4.52	1211365	103.03	70	125	

Sample Report

Sample Table

Sample Name	MBLK-132119
Data File Name	063SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:51:43-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132119
ISTD Ref FileName	051CALB.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
Be	9	1	nogas	0.006	0.006	90.40	87	0.01	2000	
Na	23	1	nogas	-51.787	-51.787	-23.01	3800229	0.00	200000	
Mg	24	1	nogas	11.750	11.750	1.94	207999	0.01	200000	
Al	27	1	nogas	4.706	4.706	4.45	124182	0.00	2000	
K	39	1	nogas	2.499	2.499	391.83	9092418	0.00	200000	
Ti	47	1	nogas	0.013	0.013	99.23	330	0.00	2000	
V	51	1	nogas	-6.689	-6.689	-10.23	1095189	0.00	2000	
Cr	52	1	nogas	-0.151	-0.151	-53.76	69824	0.00	2000	
Mn	55	1	nogas	-0.054	-0.054	-36.48	16394	0.00	2000	
Co	59	1	nogas	0.001	0.001	411.88	460	0.00	2000	
Ni	60	1	nogas	0.354	0.354	11.64	3414	0.01	2000	
Cu	63	1	nogas	-0.548	-0.548	-31.29	50974	0.00	2000	
Zn	66	1	nogas	1.007	1.007	9.35	6585	0.02	2000	
As	75	1	nogas	-1.664	-1.664	-56.89	156876	0.00	2000	
Sr	88	1	nogas	-0.009	-0.009	-48.28	1747	0.00	2000	
Ag	107	1	nogas	0.004	0.004	30.26	250	0.00	2000	
Cd	111	1	nogas	0.001	0.001	407.05	23	0.00	2000	
Sb	121	1	nogas	0.022	0.022	33.87	1597	0.00	2000	
Tl	205	1	nogas	0.000	0.000	-264.91	137	0.00	2000	
Pb	208	1	nogas	0.006	0.006	37.45	767	0.00	2000	
U	238	1	nogas	0.000	0.000	70.17	113	0.00	2000	
[Pb]	206	1	nogas	0.007	0.007	37.94	217	0.00	2000	
[Pb]	207	1	nogas	0.005	0.005	74.87	130	0.00	2000	
Na	23	2	He	-43.794	-43.794	-63.60	365654	-0.01	200000	
Mg	24	2	He	13.742	13.742	11.03	14579	0.09	200000	
Al	27	2	He	6.036	6.036	37.99	4506	0.13	2000	
K	39	2	He	-4.794	-4.794	-52.89	269170	0.00	200000	
Ca	43	2	He	-4.214	-4.214	-69.29	33	-12.64	200000	
Ca	44	2	He	4.400	4.400	49.90	1560	0.28	200000	
V	51	2	He	-0.037	-0.037	-655.78	16729	0.00	2000	
Cr	52	2	He	0.062	0.062	154.45	4824	0.00	2000	
Mn	55	2	He	0.092	0.092	17.64	1370	0.01	2000	
Fe	56	2	He	0.380	0.380	173.37	32960	0.00	200000	
Co	59	2	He	0.000	0.000	-1856.02	67	0.00	2000	
Ni	60	2	He	-0.083	-0.083	-40.10	470	-0.02	2000	
Cu	63	2	He	0.788	0.788	3.01	1803	0.04	2000	
Zn	66	2	He	1.105	1.105	21.91	2384	0.05	2000	
As	75	2	He	-0.001	-0.001	-11104.10	923	0.00	2000	
Se	78	2	He	0.196	0.196	183.47	235	0.08	2000	
B	11	1	nogas	-0.296	-0.296	-51.81	14896	0.00	2000	

Sample Report

Si	28	1	nogas	75.889	75.889	15.79	2354526	0.00	2000	
Ca	43	1	nogas	3.038	3.038	33.59	907	0.34	200000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Ca	44	1	nogas	-2.590	-2.590	-97.14	57044	0.00	200000	
Fe	56	1	nogas	-19.831	-19.831	-19.62	3994667	0.00	200000	
Se	77	1	nogas	-12.849	-12.849	-37.82	50824	-0.03	2000	
Se	82	1	nogas	-0.001	-0.001	-16297.89	493	0.00	2000	
Mo	95	1	nogas	0.000	0.000	-1699.07	153	0.00	2000	
Sn	118	1	nogas	-0.308	-0.308	-1.77	1063	-0.03	2000	
Ba	137	1	nogas	0.021	0.021	49.86	350	0.01	2000	
Sb	121	2	He	0.027	0.027	120.92	693	0.00	2000	
La	139	1	nogas	-82.145	-82.145	-2.83	40	-205.36	2000	
Au	197	1	nogas	-2.381	-2.381	-2379.72	10	-23.81	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	543009	2.77	544172	99.79	70	125	
Ge	72	1	nogas	4622405	3.18	4694788	98.46	70	125	
In	115	1	nogas	4650089	3.35	4574578	101.65	70	125	
Bi	209	1	nogas	3481281	1.85	3446413	101.01	70	125	
Ge	72	2	He	1183441	11.96	1211365	97.69	70	125	

Sample Report

Sample Table

Sample Name	LCS-132119
Data File Name	064SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T13:53:42-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132119
ISTD Ref FileName	051CALB.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
Be	9	1	nogas	49.338	49.338	4.59	212052	0.02	2000	
Na	23	1	nogas	4721.175	4721.175	3.65	116321582	0.00	200000	
Mg	24	1	nogas	4821.335	4821.335	3.04	77103016	0.01	200000	
Al	27	1	nogas	108.196	108.196	6.24	2082867	0.01	2000	
K	39	1	nogas	5096.103	5096.103	1.93	139479482	0.00	200000	
Ti	47	1	nogas	148.424	148.424	3.71	353791	0.04	2000	
V	51	1	nogas	43.899	43.899	2.66	2737167	0.00	2000	
Cr	52	1	nogas	51.355	51.355	10.50	1571373	0.00	2000	
Mn	55	1	nogas	52.012	52.012	2.39	1981509	0.00	2000	
Co	59	1	nogas	52.227	52.227	1.17	1705704	0.00	2000	
Ni	60	1	nogas	51.729	51.729	3.85	369656	0.01	2000	
Cu	63	1	nogas	49.000	49.000	4.26	927587	0.01	2000	
Zn	66	1	nogas	51.859	51.859	2.70	301867	0.02	2000	
As	75	1	nogas	46.260	46.260	5.27	520476	0.01	2000	
Sr	88	1	nogas	98.179	98.179	2.31	4189983	0.00	2000	
Ag	107	1	nogas	48.267	48.267	4.48	1035816	0.00	2000	
Cd	111	1	nogas	50.098	50.098	1.15	232386	0.02	2000	
Sb	121	1	nogas	48.896	48.896	3.76	986647	0.00	2000	
Tl	205	1	nogas	48.126	48.126	0.41	1477882	0.00	2000	
Pb	208	1	nogas	51.167	51.167	1.49	2011976	0.00	2000	
U	238	1	nogas	99.080	99.080	4.69	4075636	0.00	2000	
[Pb]	206	1	nogas	47.391	47.391	2.79	496312	0.01	2000	
[Pb]	207	1	nogas	46.618	46.618	3.10	438058	0.01	2000	
Na	23	2	He	4846.268	4846.268	3.77	9109356	0.05	200000	
Mg	24	2	He	4939.882	4939.882	3.74	5040099	0.10	200000	
Al	27	2	He	103.992	103.992	2.98	61393	0.17	2000	
K	39	2	He	5291.474	5291.474	1.28	6750914	0.08	200000	
Ca	43	2	He	4918.351	4918.351	3.21	18473	26.62	200000	
Ca	44	2	He	4953.544	4953.544	4.18	314449	1.58	200000	
V	51	2	He	48.240	48.240	3.38	452146	0.01	2000	
Cr	52	2	He	48.264	48.264	2.50	483057	0.01	2000	
Mn	55	2	He	49.381	49.381	1.78	351189	0.01	2000	
Fe	56	2	He	4906.041	4906.041	3.03	44142118	0.01	200000	
Co	59	2	He	48.640	48.640	3.20	674765	0.01	2000	
Ni	60	2	He	51.009	51.009	5.57	172972	0.03	2000	
Cu	63	2	He	48.876	48.876	5.13	438128	0.01	2000	
Zn	66	2	He	50.618	50.618	3.57	108469	0.05	2000	
As	75	2	He	49.525	49.525	2.89	106214	0.05	2000	
Se	78	2	He	50.755	50.755	3.15	9032	0.56	2000	
B	11	1	nogas	480.863	480.863	5.91	1417723	0.03	2000	
Si	28	1	nogas	5050.642	5050.642	4.06	58667999	0.01	2000	>LDR
Ca	43	1	nogas	5115.305	5115.305	3.80	240275	2.13	200000	
Ca	44	1	nogas	5018.927	5018.927	2.42	4068432	0.12	200000	
Fe	56	1	nogas	4870.065	4870.065	5.06	169737979	0.00	200000	

Sample Report

Se	77	1	nogas	38.573	38.573	14.27	67361	0.06	2000	
Se	82	1	nogas	52.540	52.540	3.67	21750	0.24	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	50.929	50.929	3.04	412755	0.01	2000	
Sn	118	1	nogas	94.452	94.452	1.62	1200879	0.01	2000	
Ba	137	1	nogas	49.155	49.155	2.47	306663	0.02	2000	
Sb	121	2	He	51.300	51.300	2.67	386808	0.01	2000	
La	139	1	nogas	-9.555	-9.555	-190.67	360	-2.65	2000	
Au	197	1	nogas	116.651	116.651	50.85	30	388.84	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	485072	3.82	544172	89.14	70	125	
Ge	72	1	nogas	4574111	3.17	4694788	97.43	70	125	
In	115	1	nogas	4436034	1.57	4574578	96.97	70	125	
Bi	209	1	nogas	3391255	1.96	3446413	98.40	70	125	
Ge	72	2	He	1239036	3.87	1211365	102.28	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	073_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T14:11:40-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	95.191	3.122	413539	0.34	100	95.2	90	110	
Na	23	1	nogas	10297.553	8.962	221170030	2.07	10000	103.0	90	110	
Mg	24	1	nogas	10324.744	9.601	147259678	2.29	10000	103.2	90	110	
Al	27	1	nogas	107.615	7.849	1893877	2.10	100	107.6	90	110	
K	39	1	nogas	10488.709	7.257	253593872	0.66	10000	104.9	90	110	
Ti	47	1	nogas	105.069	5.205	229125	1.27	100	105.1	90	110	
V	51	1	nogas	94.645	9.052	4016693	0.53	100	94.6	90	110	
Cr	52	1	nogas	105.362	7.314	2879181	0.89	100	105.4	90	110	
Mn	55	1	nogas	103.195	8.756	3572849	2.28	100	103.2	90	110	
Co	59	1	nogas	105.347	8.514	3140164	2.11	100	105.3	90	110	
Ni	60	1	nogas	103.995	8.437	677967	2.04	100	104.0	90	110	
Cu	63	1	nogas	107.456	9.622	1791718	2.87	100	107.5	90	110	
Zn	66	1	nogas	103.088	6.304	547852	1.18	100	103.1	90	110	
As	75	1	nogas	95.499	9.516	818272	1.50	100	95.5	90	110	
Sr	88	1	nogas	103.897	6.076	4052378	0.65	100	103.9	90	110	
Ag	107	1	nogas	105.952	9.197	2076133	2.89	100	106.0	90	110	
Cd	111	1	nogas	101.529	7.415	425307	1.59	100	101.5	90	110	
Sb	121	1	nogas	103.644	7.095	1910201	1.67	100	103.6	90	110	
Tl	205	1	nogas	109.494	8.707	2926796	1.59	100	109.5	90	110	
Pb	208	1	nogas	99.386	0.601	3907538	0.60	100	99.4	90	110	
U	238	1	nogas	108.894	9.830	3898776	1.30	100	108.9	90	110	
[Pb]	206	1	nogas	103.759	8.573	946056	1.39	100	103.8	90	110	
[Pb]	207	1	nogas	102.172	8.100	836173	1.52	100	102.2	90	110	
Na	23	2	He	10034.087	0.634	17118809	0.91	10000	100.3	90	110	
Mg	24	2	He	10046.748	0.664	9555969	0.72	10000	100.5	90	110	
Al	27	2	He	103.475	2.260	56949	2.56	100	103.5	90	110	
K	39	2	He	10324.608	1.586	12910626	1.55	10000	103.2	90	110	
Ca	43	2	He	9759.098	1.544	34121	1.28	10000	97.6	90	110	
Ca	44	2	He	9895.019	2.310	584313	1.16	10000	99.0	90	110	
V	51	2	He	98.389	2.330	842137	1.13	100	98.4	90	110	
Cr	52	2	He	97.036	3.218	900813	2.27	100	97.0	90	110	
Mn	55	2	He	98.063	1.461	649126	0.70	100	98.1	90	110	
Fe	56	2	He	9950.123	1.069	83422720	0.50	10000	99.5	90	110	
Co	59	2	He	96.756	0.870	1251228	1.01	100	96.8	90	110	
Ni	60	2	He	100.739	1.231	317977	2.15	100	100.7	90	110	
Cu	63	2	He	96.873	0.461	814767	0.70	100	96.9	90	110	
Zn	66	2	He	100.317	0.546	200270	1.18	100	100.3	90	110	
As	75	2	He	99.138	1.711	197257	0.58	100	99.1	90	110	
Se	78	2	He	99.773	1.342	16355	0.22	100	99.8	90	110	
B	11	1	nogas	455.974	2.536	1360293	1.17	500	91.2	90	110	
Si	28	1	nogas	5349.572	8.358	56685832	1.85	5000	107.0	90	110	
Ca	43	1	nogas	10525.936	9.256	450573	2.93	10000	105.3	90	110	
Ca	44	1	nogas	10458.697	8.073	7682802	2.09	10000	104.6	90	110	
Fe	56	1	nogas	10188.620	6.569	320053049	0.29	10000	101.9	90	110	
Se	77	1	nogas	77.331	25.540	73261	2.91	100	77.3	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	102.526	9.659	38318	3.39	100	102.5	90	110	
Mo	95	1	nogas	105.995	5.742	785190	0.83	100	106.0	90	110	
Sn	118	1	nogas	99.486	7.778	1142015	2.33	100	99.5	90	110	
Ba	137	1	nogas	101.918	5.656	574500	0.30	100	101.9	90	110	
Sb	121	2	He	101.059	2.083	709697	0.99	100	101.1	90	110	
Li	7	1	nogas	97.820	4.367	839835	1.75	100	97.8	90	110	
P	31	1	nogas	518.579	8.723	909679	1.90	500	103.7	90	110	
La	139	1	nogas	242.556	4.315	1340	4.16	100	242.6	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	633.978	66.971	100	51.96	100	634.0	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	490089	2.83	544172	90.06	70	125	
Ge	72	1	nogas	4189010	6.21	4694788	89.23	70	125	
In	115	1	nogas	4017066	5.68	4574578	87.81	70	125	
Bi	209	1	nogas	2965667	8.11	3446413	86.05	70	125	

Ge	72	2	He	1154167	1.14	1211365	95.28	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	074_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T14:13:40-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	051CALB.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
Be	9	1	nogas	0.078	48.6	407	34.1	1	
Na	23	1	nogas	50.509	77.6	5306434	1.5	100	
Mg	24	1	nogas	5.413	48.5	88705	34.2	100	
Al	27	1	nogas	1.805	28.8	61179	3.3	5	
K	39	1	nogas	30.719	143.8	8774937	0.6	100	
Ti	47	1	nogas	0.114	78.1	503	29.0	2.5	
V	51	1	nogas	-14.307	-20.7	752860	1.3	2.5	
Cr	52	1	nogas	-0.430	-56.8	54992	0.5	2.5	
Mn	55	1	nogas	0.063	129.7	18613	5.6	2.5	
Co	59	1	nogas	0.054	46.1	1943	29.0	2.5	
Ni	60	1	nogas	0.486	12.1	3910	3.9	2.5	
Cu	63	1	nogas	0.240	100.8	58403	5.3	2.5	
Zn	66	1	nogas	0.380	14.3	2604	2.1	2.5	
As	75	1	nogas	-4.117	-45.9	123435	1.1	2.5	
Sr	88	1	nogas	0.082	41.0	5021	15.8	2.5	
Ag	107	1	nogas	0.053	48.4	1150	34.8	2.5	
Cd	111	1	nogas	0.058	74.3	243	62.9	1	
Sb	121	1	nogas	0.950	21.1	18223	10.6	2.5	
Tl	205	1	nogas	0.117	43.7	3310	32.7	1	
Pb	208	1	nogas	0.069	38.1	3240	32.0	2.5	
U	238	1	nogas	0.075	41.7	2837	31.1	2.5	
[Pb]	206	1	nogas	0.084	52.1	907	35.9	2.5	
[Pb]	207	1	nogas	0.078	40.2	730	26.0	2.5	
Na	23	2	He	4.786	115.7	450788	0.6	100	
Mg	24	2	He	2.347	21.8	3567	11.8	100	
Al	27	2	He	1.155	14.2	1807	3.0	5	
K	39	2	He	-9.426	-13.3	263501	0.6	100	
Ca	43	2	He	9.722	150.5	83	61.6	100	
Ca	44	2	He	7.994	41.0	1780	9.9	100	
V	51	2	He	-0.544	-9.6	12488	1.3	2.5	
Cr	52	2	He	-0.014	-88.6	4164	4.8	2.5	
Mn	55	2	He	0.030	19.1	953	2.6	2.5	
Fe	56	2	He	3.883	11.2	63279	4.1	100	
Co	59	2	He	0.026	13.1	407	9.3	2.5	
Ni	60	2	He	-0.104	-16.9	407	12.4	2.5	
Cu	63	2	He	0.796	1.1	1870	5.1	2.5	
Zn	66	2	He	0.293	13.8	753	10.0	2.5	
As	75	2	He	-0.043	-124.2	847	10.6	2.5	
Se	78	2	He	0.445	37.7	279	8.4	2.5	
B	11	1	nogas	7.733	26.3	38870	6.4	10	
Si	28	1	nogas	25.422	70.2	1588926	1.4	5	CCB Main CR1 Failed
Ca	43	1	nogas	14.403	35.7	1293	13.5	100	
Ca	44	1	nogas	15.603	73.2	64023	1.7	100	
Fe	56	1	nogas	-40.362	-31.4	2936377	2.8	100	
Se	77	1	nogas	-33.339	-37.4	39343	2.8	2.5	
Se	82	1	nogas	0.355	82.4	567	8.9	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.168	34.0	1363	24.0	2.5	
Sn	118	1	nogas	-0.104	-66.7	3130	14.1	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.106	60.2	737	38.1	2.5	
Sb	121	2	He	0.747	7.8	5868	5.3	2.5	
P	31	1	nogas	4.557	115.6	65523	1.8	10	
La	139	1	nogas	77.956	74.9	643	22.8	2.5	CCB Main CR1 Failed
Au	197	1	nogas	161.482	72.6	33	45.8	2.5	CCB 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	nogas	518354	10.34	544172	95.26	70	125	
Ge	72	1	nogas	4166723	12.32	4694788	88.75	70	125	
In	115	1	nogas	3938667	15.92	4574578	86.10	70	125	
Bi	209	1	nogas	3118258	13.76	3446413	90.48	70	125	
Ge	72	2	He	1179960	2.34	1211365	97.41	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01SD
Data File Name	076SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T14:17:39-05:00
Sample Type	Sample
Dilution	5
Comment	TW B132119
ISTD Ref FileName	051CALB.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
Be	9	1	nogas	0.093	0.467	7.11	477	0.02	2000	
Na	23	1	nogas	11970.770	59853.852	1.03	269699831	0.00	200000	
Mg	24	1	nogas	3728.356	18641.780	1.67	55968814	0.01	200000	
Al	27	1	nogas	66.725	333.627	2.12	1267653	0.01	2000	
K	39	1	nogas	493.681	2468.405	6.09	21057571	0.00	200000	
Ti	47	1	nogas	0.692	3.459	11.56	1897	0.04	2000	
V	51	1	nogas	16.905	84.526	4.67	1810315	0.00	2000	
Cr	52	1	nogas	0.461	2.305	15.84	84890	0.00	2000	
Mn	55	1	nogas	61.194	305.968	2.59	2272802	0.00	2000	
Co	59	1	nogas	5.812	29.060	1.53	185601	0.00	2000	
Ni	60	1	nogas	15.758	78.790	2.63	110520	0.01	2000	
Cu	63	1	nogas	3.828	19.140	3.97	124941	0.00	2000	
Zn	66	1	nogas	20.626	103.128	2.10	117596	0.02	2000	
As	75	1	nogas	5.373	26.867	9.91	203948	0.00	2000	
Sr	88	1	nogas	44.958	224.788	1.72	1874418	0.00	2000	
Ag	107	1	nogas	0.006	0.029	56.10	273	0.00	2000	
Cd	111	1	nogas	0.404	2.020	9.84	1830	0.02	2000	
Sb	121	1	nogas	0.168	0.842	5.80	4421	0.00	2000	
Tl	205	1	nogas	0.062	0.312	5.37	1997	0.00	2000	
Pb	208	1	nogas	0.031	0.153	6.33	1727	0.00	2000	
U	238	1	nogas	0.057	0.286	7.37	2367	0.00	2000	
[Pb]	206	1	nogas	0.038	0.188	2.14	517	0.01	2000	
[Pb]	207	1	nogas	0.030	0.151	28.39	357	0.01	2000	
Na	23	2	He	12600.430	63002.150	4.16	21211726	0.06	200000	
Mg	24	2	He	3923.750	19618.751	3.67	3702701	0.11	200000	
Al	27	2	He	68.589	342.946	3.96	37831	0.18	2000	
K	39	2	He	488.334	2441.669	0.78	872675	0.06	200000	
Ca	43	2	He	3658.519	18292.593	6.80	12711	28.78	200000	
Ca	44	2	He	3673.383	18366.913	4.77	215943	1.70	200000	
V	51	2	He	1.466	7.330	4.92	28860	0.01	2000	
Cr	52	2	He	0.254	1.269	10.61	6495	0.00	2000	
Mn	55	2	He	60.913	304.567	1.98	400406	0.02	2000	
Fe	56	2	He	171.472	857.362	3.02	1454945	0.01	200000	
Co	59	2	He	6.080	30.399	4.17	78042	0.01	2000	
Ni	60	2	He	15.816	79.082	3.58	50125	0.03	2000	
Cu	63	2	He	4.456	22.280	2.30	32536	0.01	2000	
Zn	66	2	He	20.686	103.432	3.26	41086	0.05	2000	
As	75	2	He	0.381	1.903	12.43	1657	0.02	2000	
Se	78	2	He	0.212	1.062	51.06	234	0.09	2000	
B	11	1	nogas	15.179	75.893	4.39	61278	0.02	2000	
Si	28	1	nogas	5317.143	26585.714	1.49	60230339	0.01	2000	>LDR
Ca	43	1	nogas	3578.701	17893.505	1.73	164306	2.18	200000	
Ca	44	1	nogas	3565.800	17828.998	2.93	2837064	0.13	200000	
Fe	56	1	nogas	123.442	617.208	5.68	8602174	0.00	200000	

Sample Report

Se	77	1	nogas	38.433	192.164	14.90	65708	0.06	2000	
Se	82	1	nogas	0.374	1.872	62.78	623	0.06	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	0.010	0.049	55.05	230	0.00	2000	
Sn	118	1	nogas	-0.269	-1.347	-4.75	1457	-0.02	2000	
Ba	137	1	nogas	4.782	23.909	5.82	29075	0.02	2000	
Sb	121	2	He	0.191	0.956	2.67	1830	0.01	2000	
La	139	1	nogas	2631.668	13158.338	2.00	11728	22.44	2000	>LDR
Au	197	1	nogas	59.875	299.375	196.65	20	299.38	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	507940	1.78	544172	93.34	70	125	
Ge	72	1	nogas	4463089	1.54	4694788	95.06	70	125	
In	115	1	nogas	4300195	2.39	4574578	94.00	70	125	
Bi	209	1	nogas	3290260	2.38	3446413	95.47	70	125	
Ge	72	2	He	1145595	2.86	1211365	94.57	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01MS
Data File Name	077SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T14:19:39-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132119
ISTD Ref FileName	051CALB.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
Be	9	1	nogas	47.411	47.411	11.61	201200	0.02	2000	
Na	23	1	nogas	51435.646	51435.646	13.25	1385753064	0.00	200000	
Mg	24	1	nogas	18730.106	18730.106	16.14	339983541	0.01	200000	
Al	27	1	nogas	383.722	383.722	10.33	8054996	0.00	2000	
K	39	1	nogas	6302.312	6302.312	9.22	187966417	0.00	200000	
Ti	47	1	nogas	118.398	118.398	11.81	311039	0.04	2000	
V	51	1	nogas	53.446	53.446	15.76	3363284	0.00	2000	
Cr	52	1	nogas	45.328	45.328	9.51	1542036	0.00	2000	
Mn	55	1	nogas	304.384	304.384	10.25	12686872	0.00	2000	
Co	59	1	nogas	69.757	69.757	8.90	2512739	0.00	2000	
Ni	60	1	nogas	108.194	108.194	9.77	851839	0.01	2000	
Cu	63	1	nogas	55.511	55.511	10.48	1150351	0.00	2000	
Zn	66	1	nogas	130.542	130.542	11.05	836342	0.02	2000	
As	75	1	nogas	45.916	45.916	12.43	571632	0.01	2000	
Sr	88	1	nogas	262.278	262.278	10.24	12336500	0.00	2000	
Ag	107	1	nogas	40.657	40.657	9.96	962464	0.00	2000	
Cd	111	1	nogas	44.499	44.499	14.55	224272	0.02	2000	
Sb	121	1	nogas	42.372	42.372	7.56	944427	0.00	2000	
Tl	205	1	nogas	44.894	44.894	10.51	1461463	0.00	2000	
Pb	208	1	nogas	48.531	48.531	1.23	1908332	0.00	2000	
U	238	1	nogas	91.091	91.091	12.91	3967552	0.00	2000	
[Pb]	206	1	nogas	42.619	42.619	9.88	473576	0.01	2000	
[Pb]	207	1	nogas	41.883	41.883	10.01	417424	0.01	2000	
Na	23	2	He	60668.440	60668.440	3.35	106696692	0.06	200000	
Mg	24	2	He	22549.318	22549.318	2.53	22587904	0.10	200000	
Al	27	2	He	423.441	423.441	3.08	241683	0.18	2000	
K	39	2	He	7522.275	7522.275	0.64	9481040	0.08	200000	
Ca	43	2	He	22056.436	22056.436	3.38	81146	27.18	200000	
Ca	44	2	He	23168.977	23168.977	4.42	1438818	1.61	200000	
V	51	2	He	49.769	49.769	4.64	457277	0.01	2000	
Cr	52	2	He	48.625	48.625	4.18	477586	0.01	2000	
Mn	55	2	He	340.477	340.477	3.44	2371558	0.01	2000	
Fe	56	2	He	5601.573	5601.573	2.83	49477839	0.01	200000	
Co	59	2	He	74.685	74.685	1.50	1017474	0.01	2000	
Ni	60	2	He	120.289	120.289	1.35	399818	0.03	2000	
Cu	63	2	He	63.846	63.846	3.28	563714	0.01	2000	
Zn	66	2	He	143.128	143.128	3.67	300797	0.05	2000	
As	75	2	He	50.064	50.064	3.00	105392	0.05	2000	
Se	78	2	He	50.180	50.180	6.08	8765	0.57	2000	
B	11	1	nogas	527.059	527.059	11.42	1533697	0.03	2000	
Si	28	1	nogas	26892.385	26892.385	10.28	337513235	0.01	2000	>LDR
Ca	43	1	nogas	19567.135	19567.135	9.06	1011642	1.93	200000	
Ca	44	1	nogas	19612.467	19612.467	10.62	17332720	0.11	200000	
Fe	56	1	nogas	4959.007	4959.007	10.29	190582729	0.00	200000	

Sample Report

Se	77	1	nogas	57.858	57.858	28.26	81445	0.07	2000	
Se	82	1	nogas	44.377	44.377	12.07	20325	0.22	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	44.694	44.694	10.10	399447	0.01	2000	
Sn	118	1	nogas	70.269	70.269	12.69	973595	0.01	2000	
Ba	137	1	nogas	64.701	64.701	13.00	439130	0.01	2000	
Sb	121	2	He	50.586	50.586	2.40	374474	0.01	2000	
La	139	1	nogas	12100.275	12100.275	14.69	58851	20.56	2000	>LDR
Au	197	1	nogas	183.193	183.193	66.18	43	422.75	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	481979	9.59	544172	88.57	70	125	
Ge	72	1	nogas	5068159	8.04	4694788	107.95	70	125	
In	115	1	nogas	4876617	12.12	4574578	106.60	70	125	
Bi	209	1	nogas	3620146	10.22	3446413	105.04	70	125	
Ge	72	2	He	1216246	3.34	1211365	100.40	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01MSD
Data File Name	078SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T14:21:38-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132119
ISTD Ref FileName	051CALB.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
Be	9	1	nogas	55.871	55.871	2.50	209872	0.03	2000	
Na	23	1	nogas	60400.506	60400.506	4.58	1385849764	0.00	200000	
Mg	24	1	nogas	22280.694	22280.694	4.48	345387308	0.01	200000	
Al	27	1	nogas	442.453	442.453	1.16	8260836	0.01	2000	
K	39	1	nogas	7110.273	7110.273	2.87	187408183	0.00	200000	
Ti	47	1	nogas	150.798	150.798	1.15	352811	0.04	2000	
V	51	1	nogas	71.100	71.100	3.79	3556784	0.00	2000	
Cr	52	1	nogas	51.768	51.768	2.97	1555703	0.00	2000	
Mn	55	1	nogas	342.542	342.542	2.10	12702441	0.00	2000	
Co	59	1	nogas	79.479	79.479	0.68	2546399	0.00	2000	
Ni	60	1	nogas	123.795	123.795	1.34	867037	0.01	2000	
Cu	63	1	nogas	65.622	65.622	1.93	1199078	0.01	2000	
Zn	66	1	nogas	151.721	151.721	2.65	865180	0.02	2000	
As	75	1	nogas	56.082	56.082	1.58	584245	0.01	2000	
Sr	88	1	nogas	317.497	317.497	5.60	13282266	0.00	2000	
Ag	107	1	nogas	46.215	46.215	0.96	973499	0.00	2000	
Cd	111	1	nogas	52.970	52.970	4.10	234615	0.02	2000	
Sb	121	1	nogas	49.615	49.615	1.88	982459	0.01	2000	
Tl	205	1	nogas	51.933	51.933	2.46	1501907	0.00	2000	
Pb	208	1	nogas	49.724	49.724	0.82	1955237	0.00	2000	
U	238	1	nogas	103.394	103.394	4.55	4006107	0.00	2000	
[Pb]	206	1	nogas	49.060	49.060	3.70	483866	0.01	2000	
[Pb]	207	1	nogas	48.189	48.189	3.21	426514	0.01	2000	
Na	23	2	He	64667.797	64667.797	0.95	108099445	0.06	200000	
Mg	24	2	He	24117.745	24117.745	1.13	22966322	0.11	200000	
Al	27	2	He	456.003	456.003	0.35	247356	0.18	2000	
K	39	2	He	7625.844	7625.844	0.78	9607791	0.08	200000	
Ca	43	2	He	23334.380	23334.380	1.97	81618	28.59	200000	
Ca	44	2	He	23908.480	23908.480	0.60	1411922	1.69	200000	
V	51	2	He	53.097	53.097	1.13	462813	0.01	2000	
Cr	52	2	He	51.733	51.733	0.63	482888	0.01	2000	
Mn	55	2	He	359.896	359.896	1.03	2383427	0.02	2000	
Fe	56	2	He	5951.304	5951.304	1.69	49971839	0.01	200000	
Co	59	2	He	80.028	80.028	1.50	1036202	0.01	2000	
Ni	60	2	He	130.238	130.238	1.82	411351	0.03	2000	
Cu	63	2	He	68.659	68.659	0.36	576744	0.01	2000	
Zn	66	2	He	151.653	151.653	0.40	303034	0.05	2000	
As	75	2	He	52.966	52.966	0.14	105953	0.05	2000	
Se	78	2	He	52.859	52.859	2.05	8770	0.60	2000	
B	11	1	nogas	603.007	603.007	2.66	1551090	0.04	2000	
Si	28	1	nogas	30955.684	30955.684	1.73	345487368	0.01	2000	>LDR
Ca	43	1	nogas	22206.368	22206.368	1.67	1020909	2.18	200000	
Ca	44	1	nogas	22061.176	22061.176	1.50	17347625	0.13	200000	
Fe	56	1	nogas	5608.950	5608.950	2.72	191179367	0.00	200000	

Sample Report

Se	77	1	nogas	97.957	97.957	2.82	85419	0.11	2000	
Se	82	1	nogas	50.872	50.872	1.75	20685	0.25	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	51.504	51.504	1.89	409608	0.01	2000	
Sn	118	1	nogas	96.111	96.111	1.64	1167263	0.01	2000	
Ba	137	1	nogas	74.979	74.979	4.06	446620	0.02	2000	
Sb	121	2	He	53.838	53.838	0.79	378828	0.01	2000	
La	139	1	nogas	13858.386	13858.386	2.42	59198	23.41	2000	>LDR
Au	197	1	nogas	1.634	1.634	3687.41	10	16.34	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	423621	2.08	544172	77.85	70	125	
Ge	72	1	nogas	4486303	1.95	4694788	95.56	70	125	
In	115	1	nogas	4238575	2.82	4574578	92.65	70	125	
Bi	209	1	nogas	3195082	2.91	3446413	92.71	70	125	
Ge	72	2	He	1155532	0.26	1211365	95.39	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01PDS
Data File Name	079SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T14:23:36-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132119
ISTD Ref FileName	051CALB.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
Be	9	1	nogas	95.380	95.380	1.26	375548	0.03	2000	
Na	23	1	nogas	59898.426	59898.426	3.02	1401808898	0.00	200000	
Mg	24	1	nogas	24682.049	24682.049	1.74	390251650	0.01	200000	
Al	27	1	nogas	387.348	387.348	3.22	7300712	0.01	2000	
K	39	1	nogas	11233.860	11233.860	4.89	293550073	0.00	200000	
Ti	47	1	nogas	188.753	188.753	3.10	445414	0.04	2000	
V	51	1	nogas	110.279	110.279	5.01	4856101	0.00	2000	
Cr	52	1	nogas	94.007	94.007	2.25	2792093	0.00	2000	
Mn	55	1	nogas	365.699	365.699	2.66	13683281	0.00	2000	
Co	59	1	nogas	121.696	121.696	3.86	3932095	0.00	2000	
Ni	60	1	nogas	161.947	161.947	3.49	1144007	0.01	2000	
Cu	63	1	nogas	110.800	110.800	1.27	2002817	0.01	2000	
Zn	66	1	nogas	187.718	187.718	1.72	1080354	0.02	2000	
As	75	1	nogas	95.704	95.704	3.94	888370	0.01	2000	
Sr	88	1	nogas	296.011	296.011	5.12	12495131	0.00	2000	
Ag	107	1	nogas	95.796	95.796	2.29	2036091	0.00	2000	
Cd	111	1	nogas	96.435	96.435	1.03	431280	0.02	2000	
Sb	121	1	nogas	91.262	91.262	3.06	1822473	0.01	2000	
Tl	205	1	nogas	94.375	94.375	6.67	2777889	0.00	2000	
Pb	208	1	nogas	95.757	95.757	0.35	3764872	0.00	2000	
U	238	1	nogas	0.339	0.339	4.29	13529	0.00	2000	
[Pb]	206	1	nogas	89.754	89.754	6.17	901284	0.01	2000	
[Pb]	207	1	nogas	89.295	89.295	4.89	805031	0.01	2000	
Na	23	2	He	65698.096	65698.096	19.86	109612438	0.06	200000	
Mg	24	2	He	27845.834	27845.834	20.19	26452543	0.11	200000	
Al	27	2	He	417.745	417.745	20.22	226184	0.18	2000	
K	39	2	He	11939.323	11939.323	3.18	14886766	0.08	200000	
Ca	43	2	He	26682.999	26682.999	20.30	93089	28.66	200000	
Ca	44	2	He	27729.116	27729.116	20.67	1632347	1.70	200000	
V	51	2	He	99.002	99.002	19.92	847079	0.01	2000	
Cr	52	2	He	97.445	97.445	20.40	903794	0.01	2000	
Mn	55	2	He	398.840	398.840	18.86	2639371	0.02	2000	
Fe	56	2	He	10419.958	10419.958	19.80	87304035	0.01	200000	
Co	59	2	He	128.087	128.087	18.80	1657195	0.01	2000	
Ni	60	2	He	170.082	170.082	19.32	536199	0.03	2000	
Cu	63	2	He	109.903	109.903	18.63	925415	0.01	2000	
Zn	66	2	He	192.968	192.968	18.67	385288	0.05	2000	
As	75	2	He	100.512	100.512	19.90	199855	0.05	2000	
Se	78	2	He	99.821	99.821	19.38	16363	0.61	2000	
B	11	1	nogas	1003.039	1003.039	4.21	2695168	0.04	2000	
Si	28	1	nogas	33662.954	33662.954	4.04	378870648	0.01	2000	>LDR
Ca	43	1	nogas	25246.374	25246.374	3.97	1170716	2.16	200000	
Ca	44	1	nogas	25344.718	25344.718	4.51	20091419	0.13	200000	
Fe	56	1	nogas	9665.206	9665.206	3.43	329098699	0.00	200000	

Sample Report

Se	77	1	nogas	125.230	125.230	9.37	95113	0.13	2000	
Se	82	1	nogas	94.355	94.355	2.29	38294	0.25	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	95.944	95.944	3.71	769555	0.01	2000	
Sn	118	1	nogas	91.991	91.991	1.50	1127474	0.01	2000	
Ba	137	1	nogas	117.368	117.368	2.69	705515	0.02	2000	
Sb	121	2	He	96.209	96.209	20.21	674962	0.01	2000	
La	139	1	nogas	13169.362	13169.362	3.33	56777	23.19	2000	>LDR
Au	197	1	nogas	242.539	242.539	35.87	50	485.08	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	443960	1.50	544172	81.58	70	125	
Ge	72	1	nogas	4528637	3.33	4694788	96.46	70	125	
In	115	1	nogas	4276202	1.85	4574578	93.48	70	125	
Bi	209	1	nogas	3259114	5.95	3446413	94.57	70	125	
Ge	72	2	He	1179994	17.27	1211365	97.41	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	085_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T14:35:32-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	93.246	15.051	392360	0.76	100	93.2	90	110	
Na	23	1	nogas	9142.677	14.988	228113838	0.54	10000	91.4	90	110	
Mg	24	1	nogas	9198.525	14.294	152144199	2.09	10000	92.0	90	110	
Al	27	1	nogas	99.139	11.948	2020168	3.13	100	99.1	90	110	
K	39	1	nogas	9325.364	17.270	260510406	3.11	10000	93.3	90	110	
Ti	47	1	nogas	96.055	16.507	240903	3.44	100	96.1	90	110	
V	51	1	nogas	93.428	20.967	4586718	1.36	100	93.4	90	110	
Cr	52	1	nogas	94.262	17.588	2970970	4.27	100	94.3	90	110	
Mn	55	1	nogas	94.376	17.049	3763085	4.31	100	94.4	90	110	
Co	59	1	nogas	95.093	16.366	3264510	2.84	100	95.1	90	110	
Ni	60	1	nogas	95.489	16.751	716788	3.15	100	95.5	90	110	
Cu	63	1	nogas	93.727	13.180	1814530	1.15	100	93.7	90	110	
Zn	66	1	nogas	95.249	16.121	582582	3.02	100	95.2	90	110	
As	75	1	nogas	88.807	19.446	889047	2.17	100	88.8	90	110	CCV Main CR1-2 Failed
Sr	88	1	nogas	94.561	13.497	4254323	0.38	100	94.6	90	110	
Ag	107	1	nogas	97.343	11.627	2206786	2.23	100	97.3	90	110	
Cd	111	1	nogas	93.612	20.259	455610	2.48	100	93.6	90	110	
Sb	121	1	nogas	97.105	17.177	2058314	3.81	100	97.1	90	110	
Tl	205	1	nogas	99.598	16.793	3111336	2.86	100	99.6	90	110	
Pb	208	1	nogas	105.525	2.080	4148866	2.08	100	105.5	90	110	
U	238	1	nogas	98.743	18.438	4127625	3.63	100	98.7	90	110	
[Pb]	206	1	nogas	93.996	18.081	1000253	3.24	100	94.0	90	110	
[Pb]	207	1	nogas	92.772	17.975	885990	3.08	100	92.8	90	110	
Na	23	2	He	10741.367	9.431	18209676	2.23	10000	107.4	90	110	
Mg	24	2	He	10617.903	8.884	10053758	1.89	10000	106.2	90	110	
Al	27	2	He	106.802	7.961	58514	1.71	100	106.8	90	110	
K	39	2	He	10648.258	0.150	13306719	0.15	10000	106.5	90	110	
Ca	43	2	He	10440.387	7.115	36369	0.73	10000	104.4	90	110	
Ca	44	2	He	10682.351	7.750	628347	1.33	10000	106.8	90	110	
V	51	2	He	106.452	8.795	905941	1.61	100	106.5	90	110	
Cr	52	2	He	105.436	6.282	975433	1.09	100	105.4	90	110	
Mn	55	2	He	106.206	7.659	700294	1.55	100	106.2	90	110	
Fe	56	2	He	10758.486	8.585	89808919	1.76	10000	107.6	90	110	
Co	59	2	He	108.140	10.261	1391232	3.30	100	108.1	90	110	
Ni	60	2	He	108.353	9.951	340211	2.86	100	108.4	90	110	
Cu	63	2	He	104.165	8.876	872539	1.88	100	104.2	90	110	
Zn	66	2	He	109.007	9.308	216591	2.36	100	109.0	90	110	
As	75	2	He	107.989	7.438	213991	0.29	100	108.0	90	110	
Se	78	2	He	106.190	8.310	17322	1.09	100	106.2	90	110	
B	11	1	nogas	473.648	13.666	1369833	0.85	500	94.7	90	110	
Si	28	1	nogas	4762.579	13.645	58442124	0.44	5000	95.3	90	110	
Ca	43	1	nogas	9618.953	15.349	474844	1.95	10000	96.2	90	110	
Ca	44	1	nogas	9484.207	15.691	8033021	2.26	10000	94.8	90	110	
Fe	56	1	nogas	9202.236	17.068	332970499	4.15	10000	92.0	90	110	
Se	77	1	nogas	77.026	44.475	84408	0.66	100	77.0	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	93.992	15.529	40556	1.84	100	94.0	90	110	
Mo	95	1	nogas	96.615	14.706	824585	3.12	100	96.6	90	110	
Sn	118	1	nogas	90.926	20.448	1212960	2.48	100	90.9	90	110	
Ba	137	1	nogas	94.071	21.471	614620	3.73	100	94.1	90	110	
Sb	121	2	He	109.611	8.111	766624	0.95	100	109.6	90	110	
Li	7	1	nogas	92.299	13.968	771265	1.48	100	92.3	90	110	
P	31	1	nogas	457.452	16.589	932870	1.87	500	91.5	90	110	
La	139	1	nogas	215.007	23.663	1467	28.40	100	215.0	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	388.562	90.209	83	90.86	100	388.6	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	481090	13.85	544172	88.41	70	125	
Ge	72	1	nogas	4877301	13.16	4694788	103.89	70	125	
In	115	1	nogas	4769404	18.16	4574578	104.26	70	125	
Bi	209	1	nogas	3507837	14.79	3446413	101.78	70	125	

Ge	72	2	He	1153829	7.17	1211365	95.25	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	086_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T14:37:31-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	051CALB.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
Be	9	1	nogas	0.076	9.3	390	8.9	1	
Na	23	1	nogas	-25.833	-24.9	4453809	2.5	100	
Mg	24	1	nogas	6.214	22.9	119281	18.5	100	
Al	27	1	nogas	1.540	20.3	65260	6.1	5	
K	39	1	nogas	-1.046	-1351.8	9250894	1.0	100	
Ti	47	1	nogas	0.083	54.5	513	22.2	2.5	
V	51	1	nogas	-11.298	-10.2	969237	5.7	2.5	
Cr	52	1	nogas	-0.444	-19.7	62863	2.4	2.5	
Mn	55	1	nogas	0.034	65.2	20308	1.4	2.5	
Co	59	1	nogas	0.057	27.9	2367	21.1	2.5	
Ni	60	1	nogas	0.363	13.7	3577	9.5	2.5	
Cu	63	1	nogas	-0.903	-17.4	45901	5.9	2.5	
Zn	66	1	nogas	0.327	13.3	2674	10.5	2.5	
As	75	1	nogas	-5.057	-10.4	134513	2.9	2.5	
Sr	88	1	nogas	0.167	10.2	9603	5.5	2.5	
Ag	107	1	nogas	0.074	24.4	1797	20.6	2.5	
Cd	111	1	nogas	0.060	18.8	317	18.5	1	
Sb	121	1	nogas	0.961	14.6	21287	12.9	2.5	
Tl	205	1	nogas	0.139	40.1	4601	32.9	1	
Pb	208	1	nogas	0.082	27.5	3757	23.7	2.5	
U	238	1	nogas	0.077	29.2	3390	21.5	2.5	
[Pb]	206	1	nogas	0.071	35.6	920	23.0	2.5	
[Pb]	207	1	nogas	0.082	55.8	887	43.8	2.5	
Na	23	2	He	-42.035	-20.6	407117	1.3	100	
Mg	24	2	He	4.107	3.1	5798	2.4	100	
Al	27	2	He	1.244	13.2	2037	4.2	5	
K	39	2	He	8.376	11.0	285287	0.4	100	
Ca	43	2	He	16.130	37.5	117	17.8	100	
Ca	44	2	He	12.560	18.4	2257	7.1	100	
V	51	2	He	-0.238	-26.3	16578	0.9	2.5	
Cr	52	2	He	-0.017	-87.6	4537	1.4	2.5	
Mn	55	2	He	0.070	22.1	1347	10.4	2.5	
Fe	56	2	He	4.141	11.2	71863	4.9	100	
Co	59	2	He	0.040	9.4	653	6.2	2.5	
Ni	60	2	He	-0.095	-27.9	477	18.1	2.5	
Cu	63	2	He	0.869	1.3	2744	6.3	2.5	
Zn	66	2	He	0.290	11.2	820	10.0	2.5	
As	75	2	He	-0.055	-91.2	902	9.8	2.5	
Se	78	2	He	0.297	19.3	280	6.1	2.5	
B	11	1	nogas	5.376	4.7	30692	3.9	10	
Si	28	1	nogas	7.440	168.4	1615414	7.4	5	CCB Main CR1 Failed
Ca	43	1	nogas	16.320	26.6	1577	11.9	100	
Ca	44	1	nogas	7.674	28.1	67184	2.1	100	
Fe	56	1	nogas	-21.556	-3.8	4048343	3.4	100	
Se	77	1	nogas	-39.772	-7.1	43001	3.9	2.5	
Se	82	1	nogas	0.147	133.8	567	12.0	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.164	16.9	1543	13.0	2.5	
Sn	118	1	nogas	-0.143	-18.3	3330	12.0	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.099	26.5	880	21.6	2.5	
Sb	121	2	He	0.752	4.8	6485	5.9	2.5	
P	31	1	nogas	0.992	126.2	68836	1.3	10	
La	139	1	nogas	65.882	27.8	747	12.9	2.5	CCB Main CR1 Failed
Au	197	1	nogas	74.560	203.1	23	107.9	2.5	CCB 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	nogas	497973	1.92	544172	91.51	70	125	
Ge	72	1	nogas	4752692	3.54	4694788	101.23	70	125	
In	115	1	nogas	4754987	1.50	4574578	103.94	70	125	
Bi	209	1	nogas	3586867	6.78	3446413	104.08	70	125	
Ge	72	2	He	1294604	2.69	1211365	106.87	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	097_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T14:59:26-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	105.745	8.583	396148	1.16	100	105.7	90	110	
Na	23	1	nogas	10507.342	9.992	226346363	0.61	10000	105.1	90	110	
Mg	24	1	nogas	10756.495	10.287	153965270	1.76	10000	107.6	90	110	
Al	27	1	nogas	109.890	12.493	2044534	3.70	100	109.9	90	110	
K	39	1	nogas	10323.980	7.729	264870198	1.88	10000	103.2	90	110	
Ti	47	1	nogas	103.995	9.096	240088	0.25	100	104.0	90	110	
V	51	1	nogas	92.367	12.383	4183564	0.79	100	92.4	90	110	
Cr	52	1	nogas	104.774	8.739	3034992	0.60	100	104.8	90	110	
Mn	55	1	nogas	105.206	9.089	3861537	0.21	100	105.2	90	110	
Co	59	1	nogas	104.605	9.593	3304500	1.01	100	104.6	90	110	
Ni	60	1	nogas	104.194	9.216	720022	0.50	100	104.2	90	110	
Cu	63	1	nogas	101.883	8.131	1806335	2.66	100	101.9	90	110	
Zn	66	1	nogas	105.588	8.414	594538	0.59	100	105.6	90	110	
As	75	1	nogas	95.744	11.466	868864	0.52	100	95.7	90	110	
Sr	88	1	nogas	107.935	9.070	4458473	0.66	100	107.9	90	110	
Ag	107	1	nogas	107.552	7.122	2237524	1.97	100	107.6	90	110	
Cd	111	1	nogas	107.254	9.159	470402	1.09	100	107.3	90	110	
Sb	121	1	nogas	108.185	10.231	2110767	1.41	100	108.2	90	110	
Tl	205	1	nogas	110.200	10.317	3119922	2.47	100	110.2	90	110	CCV Main CR1-2 Failed
Pb	208	1	nogas	107.794	1.192	4238055	1.19	100	107.8	90	110	
U	238	1	nogas	112.846	8.862	4285356	0.66	100	112.8	90	110	CCV Main CR1-2 Failed
[Pb]	206	1	nogas	106.090	10.037	1024512	1.53	100	106.1	90	110	
[Pb]	207	1	nogas	103.668	9.774	898441	0.47	100	103.7	90	110	
Na	23	2	He	9458.538	0.629	17557192	0.85	10000	94.6	90	110	
Mg	24	2	He	9575.558	0.862	9894376	1.03	10000	95.8	90	110	
Al	27	2	He	94.490	2.047	56595	1.15	100	94.5	90	110	
K	39	2	He	10581.806	0.849	13225394	0.83	10000	105.8	90	110	
Ca	43	2	He	9652.260	4.800	36656	4.12	10000	96.5	90	110	
Ca	44	2	He	9676.935	0.778	620908	1.25	10000	96.8	90	110	
V	51	2	He	95.407	1.720	887811	1.90	100	95.4	90	110	
Cr	52	2	He	94.906	0.792	957449	1.70	100	94.9	90	110	
Mn	55	2	He	95.871	2.815	689378	1.96	100	95.9	90	110	
Fe	56	2	He	9870.488	3.027	89889819	2.14	10000	98.7	90	110	
Co	59	2	He	99.549	2.441	1398452	2.29	100	99.5	90	110	
Ni	60	2	He	99.420	2.287	340853	1.49	100	99.4	90	110	
Cu	63	2	He	94.456	1.493	862865	1.14	100	94.5	90	110	
Zn	66	2	He	98.358	0.370	213311	0.64	100	98.4	90	110	
As	75	2	He	97.768	1.369	211351	0.82	100	97.8	90	110	
Se	78	2	He	95.457	2.012	17009	1.96	100	95.5	90	110	
B	11	1	nogas	550.951	7.373	1416024	3.06	500	110.2	90	110	CCV Main CR1-2 Failed
Si	28	1	nogas	5314.747	10.754	59649802	1.81	5000	106.3	90	110	
Ca	43	1	nogas	10756.708	8.873	488339	0.60	10000	107.6	90	110	
Ca	44	1	nogas	10645.308	9.352	8287590	2.31	10000	106.5	90	110	
Fe	56	1	nogas	10581.763	9.784	351790400	0.80	10000	105.8	90	110	
Se	77	1	nogas	61.282	39.067	72427	2.24	100	61.3	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	108.312	8.877	42914	0.97	100	108.3	90	110	
Mo	95	1	nogas	107.834	10.371	845170	1.60	100	107.8	90	110	
Sn	118	1	nogas	104.421	10.754	1253424	0.59	100	104.4	90	110	
Ba	137	1	nogas	106.939	11.174	629788	1.14	100	106.9	90	110	
Sb	121	2	He	99.269	0.251	757429	0.71	100	99.3	90	110	
Li	7	1	nogas	103.308	6.912	763890	2.60	100	103.3	90	110	
P	31	1	nogas	505.684	9.844	941713	0.41	500	101.1	90	110	
La	139	1	nogas	228.398	23.314	1340	12.69	100	228.4	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	592.117	18.097	103	20.15	100	592.1	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	424397	8.36	544172	77.99	70	125	
Ge	72	1	nogas	4450530	9.40	4694788	94.80	70	125	
In	115	1	nogas	4221914	10.80	4574578	92.29	70	125	
Bi	209	1	nogas	3147394	9.96	3446413	91.32	70	125	

Ge	72	2	He	1253808	0.92	1211365	103.50	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	098_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T15:01:25-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	051CALB.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
Be	9	1	nogas	0.101	23.6	487	23.8	1	
Na	23	1	nogas	-89.770	-11.3	2887756	2.9	100	
Mg	24	1	nogas	13.489	10.3	236045	13.2	100	
Al	27	1	nogas	1.467	14.7	63410	1.9	5	
K	39	1	nogas	7.218	119.8	9409132	2.3	100	
Ti	47	1	nogas	0.067	28.3	470	11.3	2.5	
V	51	1	nogas	-17.804	-11.2	741093	4.8	2.5	
Cr	52	1	nogas	-0.701	-9.4	54687	2.3	2.5	
Mn	55	1	nogas	0.071	13.8	21620	3.6	2.5	
Co	59	1	nogas	0.072	16.7	2877	17.6	2.5	
Ni	60	1	nogas	0.284	11.2	2977	7.3	2.5	
Cu	63	1	nogas	-2.069	-2.8	24270	0.6	2.5	
Zn	66	1	nogas	0.342	15.5	2740	8.9	2.5	
As	75	1	nogas	-7.741	-8.5	112384	0.3	2.5	
Sr	88	1	nogas	0.221	11.6	11944	12.7	2.5	
Ag	107	1	nogas	0.080	7.3	1930	11.0	2.5	
Cd	111	1	nogas	0.064	29.0	340	29.0	1	
Sb	121	1	nogas	0.974	8.7	21484	12.1	2.5	
Tl	205	1	nogas	0.202	25.4	6758	21.1	1	
Pb	208	1	nogas	0.100	18.0	4437	15.9	2.5	
U	238	1	nogas	0.080	27.4	3594	22.8	2.5	
[Pb]	206	1	nogas	0.080	33.7	1043	25.7	2.5	
[Pb]	207	1	nogas	0.092	31.7	1007	25.3	2.5	
Na	23	2	He	-113.681	-1.5	261881	1.0	100	
Mg	24	2	He	10.352	2.3	11921	1.9	100	
Al	27	2	He	0.935	30.4	1770	9.3	5	
K	39	2	He	0.191	832.0	275270	0.7	100	
Ca	43	2	He	16.500	56.9	113	31.0	100	
Ca	44	2	He	24.176	6.4	2894	3.5	100	
V	51	2	He	-0.598	-3.6	12632	1.4	2.5	
Cr	52	2	He	0.013	99.9	4637	2.9	2.5	
Mn	55	2	He	0.133	15.3	1733	8.3	2.5	
Fe	56	2	He	8.518	4.5	108155	3.0	100	
Co	59	2	He	0.063	17.6	940	16.1	2.5	
Ni	60	2	He	-0.025	-95.1	693	11.7	2.5	
Cu	63	2	He	0.900	3.2	2900	9.0	2.5	
Zn	66	2	He	0.304	2.3	813	1.9	2.5	
As	75	2	He	-0.047	-17.3	881	2.1	2.5	
Se	78	2	He	0.468	11.8	297	3.2	2.5	
B	11	1	nogas	15.005	4.0	57520	5.6	10	CCB Main CR1 Failed
Si	28	1	nogas	23.972	28.2	1800626	6.8	5	CCB Main CR1 Failed
Ca	43	1	nogas	32.672	1.3	2360	5.3	100	
Ca	44	1	nogas	17.089	12.5	74511	4.4	100	
Fe	56	1	nogas	-22.345	-23.8	3988177	1.1	100	
Se	77	1	nogas	-57.635	-13.0	36520	2.6	2.5	
Se	82	1	nogas	0.222	60.9	597	12.1	2.5	
Mo	95	1	nogas	0.206	20.9	1897	23.0	2.5	
Sn	118	1	nogas	-0.112	-31.7	3760	14.7	5	

Continuing Calibration Blank (CCB) Report

Ba	137	1	nogas	0.166	12.6	1327	10.7	2.5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Sb	121	2	He	0.795	5.4	6525	4.9	2.5	
P	31	1	nogas	2.702	81.3	71475	1.5	10	
La	139	1	nogas	38.910	70.8	617	17.9	2.5	CCB Main CR1 Failed
Au	197	1	nogas	-6.231	-844.5	10	100.0	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	480617	3.48	544172	88.32	70	125	
Ge	72	1	nogas	4720815	4.61	4694788	100.55	70	125	
In	115	1	nogas	4770556	3.52	4574578	104.28	70	125	
Bi	209	1	nogas	3633592	3.90	3446413	105.43	70	125	
Ge	72	2	He	1238418	0.14	1211365	102.23	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	109_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T15:23:17-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	100.545	3.010	394729	0.59	100	100.5	90	110	
Na	23	1	nogas	10362.265	4.018	225097538	0.42	10000	103.6	90	110	
Mg	24	1	nogas	10044.808	4.206	144977445	1.05	10000	100.4	90	110	
Al	27	1	nogas	101.189	0.718	1840619	0.80	100	101.2	90	110	
K	39	1	nogas	10080.207	1.477	251911631	0.24	10000	100.8	90	110	
Ti	47	1	nogas	99.077	3.545	222837	2.21	100	99.1	90	110	
V	51	1	nogas	103.845	6.175	4427548	3.09	100	103.8	90	110	
Cr	52	1	nogas	101.760	4.801	2872151	3.32	100	101.8	90	110	
Mn	55	1	nogas	102.821	3.897	3676537	2.44	100	102.8	90	110	
Co	59	1	nogas	100.578	1.775	3096569	0.30	100	100.6	90	110	
Ni	60	1	nogas	98.749	2.343	664960	1.70	100	98.7	90	110	
Cu	63	1	nogas	100.152	4.181	1729756	4.68	100	100.2	90	110	
Zn	66	1	nogas	100.372	2.194	550415	0.78	100	100.4	90	110	
As	75	1	nogas	95.498	3.141	844824	1.08	100	95.5	90	110	
Sr	88	1	nogas	100.472	1.669	4044213	2.18	100	100.5	90	110	
Ag	107	1	nogas	101.480	2.035	2054675	2.31	100	101.5	90	110	
Cd	111	1	nogas	100.336	3.062	422145	0.74	100	100.3	90	110	
Sb	121	1	nogas	99.647	0.943	1895839	0.72	100	99.6	90	110	
Tl	205	1	nogas	103.415	2.265	2875033	1.27	100	103.4	90	110	
Pb	208	1	nogas	100.625	1.620	3956251	1.62	100	100.6	90	110	
U	238	1	nogas	104.519	4.220	3893257	1.85	100	104.5	90	110	
[Pb]	206	1	nogas	100.346	2.620	951444	0.87	100	100.3	90	110	
[Pb]	207	1	nogas	99.256	2.692	844511	1.21	100	99.3	90	110	
Na	23	2	He	9642.320	1.613	16899728	2.02	10000	96.4	90	110	
Mg	24	2	He	9635.102	1.451	9405524	2.15	10000	96.4	90	110	
Al	27	2	He	98.287	1.704	55572	2.18	100	98.3	90	110	
K	39	2	He	10166.300	1.961	12716884	1.92	10000	101.7	90	110	
Ca	43	2	He	9511.555	2.267	34128	1.94	10000	95.1	90	110	
Ca	44	2	He	9552.749	1.658	579000	1.46	10000	95.5	90	110	
V	51	2	He	95.156	1.978	836426	1.22	100	95.2	90	110	
Cr	52	2	He	93.761	2.126	893536	2.16	100	93.8	90	110	
Mn	55	2	He	95.701	1.231	650183	1.71	100	95.7	90	110	
Fe	56	2	He	9773.027	3.057	84099374	3.61	10000	97.7	90	110	
Co	59	2	He	94.338	2.771	1251948	2.82	100	94.3	90	110	
Ni	60	2	He	96.908	0.016	313905	0.71	100	96.9	90	110	
Cu	63	2	He	91.152	0.566	786451	0.76	100	91.2	90	110	
Zn	66	2	He	94.658	1.053	193925	0.81	100	94.7	90	110	
As	75	2	He	97.548	1.247	199212	1.09	100	97.5	90	110	
Se	78	2	He	95.487	0.376	16072	0.68	100	95.5	90	110	
B	11	1	nogas	516.342	6.235	1389616	4.38	500	103.3	90	110	
Si	28	1	nogas	5077.936	0.399	55648314	1.72	5000	101.6	90	110	
Ca	43	1	nogas	10230.515	1.182	452518	0.97	10000	102.3	90	110	
Ca	44	1	nogas	10176.486	3.746	7719695	2.45	10000	101.8	90	110	
Fe	56	1	nogas	9912.529	3.010	321426907	1.50	10000	99.1	90	110	
Se	77	1	nogas	96.916	5.826	81773	0.72	100	96.9	90	110	
Se	82	1	nogas	99.553	2.647	38458	1.72	100	99.6	90	110	
Mo	95	1	nogas	102.449	2.389	782943	1.33	100	102.4	90	110	
Sn	118	1	nogas	99.222	4.693	1143571	1.03	100	99.2	90	110	
Ba	137	1	nogas	103.018	4.603	582631	1.08	100	103.0	90	110	
Sb	121	2	He	98.269	1.934	708315	2.23	100	98.3	90	110	
Li	7	1	nogas	99.366	4.334	770328	1.72	100	99.4	90	110	
P	31	1	nogas	495.619	1.412	900566	0.53	500	99.1	90	110	
La	139	1	nogas	170.589	25.690	1050	13.20	100	170.6	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	566.073	4.176	97	5.97	100	566.1	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	442844	2.40	544172	81.38	70	125	
Ge	72	1	nogas	4312235	1.48	4694788	91.85	70	125	
In	115	1	nogas	4026415	3.80	4574578	88.02	70	125	
Bi	209	1	nogas	3071748	3.49	3446413	89.13	70	125	

Ge	72	2	He	1184397	0.73	1211365	97.77	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	110_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T15:25:17-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	051CALB.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
Be	9	1	nogas	0.071	25.6	367	23.2	1	
Na	23	1	nogas	35.313	31.6	5547490	3.5	100	
Mg	24	1	nogas	8.325	20.4	143985	17.3	100	
Al	27	1	nogas	1.426	14.3	61397	3.3	5	
K	39	1	nogas	7.169	306.6	9214191	1.9	100	
Ti	47	1	nogas	0.068	36.0	463	9.0	2.5	
V	51	1	nogas	-9.275	-6.8	1011289	6.2	2.5	
Cr	52	1	nogas	-0.381	-18.4	63117	4.4	2.5	
Mn	55	1	nogas	-0.002	-1345.3	18406	0.6	2.5	
Co	59	1	nogas	0.056	38.2	2270	26.8	2.5	
Ni	60	1	nogas	0.378	3.1	3600	4.3	2.5	
Cu	63	1	nogas	-1.733	-5.5	29808	1.6	2.5	
Zn	66	1	nogas	0.336	5.8	2657	0.2	2.5	
As	75	1	nogas	-4.450	-12.5	135610	1.3	2.5	
Sr	88	1	nogas	0.132	19.4	7812	11.2	2.5	
Ag	107	1	nogas	0.055	16.4	1360	13.4	2.5	
Cd	111	1	nogas	0.039	25.8	197	25.1	1	
Sb	121	1	nogas	0.780	20.4	16999	15.7	2.5	
Tl	205	1	nogas	0.154	41.7	4938	37.6	1	
Pb	208	1	nogas	0.070	25.2	3254	21.2	2.5	
U	238	1	nogas	0.071	33.4	3037	29.3	2.5	
[Pb]	206	1	nogas	0.056	35.1	740	25.8	2.5	
[Pb]	207	1	nogas	0.069	32.3	740	25.8	2.5	
Na	23	2	He	2.101	43.2	447402	0.5	100	
Mg	24	2	He	6.440	3.1	7572	2.4	100	
Al	27	2	He	1.096	25.5	1780	9.0	5	
K	39	2	He	1.797	106.2	277236	0.8	100	
Ca	43	2	He	15.147	47.5	103	24.4	100	
Ca	44	2	He	17.572	24.2	2364	10.2	100	
V	51	2	He	-0.102	-45.2	16325	1.6	2.5	
Cr	52	2	He	-0.042	-63.6	3910	6.1	2.5	
Mn	55	2	He	0.049	37.0	1087	10.7	2.5	
Fe	56	2	He	4.515	13.6	68882	6.9	100	
Co	59	2	He	0.035	18.3	537	15.2	2.5	
Ni	60	2	He	0.029	101.0	837	11.1	2.5	
Cu	63	2	He	0.974	3.3	3410	7.4	2.5	
Zn	66	2	He	0.313	6.3	797	5.1	2.5	
As	75	2	He	-0.037	-75.0	863	5.8	2.5	
Se	78	2	He	0.537	22.8	295	6.3	2.5	
B	11	1	nogas	17.511	3.0	66455	3.7	10	CCB Main CR1 Failed
Si	28	1	nogas	17.341	97.3	1683450	7.2	5	CCB Main CR1 Failed
Ca	43	1	nogas	23.003	28.0	1853	16.2	100	
Ca	44	1	nogas	5.428	86.4	63548	2.9	100	
Fe	56	1	nogas	-23.979	-11.3	3857323	2.9	100	
Se	77	1	nogas	-34.129	-10.7	43773	4.9	2.5	
Se	82	1	nogas	0.052	509.2	513	19.5	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.146	45.3	1343	36.0	2.5	
Sn	118	1	nogas	-0.134	-25.4	3227	14.8	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.107	29.5	870	23.0	2.5	
Sb	121	2	He	0.669	5.7	5328	5.0	2.5	
P	31	1	nogas	1.929	86.3	68718	2.7	10	
La	139	1	nogas	56.909	23.3	657	7.0	2.5	CCB Main CR1 Failed
Au	197	1	nogas	93.564	34.5	27	21.7	2.5	CCB 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	nogas	493158	2.22	544172	90.63	70	125	
Ge	72	1	nogas	4628339	4.29	4694788	98.58	70	125	
In	115	1	nogas	4444452	1.86	4574578	97.16	70	125	
Bi	209	1	nogas	3460065	3.68	3446413	100.40	70	125	
Ge	72	2	He	1182726	0.80	1211365	97.64	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	121_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T15:47:11-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	97.078	1.564	419946	1.60	100	97.1	90	110	
Na	23	1	nogas	10166.508	4.132	235677205	2.92	10000	101.7	90	110	
Mg	24	1	nogas	9827.200	0.838	151362258	1.73	10000	98.3	90	110	
Al	27	1	nogas	102.634	2.510	1968737	2.00	100	102.6	90	110	
K	39	1	nogas	9937.433	2.988	262065489	1.61	10000	99.4	90	110	
Ti	47	1	nogas	99.906	0.981	237086	0.61	100	99.9	90	110	
V	51	1	nogas	108.100	1.598	4810728	1.58	100	108.1	90	110	
Cr	52	1	nogas	98.945	0.734	2949092	0.86	100	98.9	90	110	
Mn	55	1	nogas	97.347	1.171	3673839	0.79	100	97.3	90	110	
Co	59	1	nogas	97.047	1.689	3151959	0.95	100	97.0	90	110	
Ni	60	1	nogas	98.390	1.488	698925	0.68	100	98.4	90	110	
Cu	63	1	nogas	98.754	1.992	1799717	1.87	100	98.8	90	110	
Zn	66	1	nogas	98.177	1.312	567995	0.76	100	98.2	90	110	
As	75	1	nogas	96.745	1.817	900757	0.86	100	96.7	90	110	
Sr	88	1	nogas	97.823	1.630	4153748	2.13	100	97.8	90	110	
Ag	107	1	nogas	99.358	0.944	2122079	1.28	100	99.4	90	110	
Cd	111	1	nogas	97.643	0.466	438294	0.29	100	97.6	90	110	
Sb	121	1	nogas	97.707	3.288	1960493	1.78	100	97.7	90	110	
Tl	205	1	nogas	101.013	3.254	2996874	3.12	100	101.0	90	110	
Pb	208	1	nogas	102.677	0.792	4036918	0.79	100	102.7	90	110	
U	238	1	nogas	103.049	1.154	4097952	1.25	100	103.0	90	110	
[Pb]	206	1	nogas	95.468	1.686	966071	1.26	100	95.5	90	110	
[Pb]	207	1	nogas	95.054	0.655	863174	0.58	100	95.1	90	110	
Na	23	2	He	9849.467	1.516	17626004	0.78	10000	98.5	90	110	
Mg	24	2	He	9755.227	1.175	9728355	0.48	10000	97.6	90	110	
Al	27	2	He	98.501	0.844	56895	0.69	100	98.5	90	110	
K	39	2	He	10404.061	1.957	13007863	1.92	10000	104.0	90	110	
Ca	43	2	He	9594.106	1.268	35173	1.34	10000	95.9	90	110	
Ca	44	2	He	9593.278	0.743	594086	0.67	10000	95.9	90	110	
V	51	2	He	97.343	0.451	873933	1.21	100	97.3	90	110	
Cr	52	2	He	95.087	1.221	925740	0.44	100	95.1	90	110	
Mn	55	2	He	96.922	1.445	672708	0.79	100	96.9	90	110	
Fe	56	2	He	9722.155	2.424	85461645	1.89	10000	97.2	90	110	
Co	59	2	He	96.558	6.481	1308888	5.83	100	96.6	90	110	
Ni	60	2	He	97.099	3.003	321306	2.25	100	97.1	90	110	
Cu	63	2	He	91.996	1.410	810972	0.82	100	92.0	90	110	
Zn	66	2	He	96.366	1.835	201699	1.25	100	96.4	90	110	
As	75	2	He	98.454	0.232	205427	1.00	100	98.5	90	110	
Se	78	2	He	98.754	1.524	16975	1.13	100	98.8	90	110	
B	11	1	nogas	506.580	3.593	1502916	3.20	500	101.3	90	110	
Si	28	1	nogas	5042.070	1.345	58293069	1.41	5000	100.8	90	110	
Ca	43	1	nogas	9875.701	1.442	460800	0.35	10000	98.8	90	110	
Ca	44	1	nogas	9746.335	0.576	7803788	1.01	10000	97.5	90	110	
Fe	56	1	nogas	9692.421	2.062	331721524	2.23	10000	96.9	90	110	
Se	77	1	nogas	113.488	5.417	91730	0.89	100	113.5	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	97.605	1.311	39797	2.83	100	97.6	90	110	
Mo	95	1	nogas	98.535	1.141	794464	1.10	100	98.5	90	110	
Sn	118	1	nogas	95.113	0.899	1170202	0.74	100	95.1	90	110	
Ba	137	1	nogas	98.968	0.689	597401	0.77	100	99.0	90	110	
Sb	121	2	He	100.384	1.357	739196	0.65	100	100.4	90	110	
Li	7	1	nogas	94.977	1.550	813344	1.87	100	95.0	90	110	
P	31	1	nogas	491.379	2.247	942354	1.06	500	98.3	90	110	
La	139	1	nogas	157.515	28.383	1067	17.32	100	157.5	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	609.219	52.191	110	47.24	100	609.2	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	487726	0.40	544172	89.63	70	125	
Ge	72	1	nogas	4548921	1.54	4694788	96.89	70	125	
In	115	1	nogas	4292495	0.66	4574578	93.83	70	125	
Bi	209	1	nogas	3276496	0.57	3446413	95.07	70	125	

Ge	72	2	He	1210117	0.77	1211365	99.90	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	122_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T15:49:11-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	051CALB.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
Be	9	1	nogas	0.093	13.0	480	7.2	1	
Na	23	1	nogas	105.031	38.1	6476853	7.3	100	CCB Main CR1 Failed
Mg	24	1	nogas	10.941	27.1	166919	20.5	100	
Al	27	1	nogas	1.788	19.4	64085	6.6	5	
K	39	1	nogas	48.873	49.1	9660758	1.2	100	
Ti	47	1	nogas	0.074	117.0	443	39.7	2.5	
V	51	1	nogas	2.796	91.7	1325141	9.5	2.5	CCB Main CR1 Failed
Cr	52	1	nogas	0.003	5343.9	69791	1.3	2.5	
Mn	55	1	nogas	0.070	57.8	19848	4.0	2.5	
Co	59	1	nogas	0.077	28.5	2770	19.7	2.5	
Ni	60	1	nogas	0.520	17.0	4317	7.9	2.5	
Cu	63	1	nogas	-0.620	-18.3	46703	2.4	2.5	
Zn	66	1	nogas	0.350	21.4	2557	10.8	2.5	
As	75	1	nogas	0.405	301.2	162335	2.6	2.5	
Sr	88	1	nogas	0.151	26.2	8065	15.3	2.5	
Ag	107	1	nogas	0.080	27.1	1763	21.6	2.5	
Cd	111	1	nogas	0.094	19.2	423	21.4	1	
Sb	121	1	nogas	0.768	19.0	15701	12.9	2.5	
Tl	205	1	nogas	0.183	25.2	5414	25.3	1	
Pb	208	1	nogas	0.083	21.4	3784	18.4	2.5	
U	238	1	nogas	0.088	23.9	3510	26.9	2.5	
[Pb]	206	1	nogas	0.083	23.9	937	16.3	2.5	
[Pb]	207	1	nogas	0.091	23.5	880	23.0	2.5	
Na	23	2	He	46.201	7.9	539811	0.6	100	
Mg	24	2	He	7.117	8.2	8502	6.5	100	
Al	27	2	He	1.274	4.5	1940	0.5	5	
K	39	2	He	12.695	17.3	290573	0.9	100	
Ca	43	2	He	16.788	61.5	113	35.7	100	
Ca	44	2	He	12.906	29.9	2150	10.1	100	
V	51	2	He	0.248	15.7	19971	1.2	2.5	
Cr	52	2	He	-0.026	-103.4	4194	7.8	2.5	
Mn	55	2	He	0.073	31.4	1290	12.5	2.5	
Fe	56	2	He	4.567	11.4	71609	5.0	100	
Co	59	2	He	0.038	29.9	583	25.0	2.5	
Ni	60	2	He	0.011	142.4	807	7.3	2.5	
Cu	63	2	He	1.107	2.3	4724	6.6	2.5	
Zn	66	2	He	0.372	5.7	947	5.2	2.5	
As	75	2	He	-0.005	-411.6	959	2.9	2.5	
Se	78	2	He	0.522	9.8	303	1.5	2.5	
B	11	1	nogas	17.800	10.6	69811	4.6	10	CCB Main CR1 Failed
Si	28	1	nogas	35.192	42.6	1772210	4.0	5	CCB Main CR1 Failed
Ca	43	1	nogas	24.358	18.2	1797	7.7	100	
Ca	44	1	nogas	15.461	45.6	67187	3.3	100	
Fe	56	1	nogas	-13.838	-43.7	3945653	4.0	100	
Se	77	1	nogas	-1.522	-238.3	51380	5.8	2.5	
Se	82	1	nogas	0.297	85.2	573	11.1	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.165	24.1	1413	19.1	2.5	
Sn	118	1	nogas	-0.092	-68.4	3487	20.9	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.159	15.7	1103	10.3	2.5	
Sb	121	2	He	0.617	8.1	5111	5.6	2.5	
P	31	1	nogas	10.003	29.4	78195	1.7	10	CCB Main CR1 Failed
La	139	1	nogas	47.163	22.0	573	14.1	2.5	CCB Main CR1 Failed
Au	197	1	nogas	155.422	77.4	33	45.8	2.5	CCB 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	nogas	513015	6.39	544172	94.27	70	125	
Ge	72	1	nogas	4347307	6.50	4694788	92.60	70	125	
In	115	1	nogas	4137751	8.02	4574578	90.45	70	125	
Bi	209	1	nogas	3194437	9.45	3446413	92.69	70	125	
Ge	72	2	He	1221925	1.71	1211365	100.87	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01MS
Data File Name	125SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T15:59:36-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132119
ISTD Ref FileName	051CALB.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
Be	9	1	nogas	54.446	54.446	1.70	229078	0.02	2000	
Na	23	1	nogas	60699.575	60699.575	4.75	1532058501	0.00	200000	
Mg	24	1	nogas	21577.626	21577.626	4.39	367940350	0.01	200000	
Al	27	1	nogas	431.663	431.663	0.66	8680250	0.00	2000	
K	39	1	nogas	7477.457	7477.457	1.38	211773221	0.00	200000	
Ti	47	1	nogas	150.559	150.559	1.57	379246	0.04	2000	
V	51	1	nogas	39.685	39.685	2.81	2745662	0.00	2000	
Cr	52	1	nogas	50.267	50.267	2.96	1629073	0.00	2000	
Mn	55	1	nogas	333.642	333.642	3.05	13325795	0.00	2000	
Co	59	1	nogas	78.031	78.031	0.42	2691822	0.00	2000	
Ni	60	1	nogas	121.899	121.899	0.83	919420	0.01	2000	
Cu	63	1	nogas	63.561	63.561	1.72	1253001	0.01	2000	
Zn	66	1	nogas	146.534	146.534	0.56	899964	0.02	2000	
As	75	1	nogas	44.444	44.444	1.21	535418	0.01	2000	
Sr	88	1	nogas	309.078	309.078	2.66	13928890	0.00	2000	
Ag	107	1	nogas	46.142	46.142	1.29	1046712	0.00	2000	
Cd	111	1	nogas	53.298	53.298	0.88	249659	0.02	2000	
Sb	121	1	nogas	48.074	48.074	2.01	1025128	0.00	2000	
Tl	205	1	nogas	51.337	51.337	2.80	1557329	0.00	2000	
Pb	208	1	nogas	52.355	52.355	1.24	2058676	0.00	2000	
U	238	1	nogas	102.886	102.886	1.11	4184370	0.00	2000	
[Pb]	206	1	nogas	49.425	49.425	1.74	511526	0.01	2000	
[Pb]	207	1	nogas	48.548	48.548	0.72	450905	0.01	2000	
Na	23	2	He	60828.824	60828.824	2.07	114000152	0.05	200000	
Mg	24	2	He	22436.438	22436.438	2.34	23946655	0.09	200000	
Al	27	2	He	429.398	429.398	3.19	261110	0.16	2000	
K	39	2	He	8226.589	8226.589	0.62	10343003	0.08	200000	
Ca	43	2	He	21770.598	21770.598	2.58	85348	25.51	200000	
Ca	44	2	He	22780.723	22780.723	1.44	1508269	1.51	200000	
V	51	2	He	48.727	48.727	3.64	477465	0.01	2000	
Cr	52	2	He	47.857	47.857	3.28	500915	0.01	2000	
Mn	55	2	He	343.632	343.632	3.90	2549831	0.01	2000	
Fe	56	2	He	5525.397	5525.397	2.29	52004873	0.01	200000	
Co	59	2	He	75.431	75.431	1.72	1094776	0.01	2000	
Ni	60	2	He	123.543	123.543	2.02	437395	0.03	2000	
Cu	63	2	He	63.557	63.557	3.55	597836	0.01	2000	
Zn	66	2	He	142.862	142.862	3.92	319862	0.04	2000	
As	75	2	He	51.422	51.422	4.39	115270	0.04	2000	
Se	78	2	He	52.133	52.133	3.42	9696	0.54	2000	
B	11	1	nogas	612.848	612.848	3.12	1765126	0.03	2000	
Si	28	1	nogas	31772.353	31772.353	0.16	381855421	0.01	2000	>LDR
Ca	43	1	nogas	22167.437	22167.437	1.51	1097432	2.02	200000	
Ca	44	1	nogas	22236.697	22236.697	2.94	18828613	0.12	200000	
Fe	56	1	nogas	5461.177	5461.177	3.11	200614346	0.00	200000	

Sample Report

Se	77	1	nogas	8.085	8.085	37.36	60484	0.01	2000	
Se	82	1	nogas	52.010	52.010	3.05	22751	0.23	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	48.434	48.434	2.70	414740	0.01	2000	
Sn	118	1	nogas	93.603	93.603	2.41	1201505	0.01	2000	
Ba	137	1	nogas	75.033	75.033	2.09	472583	0.02	2000	
Sb	121	2	He	51.537	51.537	2.94	406420	0.01	2000	
La	139	1	nogas	13805.247	13805.247	1.00	62360	22.14	2000	>LDR
Au	197	1	nogas	118.157	118.157	49.63	30	393.86	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	474429	2.15	544172	87.18	70	125	
Ge	72	1	nogas	4830572	1.27	4694788	102.89	70	125	
In	115	1	nogas	4479694	2.33	4574578	97.93	70	125	
Bi	209	1	nogas	3351188	2.29	3446413	97.24	70	125	
Ge	72	2	He	1295712	3.06	1211365	106.96	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	130_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T16:10:09-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	94.488	3.526	391953	2.05	100	94.5	90	110	
Na	23	1	nogas	10067.317	3.621	228289072	1.03	10000	100.7	90	110	
Mg	24	1	nogas	9966.459	3.078	150094420	0.92	10000	99.7	90	110	
Al	27	1	nogas	101.942	0.387	1957611	1.10	100	101.9	90	110	
K	39	1	nogas	10018.116	0.323	264412814	1.03	10000	100.2	90	110	
Ti	47	1	nogas	99.133	1.721	235444	0.63	100	99.1	90	110	
V	51	1	nogas	86.124	3.783	4099527	2.62	100	86.1	90	110	CCV Main CR1-2 Failed
Cr	52	1	nogas	99.066	2.349	2955139	2.16	100	99.1	90	110	
Mn	55	1	nogas	98.522	3.074	3720694	2.09	100	98.5	90	110	
Co	59	1	nogas	98.264	5.280	3193175	4.00	100	98.3	90	110	
Ni	60	1	nogas	98.464	1.085	700109	1.18	100	98.5	90	110	
Cu	63	1	nogas	97.939	2.987	1786636	1.79	100	97.9	90	110	
Zn	66	1	nogas	99.372	1.051	575424	0.85	100	99.4	90	110	
As	75	1	nogas	89.516	1.253	846726	1.02	100	89.5	90	110	CCV Main CR1-2 Failed
Sr	88	1	nogas	101.114	2.989	4296907	2.95	100	101.1	90	110	
Ag	107	1	nogas	102.392	2.285	2188707	2.09	100	102.4	90	110	
Cd	111	1	nogas	98.976	1.624	451089	1.30	100	99.0	90	110	
Sb	121	1	nogas	99.237	5.460	1993568	5.61	100	99.2	90	110	
Tl	205	1	nogas	98.994	2.657	2995068	1.06	100	99.0	90	110	
Pb	208	1	nogas	104.014	1.097	4089464	1.10	100	104.0	90	110	
U	238	1	nogas	101.096	1.780	4100246	1.28	100	101.1	90	110	
[Pb]	206	1	nogas	95.399	2.551	984513	1.24	100	95.4	90	110	
[Pb]	207	1	nogas	94.466	2.129	874825	0.62	100	94.5	90	110	
Na	23	2	He	9597.090	1.064	17402210	0.19	10000	96.0	90	110	
Mg	24	2	He	9541.338	1.217	9635351	1.62	10000	95.4	90	110	
Al	27	2	He	97.033	0.120	56772	0.99	100	97.0	90	110	
K	39	2	He	10214.855	2.250	12776307	2.20	10000	102.1	90	110	
Ca	43	2	He	9490.181	3.282	35224	2.35	10000	94.9	90	110	
Ca	44	2	He	9537.078	2.595	597975	1.92	10000	95.4	90	110	
V	51	2	He	95.390	1.489	867423	0.58	100	95.4	90	110	
Cr	52	2	He	93.369	1.286	920652	2.24	100	93.4	90	110	
Mn	55	2	He	94.307	1.902	662851	2.12	100	94.3	90	110	
Fe	56	2	He	9499.818	2.402	84562204	2.31	10000	95.0	90	110	
Co	59	2	He	92.515	3.323	1270029	2.83	100	92.5	90	110	
Ni	60	2	He	95.207	4.034	318991	3.18	100	95.2	90	110	
Cu	63	2	He	92.287	3.097	823680	2.24	100	92.3	90	110	
Zn	66	2	He	95.719	1.543	202863	0.78	100	95.7	90	110	
As	75	2	He	97.681	1.022	206371	0.60	100	97.7	90	110	
Se	78	2	He	96.545	2.157	16808	1.29	100	96.5	90	110	
B	11	1	nogas	480.647	3.733	1368561	3.64	500	96.1	90	110	
Si	28	1	nogas	5034.761	1.191	58259021	0.29	5000	100.7	90	110	
Ca	43	1	nogas	9936.813	3.623	464003	2.77	10000	99.4	90	110	
Ca	44	1	nogas	9861.655	2.269	7901346	1.34	10000	98.6	90	110	
Fe	56	1	nogas	9845.800	0.069	337204033	1.27	10000	98.5	90	110	
Se	77	1	nogas	51.363	6.866	71299	1.48	100	51.4	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	102.379	1.584	41745	0.47	100	102.4	90	110	
Mo	95	1	nogas	102.201	1.797	824695	1.22	100	102.2	90	110	
Sn	118	1	nogas	95.877	1.214	1197795	1.91	100	95.9	90	110	
Ba	137	1	nogas	101.705	3.306	623169	1.56	100	101.7	90	110	
Sb	121	2	He	99.054	3.370	738470	2.44	100	99.1	90	110	
Li	7	1	nogas	92.679	1.708	762154	0.34	100	92.7	90	110	
P	31	1	nogas	493.712	0.820	947470	0.96	500	98.7	90	110	
La	139	1	nogas	190.770	9.862	1230	8.25	100	190.8	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	335.326	52.263	67	45.83	100	335.3	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	467851	1.45	544172	85.97	70	125	
Ge	72	1	nogas	4552834	1.34	4694788	96.98	70	125	
In	115	1	nogas	4359122	2.23	4574578	95.29	70	125	
Bi	209	1	nogas	3342118	1.60	3446413	96.97	70	125	

Ge	72	2	He	1225331	0.95	1211365	101.15	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	131_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T16:12:11-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	051CALB.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
Be	9	1	nogas	0.075	33.7	390	26.8	1	
Na	23	1	nogas	65.576	24.9	6517063	3.1	100	
Mg	24	1	nogas	6.690	18.4	124868	16.2	100	
Al	27	1	nogas	1.480	20.2	61891	3.8	5	
K	39	1	nogas	27.058	68.3	9661030	1.2	100	
Ti	47	1	nogas	0.107	31.2	553	14.0	2.5	
V	51	1	nogas	-18.392	-7.6	702425	1.0	2.5	
Cr	52	1	nogas	-0.701	-17.5	53173	1.1	2.5	
Mn	55	1	nogas	-0.005	-163.6	18159	4.9	2.5	
Co	59	1	nogas	0.060	17.7	2387	15.3	2.5	
Ni	60	1	nogas	0.623	10.7	5318	7.4	2.5	
Cu	63	1	nogas	0.700	55.5	72747	5.8	2.5	
Zn	66	1	nogas	0.352	11.2	2734	11.9	2.5	
As	75	1	nogas	-7.863	-11.9	108387	1.9	2.5	
Sr	88	1	nogas	0.099	15.4	6341	6.2	2.5	
Ag	107	1	nogas	0.064	19.3	1543	16.1	2.5	
Cd	111	1	nogas	0.061	13.6	317	12.8	1	
Sb	121	1	nogas	0.676	15.3	14830	14.0	2.5	
Tl	205	1	nogas	0.170	25.5	5841	28.4	1	
Pb	208	1	nogas	0.076	28.2	3507	24.0	2.5	
U	238	1	nogas	0.072	23.8	3317	26.4	2.5	
[Pb]	206	1	nogas	0.063	28.7	860	23.5	2.5	
[Pb]	207	1	nogas	0.067	33.9	773	34.0	2.5	
Na	23	2	He	55.343	5.1	562525	0.3	100	
Mg	24	2	He	5.133	8.0	6581	5.3	100	
Al	27	2	He	1.404	25.7	2037	9.2	5	
K	39	2	He	7.374	28.1	284061	0.9	100	
Ca	43	2	He	5.830	67.3	73	20.8	100	
Ca	44	2	He	10.840	19.2	2047	6.5	100	
V	51	2	He	-0.641	-2.4	12219	2.1	2.5	
Cr	52	2	He	-0.046	-39.4	4044	5.2	2.5	
Mn	55	2	He	0.058	44.8	1193	14.8	2.5	
Fe	56	2	He	5.724	6.1	82876	3.0	100	
Co	59	2	He	0.045	20.5	697	17.7	2.5	
Ni	60	2	He	0.010	279.5	810	10.7	2.5	
Cu	63	2	He	0.908	4.3	2974	11.9	2.5	
Zn	66	2	He	0.298	14.2	800	11.5	2.5	
As	75	2	He	-0.099	-33.2	770	10.0	2.5	
Se	78	2	He	0.477	37.2	299	10.8	2.5	
B	11	1	nogas	12.639	9.9	52893	5.0	10	CCB Main CR1 Failed
Si	28	1	nogas	42.324	14.6	1961445	6.1	5	CCB Main CR1 Failed
Ca	43	1	nogas	19.600	20.4	1680	10.9	100	
Ca	44	1	nogas	4.324	134.4	62143	2.4	100	
Fe	56	1	nogas	-34.210	-6.7	3481039	3.6	100	
Se	77	1	nogas	-61.427	-12.9	34272	2.5	2.5	
Se	82	1	nogas	0.172	137.2	557	13.5	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.175	32.3	1577	28.8	2.5	
Sn	118	1	nogas	-0.118	-32.0	3630	11.9	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.098	8.4	860	4.0	2.5	
Sb	121	2	He	0.526	8.0	4491	6.1	2.5	
P	31	1	nogas	6.870	38.0	77063	1.5	10	
La	139	1	nogas	30.768	130.4	573	32.8	2.5	CCB Main CR1 Failed
Au	197	1	nogas	48.535	191.5	20	86.6	2.5	CCB 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	nogas	502446	2.19	544172	92.33	70	125	
Ge	72	1	nogas	4596624	5.80	4694788	97.91	70	125	
In	115	1	nogas	4711902	2.53	4574578	103.00	70	125	
Bi	209	1	nogas	3670891	5.43	3446413	106.51	70	125	
Ge	72	2	He	1236391	1.01	1211365	102.07	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	140_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T16:30:58-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	99.561	1.934	372625	1.32	100	99.6	90	110	
Na	23	1	nogas	9432.265	1.659	218870397	0.88	10000	94.3	90	110	
Mg	24	1	nogas	9436.734	1.206	145220391	1.15	10000	94.4	90	110	
Al	27	1	nogas	95.595	0.861	1838833	1.86	100	95.6	90	110	
K	39	1	nogas	9851.498	2.443	260243947	1.05	10000	98.5	90	110	
Ti	47	1	nogas	98.558	2.089	234226	2.39	100	98.6	90	110	
V	51	1	nogas	85.833	2.969	4091528	0.84	100	85.8	90	110	CCV Main CR1-2 Failed
Cr	52	1	nogas	98.133	2.281	2929073	0.93	100	98.1	90	110	
Mn	55	1	nogas	97.718	2.249	3692345	0.63	100	97.7	90	110	
Co	59	1	nogas	96.462	1.155	3137365	0.81	100	96.5	90	110	
Ni	60	1	nogas	95.872	3.294	681894	2.24	100	95.9	90	110	
Cu	63	1	nogas	94.400	2.053	1725548	2.61	100	94.4	90	110	
Zn	66	1	nogas	97.023	2.568	562068	1.98	100	97.0	90	110	
As	75	1	nogas	87.399	0.628	831151	1.85	100	87.4	90	110	CCV Main CR1-2 Failed
Sr	88	1	nogas	98.191	1.116	4174873	1.25	100	98.2	90	110	
Ag	107	1	nogas	98.226	2.184	2101178	3.33	100	98.2	90	110	
Cd	111	1	nogas	96.867	1.198	443082	0.43	100	96.9	90	110	
Sb	121	1	nogas	98.701	2.850	1984087	3.87	100	98.7	90	110	
Tl	205	1	nogas	101.271	0.940	2982494	2.03	100	101.3	90	110	
Pb	208	1	nogas	103.899	0.647	4084922	0.65	100	103.9	90	110	
U	238	1	nogas	102.282	0.639	4037778	2.41	100	102.3	90	110	
[Pb]	206	1	nogas	97.511	2.727	979203	0.89	100	97.5	90	110	
[Pb]	207	1	nogas	96.392	1.426	868733	0.41	100	96.4	90	110	
Na	23	2	He	9677.465	2.011	17147055	2.05	10000	96.8	90	110	
Mg	24	2	He	9638.606	2.331	9511013	0.93	10000	96.4	90	110	
Al	27	2	He	96.934	3.896	55408	2.01	100	96.9	90	110	
K	39	2	He	10154.710	0.766	12702699	0.75	10000	101.5	90	110	
Ca	43	2	He	9404.379	2.451	34118	2.10	10000	94.0	90	110	
Ca	44	2	He	9593.074	3.391	587786	2.40	10000	95.9	90	110	
V	51	2	He	95.122	1.581	845481	1.66	100	95.1	90	110	
Cr	52	2	He	94.627	1.195	911842	2.17	100	94.6	90	110	
Mn	55	2	He	95.443	1.952	655512	0.40	100	95.4	90	110	
Fe	56	2	He	9559.293	1.204	83161747	1.04	10000	95.6	90	110	
Co	59	2	He	94.809	1.356	1272140	1.39	100	94.8	90	110	
Ni	60	2	He	98.581	1.440	322830	0.71	100	98.6	90	110	
Cu	63	2	He	94.797	3.507	826874	1.44	100	94.8	90	110	
Zn	66	2	He	97.623	2.275	202184	0.63	100	97.6	90	110	
As	75	2	He	97.807	1.762	201936	0.51	100	97.8	90	110	
Se	78	2	He	97.072	1.282	16516	0.88	100	97.1	90	110	
B	11	1	nogas	504.645	2.453	1295439	1.66	500	100.9	90	110	
Si	28	1	nogas	4788.419	1.792	55507559	1.37	5000	95.8	90	110	
Ca	43	1	nogas	9765.695	3.103	456266	2.31	10000	97.7	90	110	
Ca	44	1	nogas	9834.941	2.657	7883859	1.81	10000	98.3	90	110	
Fe	56	1	nogas	9551.462	1.880	327377541	1.04	10000	95.5	90	110	
Se	77	1	nogas	43.307	6.009	68686	2.70	100	43.3	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	101.032	2.802	41224	2.56	100	101.0	90	110	
Mo	95	1	nogas	100.873	2.536	814324	1.61	100	100.9	90	110	
Sn	118	1	nogas	98.722	0.888	1237682	1.72	100	98.7	90	110	
Ba	137	1	nogas	97.821	1.703	601676	0.57	100	97.8	90	110	
Sb	121	2	He	101.265	1.774	737884	0.37	100	101.3	90	110	
Li	7	1	nogas	96.429	1.742	713877	1.06	100	96.4	90	110	
P	31	1	nogas	475.815	2.126	915773	0.27	500	95.2	90	110	
La	139	1	nogas	166.530	11.023	1127	5.78	100	166.5	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	470.709	8.692	87	6.66	100	470.7	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	422031	1.45	544172	77.55	70	125	
Ge	72	1	nogas	4555328	1.88	4694788	97.03	70	125	
In	115	1	nogas	4374627	1.62	4574578	95.63	70	125	
Bi	209	1	nogas	3252353	1.82	3446413	94.37	70	125	

Ge	72	2	He	1197691	2.16	1211365	98.87	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	141_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T16:32:58-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	051CALB.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
Be	9	1	nogas	0.101	23.9	483	20.7	1	
Na	23	1	nogas	-8.914	-29.7	4660042	1.8	100	
Mg	24	1	nogas	6.846	10.0	124300	8.0	100	
Al	27	1	nogas	1.437	1.0	60433	2.0	5	
K	39	1	nogas	14.404	33.6	9220702	0.8	100	
Ti	47	1	nogas	0.080	51.3	483	19.7	2.5	
V	51	1	nogas	-18.848	-2.9	679315	0.6	2.5	
Cr	52	1	nogas	-0.685	-5.3	53006	1.7	2.5	
Mn	55	1	nogas	0.023	113.9	18970	4.9	2.5	
Co	59	1	nogas	0.070	13.8	2704	13.7	2.5	
Ni	60	1	nogas	0.655	3.6	5481	1.9	2.5	
Cu	63	1	nogas	-0.012	-2351.0	59376	6.2	2.5	
Zn	66	1	nogas	0.446	9.0	3237	7.0	2.5	
As	75	1	nogas	-8.224	-6.3	104347	1.6	2.5	
Sr	88	1	nogas	0.107	11.5	6638	10.0	2.5	
Ag	107	1	nogas	0.096	14.8	2204	15.1	2.5	
Cd	111	1	nogas	0.058	16.2	300	15.3	1	
Sb	121	1	nogas	0.808	11.8	17299	13.1	2.5	
Tl	205	1	nogas	0.200	41.1	6578	36.4	1	
Pb	208	1	nogas	0.092	12.9	4147	11.3	2.5	
U	238	1	nogas	0.079	27.8	3497	23.2	2.5	
[Pb]	206	1	nogas	0.072	16.5	940	10.3	2.5	
[Pb]	207	1	nogas	0.077	5.9	850	1.2	2.5	
Na	23	2	He	-16.194	-26.9	429931	0.4	100	
Mg	24	2	He	5.006	7.6	6375	4.5	100	
Al	27	2	He	0.512	48.6	1503	7.4	5	
K	39	2	He	-3.207	-84.5	271112	1.2	100	
Ca	43	2	He	15.020	52.1	107	28.6	100	
Ca	44	2	He	9.363	11.4	1930	2.4	100	
V	51	2	He	-0.654	-5.2	11963	0.6	2.5	
Cr	52	2	He	-0.026	-75.5	4187	4.0	2.5	
Mn	55	2	He	0.074	25.3	1293	11.4	2.5	
Fe	56	2	He	5.033	4.8	75769	1.3	100	
Co	59	2	He	0.047	3.7	713	4.9	2.5	
Ni	60	2	He	0.094	30.7	1083	10.6	2.5	
Cu	63	2	He	0.843	3.5	2354	9.6	2.5	
Zn	66	2	He	0.404	22.4	1013	18.5	2.5	
As	75	2	He	-0.126	-15.0	706	7.7	2.5	
Se	78	2	He	0.539	36.4	305	9.5	2.5	
B	11	1	nogas	16.426	1.6	61887	1.3	10	CCB Main CR1 Failed
Si	28	1	nogas	38.195	3.9	1888089	2.2	5	CCB Main CR1 Failed
Ca	43	1	nogas	18.915	17.4	1627	9.4	100	
Ca	44	1	nogas	2.200	49.2	59755	1.2	100	
Fe	56	1	nogas	-42.876	-3.5	3144509	3.7	100	
Se	77	1	nogas	-63.347	-6.1	33241	2.1	2.5	
Se	82	1	nogas	0.126	101.2	533	9.4	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.198	27.4	1753	27.2	2.5	
Sn	118	1	nogas	-0.137	-18.9	3337	10.4	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.193	6.2	1473	5.7	2.5	
Sb	121	2	He	0.657	6.4	5408	4.6	2.5	
P	31	1	nogas	5.122	12.1	73031	0.8	10	
La	139	1	nogas	47.816	31.6	647	11.8	2.5	CCB Main CR1 Failed
Au	197	1	nogas	-4.088	-55.9	10	0.0	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	482796	2.23	544172	88.72	70	125	
Ge	72	1	nogas	4532268	2.17	4694788	96.54	70	125	
In	115	1	nogas	4657071	2.48	4574578	101.80	70	125	
Bi	209	1	nogas	3586605	4.12	3446413	104.07	70	125	
Ge	72	2	He	1221952	2.13	1211365	100.87	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	LLCCV5
Data File Name	142LICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T16:34:59-05:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	051CALB.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
Be	9	1	nogas	4.562	2.459	19050	2.55	5	91.2	70	130	
Na	23	1	nogas	476.658	4.877	15795646	1.84	500	95.3	70	130	
Mg	24	1	nogas	494.607	1.362	7715480	1.56	500	98.9	70	130	
Al	27	1	nogas	4.981	4.130	133596	3.56	5	99.6	70	130	
K	39	1	nogas	466.999	7.103	21774290	1.27	500	93.4	70	130	
Ti	47	1	nogas	5.062	4.049	12881	3.63	5	101.2	70	130	
V	51	1	nogas	-14.170	-7.669	873716	1.74	5	-283.4	70	130	LLICV Main CR1 Failed
Cr	52	1	nogas	4.013	3.939	198831	0.91	5	80.3	70	130	
Mn	55	1	nogas	4.849	4.628	209785	1.34	5	97.0	70	130	
Co	59	1	nogas	4.776	3.591	162922	1.23	5	95.5	70	130	
Ni	60	1	nogas	5.450	3.309	41410	1.91	5	109.0	70	130	
Cu	63	1	nogas	4.586	5.278	147402	2.93	5	91.7	70	130	
Zn	66	1	nogas	5.201	2.062	32195	1.39	5	104.0	70	130	
As	75	1	nogas	-3.950	-12.240	143748	2.01	5	-79.0	70	130	LLICV Main CR1 Failed
Sr	88	1	nogas	4.841	2.978	217414	0.52	5	96.8	70	130	
Ag	107	1	nogas	4.873	3.788	109163	0.98	5	97.5	70	130	
Cd	111	1	nogas	5.014	2.639	23309	0.69	5	100.3	70	130	
Sb	121	1	nogas	4.980	5.298	105809	3.16	5	99.6	70	130	
Tl	205	1	nogas	4.883	2.285	149698	0.47	5	97.7	70	130	
Pb	208	1	nogas	5.380	1.318	212022	1.31	5	107.6	70	130	
U	238	1	nogas	4.853	5.057	199260	3.00	5	97.1	70	130	
[Pb]	206	1	nogas	4.954	3.459	51877	0.93	5	99.1	70	130	
[Pb]	207	1	nogas	4.934	5.796	46310	3.34	5	98.7	70	130	
Na	23	2	He	502.995	4.533	1323719	2.32	500	100.6	70	130	
Mg	24	2	He	511.829	0.555	508925	0.69	500	102.4	70	130	
Al	27	2	He	4.678	12.822	3824	8.16	5	93.6	70	130	
K	39	2	He	506.863	0.519	895353	0.36	500	101.4	70	130	
Ca	43	2	He	438.447	5.504	1647	5.84	500	87.7	70	130	
Ca	44	2	He	497.292	5.693	31878	4.57	500	99.5	70	130	
V	51	2	He	4.254	0.956	54723	1.30	5	85.1	70	130	
Cr	52	2	He	4.908	0.736	51679	0.96	5	98.2	70	130	
Mn	55	2	He	5.039	2.125	35511	2.15	5	100.8	70	130	
Fe	56	2	He	517.536	0.917	4554244	1.42	500	103.5	70	130	
Co	59	2	He	4.998	2.248	67464	1.35	5	100.0	70	130	
Ni	60	2	He	5.238	2.075	17959	2.99	5	104.8	70	130	
Cu	63	2	He	5.582	1.552	44130	1.06	5	111.6	70	130	
Zn	66	2	He	5.167	2.425	10910	3.39	5	103.3	70	130	
As	75	2	He	4.932	2.345	11139	1.16	5	98.6	70	130	
Se	78	2	He	5.161	4.790	1081	3.43	5	103.2	70	130	
B	11	1	nogas	35.730	1.840	114806	1.06	25	142.9	70	130	LLICV Main CR1 Failed
Si	28	1	nogas	239.492	9.332	4359014	2.78	25	958.0	70	130	LLICV Main CR1 Failed
Ca	43	1	nogas	471.845	2.566	23819	0.85	500	94.4	70	130	
Ca	44	1	nogas	467.586	4.370	450214	0.47	500	93.5	70	130	
Fe	56	1	nogas	443.638	5.315	20502068	0.83	500	88.7	70	130	
Se	77	1	nogas	-58.461	-4.877	36664	2.19	5	-1169.2	70	130	LLICV Main CR1 Failed
Se	82	1	nogas	5.099	4.521	2660	4.34	5	102.0	70	130	
Mo	95	1	nogas	4.943	3.384	41920	3.15	5	98.9	70	130	
Sn	118	1	nogas	4.588	0.975	63134	3.32	5	91.8	70	130	
Ba	137	1	nogas	5.109	7.351	32080	4.97	5	102.2	70	130	
Sb	121	2	He	5.414	2.651	40146	1.64	5	108.3	70	130	
Li	7	1	nogas	5.179	0.926	81048	1.77	5	103.6	70	130	
P	31	1	nogas	27.490	4.927	118710	1.22	25	110.0	70	130	
La	139	1	nogas	-56.322	-15.900	153	26.36	5	-1126.4	70	130	LLICV Main CR1 Failed
Au	197	1	nogas	-0.116	-50925.155	10	100.00	5	-2.3	70	130	LLICV 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	nogas	469553	1.32	544172	86.29	70	125	
Ge	72	1	nogas	4768390	3.35	4694788	101.57	70	125	
In	115	1	nogas	4444691	3.24	4574578	97.16	70	125	
Bi	209	1	nogas	3383943	2.58	3446413	98.19	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Ge	72	2	He	1203575	1.00	1211365	99.36	70	125	

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	143SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T16:36:59-05:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	051CALB.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
Be	9	1	nogas	1.911	1.911	5.06	7935	0.02	2000	
Na	23	1	nogas	194.578	194.578	12.28	8627722	0.00	200000	
Mg	24	1	nogas	219.788	219.788	2.30	3184677	0.01	200000	
Al	27	1	nogas	2.102	2.102	4.06	73360	0.00	2000	
K	39	1	nogas	203.338	203.338	4.16	14105135	0.00	200000	
Ti	47	1	nogas	2.155	2.155	8.07	5414	0.04	2000	
V	51	1	nogas	-16.144	-16.144	-3.43	771684	0.00	2000	
Cr	52	1	nogas	1.284	1.284	2.81	110733	0.00	2000	
Mn	55	1	nogas	2.018	2.018	2.16	94190	0.00	2000	
Co	59	1	nogas	2.019	2.019	1.72	66136	0.00	2000	
Ni	60	1	nogas	2.554	2.554	0.60	19023	0.01	2000	
Cu	63	1	nogas	1.496	1.496	14.37	86409	0.00	2000	
Zn	66	1	nogas	2.275	2.275	2.49	13849	0.02	2000	
As	75	1	nogas	-5.788	-5.788	-9.54	123515	0.00	2000	
Sr	88	1	nogas	2.037	2.037	2.82	88776	0.00	2000	
Ag	107	1	nogas	1.996	1.996	1.65	42892	0.00	2000	
Cd	111	1	nogas	1.966	1.966	3.59	8992	0.02	2000	
Sb	121	1	nogas	2.169	2.169	2.63	44754	0.00	2000	
Tl	205	1	nogas	1.959	1.959	4.52	61095	0.00	2000	
Pb	208	1	nogas	2.093	2.093	1.46	82818	0.00	2000	
U	238	1	nogas	1.870	1.870	3.74	78082	0.00	2000	
[Pb]	206	1	nogas	1.907	1.907	3.99	20390	0.01	2000	
[Pb]	207	1	nogas	1.881	1.881	3.50	18007	0.01	2000	
Na	23	2	He	170.213	170.213	6.94	740193	0.02	200000	
Mg	24	2	He	205.788	205.788	2.53	203608	0.10	200000	
Al	27	2	He	1.817	1.817	16.25	2200	0.08	2000	
K	39	2	He	194.039	194.039	1.10	512508	0.04	200000	
Ca	43	2	He	185.650	185.650	17.38	720	25.78	200000	
Ca	44	2	He	198.369	198.369	3.66	13398	1.48	200000	
V	51	2	He	1.307	1.307	6.70	28689	0.00	2000	
Cr	52	2	He	1.900	1.900	3.28	22494	0.01	2000	
Mn	55	2	He	1.993	1.993	3.11	14382	0.01	2000	
Fe	56	2	He	208.566	208.566	4.21	1837461	0.01	200000	
Co	59	2	He	2.051	2.051	3.56	27477	0.01	2000	
Ni	60	2	He	2.142	2.142	7.83	7718	0.03	2000	
Cu	63	2	He	2.699	2.699	2.94	18533	0.01	2000	
Zn	66	2	He	2.284	2.284	6.75	4874	0.05	2000	
As	75	2	He	1.921	1.921	6.37	4876	0.04	2000	
Se	78	2	He	2.273	2.273	16.22	589	0.39	2000	
B	11	1	nogas	20.552	20.552	6.24	71206	0.03	2000	
Si	28	1	nogas	107.175	107.175	4.76	2678633	0.00	2000	
Ca	43	1	nogas	221.460	221.460	3.21	11097	2.00	200000	

Sample Report

Ca	44	1	nogas	185.794	185.794	4.58	206335	0.09	200000	
Fe	56	1	nogas	159.148	159.148	2.12	9997864	0.00	200000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Se	77	1	nogas	-56.854	-56.854	-4.28	35602	-0.16	2000	
Se	82	1	nogas	2.407	2.407	8.94	1457	0.17	2000	
Mo	95	1	nogas	2.061	2.061	2.50	16805	0.01	2000	
Sn	118	1	nogas	1.712	1.712	6.78	26163	0.01	2000	
Ba	137	1	nogas	2.023	2.023	3.54	12611	0.02	2000	
Sb	121	2	He	2.170	2.170	1.33	16268	0.01	2000	
La	139	1	nogas	31.807	31.807	61.37	537	5.93	2000	
Au	197	1	nogas	114.157	114.157	52.33	30	380.52	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	465452	1.70	544172	85.53	70	125	
Ge	72	1	nogas	4559942	1.56	4694788	97.13	70	125	
In	115	1	nogas	4370251	3.79	4574578	95.53	70	125	
Bi	209	1	nogas	3439279	2.46	3446413	99.79	70	125	
Ge	72	2	He	1193372	2.30	1211365	98.51	70	125	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	144ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T16:38:57-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	051CALB.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
Be	9	1	nogas	0.014	128.4	97	66.5	0	ICSA Main CR1 Failed
Na	23	1	nogas	97161.386	1.8	2035211112	0.7	0	
Mg	24	1	nogas	94013.759	1.0	1332263996	0.5	0	
Al	27	1	nogas	89958.512	0.3	1675624082	1.7	0	
K	39	1	nogas	93387.155	1.4	2359385919	2.1	0	
Ti	47	1	nogas	1992.729	0.8	4665810	2.0	0	
V	51	1	nogas	-19.921	-0.1	639229	1.8	0	ICSA Main CR1 Failed
Cr	52	1	nogas	0.188	51.3	77595	2.4	0	ICSA Main CR1 Failed
Mn	55	1	nogas	0.201	6.2	25404	0.4	0	ICSA Main CR1 Failed
Co	59	1	nogas	0.174	4.4	5994	4.6	0	ICSA Main CR1 Failed
Ni	60	1	nogas	1.510	3.4	11424	1.6	0	ICSA Main CR1 Failed
Cu	63	1	nogas	-0.442	-22.4	51422	1.5	0	ICSA Main CR1 Failed
Zn	66	1	nogas	1.798	5.7	10917	3.8	0	ICSA Main CR1 Failed
As	75	1	nogas	-7.280	-1.2	110563	1.4	0	ICSA Main CR1 Failed
Sr	88	1	nogas	0.852	1.1	37803	2.1	0	ICSA Main CR1 Failed
Ag	107	1	nogas	0.037	19.4	930	16.2	0	ICSA Main CR1 Failed
Cd	111	1	nogas	2.039	2.8	8709	2.7	0	
Sb	121	1	nogas	0.151	8.7	4111	4.6	0	ICSA Main CR1 Failed
Tl	205	1	nogas	0.026	38.2	827	32.1	0	ICSA Main CR1 Failed
Pb	208	1	nogas	0.086	3.0	3917	2.6	0	ICSA Main CR1 Failed
[Pb]	206	1	nogas	0.111	6.5	1153	5.3	0	ICSA Main CR1 Failed
[Pb]	207	1	nogas	0.081	4.5	750	4.8	0	ICSA Main CR1 Failed
Na	23	2	He	93242.210	1.1	155736318	2.3	0	
Mg	24	2	He	92465.193	1.2	88065689	0.7	0	
Al	27	2	He	93381.111	2.6	50425514	1.3	0	
K	39	2	He	95533.658	1.6	117192218	1.6	0	
Ca	43	2	He	89297.334	2.1	312272	1.4	0	
Ca	44	2	He	93815.616	2.4	5537131	0.6	0	
V	51	2	He	-0.549	-3.5	12198	1.0	0	ICSA Main CR1 Failed
Cr	52	2	He	0.195	14.2	6011	2.5	0	ICSA Main CR1 Failed
Mn	55	2	He	0.336	6.2	2960	3.9	0	ICSA Main CR1 Failed
Fe	56	2	He	94040.344	2.4	789315322	1.7	0	
Co	59	2	He	0.023	8.2	367	8.3	0	ICSA Main CR1 Failed
Ni	60	2	He	0.163	24.2	1240	10.5	0	ICSA Main CR1 Failed
Cu	63	2	He	1.213	1.9	5364	2.4	0	ICSA Main CR1 Failed
Zn	66	2	He	0.980	6.6	2110	4.5	0	ICSA Main CR1 Failed
As	75	2	He	-0.024	-15.5	869	2.6	0	ICSA Main CR1 Failed
Se	78	2	He	0.331	22.6	255	3.7	0	ICSA Main CR1 Failed
B	11	1	nogas	11.898	11.9	42090	7.3	0	ICSA Main CR1 Failed
Si	28	1	nogas	62.430	2.3	2141466	1.4	0	
Ca	43	1	nogas	91012.934	1.6	4188267	0.5	0	
Ca	44	1	nogas	90047.271	2.0	70732511	1.5	0	
Fe	56	1	nogas	90220.557	1.8	3011676867	0.7	0	
Se	77	1	nogas	-56.210	-1.1	35295	1.5	0	ICSA Main CR1 Failed
Se	82	1	nogas	0.086	171.6	513	12.7	0	ICSA Main CR1 Failed
Mo	95	1	nogas	1960.924	1.0	15612885	0.8	0	
Sn	118	1	nogas	-0.206	-2.5	2127	4.9	0	ICSA Main CR1 Failed
Ba	137	1	nogas	0.102	11.9	767	10.9	0	ICSA Main CR1 Failed
Sb	121	2	He	0.149	4.4	1550	1.7	0	ICSA Main CR1 Failed

Interference Check Solution A (ICS-A) Report

P	31	1	nogas	92567.798	0.5	163500188	1.8	0	
La	139	1	nogas	203.602	5.6	1203	6.2	0	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	417371	1.90	544172	76.70	70	125	
Ge	72	1	nogas	4493055	1.78	4694788	95.70	70	125	
In	115	1	nogas	4078977	2.63	4574578	89.17	70	125	
Bi	209	1	nogas	3007773	0.98	3446413	87.27	70	125	
Ge	72	2	He	1155964	1.83	1211365	95.43	70	125	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	145ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-05T16:41:01-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	051CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High	QC Flag
Be	9	1	nogas	102.239	4.488	335335	2.56	100	102.2	80	120	
Na	23	1	nogas	106259.460	2.123	2202095183	1.46	100	106259.5	80	120	
Mg	24	1	nogas	106726.071	2.205	1496469933	1.48	100	106726.1	80	120	ICSB Main CR1 Failed
Al	27	1	nogas	94453.134	0.827	1664830909	0.32	100	94453.1	80	120	ICSB Main CR1 Failed
K	39	1	nogas	108899.757	2.357	2602057391	1.95	100	108899.8	80	120	ICSB Main CR1 Failed
Ti	47	1	nogas	2218.313	2.252	4914879	2.18	100	2218.3	80	120	ICSB Main CR1 Failed
V	51	1	nogas	88.490	1.401	3900383	0.42	100	88.5	80	120	
Cr	52	1	nogas	97.933	1.459	2729531	2.54	100	97.9	80	120	
Mn	55	1	nogas	96.980	1.275	3421390	1.59	100	97.0	80	120	
Co	59	1	nogas	96.873	0.972	2941247	1.40	100	96.9	80	120	
Ni	60	1	nogas	96.340	0.878	639820	1.97	100	96.3	80	120	
Cu	63	1	nogas	95.222	1.198	1624297	2.16	100	95.2	80	120	
Zn	66	1	nogas	99.312	0.952	537118	1.76	100	99.3	80	120	
As	75	1	nogas	93.075	1.263	815972	0.13	100	93.1	80	120	
Sr	88	1	nogas	99.500	1.368	3948741	0.60	100	99.5	80	120	
Ag	107	1	nogas	97.113	0.945	1938952	2.04	100	97.1	80	120	
Cd	111	1	nogas	101.077	0.618	421029	2.03	100	101.1	80	120	
Sb	121	1	nogas	101.449	0.727	1903282	1.51	100	101.4	80	120	
Tl	205	1	nogas	100.561	3.083	2685675	0.76	100	100.6	80	120	
Pb	208	1	nogas	93.869	1.195	3690663	1.19	100	93.9	80	120	
U	238	1	nogas	104.242	1.588	3732711	1.81	100	104.2	80	120	
[Pb]	206	1	nogas	97.197	1.959	885581	0.93	100	97.2	80	120	
[Pb]	207	1	nogas	96.158	1.503	786269	1.70	100	96.2	80	120	
Na	23	2	He	104308.471	1.847	170924824	1.78	100	104308.5	80	120	
Mg	24	2	He	103916.612	2.253	97145272	2.18	100	103916.6	80	120	
Al	27	2	He	94603.895	1.458	50148193	1.07	100	94603.9	80	120	ICSB Main CR1 Failed
K	39	2	He	106711.512	1.343	130872038	1.34	100	106711.5	80	120	
Ca	43	2	He	102572.838	1.098	352112	1.80	100	102572.8	80	120	ICSB Main CR1 Failed
Ca	44	2	He	105959.117	1.708	6138816	1.03	100	105959.1	80	120	ICSB Main CR1 Failed
V	51	2	He	96.648	1.057	813540	0.89	100	96.6	80	120	
Cr	52	2	He	93.740	0.765	855682	0.56	100	93.7	80	120	
Mn	55	2	He	94.058	0.985	612121	1.67	100	94.1	80	120	
Fe	56	2	He	105898.005	0.997	872485587	0.81	100	105898.0	80	120	
Co	59	2	He	93.497	0.382	1188513	0.71	100	93.5	80	120	
Ni	60	2	He	97.353	0.930	302075	1.76	100	97.4	80	120	
Cu	63	2	He	92.976	0.505	768490	0.86	100	93.0	80	120	
Zn	66	2	He	96.311	1.498	188994	1.20	100	96.3	80	120	
As	75	2	He	100.989	1.238	197516	0.97	100	101.0	80	120	
Se	78	2	He	99.863	1.421	16093	2.25	100	99.9	80	120	
B	11	1	nogas	528.126	4.621	1187884	3.65	100	528.1	80	120	
Si	28	1	nogas	4833.063	1.878	52281834	0.83	100	4833.1	80	120	ICSB Main CR1 Failed
Ca	43	1	nogas	108533.259	1.943	4726601	1.23	100	108533.3	80	120	ICSB Main CR1 Failed
Ca	44	1	nogas	106801.689	0.761	79390125	0.71	100	106801.7	80	120	ICSB Main CR1 Failed
Fe	56	1	nogas	107730.790	0.439	3402962076	1.11	100	107730.8	80	120	ICSB Main CR1 Failed
Se	77	1	nogas	71.235	2.403	72721	1.17	100	71.2	80	120	ICSB Main CR1 Failed
Se	82	1	nogas	100.510	0.034	38288	1.17	100	100.5	80	120	
Mo	95	1	nogas	2257.441	0.974	17010771	1.36	100	2257.4	80	120	ICSB Main CR1 Failed
Sn	118	1	nogas	97.656	1.707	1114661	1.24	100	97.7	80	120	
Ba	137	1	nogas	100.090	1.240	560592	1.42	100	100.1	80	120	
Sb	121	2	He	102.651	0.484	708686	0.79	100	102.7	80	120	
La	139	1	nogas	148.127	11.881	953	8.15	100	148.1	80	120	ICSB 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	nogas	370020	2.07	544172	68.00	70	125	ISTD Failed
Ge	72	1	nogas	4251901	1.14	4694788	90.57	70	125	
In	115	1	nogas	3983703	2.63	4574578	87.08	70	125	
Bi	209	1	nogas	2950772	2.36	3446413	85.62	70	125	
Ge	72	2	He	1134502	0.85	1211365	93.65	70	125	

Tune Report

Batch Folder C:\Agilent\ICPMH\1\DATA\090518A.b
Report Comment
Instrument Name G3281A JP11080910

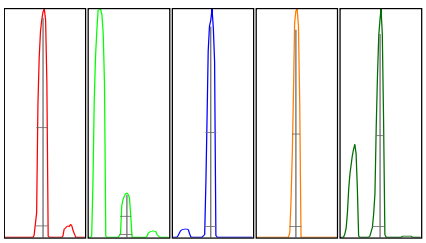
[nogas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
9		14927				NaN	-	
24		45018				NaN	-	
59		65325				NaN	-	
115		70810				NaN	-	
208		34458				NaN	-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)	Background (Actual)	Background (Required)	Background (Flag)
9	0.80	5.00				
24	0.57	5.00				
59	0.56	5.00				
115	1.06	5.00				
208	0.85	5.00				

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	15024	14977	14990	14919	14724
24	45354	44878	45207	44731	44919
59	64710	65428	65352	65694	65441
115	70245	70112	71604	70441	71647
208	34754	34027	34520	34674	34313

Integration Time [sec] 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-X% (Actual)	W-X% (Required)	W-X% (Flag)
9	4113.72	8.95	8.9 - 9.1		0.38	0.476	0.750	
24	12438.94	23.95	23.9 - 24.1		0.37	0.459	0.750	
59	19379.30	58.95	58.9 - 59.1		0.34	0.440	0.750	
115	22575.56	115.00	114.9 - 115.1		0.30	0.438	0.750	
208	10586.05	208.00	207.9 - 208.1		0.31	0.495	0.750	

X = 5 **Integration Time [sec]** 0.1 **Acquisition Time [sec]** 168.5 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1600 W	Carrier Gas	0.45 L/min	S/C Temp	2 ℃
RF Matching	1.70 V	Option Gas	0.0 %	Makeup/Dilution Gas	0.40 L/min
Smpl Depth	8.0 mm	Nebulizer Pump	0.10 rps	Gas Switch	Dilution Gas

Lenses Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	15.0 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-100 V	Cell Exit	-58 V		

Cell Parameters

OctP Bias	-8.0 V	He Flow	0.0 mL/min	Energy Discrimination	5.0 V
OctP RF	190 V	H2 Flow	0.0 mL/min		
Use Gas	true	3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
9		280				NaN	-	
24		3111				NaN	-	
59		27699				NaN	-	

Tune Report

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)	Background (Actual)	Background (Required)	Background (Flag)
9	4.14	5.00				
24	2.12	5.00				
59	2.10	5.00				

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	291	279	292	265	273
24	3069	3038	3163	3195	3092
59	27107	27161	27982	27753	28492

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-X% (Actual)	W-X% (Required)	W-X% (Flag)
9	75.56	8.95	8.9 - 9.1		0.38	0.492	0.750	
24	859.69	23.95	23.9 - 24.1		0.38	0.446	0.750	
59	8536.52	58.95	58.9 - 59.1		0.32	0.435	0.750	

X = 5 **Integration Time [sec]** 0.1 **Acquisition Time [sec]** 100.6 **Y Axis** Linear

Tune Parameters

Plasma Paramters

RF Power	1600 W	Carrier Gas	0.45 L/min	S/C Temp	2 ℃
RF Matching	1.70 V	Option Gas	0.0 %	Makeup/Dilution Gas	0.40 L/min
Smpl Depth	8.0 mm	Nebulizer Pump	0.10 rps	Gas Switch	Dilution Gas

Lenses Parameters

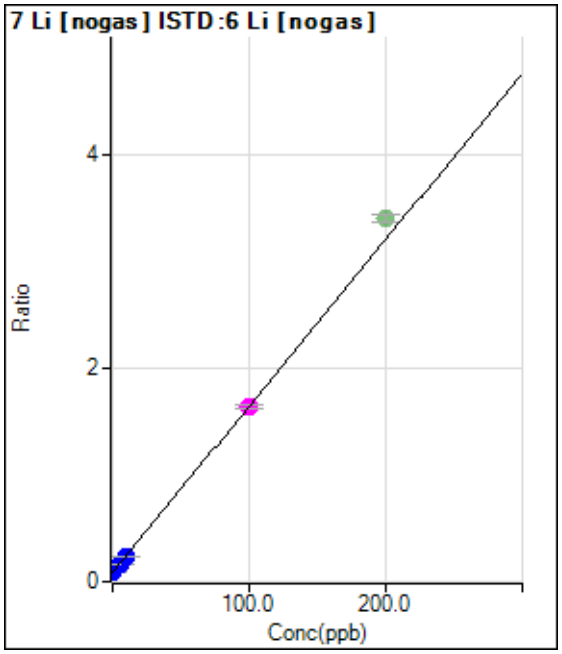
Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	2.0 V
Extract 2	-200.0 V	Cell Entrance	-32 V	Plate Bias	-60 V
Omega Bias	-100 V	Cell Exit	-70 V		

Cell Parameters

OctP Bias	-18.0 V	He Flow	4.0 mL/min	Energy Discrimination	5.0 V
OctP RF	190 V	H2 Flow	0.0 mL/min		
Use Gas	true	3rd Gas Flow	0 %		

Batch Folder: C:\Agilent\ICPMH\1\DATA\090618A.b\
Analysis File: 090618A.batch.bin
DA Date-Time: 2018-09-06 16:05:00
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

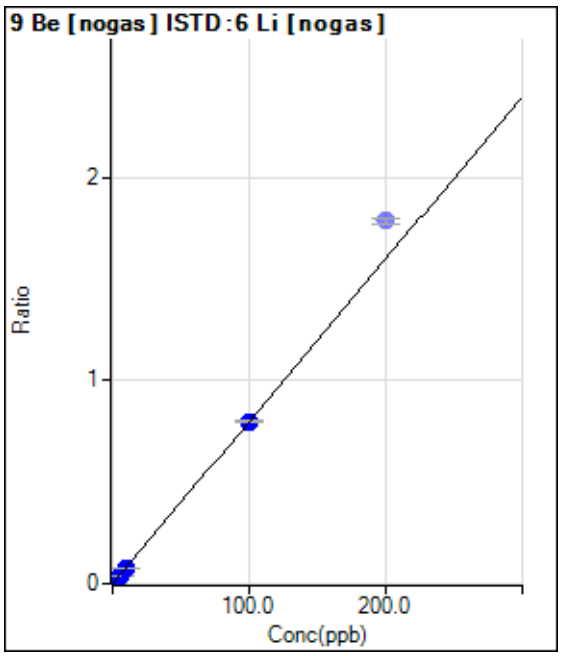
Level	Standard Data File	Sample Name	Acq. Date-Time
1	005CALB.d	CAL BLK	2018-09-06 12:41:47
2	006CALS.d	2/10/200	2018-09-06 12:43:46
3	007CALS.d	5/25/500	2018-09-06 12:45:45
4	008CALS.d	10/50/1000	2018-09-06 12:47:43
5	009CALS.d	100/500/10K	2018-09-06 12:49:42
6	012CALS.d	200/1000/20K	2018-09-06 12:55:40
7			



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56623.29	0.0870	P	1.0
2	☐	2.000	2.099	76833.35	0.1197	P	1.5
3	☐	5.000	5.146	103902.83	0.1671	P	0.9
4	☐	10.000	9.914	153534.58	0.2412	P	1.3
5	☐	100.000	99.999	983132.20	1.6428	M	2.1
6	☑	200.000		1787187.47	3.3937	A	2.1
7	☐	1.000					

y = 0.0156 * x + 0.0870
R = 1.0000
DL = 0.1639
BEC = 5.592

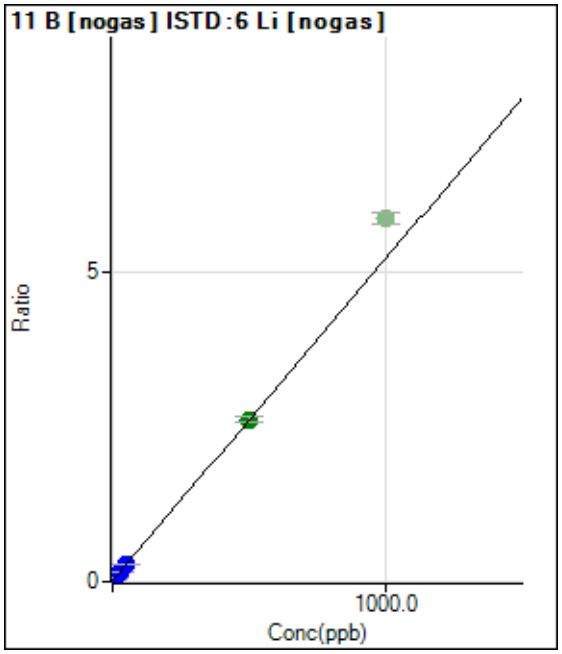
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0001	P	61.1
2	☐	2.000	1.952	10062.76	0.0157	P	3.5
3	☐	5.000	5.167	25747.65	0.0414	P	2.8
4	☐	10.000	9.915	50533.32	0.0794	P	2.1
5	☐	100.000	100.001	478925.74	0.8002	P	1.5
6	☑	200.000		941576.55	1.7882	P	1.3
7	☐	1.000					

y = 0.0080 * x + 5.0793E-005
R = 1.0000
DL = 0.01164
BEC = 0.006348

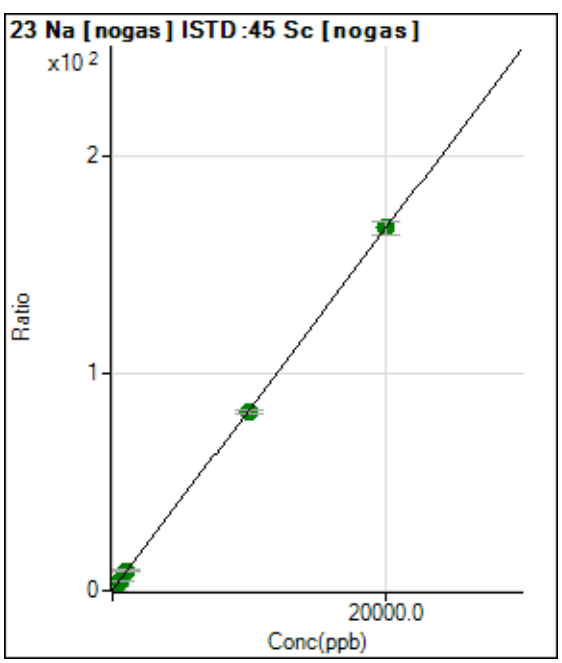
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10299.57	0.0158	P	3.9
2	☐	10.000	9.548	41983.01	0.0654	P	5.3
3	☐	25.000	24.853	90107.03	0.1449	P	1.8
4	☐	50.000	48.749	171160.05	0.2689	P	1.5
5	☐	500.000	500.141	1563957.68	2.6125	A	3.3
6	☑	1000.000		3080939.75	5.8521	A	3.2
7	☐	5.000					

y = 0.0052 * x + 0.0158
R = 1.0000
DL = 0.3576
BEC = 3.051

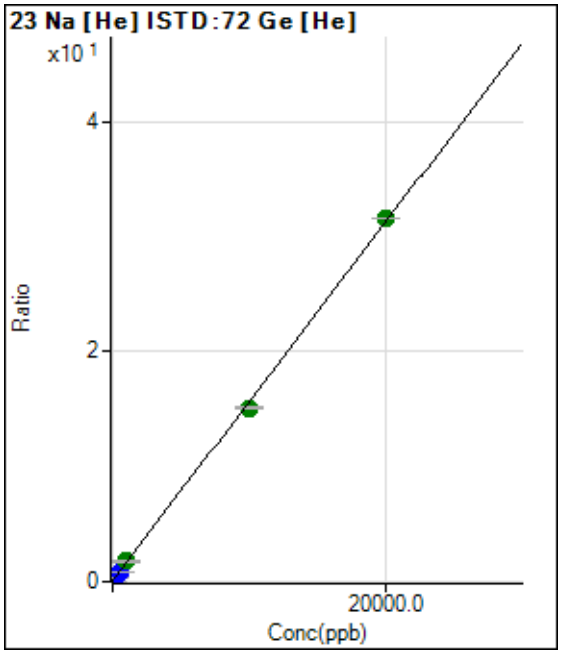
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	858830.91	0.2943	P	4.1
2	☐	200.000	218.174	5573894.13	2.1066	A	4.6
3	☐	500.000	540.790	12562492.47	4.7866	A	1.9
4	☐	1000.000	1070.104	24427975.03	9.1835	A	4.6
5	☐	10000.00	9870.924	220679813.2	82.2907	A	2.7
6	☐	20000.00	20059.831	432639226.3	166.928	A	3.6
7	☐	100.000					

y = 0.0083 * x + 0.2943
R = 1.0000
DL = 4.306
BEC = 35.43

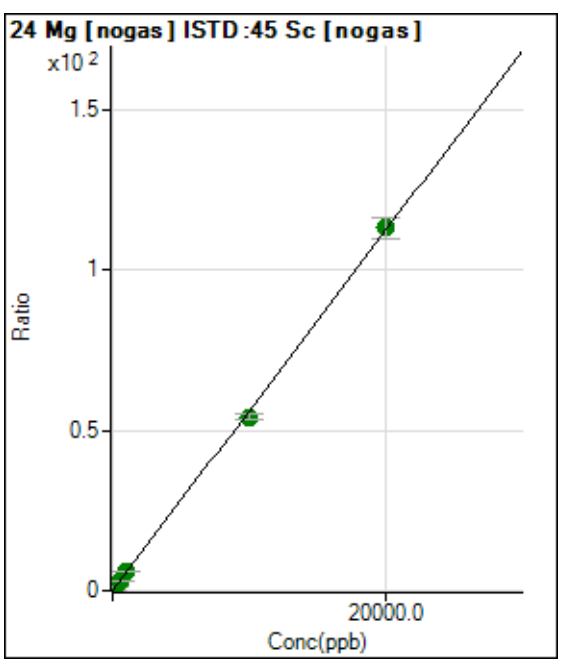
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	87858.68	0.0818	P	0.7
2	☐	200.000	212.482	438294.55	0.4132	P	1.1
3	☐	500.000	521.563	961363.42	0.8952	P	1.2
4	☐	1000.000	1078.617	1881701.80	1.7640	A	0.9
5	☐	10000.00	9610.965	16019627.68	15.0704	A	1.0
6	☐	20000.00	20189.923	31780012.03	31.5687	A	0.1
7	☐	100.000					

y = 0.0016 * x + 0.0818
R = 0.9997
DL = 1.165
BEC = 52.46

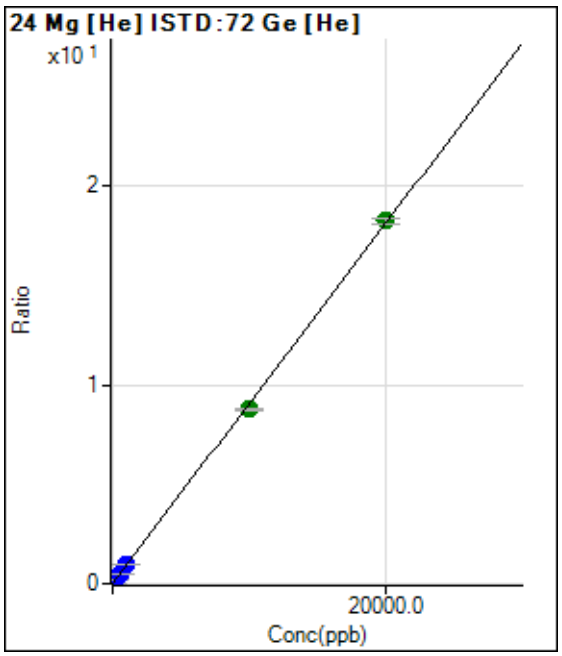
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6935.84	0.0024	P	8.5
2	☐	200.000	218.876	3254538.35	1.2296	A	3.2
3	☐	500.000	545.093	8028063.46	3.0587	A	1.4
4	☐	1000.000	1075.795	16050456.09	6.0343	A	4.9
5	☐	10000.00	9668.315	145380057.4	54.2125	A	2.7
6	☐	20000.00	20160.737	292811614.8	113.043	A	5.7
7	☐	100.000					

y = 0.0056 * x + 0.0024
R = 0.9998
DL = 0.1088
BEC = 0.4241

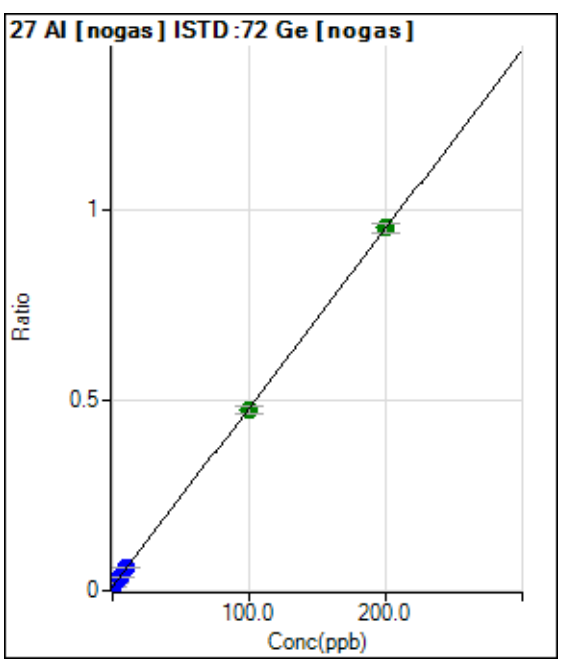
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	643.35	0.0006	P	19.7
2	☐	200.000	210.903	203260.69	0.1916	P	1.7
3	☐	500.000	515.245	501844.59	0.4673	P	0.6
4	☐	1000.000	1034.801	1000535.04	0.9379	P	0.2
5	☐	10000.00	9702.004	9341734.86	8.7883	A	1.0
6	☐	20000.00	20146.768	18369559.31	18.2488	A	1.7
7	☐	100.000					

y = 9.0576E-004 * x + 5.9930E-004
R = 0.9998
DL = 0.3903
BEC = 0.6617

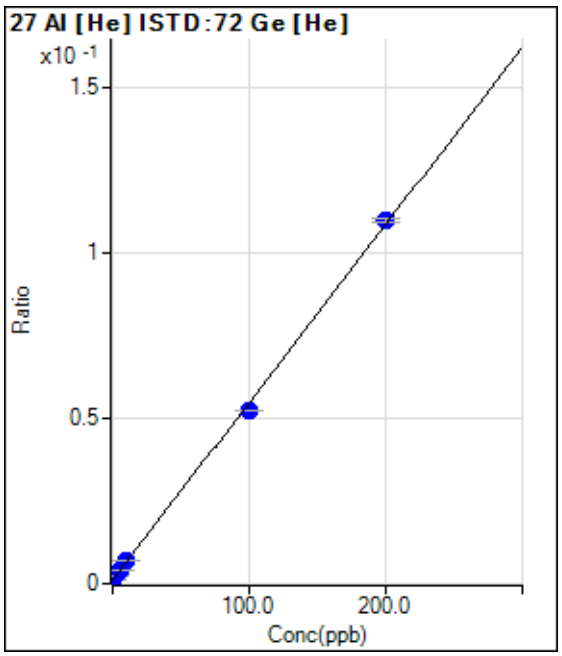
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44445.63	0.0107	P	3.3
2	☐	2.000	2.350	85716.67	0.0217	P	1.9
3	☐	5.000	5.601	144293.19	0.0370	P	0.5
4	☐	10.000	10.922	243853.49	0.0621	P	1.4
5	☐	100.000	98.907	1893111.48	0.4766	A	3.6
6	☐	200.000	200.482	3594396.82	0.9551	A	2.4
7	☐	1.000					

y = 0.0047 * x + 0.0107
R = 1.0000
DL = 0.2205
BEC = 2.261

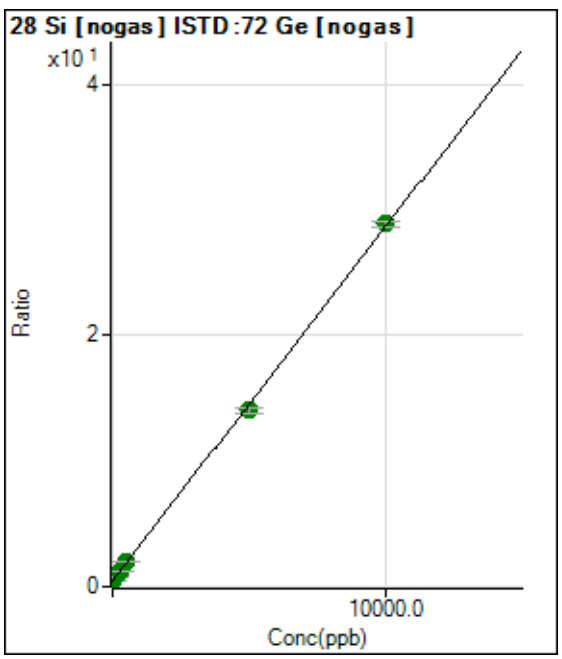
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.630	1486.76	0.0014	P	8.4
2	☐	2.000	2.483	2523.55	0.0024	P	8.5
3	☐	5.000	5.466	4277.22	0.0040	P	3.2
4	☐	10.000	10.738	7271.55	0.0068	P	1.8
5	☐	100.000	95.475	55655.02	0.0524	P	0.8
6	☐	200.000	202.209	110456.76	0.1097	P	1.2
7	☐	1.000					

y = 5.3744E-004 * x + 0.0010
R = 0.9996
DL = 0.6525
BEC = 1.946

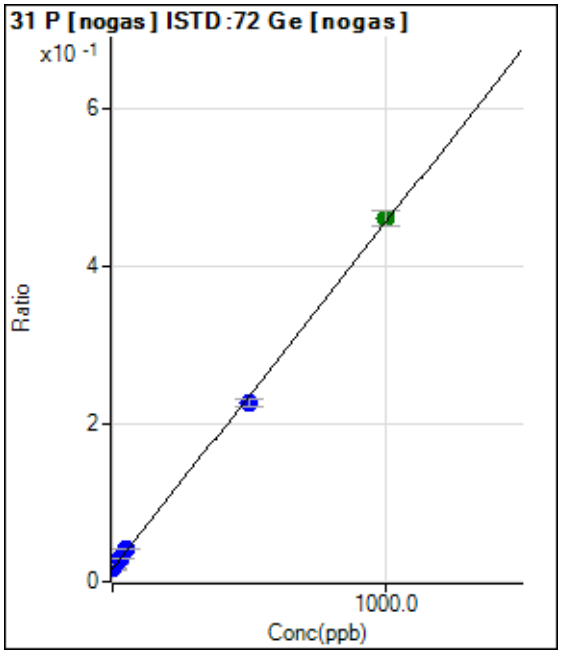
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1905156.64	0.4575	A	11.7
2	☐	100.000	98.199	2897662.45	0.7343	A	1.2
3	☐	250.000	261.802	4657924.41	1.1955	A	0.6
4	☐	500.000	525.979	7616849.26	1.9401	A	0.9
5	☐	5000.000	4830.406	55904060.83	14.0730	A	3.2
6	☐	10000.00	10083.221	108703465.0	28.8792	A	1.7
7	☐	5.000					

y = 0.0028 * x + 0.4575
R = 0.9998
DL = 56.89
BEC = 162.3

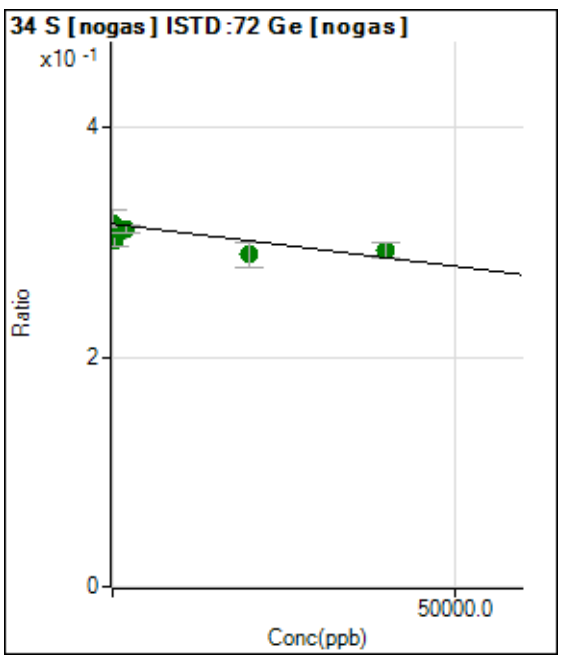
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	67118.71	0.0161	P	4.0
2	☐	10.000	11.692	83721.16	0.0212	P	2.1
3	☐	25.000	29.074	112369.07	0.0288	P	1.9
4	☐	50.000	56.584	160611.08	0.0409	P	1.9
5	☐	500.000	477.757	896311.18	0.2257	P	4.0
6	☐	1000.000	1010.673	1728501.90	0.4595	A	4.4
7	☐	5.000					

y = 4.3870E-004 * x + 0.0161
R = 0.9996
DL = 4.42
BEC = 36.68

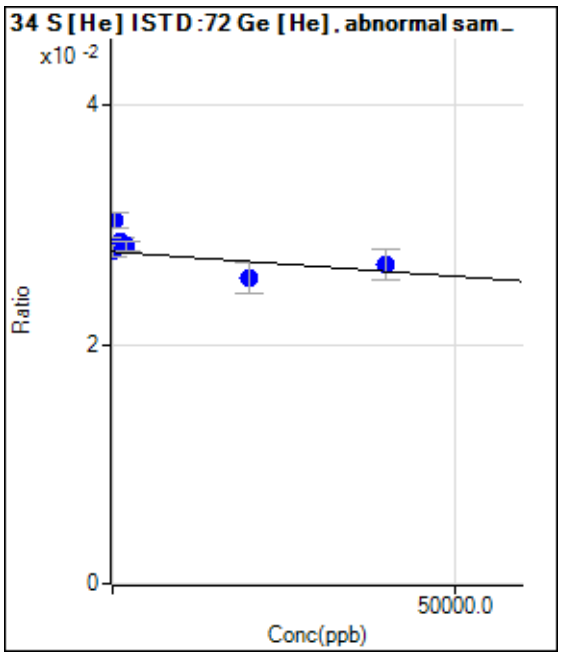
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1319476.13	0.3162	A	8.1
2	☐	400.000	20131.916	1188844.01	0.3014	A	3.4
3	☐	1000.000	7274.236	1210987.04	0.3108	A	1.7
4	☐	2000.000	5836.021	1224514.38	0.3119	A	1.8
5	☐	20000.00	36349.987	1148444.33	0.2894	A	7.4
6	☐	40000.00	31279.030	1102808.13	0.2931	A	4.2
7	☐	100.000					

y = -7.3754E-007 * x + 0.3162
R = -0.7764
DL = -1.045E+05
BEC = -4.287E+05

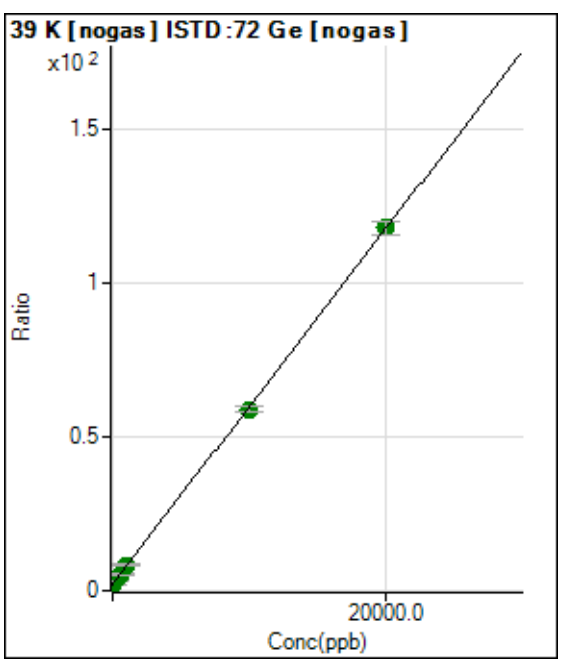
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	29794.95	0.0277	P	2.6
2	☐	400.000	-63302.43	32166.75	0.0303	P	4.1
3	☐	1000.000	-21427.25	30729.48	0.0286	P	2.5
4	☐	2000.000	-13020.39	30162.77	0.0283	P	2.7
5	☐	20000.00	52848.675	27191.15	0.0256	P	9.8
6	☐	40000.00	25524.388	26890.74	0.0267	P	9.7
7	☐	100.000					

y = -4.0797E-008 * x + 0.0277
R = -0.6754
DL = -5.224E+04
BEC = -6.8E+05

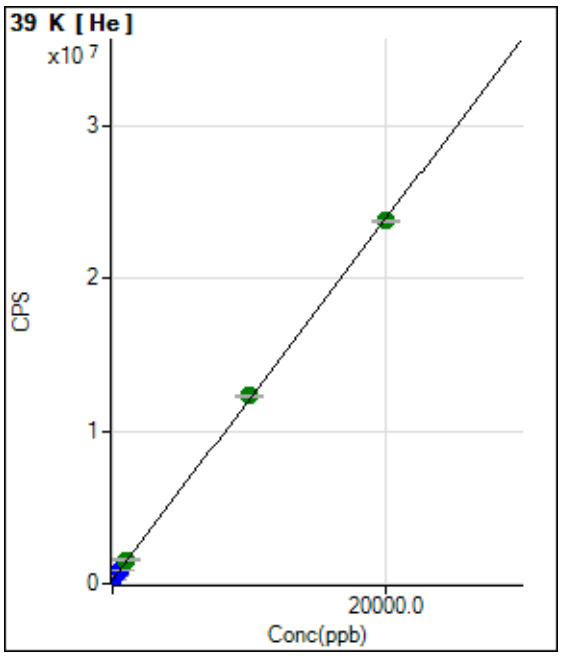
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8780143.95	2.1050	A	4.2
2	☐	200.000	220.190	13325793.53	3.3777	A	2.5
3	☐	500.000	550.098	20585684.83	5.2846	A	2.6
4	☐	1000.000	1078.273	32725902.81	8.3375	A	3.1
5	☐	10000.00	9865.105	234824655.2	59.1261	A	4.0
6	☐	20000.00	20062.080	444200626.6	118.065	A	3.9
7	☐	100.000					

y = 0.0058 * x + 2.1050
R = 1.0000
DL = 46.07
BEC = 364.2

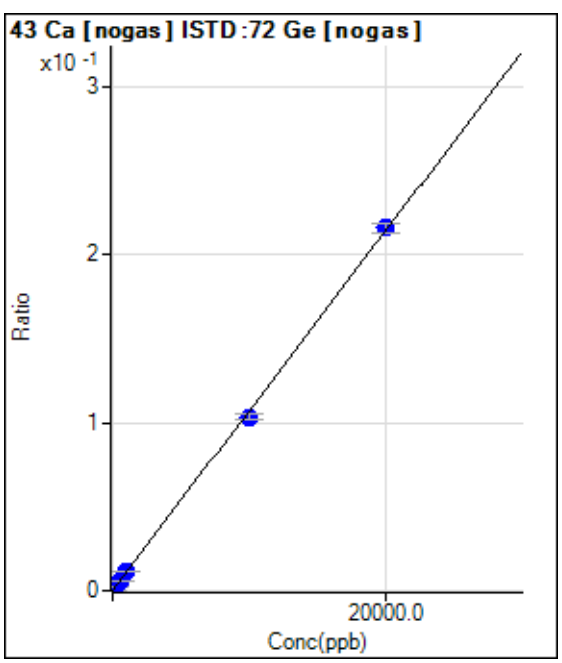
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	252016.02		P	0.6
2	☐	200.000	209.406	499385.34		P	0.5
3	☐	500.000	529.571	877591.66		P	0.1
4	☐	1000.000	1117.486	1572088.88		A	0.4
5	☐	10000.00	10191.986	12291690.24		A	0.7
6	☐	20000.00	19897.300	23756464.64		A	0.8
7	☐	100.000					

y = 1181.2884 * x + 252016.0167
R = 0.9999
DL = 3.884
BEC = 213.3

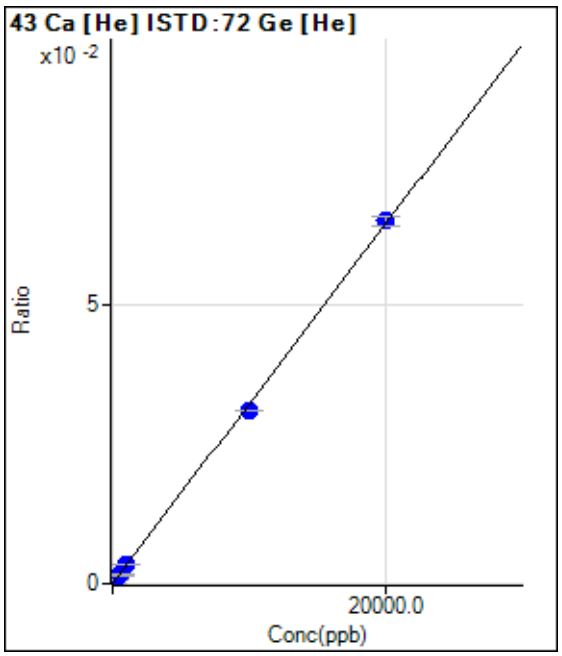
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	773.36	0.0002	P	2.6
2	☐	200.000	199.600	9149.02	0.0023	P	1.3
3	☐	500.000	524.217	22547.35	0.0058	P	3.8
4	☐	1000.000	1085.906	46287.91	0.0118	P	1.4
5	☐	10000.00	9640.136	409962.57	0.1032	P	3.3
6	☐	20000.00	20175.035	812010.64	0.2158	P	3.0
7	☐	100.000					

y = 1.0686E-005 * x + 1.8514E-004
R = 0.9998
DL = 1.333
BEC = 17.32

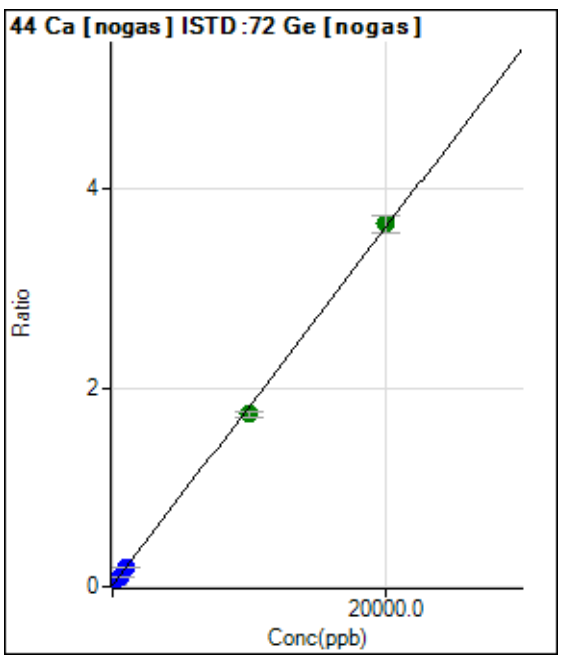
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.67	0.0000	P	68.4
2	☐	200.000	232.602	830.03	0.0008	P	5.5
3	☐	500.000	496.266	1750.11	0.0016	P	14.3
4	☐	1000.000	1057.602	3667.10	0.0034	P	0.6
5	☐	10000.00	9640.087	33012.81	0.0311	P	0.1
6	☐	20000.00	20176.844	65407.86	0.0650	P	2.4
7	☐	100.000					

y = 3.2181E-006 * x + 3.4091E-005
R = 0.9998
DL = 21.75
BEC = 10.59

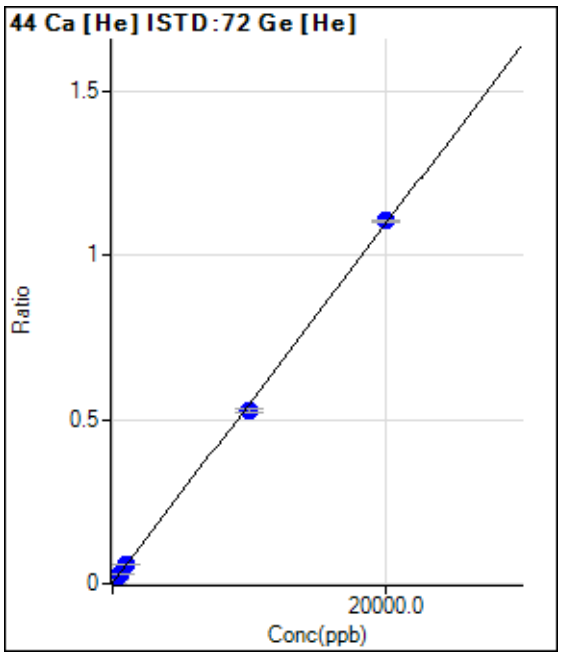
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55679.55	0.0134	P	5.0
2	☐	200.000	206.677	199360.78	0.0505	P	2.2
3	☐	500.000	509.413	409003.56	0.1050	P	2.2
4	☐	1000.000	1021.788	773922.75	0.1972	P	2.7
5	☐	10000.00	9565.763	6887814.27	1.7341	A	3.5
6	☐	20000.00	20215.727	13730089.38	3.6498	A	4.4
7	☐	100.000					

y = 1.7988E-004 * x + 0.0134
R = 0.9997
DL = 11.21
BEC = 74.22

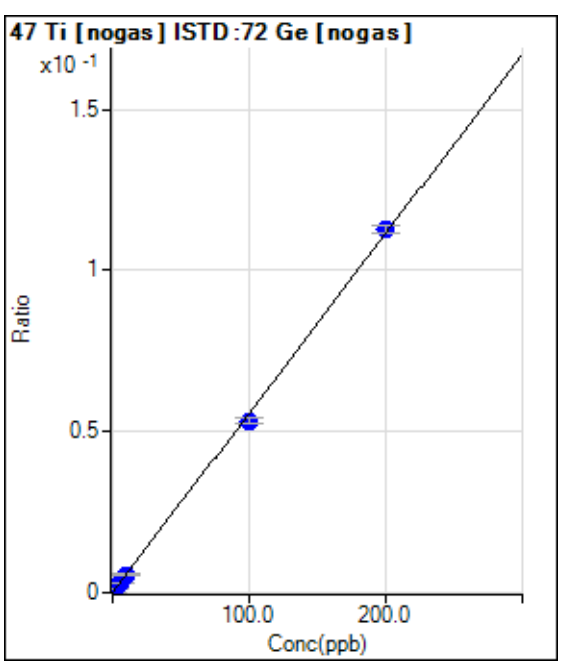
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1323.40	0.0012	P	11.6
2	☐	200.000	209.130	13415.02	0.0126	P	3.4
3	☐	500.000	512.414	31366.55	0.0292	P	1.2
4	☐	1000.000	1051.578	62554.86	0.0586	P	0.6
5	☐	10000.00	9616.557	559330.56	0.5262	P	1.8
6	☐	20000.00	20188.741	1110694.80	1.1033	P	0.7
7	☐	100.000					

y = 5.4590E-005 * x + 0.0012
R = 0.9997
DL = 7.823
BEC = 22.57

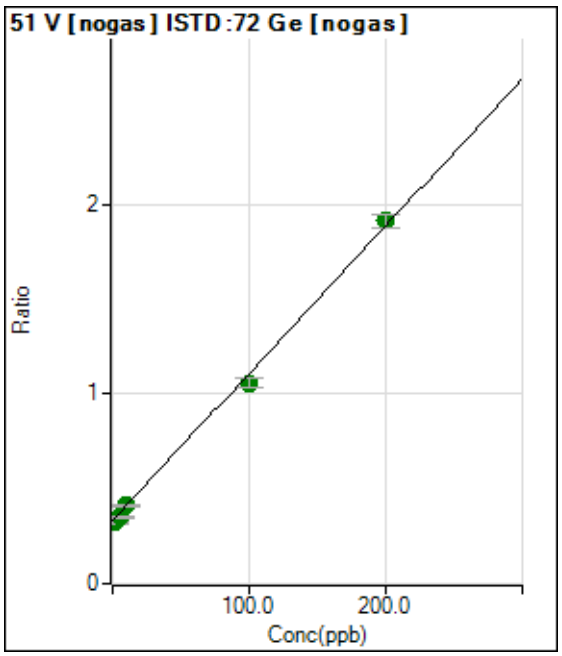
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	206.67	0.0000	P	33.7
2	☐	2.000	2.189	5004.09	0.0013	P	5.4
3	☐	5.000	5.136	11323.68	0.0029	P	6.1
4	☐	10.000	9.996	22026.63	0.0056	P	3.3
5	☐	100.000	95.680	211664.27	0.0533	P	3.4
6	☐	200.000	202.155	423548.89	0.1125	P	2.2
7	☐	1.000					

y = 5.5641E-004 * x + 4.9952E-005
R = 0.9997
DL = 0.09085
BEC = 0.08978

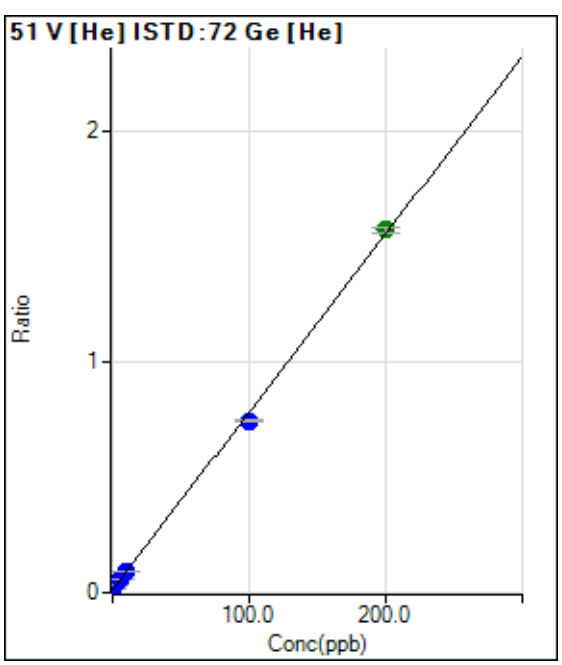
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1393707.39	0.3333	A	4.5
2	☐	2.000	-1.522	1268444.66	0.3215	A	2.6
3	☐	5.000	2.186	1364776.14	0.3503	A	3.1
4	☐	10.000	10.210	1619226.53	0.4125	A	3.0
5	☐	100.000	93.333	4197886.03	1.0573	A	5.2
6	☐	200.000	203.429	7191631.15	1.9113	A	3.6
7	☐	1.000					

y = 0.0078 * x + 0.3333
R = 0.9992
DL = 5.8
BEC = 42.97

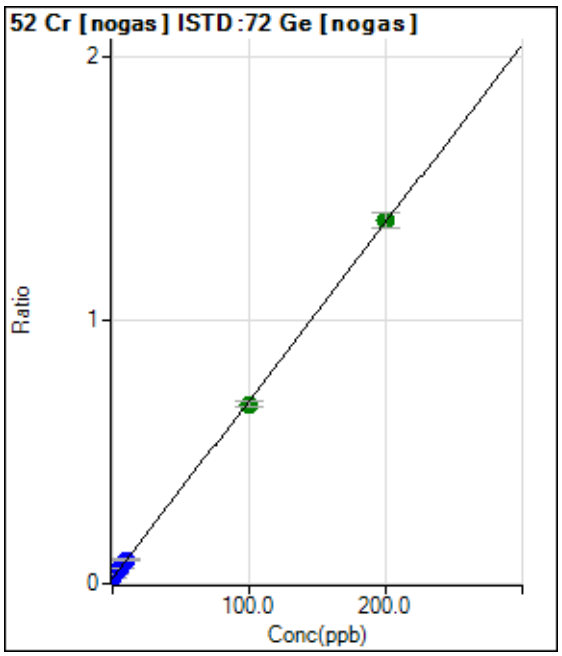
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.620	18548.56	0.0173	P	2.4
2	☐	2.000	2.617	34636.66	0.0327	P	1.6
3	☐	5.000	5.592	59651.42	0.0556	P	2.3
4	☐	10.000	10.701	101215.14	0.0949	P	1.4
5	☐	100.000	95.053	791129.92	0.7443	P	1.2
6	☐	200.000	202.418	1581440.58	1.5708	A	1.4
7	☐	1.000					

y = 0.0077 * x + 0.0125
R = 0.9995
DL = 0.1634
BEC = 1.624

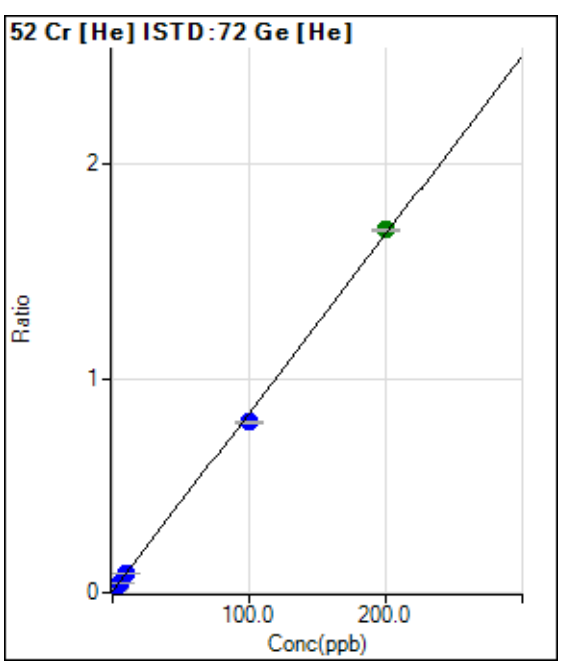
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	81327.20	0.0195	P	5.1
2	☐	2.000	2.177	135057.29	0.0342	P	2.2
3	☐	5.000	5.287	215291.07	0.0553	P	1.6
4	☐	10.000	10.552	356811.12	0.0909	P	1.6
5	☐	100.000	98.064	2712283.60	0.6828	A	3.4
6	☐	200.000	200.931	5186670.65	1.3786	A	4.4
7	☐	1.000					

y = 0.0068 * x + 0.0195
R = 0.9999
DL = 0.4451
BEC = 2.883

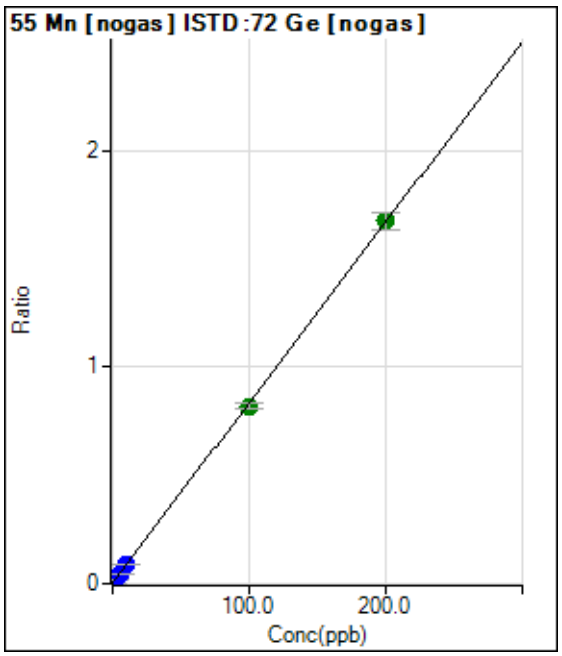
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6111.11	0.0057	P	9.6
2	☐	2.000	1.999	23698.73	0.0223	P	1.7
3	☐	5.000	4.995	50799.86	0.0473	P	2.1
4	☐	10.000	9.959	94549.96	0.0886	P	1.2
5	☐	100.000	94.874	845985.40	0.7959	P	1.4
6	☐	200.000	202.565	1704246.43	1.6928	A	0.7
7	☐	1.000					

y = 0.0083 * x + 0.0057
R = 0.9995
DL = 0.1962
BEC = 0.6832

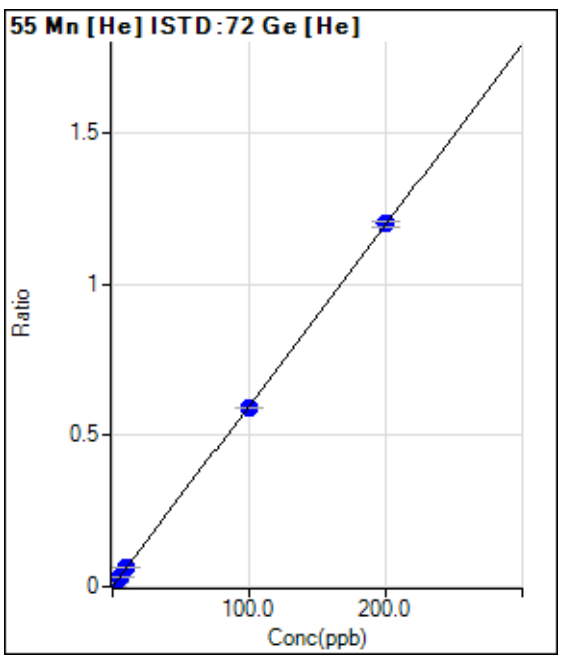
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11863.95	0.0028	P	0.7
2	☐	2.000	2.053	78643.47	0.0199	P	0.5
3	☐	5.000	5.205	179842.24	0.0462	P	0.3
4	☐	10.000	10.596	357322.10	0.0910	P	1.7
5	☐	100.000	98.116	3254958.39	0.8193	A	3.2
6	☐	200.000	200.907	6299522.82	1.6747	A	4.8
7	☐	1.000					

y = 0.0083 * x + 0.0028
R = 0.9999
DL = 0.007499
BEC = 0.3414

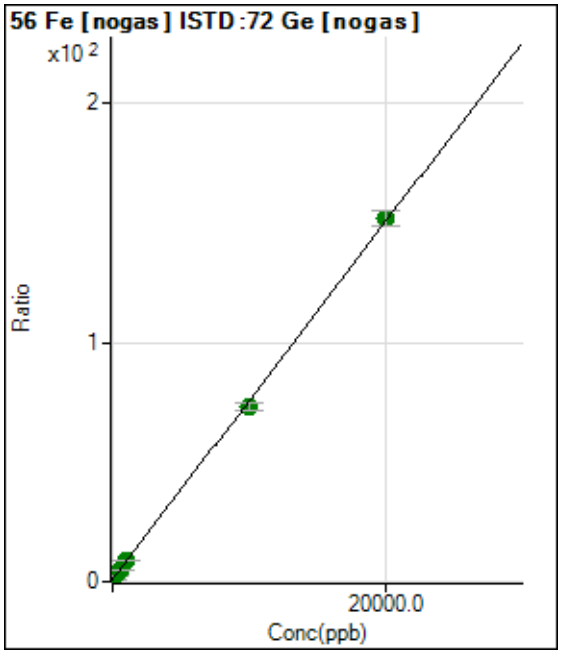
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	646.69	0.0006	P	31.7
2	☐	2.000	1.976	13181.53	0.0124	P	2.3
3	☐	5.000	5.126	33594.16	0.0313	P	2.1
4	☐	10.000	10.386	66954.64	0.0628	P	1.7
5	☐	100.000	98.572	627690.42	0.5905	P	0.4
6	☐	200.000	200.692	1209734.02	1.2016	P	1.8
7	☐	1.000					

y = 0.0060 * x + 6.0200E-004
R = 1.0000
DL = 0.09561
BEC = 0.1006

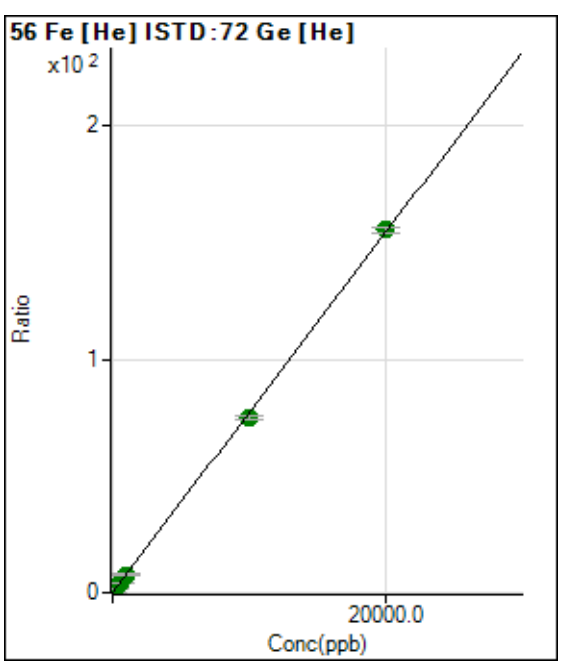
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3996433.03	0.9571	A	0.8
2	☐	200.000	207.213	9885698.92	2.5057	A	2.5
3	☐	500.000	521.119	18904217.09	4.8516	A	1.7
4	☐	1000.000	1057.675	34789194.53	8.8614	A	2.4
5	☐	10000.00	9664.704	290623614.8	73.1841	A	4.5
6	☐	20000.00	20164.164	570481346.0	151.649	A	4.4
7	☐	100.000					

y = 0.0075 * x + 0.9571
R = 0.9998
DL = 2.991
BEC = 128.1

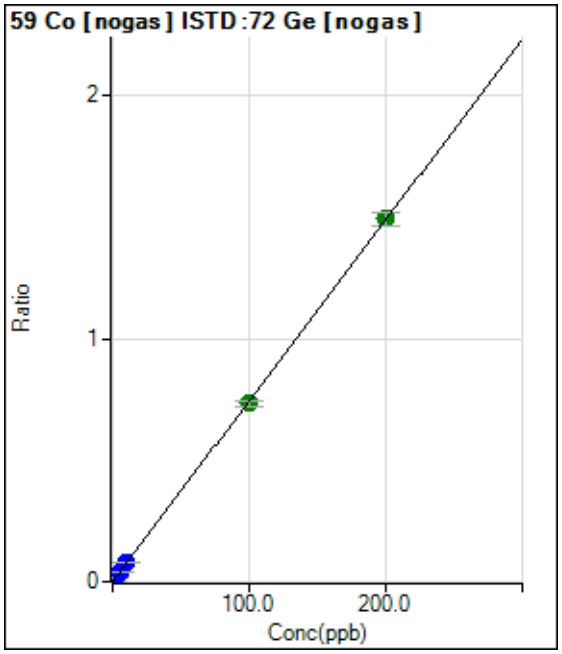
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22700.77	0.0211	P	2.7
2	☐	200.000	207.605	1720265.86	1.6216	A	0.9
3	☐	500.000	517.021	4303184.83	4.0069	A	2.3
4	☐	1000.000	1008.423	8315959.04	7.7951	A	0.8
5	☐	10000.00	9717.054	79652635.48	74.9299	A	1.4
6	☐	20000.00	20140.550	156336477.6	155.284	A	1.8
7	☐	100.000					

y = 0.0077 * x + 0.0211
R = 0.9999
DL = 0.222
BEC = 2.742

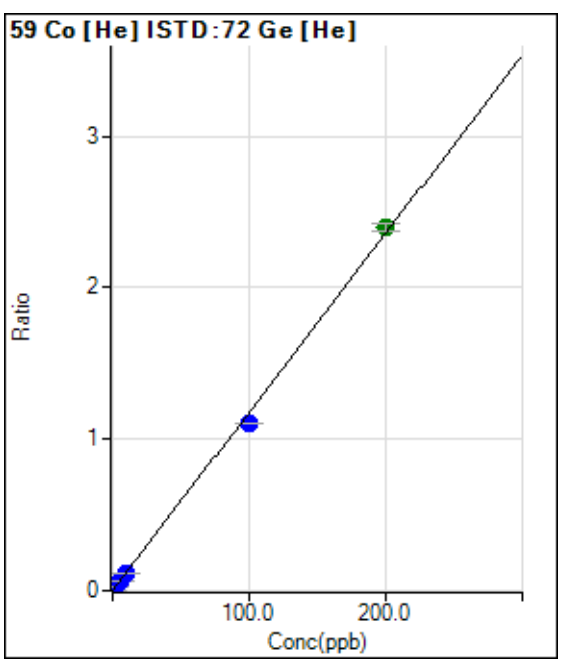
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	576.69	0.0001	P	7.4
2	☐	2.000	2.051	60683.45	0.0154	P	2.3
3	☐	5.000	5.200	151141.99	0.0388	P	0.9
4	☐	10.000	10.485	306476.52	0.0781	P	2.1
5	☐	100.000	98.511	2910117.67	0.7324	A	2.4
6	☐	200.000	200.715	5614432.42	1.4921	A	3.6
7	☐	1.000					

y = 0.0074 * x + 1.3814E-004
R = 1.0000
DL = 0.004108
BEC = 0.01858

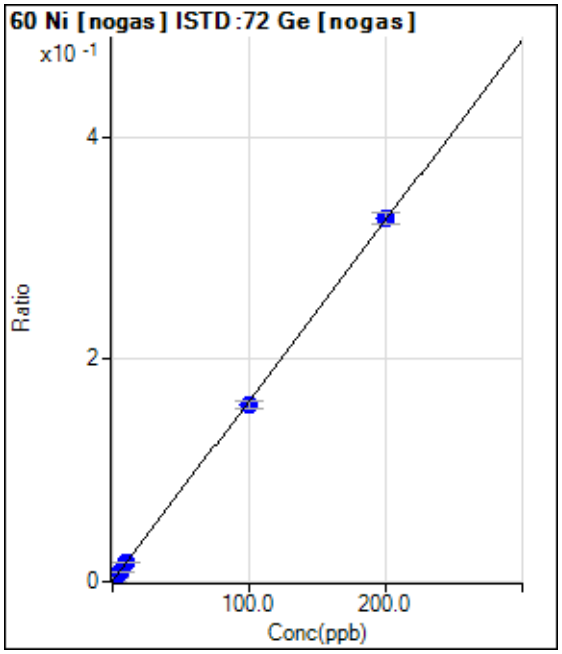
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.67	0.0001	P	13.0
2	☐	2.000	1.995	25007.23	0.0236	P	0.9
3	☐	5.000	4.963	62837.62	0.0585	P	1.8
4	☐	10.000	9.747	122517.16	0.1148	P	0.8
5	☐	100.000	93.534	1170800.11	1.1014	P	0.5
6	☐	200.000	203.247	2409140.17	2.3933	A	2.1
7	☐	1.000					

y = 0.0118 * x + 8.0684E-005
R = 0.9993
DL = 0.002675
BEC = 0.006852

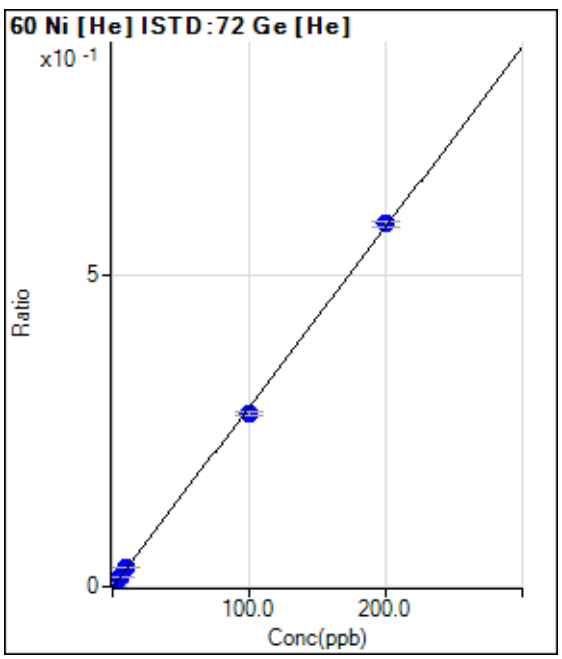
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.095	1670.10	0.0004	P	7.2
2	☐	2.000	1.980	14876.18	0.0038	P	5.6
3	☐	5.000	5.398	36309.38	0.0093	P	1.5
4	☐	10.000	10.640	69982.90	0.0178	P	3.2
5	☐	100.000	98.235	635565.59	0.1600	P	4.3
6	☐	200.000	200.841	1228983.18	0.3266	P	3.2
7	☐	1.000					

y = 0.0016 * x + 5.5449E-004
R = 0.9999
DL = 0.05353
BEC = 0.3415

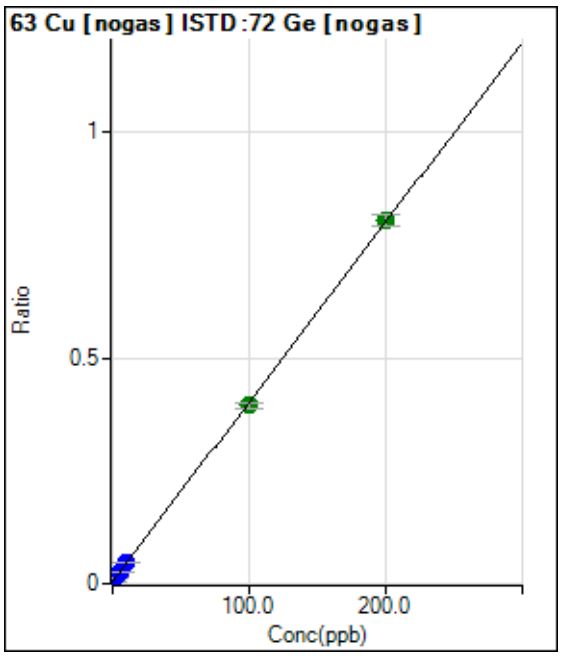
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.349	486.68	0.0005	P	11.0
2	☐	2.000	2.457	6924.76	0.0065	P	2.1
3	☐	5.000	5.494	16407.49	0.0153	P	1.6
4	☐	10.000	10.608	32018.11	0.0300	P	2.5
5	☐	100.000	96.279	294348.78	0.2769	P	2.7
6	☐	200.000	201.813	584818.44	0.5810	P	1.8
7	☐	1.000					

y = 0.0029 * x - 5.5157E-004
R = 0.9997
DL = 0.05202
BEC = -0.1914

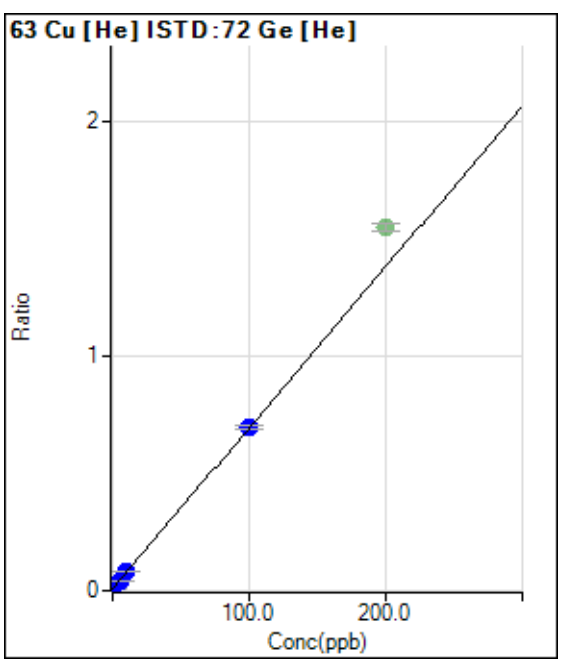
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20017.71	0.0048	P	4.8
2	☐	2.000	1.989	50168.47	0.0127	P	2.9
3	☐	5.000	5.108	97909.83	0.0251	P	2.3
4	☐	10.000	10.188	178058.73	0.0454	P	0.9
5	☐	100.000	98.328	1574806.90	0.3962	A	3.1
6	☐	200.000	200.824	3026051.41	0.8042	A	3.3
7	☐	1.000					

y = 0.0040 * x + 0.0048
R = 0.9999
DL = 0.1754
BEC = 1.206

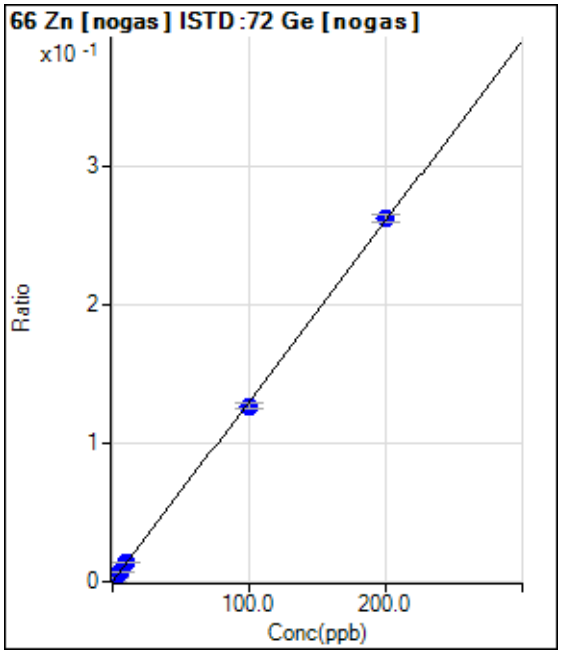
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.187	7745.08	0.0072	P	6.1
2	☐	2.000	1.943	23138.17	0.0218	P	3.5
3	☐	5.000	4.901	45192.56	0.0421	P	3.0
4	☐	10.000	10.374	84933.24	0.0796	P	0.5
5	☐	100.000	99.969	737535.12	0.6938	P	2.0
6	☑	200.000		1555869.51	1.5457	A	2.2
7	☐	1.000					

y = 0.0069 * x + 0.0085
R = 1.0000
DL = 0.194
BEC = 1.239

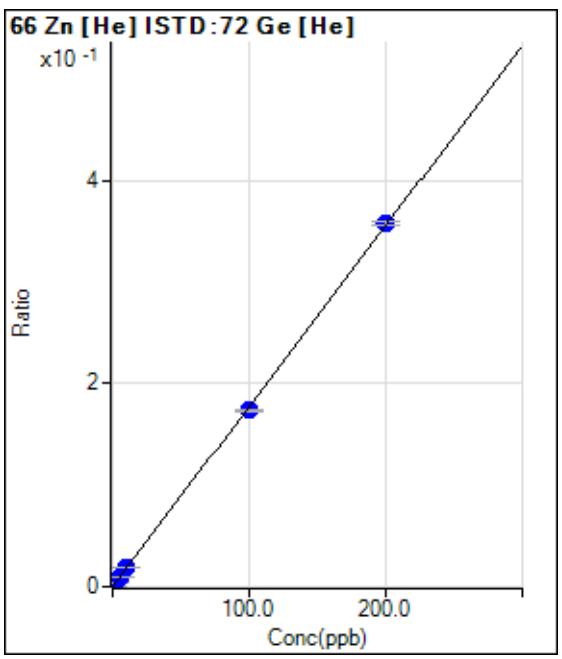
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.057	913.37	0.0002	P	9.5
2	☐	2.000	2.275	12254.34	0.0031	P	3.5
3	☐	5.000	5.361	27734.64	0.0071	P	4.7
4	☐	10.000	10.612	54775.48	0.0140	P	0.7
5	☐	100.000	97.476	504381.66	0.1270	P	3.3
6	☐	200.000	201.220	985956.21	0.2620	P	2.2
7	☐	1.000					

y = 0.0013 * x + 1.4421E-004
R = 0.9999
DL = 0.04782
BEC = 0.1108

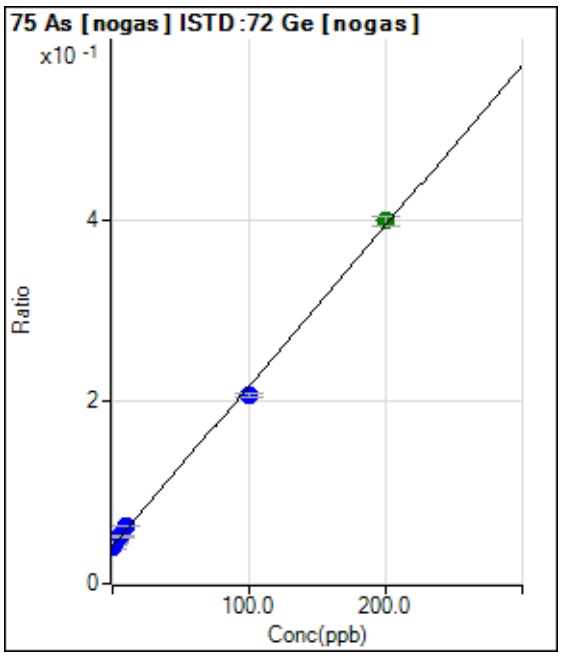
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.187	373.34	0.0003	P	10.5
2	☐	2.000	2.311	4370.58	0.0041	P	8.0
3	☐	5.000	5.117	9779.40	0.0091	P	4.5
4	☐	10.000	10.576	20067.89	0.0188	P	2.9
5	☐	100.000	97.688	184527.18	0.1736	P	1.5
6	☐	200.000	201.121	359764.09	0.3574	P	1.1
7	☐	1.000					

y = 0.0018 * x + 1.5758E-005
R = 0.9999
DL = 0.06158
BEC = 0.008869

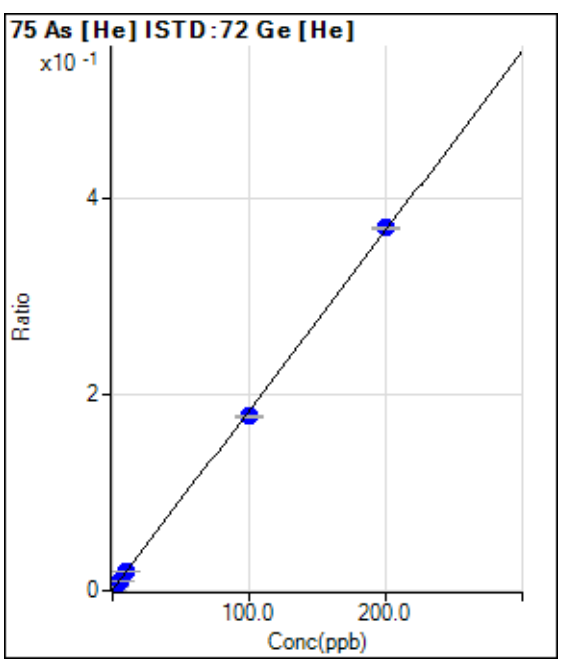
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.573	168182.53	0.0404	P	7.8
2	☐	2.000	2.250	178930.46	0.0453	P	0.9
3	☐	5.000	6.127	203283.43	0.0522	P	1.4
4	☐	10.000	12.371	248085.93	0.0632	P	1.1
5	☐	100.000	93.947	822586.00	0.2070	P	2.4
6	☐	200.000	202.877	1502118.57	0.3991	A	2.4
7	☐	1.000					

y = 0.0018 * x + 0.0414
R = 0.9992
DL = 5.368
BEC = 23.46

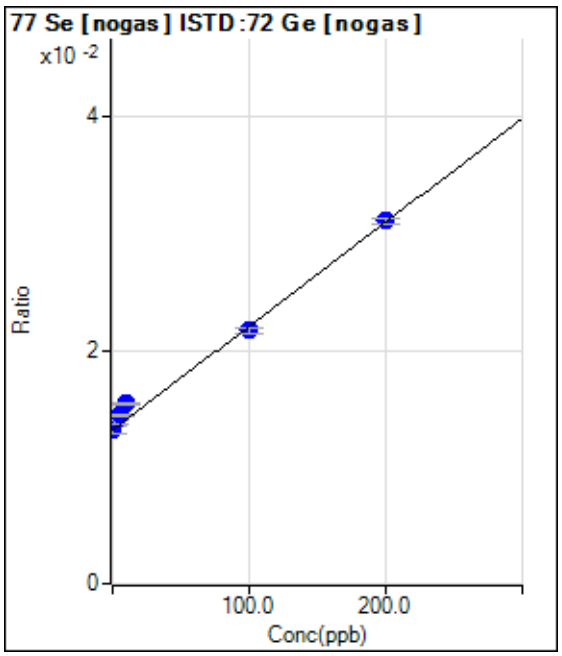
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	880.03	0.0008	P	2.3
2	☐	2.000	2.006	4766.20	0.0045	P	1.6
3	☐	5.000	4.988	10690.93	0.0100	P	3.3
4	☐	10.000	10.273	20943.12	0.0196	P	2.0
5	☐	100.000	96.733	189183.21	0.1780	P	1.2
6	☐	200.000	201.620	372556.20	0.3701	P	0.4
7	☐	1.000					

y = 0.0018 * x + 8.1951E-004
R = 0.9998
DL = 0.03124
BEC = 0.4475

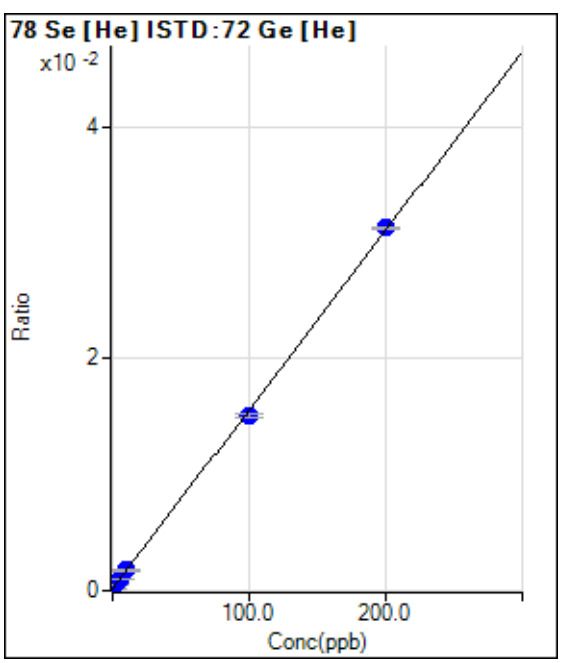
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	54903.14	0.0132	P	5.7
2	☐	2.000	7.323	54528.56	0.0138	P	1.7
3	☐	5.000	14.433	56304.07	0.0145	P	1.6
4	☐	10.000	25.661	60661.17	0.0155	P	1.2
5	☐	100.000	95.543	86095.81	0.0217	P	2.0
6	☐	200.000	201.156	116926.20	0.0311	P	1.8
7	☐	1.000					

y = 8.8964E-005 * x + 0.0132
R = 0.9967
DL = 25.45
BEC = 148

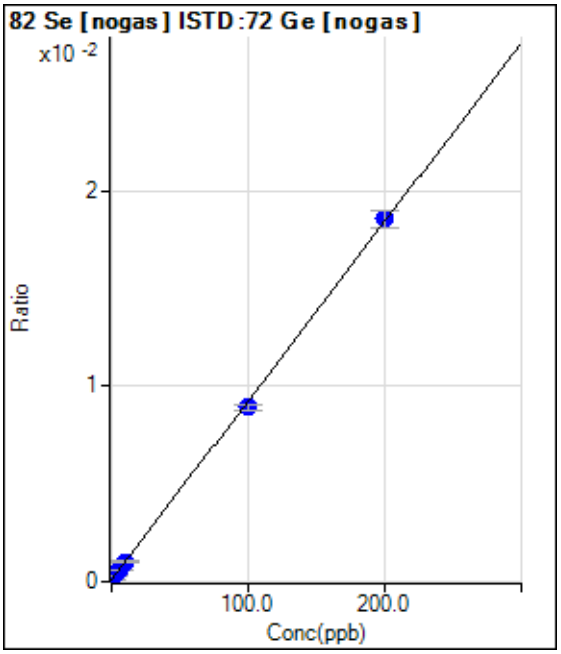
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.425	244.00	0.0002	P	15.8
2	☐	2.000	2.508	582.68	0.0005	P	18.0
3	☐	5.000	5.310	1053.37	0.0010	P	2.7
4	☐	10.000	10.382	1881.44	0.0018	P	2.8
5	☐	100.000	96.813	16049.06	0.0151	P	1.9
6	☐	200.000	201.561	31469.75	0.0313	P	0.3
7	☐	1.000					

y = 1.5429E-004 * x + 1.6148E-004
R = 0.9998
DL = 0.6993
BEC = 1.047

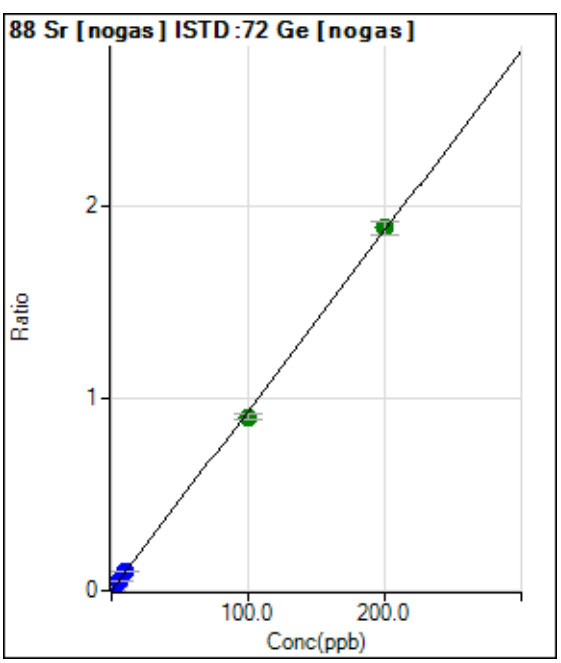
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	386.68	0.0001	P	21.3
2	☐	2.000	2.178	1150.05	0.0003	P	9.1
3	☐	5.000	5.711	2396.86	0.0006	P	5.0
4	☐	10.000	10.185	4023.84	0.0010	P	6.7
5	☐	100.000	96.511	35454.96	0.0089	P	3.1
6	☐	200.000	201.716	69781.18	0.0186	P	5.0
7	☐	1.000					

y = 9.1514E-005 * x + 9.2417E-005
R = 0.9998
DL = 0.6442
BEC = 1.01

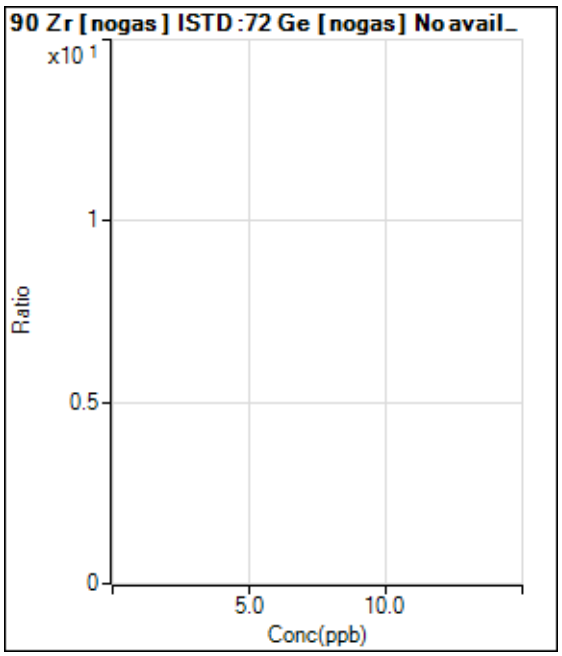
Weight: <None>
Min Conc: <None>



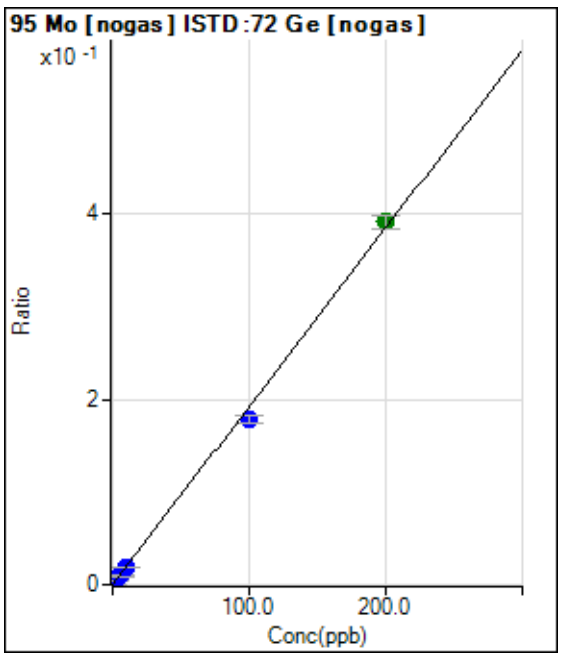
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1660.11	0.0004	P	10.5
2	☐	2.000	2.028	76335.25	0.0193	P	1.6
3	☐	5.000	5.120	187845.15	0.0482	P	1.7
4	☐	10.000	10.177	374700.32	0.0954	P	0.6
5	☐	100.000	96.629	3586828.07	0.9028	A	2.9
6	☐	200.000	201.673	7087901.77	1.8838	A	3.7
7	☐	1.000					

y = 0.0093 * x + 3.9877E-004
R = 0.9998
DL = 0.01346
BEC = 0.0427

Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	150.00	0.0000	P	7.6
2	☐	2.000	1.891	14496.05	0.0037	P	1.3
3	☐	5.000	4.841	36417.41	0.0093	P	1.4
4	☐	10.000	9.836	74418.48	0.0190	P	2.6
5	☐	100.000	92.932	710007.20	0.1788	P	4.1
6	☐	200.000	203.547	1472976.86	0.3915	A	4.0
7	☐	1.000					

y = 0.0019 * x + 3.5959E-005

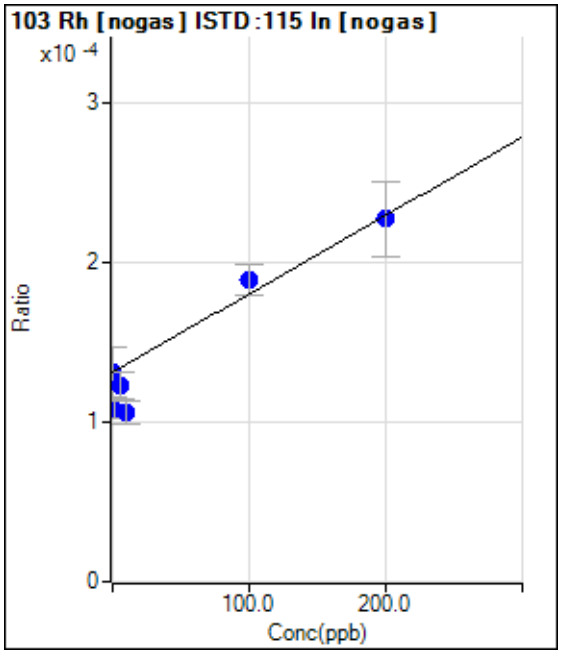
R = 0.9991

DL = 0.004266

BEC = 0.0187

Weight: <None>

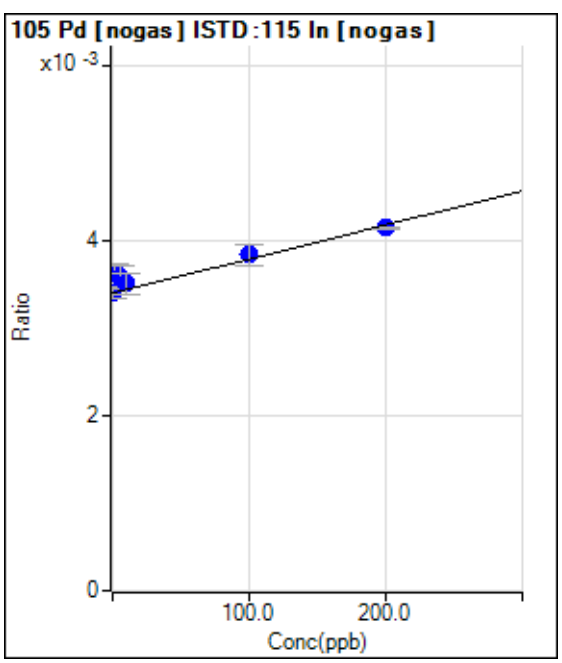
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	516.69	0.0001	P	23.2
2	☐	2.000	-47.959	396.68	0.0001	P	10.0
3	☐	5.000	-17.152	456.68	0.0001	P	14.3
4	☐	10.000	-51.424	406.68	0.0001	P	14.5
5	☐	100.000	117.338	700.02	0.0002	P	10.0
6	☐	200.000	195.455	793.36	0.0002	P	20.6
7	☐	1.000					

y = 4.9125E-007 * x + 1.3115E-004
R = 0.9656
DL = 186
BEC = 267

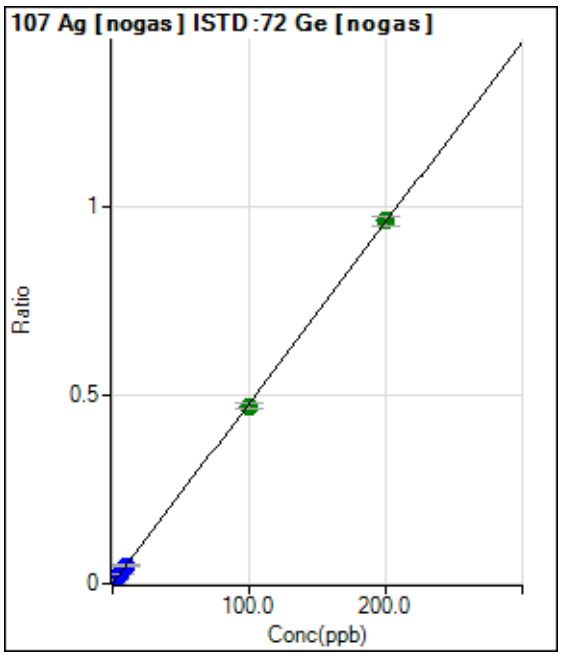
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13331.92	0.0034	P	3.1
2	☐	2.000	65.295	13448.68	0.0037	P	3.9
3	☐	5.000	48.589	13388.61	0.0036	P	7.1
4	☐	10.000	28.826	13518.78	0.0035	P	6.9
5	☐	100.000	111.817	14249.32	0.0038	P	6.2
6	☐	200.000	191.428	14576.32	0.0041	P	0.4
7	☐	1.000					

y = 3.8893E-006 * x + 0.0034
R = 0.9494
DL = 82.4
BEC = 875

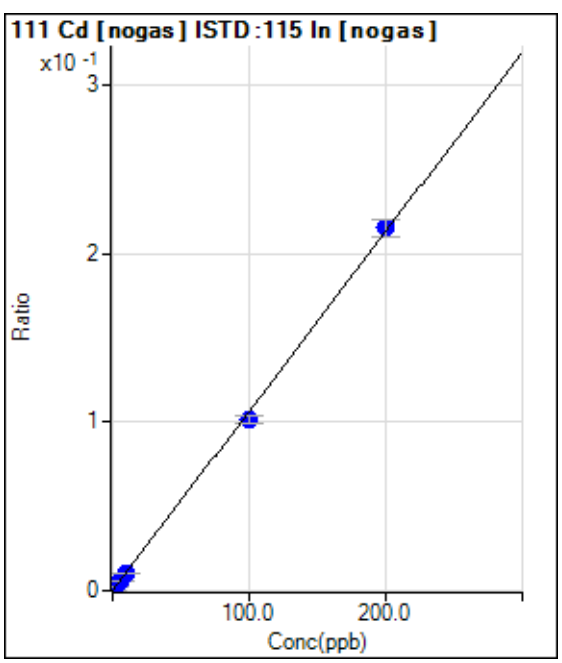
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	226.67	0.0001	P	7.6
2	☐	2.000	2.010	38198.24	0.0097	P	2.2
3	☐	5.000	5.011	93744.56	0.0241	P	1.5
4	☐	10.000	10.053	189244.27	0.0482	P	2.8
5	☐	100.000	98.284	1871565.02	0.4709	A	2.9
6	☐	200.000	200.855	3621436.61	0.9622	A	2.5
7	☐	1.000					

y = 0.0048 * x + 5.4187E-005
R = 0.9999
DL = 0.002564
BEC = 0.01131

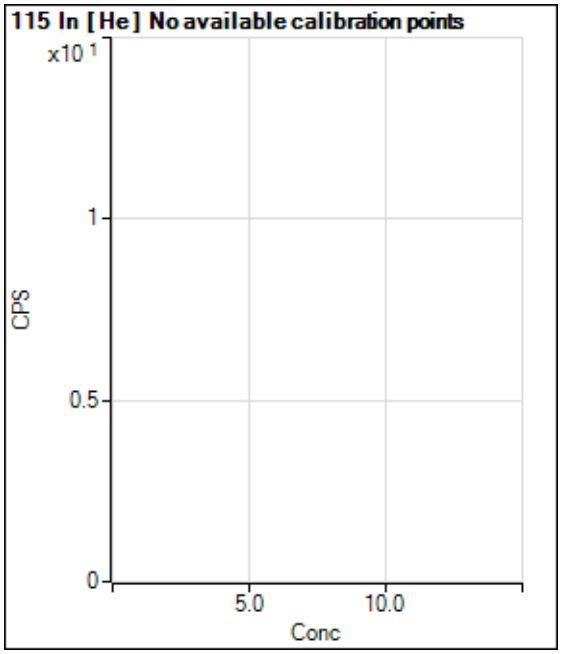
Weight: <None>
Min Conc: <None>



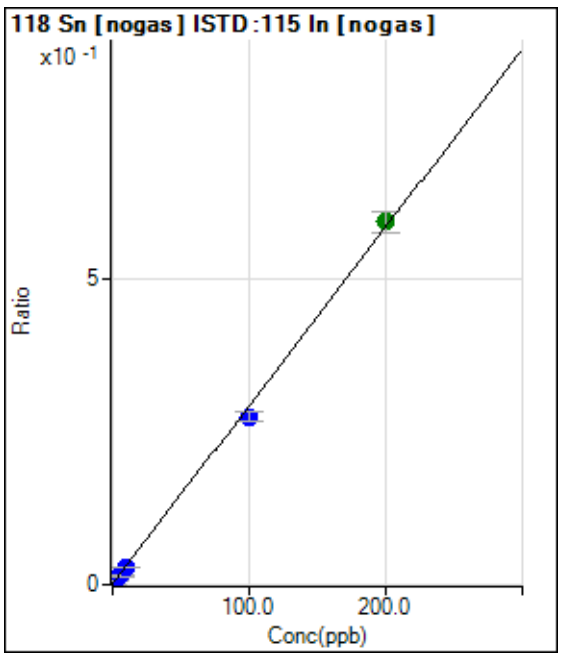
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.00	0.0000	P	101.
2	☐	2.000	2.012	7911.90	0.0022	P	2.3
3	☐	5.000	4.974	19818.01	0.0053	P	0.6
4	☐	10.000	9.773	40153.03	0.0104	P	1.9
5	☐	100.000	95.653	378880.16	0.1020	P	4.6
6	☐	200.000	202.185	756417.36	0.2156	P	4.5
7	☐	1.000					

y = 0.0011 * x + 5.2239E-006
R = 0.9997
DL = 0.01498
BEC = 0.004899

Weight: <None>
Min Conc: <None>



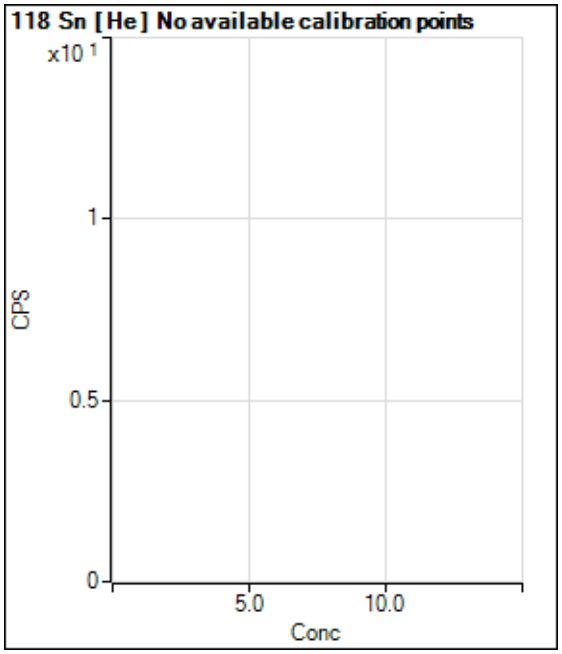
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1427336.76		A	2.2
2	☐			1423932.78		A	0.9
3	☐			1431914.18		A	2.9
4	☐			1454318.61		A	1.4
5	☐			1399248.68		A	1.6
6	☐			1270824.63		M	3.2
7	☐						



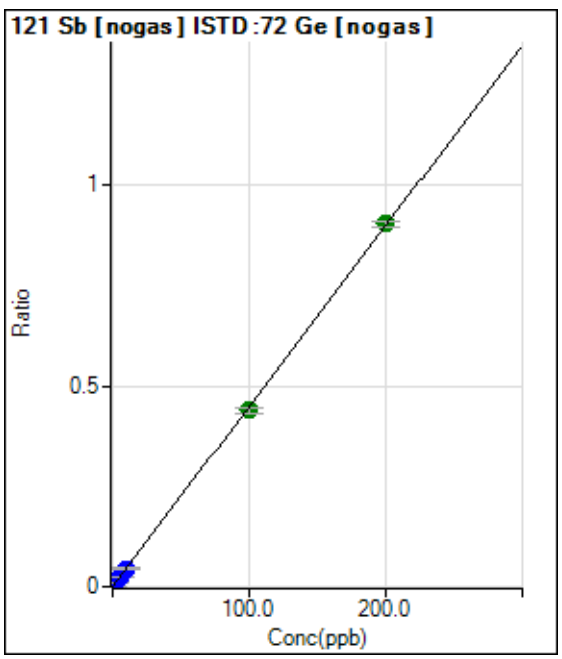
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5307.65	0.0014	P	6.2
2	☐	2.000	1.601	22194.31	0.0060	P	1.9
3	☐	5.000	4.522	54317.71	0.0146	P	5.3
4	☐	10.000	9.483	111913.40	0.0291	P	3.1
5	☐	100.000	93.889	1024233.58	0.2758	P	4.9
6	☐	200.000	203.097	2086268.51	0.5950	A	6.1
7	☐	1.000					

y = 0.0029 * x + 0.0014
R = 0.9994
DL = 0.08543
BEC = 0.4629

Weight: <None>
Min Conc: <None>



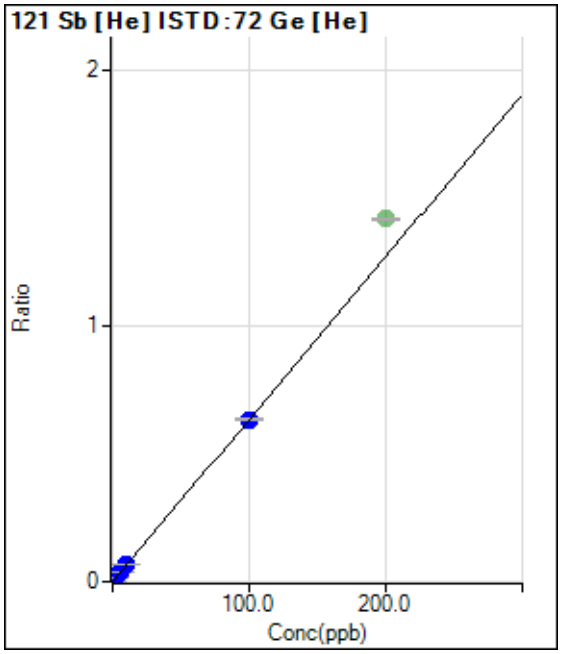
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2316.93		P	8.2
2	☐			9345.98		P	1.2
3	☐			22855.10		P	2.0
4	☐			46090.90		P	3.3
5	☐			423969.32		P	1.7
6	☐			835968.63		P	0.8
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1146.72	0.0003	P	5.4
2	☐	2.000	1.943	35526.33	0.0090	P	0.3
3	☐	5.000	4.799	85059.21	0.0218	P	1.3
4	☐	10.000	9.970	176928.29	0.0451	P	2.6
5	☐	100.000	97.583	1744774.40	0.4387	A	2.8
6	☐	200.000	201.216	3403628.08	0.9043	A	1.9
7	☐	1.000					

y = 0.0045 * x + 2.7452E-004
R = 0.9999
DL = 0.009907
BEC = 0.0611

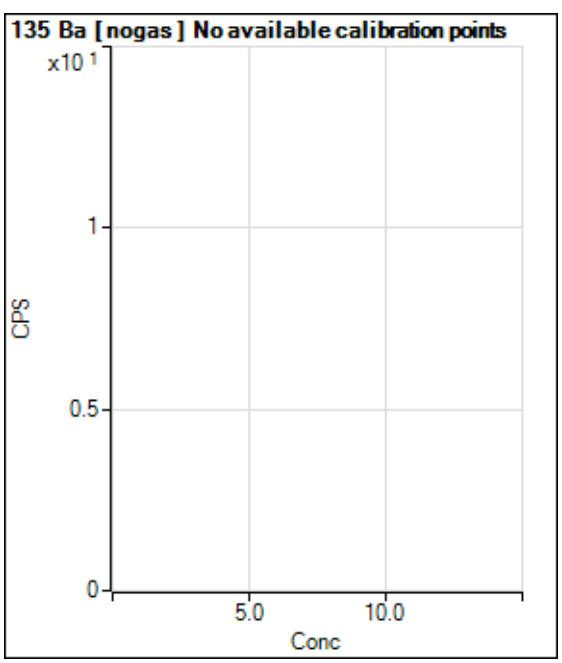
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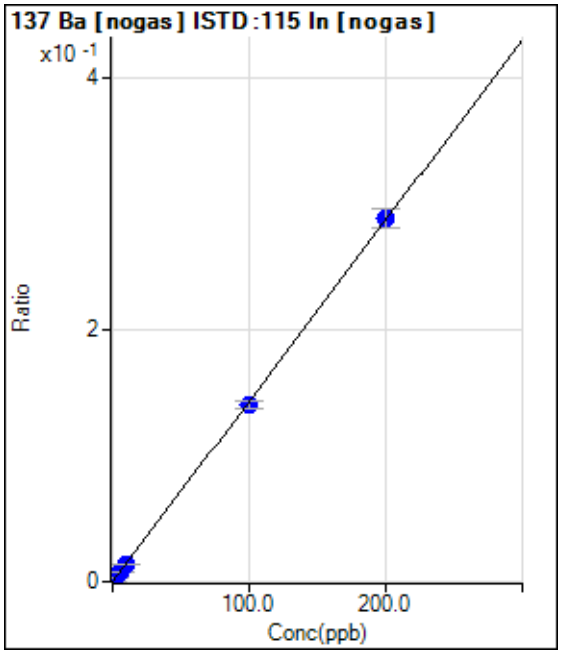
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	480.02	0.0004	P	13.5
2	☐	2.000	2.180	15146.79	0.0143	P	1.7
3	☐	5.000	5.303	36608.70	0.0341	P	1.3
4	☐	10.000	10.716	73001.79	0.0684	P	0.6
5	☐	100.000	99.910	674208.30	0.6343	P	1.0
6	☑	200.000		1427368.31	1.4178	A	0.7
7	☐	1.000					

y = 0.0063 * x + 4.4695E-004
R = 1.0000
DL = 0.02859
BEC = 0.07045

Weight: <None>
Min Conc: <None>



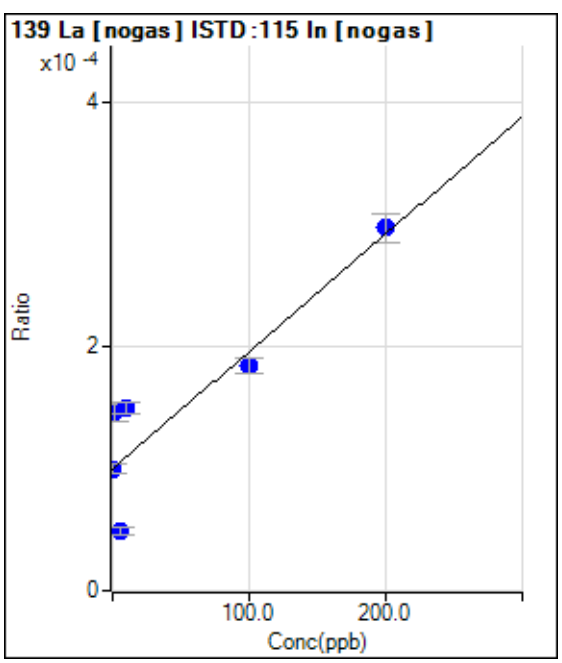
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			160.00		P	33.1
2	☐			6861.47		P	2.7
3	☐			15500.47		P	0.7
4	☐			31692.76		P	1.5
5	☐			295558.53		P	1.3
6	☐			581585.68		P	0.9
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	280.01	0.0001	P	10.0
2	☐	2.000	2.089	11287.17	0.0031	P	6.2
3	☐	5.000	5.000	27061.32	0.0073	P	2.4
4	☐	10.000	9.826	54583.41	0.0142	P	3.7
5	☐	100.000	98.190	524062.54	0.1411	P	4.2
6	☐	200.000	200.913	1012148.06	0.2886	P	5.3
7	☐	1.000					

y = 0.0014 * x + 7.1597E-005
R = 0.9999
DL = 0.0149
BEC = 0.04986

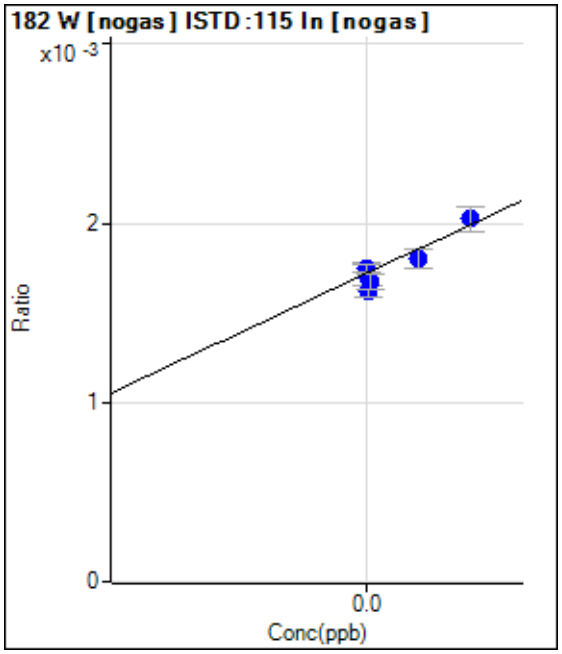
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	393.34	0.0001	P	6.8
2	☐	2.000	48.099	540.02	0.0001	P	9.7
3	☐	5.000	-52.900	183.34	0.0000	P	14.3
4	☐	10.000	52.057	580.02	0.0002	P	6.5
5	☐	100.000	87.373	686.69	0.0002	P	6.8
6	☐	200.000	205.197	1043.38	0.0003	P	7.7
7	☐	1.000					

y = 9.6237E-007 * x + 1.0018E-004
R = 0.8997
DL = 21.37
BEC = 104.1

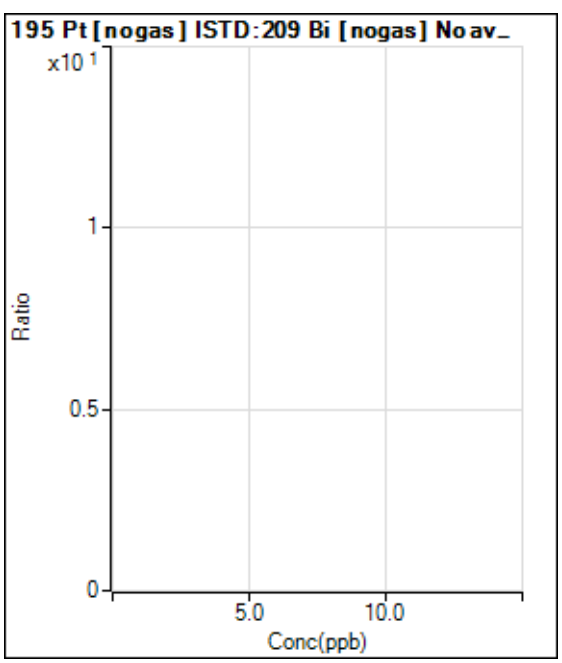
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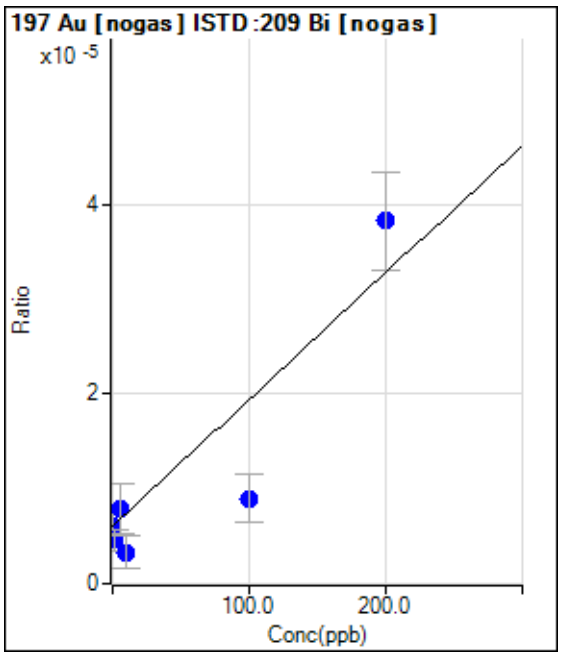
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6728.15	0.0017	P	7.8
2	☐	2.000	21.807	6434.69	0.0017	P	2.8
3	☐	5.000	-71.810	6041.20	0.0016	P	4.2
4	☐	10.000	-33.192	6438.01	0.0017	P	5.0
5	☐	100.000	60.392	6684.80	0.0018	P	6.2
6	☐	200.000	223.686	7091.60	0.0020	P	7.2
7	☐	1.000					

y = 1.3650E-006 * x + 0.0017
R = 0.9334
DL = 293.2
BEC = 1259

Weight: <None>
Min Conc: <None>



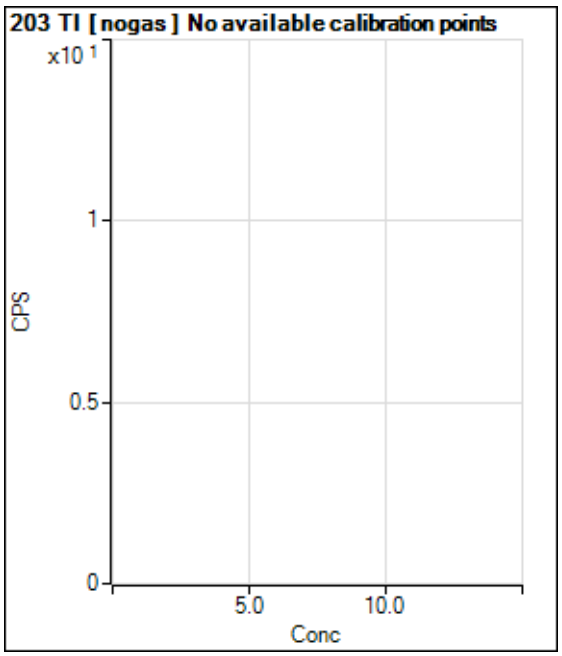
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



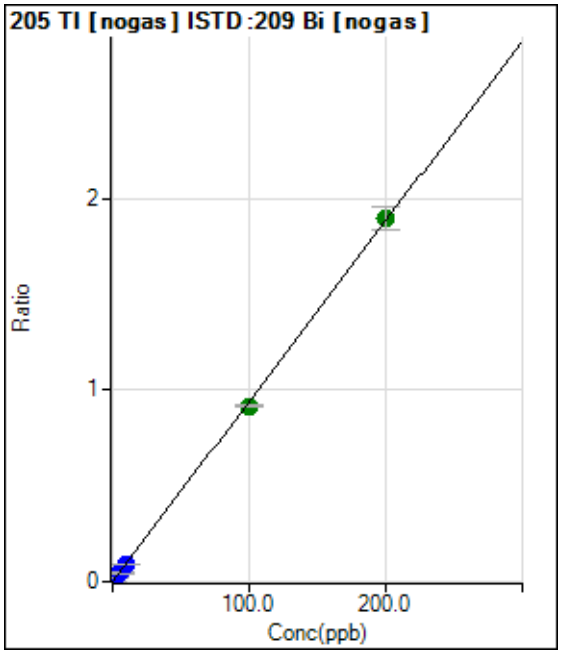
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	72.9
2	☐	2.000	-11.200	13.33	0.0000	P	45.8
3	☐	5.000	13.348	23.33	0.0000	P	67.9
4	☐	10.000	-20.416	10.00	0.0000	P	99.7
5	☐	100.000	21.612	26.67	0.0000	P	56.5
6	☐	200.000	240.638	106.67	0.0000	P	27.2
7	☐	1.000					

y = 1.3395E-007 * x + 6.0704E-006
R = 0.9191
DL = 99.14
BEC = 45.32

Weight: <None>
Min Conc: <None>



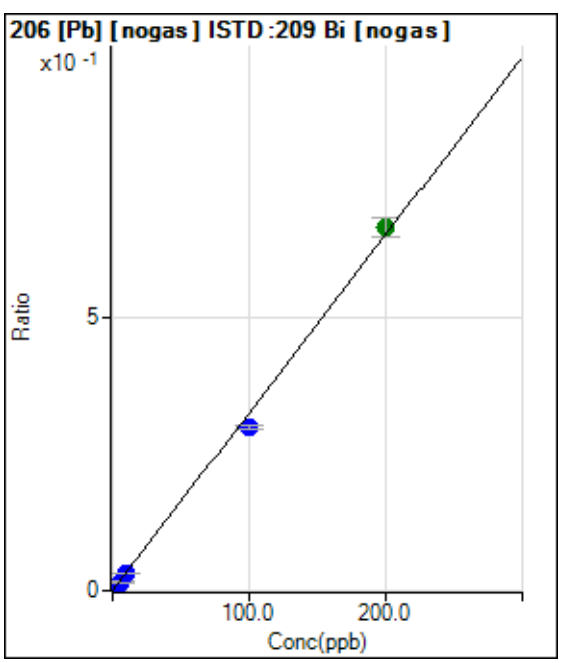
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1	☐			150.00		P	37.1
2	☐			23183.41		P	0.6
3	☐			57280.70		P	3.2
4	☐			116560.46		P	0.8
5	☐			1086574.07		P	0.2
6	☐			2215778.72		A	1.0
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	250.01	0.0001	P	14.4
2	☐	2.000	1.902	52742.19	0.0180	P	3.9
3	☐	5.000	4.816	136067.23	0.0453	P	5.2
4	☐	10.000	9.666	271900.76	0.0909	P	1.4
5	☐	100.000	97.359	2717890.17	0.9151	A	1.5
6	☐	200.000	201.343	5299936.69	1.8923	A	6.5
7	☐	1.000					

y = 0.0094 * x + 8.9758E-005
R = 0.9999
DL = 0.004136
BEC = 0.009551

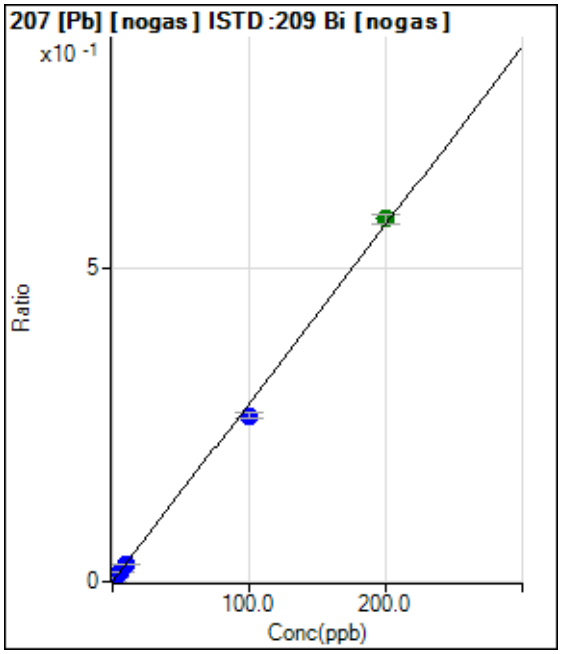
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	426.68	0.0002	P	6.5
2	☐	2.000	1.958	19134.69	0.0065	P	1.1
3	☐	5.000	4.784	47091.41	0.0157	P	4.1
4	☐	10.000	9.543	93124.62	0.0311	P	1.6
5	☐	100.000	92.091	888433.42	0.2992	P	3.0
6	☐	200.000	203.983	1856485.70	0.6626	A	5.4
7	☐	1.000					

y = 0.0032 * x + 1.5250E-004
R = 0.9989
DL = 0.009126
BEC = 0.04696

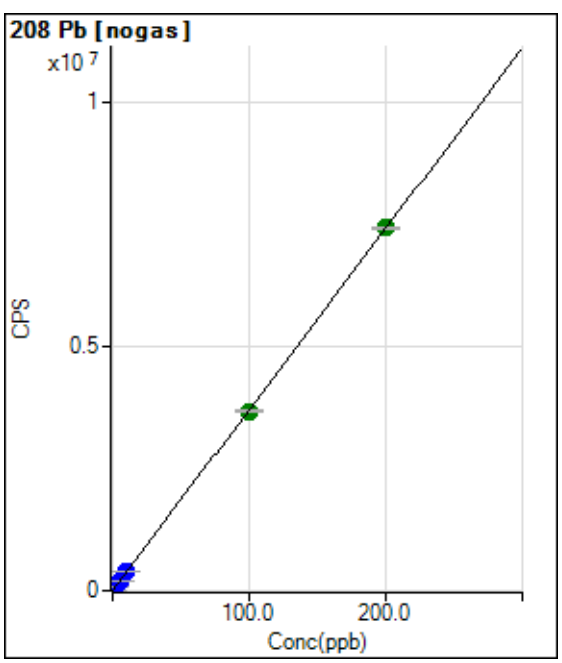
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	416.68	0.0001	P	8.7
2	☐	2.000	1.932	16555.33	0.0056	P	3.0
3	☐	5.000	4.880	42074.76	0.0140	P	2.0
4	☐	10.000	9.562	81687.87	0.0273	P	2.0
5	☐	100.000	93.200	786628.30	0.2650	P	3.3
6	☐	200.000	203.426	1621324.14	0.5782	A	2.6
7	☐	1.000					

y = 0.0028 * x + 1.4885E-004
R = 0.9992
DL = 0.01365
BEC = 0.05238

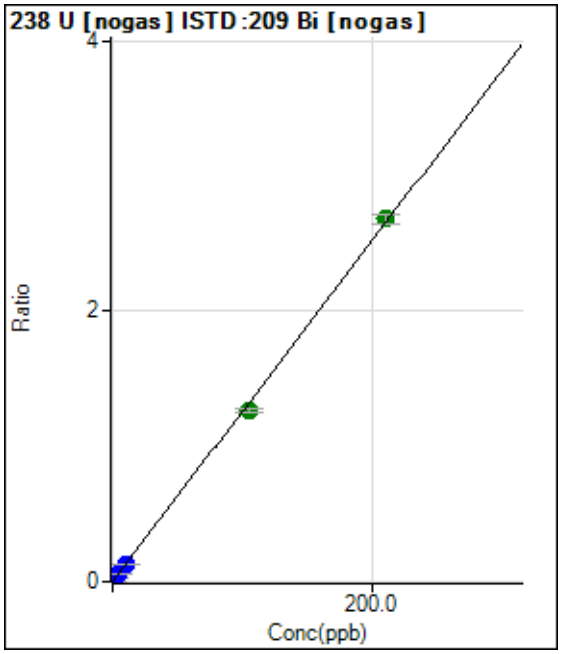
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1676.73		P	3.1
2	☐	2.000	2.006	75866.62		P	0.7
3	☐	5.000	5.104	190456.87		P	1.2
4	☐	10.000	10.107	375487.63		P	0.4
5	☐	100.000	98.929	3660534.87		A	1.3
6	☐	200.000	200.527	7418085.41		A	0.9
7	☐	1.000					

y = 36984.5387 * x + 1676.7267
R = 1.0000
DL = 0.004163
BEC = 0.04534

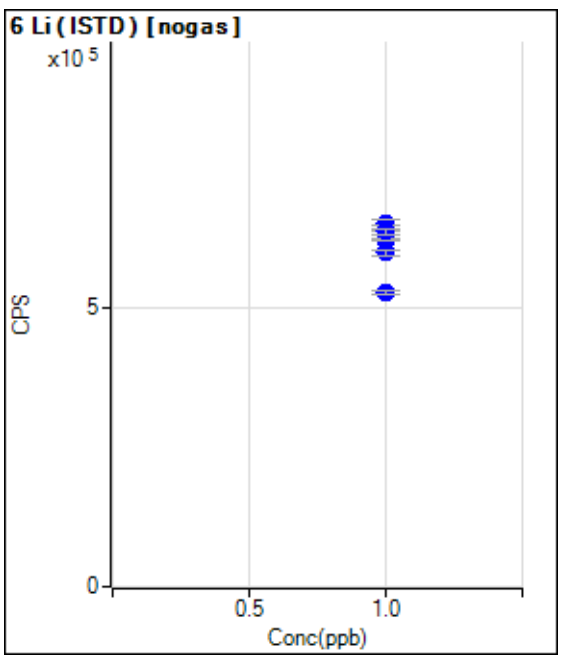
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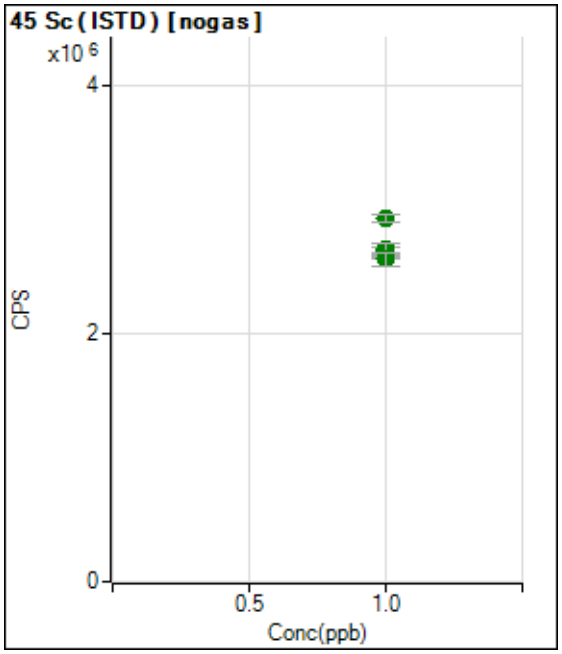
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1	☐	0.000	0.000	406.68	0.0001	P	31.0
2	☐	2.000	1.953	72913.98	0.0248	P	0.9
3	☐	5.000	4.790	182228.95	0.0607	P	2.4
4	☐	10.000	9.938	375990.49	0.1257	P	0.3
5	☐	105.000	100.153	3758909.74	1.2659	A	1.6
6	☐	210.000	212.432	7528159.26	2.6849	A	2.5
7	☐	1.000					

y = 0.0126 * x + 1.4687E-004
R = 0.9996
DL = 0.01082
BEC = 0.01162

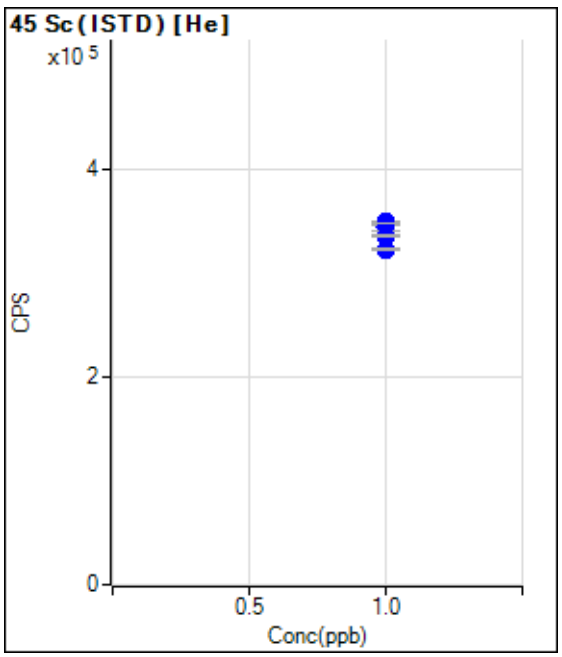
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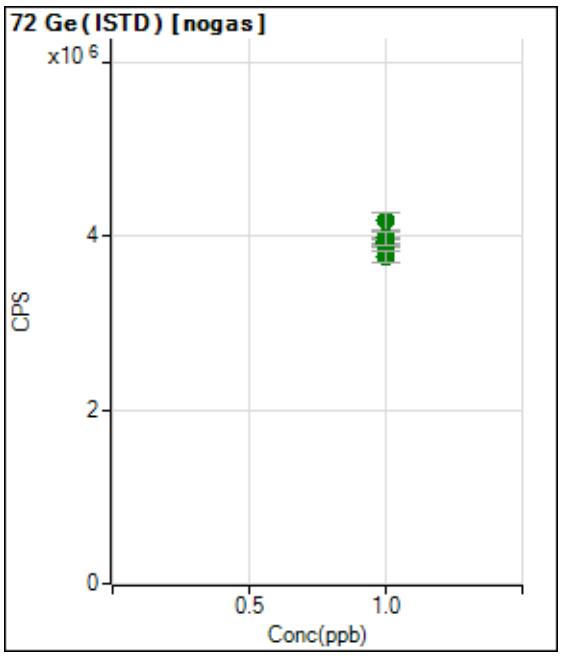
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2	☐	1.000		642218.62		P	1.7
3	☐	1.000		621955.48		P	0.7
4	☐	1.000		636492.88		P	1.2
5	☐	1.000		598621.12		P	2.1
6	☐	1.000		526597.86		P	1.3
7	☐	1.000					



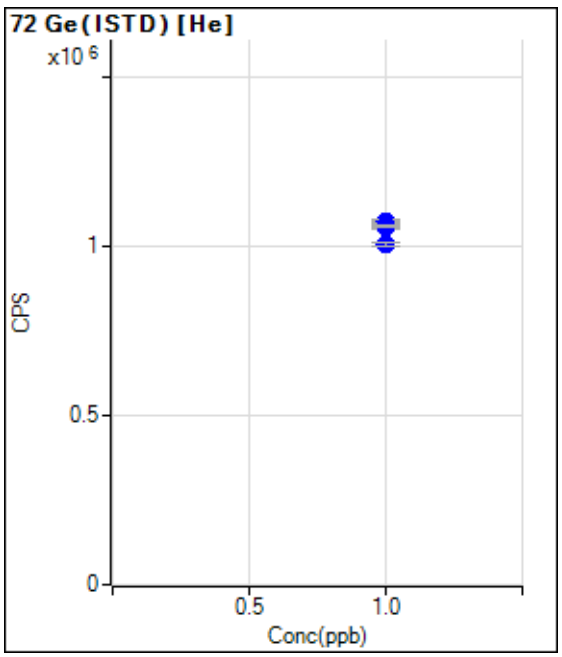
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2920072.77		A	2.2
2	☐	1.000		2648379.02		A	3.1
3	☐	1.000		2624662.72		A	0.5
4	☐	1.000		2663424.33		A	4.2
5	☐	1.000		2682908.66		A	2.6
6	☐	1.000		2594152.20		A	4.0
7	☐	1.000					



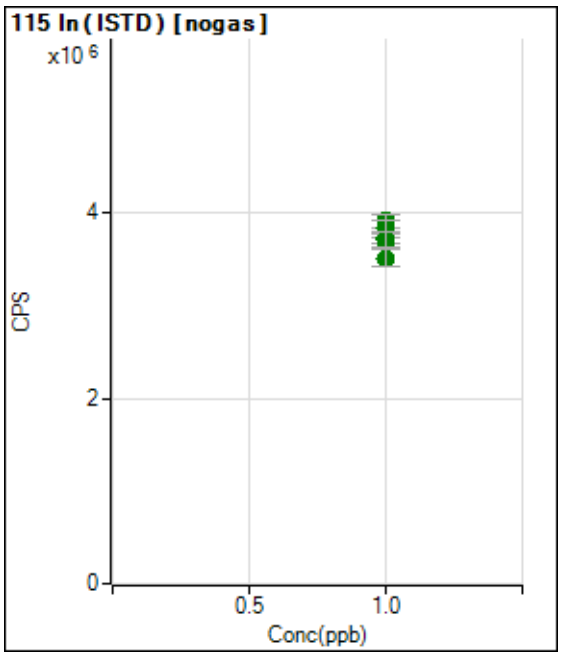
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		348586.68		P	0.3
2	☐	1.000		350073.37		P	0.5
3	☐	1.000		344716.55		P	1.8
4	☐	1.000		348600.93		P	0.2
5	☐	1.000		336657.61		P	0.8
6	☐	1.000		323711.25		P	0.4
7	☐	1.000					



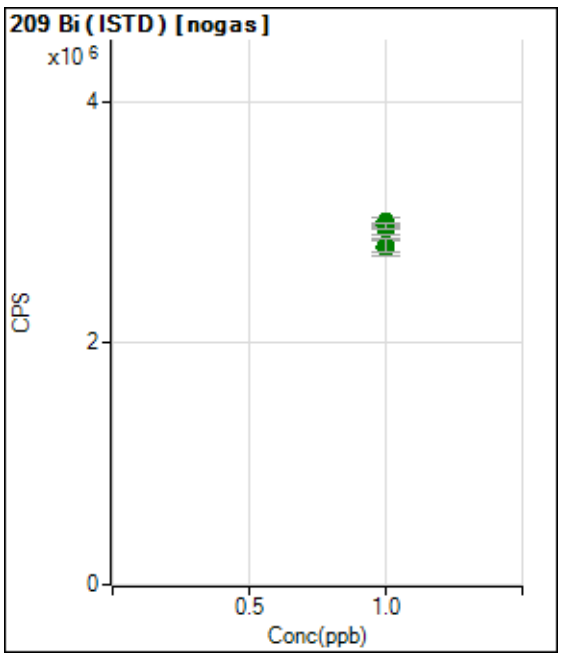
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4176569.73		A	4.7
2	☐	1.000		3946216.82		A	1.5
3	☐	1.000		3896147.75		A	1.1
4	☐	1.000		3926314.84		A	1.6
5	☐	1.000		3975310.25		A	3.5
6	☐	1.000		3765505.78		A	3.3
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1073881.26		P	0.3
2	☐	1.000		1060856.26		P	1.2
3	☐	1.000		1073978.21		P	1.1
4	☐	1.000		1066802.59		P	1.0
5	☐	1.000		1062984.75		P	0.5
6	☐	1.000		1006696.63		P	0.9
7	☐	1.000					



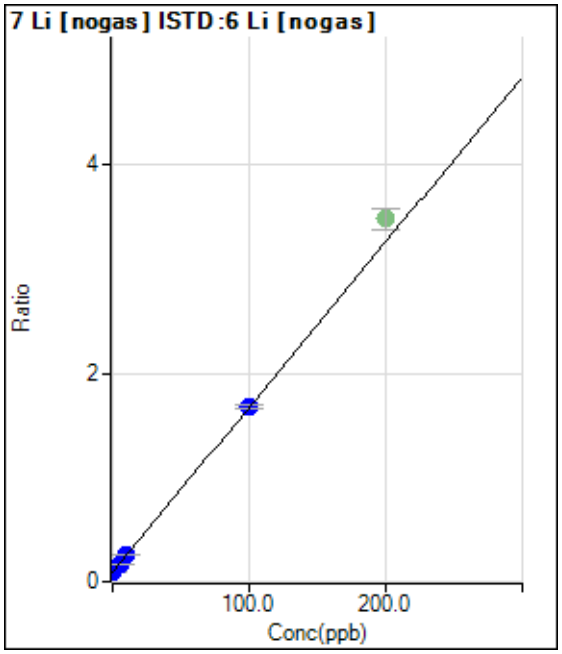
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
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2	☐	1.000		3679661.62		A	3.3
3	☐	1.000		3732528.04		A	3.4
4	☐	1.000		3852815.55		A	4.1
5	☐	1.000		3719814.43		A	4.8
6	☐	1.000		3514058.86		A	5.4
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2792486.83		A	4.5
2	☐	1.000		2937428.81		A	2.7
3	☐	1.000		3003106.72		A	2.5
4	☐	1.000		2990147.14		A	0.5
5	☐	1.000		2970006.00		A	2.0
6	☐	1.000		2805856.52		A	4.2
7	☐	1.000					

Batch Folder: C:\Agilent\ICPMH\1\DATA\090618A.b\
Analysis File: 090618A.batch.bin
DA Date-Time: 2018-09-06 16:05:01
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

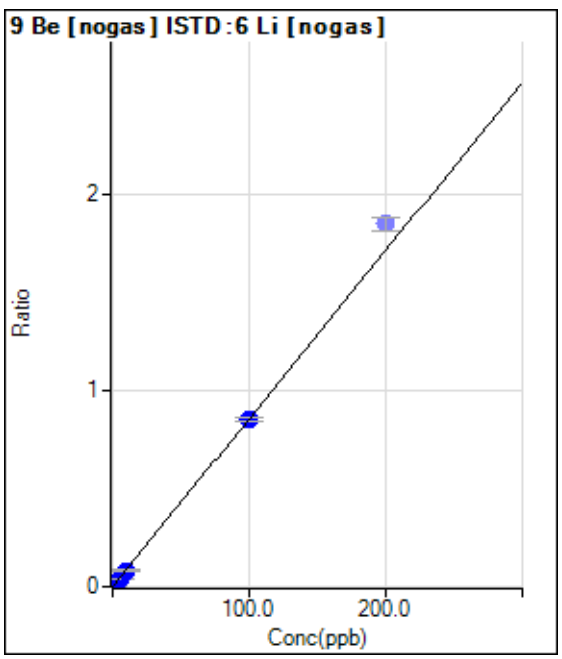
Level	Standard Data File	Sample Name	Acq. Date-Time
1	092CALB.d	CAL BLK	2018-09-06 15:40:30
2	093CALS.d	2/10/200	2018-09-06 15:42:30
3	094CALS.d	5/25/500	2018-09-06 15:44:29
4	095CALS.d	10/50/1000	2018-09-06 15:46:28
5	096CALS.d	100/500/10K	2018-09-06 15:48:27
6	099CALS.d	200/1000/20K	2018-09-06 15:55:07
7			



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	45931.96	0.0919	P	3.4
2	☐	2.000	2.139	61531.70	0.1258	P	4.6
3	☐	5.000	4.965	84345.39	0.1706	P	1.8
4	☐	10.000	10.175	123213.36	0.2531	P	0.9
5	☐	100.000	99.982	748207.62	1.6767	P	1.8
6	☑	200.000		1336529.90	3.4857	A	5.7
7	☐	1.000					

y = 0.0159 * x + 0.0919
R = 1.0000
DL = 0.5874
BEC = 5.795

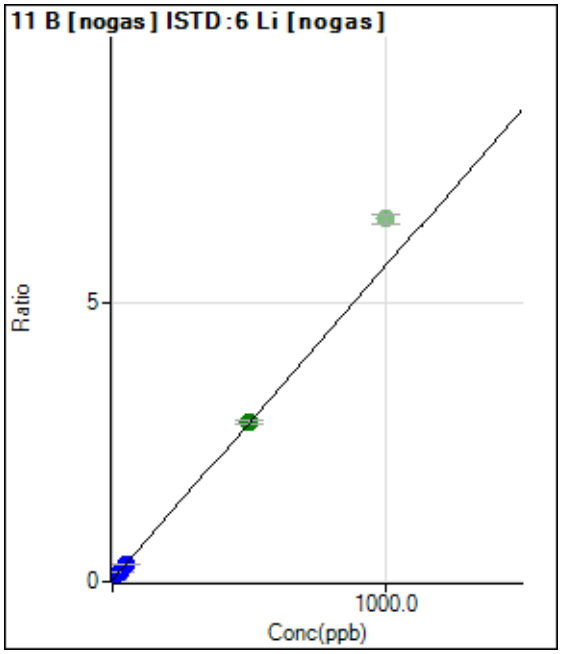
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	58.1
2	☐	2.000	2.007	8475.32	0.0173	P	8.4
3	☐	5.000	4.862	20657.98	0.0418	P	6.4
4	☐	10.000	9.707	40573.04	0.0834	P	1.8
5	☐	100.000	100.036	382821.79	0.8579	P	2.1
6	☑	200.000		710207.41	1.8515	P	3.4
7	☐	1.000					

y = 0.0086 * x + 1.3425E-004
R = 1.0000
DL = 0.02727
BEC = 0.01566

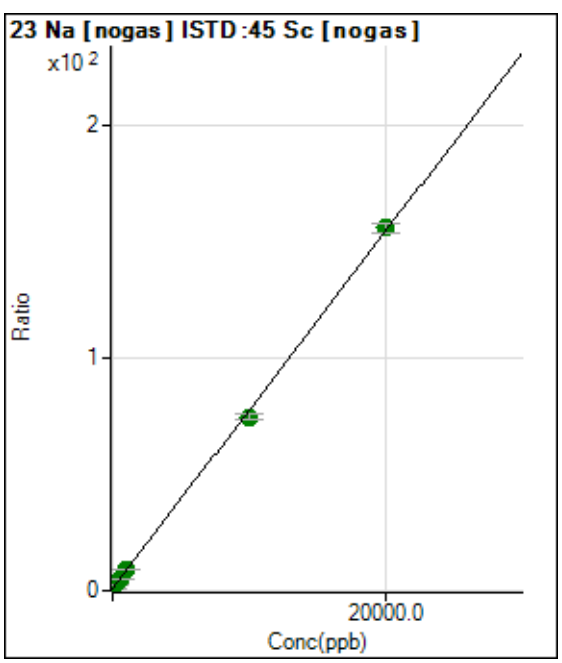
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19106.42	0.0383	P	5.6
2	☐	10.000	9.601	45073.35	0.0923	P	9.7
3	☐	25.000	23.893	85336.30	0.1727	P	5.8
4	☐	50.000	48.598	151749.66	0.3118	P	1.9
5	☐	500.000	500.204	1273376.73	2.8535	A	2.6
6	☑	1000.000		2498836.58	6.5134	A	2.7
7	☐	5.000					

y = 0.0056 * x + 0.0383
R = 1.0000
DL = 1.135
BEC = 6.802

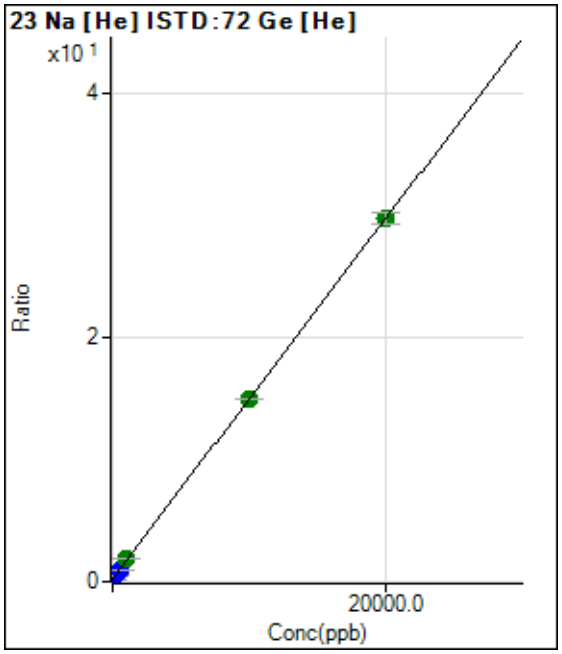
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2412488.79	0.8771	A	4.6
2	☐	200.000	209.431	6645909.52	2.4871	A	5.2
3	☐	500.000	516.448	13239279.47	4.8473	A	1.6
4	☐	1000.000	1033.824	24164481.27	8.8247	A	1.2
5	☐	10000.00	9601.282	202714179.5	74.6879	A	3.2
6	☐	20000.00	20197.162	392313042.1	156.144	A	2.8
7	☐	100.000					

y = 0.0077 * x + 0.8771
R = 0.9997
DL = 15.66
BEC = 114.1

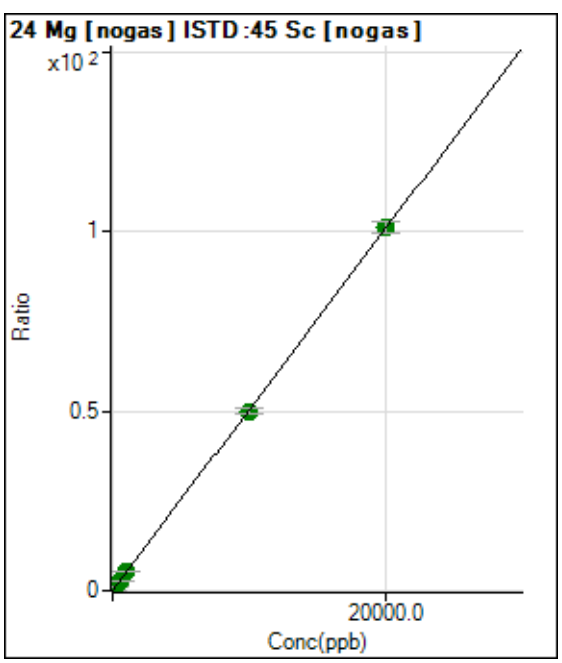
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	227955.36	0.2144	P	0.9
2	☐	200.000	205.852	557910.66	0.5180	P	3.2
3	☐	500.000	539.111	1054009.28	1.0094	P	0.3
4	☐	1000.000	1124.244	1923064.71	1.8723	A	1.0
5	☐	10000.00	9995.573	15312365.60	14.9549	A	0.8
6	☐	20000.00	19994.965	29567227.06	29.7011	A	3.1
7	☐	100.000					

y = 0.0015 * x + 0.2144
R = 1.0000
DL = 3.982
BEC = 145.4

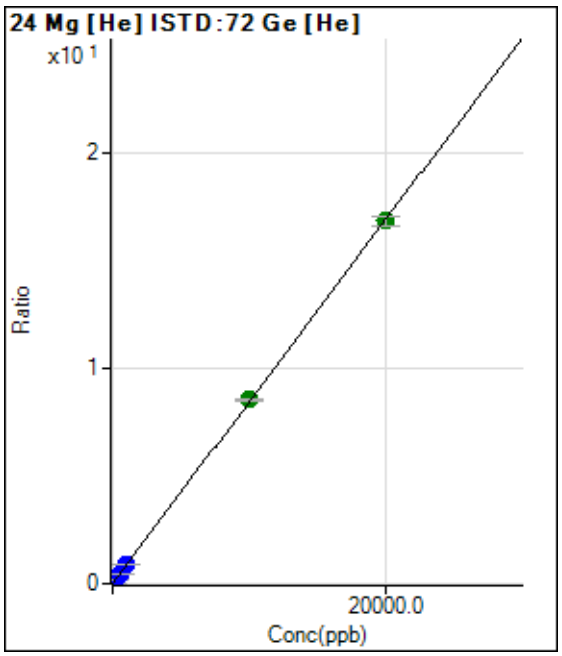
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26254.76	0.0095	P	5.1
2	☐	200.000	222.862	3031818.30	1.1334	A	2.6
3	☐	500.000	550.729	7611118.92	2.7869	A	0.2
4	☐	1000.000	1080.588	14946585.75	5.4589	A	2.1
5	☐	10000.00	9901.101	135553353.0	49.9407	A	3.4
6	☐	20000.00	20043.923	253965930.6	101.090	A	3.3
7	☐	100.000					

y = 0.0050 * x + 0.0095
R = 1.0000
DL = 0.2875
BEC = 1.892

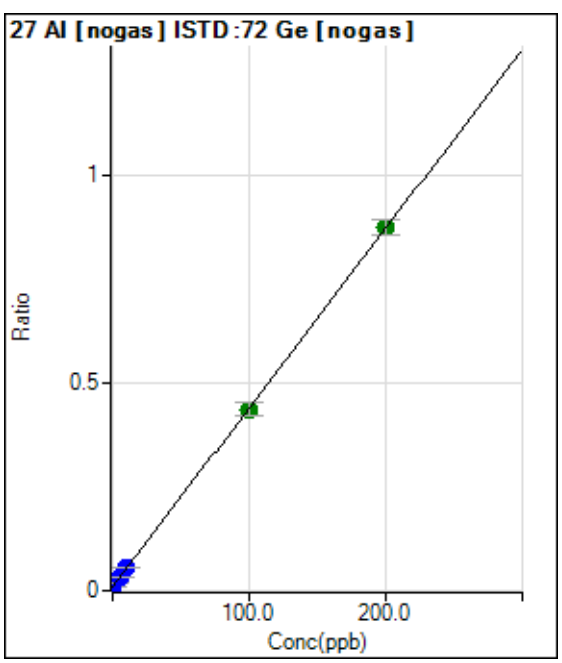
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2130.16	0.0020	P	6.9
2	☐	200.000	210.901	194299.88	0.1803	P	1.8
3	☐	500.000	538.313	477361.82	0.4572	P	0.2
4	☐	1000.000	1087.374	946398.37	0.9214	P	1.4
5	☐	10000.00	10105.070	8750559.66	8.5464	A	0.9
6	☐	20000.00	19942.030	16788260.58	16.8640	A	2.4
7	☐	100.000					

y = 8.4555E-004 * x + 0.0020
R = 1.0000
DL = 0.4901
BEC = 2.369

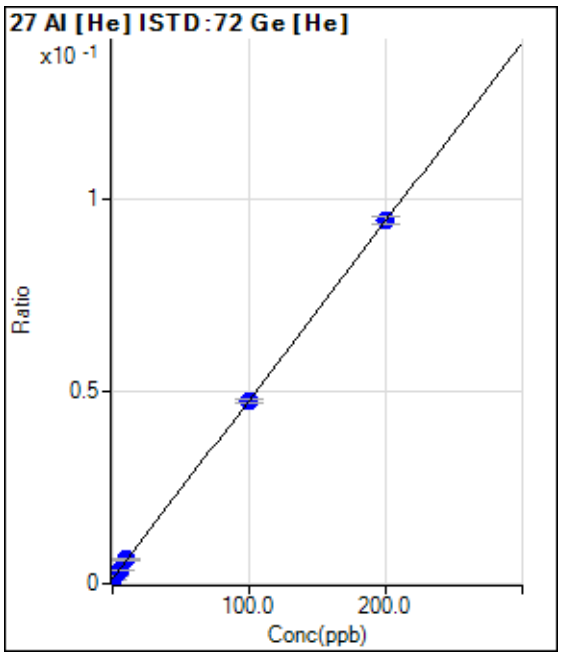
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36331.72	0.0090	P	2.0
2	☐	2.000	2.799	86241.99	0.0210	P	19.6
3	☐	5.000	5.436	132160.24	0.0324	P	2.5
4	☐	10.000	10.746	224022.48	0.0552	P	3.7
5	☐	100.000	99.087	1732159.30	0.4355	A	7.0
6	☐	200.000	200.400	3246761.41	0.8715	A	4.3
7	☐	1.000					

y = 0.0043 * x + 0.0090
R = 1.0000
DL = 0.1252
BEC = 2.085

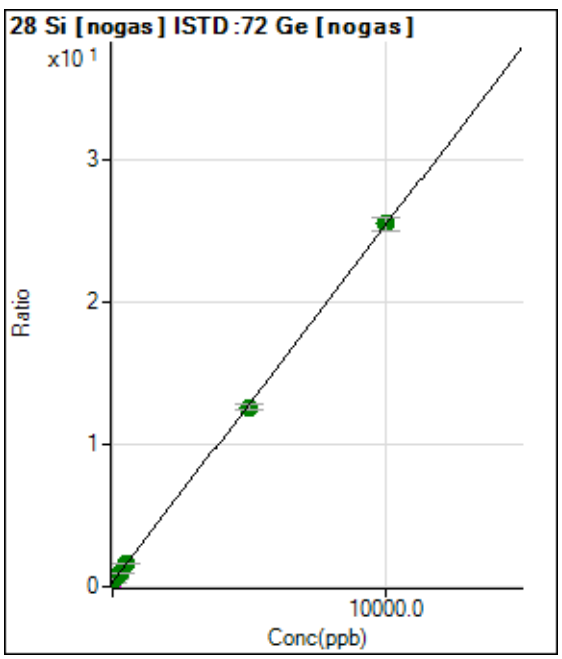
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.552	1070.05	0.0010	P	14.7
2	☐	2.000	1.814	2276.84	0.0021	P	10.2
3	☐	5.000	4.892	3697.09	0.0035	P	3.8
4	☐	10.000	11.163	6637.94	0.0065	P	6.7
5	☐	100.000	99.473	48716.52	0.0476	P	1.9
6	☐	200.000	200.210	94059.70	0.0945	P	2.3
7	☐	1.000					

y = 4.6562E-004 * x + 0.0013
R = 1.0000
DL = 0.9529
BEC = 2.714

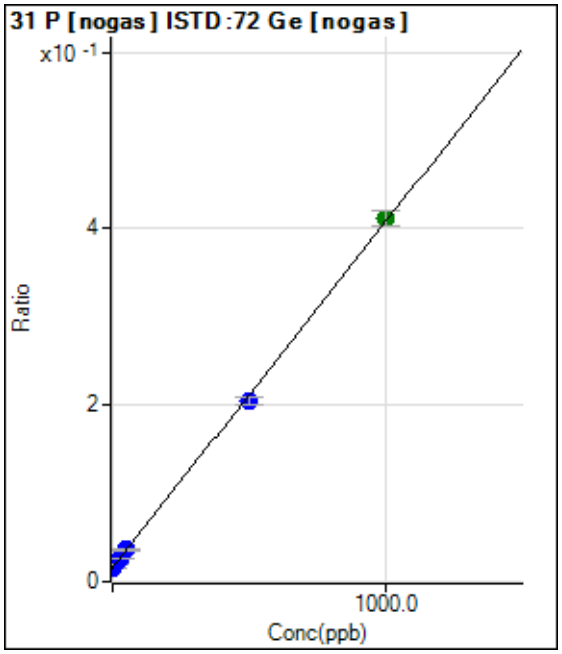
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1254702.33	0.3103	M	11.8
2	☐	100.000	108.076	2387712.72	0.5815	A	3.5
3	☐	250.000	265.914	3991812.54	0.9777	A	1.6
4	☐	500.000	523.082	6582399.48	1.6231	A	4.8
5	☐	5000.000	4906.841	50258817.58	12.6256	A	3.5
6	☐	10000.00	10044.947	95076861.92	25.5214	A	3.4
7	☐	5.000					

y = 0.0025 * x + 0.3103
R = 0.9999
DL = 43.65
BEC = 123.6

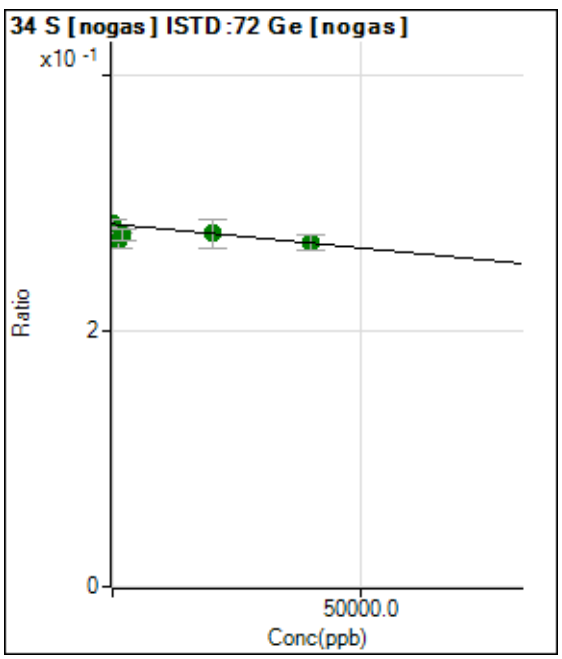
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	65152.46	0.0161	P	0.8
2	☐	10.000	10.734	83346.39	0.0203	P	2.6
3	☐	25.000	26.928	108754.10	0.0266	P	1.4
4	☐	50.000	52.455	148569.00	0.0366	P	4.0
5	☐	500.000	482.399	815825.35	0.2050	P	3.7
6	☐	1000.000	1008.622	1530772.01	0.4110	A	4.2
7	☐	5.000					

y = 3.9150E-004 * x + 0.0161
R = 0.9998
DL = 1.036
BEC = 41.11

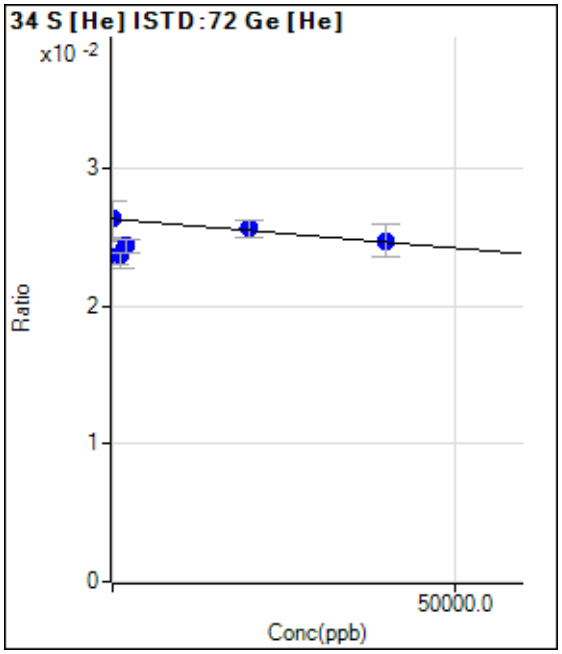
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1147309.43	0.2834	A	2.7
2	☐	400.000	19246.500	1134055.75	0.2762	A	3.4
3	☐	1000.000	35759.861	1102041.82	0.2700	A	4.5
4	☐	2000.000	22431.188	1115598.40	0.2750	A	2.9
5	☐	20000.00	20293.619	1096641.04	0.2758	A	8.6
6	☐	40000.00	37774.169	1002781.40	0.2692	A	4.3
7	☐	100.000					

y = -3.7605E-007 * x + 0.2834
R = -0.5143
DL = -6.016E+04
BEC = -7.537E+05

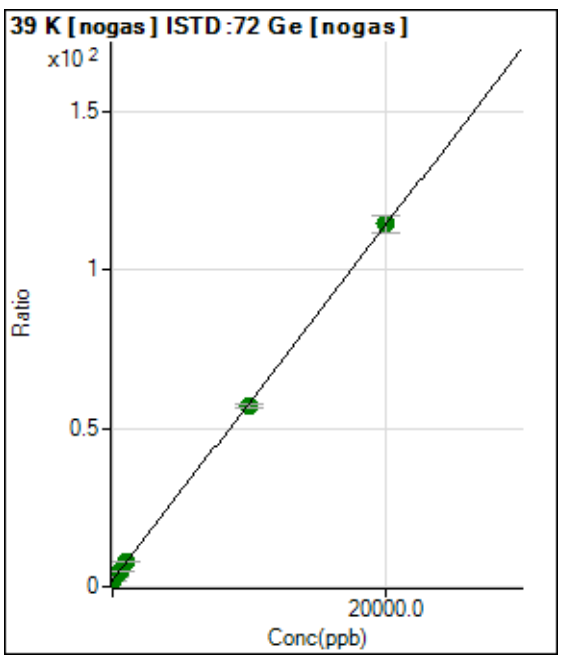
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	28024.97	0.0264	P	10.1
2	☐	400.000	66190.880	25388.48	0.0236	P	4.0
3	☐	1000.000	61485.223	24820.82	0.0238	P	8.2
4	☐	2000.000	46496.348	25054.15	0.0244	P	4.4
5	☐	20000.00	16211.633	26290.36	0.0257	P	4.8
6	☐	40000.00	37499.327	24687.90	0.0248	P	9.6
7	☐	100.000					

y = -4.2244E-008 * x + 0.0264
R = 0.1908
DL = -1.886E+05
BEC = -6.24E+05

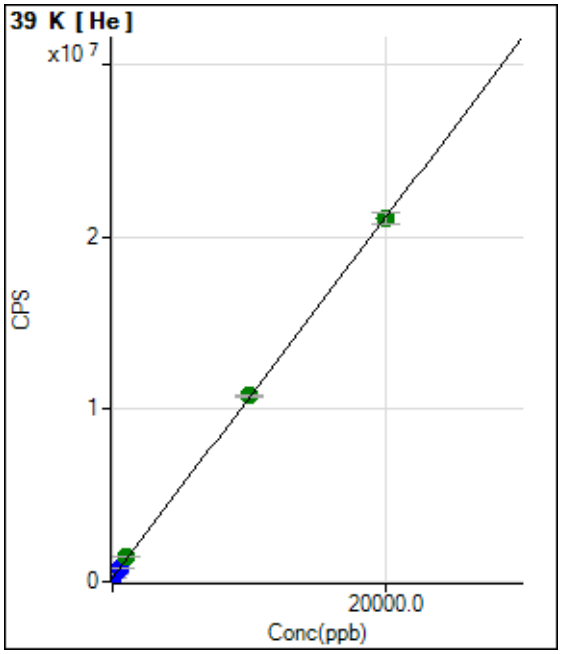
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8084701.22	1.9974	A	2.0
2	☐	200.000	208.560	12994313.57	3.1646	A	3.2
3	☐	500.000	520.003	20036348.89	4.9075	A	1.9
4	☐	1000.000	1068.056	32349896.56	7.9746	A	3.3
5	☐	10000.00	9829.901	226982980.0	57.0092	A	2.5
6	☐	20000.00	20081.061	425964342.8	114.378	A	5.0
7	☐	100.000					

y = 0.0056 * x + 1.9974
R = 0.9999
DL = 21.68
BEC = 356.9

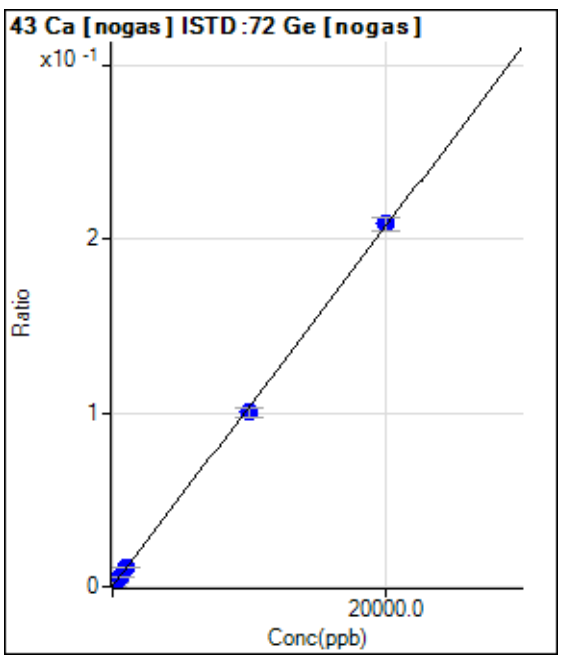
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	233442.42		P	1.5
2	☐	200.000	214.466	457654.02		P	1.0
3	☐	500.000	540.123	798108.74		P	0.7
4	☐	1000.000	1144.225	1429660.91		A	0.1
5	☐	10000.00	10129.697	10823434.42		A	0.9
6	☐	20000.00	19926.793	21065712.19		A	3.3
7	☐	100.000					

y = 1045.4402 * x + 233442.4167
R = 1.0000
DL = 9.957
BEC = 223.3

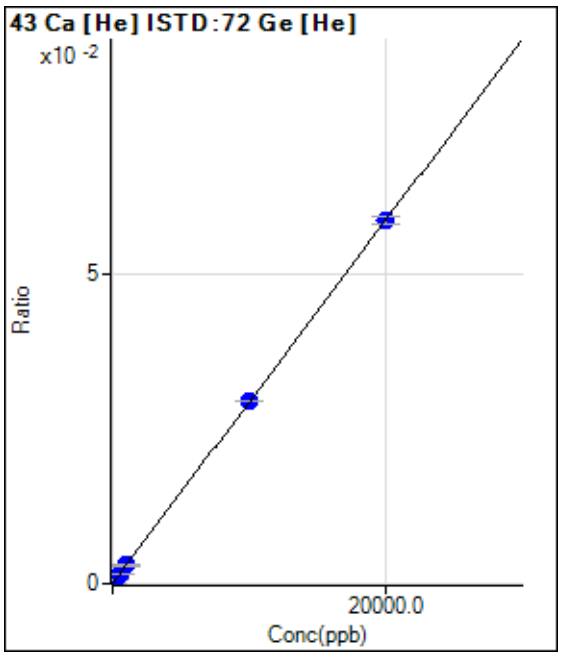
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	840.03	0.0002	P	28.2
2	☐	200.000	210.731	9806.08	0.0024	P	2.4
3	☐	500.000	523.762	22967.77	0.0056	P	2.7
4	☐	1000.000	1073.950	45916.91	0.0113	P	2.7
5	☐	10000.00	9662.508	398561.61	0.1002	P	5.4
6	☐	20000.00	20164.347	777806.14	0.2088	P	3.7
7	☐	100.000					

y = 1.0344E-005 * x + 2.0779E-004
R = 0.9998
DL = 16.99
BEC = 20.09

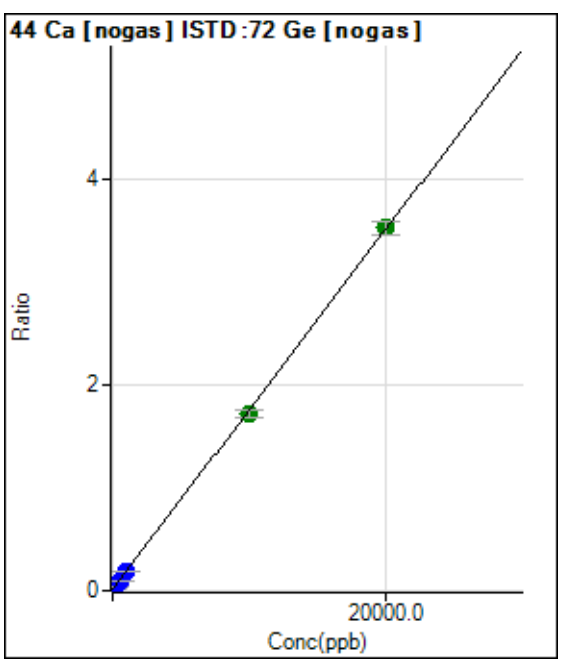
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40.00	0.0000	P	43.2
2	☐	200.000	189.904	636.69	0.0006	P	12.8
3	☐	500.000	539.160	1683.44	0.0016	P	5.7
4	☐	1000.000	1038.156	3153.66	0.0031	P	9.0
5	☐	10000.00	10020.520	30011.07	0.0293	P	0.2
6	☐	20000.00	19986.954	58170.62	0.0584	P	2.1
7	☐	100.000					

y = 2.9213E-006 * x + 3.7613E-005
R = 1.0000
DL = 16.69
BEC = 12.88

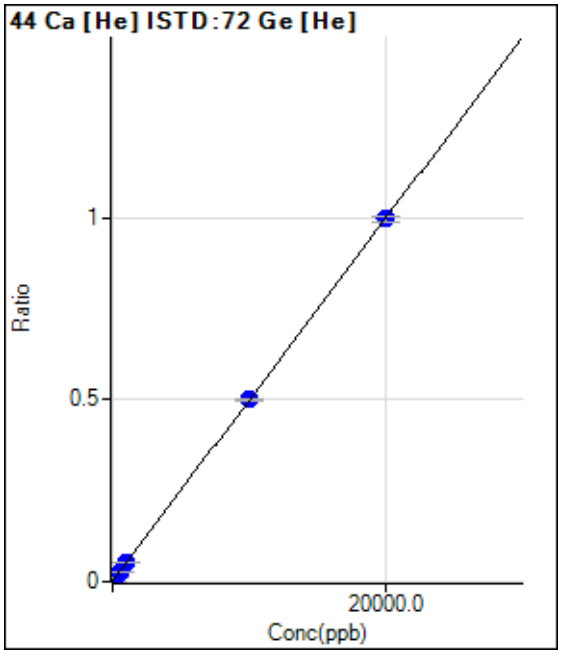
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42772.33	0.0106	P	1.2
2	☐	200.000	201.923	188092.32	0.0458	P	2.9
3	☐	500.000	508.433	405438.97	0.0993	P	1.2
4	☐	1000.000	1033.766	774910.01	0.1910	P	2.3
5	☐	10000.00	9794.990	6846226.77	1.7200	A	4.1
6	☐	20000.00	20100.587	13107478.14	3.5186	A	3.7
7	☐	100.000					

y = 1.7453E-004 * x + 0.0106
R = 0.9999
DL = 2.223
BEC = 60.53

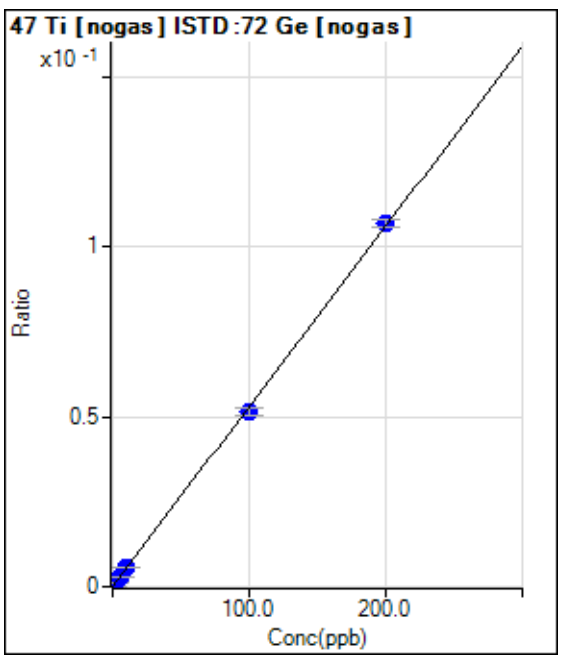
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1146.72	0.0011	P	9.5
2	☐	200.000	207.842	12304.21	0.0114	P	2.0
3	☐	500.000	541.097	29236.62	0.0280	P	2.3
4	☐	1000.000	1061.411	55351.96	0.0539	P	1.9
5	☐	10000.00	10014.265	511269.97	0.4994	P	1.8
6	☐	20000.00	19988.691	991229.83	0.9957	P	1.9
7	☐	100.000					

y = 4.9757E-005 * x + 0.0011
R = 1.0000
DL = 6.187
BEC = 21.68

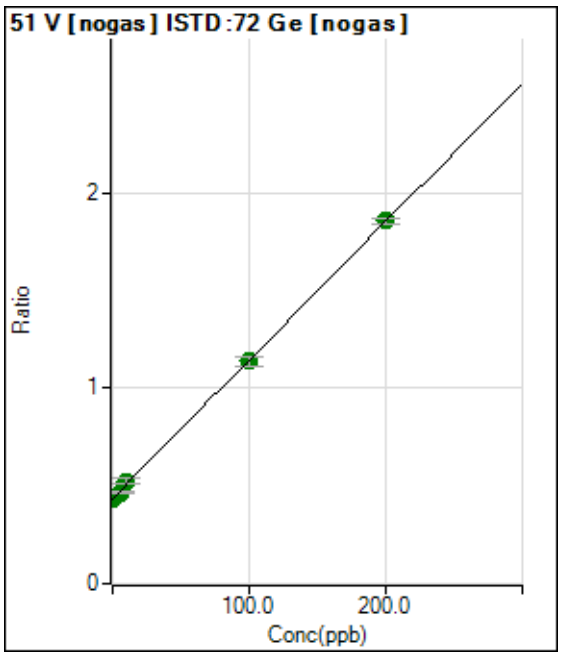
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	266.67	0.0001	P	24.6
2	☐	2.000	2.016	4660.67	0.0011	P	13.5
3	☐	5.000	5.119	11350.32	0.0028	P	3.1
4	☐	10.000	10.373	22580.66	0.0056	P	1.1
5	☐	100.000	96.948	204744.27	0.0514	P	4.1
6	☐	200.000	201.504	398161.58	0.1068	P	2.1
7	☐	1.000					

y = 5.2992E-004 * x + 6.5938E-005
R = 0.9998
DL = 0.09192
BEC = 0.1244

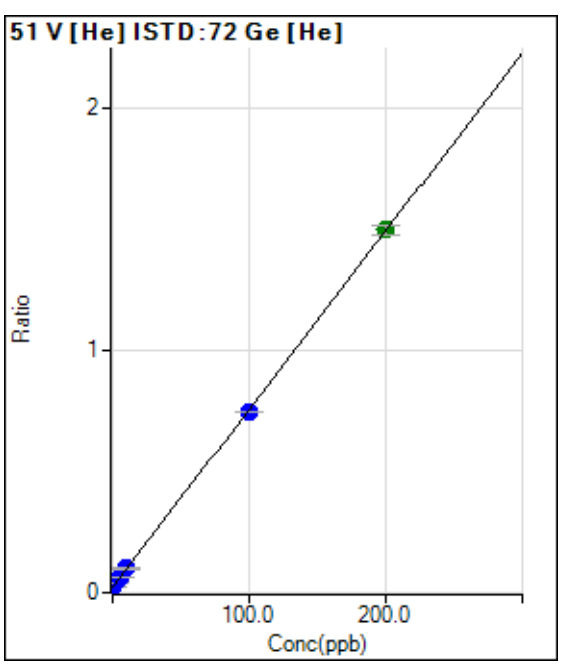
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1766861.43	0.4365	A	3.0
2	☐	2.000	1.320	1831139.11	0.4459	A	2.7
3	☐	5.000	4.181	1903345.16	0.4662	A	1.7
4	☐	10.000	12.581	2132449.14	0.5258	A	4.3
5	☐	100.000	98.959	4530146.46	1.1383	A	4.8
6	☐	200.000	200.419	6923705.10	1.8578	A	1.8
7	☐	1.000					

y = 0.0071 * x + 0.4365
R = 0.9999
DL = 5.603
BEC = 61.56

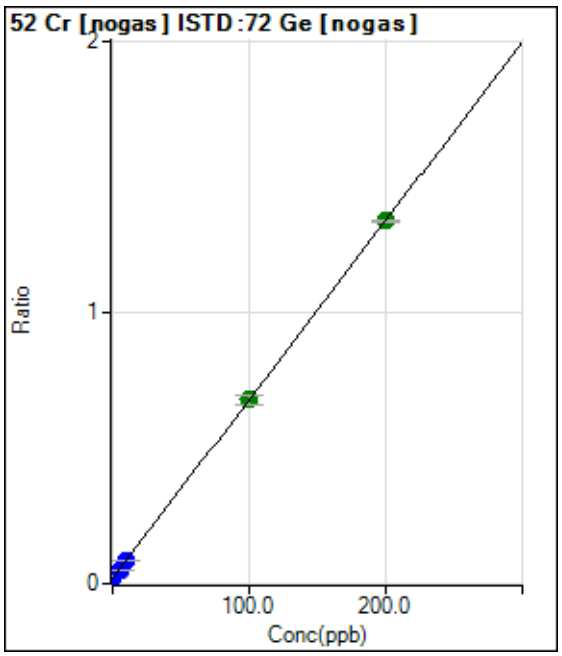
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.042	23984.03	0.0226	P	0.3
2	☐	2.000	2.011	39854.98	0.0370	P	4.3
3	☐	5.000	5.220	63243.82	0.0606	P	1.1
4	☐	10.000	10.546	102359.12	0.0997	P	1.3
5	☐	100.000	98.427	762564.83	0.7447	P	0.8
6	☐	200.000	200.753	1489182.62	1.4959	A	2.6
7	☐	1.000					

y = 0.0073 * x + 0.0222
R = 0.9999
DL = 0.02879
BEC = 3.031

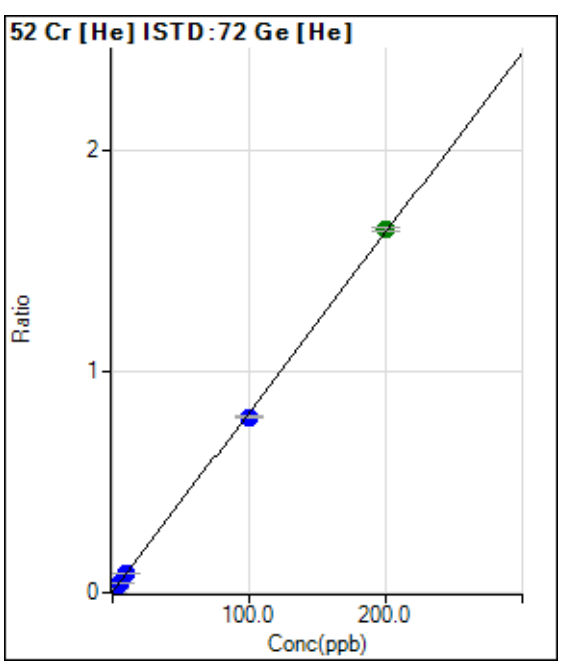
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77638.40	0.0192	P	1.6
2	☐	2.000	1.984	132381.61	0.0322	P	4.1
3	☐	5.000	4.945	211198.38	0.0517	P	3.2
4	☐	10.000	10.040	346003.96	0.0853	P	3.4
5	☐	100.000	100.080	2698436.11	0.6782	A	5.7
6	☐	200.000	199.960	4979594.61	1.3359	A	0.8
7	☐	1.000					

y = 0.0066 * x + 0.0192
R = 1.0000
DL = 0.1376
BEC = 2.913

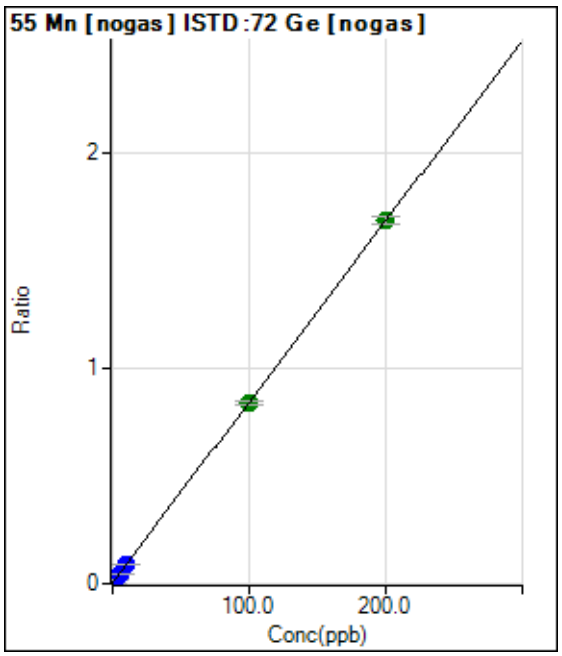
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3750.45	0.0035	P	4.5
2	☐	2.000	2.067	21863.21	0.0203	P	7.3
3	☐	5.000	4.999	46071.02	0.0441	P	1.0
4	☐	10.000	10.388	90272.62	0.0879	P	1.1
5	☐	100.000	97.131	811294.70	0.7923	P	0.8
6	☐	200.000	201.414	1632021.69	1.6392	A	1.1
7	☐	1.000					

y = 0.0081 * x + 0.0035
R = 0.9998
DL = 0.0582
BEC = 0.4343

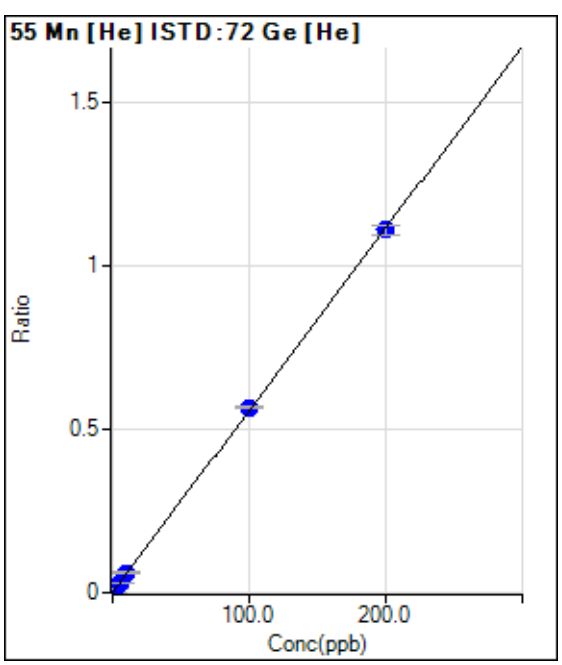
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15566.74	0.0038	P	5.2
2	☐	2.000	2.036	85955.63	0.0209	P	3.2
3	☐	5.000	5.145	191953.49	0.0470	P	2.8
4	☐	10.000	10.296	366067.09	0.0903	P	3.9
5	☐	100.000	99.466	3339652.24	0.8385	A	2.2
6	☐	200.000	200.248	6276188.03	1.6843	A	2.3
7	☐	1.000					

y = 0.0084 * x + 0.0038
R = 1.0000
DL = 0.07083
BEC = 0.4584

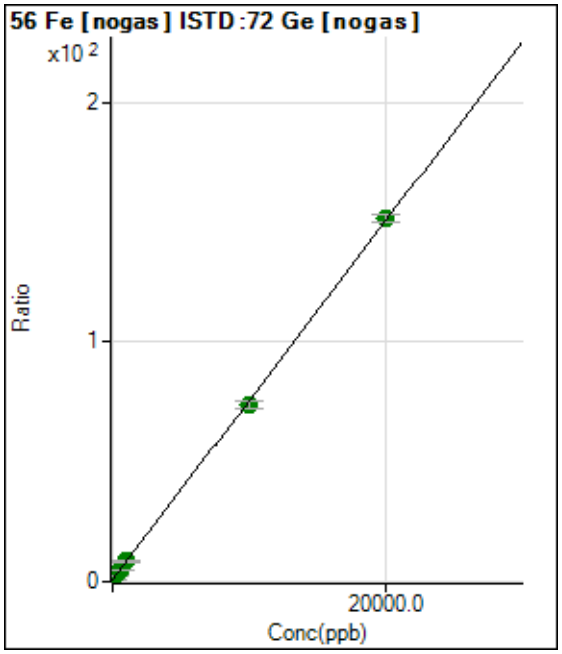
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	726.69	0.0007	P	9.9
2	☐	2.000	2.021	12858.00	0.0119	P	5.0
3	☐	5.000	5.398	32094.85	0.0307	P	2.3
4	☐	10.000	10.856	62787.03	0.0611	P	3.1
5	☐	100.000	101.478	579169.90	0.5657	P	1.2
6	☐	200.000	199.208	1104711.81	1.1098	P	2.7
7	☐	1.000					

y = 0.0056 * x + 6.8342E-004
R = 1.0000
DL = 0.03635
BEC = 0.1228

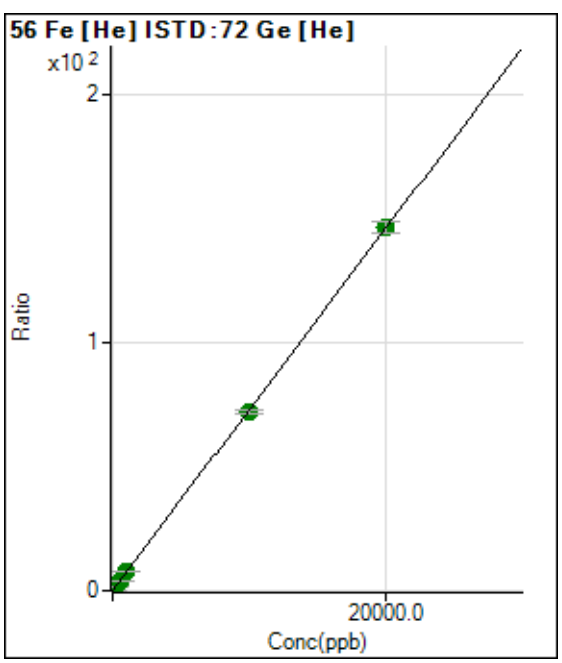
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3190036.27	0.7881	A	2.5
2	☐	200.000	204.535	9522035.63	2.3191	A	3.7
3	☐	500.000	513.911	18925075.94	4.6347	A	0.7
4	☐	1000.000	1023.255	34269497.64	8.4471	A	3.0
5	☐	10000.00	9743.957	293448914.8	73.7208	A	3.7
6	☐	20000.00	20126.465	564286112.6	151.432	A	2.3
7	☐	100.000					

y = 0.0075 * x + 0.7881
R = 0.9999
DL = 8.011
BEC = 105.3

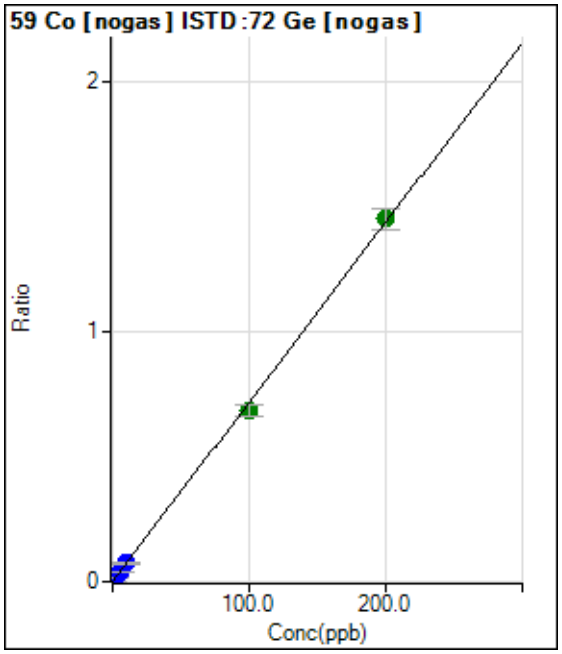
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23688.73	0.0223	P	1.3
2	☐	200.000	208.574	1660006.43	1.5415	A	4.7
3	☐	500.000	536.399	4102851.92	3.9293	A	0.3
4	☐	1000.000	1063.456	7979106.55	7.7682	A	0.5
5	☐	10000.00	9890.713	73784308.90	72.0635	A	1.7
6	☐	20000.00	20050.475	145392794.5	146.064	A	3.3
7	☐	100.000					

y = 0.0073 * x + 0.0223
R = 1.0000
DL = 0.1192
BEC = 3.059

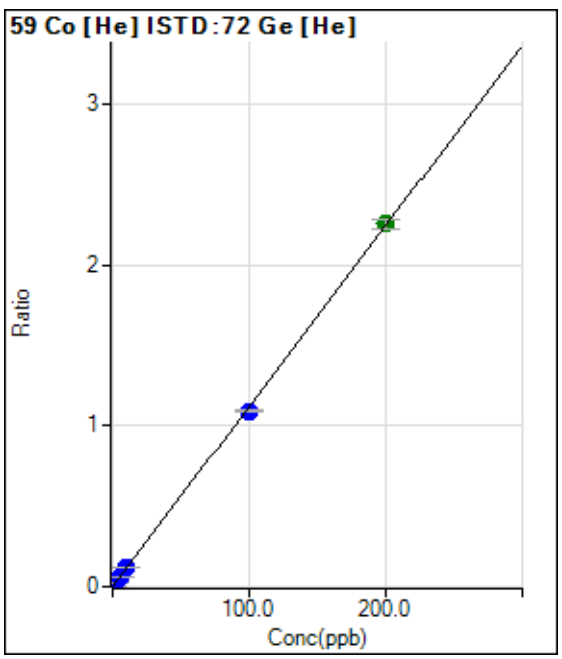
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	576.69	0.0001	P	16.5
2	☐	2.000	2.030	60332.38	0.0147	P	2.5
3	☐	5.000	5.174	151956.40	0.0372	P	2.2
4	☐	10.000	10.289	299585.26	0.0739	P	5.3
5	☐	100.000	95.747	2730480.48	0.6863	A	6.8
6	☐	200.000	202.108	5394258.56	1.4486	A	5.6
7	☐	1.000					

y = 0.0072 * x + 1.4268E-004
R = 0.9997
DL = 0.009853
BEC = 0.01991

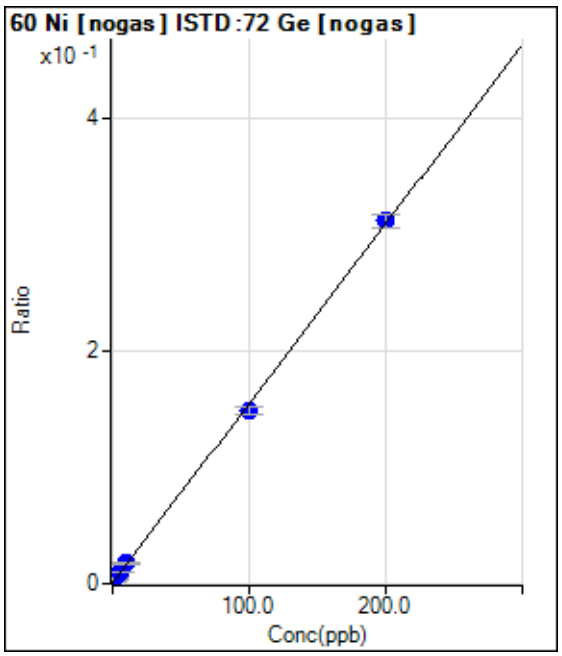
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	25.2
2	☐	2.000	2.031	24616.73	0.0229	P	3.6
3	☐	5.000	5.288	62008.07	0.0594	P	2.0
4	☐	10.000	10.520	121274.09	0.1181	P	1.1
5	☐	100.000	97.400	1118717.17	1.0926	P	0.7
6	☐	200.000	201.266	2247423.25	2.2577	A	2.7
7	☐	1.000					

y = 0.0112 * x + 7.5261E-005
R = 0.9999
DL = 0.005068
BEC = 0.00671

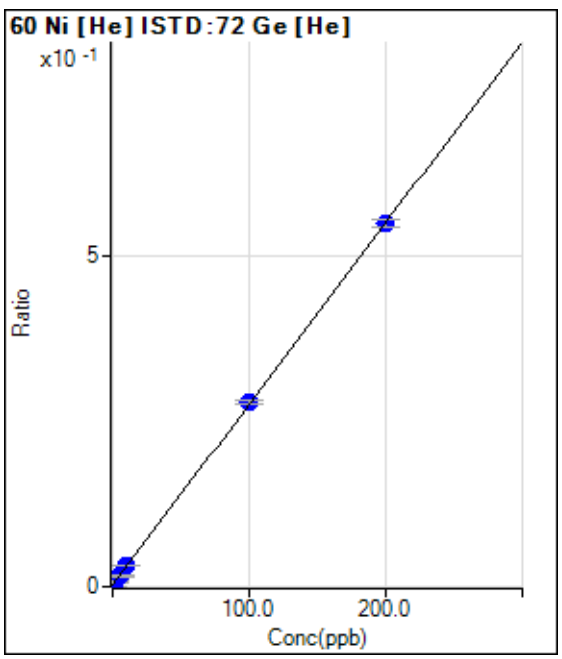
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.190	4037.18	0.0010	P	4.6
2	☐	2.000	2.247	17131.44	0.0042	P	6.4
3	☐	5.000	5.588	38109.75	0.0093	P	3.6
4	☐	10.000	10.924	71291.49	0.0176	P	4.9
5	☐	100.000	96.230	594308.17	0.1493	P	5.1
6	☐	200.000	201.822	1163896.26	0.3125	P	3.9
7	☐	1.000					

y = 0.0015 * x + 7.0415E-004
R = 0.9997
DL = 0.08907
BEC = 0.4559

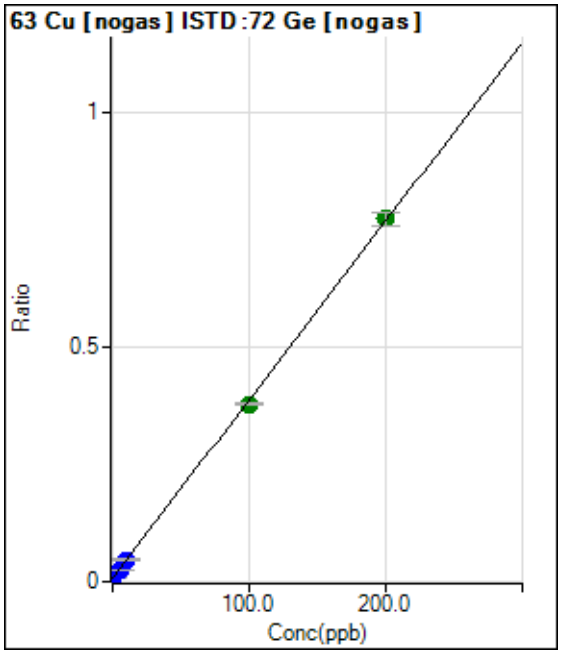
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.515	1166.72	0.0011	P	3.6
2	☐	2.000	1.646	7548.34	0.0070	P	9.0
3	☐	5.000	4.953	16777.85	0.0161	P	4.1
4	☐	10.000	10.554	32251.78	0.0314	P	1.5
5	☐	100.000	100.769	285015.33	0.2784	P	2.2
6	☐	200.000	199.592	546449.34	0.5489	P	2.1
7	☐	1.000					

y = 0.0027 * x + 0.0025
R = 1.0000
DL = 0.04339
BEC = 0.9159

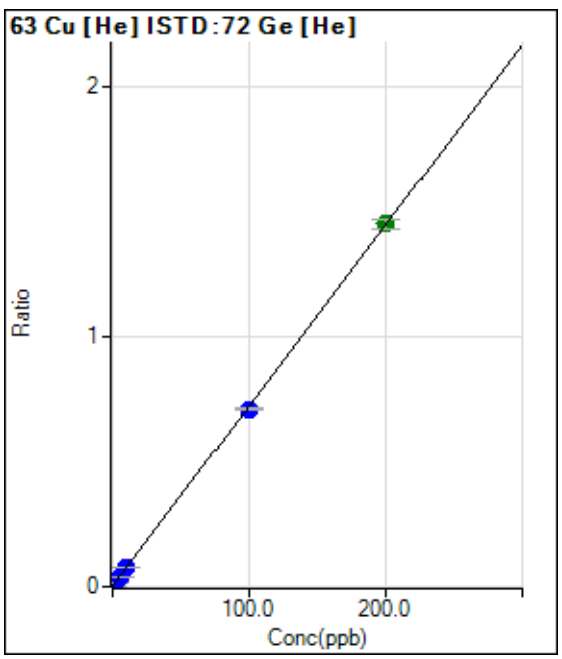
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30231.72	0.0075	P	2.1
2	☐	2.000	1.967	61362.17	0.0149	P	2.1
3	☐	5.000	4.796	104846.96	0.0257	P	1.4
4	☐	10.000	10.142	186456.95	0.0460	P	5.4
5	☐	100.000	97.317	1502386.54	0.3771	A	1.1
6	☐	200.000	201.340	2876689.54	0.7721	A	3.6
7	☐	1.000					

y = 0.0038 * x + 0.0075
R = 0.9999
DL = 0.1259
BEC = 1.966

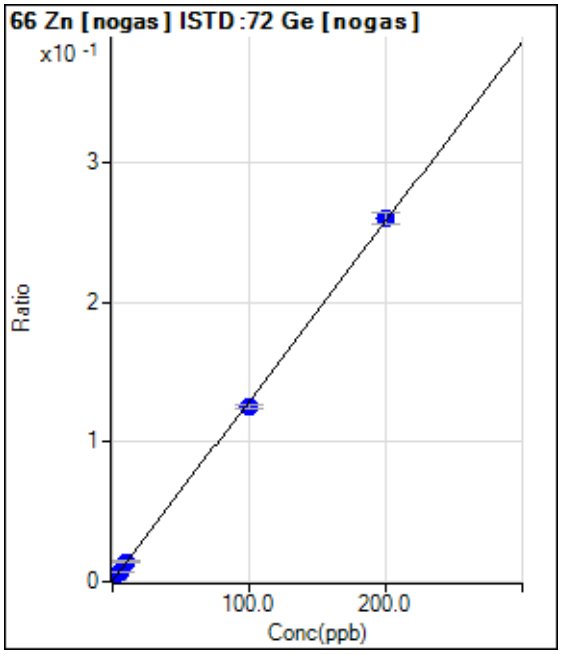
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.001	1853.45	0.0017	P	6.0
2	☐	2.000	2.026	17598.65	0.0163	P	3.4
3	☐	5.000	5.367	42202.17	0.0404	P	1.4
4	☐	10.000	10.586	80138.13	0.0780	P	1.4
5	☐	100.000	98.118	725748.32	0.7088	P	1.5
6	☐	200.000	200.902	1443385.66	1.4496	A	2.8
7	☐	1.000					

y = 0.0072 * x + 0.0017
R = 0.9999
DL = 0.04387
BEC = 0.2411

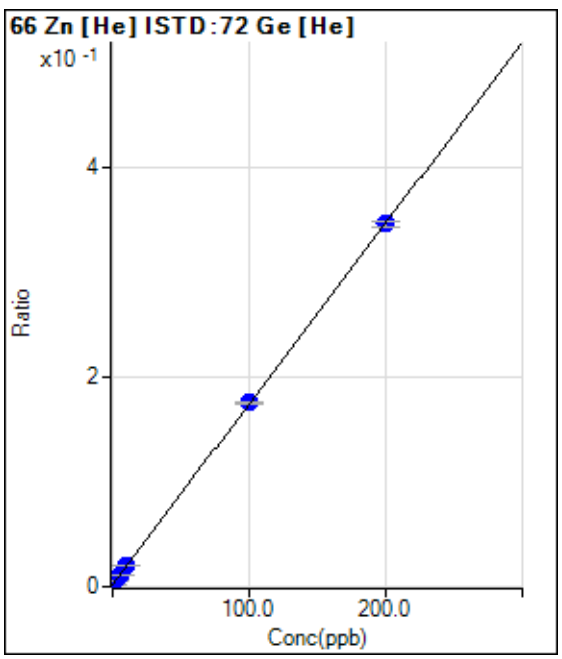
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.140	3393.70	0.0008	P	9.2
2	☐	2.000	2.358	15166.48	0.0037	P	1.3
3	☐	5.000	5.288	30458.81	0.0075	P	1.6
4	☐	10.000	10.711	58576.85	0.0144	P	1.9
5	☐	100.000	97.099	499968.11	0.1256	P	1.9
6	☐	200.000	201.404	967710.48	0.2597	P	3.2
7	☐	1.000					

y = 0.0013 * x + 6.5837E-004
R = 0.9998
DL = 0.1798
BEC = 0.5118

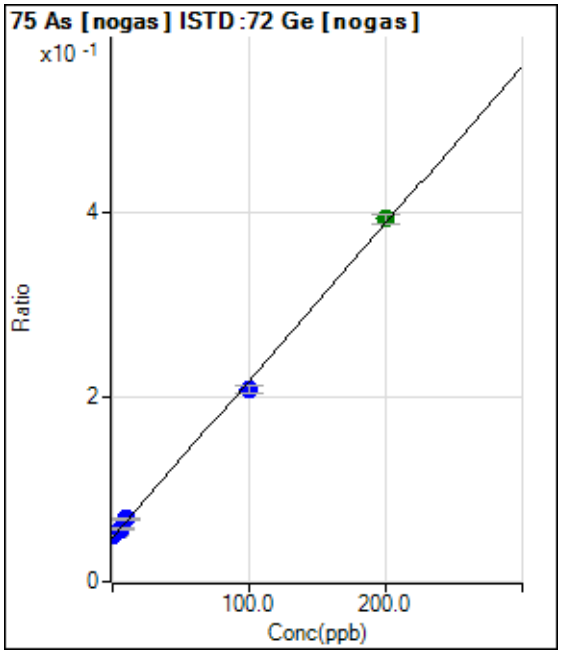
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.451	1256.73	0.0012	P	8.2
2	☐	2.000	1.766	5380.88	0.0050	P	4.7
3	☐	5.000	4.946	10933.44	0.0105	P	0.8
4	☐	10.000	10.462	20505.05	0.0200	P	1.5
5	☐	100.000	100.594	179279.99	0.1751	P	0.9
6	☐	200.000	199.684	344179.64	0.3456	P	1.6
7	☐	1.000					

y = 0.0017 * x + 0.0020
R = 1.0000
DL = 0.1682
BEC = 1.138

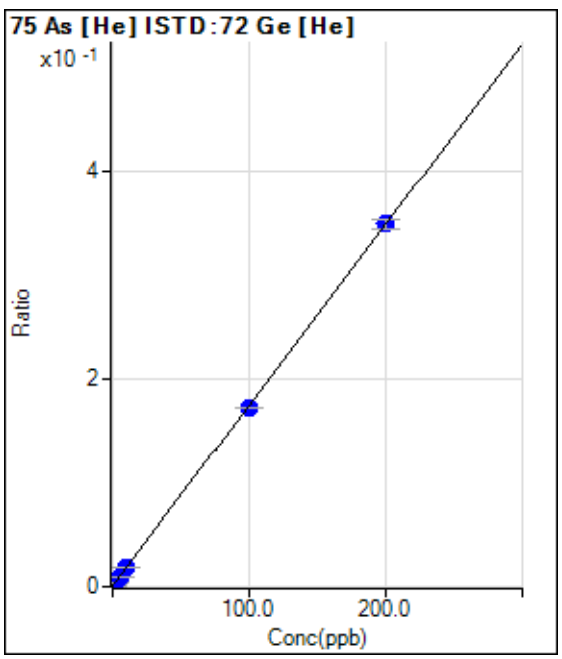
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.761	198413.17	0.0490	P	0.9
2	☐	2.000	2.078	210468.30	0.0513	P	2.6
3	☐	5.000	5.395	232265.60	0.0569	P	1.5
4	☐	10.000	11.761	274589.16	0.0677	P	3.8
5	☐	100.000	94.207	826806.81	0.2077	P	3.6
6	☐	200.000	202.798	1461065.76	0.3921	A	2.8
7	☐	1.000					

y = 0.0017 * x + 0.0477
R = 0.9993
DL = 0.8192
BEC = 28.1

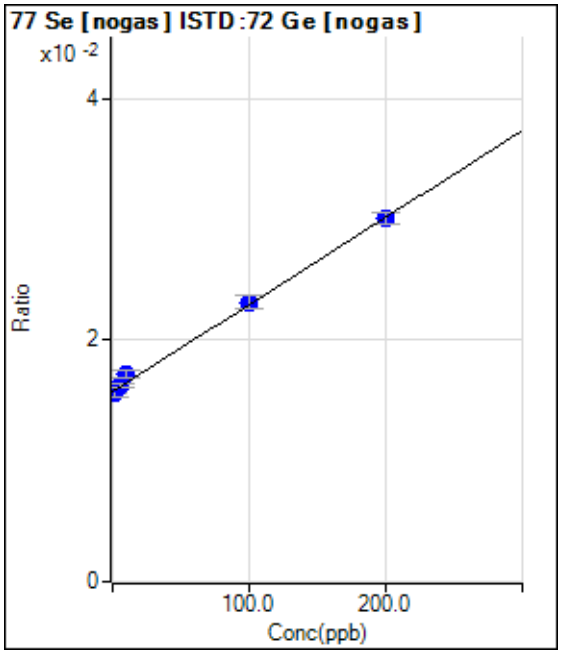
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	955.59	0.0009	P	6.4
2	☐	2.000	1.896	4508.36	0.0042	P	5.7
3	☐	5.000	5.111	10198.44	0.0098	P	2.2
4	☐	10.000	10.238	19166.74	0.0187	P	1.8
5	☐	100.000	98.807	176449.97	0.1723	P	0.3
6	☐	200.000	200.583	347323.59	0.3489	P	2.9
7	☐	1.000					

y = 0.0017 * x + 8.9872E-004
R = 1.0000
DL = 0.09964
BEC = 0.518

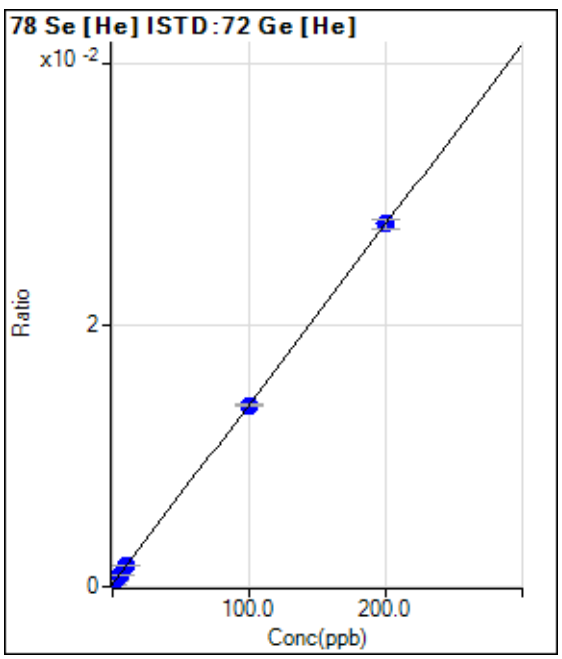
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63741.38	0.0157	P	1.3
2	☐	2.000	-1.927	64079.61	0.0156	P	3.1
3	☐	5.000	6.898	66317.06	0.0162	P	1.8
4	☐	10.000	20.324	69803.36	0.0172	P	4.3
5	☐	100.000	102.432	92061.62	0.0231	P	4.8
6	☐	200.000	198.259	111934.68	0.0300	P	3.3
7	☐	1.000					

y = 7.2127E-005 * x + 0.0157
R = 0.9982
DL = 8.639
BEC = 218.3

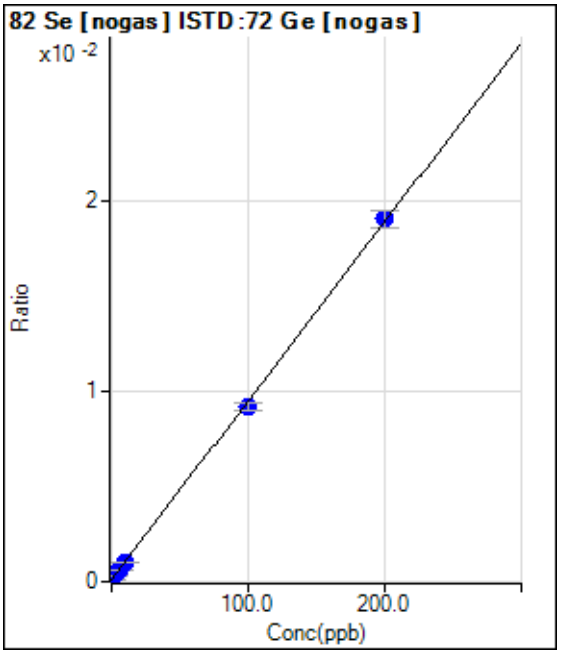
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.062	196.00	0.0002	P	8.6
2	☐	2.000	1.896	488.01	0.0005	P	14.0
3	☐	5.000	5.161	943.36	0.0009	P	6.3
4	☐	10.000	10.310	1656.75	0.0016	P	1.8
5	☐	100.000	99.426	14220.23	0.0139	P	1.5
6	☐	200.000	200.269	27651.59	0.0278	P	2.6
7	☐	1.000					

y = 1.3774E-004 * x + 1.9281E-004
R = 1.0000
DL = 0.3467
BEC = 1.4

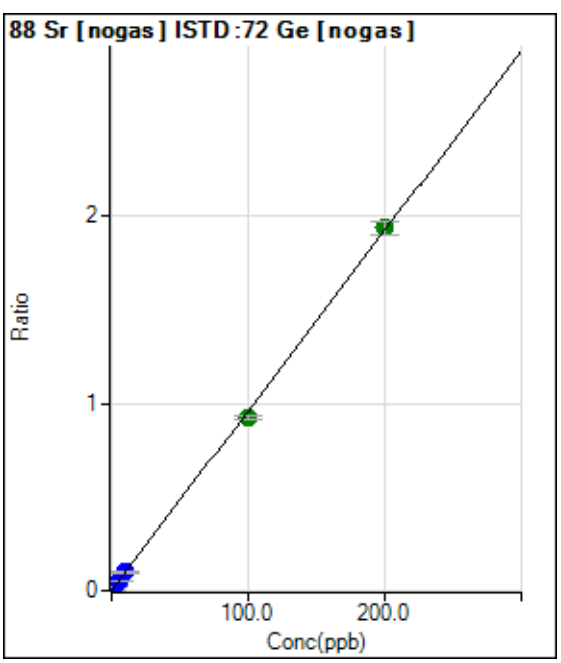
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	433.35	0.0001	P	17.6
2	☐	2.000	2.012	1216.72	0.0003	P	7.9
3	☐	5.000	5.051	2370.20	0.0006	P	4.2
4	☐	10.000	9.824	4173.88	0.0010	P	2.1
5	☐	100.000	96.351	36376.69	0.0091	P	4.6
6	☐	200.000	201.832	70862.03	0.0190	P	4.9
7	☐	1.000					

y = 9.3742E-005 * x + 1.0722E-004
R = 0.9998
DL = 0.6029
BEC = 1.144

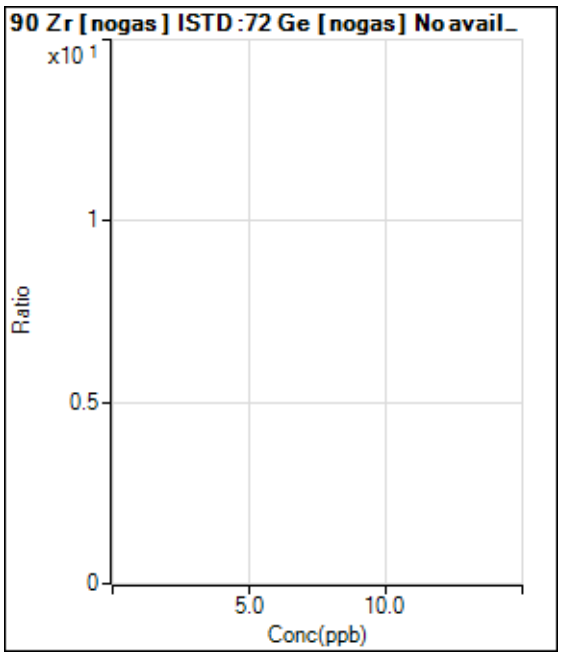
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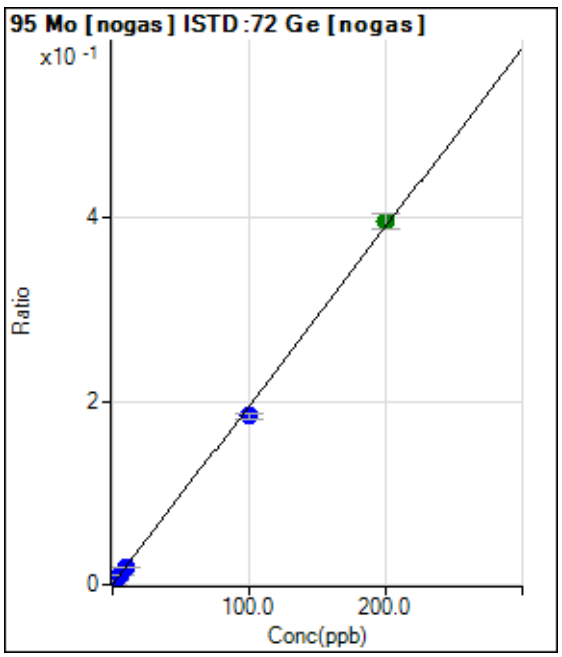
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2133.50	0.0005	P	1.6
2	☐	2.000	1.991	80694.06	0.0197	P	4.3
3	☐	5.000	5.104	202350.67	0.0496	P	0.9
4	☐	10.000	10.169	398378.66	0.0982	P	4.3
5	☐	100.000	96.616	3698756.30	0.9287	A	2.4
6	☐	200.000	201.681	7219708.22	1.9381	A	3.7
7	☐	1.000					

y = 0.0096 * x + 5.2703E-004
R = 0.9998
DL = 0.002664
BEC = 0.05486

Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0000	P	15.6
2	☐	2.000	1.858	15063.26	0.0037	P	4.4
3	☐	5.000	4.849	38835.90	0.0095	P	1.2
4	☐	10.000	9.643	76564.16	0.0189	P	2.9
5	☐	100.000	94.415	734127.52	0.1844	P	3.1
6	☐	200.000	202.815	1475498.67	0.3961	A	4.2
7	☐	1.000					

y = 0.0020 * x + 4.1187E-005

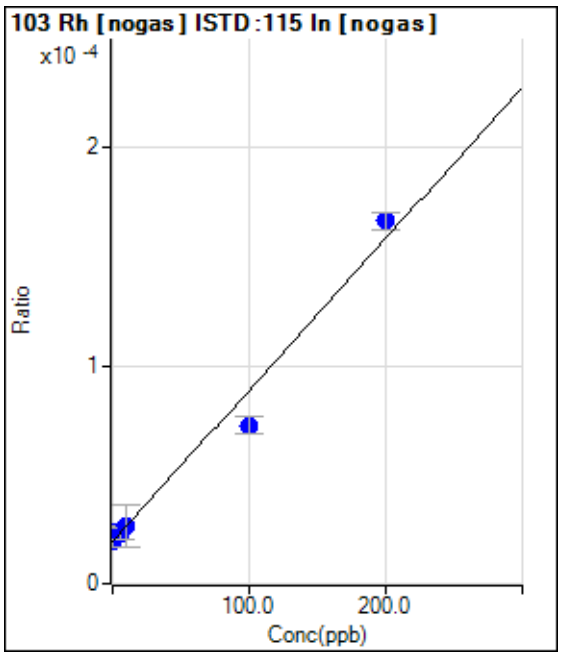
R = 0.9995

DL = 0.009841

BEC = 0.02109

Weight: <None>

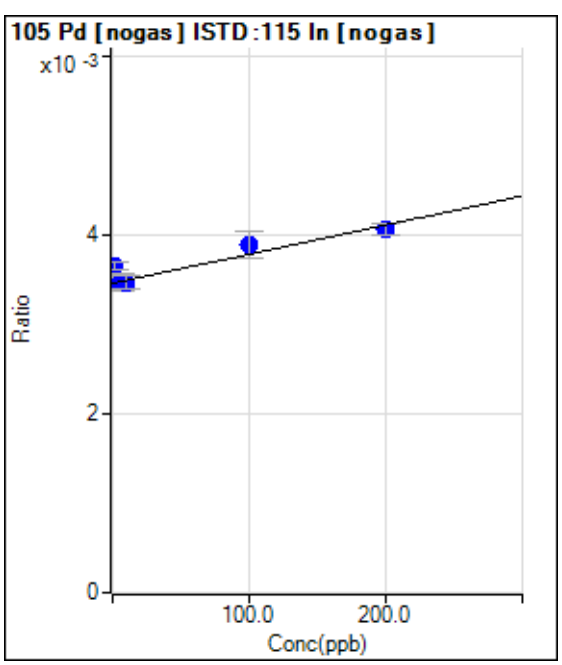
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0000	P	25.3
2	☐	2.000	7.052	96.67	0.0000	P	17.9
3	☐	5.000	5.498	96.67	0.0000	P	21.9
4	☐	10.000	9.868	106.67	0.0000	P	73.4
5	☐	100.000	76.488	276.68	0.0001	P	10.7
6	☐	200.000	211.700	613.35	0.0002	P	4.9
7	☐	1.000					

y = 6.9421E-007 * x + 1.9331E-005
R = 0.9898
DL = 21.15
BEC = 27.85

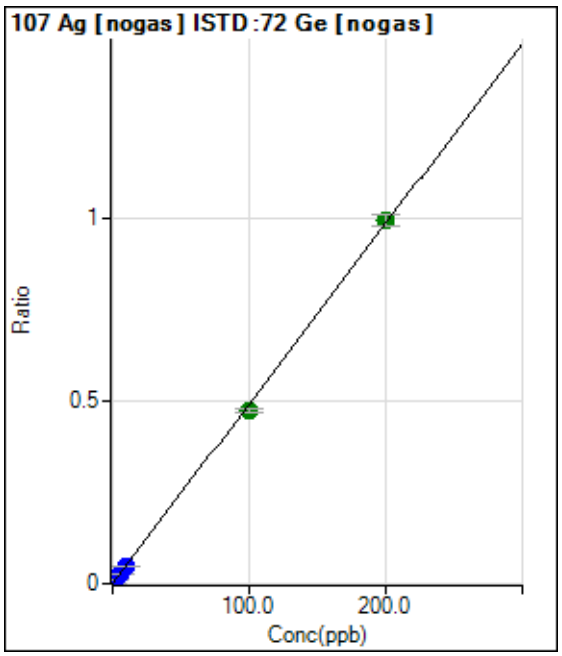
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14312.61	0.0035	P	3.6
2	☐	2.000	62.101	14529.60	0.0037	P	2.5
3	☐	5.000	1.362	14449.50	0.0035	P	5.6
4	☐	10.000	3.633	14225.97	0.0035	P	4.4
5	☐	100.000	133.318	14846.37	0.0039	P	7.5
6	☐	200.000	183.149	14919.83	0.0041	P	3.3
7	☐	1.000					

y = 3.2524E-006 * x + 0.0035
R = 0.9334
DL = 115.8
BEC = 1062

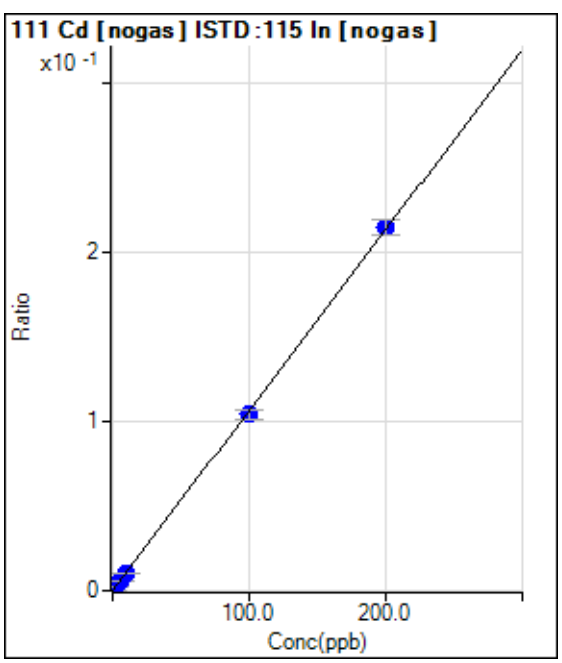
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	220.00	0.0001	P	14.2
2	☐	2.000	1.998	40657.02	0.0099	P	4.0
3	☐	5.000	4.940	99617.41	0.0244	P	4.2
4	☐	10.000	9.947	199123.49	0.0491	P	3.5
5	☐	100.000	96.686	1899548.41	0.4766	A	2.2
6	☐	200.000	201.661	3703596.09	0.9941	A	3.0
7	☐	1.000					

y = 0.0049 * x + 5.4374E-005
R = 0.9998
DL = 0.004715
BEC = 0.01103

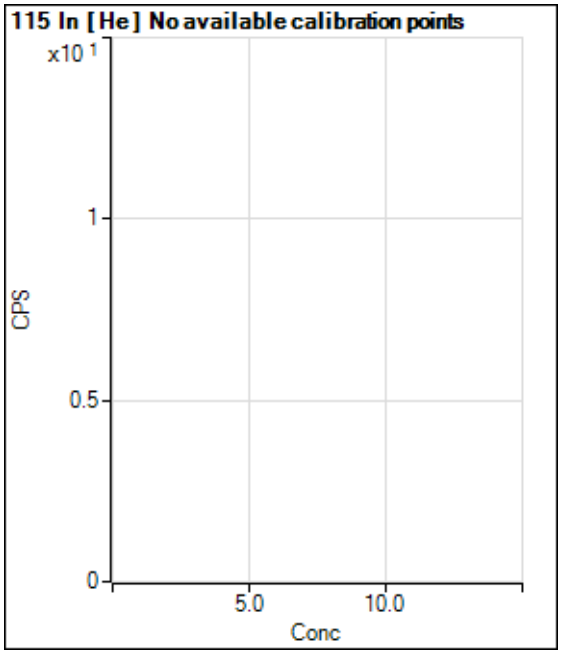
Weight: <None>
Min Conc: <None>



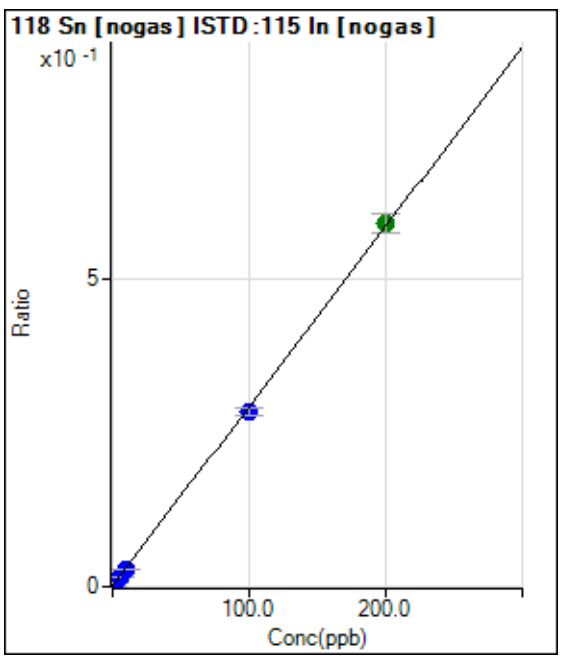
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40.00	0.0000	P	43.3
2	☐	2.000	1.990	8448.84	0.0021	P	10.5
3	☐	5.000	4.846	21630.15	0.0052	P	1.8
4	☐	10.000	9.792	42882.50	0.0105	P	4.0
5	☐	100.000	97.656	397896.31	0.1041	P	4.6
6	☐	200.000	201.186	789830.07	0.2145	P	4.4
7	☐	1.000					

y = 0.0011 * x + 9.6570E-006
R = 0.9999
DL = 0.01176
BEC = 0.009057

Weight: <None>
Min Conc: <None>



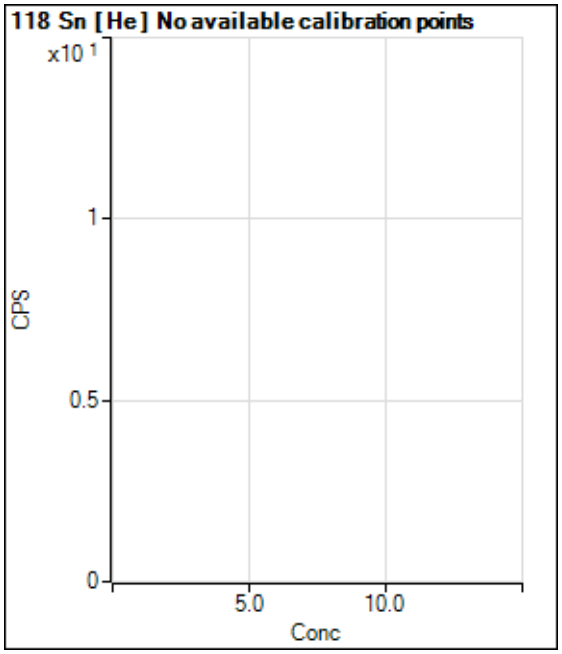
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1424617.06		A	2.8
2	☐			1505230.06		A	1.1
3	☐			1425442.69		A	1.3
4	☐			1394151.15		A	0.2
5	☐			1329851.25		M	4.0
6	☐			1249365.36		M	5.9
7	☐						



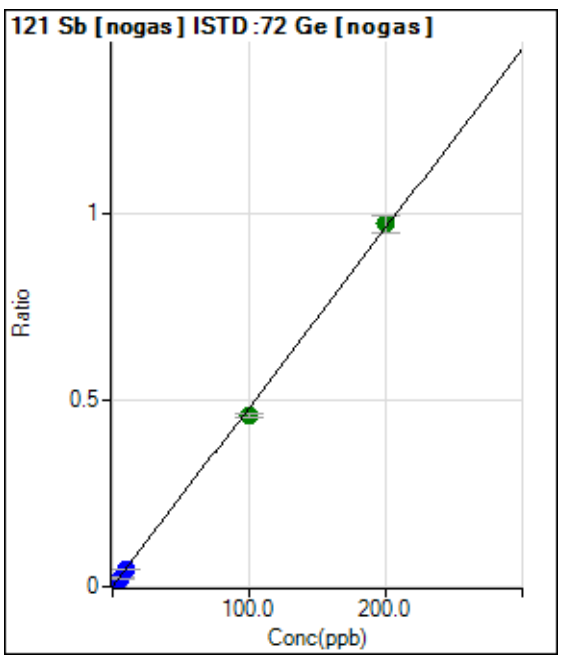
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5174.19	0.0012	P	5.5
2	☐	2.000	1.664	24187.09	0.0061	P	3.5
3	☐	5.000	4.520	60153.38	0.0144	P	0.9
4	☐	10.000	9.430	117701.40	0.0287	P	2.2
5	☐	100.000	96.835	1081217.38	0.2829	P	4.3
6	☐	200.000	201.627	2163517.31	0.5878	A	5.3
7	☐	1.000					

y = 0.0029 * x + 0.0012
R = 0.9998
DL = 0.07132
BEC = 0.4295

Weight: <None>
Min Conc: <None>



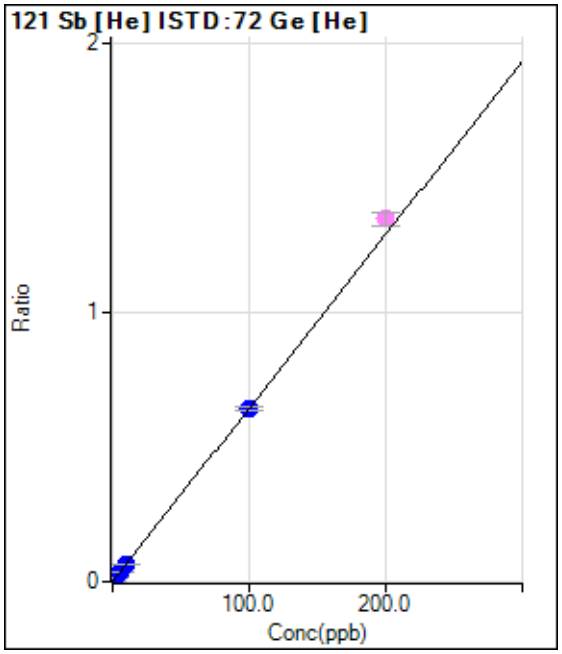
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1923.47		P	3.1
2	☐			9469.37		P	1.1
3	☐			22511.39		P	2.2
4	☐			43417.43		P	2.8
5	☐			414267.40		P	1.2
6	☐			811051.81		P	3.1
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	753.36	0.0002	P	5.1
2	☐	2.000	1.913	38462.46	0.0094	P	2.9
3	☐	5.000	4.749	93780.09	0.0230	P	2.5
4	☐	10.000	9.625	188098.76	0.0464	P	3.2
5	☐	100.000	95.227	1820866.33	0.4571	A	2.0
6	☐	200.000	202.412	3617580.15	0.9713	A	4.9
7	☐	1.000					

y = 0.0048 * x + 1.8611E-004
R = 0.9996
DL = 0.005985
BEC = 0.03879

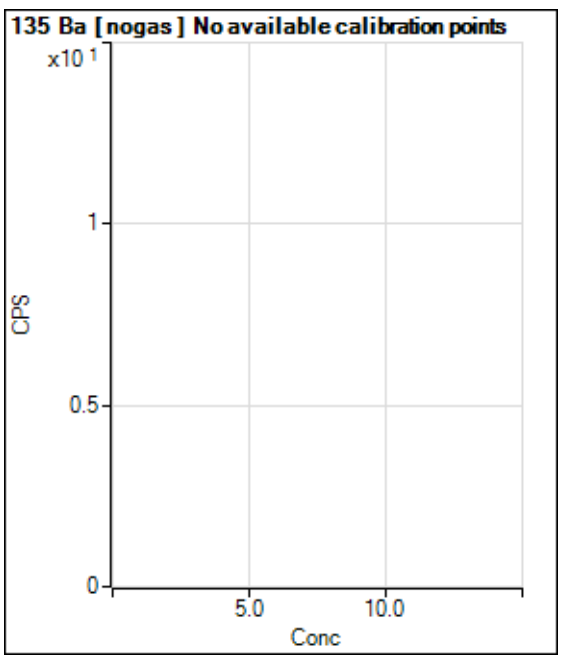
Weight: <None>
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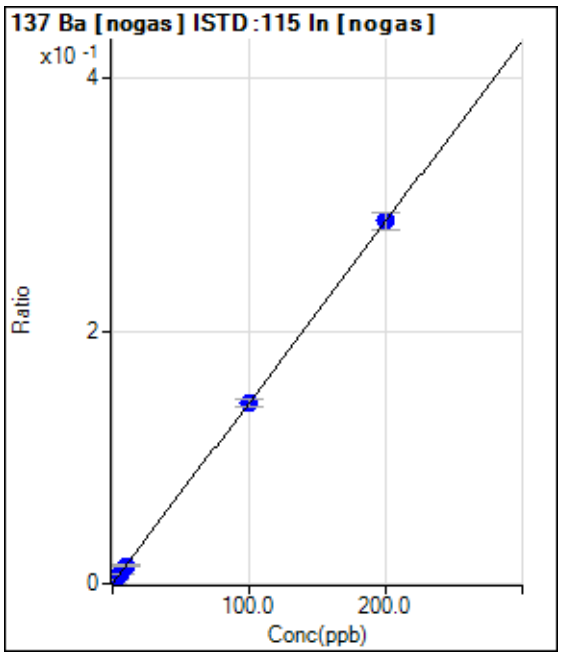
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	206.67	0.0002	P	20.3
2	☐	2.000	2.072	14596.28	0.0135	P	4.3
3	☐	5.000	5.194	35155.77	0.0337	P	0.7
4	☐	10.000	10.352	68731.76	0.0669	P	1.3
5	☐	100.000	99.954	659784.90	0.6444	P	1.9
6	☑	200.000		1342530.48	1.3486	M	3.9
7	☐	1.000					

y = 0.0064 * x + 1.9442E-004
R = 1.0000
DL = 0.01838
BEC = 0.03017

Weight: <None>
Min Conc: <None>



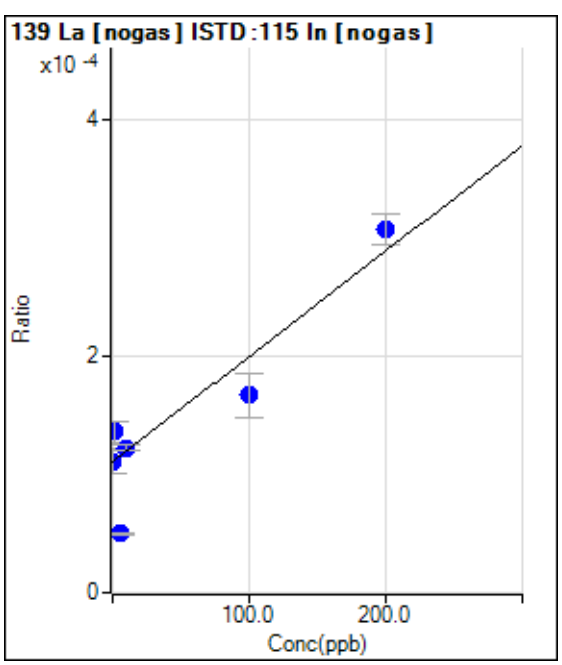
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			226.67		P	25.1
2	☐			7385.02		P	2.2
3	☐			17172.08		P	1.4
4	☐			33839.89		P	3.4
5	☐			311808.28		P	1.4
6	☐			600338.42		P	0.7
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	470.01	0.0001	P	13.6
2	☐	2.000	2.154	12698.13	0.0032	P	7.2
3	☐	5.000	4.798	29191.68	0.0070	P	0.2
4	☐	10.000	9.948	58924.01	0.0144	P	3.7
5	☐	100.000	99.303	544043.11	0.1424	P	4.3
6	☐	200.000	200.355	1056946.60	0.2871	P	4.7
7	☐	1.000					

y = 0.0014 * x + 1.1355E-004
R = 1.0000
DL = 0.03227
BEC = 0.07927

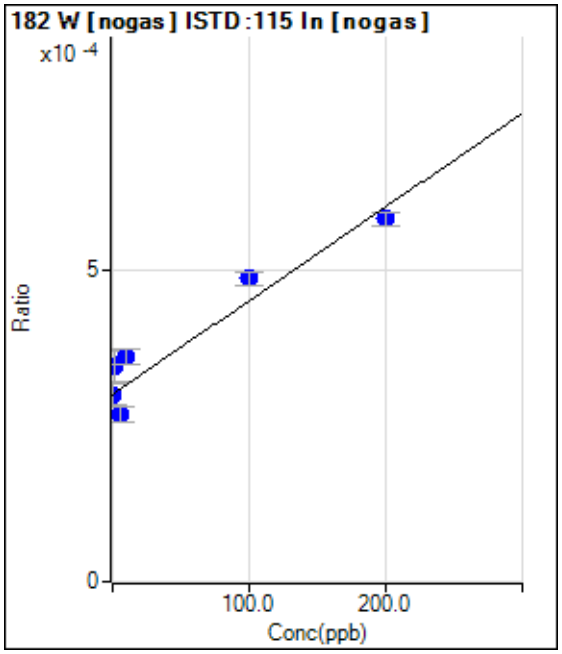
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	460.02	0.0001	P	19.5
2	☐	2.000	27.926	540.02	0.0001	P	12.5
3	☐	5.000	-68.347	210.00	0.0001	P	3.9
4	☐	10.000	12.852	503.35	0.0001	P	3.5
5	☐	100.000	62.758	640.02	0.0002	P	23.1
6	☐	200.000	220.053	1130.06	0.0003	P	8.5
7	☐	1.000					

y = 8.9122E-007 * x + 1.1117E-004
R = 0.9239
DL = 72.92
BEC = 124.7

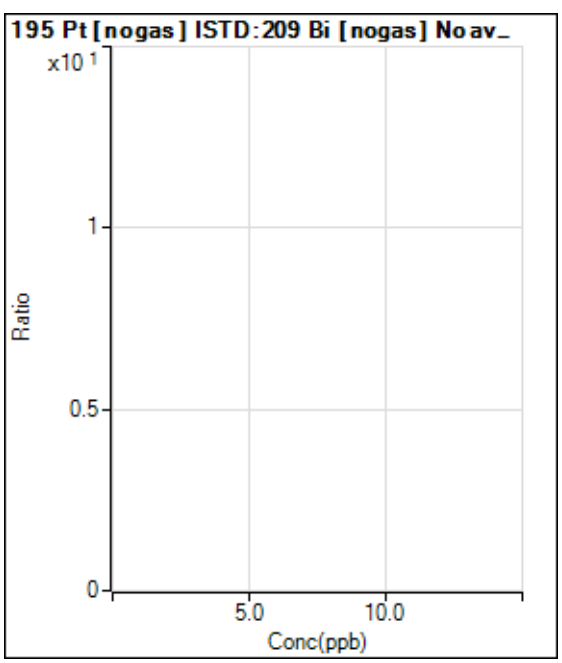
Weight: <None>
Min Conc: <None>



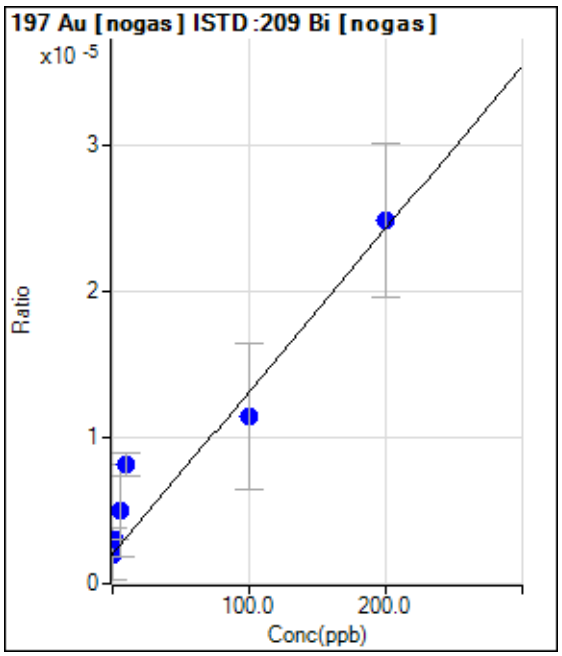
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1243.40	0.0003	P	11.8
2	☐	2.000	29.797	1366.75	0.0003	P	13.5
3	☐	5.000	-21.582	1120.06	0.0003	P	8.9
4	☐	10.000	40.345	1480.09	0.0004	P	7.3
5	☐	100.000	123.529	1856.81	0.0005	P	4.1
6	☐	200.000	187.105	2140.17	0.0006	P	3.8
7	☐	1.000					

y = 1.5011E-006 * x + 3.0030E-004
R = 0.9570
DL = 70.64
BEC = 200.1

Weight: <None>
Min Conc: <None>



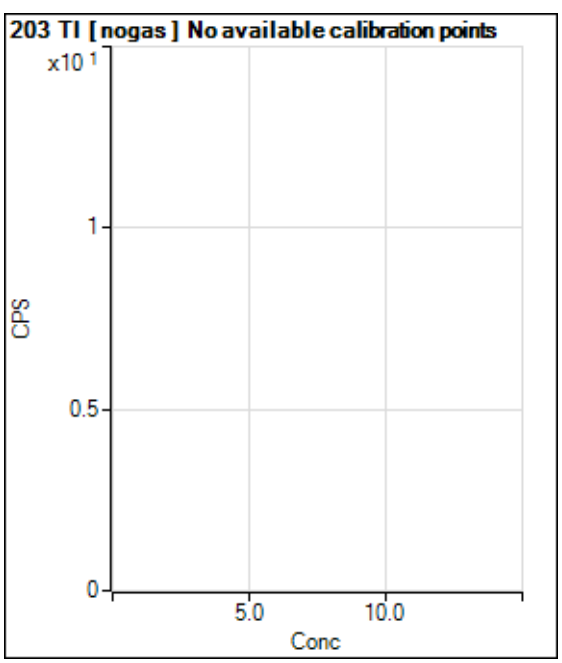
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



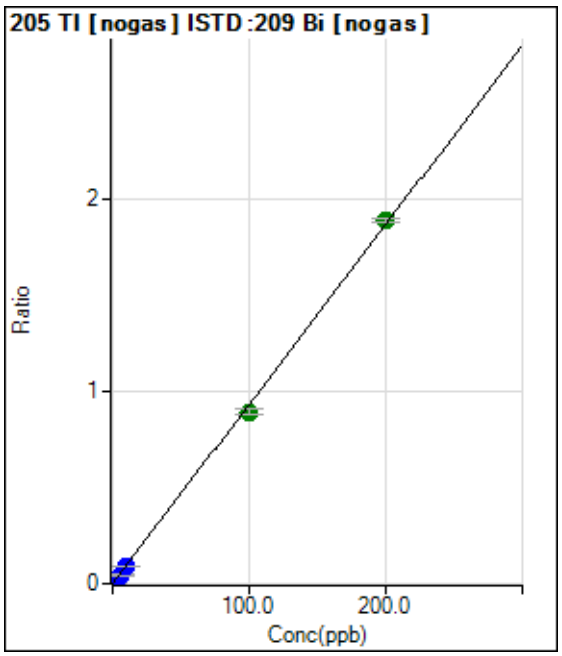
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	173.
2	☐	2.000	9.328	10.00	0.0000	P	1.8
3	☐	5.000	26.943	16.67	0.0000	P	126.
4	☐	10.000	55.224	26.67	0.0000	P	19.7
5	☐	100.000	84.484	36.67	0.0000	P	87.5
6	☐	200.000	204.875	73.33	0.0000	P	42.3
7	☐	1.000					

y = 1.1111E-007 * x + 2.0086E-006
R = 0.9678
DL = 93.94
BEC = 18.08

Weight: <None>
Min Conc: <None>



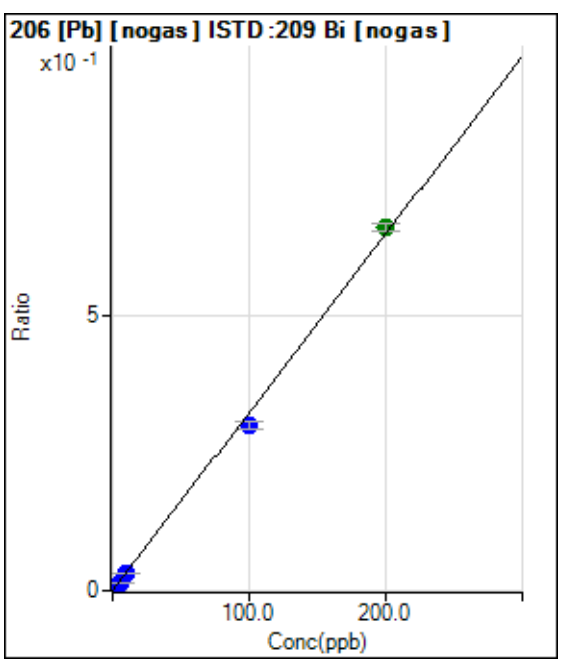
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			246.67		P	12.4
2	☐			25576.97		P	0.9
3	☐			63379.69		P	1.1
4	☐			124015.01		P	1.0
5	☐			1149234.98		P	0.7
6	☐			2314707.31		A	1.5
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	533.35	0.0002	P	9.7
2	☐	2.000	1.922	59451.83	0.0181	P	1.4
3	☐	5.000	4.724	148082.98	0.0443	P	4.1
4	☐	10.000	9.679	295345.37	0.0905	P	3.2
5	☐	100.000	95.579	2784494.75	0.8924	A	3.5
6	☐	200.000	202.234	5568676.38	1.8881	A	1.0
7	☐	1.000					

y = 0.0093 * x + 1.5949E-004
R = 0.9997
DL = 0.004984
BEC = 0.01708

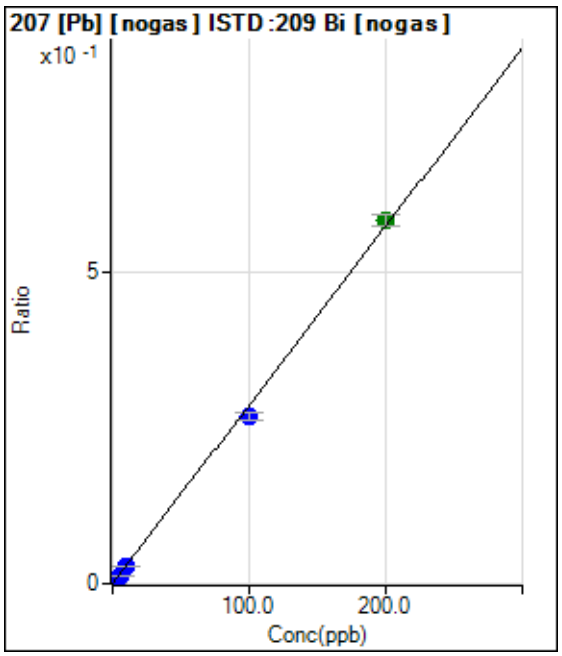
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0000	P	41.5
2	☐	2.000	1.918	20619.99	0.0063	P	1.6
3	☐	5.000	4.629	50485.29	0.0151	P	2.7
4	☐	10.000	9.716	103178.55	0.0316	P	2.1
5	☐	100.000	92.818	940175.87	0.3015	P	5.5
6	☐	200.000	203.615	1950585.39	0.6614	A	2.2
7	☐	1.000					

y = 0.0032 * x + 4.9766E-005
R = 0.9991
DL = 0.01908
BEC = 0.01532

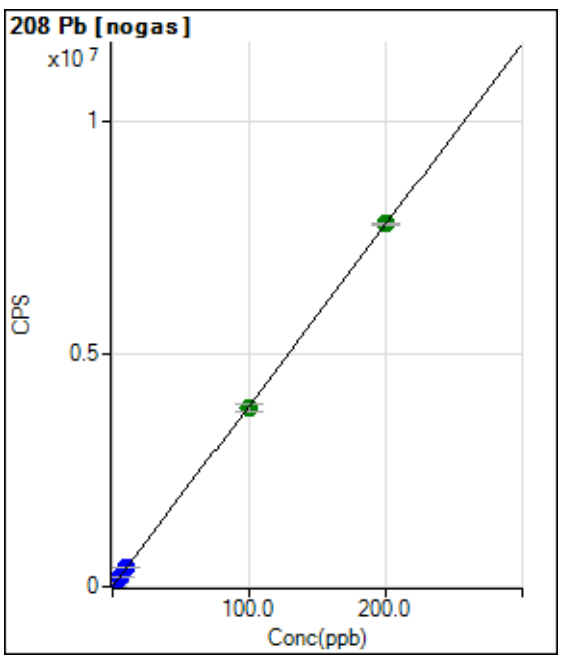
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	140.00	0.0000	P	6.8
2	☐	2.000	1.918	18167.04	0.0055	P	1.3
3	☐	5.000	4.673	44892.26	0.0134	P	1.8
4	☐	10.000	9.764	91308.44	0.0280	P	1.4
5	☐	100.000	93.688	836384.39	0.2681	P	4.0
6	☐	200.000	203.177	1714317.21	0.5813	A	3.2
7	☐	1.000					

y = 0.0029 * x + 4.1877E-005
R = 0.9993
DL = 0.003001
BEC = 0.01464

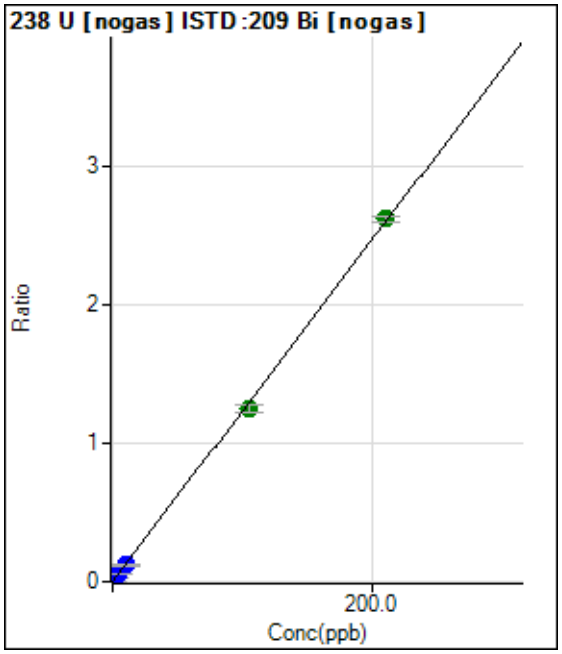
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	696.68		P	14.4
2	☐	2.000	2.097	82375.71		P	1.7
3	☐	5.000	5.221	204092.44		P	1.8
4	☐	10.000	10.636	415035.54		P	1.6
5	☐	100.000	99.109	3861630.12		A	3.9
6	☐	200.000	200.407	7807823.38		A	0.9
7	☐	1.000					

y = 38956.3408 * x + 696.6800
R = 1.0000
DL = 0.007752
BEC = 0.01788

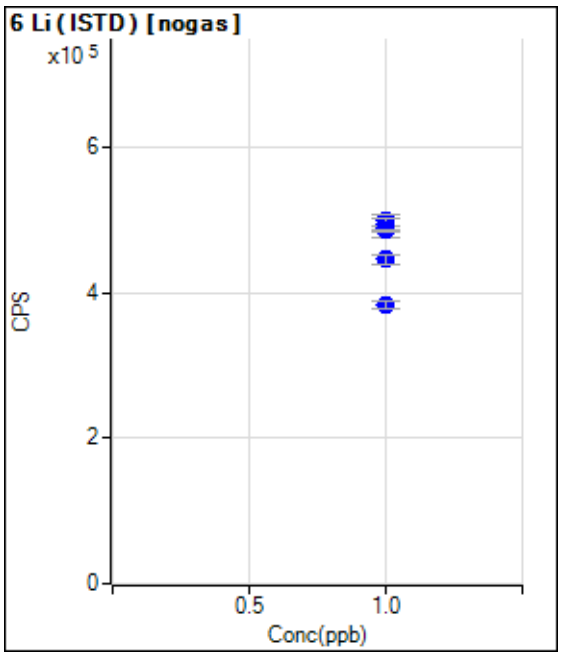
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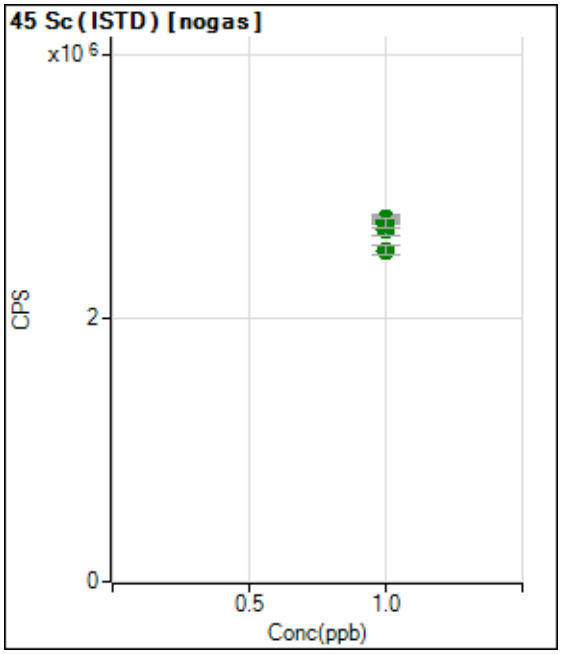
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	133.34	0.0000	P	24.8
2	☐	2.000	1.952	79345.09	0.0242	P	2.3
3	☐	5.000	4.959	205253.26	0.0613	P	3.2
4	☐	10.000	9.832	396372.81	0.1216	P	6.6
5	☐	105.000	101.361	3907564.53	1.2529	A	4.7
6	☐	210.000	211.829	7722030.51	2.6184	A	1.6
7	☐	1.000					

y = 0.0124 * x + 3.9925E-005
R = 0.9998
DL = 0.002398
BEC = 0.00323

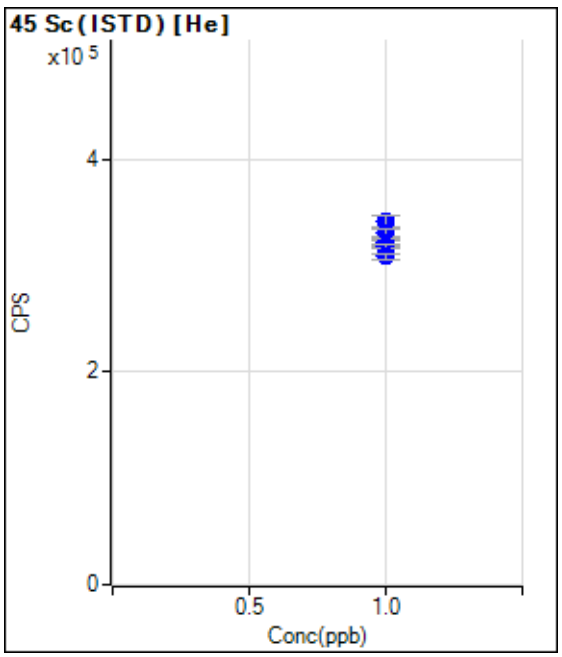
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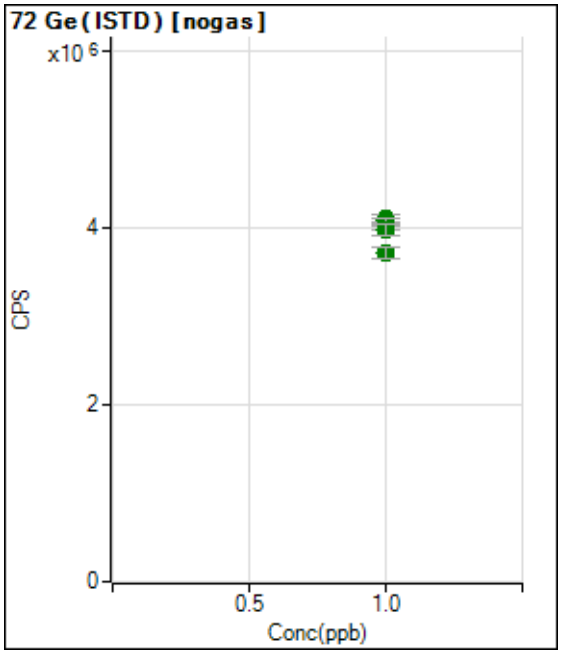
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1	☐	1.000		499722.48		P	3.3
2	☐	1.000		489936.77		P	5.4
3	☐	1.000		494734.05		P	3.9
4	☐	1.000		486713.73		P	0.8
5	☐	1.000		446352.37		P	2.7
6	☐	1.000		383856.95		P	3.1
7	☐	1.000					



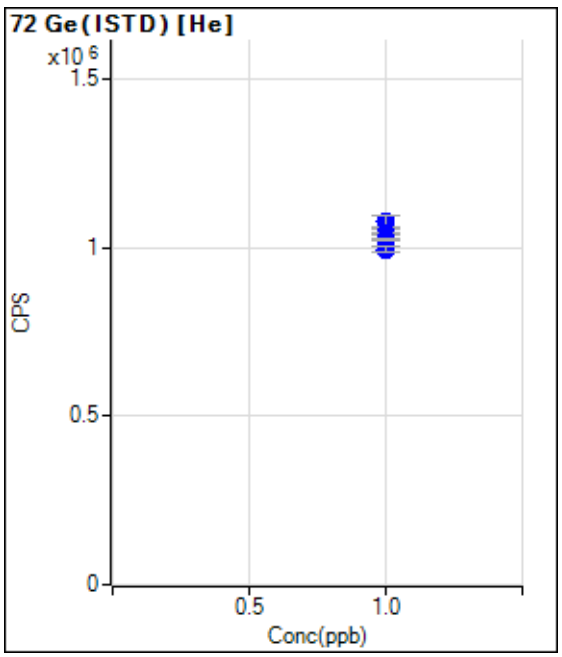
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2752382.35		A	2.3
2	☐	1.000		2675947.41		A	4.1
3	☐	1.000		2731049.75		A	0.8
4	☐	1.000		2738451.42		A	2.0
5	☐	1.000		2715779.96		A	2.8
6	☐	1.000		2513810.54		A	2.9
7	☐	1.000					



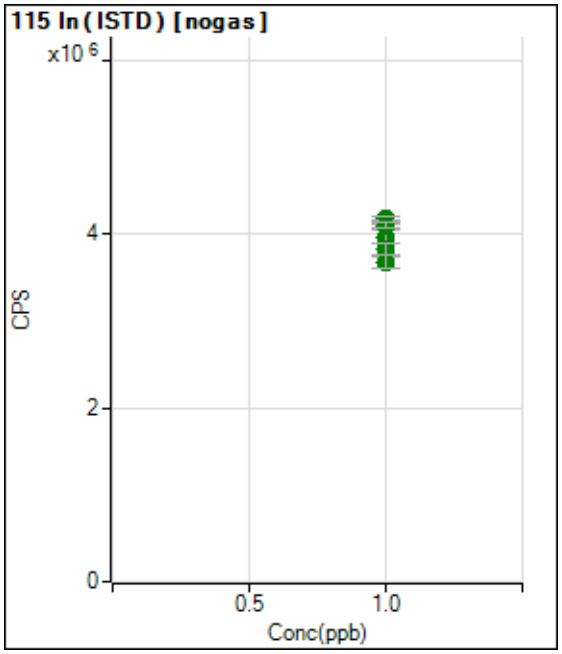
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1	☐	1.000		324925.70		P	1.0
2	☐	1.000		341014.51		P	3.1
3	☐	1.000		330837.86		P	2.1
4	☐	1.000		321426.98		P	2.2
5	☐	1.000		318108.36		P	1.0
6	☐	1.000		308520.73		P	1.4
7	☐	1.000					



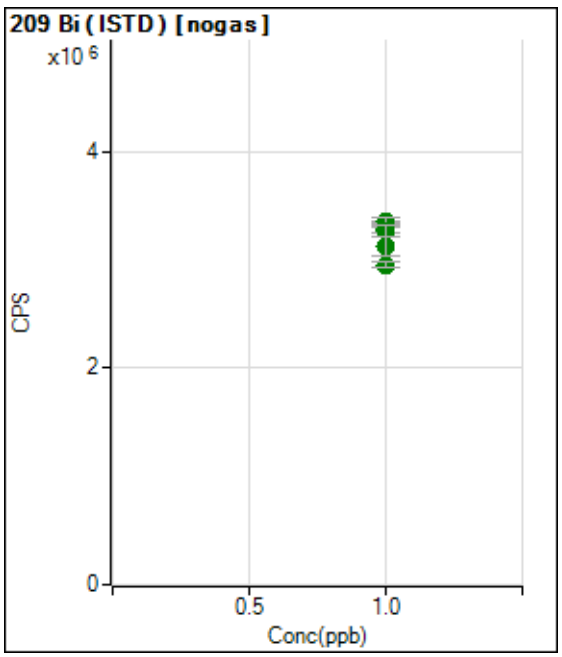
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1	☐	1.000		4048330.15		A	1.5
2	☐	1.000		4108736.92		A	3.0
3	☐	1.000		4083556.71		A	1.7
4	☐	1.000		4059468.58		A	3.2
5	☐	1.000		3983609.42		A	3.1
6	☐	1.000		3728103.90		A	3.2
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1063259.41		P	0.2
2	☐	1.000		1077890.66		P	3.4
3	☐	1.000		1044163.99		P	0.7
4	☐	1.000		1027126.16		P	0.7
5	☐	1.000		1023900.85		P	0.4
6	☐	1.000		995710.46		P	1.5
7	☐	1.000					



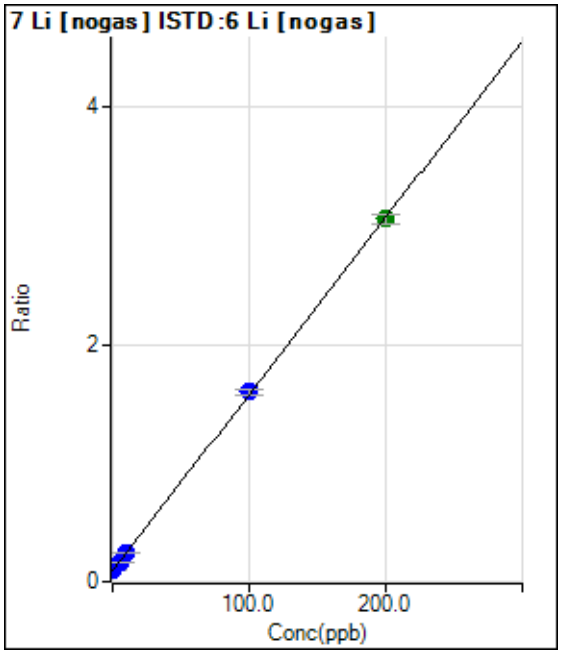
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4141556.88		A	0.7
2	☐	1.000		3974640.49		A	3.7
3	☐	1.000		4178068.00		A	1.1
4	☐	1.000		4103602.64		A	1.5
5	☐	1.000		3825898.01		A	4.3
6	☐	1.000		3686448.62		A	4.4
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3342763.28		A	0.7
2	☐	1.000		3284696.72		A	1.8
3	☐	1.000		3347999.53		A	2.6
4	☐	1.000		3264508.91		A	2.9
5	☐	1.000		3123746.72		A	5.2
6	☐	1.000		2949649.85		A	1.7
7	☐	1.000					

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Analysis File: 090618A.batch.bin
DA Date-Time: 2018-09-06 22:30:48
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

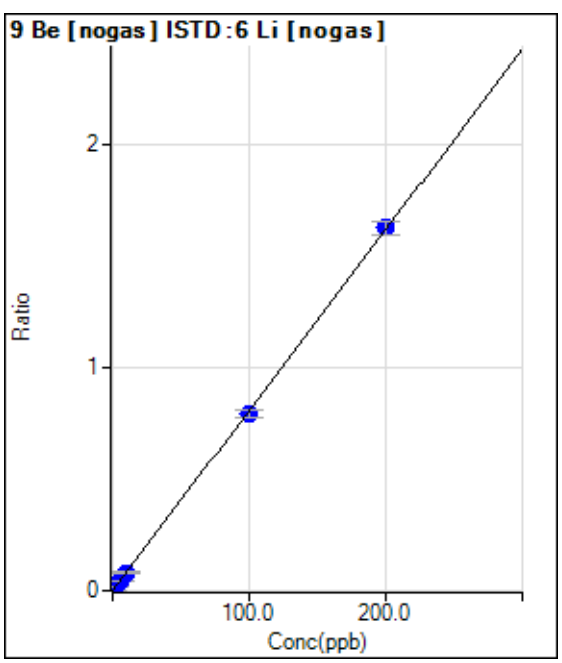
Level	Standard Data File	Sample Name	Acq. Date-Time
1	130CALB.d	CAL BLK	2018-09-06 22:16:02
2	131CALS.d	2/10/200	2018-09-06 22:18:00
3	132CALS.d	5/25/500	2018-09-06 22:19:58
4	133CALS.d	10/50/1000	2018-09-06 22:21:56
5	134CALS.d	100/500/10K	2018-09-06 22:23:55
6	135CALS.d	200/1000/20K	2018-09-06 22:25:55
7			



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	45123.63	0.0910	P	3.6
2	☐	2.000	2.167	63041.20	0.1232	P	1.1
3	☐	5.000	4.928	82016.60	0.1643	P	1.7
4	☐	10.000	10.482	118482.37	0.2470	P	2.7
5	☐	100.000	101.192	706889.68	1.5977	P	3.9
6	☐	200.000	199.380	1305031.31	3.0597	A	2.8
7	☐	1.000					

y = 0.0149 * x + 0.0910
R = 1.0000
DL = 0.6644
BEC = 6.108

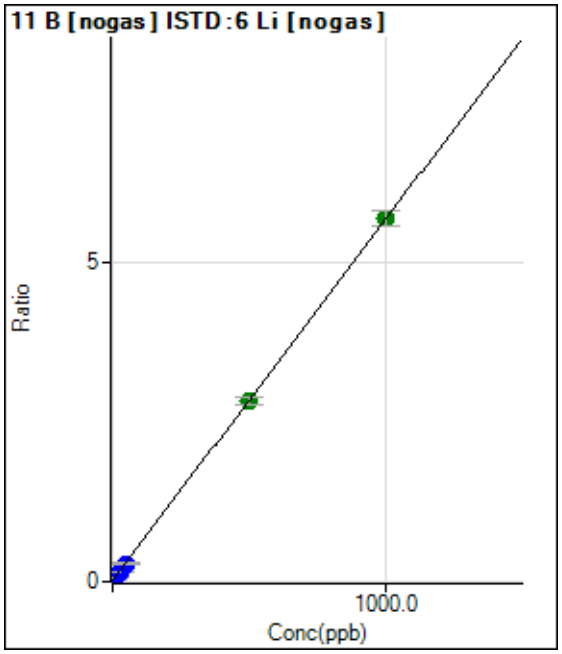
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1	☐	0.000	0.000	80.00	0.0002	P	46.9
2	☐	2.000	1.955	8185.24	0.0160	P	4.8
3	☐	5.000	4.893	19863.89	0.0398	P	2.4
4	☐	10.000	10.101	39357.62	0.0820	P	0.9
5	☐	100.000	97.913	350947.80	0.7935	P	5.0
6	☐	200.000	201.041	694664.31	1.6291	P	3.9
7	☐	1.000					

y = 0.0081 * x + 1.6298E-004
R = 0.9999
DL = 0.02832
BEC = 0.02011

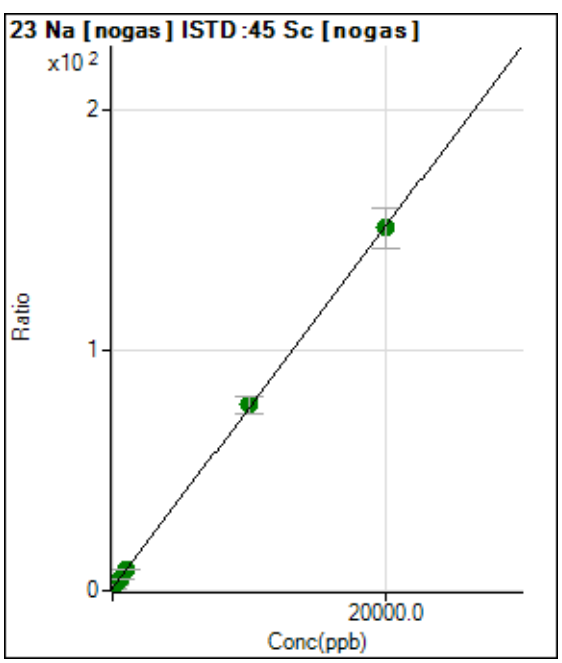
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8862.17	0.0179	P	8.4
2	☐	10.000	8.666	34204.22	0.0669	P	2.5
3	☐	25.000	22.782	73155.98	0.1466	P	3.0
4	☐	50.000	47.327	136813.44	0.2853	P	3.3
5	☐	500.000	497.283	1250895.61	2.8276	A	4.2
6	☐	1000.000	1001.561	2420739.96	5.6768	A	4.2
7	☐	5.000					

y = 0.0057 * x + 0.0179
R = 1.0000
DL = 0.7944
BEC = 3.17

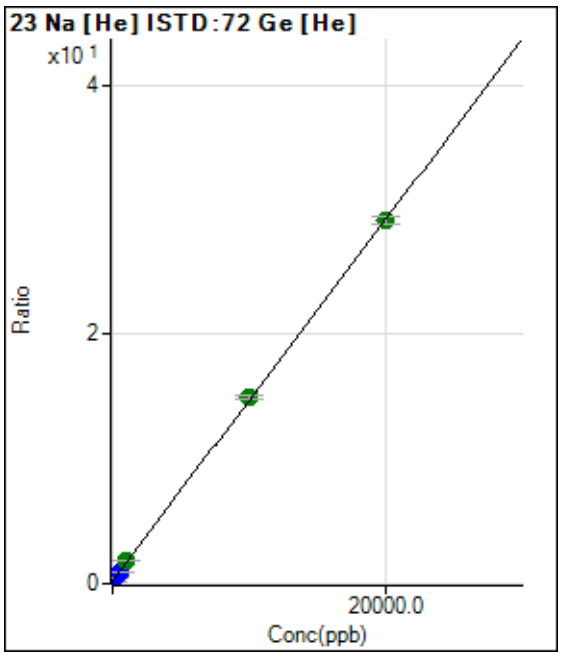
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2521705.33	0.9580	A	11.5
2	☐	200.000	187.379	6665434.27	2.3666	A	1.9
3	☐	500.000	505.579	13085804.72	4.7587	A	2.1
4	☐	1000.000	1051.678	23367372.92	8.8640	A	0.7
5	☐	10000.00	10138.011	199366075.2	77.1704	A	10.0
6	☐	20000.00	19928.398	385844741.9	150.769	A	10.8
7	☐	100.000					

y = 0.0075 * x + 0.9580
R = 1.0000
DL = 44.11
BEC = 127.4

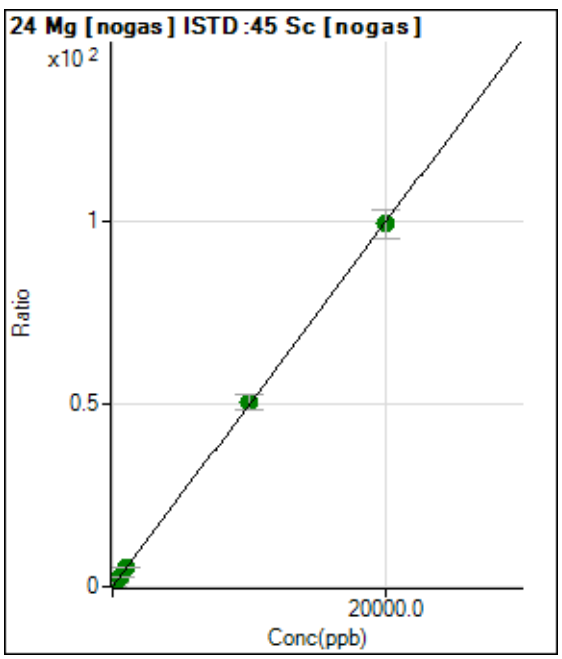
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	236068.85	0.2194	P	0.4
2	☐	200.000	192.840	555429.51	0.4988	P	3.3
3	☐	500.000	502.985	1037981.05	0.9482	P	1.3
4	☐	1000.000	1094.393	1896265.70	1.8051	A	3.0
5	☐	10000.00	10128.187	15489598.94	14.8943	A	2.0
6	☐	20000.00	19931.184	29965170.39	29.0980	A	2.1
7	☐	100.000					

y = 0.0014 * x + 0.2194
R = 1.0000
DL = 1.772
BEC = 151.4

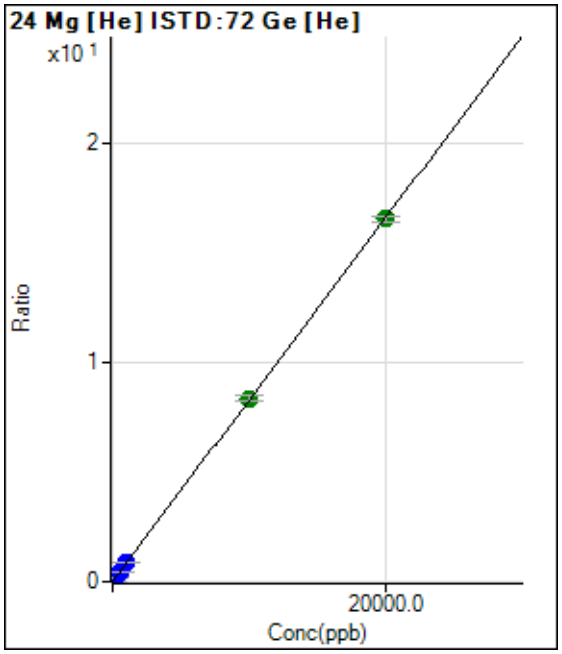
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20848.68	0.0080	P	19.6
2	☐	200.000	215.122	3046625.65	1.0819	A	2.9
3	☐	500.000	537.631	7398579.33	2.6919	A	4.4
4	☐	1000.000	1086.297	14316942.51	5.4310	A	1.1
5	☐	10000.00	10165.607	131227290.4	50.7572	A	8.5
6	☐	20000.00	19911.789	254871472.3	99.4126	A	7.7
7	☐	100.000					

y = 0.0050 * x + 0.0080
R = 1.0000
DL = 0.9355
BEC = 1.593

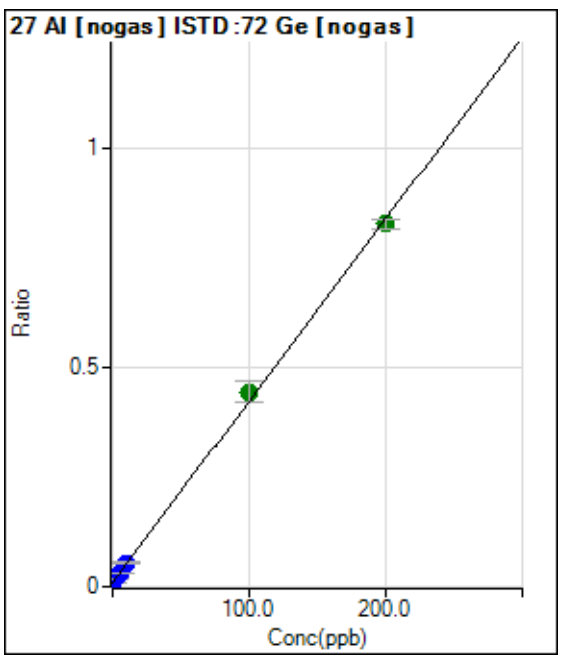
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1920.13	0.0018	P	9.8
2	☐	200.000	209.159	194974.25	0.1751	P	4.6
3	☐	500.000	521.101	474699.98	0.4337	P	2.1
4	☐	1000.000	1082.433	944336.16	0.8990	P	2.2
5	☐	10000.00	10085.121	8692165.50	8.3609	A	3.8
6	☐	20000.00	19952.699	17032929.75	16.5396	A	1.5
7	☐	100.000					

y = 8.2885E-004 * x + 0.0018
R = 1.0000
DL = 0.6347
BEC = 2.154

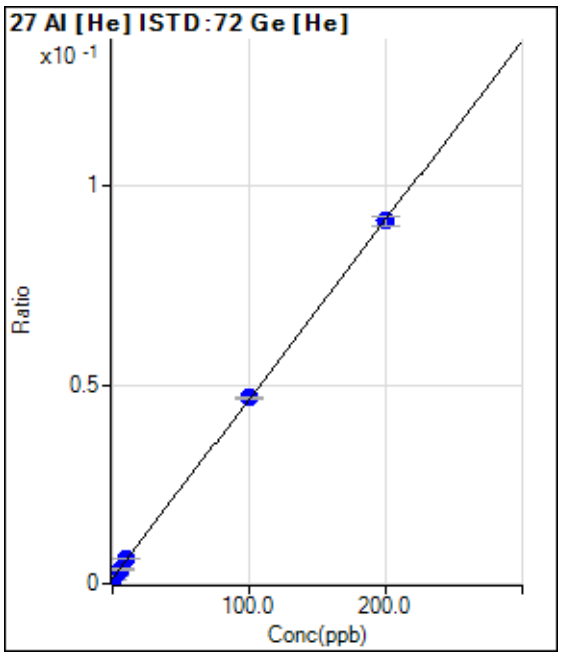
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37524.37	0.0093	P	4.9
2	☐	2.000	2.158	76829.36	0.0182	P	3.7
3	☐	5.000	5.268	129043.37	0.0311	P	1.7
4	☐	10.000	10.904	222647.33	0.0545	P	1.7
5	☐	100.000	105.014	1764420.60	0.4448	A	11.0
6	☐	200.000	197.439	3213128.70	0.8282	A	2.7
7	☐	1.000					

y = 0.0041 * x + 0.0093
R = 0.9996
DL = 0.3303
BEC = 2.237

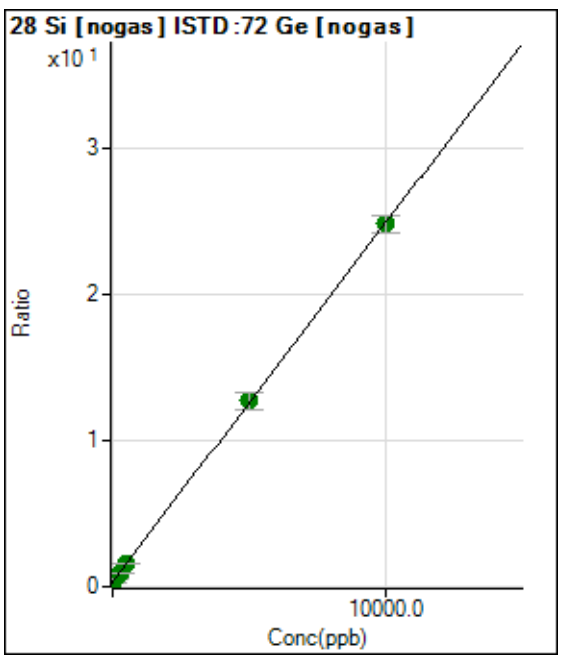
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.556	1180.06	0.0011	P	5.3
2	☐	2.000	1.271	2140.16	0.0019	P	10.3
3	☐	5.000	4.912	3893.80	0.0036	P	10.6
4	☐	10.000	10.938	6594.62	0.0063	P	4.8
5	☐	100.000	100.946	48723.00	0.0468	P	1.3
6	☐	200.000	199.489	93975.26	0.0913	P	2.6
7	☐	1.000					

y = 4.5070E-004 * x + 0.0013
R = 1.0000
DL = 0.3904
BEC = 2.991

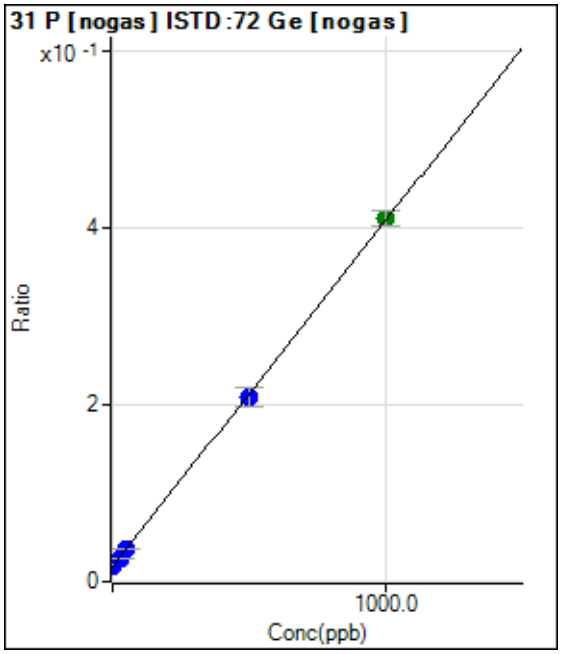
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1319846.67	0.3257	A	0.5
2	☐	100.000	99.274	2402418.76	0.5699	A	2.1
3	☐	250.000	249.033	3889737.55	0.9381	A	1.9
4	☐	500.000	510.540	6460508.24	1.5812	A	0.9
5	☐	5000.000	5041.073	50496255.91	12.7224	A	9.8
6	☐	10000.00	9978.968	96408771.90	24.8653	A	4.9
7	☐	5.000					

y = 0.0025 * x + 0.3257
R = 1.0000
DL = 1.924
BEC = 132.5

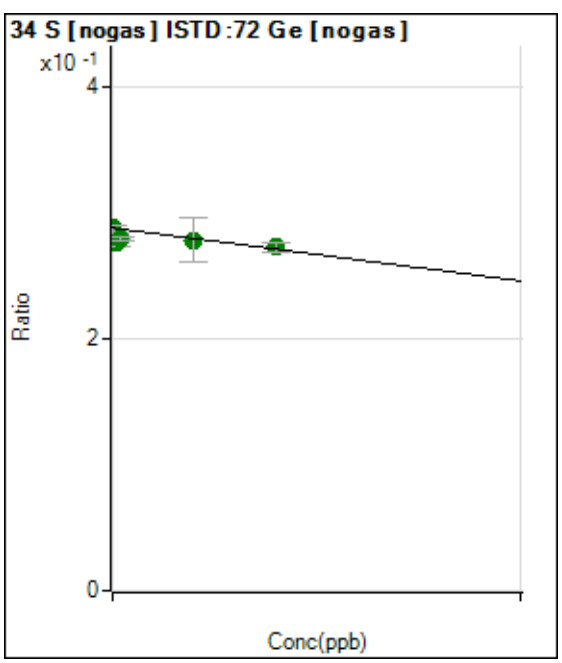
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69363.82	0.0172	P	6.3
2	☐	10.000	9.135	87368.21	0.0207	P	2.7
3	☐	25.000	24.298	110501.11	0.0267	P	2.7
4	☐	50.000	52.489	153924.17	0.0377	P	0.7
5	☐	500.000	489.249	826800.59	0.2084	P	10.9
6	☐	1000.000	1005.277	1590692.32	0.4102	A	4.4
7	☐	5.000					

y = 3.9096E-004 * x + 0.0172
R = 0.9999
DL = 8.248
BEC = 43.88

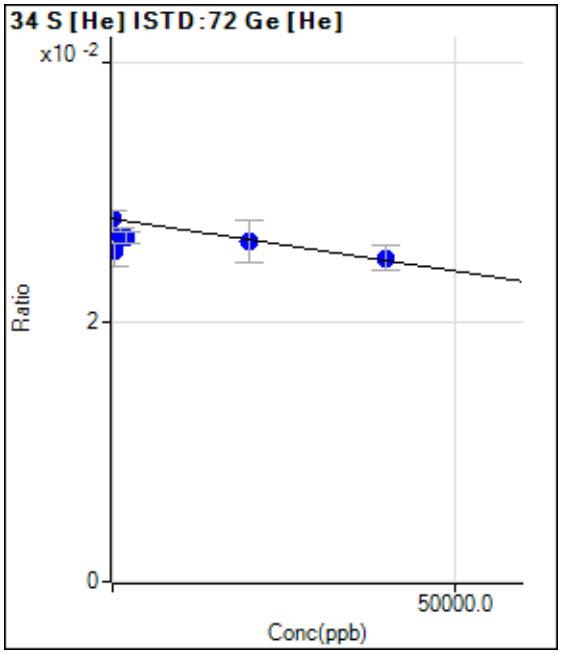
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1164325.42	0.2875	A	1.5
2	☐	400.000	23086.414	1170875.64	0.2778	A	4.2
3	☐	1000.000	28120.994	1142985.21	0.2757	A	2.6
4	☐	2000.000	20768.090	1139007.64	0.2788	A	0.8
5	☐	20000.00	23102.446	1100870.40	0.2778	A	12.7
6	☐	40000.00	36605.483	1055726.85	0.2721	A	3.0
7	☐	100.000					

y = -4.2017E-007 * x + 0.2875
R = -0.6179
DL = -3.031E+04
BEC = -6.843E+05

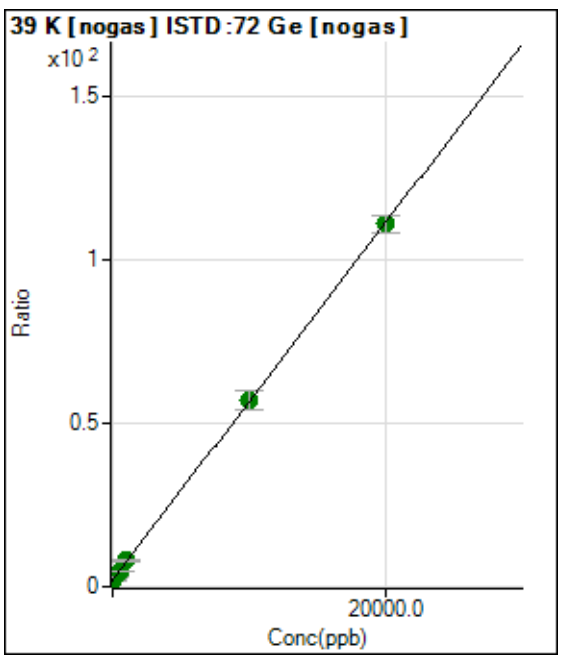
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30128.12	0.0280	P	5.1
2	☐	400.000	30082.358	28459.20	0.0256	P	10.1
3	☐	1000.000	16815.002	29193.37	0.0266	P	4.4
4	☐	2000.000	17610.277	27924.46	0.0266	P	3.3
5	☐	20000.00	21441.727	27323.57	0.0263	P	12.0
6	☐	40000.00	37806.424	25722.21	0.0250	P	7.6
7	☐	100.000					

y = -8.0122E-008 * x + 0.0280
R = -0.6608
DL = -5.299E+04
BEC = -3.494E+05

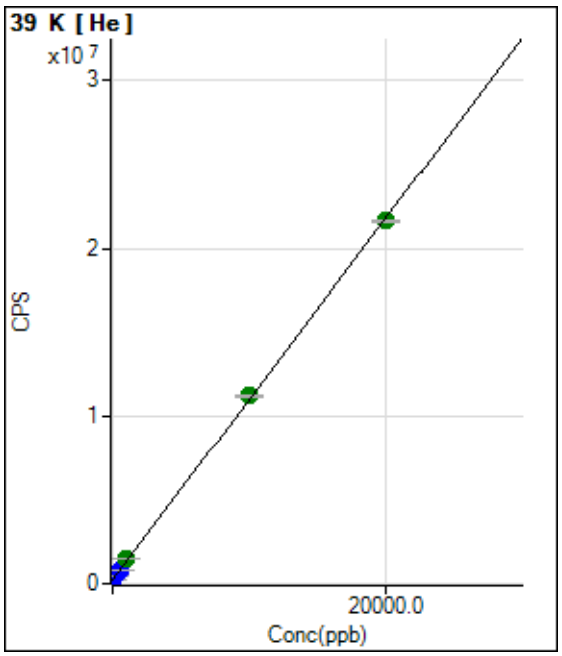
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8250789.25	2.0390	A	3.8
2	☐	200.000	198.144	13167484.67	3.1237	A	2.6
3	☐	500.000	514.520	20131189.51	4.8558	A	2.3
4	☐	1000.000	1081.126	32504963.23	7.9578	A	2.3
5	☐	10000.00	10113.442	227807246.7	57.4068	A	10.2
6	☐	20000.00	19938.878	431175342.9	111.197	A	4.7
7	☐	100.000					

y = 0.0055 * x + 2.0390
R = 1.0000
DL = 42.12
BEC = 372.4

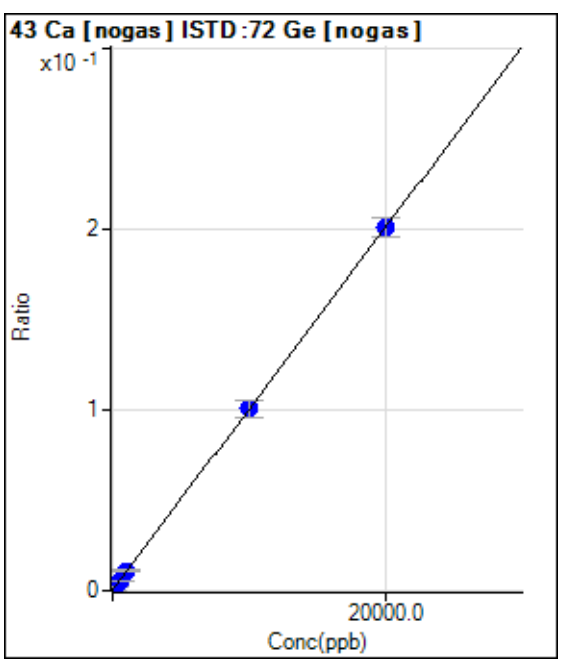
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	232752.92		P	1.0
2	☐	200.000	215.392	464534.46		P	0.4
3	☐	500.000	517.756	789904.39		P	1.3
4	☐	1000.000	1131.803	1450673.83		A	1.2
5	☐	10000.00	10217.303	11227482.75		A	1.0
6	☐	20000.00	19884.160	21629883.85		A	0.3
7	☐	100.000					

y = 1076.0892 * x + 232752.9200
R = 0.9999
DL = 6.591
BEC = 216.3

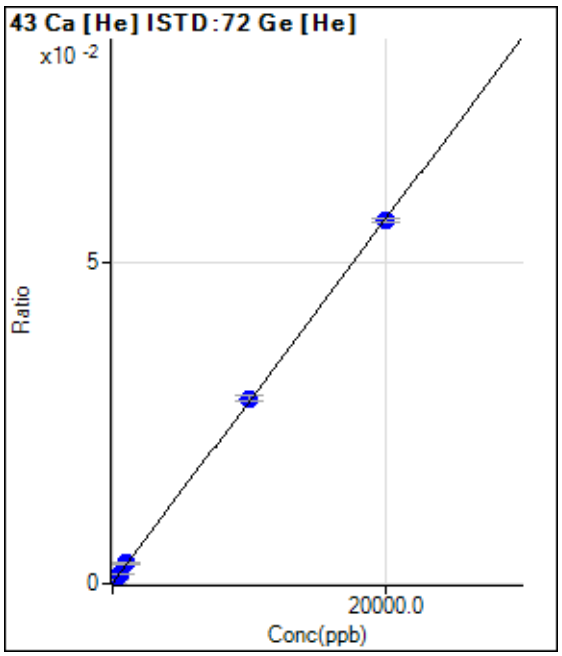
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1010.04	0.0002	P	5.1
2	☐	200.000	205.486	9746.02	0.0023	P	1.6
3	☐	500.000	528.448	23041.21	0.0056	P	3.5
4	☐	1000.000	1075.907	45131.46	0.0110	P	2.9
5	☐	10000.00	10031.724	400749.27	0.1010	P	9.6
6	☐	20000.00	19979.577	778555.35	0.2008	P	5.2
7	☐	100.000					

y = 1.0039E-005 * x + 2.4891E-004
R = 1.0000
DL = 3.808
BEC = 24.79

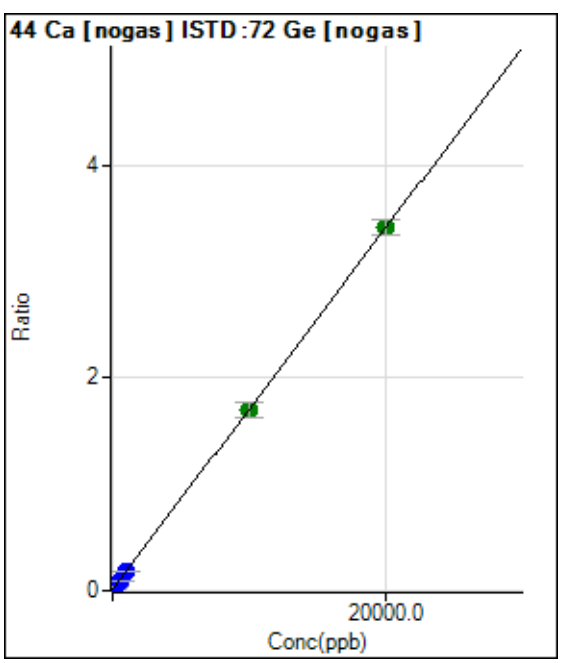
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	40.00	0.0000	P	42.1
2	☐	200.000	220.583	736.69	0.0007	P	10.1
3	☐	500.000	493.456	1566.76	0.0014	P	11.6
4	☐	1000.000	1124.293	3380.38	0.0032	P	5.9
5	☐	10000.00	10160.736	29934.25	0.0288	P	3.5
6	☐	20000.00	19913.375	58060.43	0.0564	P	0.9
7	☐	100.000					

y = 2.8290E-006 * x + 3.7072E-005
R = 0.9999
DL = 16.57
BEC = 13.1

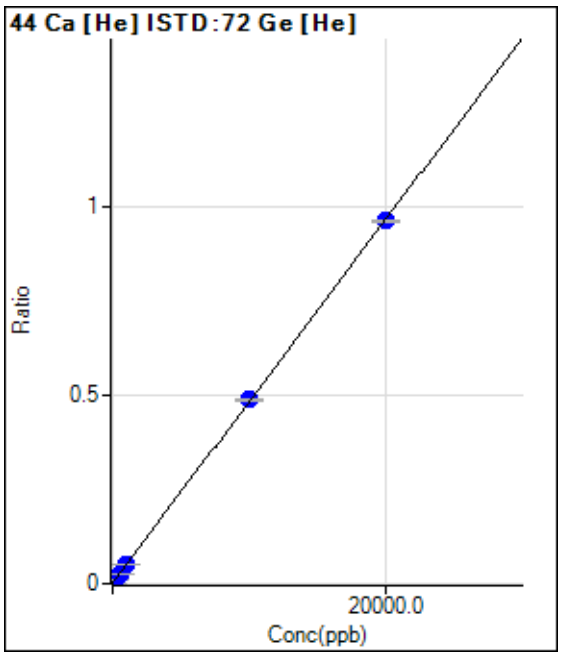
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41669.96	0.0103	P	4.7
2	☐	200.000	201.426	187521.59	0.0445	P	1.8
3	☐	500.000	509.107	400803.94	0.0967	P	2.0
4	☐	1000.000	1038.104	761549.94	0.1864	P	1.6
5	☐	10000.00	9946.705	6741667.40	1.6979	A	9.2
6	☐	20000.00	20024.501	13214486.88	3.4077	A	4.3
7	☐	100.000					

y = 1.6966E-004 * x + 0.0103
R = 1.0000
DL = 8.619
BEC = 60.71

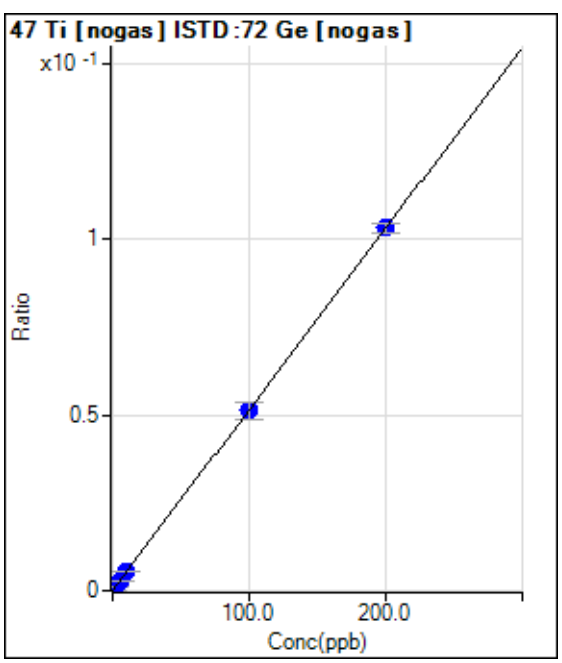
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1303.40	0.0012	P	10.9
2	☐	200.000	194.582	11817.25	0.0106	P	2.5
3	☐	500.000	516.398	28625.57	0.0262	P	3.8
4	☐	1000.000	1070.814	55609.77	0.0529	P	1.1
5	☐	10000.00	10109.893	509233.60	0.4896	P	1.0
6	☐	20000.00	19941.157	993300.95	0.9645	P	0.6
7	☐	100.000					

y = 4.8306E-005 * x + 0.0012
R = 1.0000
DL = 8.161
BEC = 25.06

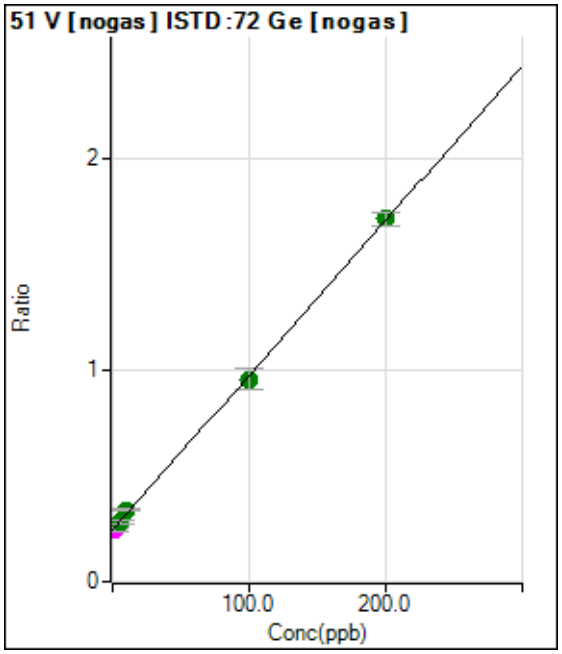
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	280.01	0.0001	P	23.7
2	☐	2.000	2.003	4644.01	0.0011	P	7.9
3	☐	5.000	4.980	10906.72	0.0026	P	5.9
4	☐	10.000	10.421	22183.46	0.0054	P	2.9
5	☐	100.000	99.269	202920.28	0.0511	P	10.5
6	☐	200.000	200.345	400223.46	0.1031	P	2.5
7	☐	1.000					

y = 5.1451E-004 * x + 6.9365E-005
R = 1.0000
DL = 0.09574
BEC = 0.1348

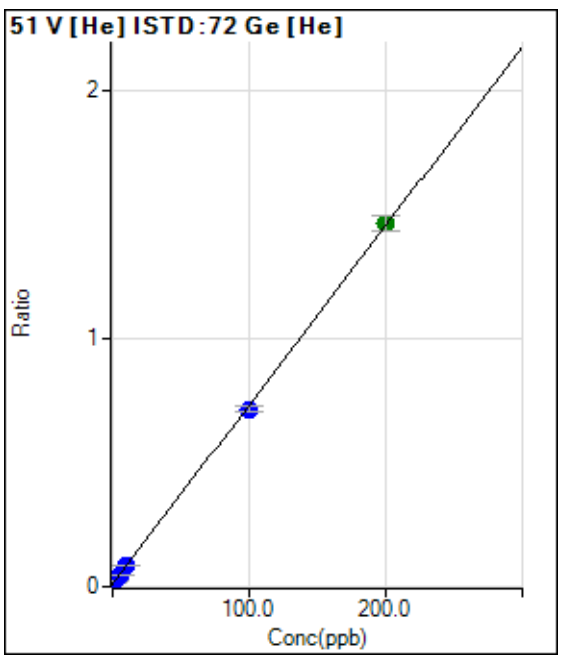
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	992143.35	0.2448	M	1.6
2	☐	2.000	0.205	1037724.18	0.2463	M	7.4
3	☐	5.000	4.867	1162074.08	0.2804	A	4.9
4	☐	10.000	13.044	1389389.94	0.3402	A	2.6
5	☐	100.000	97.651	3801875.61	0.9585	A	10.9
6	☐	200.000	201.044	6648845.20	1.7141	A	3.5
7	☐	1.000					

y = 0.0073 * x + 0.2448
R = 0.9997
DL = 1.64
BEC = 33.5

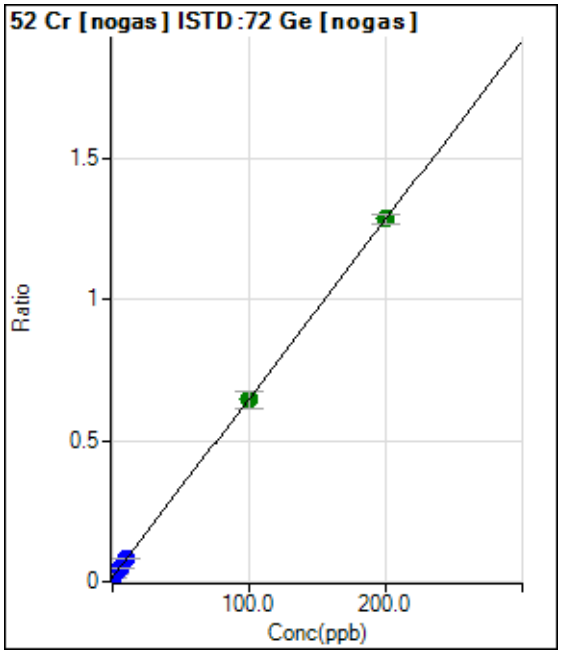
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.263	13854.49	0.0129	P	1.8
2	☐	2.000	2.147	29465.20	0.0265	P	2.3
3	☐	5.000	5.176	52857.88	0.0483	P	2.2
4	☐	10.000	10.629	92024.22	0.0876	P	0.8
5	☐	100.000	97.646	743266.86	0.7149	P	3.2
6	☐	200.000	201.140	1504514.29	1.4609	A	4.3
7	☐	1.000					

y = 0.0072 * x + 0.0110
R = 0.9999
DL = 0.09598
BEC = 1.524

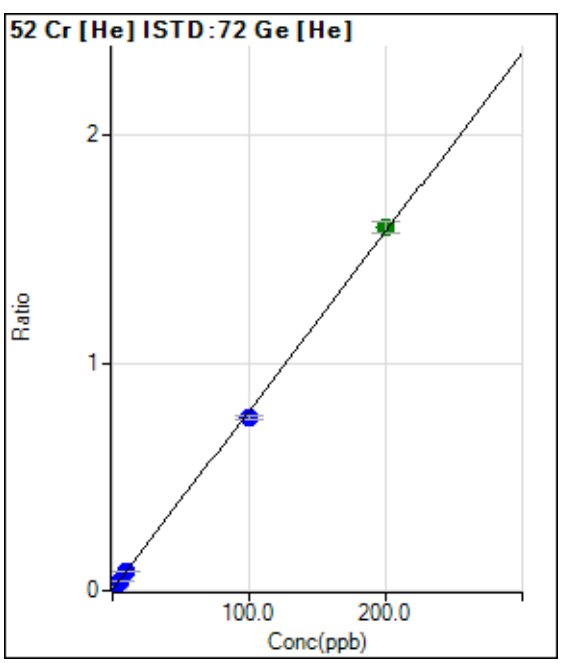
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61592.15	0.0152	P	5.1
2	☐	2.000	1.861	113921.04	0.0270	P	3.4
3	☐	5.000	4.921	192485.80	0.0464	P	4.0
4	☐	10.000	10.522	334809.41	0.0820	P	1.6
5	☐	100.000	99.238	2559668.30	0.6446	A	9.3
6	☐	200.000	200.358	4988740.66	1.2859	A	2.9
7	☐	1.000					

y = 0.0063 * x + 0.0152
R = 1.0000
DL = 0.3656
BEC = 2.401

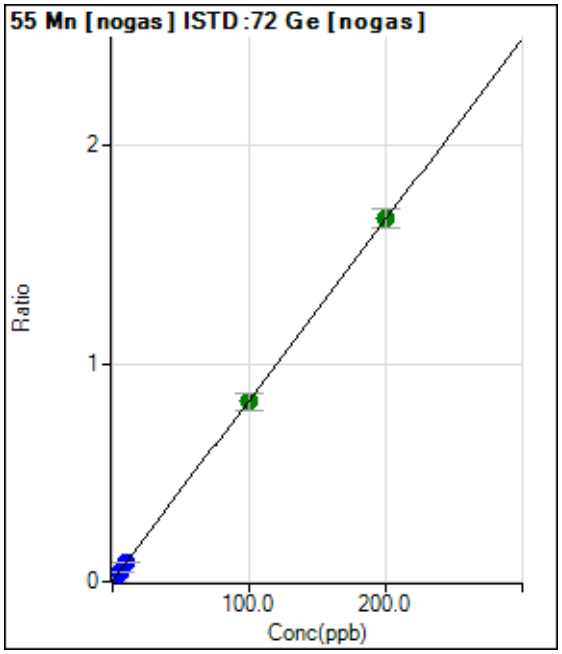
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4970.77	0.0046	P	16.0
2	☐	2.000	1.960	22313.76	0.0200	P	4.5
3	☐	5.000	4.862	46919.61	0.0429	P	6.8
4	☐	10.000	10.472	91415.66	0.0870	P	3.1
5	☐	100.000	95.641	787408.24	0.7572	P	2.2
6	☐	200.000	202.160	1642864.19	1.5953	A	3.1
7	☐	1.000					

y = 0.0079 * x + 0.0046
R = 0.9997
DL = 0.282
BEC = 0.5879

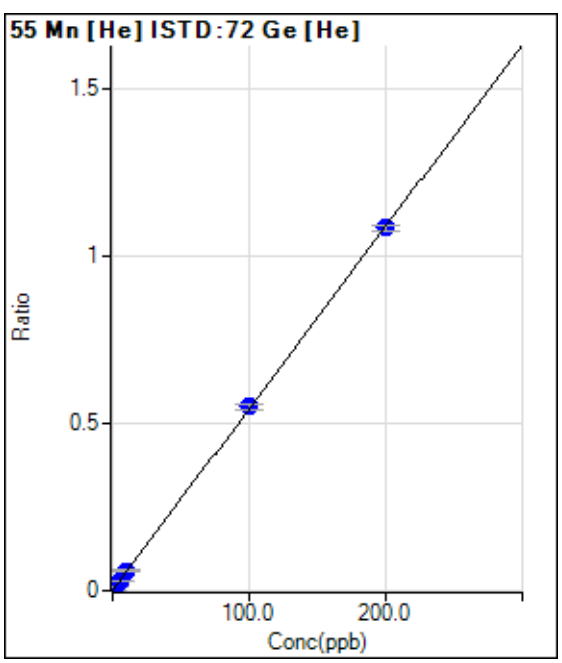
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15606.72	0.0039	P	5.0
2	☐	2.000	1.969	85069.14	0.0202	P	4.0
3	☐	5.000	4.981	187233.18	0.0451	P	1.1
4	☐	10.000	10.445	369431.14	0.0904	P	2.4
5	☐	100.000	99.213	3279722.24	0.8263	A	9.8
6	☐	200.000	200.372	6455481.36	1.6648	A	5.3
7	☐	1.000					

y = 0.0083 * x + 0.0039
R = 1.0000
DL = 0.07021
BEC = 0.4655

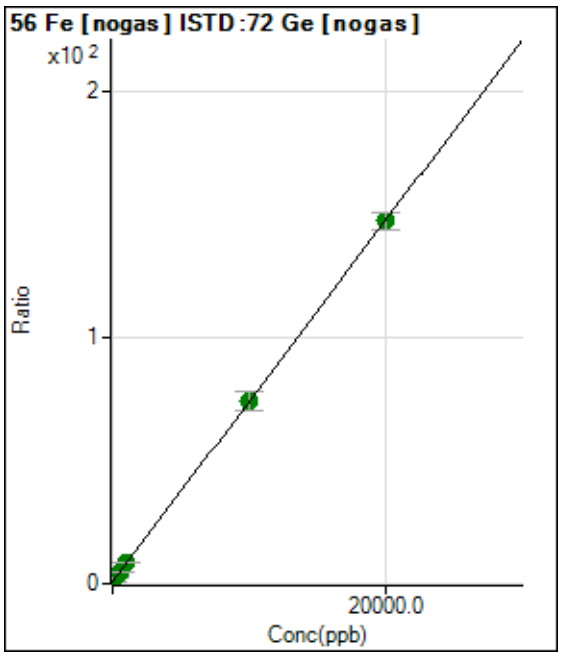
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	610.02	0.0006	P	3.8
2	☐	2.000	2.107	13401.66	0.0120	P	4.2
3	☐	5.000	5.224	31750.99	0.0290	P	1.2
4	☐	10.000	10.908	62961.06	0.0599	P	1.8
5	☐	100.000	101.110	572962.44	0.5509	P	2.6
6	☐	200.000	199.393	1118190.92	1.0858	P	1.7
7	☐	1.000					

y = 0.0054 * x + 5.6715E-004
R = 1.0000
DL = 0.0119
BEC = 0.1042

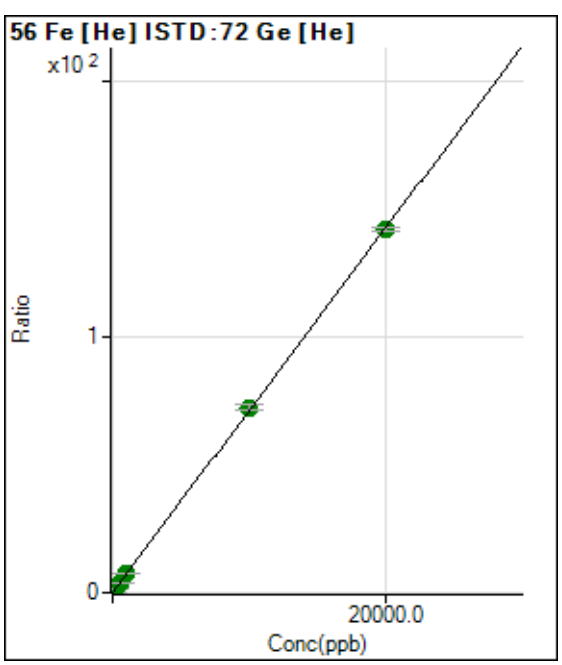
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2932218.03	0.7251	A	6.0
2	☐	200.000	196.406	9143806.19	2.1691	A	2.3
3	☐	500.000	509.104	18527350.41	4.4679	A	0.9
4	☐	1000.000	1046.313	34385652.85	8.4173	A	1.9
5	☐	10000.00	10016.491	294926323.2	74.3632	A	11.2
6	☐	20000.00	19989.247	572630846.1	147.679	A	4.8
7	☐	100.000					

y = 0.0074 * x + 0.7251
R = 1.0000
DL = 17.76
BEC = 98.64

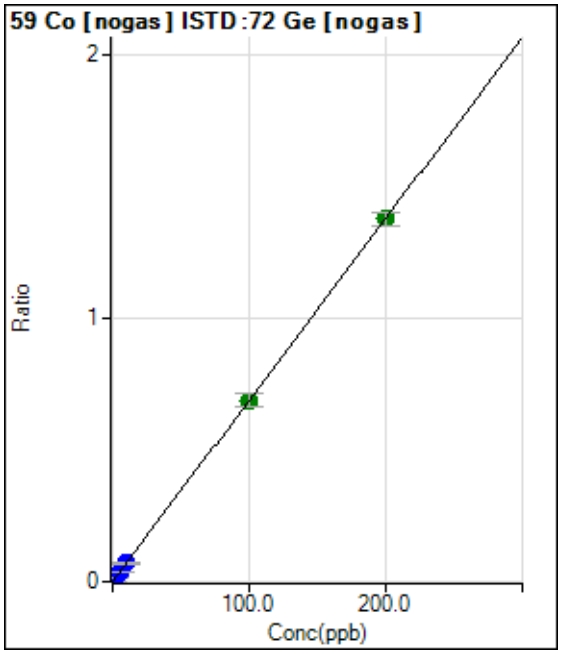
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Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22120.17	0.0206	P	0.9
2	☐	200.000	209.398	1681357.84	1.5104	A	4.7
3	☐	500.000	509.848	3993456.82	3.6481	A	3.4
4	☐	1000.000	1079.304	8088375.71	7.6996	A	1.1
5	☐	10000.00	10171.752	75284158.88	72.3910	A	2.5
6	☐	20000.00	19909.819	145908534.4	141.675	A	1.1
7	☐	100.000					

y = 0.0071 * x + 0.0206
R = 0.9999
DL = 0.07591
BEC = 2.89

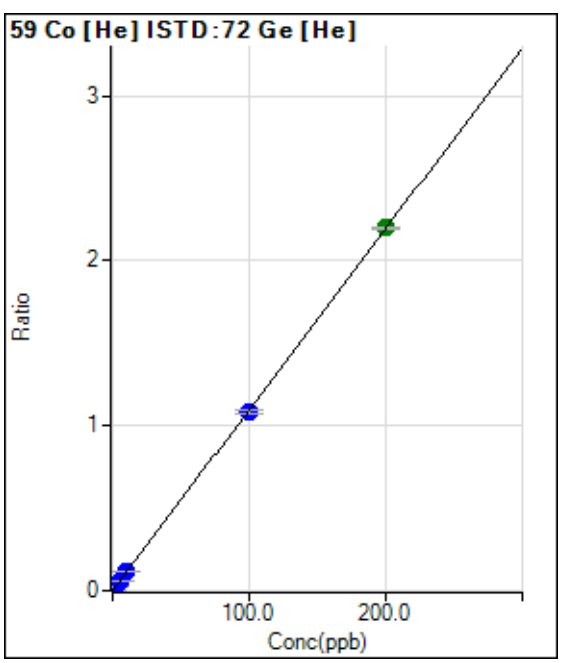
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	680.03	0.0002	P	16.1
2	☐	2.000	2.069	60734.08	0.0144	P	4.4
3	☐	5.000	5.152	147736.50	0.0356	P	1.2
4	☐	10.000	10.137	285721.09	0.0699	P	1.9
5	☐	100.000	99.987	2738162.14	0.6885	A	6.9
6	☐	200.000	199.995	5340299.50	1.3769	A	3.7
7	☐	1.000					

y = 0.0069 * x + 1.6806E-004
R = 1.0000
DL = 0.01182
BEC = 0.02441

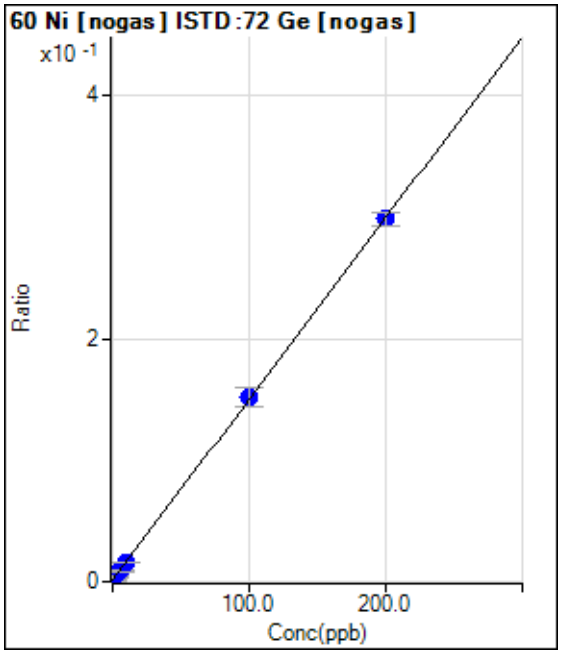
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	120.00	0.0001	P	36.4
2	☐	2.000	2.014	24683.48	0.0222	P	4.9
3	☐	5.000	5.016	60261.81	0.0551	P	2.8
4	☐	10.000	10.573	121784.69	0.1159	P	1.4
5	☐	100.000	98.636	1123672.82	1.0806	P	2.4
6	☐	200.000	200.653	2263815.38	2.1981	A	0.6
7	☐	1.000					

y = 0.0110 * x + 1.1155E-004
R = 1.0000
DL = 0.01113
BEC = 0.01018

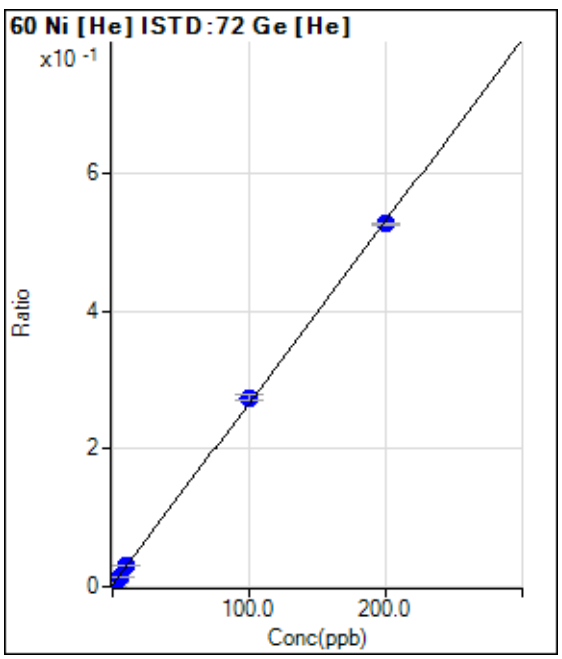
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.374	3227.01	0.0008	P	6.2
2	☐	2.000	1.790	16941.30	0.0040	P	5.2
3	☐	5.000	5.041	36753.64	0.0089	P	4.4
4	☐	10.000	10.130	67219.77	0.0165	P	2.0
5	☐	100.000	100.837	601709.02	0.1517	P	10.6
6	☐	200.000	199.576	1159145.43	0.2988	P	3.6
7	☐	1.000					

y = 0.0015 * x + 0.0014
R = 1.0000
DL = 0.09878
BEC = 0.9076

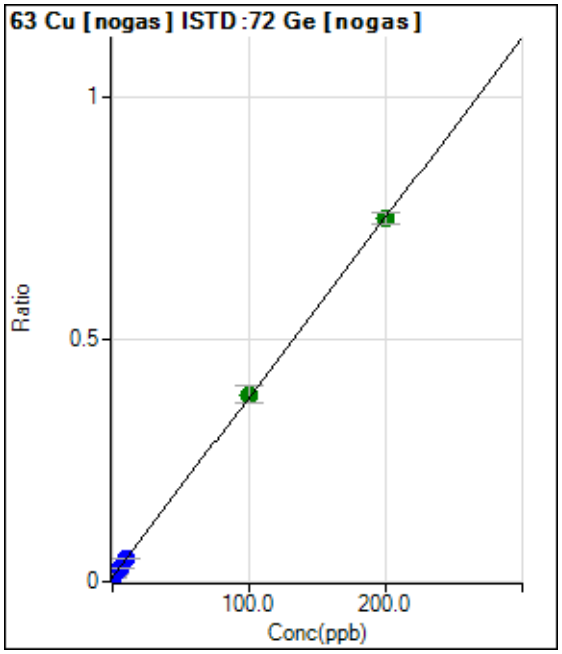
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	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.791	626.69	0.0006	P	8.4
2	☐	2.000	1.459	7268.21	0.0065	P	6.6
3	☐	5.000	4.594	16210.72	0.0148	P	4.2
4	☐	10.000	10.276	31336.96	0.0298	P	0.9
5	☐	100.000	102.921	285586.31	0.2747	P	3.2
6	☐	200.000	198.541	543132.09	0.5274	P	0.7
7	☐	1.000					

y = 0.0026 * x + 0.0027
R = 0.9998
DL = 0.0553
BEC = 1.011

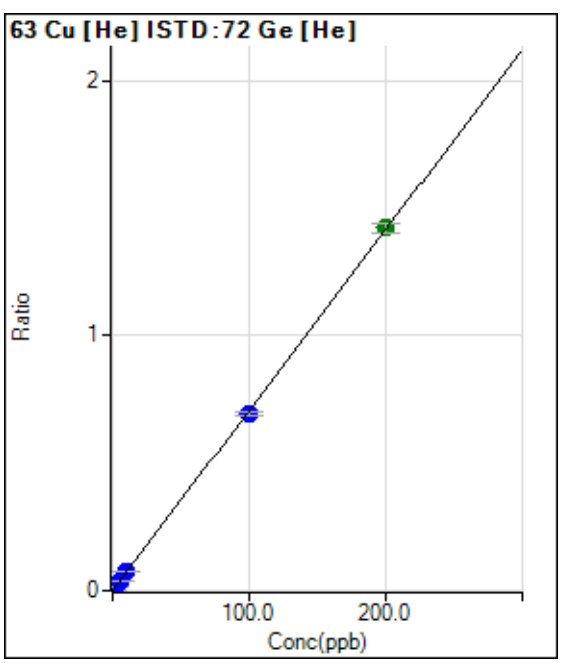
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	39181.95	0.0097	P	5.7
2	☐	2.000	1.569	65329.23	0.0155	P	3.6
3	☐	5.000	4.612	110982.93	0.0268	P	3.7
4	☐	10.000	9.965	190418.87	0.0466	P	1.3
5	☐	100.000	101.612	1533795.34	0.3862	A	8.8
6	☐	200.000	199.210	2900591.00	0.7478	A	3.3
7	☐	1.000					

y = 0.0037 * x + 0.0097
R = 0.9999
DL = 0.4505
BEC = 2.615

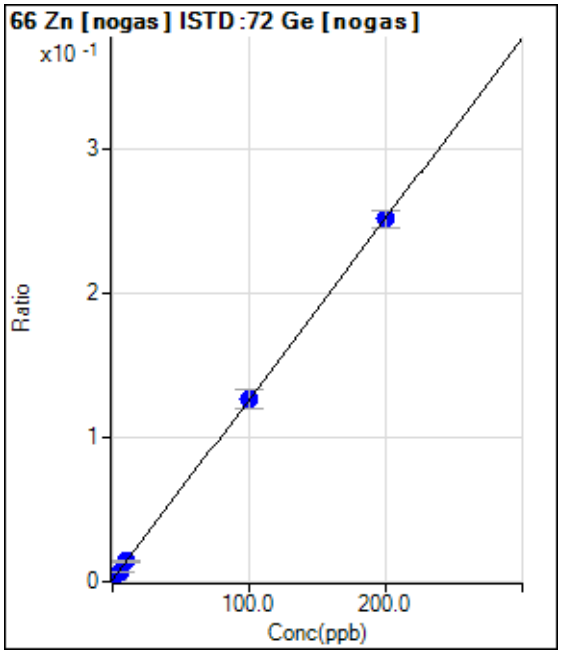
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.177	2176.83	0.0020	P	3.4
2	☐	2.000	2.140	17688.77	0.0159	P	6.4
3	☐	5.000	5.161	40775.65	0.0372	P	1.1
4	☐	10.000	10.673	80040.35	0.0762	P	1.1
5	☐	100.000	97.776	719340.61	0.6917	P	2.0
6	☐	200.000	201.073	1463934.51	1.4216	A	2.8
7	☐	1.000					

y = 0.0071 * x + 7.7250E-004
R = 0.9999
DL = 0.02905
BEC = 0.1093

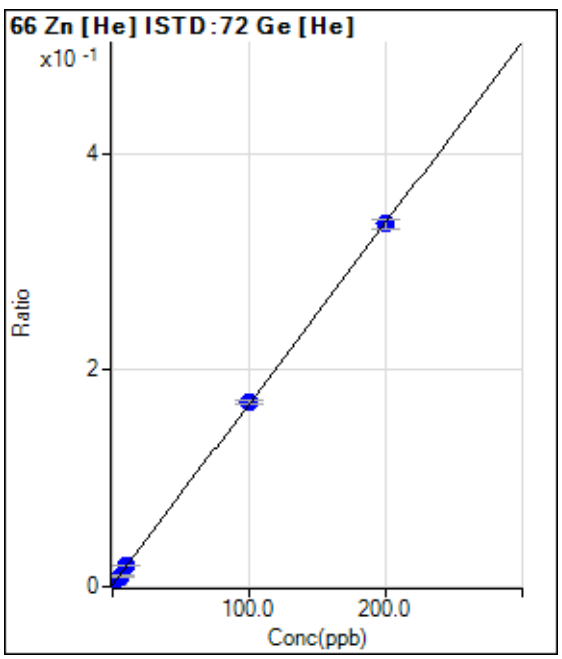
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.296	3040.29	0.0008	P	3.8
2	☐	2.000	1.982	15173.15	0.0036	P	3.3
3	☐	5.000	4.840	29734.50	0.0072	P	2.6
4	☐	10.000	10.391	57640.71	0.0141	P	2.7
5	☐	100.000	100.196	501580.40	0.1264	P	9.9
6	☐	200.000	199.887	973144.47	0.2510	P	5.1
7	☐	1.000					

y = 0.0013 * x + 0.0011
R = 1.0000
DL = 0.06824
BEC = 0.8973

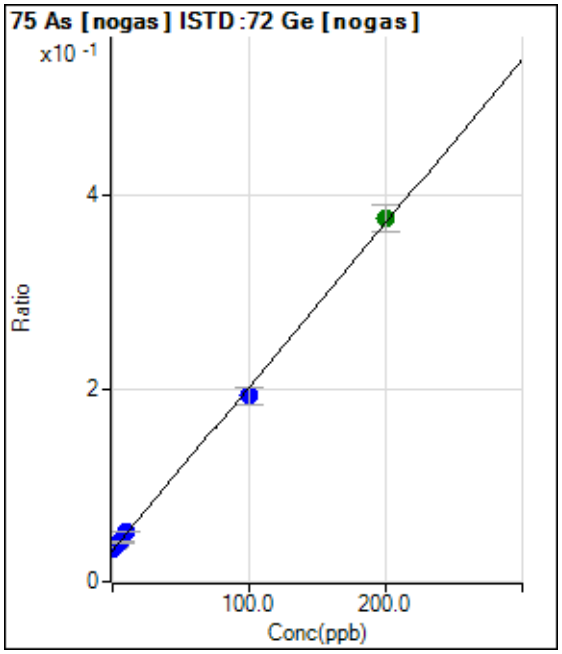
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.402	1170.06	0.0011	P	4.9
2	☐	2.000	1.792	5294.18	0.0048	P	5.2
3	☐	5.000	4.704	10529.88	0.0096	P	5.3
4	☐	10.000	10.319	19967.83	0.0190	P	1.6
5	☐	100.000	101.188	177745.50	0.1709	P	1.5
6	☐	200.000	199.400	345053.19	0.3351	P	2.5
7	☐	1.000					

y = 0.0017 * x + 0.0018
R = 1.0000
DL = 0.09518
BEC = 1.053

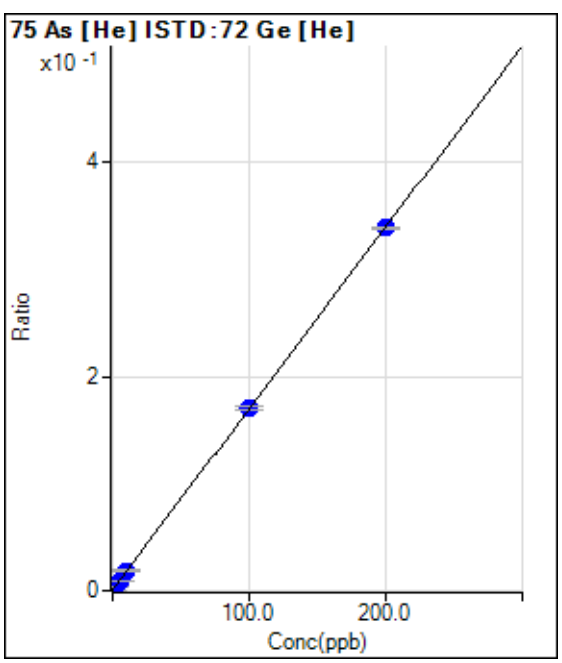
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.871	136856.03	0.0338	P	5.1
2	☐	2.000	1.954	150363.91	0.0357	P	2.6
3	☐	5.000	5.346	171733.11	0.0414	P	2.9
4	☐	10.000	11.596	212576.25	0.0520	P	1.1
5	☐	100.000	94.644	766125.93	0.1930	P	9.5
6	☐	200.000	202.590	1457522.79	0.3762	A	7.3
7	☐	1.000					

y = 0.0017 * x + 0.0324
R = 0.9994
DL = 3.036
BEC = 19.06

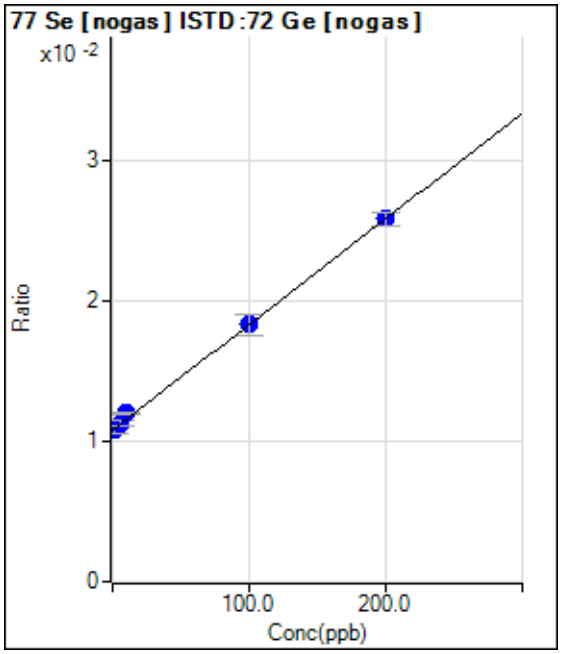
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	735.57	0.0007	P	4.8
2	☐	2.000	1.951	4437.23	0.0040	P	5.0
3	☐	5.000	4.989	9989.43	0.0091	P	5.1
4	☐	10.000	10.568	19511.60	0.0186	P	3.8
5	☐	100.000	100.541	177696.68	0.1709	P	2.6
6	☐	200.000	199.702	348866.79	0.3388	P	0.8
7	☐	1.000					

y = 0.0017 * x + 6.8362E-004
R = 1.0000
DL = 0.05825
BEC = 0.4038

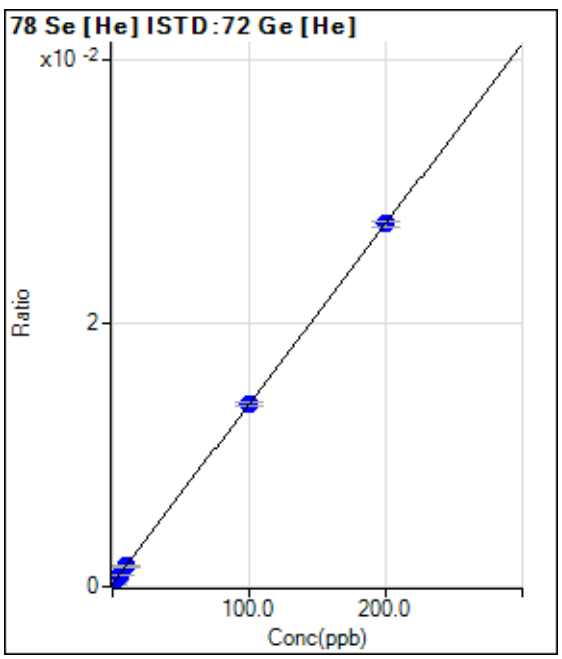
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	43662.47	0.0108	P	5.8
2	☐	2.000	-0.568	45323.36	0.0108	P	4.6
3	☐	5.000	6.414	46753.53	0.0113	P	3.7
4	☐	10.000	15.836	48969.24	0.0120	P	2.1
5	☐	100.000	99.763	72724.91	0.0183	P	8.1
6	☐	200.000	199.817	100200.40	0.0258	P	3.5
7	☐	1.000					

y = 7.5246E-005 * x + 0.0108
R = 0.9994
DL = 24.95
BEC = 143.5

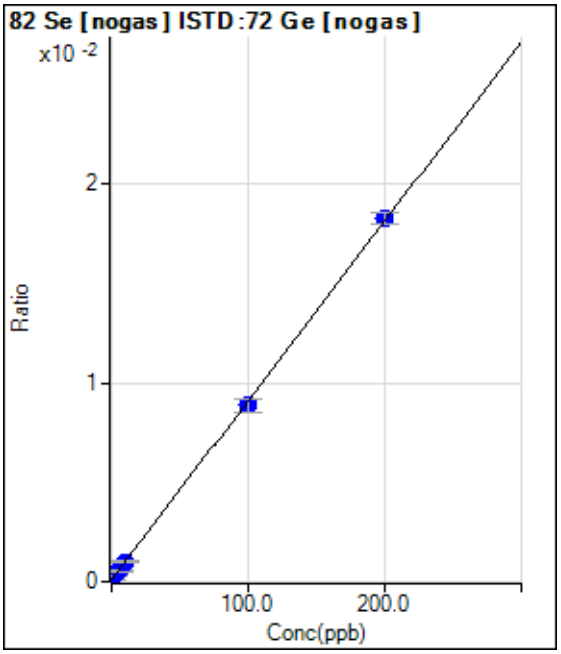
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.099	232.00	0.0002	P	13.5
2	☐	2.000	1.856	507.34	0.0005	P	3.0
3	☐	5.000	5.216	1001.36	0.0009	P	1.1
4	☐	10.000	9.864	1628.08	0.0015	P	5.6
5	☐	100.000	99.923	14410.38	0.0139	P	2.9
6	☐	200.000	200.041	28358.01	0.0275	P	1.2
7	☐	1.000					

y = 1.3664E-004 * x + 2.0196E-004
R = 1.0000
DL = 0.6401
BEC = 1.478

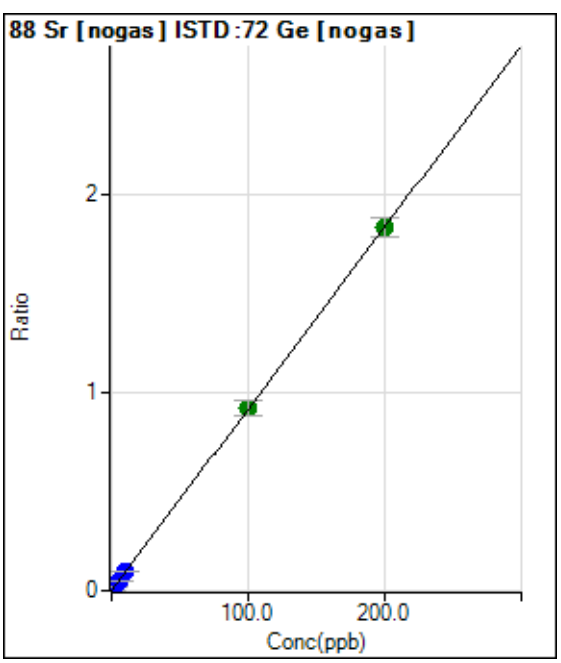
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	376.68	0.0001	P	16.5
2	☐	2.000	1.867	1103.39	0.0003	P	12.6
3	☐	5.000	5.048	2270.17	0.0005	P	12.6
4	☐	10.000	10.052	4080.51	0.0010	P	5.3
5	☐	100.000	97.178	35177.60	0.0089	P	8.0
6	☐	200.000	201.409	70788.48	0.0182	P	3.1
7	☐	1.000					

y = 9.0136E-005 * x + 9.3274E-005
R = 0.9999
DL = 0.5125
BEC = 1.035

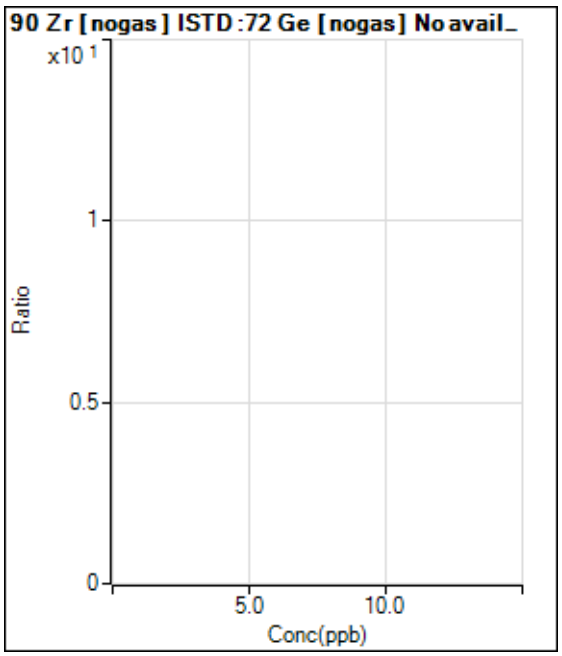
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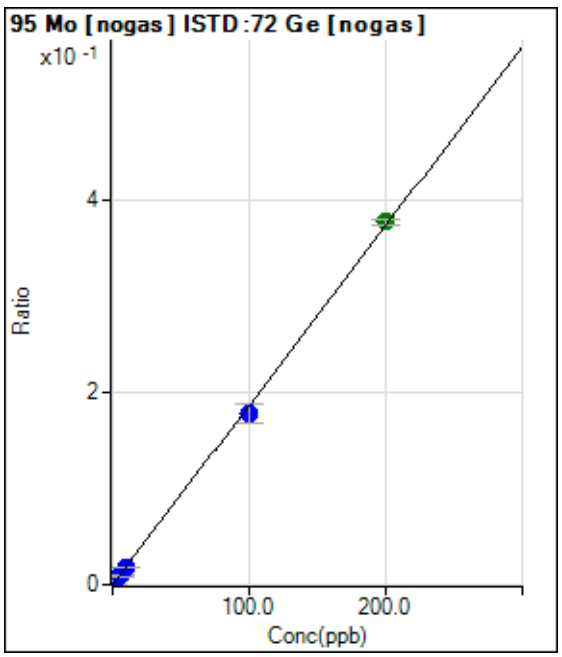
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1883.47	0.0005	P	12.4
2	☐	2.000	2.058	81618.42	0.0194	P	3.5
3	☐	5.000	5.190	199611.53	0.0481	P	1.5
4	☐	10.000	10.668	402219.06	0.0985	P	1.5
5	☐	100.000	100.500	3667750.88	0.9236	A	9.0
6	☐	200.000	199.711	7113307.60	1.8349	A	5.3
7	☐	1.000					

y = 0.0092 * x + 4.6551E-004
R = 1.0000
DL = 0.01878
BEC = 0.05068

Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	160.00	0.0000	P	27.9
2	☐	2.000	2.031	16140.84	0.0038	P	1.0
3	☐	5.000	4.827	37486.64	0.0090	P	4.2
4	☐	10.000	9.989	76273.33	0.0187	P	2.9
5	☐	100.000	95.398	706039.16	0.1780	P	10.8
6	☐	200.000	202.305	1464709.82	0.3774	A	1.6
7	☐	1.000					

y = 0.0019 * x + 3.9590E-005

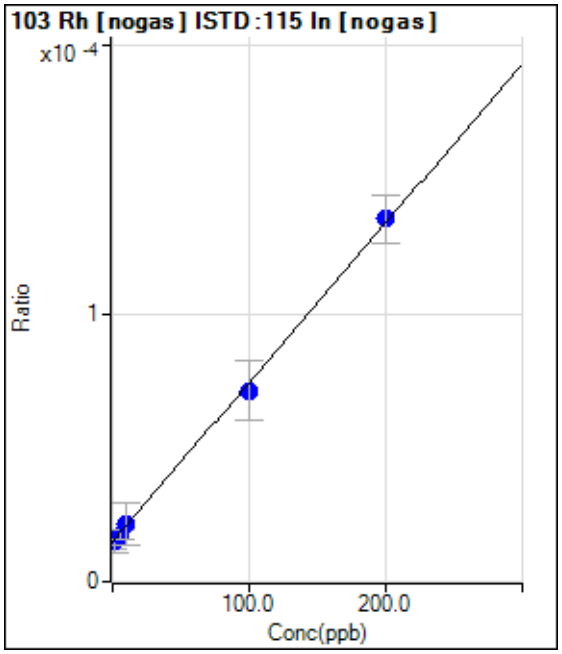
R = 0.9996

DL = 0.01779

BEC = 0.02122

Weight: <None>

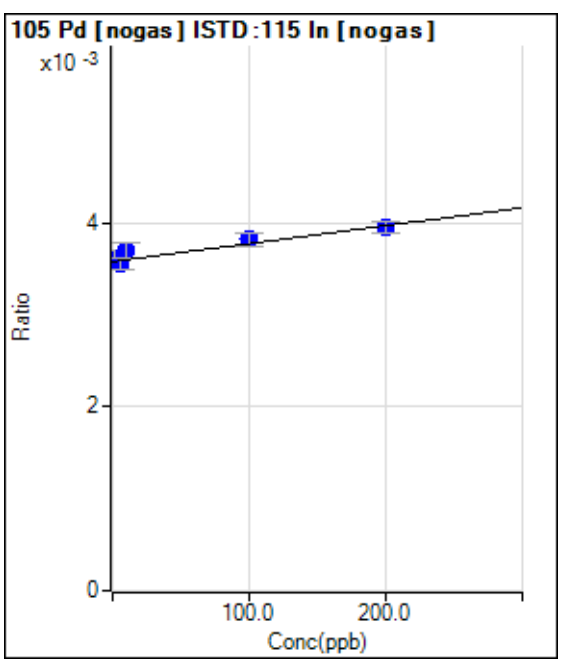
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60.00	0.0000	P	39.5
2	☐	2.000	0.230	63.33	0.0000	P	59.8
3	☐	5.000	4.144	73.33	0.0000	P	19.5
4	☐	10.000	11.217	83.33	0.0000	P	73.7
5	☐	100.000	94.664	283.34	0.0001	P	31.1
6	☐	200.000	202.646	496.68	0.0001	P	13.5
7	☐	1.000					

y = 5.9395E-007 * x + 1.4909E-005
R = 0.9995
DL = 29.74
BEC = 25.1

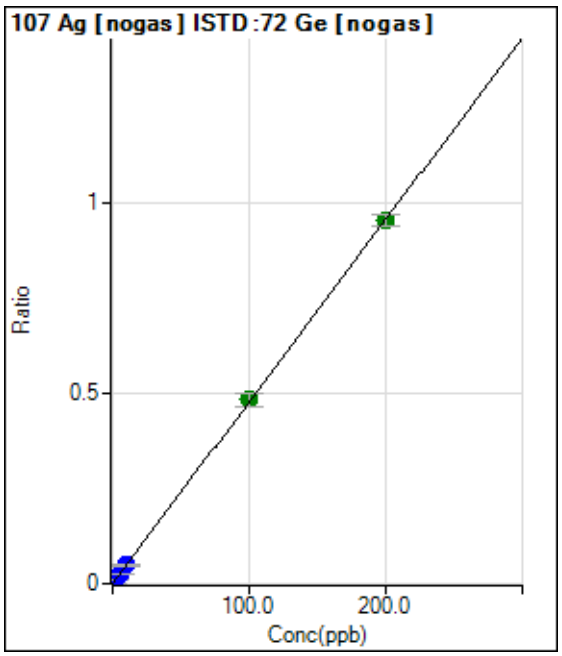
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14155.90	0.0036	P	3.2
2	☐	2.000	11.832	15186.78	0.0036	P	5.5
3	☐	5.000	-8.820	14999.94	0.0036	P	3.6
4	☐	10.000	60.932	14356.07	0.0037	P	4.2
5	☐	100.000	121.229	14980.01	0.0038	P	4.0
6	☐	200.000	187.086	14446.13	0.0039	P	3.3
7	☐	1.000					

y = 1.9495E-006 * x + 0.0036
R = 0.9542
DL = 175.7
BEC = 1836

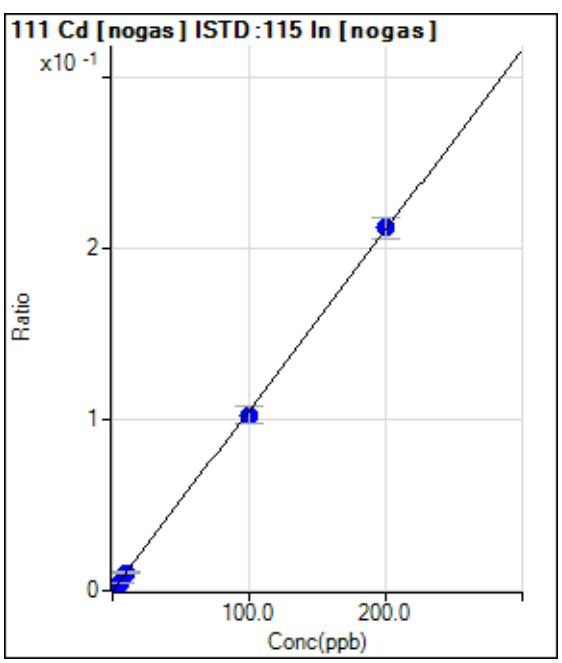
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	293.34	0.0001	P	19.0
2	☐	2.000	1.964	39805.06	0.0094	P	2.8
3	☐	5.000	4.951	98211.54	0.0237	P	1.8
4	☐	10.000	10.176	198533.40	0.0486	P	3.7
5	☐	100.000	101.116	1917320.39	0.4824	A	7.9
6	☐	200.000	199.435	3690421.19	0.9513	A	3.2
7	☐	1.000					

y = 0.0048 * x + 7.2417E-005
R = 1.0000
DL = 0.008658
BEC = 0.01518

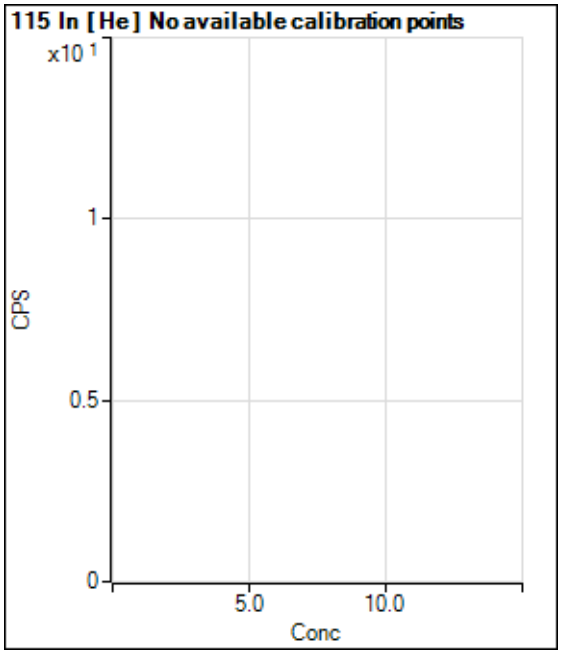
Weight: <None>
Min Conc: <None>



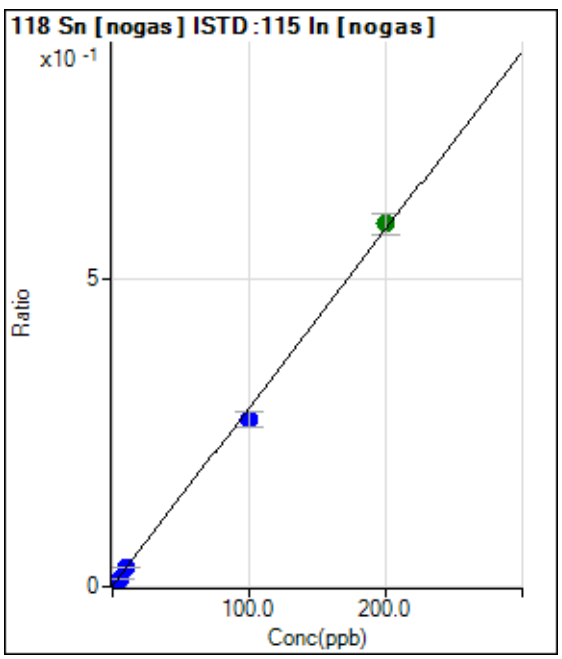
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0000	P	27.7
2	☐	2.000	1.992	8905.71	0.0021	P	4.5
3	☐	5.000	4.735	21079.48	0.0050	P	1.7
4	☐	10.000	10.062	41191.57	0.0106	P	3.7
5	☐	100.000	97.546	401786.35	0.1028	P	8.9
6	☐	200.000	201.231	775578.68	0.2120	P	5.6
7	☐	1.000					

y = 0.0011 * x + 1.1683E-005
R = 0.9999
DL = 0.009231
BEC = 0.01109

Weight: <None>
Min Conc: <None>



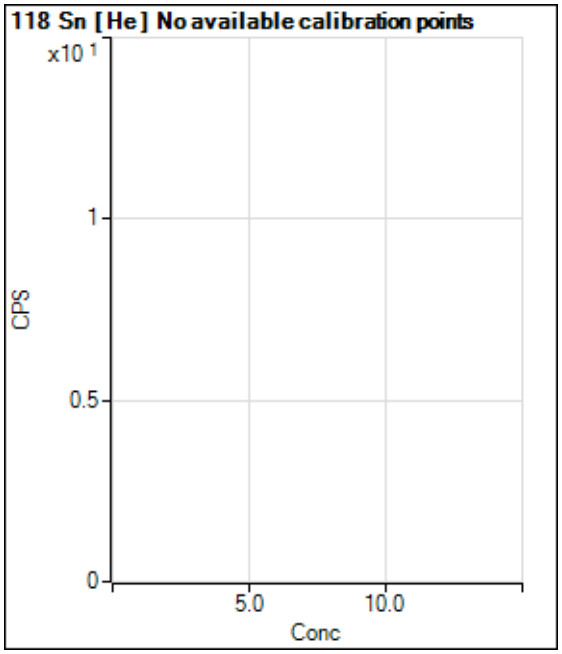
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1459575.92		A	1.7
2	☐			1523164.57		A	1.0
3	☐			1490632.44		A	1.5
4	☐			1446981.44		A	4.4
5	☐			1324587.59		M	5.1
6	☐			1329233.46		A	1.2
7	☐						



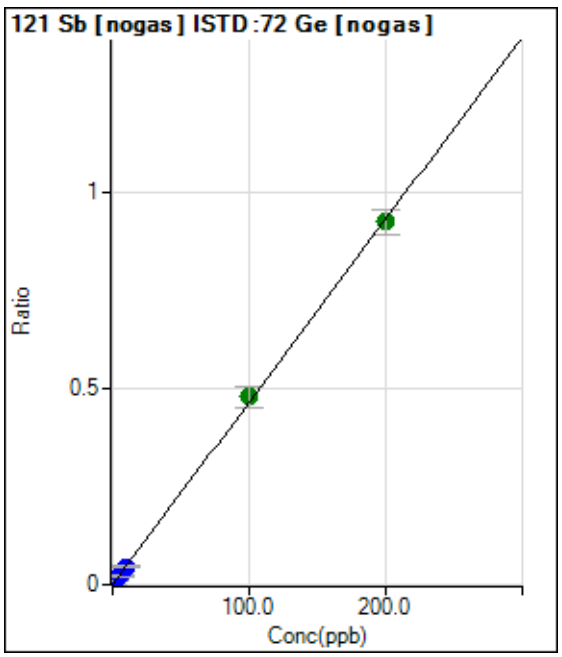
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5374.23	0.0014	P	7.5
2	☐	2.000	1.550	24701.05	0.0059	P	1.1
3	☐	5.000	4.308	58330.62	0.0138	P	3.1
4	☐	10.000	9.891	116546.32	0.0300	P	1.7
5	☐	100.000	93.676	1065800.30	0.2728	P	9.6
6	☐	200.000	203.189	2157951.22	0.5901	A	5.9
7	☐	1.000					

y = 0.0029 * x + 0.0014
R = 0.9993
DL = 0.1068
BEC = 0.4715

Weight: <None>
Min Conc: <None>



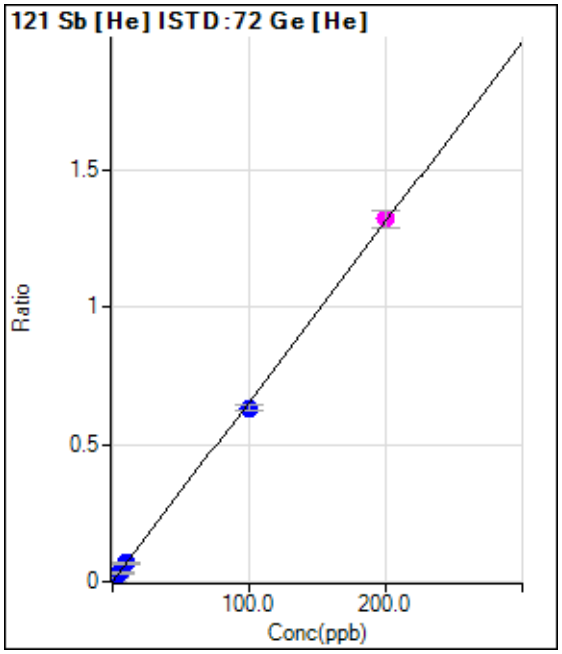
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2120.17		P	8.2
2	☐			8999.11		P	7.5
3	☐			21903.90		P	0.6
4	☐			44954.93		P	2.5
5	☐			410922.25		P	0.8
6	☐			808902.85		P	1.7
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1146.72	0.0003	P	2.6
2	☐	2.000	1.892	38262.23	0.0091	P	4.2
3	☐	5.000	4.734	92373.38	0.0223	P	3.7
4	☐	10.000	9.909	189287.86	0.0463	P	1.9
5	☐	100.000	102.655	1894079.09	0.4774	A	10.4
6	☐	200.000	198.685	3579451.20	0.9236	A	6.6
7	☐	1.000					

y = 0.0046 * x + 2.8287E-004
R = 0.9999
DL = 0.00483
BEC = 0.06087

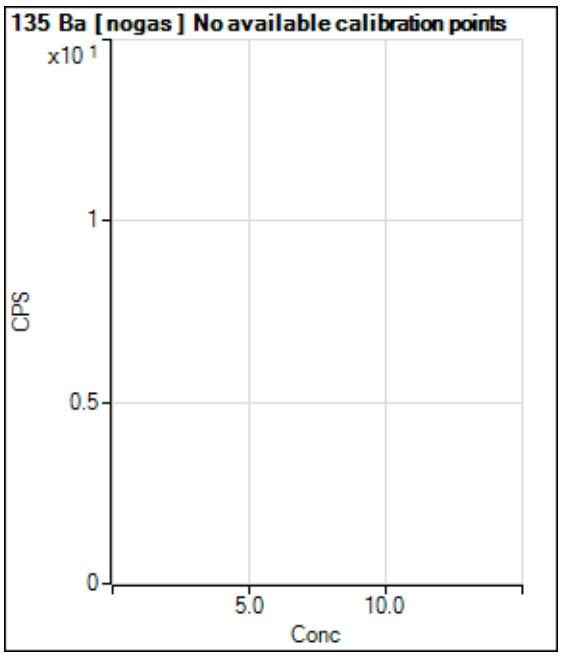
Weight: <None>
Min Conc: <None>



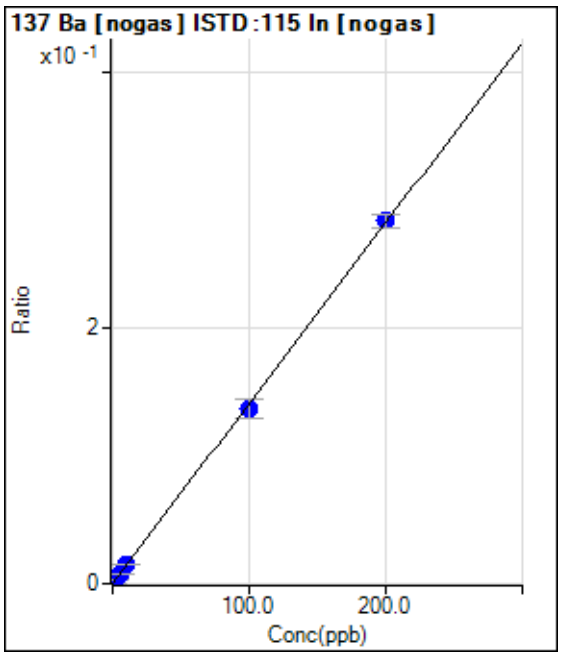
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	420.01	0.0004	P	22.7
2	☐	2.000	1.872	14065.93	0.0126	P	6.1
3	☐	5.000	4.771	34587.89	0.0316	P	1.5
4	☐	10.000	10.130	70013.81	0.0666	P	1.7
5	☐	100.000	96.623	657559.29	0.6324	P	2.6
6	☐	200.000	201.689	1359138.21	1.3195	M	4.9
7	☐	1.000					

y = 0.0065 * x + 3.9024E-004
R = 0.9998
DL = 0.04058
BEC = 0.05967

Weight: <None>
Min Conc: <None>



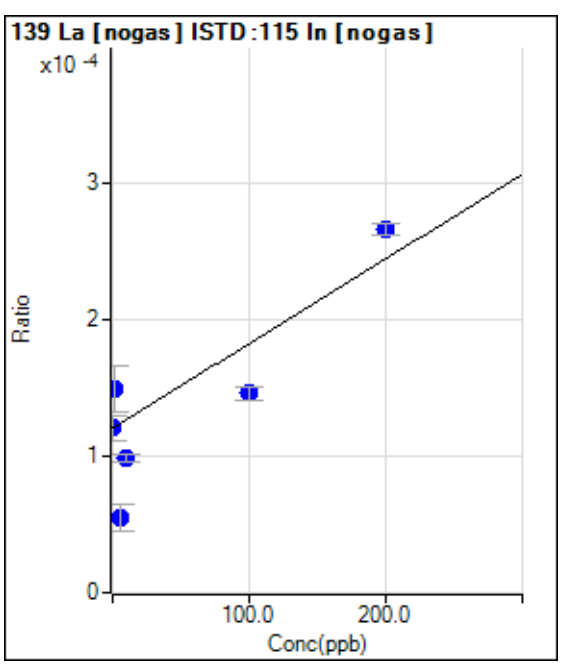
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			243.34		P	23.7
2	☐			7318.33		P	1.0
3	☐			16688.33		P	3.9
4	☐			33933.58		P	3.4
5	☐			307104.73		P	1.2
6	☐			594912.53		P	0.4
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	490.02	0.0001	P	18.0
2	☐	2.000	2.036	12608.16	0.0030	P	3.5
3	☐	5.000	4.943	29792.65	0.0071	P	5.7
4	☐	10.000	10.703	58938.02	0.0152	P	0.5
5	☐	100.000	97.254	534699.86	0.1369	P	10.5
6	☐	200.000	201.339	1036962.04	0.2833	P	3.6
7	☐	1.000					

y = 0.0014 * x + 1.2518E-004
R = 0.9999
DL = 0.04793
BEC = 0.089

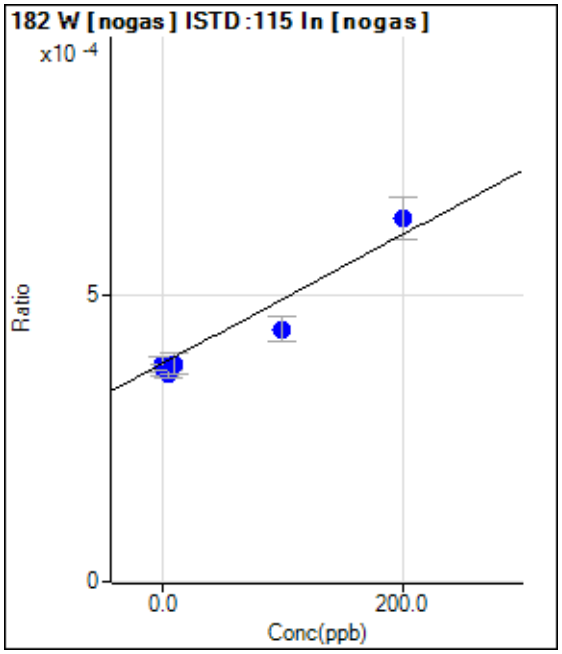
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	473.35	0.0001	P	16.1
2	☐	2.000	46.161	630.02	0.0001	P	22.9
3	☐	5.000	-105.510	233.34	0.0001	P	37.2
4	☐	10.000	-35.425	383.34	0.0001	P	5.2
5	☐	100.000	40.935	573.35	0.0001	P	7.5
6	☐	200.000	234.125	976.71	0.0003	P	3.1
7	☐	1.000					

y = 6.2150E-007 * x + 1.2079E-004
R = 0.8678
DL = 93.76
BEC = 194.4

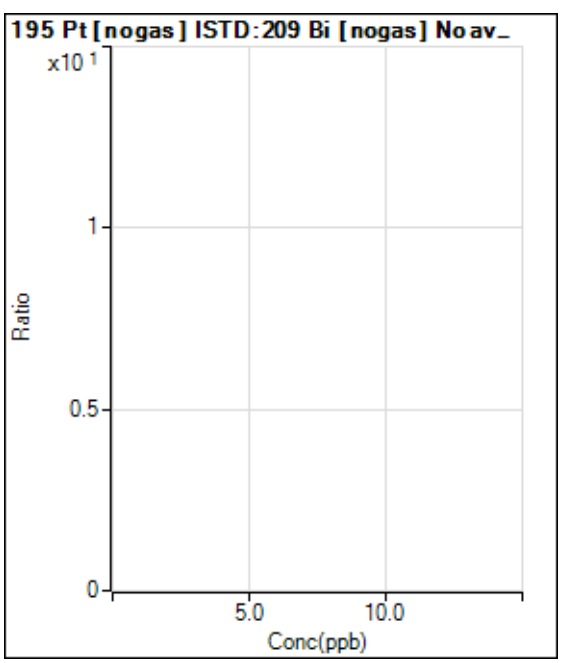
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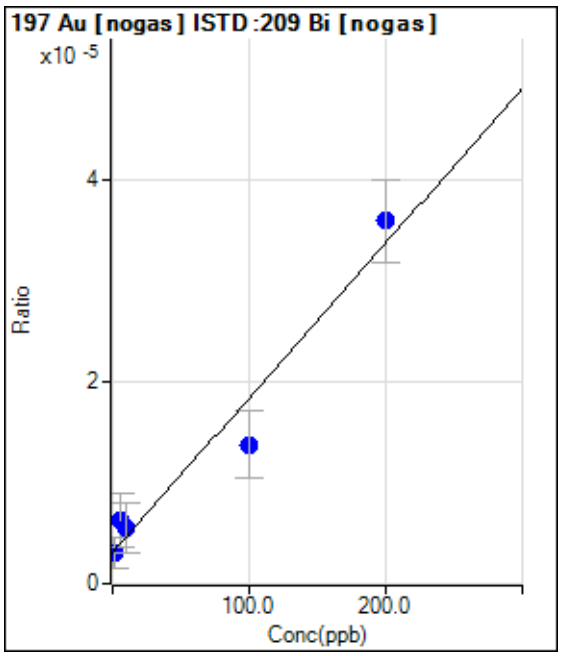
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1496.76	0.0004	P	7.0
2	☐	2.000	-10.829	1550.10	0.0004	P	5.3
3	☐	5.000	-16.631	1520.10	0.0004	P	3.4
4	☐	10.000	-1.135	1466.76	0.0004	P	9.7
5	☐	100.000	53.376	1720.13	0.0004	P	10.1
6	☐	200.000	224.538	2313.54	0.0006	P	11.8
7	☐	1.000					

y = 1.1205E-006 * x + 3.7947E-004
R = 0.9721
DL = 71.34
BEC = 338.7

Weight: <None>
Min Conc: <None>



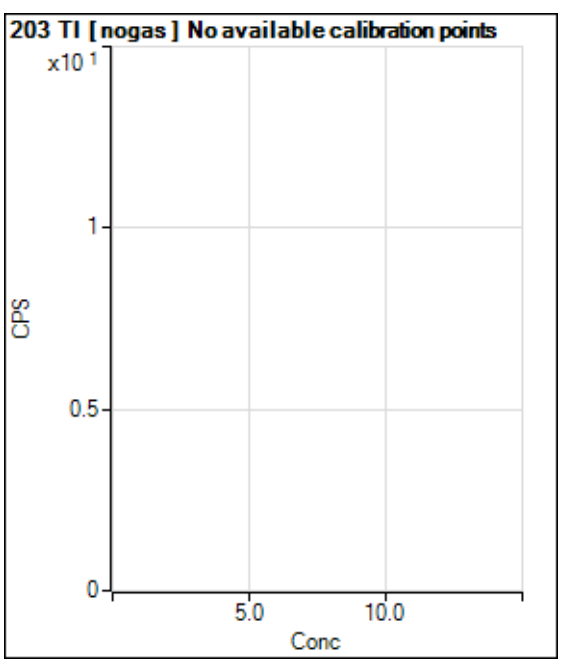
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000					
2	☐	2.000					
3	☐	5.000					
4	☐	10.000					
5	☐	100.000					
6	☐	200.000					
7	☐	1.000					



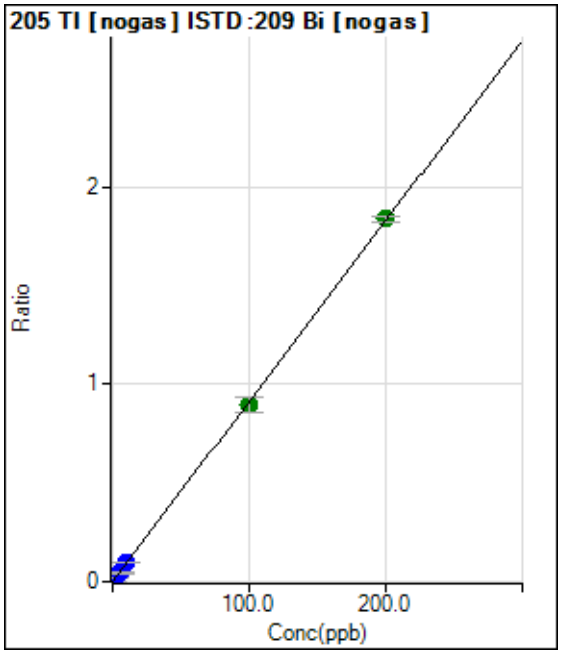
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	99.2
2	☐	2.000	-0.267	10.00	0.0000	P	99.5
3	☐	5.000	20.784	20.00	0.0000	P	86.6
4	☐	10.000	15.688	16.67	0.0000	P	90.5
5	☐	100.000	69.919	43.33	0.0000	P	48.1
6	☐	200.000	214.384	103.33	0.0000	P	22.8
7	☐	1.000					

y = 1.5322E-007 * x + 3.0883E-006
R = 0.9795
DL = 60.01
BEC = 20.16

Weight: <None>
Min Conc: <None>



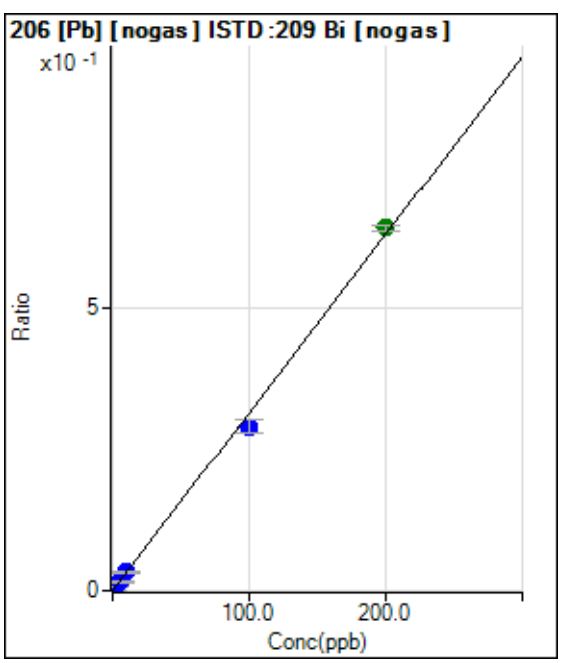
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			286.67		P	24.7
2	☐			24605.54		P	3.1
3	☐			58751.81		P	1.0
4	☐			120738.28		P	2.2
5	☐			1121502.67		P	3.3
6	☐			2273501.79		A	1.7
7	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	653.36	0.0002	P	18.1
2	☐	2.000	1.817	55631.62	0.0168	P	3.3
3	☐	5.000	4.781	141295.63	0.0439	P	0.7
4	☐	10.000	10.345	285831.51	0.0947	P	3.0
5	☐	100.000	97.772	2755540.69	0.8930	A	8.5
6	☐	200.000	201.104	5273230.24	1.8366	A	1.8
7	☐	1.000					

y = 0.0091 * x + 2.1440E-004
R = 0.9999
DL = 0.01274
BEC = 0.02348

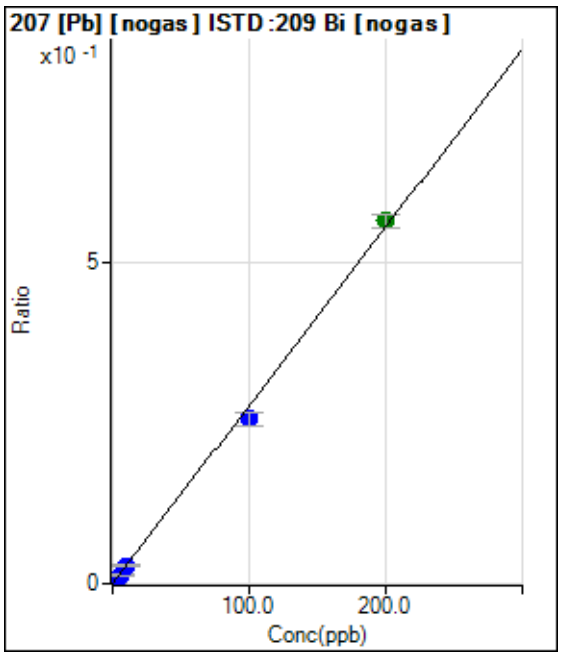
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	306.67	0.0001	P	22.3
2	☐	2.000	1.824	19268.36	0.0058	P	4.1
3	☐	5.000	4.847	49267.88	0.0153	P	3.8
4	☐	10.000	10.284	97711.89	0.0324	P	3.3
5	☐	100.000	92.229	893067.15	0.2895	P	8.5
6	☐	200.000	203.877	1836860.60	0.6398	A	1.6
7	☐	1.000					

y = 0.0031 * x + 9.8503E-005
R = 0.9989
DL = 0.02103
BEC = 0.03139

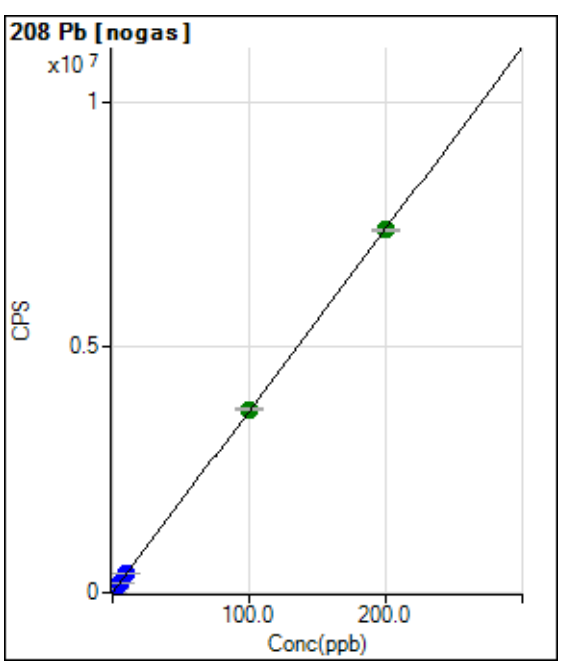
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	233.34	0.0001	P	33.0
2	☐	2.000	1.851	17242.68	0.0052	P	2.8
3	☐	5.000	4.788	43003.91	0.0134	P	2.9
4	☐	10.000	10.154	85242.38	0.0282	P	3.5
5	☐	100.000	92.731	793900.04	0.2573	P	8.1
6	☐	200.000	203.634	1620607.94	0.5648	A	3.9
7	☐	1.000					

y = 0.0028 * x + 7.5694E-005
R = 0.9991
DL = 0.027
BEC = 0.02729

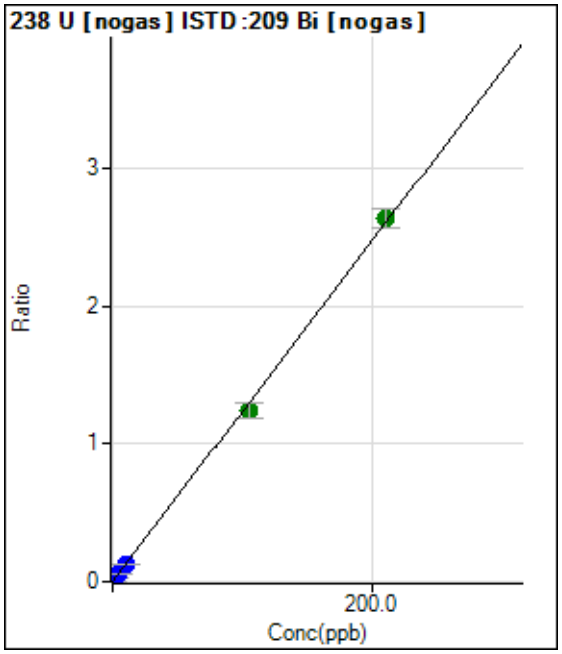
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1133.36		P	13.5
2	☐	2.000	2.107	79210.72		P	0.8
3	☐	5.000	5.286	197028.39		P	1.1
4	☐	10.000	10.523	391135.05		P	1.2
5	☐	100.000	100.796	3736663.93		A	0.7
6	☐	200.000	199.568	7397151.71		A	0.7
7	☐	1.000					

y = 37060.2320 * x + 1133.3633
R = 1.0000
DL = 0.01239
BEC = 0.03058

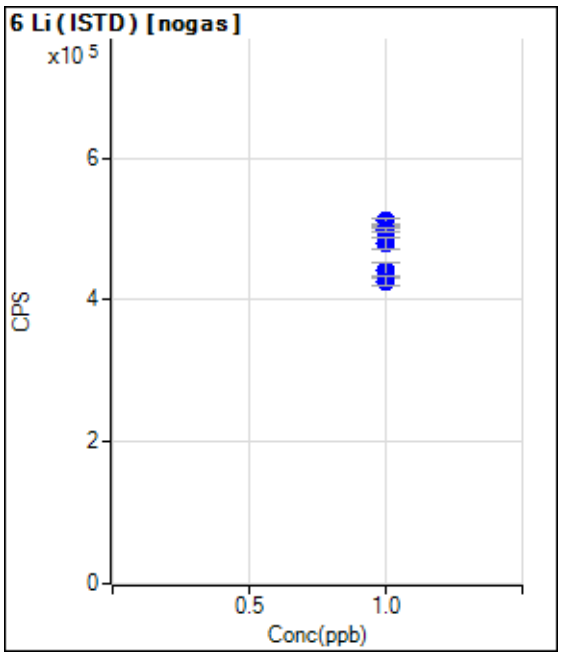
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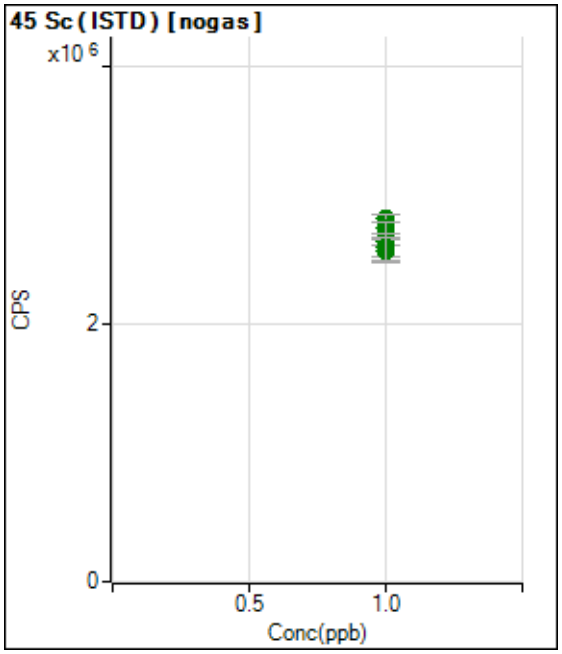
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	193.33	0.0001	P	2.5
2	☐	2.000	1.846	75871.42	0.0229	P	2.9
3	☐	5.000	4.730	188815.97	0.0586	P	2.6
4	☐	10.000	9.943	372011.34	0.1232	P	1.8
5	☐	105.000	100.024	3820254.00	1.2388	A	9.4
6	☐	210.000	212.498	7547557.80	2.6317	A	5.4
7	☐	1.000					

y = 0.0124 * x + 6.2768E-005
R = 0.9996
DL = 0.0003783
BEC = 0.005068

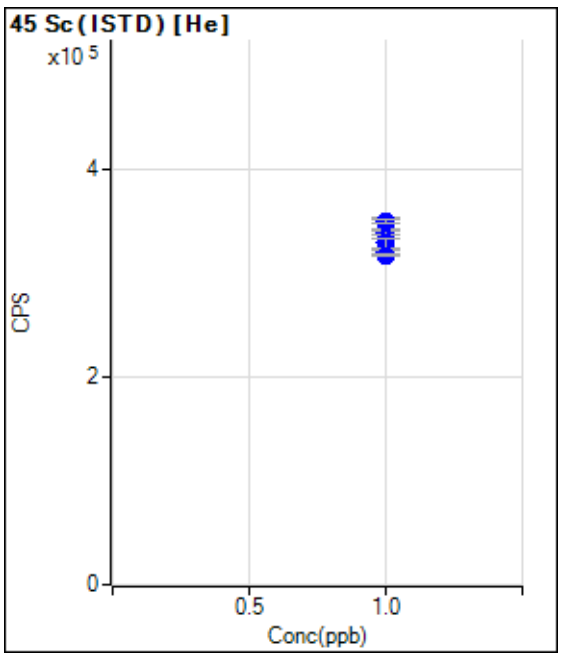
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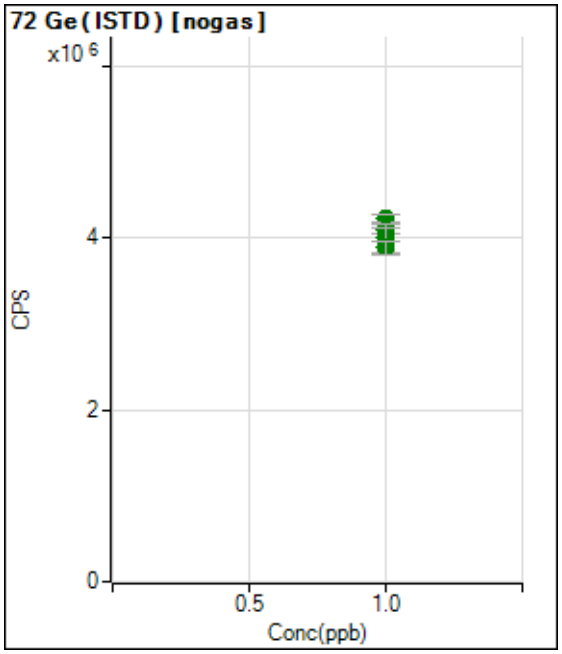
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		495794.95		P	3.4
2	☐	1.000		511627.63		P	1.8
3	☐	1.000		499046.82		P	1.4
4	☐	1.000		479897.00		P	3.5
5	☐	1.000		443016.67		P	5.0
6	☐	1.000		426768.37		P	3.3
7	☐	1.000					



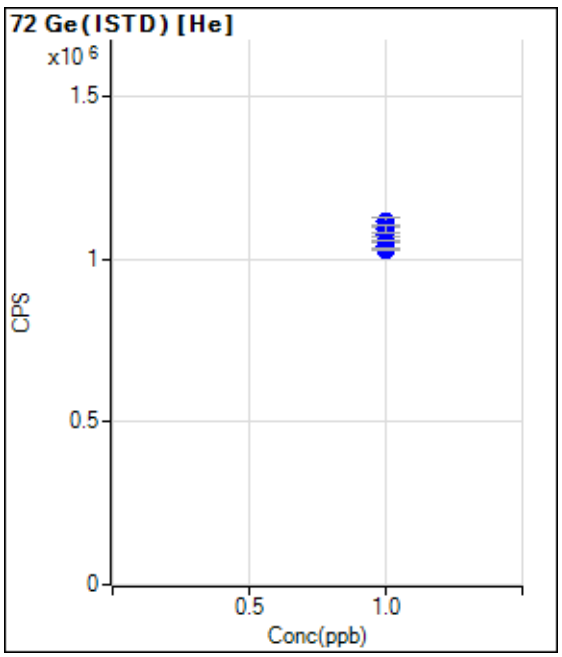
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2652446.89		A	10.0
2	☐	1.000		2817235.48		A	2.3
3	☐	1.000		2750983.19		A	3.2
4	☐	1.000		2636382.77		A	1.4
5	☐	1.000		2597750.74		A	8.4
6	☐	1.000		2573775.17		A	7.9
7	☐	1.000					



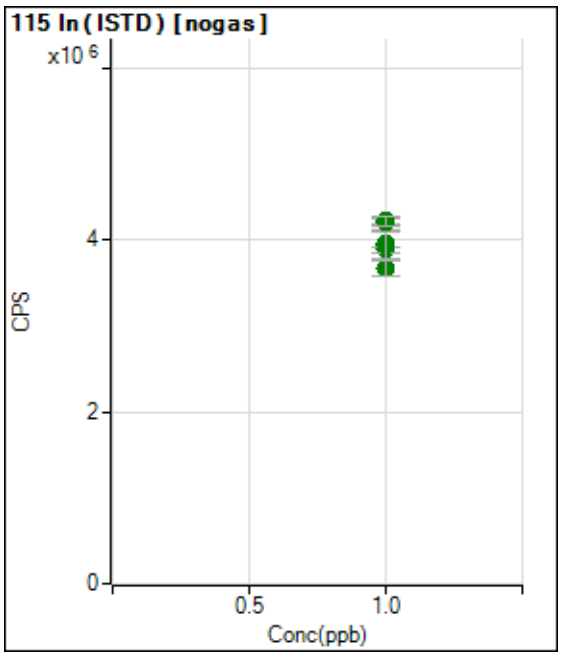
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		339099.12		P	1.0
2	☐	1.000		348370.16		P	3.0
3	☐	1.000		349763.72		P	1.1
4	☐	1.000		320928.30		P	1.4
5	☐	1.000		329244.53		P	2.7
6	☐	1.000		317801.00		P	0.8
7	☐	1.000					



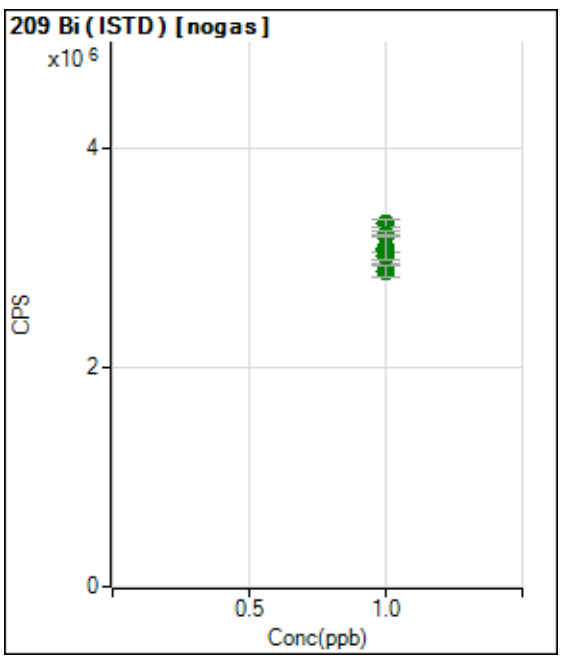
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4051369.42		A	4.8
2	☐	1.000		4216856.08		A	2.1
3	☐	1.000		4146939.42		A	1.9
4	☐	1.000		4085750.15		A	1.7
5	☐	1.000		3992136.40		A	8.8
6	☐	1.000		3882652.34		A	4.3
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1075862.56		P	1.1
2	☐	1.000		1114094.91		P	2.6
3	☐	1.000		1094878.21		P	2.2
4	☐	1.000		1050500.22		P	0.2
5	☐	1.000		1040331.39		P	2.7
6	☐	1.000		1029909.02		P	0.8
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3950602.31		A	8.5
2	☐	1.000		4218707.98		A	1.5
3	☐	1.000		4214601.01		A	3.1
4	☐	1.000		3882750.28		A	1.8
5	☐	1.000		3928649.89		A	8.5
6	☐	1.000		3664866.44		A	5.3
7	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3076124.54		A	8.5
2	☐	1.000		3311729.01		A	2.1
3	☐	1.000		3220234.43		A	2.0
4	☐	1.000		3020498.50		A	2.5
5	☐	1.000		3097378.29		A	7.0
6	☐	1.000		2871862.98		A	3.8
7	☐	1.000					

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	005CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T12:41:47-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	33	187.35
Na	23	1	nogas	858831	0.00
Mg	24	1	nogas	6936	0.10
Al	27	1	nogas	44446	0.00
K	39	1	nogas	8780144	0.00
Ti	47	1	nogas	207	14.11
V	51	1	nogas	1393707	0.00
Cr	52	1	nogas	81327	0.00
Mn	55	1	nogas	11864	0.03
Co	59	1	nogas	577	1.39
Ni	60	1	nogas	1670	0.27
Cu	63	1	nogas	20018	0.00
Zn	66	1	nogas	913	1.50
As	75	1	nogas	168183	0.00
Sr	88	1	nogas	1660	0.35
Ag	107	1	nogas	227	4.90
Cd	111	1	nogas	20	500.00
Sb	121	1	nogas	1147	0.66
Tl	205	1	nogas	250	4.80
Pb	208	1	nogas	1677	0.18
[Pb]	206	1	nogas	427	2.60
[Pb]	207	1	nogas	417	3.17
Na	23	2	He	87859	0.00
Mg	24	2	He	643	3.02
Al	27	2	He	1487	0.57
K	39	2	He	252016	0.00
Ca	43	2	He	37	187.19
Ca	44	2	He	1323	0.87
V	51	2	He	18549	0.01
Cr	52	2	He	6111	0.16
Mn	55	2	He	647	4.91
Fe	56	2	He	22701	0.01
Co	59	2	He	87	15.37
Ni	60	2	He	487	2.33
Cu	63	2	He	7745	0.08
Zn	66	2	He	373	2.90
As	75	2	He	880	0.24
Se	78	2	He	244	6.62
B	11	1	nogas	10300	0.01
Si	28	1	nogas	1905157	0.00
Ca	43	1	nogas	773	0.75
Ca	44	1	nogas	55680	0.00

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	3996433	0.00
Se	77	1	nogas	54903	0.00
Se	82	1	nogas	387	5.99
Mo	95	1	nogas	150	4.44
Sn	118	1	nogas	5308	0.16
Ba	137	1	nogas	280	2.21
Sb	121	2	He	480	2.85
Li	7	1	nogas	56623	0.01
P	31	1	nogas	67119	0.00
La	139	1	nogas	393	2.61

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	nogas	650728	2.61
Ge	72	1	nogas	4176570	4.68
In	115	1	nogas	3920309	3.63
Bi	209	1	nogas	2792487	4.53
Ge	72	2	He	1073881	0.34

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	006CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T12:43:46-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	10063	0.03
Na	23	1	nogas	5573894	0.00
Mg	24	1	nogas	3254538	0.00
Al	27	1	nogas	85717	0.00
K	39	1	nogas	13325794	0.00
Ti	47	1	nogas	5004	0.11
V	51	1	nogas	1268445	0.00
Cr	52	1	nogas	135057	0.00
Mn	55	1	nogas	78643	0.00
Co	59	1	nogas	60683	0.00
Ni	60	1	nogas	14876	0.04
Cu	63	1	nogas	50168	0.00
Zn	66	1	nogas	12254	0.04
As	75	1	nogas	178930	0.00
Sr	88	1	nogas	76335	0.00
Ag	107	1	nogas	38198	0.00
Cd	111	1	nogas	7912	0.04
Sb	121	1	nogas	35526	0.00
Tl	205	1	nogas	52742	0.00
Pb	208	1	nogas	75867	0.00
[Pb]	206	1	nogas	19135	0.02
[Pb]	207	1	nogas	16555	0.01
Na	23	2	He	438295	0.00
Mg	24	2	He	203261	0.00
Al	27	2	He	2524	0.29
K	39	2	He	499385	0.00
Ca	43	2	He	830	0.58
Ca	44	2	He	13415	0.02
V	51	2	He	34637	0.00
Cr	52	2	He	23699	0.00
Mn	55	2	He	13182	0.01
Fe	56	2	He	1720266	0.00
Co	59	2	He	25007	0.00
Ni	60	2	He	6925	0.01
Cu	63	2	He	23138	0.01
Zn	66	2	He	4371	0.16
As	75	2	He	4766	0.03
Se	78	2	He	583	3.29
B	11	1	nogas	41983	0.01
Si	28	1	nogas	2897662	0.00

Calibration Standard Report

Ca	43	1	nogas	9149	0.03
Ca	44	1	nogas	199361	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	9885699	0.00
Se	77	1	nogas	54529	0.00
Se	82	1	nogas	1150	0.67
Mo	95	1	nogas	14496	0.01
Sn	118	1	nogas	22194	0.01
Ba	137	1	nogas	11287	0.03
Sb	121	2	He	15147	0.01
P	31	1	nogas	83721	0.00
La	139	1	nogas	540	2.40

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	642219	1.74	650728	98.69	70	125	
Ge	72	1	nogas	3946217	1.48	4176570	94.48	70	125	
In	115	1	nogas	3679662	3.27	3920309	93.86	70	125	
Bi	209	1	nogas	2937429	2.69	2792487	105.19	70	125	
Ge	72	2	He	1060856	1.19	1073881	98.79	70	125	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	007CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T12:45:45-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	25748	0.01
Na	23	1	nogas	12562492	0.00
Mg	24	1	nogas	8028063	0.00
Al	27	1	nogas	144293	0.00
K	39	1	nogas	20585685	0.00
Ti	47	1	nogas	11324	0.05
V	51	1	nogas	1364776	0.00
Cr	52	1	nogas	215291	0.00
Mn	55	1	nogas	179842	0.00
Co	59	1	nogas	151142	0.00
Ni	60	1	nogas	36309	0.01
Cu	63	1	nogas	97910	0.00
Zn	66	1	nogas	27735	0.02
As	75	1	nogas	203283	0.00
Sr	88	1	nogas	187845	0.00
Ag	107	1	nogas	93745	0.00
Cd	111	1	nogas	19818	0.02
Sb	121	1	nogas	85059	0.00
Tl	205	1	nogas	136067	0.00
Pb	208	1	nogas	190457	0.00
[Pb]	206	1	nogas	47091	0.01
[Pb]	207	1	nogas	42075	0.00
Na	23	2	He	961363	0.00
Mg	24	2	He	501845	0.00
Al	27	2	He	4277	0.05
K	39	2	He	877592	0.00
Ca	43	2	He	1750	0.76
Ca	44	2	He	31367	0.01
V	51	2	He	59651	0.00
Cr	52	2	He	50800	0.01
Mn	55	2	He	33594	0.01
Fe	56	2	He	4303185	0.00
Co	59	2	He	62838	0.00
Ni	60	2	He	16407	0.00
Cu	63	2	He	45193	0.00
Zn	66	2	He	9779	0.04
As	75	2	He	10691	0.03
Se	78	2	He	1053	0.32
B	11	1	nogas	90107	0.00
Si	28	1	nogas	4657924	0.00

Calibration Standard Report

Ca	43	1	nogas	22547	0.02
Ca	44	1	nogas	409004	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	18904217	0.00
Se	77	1	nogas	56304	0.00
Se	82	1	nogas	2397	0.25
Mo	95	1	nogas	36417	0.01
Sn	118	1	nogas	54318	0.00
Ba	137	1	nogas	27061	0.01
Sb	121	2	He	36609	0.00
P	31	1	nogas	112369	0.00
La	139	1	nogas	183	6.19

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	621955	0.72	650728	95.58	70	125	
Ge	72	1	nogas	3896148	1.05	4176570	93.29	70	125	
In	115	1	nogas	3732528	3.42	3920309	95.21	70	125	
Bi	209	1	nogas	3003107	2.51	2792487	107.54	70	125	
Ge	72	2	He	1073978	1.05	1073881	100.01	70	125	

Calibration Standard Report

Sample Table

Sample Name	10/50/1000
Data File Name	008CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T12:47:43-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	50533	0.01
Na	23	1	nogas	24427975	0.00
Mg	24	1	nogas	16050456	0.00
Al	27	1	nogas	243853	0.00
K	39	1	nogas	32725903	0.00
Ti	47	1	nogas	22027	0.01
V	51	1	nogas	1619227	0.00
Cr	52	1	nogas	356811	0.00
Mn	55	1	nogas	357322	0.00
Co	59	1	nogas	306477	0.00
Ni	60	1	nogas	69983	0.00
Cu	63	1	nogas	178059	0.00
Zn	66	1	nogas	54775	0.00
As	75	1	nogas	248086	0.00
Sr	88	1	nogas	374700	0.00
Ag	107	1	nogas	189244	0.00
Cd	111	1	nogas	40153	0.01
Sb	121	1	nogas	176928	0.00
Tl	205	1	nogas	271901	0.00
Pb	208	1	nogas	375488	0.00
[Pb]	206	1	nogas	93125	0.00
[Pb]	207	1	nogas	81688	0.00
Na	23	2	He	1881702	0.00
Mg	24	2	He	1000535	0.00
Al	27	2	He	7272	0.01
K	39	2	He	1572089	0.00
Ca	43	2	He	3667	0.02
Ca	44	2	He	62555	0.00
V	51	2	He	101215	0.00
Cr	52	2	He	94550	0.00
Mn	55	2	He	66955	0.00
Fe	56	2	He	8315959	0.00
Co	59	2	He	122517	0.00
Ni	60	2	He	32018	0.01
Cu	63	2	He	84933	0.00
Zn	66	2	He	20068	0.02
As	75	2	He	20943	0.01
Se	78	2	He	1881	0.20
B	11	1	nogas	171160	0.00
Si	28	1	nogas	7616849	0.00

Calibration Standard Report

Ca	43	1	nogas	46288	0.00
Ca	44	1	nogas	773923	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	34789195	0.00
Se	77	1	nogas	60661	0.00
Se	82	1	nogas	4024	0.19
Mo	95	1	nogas	74418	0.00
Sn	118	1	nogas	111913	0.00
Ba	137	1	nogas	54583	0.00
Sb	121	2	He	73002	0.00
P	31	1	nogas	160611	0.00
La	139	1	nogas	580	1.86

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	636493	1.15	650728	97.81	70	125	
Ge	72	1	nogas	3926315	1.57	4176570	94.01	70	125	
In	115	1	nogas	3852816	4.14	3920309	98.28	70	125	
Bi	209	1	nogas	2990147	0.50	2792487	107.08	70	125	
Ge	72	2	He	1066803	0.97	1073881	99.34	70	125	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	009CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T12:49:42-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	478926	0.00
Na	23	1	nogas	220679813	0.00
Mg	24	1	nogas	145380057	0.00
Al	27	1	nogas	1893111	0.00
K	39	1	nogas	234824655	0.00
Ti	47	1	nogas	211664	0.00
V	51	1	nogas	4197886	0.00
Cr	52	1	nogas	2712284	0.00
Mn	55	1	nogas	3254958	0.00
Co	59	1	nogas	2910118	0.00
Ni	60	1	nogas	635566	0.00
Cu	63	1	nogas	1574807	0.00
Zn	66	1	nogas	504382	0.00
As	75	1	nogas	822586	0.00
Sr	88	1	nogas	3586828	0.00
Ag	107	1	nogas	1871565	0.00
Cd	111	1	nogas	378880	0.00
Sb	121	1	nogas	1744774	0.00
Tl	205	1	nogas	2717890	0.00
Pb	208	1	nogas	3660535	0.00
[Pb]	206	1	nogas	888433	0.00
[Pb]	207	1	nogas	786628	0.00
Na	23	2	He	16019628	0.00
Mg	24	2	He	9341735	0.00
Al	27	2	He	55655	0.00
K	39	2	He	12291690	0.00
Ca	43	2	He	33013	0.00
Ca	44	2	He	559331	0.00
V	51	2	He	791130	0.00
Cr	52	2	He	845985	0.00
Mn	55	2	He	627690	0.00
Fe	56	2	He	79652635	0.00
Co	59	2	He	1170800	0.00
Ni	60	2	He	294349	0.00
Cu	63	2	He	737535	0.00
Zn	66	2	He	184527	0.00
As	75	2	He	189183	0.00
Se	78	2	He	16049	0.01
B	11	1	nogas	1563958	0.00
Si	28	1	nogas	55904061	0.00

Calibration Standard Report

Ca	43	1	nogas	409963	0.00
Ca	44	1	nogas	6887814	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	290623615	0.00
Se	77	1	nogas	86096	0.00
Se	82	1	nogas	35455	0.01
Mo	95	1	nogas	710007	0.00
Sn	118	1	nogas	1024234	0.00
Ba	137	1	nogas	524063	0.00
Sb	121	2	He	674208	0.00
P	31	1	nogas	896311	0.00
La	139	1	nogas	687	1.61

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	598621	2.13	650728	91.99	70	125	
Ge	72	1	nogas	3975310	3.55	4176570	95.18	70	125	
In	115	1	nogas	3719814	4.83	3920309	94.89	70	125	
Bi	209	1	nogas	2970006	2.00	2792487	106.36	70	125	
Ge	72	2	He	1062985	0.49	1073881	98.99	70	125	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	012CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T12:55:40-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	941577	0.00
Na	23	1	nogas	432639226	0.00
Mg	24	1	nogas	292811615	0.00
Al	27	1	nogas	3594397	0.00
K	39	1	nogas	444200627	0.00
Ti	47	1	nogas	423549	0.00
V	51	1	nogas	7191631	0.00
Cr	52	1	nogas	5186671	0.00
Mn	55	1	nogas	6299523	0.00
Co	59	1	nogas	5614432	0.00
Ni	60	1	nogas	1228983	0.00
Cu	63	1	nogas	3026051	0.00
Zn	66	1	nogas	985956	0.00
As	75	1	nogas	1502119	0.00
Sr	88	1	nogas	7087902	0.00
Ag	107	1	nogas	3621437	0.00
Cd	111	1	nogas	756417	0.00
Sb	121	1	nogas	3403628	0.00
Tl	205	1	nogas	5299937	0.00
Pb	208	1	nogas	7418085	0.00
[Pb]	206	1	nogas	1856486	0.00
[Pb]	207	1	nogas	1621324	0.00
Na	23	2	He	31780012	0.00
Mg	24	2	He	18369559	0.00
Al	27	2	He	110457	0.00
K	39	2	He	23756465	0.00
Ca	43	2	He	65408	0.00
Ca	44	2	He	1110695	0.00
V	51	2	He	1581441	0.00
Cr	52	2	He	1704246	0.00
Mn	55	2	He	1209734	0.00
Fe	56	2	He	156336478	0.00
Co	59	2	He	2409140	0.00
Ni	60	2	He	584818	0.00
Cu	63	2	He	1555870	0.00
Zn	66	2	He	359764	0.00
As	75	2	He	372556	0.00
Se	78	2	He	31470	0.00
B	11	1	nogas	3080940	0.00
Si	28	1	nogas	108703465	0.00

Calibration Standard Report

Ca	43	1	nogas	812011	0.00
Ca	44	1	nogas	13730089	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	570481346	0.00
Se	77	1	nogas	116926	0.00
Se	82	1	nogas	69781	0.00
Mo	95	1	nogas	1472977	0.00
Sn	118	1	nogas	2086269	0.00
Ba	137	1	nogas	1012148	0.00
Sb	121	2	He	1427368	0.00
P	31	1	nogas	1728502	0.00
La	139	1	nogas	1043	0.38

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	526598	1.28	650728	80.92	70	125	
Ge	72	1	nogas	3765506	3.31	4176570	90.16	70	125	
In	115	1	nogas	3514059	5.42	3920309	89.64	70	125	
Bi	209	1	nogas	2805857	4.23	2792487	100.48	70	125	
Ge	72	2	He	1006697	0.88	1073881	93.74	70	125	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICV
Data File Name	014_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T12:59:38-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	103.497	2.108	484865	0.77	100	103.5	90	110	
Na	23	1	nogas	9502.405	2.852	213782455	1.47	10000	95.0	90	110	
Mg	24	1	nogas	9681.676	3.403	146473520	1.97	10000	96.8	90	110	
Al	27	1	nogas	102.129	3.103	1929458	3.47	100	102.1	90	110	
K	39	1	nogas	9972.269	2.241	234396280	2.08	10000	99.7	90	110	
Ti	47	1	nogas	96.632	1.154	211144	1.35	100	96.6	90	110	
V	51	1	nogas	88.205	2.428	3991878	1.41	100	88.2	90	110	ICV Main CR1 Failed
Cr	52	1	nogas	97.258	2.677	2657460	2.44	100	97.3	90	110	
Mn	55	1	nogas	98.402	4.121	3223662	3.88	100	98.4	90	110	
Co	59	1	nogas	98.150	2.475	2862803	2.19	100	98.2	90	110	
Ni	60	1	nogas	100.175	1.701	640208	1.56	100	100.2	90	110	
Cu	63	1	nogas	98.967	5.437	1564226	5.19	100	99.0	90	110	
Zn	66	1	nogas	98.986	0.752	505867	0.51	100	99.0	90	110	
As	75	1	nogas	92.978	0.687	805598	0.96	100	93.0	90	110	
Sr	88	1	nogas	97.107	0.734	3559436	0.34	100	97.1	90	110	
Ag	107	1	nogas	97.015	3.912	1823521	3.80	100	97.0	90	110	
Cd	111	1	nogas	98.060	0.447	388311	1.57	100	98.1	90	110	
Sb	121	1	nogas	98.307	1.469	1733885	1.80	100	98.3	90	110	
Tl	205	1	nogas	97.471	4.471	2734592	2.83	100	97.5	90	110	
Pb	208	1	nogas	98.869	1.259	3658311	1.26	100	98.9	90	110	
U	238	1	nogas	102.066	1.608	3852835	2.67	100	102.1	90	110	
[Pb]	206	1	nogas	94.324	2.680	915071	1.34	100	94.3	90	110	
[Pb]	207	1	nogas	91.073	2.183	773073	0.57	100	91.1	90	110	
Na	23	2	He	9687.603	6.008	15853799	0.97	10000	96.9	90	110	
Mg	24	2	He	9727.302	6.032	9196200	1.16	10000	97.3	90	110	
Al	27	2	He	100.220	7.578	57283	2.83	100	100.2	90	110	
K	39	2	He	10020.085	1.931	12088626	1.89	10000	100.2	90	110	
Ca	43	2	He	9787.037	2.502	32946	2.60	10000	97.9	90	110	
Ca	44	2	He	9753.156	4.983	557175	0.48	10000	97.5	90	110	
V	51	2	He	98.970	6.393	808197	1.17	100	99.0	90	110	
Cr	52	2	He	97.652	5.665	854923	0.49	100	97.7	90	110	
Mn	55	2	He	100.881	5.299	630879	0.70	100	100.9	90	110	
Fe	56	2	He	9652.178	5.676	77691606	1.06	10000	96.5	90	110	
Co	59	2	He	96.368	7.150	1183907	1.97	100	96.4	90	110	
Ni	60	2	He	100.337	5.803	301205	1.01	100	100.3	90	110	
Cu	63	2	He	104.484	5.891	756495	1.64	100	104.5	90	110	
Zn	66	2	He	101.233	5.428	187797	1.82	100	101.2	90	110	
As	75	2	He	102.539	6.454	196826	1.27	100	102.5	90	110	
Se	78	2	He	100.076	5.570	16287	0.96	100	100.1	90	110	
B	11	1	nogas	510.044	1.455	1559793	1.21	500	102.0	90	110	
Si	28	1	nogas	504.007	1.320	7368928	1.42	5000	10.1	90	110	ICV Main CR1 Failed
Ca	43	1	nogas	9616.741	1.301	403921	1.51	10000	96.2	90	110	
Ca	44	1	nogas	9535.885	1.613	6782503	1.95	10000	95.4	90	110	
Fe	56	1	nogas	9614.691	1.525	285644940	1.07	10000	96.1	90	110	
Se	77	1	nogas	65.031	4.134	74358	1.19	100	65.0	90	110	ICV Main CR1 Failed
Se	82	1	nogas	98.918	2.213	35876	1.82	100	98.9	90	110	
Mo	95	1	nogas	95.070	2.304	717524	2.33	100	95.1	90	110	
Sn	118	1	nogas	94.775	1.097	1033550	0.84	100	94.8	90	110	
Ba	137	1	nogas	100.050	1.279	533720	0.66	100	100.1	90	110	
Sb	121	2	He	105.948	5.357	702137	0.92	100	105.9	90	110	
Li	7	1	nogas	97.557	0.803	984135	0.90	100	97.6	90	110	
P	31	1	nogas	495.842	1.117	916548	1.24	500	99.2	90	110	
La	139	1	nogas	153.033	16.334	920	11.50	100	153.0	90	110	ICV Main CR1 Failed
Au	197	1	nogas	46.273	203.322	37	103.25	100	46.3	90	110	ICV 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	nogas	585568	1.38	650728	89.99	70	125	
Ge	72	1	nogas	3923312	0.44	4176570	93.94	70	125	
In	115	1	nogas	3713572	1.89	3920309	94.73	70	125	
Bi	209	1	nogas	2986463	1.81	2792487	106.95	70	125	

Initial Calibration Verification (ICV) Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Ge	72	2	He	1045800	5.05	1073881	97.39	70	125	

Sample Report

Sample Table

Sample Name	LLICV2
Data File Name	015SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T13:01:38-05:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	005CALB.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
Be	9	1	nogas	2.041	2.041	2.41	10406	0.02	2000	
Na	23	1	nogas	210.410	210.410	2.67	5501254	0.00	200000	
Mg	24	1	nogas	215.727	215.727	1.62	3264493	0.01	200000	
Al	27	1	nogas	2.316	2.316	2.24	85302	0.00	2000	
K	39	1	nogas	207.700	207.700	3.91	13073719	0.00	200000	
Ti	47	1	nogas	2.042	2.042	8.21	4691	0.04	2000	
V	51	1	nogas	-5.792	-5.792	-17.95	1140945	0.00	2000	
Cr	52	1	nogas	1.773	1.773	2.39	124596	0.00	2000	
Mn	55	1	nogas	2.150	2.150	3.33	82011	0.00	2000	
Co	59	1	nogas	2.069	2.069	3.70	61376	0.00	2000	
Ni	60	1	nogas	1.964	1.964	5.22	14806	0.01	2000	
Cu	63	1	nogas	1.442	1.442	2.52	41687	0.00	2000	
Zn	66	1	nogas	2.303	2.303	4.89	12424	0.02	2000	
As	75	1	nogas	-0.769	-0.769	-39.02	158301	0.00	2000	
Sr	88	1	nogas	2.037	2.037	1.33	76810	0.00	2000	
Ag	107	1	nogas	2.068	2.068	1.57	39408	0.01	2000	
Cd	111	1	nogas	2.072	2.072	2.05	8432	0.02	2000	
Sb	121	1	nogas	1.961	1.961	1.72	35931	0.01	2000	
Tl	205	1	nogas	2.078	2.078	3.60	59806	0.00	2000	
Pb	208	1	nogas	2.096	2.096	2.03	79208	0.00	2000	
U	238	1	nogas	1.983	1.983	0.57	76846	0.00	2000	
[Pb]	206	1	nogas	1.886	1.886	3.79	19132	0.01	2000	
[Pb]	207	1	nogas	1.920	1.920	4.88	17089	0.01	2000	
Na	23	2	He	206.414	206.414	0.98	433989	0.05	200000	
Mg	24	2	He	208.338	208.338	1.70	203500	0.10	200000	
Al	27	2	He	2.520	2.520	6.00	2580	0.10	2000	
K	39	2	He	203.350	203.350	0.62	492231	0.04	200000	
Ca	43	2	He	211.025	211.025	6.00	767	27.52	200000	
Ca	44	2	He	207.047	207.047	3.87	13475	1.54	200000	
V	51	2	He	2.393	2.393	0.85	33240	0.01	2000	
Cr	52	2	He	1.868	1.868	4.05	22844	0.01	2000	
Mn	55	2	He	2.083	2.083	4.67	14046	0.01	2000	
Fe	56	2	He	206.469	206.469	0.95	1733670	0.01	200000	
Co	59	2	He	1.925	1.925	3.00	24446	0.01	2000	
Ni	60	2	He	2.376	2.376	4.98	6768	0.04	2000	
Cu	63	2	He	1.456	1.456	1.75	19858	0.01	2000	
Zn	66	2	He	2.304	2.304	3.52	4417	0.05	2000	
As	75	2	He	1.972	1.972	0.93	4764	0.04	2000	
Se	78	2	He	2.503	2.503	13.56	589	0.43	2000	
B	11	1	nogas	18.287	18.287	7.50	70319	0.03	2000	
Si	28	1	nogas	98.854	98.854	4.23	2911761	0.00	2000	
Ca	43	1	nogas	206.187	206.187	4.17	9446	2.18	200000	

Sample Report

Ca	44	1	nogas	201.316	201.316	2.46	196036	0.10	200000	
Fe	56	1	nogas	172.048	172.048	1.35	8871457	0.00	200000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Se	77	1	nogas	-12.209	-12.209	-12.13	47790	-0.03	2000	
Se	82	1	nogas	2.450	2.450	15.48	1253	0.20	2000	
Mo	95	1	nogas	2.020	2.020	1.71	15510	0.01	2000	
Sn	118	1	nogas	1.630	1.630	6.52	23289	0.01	2000	
Ba	137	1	nogas	2.050	2.050	4.39	11481	0.02	2000	
Sb	121	2	He	2.152	2.152	5.39	15157	0.01	2000	
La	139	1	nogas	65.248	65.248	34.79	620	10.52	2000	
Au	197	1	nogas	-29.031	-29.031	-97.17	7	-435.47	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	635226	1.81	650728	97.62	70	125	
Ge	72	1	nogas	3955563	1.06	4176570	94.71	70	125	
In	115	1	nogas	3807616	1.10	3920309	97.13	70	125	
Bi	209	1	nogas	3048400	1.11	2792487	109.16	70	125	
Ge	72	2	He	1074958	0.27	1073881	100.10	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	LLICV5
Data File Name	016LICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T13:03:37-05:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	4.979	5.300	24956	1.18	5	99.6	70	130	
Na	23	1	nogas	522.038	5.155	12516783	0.81	500	104.4	70	130	
Mg	24	1	nogas	528.166	6.978	8005531	2.19	500	105.6	70	130	
Al	27	1	nogas	5.537	5.950	143090	0.82	5	110.7	70	130	
K	39	1	nogas	538.639	6.710	20326227	0.75	500	107.7	70	130	
Ti	47	1	nogas	5.296	7.493	11664	4.08	5	105.9	70	130	
V	51	1	nogas	0.563	380.149	1315300	2.83	5	11.3	70	130	LLICV Main CR1 Failed
Cr	52	1	nogas	5.120	6.413	210863	0.55	5	102.4	70	130	
Mn	55	1	nogas	5.272	4.547	181936	1.14	5	105.4	70	130	
Co	59	1	nogas	5.186	4.520	150659	0.50	5	103.7	70	130	
Ni	60	1	nogas	5.342	5.706	35929	1.65	5	106.8	70	130	
Cu	63	1	nogas	4.642	7.255	90626	2.07	5	92.8	70	130	
Zn	66	1	nogas	5.369	7.023	27748	2.47	5	107.4	70	130	
As	75	1	nogas	4.338	36.592	190868	1.50	5	86.8	70	130	
Sr	88	1	nogas	5.106	6.260	187178	2.02	5	102.1	70	130	
Ag	107	1	nogas	5.092	4.545	95216	0.11	5	101.8	70	130	
Cd	111	1	nogas	4.932	5.255	19684	1.39	5	98.6	70	130	
Sb	121	1	nogas	4.991	5.593	88369	1.10	5	99.8	70	130	
Tl	205	1	nogas	4.789	3.596	136084	0.79	5	95.8	70	130	
Pb	208	1	nogas	5.144	1.104	191944	1.09	5	102.9	70	130	
U	238	1	nogas	4.899	5.828	187150	2.16	5	98.0	70	130	
[Pb]	206	1	nogas	4.795	3.372	47470	2.44	5	95.9	70	130	
[Pb]	207	1	nogas	4.885	6.092	42308	1.84	5	97.7	70	130	
Na	23	2	He	503.541	0.795	947016	0.69	500	100.7	70	130	
Mg	24	2	He	508.626	2.060	503761	1.16	500	101.7	70	130	
Al	27	2	He	5.477	7.192	4357	5.44	5	109.5	70	130	
K	39	2	He	521.181	0.373	867681	0.26	500	104.2	70	130	
Ca	43	2	He	510.261	19.310	1830	18.80	500	102.1	70	130	
Ca	44	2	He	500.649	1.871	31193	0.90	500	100.1	70	130	
V	51	2	He	5.367	3.065	58771	1.44	5	107.3	70	130	
Cr	52	2	He	4.716	2.626	49119	2.31	5	94.3	70	130	
Mn	55	2	He	5.074	1.461	33828	2.33	5	101.5	70	130	
Fe	56	2	He	499.816	2.647	4231949	3.41	500	100.0	70	130	
Co	59	2	He	4.810	1.618	61947	2.48	5	96.2	70	130	
Ni	60	2	He	5.142	2.839	15580	2.37	5	102.8	70	130	
Cu	63	2	He	4.565	6.717	43445	4.38	5	91.3	70	130	
Zn	66	2	He	5.268	6.840	10236	5.91	5	105.4	70	130	
As	75	2	He	4.935	0.957	10768	1.50	5	98.7	70	130	
Se	78	2	He	5.386	4.725	1084	3.97	5	107.7	70	130	
B	11	1	nogas	30.559	4.284	109202	0.39	25	122.2	70	130	
Si	28	1	nogas	257.106	6.213	4605286	0.78	25	1028.4	70	130	LLICV Main CR1 Failed
Ca	43	1	nogas	510.879	3.796	21990	1.66	500	102.2	70	130	
Ca	44	1	nogas	514.449	5.845	412353	1.25	500	102.9	70	130	
Fe	56	1	nogas	498.695	6.203	18240391	1.30	500	99.7	70	130	
Se	77	1	nogas	5.538	212.180	53154	3.54	5	110.8	70	130	
Se	82	1	nogas	4.828	2.539	2083	4.90	5	96.6	70	130	
Mo	95	1	nogas	4.933	6.420	37072	1.97	5	98.7	70	130	
Sn	118	1	nogas	4.635	7.291	55696	2.11	5	92.7	70	130	
Ba	137	1	nogas	5.148	1.466	27953	4.53	5	103.0	70	130	
Sb	121	2	He	5.181	0.307	36385	1.04	5	103.6	70	130	
Li	7	1	nogas	5.042	5.340	106031	1.67	5	100.8	70	130	
P	31	1	nogas	27.612	12.864	109810	1.23	25	110.4	70	130	
La	139	1	nogas	-54.765	-32.052	177	33.17	5	-1095.3	70	130	LLICV Main CR1 Failed
Au	197	1	nogas	-20.573	-5.241	10	0.00	5	-411.5	70	130	LLICV 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	nogas	626505	4.25	650728	96.28	70	125	
Ge	72	1	nogas	3899697	4.39	4176570	93.37	70	125	
In	115	1	nogas	3745175	4.54	3920309	95.53	70	125	
Bi	209	1	nogas	3020798	4.36	2792487	108.18	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Ge	72	2	He	1092194	0.91	1073881	101.71	70	125	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICB
Data File Name	017_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T13:05:35-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.028	49.1	170	38.6	1	
Na	23	1	nogas	-1.233	-202.6	789511	1.3	100	
Mg	24	1	nogas	0.456	5.8	13774	8.6	100	
Al	27	1	nogas	0.396	38.6	50204	2.4	5	
K	39	1	nogas	-3.795	-250.4	8361691	2.1	100	
Ti	47	1	nogas	0.010	77.0	223	5.2	2.5	
V	51	1	nogas	-4.241	-98.2	1209627	14.0	2.5	
Cr	52	1	nogas	-0.132	-76.8	74693	0.4	2.5	
Mn	55	1	nogas	0.004	337.0	11560	6.7	2.5	
Co	59	1	nogas	0.005	112.8	703	25.8	2.5	
Ni	60	1	nogas	-0.153	-14.4	1230	11.8	2.5	
Cu	63	1	nogas	-0.688	-3.1	8265	1.1	2.5	
Zn	66	1	nogas	0.136	7.8	1290	5.9	2.5	
As	75	1	nogas	-1.588	-56.1	154785	0.6	2.5	
Sr	88	1	nogas	0.015	24.0	2173	3.2	2.5	
Ag	107	1	nogas	0.005	29.7	313	10.3	2.5	
Cd	111	1	nogas	0.011	50.8	67	31.2	1	
Sb	121	1	nogas	-0.010	-49.4	920	6.1	2.5	
Tl	205	1	nogas	0.042	25.4	1430	14.0	1	
Pb	208	1	nogas	-0.009	-23.8	1360	5.6	2.5	
U	238	1	nogas	-0.001	-202.9	403	10.0	2.5	
[Pb]	206	1	nogas	-0.009	-130.2	367	23.8	2.5	
[Pb]	207	1	nogas	-0.013	-11.9	333	10.5	2.5	
Na	23	2	He	-2.585	-17.2	84299	1.1	100	
Mg	24	2	He	0.485	34.6	1127	15.3	100	
Al	27	2	He	0.674	30.6	1527	8.5	5	
K	39	2	He	-4.258	-47.8	246986	1.0	100	
Ca	43	2	He	10.466	130.3	73	64.4	100	
Ca	44	2	He	3.394	51.3	1537	7.2	100	
V	51	2	He	0.526	4.4	17939	0.5	2.5	
Cr	52	2	He	-0.184	-15.1	4504	5.1	2.5	
Mn	55	2	He	-0.011	-41.7	583	4.3	2.5	
Fe	56	2	He	-0.020	-318.1	22744	1.6	100	
Co	59	2	He	0.007	61.2	173	29.6	2.5	
Ni	60	2	He	0.312	6.5	377	16.2	2.5	
Cu	63	2	He	-0.823	-4.1	3090	7.3	2.5	
Zn	66	2	He	0.246	23.0	490	21.5	2.5	
As	75	2	He	0.005	446.0	898	5.3	2.5	
Se	78	2	He	0.481	56.7	255	17.4	2.5	
B	11	1	nogas	5.130	8.5	26712	3.6	10	
Si	28	1	nogas	6.444	71.9	1911259	5.6	5	ICB Main CR1 Failed
Ca	43	1	nogas	4.791	26.8	950	8.6	100	
Ca	44	1	nogas	2.055	120.4	55071	1.4	100	
Fe	56	1	nogas	-28.959	-7.2	2975845	5.2	100	

Initial Calibration Blank (ICB) Report

Se	77	1	nogas	-6.284	-100.5	50587	0.9	2.5	
Se	82	1	nogas	0.148	80.8	427	13.5	2.5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Mo	95	1	nogas	0.021	31.5	310	16.1	2.5	
Sn	118	1	nogas	-0.320	-1.0	1700	4.8	5	
Ba	137	1	nogas	0.048	11.1	570	6.1	2.5	
Sb	121	2	He	-0.025	-38.2	313	20.5	2.5	
P	31	1	nogas	-0.615	-196.2	63490	0.3	10	
La	139	1	nogas	-42.698	-31.0	240	19.1	2.5	
Au	197	1	nogas	-20.752	-113.4	10	100.0	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	629330	2.03	650728	96.71	70	125	
Ge	72	1	nogas	4016270	3.53	4176570	96.16	70	125	
In	115	1	nogas	4076819	3.20	3920309	103.99	70	125	
Bi	209	1	nogas	2990624	6.61	2792487	107.10	70	125	
Ge	72	2	He	1083794	0.71	1073881	100.92	70	125	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	018ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T13:07:34-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.011	63.6	77	39.8	0	ICSA Main CR1 Failed
Na	23	1	nogas	95694.334	0.9	2056923446	1.3	0	
Mg	24	1	nogas	95504.486	2.6	1385016531	2.3	0	
Al	27	1	nogas	93905.326	0.8	1724085094	1.2	0	
K	39	1	nogas	95404.823	1.0	2157330515	0.9	0	
Ti	47	1	nogas	2049.823	2.5	4444875	2.0	0	
V	51	1	nogas	-13.753	-7.1	883189	2.8	0	ICSA Main CR1 Failed
Cr	52	1	nogas	0.612	10.7	92137	1.5	0	ICSA Main CR1 Failed
Mn	55	1	nogas	0.350	4.9	22434	2.3	0	ICSA Main CR1 Failed
Co	59	1	nogas	0.188	2.7	5978	3.0	0	ICSA Main CR1 Failed
Ni	60	1	nogas	1.241	5.4	10013	3.9	0	ICSA Main CR1 Failed
Cu	63	1	nogas	0.531	18.1	26937	5.0	0	ICSA Main CR1 Failed
Zn	66	1	nogas	2.107	5.4	11247	4.6	0	ICSA Main CR1 Failed
As	75	1	nogas	-1.216	-47.3	152886	2.1	0	ICSA Main CR1 Failed
Sr	88	1	nogas	0.904	1.1	34446	0.5	0	ICSA Main CR1 Failed
Ag	107	1	nogas	0.031	21.0	783	14.8	0	ICSA Main CR1 Failed
Cd	111	1	nogas	2.245	4.4	8359	4.3	0	
Sb	121	1	nogas	0.022	11.8	1460	3.6	0	ICSA Main CR1 Failed
Tl	205	1	nogas	0.013	33.8	580	16.4	0	ICSA Main CR1 Failed
Pb	208	1	nogas	0.081	6.4	4677	4.1	0	ICSA Main CR1 Failed
[Pb]	206	1	nogas	0.085	11.6	1187	10.2	0	ICSA Main CR1 Failed
[Pb]	207	1	nogas	0.076	12.3	1007	7.5	0	ICSA Main CR1 Failed
Na	23	2	He	94190.367	0.7	151764454	0.1	0	
Mg	24	2	He	93569.773	0.9	87515355	0.8	0	
Al	27	2	He	92912.651	1.4	51561751	0.8	0	
K	39	2	He	96659.310	1.1	114434535	1.1	0	
Ca	43	2	He	91845.003	0.7	305249	1.3	0	
Ca	44	2	He	96969.259	0.4	5467554	0.8	0	
V	51	2	He	0.448	6.6	16471	1.9	0	ICSA Main CR1 Failed
Cr	52	2	He	0.058	12.2	6375	0.8	0	ICSA Main CR1 Failed
Mn	55	2	He	0.387	10.6	3010	7.9	0	ICSA Main CR1 Failed
Fe	56	2	He	94806.840	1.7	754733509	1.9	0	
Co	59	2	He	0.032	14.8	470	12.8	0	ICSA Main CR1 Failed
Ni	60	2	He	0.540	4.5	1037	6.4	0	ICSA Main CR1 Failed
Cu	63	2	He	-0.227	-19.6	7165	3.9	0	ICSA Main CR1 Failed
Zn	66	2	He	1.043	5.5	1930	4.9	0	ICSA Main CR1 Failed
As	75	2	He	0.143	28.6	1117	6.3	0	ICSA Main CR1 Failed
Se	78	2	He	0.452	35.4	239	10.0	0	ICSA Main CR1 Failed
B	11	1	nogas	5.220	7.1	24382	3.5	0	ICSA Main CR1 Failed
Si	28	1	nogas	46.209	10.9	2290739	2.3	0	
Ca	43	1	nogas	91798.895	2.2	3823671	1.7	0	
Ca	44	1	nogas	92792.204	2.9	65098504	2.4	0	
Fe	56	1	nogas	94830.146	3.8	2765413995	3.4	0	
Se	77	1	nogas	-3.404	-150.1	50133	3.0	0	ICSA Main CR1 Failed
Se	82	1	nogas	0.411	58.6	507	17.0	0	ICSA Main CR1 Failed
Mo	95	1	nogas	1867.508	0.5	13998565	0.5	0	
Sn	118	1	nogas	-0.248	-4.3	2190	4.4	0	ICSA Main CR1 Failed
Ba	137	1	nogas	0.103	37.7	767	25.4	0	ICSA Main CR1 Failed
Sb	121	2	He	0.028	12.4	647	3.2	0	ICSA Main CR1 Failed

Interference Check Solution A (ICS-A) Report

P	31	1	nogas	93691.492	2.0	160238504	1.4	0	
La	139	1	nogas	224.044	12.6	1100	8.2	0	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	567986	1.52	650728	87.28	70	125	
Ge	72	1	nogas	3897312	0.55	4176570	93.31	70	125	
In	115	1	nogas	3484553	1.03	3920309	88.88	70	125	
Bi	209	1	nogas	2756357	2.81	2792487	98.71	70	125	
Ge	72	2	He	1032624	0.72	1073881	96.16	70	125	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	019ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T13:09:37-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	109.453	5.603	444759	0.62	100	109.5	80	120	
Na	23	1	nogas	118976.915	6.701	2314304318	1.68	100	118976.9	80	120	ICSB Main CR1 Failed
Mg	24	1	nogas	117580.364	8.441	1541910168	1.02	100	117580.4	80	120	ICSB Main CR1 Failed
Al	27	1	nogas	102160.161	6.976	1736306161	1.13	100	102160.2	80	120	ICSB Main CR1 Failed
K	39	1	nogas	117594.286	5.721	2461049988	0.24	100	117594.3	80	120	ICSB Main CR1 Failed
Ti	47	1	nogas	2399.363	3.191	4823744	2.62	100	2399.4	80	120	ICSB Main CR1 Failed
V	51	1	nogas	106.553	9.108	4185317	0.90	100	106.6	80	120	ICSB Main CR1 Failed
Cr	52	1	nogas	103.451	5.861	2596465	1.64	100	103.5	80	120	
Mn	55	1	nogas	104.561	7.579	3149060	2.11	100	104.6	80	120	
Co	59	1	nogas	104.687	4.726	2810454	1.15	100	104.7	80	120	
Ni	60	1	nogas	104.147	4.062	612693	1.83	100	104.1	80	120	
Cu	63	1	nogas	105.043	3.253	1528357	3.77	100	105.0	80	120	
Zn	66	1	nogas	105.257	4.753	495069	1.35	100	105.3	80	120	
As	75	1	nogas	106.864	7.064	829527	0.37	100	106.9	80	120	
Sr	88	1	nogas	103.724	5.138	3498707	0.79	100	103.7	80	120	
Ag	107	1	nogas	95.536	4.529	1652939	1.48	100	95.5	80	120	
Cd	111	1	nogas	109.242	7.415	371984	0.77	100	109.2	80	120	
Sb	121	1	nogas	106.388	9.168	1723996	3.36	100	106.4	80	120	
Tl	205	1	nogas	107.268	7.354	2503346	1.92	100	107.3	80	120	
Pb	208	1	nogas	91.719	1.104	3393876	1.10	100	91.7	80	120	
U	238	1	nogas	112.935	6.971	3546254	3.76	100	112.9	80	120	
[Pb]	206	1	nogas	103.848	7.392	837795	1.51	100	103.8	80	120	
[Pb]	207	1	nogas	104.102	8.848	734322	2.14	100	104.1	80	120	
Na	23	2	He	105049.873	0.930	169338444	1.34	100	105049.9	80	120	
Mg	24	2	He	104735.802	0.829	98006039	1.03	100	104735.8	80	120	
Al	27	2	He	94327.581	0.899	52377066	1.66	100	94327.6	80	120	ICSB Main CR1 Failed
K	39	2	He	109301.331	0.138	129368408	0.14	100	109301.3	80	120	ICSB Main CR1 Failed
Ca	43	2	He	104852.317	1.456	348624	1.53	100	104852.3	80	120	ICSB Main CR1 Failed
Ca	44	2	He	108054.749	2.888	6094868	2.61	100	108054.7	80	120	
V	51	2	He	96.926	0.504	783814	0.76	100	96.9	80	120	
Cr	52	2	He	94.080	1.020	815363	0.20	100	94.1	80	120	
Mn	55	2	He	96.502	1.224	597217	0.44	100	96.5	80	120	
Fe	56	2	He	106228.693	1.597	845978467	0.84	100	106228.7	80	120	
Co	59	2	He	93.253	2.018	1134343	1.22	100	93.3	80	120	
Ni	60	2	He	96.404	1.628	286398	0.89	100	96.4	80	120	
Cu	63	2	He	100.400	0.423	719829	1.19	100	100.4	80	120	
Zn	66	2	He	96.661	1.119	177456	1.81	100	96.7	80	120	
As	75	2	He	96.949	0.739	184285	1.37	100	96.9	80	120	
Se	78	2	He	99.049	1.970	15954	1.31	100	99.0	80	120	
B	11	1	nogas	534.370	3.304	1417974	1.68	100	534.4	80	120	
Si	28	1	nogas	5148.977	5.502	54046879	0.60	100	5149.0	80	120	ICSB Main CR1 Failed
Ca	43	1	nogas	114431.099	7.101	4412328	1.35	100	114431.1	80	120	ICSB Main CR1 Failed
Ca	44	1	nogas	112663.089	6.290	73190084	1.63	100	112663.1	80	120	ICSB Main CR1 Failed
Fe	56	1	nogas	116992.442	7.442	3157348204	1.65	100	116992.4	80	120	ICSB Main CR1 Failed
Se	77	1	nogas	133.989	10.051	90598	2.08	100	134.0	80	120	ICSB Main CR1 Failed
Se	82	1	nogas	104.766	5.294	34947	0.97	100	104.8	80	120	
Mo	95	1	nogas	2181.090	4.402	15150327	1.80	100	2181.1	80	120	ICSB Main CR1 Failed
Sn	118	1	nogas	105.990	7.456	993519	1.10	100	106.0	80	120	
Ba	137	1	nogas	109.301	7.097	501484	0.38	100	109.3	80	120	
Sb	121	2	He	102.137	1.120	669837	0.29	100	102.1	80	120	
La	139	1	nogas	235.244	22.487	1040	10.92	100	235.2	80	120	ICSB 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	nogas	508727	4.83	650728	78.18	70	125	
Ge	72	1	nogas	3617437	5.71	4176570	86.61	70	125	
In	115	1	nogas	3203753	6.73	3920309	81.72	70	125	
Bi	209	1	nogas	2493595	8.73	2792487	89.30	70	125	
Ge	72	2	He	1033106	0.84	1073881	96.20	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	026_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T13:27:50-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	105.023	0.584	452929	0.81	100	105.0	90	110	
Na	23	1	nogas	9932.871	3.383	228242363	0.45	10000	99.3	90	110	
Mg	24	1	nogas	9632.938	5.011	148835528	2.13	10000	96.3	90	110	
Al	27	1	nogas	93.226	3.553	1884673	3.96	100	93.2	90	110	
K	39	1	nogas	9833.754	1.488	246929447	0.70	10000	98.3	90	110	
Ti	47	1	nogas	94.805	1.109	221206	1.26	100	94.8	90	110	
V	51	1	nogas	94.780	3.237	4476357	2.16	100	94.8	90	110	
Cr	52	1	nogas	99.893	3.442	2912463	3.36	100	99.9	90	110	
Mn	55	1	nogas	101.394	1.747	3546585	0.99	100	101.4	90	110	
Co	59	1	nogas	98.558	0.750	3069768	0.32	100	98.6	90	110	
Ni	60	1	nogas	95.679	2.367	652997	1.57	100	95.7	90	110	
Cu	63	1	nogas	101.402	1.185	1711035	1.26	100	101.4	90	110	
Zn	66	1	nogas	97.152	1.510	530212	1.92	100	97.2	90	110	
As	75	1	nogas	90.931	0.671	845109	0.90	100	90.9	90	110	
Sr	88	1	nogas	97.899	1.665	3831746	1.30	100	97.9	90	110	
Ag	107	1	nogas	101.254	1.012	2032257	0.25	100	101.3	90	110	
Cd	111	1	nogas	99.937	2.636	405275	0.62	100	99.9	90	110	
Sb	121	1	nogas	97.057	4.678	1827753	4.42	100	97.1	90	110	
Tl	205	1	nogas	102.885	1.815	2810022	1.51	100	102.9	90	110	
Pb	208	1	nogas	102.254	0.836	3783484	0.84	100	102.3	90	110	
U	238	1	nogas	104.066	2.680	3822130	2.41	100	104.1	90	110	
[Pb]	206	1	nogas	96.379	3.550	909768	1.69	100	96.4	90	110	
[Pb]	207	1	nogas	96.538	3.571	797297	1.73	100	96.5	90	110	
Na	23	2	He	9465.260	4.592	16555238	0.67	10000	94.7	90	110	
Mg	24	2	He	9536.367	3.870	9637689	2.00	10000	95.4	90	110	
Al	27	2	He	92.290	5.558	56474	1.57	100	92.3	90	110	
K	39	2	He	10386.730	0.932	12521740	0.91	10000	103.9	90	110	
Ca	43	2	He	9424.410	3.593	33874	0.93	10000	94.2	90	110	
Ca	44	2	He	9390.755	4.691	573133	0.59	10000	93.9	90	110	
V	51	2	He	94.081	5.326	821616	0.86	100	94.1	90	110	
Cr	52	2	He	93.790	6.438	877131	1.94	100	93.8	90	110	
Mn	55	2	He	96.045	4.831	641734	1.34	100	96.0	90	110	
Fe	56	2	He	9526.691	4.510	81936212	0.11	10000	95.3	90	110	
Co	59	2	He	91.719	3.622	1204958	0.87	100	91.7	90	110	
Ni	60	2	He	94.877	4.087	304355	0.55	100	94.9	90	110	
Cu	63	2	He	99.270	5.641	768235	1.16	100	99.3	90	110	
Zn	66	2	He	95.806	5.731	189810	1.32	100	95.8	90	110	
As	75	2	He	94.515	4.461	193985	0.55	100	94.5	90	110	
Se	78	2	He	92.117	4.495	16033	0.67	100	92.1	90	110	
B	11	1	nogas	536.860	2.985	1510469	1.78	500	107.4	90	110	
Si	28	1	nogas	4607.367	1.800	56327892	2.31	5000	92.1	90	110	
Ca	43	1	nogas	9555.069	3.557	428457	2.53	10000	95.6	90	110	
Ca	44	1	nogas	9592.479	1.776	7284305	0.89	10000	95.9	90	110	
Fe	56	1	nogas	9835.854	1.290	311941115	0.61	10000	98.4	90	110	
Se	77	1	nogas	78.849	1.014	84555	1.17	100	78.8	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	94.599	1.916	36654	1.60	100	94.6	90	110	
Mo	95	1	nogas	91.993	1.725	741479	2.52	100	92.0	90	110	
Sn	118	1	nogas	96.238	1.965	1074902	0.27	100	96.2	90	110	
Ba	137	1	nogas	99.493	1.953	543696	1.61	100	99.5	90	110	
Sb	121	2	He	100.240	5.942	709476	1.50	100	100.2	90	110	
Li	7	1	nogas	98.446	0.512	913658	0.73	100	98.4	90	110	
P	31	1	nogas	460.282	0.716	913344	0.71	500	92.1	90	110	
La	139	1	nogas	228.457	9.429	1217	5.28	100	228.5	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	195.174	29.466	93	22.30	100	195.2	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	538971	1.22	650728	82.83	70	125	
Ge	72	1	nogas	4189537	1.07	4176570	100.31	70	125	
In	115	1	nogas	3804244	2.12	3920309	97.04	70	125	
Bi	209	1	nogas	2906395	2.10	2792487	104.08	70	125	

Ge	72	2	He	1116867	4.52	1073881	104.00	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	027_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T13:29:52-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.068	19.1	347	15.9	1	
Na	23	1	nogas	65.214	13.2	2330933	3.8	100	
Mg	24	1	nogas	4.354	25.2	74696	21.3	100	
Al	27	1	nogas	1.512	13.5	72225	4.7	5	
K	39	1	nogas	3.751	190.1	8642856	1.4	100	
Ti	47	1	nogas	0.086	39.5	397	18.9	2.5	
V	51	1	nogas	-6.076	-49.3	1163273	8.2	2.5	
Cr	52	1	nogas	-0.303	-7.2	70939	1.1	2.5	
Mn	55	1	nogas	0.171	7.6	17322	2.5	2.5	
Co	59	1	nogas	0.038	33.9	1697	21.9	2.5	
Ni	60	1	nogas	0.074	28.4	2740	5.1	2.5	
Cu	63	1	nogas	0.347	26.0	25137	6.5	2.5	
Zn	66	1	nogas	0.363	8.1	2504	5.4	2.5	
As	75	1	nogas	-1.531	-23.5	157211	2.3	2.5	
Sr	88	1	nogas	0.073	18.8	4404	11.2	2.5	
Ag	107	1	nogas	0.039	4.6	987	3.1	2.5	
Cd	111	1	nogas	0.036	43.1	170	35.3	1	
Sb	121	1	nogas	0.126	10.6	3414	6.5	2.5	
Tl	205	1	nogas	0.184	36.2	5651	33.7	1	
Pb	208	1	nogas	0.029	36.4	2737	14.1	2.5	
U	238	1	nogas	0.047	36.8	2320	28.8	2.5	
[Pb]	206	1	nogas	0.018	36.3	657	9.3	2.5	
[Pb]	207	1	nogas	0.017	25.1	610	5.9	2.5	
Na	23	2	He	69.568	5.2	209303	0.8	100	
Mg	24	2	He	3.308	6.8	3954	4.2	100	
Al	27	2	He	1.530	15.6	2057	8.0	5	
K	39	2	He	8.035	17.7	261508	0.6	100	
Ca	43	2	He	14.070	94.3	87	52.0	100	
Ca	44	2	He	7.505	57.3	1807	14.6	100	
V	51	2	He	0.587	11.4	18722	0.9	2.5	
Cr	52	2	He	-0.157	-18.9	4814	3.7	2.5	
Mn	55	2	He	0.029	60.3	850	11.8	2.5	
Fe	56	2	He	3.483	2.1	52812	3.3	100	
Co	59	2	He	0.022	22.4	370	18.9	2.5	
Ni	60	2	He	0.339	1.2	467	1.2	2.5	
Cu	63	2	He	-0.846	-2.1	2964	2.7	2.5	
Zn	66	2	He	0.441	7.7	880	9.7	2.5	
As	75	2	He	0.032	123.7	968	9.8	2.5	
Se	78	2	He	0.397	36.1	245	7.9	2.5	
B	11	1	nogas	8.622	11.0	35583	6.4	10	
Si	28	1	nogas	-22.462	-20.0	1602184	2.9	5	
Ca	43	1	nogas	13.687	32.9	1347	14.4	100	
Ca	44	1	nogas	2.890	28.8	56378	0.6	100	
Fe	56	1	nogas	-23.626	-5.9	3172297	1.0	100	
Se	77	1	nogas	-5.513	-19.6	51526	1.2	2.5	
Se	82	1	nogas	0.173	169.2	440	24.6	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.154	18.3	1347	15.7	2.5	
Sn	118	1	nogas	-0.217	-15.9	2840	13.0	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.102	23.0	863	15.4	2.5	
Sb	121	2	He	0.106	29.0	1230	18.6	2.5	
P	31	1	nogas	-2.202	-51.5	61466	3.0	10	
La	139	1	nogas	38.226	45.2	540	10.3	2.5	CCB Main CR1 Failed
Au	197	1	nogas	-21.313	-0.9	10	0.0	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	587659	1.63	650728	90.31	70	125	
Ge	72	1	nogas	4064437	0.76	4176570	97.32	70	125	
In	115	1	nogas	3949846	3.09	3920309	100.75	70	125	
Bi	209	1	nogas	3110095	0.82	2792487	111.37	70	125	
Ge	72	2	He	1100283	2.16	1073881	102.46	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	038_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T13:52:21-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	107.189	2.145	444566	1.40	100	107.2	90	110	
Na	23	1	nogas	9977.705	3.819	219358238	0.89	10000	99.8	90	110	
Mg	24	1	nogas	9611.453	4.077	142117037	0.56	10000	96.1	90	110	
Al	27	1	nogas	107.744	3.850	1945591	2.20	100	107.7	90	110	
K	39	1	nogas	10396.804	2.358	233562055	0.60	10000	104.0	90	110	
Ti	47	1	nogas	102.291	1.864	213929	1.11	100	102.3	90	110	
V	51	1	nogas	93.153	4.821	3964892	2.44	100	93.2	90	110	
Cr	52	1	nogas	103.593	1.146	2705502	2.77	100	103.6	90	110	
Mn	55	1	nogas	102.953	3.503	3229671	4.92	100	103.0	90	110	
Co	59	1	nogas	98.878	1.149	2761440	2.61	100	98.9	90	110	
Ni	60	1	nogas	102.109	1.937	624606	1.14	100	102.1	90	110	
Cu	63	1	nogas	93.893	7.735	1422888	9.13	100	93.9	90	110	
Zn	66	1	nogas	103.850	3.469	507886	1.87	100	103.9	90	110	
As	75	1	nogas	96.272	0.857	792999	1.13	100	96.3	90	110	
Sr	88	1	nogas	100.831	1.018	3538239	1.71	100	100.8	90	110	
Ag	107	1	nogas	95.241	2.092	1714176	3.52	100	95.2	90	110	
Cd	111	1	nogas	102.385	4.813	388441	2.89	100	102.4	90	110	
Sb	121	1	nogas	98.898	4.682	1670790	6.39	100	98.9	90	110	
Tl	205	1	nogas	102.113	2.237	2638075	2.87	100	102.1	90	110	
Pb	208	1	nogas	94.767	1.646	3506598	1.65	100	94.8	90	110	
U	238	1	nogas	108.758	4.552	3776125	2.30	100	108.8	90	110	
[Pb]	206	1	nogas	100.452	2.933	896835	0.45	100	100.5	90	110	
[Pb]	207	1	nogas	98.816	3.008	771931	1.54	100	98.8	90	110	
Na	23	2	He	10064.398	0.937	16311132	0.59	10000	100.6	90	110	
Mg	24	2	He	9792.610	1.715	9169717	0.58	10000	97.9	90	110	
Al	27	2	He	96.336	2.424	54602	1.58	100	96.3	90	110	
K	39	2	He	9621.714	1.282	11618035	1.25	10000	96.2	90	110	
Ca	43	2	He	9672.740	0.841	32218	1.59	10000	96.7	90	110	
Ca	44	2	He	9606.959	0.224	543502	1.41	10000	96.1	90	110	
V	51	2	He	97.063	0.998	785447	0.53	100	97.1	90	110	
Cr	52	2	He	95.424	1.866	827482	0.82	100	95.4	90	110	
Mn	55	2	He	96.294	1.631	596345	0.74	100	96.3	90	110	
Fe	56	2	He	9533.521	1.808	75998389	1.30	10000	95.3	90	110	
Co	59	2	He	93.288	2.563	1135588	1.96	100	93.3	90	110	
Ni	60	2	He	98.649	2.079	293280	1.08	100	98.6	90	110	
Cu	63	2	He	103.327	1.290	741038	0.61	100	103.3	90	110	
Zn	66	2	He	98.293	1.357	180560	0.22	100	98.3	90	110	
As	75	2	He	96.979	0.617	184468	0.58	100	97.0	90	110	
Se	78	2	He	96.190	1.582	15509	0.38	100	96.2	90	110	
B	11	1	nogas	547.427	1.680	1481388	1.00	500	109.5	90	110	
Si	28	1	nogas	5071.154	1.518	55398436	0.39	5000	101.4	90	110	
Ca	43	1	nogas	10125.185	3.107	406956	1.35	10000	101.3	90	110	
Ca	44	1	nogas	10398.453	3.824	7072781	2.05	10000	104.0	90	110	
Fe	56	1	nogas	10580.437	1.520	300602423	2.61	10000	105.8	90	110	
Se	77	1	nogas	80.792	5.761	76450	2.23	100	80.8	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	103.168	1.771	35806	1.79	100	103.2	90	110	
Mo	95	1	nogas	99.601	3.129	719434	1.71	100	99.6	90	110	
Sn	118	1	nogas	100.045	2.606	1045438	0.87	100	100.0	90	110	
Ba	137	1	nogas	103.041	3.863	526778	2.23	100	103.0	90	110	
Sb	121	2	He	103.973	0.800	682420	1.38	100	104.0	90	110	
Li	7	1	nogas	102.269	1.120	911121	1.05	100	102.3	90	110	
P	31	1	nogas	497.493	2.097	879987	0.44	500	99.5	90	110	
La	139	1	nogas	251.750	21.046	1217	13.11	100	251.8	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	163.171	58.121	77	45.81	100	163.2	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	518367	0.83	650728	79.66	70	125	
Ge	72	1	nogas	3756041	1.75	4176570	89.93	70	125	
In	115	1	nogas	3560112	2.19	3920309	90.81	70	125	
Bi	209	1	nogas	2748988	2.49	2792487	98.44	70	125	

Ge	72	2	He	1033884	1.19	1073881	96.28	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	039_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T13:54:20-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.064	8.7	323	7.1	1	
Na	23	1	nogas	112.331	5.4	3264570	2.1	100	CCB Main CR1 Failed
Mg	24	1	nogas	4.891	25.0	79049	20.9	100	
Al	27	1	nogas	1.365	6.9	67396	2.3	5	
K	39	1	nogas	13.996	77.6	8623536	1.2	100	
Ti	47	1	nogas	0.091	26.7	397	11.6	2.5	
V	51	1	nogas	-15.712	-2.9	834397	1.6	2.5	
Cr	52	1	nogas	-0.645	-5.4	59740	2.1	2.5	
Mn	55	1	nogas	0.166	6.3	16668	1.5	2.5	
Co	59	1	nogas	0.038	13.1	1667	7.2	2.5	
Ni	60	1	nogas	0.116	10.5	2934	4.3	2.5	
Cu	63	1	nogas	0.393	8.2	25124	3.6	2.5	
Zn	66	1	nogas	0.347	6.2	2350	5.8	2.5	
As	75	1	nogas	-4.428	-8.2	132445	0.2	2.5	
Sr	88	1	nogas	0.084	19.1	4657	10.9	2.5	
Ag	107	1	nogas	0.054	21.6	1237	16.3	2.5	
Cd	111	1	nogas	0.048	29.5	213	27.1	1	
Sb	121	1	nogas	0.103	19.4	2900	10.5	2.5	
Tl	205	1	nogas	0.248	29.8	7135	28.0	1	
Pb	208	1	nogas	0.038	47.6	3080	21.7	2.5	
U	238	1	nogas	0.055	28.7	2484	22.9	2.5	
[Pb]	206	1	nogas	0.038	28.2	817	12.3	2.5	
[Pb]	207	1	nogas	0.027	76.7	663	25.6	2.5	
Na	23	2	He	110.436	0.4	268970	0.6	100	CCB Main CR1 Failed
Mg	24	2	He	3.472	2.6	3964	1.9	100	
Al	27	2	He	1.498	27.2	1960	12.0	5	
K	39	2	He	-0.395	-775.1	251549	1.4	100	
Ca	43	2	He	20.695	42.8	107	28.6	100	
Ca	44	2	He	9.373	19.0	1847	6.0	100	
V	51	2	He	0.098	32.3	14039	1.4	2.5	
Cr	52	2	He	-0.210	-4.7	4171	2.2	2.5	
Mn	55	2	He	0.047	52.0	933	16.3	2.5	
Fe	56	2	He	3.926	1.7	54423	0.7	100	
Co	59	2	He	0.035	8.8	527	7.7	2.5	
Ni	60	2	He	0.326	5.3	410	12.9	2.5	
Cu	63	2	He	-0.769	-1.8	3414	2.7	2.5	
Zn	66	2	He	0.422	7.3	810	7.5	2.5	
As	75	2	He	0.023	31.0	912	1.4	2.5	
Se	78	2	He	0.581	47.1	266	17.2	2.5	
B	11	1	nogas	10.170	5.5	39514	3.6	10	CCB Main CR1 Failed
Si	28	1	nogas	-10.154	-60.0	1691933	2.3	5	
Ca	43	1	nogas	14.611	16.0	1347	7.4	100	
Ca	44	1	nogas	8.150	47.0	58448	2.9	100	
Fe	56	1	nogas	-21.420	-11.9	3144545	0.7	100	
Se	77	1	nogas	-24.977	-2.2	43198	2.1	2.5	
Se	82	1	nogas	0.234	118.0	450	23.5	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.152	24.3	1290	19.8	2.5	
Sn	118	1	nogas	-0.162	-13.6	3314	7.5	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.082	29.9	717	19.0	2.5	
Sb	121	2	He	0.076	28.1	987	14.5	2.5	
P	31	1	nogas	0.813	40.9	64901	0.8	10	
La	139	1	nogas	47.400	79.7	550	25.3	2.5	CCB Main CR1 Failed
Au	197	1	nogas	5.561	1208.9	20	132.3	2.5	CCB 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	nogas	575781	1.05	650728	88.48	70	125	
Ge	72	1	nogas	3946426	1.70	4176570	94.49	70	125	
In	115	1	nogas	3770072	0.42	3920309	96.17	70	125	
Bi	209	1	nogas	2946274	1.01	2792487	105.51	70	125	
Ge	72	2	He	1058762	0.45	1073881	98.59	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	046_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:08:22-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	109.838	4.103	434311	2.72	100	109.8	90	110	
Na	23	1	nogas	9858.866	3.983	217568880	0.89	10000	98.6	90	110	
Mg	24	1	nogas	9660.538	4.629	143376491	1.68	10000	96.6	90	110	
Al	27	1	nogas	96.989	0.951	1840805	0.83	100	97.0	90	110	
K	39	1	nogas	9808.817	2.020	231507105	1.77	10000	98.1	90	110	
Ti	47	1	nogas	94.331	1.339	206849	1.22	100	94.3	90	110	
V	51	1	nogas	77.354	2.539	3674890	1.87	100	77.4	90	110	CCV Main CR1-2 Failed
Cr	52	1	nogas	98.141	0.285	2690477	0.20	100	98.1	90	110	
Mn	55	1	nogas	100.798	0.298	3313823	0.18	100	100.8	90	110	
Co	59	1	nogas	96.432	4.136	2822642	3.91	100	96.4	90	110	
Ni	60	1	nogas	96.295	0.517	617690	0.36	100	96.3	90	110	
Cu	63	1	nogas	99.431	1.893	1577121	1.69	100	99.4	90	110	
Zn	66	1	nogas	98.722	1.386	506331	1.62	100	98.7	90	110	
As	75	1	nogas	86.194	0.580	761339	0.21	100	86.2	90	110	CCV Main CR1-2 Failed
Sr	88	1	nogas	98.490	3.945	3622756	3.71	100	98.5	90	110	
Ag	107	1	nogas	98.514	1.933	1858285	1.76	100	98.5	90	110	
Cd	111	1	nogas	100.527	3.316	391613	1.57	100	100.5	90	110	
Sb	121	1	nogas	97.164	6.804	1719566	6.56	100	97.2	90	110	
Tl	205	1	nogas	97.618	2.699	2664689	1.33	100	97.6	90	110	
Pb	208	1	nogas	98.693	2.419	3651795	2.42	100	98.7	90	110	
U	238	1	nogas	101.168	4.439	3712802	2.57	100	101.2	90	110	
[Pb]	206	1	nogas	92.832	1.854	876186	1.31	100	92.8	90	110	
[Pb]	207	1	nogas	95.524	2.382	788735	0.83	100	95.5	90	110	
Na	23	2	He	9980.227	0.845	16049844	1.08	10000	99.8	90	110	
Mg	24	2	He	9870.181	1.200	9170736	0.56	10000	98.7	90	110	
Al	27	2	He	96.474	2.007	54264	2.66	100	96.5	90	110	
K	39	2	He	9734.569	1.005	11751349	0.98	10000	97.3	90	110	
Ca	43	2	He	9272.192	1.356	30642	1.10	10000	92.7	90	110	
Ca	44	2	He	9607.609	1.013	539260	0.83	10000	96.1	90	110	
V	51	2	He	96.267	0.987	773033	0.29	100	96.3	90	110	
Cr	52	2	He	96.109	1.358	826929	0.84	100	96.1	90	110	
Mn	55	2	He	98.175	2.381	603280	2.34	100	98.2	90	110	
Fe	56	2	He	9876.546	2.395	78120079	2.20	10000	98.8	90	110	
Co	59	2	He	95.907	1.284	1158416	0.60	100	95.9	90	110	
Ni	60	2	He	99.917	0.867	294766	0.54	100	99.9	90	110	
Cu	63	2	He	103.318	1.180	735205	0.63	100	103.3	90	110	
Zn	66	2	He	98.971	1.343	180412	1.98	100	99.0	90	110	
As	75	2	He	98.552	1.041	185981	0.56	100	98.6	90	110	
Se	78	2	He	97.556	0.817	15606	1.20	100	97.6	90	110	
B	11	1	nogas	545.716	3.156	1408045	2.05	500	109.1	90	110	
Si	28	1	nogas	4698.964	1.466	53950364	1.45	5000	94.0	90	110	
Ca	43	1	nogas	9628.515	1.758	405854	1.94	10000	96.3	90	110	
Ca	44	1	nogas	9582.612	2.727	6839756	2.96	10000	95.8	90	110	
Fe	56	1	nogas	9953.411	1.233	296640123	1.31	10000	99.5	90	110	
Se	77	1	nogas	43.619	15.017	67127	3.66	100	43.6	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	97.577	1.267	35522	1.16	100	97.6	90	110	
Mo	95	1	nogas	94.237	0.510	713773	0.76	100	94.2	90	110	
Sn	118	1	nogas	96.536	1.603	1035876	0.64	100	96.5	90	110	
Ba	137	1	nogas	99.993	1.250	524946	0.90	100	100.0	90	110	
Sb	121	2	He	103.729	0.800	675471	0.15	100	103.7	90	110	
Li	7	1	nogas	101.100	3.843	859154	2.25	100	101.1	90	110	
P	31	1	nogas	469.680	0.674	874600	0.51	500	93.9	90	110	
La	139	1	nogas	236.282	3.942	1197	1.28	100	236.3	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	170.911	65.409	83	48.50	100	170.9	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	494325	1.42	650728	75.96	70	125	
Ge	72	1	nogas	3937244	0.25	4176570	94.27	70	125	
In	115	1	nogas	3654626	2.06	3920309	93.22	70	125	
Bi	209	1	nogas	2905749	3.14	2792487	104.06	70	125	

Ge	72	2	He	1025791	0.69	1073881	95.52	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	047_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:10:22-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.085	12.5	407	11.1	1	
Na	23	1	nogas	108.169	12.1	3213621	4.1	100	CCB Main CR1 Failed
Mg	24	1	nogas	6.887	25.7	109952	19.3	100	
Al	27	1	nogas	1.448	5.6	70070	2.1	5	
K	39	1	nogas	6.794	30.8	8599678	0.1	100	
Ti	47	1	nogas	0.118	44.6	463	24.9	2.5	
V	51	1	nogas	-23.478	-1.4	606481	2.2	2.5	
Cr	52	1	nogas	-1.043	-5.4	49924	2.6	2.5	
Mn	55	1	nogas	0.178	8.6	17322	3.4	2.5	
Co	59	1	nogas	0.057	25.3	2250	18.7	2.5	
Ni	60	1	nogas	0.158	18.7	3254	5.5	2.5	
Cu	63	1	nogas	0.520	9.1	27554	3.2	2.5	
Zn	66	1	nogas	0.389	6.3	2610	4.8	2.5	
As	75	1	nogas	-8.491	-1.6	105897	1.2	2.5	
Sr	88	1	nogas	0.097	22.7	5244	15.3	2.5	
Ag	107	1	nogas	0.063	18.5	1427	15.4	2.5	
Cd	111	1	nogas	0.058	27.6	260	24.0	1	
Sb	121	1	nogas	0.184	22.8	4421	16.7	2.5	
Tl	205	1	nogas	0.218	37.0	6718	41.1	1	
Pb	208	1	nogas	0.053	28.7	3627	15.4	2.5	
U	238	1	nogas	0.076	37.1	3484	37.7	2.5	
[Pb]	206	1	nogas	0.039	25.4	870	17.0	2.5	
[Pb]	207	1	nogas	0.038	54.3	803	28.0	2.5	
Na	23	2	He	107.952	0.9	262742	0.4	100	CCB Main CR1 Failed
Mg	24	2	He	4.350	14.9	4767	13.0	100	
Al	27	2	He	2.017	9.8	2237	4.3	5	
K	39	2	He	0.593	233.3	252716	0.6	100	
Ca	43	2	He	14.153	105.3	83	59.2	100	
Ca	44	2	He	11.445	31.3	1950	10.3	100	
V	51	2	He	-0.331	-4.5	10456	1.3	2.5	
Cr	52	2	He	-0.203	-15.6	4201	5.9	2.5	
Mn	55	2	He	0.069	17.5	1067	8.0	2.5	
Fe	56	2	He	4.672	9.7	60011	5.5	100	
Co	59	2	He	0.038	9.3	557	7.3	2.5	
Ni	60	2	He	0.334	8.0	430	18.6	2.5	
Cu	63	2	He	-0.797	-5.4	3184	8.7	2.5	
Zn	66	2	He	0.457	3.5	870	3.4	2.5	
As	75	2	He	-0.055	-30.7	754	3.3	2.5	
Se	78	2	He	0.443	46.5	241	13.2	2.5	
B	11	1	nogas	7.089	11.5	29149	7.3	10	
Si	28	1	nogas	-19.462	-22.5	1614989	2.9	5	
Ca	43	1	nogas	18.304	14.4	1527	7.1	100	
Ca	44	1	nogas	6.658	39.6	58347	2.8	100	
Fe	56	1	nogas	-37.889	-3.2	2702878	0.8	100	
Se	77	1	nogas	-52.316	-5.1	34146	2.9	2.5	
Se	82	1	nogas	0.326	40.2	490	9.4	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.178	28.9	1517	25.9	2.5	
Sn	118	1	nogas	-0.137	-35.6	3704	13.8	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.400	4.1	2514	3.4	2.5	
Sb	121	2	He	0.147	12.4	1447	7.4	2.5	
P	31	1	nogas	0.120	642.9	64741	1.7	10	
La	139	1	nogas	23.054	107.1	477	19.5	2.5	CCB Main CR1 Failed
Au	197	1	nogas	9.451	602.7	23	107.9	2.5	CCB 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	nogas	553937	1.07	650728	85.13	70	125	
Ge	72	1	nogas	4010701	0.50	4176570	96.03	70	125	
In	115	1	nogas	3895082	1.51	3920309	99.36	70	125	
Bi	209	1	nogas	3100548	5.46	2792487	111.03	70	125	
Ge	72	2	He	1050300	0.95	1073881	97.80	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	058_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:32:24-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	104.303	1.319	435805	0.55	100	104.3	90	110	
Na	23	1	nogas	10476.955	2.838	217842122	2.49	10000	104.8	90	110	
Mg	24	1	nogas	10110.161	4.163	141348391	0.76	10000	101.1	90	110	
Al	27	1	nogas	101.706	10.781	1920960	4.64	100	101.7	90	110	
K	39	1	nogas	10043.686	7.752	236245405	0.71	10000	100.4	90	110	
Ti	47	1	nogas	94.933	6.631	207717	0.22	100	94.9	90	110	
V	51	1	nogas	69.546	10.491	3429528	1.97	100	69.5	90	110	CCV Main CR1-2 Failed
Cr	52	1	nogas	87.716	7.730	2406752	1.32	100	87.7	90	110	CCV Main CR1-2 Failed
Mn	55	1	nogas	94.769	3.412	3114684	4.12	100	94.8	90	110	
Co	59	1	nogas	96.731	4.067	2830672	5.19	100	96.7	90	110	
Ni	60	1	nogas	96.607	7.168	618188	0.59	100	96.6	90	110	
Cu	63	1	nogas	101.569	4.951	1615627	11.90	100	101.6	90	110	
Zn	66	1	nogas	121.931	5.843	624102	1.33	100	121.9	90	110	CCV Main CR1-2 Failed
As	75	1	nogas	86.362	8.053	760957	0.70	100	86.4	90	110	CCV Main CR1-2 Failed
Sr	88	1	nogas	99.806	0.107	3674732	7.01	100	99.8	90	110	
Ag	107	1	nogas	100.834	4.292	1907771	11.55	100	100.8	90	110	
Cd	111	1	nogas	94.541	6.594	387148	0.41	100	94.5	90	110	
Sb	121	1	nogas	112.788	3.354	1995947	5.38	100	112.8	90	110	CCV Main CR1-2 Failed
Tl	205	1	nogas	92.443	6.800	2773606	7.59	100	92.4	90	110	
Pb	208	1	nogas	103.748	7.008	3838750	7.00	100	103.7	90	110	
U	238	1	nogas	103.507	2.082	4174123	0.74	100	103.5	90	110	
[Pb]	206	1	nogas	87.150	1.512	903616	0.35	100	87.2	90	110	CCV Main CR1-2 Failed
[Pb]	207	1	nogas	88.720	2.378	804815	1.64	100	88.7	90	110	CCV Main CR1-2 Failed
Na	23	2	He	9744.280	1.084	15899671	0.99	10000	97.4	90	110	
Mg	24	2	He	9392.235	0.594	8853810	0.68	10000	93.9	90	110	
Al	27	2	He	89.497	2.669	51142	2.39	100	89.5	90	110	CCV Main CR1-2 Failed
K	39	2	He	9586.236	1.403	11576126	1.37	10000	95.9	90	110	
Ca	43	2	He	9332.576	1.627	31290	1.54	10000	93.3	90	110	
Ca	44	2	He	9349.964	2.418	532482	2.63	10000	93.5	90	110	
V	51	2	He	93.158	1.035	759366	0.95	100	93.2	90	110	
Cr	52	2	He	95.401	1.375	832821	1.27	100	95.4	90	110	
Mn	55	2	He	95.033	0.261	592480	0.44	100	95.0	90	110	
Fe	56	2	He	9293.778	0.361	74581797	0.35	10000	92.9	90	110	
Co	59	2	He	91.584	0.734	1122331	0.90	100	91.6	90	110	
Ni	60	2	He	94.885	1.919	283956	1.71	100	94.9	90	110	
Cu	63	2	He	99.808	1.945	720845	1.71	100	99.8	90	110	
Zn	66	2	He	131.627	3.375	243394	3.21	100	131.6	90	110	CCV Main CR1-2 Failed
As	75	2	He	95.430	0.707	182738	0.92	100	95.4	90	110	
Se	78	2	He	94.437	1.169	15332	1.34	100	94.4	90	110	
B	11	1	nogas	595.353	0.640	1622499	1.85	500	119.1	90	110	CCV Main CR1-2 Failed
Si	28	1	nogas	4694.588	9.170	53726894	2.13	5000	93.9	90	110	
Ca	43	1	nogas	9763.629	6.205	410731	1.23	10000	97.6	90	110	
Ca	44	1	nogas	9595.848	10.733	6821782	4.47	10000	96.0	90	110	
Fe	56	1	nogas	9860.422	7.073	293211398	0.27	10000	98.6	90	110	
Se	77	1	nogas	41.868	34.457	66334	0.80	100	41.9	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	99.756	6.395	36237	1.68	100	99.8	90	110	
Mo	95	1	nogas	94.328	7.591	712600	1.42	100	94.3	90	110	
Sn	118	1	nogas	94.663	5.754	1068086	1.00	100	94.7	90	110	
Ba	137	1	nogas	95.997	6.991	529585	1.20	100	96.0	90	110	
Sb	121	2	He	103.404	0.245	683153	0.46	100	103.4	90	110	
Li	7	1	nogas	99.014	1.007	890072	0.89	100	99.0	90	110	
P	31	1	nogas	478.370	7.262	887642	0.70	500	95.7	90	110	
La	139	1	nogas	187.547	5.698	1080	5.63	100	187.5	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	257.764	38.053	130	33.53	100	257.8	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	522235	1.80	650728	80.25	70	125	
Ge	72	1	nogas	3941021	7.11	4176570	94.36	70	125	
In	115	1	nogas	3851037	6.46	3920309	98.23	70	125	
Bi	209	1	nogas	3191267	1.61	2792487	114.28	70	125	

Ge	72	2	He	1040675	0.22	1073881	96.91	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	059_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:34:24-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.089	31.7	440	29.0	1	
Na	23	1	nogas	137.445	3.2	3889102	2.7	100	CCB Main CR1 Failed
Mg	24	1	nogas	8.325	15.3	132592	12.3	100	
Al	27	1	nogas	1.361	3.5	67200	1.0	5	
K	39	1	nogas	83.491	13.5	10189090	1.0	100	
Ti	47	1	nogas	0.180	30.8	590	19.1	2.5	
V	51	1	nogas	-22.873	-2.2	613953	1.6	2.5	
Cr	52	1	nogas	-0.993	-7.3	50342	2.3	2.5	
Mn	55	1	nogas	0.188	11.6	17355	3.4	2.5	
Co	59	1	nogas	0.078	28.5	2837	22.4	2.5	
Ni	60	1	nogas	0.265	9.6	3880	5.6	2.5	
Cu	63	1	nogas	1.944	9.0	49400	6.2	2.5	
Zn	66	1	nogas	16.005	5.7	82579	5.4	2.5	CCB Main CR1 Failed
As	75	1	nogas	-8.454	-3.4	104236	1.1	2.5	
Sr	88	1	nogas	0.113	9.9	5721	6.8	2.5	
Ag	107	1	nogas	0.077	11.4	1670	10.4	2.5	
Cd	111	1	nogas	0.088	21.5	380	20.6	1	
Sb	121	1	nogas	0.132	12.9	3414	7.9	2.5	
Tl	205	1	nogas	0.216	41.2	6978	42.2	1	
Pb	208	1	nogas	0.072	30.0	4330	18.4	2.5	
U	238	1	nogas	0.079	31.9	3767	30.7	2.5	
[Pb]	206	1	nogas	0.046	43.3	993	24.3	2.5	
[Pb]	207	1	nogas	0.056	23.7	1010	13.7	2.5	
Na	23	2	He	150.000	1.3	334015	1.1	100	CCB Main CR1 Failed
Mg	24	2	He	5.594	4.1	5994	4.2	100	
Al	27	2	He	1.253	42.2	1820	16.9	5	
K	39	2	He	67.894	4.6	332218	1.1	100	
Ca	43	2	He	23.627	54.9	117	38.7	100	
Ca	44	2	He	14.329	15.6	2130	4.9	100	
V	51	2	He	-0.343	-5.7	10428	0.4	2.5	
Cr	52	2	He	-0.251	-6.2	3807	2.4	2.5	
Mn	55	2	He	0.070	29.3	1080	12.5	2.5	
Fe	56	2	He	6.691	5.2	76910	2.8	100	
Co	59	2	He	0.051	22.8	713	18.7	2.5	
Ni	60	2	He	0.335	1.8	437	3.5	2.5	
Cu	63	2	He	-0.722	-4.9	3754	7.7	2.5	
Zn	66	2	He	19.244	7.6	36206	8.6	2.5	CCB Main CR1 Failed
As	75	2	He	-0.064	-30.6	742	4.6	2.5	
Se	78	2	He	0.612	6.4	271	1.5	2.5	
B	11	1	nogas	8.194	12.1	33587	8.1	10	
Si	28	1	nogas	-22.213	-28.8	1554921	3.3	5	
Ca	43	1	nogas	16.297	31.9	1413	14.2	100	
Ca	44	1	nogas	10.969	15.4	60350	0.8	100	
Fe	56	1	nogas	-26.589	-15.4	2986019	2.7	100	
Se	77	1	nogas	-53.015	-2.3	33284	0.9	2.5	
Se	82	1	nogas	0.552	50.1	563	18.2	2.5	
Mo	95	1	nogas	0.163	23.1	1373	19.5	2.5	
Sn	118	1	nogas	-0.156	-26.4	3450	13.6	5	

Continuing Calibration Blank (CCB) Report

Ba	137	1	nogas	0.129	25.6	987	16.7	2.5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Sb	121	2	He	0.103	11.3	1163	5.7	2.5	
P	31	1	nogas	7.367	5.4	76103	1.3	10	
La	139	1	nogas	24.203	90.5	477	19.0	2.5	CCB Main CR1 Failed
Au	197	1	nogas	-7.361	-176.7	17	34.6	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	575545	0.71	650728	88.45	70	125	
Ge	72	1	nogas	3938755	1.54	4176570	94.31	70	125	
In	115	1	nogas	3851646	2.08	3920309	98.25	70	125	
Bi	209	1	nogas	3274084	2.63	2792487	117.25	70	125	
Ge	72	2	He	1057928	1.41	1073881	98.51	70	125	

Sample Report

Sample Table

Sample Name	MBLK-132160
Data File Name	060SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:36:24-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132160
ISTD Ref FileName	005CALB.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
Be	9	1	nogas	0.016	0.016	71.90	103	0.02	2000	
Na	23	1	nogas	129.277	129.277	0.64	3817224	0.00	200000	
Mg	24	1	nogas	11.982	11.982	3.27	193982	0.01	200000	
Al	27	1	nogas	4.283	4.283	2.50	126017	0.00	2000	
K	39	1	nogas	46.764	46.764	23.94	9707548	0.00	200000	
Ti	47	1	nogas	0.112	0.112	11.41	460	0.02	2000	
V	51	1	nogas	-22.654	-22.654	-2.87	644051	0.00	2000	
Cr	52	1	nogas	-1.043	-1.043	-3.23	50890	0.00	2000	
Mn	55	1	nogas	0.007	0.007	201.44	11857	0.00	2000	
Co	59	1	nogas	0.008	0.008	33.87	810	0.00	2000	
Ni	60	1	nogas	0.237	0.237	19.04	3847	0.01	2000	
Cu	63	1	nogas	2.391	2.391	8.68	58587	0.00	2000	
Zn	66	1	nogas	12.268	12.268	8.29	65768	0.02	2000	
As	75	1	nogas	-8.100	-8.100	-5.77	110722	-0.01	2000	
Sr	88	1	nogas	0.021	0.021	16.92	2437	0.00	2000	
Ag	107	1	nogas	0.003	0.003	35.99	283	0.00	2000	
Cd	111	1	nogas	0.009	0.009	115.68	57	0.02	2000	
Sb	121	1	nogas	0.028	0.028	19.33	1643	0.00	2000	
Tl	205	1	nogas	0.016	0.016	27.96	827	0.00	2000	
Pb	208	1	nogas	-0.014	-0.014	-11.64	1173	0.00	2000	
U	238	1	nogas	-0.004	-0.004	-59.56	350	0.00	2000	
[Pb]	206	1	nogas	-0.020	-0.020	-23.11	300	-0.01	2000	
[Pb]	207	1	nogas	-0.026	-0.026	-16.66	260	-0.01	2000	
Na	23	2	He	149.446	149.446	3.81	342271	0.04	200000	
Mg	24	2	He	11.468	11.468	4.06	11941	0.10	200000	
Al	27	2	He	4.674	4.674	5.14	3867	0.12	2000	
K	39	2	He	48.876	48.876	3.75	309752	0.02	200000	
Ca	43	2	He	7.639	7.639	173.89	63	12.06	200000	
Ca	44	2	He	5.604	5.604	29.46	1673	0.33	200000	
V	51	2	He	-0.404	-0.404	-6.07	10213	0.00	2000	
Cr	52	2	He	-0.224	-0.224	-8.85	4157	-0.01	2000	
Mn	55	2	He	0.083	0.083	13.62	1193	0.01	2000	
Fe	56	2	He	1.657	1.657	11.72	36854	0.00	200000	
Co	59	2	He	0.006	0.006	36.12	170	0.00	2000	
Ni	60	2	He	0.341	0.341	8.10	470	0.07	2000	
Cu	63	2	He	-0.592	-0.592	-2.20	4827	-0.01	2000	
Zn	66	2	He	12.120	12.120	6.45	23415	0.05	2000	
As	75	2	He	-0.130	-0.130	-16.18	631	-0.02	2000	
Se	78	2	He	0.407	0.407	44.25	244	0.17	2000	
B	11	1	nogas	5.225	5.225	1.87	24640	0.02	2000	

Sample Report

Si	28	1	nogas	27.663	27.663	31.69	2187892	0.00	2000	
Ca	43	1	nogas	8.697	8.697	49.90	1133	0.77	200000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Ca	44	1	nogas	-4.990	-4.990	-46.87	50896	-0.01	200000	
Fe	56	1	nogas	-39.469	-39.469	-2.93	2706876	0.00	200000	
Se	77	1	nogas	-49.514	-49.514	-10.69	35799	-0.14	2000	
Se	82	1	nogas	0.753	0.753	53.34	657	0.11	2000	
Mo	95	1	nogas	0.022	0.022	37.37	317	0.01	2000	
Sn	118	1	nogas	-0.032	-0.032	-91.96	5017	0.00	2000	
Ba	137	1	nogas	0.028	0.028	24.39	443	0.01	2000	
Sb	121	2	He	0.021	0.021	63.06	627	0.00	2000	
La	139	1	nogas	-88.407	-88.407	-3.36	60	-147.34	2000	
Au	197	1	nogas	-8.901	-8.901	-290.45	17	-53.41	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	573504	2.01	650728	88.13	70	125	
Ge	72	1	nogas	4089144	2.95	4176570	97.91	70	125	
In	115	1	nogas	3985338	2.82	3920309	101.66	70	125	
Bi	209	1	nogas	3443234	2.67	2792487	123.30	70	125	
Ge	72	2	He	1087279	1.99	1073881	101.25	70	125	

Sample Report

Sample Table

Sample Name	LCS-132160
Data File Name	061SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:38:23-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132160
ISTD Ref FileName	005CALB.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
Be	9	1	nogas	54.843	54.843	1.97	222475	0.02	2000	
Na	23	1	nogas	4781.831	4781.831	2.98	112281411	0.00	200000	
Mg	24	1	nogas	4644.223	4644.223	1.96	73078018	0.01	200000	
Al	27	1	nogas	99.024	99.024	1.64	1973315	0.01	2000	
K	39	1	nogas	4785.802	4785.802	2.30	123104744	0.00	200000	
Ti	47	1	nogas	138.367	138.367	0.97	318649	0.04	2000	
V	51	1	nogas	23.995	23.995	3.50	2148738	0.00	2000	
Cr	52	1	nogas	47.191	47.191	3.53	1400746	0.00	2000	
Mn	55	1	nogas	49.344	49.344	0.95	1710232	0.00	2000	
Co	59	1	nogas	47.834	47.834	3.23	1470900	0.00	2000	
Ni	60	1	nogas	47.960	47.960	2.14	324286	0.01	2000	
Cu	63	1	nogas	49.486	49.486	2.56	834413	0.01	2000	
Zn	66	1	nogas	60.564	60.564	1.46	326538	0.02	2000	
As	75	1	nogas	36.204	36.204	1.89	435164	0.01	2000	
Sr	88	1	nogas	97.051	97.051	2.22	3749803	0.00	2000	
Ag	107	1	nogas	47.587	47.587	0.85	943105	0.01	2000	
Cd	111	1	nogas	48.924	48.924	0.90	206782	0.02	2000	
Sb	121	1	nogas	47.375	47.375	2.16	881337	0.01	2000	
Tl	205	1	nogas	47.001	47.001	3.51	1403428	0.00	2000	
Pb	208	1	nogas	51.550	51.550	0.60	1908244	0.00	2000	
U	238	1	nogas	96.623	96.623	2.26	3879591	0.00	2000	
[Pb]	206	1	nogas	45.833	45.833	2.84	473300	0.01	2000	
[Pb]	207	1	nogas	45.893	45.893	4.02	414603	0.01	2000	
Na	23	2	He	4913.863	4913.863	3.38	8187855	0.06	200000	
Mg	24	2	He	4815.783	4815.783	3.94	4611204	0.10	200000	
Al	27	2	He	96.020	96.020	3.37	55666	0.17	2000	
K	39	2	He	4753.067	4753.067	1.65	5866759	0.08	200000	
Ca	43	2	He	4739.580	4739.580	2.02	16164	29.32	200000	
Ca	44	2	He	4648.389	4648.389	2.45	269592	1.72	200000	
V	51	2	He	46.340	46.340	2.78	390395	0.01	2000	
Cr	52	2	He	47.291	47.291	3.65	422370	0.01	2000	
Mn	55	2	He	47.770	47.770	3.71	302827	0.02	2000	
Fe	56	2	He	4703.946	4703.946	4.27	38349402	0.01	200000	
Co	59	2	He	47.443	47.443	2.70	590683	0.01	2000	
Ni	60	2	He	49.899	49.899	4.57	151417	0.03	2000	
Cu	63	2	He	51.958	51.958	2.30	385622	0.01	2000	
Zn	66	2	He	61.799	61.799	4.72	116063	0.05	2000	
As	75	2	He	47.809	47.809	2.28	93443	0.05	2000	
Se	78	2	He	47.959	47.959	4.69	7991	0.60	2000	
B	11	1	nogas	558.501	558.501	3.31	1477750	0.04	2000	
Si	28	1	nogas	4530.730	4530.730	1.55	54710249	0.01	2000	>LDR
Ca	43	1	nogas	4696.565	4696.565	1.23	208352	2.25	200000	
Ca	44	1	nogas	4708.741	4708.741	1.03	3558921	0.13	200000	
Fe	56	1	nogas	4718.049	4718.049	2.05	149774512	0.00	200000	

Sample Report

Se	77	1	nogas	-14.699	-14.699	-24.46	49046	-0.03	2000	
Se	82	1	nogas	48.629	48.629	2.10	18787	0.26	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	45.278	45.278	2.99	360269	0.01	2000	
Sn	118	1	nogas	93.208	93.208	1.34	1085039	0.01	2000	
Ba	137	1	nogas	48.159	48.159	1.03	274392	0.02	2000	
Sb	121	2	He	51.058	51.058	2.02	342969	0.01	2000	
La	139	1	nogas	-27.117	-27.117	-67.39	293	-9.24	2000	
Au	197	1	nogas	-13.624	-13.624	-201.52	13	-102.18	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	506919	0.60	650728	77.90	70	125	
Ge	72	1	nogas	4136201	1.21	4176570	99.03	70	125	
In	115	1	nogas	3963415	0.97	3920309	101.10	70	125	
Bi	209	1	nogas	3177699	2.34	2792487	113.79	70	125	
Ge	72	2	He	1057710	2.62	1073881	98.49	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01
Data File Name	062SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:40:21-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132160
ISTD Ref FileName	005CALB.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
Be	9	1	nogas	0.632	0.632	2.95	2594	0.02	2000	
Na	23	1	nogas	52158.266	52158.266	5.07	1211680327	0.00	200000	
Mg	24	1	nogas	16952.396	16952.396	4.22	265707314	0.01	200000	
Al	27	1	nogas	304.809	304.809	0.59	5782044	0.01	2000	
K	39	1	nogas	2417.326	2417.326	1.69	64256058	0.00	200000	
Ti	47	1	nogas	4.025	4.025	1.09	9153	0.04	2000	
V	51	1	nogas	-13.201	-13.201	-13.93	923606	0.00	2000	
Cr	52	1	nogas	0.213	0.213	14.54	83712	0.00	2000	
Mn	55	1	nogas	292.891	292.891	2.34	9751509	0.00	2000	
Co	59	1	nogas	28.250	28.250	3.44	839682	0.00	2000	
Ni	60	1	nogas	73.070	73.070	2.85	476279	0.02	2000	
Cu	63	1	nogas	17.283	17.283	1.66	294113	0.01	2000	
Zn	66	1	nogas	107.289	107.289	0.71	558541	0.02	2000	
As	75	1	nogas	-3.016	-3.016	-21.38	144170	0.00	2000	
Sr	88	1	nogas	220.112	220.112	1.20	8217162	0.00	2000	
Ag	107	1	nogas	0.039	0.039	20.57	963	0.00	2000	
Cd	111	1	nogas	1.945	1.945	0.31	8002	0.02	2000	
Sb	121	1	nogas	0.200	0.200	4.83	4687	0.00	2000	
Tl	205	1	nogas	0.539	0.539	32.51	15795	0.00	2000	
Pb	208	1	nogas	0.141	0.141	7.33	6891	0.00	2000	
U	238	1	nogas	0.334	0.334	11.52	13416	0.00	2000	
[Pb]	206	1	nogas	0.132	0.132	19.81	1780	0.01	2000	
[Pb]	207	1	nogas	0.121	0.121	3.82	1520	0.01	2000	
Na	23	2	He	49799.491	49799.491	7.93	89393045	0.06	200000	
Mg	24	2	He	15898.914	15898.914	10.74	16524201	0.10	200000	
Al	27	2	He	263.431	263.431	10.56	163674	0.16	2000	
K	39	2	He	2441.596	2441.596	1.21	3136245	0.08	200000	
Ca	43	2	He	14883.097	14883.097	11.39	54968	27.08	200000	
Ca	44	2	He	14923.020	14923.020	11.08	935956	1.59	200000	
V	51	2	He	0.753	0.753	34.07	21001	0.00	2000	
Cr	52	2	He	0.615	0.615	24.51	12401	0.00	2000	
Mn	55	2	He	272.633	272.633	12.83	1870018	0.01	2000	
Fe	56	2	He	690.743	690.743	10.53	6136112	0.01	200000	
Co	59	2	He	25.530	25.530	10.13	345194	0.01	2000	
Ni	60	2	He	65.013	65.013	9.72	214477	0.03	2000	
Cu	63	2	He	14.798	14.798	12.64	126050	0.01	2000	
Zn	66	2	He	95.461	95.461	11.05	194593	0.05	2000	
As	75	2	He	1.190	1.190	8.49	3453	0.03	2000	
Se	78	2	He	0.541	0.541	8.83	283	0.19	2000	
B	11	1	nogas	72.472	72.472	1.74	198992	0.04	2000	
Si	28	1	nogas	24548.080	24548.080	1.05	278430383	0.01	2000	>LDR
Ca	43	1	nogas	16974.286	16974.286	1.68	725694	2.34	200000	
Ca	44	1	nogas	17140.207	17140.207	0.65	12376860	0.14	200000	
Fe	56	1	nogas	745.257	745.257	2.19	26083757	0.00	200000	

Sample Report

Se	77	1	nogas	-24.248	-24.248	-12.85	44020	-0.06	2000	
Se	82	1	nogas	1.405	1.405	4.59	883	0.16	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	0.185	0.185	16.78	1563	0.01	2000	
Sn	118	1	nogas	0.010	0.010	422.84	5318	0.00	2000	
Ba	137	1	nogas	23.502	23.502	0.44	130144	0.02	2000	
Sb	121	2	He	0.172	0.172	15.88	1767	0.01	2000	
La	139	1	nogas	14208.503	14208.503	3.81	52989	26.81	2000	>LDR
Au	197	1	nogas	-21.130	-21.130	-115.85	10	-211.30	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	507608	1.99	650728	78.01	70	125	
Ge	72	1	nogas	3997169	1.62	4176570	95.70	70	125	
In	115	1	nogas	3848113	1.28	3920309	98.16	70	125	
Bi	209	1	nogas	3077630	2.39	2792487	110.21	70	125	
Ge	72	2	He	1156610	11.17	1073881	107.70	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01SD
Data File Name	063SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:42:22-05:00
Sample Type	Sample
Dilution	5
Comment	TW B132160
ISTD Ref FileName	005CALB.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
Be	9	1	nogas	0.131	0.657	19.50	563	0.02	2000	
Na	23	1	nogas	11280.290	56401.449	1.89	252796722	0.00	200000	
Mg	24	1	nogas	3573.839	17869.195	2.47	53900587	0.01	200000	
Al	27	1	nogas	60.096	300.480	3.28	1180361	0.01	2000	
K	39	1	nogas	523.871	2619.353	2.49	20625418	0.00	200000	
Ti	47	1	nogas	0.813	4.063	13.20	2017	0.04	2000	
V	51	1	nogas	-8.374	-41.871	-31.28	1078515	0.00	2000	
Cr	52	1	nogas	-0.530	-2.652	-6.72	63950	0.00	2000	
Mn	55	1	nogas	62.330	311.649	0.83	2095637	0.00	2000	
Co	59	1	nogas	5.766	28.832	1.29	172785	0.00	2000	
Ni	60	1	nogas	15.582	77.909	1.59	103872	0.02	2000	
Cu	63	1	nogas	5.222	26.109	4.26	102802	0.01	2000	
Zn	66	1	nogas	30.266	151.332	2.64	158829	0.02	2000	
As	75	1	nogas	-3.508	-17.542	-5.29	141397	0.00	2000	
Sr	88	1	nogas	46.554	232.770	2.09	1748666	0.00	2000	
Ag	107	1	nogas	0.002	0.011	87.97	260	0.00	2000	
Cd	111	1	nogas	0.358	1.788	13.28	1513	0.02	2000	
Sb	121	1	nogas	0.030	0.148	31.58	1637	0.00	2000	
Tl	205	1	nogas	0.095	0.473	10.39	3087	0.00	2000	
Pb	208	1	nogas	0.010	0.050	19.55	2047	0.00	2000	
U	238	1	nogas	0.055	0.277	8.31	2667	0.00	2000	
[Pb]	206	1	nogas	0.002	0.010	604.19	500	0.00	2000	
[Pb]	207	1	nogas	-0.003	-0.016	-272.47	440	0.00	2000	
Na	23	2	He	11604.966	58024.832	3.26	18977963	0.06	200000	
Mg	24	2	He	3671.138	18355.692	2.30	3471529	0.11	200000	
Al	27	2	He	61.377	306.886	4.37	35514	0.17	2000	
K	39	2	He	502.886	2514.429	1.07	846069	0.06	200000	
Ca	43	2	He	3393.527	16967.633	1.12	11437	29.67	200000	
Ca	44	2	He	3386.581	16932.907	2.13	194265	1.74	200000	
V	51	2	He	0.531	2.653	12.82	17313	0.00	2000	
Cr	52	2	He	-0.047	-0.237	-79.51	5531	0.00	2000	
Mn	55	2	He	59.450	297.252	1.69	372001	0.02	2000	
Fe	56	2	He	155.920	779.601	3.28	1276786	0.01	200000	
Co	59	2	He	5.727	28.637	1.87	70478	0.01	2000	
Ni	60	2	He	15.484	77.420	2.18	45995	0.03	2000	
Cu	63	2	He	2.978	14.890	2.88	30175	0.01	2000	
Zn	66	2	He	34.205	171.027	1.42	63460	0.05	2000	
As	75	2	He	0.277	1.383	21.06	1383	0.02	2000	
Se	78	2	He	0.681	3.406	35.79	278	0.25	2000	
B	11	1	nogas	19.457	97.285	4.99	59753	0.03	2000	
Si	28	1	nogas	4764.093	23820.467	1.70	55796261	0.01	2000	>LDR
Ca	43	1	nogas	3484.710	17423.550	1.60	150374	2.32	200000	
Ca	44	1	nogas	3523.712	17618.561	2.86	2600697	0.14	200000	
Fe	56	1	nogas	137.301	686.507	1.54	7968762	0.00	200000	

Sample Report

Se	77	1	nogas	-19.296	-96.479	-12.11	46012	-0.04	2000	
Se	82	1	nogas	0.323	1.613	54.48	490	0.07	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	0.031	0.155	30.41	383	0.01	2000	
Sn	118	1	nogas	-0.278	-1.392	-0.68	2113	-0.01	2000	
Ba	137	1	nogas	4.652	23.261	1.09	26474	0.02	2000	
Sb	121	2	He	0.012	0.058	124.13	543	0.00	2000	
La	139	1	nogas	2752.988	13764.940	3.58	10784	25.53	2000	>LDR
Au	197	1	nogas	2.018	10.091	1161.87	20	10.09	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	511550	1.73	650728	78.61	70	125	
Ge	72	1	nogas	4018254	0.49	4176570	96.21	70	125	
In	115	1	nogas	3920620	1.83	3920309	100.01	70	125	
Bi	209	1	nogas	3150489	0.68	2792487	112.82	70	125	
Ge	72	2	He	1043997	1.58	1073881	97.22	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01MS
Data File Name	064SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:44:23-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132160
ISTD Ref FileName	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Be	9	1	nogas	58.635	58.635	1.23	209201	0.03	2000	
Na	23	1	nogas	56363.195	56363.195	3.51	1299275896	0.00	200000	
Mg	24	1	nogas	20537.357	20537.357	4.04	319315049	0.01	200000	
Al	27	1	nogas	422.830	422.830	2.07	7989503	0.01	2000	
K	39	1	nogas	6942.645	6942.645	0.65	168513937	0.00	200000	
Ti	47	1	nogas	142.209	142.209	1.53	315889	0.05	2000	
V	51	1	nogas	43.758	43.758	4.36	2684677	0.00	2000	
Cr	52	1	nogas	46.951	46.951	2.15	1345116	0.00	2000	
Mn	55	1	nogas	338.099	338.099	1.62	11236171	0.00	2000	
Co	59	1	nogas	75.852	75.852	2.31	2249860	0.00	2000	
Ni	60	1	nogas	117.017	117.017	1.29	760123	0.02	2000	
Cu	63	1	nogas	63.370	63.370	0.34	1025594	0.01	2000	
Zn	66	1	nogas	152.568	152.568	1.56	792713	0.02	2000	
As	75	1	nogas	45.120	45.120	1.82	482599	0.01	2000	
Sr	88	1	nogas	313.132	313.132	2.08	11667840	0.00	2000	
Ag	107	1	nogas	46.751	46.751	0.85	893789	0.01	2000	
Cd	111	1	nogas	50.704	50.704	3.11	205814	0.02	2000	
Sb	121	1	nogas	48.194	48.194	0.90	864945	0.01	2000	
Tl	205	1	nogas	46.416	46.416	6.31	1324726	0.00	2000	
Pb	208	1	nogas	48.683	48.683	1.18	1802196	0.00	2000	
U	238	1	nogas	96.598	96.598	5.98	3706614	0.00	2000	
[Pb]	206	1	nogas	44.979	44.979	3.01	444205	0.01	2000	
[Pb]	207	1	nogas	45.677	45.677	3.35	394720	0.01	2000	
Na	23	2	He	56679.431	56679.431	0.60	94935639	0.06	200000	
Mg	24	2	He	20834.060	20834.060	3.16	20242018	0.10	200000	
Al	27	2	He	402.685	402.685	1.39	233364	0.17	2000	
K	39	2	He	6730.314	6730.314	0.11	8202457	0.08	200000	
Ca	43	2	He	19700.462	19700.462	2.78	68041	28.95	200000	
Ca	44	2	He	20262.323	20262.323	1.53	1188499	1.70	200000	
V	51	2	He	45.800	45.800	2.16	391671	0.01	2000	
Cr	52	2	He	45.375	45.375	1.26	411586	0.01	2000	
Mn	55	2	He	320.249	320.249	1.27	2056939	0.02	2000	
Fe	56	2	He	5089.398	5089.398	2.99	42106564	0.01	200000	
Co	59	2	He	69.802	69.802	3.40	881631	0.01	2000	
Ni	60	2	He	113.504	113.504	3.83	350187	0.03	2000	
Cu	63	2	He	65.692	65.692	1.98	492223	0.01	2000	
Zn	66	2	He	148.252	148.252	1.38	282627	0.05	2000	
As	75	2	He	46.810	46.810	2.51	92844	0.05	2000	
Se	78	2	He	45.762	45.762	3.37	7746	0.59	2000	
B	11	1	nogas	659.962	659.962	1.28	1534750	0.04	2000	
Si	28	1	nogas	28454.844	28454.844	1.82	321803142	0.01	2000	>LDR
Ca	43	1	nogas	21050.381	21050.381	2.45	898403	2.34	200000	
Ca	44	1	nogas	21328.484	21328.484	1.53	15361936	0.14	200000	
Fe	56	1	nogas	5452.406	5452.406	2.22	166372125	0.00	200000	

Sample Report

Se	77	1	nogas	34.790	34.790	3.63	64892	0.05	2000	
Se	82	1	nogas	50.120	50.120	2.18	18667	0.27	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	45.956	45.956	1.25	352794	0.01	2000	
Sn	118	1	nogas	93.933	93.933	1.52	1050267	0.01	2000	
Ba	137	1	nogas	72.377	72.377	1.86	395899	0.02	2000	
Sb	121	2	He	49.171	49.171	2.05	335133	0.01	2000	
La	139	1	nogas	14401.905	14401.905	2.69	53135	27.10	2000	>LDR
Au	197	1	nogas	-12.524	-12.524	-114.35	13	-93.93	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	445862	0.35	650728	68.52	70	125	ISTD Failed
Ge	72	1	nogas	3990007	1.20	4176570	95.53	70	125	
In	115	1	nogas	3807230	1.51	3920309	97.12	70	125	
Bi	209	1	nogas	3039321	2.87	2792487	108.84	70	125	
Ge	72	2	He	1073095	2.21	1073881	99.93	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01MSD
Data File Name	065SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:46:23-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132160
ISTD Ref FileName	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Be	9	1	nogas	59.625	59.625	1.14	212799	0.03	2000	
Na	23	1	nogas	55026.947	55026.947	3.95	1320024230	0.00	200000	
Mg	24	1	nogas	20716.629	20716.629	2.09	335343174	0.01	200000	
Al	27	1	nogas	430.522	430.522	1.95	8192127	0.01	2000	
K	39	1	nogas	7134.454	7134.454	1.92	174168091	0.00	200000	
Ti	47	1	nogas	144.010	144.010	0.72	322208	0.04	2000	
V	51	1	nogas	46.769	46.769	0.94	2797332	0.00	2000	
Cr	52	1	nogas	47.646	47.646	1.53	1373428	0.00	2000	
Mn	55	1	nogas	343.196	343.196	1.59	11487891	0.00	2000	
Co	59	1	nogas	76.568	76.568	2.51	2287647	0.00	2000	
Ni	60	1	nogas	118.746	118.746	2.65	776894	0.02	2000	
Cu	63	1	nogas	63.883	63.883	0.52	1041122	0.01	2000	
Zn	66	1	nogas	155.195	155.195	0.47	812056	0.02	2000	
As	75	1	nogas	47.627	47.627	1.60	503753	0.01	2000	
Sr	88	1	nogas	319.183	319.183	2.27	11979194	0.00	2000	
Ag	107	1	nogas	46.611	46.611	0.31	897527	0.01	2000	
Cd	111	1	nogas	51.168	51.168	0.72	209636	0.02	2000	
Sb	121	1	nogas	48.523	48.523	0.59	877113	0.01	2000	
Tl	205	1	nogas	46.708	46.708	3.96	1368189	0.00	2000	
Pb	208	1	nogas	49.782	49.782	0.65	1842855	0.00	2000	
U	238	1	nogas	96.980	96.980	3.70	3820245	0.00	2000	
[Pb]	206	1	nogas	45.031	45.031	3.71	456248	0.01	2000	
[Pb]	207	1	nogas	45.708	45.708	3.57	405210	0.01	2000	
Na	23	2	He	59533.652	59533.652	0.53	98182129	0.06	200000	
Mg	24	2	He	21807.806	21807.806	0.99	20870800	0.10	200000	
Al	27	2	He	424.271	424.271	0.99	242015	0.18	2000	
K	39	2	He	7010.609	7010.609	1.15	8533567	0.08	200000	
Ca	43	2	He	21370.623	21370.623	0.59	72698	29.40	200000	
Ca	44	2	He	20964.660	20964.660	0.68	1210536	1.73	200000	
V	51	2	He	47.766	47.766	1.37	401722	0.01	2000	
Cr	52	2	He	47.008	47.008	0.61	419686	0.01	2000	
Mn	55	2	He	333.368	333.368	1.53	2108744	0.02	2000	
Fe	56	2	He	5284.793	5284.793	1.70	43064026	0.01	200000	
Co	59	2	He	72.866	72.866	1.97	906539	0.01	2000	
Ni	60	2	He	119.787	119.787	2.93	364065	0.03	2000	
Cu	63	2	He	69.315	69.315	2.94	510946	0.01	2000	
Zn	66	2	He	152.482	152.482	1.55	286254	0.05	2000	
As	75	2	He	48.493	48.493	1.81	94694	0.05	2000	
Se	78	2	He	48.321	48.321	1.43	8048	0.60	2000	
B	11	1	nogas	676.721	676.721	2.62	1573813	0.04	2000	
Si	28	1	nogas	28549.539	28549.539	1.49	325207348	0.01	2000	>LDR
Ca	43	1	nogas	22113.215	22113.215	1.34	950319	2.33	200000	
Ca	44	1	nogas	22008.439	22008.439	1.96	15962268	0.14	200000	
Fe	56	1	nogas	5499.600	5499.600	2.23	168995941	0.00	200000	

Sample Report

Se	77	1	nogas	48.355	48.355	11.50	70199	0.07	2000	
Se	82	1	nogas	50.580	50.580	3.65	18970	0.27	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	47.153	47.153	1.47	364573	0.01	2000	
Sn	118	1	nogas	94.105	94.105	2.83	1061364	0.01	2000	
Ba	137	1	nogas	73.033	73.033	2.64	403036	0.02	2000	
Sb	121	2	He	50.500	50.500	1.09	338957	0.01	2000	
La	139	1	nogas	14928.907	14928.907	1.78	55570	26.87	2000	>LDR
Au	197	1	nogas	42.578	42.578	118.83	37	116.12	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	445970	0.67	650728	68.53	70	125	ISTD Failed
Ge	72	1	nogas	4018572	0.59	4176570	96.22	70	125	
In	115	1	nogas	3841999	2.83	3920309	98.00	70	125	
Bi	209	1	nogas	3118211	2.45	2792487	111.66	70	125	
Ge	72	2	He	1056588	0.86	1073881	98.39	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01PDS
Data File Name	066SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:48:23-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132160
ISTD Ref FileName	005CALB.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
Be	9	1	nogas	108.008	108.008	0.06	407279	0.03	2000	
Na	23	1	nogas	59934.826	59934.826	1.22	1398594931	0.00	200000	
Mg	24	1	nogas	24899.349	24899.349	1.41	391952434	0.01	200000	
Al	27	1	nogas	379.224	379.224	2.99	7248162	0.01	2000	
K	39	1	nogas	11349.205	11349.205	2.01	273061339	0.00	200000	
Ti	47	1	nogas	92.379	92.379	3.28	207477	0.04	2000	
V	51	1	nogas	87.074	87.074	2.91	4068432	0.00	2000	
Cr	52	1	nogas	90.676	90.676	5.36	2551461	0.00	2000	
Mn	55	1	nogas	382.258	382.258	3.25	12839219	0.00	2000	
Co	59	1	nogas	120.670	120.670	4.35	3617274	0.00	2000	
Ni	60	1	nogas	162.804	162.804	2.99	1068085	0.02	2000	
Cu	63	1	nogas	115.218	115.218	3.02	1868941	0.01	2000	
Zn	66	1	nogas	197.397	197.397	0.28	1036663	0.02	2000	
As	75	1	nogas	90.855	90.855	1.41	813111	0.01	2000	
Sr	88	1	nogas	219.689	219.689	3.20	8275561	0.00	2000	
Ag	107	1	nogas	97.382	97.382	2.30	1881653	0.01	2000	
Cd	111	1	nogas	97.690	97.690	2.00	401350	0.02	2000	
Sb	121	1	nogas	92.593	92.593	0.76	1679055	0.01	2000	
Tl	205	1	nogas	93.470	93.470	2.29	2685463	0.00	2000	
Pb	208	1	nogas	98.537	98.537	0.72	3646039	0.00	2000	
U	238	1	nogas	0.345	0.345	7.40	13786	0.00	2000	
[Pb]	206	1	nogas	88.337	88.337	3.15	877282	0.01	2000	
[Pb]	207	1	nogas	89.865	89.865	1.65	780999	0.01	2000	
Na	23	2	He	60115.475	60115.475	6.94	102745925	0.06	200000	
Mg	24	2	He	24644.930	24644.930	7.21	24441011	0.10	200000	
Al	27	2	He	350.248	350.248	5.01	207391	0.17	2000	
K	39	2	He	11298.663	11298.663	1.28	13598995	0.08	200000	
Ca	43	2	He	23749.742	23749.742	7.35	83714	28.37	200000	
Ca	44	2	He	24899.485	24899.485	8.19	1489158	1.67	200000	
V	51	2	He	87.669	87.669	5.71	753078	0.01	2000	
Cr	52	2	He	87.358	87.358	6.06	803210	0.01	2000	
Mn	55	2	He	370.997	370.997	5.73	2432783	0.02	2000	
Fe	56	2	He	9228.442	9228.442	5.74	77952526	0.01	200000	
Co	59	2	He	116.547	116.547	9.71	1501444	0.01	2000	
Ni	60	2	He	155.519	155.519	8.12	489903	0.03	2000	
Cu	63	2	He	111.945	111.945	7.21	849530	0.01	2000	
Zn	66	2	He	186.041	186.041	5.80	362112	0.05	2000	
As	75	2	He	90.678	90.678	4.81	182870	0.05	2000	
Se	78	2	He	87.993	87.993	4.79	15054	0.58	2000	
B	11	1	nogas	78.103	78.103	1.44	198550	0.04	2000	
Si	28	1	nogas	23202.760	23202.760	2.20	265620949	0.01	2000	>LDR
Ca	43	1	nogas	26241.432	26241.432	1.51	1131869	2.32	200000	
Ca	44	1	nogas	25970.997	25970.997	2.03	18896094	0.14	200000	
Fe	56	1	nogas	9922.558	9922.558	4.71	302866998	0.00	200000	

Sample Report

Se	77	1	nogas	85.096	85.096	9.16	83628	0.10	2000	
Se	82	1	nogas	99.228	99.228	3.44	36992	0.27	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	90.365	90.365	2.30	701105	0.01	2000	
Sn	118	1	nogas	0.104	0.104	37.57	6385	0.00	2000	
Ba	137	1	nogas	118.529	118.529	1.73	656041	0.02	2000	
Sb	121	2	He	87.839	87.839	8.39	610400	0.01	2000	
La	139	1	nogas	14421.246	14421.246	2.65	53864	26.77	2000	>LDR
Au	197	1	nogas	19.691	19.691	381.47	27	73.84	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	471235	0.57	650728	72.42	70	125	
Ge	72	1	nogas	4033979	1.66	4176570	96.59	70	125	
In	115	1	nogas	3853299	1.33	3920309	98.29	70	125	
Bi	209	1	nogas	3057442	1.99	2792487	109.49	70	125	
Ge	72	2	He	1097436	4.86	1073881	102.19	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-02
Data File Name	067SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:50:26-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132160
ISTD Ref FileName	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Be	9	1	nogas	0.330	0.330	15.14	1203	0.03	2000	
Na	23	1	nogas	125301.616	125301.616	0.85	2863711997	0.00	200000	
Mg	24	1	nogas	35317.130	35317.130	3.47	544624129	0.01	200000	
Al	27	1	nogas	61.382	61.382	4.63	1185655	0.01	2000	
K	39	1	nogas	2371.408	2371.408	1.99	62556924	0.00	200000	
Ti	47	1	nogas	3.574	3.574	20.85	8050	0.04	2000	
V	51	1	nogas	10.983	10.983	34.80	1654564	0.00	2000	
Cr	52	1	nogas	0.179	0.179	64.67	81933	0.00	2000	
Mn	55	1	nogas	128.516	128.516	2.36	4242393	0.00	2000	
Co	59	1	nogas	1.944	1.944	0.64	57734	0.00	2000	
Ni	60	1	nogas	27.853	27.853	3.03	181056	0.02	2000	
Cu	63	1	nogas	1.114	1.114	7.18	36530	0.00	2000	
Zn	66	1	nogas	23.266	23.266	4.47	120292	0.02	2000	
As	75	1	nogas	5.859	5.859	26.72	204485	0.00	2000	
Sr	88	1	nogas	863.513	863.513	2.56	31902562	0.00	2000	
Ag	107	1	nogas	0.077	0.077	2.89	1670	0.00	2000	
Cd	111	1	nogas	0.970	0.970	1.30	3910	0.02	2000	
Sb	121	1	nogas	2.079	2.079	11.81	38072	0.01	2000	
Tl	205	1	nogas	0.217	0.217	19.96	6428	0.00	2000	
Pb	208	1	nogas	0.102	0.102	16.70	5437	0.00	2000	
U	238	1	nogas	0.091	0.091	6.73	3887	0.00	2000	
[Pb]	206	1	nogas	0.099	0.099	8.14	1420	0.01	2000	
[Pb]	207	1	nogas	0.098	0.098	29.16	1287	0.01	2000	
Na	23	2	He	130967.138	130967.138	0.81	211461110	0.06	200000	
Mg	24	2	He	37141.495	37141.495	0.86	34814026	0.11	200000	
Al	27	2	He	60.063	60.063	2.02	34482	0.17	2000	
K	39	2	He	2318.695	2318.695	2.27	2991064	0.08	200000	
Ca	43	2	He	50142.141	50142.141	1.90	166992	30.03	200000	
Ca	44	2	He	50986.371	50986.371	2.34	2881038	1.77	200000	
V	51	2	He	2.266	2.266	5.02	30985	0.01	2000	
Cr	52	2	He	0.252	0.252	8.97	8059	0.00	2000	
Mn	55	2	He	124.121	124.121	1.60	769238	0.02	2000	
Fe	56	2	He	544.426	544.426	1.28	4364793	0.01	200000	
Co	59	2	He	1.814	1.814	2.67	22187	0.01	2000	
Ni	60	2	He	27.158	27.158	1.43	80406	0.03	2000	
Cu	63	2	He	0.005	0.005	397.96	8829	0.00	2000	
Zn	66	2	He	23.219	23.219	1.80	42703	0.05	2000	
As	75	2	He	1.702	1.702	6.98	4072	0.04	2000	
Se	78	2	He	0.642	0.642	34.50	269	0.24	2000	
B	11	1	nogas	42.156	42.156	1.28	104918	0.04	2000	
Si	28	1	nogas	23189.520	23189.520	3.32	260351376	0.01	2000	>LDR
Ca	43	1	nogas	51304.854	51304.854	2.42	2170115	2.36	200000	
Ca	44	1	nogas	51271.711	51271.711	2.26	36538509	0.14	200000	
Fe	56	1	nogas	536.600	536.600	3.09	19649588	0.00	200000	
Se	77	1	nogas	33.332	33.332	27.09	63812	0.05	2000	
Se	82	1	nogas	1.958	1.958	22.46	1073	0.18	2000	

Sample Report

Mo	95	1	nogas	0.357	0.357	18.12	2864	0.01	2000	
Sn	118	1	nogas	-0.087	-0.087	-29.04	4127	0.00	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Ba	137	1	nogas	30.321	30.321	2.05	163999	0.02	2000	
Sb	121	2	He	1.690	1.690	5.89	11564	0.01	2000	
La	139	1	nogas	2360.396	2360.396	3.97	8919	26.46	2000	>LDR
Au	197	1	nogas	-36.950	-36.950	-39.23	3	-1108.50	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	447002	0.34	650728	68.69	70	125	ISTD Failed
Ge	72	1	nogas	3957101	2.00	4176570	94.75	70	125	
In	115	1	nogas	3761132	1.77	3920309	95.94	70	125	
Bi	209	1	nogas	3003892	4.61	2792487	107.57	70	125	
Ge	72	2	He	1034871	1.51	1073881	96.37	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-03
Data File Name	068SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:52:27-05:00
Sample Type	Sample
Dilution	1
Comment	TW B132160
ISTD Ref FileName	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Be	9	1	nogas	0.221	0.221	2.84	810	0.03	2000	
Na	23	1	nogas	123420.670	123420.670	7.26	2920371465	0.00	200000	
Mg	24	1	nogas	34046.642	34046.642	9.12	543081912	0.01	200000	
Al	27	1	nogas	57.550	57.550	5.52	1140225	0.01	2000	
K	39	1	nogas	2344.633	2344.633	4.43	63391079	0.00	200000	
Ti	47	1	nogas	2.979	2.979	5.00	6911	0.04	2000	
V	51	1	nogas	17.863	17.863	25.05	1908478	0.00	2000	
Cr	52	1	nogas	0.292	0.292	76.04	86879	0.00	2000	
Mn	55	1	nogas	122.819	122.819	7.08	4145477	0.00	2000	
Co	59	1	nogas	1.728	1.728	6.25	52518	0.00	2000	
Ni	60	1	nogas	26.848	26.848	5.22	178643	0.02	2000	
Cu	63	1	nogas	1.212	1.212	4.46	38992	0.00	2000	
Zn	66	1	nogas	105.937	105.937	4.43	558566	0.02	2000	
As	75	1	nogas	8.012	8.012	24.44	224562	0.00	2000	
Sr	88	1	nogas	836.088	836.088	6.81	31586387	0.00	2000	
Ag	107	1	nogas	0.015	0.015	36.51	513	0.00	2000	
Cd	111	1	nogas	0.755	0.755	8.12	3117	0.02	2000	
Sb	121	1	nogas	1.422	1.422	2.88	26984	0.01	2000	
Tl	205	1	nogas	0.053	0.053	7.45	1797	0.00	2000	
Pb	208	1	nogas	0.033	0.033	10.36	2883	0.00	2000	
U	238	1	nogas	0.073	0.073	14.17	3257	0.00	2000	
[Pb]	206	1	nogas	0.026	0.026	23.22	717	0.00	2000	
[Pb]	207	1	nogas	0.022	0.022	77.85	637	0.00	2000	
Na	23	2	He	128182.733	128182.733	6.67	213588023	0.06	200000	
Mg	24	2	He	36000.963	36000.963	5.97	34835942	0.10	200000	
Al	27	2	He	57.538	57.538	9.38	34111	0.17	2000	
K	39	2	He	2402.993	2402.993	0.63	3090644	0.08	200000	
Ca	43	2	He	49139.578	49139.578	6.72	168923	29.09	200000	
Ca	44	2	He	51005.259	51005.259	5.86	2976138	1.71	200000	
V	51	2	He	2.450	2.450	10.40	33502	0.01	2000	
Cr	52	2	He	0.167	0.167	15.45	7578	0.00	2000	
Mn	55	2	He	118.905	118.905	7.13	760477	0.02	2000	
Fe	56	2	He	505.492	505.492	9.98	4179125	0.01	200000	
Co	59	2	He	1.625	1.625	3.70	20545	0.01	2000	
Ni	60	2	He	26.260	26.260	5.85	80251	0.03	2000	
Cu	63	2	He	-0.027	-0.027	-258.53	8882	0.00	2000	
Zn	66	2	He	102.519	102.519	6.31	194589	0.05	2000	
As	75	2	He	1.569	1.569	12.97	3939	0.04	2000	
Se	78	2	He	0.550	0.550	30.70	263	0.21	2000	
B	11	1	nogas	39.881	39.881	4.25	99329	0.04	2000	
Si	28	1	nogas	22340.337	22340.337	5.89	256658923	0.01	2000	>LDR
Ca	43	1	nogas	50903.801	50903.801	5.72	2201862	2.31	200000	
Ca	44	1	nogas	50197.812	50197.812	4.24	36608367	0.14	200000	
Fe	56	1	nogas	502.552	502.552	8.76	19062563	0.00	200000	

Sample Report

Se	77	1	nogas	46.715	46.715	26.38	70088	0.07	2000	
Se	82	1	nogas	1.733	1.733	23.77	1013	0.17	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	0.151	0.151	13.32	1317	0.01	2000	
Sn	118	1	nogas	-0.111	-0.111	-24.97	3954	0.00	2000	
Ba	137	1	nogas	29.393	29.393	3.52	162543	0.02	2000	
Sb	121	2	He	1.468	1.468	9.70	10413	0.01	2000	
La	139	1	nogas	2406.461	2406.461	7.64	9279	25.93	2000	>LDR
Au	197	1	nogas	-6.492	-6.492	-532.13	17	-38.95	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	445975	2.99	650728	68.53	70	125	ISTD Failed
Ge	72	1	nogas	4053399	4.56	4176570	97.05	70	125	
In	115	1	nogas	3847589	3.69	3920309	98.15	70	125	
Bi	209	1	nogas	3052814	9.79	2792487	109.32	70	125	
Ge	72	2	He	1070798	5.88	1073881	99.71	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	070_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:56:28-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	106.177	3.007	404687	1.29	100	106.2	90	110	
Na	23	1	nogas	10331.933	9.756	230047030	2.00	10000	103.3	90	110	
Mg	24	1	nogas	9279.230	7.438	139149770	1.09	10000	92.8	90	110	
Al	27	1	nogas	90.732	13.209	1721954	7.98	100	90.7	90	110	
K	39	1	nogas	9870.702	8.234	232789080	1.23	10000	98.7	90	110	
Ti	47	1	nogas	95.067	6.751	208479	1.29	100	95.1	90	110	
V	51	1	nogas	120.134	11.255	4977766	1.85	100	120.1	90	110	CCV Main CR1-2 Failed
Cr	52	1	nogas	101.820	7.981	2787861	3.15	100	101.8	90	110	
Mn	55	1	nogas	103.069	5.940	3391585	4.42	100	103.1	90	110	
Co	59	1	nogas	98.655	5.774	2891928	5.43	100	98.7	90	110	
Ni	60	1	nogas	96.168	8.204	616451	0.84	100	96.2	90	110	
Cu	63	1	nogas	97.051	8.552	1550410	14.91	100	97.1	90	110	
Zn	66	1	nogas	109.398	8.213	560635	1.68	100	109.4	90	110	
As	75	1	nogas	101.765	9.116	869178	0.22	100	101.8	90	110	
Sr	88	1	nogas	99.048	0.638	3654691	6.84	100	99.0	90	110	
Ag	107	1	nogas	99.969	4.496	1896359	12.00	100	100.0	90	110	
Cd	111	1	nogas	98.993	6.421	389657	1.59	100	99.0	90	110	
Sb	121	1	nogas	99.522	4.868	1769146	10.62	100	99.5	90	110	
Tl	205	1	nogas	104.490	3.436	2809414	7.01	100	104.5	90	110	
Pb	208	1	nogas	99.192	7.237	3670238	7.23	100	99.2	90	110	
U	238	1	nogas	100.095	6.437	3611017	3.39	100	100.1	90	110	
[Pb]	206	1	nogas	97.419	8.545	902182	1.47	100	97.4	90	110	
[Pb]	207	1	nogas	97.811	8.749	792589	2.78	100	97.8	90	110	
Na	23	2	He	10000.454	0.593	16207220	1.28	10000	100.0	90	110	
Mg	24	2	He	9379.670	1.971	8782003	0.97	10000	93.8	90	110	
Al	27	2	He	87.910	0.487	49923	1.23	100	87.9	90	110	CCV Main CR1-2 Failed
K	39	2	He	9424.262	0.358	11384787	0.35	10000	94.2	90	110	
Ca	43	2	He	9435.658	1.557	31427	2.30	10000	94.4	90	110	
Ca	44	2	He	9328.113	1.748	527627	0.73	10000	93.3	90	110	
V	51	2	He	95.514	0.802	773040	0.66	100	95.5	90	110	
Cr	52	2	He	95.848	0.493	831115	0.55	100	95.8	90	110	
Mn	55	2	He	95.385	1.648	590658	0.67	100	95.4	90	110	
Fe	56	2	He	9507.008	2.659	75772151	1.69	10000	95.1	90	110	
Co	59	2	He	92.763	2.625	1129020	1.65	100	92.8	90	110	
Ni	60	2	He	95.797	1.322	284768	0.29	100	95.8	90	110	
Cu	63	2	He	101.406	0.578	727375	0.60	100	101.4	90	110	
Zn	66	2	He	111.255	0.425	204360	0.63	100	111.3	90	110	CCV Main CR1-2 Failed
As	75	2	He	95.692	2.210	181990	1.16	100	95.7	90	110	
Se	78	2	He	92.480	2.477	14916	2.08	100	92.5	90	110	
B	11	1	nogas	516.964	7.214	1288022	9.66	500	103.4	90	110	
Si	28	1	nogas	4611.154	8.971	52926473	1.28	5000	92.2	90	110	
Ca	43	1	nogas	9610.034	8.854	404650	1.62	10000	96.1	90	110	
Ca	44	1	nogas	9642.832	10.820	6868532	3.33	10000	96.4	90	110	
Fe	56	1	nogas	9766.044	6.399	291198765	1.55	10000	97.7	90	110	
Se	77	1	nogas	148.932	13.308	104018	0.88	100	148.9	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	98.885	11.947	35906	4.52	100	98.9	90	110	
Mo	95	1	nogas	94.760	7.058	717623	0.64	100	94.8	90	110	
Sn	118	1	nogas	98.333	8.112	1064891	1.15	100	98.3	90	110	
Ba	137	1	nogas	100.186	8.897	530608	1.72	100	100.2	90	110	
Sb	121	2	He	102.335	0.806	671565	0.50	100	102.3	90	110	
Li	7	1	nogas	100.516	2.291	823780	2.18	100	100.5	90	110	
P	31	1	nogas	466.468	8.284	868674	0.40	500	93.3	90	110	
La	139	1	nogas	197.053	16.324	1073	13.22	100	197.1	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	228.683	53.392	103	40.29	100	228.7	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	476522	2.45	650728	73.23	70	125	
Ge	72	1	nogas	3950576	7.48	4176570	94.59	70	125	
In	115	1	nogas	3702741	7.48	3920309	94.45	70	125	
Bi	209	1	nogas	2862990	8.00	2792487	102.52	70	125	

Ge	72	2	He	1033757	1.03	1073881	96.26	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	071_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T14:58:29-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.124	42.6	547	42.4	1	
Na	23	1	nogas	239.062	3.1	6089103	1.3	100	CCB Main CR1 Failed
Mg	24	1	nogas	12.840	5.5	198560	4.0	100	
Al	27	1	nogas	5.221	1.5	144049	0.9	5	CCB Main CR1 Failed
K	39	1	nogas	7.067	90.7	8769431	1.0	100	
Ti	47	1	nogas	0.151	15.5	547	9.0	2.5	
V	51	1	nogas	10.745	1.6	1703155	1.9	2.5	CCB Main CR1 Failed
Cr	52	1	nogas	-0.053	-67.1	78247	0.5	2.5	
Mn	55	1	nogas	0.224	3.2	19224	1.8	2.5	
Co	59	1	nogas	0.086	25.7	3174	19.8	2.5	
Ni	60	1	nogas	0.277	1.0	4107	1.2	2.5	
Cu	63	1	nogas	1.345	11.6	41537	7.6	2.5	
Zn	66	1	nogas	5.720	23.7	31074	24.4	2.5	CCB Main CR1 Failed
As	75	1	nogas	4.251	10.9	199752	1.8	2.5	CCB Main CR1 Failed
Sr	88	1	nogas	0.257	5.7	11447	3.4	2.5	
Ag	107	1	nogas	0.085	24.3	1873	20.1	2.5	
Cd	111	1	nogas	0.103	26.7	453	24.3	1	
Sb	121	1	nogas	0.198	11.5	4761	7.1	2.5	
Tl	205	1	nogas	0.245	34.7	7375	34.8	1	
Pb	208	1	nogas	0.083	32.9	4744	21.3	2.5	
U	238	1	nogas	0.092	24.4	4034	22.6	2.5	
[Pb]	206	1	nogas	0.070	41.9	1173	26.2	2.5	
[Pb]	207	1	nogas	0.072	45.1	1090	27.6	2.5	
Na	23	2	He	256.143	3.7	477316	2.2	100	CCB Main CR1 Failed
Mg	24	2	He	10.399	8.9	9943	9.4	100	
Al	27	2	He	5.483	11.9	3954	5.1	5	CCB Main CR1 Failed
K	39	2	He	7.883	30.0	261328	1.1	100	
Ca	43	2	He	27.915	21.4	123	18.7	100	
Ca	44	2	He	38.882	16.5	3324	8.3	100	
V	51	2	He	1.641	6.6	24923	0.4	2.5	
Cr	52	2	He	-0.169	-20.5	4247	8.1	2.5	
Mn	55	2	He	0.075	23.8	1043	12.5	2.5	
Fe	56	2	He	6.951	12.6	74140	9.4	100	
Co	59	2	He	0.048	21.5	637	15.1	2.5	
Ni	60	2	He	0.420	4.7	653	9.2	2.5	
Cu	63	2	He	-0.786	-4.3	3077	6.4	2.5	
Zn	66	2	He	8.703	7.5	15340	5.4	2.5	CCB Main CR1 Failed
As	75	2	He	0.155	6.9	1094	4.0	2.5	
Se	78	2	He	0.507	3.3	238	4.7	2.5	
B	11	1	nogas	9.450	5.8	33763	6.5	10	
Si	28	1	nogas	-31.988	-9.5	1501240	0.7	5	
Ca	43	1	nogas	38.912	5.6	2457	4.9	100	
Ca	44	1	nogas	23.242	7.7	71650	0.3	100	
Fe	56	1	nogas	-13.887	-23.5	3487089	2.0	100	
Se	77	1	nogas	32.047	10.2	65484	3.1	2.5	CCB Main CR1 Failed
Se	82	1	nogas	0.516	35.5	570	10.5	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.189	19.9	1633	16.4	2.5	
Sn	118	1	nogas	-0.183	-28.7	3210	16.5	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.177	17.1	1280	11.1	2.5	
Sb	121	2	He	0.174	7.2	1537	4.8	2.5	
P	31	1	nogas	-0.433	-196.1	64982	1.8	10	
La	139	1	nogas	-4.235	-494.8	377	18.8	2.5	
Au	197	1	nogas	-21.101	-113.1	10	100.0	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	519936	2.73	650728	79.90	70	125	
Ge	72	1	nogas	4087406	1.60	4176570	97.87	70	125	
In	115	1	nogas	3933088	2.54	3920309	100.33	70	125	
Bi	209	1	nogas	3072731	2.24	2792487	110.04	70	125	
Ge	72	2	He	992373	3.69	1073881	92.41	70	125	

Sample Report

Sample Table

Sample Name	MBLK-132159
Data File Name	074SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:04:29-05:00
Sample Type	Sample
Dilution	1
Comment	TW DISS B132159
ISTD Ref FileName	005CALB.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
Be	9	1	nogas	0.008	0.008	41.18	63	0.01	2000	
Na	23	1	nogas	169.133	169.133	5.15	4753124	0.00	200000	
Mg	24	1	nogas	14.163	14.163	4.91	228772	0.01	200000	
Al	27	1	nogas	3.969	3.969	2.76	120324	0.00	2000	
K	39	1	nogas	-13.963	-13.963	-17.95	8299668	0.00	200000	
Ti	47	1	nogas	0.065	0.065	15.05	353	0.02	2000	
V	51	1	nogas	15.229	15.229	3.02	1851034	0.00	2000	
Cr	52	1	nogas	0.001	0.001	6373.20	79988	0.00	2000	
Mn	55	1	nogas	0.472	0.472	2.57	27761	0.00	2000	
Co	59	1	nogas	-0.002	-0.002	-119.17	500	0.00	2000	
Ni	60	1	nogas	0.256	0.256	2.64	3977	0.01	2000	
Cu	63	1	nogas	0.899	0.899	13.39	34352	0.00	2000	
Zn	66	1	nogas	1.738	1.738	1.89	9863	0.02	2000	
As	75	1	nogas	5.776	5.776	6.31	211416	0.00	2000	
Sr	88	1	nogas	0.025	0.025	2.31	2607	0.00	2000	
Ag	107	1	nogas	-0.002	-0.002	-92.98	180	0.00	2000	
Cd	111	1	nogas	-0.002	-0.002	-66.29	13	-0.01	2000	
Sb	121	1	nogas	0.021	0.021	54.85	1513	0.00	2000	
Tl	205	1	nogas	0.005	0.005	24.93	450	0.00	2000	
Pb	208	1	nogas	-0.022	-0.022	-7.29	873	0.00	2000	
U	238	1	nogas	-0.009	-0.009	-4.47	117	-0.01	2000	
[Pb]	206	1	nogas	-0.024	-0.024	-14.69	247	-0.01	2000	
[Pb]	207	1	nogas	-0.033	-0.033	-14.06	180	-0.02	2000	
Na	23	2	He	180.845	180.845	1.72	386190	0.05	200000	
Mg	24	2	He	14.645	14.645	2.10	14716	0.10	200000	
Al	27	2	He	4.479	4.479	2.58	3665	0.12	2000	
K	39	2	He	-5.288	-5.288	-32.91	245770	0.00	200000	
Ca	43	2	He	2.109	2.109	215.71	43	4.87	200000	
Ca	44	2	He	-2.210	-2.210	-70.47	1180	-0.19	200000	
V	51	2	He	1.522	1.522	0.87	25710	0.01	2000	
Cr	52	2	He	-0.221	-0.221	-10.22	4084	-0.01	2000	
Mn	55	2	He	0.480	0.480	3.62	3690	0.01	2000	
Fe	56	2	He	2.467	2.467	5.49	42623	0.01	200000	
Co	59	2	He	0.002	0.002	208.31	117	0.00	2000	
Ni	60	2	He	0.462	0.462	4.37	827	0.06	2000	
Cu	63	2	He	-0.939	-0.939	-1.23	2187	-0.04	2000	
Zn	66	2	He	1.835	1.835	4.06	3477	0.05	2000	
As	75	2	He	0.104	0.104	28.48	1072	0.01	2000	
Se	78	2	He	0.525	0.525	26.36	257	0.20	2000	
B	11	1	nogas	4.071	4.071	9.26	19697	0.02	2000	

Sample Report

Si	28	1	nogas	26.468	26.468	11.27	2181715	0.00	2000	
Ca	43	1	nogas	2.382	2.382	17.44	863	0.28	200000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Ca	44	1	nogas	-15.267	-15.267	-9.32	43484	-0.04	200000	
Fe	56	1	nogas	-16.240	-16.240	-10.51	3426530	0.00	200000	
Se	77	1	nogas	39.330	39.330	5.62	68335	0.06	2000	
Se	82	1	nogas	0.181	0.181	100.87	447	0.04	2000	
Mo	95	1	nogas	0.003	0.003	178.05	173	0.00	2000	
Sn	118	1	nogas	-0.279	-0.279	-5.56	2184	-0.01	2000	
Ba	137	1	nogas	0.047	0.047	22.20	567	0.01	2000	
Sb	121	2	He	0.005	0.005	193.07	507	0.00	2000	
La	139	1	nogas	-77.560	-77.560	-11.33	103	-75.06	2000	
Au	197	1	nogas	-45.318	-45.318	0.00	0	#DIV/0!	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	533085	2.03	650728	81.92	70	125	
Ge	72	1	nogas	4100065	0.54	4176570	98.17	70	125	
In	115	1	nogas	4065472	2.88	3920309	103.70	70	125	
Bi	209	1	nogas	3268362	1.60	2792487	117.04	70	125	
Ge	72	2	He	1061459	0.56	1073881	98.84	70	125	

Sample Report

Sample Table

Sample Name	LCS-132159
Data File Name	075SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:06:30-05:00
Sample Type	Sample
Dilution	1
Comment	TW DISS B132159
ISTD Ref FileName	005CALB.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
Be	9	1	nogas	55.300	55.300	3.60	210769	0.03	2000	
Na	23	1	nogas	4831.440	4831.440	3.70	110734940	0.00	200000	
Mg	24	1	nogas	4723.398	4723.398	3.93	72552143	0.01	200000	
Al	27	1	nogas	96.107	96.107	2.19	1951491	0.00	2000	
K	39	1	nogas	4718.467	4718.467	1.83	123734365	0.00	200000	
Ti	47	1	nogas	137.938	137.938	2.23	323446	0.04	2000	
V	51	1	nogas	52.379	52.379	0.65	3114930	0.00	2000	
Cr	52	1	nogas	47.190	47.190	0.88	1426522	0.00	2000	
Mn	55	1	nogas	50.515	50.515	2.38	1782488	0.00	2000	
Co	59	1	nogas	48.409	48.409	6.07	1516220	0.00	2000	
Ni	60	1	nogas	47.465	47.465	1.81	326881	0.01	2000	
Cu	63	1	nogas	47.432	47.432	1.36	815334	0.01	2000	
Zn	66	1	nogas	51.366	51.366	0.79	282088	0.02	2000	
As	75	1	nogas	47.725	47.725	0.29	528699	0.01	2000	
Sr	88	1	nogas	99.883	99.883	0.93	3930253	0.00	2000	
Ag	107	1	nogas	47.864	47.864	0.94	965887	0.00	2000	
Cd	111	1	nogas	49.611	49.611	2.00	211304	0.02	2000	
Sb	121	1	nogas	47.940	47.940	0.92	908246	0.01	2000	
Tl	205	1	nogas	48.462	48.462	3.85	1427130	0.00	2000	
Pb	208	1	nogas	52.228	52.228	1.12	1933319	0.00	2000	
U	238	1	nogas	99.471	99.471	2.31	3939449	0.00	2000	
[Pb]	206	1	nogas	46.429	46.429	1.23	473015	0.01	2000	
[Pb]	207	1	nogas	47.298	47.298	0.80	421639	0.01	2000	
Na	23	2	He	4919.842	4919.842	1.93	8267033	0.06	200000	
Mg	24	2	He	4700.096	4700.096	1.94	4539313	0.10	200000	
Al	27	2	He	95.227	95.227	1.84	55679	0.17	2000	
K	39	2	He	4829.355	4829.355	1.08	5956877	0.08	200000	
Ca	43	2	He	4727.223	4727.223	2.24	16254	29.08	200000	
Ca	44	2	He	4681.777	4681.777	1.20	273808	1.71	200000	
V	51	2	He	48.008	48.008	2.29	407347	0.01	2000	
Cr	52	2	He	47.549	47.549	2.44	428293	0.01	2000	
Mn	55	2	He	48.601	48.601	1.74	310738	0.02	2000	
Fe	56	2	He	4699.353	4699.353	3.05	38641949	0.01	200000	
Co	59	2	He	47.367	47.367	2.79	594643	0.01	2000	
Ni	60	2	He	49.084	49.084	3.57	150180	0.03	2000	
Cu	63	2	He	51.810	51.810	2.78	387681	0.01	2000	
Zn	66	2	He	52.435	52.435	0.60	99364	0.05	2000	
As	75	2	He	48.168	48.168	2.14	94921	0.05	2000	
Se	78	2	He	47.451	47.451	3.19	7976	0.59	2000	
B	11	1	nogas	546.374	546.374	4.23	1358394	0.04	2000	
Si	28	1	nogas	4288.221	4288.221	0.15	52833338	0.01	2000	>LDR
Ca	43	1	nogas	4694.640	4694.640	2.24	212068	2.21	200000	
Ca	44	1	nogas	4699.628	4699.628	2.37	3616651	0.13	200000	
Fe	56	1	nogas	4732.720	4732.720	1.37	152990220	0.00	200000	

Sample Report

Se	77	1	nogas	58.970	58.970	4.62	77551	0.08	2000	
Se	82	1	nogas	49.260	49.260	3.90	19374	0.25	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	45.785	45.785	1.64	371009	0.01	2000	
Sn	118	1	nogas	94.852	94.852	1.95	1112871	0.01	2000	
Ba	137	1	nogas	49.168	49.168	2.63	282261	0.02	2000	
Sb	121	2	He	50.142	50.142	1.34	339631	0.01	2000	
La	139	1	nogas	-37.229	-37.229	-21.05	257	-14.50	2000	
Au	197	1	nogas	65.832	65.832	41.56	47	141.07	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	476776	4.38	650728	73.27	70	125	
Ge	72	1	nogas	4211578	0.46	4176570	100.84	70	125	
In	115	1	nogas	3994885	2.02	3920309	101.90	70	125	
Bi	209	1	nogas	3134098	1.53	2792487	112.23	70	125	
Ge	72	2	He	1066311	1.57	1073881	99.30	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01
Data File Name	076SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:08:26-05:00
Sample Type	Sample
Dilution	1
Comment	TW DISS B132159
ISTD Ref FileName	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Be	9	1	nogas	0.695	0.695	15.23	2554	0.03	2000	
Na	23	1	nogas	52235.889	52235.889	1.46	1245197595	0.00	200000	
Mg	24	1	nogas	16622.165	16622.165	0.72	267310156	0.01	200000	
Al	27	1	nogas	298.753	298.753	2.38	5794624	0.01	2000	
K	39	1	nogas	2429.549	2429.549	1.32	65995856	0.00	200000	
Ti	47	1	nogas	3.734	3.734	7.75	8699	0.04	2000	
V	51	1	nogas	16.696	16.696	12.11	1891330	0.00	2000	
Cr	52	1	nogas	1.043	1.043	15.59	108502	0.00	2000	
Mn	55	1	nogas	302.549	302.549	2.40	10300367	0.00	2000	
Co	59	1	nogas	28.350	28.350	2.26	861741	0.00	2000	
Ni	60	1	nogas	73.238	73.238	2.50	488150	0.02	2000	
Cu	63	1	nogas	16.919	16.919	1.96	294829	0.01	2000	
Zn	66	1	nogas	101.017	101.017	0.56	537826	0.02	2000	
As	75	1	nogas	7.716	7.716	8.45	224695	0.00	2000	
Sr	88	1	nogas	226.477	226.477	1.78	8645195	0.00	2000	
Ag	107	1	nogas	0.051	0.051	4.78	1210	0.00	2000	
Cd	111	1	nogas	2.088	2.088	5.16	8672	0.02	2000	
Sb	121	1	nogas	0.230	0.230	4.26	5341	0.00	2000	
Tl	205	1	nogas	0.540	0.540	14.75	15628	0.00	2000	
Pb	208	1	nogas	0.160	0.160	9.01	7577	0.00	2000	
U	238	1	nogas	0.368	0.368	5.96	14497	0.00	2000	
[Pb]	206	1	nogas	0.152	0.152	9.80	1947	0.01	2000	
[Pb]	207	1	nogas	0.126	0.126	14.73	1533	0.01	2000	
Na	23	2	He	55236.012	55236.012	3.22	92426722	0.06	200000	
Mg	24	2	He	17685.038	17685.038	4.44	17165511	0.10	200000	
Al	27	2	He	285.865	285.865	5.05	165702	0.17	2000	
K	39	2	He	2448.249	2448.249	0.61	3144104	0.08	200000	
Ca	43	2	He	16556.666	16556.666	7.01	57084	29.00	200000	
Ca	44	2	He	16752.174	16752.174	4.77	981059	1.71	200000	
V	51	2	He	2.257	2.257	8.72	32009	0.01	2000	
Cr	52	2	He	0.909	0.909	14.00	14202	0.01	2000	
Mn	55	2	He	298.442	298.442	3.42	1915458	0.02	2000	
Fe	56	2	He	743.041	743.041	3.81	6161874	0.01	200000	
Co	59	2	He	28.021	28.021	3.93	353684	0.01	2000	
Ni	60	2	He	72.341	72.341	3.31	222833	0.03	2000	
Cu	63	2	He	16.764	16.764	6.92	132163	0.01	2000	
Zn	66	2	He	101.467	101.467	6.06	193118	0.05	2000	
As	75	2	He	1.461	1.461	6.64	3745	0.04	2000	
Se	78	2	He	0.699	0.699	6.67	289	0.24	2000	
B	11	1	nogas	79.141	79.141	4.63	194088	0.04	2000	
Si	28	1	nogas	23579.575	23579.575	1.61	273494956	0.01	2000	>LDR
Ca	43	1	nogas	17498.674	17498.674	1.25	765076	2.29	200000	
Ca	44	1	nogas	17591.903	17591.903	2.53	12989357	0.14	200000	
Fe	56	1	nogas	747.938	747.938	2.60	26753178	0.00	200000	

Sample Report

Se	77	1	nogas	43.381	43.381	10.91	69583	0.06	2000	
Se	82	1	nogas	0.772	0.772	26.89	667	0.12	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	0.199	0.199	21.30	1713	0.01	2000	
Sn	118	1	nogas	0.109	0.109	37.61	6505	0.00	2000	
Ba	137	1	nogas	24.676	24.676	4.69	137948	0.02	2000	
Sb	121	2	He	0.202	0.202	20.94	1850	0.01	2000	
La	139	1	nogas	14919.777	14919.777	4.51	56179	26.56	2000	>LDR
Au	197	1	nogas	-4.498	-4.498	-605.64	17	-26.99	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	454915	1.31	650728	69.91	70	125	ISTD Failed
Ge	72	1	nogas	4087388	1.41	4176570	97.86	70	125	
In	115	1	nogas	3888525	2.83	3920309	99.19	70	125	
Bi	209	1	nogas	3016487	2.46	2792487	108.02	70	125	
Ge	72	2	He	1072932	4.72	1073881	99.91	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01SD
Data File Name	077SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:10:26-05:00
Sample Type	Sample
Dilution	5
Comment	TW DISS B132159
ISTD Ref FileName	005CALB.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
Be	9	1	nogas	0.170	0.848	20.57	657	0.03	2000	
Na	23	1	nogas	11651.245	58256.225	1.50	258214414	0.00	200000	
Mg	24	1	nogas	3661.691	18308.457	0.88	54618562	0.01	200000	
Al	27	1	nogas	65.505	327.527	8.24	1266788	0.01	2000	
K	39	1	nogas	515.647	2578.234	3.12	20206965	0.00	200000	
Ti	47	1	nogas	0.809	4.043	10.88	1987	0.04	2000	
V	51	1	nogas	16.970	84.852	13.19	1846743	0.00	2000	
Cr	52	1	nogas	0.215	1.076	38.70	83266	0.00	2000	
Mn	55	1	nogas	64.828	324.139	3.26	2154235	0.00	2000	
Co	59	1	nogas	5.962	29.808	2.77	176597	0.00	2000	
Ni	60	1	nogas	15.530	77.650	4.34	102340	0.02	2000	
Cu	63	1	nogas	4.912	24.562	1.17	96786	0.01	2000	
Zn	66	1	nogas	23.909	119.546	2.57	124176	0.02	2000	
As	75	1	nogas	6.307	31.533	12.23	208565	0.00	2000	
Sr	88	1	nogas	48.047	240.236	5.15	1783402	0.00	2000	
Ag	107	1	nogas	0.012	0.061	16.67	447	0.00	2000	
Cd	111	1	nogas	0.389	1.943	7.12	1650	0.02	2000	
Sb	121	1	nogas	0.045	0.226	25.63	1893	0.00	2000	
Tl	205	1	nogas	0.098	0.491	6.01	3110	0.00	2000	
Pb	208	1	nogas	0.012	0.060	42.98	2120	0.00	2000	
U	238	1	nogas	0.063	0.317	10.40	2914	0.00	2000	
[Pb]	206	1	nogas	0.003	0.013	269.94	493	0.00	2000	
[Pb]	207	1	nogas	0.000	-0.001	-6824.70	453	0.00	2000	
Na	23	2	He	11676.390	58381.948	2.02	19140970	0.06	200000	
Mg	24	2	He	3698.862	18494.309	2.79	3506063	0.11	200000	
Al	27	2	He	60.994	304.968	3.33	35390	0.17	2000	
K	39	2	He	469.103	2345.517	2.05	806163	0.06	200000	
Ca	43	2	He	3490.496	17452.480	5.91	11784	29.62	200000	
Ca	44	2	He	3457.417	17287.084	3.71	198747	1.74	200000	
V	51	2	He	1.754	8.771	5.10	27214	0.01	2000	
Cr	52	2	He	-0.026	-0.129	-254.79	5724	0.00	2000	
Mn	55	2	He	60.038	300.189	4.28	376520	0.02	2000	
Fe	56	2	He	156.942	784.711	5.62	1287716	0.01	200000	
Co	59	2	He	5.990	29.950	2.62	73892	0.01	2000	
Ni	60	2	He	16.189	80.946	2.34	48237	0.03	2000	
Cu	63	2	He	2.823	14.113	4.20	29133	0.01	2000	
Zn	66	2	He	23.495	117.474	3.84	43689	0.05	2000	
As	75	2	He	0.304	1.518	3.71	1440	0.02	2000	
Se	78	2	He	0.335	1.676	87.46	223	0.15	2000	
B	11	1	nogas	20.317	101.586	1.89	56614	0.04	2000	
Si	28	1	nogas	4803.201	24016.003	5.30	55575096	0.01	2000	>LDR
Ca	43	1	nogas	3701.384	18506.922	3.89	157837	2.35	200000	
Ca	44	1	nogas	3746.541	18732.704	3.17	2730276	0.14	200000	
Fe	56	1	nogas	145.249	726.244	5.49	8114183	0.00	200000	

Sample Report

Se	77	1	nogas	41.475	207.377	13.56	66966	0.06	2000	
Se	82	1	nogas	0.357	1.786	21.05	497	0.07	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	0.050	0.251	9.20	527	0.01	2000	
Sn	118	1	nogas	-0.255	-1.274	-8.03	2387	-0.01	2000	
Ba	137	1	nogas	4.967	24.835	2.76	28290	0.02	2000	
Sb	121	2	He	0.030	0.150	42.83	667	0.00	2000	
La	139	1	nogas	2996.163	14980.813	1.25	11721	25.56	2000	>LDR
Au	197	1	nogas	3.158	15.791	776.07	20	15.79	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	466708	1.45	650728	71.72	70	125	
Ge	72	1	nogas	3974937	3.16	4176570	95.17	70	125	
In	115	1	nogas	3928322	2.16	3920309	100.20	70	125	
Bi	209	1	nogas	3076630	3.29	2792487	110.18	70	125	
Ge	72	2	He	1046777	2.44	1073881	97.48	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01MS
Data File Name	078SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:12:25-05:00
Sample Type	Sample
Dilution	1
Comment	TW DISS B132159
ISTD Ref FileName	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Be	9	1	nogas	61.847	61.847	3.74	196527	0.03	2000	
Na	23	1	nogas	55372.187	55372.187	1.43	1306934796	0.00	200000	
Mg	24	1	nogas	20415.790	20415.790	2.26	325002582	0.01	200000	
Al	27	1	nogas	408.570	408.570	4.10	7813854	0.01	2000	
K	39	1	nogas	6982.158	6982.158	2.34	171491125	0.00	200000	
Ti	47	1	nogas	139.972	139.972	3.60	314671	0.04	2000	
V	51	1	nogas	62.456	62.456	4.93	3302194	0.00	2000	
Cr	52	1	nogas	47.181	47.181	2.23	1367521	0.00	2000	
Mn	55	1	nogas	349.653	349.653	1.58	11762475	0.00	2000	
Co	59	1	nogas	76.320	76.320	1.46	2291770	0.00	2000	
Ni	60	1	nogas	117.402	117.402	1.51	771977	0.02	2000	
Cu	63	1	nogas	62.170	62.170	3.24	1018577	0.01	2000	
Zn	66	1	nogas	147.921	147.921	2.96	777749	0.02	2000	
As	75	1	nogas	52.963	52.963	2.72	544260	0.01	2000	
Sr	88	1	nogas	323.728	323.728	2.14	12210284	0.00	2000	
Ag	107	1	nogas	45.722	45.722	3.35	884626	0.01	2000	
Cd	111	1	nogas	49.806	49.806	3.70	206161	0.02	2000	
Sb	121	1	nogas	48.573	48.573	1.89	882354	0.01	2000	
Tl	205	1	nogas	47.462	47.462	2.39	1341627	0.00	2000	
Pb	208	1	nogas	48.752	48.752	1.05	1804739	0.00	2000	
U	238	1	nogas	98.211	98.211	4.54	3732869	0.00	2000	
[Pb]	206	1	nogas	45.525	45.525	2.20	445162	0.01	2000	
[Pb]	207	1	nogas	46.362	46.362	1.39	396630	0.01	2000	
Na	23	2	He	60112.297	60112.297	1.95	99393212	0.06	200000	
Mg	24	2	He	22101.484	22101.484	2.25	21205598	0.10	200000	
Al	27	2	He	403.511	403.511	1.61	230874	0.17	2000	
K	39	2	He	6782.878	6782.878	1.25	8264551	0.08	200000	
Ca	43	2	He	20959.899	20959.899	0.60	71501	29.31	200000	
Ca	44	2	He	20888.443	20888.443	2.14	1209264	1.73	200000	
V	51	2	He	47.094	47.094	1.44	397316	0.01	2000	
Cr	52	2	He	46.010	46.010	2.31	411969	0.01	2000	
Mn	55	2	He	337.727	337.727	5.18	2140837	0.02	2000	
Fe	56	2	He	5235.398	5235.398	1.93	42774316	0.01	200000	
Co	59	2	He	73.343	73.343	3.01	914787	0.01	2000	
Ni	60	2	He	118.593	118.593	3.08	361361	0.03	2000	
Cu	63	2	He	66.870	66.870	1.41	494593	0.01	2000	
Zn	66	2	He	145.623	145.623	1.85	274096	0.05	2000	
As	75	2	He	47.691	47.691	0.70	93404	0.05	2000	
Se	78	2	He	45.006	45.006	3.42	7526	0.60	2000	
B	11	1	nogas	717.382	717.382	2.61	1485544	0.05	2000	
Si	28	1	nogas	27457.786	27457.786	1.45	314421669	0.01	2000	>LDR
Ca	43	1	nogas	21984.431	21984.431	1.93	949507	2.32	200000	
Ca	44	1	nogas	21930.511	21930.511	1.72	15985900	0.14	200000	
Fe	56	1	nogas	5424.937	5424.937	2.19	167583212	0.00	200000	

Sample Report

Se	77	1	nogas	86.447	86.447	7.42	84230	0.10	2000	
Se	82	1	nogas	49.883	49.883	1.59	18810	0.27	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	45.810	45.810	2.35	355998	0.01	2000	
Sn	118	1	nogas	94.053	94.053	3.01	1072324	0.01	2000	
Ba	137	1	nogas	70.749	70.749	4.57	394537	0.02	2000	
Sb	121	2	He	49.247	49.247	2.17	331408	0.01	2000	
La	139	1	nogas	14700.507	14700.507	3.57	55299	26.58	2000	>LDR
Au	197	1	nogas	4.810	4.810	919.71	20	24.05	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	397344	2.82	650728	61.06	70	125	ISTD Failed
Ge	72	1	nogas	4039285	1.82	4176570	96.71	70	125	
In	115	1	nogas	3883711	2.65	3920309	99.07	70	125	
Bi	209	1	nogas	3007988	2.09	2792487	107.72	70	125	
Ge	72	2	He	1059469	1.50	1073881	98.66	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01MSD
Data File Name	079SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:14:25-05:00
Sample Type	Sample
Dilution	1
Comment	TW DISS B132159
ISTD Ref FileName	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Be	9	1	nogas	60.865	60.865	4.52	193887	0.03	2000	
Na	23	1	nogas	55629.107	55629.107	1.38	1275446229	0.00	200000	
Mg	24	1	nogas	20627.243	20627.243	2.06	318991515	0.01	200000	
Al	27	1	nogas	402.960	402.960	2.97	7654271	0.01	2000	
K	39	1	nogas	6829.426	6829.426	1.04	166754475	0.00	200000	
Ti	47	1	nogas	140.569	140.569	2.85	313826	0.04	2000	
V	51	1	nogas	64.595	64.595	3.25	3345918	0.00	2000	
Cr	52	1	nogas	47.927	47.927	1.44	1378431	0.00	2000	
Mn	55	1	nogas	346.988	346.988	2.16	11590646	0.00	2000	
Co	59	1	nogas	76.478	76.478	2.88	2280878	0.00	2000	
Ni	60	1	nogas	116.789	116.789	1.59	762638	0.02	2000	
Cu	63	1	nogas	61.622	61.622	1.76	1002880	0.01	2000	
Zn	66	1	nogas	147.089	147.089	2.03	768072	0.02	2000	
As	75	1	nogas	55.027	55.027	2.68	555050	0.01	2000	
Sr	88	1	nogas	321.531	321.531	2.10	12043019	0.00	2000	
Ag	107	1	nogas	46.925	46.925	2.27	901713	0.01	2000	
Cd	111	1	nogas	51.269	51.269	1.92	207903	0.02	2000	
Sb	121	1	nogas	48.555	48.555	2.56	875819	0.01	2000	
Tl	205	1	nogas	48.132	48.132	5.64	1353543	0.00	2000	
Pb	208	1	nogas	48.988	48.988	0.55	1813467	0.00	2000	
U	238	1	nogas	100.664	100.664	3.53	3807368	0.00	2000	
[Pb]	206	1	nogas	46.609	46.609	2.32	453500	0.01	2000	
[Pb]	207	1	nogas	46.417	46.417	2.26	395173	0.01	2000	
Na	23	2	He	59086.000	59086.000	0.86	96250465	0.06	200000	
Mg	24	2	He	22026.846	22026.846	2.14	20820339	0.11	200000	
Al	27	2	He	409.625	409.625	2.46	230823	0.18	2000	
K	39	2	He	6871.285	6871.285	0.03	8368985	0.08	200000	
Ca	43	2	He	21193.013	21193.013	0.30	71212	29.76	200000	
Ca	44	2	He	20912.859	20912.859	0.29	1192768	1.75	200000	
V	51	2	He	48.524	48.524	1.87	402883	0.01	2000	
Cr	52	2	He	46.451	46.451	1.91	409698	0.01	2000	
Mn	55	2	He	330.956	330.956	1.91	2067769	0.02	2000	
Fe	56	2	He	5272.314	5272.314	1.09	42440314	0.01	200000	
Co	59	2	He	73.453	73.453	0.95	902722	0.01	2000	
Ni	60	2	He	121.447	121.447	1.79	364637	0.03	2000	
Cu	63	2	He	68.336	68.336	1.73	497721	0.01	2000	
Zn	66	2	He	146.623	146.623	1.03	271902	0.05	2000	
As	75	2	He	49.160	49.160	0.41	94816	0.05	2000	
Se	78	2	He	46.005	46.005	1.36	7577	0.61	2000	
B	11	1	nogas	714.016	714.016	3.24	1482480	0.05	2000	
Si	28	1	nogas	26518.392	26518.392	1.19	301602756	0.01	2000	>LDR
Ca	43	1	nogas	21420.060	21420.060	1.35	918715	2.33	200000	
Ca	44	1	nogas	21614.642	21614.642	1.49	15646114	0.14	200000	
Fe	56	1	nogas	5476.016	5476.016	1.35	167962708	0.00	200000	

Sample Report

Se	77	1	nogas	97.233	97.233	6.74	87496	0.11	2000	
Se	82	1	nogas	49.994	49.994	8.37	18713	0.27	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	46.081	46.081	1.54	355581	0.01	2000	
Sn	118	1	nogas	94.300	94.300	1.64	1053243	0.01	2000	
Ba	137	1	nogas	73.043	73.043	2.58	399086	0.02	2000	
Sb	121	2	He	49.817	49.817	1.48	330282	0.02	2000	
La	139	1	nogas	14492.844	14492.844	2.38	53413	27.13	2000	>LDR
Au	197	1	nogas	53.950	53.950	76.01	40	134.87	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	398514	3.68	650728	61.24	70	125	ISTD Failed
Ge	72	1	nogas	4010828	1.37	4176570	96.03	70	125	
In	115	1	nogas	3803930	2.85	3920309	97.03	70	125	
Bi	209	1	nogas	2993840	2.28	2792487	107.21	70	125	
Ge	72	2	He	1043641	0.73	1073881	97.18	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-01PDS
Data File Name	080SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:16:24-05:00
Sample Type	Sample
Dilution	1
Comment	TW DISS B132159
ISTD Ref FileName	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Be	9	1	nogas	124.477	124.477	1.13	424818	0.03	2000	
Na	23	1	nogas	59050.473	59050.473	1.33	1375877764	0.00	200000	
Mg	24	1	nogas	25830.596	25830.596	1.69	406050101	0.01	200000	
Al	27	1	nogas	372.722	372.722	1.21	7231641	0.01	2000	
K	39	1	nogas	11916.598	11916.598	1.91	290569223	0.00	200000	
Ti	47	1	nogas	101.208	101.208	3.61	230659	0.04	2000	
V	51	1	nogas	109.827	109.827	2.83	4851399	0.00	2000	
Cr	52	1	nogas	100.732	100.732	0.96	2869247	0.00	2000	
Mn	55	1	nogas	387.726	387.726	0.72	13220917	0.00	2000	
Co	59	1	nogas	125.968	125.968	2.74	3833218	0.00	2000	
Ni	60	1	nogas	166.867	166.867	1.00	1111299	0.02	2000	
Cu	63	1	nogas	119.377	119.377	1.78	1964706	0.01	2000	
Zn	66	1	nogas	201.249	201.249	1.54	1072553	0.02	2000	
As	75	1	nogas	104.235	104.235	2.12	921778	0.01	2000	
Sr	88	1	nogas	221.250	221.250	2.65	8459516	0.00	2000	
Ag	107	1	nogas	103.949	103.949	2.46	2038508	0.01	2000	
Cd	111	1	nogas	106.899	106.899	1.87	447325	0.02	2000	
Sb	121	1	nogas	101.540	101.540	0.37	1868762	0.01	2000	
Tl	205	1	nogas	104.565	104.565	4.33	2949468	0.00	2000	
Pb	208	1	nogas	108.124	108.124	2.22	4000608	0.00	2000	
U	238	1	nogas	0.400	0.400	15.53	15578	0.00	2000	
[Pb]	206	1	nogas	99.351	99.351	2.07	969077	0.01	2000	
[Pb]	207	1	nogas	100.505	100.505	1.15	857913	0.01	2000	
Na	23	2	He	64949.807	64949.807	2.47	105688865	0.06	200000	
Mg	24	2	He	27497.387	27497.387	1.10	25968082	0.11	200000	
Al	27	2	He	377.657	377.657	1.32	212712	0.18	2000	
K	39	2	He	12016.111	12016.111	1.65	14446508	0.08	200000	
Ca	43	2	He	26018.661	26018.661	1.27	87337	29.79	200000	
Ca	44	2	He	27315.154	27315.154	3.64	1556050	1.76	200000	
V	51	2	He	104.182	104.182	1.25	849264	0.01	2000	
Cr	52	2	He	102.439	102.439	1.76	895466	0.01	2000	
Mn	55	2	He	399.327	399.327	2.33	2492413	0.02	2000	
Fe	56	2	He	10846.287	10846.287	0.90	87200145	0.01	200000	
Co	59	2	He	135.689	135.689	0.86	1665918	0.01	2000	
Ni	60	2	He	176.445	176.445	2.04	529525	0.03	2000	
Cu	63	2	He	128.018	128.018	2.66	923837	0.01	2000	
Zn	66	2	He	205.231	205.231	1.48	380200	0.05	2000	
As	75	2	He	106.490	106.490	1.28	204195	0.05	2000	
Se	78	2	He	100.359	100.359	1.78	16313	0.62	2000	
B	11	1	nogas	82.325	82.325	1.55	189040	0.04	2000	
Si	28	1	nogas	22544.346	22544.346	2.29	261975509	0.01	2000	>LDR
Ca	43	1	nogas	26464.486	26464.486	1.13	1158487	2.28	200000	
Ca	44	1	nogas	26786.264	26786.264	1.80	19778093	0.14	200000	
Fe	56	1	nogas	10799.699	10799.699	1.48	334330899	0.00	200000	

Sample Report

Se	77	1	nogas	120.873	120.873	0.97	97945	0.12	2000	
Se	82	1	nogas	106.300	106.300	1.11	40202	0.26	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	100.160	100.160	0.96	788804	0.01	2000	
Sn	118	1	nogas	0.183	0.183	36.83	7408	0.00	2000	
Ba	137	1	nogas	126.995	126.995	0.39	715964	0.02	2000	
Sb	121	2	He	102.580	102.580	1.21	678988	0.02	2000	
La	139	1	nogas	14176.322	14176.322	1.71	53932	26.29	2000	>LDR
Au	197	1	nogas	78.304	78.304	126.14	50	156.61	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	426521	1.59	650728	65.55	70	125	ISTD Failed
Ge	72	1	nogas	4094295	1.97	4176570	98.03	70	125	
In	115	1	nogas	3924532	1.03	3920309	100.11	70	125	
Bi	209	1	nogas	3002424	1.56	2792487	107.52	70	125	
Ge	72	2	He	1042683	0.92	1073881	97.09	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-02
Data File Name	081SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:18:26-05:00
Sample Type	Sample
Dilution	1
Comment	TW DISS B132159
ISTD Ref FileName	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Be	9	1	nogas	0.392	0.392	9.77	1347	0.03	2000	
Na	23	1	nogas	123945.414	123945.414	2.30	2779124129	0.00	200000	
Mg	24	1	nogas	35327.268	35327.268	1.74	534526812	0.01	200000	
Al	27	1	nogas	57.002	57.002	1.79	1079691	0.01	2000	
K	39	1	nogas	2420.295	2420.295	3.12	62231416	0.00	200000	
Ti	47	1	nogas	2.906	2.906	4.45	6451	0.05	2000	
V	51	1	nogas	21.792	21.792	15.41	1941535	0.00	2000	
Cr	52	1	nogas	0.518	0.518	25.08	88932	0.00	2000	
Mn	55	1	nogas	130.717	130.717	3.42	4216653	0.00	2000	
Co	59	1	nogas	2.054	2.054	5.94	59526	0.00	2000	
Ni	60	1	nogas	28.091	28.091	3.57	178450	0.02	2000	
Cu	63	1	nogas	0.957	0.957	6.45	33290	0.00	2000	
Zn	66	1	nogas	20.854	20.854	2.45	105488	0.02	2000	
As	75	1	nogas	11.050	11.050	14.92	235234	0.00	2000	
Sr	88	1	nogas	873.587	873.587	3.29	31543421	0.00	2000	
Ag	107	1	nogas	0.113	0.113	22.27	2317	0.00	2000	
Cd	111	1	nogas	0.869	0.869	4.45	3497	0.02	2000	
Sb	121	1	nogas	2.289	2.289	12.83	40932	0.01	2000	
Tl	205	1	nogas	0.264	0.264	36.65	7549	0.00	2000	
Pb	208	1	nogas	0.135	0.135	27.11	6674	0.00	2000	
U	238	1	nogas	0.091	0.091	8.70	3817	0.00	2000	
[Pb]	206	1	nogas	0.140	0.140	30.16	1783	0.01	2000	
[Pb]	207	1	nogas	0.121	0.121	20.90	1447	0.01	2000	
Na	23	2	He	130327.779	130327.779	0.46	207890337	0.06	200000	
Mg	24	2	He	37210.211	37210.211	1.38	34459309	0.11	200000	
Al	27	2	He	56.881	56.881	1.87	32321	0.18	2000	
K	39	2	He	2293.673	2293.673	2.62	2961506	0.08	200000	
Ca	43	2	He	48558.943	48558.943	4.02	159766	30.39	200000	
Ca	44	2	He	50912.038	50912.038	2.91	2842324	1.79	200000	
V	51	2	He	2.711	2.711	3.21	34115	0.01	2000	
Cr	52	2	He	0.150	0.150	31.95	7091	0.00	2000	
Mn	55	2	He	123.691	123.691	2.09	757335	0.02	2000	
Fe	56	2	He	546.866	546.866	2.44	4331170	0.01	200000	
Co	59	2	He	1.838	1.838	4.88	22197	0.01	2000	
Ni	60	2	He	27.265	27.265	2.14	79753	0.03	2000	
Cu	63	2	He	0.042	0.042	132.55	8979	0.00	2000	
Zn	66	2	He	20.326	20.326	0.84	36944	0.06	2000	
As	75	2	He	1.759	1.759	8.26	4130	0.04	2000	
Se	78	2	He	0.627	0.627	19.25	264	0.24	2000	
B	11	1	nogas	40.567	40.567	2.44	95792	0.04	2000	
Si	28	1	nogas	23011.921	23011.921	2.03	252613830	0.01	2000	>LDR
Ca	43	1	nogas	52461.509	52461.509	5.01	2167543	2.42	200000	
Ca	44	1	nogas	51267.849	51267.849	3.55	35706218	0.14	200000	
Fe	56	1	nogas	547.869	547.869	5.96	19524103	0.00	200000	

Sample Report

Se	77	1	nogas	61.710	61.710	16.84	72116	0.09	2000	
Se	82	1	nogas	1.776	1.776	11.40	987	0.18	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	0.422	0.422	17.13	3287	0.01	2000	
Sn	118	1	nogas	-0.172	-0.172	-19.83	3190	-0.01	2000	
Ba	137	1	nogas	30.015	30.015	1.17	161971	0.02	2000	
Sb	121	2	He	1.802	1.802	7.14	12141	0.01	2000	
La	139	1	nogas	2023.152	2023.152	6.08	7675	26.36	2000	>LDR
Au	197	1	nogas	-2.709	-2.709	-1448.95	17	-16.26	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	423060	1.00	650728	65.01	70	125	ISTD Failed
Ge	72	1	nogas	3868729	3.00	4176570	92.63	70	125	
In	115	1	nogas	3752308	2.22	3920309	95.71	70	125	
Bi	209	1	nogas	2941197	1.33	2792487	105.33	70	125	
Ge	72	2	He	1022456	1.29	1073881	95.21	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	082_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:20:27-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	111.841	4.509	379271	1.84	100	111.8	90	110	CCV Main CR1-2 Failed
Na	23	1	nogas	9665.978	3.712	208234417	1.44	10000	96.7	90	110	
Mg	24	1	nogas	9341.862	4.537	135315370	1.15	10000	93.4	90	110	
Al	27	1	nogas	93.761	4.586	1743404	5.86	100	93.8	90	110	
K	39	1	nogas	9858.466	4.807	227492072	1.72	10000	98.6	90	110	
Ti	47	1	nogas	95.689	3.057	205281	2.33	100	95.7	90	110	
V	51	1	nogas	118.467	13.599	4814095	5.85	100	118.5	90	110	CCV Main CR1-2 Failed
Cr	52	1	nogas	98.730	8.745	2643621	4.71	100	98.7	90	110	
Mn	55	1	nogas	101.844	7.149	3272196	3.91	100	101.8	90	110	
Co	59	1	nogas	98.126	5.985	2807833	2.48	100	98.1	90	110	
Ni	60	1	nogas	98.386	5.998	616759	0.69	100	98.4	90	110	
Cu	63	1	nogas	99.026	2.157	1538541	5.83	100	99.0	90	110	
Zn	66	1	nogas	102.130	3.686	512327	1.83	100	102.1	90	110	
As	75	1	nogas	102.210	6.989	852857	0.52	100	102.2	90	110	
Sr	88	1	nogas	102.586	2.003	3695397	5.31	100	102.6	90	110	
Ag	107	1	nogas	101.863	3.753	1883983	8.56	100	101.9	90	110	
Cd	111	1	nogas	99.977	5.572	400542	2.05	100	100.0	90	110	
Sb	121	1	nogas	106.561	4.135	1847565	7.21	100	106.6	90	110	
Tl	205	1	nogas	100.675	3.986	2784255	3.37	100	100.7	90	110	
Pb	208	1	nogas	100.894	3.933	3733201	3.93	100	100.9	90	110	
U	238	1	nogas	102.557	2.136	3816389	4.20	100	102.6	90	110	
[Pb]	206	1	nogas	94.037	6.746	897931	1.13	100	94.0	90	110	
[Pb]	207	1	nogas	94.882	5.760	792967	0.35	100	94.9	90	110	
Na	23	2	He	9919.155	0.617	15620651	0.81	10000	99.2	90	110	
Mg	24	2	He	9563.519	1.275	8702563	2.25	10000	95.6	90	110	
Al	27	2	He	90.231	1.857	49762	2.07	100	90.2	90	110	
K	39	2	He	9183.793	1.367	11100724	1.34	10000	91.8	90	110	
Ca	43	2	He	9620.883	1.568	31133	1.49	10000	96.2	90	110	
Ca	44	2	He	9304.394	0.643	511466	1.45	10000	93.0	90	110	
V	51	2	He	96.839	1.340	761412	1.26	100	96.8	90	110	
Cr	52	2	He	96.090	1.878	809556	1.03	100	96.1	90	110	
Mn	55	2	He	96.492	0.928	580631	0.72	100	96.5	90	110	
Fe	56	2	He	9675.675	1.951	74944351	1.99	10000	96.8	90	110	
Co	59	2	He	95.089	1.960	1124667	1.47	100	95.1	90	110	
Ni	60	2	He	98.484	3.334	284450	2.43	100	98.5	90	110	
Cu	63	2	He	103.337	2.408	719991	1.35	100	103.3	90	110	
Zn	66	2	He	102.152	1.276	182330	1.34	100	102.2	90	110	
As	75	2	He	96.723	0.806	178772	1.78	100	96.7	90	110	
Se	78	2	He	93.563	1.485	14662	0.74	100	93.6	90	110	
B	11	1	nogas	582.577	10.766	1289512	10.77	500	116.5	90	110	CCV Main CR1-2 Failed
Si	28	1	nogas	4570.103	6.859	51319618	1.49	5000	91.4	90	110	
Ca	43	1	nogas	9972.027	5.027	410910	0.41	10000	99.7	90	110	
Ca	44	1	nogas	9821.299	5.737	6850329	0.40	10000	98.2	90	110	
Fe	56	1	nogas	10094.324	6.128	293976990	1.47	10000	100.9	90	110	
Se	77	1	nogas	142.654	12.329	99507	1.36	100	142.7	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	99.989	3.491	35602	2.73	100	100.0	90	110	
Mo	95	1	nogas	96.369	2.684	714221	2.90	100	96.4	90	110	
Sn	118	1	nogas	97.457	7.150	1074423	1.05	100	97.5	90	110	
Ba	137	1	nogas	97.775	7.182	527365	1.62	100	97.8	90	110	
Sb	121	2	He	103.682	1.450	661111	0.44	100	103.7	90	110	
Li	7	1	nogas	102.129	2.480	744252	1.05	100	102.1	90	110	
P	31	1	nogas	458.160	6.405	835374	1.23	500	91.6	90	110	
La	139	1	nogas	188.323	17.092	1057	9.34	100	188.3	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	145.204	88.320	73	64.44	100	145.2	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	424160	2.97	650728	65.18	70	125	ISTD Failed
Ge	72	1	nogas	3855916	5.14	4176570	92.32	70	125	
In	115	1	nogas	3767384	7.48	3920309	96.10	70	125	
Bi	209	1	nogas	2946190	5.80	2792487	105.50	70	125	

Ge	72	2	He	1004499	1.01	1073881	93.54	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	083_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:22:26-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.122	25.9	497	24.2	1	
Na	23	1	nogas	160.182	5.0	4265316	2.0	100	CCB Main CR1 Failed
Mg	24	1	nogas	12.697	5.7	193076	3.4	100	
Al	27	1	nogas	5.102	4.2	135469	1.8	5	CCB Main CR1 Failed
K	39	1	nogas	4.280	96.8	8319534	0.6	100	
Ti	47	1	nogas	0.140	24.0	500	15.1	2.5	
V	51	1	nogas	13.749	16.2	1718445	3.1	2.5	CCB Main CR1 Failed
Cr	52	1	nogas	-0.040	-161.2	75145	3.3	2.5	
Mn	55	1	nogas	0.196	7.3	17485	3.2	2.5	
Co	59	1	nogas	0.079	9.8	2834	9.2	2.5	
Ni	60	1	nogas	0.445	10.3	4984	4.6	2.5	
Cu	63	1	nogas	1.440	7.6	41136	3.0	2.5	
Zn	66	1	nogas	1.301	12.1	7168	10.0	2.5	
As	75	1	nogas	4.954	18.3	195749	2.7	2.5	CCB Main CR1 Failed
Sr	88	1	nogas	0.257	5.3	10923	4.3	2.5	
Ag	107	1	nogas	0.069	6.2	1497	5.0	2.5	
Cd	111	1	nogas	0.078	14.2	350	11.4	1	
Sb	121	1	nogas	0.324	5.2	6761	5.2	2.5	
Tl	205	1	nogas	0.265	38.7	7966	39.1	1	
Pb	208	1	nogas	0.064	17.3	4030	10.1	2.5	
U	238	1	nogas	0.084	18.1	3707	17.5	2.5	
[Pb]	206	1	nogas	0.051	13.4	983	8.6	2.5	
[Pb]	207	1	nogas	0.050	19.7	893	11.2	2.5	
Na	23	2	He	174.772	0.7	362656	0.7	100	CCB Main CR1 Failed
Mg	24	2	He	11.606	2.8	11370	2.2	100	
Al	27	2	He	5.235	6.3	3950	5.1	5	CCB Main CR1 Failed
K	39	2	He	-3.463	-28.6	247925	0.5	100	
Ca	43	2	He	61.367	45.1	237	37.9	100	
Ca	44	2	He	31.074	8.2	2997	4.6	100	
V	51	2	He	1.513	1.6	24713	0.4	2.5	
Cr	52	2	He	-0.195	-14.7	4164	6.4	2.5	
Mn	55	2	He	0.093	8.1	1187	3.9	2.5	
Fe	56	2	He	6.492	5.0	72850	3.6	100	
Co	59	2	He	0.057	15.3	770	13.7	2.5	
Ni	60	2	He	0.640	9.2	1323	12.6	2.5	
Cu	63	2	He	-0.842	-3.6	2784	7.6	2.5	
Zn	66	2	He	1.788	5.5	3267	5.9	2.5	
As	75	2	He	0.139	60.8	1098	13.9	2.5	
Se	78	2	He	0.451	72.1	237	22.1	2.5	
B	11	1	nogas	10.178	8.5	33249	5.7	10	CCB Main CR1 Failed
Si	28	1	nogas	-21.924	-7.6	1546234	2.4	5	
Ca	43	1	nogas	41.497	15.4	2454	9.6	100	
Ca	44	1	nogas	23.445	2.6	68636	0.7	100	
Fe	56	1	nogas	-19.377	-10.1	3173077	1.2	100	
Se	77	1	nogas	36.061	5.1	63972	0.5	2.5	CCB Main CR1 Failed
Se	82	1	nogas	0.493	50.7	537	15.5	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.189	31.1	1560	29.2	2.5	
Sn	118	1	nogas	-0.174	-18.5	3340	9.5	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.138	26.7	1067	17.3	2.5	
Sb	121	2	He	0.297	8.6	2384	7.5	2.5	
P	31	1	nogas	-0.658	-91.9	61728	1.1	10	
La	139	1	nogas	5.348	483.4	417	23.3	2.5	CCB Main CR1 Failed
Au	197	1	nogas	-29.132	-48.1	7	86.6	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	484312	1.94	650728	74.43	70	125	
Ge	72	1	nogas	3906786	1.27	4176570	93.54	70	125	
In	115	1	nogas	3960443	2.09	3920309	101.02	70	125	
Bi	209	1	nogas	3073142	1.63	2792487	110.05	70	125	
Ge	72	2	He	1023367	0.57	1073881	95.30	70	125	

Sample Report

Sample Table

Sample Name	HS18081504-03
Data File Name	084SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:24:26-05:00
Sample Type	Sample
Dilution	1
Comment	TW DISS B132159
ISTD Ref FileName	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Be	9	1	nogas	0.259	0.259	29.04	900	0.03	2000	
Na	23	1	nogas	126114.766	126114.766	0.96	2805494329	0.00	200000	
Mg	24	1	nogas	36054.166	36054.166	2.25	541049029	0.01	200000	
Al	27	1	nogas	58.136	58.136	2.33	1116693	0.01	2000	
K	39	1	nogas	2404.224	2404.224	3.38	62785166	0.00	200000	
Ti	47	1	nogas	3.158	3.158	24.13	7103	0.04	2000	
V	51	1	nogas	19.051	19.051	15.62	1887549	0.00	2000	
Cr	52	1	nogas	0.293	0.293	21.06	84314	0.00	2000	
Mn	55	1	nogas	128.879	128.879	0.82	4220532	0.00	2000	
Co	59	1	nogas	1.755	1.755	1.75	51750	0.00	2000	
Ni	60	1	nogas	28.075	28.075	2.60	181020	0.02	2000	
Cu	63	1	nogas	1.042	1.042	10.69	35131	0.00	2000	
Zn	66	1	nogas	98.054	98.054	2.57	501208	0.02	2000	
As	75	1	nogas	10.178	10.178	12.15	232774	0.00	2000	
Sr	88	1	nogas	870.462	870.462	2.91	31898300	0.00	2000	
Ag	107	1	nogas	0.013	0.013	40.81	460	0.00	2000	
Cd	111	1	nogas	0.756	0.756	7.02	3067	0.02	2000	
Sb	121	1	nogas	1.141	1.141	3.61	21183	0.01	2000	
Tl	205	1	nogas	0.052	0.052	4.64	1733	0.00	2000	
Pb	208	1	nogas	0.018	0.018	23.77	2357	0.00	2000	
U	238	1	nogas	0.070	0.070	6.61	3117	0.00	2000	
[Pb]	206	1	nogas	0.020	0.020	26.24	653	0.00	2000	
[Pb]	207	1	nogas	0.014	0.014	146.47	560	0.00	2000	
Na	23	2	He	132141.796	132141.796	1.44	212484024	0.06	200000	
Mg	24	2	He	37243.607	37243.607	1.77	34770280	0.11	200000	
Al	27	2	He	58.978	58.978	6.10	33725	0.17	2000	
K	39	2	He	2361.445	2361.445	1.71	3041563	0.08	200000	
Ca	43	2	He	49612.507	49612.507	0.71	164569	30.15	200000	
Ca	44	2	He	50395.502	50395.502	1.36	2836029	1.78	200000	
V	51	2	He	2.559	2.559	2.67	33183	0.01	2000	
Cr	52	2	He	0.055	0.055	74.90	6338	0.00	2000	
Mn	55	2	He	121.759	121.759	0.72	751507	0.02	2000	
Fe	56	2	He	525.975	525.975	1.67	4199993	0.01	200000	
Co	59	2	He	1.658	1.658	1.18	20205	0.01	2000	
Ni	60	2	He	27.001	27.001	0.81	79618	0.03	2000	
Cu	63	2	He	-0.042	-0.042	-76.93	8455	0.00	2000	
Zn	66	2	He	95.233	95.233	1.32	174368	0.05	2000	
As	75	2	He	1.625	1.625	0.48	3912	0.04	2000	
Se	78	2	He	0.561	0.561	66.00	255	0.22	2000	
B	11	1	nogas	39.611	39.611	4.93	94374	0.04	2000	
Si	28	1	nogas	23066.651	23066.651	0.90	256970430	0.01	2000	>LDR
Ca	43	1	nogas	51912.859	51912.859	2.79	2177593	2.38	200000	
Ca	44	1	nogas	51525.081	51525.081	1.13	36427554	0.14	200000	
Fe	56	1	nogas	521.269	521.269	2.14	19043166	0.00	200000	

Sample Report

Se	77	1	nogas	59.695	59.695	21.68	72497	0.08	2000	
Se	82	1	nogas	1.460	1.460	14.36	887	0.16	2000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Mo	95	1	nogas	0.119	0.119	17.53	1037	0.01	2000	
Sn	118	1	nogas	-0.114	-0.114	-24.52	3860	0.00	2000	
Ba	137	1	nogas	29.746	29.746	1.37	161746	0.02	2000	
Sb	121	2	He	1.068	1.068	1.57	7442	0.01	2000	
La	139	1	nogas	2137.332	2137.332	2.30	8155	26.21	2000	>LDR
Au	197	1	nogas	11.542	11.542	677.61	23	49.46	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	426592	4.00	650728	65.56	70	125	ISTD Failed
Ge	72	1	nogas	3924868	1.58	4176570	93.97	70	125	
In	115	1	nogas	3780475	0.56	3920309	96.43	70	125	
Bi	209	1	nogas	3007717	2.76	2792487	107.71	70	125	
Ge	72	2	He	1030524	1.49	1073881	95.96	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	086_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:28:26-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	005CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Fail

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	110.759	3.322	373210	0.99	100	110.8	90	110	CCV Main CR1-2 Failed
Na	23	1	nogas	9579.036	4.427	206847730	1.54	10000	95.8	90	110	
Mg	24	1	nogas	9290.424	4.205	134916466	0.66	10000	92.9	90	110	
Al	27	1	nogas	91.786	7.829	1720286	2.05	100	91.8	90	110	
K	39	1	nogas	9445.347	8.341	220125813	2.18	10000	94.5	90	110	
Ti	47	1	nogas	93.886	7.795	203018	1.74	100	93.9	90	110	
V	51	1	nogas	111.713	14.102	4653817	3.73	100	111.7	90	110	CCV Main CR1-2 Failed
Cr	52	1	nogas	99.860	10.368	2695975	4.15	100	99.9	90	110	
Mn	55	1	nogas	100.891	8.315	3270642	3.12	100	100.9	90	110	
Co	59	1	nogas	95.875	4.461	2772242	3.83	100	95.9	90	110	
Ni	60	1	nogas	94.771	6.938	599708	0.59	100	94.8	90	110	
Cu	63	1	nogas	96.069	4.721	1506976	6.30	100	96.1	90	110	
Zn	66	1	nogas	99.089	7.497	501192	1.12	100	99.1	90	110	
As	75	1	nogas	98.401	8.494	834666	1.09	100	98.4	90	110	
Sr	88	1	nogas	103.053	5.433	3742514	2.89	100	103.1	90	110	
Ag	107	1	nogas	100.826	0.800	1880914	5.47	100	100.8	90	110	
Cd	111	1	nogas	99.260	12.633	392331	1.44	100	99.3	90	110	
Sb	121	1	nogas	104.487	2.552	1829098	6.32	100	104.5	90	110	
Tl	205	1	nogas	103.975	8.576	2858911	7.55	100	104.0	90	110	
Pb	208	1	nogas	102.831	4.886	3804826	4.88	100	102.8	90	110	
U	238	1	nogas	102.527	9.656	3782089	0.88	100	102.5	90	110	
[Pb]	206	1	nogas	98.444	9.550	933843	3.19	100	98.4	90	110	
[Pb]	207	1	nogas	98.191	9.710	814750	2.12	100	98.2	90	110	
Na	23	2	He	9988.193	0.796	15639714	0.76	10000	99.9	90	110	
Mg	24	2	He	9490.428	0.150	8586359	0.65	10000	94.9	90	110	
Al	27	2	He	90.536	0.963	49642	0.48	100	90.5	90	110	
K	39	2	He	9047.139	0.308	10939296	0.30	10000	90.5	90	110	
Ca	43	2	He	9164.648	1.608	29490	1.40	10000	91.6	90	110	
Ca	44	2	He	9208.377	0.658	503307	0.47	10000	92.1	90	110	
V	51	2	He	96.766	1.427	756548	1.33	100	96.8	90	110	
Cr	52	2	He	96.707	1.139	810189	1.34	100	96.7	90	110	
Mn	55	2	He	96.252	1.490	575897	0.96	100	96.3	90	110	
Fe	56	2	He	9676.584	1.503	74524636	1.08	10000	96.8	90	110	
Co	59	2	He	95.037	2.566	1117688	2.19	100	95.0	90	110	
Ni	60	2	He	98.786	1.660	283750	1.23	100	98.8	90	110	
Cu	63	2	He	104.050	1.881	720855	1.34	100	104.1	90	110	
Zn	66	2	He	101.856	1.268	180766	0.80	100	101.9	90	110	
As	75	2	He	95.631	1.302	175742	0.77	100	95.6	90	110	
Se	78	2	He	91.218	1.518	14218	1.36	100	91.2	90	110	
B	11	1	nogas	573.382	4.507	1261561	6.37	500	114.7	90	110	CCV Main CR1-2 Failed
Si	28	1	nogas	4462.859	4.902	50681736	2.03	5000	89.3	90	110	CCV Main CR1-2 Failed
Ca	43	1	nogas	9568.401	7.189	397860	2.34	10000	95.7	90	110	
Ca	44	1	nogas	9493.072	8.714	6680498	3.28	10000	94.9	90	110	
Fe	56	1	nogas	9906.336	8.030	291128307	1.55	10000	99.1	90	110	
Se	77	1	nogas	129.839	12.178	96055	1.19	100	129.8	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	97.482	7.424	35001	1.22	100	97.5	90	110	
Mo	95	1	nogas	95.147	7.060	710888	1.67	100	95.1	90	110	
Sn	118	1	nogas	98.562	11.407	1073835	2.13	100	98.6	90	110	
Ba	137	1	nogas	102.172	12.790	544031	1.41	100	102.2	90	110	
Sb	121	2	He	103.925	0.251	658954	0.32	100	103.9	90	110	
Li	7	1	nogas	99.516	3.755	721172	0.77	100	99.5	90	110	
P	31	1	nogas	447.045	5.776	824728	1.29	500	89.4	90	110	CCV Main CR1-2 Failed
La	139	1	nogas	189.434	20.398	1047	3.07	100	189.4	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	116.990	30.632	63	18.23	100	117.0	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	421343	2.79	650728	64.75	70	125	ISTD Failed
Ge	72	1	nogas	3894810	6.11	4176570	93.25	70	125	
In	115	1	nogas	3740402	10.76	3920309	95.41	70	125	
Bi	209	1	nogas	2934792	8.61	2792487	105.10	70	125	

Ge	72	2	He	998796	0.52	1073881	93.01	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	087_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:30:26-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	005CALB.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
Be	9	1	nogas	0.120	5.2	490	6.1	1	
Na	23	1	nogas	128.269	0.9	3642464	1.7	100	CCB Main CR1 Failed
Mg	24	1	nogas	11.736	14.0	182474	12.5	100	
Al	27	1	nogas	4.863	2.1	135764	0.6	5	
K	39	1	nogas	-8.713	-64.7	8312275	1.7	100	
Ti	47	1	nogas	0.164	25.7	573	18.3	2.5	
V	51	1	nogas	9.545	6.4	1648075	1.3	2.5	CCB Main CR1 Failed
Cr	52	1	nogas	-0.263	-23.2	71708	1.3	2.5	
Mn	55	1	nogas	0.201	12.9	18259	5.9	2.5	
Co	59	1	nogas	0.085	10.0	3130	9.8	2.5	
Ni	60	1	nogas	0.406	15.0	4914	9.7	2.5	
Cu	63	1	nogas	1.180	10.3	38410	3.6	2.5	
Zn	66	1	nogas	0.974	10.4	5708	8.9	2.5	
As	75	1	nogas	2.901	21.5	188062	1.1	2.5	CCB Main CR1 Failed
Sr	88	1	nogas	0.231	2.1	10346	3.5	2.5	
Ag	107	1	nogas	0.086	22.3	1887	19.7	2.5	
Cd	111	1	nogas	0.110	23.2	490	21.3	1	
Sb	121	1	nogas	0.170	18.4	4194	13.8	2.5	
Tl	205	1	nogas	0.276	42.5	8262	40.5	1	
Pb	208	1	nogas	0.086	26.0	4840	17.0	2.5	
U	238	1	nogas	0.093	25.7	4081	22.4	2.5	
[Pb]	206	1	nogas	0.073	45.2	1197	27.0	2.5	
[Pb]	207	1	nogas	0.066	43.3	1033	23.4	2.5	
Na	23	2	He	144.464	0.5	314020	0.7	100	CCB Main CR1 Failed
Mg	24	2	He	8.976	1.4	8926	1.5	100	
Al	27	2	He	5.096	2.9	3870	2.5	5	CCB Main CR1 Failed
K	39	2	He	-7.082	-26.4	243650	0.9	100	
Ca	43	2	He	29.895	50.8	133	37.7	100	
Ca	44	2	He	28.734	9.7	2864	5.1	100	
V	51	2	He	1.307	1.7	23074	0.5	2.5	
Cr	52	2	He	-0.179	-13.5	4291	5.0	2.5	
Mn	55	2	He	0.058	47.9	973	18.0	2.5	
Fe	56	2	He	6.270	7.9	71037	5.5	100	
Co	59	2	He	0.057	18.8	767	17.0	2.5	
Ni	60	2	He	0.618	6.2	1257	9.1	2.5	
Cu	63	2	He	-0.866	-2.1	2614	4.5	2.5	
Zn	66	2	He	1.342	7.4	2454	7.6	2.5	
As	75	2	He	0.117	25.2	1057	5.3	2.5	
Se	78	2	He	0.441	33.7	235	10.1	2.5	
B	11	1	nogas	9.402	2.9	31269	2.0	10	
Si	28	1	nogas	-36.480	-14.9	1434490	2.6	5	
Ca	43	1	nogas	35.571	9.2	2287	6.2	100	
Ca	44	1	nogas	17.479	11.8	66732	1.7	100	
Fe	56	1	nogas	-23.823	-14.6	3152630	4.4	100	
Se	77	1	nogas	18.826	36.0	60026	2.3	2.5	CCB Main CR1 Failed
Se	82	1	nogas	0.379	47.6	513	11.2	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.175	20.4	1510	18.9	2.5	
Sn	118	1	nogas	-0.169	-27.0	3430	14.2	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.147	13.9	1133	8.5	2.5	
Sb	121	2	He	0.102	19.1	1120	11.7	2.5	
P	31	1	nogas	-1.344	-75.5	62697	1.5	10	
La	139	1	nogas	-4.875	-296.5	383	17.0	2.5	
Au	197	1	nogas	-37.224	-37.7	3	173.2	2.5	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	483724	1.84	650728	74.34	70	125	
Ge	72	1	nogas	4046073	1.78	4176570	96.88	70	125	
In	115	1	nogas	4005511	2.46	3920309	102.17	70	125	
Bi	209	1	nogas	3078107	0.79	2792487	110.23	70	125	
Ge	72	2	He	1022496	0.41	1073881	95.21	70	125	

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	092CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:40:30-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	67	85.18
Na	23	1	nogas	2412489	0.00
Mg	24	1	nogas	26255	0.02
Al	27	1	nogas	36332	0.01
K	39	1	nogas	8084701	0.00
Ti	47	1	nogas	267	9.04
V	51	1	nogas	1766861	0.00
Cr	52	1	nogas	77638	0.00
Mn	55	1	nogas	15567	0.03
Co	59	1	nogas	577	2.63
Ni	60	1	nogas	4037	0.10
Cu	63	1	nogas	30232	0.01
Zn	66	1	nogas	3394	0.25
As	75	1	nogas	198413	0.00
Sr	88	1	nogas	2134	0.09
Ag	107	1	nogas	220	6.20
Cd	111	1	nogas	40	108.25
Sb	121	1	nogas	753	0.67
Tl	205	1	nogas	533	1.94
Pb	208	1	nogas	697	2.07
[Pb]	206	1	nogas	167	25.29
[Pb]	207	1	nogas	140	5.10
Na	23	2	He	227955	0.00
Mg	24	2	He	2130	0.33
Al	27	2	He	1070	1.36
K	39	2	He	233442	0.00
Ca	43	2	He	40	108.25
Ca	44	2	He	1147	0.81
V	51	2	He	23984	0.00
Cr	52	2	He	3750	0.12
Mn	55	2	He	727	1.37
Fe	56	2	He	23689	0.01
Co	59	2	He	80	31.25
Ni	60	2	He	1167	0.30
Cu	63	2	He	1853	0.34
Zn	66	2	He	1257	0.65
As	75	2	He	956	0.68
Se	78	2	He	196	4.51
B	11	1	nogas	19106	0.01
Si	28	1	nogas	1254702	0.00
Ca	43	1	nogas	840	3.25
Ca	44	1	nogas	42772	0.01

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	3190036	0.00
Se	77	1	nogas	63741	0.00
Se	82	1	nogas	433	3.74
Mo	95	1	nogas	167	9.06
Sn	118	1	nogas	5174	0.11
Ba	137	1	nogas	470	2.75
Sb	121	2	He	207	9.75
Li	7	1	nogas	45932	0.01
P	31	1	nogas	65152	0.00
La	139	1	nogas	460	4.12

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	nogas	499722	3.32
Ge	72	1	nogas	4048330	1.46
In	115	1	nogas	4141557	0.74
Bi	209	1	nogas	3342763	0.69
Ge	72	2	He	1063259	0.22

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	093CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:42:30-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	092CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	8475	0.06
Na	23	1	nogas	6645910	0.00
Mg	24	1	nogas	3031818	0.00
Al	27	1	nogas	86242	0.02
K	39	1	nogas	12994314	0.00
Ti	47	1	nogas	4661	0.29
V	51	1	nogas	1831139	0.00
Cr	52	1	nogas	132382	0.00
Mn	55	1	nogas	85956	0.00
Co	59	1	nogas	60332	0.00
Ni	60	1	nogas	17131	0.02
Cu	63	1	nogas	61362	0.01
Zn	66	1	nogas	15166	0.02
As	75	1	nogas	210468	0.00
Sr	88	1	nogas	80694	0.00
Ag	107	1	nogas	40657	0.00
Cd	111	1	nogas	8449	0.08
Sb	121	1	nogas	38462	0.00
Tl	205	1	nogas	59452	0.00
Pb	208	1	nogas	82376	0.00
[Pb]	206	1	nogas	20620	0.00
[Pb]	207	1	nogas	18167	0.01
Na	23	2	He	557911	0.00
Mg	24	2	He	194300	0.00
Al	27	2	He	2277	0.57
K	39	2	He	457654	0.00
Ca	43	2	He	637	1.51
Ca	44	2	He	12304	0.01
V	51	2	He	39855	0.00
Cr	52	2	He	21863	0.02
Mn	55	2	He	12858	0.04
Fe	56	2	He	1660006	0.00
Co	59	2	He	24617	0.00
Ni	60	2	He	7548	0.09
Cu	63	2	He	17599	0.01
Zn	66	2	He	5381	0.03
As	75	2	He	4508	0.05
Se	78	2	He	488	2.32
B	11	1	nogas	45073	0.01
Si	28	1	nogas	2387713	0.00

Calibration Standard Report

Ca	43	1	nogas	9806	0.01
Ca	44	1	nogas	188092	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	9522036	0.00
Se	77	1	nogas	64080	0.00
Se	82	1	nogas	1217	0.81
Mo	95	1	nogas	15063	0.02
Sn	118	1	nogas	24187	0.01
Ba	137	1	nogas	12698	0.04
Sb	121	2	He	14596	0.03
P	31	1	nogas	83346	0.00
La	139	1	nogas	540	2.06

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	489937	5.40	499722	98.04	70	125	
Ge	72	1	nogas	4108737	2.96	4048330	101.49	70	125	
In	115	1	nogas	3974640	3.73	4141557	95.97	70	125	
Bi	209	1	nogas	3284697	1.77	3342763	98.26	70	125	
Ge	72	2	He	1077891	3.36	1063259	101.38	70	125	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	094CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:44:29-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	092CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	20658	0.01
Na	23	1	nogas	13239279	0.00
Mg	24	1	nogas	7611119	0.00
Al	27	1	nogas	132160	0.00
K	39	1	nogas	20036349	0.00
Ti	47	1	nogas	11350	0.04
V	51	1	nogas	1903345	0.00
Cr	52	1	nogas	211198	0.00
Mn	55	1	nogas	191953	0.00
Co	59	1	nogas	151956	0.00
Ni	60	1	nogas	38110	0.01
Cu	63	1	nogas	104847	0.00
Zn	66	1	nogas	30459	0.00
As	75	1	nogas	232266	0.00
Sr	88	1	nogas	202351	0.00
Ag	107	1	nogas	99617	0.00
Cd	111	1	nogas	21630	0.01
Sb	121	1	nogas	93780	0.00
Tl	205	1	nogas	148083	0.00
Pb	208	1	nogas	204092	0.00
[Pb]	206	1	nogas	50485	0.00
[Pb]	207	1	nogas	44892	0.00
Na	23	2	He	1054009	0.00
Mg	24	2	He	477362	0.00
Al	27	2	He	3697	0.08
K	39	2	He	798109	0.00
Ca	43	2	He	1683	0.30
Ca	44	2	He	29237	0.01
V	51	2	He	63244	0.00
Cr	52	2	He	46071	0.00
Mn	55	2	He	32095	0.01
Fe	56	2	He	4102852	0.00
Co	59	2	He	62008	0.00
Ni	60	2	He	16778	0.03
Cu	63	2	He	42202	0.00
Zn	66	2	He	10933	0.01
As	75	2	He	10198	0.02
Se	78	2	He	943	0.60
B	11	1	nogas	85336	0.00
Si	28	1	nogas	3991813	0.00

Calibration Standard Report

Ca	43	1	nogas	22968	0.01
Ca	44	1	nogas	405439	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	18925076	0.00
Se	77	1	nogas	66317	0.00
Se	82	1	nogas	2370	0.11
Mo	95	1	nogas	38836	0.01
Sn	118	1	nogas	60153	0.00
Ba	137	1	nogas	29192	0.00
Sb	121	2	He	35156	0.00
P	31	1	nogas	108754	0.00
La	139	1	nogas	210	2.27

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	494734	3.88	499722	99.00	70	125	
Ge	72	1	nogas	4083557	1.69	4048330	100.87	70	125	
In	115	1	nogas	4178068	1.11	4141557	100.88	70	125	
Bi	209	1	nogas	3348000	2.55	3342763	100.16	70	125	
Ge	72	2	He	1044164	0.74	1063259	98.20	70	125	

Calibration Standard Report

Sample Table

Sample Name	10/50/1000
Data File Name	095CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:46:28-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	092CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	40573	0.00
Na	23	1	nogas	24164481	0.00
Mg	24	1	nogas	14946586	0.00
Al	27	1	nogas	224022	0.00
K	39	1	nogas	32349897	0.00
Ti	47	1	nogas	22581	0.01
V	51	1	nogas	2132449	0.00
Cr	52	1	nogas	346004	0.00
Mn	55	1	nogas	366067	0.00
Co	59	1	nogas	299585	0.00
Ni	60	1	nogas	71291	0.00
Cu	63	1	nogas	186457	0.00
Zn	66	1	nogas	58577	0.00
As	75	1	nogas	274589	0.00
Sr	88	1	nogas	398379	0.00
Ag	107	1	nogas	199123	0.00
Cd	111	1	nogas	42882	0.01
Sb	121	1	nogas	188099	0.00
Tl	205	1	nogas	295345	0.00
Pb	208	1	nogas	415036	0.00
[Pb]	206	1	nogas	103179	0.00
[Pb]	207	1	nogas	91308	0.00
Na	23	2	He	1923065	0.00
Mg	24	2	He	946398	0.00
Al	27	2	He	6638	0.11
K	39	2	He	1429661	0.00
Ca	43	2	He	3154	0.28
Ca	44	2	He	55352	0.00
V	51	2	He	102359	0.00
Cr	52	2	He	90273	0.00
Mn	55	2	He	62787	0.01
Fe	56	2	He	7979107	0.00
Co	59	2	He	121274	0.00
Ni	60	2	He	32252	0.00
Cu	63	2	He	80138	0.00
Zn	66	2	He	20505	0.01
As	75	2	He	19167	0.01
Se	78	2	He	1657	0.15
B	11	1	nogas	151750	0.00
Si	28	1	nogas	6582399	0.00

Calibration Standard Report

Ca	43	1	nogas	45917	0.00
Ca	44	1	nogas	774910	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	34269498	0.00
Se	77	1	nogas	69803	0.00
Se	82	1	nogas	4174	0.09
Mo	95	1	nogas	76564	0.00
Sn	118	1	nogas	117701	0.00
Ba	137	1	nogas	58924	0.00
Sb	121	2	He	68732	0.00
P	31	1	nogas	148569	0.00
La	139	1	nogas	503	0.99

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	486714	0.79	499722	97.40	70	125	
Ge	72	1	nogas	4059469	3.16	4048330	100.28	70	125	
In	115	1	nogas	4103603	1.47	4141557	99.08	70	125	
Bi	209	1	nogas	3264509	2.87	3342763	97.66	70	125	
Ge	72	2	He	1027126	0.68	1063259	96.60	70	125	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	096CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:48:27-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	092CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	382822	0.00
Na	23	1	nogas	202714180	0.00
Mg	24	1	nogas	135553353	0.00
Al	27	1	nogas	1732159	0.00
K	39	1	nogas	226982980	0.00
Ti	47	1	nogas	204744	0.00
V	51	1	nogas	4530146	0.00
Cr	52	1	nogas	2698436	0.00
Mn	55	1	nogas	3339652	0.00
Co	59	1	nogas	2730480	0.00
Ni	60	1	nogas	594308	0.00
Cu	63	1	nogas	1502387	0.00
Zn	66	1	nogas	499968	0.00
As	75	1	nogas	826807	0.00
Sr	88	1	nogas	3698756	0.00
Ag	107	1	nogas	1899548	0.00
Cd	111	1	nogas	397896	0.00
Sb	121	1	nogas	1820866	0.00
Tl	205	1	nogas	2784495	0.00
Pb	208	1	nogas	3861630	0.00
[Pb]	206	1	nogas	940176	0.00
[Pb]	207	1	nogas	836384	0.00
Na	23	2	He	15312366	0.00
Mg	24	2	He	8750560	0.00
Al	27	2	He	48717	0.00
K	39	2	He	10823434	0.00
Ca	43	2	He	30011	0.00
Ca	44	2	He	511270	0.00
V	51	2	He	762565	0.00
Cr	52	2	He	811295	0.00
Mn	55	2	He	579170	0.00
Fe	56	2	He	73784309	0.00
Co	59	2	He	1118717	0.00
Ni	60	2	He	285015	0.00
Cu	63	2	He	725748	0.00
Zn	66	2	He	179280	0.00
As	75	2	He	176450	0.00
Se	78	2	He	14220	0.01
B	11	1	nogas	1273377	0.00
Si	28	1	nogas	50258818	0.00

Calibration Standard Report

Ca	43	1	nogas	398562	0.00
Ca	44	1	nogas	6846227	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	293448915	0.00
Se	77	1	nogas	92062	0.00
Se	82	1	nogas	36377	0.01
Mo	95	1	nogas	734128	0.00
Sn	118	1	nogas	1081217	0.00
Ba	137	1	nogas	544043	0.00
Sb	121	2	He	659785	0.00
P	31	1	nogas	815825	0.00
La	139	1	nogas	640	3.69

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	446352	2.70	499722	89.32	70	125	
Ge	72	1	nogas	3983609	3.14	4048330	98.40	70	125	
In	115	1	nogas	3825898	4.32	4141557	92.38	70	125	
Bi	209	1	nogas	3123747	5.15	3342763	93.45	70	125	
Ge	72	2	He	1023901	0.40	1063259	96.30	70	125	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	097CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:50:28-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	092CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	736859	0.00
Na	23	1	nogas	396459659	0.00
Mg	24	1	nogas	256184522	0.00
Al	27	1	nogas	3251343	0.00
K	39	1	nogas	429476843	0.00
Ti	47	1	nogas	400254	0.00
V	51	1	nogas	7039639	0.00
Cr	52	1	nogas	5022766	0.00
Mn	55	1	nogas	6285402	0.00
Co	59	1	nogas	5387355	0.00
Ni	60	1	nogas	1183605	0.00
Cu	63	1	nogas	2940626	0.00
Zn	66	1	nogas	983339	0.00
As	75	1	nogas	1502390	0.00
Sr	88	1	nogas	7240463	0.00
Ag	107	1	nogas	3722788	0.00
Cd	111	1	nogas	783688	0.00
Sb	121	1	nogas	3662145	0.00
Tl	205	1	nogas	5522523	0.00
Pb	208	1	nogas	7613296	0.00
[Pb]	206	1	nogas	1900696	0.00
[Pb]	207	1	nogas	1667983	0.00
Na	23	2	He	30501188	0.00
Mg	24	2	He	17212731	0.00
Al	27	2	He	94452	0.00
K	39	2	He	20849696	0.00
Ca	43	2	He	56840	0.00
Ca	44	2	He	986539	0.00
V	51	2	He	1528211	0.00
Cr	52	2	He	1626350	0.00
Mn	55	2	He	1109022	0.00
Fe	56	2	He	144903835	0.00
Co	59	2	He	2252181	0.00
Ni	60	2	He	552281	0.00
Cu	63	2	He	1462488	0.00
Zn	66	2	He	344324	0.00
As	75	2	He	347710	0.00
Se	78	2	He	27913	0.00
B	11	1	nogas	2596968	0.00
Si	28	1	nogas	94632839	0.00

Calibration Standard Report

Ca	43	1	nogas	780520	0.00
Ca	44	1	nogas	13314166	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	567518846	0.00
Se	77	1	nogas	115185	0.00
Se	82	1	nogas	69969	0.00
Mo	95	1	nogas	1475424	0.00
Sn	118	1	nogas	2196560	0.00
Ba	137	1	nogas	1070964	0.00
Sb	121	2	He	1397783	0.00
P	31	1	nogas	1577256	0.00
La	139	1	nogas	1090	0.25

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	398912	4.41	499722	79.83	70	125	
Ge	72	1	nogas	3825257	5.23	4048330	94.49	70	125	
In	115	1	nogas	3716289	6.09	4141557	89.73	70	125	
Bi	209	1	nogas	2903487	4.79	3342763	86.86	70	125	
Ge	72	2	He	995927	1.38	1063259	93.67	70	125	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	099CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:55:07-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	092CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	710207	0.00
Na	23	1	nogas	392313042	0.00
Mg	24	1	nogas	253965931	0.00
Al	27	1	nogas	3246761	0.00
K	39	1	nogas	425964343	0.00
Ti	47	1	nogas	398162	0.00
V	51	1	nogas	6923705	0.00
Cr	52	1	nogas	4979595	0.00
Mn	55	1	nogas	6276188	0.00
Co	59	1	nogas	5394259	0.00
Ni	60	1	nogas	1163896	0.00
Cu	63	1	nogas	2876690	0.00
Zn	66	1	nogas	967710	0.00
As	75	1	nogas	1461066	0.00
Sr	88	1	nogas	7219708	0.00
Ag	107	1	nogas	3703596	0.00
Cd	111	1	nogas	789830	0.00
Sb	121	1	nogas	3617580	0.00
Tl	205	1	nogas	5568676	0.00
Pb	208	1	nogas	7807823	0.00
[Pb]	206	1	nogas	1950585	0.00
[Pb]	207	1	nogas	1714317	0.00
Na	23	2	He	29567227	0.00
Mg	24	2	He	16788261	0.00
Al	27	2	He	94060	0.00
K	39	2	He	21065712	0.00
Ca	43	2	He	58171	0.00
Ca	44	2	He	991230	0.00
V	51	2	He	1489183	0.00
Cr	52	2	He	1632022	0.00
Mn	55	2	He	1104712	0.00
Fe	56	2	He	145392795	0.00
Co	59	2	He	2247423	0.00
Ni	60	2	He	546449	0.00
Cu	63	2	He	1443386	0.00
Zn	66	2	He	344180	0.00
As	75	2	He	347324	0.00
Se	78	2	He	27652	0.00
B	11	1	nogas	2498837	0.00
Si	28	1	nogas	95076862	0.00

Calibration Standard Report

Ca	43	1	nogas	777806	0.00
Ca	44	1	nogas	13107478	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	564286113	0.00
Se	77	1	nogas	111935	0.00
Se	82	1	nogas	70862	0.00
Mo	95	1	nogas	1475499	0.00
Sn	118	1	nogas	2163517	0.00
Ba	137	1	nogas	1056947	0.00
Sb	121	2	He	1342530	0.00
P	31	1	nogas	1530772	0.00
La	139	1	nogas	1130	0.41

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	383857	3.13	499722	76.81	70	125	
Ge	72	1	nogas	3728104	3.19	4048330	92.09	70	125	
In	115	1	nogas	3686449	4.42	4141557	89.01	70	125	
Bi	209	1	nogas	2949650	1.70	3342763	88.24	70	125	
Ge	72	2	He	995710	1.50	1063259	93.65	70	125	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICCV
Data File Name	101_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T15:59:46-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	092CALB.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
Be	9	1	nogas	102.438	2.463	372069	1.12	100	102.4	90	110	
Na	23	1	nogas	8951.079	6.933	195015338	1.74	10000	89.5	90	110	ICV Main CR1 Failed
Mg	24	1	nogas	9233.505	6.683	130325549	0.42	10000	92.3	90	110	
Al	27	1	nogas	93.803	7.222	1663680	6.09	100	93.8	90	110	
K	39	1	nogas	9613.454	1.648	225018288	1.25	10000	96.1	90	110	
Ti	47	1	nogas	94.707	2.255	202634	0.50	100	94.7	90	110	
V	51	1	nogas	75.534	4.470	3920549	2.12	100	75.5	90	110	ICV Main CR1 Failed
Cr	52	1	nogas	96.109	4.990	2630110	5.46	100	96.1	90	110	
Mn	55	1	nogas	99.105	3.024	3368969	2.19	100	99.1	90	110	
Co	59	1	nogas	97.251	1.784	2811052	0.20	100	97.3	90	110	
Ni	60	1	nogas	97.419	2.287	609612	0.67	100	97.4	90	110	
Cu	63	1	nogas	100.250	3.071	1565492	2.90	100	100.3	90	110	
Zn	66	1	nogas	97.398	2.208	507837	1.00	100	97.4	90	110	
As	75	1	nogas	85.249	1.209	776305	0.83	100	85.2	90	110	ICV Main CR1 Failed
Sr	88	1	nogas	93.205	3.203	3612649	2.37	100	93.2	90	110	
Ag	107	1	nogas	96.464	1.659	1917731	1.34	100	96.5	90	110	
Cd	111	1	nogas	94.530	3.868	399118	1.07	100	94.5	90	110	
Sb	121	1	nogas	94.880	5.247	1836307	4.78	100	94.9	90	110	
Tl	205	1	nogas	98.133	1.815	2911826	1.84	100	98.1	90	110	
Pb	208	1	nogas	100.078	2.310	3899380	2.31	100	100.1	90	110	
U	238	1	nogas	96.887	3.389	3806811	4.16	100	96.9	90	110	
[Pb]	206	1	nogas	92.756	2.475	957532	1.43	100	92.8	90	110	
[Pb]	207	1	nogas	89.160	2.465	810652	1.15	100	89.2	90	110	ICV Main CR1 Failed
Na	23	2	He	9287.638	2.861	15021032	1.22	10000	92.9	90	110	
Mg	24	2	He	9339.061	4.185	8525952	0.56	10000	93.4	90	110	
Al	27	2	He	95.403	4.479	49325	3.02	100	95.4	90	110	
K	39	2	He	10075.249	1.331	10766512	1.30	10000	100.8	90	110	
Ca	43	2	He	9050.980	5.727	28569	1.70	10000	90.5	90	110	
Ca	44	2	He	9072.697	2.791	488624	1.33	10000	90.7	90	110	
V	51	2	He	91.792	5.535	751070	1.34	100	91.8	90	110	
Cr	52	2	He	90.365	5.081	795765	1.30	100	90.4	90	110	
Mn	55	2	He	96.297	3.717	579513	0.73	100	96.3	90	110	
Fe	56	2	He	9231.529	4.108	72609506	1.52	10000	92.3	90	110	
Co	59	2	He	91.945	3.158	1113668	1.27	100	91.9	90	110	
Ni	60	2	He	94.862	4.302	283025	1.17	100	94.9	90	110	
Cu	63	2	He	91.353	4.063	712518	0.20	100	91.4	90	110	
Zn	66	2	He	93.461	5.781	175699	2.70	100	93.5	90	110	
As	75	2	He	95.908	3.535	180621	0.88	100	95.9	90	110	
Se	78	2	He	94.944	4.554	14323	0.52	100	94.9	90	110	
B	11	1	nogas	512.584	9.625	1236931	7.64	500	102.5	90	110	
Si	28	1	nogas	506.709	4.646	6378076	2.01	5000	10.1	90	110	ICV Main CR1 Failed
Ca	43	1	nogas	9569.541	2.015	400044	1.72	10000	95.7	90	110	
Ca	44	1	nogas	9571.608	2.985	6778144	1.72	10000	95.7	90	110	
Fe	56	1	nogas	9279.665	0.918	283300281	1.32	10000	92.8	90	110	
Se	77	1	nogas	25.242	5.730	70841	1.20	100	25.2	90	110	ICV Main CR1 Failed
Se	82	1	nogas	94.294	2.545	36076	1.75	100	94.3	90	110	
Mo	95	1	nogas	90.232	2.673	710604	0.92	100	90.2	90	110	
Sn	118	1	nogas	92.545	3.140	1071081	1.14	100	92.5	90	110	
Ba	137	1	nogas	96.599	2.380	548484	0.44	100	96.6	90	110	
Sb	121	2	He	90.191	3.793	650813	0.95	100	90.2	90	110	
Li	7	1	nogas	102.383	1.585	726408	1.36	100	102.4	90	110	
P	31	1	nogas	485.736	1.975	831735	0.58	500	97.1	90	110	
La	139	1	nogas	110.269	16.382	830	8.69	100	110.3	90	110	ICV Main CR1 Failed
Au	197	1	nogas	28.383	107.153	17	69.28	100	28.4	90	110	ICV 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	nogas	423715	2.65	499722	84.79	70	125	
Ge	72	1	nogas	4033278	1.73	4048330	99.63	70	125	
In	115	1	nogas	3962249	2.76	4141557	95.67	70	125	
Bi	209	1	nogas	3179270	3.56	3342763	95.11	70	125	

Initial Calibration Verification (ICV) Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Ge	72	2	He	1080620	4.04	1063259	101.63	70	125	

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	102SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T16:01:45-05:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	092CALB.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
Be	9	1	nogas	1.983	1.983	1.81	8122	0.02	2000	
Na	23	1	nogas	192.234	192.234	2.00	6246666	0.00	200000	
Mg	24	1	nogas	224.624	224.624	2.08	3030056	0.01	200000	
Al	27	1	nogas	2.245	2.245	5.32	75009	0.00	2000	
K	39	1	nogas	215.449	215.449	5.71	12890628	0.00	200000	
Ti	47	1	nogas	2.097	2.097	4.74	4741	0.04	2000	
V	51	1	nogas	-21.228	-21.228	-4.94	1151363	0.00	2000	
Cr	52	1	nogas	1.245	1.245	6.92	110169	0.00	2000	
Mn	55	1	nogas	2.037	2.037	4.85	84242	0.00	2000	
Co	59	1	nogas	2.008	2.008	2.15	58483	0.00	2000	
Ni	60	1	nogas	2.259	2.259	1.74	16881	0.01	2000	
Cu	63	1	nogas	1.257	1.257	5.82	49259	0.00	2000	
Zn	66	1	nogas	2.612	2.612	4.94	16167	0.02	2000	
As	75	1	nogas	-5.833	-5.833	-5.10	152198	0.00	2000	
Sr	88	1	nogas	2.049	2.049	2.77	81345	0.00	2000	
Ag	107	1	nogas	2.052	2.052	4.65	40914	0.01	2000	
Cd	111	1	nogas	2.047	2.047	2.74	8919	0.02	2000	
Sb	121	1	nogas	1.936	1.936	2.89	38135	0.01	2000	
Tl	205	1	nogas	2.095	2.095	2.97	62420	0.00	2000	
Pb	208	1	nogas	2.099	2.099	1.41	82466	0.00	2000	
U	238	1	nogas	2.023	2.023	1.80	79266	0.00	2000	
[Pb]	206	1	nogas	1.976	1.976	0.70	20480	0.01	2000	
[Pb]	207	1	nogas	1.982	1.982	2.32	18084	0.01	2000	
Na	23	2	He	199.839	199.839	2.84	514865	0.04	200000	
Mg	24	2	He	219.094	219.094	0.90	189385	0.12	200000	
Al	27	2	He	1.874	1.874	18.51	2160	0.09	2000	
K	39	2	He	209.576	209.576	2.67	452541	0.05	200000	
Ca	43	2	He	210.565	210.565	11.85	660	31.90	200000	
Ca	44	2	He	214.954	214.954	8.99	11907	1.81	200000	
V	51	2	He	1.096	1.096	3.68	30640	0.00	2000	
Cr	52	2	He	2.096	2.096	2.50	20779	0.01	2000	
Mn	55	2	He	2.199	2.199	1.21	13075	0.02	2000	
Fe	56	2	He	218.642	218.642	1.14	1633170	0.01	200000	
Co	59	2	He	2.197	2.197	1.97	25001	0.01	2000	
Ni	60	2	He	1.698	1.698	1.94	7238	0.02	2000	
Cu	63	2	He	2.156	2.156	2.36	17472	0.01	2000	
Zn	66	2	He	1.948	1.948	5.44	5371	0.04	2000	
As	75	2	He	1.947	1.947	2.13	4325	0.05	2000	
Se	78	2	He	2.415	2.415	3.48	531	0.45	2000	
B	11	1	nogas	16.413	16.413	4.00	61917	0.03	2000	
Si	28	1	nogas	121.204	121.204	6.62	2472609	0.00	2000	
Ca	43	1	nogas	206.944	206.944	2.37	9453	2.19	200000	

Sample Report

Ca	44	1	nogas	201.041	201.041	3.57	183701	0.11	200000	
Fe	56	1	nogas	184.000	184.000	2.87	8714411	0.00	200000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Se	77	1	nogas	-65.155	-65.155	-5.99	44468	-0.15	2000	
Se	82	1	nogas	2.267	2.267	16.93	1287	0.18	2000	
Mo	95	1	nogas	2.046	2.046	1.60	16248	0.01	2000	
Sn	118	1	nogas	1.701	1.701	1.79	25215	0.01	2000	
Ba	137	1	nogas	2.068	2.068	0.60	12518	0.02	2000	
Sb	121	2	He	2.020	2.020	1.02	13849	0.01	2000	
La	139	1	nogas	38.990	38.990	29.66	593	6.57	2000	
Au	197	1	nogas	-8.621	-8.621	-190.00	3	-258.63	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	473908	1.93	499722	94.83	70	125	
Ge	72	1	nogas	4025088	1.41	4048330	99.43	70	125	
In	115	1	nogas	4069550	1.66	4141557	98.26	70	125	
Bi	209	1	nogas	3165917	1.41	3342763	94.71	70	125	
Ge	72	2	He	1011366	0.36	1063259	95.12	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	LLCCV5
Data File Name	103LICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T16:03:45-05:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	092CALB.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
Be	9	1	nogas	4.735	2.002	19016	1.69	5	94.7	70	130	
Na	23	1	nogas	488.019	9.590	12387336	1.99	500	97.6	70	130	
Mg	24	1	nogas	537.882	5.688	7292180	2.55	500	107.6	70	130	
Al	27	1	nogas	5.299	4.443	127709	3.83	5	106.0	70	130	
K	39	1	nogas	508.680	4.512	19459058	1.99	500	101.7	70	130	
Ti	47	1	nogas	5.015	4.641	10947	5.70	5	100.3	70	130	
V	51	1	nogas	-17.972	-11.388	1242086	5.48	5	-359.4	70	130	LLICV Main CR1 Failed
Cr	52	1	nogas	4.141	3.801	186571	1.03	5	82.8	70	130	
Mn	55	1	nogas	4.916	0.633	181191	0.74	5	98.3	70	130	
Co	59	1	nogas	5.005	1.448	144668	0.98	5	100.1	70	130	
Ni	60	1	nogas	5.340	2.641	35969	2.20	5	106.8	70	130	
Cu	63	1	nogas	4.374	1.455	96737	1.43	5	87.5	70	130	
Zn	66	1	nogas	5.132	3.285	29157	1.75	5	102.6	70	130	
As	75	1	nogas	-1.986	-6.885	178180	0.98	5	-39.7	70	130	LLICV Main CR1 Failed
Sr	88	1	nogas	4.858	2.000	189600	1.09	5	97.2	70	130	
Ag	107	1	nogas	4.954	3.455	98293	2.40	5	99.1	70	130	
Cd	111	1	nogas	4.951	3.974	21093	2.98	5	99.0	70	130	
Sb	121	1	nogas	4.700	3.071	91325	1.80	5	94.0	70	130	
Tl	205	1	nogas	4.804	4.219	142664	2.46	5	96.1	70	130	
Pb	208	1	nogas	5.049	2.563	197371	2.55	5	101.0	70	130	
U	238	1	nogas	4.717	1.615	185020	0.70	5	94.3	70	130	
[Pb]	206	1	nogas	4.812	4.454	49710	3.38	5	96.2	70	130	
[Pb]	207	1	nogas	4.789	1.541	43592	2.87	5	95.8	70	130	
Na	23	2	He	505.467	2.399	993835	0.06	500	101.1	70	130	
Mg	24	2	He	520.884	1.497	458147	0.61	500	104.2	70	130	
Al	27	2	He	5.239	5.508	3834	2.11	5	104.8	70	130	
K	39	2	He	523.277	1.247	780497	0.87	500	104.7	70	130	
Ca	43	2	He	490.456	5.584	1523	6.71	500	98.1	70	130	
Ca	44	2	He	527.758	1.902	28308	1.01	500	105.6	70	130	
V	51	2	He	4.064	2.534	53927	0.53	5	81.3	70	130	
Cr	52	2	He	5.030	3.011	45947	0.98	5	100.6	70	130	
Mn	55	2	He	5.309	4.160	31310	2.98	5	106.2	70	130	
Fe	56	2	He	527.023	2.502	3997858	1.67	500	105.4	70	130	
Co	59	2	He	5.167	2.331	60098	1.70	5	103.3	70	130	
Ni	60	2	He	4.798	3.162	16197	1.27	5	96.0	70	130	
Cu	63	2	He	5.087	3.567	39753	1.79	5	101.7	70	130	
Zn	66	2	He	4.665	1.298	10343	2.01	5	93.3	70	130	
As	75	2	He	4.976	4.867	9868	3.35	5	99.5	70	130	
Se	78	2	He	5.209	5.741	943	4.35	5	104.2	70	130	
B	11	1	nogas	28.380	4.824	92419	3.21	25	113.5	70	130	
Si	28	1	nogas	267.463	4.028	3943322	2.63	25	1069.9	70	130	LLICV Main CR1 Failed
Ca	43	1	nogas	507.718	1.566	21933	0.49	500	101.5	70	130	
Ca	44	1	nogas	497.704	1.062	391401	0.83	500	99.5	70	130	
Fe	56	1	nogas	482.170	1.275	17666175	1.61	500	96.4	70	130	
Se	77	1	nogas	-49.664	-4.426	48859	0.09	5	-993.3	70	130	LLICV Main CR1 Failed
Se	82	1	nogas	4.506	8.937	2127	6.35	5	90.1	70	130	
Mo	95	1	nogas	4.704	3.254	37062	2.79	5	94.1	70	130	
Sn	118	1	nogas	4.466	3.219	56796	1.85	5	89.3	70	130	
Ba	137	1	nogas	4.803	0.423	27906	2.74	5	96.1	70	130	
Sb	121	2	He	5.040	2.027	35075	0.50	5	100.8	70	130	
Li	7	1	nogas	5.166	4.865	81105	1.24	5	103.3	70	130	
P	31	1	nogas	24.970	6.836	103914	1.83	25	99.9	70	130	
La	139	1	nogas	-72.340	-35.099	187	49.78	5	-1446.8	70	130	LLICV Main CR1 Failed
Au	197	1	nogas	0.837	3913.162	7	173.21	5	16.7	70	130	LLICV 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	nogas	466867	1.62	499722	93.43	70	125	
Ge	72	1	nogas	4017662	1.26	4048330	99.24	70	125	
In	115	1	nogas	3990109	2.94	4141557	96.34	70	125	
Bi	209	1	nogas	3171331	1.75	3342763	94.87	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Ge	72	2	He	1035684	1.82	1063259	97.41	70	125	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICCB
Data File Name	104_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T16:05:43-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	092CALB.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
Be	9	1	nogas	0.033	51.8	197	36.1	1	
Na	23	1	nogas	-26.301	-14.2	1785200	2.2	100	
Mg	24	1	nogas	0.707	11.6	34704	4.8	100	
Al	27	1	nogas	0.453	20.4	43240	4.4	5	
K	39	1	nogas	0.091	9676.6	7905653	0.6	100	
Ti	47	1	nogas	0.019	168.7	300	20.8	2.5	
V	51	1	nogas	-21.704	-3.6	1118424	0.5	2.5	
Cr	52	1	nogas	-0.675	-6.3	58325	3.0	2.5	
Mn	55	1	nogas	-0.026	-75.8	14369	5.9	2.5	
Co	59	1	nogas	0.004	131.4	670	20.1	2.5	
Ni	60	1	nogas	0.148	22.7	3694	5.7	2.5	
Cu	63	1	nogas	-0.811	-2.5	17368	2.9	2.5	
Zn	66	1	nogas	0.258	10.0	3917	2.8	2.5	
As	75	1	nogas	-6.342	-6.5	146237	1.0	2.5	
Sr	88	1	nogas	0.015	11.3	2650	3.3	2.5	
Ag	107	1	nogas	0.011	13.2	423	7.2	2.5	
Cd	111	1	nogas	0.003	222.9	50	52.9	1	
Sb	121	1	nogas	0.002	189.2	770	7.9	2.5	
Tl	205	1	nogas	0.036	44.4	1560	29.2	1	
Pb	208	1	nogas	0.011	27.8	1143	10.9	2.5	
U	238	1	nogas	0.009	20.6	460	13.6	2.5	
[Pb]	206	1	nogas	0.016	58.3	323	29.2	2.5	
[Pb]	207	1	nogas	0.005	49.6	177	13.1	2.5	
Na	23	2	He	-32.298	-3.5	172338	1.0	100	
Mg	24	2	He	0.385	73.7	2407	10.4	100	
Al	27	2	He	-0.004	-15904.5	1303	21.7	5	
K	39	2	He	-3.351	-9.0	229940	0.1	100	
Ca	43	2	He	-1.826	-210.9	33	34.6	100	
Ca	44	2	He	5.356	37.8	1390	7.5	100	
V	51	2	He	-0.942	-0.2	15843	0.3	2.5	
Cr	52	2	He	-0.001	-3182.3	3637	7.7	2.5	
Mn	55	2	He	-0.029	-33.6	537	10.9	2.5	
Fe	56	2	He	0.371	23.5	25818	2.2	100	
Co	59	2	He	0.014	42.3	237	28.1	2.5	
Ni	60	2	He	-0.493	-6.6	1197	7.6	2.5	
Cu	63	2	He	-0.060	-29.6	1347	10.1	2.5	
Zn	66	2	He	-0.386	-16.8	1337	8.9	2.5	
As	75	2	He	-0.096	-56.6	756	12.7	2.5	
Se	78	2	He	0.117	122.4	216	9.8	2.5	
B	11	1	nogas	2.061	15.0	23561	2.3	10	
Si	28	1	nogas	9.097	86.3	1317684	4.4	5	ICB Main CR1 Failed
Ca	43	1	nogas	1.368	254.6	877	14.4	100	
Ca	44	1	nogas	2.263	96.6	43364	2.2	100	
Fe	56	1	nogas	-18.258	-6.6	2578773	2.4	100	

Initial Calibration Blank (ICB) Report

Se	77	1	nogas	-54.271	-2.1	46830	2.6	2.5	
Se	82	1	nogas	-0.081	-306.7	393	21.6	2.5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Mo	95	1	nogas	0.023	67.2	337	33.4	2.5	
Sn	118	1	nogas	-0.289	-2.8	1613	5.9	5	
Ba	137	1	nogas	0.049	25.6	727	10.1	2.5	
Sb	121	2	He	0.009	29.3	260	6.7	2.5	
P	31	1	nogas	0.130	668.7	63885	0.6	10	
La	139	1	nogas	-51.761	-19.4	257	13.7	2.5	
Au	197	1	nogas	58.727	76.0	27	57.3	2.5	ICB 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	nogas	472503	1.25	499722	94.55	70	125	
Ge	72	1	nogas	3958247	1.90	4048330	97.77	70	125	
In	115	1	nogas	3947185	0.60	4141557	95.31	70	125	
Bi	209	1	nogas	3143663	1.58	3342763	94.04	70	125	
Ge	72	2	He	1033431	0.34	1063259	97.19	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	114_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T16:28:02-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	092CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	99.602	1.357	423544	0.42	100	99.6	90	110	
Na	23	1	nogas	10221.997	7.924	234342989	0.33	10000	102.2	90	110	
Mg	24	1	nogas	10101.524	7.765	150272041	0.53	10000	101.0	90	110	
Al	27	1	nogas	101.019	9.942	1878515	5.11	100	101.0	90	110	
K	39	1	nogas	10343.057	3.301	254020989	2.72	10000	103.4	90	110	
Ti	47	1	nogas	100.239	5.492	225421	0.88	100	100.2	90	110	
V	51	1	nogas	102.045	12.707	4914208	3.73	100	102.0	90	110	
Cr	52	1	nogas	104.466	8.476	2996080	5.75	100	104.5	90	110	
Mn	55	1	nogas	102.887	5.270	3678827	5.04	100	102.9	90	110	
Co	59	1	nogas	99.126	3.738	3017544	6.64	100	99.1	90	110	
Ni	60	1	nogas	100.712	5.869	662316	1.97	100	100.7	90	110	
Cu	63	1	nogas	98.936	9.883	1631997	14.15	100	98.9	90	110	
Zn	66	1	nogas	100.715	5.736	551824	0.81	100	100.7	90	110	
As	75	1	nogas	93.100	5.325	872777	1.08	100	93.1	90	110	
Sr	88	1	nogas	100.556	2.050	4105267	6.11	100	100.6	90	110	
Ag	107	1	nogas	98.885	6.151	2074162	11.00	100	98.9	90	110	
Cd	111	1	nogas	98.723	5.011	427308	0.90	100	98.7	90	110	
Sb	121	1	nogas	93.898	6.167	1916166	10.08	100	93.9	90	110	
Tl	205	1	nogas	102.899	5.009	3045818	7.83	100	102.9	90	110	
Pb	208	1	nogas	105.187	6.487	4098403	6.49	100	105.2	90	110	
U	238	1	nogas	105.205	4.232	4115417	1.66	100	105.2	90	110	
[Pb]	206	1	nogas	96.741	5.399	994187	1.40	100	96.7	90	110	
[Pb]	207	1	nogas	96.806	5.253	876461	2.81	100	96.8	90	110	
Na	23	2	He	10424.354	1.053	17445558	1.92	10000	104.2	90	110	
Mg	24	2	He	10202.073	1.182	9657124	2.05	10000	102.0	90	110	
Al	27	2	He	102.967	2.285	55070	2.41	100	103.0	90	110	
K	39	2	He	11365.397	1.531	12115285	1.50	10000	113.7	90	110	CCV Main CR1-2 Failed
Ca	43	2	He	10031.701	3.726	32832	2.86	10000	100.3	90	110	
Ca	44	2	He	10055.163	2.464	561087	2.10	10000	100.6	90	110	
V	51	2	He	98.941	1.051	837703	1.36	100	98.9	90	110	
Cr	52	2	He	96.244	1.508	878620	0.99	100	96.2	90	110	
Mn	55	2	He	101.047	0.604	630346	0.32	100	101.0	90	110	
Fe	56	2	He	10083.855	0.412	82224604	1.00	10000	100.8	90	110	
Co	59	2	He	98.532	1.455	1236990	1.43	100	98.5	90	110	
Ni	60	2	He	100.941	1.865	312051	1.58	100	100.9	90	110	
Cu	63	2	He	97.303	1.312	786663	0.49	100	97.3	90	110	
Zn	66	2	He	100.090	0.590	194976	0.43	100	100.1	90	110	
As	75	2	He	99.970	0.693	195120	0.93	100	100.0	90	110	
Se	78	2	He	100.205	0.784	15662	0.59	100	100.2	90	110	
B	11	1	nogas	501.484	6.801	1419452	7.99	500	100.3	90	110	
Si	28	1	nogas	5289.194	6.426	57563566	1.07	5000	105.8	90	110	
Ca	43	1	nogas	10148.775	5.598	445829	0.98	10000	101.5	90	110	
Ca	44	1	nogas	10296.685	7.711	7655785	2.59	10000	103.0	90	110	
Fe	56	1	nogas	10050.278	5.424	322198616	1.31	10000	100.5	90	110	
Se	77	1	nogas	87.797	17.391	93586	0.32	100	87.8	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	95.863	4.821	38551	0.74	100	95.9	90	110	
Mo	95	1	nogas	94.764	6.145	784333	1.66	100	94.8	90	110	
Sn	118	1	nogas	95.787	3.902	1136474	0.41	100	95.8	90	110	
Ba	137	1	nogas	99.486	5.374	578856	1.12	100	99.5	90	110	
Sb	121	2	He	101.489	0.971	732260	1.01	100	101.5	90	110	
Li	7	1	nogas	101.937	1.052	846910	1.57	100	101.9	90	110	
P	31	1	nogas	516.307	4.602	925303	0.90	500	103.3	90	110	
La	139	1	nogas	203.013	19.031	1183	7.62	100	203.0	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	284.718	30.265	107	28.64	100	284.7	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	495928	1.32	499722	99.24	70	125	
Ge	72	1	nogas	4246159	5.04	4048330	104.89	70	125	
In	115	1	nogas	4064725	4.19	4141557	98.14	70	125	
Bi	209	1	nogas	3168956	5.13	3342763	94.80	70	125	

Ge	72	2	He	1119152	0.88	1063259	105.26	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	115_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T16:30:03-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	092CALB.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
Be	9	1	nogas	0.103	22.6	557	18.0	1	
Na	23	1	nogas	160.956	8.2	6166968	3.6	100	CCB Main CR1 Failed
Mg	24	1	nogas	15.047	9.2	249072	7.1	100	
Al	27	1	nogas	5.898	2.8	150421	0.9	5	CCB Main CR1 Failed
K	39	1	nogas	15.033	34.0	9112901	0.7	100	
Ti	47	1	nogas	0.060	33.6	427	9.8	2.5	
V	51	1	nogas	-19.743	-9.4	1298828	5.7	2.5	
Cr	52	1	nogas	-0.481	-7.7	70105	1.4	2.5	
Mn	55	1	nogas	0.052	30.5	18746	1.7	2.5	
Co	59	1	nogas	0.086	17.6	3307	13.0	2.5	
Ni	60	1	nogas	0.260	21.5	4837	6.7	2.5	
Cu	63	1	nogas	-0.436	-22.4	25428	5.2	2.5	
Zn	66	1	nogas	0.961	5.4	8292	3.2	2.5	
As	75	1	nogas	-7.088	-3.0	156247	1.7	2.5	
Sr	88	1	nogas	0.273	11.4	13779	8.1	2.5	
Ag	107	1	nogas	0.076	20.2	1883	16.5	2.5	
Cd	111	1	nogas	0.077	21.6	393	18.7	1	
Sb	121	1	nogas	0.234	12.0	5728	9.0	2.5	
Tl	205	1	nogas	0.286	35.5	9660	38.0	1	
Pb	208	1	nogas	0.105	27.0	4787	23.1	2.5	
U	238	1	nogas	0.100	30.0	4347	33.5	2.5	
[Pb]	206	1	nogas	0.107	22.4	1353	23.9	2.5	
[Pb]	207	1	nogas	0.084	20.3	963	21.3	2.5	
Na	23	2	He	144.506	4.7	487012	1.6	100	CCB Main CR1 Failed
Mg	24	2	He	12.922	3.4	14729	2.1	100	
Al	27	2	He	5.924	10.2	4584	7.7	5	CCB Main CR1 Failed
K	39	2	He	24.670	5.4	259234	0.5	100	
Ca	43	2	He	34.118	66.7	157	48.8	100	
Ca	44	2	He	46.876	8.9	3887	6.6	100	
V	51	2	He	-0.683	-5.0	19636	0.8	2.5	
Cr	52	2	He	0.035	8.6	4341	1.4	2.5	
Mn	55	2	He	0.050	58.4	1093	16.1	2.5	
Fe	56	2	He	5.940	12.2	74641	7.2	100	
Co	59	2	He	0.051	21.4	733	18.6	2.5	
Ni	60	2	He	-0.488	-5.3	1333	5.5	2.5	
Cu	63	2	He	0.407	4.6	5321	2.3	2.5	
Zn	66	2	He	0.199	29.4	2620	3.6	2.5	
As	75	2	He	-0.061	-22.3	903	2.8	2.5	
Se	78	2	He	0.358	65.5	276	13.9	2.5	
B	11	1	nogas	5.600	18.4	38382	6.7	10	
Si	28	1	nogas	13.004	39.1	1500956	2.3	5	CCB Main CR1 Failed
Ca	43	1	nogas	43.586	2.3	2884	0.7	100	
Ca	44	1	nogas	40.173	3.8	76948	1.3	100	
Fe	56	1	nogas	9.763	15.1	3770911	2.0	100	
Se	77	1	nogas	-60.113	-10.9	49955	4.5	2.5	
Se	82	1	nogas	0.026	486.8	480	10.8	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.183	23.9	1740	20.1	2.5	
Sn	118	1	nogas	-0.136	-32.7	3650	14.7	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.131	33.5	1290	20.3	2.5	
Sb	121	2	He	0.219	9.4	1830	7.4	2.5	
P	31	1	nogas	2.826	38.0	75290	1.1	10	
La	139	1	nogas	-1.710	-1171.9	470	16.6	2.5	
Au	197	1	nogas	25.701	153.2	17	91.7	2.5	CCB 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	nogas	550406	1.68	499722	110.14	70	125	
Ge	72	1	nogas	4378530	1.40	4048330	108.16	70	125	
In	115	1	nogas	4285234	0.74	4141557	103.47	70	125	
Bi	209	1	nogas	3381437	4.22	3342763	101.16	70	125	
Ge	72	2	He	1139358	0.86	1063259	107.16	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	123_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T16:48:35-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	092CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	101.679	4.770	369742	1.87	100	101.7	90	110	
Na	23	1	nogas	10061.150	7.284	210098459	1.33	10000	100.6	90	110	
Mg	24	1	nogas	10007.595	8.033	135520691	1.25	10000	100.1	90	110	
Al	27	1	nogas	100.027	13.338	1726509	12.52	100	100.0	90	110	
K	39	1	nogas	10047.275	1.721	228845547	0.96	10000	100.5	90	110	
Ti	47	1	nogas	98.383	2.130	205159	1.08	100	98.4	90	110	
V	51	1	nogas	79.414	10.312	3928809	5.41	100	79.4	90	110	CCV Main CR1-2 Failed
Cr	52	1	nogas	99.049	8.072	2638707	7.72	100	99.0	90	110	
Mn	55	1	nogas	98.392	6.483	3261021	6.89	100	98.4	90	110	
Co	59	1	nogas	99.573	5.982	2806143	6.64	100	99.6	90	110	
Ni	60	1	nogas	101.322	2.351	617841	0.86	100	101.3	90	110	
Cu	63	1	nogas	98.665	6.173	1503019	7.35	100	98.7	90	110	
Zn	66	1	nogas	98.656	3.484	501227	1.73	100	98.7	90	110	
As	75	1	nogas	86.514	2.941	764944	0.68	100	86.5	90	110	CCV Main CR1-2 Failed
Sr	88	1	nogas	95.727	1.458	3617644	3.02	100	95.7	90	110	
Ag	107	1	nogas	98.786	1.814	1914620	3.32	100	98.8	90	110	
Cd	111	1	nogas	98.135	5.352	402340	2.03	100	98.1	90	110	
Sb	121	1	nogas	94.953	9.840	1792002	10.40	100	95.0	90	110	
Tl	205	1	nogas	93.951	6.095	2723694	4.39	100	94.0	90	110	
Pb	208	1	nogas	97.155	3.747	3785482	3.75	100	97.2	90	110	
U	238	1	nogas	103.418	5.344	3975551	7.65	100	103.4	90	110	
[Pb]	206	1	nogas	89.590	7.558	902494	0.53	100	89.6	90	110	CCV Main CR1-2 Failed
[Pb]	207	1	nogas	91.459	7.249	811596	0.22	100	91.5	90	110	
Na	23	2	He	10041.582	2.186	15641013	2.21	10000	100.4	90	110	
Mg	24	2	He	9905.646	1.715	8722473	1.74	10000	99.1	90	110	
Al	27	2	He	100.277	1.309	49929	1.69	100	100.3	90	110	
K	39	2	He	10500.897	1.367	11211502	1.34	10000	105.0	90	110	
Ca	43	2	He	9884.615	0.190	30104	1.12	10000	98.8	90	110	
Ca	44	2	He	9955.089	1.109	516832	0.99	10000	99.6	90	110	
V	51	2	He	96.359	1.382	759595	1.48	100	96.4	90	110	
Cr	52	2	He	94.732	0.764	804658	0.89	100	94.7	90	110	
Mn	55	2	He	100.279	2.241	581925	1.55	100	100.3	90	110	
Fe	56	2	He	9796.088	2.188	74304771	1.50	10000	98.0	90	110	
Co	59	2	He	95.985	1.542	1120989	0.89	100	96.0	90	110	
Ni	60	2	He	100.218	0.615	288257	0.50	100	100.2	90	110	
Cu	63	2	He	98.386	0.882	740032	1.30	100	98.4	90	110	
Zn	66	2	He	100.618	1.147	182331	0.52	100	100.6	90	110	
As	75	2	He	98.782	1.484	179365	0.38	100	98.8	90	110	
Se	78	2	He	101.361	0.280	14737	1.20	100	101.4	90	110	
B	11	1	nogas	524.419	16.605	1269143	16.63	500	104.9	90	110	
Si	28	1	nogas	5033.751	2.726	50867858	1.08	5000	100.7	90	110	
Ca	43	1	nogas	9957.861	2.661	405618	1.06	10000	99.6	90	110	
Ca	44	1	nogas	10043.905	2.660	6930047	0.91	10000	100.4	90	110	
Fe	56	1	nogas	9905.614	1.751	294504665	1.21	10000	99.1	90	110	
Se	77	1	nogas	29.439	25.582	70222	2.33	100	29.4	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	97.529	3.354	36347	1.64	100	97.5	90	110	
Mo	95	1	nogas	92.780	1.408	712271	1.41	100	92.8	90	110	
Sn	118	1	nogas	96.530	3.448	1084938	1.05	100	96.5	90	110	
Ba	137	1	nogas	97.794	2.842	539348	1.25	100	97.8	90	110	
Sb	121	2	He	99.575	1.896	668355	1.46	100	99.6	90	110	
Li	7	1	nogas	100.013	4.496	711291	1.31	100	100.0	90	110	
P	31	1	nogas	509.145	1.846	846659	0.31	500	101.8	90	110	
La	139	1	nogas	180.437	15.103	1047	9.28	100	180.4	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	255.985	35.441	93	26.96	100	256.0	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	424439	2.97	499722	84.93	70	125	
Ge	72	1	nogas	3930947	1.71	4048330	97.10	70	125	
In	115	1	nogas	3849770	3.87	4141557	92.95	70	125	
Bi	209	1	nogas	3112433	7.48	3342763	93.11	70	125	

Ge	72	2	He	1041188	1.10	1063259	97.92	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	124_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T16:50:34-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	092CALB.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
Be	9	1	nogas	0.080	33.1	393	29.5	1	
Na	23	1	nogas	23.477	31.1	2874428	2.7	100	
Mg	24	1	nogas	8.718	12.2	145340	7.8	100	
Al	27	1	nogas	5.528	3.9	136819	0.6	5	CCB Main CR1 Failed
K	39	1	nogas	17.335	65.4	8743943	0.4	100	
Ti	47	1	nogas	0.095	30.9	487	14.4	2.5	
V	51	1	nogas	-31.549	-4.5	888283	2.8	2.5	
Cr	52	1	nogas	-0.952	-5.4	53902	1.1	2.5	
Mn	55	1	nogas	0.033	45.4	17222	1.9	2.5	
Co	59	1	nogas	0.061	17.9	2414	16.0	2.5	
Ni	60	1	nogas	0.240	7.4	4487	0.5	2.5	
Cu	63	1	nogas	-0.803	-4.5	18433	1.3	2.5	
Zn	66	1	nogas	0.034	118.6	2927	4.5	2.5	
As	75	1	nogas	-11.522	-6.9	117505	1.8	2.5	
Sr	88	1	nogas	0.179	6.2	9376	3.9	2.5	
Ag	107	1	nogas	0.054	16.4	1330	14.1	2.5	
Cd	111	1	nogas	0.065	11.0	330	12.1	1	
Sb	121	1	nogas	0.100	8.6	2780	5.9	2.5	
Tl	205	1	nogas	0.216	41.2	7005	37.1	1	
Pb	208	1	nogas	0.074	21.7	3574	17.4	2.5	
U	238	1	nogas	0.079	26.9	3280	24.7	2.5	
[Pb]	206	1	nogas	0.067	21.6	860	16.4	2.5	
[Pb]	207	1	nogas	0.078	19.6	857	15.8	2.5	
Na	23	2	He	11.338	41.6	243020	0.4	100	
Mg	24	2	He	6.208	8.0	7625	4.5	100	
Al	27	2	He	5.583	8.9	4061	3.7	5	CCB Main CR1 Failed
K	39	2	He	18.446	20.2	252726	1.5	100	
Ca	43	2	He	37.159	42.5	153	30.8	100	
Ca	44	2	He	35.764	2.7	3007	3.2	100	
V	51	2	He	-1.194	-6.0	14177	1.9	2.5	
Cr	52	2	He	0.019	208.8	3874	9.4	2.5	
Mn	55	2	He	0.017	35.9	817	1.4	2.5	
Fe	56	2	He	4.960	8.3	61436	5.3	100	
Co	59	2	He	0.040	3.2	550	3.1	2.5	
Ni	60	2	He	-0.419	-7.9	1430	3.7	2.5	
Cu	63	2	He	0.098	30.6	2570	8.3	2.5	
Zn	66	2	He	-0.599	-1.7	977	4.3	2.5	
As	75	2	He	-0.105	-15.7	753	3.9	2.5	
Se	78	2	He	0.200	130.2	232	17.2	2.5	
B	11	1	nogas	2.327	33.4	24623	9.0	10	
Si	28	1	nogas	12.837	30.4	1430802	4.2	5	CCB Main CR1 Failed
Ca	43	1	nogas	36.463	0.7	2444	2.7	100	
Ca	44	1	nogas	30.049	10.1	66000	1.6	100	
Fe	56	1	nogas	-5.916	-41.2	3106556	2.6	100	
Se	77	1	nogas	-92.088	-5.7	37993	1.2	2.5	
Se	82	1	nogas	-0.094	-198.4	410	14.8	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.117	32.4	1130	27.8	2.5	
Sn	118	1	nogas	-0.173	-17.8	3114	10.6	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.122	3.8	1207	1.3	2.5	
Sb	121	2	He	0.098	8.8	873	9.3	2.5	
P	31	1	nogas	3.151	58.3	72342	3.3	10	
La	139	1	nogas	-19.066	-102.7	393	17.9	2.5	
Au	197	1	nogas	18.772	223.6	13	114.6	2.5	CCB 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	nogas	479172	2.06	499722	95.89	70	125	
Ge	72	1	nogas	4177443	3.00	4048330	103.19	70	125	
In	115	1	nogas	4180026	3.28	4141557	100.93	70	125	
Bi	209	1	nogas	3224582	1.31	3342763	96.46	70	125	
Ge	72	2	He	1052110	2.84	1063259	98.95	70	125	

Calibration Blank Report

Sample Table

Sample Name	CAL BLK
Data File Name	130CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T22:16:02-05:00
Sample Type	CalBlk
Level	1
Dilution	1
Comment	

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	80	56.34
Na	23	1	nogas	2521705	0.00
Mg	24	1	nogas	20849	0.06
Al	27	1	nogas	37524	0.00
K	39	1	nogas	8250789	0.00
Ti	47	1	nogas	280	7.76
V	51	1	nogas	992143	0.00
Cr	52	1	nogas	61592	0.00
Mn	55	1	nogas	15607	0.00
Co	59	1	nogas	680	2.34
Ni	60	1	nogas	3227	0.31
Cu	63	1	nogas	39182	0.01
Zn	66	1	nogas	3040	0.05
As	75	1	nogas	136856	0.00
Sr	88	1	nogas	1883	0.63
Ag	107	1	nogas	293	6.71
Cd	111	1	nogas	47	70.14
Sb	121	1	nogas	1147	0.61
Tl	205	1	nogas	653	1.69
Pb	208	1	nogas	1133	1.19
[Pb]	206	1	nogas	307	9.65
[Pb]	207	1	nogas	233	15.40
Na	23	2	He	236069	0.00
Mg	24	2	He	1920	0.50
Al	27	2	He	1180	0.36
K	39	2	He	232753	0.00
Ca	43	2	He	40	108.25
Ca	44	2	He	1303	0.92
V	51	2	He	13854	0.02
Cr	52	2	He	4971	0.30
Mn	55	2	He	610	0.47
Fe	56	2	He	22120	0.00
Co	59	2	He	120	30.27
Ni	60	2	He	627	1.20
Cu	63	2	He	2177	0.16
Zn	66	2	He	1170	0.51
As	75	2	He	736	0.72
Se	78	2	He	232	6.14
B	11	1	nogas	8862	0.06
Si	28	1	nogas	1319847	0.00
Ca	43	1	nogas	1010	0.97
Ca	44	1	nogas	41670	0.01

Calibration Blank Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	2932218	0.00
Se	77	1	nogas	43662	0.00
Se	82	1	nogas	377	3.88
Mo	95	1	nogas	160	17.03
Sn	118	1	nogas	5374	0.04
Ba	137	1	nogas	490	2.08
Sb	121	2	He	420	5.47
Li	7	1	nogas	45124	0.01
P	31	1	nogas	69364	0.00
La	139	1	nogas	473	2.11

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Li	6	1	nogas	495795	3.44
Ge	72	1	nogas	4051369	4.78
In	115	1	nogas	3950602	8.49
Bi	209	1	nogas	3076125	8.53
Ge	72	2	He	1075863	1.12

Calibration Standard Report

Sample Table

Sample Name	2/10/200
Data File Name	131CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T22:18:00-05:00
Sample Type	CalStd
Level	2
Dilution	1
Comment	
ISTD Ref File Name	130CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	8185	0.04
Na	23	1	nogas	6665434	0.00
Mg	24	1	nogas	3046626	0.00
Al	27	1	nogas	76829	0.00
K	39	1	nogas	13167485	0.00
Ti	47	1	nogas	4644	0.21
V	51	1	nogas	1037724	0.00
Cr	52	1	nogas	113921	0.00
Mn	55	1	nogas	85069	0.00
Co	59	1	nogas	60734	0.00
Ni	60	1	nogas	16941	0.02
Cu	63	1	nogas	65329	0.00
Zn	66	1	nogas	15173	0.01
As	75	1	nogas	150364	0.00
Sr	88	1	nogas	81618	0.00
Ag	107	1	nogas	39805	0.01
Cd	111	1	nogas	8906	0.06
Sb	121	1	nogas	38262	0.01
Tl	205	1	nogas	55632	0.00
Pb	208	1	nogas	79211	0.00
[Pb]	206	1	nogas	19268	0.01
[Pb]	207	1	nogas	17243	0.01
Na	23	2	He	555430	0.00
Mg	24	2	He	194974	0.00
Al	27	2	He	2140	0.51
K	39	2	He	464534	0.00
Ca	43	2	He	737	1.48
Ca	44	2	He	11817	0.02
V	51	2	He	29465	0.00
Cr	52	2	He	22314	0.01
Mn	55	2	He	13402	0.01
Fe	56	2	He	1681358	0.00
Co	59	2	He	24683	0.01
Ni	60	2	He	7268	0.07
Cu	63	2	He	17689	0.02
Zn	66	2	He	5294	0.06
As	75	2	He	4437	0.06
Se	78	2	He	507	0.24
B	11	1	nogas	34204	0.00
Si	28	1	nogas	2402419	0.00

Calibration Standard Report

Ca	43	1	nogas	9746	0.01
Ca	44	1	nogas	187522	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	9143806	0.00
Se	77	1	nogas	45323	0.01
Se	82	1	nogas	1103	1.21
Mo	95	1	nogas	16141	0.02
Sn	118	1	nogas	24701	0.00
Ba	137	1	nogas	12608	0.03
Sb	121	2	He	14066	0.03
P	31	1	nogas	87368	0.00
La	139	1	nogas	630	3.57

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	511628	1.79	495795	103.19	70	125	
Ge	72	1	nogas	4216856	2.12	4051369	104.08	70	125	
In	115	1	nogas	4218708	1.51	3950602	106.79	70	125	
Bi	209	1	nogas	3311729	2.11	3076125	107.66	70	125	
Ge	72	2	He	1114095	2.61	1075863	103.55	70	125	

Calibration Standard Report

Sample Table

Sample Name	5/25/500
Data File Name	132CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T22:19:58-05:00
Sample Type	CalStd
Level	3
Dilution	1
Comment	
ISTD Ref File Name	130CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	19864	0.01
Na	23	1	nogas	13085805	0.00
Mg	24	1	nogas	7398579	0.00
Al	27	1	nogas	129043	0.00
K	39	1	nogas	20131190	0.00
Ti	47	1	nogas	10907	0.04
V	51	1	nogas	1162074	0.00
Cr	52	1	nogas	192486	0.00
Mn	55	1	nogas	187233	0.00
Co	59	1	nogas	147737	0.00
Ni	60	1	nogas	36754	0.01
Cu	63	1	nogas	110983	0.00
Zn	66	1	nogas	29735	0.00
As	75	1	nogas	171733	0.00
Sr	88	1	nogas	199612	0.00
Ag	107	1	nogas	98212	0.00
Cd	111	1	nogas	21079	0.02
Sb	121	1	nogas	92373	0.00
Tl	205	1	nogas	141296	0.00
Pb	208	1	nogas	197028	0.00
[Pb]	206	1	nogas	49268	0.00
[Pb]	207	1	nogas	43004	0.01
Na	23	2	He	1037981	0.00
Mg	24	2	He	474700	0.00
Al	27	2	He	3894	0.21
K	39	2	He	789904	0.00
Ca	43	2	He	1567	0.62
Ca	44	2	He	28626	0.01
V	51	2	He	52858	0.00
Cr	52	2	He	46920	0.01
Mn	55	2	He	31751	0.01
Fe	56	2	He	3993457	0.00
Co	59	2	He	60262	0.00
Ni	60	2	He	16211	0.02
Cu	63	2	He	40776	0.01
Zn	66	2	He	10530	0.04
As	75	2	He	9989	0.03
Se	78	2	He	1001	0.12
B	11	1	nogas	73156	0.00
Si	28	1	nogas	3889738	0.00

Calibration Standard Report

Ca	43	1	nogas	23041	0.02
Ca	44	1	nogas	400804	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	18527350	0.00
Se	77	1	nogas	46754	0.00
Se	82	1	nogas	2270	0.48
Mo	95	1	nogas	37487	0.01
Sn	118	1	nogas	58331	0.00
Ba	137	1	nogas	29793	0.01
Sb	121	2	He	34588	0.01
P	31	1	nogas	110501	0.00
La	139	1	nogas	233	16.67

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	499047	1.44	495795	100.66	70	125	
Ge	72	1	nogas	4146939	1.86	4051369	102.36	70	125	
In	115	1	nogas	4214601	3.12	3950602	106.68	70	125	
Bi	209	1	nogas	3220234	2.00	3076125	104.68	70	125	
Ge	72	2	He	1094878	2.22	1075863	101.77	70	125	

Calibration Standard Report

Sample Table

Sample Name	10/50/1000
Data File Name	133CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T22:21:56-05:00
Sample Type	CalStd
Level	4
Dilution	1
Comment	
ISTD Ref File Name	130CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	39358	0.01
Na	23	1	nogas	23367373	0.00
Mg	24	1	nogas	14316943	0.00
Al	27	1	nogas	222647	0.00
K	39	1	nogas	32504963	0.00
Ti	47	1	nogas	22183	0.01
V	51	1	nogas	1389390	0.00
Cr	52	1	nogas	334809	0.00
Mn	55	1	nogas	369431	0.00
Co	59	1	nogas	285721	0.00
Ni	60	1	nogas	67220	0.00
Cu	63	1	nogas	190419	0.00
Zn	66	1	nogas	57641	0.00
As	75	1	nogas	212576	0.00
Sr	88	1	nogas	402219	0.00
Ag	107	1	nogas	198533	0.00
Cd	111	1	nogas	41192	0.01
Sb	121	1	nogas	189288	0.00
Tl	205	1	nogas	285832	0.00
Pb	208	1	nogas	391135	0.00
[Pb]	206	1	nogas	97712	0.00
[Pb]	207	1	nogas	85242	0.00
Na	23	2	He	1896266	0.00
Mg	24	2	He	944336	0.00
Al	27	2	He	6595	0.07
K	39	2	He	1450674	0.00
Ca	43	2	He	3380	0.18
Ca	44	2	He	55610	0.00
V	51	2	He	92024	0.00
Cr	52	2	He	91416	0.00
Mn	55	2	He	62961	0.00
Fe	56	2	He	8088376	0.00
Co	59	2	He	121785	0.00
Ni	60	2	He	31337	0.00
Cu	63	2	He	80040	0.00
Zn	66	2	He	19968	0.01
As	75	2	He	19512	0.02
Se	78	2	He	1628	0.34
B	11	1	nogas	136813	0.00
Si	28	1	nogas	6460508	0.00

Calibration Standard Report

Ca	43	1	nogas	45131	0.00
Ca	44	1	nogas	761550	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	34385653	0.00
Se	77	1	nogas	48969	0.00
Se	82	1	nogas	4081	0.09
Mo	95	1	nogas	76273	0.00
Sn	118	1	nogas	116546	0.00
Ba	137	1	nogas	58938	0.00
Sb	121	2	He	70014	0.00
P	31	1	nogas	153924	0.00
La	139	1	nogas	383	1.04

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	479897	3.52	495795	96.79	70	125	
Ge	72	1	nogas	4085750	1.68	4051369	100.85	70	125	
In	115	1	nogas	3882750	1.79	3950602	98.28	70	125	
Bi	209	1	nogas	3020498	2.51	3076125	98.19	70	125	
Ge	72	2	He	1050500	0.18	1075863	97.64	70	125	

Calibration Standard Report

Sample Table

Sample Name	100/500/10K
Data File Name	134CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T22:23:55-05:00
Sample Type	CalStd
Level	5
Dilution	1
Comment	
ISTD Ref File Name	130CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	350948	0.00
Na	23	1	nogas	199366075	0.00
Mg	24	1	nogas	131227290	0.00
Al	27	1	nogas	1764421	0.00
K	39	1	nogas	227807247	0.00
Ti	47	1	nogas	202920	0.00
V	51	1	nogas	3801876	0.00
Cr	52	1	nogas	2559668	0.00
Mn	55	1	nogas	3279722	0.00
Co	59	1	nogas	2738162	0.00
Ni	60	1	nogas	601709	0.00
Cu	63	1	nogas	1533795	0.00
Zn	66	1	nogas	501580	0.00
As	75	1	nogas	766126	0.00
Sr	88	1	nogas	3667751	0.00
Ag	107	1	nogas	1917320	0.00
Cd	111	1	nogas	401786	0.00
Sb	121	1	nogas	1894079	0.00
Tl	205	1	nogas	2755541	0.00
Pb	208	1	nogas	3736664	0.00
[Pb]	206	1	nogas	893067	0.00
[Pb]	207	1	nogas	793900	0.00
Na	23	2	He	15489599	0.00
Mg	24	2	He	8692165	0.00
Al	27	2	He	48723	0.00
K	39	2	He	11227483	0.00
Ca	43	2	He	29934	0.01
Ca	44	2	He	509234	0.00
V	51	2	He	743267	0.00
Cr	52	2	He	787408	0.00
Mn	55	2	He	572962	0.00
Fe	56	2	He	75284159	0.00
Co	59	2	He	1123673	0.00
Ni	60	2	He	285586	0.00
Cu	63	2	He	719341	0.00
Zn	66	2	He	177745	0.00
As	75	2	He	177697	0.00
Se	78	2	He	14410	0.02
B	11	1	nogas	1250896	0.00
Si	28	1	nogas	50496256	0.00

Calibration Standard Report

Ca	43	1	nogas	400749	0.00
Ca	44	1	nogas	6741667	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	294926323	0.00
Se	77	1	nogas	72725	0.00
Se	82	1	nogas	35178	0.01
Mo	95	1	nogas	706039	0.00
Sn	118	1	nogas	1065800	0.00
Ba	137	1	nogas	534700	0.00
Sb	121	2	He	657559	0.00
P	31	1	nogas	826801	0.00
La	139	1	nogas	573	1.50

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	443017	5.04	495795	89.35	70	125	
Ge	72	1	nogas	3992136	8.82	4051369	98.54	70	125	
In	115	1	nogas	3928650	8.46	3950602	99.44	70	125	
Bi	209	1	nogas	3097378	6.98	3076125	100.69	70	125	
Ge	72	2	He	1040331	2.71	1075863	96.70	70	125	

Calibration Standard Report

Sample Table

Sample Name	200/1000/20K
Data File Name	135CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T22:25:55-05:00
Sample Type	CalStd
Level	6
Dilution	1
Comment	
ISTD Ref File Name	130CALB.d
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Be	9	1	nogas	694664	0.00
Na	23	1	nogas	385844742	0.00
Mg	24	1	nogas	254871472	0.00
Al	27	1	nogas	3213129	0.00
K	39	1	nogas	431175343	0.00
Ti	47	1	nogas	400223	0.00
V	51	1	nogas	6648845	0.00
Cr	52	1	nogas	4988741	0.00
Mn	55	1	nogas	6455481	0.00
Co	59	1	nogas	5340300	0.00
Ni	60	1	nogas	1159145	0.00
Cu	63	1	nogas	2900591	0.00
Zn	66	1	nogas	973144	0.00
As	75	1	nogas	1457523	0.00
Sr	88	1	nogas	7113308	0.00
Ag	107	1	nogas	3690421	0.00
Cd	111	1	nogas	775579	0.00
Sb	121	1	nogas	3579451	0.00
Tl	205	1	nogas	5273230	0.00
Pb	208	1	nogas	7397152	0.00
[Pb]	206	1	nogas	1836861	0.00
[Pb]	207	1	nogas	1620608	0.00
Na	23	2	He	29965170	0.00
Mg	24	2	He	17032930	0.00
Al	27	2	He	93975	0.00
K	39	2	He	21629884	0.00
Ca	43	2	He	58060	0.00
Ca	44	2	He	993301	0.00
V	51	2	He	1504514	0.00
Cr	52	2	He	1642864	0.00
Mn	55	2	He	1118191	0.00
Fe	56	2	He	145908534	0.00
Co	59	2	He	2263815	0.00
Ni	60	2	He	543132	0.00
Cu	63	2	He	1463935	0.00
Zn	66	2	He	345053	0.00
As	75	2	He	348867	0.00
Se	78	2	He	28358	0.00
B	11	1	nogas	2420740	0.00
Si	28	1	nogas	96408772	0.00

Calibration Standard Report

Ca	43	1	nogas	778555	0.00
Ca	44	1	nogas	13214487	0.00
Name	Mass	Tune Step	Tune Mode	CPS	%RSD
Fe	56	1	nogas	572630846	0.00
Se	77	1	nogas	100200	0.00
Se	82	1	nogas	70788	0.00
Mo	95	1	nogas	1464710	0.00
Sn	118	1	nogas	2157951	0.00
Ba	137	1	nogas	1036962	0.00
Sb	121	2	He	1359138	0.00
P	31	1	nogas	1590692	0.00
La	139	1	nogas	977	0.79

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	426768	3.34	495795	86.08	70	125	
Ge	72	1	nogas	3882652	4.31	4051369	95.84	70	125	
In	115	1	nogas	3664866	5.29	3950602	92.77	70	125	
Bi	209	1	nogas	2871863	3.77	3076125	93.36	70	125	
Ge	72	2	He	1029909	0.83	1075863	95.73	70	125	

Initial Calibration Verification (ICV) Report

Sample Table

Sample Name	ICCV
Data File Name	137_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T22:29:53-05:00
Sample Type	ICV
Dilution	1
Comment	
ISTD Ref File Name	130CALB.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
Be	9	1	nogas	103.703	8.273	362542	3.75	100	103.7	90	110	
Na	23	1	nogas	9557.210	5.729	197075863	1.17	10000	95.6	90	110	
Mg	24	1	nogas	9564.595	6.221	129245140	1.31	10000	95.6	90	110	
Al	27	1	nogas	99.175	4.871	1739432	0.39	100	99.2	90	110	
K	39	1	nogas	9566.539	6.090	224944580	1.53	10000	95.7	90	110	
Ti	47	1	nogas	95.085	6.268	202513	1.85	100	95.1	90	110	
V	51	1	nogas	88.181	8.175	3675981	0.97	100	88.2	90	110	ICV Main CR1 Failed
Cr	52	1	nogas	96.217	5.810	2585787	1.16	100	96.2	90	110	
Mn	55	1	nogas	97.183	5.720	3347534	3.35	100	97.2	90	110	
Co	59	1	nogas	98.136	6.989	2792219	2.14	100	98.1	90	110	
Ni	60	1	nogas	96.787	7.351	601744	2.76	100	96.8	90	110	
Cu	63	1	nogas	94.716	6.840	1490497	2.60	100	94.7	90	110	
Zn	66	1	nogas	96.304	5.742	502364	1.31	100	96.3	90	110	
As	75	1	nogas	89.243	7.196	759838	0.89	100	89.2	90	110	ICV Main CR1 Failed
Sr	88	1	nogas	97.279	4.998	3696860	1.04	100	97.3	90	110	
Ag	107	1	nogas	100.733	3.316	1988539	2.65	100	100.7	90	110	
Cd	111	1	nogas	95.871	3.672	405724	0.92	100	95.9	90	110	
Sb	121	1	nogas	95.249	4.548	1831889	0.66	100	95.2	90	110	
Tl	205	1	nogas	101.121	4.828	2872426	1.47	100	101.1	90	110	
Pb	208	1	nogas	102.060	2.165	3783514	2.16	100	102.1	90	110	
U	238	1	nogas	97.994	3.479	3775948	1.59	100	98.0	90	110	
[Pb]	206	1	nogas	95.752	6.782	934096	2.74	100	95.8	90	110	
[Pb]	207	1	nogas	90.594	6.066	781354	2.20	100	90.6	90	110	
Na	23	2	He	10038.510	3.218	15220118	1.73	10000	100.4	90	110	
Mg	24	2	He	10022.636	1.541	8567217	1.08	10000	100.2	90	110	
Al	27	2	He	105.202	3.452	50267	1.91	100	105.2	90	110	
K	39	2	He	9973.671	1.602	10965312	1.57	10000	99.7	90	110	
Ca	43	2	He	9932.036	0.986	29010	0.56	10000	99.3	90	110	
Ca	44	2	He	10196.470	2.201	509075	1.47	10000	102.0	90	110	
V	51	2	He	100.918	2.373	761316	1.20	100	100.9	90	110	
Cr	52	2	He	99.944	2.464	815511	1.18	100	99.9	90	110	
Mn	55	2	He	105.533	1.256	592826	0.57	100	105.5	90	110	
Fe	56	2	He	10082.715	1.201	73987826	0.80	10000	100.8	90	110	
Co	59	2	He	100.173	1.859	1131447	0.87	100	100.2	90	110	
Ni	60	2	He	104.487	3.068	287424	1.68	100	104.5	90	110	
Cu	63	2	He	97.778	1.572	713172	0.14	100	97.8	90	110	
Zn	66	2	He	102.594	1.423	178667	2.47	100	102.6	90	110	
As	75	2	He	104.932	2.397	183840	1.26	100	104.9	90	110	
Se	78	2	He	103.201	3.188	14745	1.72	100	103.2	90	110	
B	11	1	nogas	505.436	5.949	1240837	2.88	500	101.1	90	110	
Si	28	1	nogas	489.422	8.612	6319876	1.83	5000	9.8	90	110	ICV Main CR1 Failed
Ca	43	1	nogas	9465.250	5.413	393890	0.83	10000	94.7	90	110	
Ca	44	1	nogas	9477.357	4.466	6692928	0.91	10000	94.8	90	110	
Fe	56	1	nogas	9321.784	5.620	286377206	2.44	10000	93.2	90	110	
Se	77	1	nogas	61.325	13.796	63745	1.08	100	61.3	90	110	ICV Main CR1 Failed
Se	82	1	nogas	95.974	4.312	36166	0.94	100	96.0	90	110	
Mo	95	1	nogas	92.497	6.567	713240	1.89	100	92.5	90	110	
Sn	118	1	nogas	90.647	5.575	1059716	1.58	100	90.6	90	110	
Ba	137	1	nogas	97.114	4.512	548972	1.11	100	97.1	90	110	
Sb	121	2	He	98.964	3.073	667704	2.08	100	99.0	90	110	
Li	7	1	nogas	103.854	7.624	706510	2.45	100	103.9	90	110	
P	31	1	nogas	476.314	5.876	840864	0.35	500	95.3	90	110	
La	139	1	nogas	171.520	40.999	910	16.19	100	171.5	90	110	ICV Main CR1 Failed
Au	197	1	nogas	43.612	98.513	30	66.67	100	43.6	90	110	ICV 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	nogas	432546	5.05	495795	87.24	70	125	
Ge	72	1	nogas	4142235	5.19	4051369	102.24	70	125	
In	115	1	nogas	4020032	3.92	3950602	101.76	70	125	
Bi	209	1	nogas	3114490	4.65	3076125	101.25	70	125	

Initial Calibration Verification (ICV) Report

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Ge	72	2	He	1031179	1.42	1075863	95.85	70	125	

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	138SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T22:31:52-05:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	130CALB.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
Be	9	1	nogas	2.020	2.020	3.34	7892	0.03	2000	
Na	23	1	nogas	176.507	176.507	14.21	5832221	0.00	200000	
Mg	24	1	nogas	233.879	233.879	5.99	3004450	0.01	200000	
Al	27	1	nogas	2.276	2.276	13.96	75360	0.00	2000	
K	39	1	nogas	208.011	208.011	13.23	12806729	0.00	200000	
Ti	47	1	nogas	2.057	2.057	7.13	4544	0.05	2000	
V	51	1	nogas	-4.942	-4.942	-40.66	840427	0.00	2000	
Cr	52	1	nogas	1.715	1.715	17.62	105086	0.00	2000	
Mn	55	1	nogas	2.101	2.101	7.64	85701	0.00	2000	
Co	59	1	nogas	2.155	2.155	6.27	60439	0.00	2000	
Ni	60	1	nogas	1.688	1.688	9.88	15580	0.01	2000	
Cu	63	1	nogas	0.618	0.618	31.59	48243	0.00	2000	
Zn	66	1	nogas	1.903	1.903	7.00	14116	0.01	2000	
As	75	1	nogas	-0.114	-0.114	-1243.78	129476	0.00	2000	
Sr	88	1	nogas	2.112	2.112	6.41	80005	0.00	2000	
Ag	107	1	nogas	2.084	2.084	7.74	40296	0.01	2000	
Cd	111	1	nogas	2.161	2.161	9.56	8869	0.02	2000	
Sb	121	1	nogas	1.966	1.966	6.13	37938	0.01	2000	
Tl	205	1	nogas	2.195	2.195	3.67	63304	0.00	2000	
Pb	208	1	nogas	2.158	2.158	2.68	81107	0.00	2000	
U	238	1	nogas	2.000	2.000	9.14	77281	0.00	2000	
[Pb]	206	1	nogas	2.032	2.032	6.46	20183	0.01	2000	
[Pb]	207	1	nogas	2.023	2.023	9.17	17703	0.01	2000	
Na	23	2	He	168.516	168.516	3.42	488329	0.03	200000	
Mg	24	2	He	217.296	217.296	2.09	191590	0.11	200000	
Al	27	2	He	1.894	1.894	25.20	2317	0.08	2000	
K	39	2	He	210.844	210.844	1.77	459640	0.05	200000	
Ca	43	2	He	238.896	238.896	16.95	750	31.85	200000	
Ca	44	2	He	212.672	212.672	4.08	12094	1.76	200000	
V	51	2	He	2.062	2.062	2.95	27227	0.01	2000	
Cr	52	2	He	1.982	1.982	4.65	21296	0.01	2000	
Mn	55	2	He	2.159	2.159	1.25	12978	0.02	2000	
Fe	56	2	He	218.900	218.900	2.76	1662257	0.01	200000	
Co	59	2	He	2.092	2.092	1.11	24266	0.01	2000	
Ni	60	2	He	1.453	1.453	6.63	6861	0.02	2000	
Cu	63	2	He	2.216	2.216	4.80	17302	0.01	2000	
Zn	66	2	He	1.890	1.890	5.90	5184	0.04	2000	
As	75	2	He	2.021	2.021	2.58	4324	0.05	2000	
Se	78	2	He	2.291	2.291	2.45	543	0.42	2000	
B	11	1	nogas	15.582	15.582	1.61	50607	0.03	2000	
Si	28	1	nogas	110.849	110.849	16.90	2408935	0.00	2000	
Ca	43	1	nogas	215.229	215.229	7.67	9703	2.22	200000	

Sample Report

Ca	44	1	nogas	211.984	211.984	8.40	186325	0.11	200000	
Fe	56	1	nogas	201.152	201.152	9.13	8877472	0.00	200000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Se	77	1	nogas	-18.575	-18.575	-32.95	37876	-0.05	2000	
Se	82	1	nogas	2.096	2.096	20.77	1133	0.18	2000	
Mo	95	1	nogas	2.193	2.193	5.11	16645	0.01	2000	
Sn	118	1	nogas	1.801	1.801	9.81	25546	0.01	2000	
Ba	137	1	nogas	2.204	2.204	5.25	12535	0.02	2000	
Sb	121	2	He	2.001	2.001	2.34	14203	0.01	2000	
La	139	1	nogas	48.930	48.930	143.74	583	8.39	2000	
Au	197	1	nogas	8.425	8.425	382.06	13	63.19	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	477923	6.19	495795	96.40	70	125	
Ge	72	1	nogas	4037719	6.03	4051369	99.66	70	125	
In	115	1	nogas	3899471	10.23	3950602	98.71	70	125	
Bi	209	1	nogas	3125832	7.07	3076125	101.62	70	125	
Ge	72	2	He	1053557	1.66	1075863	97.93	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	LLCCV5
Data File Name	139LICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T22:33:51-05:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	130CALB.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
Be	9	1	nogas	4.762	7.038	18115	1.85	5	95.2	70	130	
Na	23	1	nogas	509.225	21.387	12033639	2.01	500	101.8	70	130	
Mg	24	1	nogas	570.957	20.574	7157060	5.44	500	114.2	70	130	
Al	27	1	nogas	5.394	19.606	125465	4.27	5	107.9	70	130	
K	39	1	nogas	521.343	18.614	19439614	1.21	500	104.3	70	130	
Ti	47	1	nogas	4.963	7.880	10450	5.03	5	99.3	70	130	
V	51	1	nogas	0.133	2712.062	976536	0.89	5	2.7	70	130	LLICV Main CR1 Failed
Cr	52	1	nogas	4.806	18.519	181399	2.57	5	96.1	70	130	
Mn	55	1	nogas	5.136	14.369	184165	3.46	5	102.7	70	130	
Co	59	1	nogas	5.238	11.454	143856	1.93	5	104.8	70	130	
Ni	60	1	nogas	4.951	10.617	34740	1.53	5	99.0	70	130	
Cu	63	1	nogas	3.561	19.034	90908	1.68	5	71.2	70	130	
Zn	66	1	nogas	4.896	13.304	28763	1.78	5	97.9	70	130	
As	75	1	nogas	3.514	77.161	152102	2.19	5	70.3	70	130	
Sr	88	1	nogas	5.218	11.368	192220	1.83	5	104.4	70	130	
Ag	107	1	nogas	4.961	9.884	94352	0.81	5	99.2	70	130	
Cd	111	1	nogas	5.092	14.523	20669	2.05	5	101.8	70	130	
Sb	121	1	nogas	4.950	11.477	92500	2.36	5	99.0	70	130	
Tl	205	1	nogas	4.770	12.280	139050	3.29	5	95.4	70	130	
Pb	208	1	nogas	5.066	2.075	188891	2.06	5	101.3	70	130	
U	238	1	nogas	4.680	15.581	183812	5.04	5	93.6	70	130	
[Pb]	206	1	nogas	4.746	13.104	47590	3.84	5	94.9	70	130	
[Pb]	207	1	nogas	4.674	11.686	41430	0.79	5	93.5	70	130	
Na	23	2	He	466.126	1.353	949361	0.83	500	93.2	70	130	
Mg	24	2	He	516.272	0.574	455919	1.20	500	103.3	70	130	
Al	27	2	He	4.112	1.700	3397	2.67	5	82.2	70	130	
K	39	2	He	516.495	1.116	788548	0.79	500	103.3	70	130	
Ca	43	2	He	502.787	14.106	1547	12.61	500	100.6	70	130	
Ca	44	2	He	519.801	1.255	27925	0.94	500	104.0	70	130	
V	51	2	He	5.053	3.723	50285	1.25	5	101.1	70	130	
Cr	52	2	He	4.891	3.118	45727	1.10	5	97.8	70	130	
Mn	55	2	He	5.212	0.150	30706	1.85	5	104.2	70	130	
Fe	56	2	He	516.401	1.025	3919909	0.69	500	103.3	70	130	
Co	59	2	He	5.043	2.559	58741	3.53	5	100.9	70	130	
Ni	60	2	He	4.379	2.729	15113	2.18	5	87.6	70	130	
Cu	63	2	He	5.149	0.289	39426	1.98	5	103.0	70	130	
Zn	66	2	He	4.930	3.098	10613	4.11	5	98.6	70	130	
As	75	2	He	5.069	2.038	9830	2.53	5	101.4	70	130	
Se	78	2	He	5.063	7.093	949	6.54	5	101.3	70	130	
B	11	1	nogas	26.754	10.682	78925	2.23	25	107.0	70	130	
Si	28	1	nogas	263.711	17.861	3867761	2.21	25	1054.8	70	130	LLICV Main CR1 Failed
Ca	43	1	nogas	545.157	12.027	22724	2.47	500	109.0	70	130	
Ca	44	1	nogas	517.869	12.434	389887	1.26	500	103.6	70	130	
Fe	56	1	nogas	501.061	13.458	17510518	2.00	500	100.2	70	130	
Se	77	1	nogas	-10.083	-152.909	39857	1.72	5	-201.7	70	130	LLICV Main CR1 Failed
Se	82	1	nogas	5.110	15.405	2200	5.91	5	102.2	70	130	
Mo	95	1	nogas	5.053	12.085	37573	2.36	5	101.1	70	130	
Sn	118	1	nogas	4.704	18.673	57515	4.76	5	94.1	70	130	
Ba	137	1	nogas	5.138	13.786	28287	1.07	5	102.8	70	130	
Sb	121	2	He	4.852	2.575	34077	0.86	5	97.0	70	130	
Li	7	1	nogas	5.239	5.350	79218	6.88	5	104.8	70	130	
P	31	1	nogas	25.872	27.385	108389	0.43	25	103.5	70	130	
La	139	1	nogas	-113.330	-38.935	187	46.81	5	-2266.6	70	130	LLICV Main CR1 Failed
Au	197	1	nogas	0.373	599.299	10	0.00	5	7.5	70	130	LLICV 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	nogas	469482	9.13	495795	94.69	70	125	
Ge	72	1	nogas	4002884	10.44	4051369	98.80	70	125	
In	115	1	nogas	3895221	13.61	3950602	98.60	70	125	
Bi	209	1	nogas	3205825	11.45	3076125	104.22	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Ge	72	2	He	1061084	1.70	1075863	98.63	70	125	

Initial Calibration Blank (ICB) Report

Sample Table

Sample Name	ICCB
Data File Name	140_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T22:35:49-05:00
Sample Type	ICB
Dilution	1
Comment	
ISTD Ref File Name	130CALB.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
Be	9	1	nogas	0.029	47.9	190	26.3	1	
Na	23	1	nogas	-65.076	-23.6	1354904	14.5	100	
Mg	24	1	nogas	0.419	126.1	29093	16.5	100	
Al	27	1	nogas	0.322	63.1	44643	1.7	5	
K	39	1	nogas	-22.167	-88.8	8077001	2.5	100	
Ti	47	1	nogas	-0.018	-171.3	250	20.0	2.5	
V	51	1	nogas	-7.090	-25.4	812396	1.1	2.5	
Cr	52	1	nogas	-0.450	-26.8	52123	3.0	2.5	
Mn	55	1	nogas	-0.022	-177.1	15467	1.2	2.5	
Co	59	1	nogas	0.002	137.1	777	19.1	2.5	
Ni	60	1	nogas	-0.514	-8.1	2467	3.1	2.5	
Cu	63	1	nogas	-1.822	-3.8	12348	2.6	2.5	
Zn	66	1	nogas	-0.353	-10.6	2867	2.4	2.5	
As	75	1	nogas	-2.060	-62.4	121421	0.5	2.5	
Sr	88	1	nogas	0.015	28.7	2534	1.6	2.5	
Ag	107	1	nogas	0.004	24.1	397	12.7	2.5	
Cd	111	1	nogas	-0.003	-158.8	37	56.8	1	
Sb	121	1	nogas	-0.024	-7.2	717	7.2	2.5	
Tl	205	1	nogas	0.033	33.8	1707	17.0	1	
Pb	208	1	nogas	0.003	39.3	1250	3.7	2.5	
U	238	1	nogas	0.006	36.9	437	16.6	2.5	
[Pb]	206	1	nogas	0.002	272.7	343	13.8	2.5	
[Pb]	207	1	nogas	0.004	120.6	290	12.4	2.5	
Na	23	2	He	-55.168	-13.5	137063	2.4	100	
Mg	24	2	He	0.388	90.3	2083	17.8	100	
Al	27	2	He	0.236	251.0	1420	10.2	5	
K	39	2	He	-0.931	-145.1	231751	0.6	100	
Ca	43	2	He	12.304	47.4	70	14.3	100	
Ca	44	2	He	2.515	63.9	1310	3.3	100	
V	51	2	He	0.299	61.1	12889	1.3	2.5	
Cr	52	2	He	-0.071	-97.5	3980	6.4	2.5	
Mn	55	2	He	-0.013	-346.1	480	39.6	2.5	
Fe	56	2	He	0.645	43.7	24707	2.9	100	
Co	59	2	He	0.009	25.0	203	2.8	2.5	
Ni	60	2	He	-0.731	-7.8	723	11.8	2.5	
Cu	63	2	He	0.119	30.2	1583	14.6	2.5	
Zn	66	2	He	-0.418	-15.2	1047	13.7	2.5	
As	75	2	He	-0.017	-274.2	641	4.7	2.5	
Se	78	2	He	0.592	41.1	277	4.2	2.5	
B	11	1	nogas	2.453	5.9	15316	1.3	10	
Si	28	1	nogas	0.695	3022.0	1377047	12.7	5	
Ca	43	1	nogas	-2.432	-99.9	950	15.3	100	
Ca	44	1	nogas	-0.914	-402.7	42716	1.9	100	
Fe	56	1	nogas	-15.310	-13.8	2586608	7.4	100	
Se	77	1	nogas	-21.247	-33.8	38735	2.1	2.5	
Se	82	1	nogas	-0.139	-104.0	340	14.7	2.5	

Initial Calibration Blank (ICB) Report

Mo	95	1	nogas	0.005	152.0	203	22.2	2.5	
Sn	118	1	nogas	-0.331	-11.6	1683	16.9	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.026	43.7	673	3.7	2.5	
Sb	121	2	He	-0.010	-55.5	323	18.9	2.5	
P	31	1	nogas	-4.356	-67.5	65018	0.6	10	
La	139	1	nogas	-108.666	-7.4	223	13.7	2.5	
Au	197	1	nogas	5.207	542.3	13	114.6	2.5	ICB 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	nogas	482250	1.89	495795	97.27	70	125	
Ge	72	1	nogas	4224737	8.13	4051369	104.28	70	125	
In	115	1	nogas	4194784	10.73	3950602	106.18	70	125	
Bi	209	1	nogas	3313730	5.11	3076125	107.72	70	125	
Ge	72	2	He	986722	8.54	1075863	91.71	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	148_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T22:51:45-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	130CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	98.733	3.534	369397	0.67	100	98.7	90	110	
Na	23	1	nogas	10588.936	4.608	210331226	1.40	10000	105.9	90	110	
Mg	24	1	nogas	10482.961	6.802	136543661	1.38	10000	104.8	90	110	
Al	27	1	nogas	105.190	5.078	1748690	0.65	100	105.2	90	110	
K	39	1	nogas	10422.125	4.363	232015347	2.14	10000	104.2	90	110	
Ti	47	1	nogas	103.824	5.154	209933	2.07	100	103.8	90	110	
V	51	1	nogas	87.231	2.629	3466179	3.02	100	87.2	90	110	CCV Main CR1-2 Failed
Cr	52	1	nogas	103.965	6.504	2647234	3.47	100	104.0	90	110	
Mn	55	1	nogas	101.358	7.626	3309820	2.69	100	101.4	90	110	
Co	59	1	nogas	106.667	7.690	2879856	2.74	100	106.7	90	110	
Ni	60	1	nogas	104.786	6.068	618123	1.25	100	104.8	90	110	
Cu	63	1	nogas	106.762	8.192	1588941	3.19	100	106.8	90	110	
Zn	66	1	nogas	104.027	5.547	514707	1.07	100	104.0	90	110	
As	75	1	nogas	91.314	5.270	735349	1.01	100	91.3	90	110	
Sr	88	1	nogas	106.680	5.005	3847669	1.54	100	106.7	90	110	
Ag	107	1	nogas	104.320	5.806	1952625	0.96	100	104.3	90	110	
Cd	111	1	nogas	98.976	4.838	402155	0.54	100	99.0	90	110	
Sb	121	1	nogas	101.731	6.216	1855834	1.26	100	101.7	90	110	
Tl	205	1	nogas	106.832	4.521	2792749	1.83	100	106.8	90	110	
Pb	208	1	nogas	100.443	1.995	3723581	1.99	100	100.4	90	110	
U	238	1	nogas	105.395	5.042	3735610	2.24	100	105.4	90	110	
[Pb]	206	1	nogas	99.107	4.431	890243	0.88	100	99.1	90	110	
[Pb]	207	1	nogas	98.566	3.491	782840	1.69	100	98.6	90	110	
Na	23	2	He	9895.138	1.389	15717295	0.38	10000	99.0	90	110	
Mg	24	2	He	9982.206	0.685	8935873	0.52	10000	99.8	90	110	
Al	27	2	He	100.609	1.934	50414	0.80	100	100.6	90	110	
K	39	2	He	10426.215	1.172	11452291	1.15	10000	104.3	90	110	
Ca	43	2	He	10277.764	2.127	31434	1.43	10000	102.8	90	110	
Ca	44	2	He	10107.089	2.638	528450	2.06	10000	101.1	90	110	
V	51	2	He	97.257	1.082	768867	0.80	100	97.3	90	110	
Cr	52	2	He	95.959	2.043	820210	0.96	100	96.0	90	110	
Mn	55	2	He	101.194	1.063	595361	1.48	100	101.2	90	110	
Fe	56	2	He	10038.474	2.373	77143277	2.36	10000	100.4	90	110	
Co	59	2	He	97.067	2.315	1148130	1.60	100	97.1	90	110	
Ni	60	2	He	99.879	3.015	287857	1.85	100	99.9	90	110	
Cu	63	2	He	95.797	1.063	731783	0.83	100	95.8	90	110	
Zn	66	2	He	99.736	0.462	181921	0.76	100	99.7	90	110	
As	75	2	He	101.262	1.424	185827	0.32	100	101.3	90	110	
Se	78	2	He	103.522	0.694	15494	1.79	100	103.5	90	110	
B	11	1	nogas	495.938	1.829	1302554	2.70	500	99.2	90	110	
Si	28	1	nogas	5292.773	6.443	52342128	2.10	5000	105.9	90	110	
Ca	43	1	nogas	10505.972	6.971	414643	2.27	10000	105.1	90	110	
Ca	44	1	nogas	10540.170	6.409	7055418	1.47	10000	105.4	90	110	
Fe	56	1	nogas	10255.431	6.921	298556682	1.96	10000	102.6	90	110	
Se	77	1	nogas	47.994	23.877	56528	1.56	100	48.0	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	102.105	4.284	36494	0.73	100	102.1	90	110	
Mo	95	1	nogas	99.585	4.063	729385	0.86	100	99.6	90	110	
Sn	118	1	nogas	95.324	6.415	1069690	1.59	100	95.3	90	110	
Ba	137	1	nogas	100.418	3.343	545400	2.15	100	100.4	90	110	
Sb	121	2	He	96.778	0.770	683904	0.46	100	96.8	90	110	
Li	7	1	nogas	101.123	4.876	736884	0.57	100	101.1	90	110	
P	31	1	nogas	525.470	5.994	873453	0.98	500	105.1	90	110	
La	139	1	nogas	134.764	64.012	797	30.08	100	134.8	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	108.971	44.151	57	36.74	100	109.0	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	nogas	462097	4.11	495795	93.20	70	125	
Ge	72	1	nogas	3930892	4.85	4051369	97.03	70	125	
In	115	1	nogas	3862079	4.87	3950602	97.76	70	125	
Bi	209	1	nogas	2866393	5.21	3076125	93.18	70	125	

Ge	72	2	He	1079847	1.19	1075863	100.37	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	149_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T22:53:46-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	130CALB.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
Be	9	1	nogas	0.091	24.8	447	19.6	1	
Na	23	1	nogas	27.447	121.6	3300700	11.9	100	
Mg	24	1	nogas	6.177	34.7	109676	18.2	100	
Al	27	1	nogas	6.033	11.6	139515	1.2	5	CCB Main CR1 Failed
K	39	1	nogas	16.156	176.0	8659296	1.4	100	
Ti	47	1	nogas	0.104	56.8	497	18.0	2.5	
V	51	1	nogas	-16.634	-7.8	501639	2.0	2.5	
Cr	52	1	nogas	-0.681	-22.8	44383	2.8	2.5	
Mn	55	1	nogas	0.021	164.1	16411	1.6	2.5	
Co	59	1	nogas	0.055	38.9	2217	21.3	2.5	
Ni	60	1	nogas	-0.520	-7.3	2350	2.8	2.5	
Cu	63	1	nogas	-1.936	-4.7	10193	5.3	2.5	
Zn	66	1	nogas	0.009	505.1	4621	5.7	2.5	
As	75	1	nogas	-7.360	-12.2	80849	2.5	2.5	
Sr	88	1	nogas	0.194	16.7	9132	9.0	2.5	
Ag	107	1	nogas	0.051	26.2	1273	15.7	2.5	
Cd	111	1	nogas	0.046	38.7	253	26.9	1	
Sb	121	1	nogas	0.092	18.0	2894	8.0	2.5	
Tl	205	1	nogas	0.267	45.9	8890	46.8	1	
Pb	208	1	nogas	0.065	12.9	3554	8.8	2.5	
U	238	1	nogas	0.065	24.1	2910	26.7	2.5	
[Pb]	206	1	nogas	0.057	9.1	920	8.5	2.5	
[Pb]	207	1	nogas	0.051	31.4	717	12.5	2.5	
Na	23	2	He	9.809	14.8	256658	0.6	100	
Mg	24	2	He	4.061	7.7	5658	4.6	100	
Al	27	2	He	5.500	2.1	4204	1.0	5	CCB Main CR1 Failed
K	39	2	He	14.017	20.4	247836	1.2	100	
Ca	43	2	He	39.434	24.6	163	18.7	100	
Ca	44	2	He	28.767	22.0	2857	12.0	100	
V	51	2	He	-0.434	-2.7	8629	0.7	2.5	
Cr	52	2	He	-0.130	-15.4	3954	4.7	2.5	
Mn	55	2	He	0.062	17.5	993	6.9	2.5	
Fe	56	2	He	9.667	2.0	98146	1.6	100	
Co	59	2	He	0.039	20.0	590	15.5	2.5	
Ni	60	2	He	-0.766	-3.5	713	10.5	2.5	
Cu	63	2	He	0.274	4.3	2977	3.4	2.5	
Zn	66	2	He	-0.174	-32.6	1613	6.0	2.5	
As	75	2	He	-0.070	-34.1	620	7.5	2.5	
Se	78	2	He	0.245	49.3	259	7.4	2.5	
B	11	1	nogas	4.631	14.8	21829	7.5	10	
Si	28	1	nogas	38.164	34.7	1708360	4.0	5	CCB Main CR1 Failed
Ca	43	1	nogas	33.747	15.1	2390	1.1	100	
Ca	44	1	nogas	38.092	25.0	68140	1.8	100	
Fe	56	1	nogas	-3.257	-92.8	2862426	6.7	100	
Se	77	1	nogas	-59.848	-12.1	25595	0.2	2.5	
Se	82	1	nogas	0.207	107.8	457	17.7	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.168	34.5	1440	28.7	2.5	
Sn	118	1	nogas	-0.208	-29.9	3207	19.4	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.189	5.6	1647	0.4	2.5	
Sb	121	2	He	0.059	23.0	853	11.9	2.5	
P	31	1	nogas	2.012	172.6	73024	1.9	10	
La	139	1	nogas	-51.767	-16.9	373	3.1	2.5	
Au	197	1	nogas	27.474	158.7	23	89.2	2.5	CCB 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	nogas	495663	1.27	495795	99.97	70	125	
Ge	72	1	nogas	4088016	8.87	4051369	100.90	70	125	
In	115	1	nogas	4219156	4.10	3950602	106.80	70	125	
Bi	209	1	nogas	3331290	7.46	3076125	108.30	70	125	
Ge	72	2	He	1098538	0.44	1075863	102.11	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	159_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T23:13:32-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	130CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	99.090	1.312	386703	1.57	100	99.1	90	110	
Na	23	1	nogas	9954.171	2.944	211448659	0.89	10000	99.5	90	110	
Mg	24	1	nogas	9968.674	2.596	138875382	0.67	10000	99.7	90	110	
Al	27	1	nogas	104.629	2.200	1796385	0.81	100	104.6	90	110	
K	39	1	nogas	10092.830	0.995	232304030	3.12	10000	100.9	90	110	
Ti	47	1	nogas	101.028	4.428	210880	2.40	100	101.0	90	110	
V	51	1	nogas	87.354	6.419	3578319	2.68	100	87.4	90	110	CCV Main CR1-2 Failed
Cr	52	1	nogas	98.048	2.005	2581998	0.36	100	98.0	90	110	
Mn	55	1	nogas	96.515	1.712	3258331	0.88	100	96.5	90	110	
Co	59	1	nogas	98.980	3.801	2761404	1.68	100	99.0	90	110	
Ni	60	1	nogas	100.718	4.266	613792	2.41	100	100.7	90	110	
Cu	63	1	nogas	99.120	2.816	1527486	0.66	100	99.1	90	110	
Zn	66	1	nogas	100.850	2.738	515479	1.21	100	100.9	90	110	
As	75	1	nogas	88.015	1.184	736637	1.21	100	88.0	90	110	CCV Main CR1-2 Failed
Sr	88	1	nogas	99.930	1.803	3722049	0.35	100	99.9	90	110	
Ag	107	1	nogas	95.802	2.790	1852516	2.65	100	95.8	90	110	
Cd	111	1	nogas	97.501	2.755	401462	1.89	100	97.5	90	110	
Sb	121	1	nogas	98.131	2.072	1849462	0.43	100	98.1	90	110	
Tl	205	1	nogas	97.933	3.352	2742975	2.41	100	97.9	90	110	
Pb	208	1	nogas	102.365	1.302	3794798	1.30	100	102.4	90	110	
U	238	1	nogas	102.319	2.171	3886095	0.91	100	102.3	90	110	
[Pb]	206	1	nogas	95.253	1.945	916875	1.19	100	95.3	90	110	
[Pb]	207	1	nogas	95.327	1.385	811071	0.77	100	95.3	90	110	
Na	23	2	He	9835.552	1.445	15495471	1.10	10000	98.4	90	110	
Mg	24	2	He	9861.294	1.554	8754535	1.25	10000	98.6	90	110	
Al	27	2	He	102.093	1.926	50718	1.82	100	102.1	90	110	
K	39	2	He	10425.331	1.626	11451339	1.59	10000	104.3	90	110	
Ca	43	2	He	10424.935	2.917	31620	2.60	10000	104.2	90	110	
Ca	44	2	He	10284.485	0.875	533314	1.05	10000	102.8	90	110	
V	51	2	He	97.012	0.652	760628	0.57	100	97.0	90	110	
Cr	52	2	He	96.461	1.631	817764	1.78	100	96.5	90	110	
Mn	55	2	He	101.855	0.676	594273	0.52	100	101.9	90	110	
Fe	56	2	He	10003.238	1.135	76238162	1.19	10000	100.0	90	110	
Co	59	2	He	97.592	0.316	1144920	0.50	100	97.6	90	110	
Ni	60	2	He	100.398	1.152	287008	1.44	100	100.4	90	110	
Cu	63	2	He	95.686	0.203	724905	0.18	100	95.7	90	110	
Zn	66	2	He	100.201	1.228	181249	1.26	100	100.2	90	110	
As	75	2	He	101.627	0.591	184964	0.27	100	101.6	90	110	
Se	78	2	He	101.378	0.397	15051	0.63	100	101.4	90	110	
B	11	1	nogas	474.963	1.937	1300871	2.12	500	95.0	90	110	
Si	28	1	nogas	5118.408	2.405	52334008	1.44	5000	102.4	90	110	
Ca	43	1	nogas	10199.517	1.192	416036	1.16	10000	102.0	90	110	
Ca	44	1	nogas	10249.302	1.992	7089330	0.31	10000	102.5	90	110	
Fe	56	1	nogas	9633.456	1.512	290005798	1.31	10000	96.3	90	110	
Se	77	1	nogas	47.338	11.525	58186	0.76	100	47.3	90	110	CCV Main CR1-2 Failed
Se	82	1	nogas	96.833	3.974	35742	1.85	100	96.8	90	110	
Mo	95	1	nogas	96.333	2.108	728410	0.05	100	96.3	90	110	
Sn	118	1	nogas	95.439	2.889	1085757	1.49	100	95.4	90	110	
Ba	137	1	nogas	99.092	1.561	545144	0.76	100	99.1	90	110	
Sb	121	2	He	98.713	0.618	691808	0.34	100	98.7	90	110	
Li	7	1	nogas	101.746	1.982	773351	2.32	100	101.7	90	110	
P	31	1	nogas	495.527	1.820	854743	0.49	500	99.1	90	110	
La	139	1	nogas	177.750	11.352	903	3.89	100	177.7	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	99.948	59.603	57	50.94	100	99.9	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	nogas	481536	0.70	495795	97.12	70	125	
Ge	72	1	nogas	4054045	2.16	4051369	100.07	70	125	
In	115	1	nogas	3908800	2.27	3950602	98.94	70	125	
Bi	209	1	nogas	3067307	1.50	3076125	99.71	70	125	

Ge	72	2	He	1070879	0.32	1075863	99.54	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	160_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T23:15:32-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	130CALB.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
Be	9	1	nogas	0.135	24.4	630	20.8	1	
Na	23	1	nogas	18.671	135.5	3059254	11.1	100	
Mg	24	1	nogas	11.800	31.3	185661	21.7	100	
Al	27	1	nogas	6.449	6.6	139625	0.3	5	CCB Main CR1 Failed
K	39	1	nogas	41.377	48.3	8780831	0.2	100	
Ti	47	1	nogas	0.087	36.7	443	15.8	2.5	
V	51	1	nogas	-13.639	-7.3	562536	0.2	2.5	
Cr	52	1	nogas	-0.478	-22.7	47270	1.3	2.5	
Mn	55	1	nogas	0.105	41.6	18306	3.2	2.5	
Co	59	1	nogas	0.111	29.9	3607	20.5	2.5	
Ni	60	1	nogas	-0.527	-9.1	2197	8.0	2.5	
Cu	63	1	nogas	-2.067	-4.0	7842	10.8	2.5	
Zn	66	1	nogas	-0.312	-13.9	2834	3.1	2.5	
As	75	1	nogas	-5.600	-8.6	88601	1.5	2.5	
Sr	88	1	nogas	0.280	11.5	11761	5.6	2.5	
Ag	107	1	nogas	0.095	24.9	2033	17.5	2.5	
Cd	111	1	nogas	0.096	34.2	467	27.1	1	
Sb	121	1	nogas	0.383	9.8	7999	6.8	2.5	
Tl	205	1	nogas	0.300	30.2	10227	31.0	1	
Pb	208	1	nogas	0.122	31.9	5657	25.5	2.5	
U	238	1	nogas	0.103	26.7	4621	28.3	2.5	
[Pb]	206	1	nogas	0.097	24.8	1390	22.0	2.5	
[Pb]	207	1	nogas	0.103	32.1	1253	28.7	2.5	
Na	23	2	He	-11.160	-10.4	229840	1.7	100	
Mg	24	2	He	5.974	5.3	7615	2.8	100	
Al	27	2	He	4.982	4.5	4064	3.5	5	
K	39	2	He	11.536	23.3	245166	1.2	100	
Ca	43	2	He	46.328	18.5	190	13.9	100	
Ca	44	2	He	36.450	5.7	3360	4.3	100	
V	51	2	He	-0.346	-4.4	9601	2.2	2.5	
Cr	52	2	He	-0.117	-12.7	4187	2.6	2.5	
Mn	55	2	He	0.084	12.3	1160	4.3	2.5	
Fe	56	2	He	6.809	2.9	78034	2.7	100	
Co	59	2	He	0.053	16.3	780	14.8	2.5	
Ni	60	2	He	-0.838	-1.4	517	5.6	2.5	
Cu	63	2	He	0.183	3.9	2334	2.4	2.5	
Zn	66	2	He	-0.562	-12.3	927	13.0	2.5	
As	75	2	He	-0.063	-63.9	652	12.3	2.5	
Se	78	2	He	0.093	81.7	243	3.7	2.5	
B	11	1	nogas	7.534	7.8	30304	5.0	10	
Si	28	1	nogas	53.345	11.4	1771911	1.6	5	CCB Main CR1 Failed
Ca	43	1	nogas	50.514	12.6	2927	3.7	100	
Ca	44	1	nogas	49.479	13.9	72427	1.7	100	
Fe	56	1	nogas	0.765	575.9	2833410	2.6	100	
Se	77	1	nogas	-45.765	-8.7	28509	2.1	2.5	
Se	82	1	nogas	0.356	25.6	487	8.3	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.216	48.2	1703	40.1	2.5	
Sn	118	1	nogas	-0.180	-27.3	3500	13.4	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.243	22.2	1937	13.3	2.5	
Sb	121	2	He	0.277	5.2	2490	3.8	2.5	
P	31	1	nogas	6.084	42.0	75704	0.5	10	
La	139	1	nogas	-24.210	-29.0	440	4.5	2.5	
Au	197	1	nogas	36.970	53.9	30	33.3	2.5	CCB 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	nogas	501171	0.69	495795	101.08	70	125	
Ge	72	1	nogas	3881924	4.81	4051369	95.82	70	125	
In	115	1	nogas	4162209	3.55	3950602	105.36	70	125	
Bi	209	1	nogas	3447956	3.93	3076125	112.09	70	125	
Ge	72	2	He	1130759	1.25	1075863	105.10	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	171_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T23:37:34-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	130CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	92.148	1.498	394577	0.50	100	92.1	90	110	
Na	23	1	nogas	11149.476	3.484	239124722	1.61	10000	111.5	90	110	CCV Main CR1-2 Failed
Mg	24	1	nogas	10017.042	4.540	141036674	1.57	10000	100.2	90	110	
Al	27	1	nogas	104.444	5.903	1885999	2.40	100	104.4	90	110	
K	39	1	nogas	9961.041	1.943	241365914	2.10	10000	99.6	90	110	
Ti	47	1	nogas	96.411	4.087	211818	1.19	100	96.4	90	110	
V	51	1	nogas	93.648	5.420	3962258	0.29	100	93.6	90	110	
Cr	52	1	nogas	95.266	4.203	2641497	1.85	100	95.3	90	110	
Mn	55	1	nogas	93.055	2.413	3307522	2.60	100	93.1	90	110	
Co	59	1	nogas	98.623	3.040	2896507	1.69	100	98.6	90	110	
Ni	60	1	nogas	98.227	3.292	630266	1.32	100	98.2	90	110	
Cu	63	1	nogas	98.237	6.417	1593442	4.99	100	98.2	90	110	
Zn	66	1	nogas	96.904	6.259	521094	3.02	100	96.9	90	110	
As	75	1	nogas	89.945	5.524	788771	0.92	100	89.9	90	110	CCV Main CR1-2 Failed
Sr	88	1	nogas	99.581	4.877	3901668	1.92	100	99.6	90	110	
Ag	107	1	nogas	98.340	4.947	1999973	1.29	100	98.3	90	110	
Cd	111	1	nogas	93.745	6.310	408245	1.88	100	93.7	90	110	
Sb	121	1	nogas	98.053	3.423	1944636	0.92	100	98.1	90	110	
Tl	205	1	nogas	97.807	4.654	2888013	1.27	100	97.8	90	110	
Pb	208	1	nogas	104.834	0.836	3886306	0.84	100	104.8	90	110	
U	238	1	nogas	97.152	4.206	3890238	1.16	100	97.2	90	110	
[Pb]	206	1	nogas	91.603	3.535	929745	1.01	100	91.6	90	110	
[Pb]	207	1	nogas	90.986	3.800	816180	0.37	100	91.0	90	110	
Na	23	2	He	10755.154	2.710	16945802	1.44	10000	107.6	90	110	
Mg	24	2	He	10139.975	0.519	9016307	1.26	10000	101.4	90	110	
Al	27	2	He	104.612	3.289	52001	1.79	100	104.6	90	110	
K	39	2	He	10635.126	1.797	11677097	1.76	10000	106.4	90	110	
Ca	43	2	He	10479.883	4.513	31834	4.20	10000	104.8	90	110	
Ca	44	2	He	10448.223	0.627	542612	0.80	10000	104.5	90	110	
V	51	2	He	99.438	1.178	780534	0.86	100	99.4	90	110	
Cr	52	2	He	98.352	3.258	834756	1.81	100	98.4	90	110	
Mn	55	2	He	104.026	1.821	607799	0.60	100	104.0	90	110	
Fe	56	2	He	10322.677	2.010	78785445	1.24	10000	103.2	90	110	
Co	59	2	He	101.083	1.617	1187591	0.69	100	101.1	90	110	
Ni	60	2	He	104.141	1.802	298020	0.61	100	104.1	90	110	
Cu	63	2	He	100.245	1.964	760480	0.68	100	100.2	90	110	
Zn	66	2	He	103.911	0.610	188184	1.21	100	103.9	90	110	
As	75	2	He	102.970	1.936	187666	0.62	100	103.0	90	110	
Se	78	2	He	101.428	2.330	15080	1.49	100	101.4	90	110	
B	11	1	nogas	483.238	1.219	1452058	0.22	500	96.6	90	110	
Si	28	1	nogas	5100.756	4.409	54871514	0.77	5000	102.0	90	110	
Ca	43	1	nogas	9876.790	4.232	423820	0.39	10000	98.8	90	110	
Ca	44	1	nogas	9936.909	5.493	7229926	1.61	10000	99.4	90	110	
Fe	56	1	nogas	9383.501	3.226	297331765	1.62	10000	93.8	90	110	
Se	77	1	nogas	92.417	8.908	75700	0.61	100	92.4	90	110	
Se	82	1	nogas	94.503	5.483	36711	2.55	100	94.5	90	110	
Mo	95	1	nogas	92.825	4.528	738375	0.64	100	92.8	90	110	
Sn	118	1	nogas	91.071	5.237	1096486	0.83	100	91.1	90	110	
Ba	137	1	nogas	95.038	6.718	552852	1.48	100	95.0	90	110	
Sb	121	2	He	99.539	2.436	698567	1.23	100	99.5	90	110	
Li	7	1	nogas	95.265	0.399	797583	0.95	100	95.3	90	110	
P	31	1	nogas	491.321	5.006	892087	0.73	500	98.3	90	110	
La	139	1	nogas	114.313	48.080	790	13.40	100	114.3	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	107.327	59.884	63	50.76	100	107.3	90	110	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	528405	1.06	495795	106.58	70	125	
Ge	72	1	nogas	4268600	3.98	4051369	105.36	70	125	
In	115	1	nogas	4141540	5.13	3950602	104.83	70	125	
Bi	209	1	nogas	3236486	3.71	3076125	105.21	70	125	

Ge	72	2	He	1072585	1.41	1075863	99.70	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	172_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T23:39:34-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	130CALB.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
Be	9	1	nogas	0.115	13.2	610	12.4	1	
Na	23	1	nogas	309.266	3.2	9805433	4.8	100	CCB Main CR1 Failed
Mg	24	1	nogas	9.609	12.1	167278	13.1	100	
Al	27	1	nogas	5.853	4.3	144773	0.4	5	CCB Main CR1 Failed
K	39	1	nogas	11.563	55.1	9074771	2.6	100	
Ti	47	1	nogas	0.110	13.5	543	2.8	2.5	
V	51	1	nogas	-1.811	-173.8	998455	8.2	2.5	
Cr	52	1	nogas	-0.288	-27.1	57817	1.9	2.5	
Mn	55	1	nogas	0.061	37.9	18846	5.6	2.5	
Co	59	1	nogas	0.081	19.8	3140	18.0	2.5	
Ni	60	1	nogas	-0.287	-15.1	3997	8.7	2.5	
Cu	63	1	nogas	-0.606	-11.6	32108	2.2	2.5	
Zn	66	1	nogas	0.740	10.7	8829	1.7	2.5	
As	75	1	nogas	-1.972	-43.8	125112	2.1	2.5	
Sr	88	1	nogas	0.237	5.9	11407	4.3	2.5	
Ag	107	1	nogas	0.078	22.1	1930	20.7	2.5	
Cd	111	1	nogas	0.066	45.5	360	43.3	1	
Sb	121	1	nogas	0.102	13.8	3260	9.6	2.5	
Tl	205	1	nogas	0.354	31.8	11541	32.9	1	
Pb	208	1	nogas	0.104	22.8	4970	17.6	2.5	
U	238	1	nogas	0.097	25.8	4221	27.7	2.5	
[Pb]	206	1	nogas	0.101	22.9	1387	20.2	2.5	
[Pb]	207	1	nogas	0.091	18.2	1097	16.3	2.5	
Na	23	2	He	307.517	2.4	739641	0.5	100	CCB Main CR1 Failed
Mg	24	2	He	6.802	11.7	8262	9.9	100	
Al	27	2	He	5.123	10.8	4065	5.4	5	CCB Main CR1 Failed
K	39	2	He	21.955	4.3	256378	0.4	100	
Ca	43	2	He	40.967	21.6	170	15.6	100	
Ca	44	2	He	36.359	7.0	3300	4.4	100	
V	51	2	He	0.272	17.9	14398	1.4	2.5	
Cr	52	2	He	-0.119	-27.4	4107	6.9	2.5	
Mn	55	2	He	0.067	37.2	1037	15.7	2.5	
Fe	56	2	He	7.133	6.1	79353	5.4	100	
Co	59	2	He	0.064	16.2	900	15.0	2.5	
Ni	60	2	He	-0.742	-4.8	793	14.1	2.5	
Cu	63	2	He	0.838	3.5	7448	2.2	2.5	
Zn	66	2	He	0.627	15.3	3124	6.3	2.5	
As	75	2	He	0.010	577.6	778	12.2	2.5	
Se	78	2	He	0.233	11.7	260	0.8	2.5	
B	11	1	nogas	14.333	3.8	55230	3.8	10	CCB Main CR1 Failed
Si	28	1	nogas	19.875	70.6	1618965	11.2	5	CCB Main CR1 Failed
Ca	43	1	nogas	40.433	0.9	2827	2.7	100	
Ca	44	1	nogas	36.231	4.7	70984	1.7	100	
Fe	56	1	nogas	0.136	1506.5	3134209	2.2	100	
Se	77	1	nogas	-19.946	-26.5	40104	2.4	2.5	
Se	82	1	nogas	0.055	215.2	423	8.9	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.222	22.4	1963	22.2	2.5	
Sn	118	1	nogas	-0.184	-20.8	3664	16.1	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.252	7.0	2107	6.7	2.5	
Sb	121	2	He	0.063	12.6	890	5.1	2.5	
P	31	1	nogas	0.755	213.1	75296	2.1	10	
La	139	1	nogas	-20.227	-213.9	473	22.0	2.5	
Au	197	1	nogas	32.327	72.2	27	43.3	2.5	CCB 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	nogas	558428	1.21	495795	112.63	70	125	
Ge	72	1	nogas	4317613	3.18	4051369	106.57	70	125	
In	115	1	nogas	4396312	3.91	3950602	111.28	70	125	
Bi	209	1	nogas	3327868	3.02	3076125	108.18	70	125	
Ge	72	2	He	1112403	1.34	1075863	103.40	70	125	

Continuing Calibration Verification (CCV) Report

Sample Table

Sample Name	CCV
Data File Name	180_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T23:55:39-05:00
Sample Type	CCV
Dilution	1
Comment	
ISTD Ref File Name	130CALB.d
Sample QC Pass/Fail	Fail
ISTD Pass/Fail	Pass

QC Analyte Table

Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Exp Value	%Rec	%Low	%High2	QC Flag
Be	9	1	nogas	97.487	0.639	360987	0.65	100	97.5	90	110	
Na	23	1	nogas	10479.268	5.384	205758030	0.63	10000	104.8	90	110	
Mg	24	1	nogas	10215.026	5.010	131649728	2.40	10000	102.2	90	110	
Al	27	1	nogas	102.178	9.538	1715724	6.34	100	102.2	90	110	
K	39	1	nogas	10071.519	4.061	226781980	1.21	10000	100.7	90	110	
Ti	47	1	nogas	100.221	5.995	204663	1.77	100	100.2	90	110	
V	51	1	nogas	98.481	11.819	3819817	4.44	100	98.5	90	110	
Cr	52	1	nogas	98.120	7.994	2527520	5.66	100	98.1	90	110	
Mn	55	1	nogas	98.366	4.038	3251328	4.44	100	98.4	90	110	
Co	59	1	nogas	100.435	3.206	2743975	2.97	100	100.4	90	110	
Ni	60	1	nogas	101.093	7.356	602406	2.89	100	101.1	90	110	
Cu	63	1	nogas	100.274	4.671	1515558	8.94	100	100.3	90	110	
Zn	66	1	nogas	99.373	5.056	496988	0.60	100	99.4	90	110	
As	75	1	nogas	94.440	5.583	763842	0.32	100	94.4	90	110	
Sr	88	1	nogas	101.417	2.481	3699362	3.77	100	101.4	90	110	
Ag	107	1	nogas	100.002	2.849	1895469	6.87	100	100.0	90	110	
Cd	111	1	nogas	95.860	2.975	395939	1.78	100	95.9	90	110	
Sb	121	1	nogas	99.108	2.136	1830229	5.25	100	99.1	90	110	
Tl	205	1	nogas	100.196	3.708	2816259	4.06	100	100.2	90	110	
Pb	208	1	nogas	102.297	3.785	3792293	3.78	100	102.3	90	110	
U	238	1	nogas	101.046	2.989	3851600	3.95	100	101.0	90	110	
[Pb]	206	1	nogas	94.946	1.887	916960	1.65	100	94.9	90	110	
[Pb]	207	1	nogas	94.834	2.999	809336	0.81	100	94.8	90	110	
Na	23	2	He	10176.043	3.245	15276665	2.24	10000	101.8	90	110	
Mg	24	2	He	9952.762	4.168	8423261	3.22	10000	99.5	90	110	
Al	27	2	He	102.303	3.475	48449	2.44	100	102.3	90	110	
K	39	2	He	9958.598	2.487	10949093	2.43	10000	99.6	90	110	
Ca	43	2	He	10533.811	3.013	30465	2.72	10000	105.3	90	110	
Ca	44	2	He	10266.121	1.196	507599	0.79	10000	102.7	90	110	
V	51	2	He	101.017	2.016	754686	1.04	100	101.0	90	110	
Cr	52	2	He	98.090	2.929	792746	2.35	100	98.1	90	110	
Mn	55	2	He	102.744	1.647	571572	1.27	100	102.7	90	110	
Fe	56	2	He	10229.539	1.483	74333516	0.60	10000	102.3	90	110	
Co	59	2	He	100.202	0.725	1120868	0.32	100	100.2	90	110	
Ni	60	2	He	103.131	2.406	281020	2.05	100	103.1	90	110	
Cu	63	2	He	100.046	2.865	722577	2.09	100	100.0	90	110	
Zn	66	2	He	103.361	1.127	178211	0.60	100	103.4	90	110	
As	75	2	He	102.917	2.170	178580	1.28	100	102.9	90	110	
Se	78	2	He	102.262	1.325	14474	0.35	100	102.3	90	110	
B	11	1	nogas	495.094	8.933	1286768	9.46	500	99.0	90	110	
Si	28	1	nogas	5031.250	6.609	50322961	1.87	5000	100.6	90	110	
Ca	43	1	nogas	10066.605	4.703	401721	1.51	10000	100.7	90	110	
Ca	44	1	nogas	9941.445	6.539	6724950	1.92	10000	99.4	90	110	
Fe	56	1	nogas	9765.162	4.366	287570715	0.31	10000	97.7	90	110	
Se	77	1	nogas	90.507	9.879	69833	0.88	100	90.5	90	110	
Se	82	1	nogas	99.794	5.087	36033	0.42	100	99.8	90	110	
Mo	95	1	nogas	96.470	6.348	713330	2.09	100	96.5	90	110	
Sn	118	1	nogas	94.281	5.288	1075307	0.58	100	94.3	90	110	
Ba	137	1	nogas	96.347	5.960	531203	1.68	100	96.3	90	110	
Sb	121	2	He	98.275	3.415	656622	2.55	100	98.3	90	110	
Li	7	1	nogas	99.624	1.106	719341	1.24	100	99.6	90	110	
P	31	1	nogas	490.898	4.911	829096	0.67	500	98.2	90	110	
La	139	1	nogas	135.937	21.065	803	4.37	100	135.9	90	110	CCV Main CR1-2 Failed
Au	197	1	nogas	141.401	67.937	77	61.64	100	141.4	90	110	CCV Main CR1-2 Failed

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	456912	0.61	495795	92.16	70	125	
Ge	72	1	nogas	3971060	4.73	4051369	98.02	70	125	
In	115	1	nogas	3923353	4.58	3950602	99.31	70	125	
Bi	209	1	nogas	3077939	2.85	3076125	100.06	70	125	

Ge	72	2	He	1021128	0.96	1075863	94.91	70	125	

Continuing Calibration Blank (CCB) Report

Sample Table

Sample Name	CCB
Data File Name	181_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T23:57:39-05:00
Sample Type	CCB
Dilution	1
Comment	
ISTD Ref File Name	130CALB.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
Be	9	1	nogas	0.098	30.2	467	25.6	1	
Na	23	1	nogas	170.102	5.1	6034406	4.4	100	CCB Main CR1 Failed
Mg	24	1	nogas	9.350	16.1	147567	15.5	100	
Al	27	1	nogas	5.852	2.9	136655	1.3	5	CCB Main CR1 Failed
K	39	1	nogas	11.714	25.0	8568393	1.6	100	
Ti	47	1	nogas	0.058	54.3	403	16.1	2.5	
V	51	1	nogas	-4.227	-17.5	871398	1.3	2.5	
Cr	52	1	nogas	-0.322	-10.4	53731	2.4	2.5	
Mn	55	1	nogas	0.064	35.3	17886	5.5	2.5	
Co	59	1	nogas	0.080	14.5	2930	12.5	2.5	
Ni	60	1	nogas	-0.247	-18.5	4010	7.8	2.5	
Cu	63	1	nogas	-0.682	-8.1	29170	3.1	2.5	
Zn	66	1	nogas	-0.012	-326.3	4507	3.9	2.5	
As	75	1	nogas	-1.849	-34.0	119002	2.7	2.5	
Sr	88	1	nogas	0.247	6.0	11127	4.3	2.5	
Ag	107	1	nogas	0.071	21.3	1687	18.9	2.5	
Cd	111	1	nogas	0.063	67.8	317	59.6	1	
Sb	121	1	nogas	0.065	21.0	2387	12.1	2.5	
Tl	205	1	nogas	0.289	47.9	8956	43.0	1	
Pb	208	1	nogas	0.085	19.2	4290	14.1	2.5	
U	238	1	nogas	0.087	24.8	3584	21.6	2.5	
[Pb]	206	1	nogas	0.070	35.7	1000	22.9	2.5	
[Pb]	207	1	nogas	0.085	34.2	980	23.7	2.5	
Na	23	2	He	158.505	5.2	471662	1.4	100	CCB Main CR1 Failed
Mg	24	2	He	6.687	8.9	7698	7.0	100	
Al	27	2	He	5.583	2.6	4061	3.6	5	CCB Main CR1 Failed
K	39	2	He	14.277	14.1	248117	0.9	100	
Ca	43	2	He	47.610	33.9	180	25.5	100	
Ca	44	2	He	34.506	12.3	3020	5.5	100	
V	51	2	He	0.346	19.1	14154	1.5	2.5	
Cr	52	2	He	-0.094	-38.1	4084	6.4	2.5	
Mn	55	2	He	0.073	22.6	1013	11.1	2.5	
Fe	56	2	He	6.190	9.3	67851	5.9	100	
Co	59	2	He	0.055	15.7	757	14.5	2.5	
Ni	60	2	He	-0.659	-4.1	977	5.6	2.5	
Cu	63	2	He	0.884	5.2	7368	2.6	2.5	
Zn	66	2	He	-0.171	-67.8	1550	14.8	2.5	
As	75	2	He	-0.002	-642.2	714	5.9	2.5	
Se	78	2	He	0.380	34.3	267	6.5	2.5	
B	11	1	nogas	10.127	6.2	36716	4.5	10	CCB Main CR1 Failed
Si	28	1	nogas	11.281	38.4	1440215	3.4	5	CCB Main CR1 Failed
Ca	43	1	nogas	38.487	15.6	2590	10.8	100	
Ca	44	1	nogas	36.525	3.1	67214	2.4	100	
Fe	56	1	nogas	4.581	7.6	3091667	1.6	100	
Se	77	1	nogas	-20.250	-11.0	37773	0.5	2.5	
Se	82	1	nogas	0.273	72.2	480	14.6	2.5	

Continuing Calibration Blank (CCB) Report

Mo	95	1	nogas	0.323	11.0	2620	11.6	2.5	
Sn	118	1	nogas	-0.204	-7.8	3117	9.2	5	
Name	Mass	Tune Step	Tune Mode	Conc	Conc %RSD	CPS	CPS %RSD	Upper Limit	QC Flag
Ba	137	1	nogas	0.224	6.7	1767	3.3	2.5	
Sb	121	2	He	0.065	26.5	853	12.0	2.5	
P	31	1	nogas	0.260	121.6	70304	1.0	10	
La	139	1	nogas	-29.939	-134.8	410	24.0	2.5	
Au	197	1	nogas	13.524	305.9	17	124.9	2.5	CCB 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	nogas	488755	1.06	495795	98.58	70	125	
Ge	72	1	nogas	4074165	1.29	4051369	100.56	70	125	
In	115	1	nogas	4019350	3.26	3950602	101.74	70	125	
Bi	209	1	nogas	3156735	3.15	3076125	102.62	70	125	
Ge	72	2	He	1050611	2.21	1075863	97.65	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Sample Table

Sample Name	LLCCV5
Data File Name	182LICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-06T23:59:39-05:00
Sample Type	LLICV
Dilution	1
Comment	
ISTD Ref File Name	130CALB.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
Be	9	1	nogas	4.966	10.925	18950	5.77	5	99.3	70	130	
Na	23	1	nogas	678.245	15.576	15121017	3.77	500	135.6	70	130	LLICV Main CR1 Failed
Mg	24	1	nogas	573.235	14.292	7158855	4.50	500	114.6	70	130	
Al	27	1	nogas	6.020	19.419	132423	3.96	5	120.4	70	130	
K	39	1	nogas	558.276	17.143	19752540	1.11	500	111.7	70	130	
Ti	47	1	nogas	5.456	13.113	11133	2.56	5	109.1	70	130	
V	51	1	nogas	6.514	54.780	1134595	1.26	5	130.3	70	130	LLICV Main CR1 Failed
Cr	52	1	nogas	5.060	15.801	183384	0.79	5	101.2	70	130	
Mn	55	1	nogas	5.320	12.161	185808	1.02	5	106.4	70	130	
Co	59	1	nogas	5.405	11.813	144759	1.56	5	108.1	70	130	
Ni	60	1	nogas	5.286	12.541	35782	0.53	5	105.7	70	130	
Cu	63	1	nogas	4.584	18.477	103289	1.74	5	91.7	70	130	
Zn	66	1	nogas	5.421	14.014	30589	2.26	5	108.4	70	130	
As	75	1	nogas	3.953	70.629	151248	1.86	5	79.1	70	130	
Sr	88	1	nogas	5.475	11.547	196621	1.90	5	109.5	70	130	
Ag	107	1	nogas	5.197	11.278	96322	2.06	5	103.9	70	130	
Cd	111	1	nogas	5.081	12.612	20112	2.85	5	101.6	70	130	
Sb	121	1	nogas	5.043	9.216	92021	1.03	5	100.9	70	130	
Tl	205	1	nogas	5.167	6.759	139055	1.19	5	103.3	70	130	
Pb	208	1	nogas	5.291	0.616	197227	0.61	5	105.8	70	130	
U	238	1	nogas	5.168	6.801	187948	0.71	5	103.4	70	130	
[Pb]	206	1	nogas	5.234	7.884	48446	1.63	5	104.7	70	130	
[Pb]	207	1	nogas	5.320	7.509	43495	0.58	5	106.4	70	130	
Na	23	2	He	647.521	3.369	1210418	2.47	500	129.5	70	130	
Mg	24	2	He	524.260	3.491	456154	2.62	500	104.9	70	130	
Al	27	2	He	5.176	9.211	3847	4.68	5	103.5	70	130	
K	39	2	He	521.006	1.584	793402	1.12	500	104.2	70	130	
Ca	43	2	He	498.394	5.483	1513	5.96	500	99.7	70	130	
Ca	44	2	He	533.152	0.510	28198	1.71	500	106.6	70	130	
V	51	2	He	5.353	1.515	51831	0.94	5	107.1	70	130	
Cr	52	2	He	4.928	4.268	45366	1.83	5	98.6	70	130	
Mn	55	2	He	5.392	2.019	31277	1.26	5	107.8	70	130	
Fe	56	2	He	527.160	2.013	3943457	2.16	500	105.4	70	130	
Co	59	2	He	5.225	3.090	59955	2.24	5	104.5	70	130	
Ni	60	2	He	4.736	5.184	15880	3.98	5	94.7	70	130	
Cu	63	2	He	5.936	0.598	44675	1.74	5	118.7	70	130	
Zn	66	2	He	4.976	2.639	10540	3.16	5	99.5	70	130	
As	75	2	He	5.021	3.682	9600	1.48	5	100.4	70	130	
Se	78	2	He	5.310	6.321	969	3.10	5	106.2	70	130	
B	11	1	nogas	30.564	13.272	89288	3.95	25	122.3	70	130	
Si	28	1	nogas	272.559	19.068	3855016	3.41	25	1090.2	70	130	LLICV Main CR1 Failed
Ca	43	1	nogas	551.035	9.410	22430	2.41	500	110.2	70	130	
Ca	44	1	nogas	542.962	12.801	396740	1.87	500	108.6	70	130	
Fe	56	1	nogas	528.161	12.584	17859454	0.47	500	105.6	70	130	
Se	77	1	nogas	-7.673	-214.251	39573	2.65	5	-153.5	70	130	LLICV Main CR1 Failed
Se	82	1	nogas	5.326	9.109	2227	3.60	5	106.5	70	130	
Mo	95	1	nogas	5.239	13.816	37954	3.85	5	104.8	70	130	
Sn	118	1	nogas	4.829	11.227	57662	2.03	5	96.6	70	130	
Ba	137	1	nogas	5.366	5.956	28881	3.90	5	107.3	70	130	
Sb	121	2	He	4.913	3.104	34010	3.28	5	98.3	70	130	
Li	7	1	nogas	5.920	12.713	84154	2.03	5	118.4	70	130	
P	31	1	nogas	28.804	23.793	110223	1.72	25	115.2	70	130	
La	139	1	nogas	-107.755	-17.636	203	24.26	5	-2155.1	70	130	LLICV Main CR1 Failed
Au	197	1	nogas	18.116	161.691	17	69.28	5	362.3	70	130	LLICV 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	nogas	471337	7.64	495795	95.07	70	125	
Ge	72	1	nogas	3902354	9.66	4051369	96.32	70	125	
In	115	1	nogas	3777835	9.27	3950602	95.63	70	125	
Bi	209	1	nogas	2942861	6.94	3076125	95.67	70	125	

Low Level Initial Calibration Verification (LLICV) Report

Ge	72	2	He	1045784	1.99	1075863	97.20	70	125	

Sample Report

Sample Table

Sample Name	LLCCV2
Data File Name	183SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-07T00:01:39-05:00
Sample Type	Sample
Dilution	1
Comment	
ISTD Ref FileName	130CALB.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
Be	9	1	nogas	1.977	1.977	6.10	7452	0.03	2000	
Na	23	1	nogas	302.252	302.252	6.77	8305815	0.00	200000	
Mg	24	1	nogas	220.206	220.206	2.95	2848134	0.01	200000	
Al	27	1	nogas	2.879	2.879	9.89	83543	0.00	2000	
K	39	1	nogas	232.615	232.615	6.54	13032690	0.00	200000	
Ti	47	1	nogas	2.099	2.099	7.94	4527	0.05	2000	
V	51	1	nogas	2.371	2.371	40.44	1031330	0.00	2000	
Cr	52	1	nogas	1.781	1.781	5.08	104349	0.00	2000	
Mn	55	1	nogas	2.159	2.159	4.31	85591	0.00	2000	
Co	59	1	nogas	2.174	2.174	2.56	59543	0.00	2000	
Ni	60	1	nogas	1.838	1.838	9.14	16091	0.01	2000	
Cu	63	1	nogas	1.323	1.323	15.02	57386	0.00	2000	
Zn	66	1	nogas	2.104	2.104	2.88	14763	0.01	2000	
As	75	1	nogas	0.976	0.976	75.55	133780	0.00	2000	
Sr	88	1	nogas	2.181	2.181	3.44	80647	0.00	2000	
Ag	107	1	nogas	2.052	2.052	3.21	38790	0.01	2000	
Cd	111	1	nogas	2.123	2.123	2.04	8429	0.03	2000	
Sb	121	1	nogas	1.978	1.978	6.79	37247	0.01	2000	
Tl	205	1	nogas	2.019	2.019	3.60	56231	0.00	2000	
Pb	208	1	nogas	2.107	2.107	1.16	79217	0.00	2000	
U	238	1	nogas	2.040	2.040	3.13	76357	0.00	2000	
[Pb]	206	1	nogas	2.066	2.066	4.37	19836	0.01	2000	
[Pb]	207	1	nogas	2.035	2.035	3.85	17243	0.01	2000	
Na	23	2	He	271.558	271.558	1.33	671641	0.04	200000	
Mg	24	2	He	199.166	199.166	1.59	182850	0.11	200000	
Al	27	2	He	1.538	1.538	15.31	2237	0.07	2000	
K	39	2	He	212.449	212.449	1.91	461367	0.05	200000	
Ca	43	2	He	201.178	201.178	22.11	663	30.33	200000	
Ca	44	2	He	198.894	198.894	2.54	11854	1.68	200000	
V	51	2	He	2.127	2.127	4.19	28832	0.01	2000	
Cr	52	2	He	1.748	1.748	6.27	20134	0.01	2000	
Mn	55	2	He	2.069	2.069	0.74	12965	0.02	2000	
Fe	56	2	He	202.403	202.403	1.74	1600520	0.01	200000	
Co	59	2	He	2.013	2.013	1.42	24283	0.01	2000	
Ni	60	2	He	1.361	1.361	7.48	6871	0.02	2000	
Cu	63	2	He	2.575	2.575	3.05	20785	0.01	2000	
Zn	66	2	He	1.801	1.801	11.25	5224	0.03	2000	
As	75	2	He	1.844	1.844	6.92	4170	0.04	2000	
Se	78	2	He	2.232	2.232	8.82	555	0.40	2000	
B	11	1	nogas	15.723	15.723	1.09	49160	0.03	2000	
Si	28	1	nogas	103.006	103.006	3.00	2278688	0.00	2000	
Ca	43	1	nogas	220.569	220.569	2.15	9696	2.27	200000	

Sample Report

Ca	44	1	nogas	215.055	215.055	4.78	184029	0.12	200000	
Fe	56	1	nogas	216.640	216.640	3.09	9120115	0.00	200000	
Name	Mass	Tune Step	Tune Mode	Conc	FinalConc	Conc %RSD	CPS	%RSD	LDR	QC Flag
Se	77	1	nogas	-13.163	-13.163	-37.32	38581	-0.03	2000	
Se	82	1	nogas	2.353	2.353	12.09	1200	0.20	2000	
Mo	95	1	nogas	2.045	2.045	3.71	15163	0.01	2000	
Sn	118	1	nogas	1.681	1.681	1.49	23373	0.01	2000	
Ba	137	1	nogas	2.280	2.280	10.27	12458	0.02	2000	
Sb	121	2	He	1.897	1.897	1.43	14023	0.01	2000	
La	139	1	nogas	41.160	41.160	77.28	547	7.53	2000	
Au	197	1	nogas	22.295	22.295	158.36	20	111.47	2000	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	460561	1.11	495795	92.89	70	125	
Ge	72	1	nogas	3935897	2.52	4051369	97.15	70	125	
In	115	1	nogas	3749788	4.46	3950602	94.92	70	125	
Bi	209	1	nogas	3017581	3.51	3076125	98.10	70	125	
Ge	72	2	He	1095933	1.31	1075863	101.87	70	125	

Interference Check Solution A (ICS-A) Report

Sample Table

Sample Name	ICSA
Data File Name	184ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-07T00:03:38-05:00
Sample Type	ICSA
Dilution	1
Comment	
ISTD Ref File Name	130CALB.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
Be	9	1	nogas	0.004	302.0	77	45.8	0	ICSA Main CR1 Failed
Na	23	1	nogas	102938.893	4.1	1837954974	1.3	0	
Mg	24	1	nogas	104063.141	5.0	1232030561	1.1	0	
Al	27	1	nogas	97283.338	2.4	1522709684	0.2	0	
K	39	1	nogas	102065.986	2.3	2116795114	2.4	0	
Ti	47	1	nogas	2182.675	3.8	4237344	1.6	0	
V	51	1	nogas	-11.238	-1.3	614233	2.7	0	ICSA Main CR1 Failed
Cr	52	1	nogas	0.463	17.5	68540	1.4	0	ICSA Main CR1 Failed
Mn	55	1	nogas	0.301	6.2	23992	2.3	0	ICSA Main CR1 Failed
Co	59	1	nogas	0.168	10.9	5004	8.8	0	ICSA Main CR1 Failed
Ni	60	1	nogas	0.758	10.1	9366	2.4	0	ICSA Main CR1 Failed
Cu	63	1	nogas	0.081	145.2	37675	2.1	0	ICSA Main CR1 Failed
Zn	66	1	nogas	1.797	7.6	12708	3.0	0	ICSA Main CR1 Failed
As	75	1	nogas	-2.958	-9.5	103163	0.8	0	ICSA Main CR1 Failed
Sr	88	1	nogas	0.958	2.5	34981	1.3	0	ICSA Main CR1 Failed
Ag	107	1	nogas	0.022	5.6	670	3.9	0	ICSA Main CR1 Failed
Cd	111	1	nogas	2.035	5.3	7488	4.6	0	
Sb	121	1	nogas	0.007	96.9	1190	9.7	0	ICSA Main CR1 Failed
Tl	205	1	nogas	0.013	47.9	900	17.2	0	ICSA Main CR1 Failed
Pb	208	1	nogas	0.076	9.1	3934	6.5	0	ICSA Main CR1 Failed
[Pb]	206	1	nogas	0.094	12.7	1070	9.2	0	ICSA Main CR1 Failed
[Pb]	207	1	nogas	0.083	27.3	830	20.3	0	ICSA Main CR1 Failed
Na	23	2	He	95370.532	1.0	140294335	1.1	0	
Mg	24	2	He	95240.986	1.7	80022964	1.9	0	
Al	27	2	He	99094.791	0.9	45274041	1.0	0	
K	39	2	He	97189.963	2.7	104817825	2.7	0	
Ca	43	2	He	96783.227	0.2	277578	0.2	0	
Ca	44	2	He	100544.539	0.6	4924421	0.3	0	
V	51	2	He	0.012	45.7	11223	0.4	0	ICSA Main CR1 Failed
Cr	52	2	He	0.084	25.9	5361	3.1	0	ICSA Main CR1 Failed
Mn	55	2	He	0.363	22.6	2577	17.4	0	ICSA Main CR1 Failed
Fe	56	2	He	96535.875	0.6	696232736	0.3	0	
Co	59	2	He	0.025	13.3	393	9.6	0	ICSA Main CR1 Failed
Ni	60	2	He	-0.628	-7.0	1027	11.2	0	ICSA Main CR1 Failed
Cu	63	2	He	1.123	3.1	8829	2.9	0	ICSA Main CR1 Failed
Zn	66	2	He	0.631	3.9	2854	1.4	0	ICSA Main CR1 Failed
As	75	2	He	0.020	278.1	727	12.7	0	ICSA Main CR1 Failed
Se	78	2	He	0.442	46.1	266	10.9	0	ICSA Main CR1 Failed
B	11	1	nogas	6.566	4.6	21933	3.9	0	ICSA Main CR1 Failed
Si	28	1	nogas	65.839	5.9	1840447	1.1	0	
Ca	43	1	nogas	99747.965	1.5	3780264	0.9	0	
Ca	44	1	nogas	99011.837	0.6	63450551	1.9	0	
Fe	56	1	nogas	97052.513	1.5	2695865394	1.7	0	
Se	77	1	nogas	-28.919	-3.7	32539	1.6	0	ICSA Main CR1 Failed
Se	82	1	nogas	0.212	129.0	423	20.4	0	ICSA Main CR1 Failed
Mo	95	1	nogas	2036.278	2.5	14333681	0.4	0	
Sn	118	1	nogas	-0.258	-2.2	2147	4.1	0	ICSA Main CR1 Failed
Ba	137	1	nogas	0.122	13.6	1030	9.6	0	ICSA Main CR1 Failed
Sb	121	2	He	0.018	46.4	513	10.7	0	ICSA Main CR1 Failed

Interference Check Solution A (ICS-A) Report

P	31	1	nogas	99758.020	1.9	147261348	0.9	0	
La	139	1	nogas	285.322	20.7	1033	9.1	0	

QC ISTD Table

Name	Mass	Tune Step	Tune Mode	CPS	%RSD	Ref CPS	%Rec	%QC Low	%QC High	QC Flag
Li	6	1	nogas	398687	1.15	495795	80.41	70	125	
Ge	72	1	nogas	3775052	2.17	4051369	93.18	70	125	
In	115	1	nogas	3476140	4.01	3950602	87.99	70	125	
Bi	209	1	nogas	2717103	0.39	3076125	88.33	70	125	
Ge	72	2	He	1013662	0.36	1075863	94.22	70	125	

Interference Check Solution AB (ICS-AB) Report

Sample Table

Sample Name	ICSAB
Data File Name	185ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA\090
Acq Date Time	2018-09-07T00:05:42-05:00
Sample Type	ICSB
Dilution	1
Comment	
ISTD Ref File Name	130CALB.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
Be	9	1	nogas	101.960	4.395	326914	1.83	100	102.0	80	120	
Na	23	1	nogas	108145.916	0.432	2047453379	1.16	100	108145.9	80	120	ICSB Main CR1 Failed
Mg	24	1	nogas	109150.608	2.213	1370466331	0.71	100	109150.6	80	120	ICSB Main CR1 Failed
Al	27	1	nogas	96796.455	5.627	1537039017	3.01	100	96796.5	80	120	ICSB Main CR1 Failed
K	39	1	nogas	113106.333	1.730	2380042520	0.93	100	113106.3	80	120	
Ti	47	1	nogas	2300.353	3.781	4533853	2.80	100	2300.4	80	120	
V	51	1	nogas	96.072	5.967	3626151	2.16	100	96.1	80	120	
Cr	52	1	nogas	101.052	4.028	2512746	1.73	100	101.1	80	120	
Mn	55	1	nogas	97.816	5.001	3119432	2.55	100	97.8	80	120	
Co	59	1	nogas	101.849	3.022	2685947	0.61	100	101.8	80	120	
Ni	60	1	nogas	100.993	3.396	581771	1.34	100	101.0	80	120	
Cu	63	1	nogas	101.270	3.662	1474197	1.94	100	101.3	80	120	
Zn	66	1	nogas	101.109	1.951	488522	1.16	100	101.1	80	120	
As	75	1	nogas	94.921	2.976	741027	0.89	100	94.9	80	120	
Sr	88	1	nogas	102.651	0.430	3614745	2.19	100	102.7	80	120	
Ag	107	1	nogas	95.852	2.580	1751595	0.93	100	95.9	80	120	
Cd	111	1	nogas	100.007	1.595	380006	0.19	100	100.0	80	120	
Sb	121	1	nogas	100.631	2.694	1792424	0.52	100	100.6	80	120	
Tl	205	1	nogas	101.691	4.359	2561871	1.23	100	101.7	80	120	
Pb	208	1	nogas	93.996	0.516	3484648	0.52	100	94.0	80	120	
U	238	1	nogas	105.989	2.514	3622778	2.70	100	106.0	80	120	
[Pb]	206	1	nogas	96.676	4.069	836975	0.77	100	96.7	80	120	
[Pb]	207	1	nogas	96.916	3.258	741760	0.23	100	96.9	80	120	
Na	23	2	He	109207.081	1.707	159848554	0.91	100	109207.1	80	120	ICSB Main CR1 Failed
Mg	24	2	He	108315.086	0.721	90580505	1.28	100	108315.1	80	120	ICSB Main CR1 Failed
Al	27	2	He	102387.176	0.744	46557214	0.44	100	102387.2	80	120	ICSB Main CR1 Failed
K	39	2	He	110080.127	0.833	118688792	0.83	100	110080.1	80	120	ICSB Main CR1 Failed
Ca	43	2	He	111500.230	2.202	318254	1.63	100	111500.2	80	120	ICSB Main CR1 Failed
Ca	44	2	He	115442.222	2.416	5626547	1.29	100	115442.2	80	120	ICSB Main CR1 Failed
V	51	2	He	99.594	0.991	735361	0.33	100	99.6	80	120	
Cr	52	2	He	97.508	1.426	778686	0.83	100	97.5	80	120	
Mn	55	2	He	101.507	0.428	557975	0.84	100	101.5	80	120	
Fe	56	2	He	111459.850	1.222	800063908	0.74	100	111459.8	80	120	ICSB Main CR1 Failed
Co	59	2	He	98.740	1.427	1091422	2.12	100	98.7	80	120	
Ni	60	2	He	101.644	1.444	273711	1.46	100	101.6	80	120	
Cu	63	2	He	97.359	2.461	694848	2.23	100	97.4	80	120	
Zn	66	2	He	103.261	1.593	175909	0.96	100	103.3	80	120	
As	75	2	He	103.848	0.879	178048	0.28	100	103.8	80	120	
Se	78	2	He	104.730	3.308	14639	2.36	100	104.7	80	120	
B	11	1	nogas	495.148	3.323	1114118	0.72	100	495.1	80	120	
Si	28	1	nogas	4977.432	5.118	48113063	2.42	100	4977.4	80	120	ICSB Main CR1 Failed
Ca	43	1	nogas	110936.728	1.140	4267851	1.58	100	110936.7	80	120	
Ca	44	1	nogas	110165.547	2.261	71636744	0.37	100	110165.5	80	120	
Fe	56	1	nogas	108799.041	5.262	3065161202	2.66	100	108799.0	80	120	
Se	77	1	nogas	87.608	11.108	66588	1.85	100	87.6	80	120	
Se	82	1	nogas	101.732	1.945	35485	0.69	100	101.7	80	120	
Mo	95	1	nogas	2162.244	3.338	15447165	0.78	100	2162.2	80	120	ICSB Main CR1 Failed
Sn	118	1	nogas	97.970	0.339	1028704	1.94	100	98.0	80	120	
Ba	137	1	nogas	100.770	0.560	511645	1.75	100	100.8	80	120	
Sb	121	2	He	98.182	0.565	648281	0.99	100	98.2	80	120	
La	139	1	nogas	196.418	27.783	877	14.84	100	196.4	80	120	ICSB 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	nogas	395935	2.64	495795	79.86	70	125	
Ge	72	1	nogas	3832137	2.61	4051369	94.59	70	125	
In	115	1	nogas	3606722	1.63	3950602	91.30	70	125	
Bi	209	1	nogas	2760882	3.38	3076125	89.75	70	125	
Ge	72	2	He	1008932	1.14	1075863	93.78	70	125	

Tune Report

Batch Folder C:\Agilent\ICPMH\1\DATA\090618A.b
Report Comment
Instrument Name G3281A JP11080910

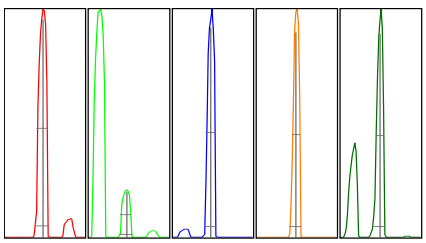
[nogas]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
9		15532				NaN	-	
24		45947				NaN	-	
59		67376				NaN	-	
115		68928				NaN	-	
208		35850				NaN	-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)	Background (Actual)	Background (Required)	Background (Flag)
9	1.07	5.00				
24	0.36	5.00				
59	0.70	5.00				
115	1.25	5.00				
208	1.44	5.00				

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	15609	15642	15703	15350	15356
24	46087	46132	45753	45803	45958
59	66961	66875	67778	67934	67330
115	68127	69087	69963	67979	69484
208	36720	35883	35675	35576	35396

Integration Time [sec] 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-X% (Actual)	W-X% (Required)	W-X% (Flag)
9	4291.74	8.95	8.9 - 9.1		0.38	0.477	0.750	
24	12723.02	23.95	23.9 - 24.1		0.37	0.460	0.750	
59	20064.51	58.95	58.9 - 59.1		0.33	0.439	0.750	
115	22009.36	115.00	114.9 - 115.1		0.30	0.436	0.750	
208	11040.59	208.00	207.9 - 208.1		0.31	0.487	0.750	

X = 5 **Integration Time [sec]** 0.1 **Acquisition Time [sec]** 168.5 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1600 W	Carrier Gas	0.45 L/min	S/C Temp	2 ℃
RF Matching	1.70 V	Option Gas	0.0 %	Makeup/Dilution Gas	0.40 L/min
Smpl Depth	8.0 mm	Nebulizer Pump	0.10 rps	Gas Switch	Dilution Gas

Lenses Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	15.0 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-100 V	Cell Exit	-58 V		

Cell Parameters

OctP Bias	-8.0 V	He Flow	0.0 mL/min	Energy Discrimination	5.0 V
OctP RF	190 V	H2 Flow	0.0 mL/min		
Use Gas	true	3rd Gas Flow	0 %		

[He]

Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
9		291				NaN	-	
24		3032				NaN	-	
59		27674				NaN	-	

Tune Report

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)	Background (Actual)	Background (Required)	Background (Flag)
9	5.42	5.00	[F]			
24	2.34	5.00				
59	2.12	5.00				

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	300	308	285	295	267
24	2963	2996	3005	3051	3146
59	27045	27133	27686	28167	28340

Integration Time [sec] 0.1

Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-X% (Actual)	W-X% (Required)	W-X% (Flag)
9	79.20	8.95	8.9 - 9.1		0.38	0.492	0.750	
24	839.64	23.90	23.9 - 24.1		0.37	0.446	0.750	
59	8513.18	58.95	58.9 - 59.1		0.32	0.434	0.750	

X = 5 **Integration Time [sec]** 0.1 **Acquisition Time [sec]** 100.6 **Y Axis** Linear

Tune Parameters

Plasma Paramters

RF Power	1600 W	Carrier Gas	0.45 L/min	S/C Temp	2 ℃
RF Matching	1.70 V	Option Gas	0.0 %	Makeup/Dilution Gas	0.40 L/min
Smpl Depth	8.0 mm	Nebulizer Pump	0.10 rps	Gas Switch	Dilution Gas

Lenses Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	2.0 V
Extract 2	-200.0 V	Cell Entrance	-32 V	Plate Bias	-60 V
Omega Bias	-100 V	Cell Exit	-70 V		

Cell Parameters

OctP Bias	-18.0 V	He Flow	4.0 mL/min	Energy Discrimination	5.0 V
OctP RF	190 V	H2 Flow	0.0 mL/min		
Use Gas	true	3rd Gas Flow	0 %		

Wet Chemistry Data Package

Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
ALS WO#HS18081504

HS18081504

Report Date: 10/10/2018 : 9:47 AM

PC-TitratION PLUS
Calibration Report

Calibration Record # 2005

Calibration Settings

Calibration ID	PH CAL 4-7-10	Date	09/04/2018
Channel	1	Time	4:28 PM
Probe Type	pH	Temperature	295.70 K 22.55 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-58.490	CorrCoeff	0.9997
Intercept	-4.597	Equation:	Y = (-58.490) X + (-4.597)

Calibration Validity True Operator

	Result	Minimum	Maximum
Slope	-58.490	-65.00	-53.00
Intercept	-4.597	-100.00	100.00
Correlation Coefficient	0.9997	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	4.00	173.21
	7.00	-9.27
	10.00	-177.73

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00919095

Report Date: 10/10/2018 : 9:47 AM

PC-TitratION PLUS
Water Analysis Historical Data Report

Run Number 3326 **Order Number** 20180904-2

SampleID	Schedule Name	RunDate	RunTime	cond (uS)	Temp	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
ICV-PH	PH ONLY 35ML	09/04/2018	4:57 PM	-1.00	22.07	6.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
TAP WATER	PH ALKALINITY 35ML	09/04/2018	5:04 PM	-1.00	22.19	7.41	.00	305.82	305.82	.00	.00	.00	2.91	2.91
WBLKW1-180904	PH ALKALINITY 35ML	09/04/2018	5:08 PM	-1.00	22.90	4.96	.00	.00	.00	.00	.00	.00	.01	.01
WLCS1-180904	PH ALKALINITY 35ML	09/04/2018	5:17 PM	-1.00	23.23	10.78	548.60	1,071.69	.00	1,046.18	25.51	5.22	10.21	10.21
WLCSD1-180904	PH ALKALINITY 35ML	09/04/2018	5:25 PM	-1.00	23.20	10.78	546.12	1,069.99	.00	1,047.75	22.24	5.20	10.19	10.19
HS18080295-32	PH ALKALINITY 35ML	09/04/2018	5:33 PM	-1.00	22.87	9.93	22.11	53.63	9.40	44.22	.00	.21	.51	.51
HS18080296-32	PH ALKALINITY 35ML	09/04/2018	5:41 PM	-1.00	22.57	10.20	51.74	106.97	3.49	103.48	.00	.49	1.02	1.02
HS18081428-09	PH ALKALINITY 35ML	09/04/2018	5:47 PM	-1.00	21.92	5.88	.00	203.51	203.51	.00	.00	.00	1.94	1.94
HS18081428-10	PH ALKALINITY 35ML	09/04/2018	5:53 PM	-1.00	21.69	6.25	.00	507.77	507.77	.00	.00	.00	4.84	4.84
HS18081473-02	PH ALKALINITY 35ML	09/04/2018	5:59 PM	-1.00	21.69	7.36	.00	282.07	282.07	.00	.00	.00	2.69	2.69
HS18081473-02	PH ALKALINITY 35ML	09/04/2018	6:06 PM	-1.00	21.92	7.50	.00	263.21	263.21	.00	.00	.00	2.51	2.51
CCV-PH	PH ONLY 35ML	09/04/2018	6:08 PM	-1.00	22.75	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	PH ALKALINITY 35ML	09/04/2018	6:17 PM	-1.00	22.67	10.77	544.93	1,070.84	.00	1,051.82	19.02	5.19	10.20	10.20
DI RINSE	PH ALKALINITY 35ML	09/04/2018	6:21 PM	-1.00	22.57	5.14	.00	.03	.03	.00	.00	.00	.01	.01
HS18081504-01	PH ALKALINITY 35ML	09/04/2018	6:25 PM	-1.00	22.16	4.50	.00	-4.71	-4.71	.00	.00	.00	.01	.01
HS18081504-01DUP	PH ALKALINITY 35ML	09/04/2018	6:30 PM	-1.00	22.05	4.49	.00	-4.81	-4.81	.00	.00	.00	.01	.01
HS18081504-02	PH ALKALINITY 35ML	09/04/2018	6:35 PM	-1.00	21.92	5.00	.00	32.41	32.41	.00	.00	.00	.31	.31
HS18081504-03	PH ALKALINITY 35ML	09/04/2018	6:40 PM	-1.00	21.89	5.04	.00	34.89	34.89	.00	.00	.00	.33	.33
HS18081571-01	PH ALKALINITY 35ML	09/04/2018	6:47 PM	-1.00	22.03	7.08	.00	373.80	373.80	.00	.00	.00	3.56	3.56
HS18081571-02	PH ALKALINITY 35ML	09/04/2018	6:54 PM	-1.00	22.29	7.72	.00	613.34	613.34	.00	.00	.00	5.84	5.84
HS18081571-03	PH ALKALINITY 35ML	09/04/2018	7:01 PM	-1.00	22.66	7.01	.00	645.92	645.92	.00	.00	.00	6.15	6.15
HS18081571-04	PH ALKALINITY 35ML	09/04/2018	7:08 PM	-1.00	22.51	7.03	.00	623.07	623.07	.00	.00	.00	5.93	5.93
HS18081500-01	PH ALKALINITY 35ML	09/04/2018	7:15 PM	-1.00	22.35	7.28	.00	70.75	70.75	.00	.00	.00	.67	.67
CCV-PH	PH ONLY 35ML	09/04/2018	7:17 PM	-1.00	22.37	7.06	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	PH ALKALINITY 35ML	09/04/2018	7:26 PM	-1.00	22.20	10.75	541.07	1,067.36	.00	1,052.58	14.78	5.15	10.17	10.17
DI RINSE	PH ALKALINITY 35ML	09/04/2018	7:31 PM	-1.00	22.28	5.16	.00	.14	.14	.00	.00	.00	.01	.01
HS18081428-08	PH ALKALINITY 35ML	09/04/2018	7:37 PM	-1.00	22.14	6.07	.00	321.62	321.62	.00	.00	.00	3.06	3.06

996 of 1210

PC-TitratION PLUS by Man-Tech Associates, Inc.

WATER ANALYSIS HISTORICAL REPORT.SRW

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00919096

Run Number 3326 **Order Number** 20180904-2

SampleID	Schedule Name	RunDate	RunTime	cond (uS)	Temp	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	mLs @ 8.3	mLs @ 4.5	mLs @ 4.2
CCV-PH	PH ONLY 35ML	09/04/2018	7:39 PM	-1.00	22.26	7.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
CCV-ALK	PH ALKALINITY 35ML	09/04/2018	7:47 PM	-1.00	22.54	10.72	537.63	1,069.17	.00	1,063.07	6.10	5.12	10.18	10.18
DI RINSE	PH ALKALINITY 35ML	09/04/2018	7:52 PM	-1.00	22.55	5.15	.00	.11	.11	.00	.00	.00	.01	.01

977 of 1210

PC-TitratION PLUS by Man-Tech Associates, Inc.

WATER ANALYSIS HISTORICAL REPORT.SRW

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HS 18081504

Reagent ID:	Prep. Date:		Date/Time:	9/5/18 17:00	Reported by:	JHD
2970207009			Batch ID:		Reviewed by:	
2970207103					Log Book #:	
2970204614			LCS ID# :	2970206615	Prep. Date:	
306066901	08/13/18		MS ID# :	2970206615	Prep. Date:	

Calculated Iodine Normality => 0.0247083333333333 Iodine (N)

WO	WO	Sx Vol. (mL)	Iodine (mL)	Titrant used (mL)	Sod. Thio. (N)	Iodine (N)	Init. Conc.	Final Conc.
STD1	STD1	0	20	19.70	0.0250	0.02463		
STD2	STD2	0	20	19.80	0.0250	0.02475	0.0247	
STD3	STD3	0	20	19.80	0.0250	0.02475	Iodine (N)	(mg/L)
BLK	BLK	200	20	19.90	0.0250	0.0247		-0.28
LCS	LCS	200	20	9.10	0.0250	0.0247		21.32
LCSD	LCSD	200	20	9.00	0.0250	0.0247		21.52
HS18081504-01	SAMP	200	20	11.70	0.0250	0.0247		16.12
HS18081504-02	SAMP	200	20	12.10	0.0250	0.0247		15.32
HS18081504-03	SAMP	200	20	10.00	0.0250	0.0247		19.52
HS18081504-01	MS	200	20	4.50	0.0250	0.0247		30.52
HS18090057-01	SAMP	200	20	12.00	0.0250	0.0247		15.52
HS18090068-01	SAMP	200	20	18.60	0.0250	0.0247		2.32
HS18081519-01	SAMP	0.2	40	13.70	0.0250	0.0247		51640.00
HS18081570-01	SAMP	200	20	14.20	0.0250	0.0247		11.12
					0.0250			
					0.0250			
					0.0250			
					0.0250			
					0.0250			
					0.0250			
					0.0250			
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					0.0250			
					0.0250			

978 of 1210

00919097

HS1808 & 1504

PREP BATCH REPORT

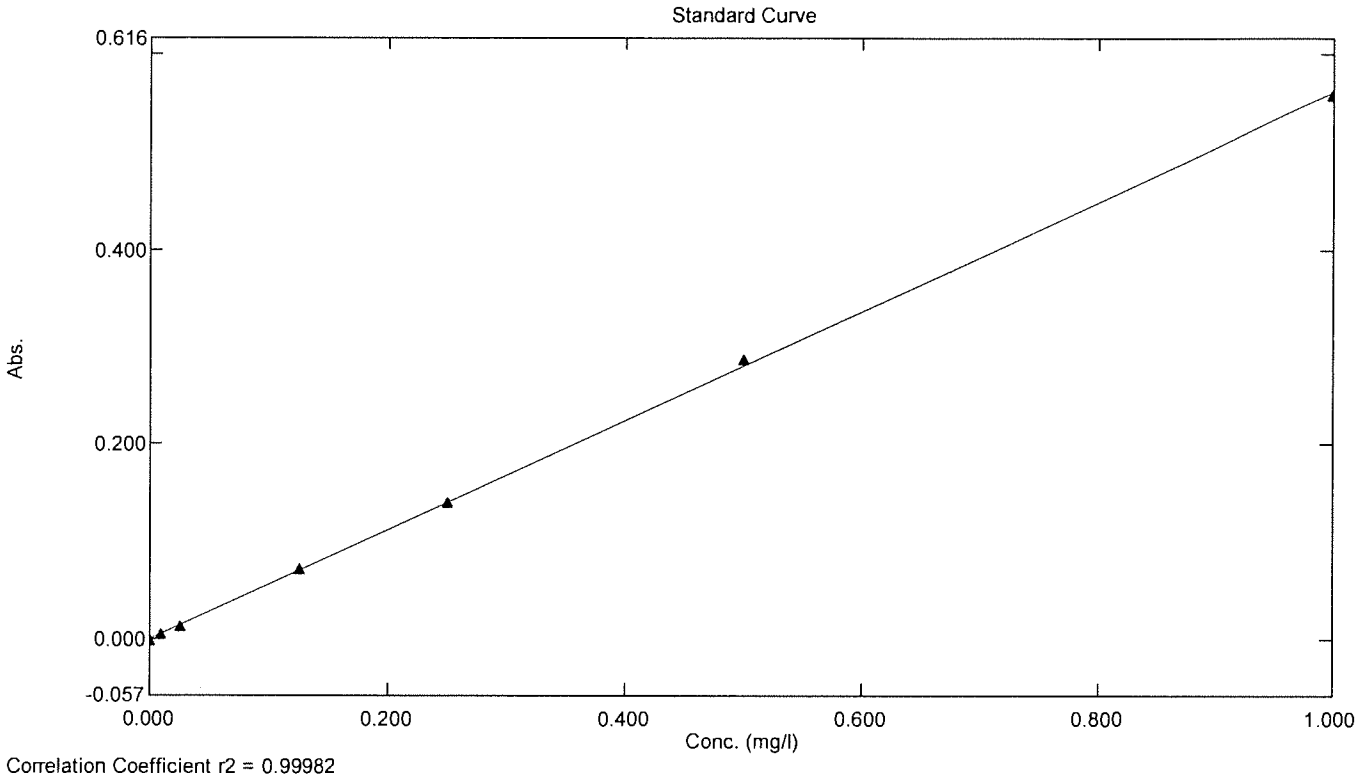
Batch ID: **132252**
Prep Code: **P_TW_PR4500**
InitSampWt/Vol 0
FinSampVol: 50
Start Date: **07-Sep-18 09:30 am**
End Date: **07-Sep-18 12:30 pm**
OriginalFac: 1
Technician:
PrepUnitFac: 1

SampID	Frac	Matrix	pH	Init Wt/Vol	FinalVol (mL)	PrepFac	SpkFac	Comments
HS18081428-07	G	Groundwater		50	50	1	1	
HS18081428-08	G	Groundwater		50	50	1	1	
HS18081428-09	G	Groundwater		50	50	1	1	
HS18081428-10	G	Groundwater		50	50	1	1	
HS18081489-01	D	Water		50	50	1	1	
HS18081500-01	G	Water		50	50	1	1	
HS18081504-01	G	Groundwater		50	50	1	1	
HS18081504-01MS	A			50	50	1	1	
HS18081504-01MSD	A			50	50	1	1	
HS18081504-02	G	Groundwater		50	50	1	1	
HS18081504-03	G	Groundwater		50	50	1	1	
HS18090057-01	O	Water		50	50	1	1	
HS18090068-01	J	Water		50	50	1	1	
HS18090120-01	F	Water		50	50	1	1	
HS18090126-01	A	Water		50	50	1	1	
HS18090226-01	G	Water		50	50	1	1	
HS18090246-01	E	Liquid		5	50	10	10	
LCS-132252	A			50	50	1	1	
MBLK-132252	A			50	50	1	1	

Standard Table Report

10/09/2018 03:18:42 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\T_PO4_UNKNOWN\2018P_TW\180907_P_TW_.pho



Correlation Coefficient r2 = 0.99982

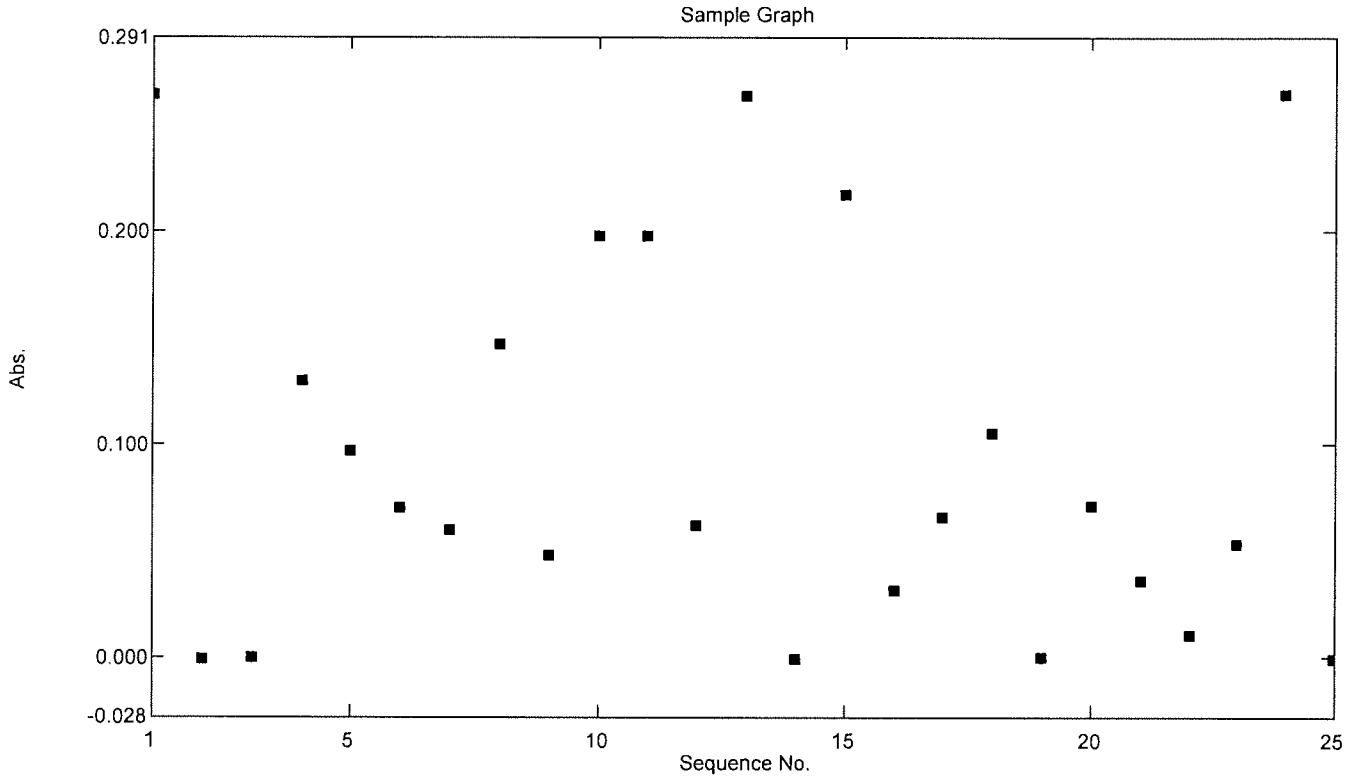
Standard Table

	Sample ID	Type	Ex	Conc	WL880.0	Wgt.Facto	Comments
1	STD1	Standard		0.000	-0.001	1.000	
2	STD2	Standard		0.010	0.005	1.000	
3	STD3	Standard		0.025	0.013	1.000	
4	STD4	Standard		0.125	0.071	1.000	
5	STD5	Standard		0.250	0.140	1.000	
6	STD6	Standard		0.500	0.286	1.000	
7	STD7	Standard		1.000	0.557	1.000	
8							

Sample Table Report

10/09/2018 03:18:40 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\T_PO4_UNKNOWN\2018P_TW\180907_P_TW_.pho



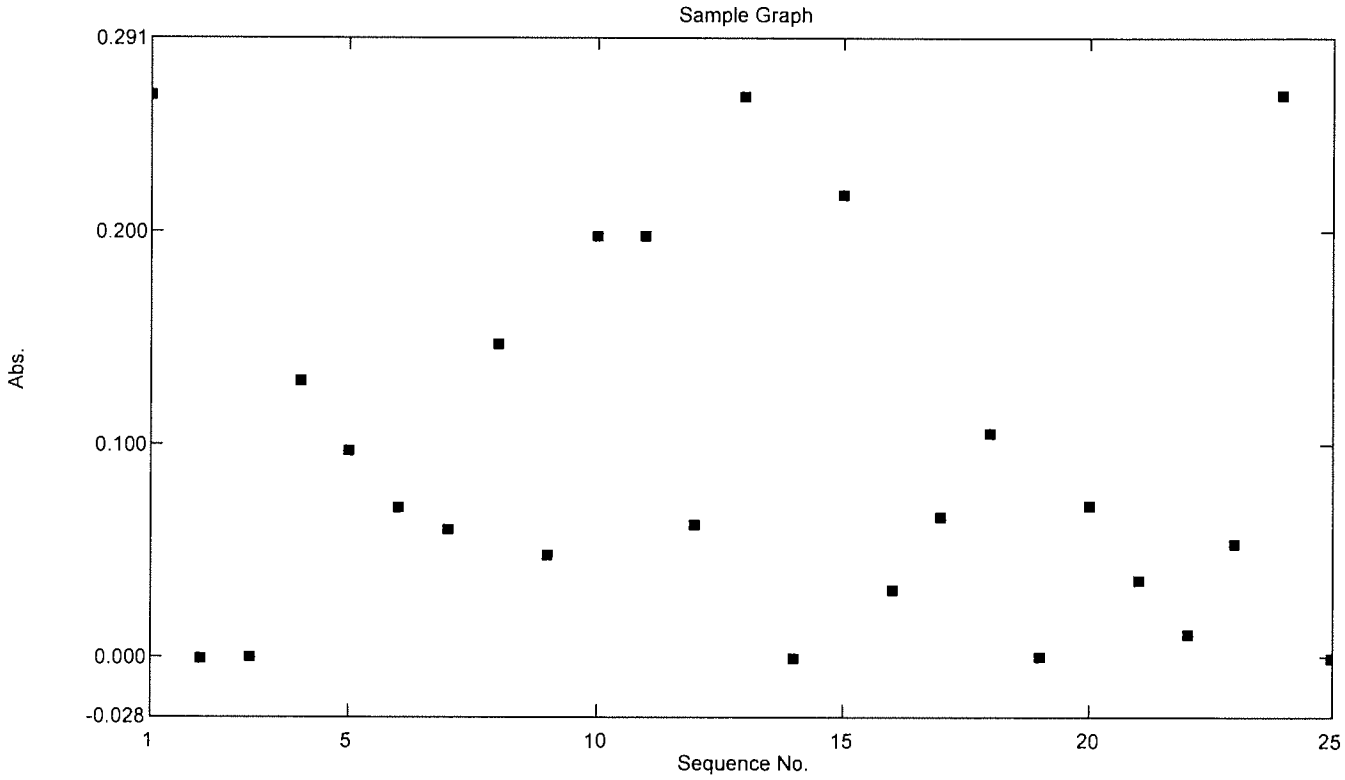
Sample Table

	Sample ID	Type	Ex	Conc	WL880.0	Comments
1	CCV	Unknown		0.471	0.264	
2	CCB	Unknown		-0.003	-0.001	
3	MBLK	Unknown		-0.001	-0.000	
4	LCS	Unknown		0.230	0.129	
5	18081428.07	Unknown		0.172	0.097	
6	18081428.08	Unknown		0.124	0.070	
7	18081428.09	Unknown		0.105	0.060	
8	18081428.10	Unknown		0.262	0.147	
9	18081504.01	Unknown		0.084	0.048	
10	18081504.01MS	Unknown		0.352	0.198	
11	18081504.01MSD	Unknown		0.353	0.198	
12	18081504.02	Unknown		0.110	0.062	
13	CCV2	Unknown		0.469	0.263	
14	CCB2	Unknown		-0.003	-0.001	
15	18081489.01	Unknown		0.387	0.217	
16	18081500.01	Unknown		0.055	0.031	
17	18090057.01	Unknown		0.116	0.066	
18	18090068.01	Unknown		0.187	0.105	
19	18090120.01	Unknown		-0.001	0.000	

Sample Table Report

10/09/2018 03:18:40 PM

File Name: C:\Program Files (x86)\Shimadzu\UVProbe\Data\T_PO4_UNKNOWN\2018P_TW\180907_P_TW_.pho



Sample Table

	Sample ID	Type	Ex	Conc	WL880.0	Comments
20	18090126.01	Unknown		0.125	0.070	
21	18090226.01	Unknown		0.063	0.036	
22	18090246.01	Unknown		0.018	0.010	PF:10X
23	18081504.03	Unknown		0.094	0.053	
24	CCV3	Unknown		0.472	0.265	
25	CCB3	Unknown		-0.003	-0.001	
26						

Sequence: 082918 HS180815O4
Operator: ALSHS.NoUser

Printed: 9/4/2018 12:14:19 PM

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	Comment	Type	Pos.	Dil. Factor	Inj. Vol.	*Initial_Vol_Wt	*Final_Volume
1	STD1		Standard	1	1.0000	10.0	1.00	1.00
2	STD2		Standard	2	1.0000	10.0	1.00	1.00
3	STD3		Standard	3	1.0000	10.0	1.00	1.00
4	STD4		Standard	4	1.0000	10.0	1.00	1.00
5	STD5		Standard	5	1.0000	10.0	1.00	1.00
6	STD6		Standard	6	1.0000	10.0	1.00	1.00
7	ICV		Unknown	7	1.0000	10.0	1.00	1.00
8	ICB		Unknown	8	1.0000	10.0	1.00	1.00
9	CCV		Unknown	1	1.0000	10.0	1.00	1.00
10	CCB		Unknown	2	1.0000	10.0	1.00	1.00
11	WBLKW1-082918	300_W/9056_W	Unknown	5	1.0000	10.0	1.00	1.00
12	WLCSW1-082918		Unknown	6	1.0000	10.0	1.00	1.00
13	WLCSDW1-082918		Unknown	7	1.0000	10.0	1.00	1.00
14	HS18081362-01		Unknown	11	1.0000	10.0	1.00	1.00
15	HS18081363-01		Unknown	12	1.0000	10.0	1.00	1.00
16	HS18081363-02		Unknown	13	1.0000	10.0	1.00	1.00
17	HS18081252-01		Unknown	14	1.0000	10.0	1.00	1.00
18	HS18081252-01MS		Unknown	15	1.0000	10.0	1.00	1.00
19	HS18081252-01MSD		Unknown	16	1.0000	10.0	1.00	1.00
20	HS18081252-01DF20		Unknown	17	20.0000	10.0	1.00	1.00
21	CCV1		Unknown	3	1.0000	10.0	1.00	1.00
22	CCB		Unknown	4	1.0000	10.0	1.00	1.00
23	HS18081253-01		Unknown	18	1.0000	10.0	1.00	1.00
24	HS18081253-01DF10		Unknown	19	10.0000	10.0	1.00	1.00
25	HS18081343-01DF5		Unknown	20	5.0000	10.0	1.00	1.00
26	HS18081343-02DF5		Unknown	21	5.0000	10.0	1.00	1.00
27	HS18081343-03DF5		Unknown	22	5.0000	10.0	1.00	1.00
28	DI H2O		Unknown	10	1.0000	10.0	1.00	1.00
29	HS18081259-03		Unknown	23	1.0000	10.0	1.00	1.00
30	HS18081259-04		Unknown	24	1.0000	10.0	1.00	1.00
31	HS18081259-02DF50		Unknown	25	50.0000	10.0	1.00	1.00
32	HS18081259-05DF50		Unknown	26	50.0000	10.0	1.00	1.00
33	CCV		Unknown	1	1.0000	10.0	1.00	1.00
34	CCB		Unknown	2	1.0000	10.0	1.00	1.00
35	HS18081259-06DF500		Unknown	27	500.0000	10.0	1.00	1.00
36	HS18081259-06MSDF500		Unknown	28	500.0000	10.0	1.00	1.00
37	HS18081259-06MSDDF500		Unknown	29	500.0000	10.0	1.00	1.00
38	HS18081259-07DF500		Unknown	30	500.0000	10.0	1.00	1.00
39	HS18081259-08DF50		Unknown	31	50.0000	10.0	1.00	1.00
40	HS18081259-09DF500		Unknown	32	500.0000	10.0	1.00	1.00
41	HS18081428-07DF100	9056_W SO4	Unknown	38	100.0000	10.0	1.00	1.00
42	HS18081259-06DF10		Unknown	33	10.0000	10.0	1.00	1.00

Sequence: 082918
Operator: ALSHS.NoUser

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	Method	Status	Inj. Date/Time	Program
1	STD1	081518	Finished	8/16/2018 1:26:22 AM	Anions Gradient Program
2	STD2	081518	Finished	8/16/2018 1:40:55 AM	Anions Gradient Program
3	STD3	081518	Finished	8/16/2018 1:55:28 AM	Anions Gradient Program
4	STD4	081518	Finished	8/16/2018 2:10:01 AM	Anions Gradient Program
5	STD5	081518	Finished	8/16/2018 2:24:34 AM	Anions Gradient Program
6	STD6	081518	Finished	8/16/2018 2:39:07 AM	Anions Gradient Program
7	ICV	081518	Finished	8/16/2018 2:53:40 AM	Anions Gradient Program
8	ICB	081518	Finished	8/16/2018 3:08:13 AM	Anions Gradient Program
9	CCV	081518	Finished	8/29/2018 12:42:31 PM	Anions Gradient Program
10	CCB	081518	Finished	8/29/2018 12:57:04 PM	Anions Gradient Program
11	WBLKW1-082918	081518	Finished	8/29/2018 1:11:36 PM	Anions Gradient Program
12	WLCSW1-082918	081518	Finished	8/29/2018 1:26:09 PM	Anions Gradient Program
13	WLCSDW1-082918	081518	Finished	8/29/2018 1:40:42 PM	Anions Gradient Program
14	HS18081362-01	081518	Finished	8/29/2018 1:55:15 PM	Anions Gradient Program
15	HS18081363-01	081518	Finished	8/29/2018 2:09:48 PM	Anions Gradient Program
16	HS18081363-02	081518	Finished	8/29/2018 2:24:21 PM	Anions Gradient Program
17	HS18081252-01	081518	Finished	8/29/2018 2:38:53 PM	Anions Gradient Program
18	HS18081252-01MS	081518	Finished	8/29/2018 2:53:26 PM	Anions Gradient Program
19	HS18081252-01MSD	081518	Finished	8/29/2018 3:07:59 PM	Anions Gradient Program
20	HS18081252-01DF20	081518	Finished	8/29/2018 3:22:32 PM	Anions Gradient Program
21	CCV1	081518	Finished	8/29/2018 3:37:06 PM	Anions Gradient Program
22	CCB	081518	Finished	8/29/2018 3:51:38 PM	Anions Gradient Program
23	HS18081253-01	081518	Finished	8/29/2018 4:06:11 PM	Anions Gradient Program
24	HS18081253-01DF10	081518	Finished	8/29/2018 4:20:44 PM	Anions Gradient Program
25	HS18081343-01DF5	081518	Finished	8/29/2018 4:35:17 PM	Anions Gradient Program
26	HS18081343-02DF5	081518	Finished	8/29/2018 4:49:50 PM	Anions Gradient Program
27	HS18081343-03DF5	081518	Finished	8/29/2018 5:04:23 PM	Anions Gradient Program
28	DI H2O	081518	Finished	8/29/2018 5:18:55 PM	Anions Gradient Program
29	HS18081259-03	081518	Finished	8/29/2018 6:14:45 PM	Anions Gradient Program
30	HS18081259-04	081518	Finished	8/29/2018 6:29:18 PM	Anions Gradient Program
31	HS18081259-02DF50	081518	Finished	8/29/2018 6:43:51 PM	Anions Gradient Program
32	HS18081259-05DF50	081518	Finished	8/29/2018 6:58:24 PM	Anions Gradient Program
33	CCV	081518	Finished	8/29/2018 7:12:57 PM	Anions Gradient Program
34	CCB	081518	Finished	8/29/2018 7:27:30 PM	Anions Gradient Program
35	HS18081259-06DF500	081518	Finished	8/29/2018 7:42:03 PM	Anions Gradient Program
36	HS18081259-06MSDF500	081518	Finished	8/29/2018 7:56:35 PM	Anions Gradient Program
37	HS18081259-06MSDDF500	081518	Finished	8/29/2018 8:11:08 PM	Anions Gradient Program
38	HS18081259-07DF500	081518	Finished	8/29/2018 8:25:41 PM	Anions Gradient Program
39	HS18081259-08DF50	081518	Finished	8/29/2018 8:40:13 PM	Anions Gradient Program
40	HS18081259-09DF500	081518	Finished	8/29/2018 8:54:46 PM	Anions Gradient Program
41	HS18081428-07DF100	081518	Finished	8/29/2018 9:37:18 PM	Anions Gradient Program
42	HS18081259-06DF10	081518	Finished	8/29/2018 9:51:50 PM	Anions Gradient Program

Sequence: 082918
Operator: ALSHS.NoUser

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	GUID
1	STD1	299f6b46-a11d-11e8-b6d9-ac2a724b15e4
2	STD2	3209d783-a11f-11e8-b6d9-ac2a724b15e4
3	STD3	3a52e31a-a121-11e8-b6d9-ac2a724b15e4
4	STD4	429beeb1-a123-11e8-b6d9-ac2a724b15e4
5	STD5	4ae75c9d-a125-11e8-b6d9-ac2a724b15e4
6	STD6	53411887-a127-11e8-b6d9-ac2a724b15e4
7	ICV	5b87c1c9-a129-11e8-b6d9-ac2a724b15e4
8	ICB	6402de59-a12b-11e8-b6d9-ac2a724b15e4
9	CCV	6692c14d-abb2-11e8-b6d9-ac2a724b15e4
10	CCB	ce45008d-abb4-11e8-b6d9-ac2a724b15e4
11	WBLKW1-082918	d67d5bd1-abb6-11e8-b6d9-ac2a724b15e4
12	WLCSW1-082918	dec40513-abb8-11e8-b6d9-ac2a724b15e4
13	WLCSDW1-082918	e70f72ff-abba-11e8-b6d9-ac2a724b15e4
14	HS18081362-01	ef47ce43-abbc-11e8-b6d9-ac2a724b15e4
15	HS18081363-01	f7828bdc-abbe-11e8-b6d9-ac2a724b15e4
16	HS18081363-02	ffc6d2c9-abc0-11e8-b6d9-ac2a724b15e4
17	HS18081252-01	07ff2e0d-abc3-11e8-b6d9-ac2a724b15e4
18	HS18081252-01MS	104839a4-abc5-11e8-b6d9-ac2a724b15e4
19	HS18081252-01MSD	18b9cce0-abc7-11e8-b6d9-ac2a724b15e4
20	HS18081252-01DF20	20d7ee7d-abc9-11e8-b6d9-ac2a724b15e4
21	CCV1	295a320c-abcb-11e8-b6d9-ac2a724b15e4
22	CCB	31bb14f5-abcd-11e8-b6d9-ac2a724b15e4
23	HS18081253-01	3a14d0df-abcf-11e8-b6d9-ac2a724b15e4
24	HS18081253-01DF10	424d2c23-abd1-11e8-b6d9-ac2a724b15e4
25	HS18081343-01DF5	4a8a4c11-abd3-11e8-b6d9-ac2a724b15e4
26	HS18081343-02DF5	52dc8203-abd5-11e8-b6d9-ac2a724b15e4
27	HS18081343-03DF5	5b48d8f7-abd7-11e8-b6d9-ac2a724b15e4
28	DI H2O	634fa4e3-abd9-11e8-b6d9-ac2a724b15e4
29	HS18081259-03	d09eabb9-abe0-11e8-b6d9-ac2a724b15e4
30	HS18081259-04	3844ff50-abe3-11e8-b6d9-ac2a724b15e4
31	HS18081259-02DF50	407895ea-abe5-11e8-b6d9-ac2a724b15e4
32	HS18081259-05DF50	48c403d6-abe7-11e8-b6d9-ac2a724b15e4
33	CCV	510aad18-abe9-11e8-b6d9-ac2a724b15e4
34	CCB	5953b8af-abeb-11e8-b6d9-ac2a724b15e4
35	HS18081259-06DF500	619a61f1-abed-11e8-b6d9-ac2a724b15e4
36	HS18081259-06MSDF500	69d781df-abef-11e8-b6d9-ac2a724b15e4
37	HS18081259-06MSDDF500	71cab982-abf1-11e8-b6d9-ac2a724b15e4
38	HS18081259-07DF500	7a3525bf-abf3-11e8-b6d9-ac2a724b15e4
39	HS18081259-08DF50	8263f7af-abf5-11e8-b6d9-ac2a724b15e4
40	HS18081259-09DF500	8a99f09e-abf7-11e8-b6d9-ac2a724b15e4
41	HS18081428-07DF100	1bf6aaaa-abfd-11e8-b6d9-ac2a724b15e4
42	HS18081259-06DF10	837dfff0-abff-11e8-b6d9-ac2a724b15e4

Sequence: 082918
Operator: ALSHS.NoUser

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	Comment	Type	Pos.	Dil. Factor	Inj. Vol.	*Initial_Vol_Wt	*Final_Volume
43	HS18081259-06MSDF10		Unknown	34	10.0000	10.0	1.00	1.00
44	HS18081259-06MSDDF10		Unknown	35	10.0000	10.0	1.00	1.00
45	CCV1		Unknown	3	1.0000	10.0	1.00	1.00
46	CCB		Unknown	4	1.0000	10.0	1.00	1.00
47	HS18081428-07	9056_W CL NO2/3 SO4	Unknown	36	1.0000	10.0	1.00	1.00
48	HS18081428-07DF10		Unknown	37	10.0000	10.0	1.00	1.00
49	HS18081428-08		Unknown	39	1.0000	10.0	1.00	1.00
50	HS18081428-08DF10		Unknown	40	10.0000	10.0	1.00	1.00
51	HS18081428-09		Unknown	41	1.0000	10.0	1.00	1.00
52	HS18081428-09DF10		Unknown	42	10.0000	10.0	1.00	1.00
53	HS18081428-09DF100		Unknown	43	100.0000	10.0	1.00	1.00
54	HS18081428-10		Unknown	44	1.0000	10.0	1.00	1.00
55	HS18081428-10DF10	DONE	Unknown	45	10.0000	10.0	1.00	1.00
56	DI H2O		Unknown	10	1.0000	10.0	1.00	1.00
57	CCV		Unknown	1	1.0000	10.0	1.00	1.00
58	CCB		Unknown	2	1.0000	10.0	1.00	1.00
59	MBLK-131989		Unknown	46	1.0000	10.0	1.00	1.00
60	LCS-131989		Unknown	47	1.0000	10.0	1.00	1.00
61	LCSD-131989		Unknown	48	1.0000	10.0	1.00	1.00
62	HS18081284-01		Unknown	49	1.0000	10.0	1.00	1.00
63	HS18081284-02		Unknown	50	1.0000	10.0	1.00	1.00
64	HS18081284-03		Unknown	51	1.0000	10.0	1.00	1.00
65	HS18081284-04		Unknown	52	1.0000	10.0	1.00	1.00
66	HS18081284-04MS		Unknown	53	1.0000	10.0	1.00	1.00
67	HS18081284-04MSD		Unknown	54	1.0000	10.0	1.00	1.00
68	HS18081284-05		Unknown	55	1.0000	10.0	1.00	1.00
69	CCV1		Unknown	3	1.0000	10.0	1.00	1.00
70	CCB		Unknown	4	1.0000	10.0	1.00	1.00
71	HS18081284-06		Unknown	56	1.0000	10.0	1.00	1.00
72	HS18081284-07		Unknown	57	1.0000	10.0	1.00	1.00
73	HS18081284-08		Unknown	58	1.0000	10.0	1.00	1.00
74	HS18081285-01		Unknown	59	1.0000	10.0	1.00	1.00
75	HS18081285-01MS		Unknown	60	1.0000	10.0	1.00	1.00
76	HS18081285-01MSD		Unknown	61	1.0000	10.0	1.00	1.00
77	HS18081285-02		Unknown	62	1.0000	10.0	1.00	1.00
78	HS18081285-03		Unknown	63	1.0000	10.0	1.00	1.00
79	HS18081285-04		Unknown	64	1.0000	10.0	1.00	1.00
80	HS18081285-05		Unknown	65	1.0000	10.0	1.00	1.00
81	CCV		Unknown	1	1.0000	10.0	1.00	1.00
82	CCB		Unknown	2	1.0000	10.0	1.00	1.00
83	HS18081285-06		Unknown	66	1.0000	10.0	1.00	1.00
84	HS18081285-07		Unknown	67	1.0000	10.0	1.00	1.00

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100 Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
#Samples: 140 (Modified, not saved)

No.	Name	Method	Status	Inj. Date/Time	Program
43	HS18081259-06MSDF10	081518	Finished	8/29/2018 10:06:23 PM	Anions Gradient Program
44	HS18081259-06MSDDF10	081518	Finished	8/29/2018 10:20:56 PM	Anions Gradient Program
45	CCV1	081518	Finished	8/29/2018 10:35:29 PM	Anions Gradient Program
46	CCB	081518	Finished	8/29/2018 10:50:02 PM	Anions Gradient Program
47	HS18081428-07	081518	Finished	8/29/2018 11:04:35 PM	Anions Gradient Program
48	HS18081428-07DF10	081518	Finished	8/29/2018 11:19:08 PM	Anions Gradient Program
49	HS18081428-08	081518	Finished	8/29/2018 11:33:41 PM	Anions Gradient Program
50	HS18081428-08DF10	081518	Finished	8/29/2018 11:48:14 PM	Anions Gradient Program
51	HS18081428-09	081518	Finished	8/30/2018 12:02:47 AM	Anions Gradient Program
52	HS18081428-09DF10	081518	Finished	8/30/2018 12:17:20 AM	Anions Gradient Program
53	HS18081428-09DF100	081518	Finished	8/30/2018 12:31:53 AM	Anions Gradient Program
54	HS18081428-10	081518	Finished	8/30/2018 12:46:25 AM	Anions Gradient Program
55	HS18081428-10DF10	081518	Finished	8/30/2018 1:00:58 AM	Anions Gradient Program
56	DI H2O	081518	Finished	8/30/2018 1:15:31 AM	Anions Gradient Program
57	CCV	081518	Finished	8/30/2018 1:30:04 AM	Anions Gradient Program
58	CCB	081518	Finished	8/30/2018 1:44:37 AM	Anions Gradient Program
59	MBLK-131989	081518	Finished	8/30/2018 1:59:10 AM	Anions Gradient Program
60	LCS-131989	081518	Finished	8/30/2018 2:13:43 AM	Anions Gradient Program
61	LCSD-131989	081518	Finished	8/30/2018 2:28:15 AM	Anions Gradient Program
62	HS18081284-01	081518	Finished	8/30/2018 2:42:49 AM	Anions Gradient Program
63	HS18081284-02	081518	Finished	8/30/2018 2:57:21 AM	Anions Gradient Program
64	HS18081284-03	081518	Finished	8/30/2018 3:11:54 AM	Anions Gradient Program
65	HS18081284-04	081518	Finished	8/30/2018 3:26:27 AM	Anions Gradient Program
66	HS18081284-04MS	081518	Finished	8/30/2018 3:41:00 AM	Anions Gradient Program
67	HS18081284-04MSD	081518	Finished	8/30/2018 3:55:33 AM	Anions Gradient Program
68	HS18081284-05	081518	Finished	8/30/2018 4:10:05 AM	Anions Gradient Program
69	CCV1	081518	Finished	8/30/2018 4:24:38 AM	Anions Gradient Program
70	CCB	081518	Finished	8/30/2018 4:39:11 AM	Anions Gradient Program
71	HS18081284-06	081518	Finished	8/30/2018 4:53:44 AM	Anions Gradient Program
72	HS18081284-07	081518	Finished	8/30/2018 5:08:17 AM	Anions Gradient Program
73	HS18081284-08	081518	Finished	8/30/2018 5:22:50 AM	Anions Gradient Program
74	HS18081285-01	081518	Finished	8/30/2018 5:37:23 AM	Anions Gradient Program
75	HS18081285-01MS	081518	Finished	8/30/2018 5:51:56 AM	Anions Gradient Program
76	HS18081285-01MSD	081518	Finished	8/30/2018 6:06:29 AM	Anions Gradient Program
77	HS18081285-02	081518	Finished	8/30/2018 6:21:01 AM	Anions Gradient Program
78	HS18081285-03	081518	Finished	8/30/2018 6:35:35 AM	Anions Gradient Program
79	HS18081285-04	081518	Finished	8/30/2018 6:50:08 AM	Anions Gradient Program
80	HS18081285-05	081518	Finished	8/30/2018 7:04:40 AM	Anions Gradient Program
81	CCV	081518	Finished	8/30/2018 7:19:13 AM	Anions Gradient Program
82	CCB	081518	Finished	8/30/2018 7:33:46 AM	Anions Gradient Program
83	HS18081285-06	081518	Finished	8/30/2018 7:48:19 AM	Anions Gradient Program
84	HS18081285-07	081518	Finished	8/30/2018 8:02:52 AM	Anions Gradient Program

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100 Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
#Samples: 140 (Modified, not saved)

No.	Name	GUID
43	HS18081259-06MSDF10	8bc96ddc-ac01-11e8-b6d9-ac2a724b15e4
44	HS18081259-06MSDDF10	94127973-ac03-11e8-b6d9-ac2a724b15e4
45	CCV1	9c4d370c-ac05-11e8-b6d9-ac2a724b15e4
46	CCB	a4917df9-ac07-11e8-b6d9-ac2a724b15e4
47	HS18081428-07	aceffe8d-ac09-11e8-b6d9-ac2a724b15e4
48	HS18081428-07DF10	b534457a-ac0b-11e8-b6d9-ac2a724b15e4
49	HS18081428-08	bd716568-ac0d-11e8-b6d9-ac2a724b15e4
50	HS18081428-08DF10	c5ba70ff-ac0f-11e8-b6d9-ac2a724b15e4
51	HS18081428-09	cdfeb7ec-ac11-11e8-b6d9-ac2a724b15e4
52	HS18081428-09DF10	d69d9777-ac13-11e8-b6d9-ac2a724b15e4
53	HS18081428-09DF100	dee6a30e-ac15-11e8-b6d9-ac2a724b15e4
54	HS18081428-10	e71c9bfd-ac17-11e8-b6d9-ac2a724b15e4
55	HS18081428-10DF10	ef6a6c3e-ac19-11e8-b6d9-ac2a724b15e4
56	DI H2O	f79ba083-ac1b-11e8-b6d9-ac2a724b15e4
57	CCV	00086f15-ac1e-11e8-b6d9-ac2a724b15e4
58	CCB	0840ca59-ac20-11e8-b6d9-ac2a724b15e4
59	MBLK-131989	10b2ee7d-ac22-11e8-b6d9-ac2a724b15e4
60	LCS-131989	18969dcb-ac24-11e8-b6d9-ac2a724b15e4
61	LCSD-131989	20ecdf2e-ac26-11e8-b6d9-ac2a724b15e4
62	HS18081284-01	2931261b-ac28-11e8-b6d9-ac2a724b15e4
63	HS18081284-02	316be3b4-ac2a-11e8-b6d9-ac2a724b15e4
64	HS18081284-03	39d64ff1-ac2c-11e8-b6d9-ac2a724b15e4
65	HS18081284-04	421f5b88-ac2e-11e8-b6d9-ac2a724b15e4
66	HS18081284-04MS	4a4e2d78-ac30-11e8-b6d9-ac2a724b15e4
67	HS18081284-04MSD	528dafbb-ac32-11e8-b6d9-ac2a724b15e4
68	HS18081284-05	5acf9453-ac34-11e8-b6d9-ac2a724b15e4
69	CCV1	62f4dcef-ac36-11e8-b6d9-ac2a724b15e4
70	CCB	6b4c3684-ac38-11e8-b6d9-ac2a724b15e4
71	HS18081284-06	7395421b-ac3a-11e8-b6d9-ac2a724b15e4
72	HS18081284-07	7bcd9d5f-ac3c-11e8-b6d9-ac2a724b15e4
73	HS18081284-08	84524343-ac3e-11e8-b6d9-ac2a724b15e4
74	HS18081285-01	8c98ec85-ac40-11e8-b6d9-ac2a724b15e4
75	HS18081285-01MS	94dd3372-ac42-11e8-b6d9-ac2a724b15e4
76	HS18081285-01MSD	9d0c0562-ac44-11e8-b6d9-ac2a724b15e4
77	HS18081285-02	a571acf5-ac46-11e8-b6d9-ac2a724b15e4
78	HS18081285-03	adcb68df-ac48-11e8-b6d9-ac2a724b15e4
79	HS18081285-04	b62eae1d-ac4a-11e8-b6d9-ac2a724b15e4
80	HS18081285-05	be72f50a-ac4c-11e8-b6d9-ac2a724b15e4
81	CCV	c6b2774d-ac4e-11e8-b6d9-ac2a724b15e4
82	CCB	cef45be5-ac50-11e8-b6d9-ac2a724b15e4
83	HS18081285-06	d72cb729-ac52-11e8-b6d9-ac2a724b15e4
84	HS18081285-07	df73606b-ac54-11e8-b6d9-ac2a724b15e4

Sequence: 082918
Operator: ALSHS.NoUser

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	Comment	Type	Pos.	Dil. Factor	Inj. Vol.	*Initial_Vol_Wt	*Final_Volume
85	HS18081285-08		Unknown	68	1.0000	10.0	1.00	1.00
86	HS18081285-09		Unknown	69	1.0000	10.0	1.00	1.00
87	CCV1		Unknown	3	1.0000	10.0	1.00	1.00
88	CCB		Unknown	4	1.0000	10.0	1.00	1.00
89	DI H2O		Unknown	10	1.0000	10.0	1.00	1.00
90	HS18081259-09DF50		Unknown	70	50.0000	10.0	1.00	1.00
91	CCV		Unknown	1	1.0000	10.0	1.00	1.00
92	CCB		Unknown	2	1.0000	10.0	1.00	1.00
93	WBLKW1-083018	300_W/9056_W	Unknown	5	1.0000	10.0	1.00	1.00
94	WLCSW1-083018		Unknown	6	1.0000	10.0	1.00	1.00
95	WLCSDW1-083018		Unknown	7	1.0000	10.0	1.00	1.00
96	HS18081444-01		Unknown	11	1.0000	10.0	1.00	1.00
97	HS18081445-01		Unknown	13	1.0000	10.0	1.00	1.00
98	DI H2O		Unknown	10	1.0000	10.0	1.00	1.00
99	HS18081473-02		Unknown	14	1.0000	10.0	1.00	1.00
100	HS18081473-02MS		Unknown	15	1.0000	10.0	1.00	1.00
101	HS18081473-02MSD		Unknown	16	1.0000	10.0	1.00	1.00
102	HS18081473-02DF10		Unknown	17	10.0000	10.0	1.00	1.00
103	CCV1		Unknown	3	1.0000	10.0	1.00	1.00
104	CCB		Unknown	4	1.0000	10.0	1.00	1.00
105	HS18081473-03		Unknown	18	1.0000	10.0	1.00	1.00
106	HS18081473-03DF10		Unknown	19	10.0000	10.0	1.00	1.00
107	HS18081463-01		Unknown	20	1.0000	10.0	1.00	1.00
108	HS18081463-02		Unknown	21	1.0000	10.0	1.00	1.00
109	HS18081463-03		Unknown	22	1.0000	10.0	1.00	1.00
110	HS18081463-03DF10		Unknown	23	10.0000	10.0	1.00	1.00
111	DI H2O		Unknown	10	1.0000	10.0	1.00	1.00
112	HS18081351-01DF10		Unknown	24	10.0000	10.0	1.00	1.00
113	HS18081351-02DF10		Unknown	25	10.0000	10.0	1.00	1.00
114	HS18081351-03DF10		Unknown	26	10.0000	10.0	1.00	1.00
115	CCV		Unknown	1	1.0000	10.0	1.00	1.00
116	CCB		Unknown	2	1.0000	10.0	1.00	1.00
117	HS18081351-04DF10		Unknown	27	10.0000	10.0	1.00	1.00
118	HS18081351-04MSDF10		Unknown	28	10.0000	10.0	1.00	1.00
119	HS18081351-04MSDDF10		Unknown	29	10.0000	10.0	1.00	1.00
120	HS18081500-01DF2		Unknown	56	2.0000	10.0	1.00	1.00
121	HS18081500-01DF10		Unknown	57	10.0000	10.0	1.00	1.00
122	HS18081500-01DF100		Unknown	58	100.0000	10.0	1.00	1.00
123	HS18081521-01DF10		Unknown	61	10.0000	10.0	1.00	1.00
124	HS18081504-01	9056_W	Unknown	64	1.0000	10.0	1.00	1.00
125	HS18081504-01MS		Unknown	65	1.0000	10.0	1.00	1.00
126	HS18081504-01MSD		Unknown	66	1.0000	10.0	1.00	1.00

Sequence: 082918
Operator: ALSHS.NoUser

Printed: 9/4/2018 12:14:19 PM

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	Method	Status	Inj. Date/Time	Program
85	HS18081285-08	081518	Finished	8/30/2018 8:17:25 AM	Anions Gradient Program
86	HS18081285-09	081518	Finished	8/30/2018 8:31:58 AM	Anions Gradient Program
87	CCV1	081518	Finished	8/30/2018 8:46:31 AM	Anions Gradient Program
88	CCB	081518	Finished	8/30/2018 9:01:04 AM	Anions Gradient Program
89	DI H2O	081518	Finished	8/30/2018 9:15:37 AM	Anions Gradient Program
90	HS18081259-09DF50	081518	Finished	8/30/2018 10:44:51 AM	Anions Gradient Program
91	CCV	081518	Finished	8/30/2018 11:02:04 AM	Anions Gradient Program
92	CCB	081518	Finished	8/30/2018 11:16:37 AM	Anions Gradient Program
93	WBLKW1-083018	081518	Finished	8/30/2018 11:31:10 AM	Anions Gradient Program
94	WLCSW1-083018	081518	Finished	8/30/2018 11:45:43 AM	Anions Gradient Program
95	WLCSDW1-083018	081518	Finished	8/30/2018 12:00:15 PM	Anions Gradient Program
96	HS18081444-01	081518	Finished	8/30/2018 12:14:48 PM	Anions Gradient Program
97	HS18081445-01	081518	Finished	8/30/2018 12:29:21 PM	Anions Gradient Program
98	DI H2O	081518	Finished	8/30/2018 12:43:54 PM	Anions Gradient Program
99	HS18081473-02	081518	Finished	8/30/2018 12:58:26 PM	Anions Gradient Program
100	HS18081473-02MS	081518	Finished	8/30/2018 1:13:00 PM	Anions Gradient Program
101	HS18081473-02MSD	081518	Finished	8/30/2018 1:27:33 PM	Anions Gradient Program
102	HS18081473-02DF10	081518	Finished	8/30/2018 1:42:05 PM	Anions Gradient Program
103	CCV1	081518	Finished	8/30/2018 1:56:38 PM	Anions Gradient Program
104	CCB	081518	Finished	8/30/2018 2:11:11 PM	Anions Gradient Program
105	HS18081473-03	081518	Finished	8/30/2018 2:25:44 PM	Anions Gradient Program
106	HS18081473-03DF10	081518	Finished	8/30/2018 2:45:23 PM	Anions Gradient Program
107	HS18081463-01	081518	Finished	8/30/2018 2:59:57 PM	Anions Gradient Program
108	HS18081463-02	081518	Finished	8/30/2018 3:14:30 PM	Anions Gradient Program
109	HS18081463-03	081518	Finished	8/30/2018 3:29:03 PM	Anions Gradient Program
110	HS18081463-03DF10	081518	Finished	8/30/2018 3:43:36 PM	Anions Gradient Program
111	DI H2O	081518	Finished	8/30/2018 3:58:09 PM	Anions Gradient Program
112	HS18081351-01DF10	081518	Finished	8/30/2018 4:12:41 PM	Anions Gradient Program
113	HS18081351-02DF10	081518	Finished	8/30/2018 4:27:14 PM	Anions Gradient Program
114	HS18081351-03DF10	081518	Finished	8/30/2018 4:41:47 PM	Anions Gradient Program
115	CCV	081518	Finished	8/30/2018 4:56:19 PM	Anions Gradient Program
116	CCB	081518	Finished	8/30/2018 5:10:52 PM	Anions Gradient Program
117	HS18081351-04DF10	081518	Finished	8/30/2018 5:25:25 PM	Anions Gradient Program
118	HS18081351-04MSDF10	081518	Finished	8/30/2018 5:39:58 PM	Anions Gradient Program
119	HS18081351-04MSDDF10	081518	Finished	8/30/2018 5:54:31 PM	Anions Gradient Program
120	HS18081500-01DF2	081518	Finished	8/30/2018 6:09:04 PM	Anions Gradient Program
121	HS18081500-01DF10	081518	Finished	8/30/2018 6:23:36 PM	Anions Gradient Program
122	HS18081500-01DF100	081518	Finished	8/30/2018 6:38:09 PM	Anions Gradient Program
123	HS18081521-01DF10	081518	Finished	8/30/2018 7:05:33 PM	Anions Gradient Program
124	HS18081504-01	081518	Finished	8/30/2018 7:41:47 PM	Anions Gradient Program
125	HS18081504-01MS	081518	Finished	8/30/2018 8:09:15 PM	Anions Gradient Program
126	HS18081504-01MSD	081518	Finished	8/30/2018 8:23:48 PM	Anions Gradient Program

Sequence:	082918		Page 9 of 12
Operator:	ALSHS.NoUser		Printed: 9/4/2018 12:14:19 PM
Title:			
Datasource:	DB7CGHK1_local		
Location:	ICS2100\Sequences and Data\01-2018		
Timebase:	ICS2100	Created:	8/29/2018 12:36:04 PM by ALSHS.NoUser
#Samples:	140		(Modified, not saved)

No.	Name	GUID
85	HS18081285-08	e7e9b851-ac56-11e8-b6d9-ac2a724b15e4
86	HS18081285-09	f058e938-ac58-11e8-b6d9-ac2a724b15e4
87	CCV1	f8986b7b-ac5a-11e8-b6d9-ac2a724b15e4
88	CCB	00dcb268-ac5d-11e8-b6d9-ac2a724b15e4
89	DI H2O	0920f955-ac5f-11e8-b6d9-ac2a724b15e4
90	HS18081259-09DF50	21362d1f-ac6b-11e8-b6d9-ac2a724b15e4
91	CCV	88c2470f-ac6d-11e8-b6d9-ac2a724b15e4
92	CCB	f0bd8a82-ac6f-11e8-b6d9-ac2a724b15e4
93	WBLKW1-083018	f8c91e44-ac71-11e8-b6d9-ac2a724b15e4
94	WLCSW1-083018	0108a087-ac74-11e8-b6d9-ac2a724b15e4
95	WLCSDW1-083018	095d97c7-ac76-11e8-b6d9-ac2a724b15e4
96	HS18081444-01	1142816c-ac78-11e8-b6d9-ac2a724b15e4
97	HS18081445-01	19951657-ac7a-11e8-b6d9-ac2a724b15e4
98	DI H2O	21c64a9c-ac7c-11e8-b6d9-ac2a724b15e4
99	HS18081473-02	2a010835-ac7e-11e8-b6d9-ac2a724b15e4
100	HS18081473-02MS	323bc5ce-ac80-11e8-b6d9-ac2a724b15e4
101	HS18081473-02MSD	3ae42ead-ac82-11e8-b6d9-ac2a724b15e4
102	HS18081473-02DF10	42dc2afa-ac84-11e8-b6d9-ac2a724b15e4
103	CCV1	4b5c0c34-ac86-11e8-b6d9-ac2a724b15e4
104	CCB	53946778-ac88-11e8-b6d9-ac2a724b15e4
105	HS18081473-03	5bccc2bc-ac8a-11e8-b6d9-ac2a724b15e4
106	HS18081473-03DF10	bb96e617-ac8c-11e8-b6d9-ac2a724b15e4
107	HS18081463-01	232a2706-ac8f-11e8-b6d9-ac2a724b15e4
108	HS18081463-02	2ba54396-ac91-11e8-b6d9-ac2a724b15e4
109	HS18081463-03	342eae24-ac93-11e8-b6d9-ac2a724b15e4
110	HS18081463-03DF10	3c755766-ac95-11e8-b6d9-ac2a724b15e4
111	DI H2O	44be62fd-ac97-11e8-b6d9-ac2a724b15e4
112	HS18081351-01DF10	4cf6be41-ac99-11e8-b6d9-ac2a724b15e4
113	HS18081351-02DF10	54fd088c-ac9b-11e8-b6d9-ac2a724b15e4
114	HS18081351-03DF10	5d3563d0-ac9d-11e8-b6d9-ac2a724b15e4
115	CCV	65702169-ac9f-11e8-b6d9-ac2a724b15e4
116	CCB	6da87cad-aca1-11e8-b6d9-ac2a724b15e4
117	HS18081351-04DF10	75f3ea99-aca3-11e8-b6d9-ac2a724b15e4
118	HS18081351-04MSDF10	7e29e388-aca5-11e8-b6d9-ac2a724b15e4
119	HS18081351-04MSDDF10	86623ecc-aca7-11e8-b6d9-ac2a724b15e4
120	HS18081500-01DF2	8eab4a63-aca9-11e8-b6d9-ac2a724b15e4
121	HS18081500-01DF10	9713544b-acab-11e8-b6d9-ac2a724b15e4
122	HS18081500-01DF100	9f3fc3e6-acad-11e8-b6d9-ac2a724b15e4
123	HS18081521-01DF10	13b5073d-acb1-11e8-b6d9-ac2a724b15e4
124	HS18081504-01	23761a68-acb6-11e8-b6d9-ac2a724b15e4
125	HS18081504-01MS	f94b9d77-acb9-11e8-b6d9-ac2a724b15e4
126	HS18081504-01MSD	6153aada-acbc-11e8-b6d9-ac2a724b15e4

Sequence: 082918
Operator: ALSHS.NoUser

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100
#Samples: 140

Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
(Modified, not saved)

No.	Name	Comment	Type	Pos.	Dil. Factor	Inj. Vol.	*Initial_Vol_Wt	*Final_Volume
127	CCV1		Unknown	3	1.0000	10.0	1.00	1.00
128	CCB		Unknown	4	1.0000	10.0	1.00	1.00
129	HS18081504-01DF10	9056_W	Unknown	30	10.0000	10.0	1.00	1.00
130	HS18081504-02		Unknown	67	1.0000	10.0	1.00	1.00
131	HS18081504-02DF10		Unknown	68	10.0000	10.0	1.00	1.00
132	HS18081504-03		Unknown	69	1.0000	10.0	1.00	1.00
133	HS18081504-03DF10		Unknown	70	10.0000	10.0	1.00	1.00
134	HS18081521-02DF5		Unknown	62	5.0000	10.0	1.00	1.00
135	HS18081521-07DF5		Unknown	63	5.0000	10.0	1.00	1.00
136	HS18081491-01DF5		Unknown	59	5.0000	10.0	1.00	1.00
137	HS18081491-06DF5		Unknown	60	5.0000	10.0	1.00	1.00
138	DI H2O		Unknown	10	1.0000	10.0	1.00	1.00
139	CCV		Unknown	1	1.0000	10.0	1.00	1.00
140	CCB		Unknown	2	1.0000	10.0	1.00	1.00

Title:
Datasource: DB7CGHK1_local
Location: ICS2100\Sequences and Data\01-2018
Timebase: ICS2100 Created: 8/29/2018 12:36:04 PM by ALSHS.NoUser
#Samples: 140 (Modified, not saved)

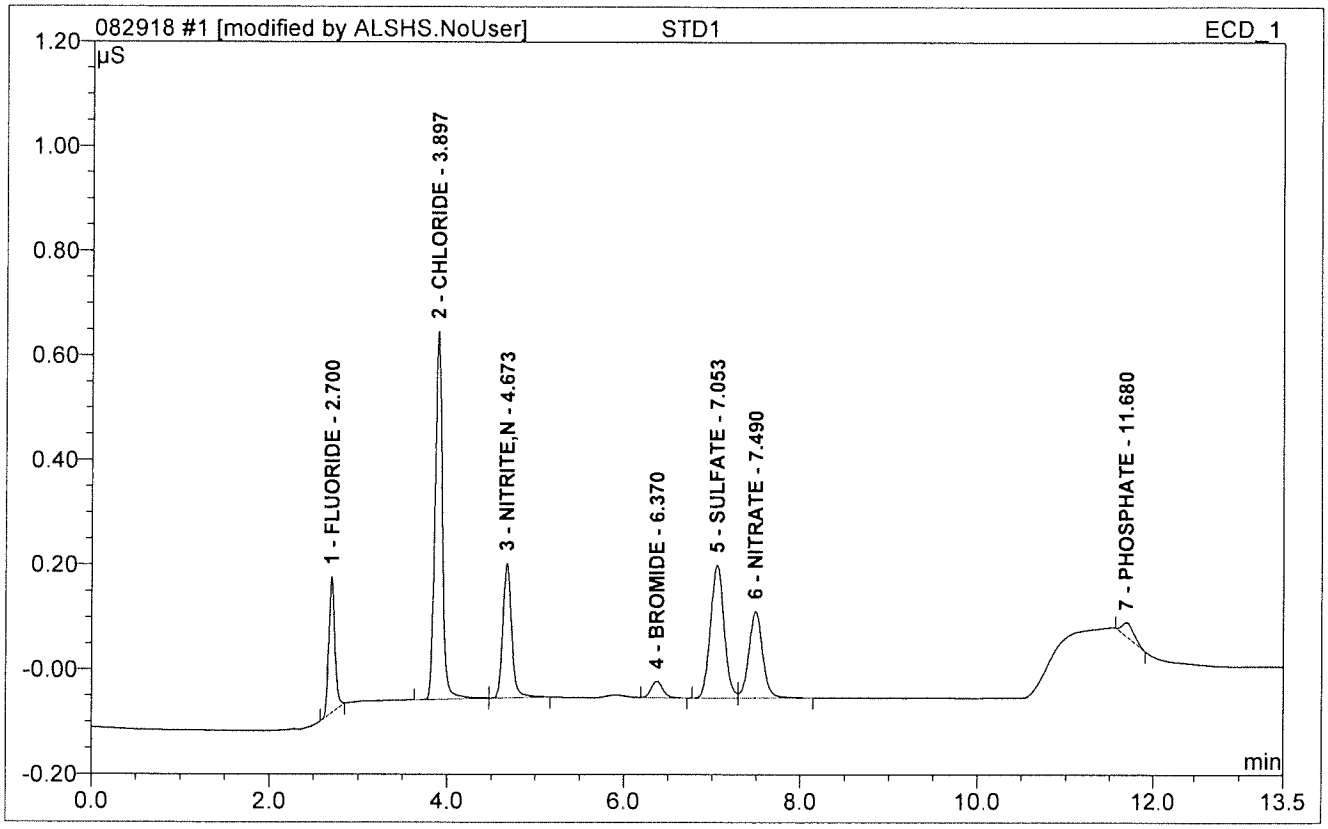
No.	Name	Method	Status	Inj. Date/Time	Program
127	CCV1	081518	Finished	8/30/2018 8:38:21 PM	Anions Gradient Program
128	CCB	081518	Finished	8/30/2018 8:52:54 PM	Anions Gradient Program
129	HS18081504-01DF10	081518	Finished	8/30/2018 9:07:28 PM	Anions Gradient Program
130	HS18081504-02	081518	Finished	8/30/2018 9:28:25 PM	Anions Gradient Program
131	HS18081504-02DF10	081518	Finished	8/30/2018 9:42:58 PM	Anions Gradient Program
132	HS18081504-03	081518	Finished	8/30/2018 9:57:31 PM	Anions Gradient Program
133	HS18081504-03DF10	081518	Finished	8/30/2018 10:12:04 PM	Anions Gradient Program
134	HS18081521-02DF5	081518	Finished	8/30/2018 10:26:38 PM	Anions Gradient Program
135	HS18081521-07DF5	081518	Finished	8/30/2018 10:41:11 PM	Anions Gradient Program
136	HS18081491-01DF5	081518	Finished	8/30/2018 10:55:44 PM	Anions Gradient Program
137	HS18081491-06DF5	081518	Finished	8/30/2018 11:10:17 PM	Anions Gradient Program
138	DI H2O	081518	Finished	8/30/2018 11:24:50 PM	Anions Gradient Program
139	CCV	081518	Finished	8/30/2018 11:39:23 PM	Anions Gradient Program
140	CCB	081518	Finished	8/30/2018 11:53:56 PM	Anions Gradient Program

Sequence:	082918		Page 12 of 12
Operator:	ALSHS.NoUser		Printed: 9/4/2018 12:14:19 PM
Title:			
Datasource:	DB7CGHK1_local		
Location:	ICS2100\Sequences and Data\01-2018		
Timebase:	ICS2100	Created:	8/29/2018 12:36:04 PM by ALSHS.NoUser
#Samples:	140		(Modified, not saved)

No.	Name	GUID
127	CCV1	698278a5-acbe-11e8-b6d9-ac2a724b15e4
128	CCB	71b14a95-acc0-11e8-b6d9-ac2a724b15e4
129	HS18081504-01DF10	7a338e24-acc2-11e8-b6d9-ac2a724b15e4
130	HS18081504-02	089a2950-acc5-11e8-b6d9-ac2a724b15e4
131	HS18081504-02DF10	7080dbde-acc7-11e8-b6d9-ac2a724b15e4
132	HS18081504-03	78edaa70-acc9-11e8-b6d9-ac2a724b15e4
133	HS18081504-03DF10	8131f15d-accb-11e8-b6d9-ac2a724b15e4
134	HS18081521-02DF5	8a112fdf-accd-11e8-b6d9-ac2a724b15e4
135	HS18081521-07DF5	9266271f-accf-11e8-b6d9-ac2a724b15e4
136	HS18081491-01DF5	9a9e8263-acd1-11e8-b6d9-ac2a724b15e4
137	HS18081491-06DF5	a3494d97-acd3-11e8-b6d9-ac2a724b15e4
138	DI H2O	ab99802d-acd5-11e8-b6d9-ac2a724b15e4
139	CCV	b3cf791c-acd7-11e8-b6d9-ac2a724b15e4
140	CCB	bc6bf652-acd9-11e8-b6d9-ac2a724b15e4

1 STD1

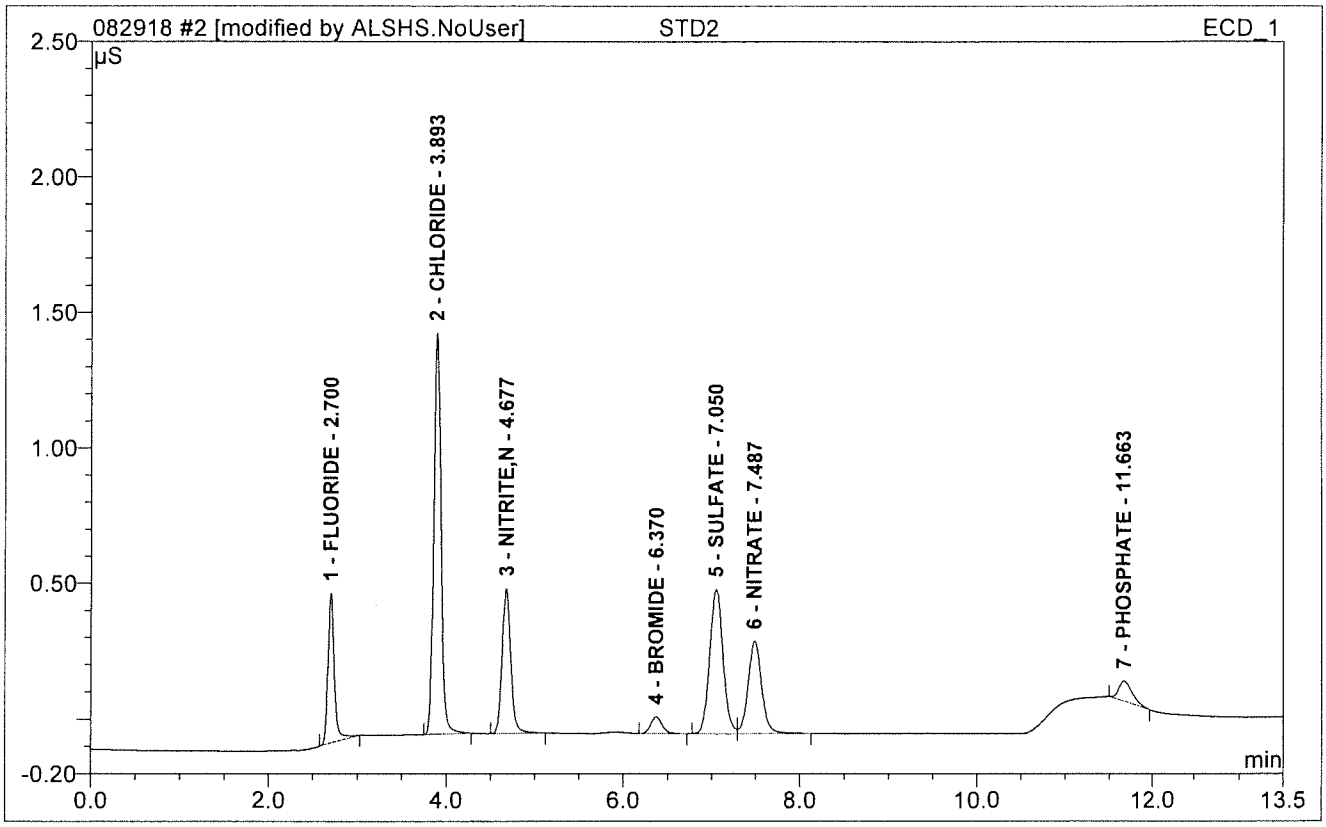
Sample Name:	**STD1**	*Injection Volume:*	**10.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 1:26**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	0.259	0.021	10.10	0.113	1.
2	3.90	CHLORIDE	0.704	0.068	33.53	0.635	1.
3	4.67	NITRITE,N	0.257	0.030	14.77	0.119	1.
4	6.37	BROMIDE	0.032	0.005	2.36	0.155	1.
5	7.05	SULFATE	0.254	0.046	22.37	0.666	1.
6	7.49	NITRATE	0.166	0.030	14.74	0.138	1.
7	11.68	PHOSPHATE	0.027	0.004	2.14	0.157	1.
Total:			1.698	0.204	100.00	1.984	

2 STD2

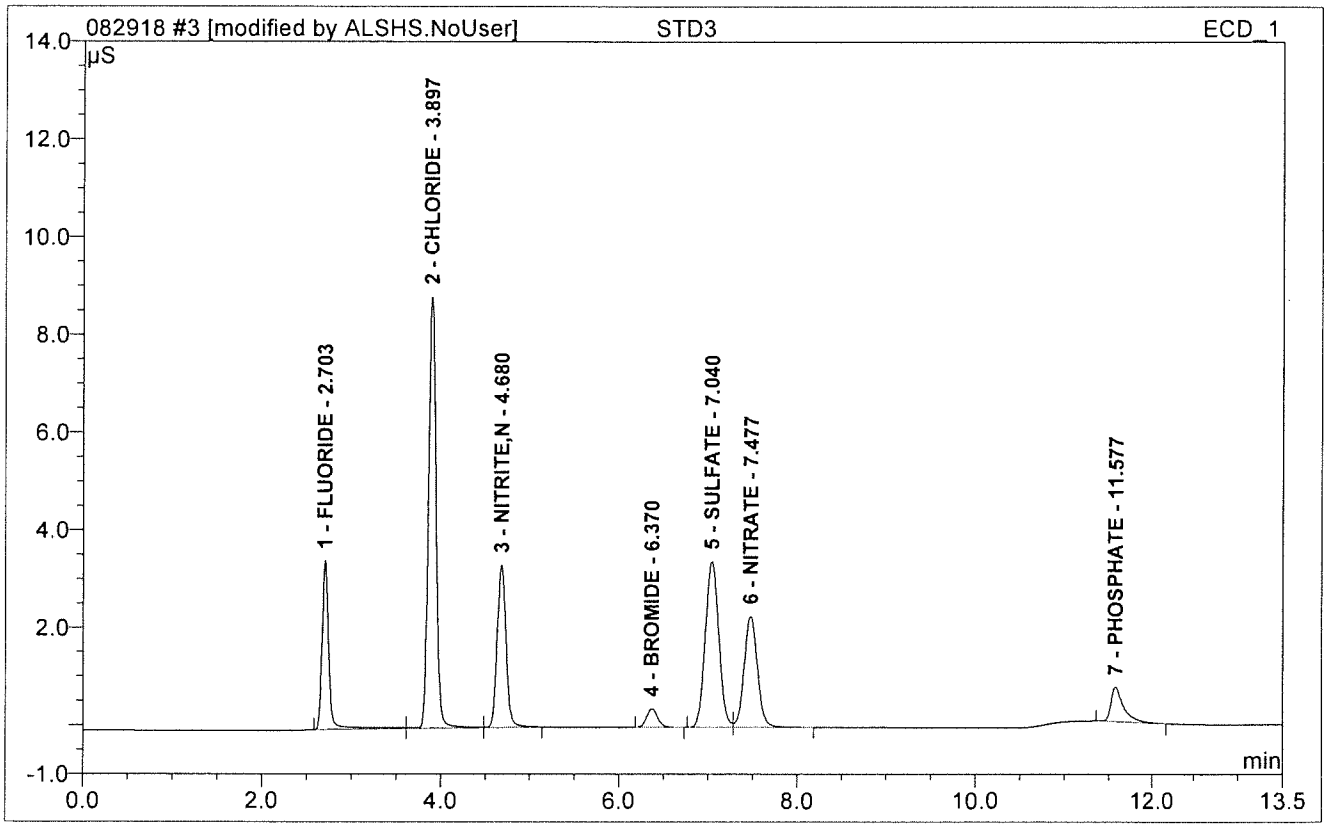
Sample Name:	**STD2**	*Injection Volume:*	**10.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 1:40**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	0.551	0.045	10.77	0.292	1.
2	3.89	CHLORIDE	1.478	0.140	33.22	1.455	1.
3	4.68	NITRITE,N	0.533	0.060	14.34	0.283	1.
4	6.37	BROMIDE	0.062	0.009	2.17	0.280	1.
5	7.05	SULFATE	0.530	0.093	22.07	1.415	1.
6	7.49	NITRATE	0.339	0.060	14.27	0.277	1.
7	11.66	PHOSPHATE	0.074	0.013	3.16	0.271	1.
Total:			3.567	0.421	100.00	4.274	

3 STD3

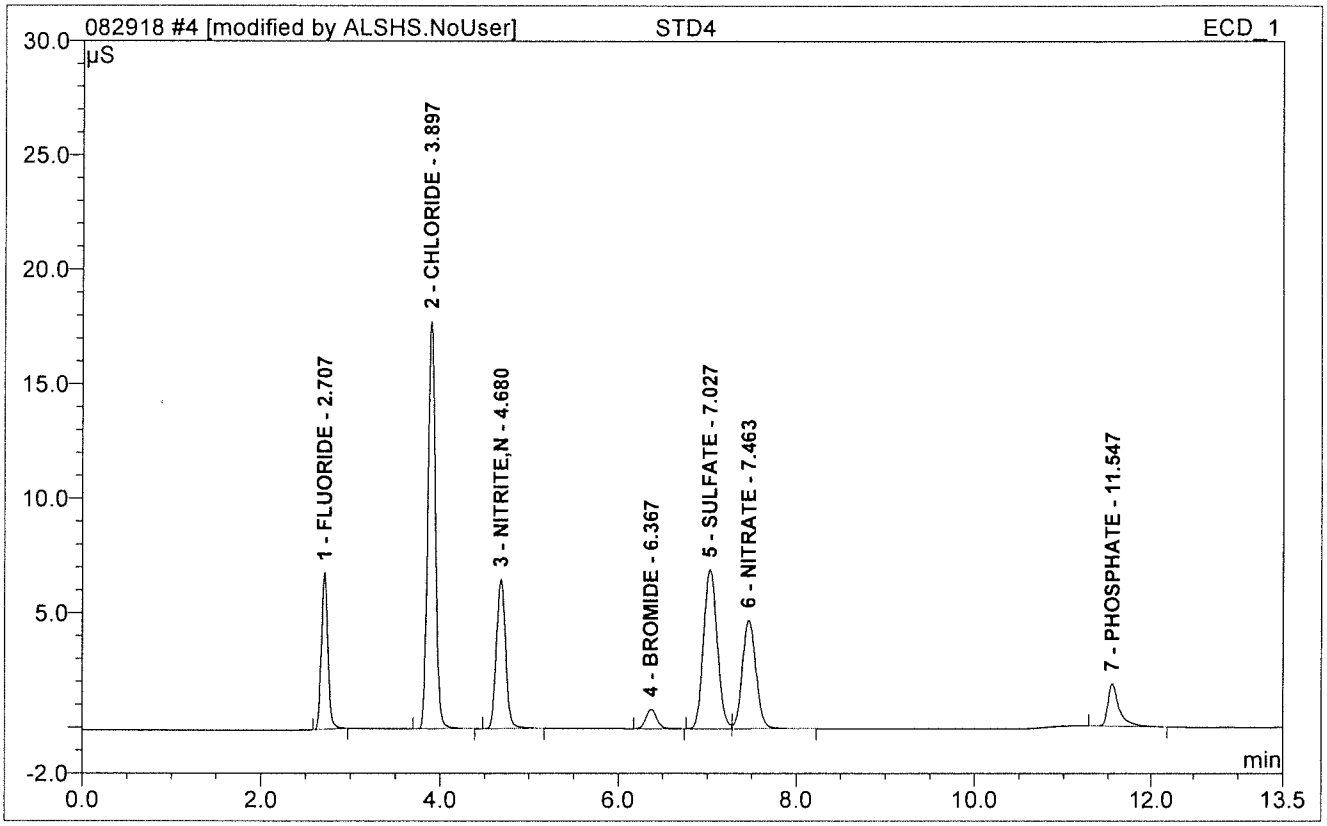
Sample Name:	**STD3**	*Injection Volume:*	**10.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 1:55**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	3.466	0.308	11.24	2.185	1.
2	3.90	CHLORIDE	8.847	0.874	31.85	9.841	1.
3	4.68	NITRITE,N	3.342	0.390	14.20	2.065	1.
4	6.37	BROMIDE	0.385	0.056	2.02	1.619	1.
5	7.04	SULFATE	3.408	0.602	21.95	9.446	1.
6	7.48	NITRATE	2.287	0.398	14.50	1.837	1.
7	11.58	PHOSPHATE	0.713	0.117	4.25	1.594	1.
Total:			22.447	2.745	100.00	28.589	

4 STD4

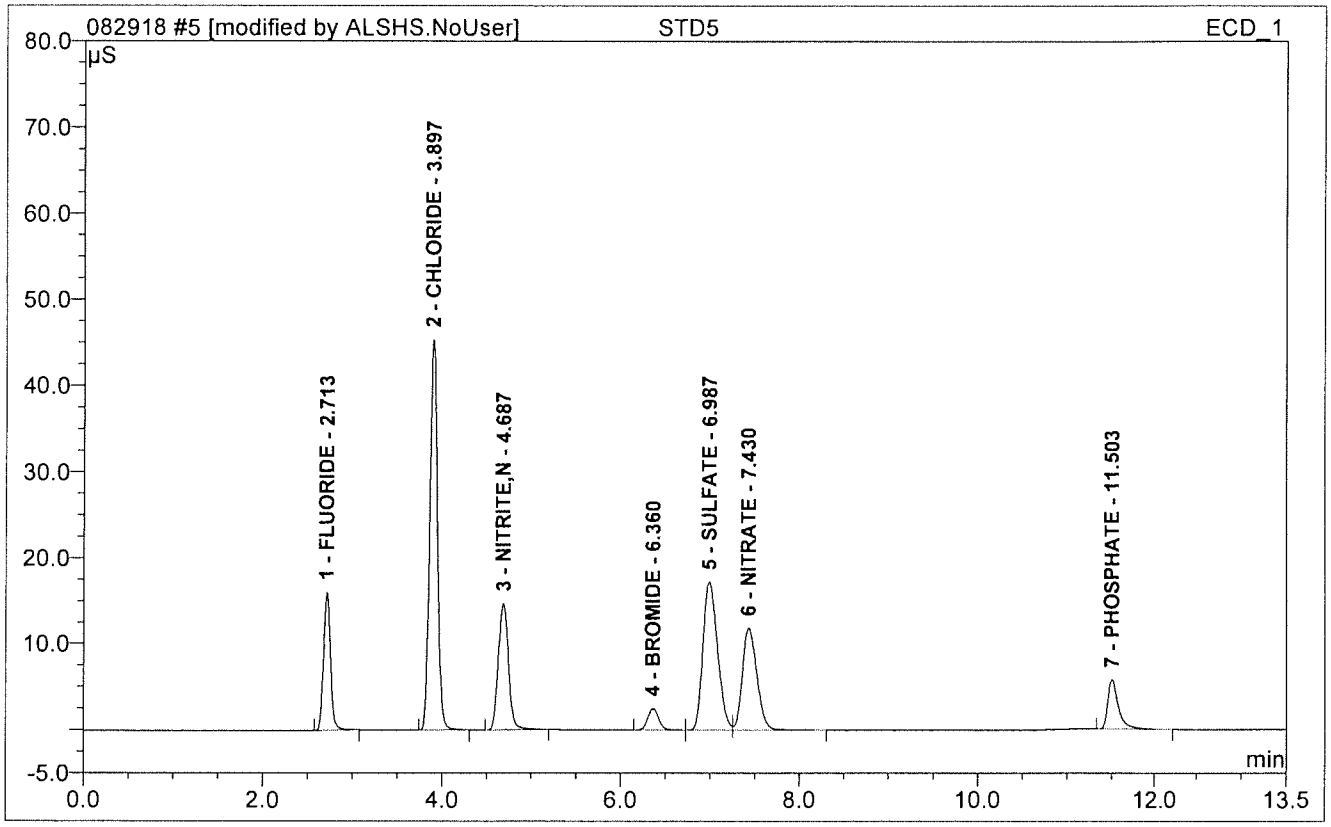
Sample Name:	**STD4**	*Injection Volume:*	**10.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 2:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.71	FLUORIDE	6.828	0.577	10.27	4.118	1.
2	3.90	CHLORIDE	17.800	1.757	31.29	19.929	1.
3	4.68	NITRITE,N	6.508	0.790	14.07	4.233	1.
4	6.37	BROMIDE	0.860	0.122	2.17	3.538	1.
5	7.03	SULFATE	6.929	1.254	22.33	19.719	1.
6	7.46	NITRATE	4.728	0.843	15.01	3.889	1.
7	11.55	PHOSPHATE	1.854	0.273	4.85	3.587	1.
Total:			45.507	5.615	100.00	59.014	

5 STD5

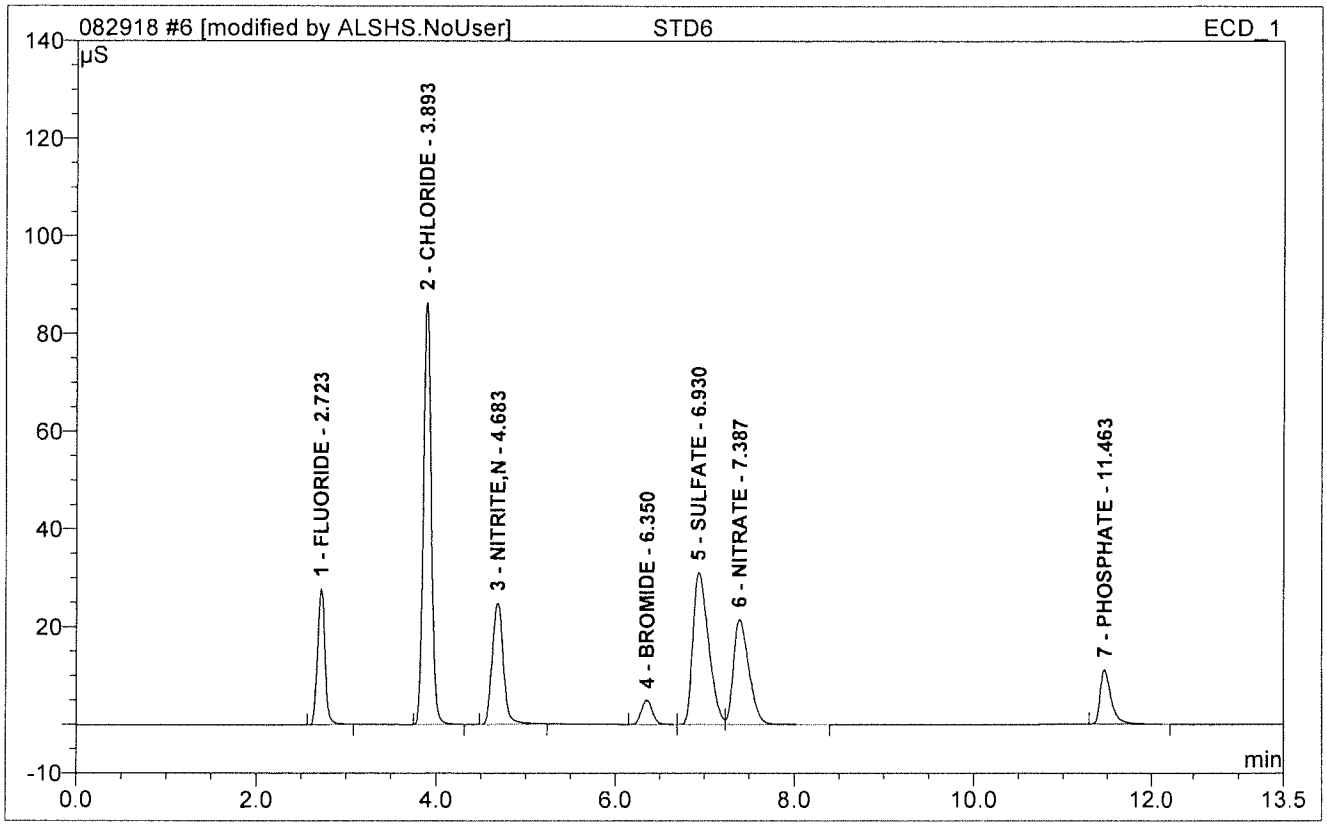
Sample Name:	**STD5**	*Injection Volume:*	**10.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 2:24**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.71	FLUORIDE	16.099	1.459	10.00	10.469	1.
2	3.90	CHLORIDE	45.369	4.522	31.00	51.517	1.
3	4.69	NITRITE,N	14.743	1.946	13.34	10.488	1.
4	6.36	BROMIDE	2.497	0.353	2.42	10.196	1.
5	6.99	SULFATE	17.297	3.282	22.49	51.691	1.
6	7.43	NITRATE	11.893	2.233	15.31	10.309	1.
7	11.50	PHOSPHATE	5.737	0.795	5.45	10.269	1.
Total:			113.635	14.590	100.00	154.938	

6 STD6

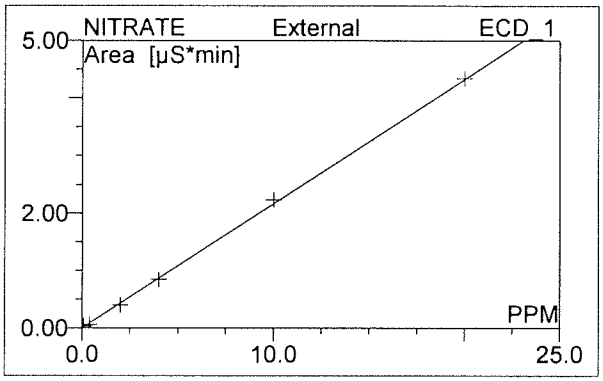
Sample Name:	**STD6**	*Injection Volume:*	**10.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 2:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**

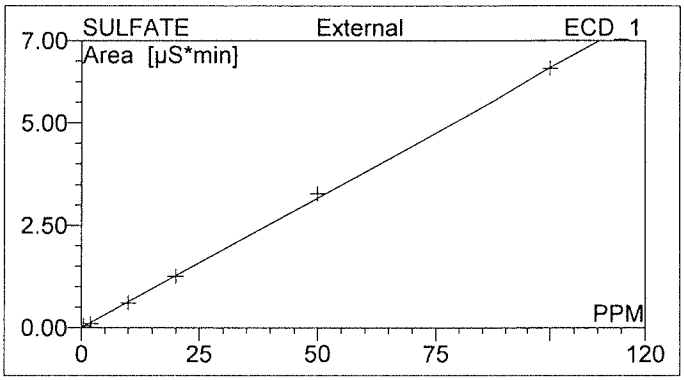


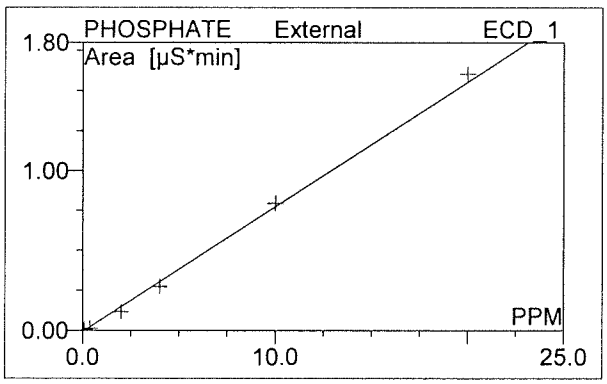
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.72	FLUORIDE	27.911	2.689	9.63	19.323	1.
2	3.89	CHLORIDE	86.494	8.689	31.10	99.122	1.
3	4.68	NITRITE,N	24.975	3.576	12.80	19.312	1.
4	6.35	BROMIDE	5.034	0.717	2.57	20.712	1.
5	6.93	SULFATE	31.177	6.318	22.61	99.562	1.
6	7.39	NITRATE	21.618	4.344	15.55	20.049	1.
7	11.46	PHOSPHATE	11.257	1.604	5.74	20.621	1.
Total:			208.465	27.938	100.00	298.702	

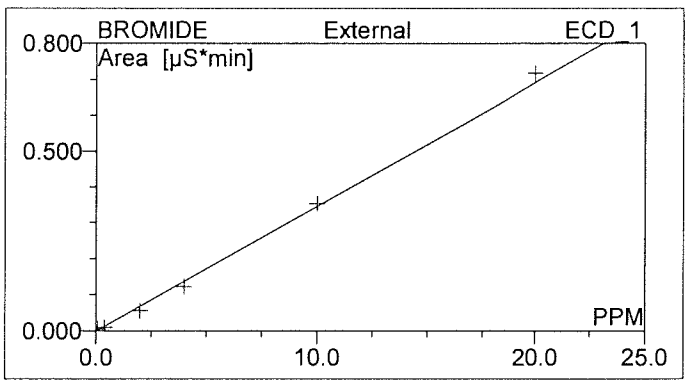
6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**10.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 2:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**









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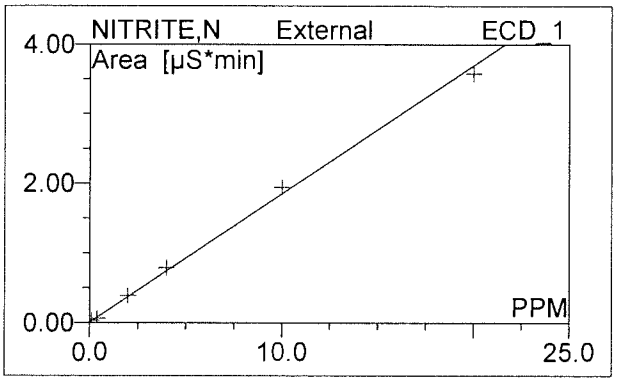
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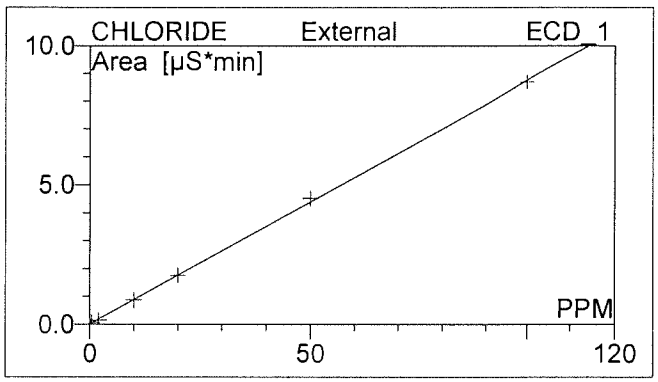
No.	Ret.Time min	Peak Name	Cal.Type	Points	Coeff.Det. %	Offset	Slope	Curve
1	2.72	FLUORIDE	XLOff	6	99.715	0.0048	0.1389	0.000
2	3.89	CHLORIDE	XLOff	6	99.857	0.0127	0.0875	0.000
3	4.68	NITRITE,N	XLOff	6	99.703	0.0081	0.1848	0.000
4	6.35	BROMIDE	XLOff	6	99.350	-0.0006	0.0347	0.000
5	6.93	SULFATE	XLOff	6	99.811	0.0033	0.0634	0.000
6	7.39	NITRATE	XLOff	6	99.769	0.0001	0.2166	0.000
7	11.46	PHOSPHATE	XLOff	6	99.338	-0.0079	0.0782	0.000
Average:					99.6491	0.0029	0.1149	0.0000

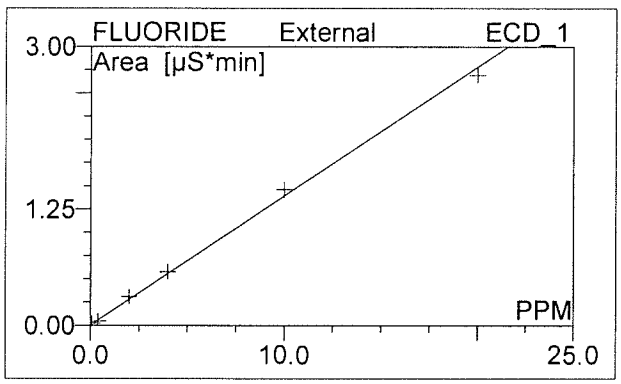
No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	RF-Value	Std.Dev.	RSD %
1	2.72	FLUORIDE	XLOff	6	99.858	7.197	0.014	21.547
2	3.89	CHLORIDE	XLOff	6	99.929	11.424	0.032	15.434
3	4.68	NITRITE,N	XLOff	6	99.851	5.412	0.020	21.594
4	6.35	BROMIDE	XLOff	6	99.675	28.846	0.005	36.463
5	6.93	SULFATE	XLOff	6	99.905	15.767	0.027	18.479
6	7.39	NITRATE	XLOff	6	99.884	4.616	0.020	20.892
7	11.46	PHOSPHATE	XLOff	6	99.668	12.792	0.012	45.845
Average:					99.8244	12.2936	0.0188	25.7505

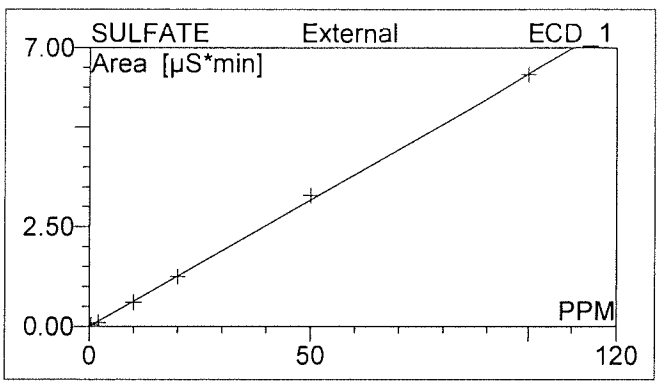
6 STD6

Sample Name:	**STD6**	*Injection Volume:*	**10.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**standard**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.000**
Recording Time:	**8/16/2018 2:39**	*Sample Weight/Volume:*	**1.000**
Run Time (min):	**13.50**	*Final Volume:*	**1.000**









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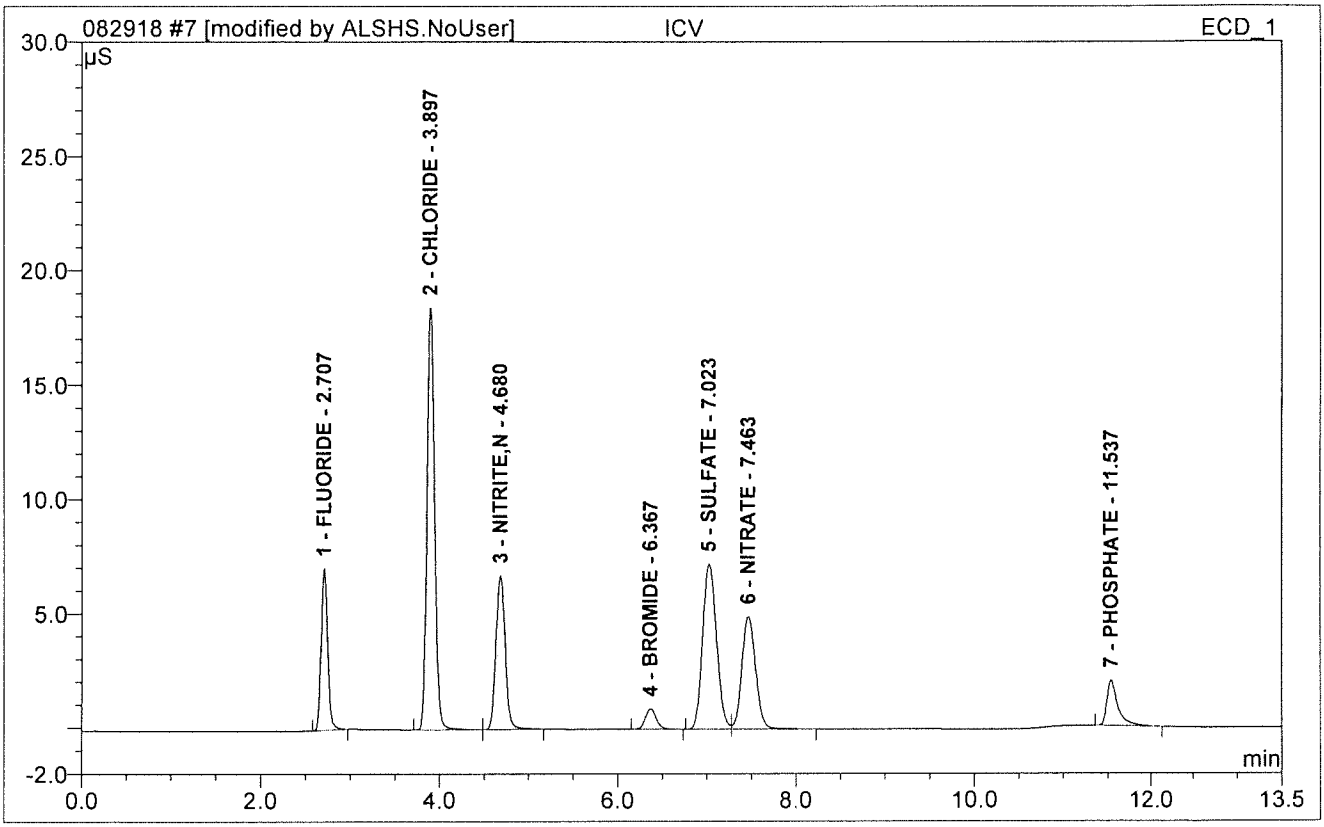
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No.	Ret.Time min	Peak Name	Cal.Type	Points	Coeff.Det. %	Offset	Slope	Curve
1	2.72	FLUORIDE	XLOff	6	99.7155	0.0048	0.1389	0.000
2	3.89	CHLORIDE	XLOff	6	99.8572	0.0127	0.0875	0.000
3	4.68	NITRITE,N	XLOff	6	99.7029	0.0081	0.1848	0.000
4	6.35	BROMIDE	XLOff	6	99.3504	-0.0006	0.0347	0.000
5	6.93	SULFATE	XLOff	6	99.8110	0.0033	0.0634	0.000
6	7.39	NITRATE	XLOff	6	99.7691	0.0001	0.2166	0.000
7	11.46	PHOSPHATE	XLOff	6	99.3377	-0.0079	0.0782	0.000
Average:					99.6491	0.0029	0.1149	0.000

No.	Ret.Time min	Peak Name	Cal.Type	Points	Corr.Coeff. %	RF-Value	Std.Dev.	RSD %
1	2.72	FLUORIDE	XLOff	6	99.858	7.197	0.014	21.547
2	3.89	CHLORIDE	XLOff	6	99.929	11.424	0.032	15.434
3	4.68	NITRITE,N	XLOff	6	99.851	5.412	0.020	21.594
4	6.35	BROMIDE	XLOff	6	99.675	28.846	0.005	36.463
5	6.93	SULFATE	XLOff	6	99.905	15.767	0.027	18.479
6	7.39	NITRATE	XLOff	6	99.884	4.616	0.020	20.892
7	11.46	PHOSPHATE	XLOff	6	99.668	12.792	0.012	45.845
Average:					99.8244	12.294	0.019	25.751

7 ICV

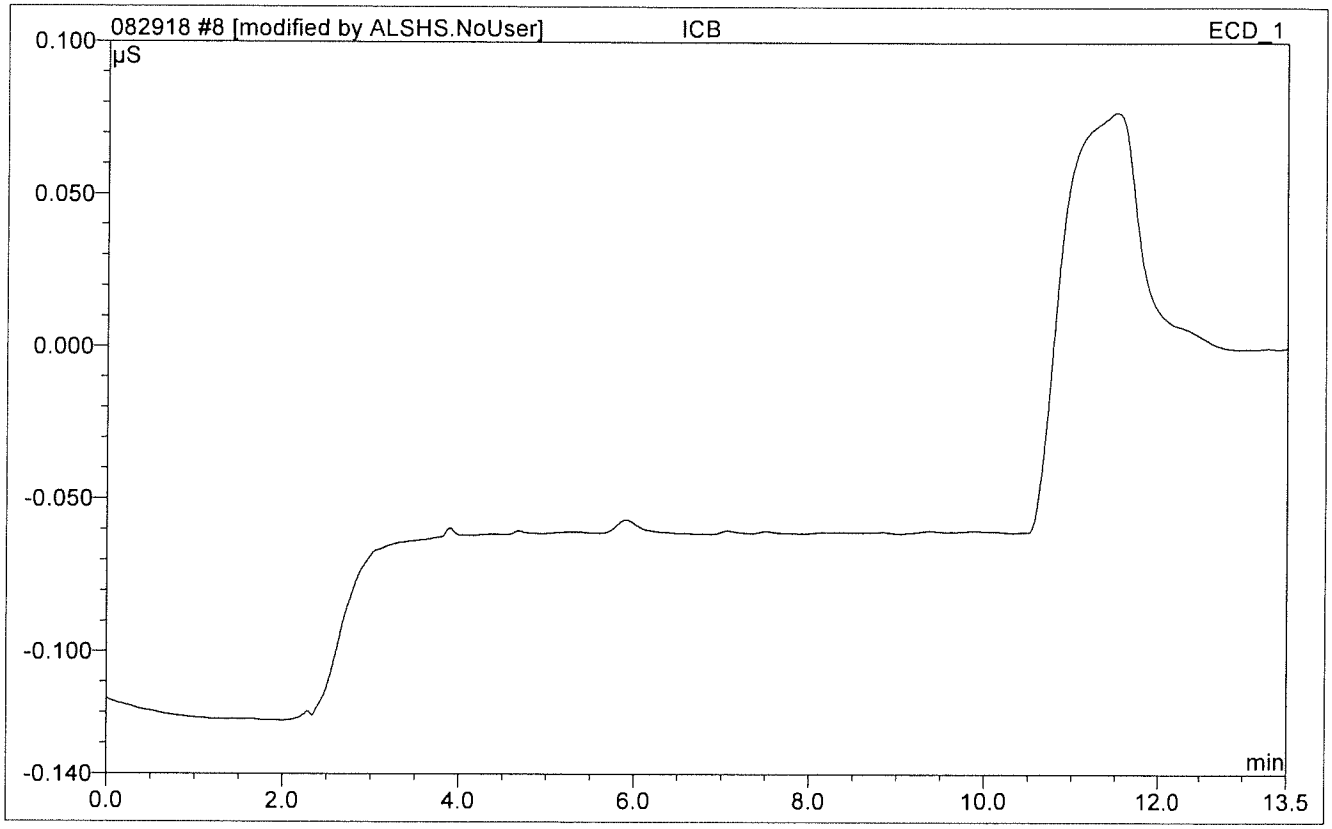
Sample Name:	**ICV**	*Injection Volume:*	**10.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 2:53**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.71	FLUORIDE	7.064	0.598	10.25	4.273	1.
2	3.90	CHLORIDE	18.444	1.823	31.24	20.681	1.
3	4.68	NITRITE,N	6.720	0.814	13.94	4.360	1.
4	6.37	BROMIDE	0.901	0.128	2.20	3.713	1.
5	7.02	SULFATE	7.222	1.307	22.39	20.555	1.
6	7.46	NITRATE	4.934	0.880	15.08	4.062	1.
7	11.54	PHOSPHATE	1.981	0.286	4.90	3.763	1.
Total:			47.265	5.837	100.00	61.407	

8 ICB

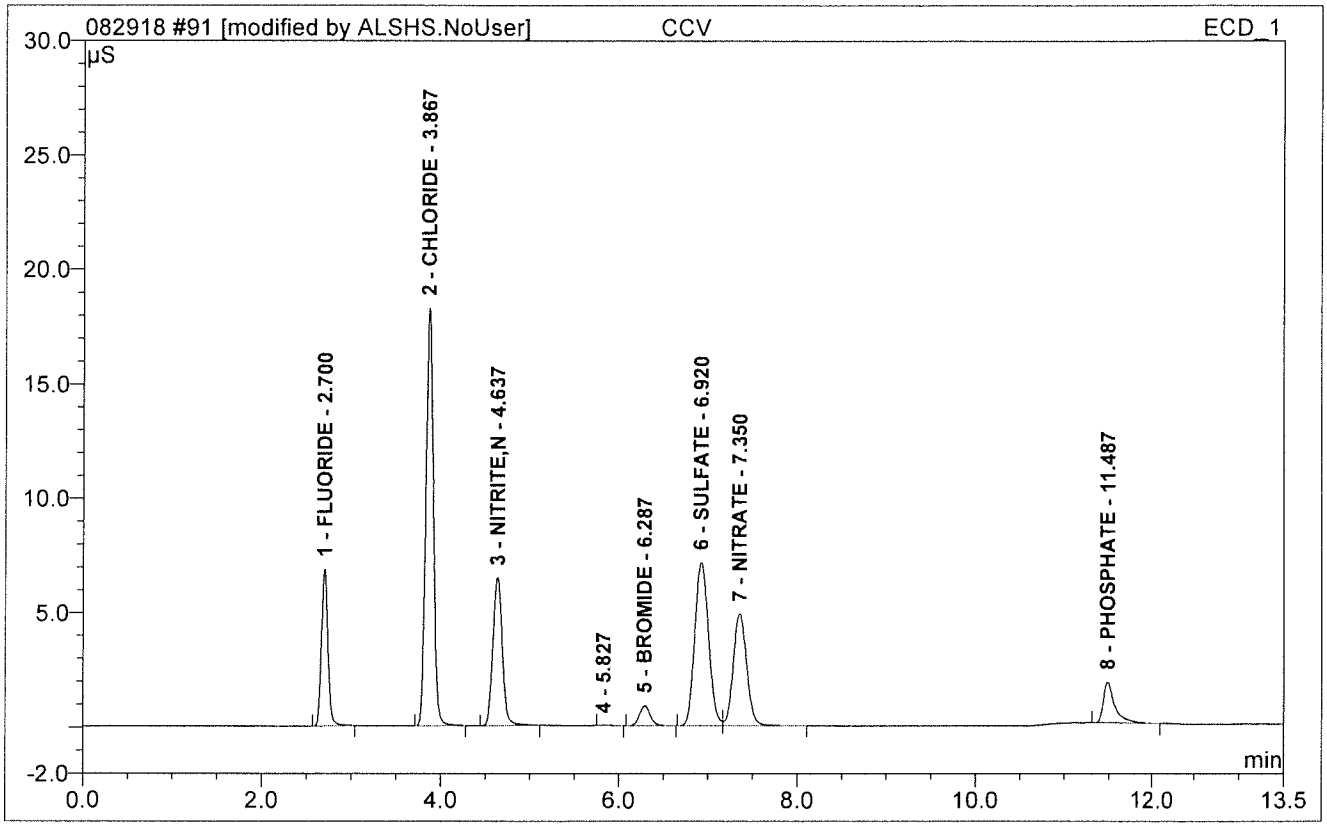
Sample Name:	**ICB**	*Injection Volume:*	**10.0**
Vial Number:	**8**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/16/2018 3:08**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
Total:			0.000	0.000	0.00	0.000	

91 CCV

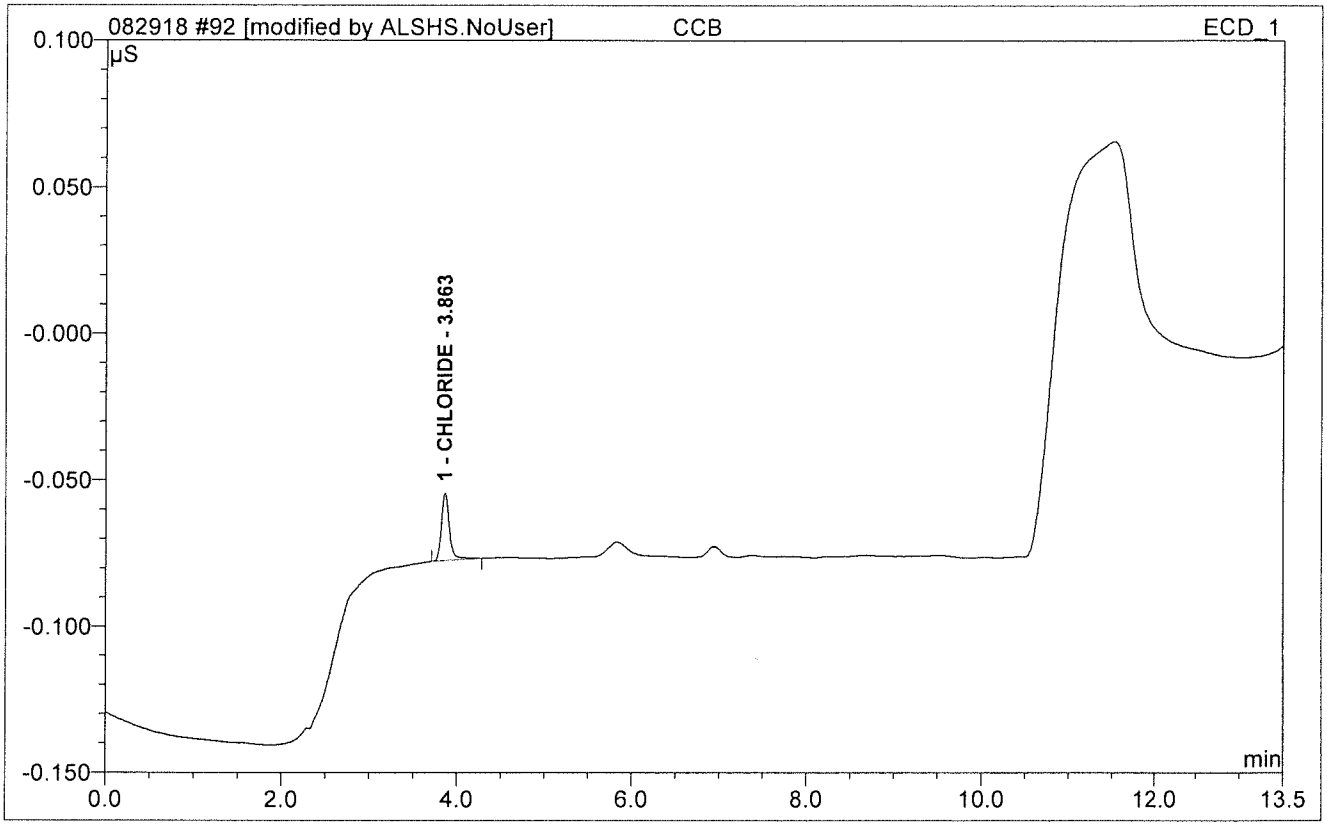
Sample Name:	**CCV**	*Injection Volume:*	**10.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 11:02**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	6.855	0.580	10.18	4.141	1.
2	3.87	CHLORIDE	18.249	1.795	31.49	20.356	1.
3	4.64	NITRITE,N	6.452	0.786	13.80	4.212	1.
5	6.29	BROMIDE	0.868	0.122	2.14	3.535	1.
6	6.92	SULFATE	7.145	1.284	22.53	20.188	1.
7	7.35	NITRATE	4.896	0.865	15.18	3.992	1.
8	11.49	PHOSPHATE	1.775	0.265	4.65	3.494	1.
Total:			46.240	5.697	99.97	59.917	

92 CCB

Sample Name:	**CCB**	*Injection Volume:*	**10.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 11:16**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**

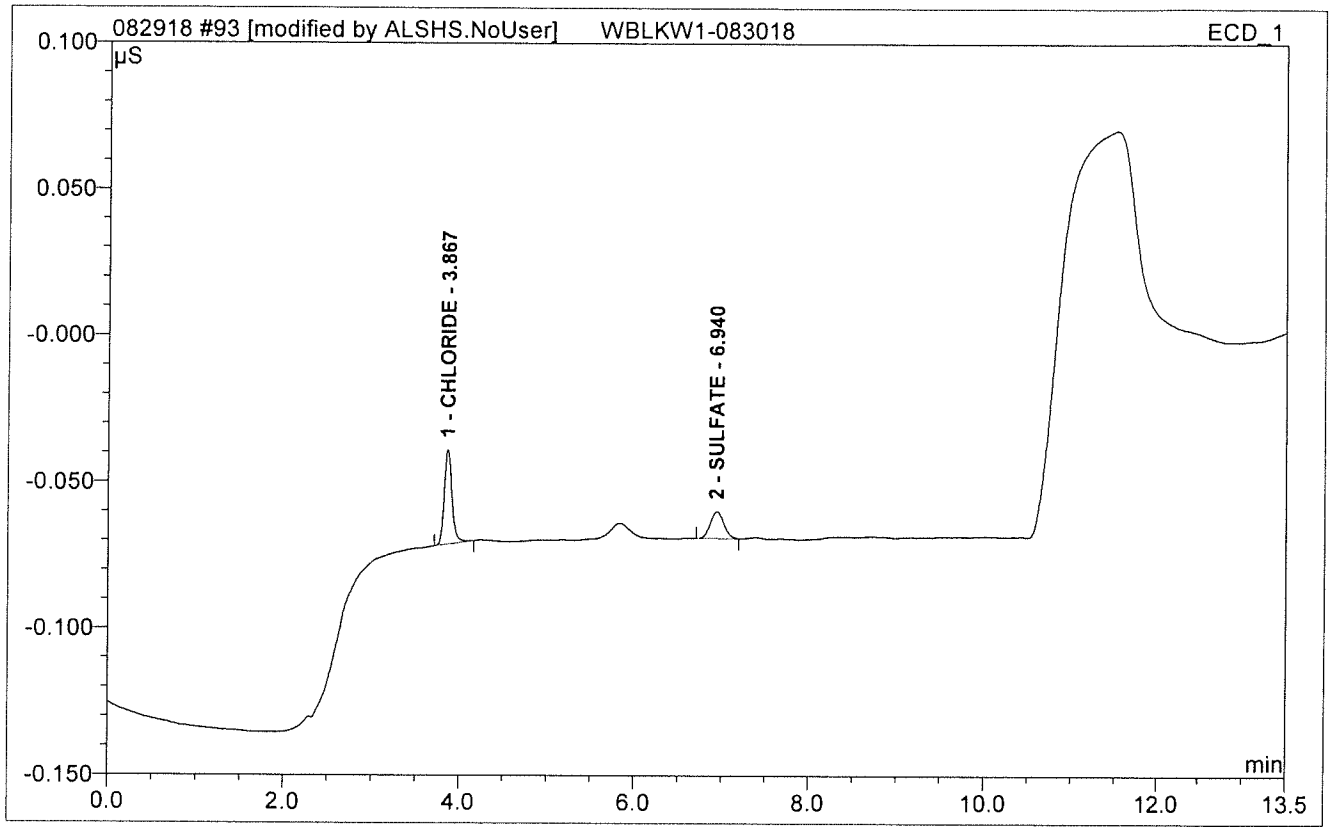


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.86	CHLORIDE	0.023	0.002	100.00	-0.117	1.
Total:			0.023	0.002	100.00	-0.117	

93 WBLKW1-083018

300_W/9056_W

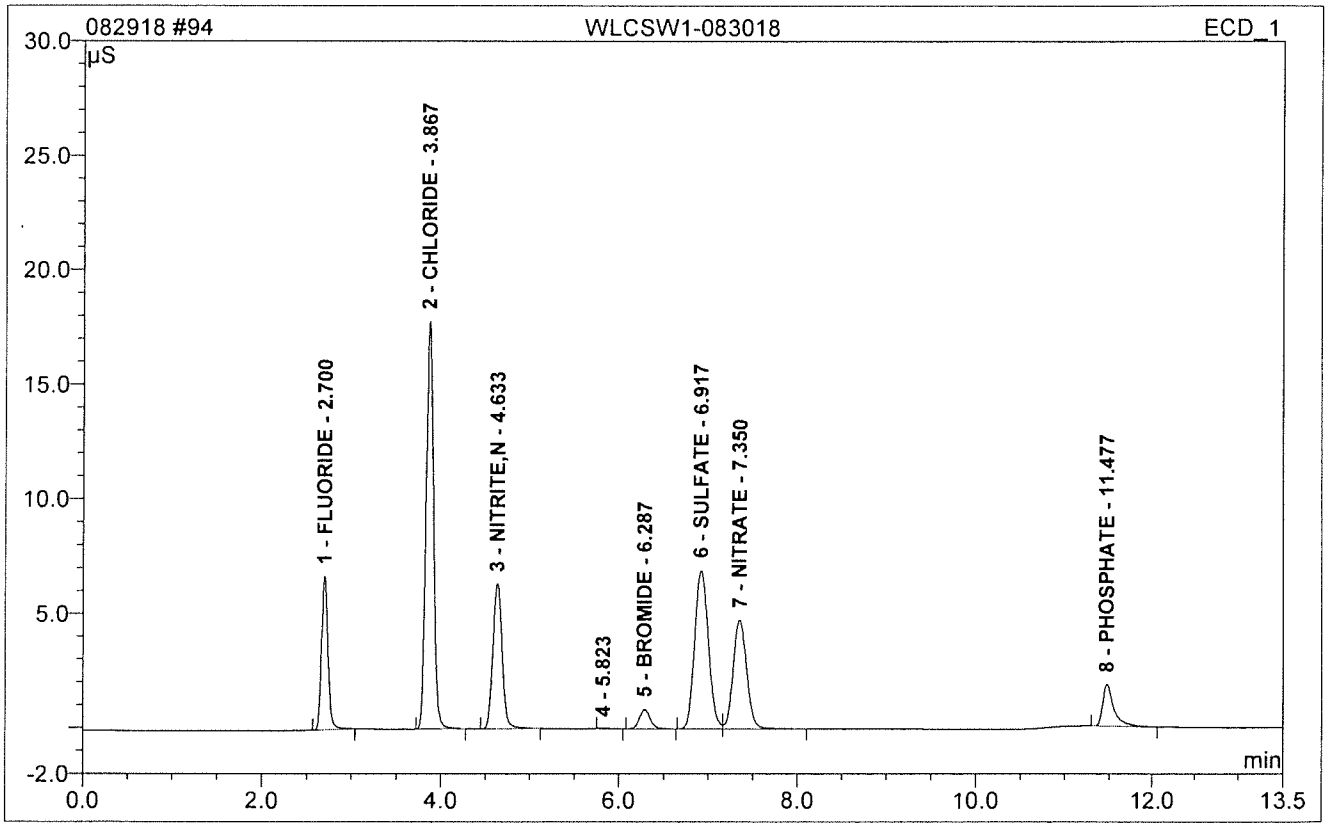
Sample Name:	**WBLKW1-083018**	*Injection Volume:*	**10.0**
Vial Number:	**5**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 11:31**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.87	CHLORIDE	0.032	0.003	66.31	-0.107	1.
2	6.94	SULFATE	0.009	0.002	33.69	-0.025	1.
Total:			0.042	0.005	100.00	-0.132	

94 WLCSW1-083018

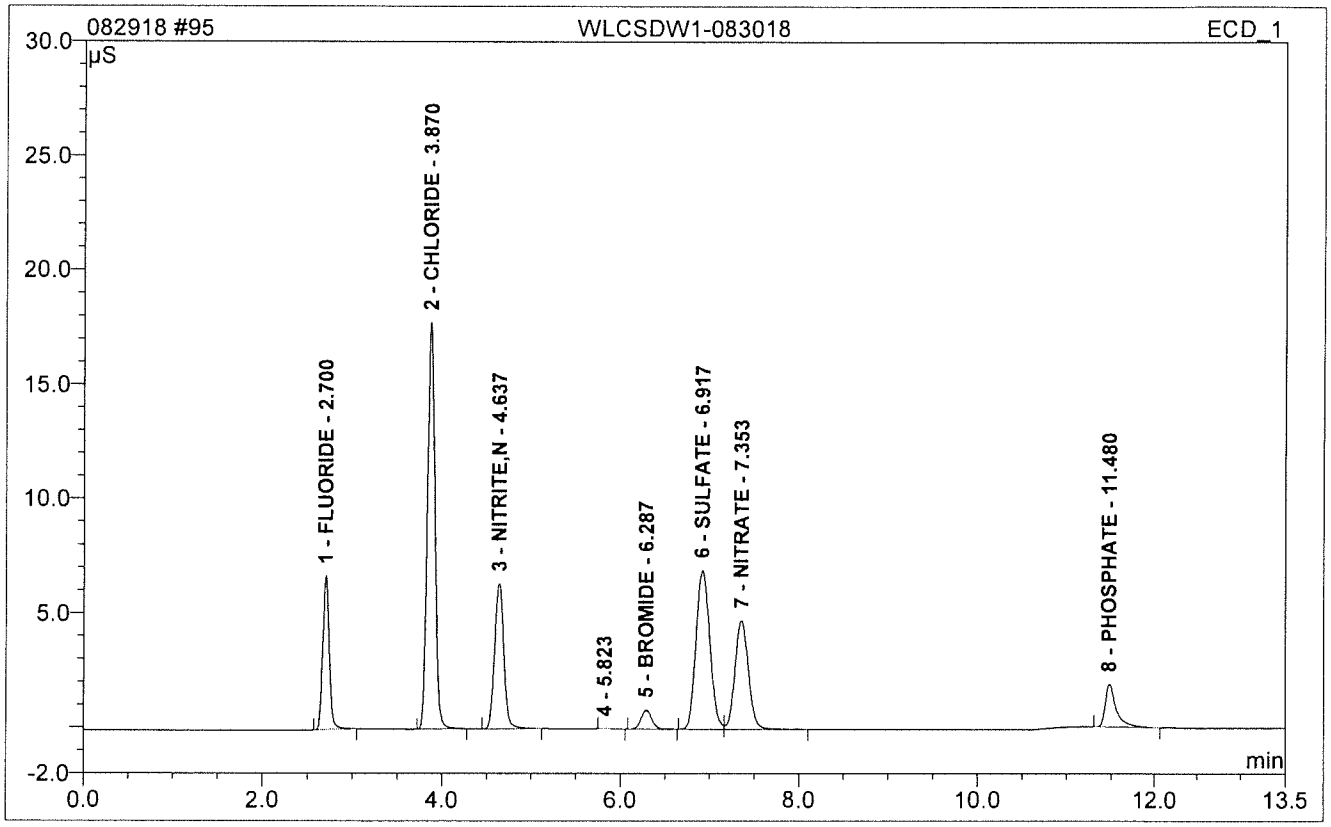
Sample Name:	**WLCSW1-083018**	*Injection Volume:*	**10.0**
Vial Number:	**6**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 11:45**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	6.721	0.570	10.24	4.072	1.
2	3.87	CHLORIDE	17.796	1.751	31.44	19.858	1.
3	4.63	NITRITE,N	6.355	0.771	13.84	4.127	1.
5	6.29	BROMIDE	0.845	0.119	2.13	3.442	1.
6	6.92	SULFATE	6.965	1.250	22.45	19.663	1.
7	7.35	NITRATE	4.785	0.843	15.14	3.893	1.
8	11.48	PHOSPHATE	1.828	0.264	4.73	3.474	1.
Total:			45.295	5.568	99.97	58.528	

95 WLCSDW1-083018

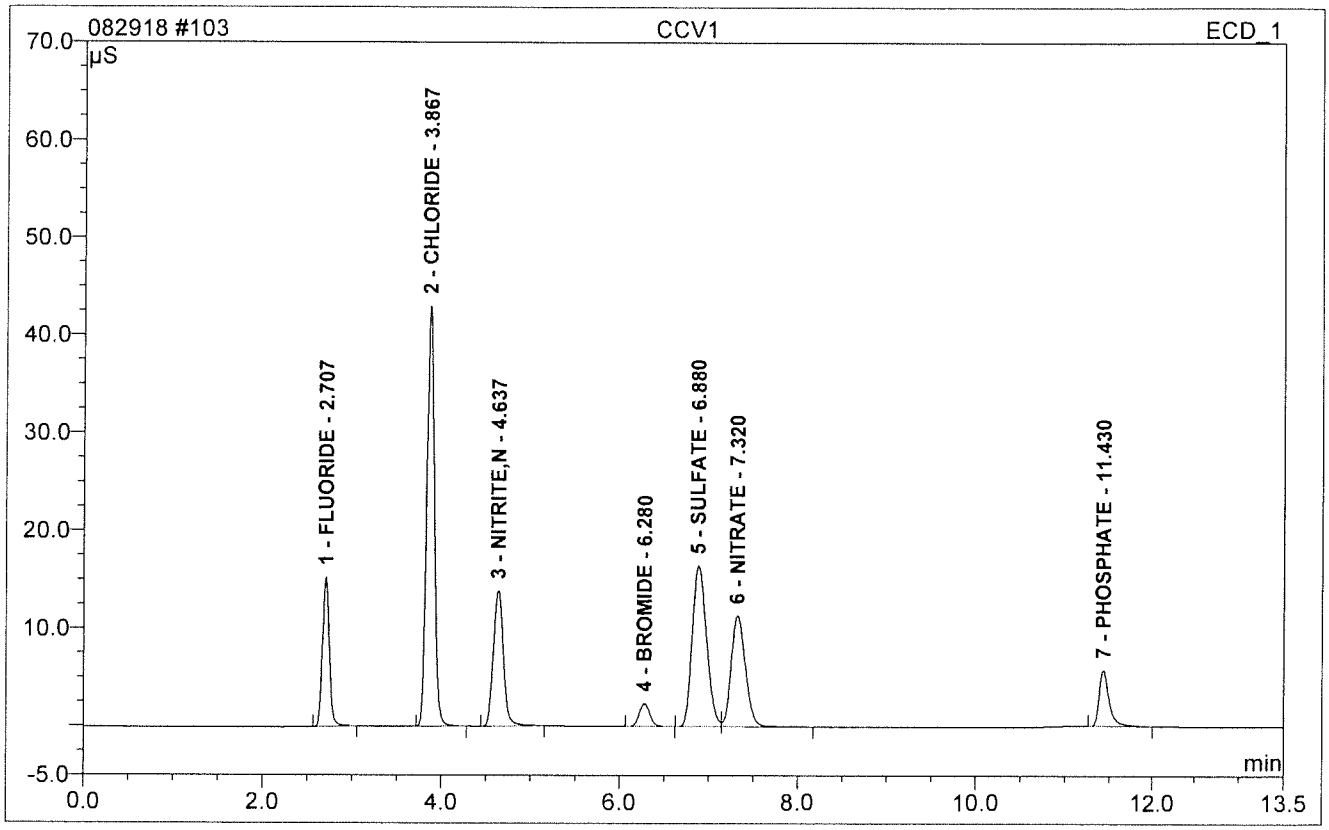
Sample Name:	**WLCSDW1-083018**	*Injection Volume:*	**10.0**
Vial Number:	**7**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 12:00**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	6.712	0.570	10.25	4.070	1.
2	3.87	CHLORIDE	17.765	1.746	31.39	19.800	1.
3	4.64	NITRITE,N	6.349	0.769	13.83	4.119	1.
5	6.29	BROMIDE	0.843	0.119	2.13	3.436	1.
6	6.92	SULFATE	6.939	1.247	22.43	19.616	1.
7	7.35	NITRATE	4.770	0.842	15.13	3.885	1.
8	11.48	PHOSPHATE	1.870	0.267	4.80	3.513	1.
Total:			45.248	5.560	99.97	58.440	

103 CCV1

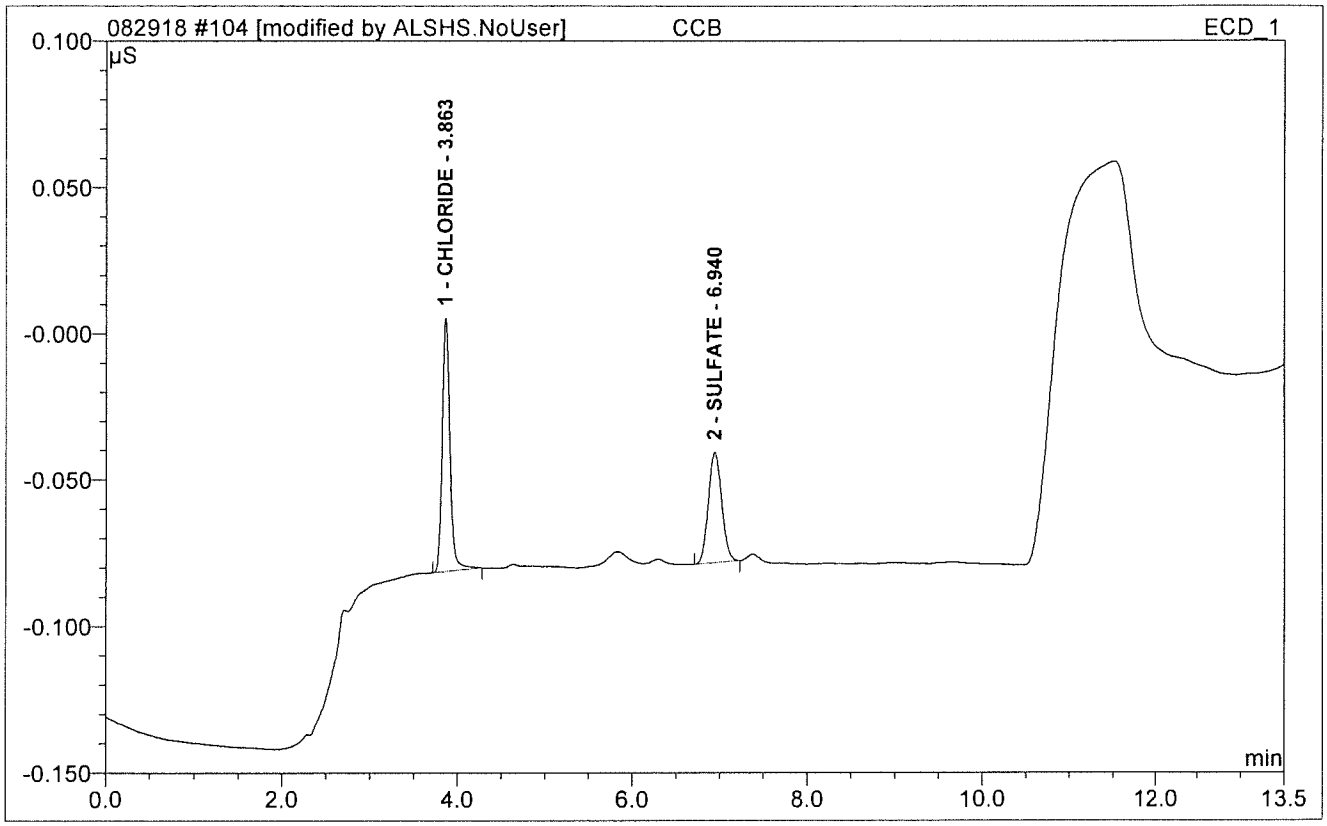
Sample Name:	**CCV1**	*Injection Volume:*	**10.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 13:56**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.71	FLUORIDE	15.312	1.377	10.01	9.879	1.
2	3.87	CHLORIDE	42.996	4.278	31.08	48.729	1.
3	4.64	NITRITE,N	13.872	1.834	13.32	9.880	1.
4	6.28	BROMIDE	2.339	0.328	2.38	9.483	1.
5	6.88	SULFATE	16.487	3.087	22.42	48.622	1.
6	7.32	NITRATE	11.390	2.112	15.34	9.750	1.
7	11.43	PHOSPHATE	5.714	0.749	5.44	9.685	1.
Total:			108.110	13.766	100.00	146.029	

104 CCB

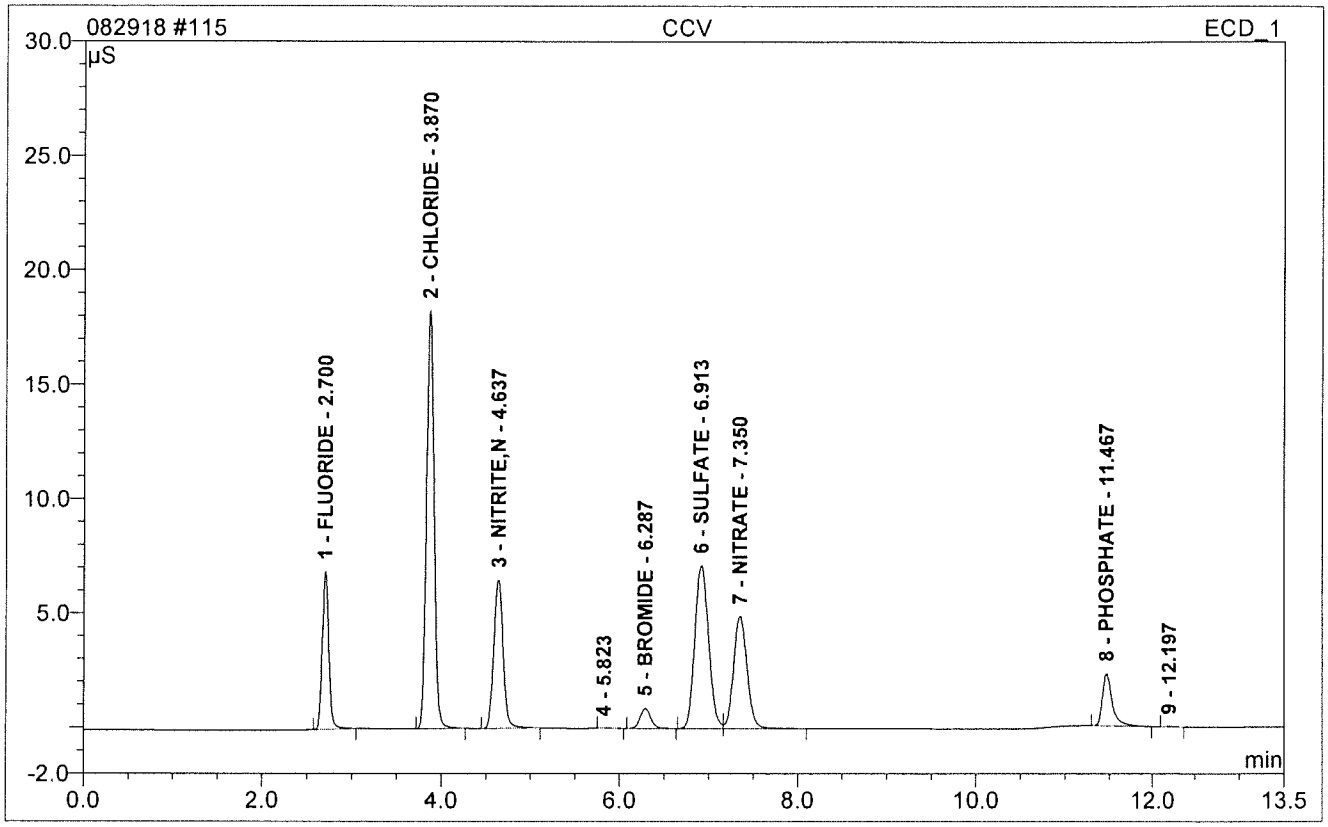
Sample Name:	**CCB**	*Injection Volume:*	**10.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 14:11**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.86	CHLORIDE	0.087	0.009	56.81	-0.044	1.
2	6.94	SULFATE	0.038	0.007	43.19	0.054	1.
Total:			0.124	0.016	100.00	0.010	

115 CCV

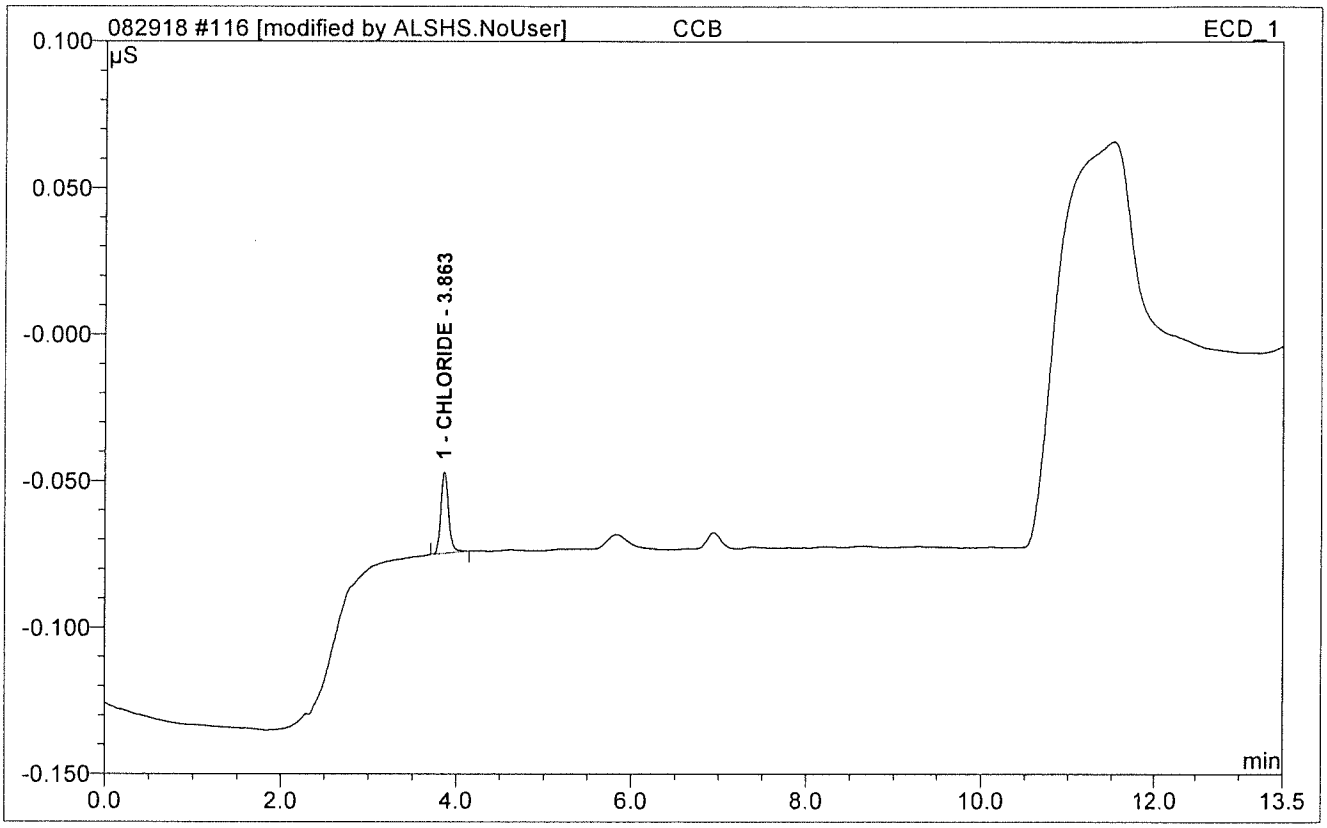
Sample Name:	**CCV**	*Injection Volume:*	**10.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 16:56**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	6.899	0.586	10.22	4.186	1.
2	3.87	CHLORIDE	18.269	1.799	31.34	20.408	1.
3	4.64	NITRITE,N	6.495	0.790	13.77	4.233	1.
5	6.29	BROMIDE	0.874	0.123	2.14	3.555	1.
6	6.91	SULFATE	7.135	1.281	22.32	20.146	1.
7	7.35	NITRATE	4.915	0.867	15.10	4.000	1.
8	11.47	PHOSPHATE	2.280	0.291	5.07	3.820	1.
Total:			46.867	5.737	99.94	60.347	

116 CCB

Sample Name:	**CCB**	*Injection Volume:*	**10.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 17:10**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**

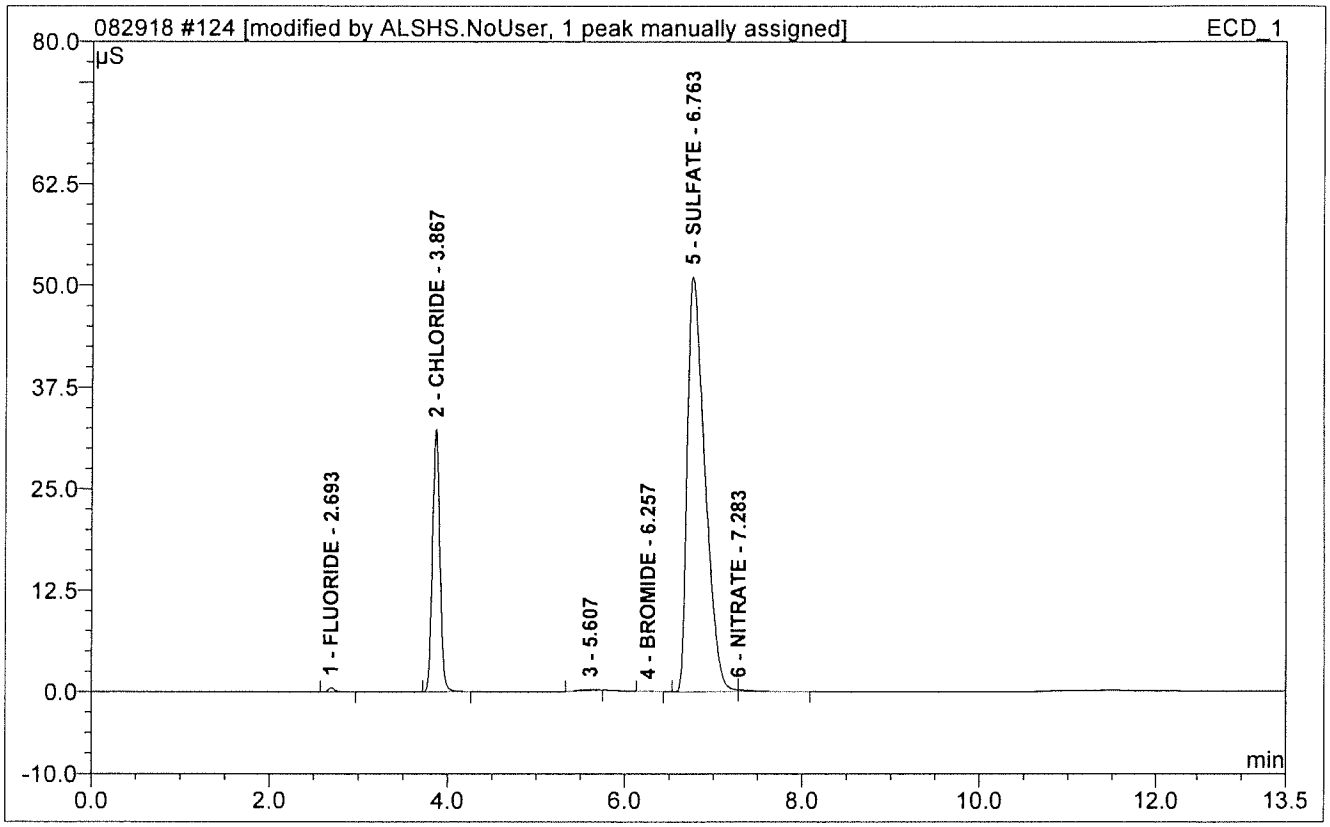


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.86	CHLORIDE	0.028	0.003	100.00	-0.113	1.
Total:			0.028	0.003	100.00	-0.113	

124 HS18081504-01

9056_W

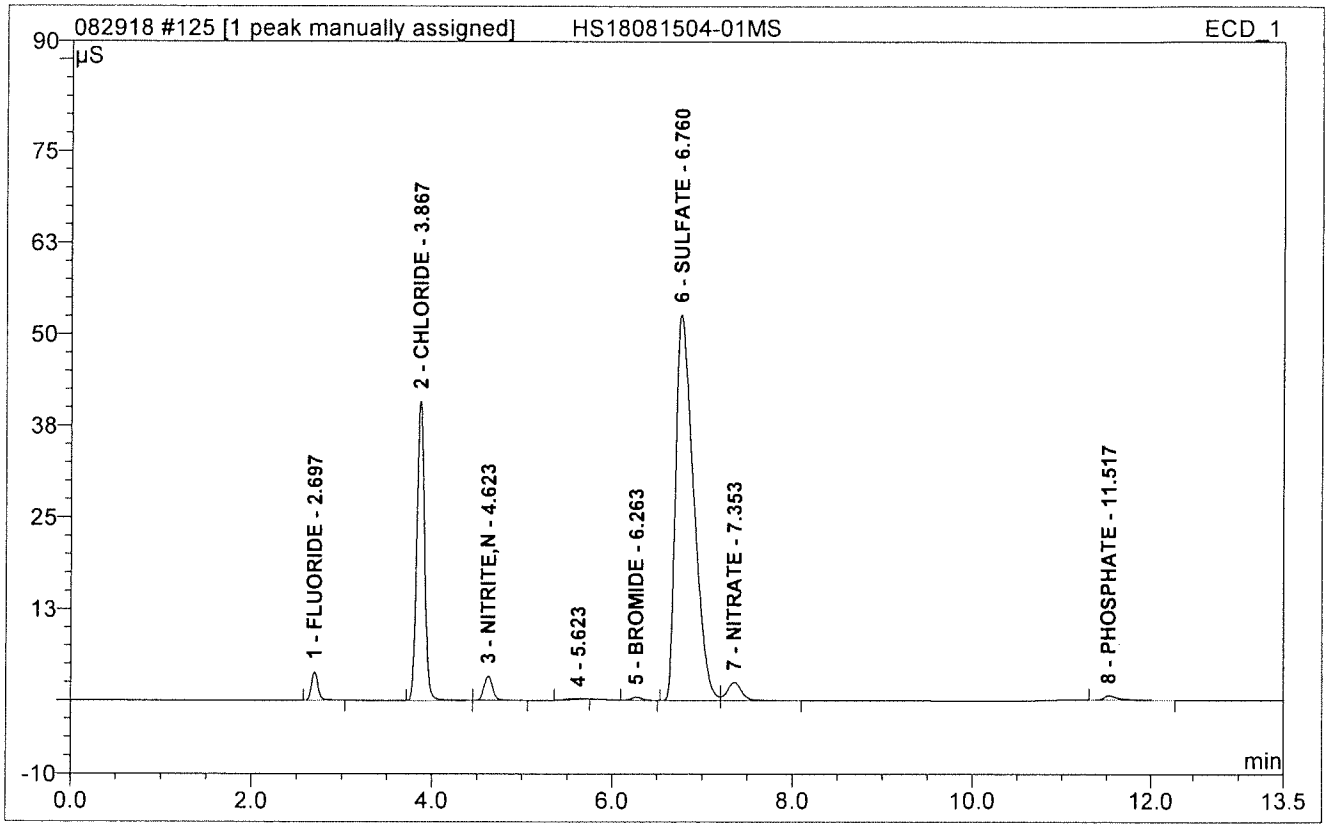
Sample Name:	**HS18081504-01**	*Injection Volume:*	**10.0**
Vial Number:	**64**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 19:41**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	0.543	0.045	0.30	0.287	1.
2	3.87	CHLORIDE	32.392	3.158	20.93	35.936	1.
4	6.26	BROMIDE	0.033	0.004	0.03	0.140	1.
5	6.76	SULFATE	51.079	11.804	78.23	186.066	1.
6	7.28	NITRATE	0.215	0.047	0.31	0.216	1.
Total:			84.262	15.058	99.80	222.645	

125 HS18081504-01MS

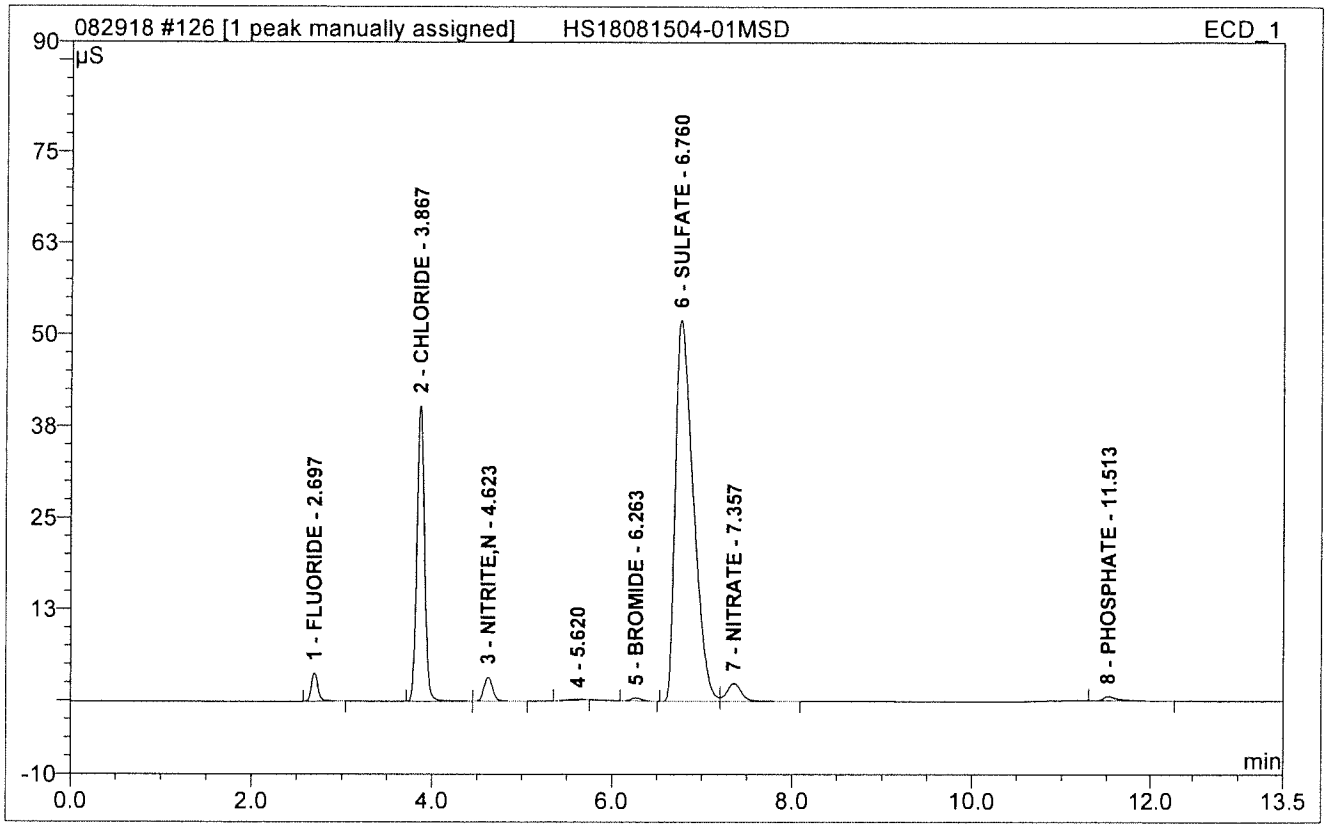
Sample Name:	**HS18081504-01MS**	*Injection Volume:*	**10.0**
Vial Number:	**65**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 20:09**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	3.949	0.329	1.87	2.332	1.
2	3.87	CHLORIDE	40.873	4.016	22.79	45.738	1.
3	4.62	NITRITE,N	3.369	0.379	2.15	2.009	1.
5	6.26	BROMIDE	0.420	0.057	0.32	1.662	1.
6	6.76	SULFATE	52.708	12.232	69.42	192.819	1.
7	7.35	NITRATE	2.500	0.471	2.67	2.174	1.
8	11.52	PHOSPHATE	0.598	0.110	0.62	1.508	1.
Total:			104.418	17.595	99.85	248.242	

126 HS18081504-01MSD

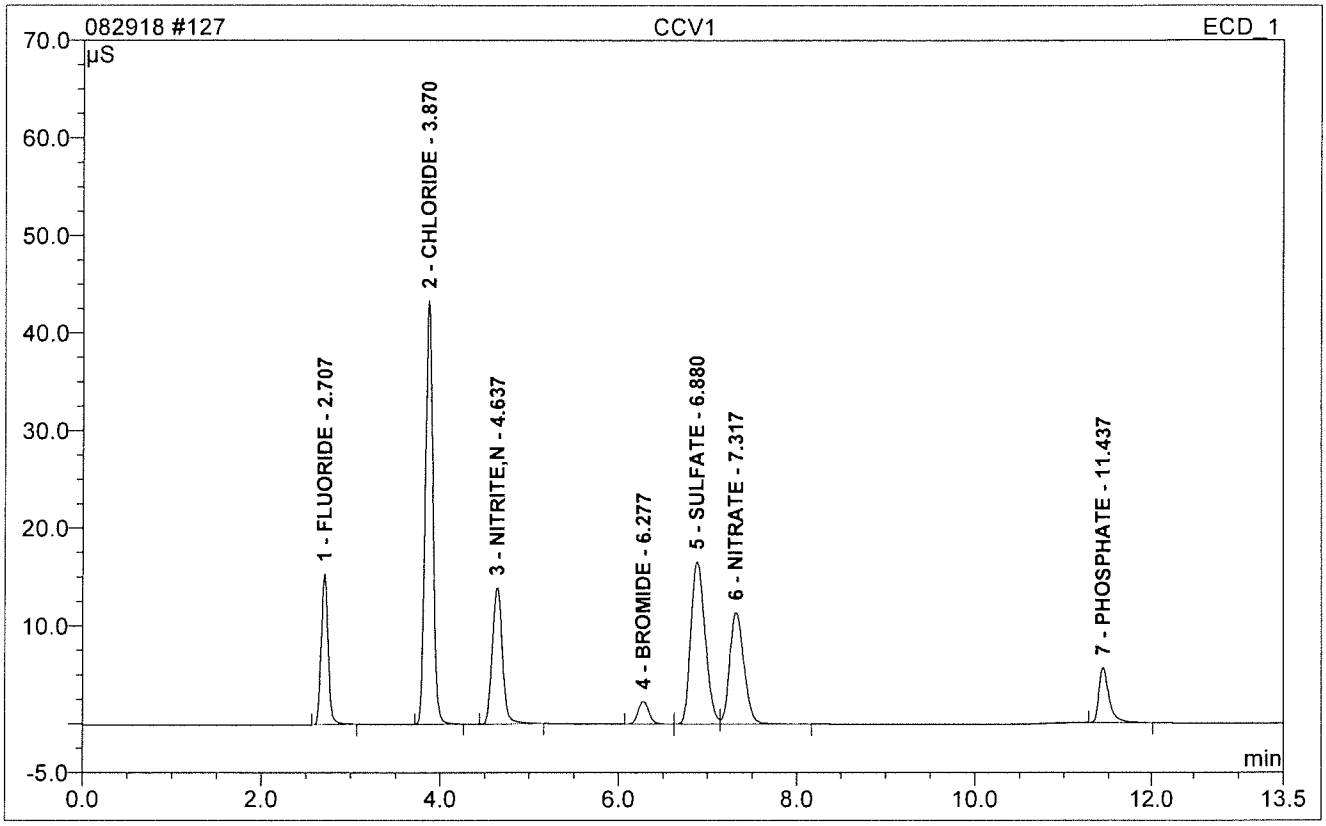
Sample Name:	**HS18081504-01MSD**	*Injection Volume:*	**10.0**
Vial Number:	**66**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 20:23**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	3.900	0.328	1.89	2.325	1.
2	3.87	CHLORIDE	40.396	3.970	22.83	45.207	1.
3	4.62	NITRITE,N	3.333	0.374	2.15	1.983	1.
5	6.26	BROMIDE	0.413	0.056	0.32	1.633	1.
6	6.76	SULFATE	52.097	12.066	69.39	190.196	1.
7	7.36	NITRATE	2.454	0.461	2.65	2.128	1.
8	11.51	PHOSPHATE	0.581	0.106	0.61	1.453	1.
Total:			103.174	17.361	99.85	244.926	

127 CCV1

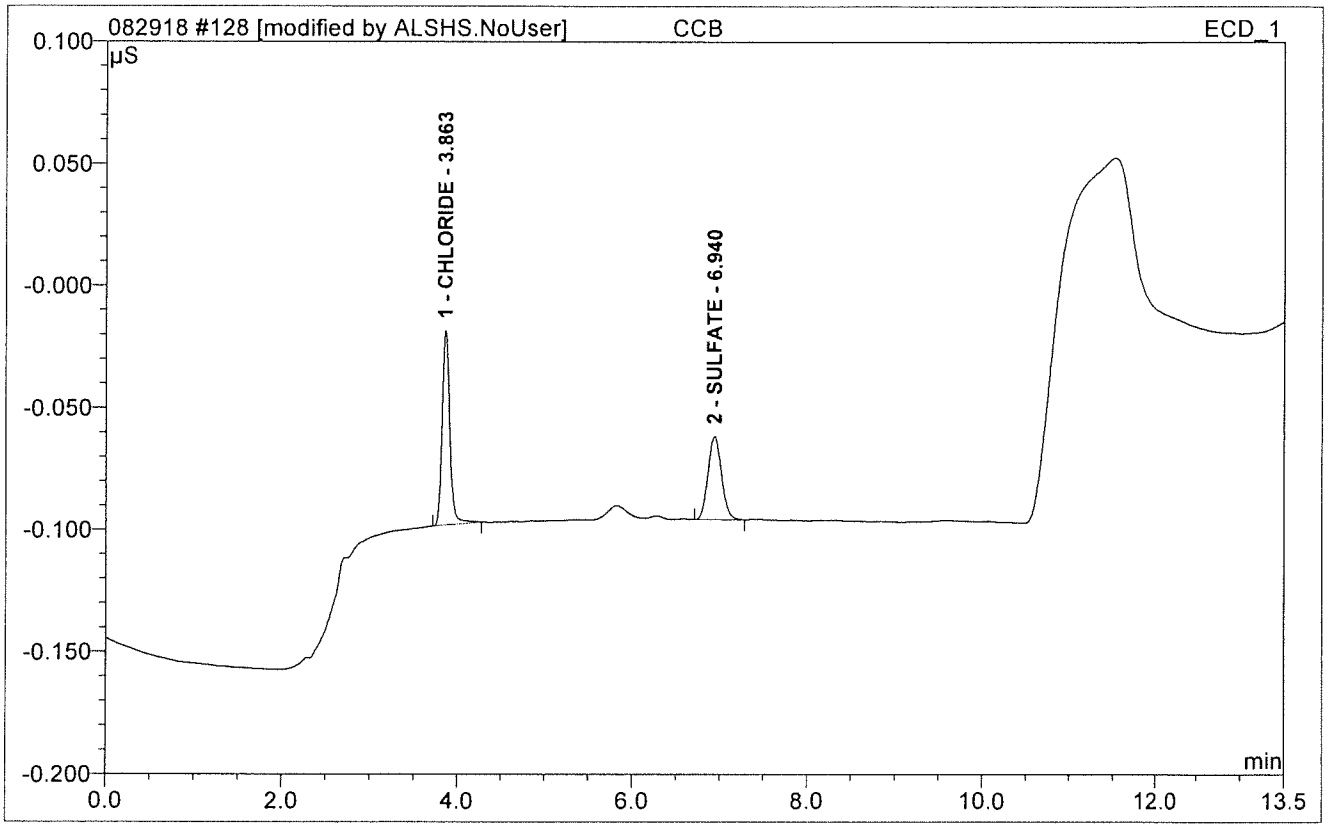
Sample Name:	**CCV1**	*Injection Volume:*	**10.0**
Vial Number:	**3**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 20:38**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.71	FLUORIDE	15.439	1.396	10.02	10.010	1.
2	3.87	CHLORIDE	43.477	4.331	31.11	49.333	1.
3	4.64	NITRITE,N	13.964	1.851	13.30	9.976	1.
4	6.28	BROMIDE	2.368	0.333	2.39	9.608	1.
5	6.88	SULFATE	16.675	3.120	22.41	49.139	1.
6	7.32	NITRATE	11.525	2.139	15.36	9.872	1.
7	11.44	PHOSPHATE	5.696	0.753	5.41	9.734	1.
Total:			109.145	13.922	100.00	147.673	

128 CCB

Sample Name:	**CCB**	*Injection Volume:*	**10.0**
Vial Number:	**4**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 20:52**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**

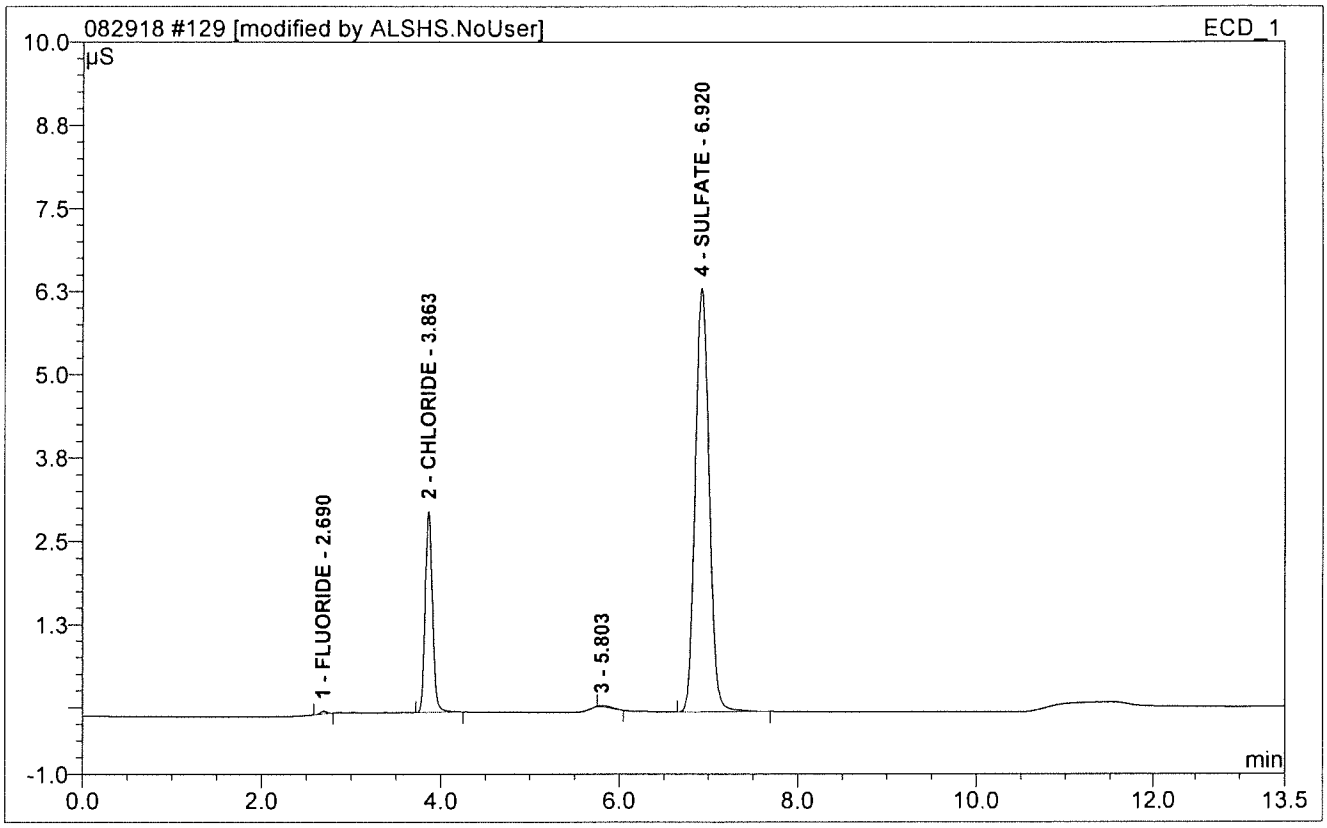


No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.86	CHLORIDE	0.080	0.008	56.62	-0.052	1.
2	6.94	SULFATE	0.034	0.006	43.38	0.046	1.
Total:			0.114	0.014	100.00	-0.006	

129 HS18081504-01DF10

9056_W

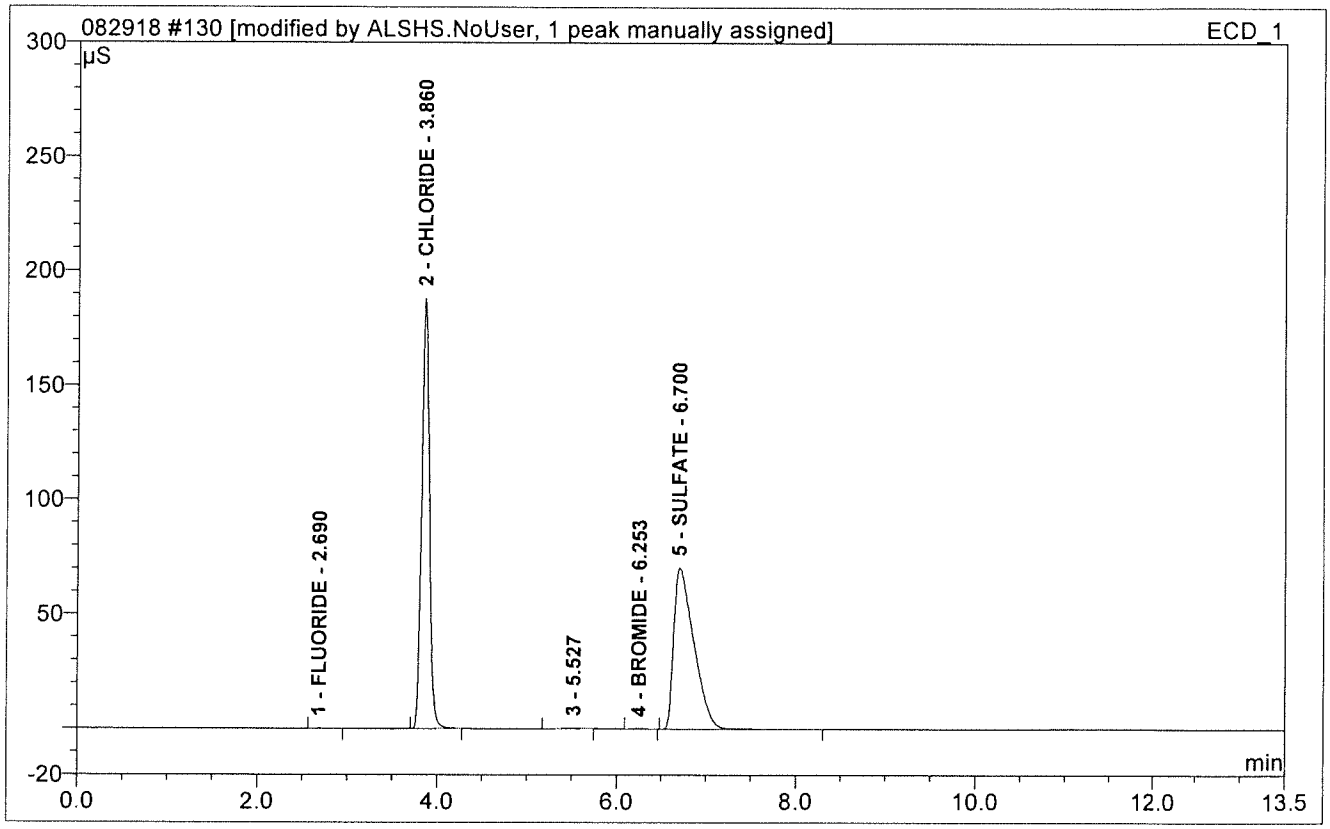
Sample Name:	**HS18081504-01DF10**	*Injection Volume:*	**10.0**
Vial Number:	**30**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**10.**
Recording Time:	**8/30/2018 21:07**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	0.043	0.003	0.23	-0.105	10.
2	3.86	CHLORIDE	3.026	0.289	19.90	31.569	10.
4	6.92	SULFATE	6.370	1.156	79.60	181.769	10.
Total:			9.439	1.448	99.73	213.233	

130 HS18081504-02

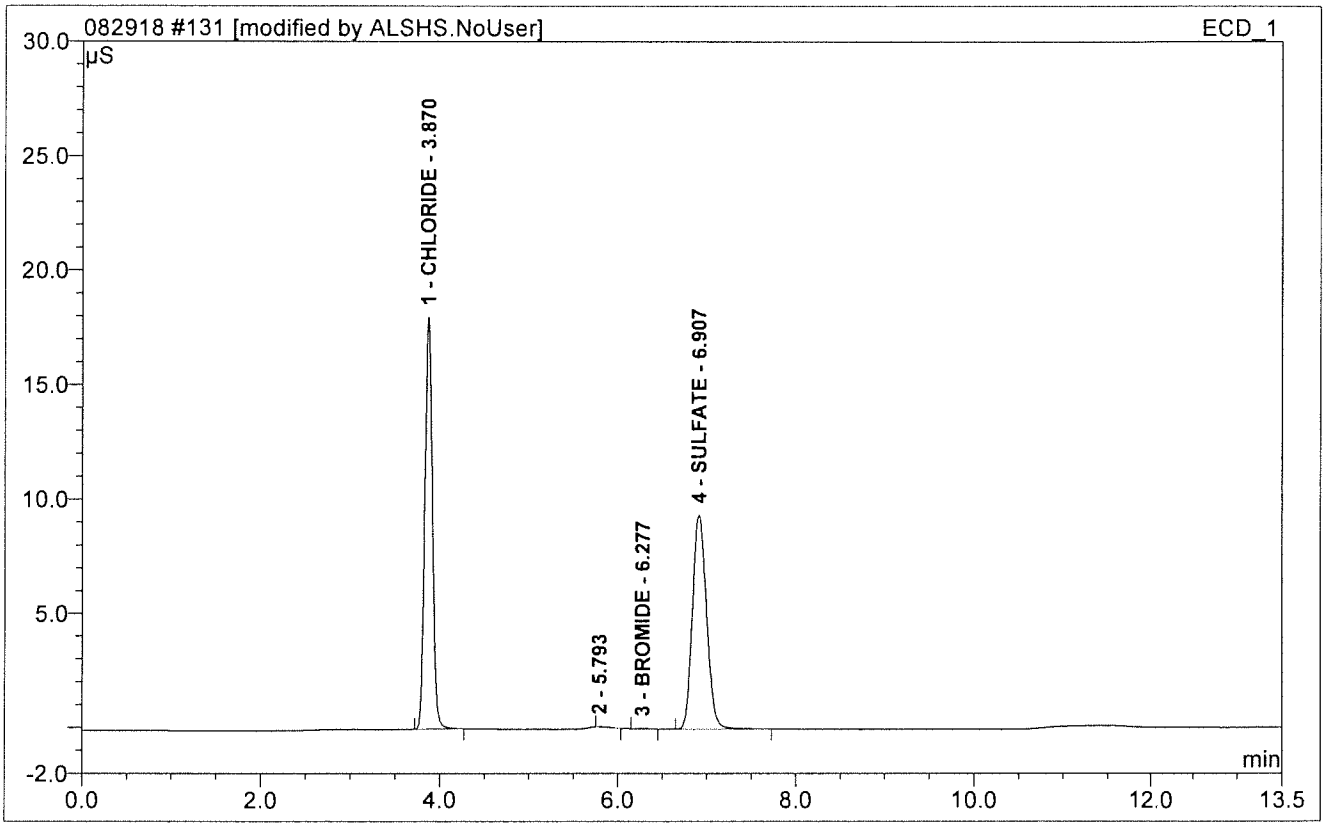
Sample Name:	**HS18081504-02**	*Injection Volume:*	**10.0**
Vial Number:	**67**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 21:28**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	0.168	0.015	0.04	0.075	1.
2	3.86	CHLORIDE	188.043	18.722	50.45	213.727	1.
4	6.25	BROMIDE	0.216	0.029	0.08	0.856	1.
5	6.70	SULFATE	70.358	18.290	49.28	288.332	1.
Total:			258.786	37.056	99.85	502.989	

131 HS18081504-02DF10

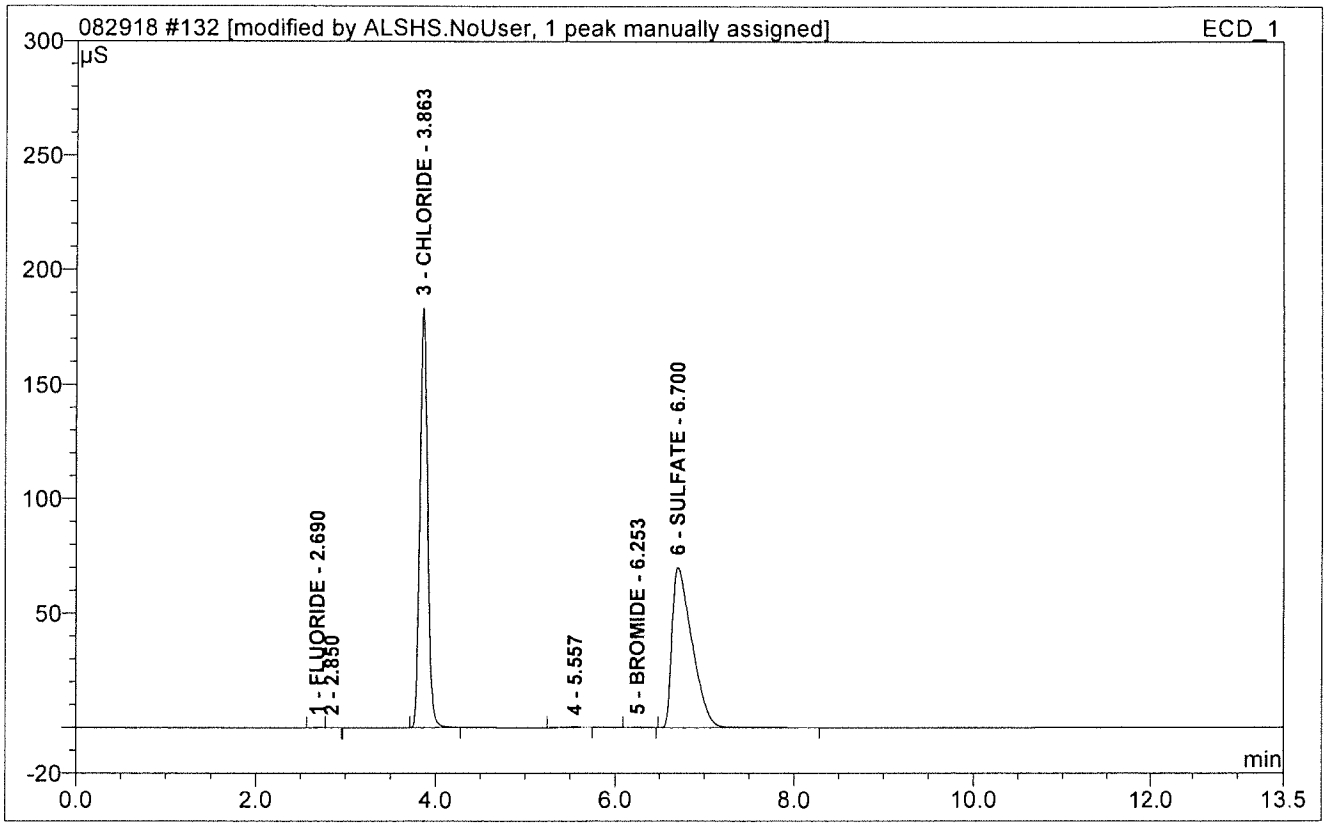
Sample Name:	**HS18081504-02DF10**	*Injection Volume:*	**10.0**
Vial Number:	**68**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**10.**
Recording Time:	**8/30/2018 21:42**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.87	CHLORIDE	18.008	1.773	50.41	201.141	10.
3	6.28	BROMIDE	0.016	0.002	0.06	0.768	10.
4	6.91	SULFATE	9.391	1.739	49.42	273.615	10.
Total:			27.416	3.514	99.89	475.523	

132 HS18081504-03

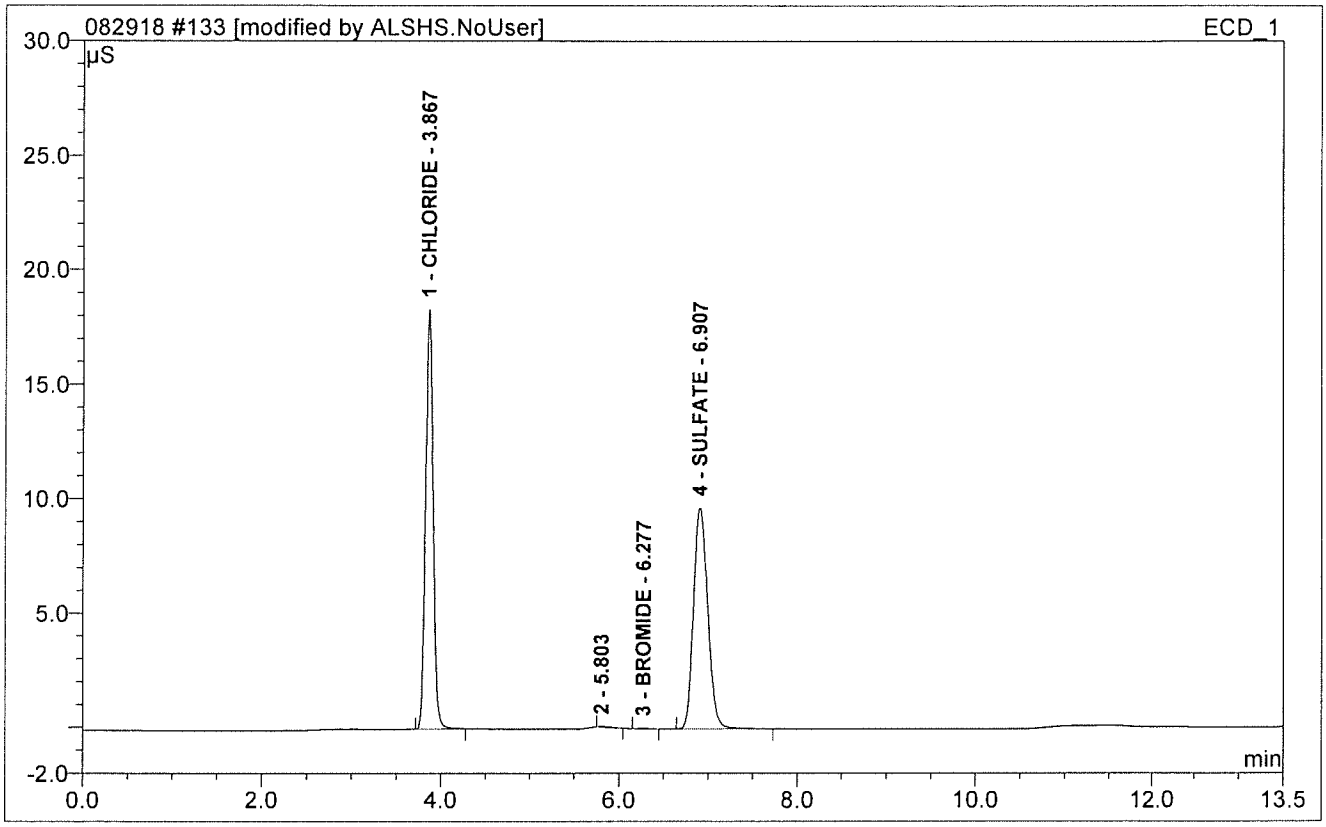
Sample Name:	**HS18081504-03**	*Injection Volume:*	**10.0**
Vial Number:	**69**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 21:57**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.69	FLUORIDE	0.171	0.016	0.04	0.083	1.
3	3.86	CHLORIDE	183.536	18.313	50.14	209.054	1.
5	6.25	BROMIDE	0.211	0.028	0.08	0.832	1.
6	6.70	SULFATE	70.125	18.119	49.61	285.647	1.
Total:			254.042	36.477	99.87	495.616	

133 HS18081504-03DF10

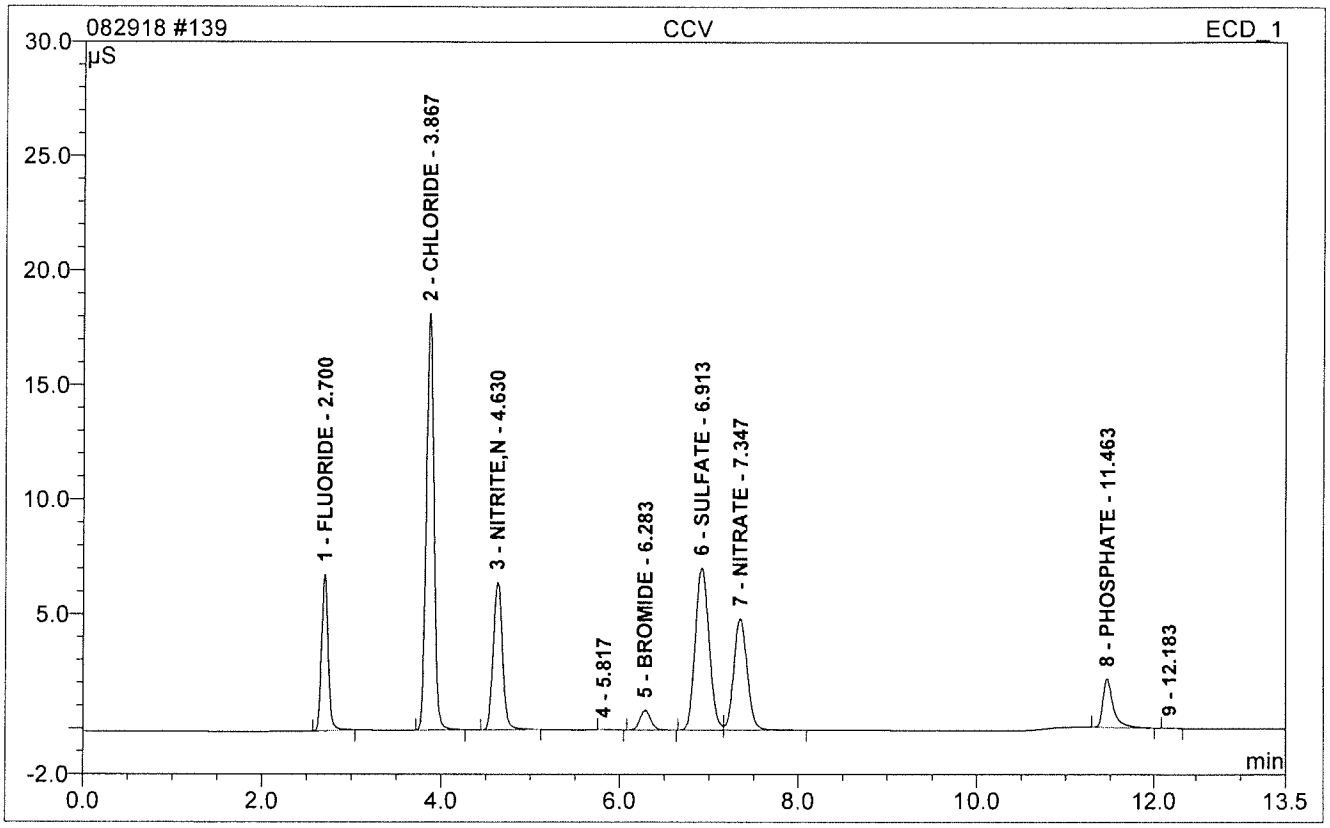
Sample Name:	**HS18081504-03DF10**	*Injection Volume:*	**10.0**
Vial Number:	**70**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**10.**
Recording Time:	**8/30/2018 22:12**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.87	CHLORIDE	18.345	1.808	50.12	205.046	10.
3	6.28	BROMIDE	0.016	0.002	0.06	0.783	10.
4	6.91	SULFATE	9.701	1.793	49.71	282.128	10.
Total:			28.062	3.602	99.89	487.957	

139 CCV

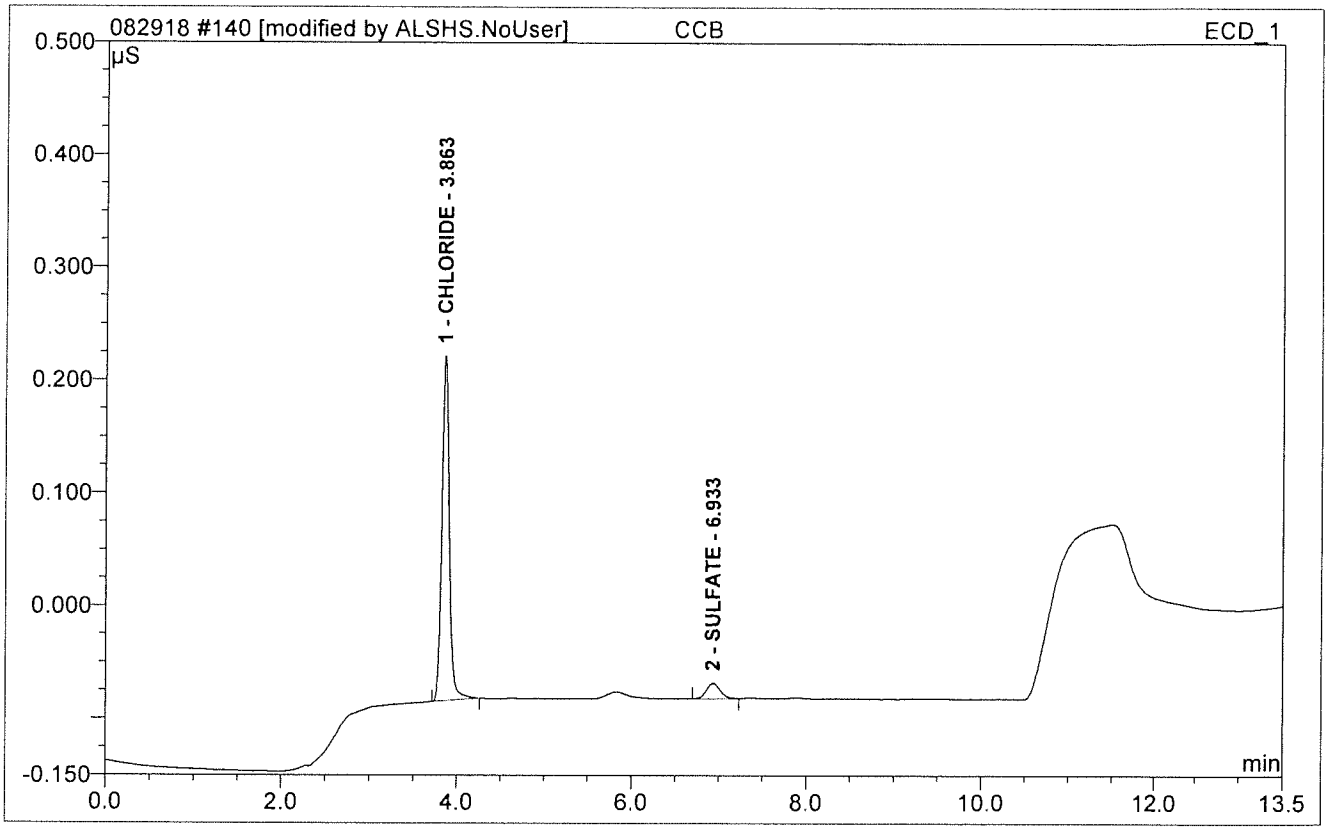
Sample Name:	**CCV**	*Injection Volume:*	**10.0**
Vial Number:	**1**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 23:39**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	2.70	FLUORIDE	6.855	0.585	10.21	4.174	1.
2	3.87	CHLORIDE	18.211	1.797	31.38	20.385	1.
3	4.63	NITRITE,N	6.462	0.788	13.76	4.221	1.
5	6.28	BROMIDE	0.873	0.123	2.15	3.575	1.
6	6.91	SULFATE	7.113	1.280	22.36	20.135	1.
7	7.35	NITRATE	4.895	0.866	15.12	3.997	1.
8	11.46	PHOSPHATE	2.134	0.284	4.96	3.731	1.
Total:			46.543	5.723	99.95	60.219	

140 CCB

Sample Name:	**CCB**	*Injection Volume:*	**10.0**
Vial Number:	**2**	*Channel:*	**ECD_1**
Sample Type:	**unknown**	*Wavelength:*	**n.a.**
Control Program:	**Anions Gradient Program**	*Bandwidth:*	**n.a.**
Quantif. Method:	**081518**	*Dilution Factor:*	**1.**
Recording Time:	**8/30/2018 23:53**	*Sample Weight:*	**1.0000**
Run Time (min):	**13.50**	*Sample Amount:*	**1.0000**



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount PPM	Dil.Fac.
1	3.86	CHLORIDE	0.306	0.030	92.34	0.200	1.
2	6.93	SULFATE	0.014	0.003	7.66	-0.012	1.
Total:			0.319	0.033	100.00	0.187	

Sub Contract Data

Aptim Environmental & Infrastucture, Inc.
Project: LHAAP-46 501032
ALS WO#HS18081504

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September 18, 2018

Analytical Report for Service Request No: K1808654

RJ Modashia
ALS Laboratory Group
10450 Stancliff Road
Suite 210
Houston, TX 77099-4338

RE: ALS-Houston Environmental / HS18081504

Dear RJ,

Enclosed are the results of the sample(s) submitted to our laboratory September 11, 2018
For your reference, these analyses have been assigned our service request number **K1808654.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3350. You may also contact me via email at Kelley.Lovejoy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Kelley Lovejoy

Kelley Lovejoy
Project Manager

RIGHT SOLUTIONS | RIGHT PARTNER

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Table of Contents

Acronyms
Qualifiers
State Certifications, Accreditations, And Licenses
Case Narrative
Chain of Custody
General Chemistry
Raw Data
    General Chemistry

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
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.
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.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

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

Service Request: K1808654
Date Received: 09/11/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt:

Three water samples were received for analysis at ALS Environmental on 09/11/2018. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4ºC upon receipt at the laboratory.

General Chemistry:

No significant anomalies were noted with this analysis.

Approved by Kelley Bovejoy Date 09/18/2018

Chain of Custody

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K1808654

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Subcontract Chain of Custody

COC ID: 9783

SUBCONTRACT TO:

ALS Environmental Kelso
1317 S. 13th Avenue
Kelso, WA 98626

Phone: +1 360 501 3312

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	RJ Modashia
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Email:	RJ.Modashia@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:	HS18081504
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS18081504-01**	**46WW02-180829**	**Groundwater**	**29 Aug 2018 08:35**
	DOD Level IV			12 Sep 2018
2.	**HS18081504-02**	**46WW11-180829**	**Groundwater**	**29 Aug 2018 09:55**
	DOD Level IV			12 Sep 2018
3.	**HS18081504-03**	**46WW11-180829-FD**	**Groundwater**	**29 Aug 2018 09:55**
	DOD Level IV			12 Sep 2018

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

DOD IV
HS18081504 - 01 MS/MSD

QC Level: DOD IV (DoD Data Package)

Relinquished By:	J. Modashia	Date/Time:	9/10/18 18:00
Received By:		Date/Time:	9/11/18 0840
Cooler ID(s):		Temperature(s):	

(CL)

PC KL 9/11

Cooler Receipt and Preservation Form

Client ALS / Houston Service Request K18 08654

Received: 9/11/18 Opened: 9/11/18 By: Unloaded: 9/11/18 By:

1. Samples were received via? *USPS* (*Fed Ex*) *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 2, front

If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
0.3	0.3	1.6	1.6	0	390	9781	4380 9532 4629	
						9782		
						9780		
						9783		

4. Packing material: *Inserts* (*Baggies*) (*Bubble Wrap*) *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____

5. Were custody papers properly filled out (ink, signed, etc.)?	NA	(Y)	N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.*	NA	(Y)	N
If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*			
7. Were all sample labels complete (i.e analysis, preservation, etc.)?	NA	(Y)	N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.*	NA	(Y)	N
9. Were appropriate bottles/containers and volumes received for the tests indicated?	NA	(Y)	N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below*	(NA)	Y	N
11. Were VOA vials received without headspace? *Indicate in the table below.*	(NA)	Y	N
12. Was C12/Res negative?	(NA)	Y	N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____

RUSH

General Chemistry

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	ALS Environmental - US	**Service Request:**	K1808654
Project:	ALS-Houston Environmental/HS18081504	**Date Collected:**	08/29/18
Sample Matrix:	Water	**Date Received:**	09/11/18
Analysis Method:	SM 5310 C	**Units:**	mg/L
Prep Method:	None	**Basis:**	NA

Carbon, Total Organic

Sample Name	Lab Code	Result	LOQ	LOD	Dil.	Date Analyzed	Q
46WW02-180829	K1808654-001	**10.3**	0.50	0.20	1	09/12/18 20:01	
46WW11-180829	K1808654-002	**4.07**	0.50	0.20	1	09/12/18 21:05	
46WW11-180829-FD	K1808654-003	**5.69**	0.50	0.20	1	09/12/18 21:37	
Method Blank	K1808654-MB1	ND U	0.50	0.20	1	09/12/18 16:14	
Method Blank	K1808654-MB2	ND U	0.50	0.20	1	09/13/18 01:05	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	K1808654
Project	ALS-Houston Environmental/HS18081504	**Date Collected:**	08/29/18
Sample Matrix:	Water	**Date Received:**	09/11/18
Analysis Method:	SM 5310 C	**Units:**	mg/L
Prep Method:	None	**Basis:**	NA

Replicate Sample Summary
Carbon, Total Organic

Sample Name:	Lab Code:	MRL	LOQ	Sample Result	Duplicate Result	Average	RPD	RPD Limit	Date Analyzed
46WW02-180829	K1808654-001DUP	0.50	0.20	10.3	9.80	10.0	5	10	09/12/18
46WW11-180829	K1808654-002DUP	0.50	0.20	4.07	4.22	4.14	4	10	09/12/18
46WW11-180829-FD	K1808654-003DUP	0.50	0.20	5.69	5.60	5.65	2	10	09/12/18

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

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	K1808654
Project:	ALS-Houston Environmental/HS18081504	**Date Collected:**	08/29/18
Sample Matrix:	Water	**Date Received:**	09/11/18
		Date Analyzed:	09/12/18
		Date Extracted:	NA

Matrix Spike Summary
Carbon, Total Organic

Sample Name:	46WW02-180829	**Units:**	mg/L
Lab Code:	K1808654-001	**Basis:**	NA
Analysis Method:	SM 5310 C		
Prep Method:	None		

Matrix Spike
K1808654-001MS

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic	10.3	35.5	25.0	101	83-117

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

QA/QC Report

Client:	ALS Environmental - US	**Service Request:**	K1808654
Project:	ALS-Houston Environmental/HS18081504	**Date Analyzed:**	09/12/18
Sample Matrix:	Water	**Date Extracted:**	NA

Lab Control Sample Summary
Carbon, Total Organic

Analysis Method:	SM 5310 C	**Units:**	mg/L
Prep Method:	None	**Basis:**	NA
		Analysis Lot:	606439

Sample Name	Lab Code	Result	Spike Amount	% Rec	% Rec Limits
Lab Control Sample	K1808654-LCS1	21.3	21.9	97	83-117
Lab Control Sample	K1808654-LCS2	21.2	21.9	97	83-117

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US **Service Request:** K1808654
Project: ALS-Houston Environmental/HS18081504

Continuing Calibration Verification (CCV) Summary

Carbon, Total Organic

Analysis Method: SM 5310 C **Units:** mg/L

	Analysis Lot	Lab Code	Date Analyzed	True Value	Measured Value	Percent Recovery	Acceptance Limits
CCV1	606439	KQ1812842-60	09/12/18 15:41	25.0	24.6	98	90-110
CCV2	606439	KQ1812842-61	09/12/18 19:28	25.0	24.8	99	90-110
CCV3	606439	KQ1812842-62	09/13/18 00:32	25.0	24.2	97	90-110
CCV4	606439	KQ1812842-63	09/13/18 05:05	25.0	24.2	97	90-110
CCV5	606439	KQ1812842-64	09/13/18 13:00	25.0	24.4	97	90-110
CCV6	606439	KQ1812842-65	09/13/18 21:42	25.0	24.6	99	90-110

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US **Service Request:**K1808654
Project: ALS-Houston Environmental/HS18081504

Continuing Calibration Blank (CCB) Summary
Carbon, Total Organic

Analysis Method: SM 5310 C **Units:**mg/L

	Analysis Lot	Lab Code	Date Analyzed	LOQ	LOD	Result	Q
CCB1	606439	KQ1812842-66	09/12/18 15:58	0.50	0.20	ND	U
CCB2	606439	KQ1812842-67	09/12/18 19:44	0.50	0.20	ND	U
CCB3	606439	KQ1812842-68	09/13/18 00:48	0.50	0.20	ND	U
CCB4	606439	KQ1812842-69	09/13/18 05:21	0.50	0.20	ND	U
CCB5	606439	KQ1812842-70	09/13/18 13:17	0.50	0.20	ND	U
CCB6	606439	KQ1812842-71	09/13/18 21:59	0.50	0.20	ND	U

Raw Data

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General Chemistry

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Work Request # (Original) K1808312, 8313, 8654, 8655, 8656, 8659, 8385, 8391,

Tier: II II IV IV IV IV IV IV

Date Analyzed: 9/12/18 8464, 8468, 8454, 8474 IV IV II II

Analyst: CES Run # 606439, 606442, 606448

Analysis: TOC

DATA QUALITY REPORT
INORGANICS

Explain any "no" responses to questions below, and any corrective actions in the comments section below.

1.	Is the method name and number correct and appropriate?	(yes)/no/NA
2.	Holding times met for all analyses and for all samples?	(yes)/no/NA
3.	Are calculations correct?	(yes)/no/NA
4.	Is the reporting basis correct? (Dry Weight)	(yes)/no/NA
5.	All quality control criteria met?	yes/(no)
6.	Is the calibration curve correlation coefficient ≥ 0.995?	(yes)/no/NA
7.	MBs, CCVs, CCBs, LCSs, Dups, and Spikes, analyzed at proper frequency?	(yes)/no/NA
8.	Are ICVs, CCVs, and CCBs all within acceptance limits?	(yes)/no/NA
9.	Are results for methods blanks all ND?	(yes)/no/NA
10.	Are all QC samples within acceptance criteria? (LCS % rec, MS/DMS % rec, DUP or MS/DMS RPDs, etc.)	yes/(no)/NA
11.	Are all exceptions explained?	(yes)/no/NA
12.	Have all applicable service requests been reviewed?	(yes)/no/NA
13.	Are all samples labeled correctly?	(yes)/no/NA
14.	Have all instructions on the service request been followed? (e.g. Special MRLs, QC on a specific sample, Form V)	(yes)/no/NA
15.	Are detection limits and units reported correctly?	(yes)/no/NA
16.	Is the unused space on the benchsheet crossed out?	(yes)/no/NA
17.	Was analysis turned in by the due date? (n-2) (If not record SR#)	yes/(no)/NA

COMMENTS: ↳ 8312, 8313

8391-4, 8464-3, 8468-2 RPD not within acceptance limits. The sample results are less than 5x the MRL.

RA 8655-1 RPD not within acceptance limits.

Final Approved by: [signature] Date: 09/18/18

DQREPORT

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606439 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
K1808312-001	Carbon, Total Organic	N/A		Water	8.80 mg/L	10 ml	17.6 mg/L	2	0.2	1.0			9/12/18 17:03	N	II
K1808313-001	Carbon, Total Organic	N/A		Water	4.18 mg/L	10 ml	4.18 mg/L	1	0.07	0.50			9/12/18 18:23	N	II
K1808383-001	Carbon, Total Organic	N/A		Ground Water	0.88 mg/L	10 ml	0.88 mg/L	1	0.07	0.50			9/13/18 05:38	N	IV
K1808383-002	Carbon, Total Organic	N/A		Ground Water	0.83 mg/L	10 ml	0.83 mg/L	1	0.07	0.50			9/13/18 07:13	N	IV
K1808383-004	Carbon, Total Organic	N/A		Ground Water	1.39 mg/L	10 ml	1.39 mg/L	1	0.07	0.50			9/13/18 08:16	N	IV
K1808383-005	Carbon, Total Organic	N/A		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 09:19	N	IV
K1808383-006	Carbon, Total Organic	N/A		Ground Water	0.67 mg/L	10 ml	0.67 mg/L	1	0.07	0.50			9/13/18 10:22	N	IV
K1808391-003	Carbon, Total Organic	N/A		Ground Water	0.53 mg/L	10 ml	0.53 mg/L	1	0.07	0.50			9/13/18 11:25	N	IV
K1808391-004	Carbon, Total Organic	N/A		Ground Water	0.28 mg/L	10 ml	0.28 mg/L J	1	0.07	0.50			9/13/18 14:23	N	IV
K1808391-005	Carbon, Total Organic	N/A		Ground Water	0.36 mg/L	10 ml	0.36 mg/L J	1	0.07	0.50			9/13/18 15:25	N	IV
K1808391-006	Carbon, Total Organic	N/A		Ground Water	0.46 mg/L	10 ml	0.46 mg/L J	1	0.07	0.50			9/13/18 16:28	N	IV
K1808654-001	Carbon, Total Organic	N/A		Water	10.28 mg/L	10 ml	10.3 mg/L	1	0.07	0.50			9/12/18 20:01	Y	IV
K1808654-002	Carbon, Total Organic	N/A		Water	4.07 mg/L	10 ml	4.07 mg/L	1	0.07	0.50			9/12/18 21:05	N	IV
K1808654-003	Carbon, Total Organic	N/A		Water	5.69 mg/L	10 ml	5.69 mg/L	1	0.07	0.50			9/12/18 21:37	N	IV
K1808655-001	Carbon, Total Organic	N/A		Water	3.23 mg/L	10 ml	12.9 mg/L	4	0.3	2.0			9/12/18 22:09	N	IV
K1808655-002	Carbon, Total Organic	N/A		Water	5.99 mg/L	10 ml	5.99 mg/L	1	0.07	0.50			9/12/18 23:28	N	IV
K1808655-003	Carbon, Total Organic	N/A		Water	1.56 mg/L	10 ml	6.2 mg/L	4	0.3	2.0			9/13/18 00:00	N	IV
K1808655-004	Carbon, Total Organic	N/A		Water	3.65 mg/L	10 ml	3.65 mg/L	1	0.07	0.50			9/13/18 01:54	N	IV
K1808656-001	Carbon, Total Organic	N/A		Water	17.98 mg/L	10 ml	18.0 mg/L	1	0.07	0.50			9/13/18 02:26	N	IV
K1808659-001	Carbon, Total Organic	N/A		Water	20.38 mg/L	10 ml	20.4 mg/L	1	0.07	0.50			9/13/18 03:45	N	IV
KQ1812842-01	Carbon, Total Organic	MS	K1808312-001	Water	34.94 mg/L	10 ml	69.9 mg/L	2	0.2	1.0	105		9/12/18 17:35	N	II
KQ1812842-02	Carbon, Total Organic	DUP	K1808312-001	Water	8.70 mg/L	10 ml	17.4 mg/L	2	0.2	1.0		1	9/12/18 17:03	N	II
KQ1812842-03	Carbon, Total Organic	MS	K1808313-001	Water	29.41 mg/L	10 ml	29.4 mg/L	1	0.07	0.50	101		9/12/18 18:54	N	II
KQ1812842-04	Carbon, Total Organic	DUP	K1808313-001	Water	4.09 mg/L	10 ml	4.09 mg/L	1	0.07	0.50		2	9/12/18 18:23	N	II
KQ1812842-05	Carbon, Total Organic	MS	K1808654-001	Water	35.52 mg/L	10 ml	35.5 mg/L	1	0.07	0.50	101		9/12/18 20:32	N	IV
KQ1812842-06	Carbon, Total Organic	DUP	K1808654-001	Water	9.80 mg/L	10 ml	9.80 mg/L	1	0.07	0.50		5	9/12/18 20:01	N	IV
KQ1812842-07	Carbon, Total Organic	DUP	K1808654-002	Water	4.22 mg/L	10 ml	4.22 mg/L	1	0.07	0.50		4	9/12/18 21:05	N	IV
KQ1812842-08	Carbon, Total Organic	DUP	K1808654-003	Water	5.60 mg/L	10 ml	5.60 mg/L	1	0.07	0.50		2	9/12/18 21:37	N	IV
KQ1812842-09	Carbon, Total Organic	MS	K1808655-001	Water	28.51 mg/L	10 ml	114 mg/L	4	0.3	2.0	101		9/12/18 22:40	N	IV
KQ1812842-10	Carbon, Total Organic	DUP	K1808655-001	Water	2.53 mg/L	10 ml	10.1 mg/L	4	0.3	2.0		24*	9/12/18 22:09	N	IV
KQ1812842-11	Carbon, Total Organic	DUP	K1808655-002	Water	5.88 mg/L	10 ml	5.88 mg/L	1	0.07	0.50		2	9/12/18 23:28	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

CES 9/18/18

09/18/18

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606439 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
KQ1812842-12	Carbon, Total Organic	DUP	K1808655-003	Water	1.57 mg/L	10 ml	6.3 mg/L	4	0.3	2.0		<1	9/13/18 00:00	N	IV
KQ1812842-13	Carbon, Total Organic	DUP	K1808655-004	Water	3.90 mg/L	10 ml	3.90 mg/L	1	0.07	0.50		7	9/13/18 01:54	N	IV
KQ1812842-14	Carbon, Total Organic	MS	K1808656-001	Water	38.99 mg/L	10 ml	39.0 mg/L	1	0.07	0.50	84		9/13/18 02:57	N	IV
KQ1812842-15	Carbon, Total Organic	DUP	K1808656-001	Water	17.34 mg/L	10 ml	17.3 mg/L	1	0.07	0.50		4	9/13/18 02:26	N	IV
KQ1812842-16	Carbon, Total Organic	MS	K1808659-001	Water	42.11 mg/L	10 ml	42.1 mg/L	1	0.07	0.50	87		9/13/18 04:17	N	IV
KQ1812842-17	Carbon, Total Organic	DUP	K1808659-001	Water	19.39 mg/L	10 ml	19.4 mg/L	1	0.07	0.50		5	9/13/18 03:45	N	IV
KQ1812842-18	Carbon, Total Organic	MS	K1808383-001	Ground Water	26.18 mg/L	10 ml	26.2 mg/L	1	0.07	0.50	101		9/13/18 06:41	N	IV
KQ1812842-24	Carbon, Total Organic	MS	K1808391-003	Ground Water	25.69 mg/L	10 ml	25.7 mg/L	1	0.07	0.50	101		9/13/18 12:28	N	IV
KQ1812842-29	Carbon, Total Organic	MB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/12/18 16:14	N	II
KQ1812842-29	Carbon, Total Organic	MB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/12/18 16:14	N	II
KQ1812842-30	Carbon, Total Organic	MB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 01:05	N	II
KQ1812842-30	Carbon, Total Organic	MB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 01:05	N	II
KQ1812842-31	Carbon, Total Organic	LCS		Water	21.29 mg/L	10 ml	21.3 mg/L	1	0.07	0.50	97		9/12/18 16:31	N	II
KQ1812842-31	Carbon, Total Organic	LCS		Water	21.29 mg/L	10 ml	21.3 mg/L	1	0.07	0.50	97		9/12/18 16:31	N	II
KQ1812842-32	Carbon, Total Organic	LCS		Water	21.21 mg/L	10 ml	21.2 mg/L	1	0.07	0.50	97		9/13/18 01:21	N	II
KQ1812842-32	Carbon, Total Organic	LCS		Water	21.21 mg/L	10 ml	21.2 mg/L	1	0.07	0.50	97		9/13/18 01:21	N	II
KQ1812842-33	Carbon, Total Organic	DUP	K1808383-001	Ground Water	0.78 mg/L	10 ml	0.78 mg/L	1	0.07	0.50		13	9/13/18 05:38	N	IV
KQ1812842-34	Carbon, Total Organic	TRP	K1808383-001	Ground Water	0.81 mg/L	10 ml	0.81 mg/L	1	0.07	0.50		7	9/13/18 05:38	N	IV
KQ1812842-35	Carbon, Total Organic	QUAD	K1808383-001	Ground Water	0.87 mg/L	10 ml	0.87 mg/L	1	0.07	0.50		6	9/13/18 05:38	N	IV
KQ1812842-36	Carbon, Total Organic	DUP	K1808383-002	Ground Water	0.79 mg/L	10 ml	0.79 mg/L	1	0.07	0.50		5	9/13/18 07:13	N	IV
KQ1812842-37	Carbon, Total Organic	TRP	K1808383-002	Ground Water	0.82 mg/L	10 ml	0.82 mg/L	1	0.07	0.50		3	9/13/18 07:13	N	IV
KQ1812842-38	Carbon, Total Organic	QUAD	K1808383-002	Ground Water	0.79 mg/L	10 ml	0.79 mg/L	1	0.07	0.50		3	9/13/18 07:13	N	IV
KQ1812842-39	Carbon, Total Organic	DUP	K1808383-004	Ground Water	1.34 mg/L	10 ml	1.34 mg/L	1	0.07	0.50		4	9/13/18 08:16	N	IV
KQ1812842-40	Carbon, Total Organic	TRP	K1808383-004	Ground Water	1.31 mg/L	10 ml	1.31 mg/L	1	0.07	0.50		3	9/13/18 08:16	N	IV
KQ1812842-41	Carbon, Total Organic	QUAD	K1808383-004	Ground Water	1.30 mg/L	10 ml	1.30 mg/L	1	0.07	0.50		3	9/13/18 08:16	N	IV
KQ1812842-42	Carbon, Total Organic	DUP	K1808383-005	Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50		NC	9/13/18 09:19	N	IV
KQ1812842-43	Carbon, Total Organic	TRP	K1808383-005	Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50		NC	9/13/18 09:19	N	IV
KQ1812842-44	Carbon, Total Organic	QUAD	K1808383-005	Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50		NC	9/13/18 09:19	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606439 **Method/Testcode:** 9060/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
KQ1812842-45	Carbon, Total Organic	DUP	K1808383-006	Ground Water	0.58 mg/L	10 ml	0.58 mg/L	1	0.07	0.50		14	9/13/18 10:22	N	IV
KQ1812842-46	Carbon, Total Organic	TRP	K1808383-006	Ground Water	0.66 mg/L	10 ml	0.66 mg/L	1	0.07	0.50		8	9/13/18 10:22	N	IV
KQ1812842-47	Carbon, Total Organic	QUAD	K1808383-006	Ground Water	0.61 mg/L	10 ml	0.61 mg/L	1	0.07	0.50		7	9/13/18 10:22	N	IV
KQ1812842-48	Carbon, Total Organic	DUP	K1808391-003	Ground Water	0.52 mg/L	10 ml	0.52 mg/L	1	0.07	0.50		2	9/13/18 11:25	N	IV
KQ1812842-49	Carbon, Total Organic	TRP	K1808391-003	Ground Water	0.46 mg/L	10 ml	0.46 mg/L J	1	0.07	0.50		8	9/13/18 11:25	N	IV
KQ1812842-50	Carbon, Total Organic	QUAD	K1808391-003	Ground Water	0.53 mg/L	10 ml	0.53 mg/L	1	0.07	0.50		7	9/13/18 11:25	N	IV
KQ1812842-51	Carbon, Total Organic	DUP	K1808391-004	Ground Water	0.20 mg/L	10 ml	0.20 mg/L J	1	0.07	0.50		30*	9/13/18 14:23	N	IV
KQ1812842-52	Carbon, Total Organic	TRP	K1808391-004	Ground Water	0.26 mg/L	10 ml	0.26 mg/L J	1	0.07	0.50		15	9/13/18 14:23	N	IV
KQ1812842-53	Carbon, Total Organic	QUAD	K1808391-004	Ground Water	0.22 mg/L	10 ml	0.22 mg/L J	1	0.07	0.50		14	9/13/18 14:23	N	IV
KQ1812842-54	Carbon, Total Organic	DUP	K1808391-005	Ground Water	0.34 mg/L	10 ml	0.34 mg/L J	1	0.07	0.50		6	9/13/18 15:25	N	IV
KQ1812842-55	Carbon, Total Organic	TRP	K1808391-005	Ground Water	0.31 mg/L	10 ml	0.31 mg/L J	1	0.07	0.50		7	9/13/18 15:25	N	IV
KQ1812842-56	Carbon, Total Organic	QUAD	K1808391-005	Ground Water	0.32 mg/L	10 ml	0.32 mg/L J	1	0.07	0.50		6	9/13/18 15:25	N	IV
KQ1812842-57	Carbon, Total Organic	DUP	K1808391-006	Ground Water	0.42 mg/L	10 mL	0.42 mg/L J	1	0.07	0.50		9	9/13/18 16:28:00	N	IV
KQ1812842-58	Carbon, Total Organic	TRP	K1808391-006	Ground Water	0.39 mg/L	10 mL	0.39 mg/L J	1	0.07	0.50		8	9/13/18 16:28:00	N	IV
KQ1812842-59	Carbon, Total Organic	QUAD	K1808391-006	Ground Water	0.36 mg/L	10 mL	0.36 mg/L J	1	0.07	0.50		10	9/13/18 16:28:00	N	IV
KQ1812842-60	Carbon, Total Organic	CCV		Water	24.56 mg/L	10 ml	24.6 mg/L	1			98		9/12/18 15:41	N	II
KQ1812842-60	Carbon, Total Organic	CCV		Water	24.56 mg/L	10 ml	24.6 mg/L	1			98		9/12/18 15:41	N	II
KQ1812842-61	Carbon, Total Organic	CCV		Water	24.84 mg/L	10 ml	24.8 mg/L	1			99		9/12/18 19:28	N	II
KQ1812842-61	Carbon, Total Organic	CCV		Water	24.84 mg/L	10 ml	24.8 mg/L	1			99		9/12/18 19:28	N	II
KQ1812842-62	Carbon, Total Organic	CCV		Water	24.24 mg/L	10 ml	24.2 mg/L	1			97		9/13/18 00:32	N	II
KQ1812842-62	Carbon, Total Organic	CCV		Water	24.24 mg/L	10 ml	24.2 mg/L	1			97		9/13/18 00:32	N	II
KQ1812842-63	Carbon, Total Organic	CCV		Water	24.21 mg/L	10 ml	24.2 mg/L	1			97		9/13/18 05:05	N	II
KQ1812842-63	Carbon, Total Organic	CCV		Water	24.21 mg/L	10 ml	24.2 mg/L	1			97		9/13/18 05:05	N	II
KQ1812842-64	Carbon, Total Organic	CCV		Water	24.37 mg/L	10 ml	24.4 mg/L	1			98		9/13/18 13:00	N	II
KQ1812842-64	Carbon, Total Organic	CCV		Water	24.37 mg/L	10 ml	24.4 mg/L	1			98		9/13/18 13:00	N	II
KQ1812842-65	Carbon, Total Organic	CCV		Water	24.63 mg/L	10 ml	24.6 mg/L	1			98		9/13/18 21:42	N	II
KQ1812842-65	Carbon, Total Organic	CCV		Water	24.63 mg/L	10 ml	24.6 mg/L	1			98		9/13/18 21:42	N	II
KQ1812842-66	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/12/18 15:58	N	II

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606439 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
KQ1812842-66	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/12/18 15:58	N	II
KQ1812842-67	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/12/18 19:44	N	II
KQ1812842-67	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/12/18 19:44	N	II
KQ1812842-68	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 00:48	N	II
KQ1812842-68	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 00:48	N	II
KQ1812842-69	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 05:21	N	II
KQ1812842-69	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 05:21	N	II
KQ1812842-70	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 13:17	N	II
KQ1812842-70	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 13:17	N	II
KQ1812842-71	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 21:59	N	II
KQ1812842-71	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 21:59	N	II

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606442 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
K1808454-001	Carbon, Total Organic	N/A		Water	3.32 mg/L	10 ml	3.32 mg/L	1	0.07	0.50			9/14/18 04:35	N	II
K1808454-003	Carbon, Total Organic	N/A		Water	2.47 mg/L	10 ml	2.47 mg/L	1	0.07	0.50			9/14/18 06:45	N	II
K1808464-001	Carbon, Total Organic	N/A		Ground Water	0.58 mg/L	10 ml	0.58 mg/L	1	0.07	0.50			9/13/18 17:31	N	IV
K1808464-002	Carbon, Total Organic	N/A		Ground Water	0.24 mg/L	10 ml	0.24 mg/L J	1	0.07	0.50			9/13/18 18:34	N	IV
K1808464-003	Carbon, Total Organic	N/A		Ground Water	0.19 mg/L	10 ml	0.19 mg/L J	1	0.07	0.50			9/13/18 19:37	N	IV
K1808464-005	Carbon, Total Organic	N/A		Ground Water	3.46 mg/L	10 ml	3.46 mg/L	1	0.07	0.50			9/13/18 20:40	Y	IV
K1808464-006	Carbon, Total Organic	N/A		Ground Water	3.48 mg/L	10 ml	3.48 mg/L	1	0.07	0.50			9/13/18 22:48	N	IV
K1808468-001	Carbon, Total Organic	N/A		Ground Water	0.20 mg/L	10 ml	0.20 mg/L J	1	0.07	0.50			9/13/18 23:51	N	IV
K1808468-002	Carbon, Total Organic	N/A		Ground Water	0.29 mg/L	10 ml	0.29 mg/L J	1	0.07	0.50			9/14/18 00:54	N	IV
K1808468-003	Carbon, Total Organic	N/A		Ground Water	0.92 mg/L	10 ml	0.92 mg/L	1	0.07	0.50			9/14/18 01:57	Y	IV
K1808468-004	Carbon, Total Organic	N/A		Ground Water	0.16 mg/L	10 ml	0.16 mg/L J	1	0.07	0.50			9/14/18 03:32	N	IV
KQ1812845-01	Carbon, Total Organic	DUP	K1808464-001	Ground Water	0.54 mg/L	10 ml	0.54 mg/L	1	0.07	0.50		8	9/13/18 17:31	N	IV
KQ1812845-02	Carbon, Total Organic	TRP	K1808464-001	Ground Water	0.59 mg/L	10 ml	0.59 mg/L	1	0.07	0.50		5	9/13/18 17:31	N	IV
KQ1812845-03	Carbon, Total Organic	QUAD	K1808464-001	Ground Water	0.58 mg/L	10 ml	0.58 mg/L	1	0.07	0.50		4	9/13/18 17:31	N	IV
KQ1812845-04	Carbon, Total Organic	DUP	K1808464-002	Ground Water	0.23 mg/L	10 ml	0.23 mg/L J	1	0.07	0.50		7	9/13/18 18:34	N	IV
KQ1812845-05	Carbon, Total Organic	TRP	K1808464-002	Ground Water	0.28 mg/L	10 ml	0.28 mg/L J	1	0.07	0.50		11	9/13/18 18:34	N	IV
KQ1812845-06	Carbon, Total Organic	QUAD	K1808464-002	Ground Water	0.26 mg/L	10 ml	0.26 mg/L J	1	0.07	0.50		9	9/13/18 18:34	N	IV
KQ1812845-07	Carbon, Total Organic	DUP	K1808464-003	Ground Water	0.15 mg/L	10 ml	0.15 mg/L J	1	0.07	0.50		21*	9/13/18 19:37	N	IV
KQ1812845-08	Carbon, Total Organic	TRP	K1808464-003	Ground Water	0.17 mg/L	10 ml	0.17 mg/L J	1	0.07	0.50		10	9/13/18 19:37	N	IV
KQ1812845-09	Carbon, Total Organic	QUAD	K1808464-003	Ground Water	0.16 mg/L	10 ml	0.16 mg/L J	1	0.07	0.50		9	9/13/18 19:37	N	IV
KQ1812845-10	Carbon, Total Organic	MS	K1808464-005	Ground Water	28.93 mg/L	10 ml	28.9 mg/L	1	0.07	0.50	102		9/13/18 22:16	N	IV
KQ1812845-11	Carbon, Total Organic	DUP	K1808464-005	Ground Water	3.33 mg/L	10 ml	3.33 mg/L	1	0.07	0.50		4	9/13/18 20:40	N	IV
KQ1812845-12	Carbon, Total Organic	TRP	K1808464-005	Ground Water	3.28 mg/L	10 ml	3.28 mg/L	1	0.07	0.50		3	9/13/18 20:40	N	IV
KQ1812845-13	Carbon, Total Organic	QUAD	K1808464-005	Ground Water	3.32 mg/L	10 ml	3.32 mg/L	1	0.07	0.50		2	9/13/18 20:40	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

CES 9/18/18 09/18/18

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606442 **Method/Testcode:** 9060/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
KQ1812845-14	Carbon, Total Organic	DUP	K1808464-006	Ground Water	3.34 mg/L	10 ml	3.34 mg/L	1	0.07	0.50		4	9/13/18 22:48	N	IV
KQ1812845-15	Carbon, Total Organic	TRP	K1808464-006	Ground Water	3.47 mg/L	10 ml	3.47 mg/L	1	0.07	0.50		2	9/13/18 22:48	N	IV
KQ1812845-16	Carbon, Total Organic	QUAD	K1808464-006	Ground Water	3.48 mg/L	10 ml	3.48 mg/L	1	0.07	0.50		2	9/13/18 22:48	N	IV
KQ1812845-17	Carbon, Total Organic	DUP	K1808468-001	Ground Water	0.20 mg/L	10 ml	0.20 mg/L J	1	0.07	0.50		<1	9/13/18 23:51	N	IV
KQ1812845-18	Carbon, Total Organic	TRP	K1808468-001	Ground Water	0.19 mg/L	10 ml	0.19 mg/L J	1	0.07	0.50		3	9/13/18 23:51	N	IV
KQ1812845-19	Carbon, Total Organic	QUAD	K1808468-001	Ground Water	0.15 mg/L	10 ml	0.15 mg/L J	1	0.07	0.50		13	9/13/18 23:51	N	IV
KQ1812845-20	Carbon, Total Organic	DUP	K1808468-002	Ground Water	0.17 mg/L	10 ml	0.17 mg/L J	1	0.07	0.50		51*	9/14/18 00:54	N	IV
KQ1812845-21	Carbon, Total Organic	TRP	K1808468-002	Ground Water	0.22 mg/L	10 ml	0.22 mg/L J	1	0.07	0.50		26*	9/14/18 00:54	N	IV
KQ1812845-22	Carbon, Total Organic	QUAD	K1808468-002	Ground Water	0.18 mg/L	10 ml	0.18 mg/L J	1	0.07	0.50		25*	9/14/18 00:54	N	IV
KQ1812845-23	Carbon, Total Organic	MS	K1808468-003	Ground Water	26.65 mg/L	10 ml	26.6 mg/L	1	0.07	0.50	103		9/14/18 03:00	N	IV
KQ1812845-24	Carbon, Total Organic	DUP	K1808468-003	Ground Water	0.83 mg/L	10 ml	0.83 mg/L	1	0.07	0.50		10	9/14/18 01:57	N	IV
KQ1812845-25	Carbon, Total Organic	TRP	K1808468-003	Ground Water	0.87 mg/L	10 ml	0.87 mg/L	1	0.07	0.50		5	9/14/18 01:57	N	IV
KQ1812845-26	Carbon, Total Organic	QUAD	K1808468-003	Ground Water	0.82 mg/L	10 ml	0.82 mg/L	1	0.07	0.50		5	9/14/18 01:57	N	IV
KQ1812845-27	Carbon, Total Organic	DUP	K1808468-004	Ground Water	0.13 mg/L	10 ml	0.13 mg/L J	1	0.07	0.50		20	9/14/18 03:32	N	IV
KQ1812845-28	Carbon, Total Organic	TRP	K1808468-004	Ground Water	0.14 mg/L	10 ml	0.14 mg/L J	1	0.07	0.50		11	9/14/18 03:32	N	IV
KQ1812845-29	Carbon, Total Organic	QUAD	K1808468-004	Ground Water	0.12 mg/L	10 ml	0.12 mg/L J	1	0.07	0.50		11	9/14/18 03:32	N	IV
KQ1812845-30	Carbon, Total Organic	MS	K1808454-001	Water	29.16 mg/L	10 ml	29.2 mg/L	1	0.07	0.50	103		9/14/18 06:13	N	II
KQ1812845-31	Carbon, Total Organic	DUP	K1808454-001	Water	3.24 mg/L	10 ml	3.24 mg/L	1	0.07	0.50		2	9/14/18 04:35	N	II
KQ1812845-32	Carbon, Total Organic	DUP	K1808454-003	Water	2.36 mg/L	10 ml	2.36 mg/L	1	0.07	0.50		4	9/14/18 06:45	N	II
KQ1812845-33	Carbon, Total Organic	MB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 13:33	N	IV
KQ1812845-33	Carbon, Total Organic	MB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 13:33	N	IV
KQ1812845-34	Carbon, Total Organic	LCS		Ground Water	21.18 mg/L	10 ml	21.2 mg/L	1	0.07	0.50	97		9/13/18 13:50	N	IV
KQ1812845-34	Carbon, Total Organic	LCS		Ground Water	21.18 mg/L	10 ml	21.2 mg/L	1	0.07	0.50	97		9/13/18 13:50	N	IV
KQ1812845-35	Carbon, Total Organic	CCV		Ground Water	24.37 mg/L	10 ml	24.4 mg/L	1			98		9/13/18 13:00	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606442 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
KQ1812845-35	Carbon, Total Organic	CCV		Ground Water	24.37 mg/L	10 ml	24.4 mg/L	1			98		9/13/18 13:00	N	IV
KQ1812845-36	Carbon, Total Organic	CCV		Ground Water	24.63 mg/L	10 ml	24.6 mg/L	1			98		9/13/18 21:42	N	IV
KQ1812845-36	Carbon, Total Organic	CCV		Ground Water	24.63 mg/L	10 ml	24.6 mg/L	1			98		9/13/18 21:42	N	IV
KQ1812845-37	Carbon, Total Organic	CCV		Ground Water	24.42 mg/L	10 ml	24.4 mg/L	1			98		9/14/18 05:07	N	IV
KQ1812845-37	Carbon, Total Organic	CCV		Ground Water	24.42 mg/L	10 ml	24.4 mg/L	1			98		9/14/18 05:07	N	IV
KQ1812845-38	Carbon, Total Organic	CCV		Ground Water	24.38 mg/L	10 ml	24.4 mg/L	1			98		9/14/18 09:25	N	IV
KQ1812845-38	Carbon, Total Organic	CCV		Ground Water	24.38 mg/L	10 ml	24.4 mg/L	1			98		9/14/18 09:25	N	IV
KQ1812845-39	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 13:17	N	IV
KQ1812845-39	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 13:17	N	IV
KQ1812845-40	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 21:59	N	IV
KQ1812845-40	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/13/18 21:59	N	IV
KQ1812845-41	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 05:23	N	IV
KQ1812845-41	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 05:23	N	IV
KQ1812845-42	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 09:42	N	IV
KQ1812845-42	Carbon, Total Organic	CCB		Ground Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 09:42	N	IV

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606448 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
K1808474-001	Carbon, Total Organic	N/A		Water	4.18 mg/L	10 ml	4.18 mg/L	1	0.07	0.50			9/14/18 07:18	N	II
K1808474-002	Carbon, Total Organic	N/A		Water	3.02 mg/L	10 ml	3.02 mg/L	1	0.07	0.50			9/14/18 08:22	N	II
K1808474-003	Carbon, Total Organic	N/A		Water	3.83 mg/L	10 ml	3.83 mg/L	1	0.07	0.50			9/14/18 08:54	N	II
K1808474-004	Carbon, Total Organic	N/A		Water	2.54 mg/L	10 ml	2.54 mg/L	1	0.07	0.50			9/14/18 09:58	N	II
K1808474-005	Carbon, Total Organic	N/A		Water	2.56 mg/L	10 ml	2.56 mg/L	1	0.07	0.50			9/14/18 10:30	N	II
K1808474-006	Carbon, Total Organic	N/A		Water	0.27 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 11:02	N	II
K1808474-007	Carbon, Total Organic	N/A		Water	0.59 mg/L	10 ml	0.59 mg/L	1	0.07	0.50			9/14/18 11:34	N	II
K1808474-008	Carbon, Total Organic	N/A		Water	3.24 mg/L	10 ml	3.24 mg/L	1	0.07	0.50			9/14/18 12:05	N	II
K1808474-009	Carbon, Total Organic	N/A		Water	2.68 mg/L	10 ml	2.68 mg/L	1	0.07	0.50			9/14/18 12:37	N	II
K1808474-010	Carbon, Total Organic	N/A		Water	4.30 mg/L	10 ml	17.2 mg/L	4	0.3	2.0			9/14/18 13:09	N	II
K1808474-011	Carbon, Total Organic	N/A		Water	6.15 mg/L	10 ml	24.6 mg/L	4	0.3	2.0			9/14/18 13:40	N	II
K1808474-012	Carbon, Total Organic	N/A		Water	3.37 mg/L	10 ml	3.37 mg/L	1	0.07	0.50			9/14/18 14:12	N	II
K1808474-013	Carbon, Total Organic	N/A		Water	5.35 mg/L	10 ml	5.35 mg/L	1	0.07	0.50			9/14/18 14:44	N	II
K1808474-014	Carbon, Total Organic	N/A		Water	1.12 mg/L	10 ml	4.5 mg/L	4	0.3	2.0			9/14/18 15:49	N	II
KQ1812847-01	Carbon, Total Organic	MS	K1808474-001	Water	31.00 mg/L	10 ml	31.0 mg/L	1	0.07	0.50	107		9/14/18 07:49	N	II
KQ1812847-02	Carbon, Total Organic	DUP	K1808474-001	Water	4.37 mg/L	10 ml	4.37 mg/L	1	0.07	0.50		4	9/14/18 07:18	N	II
KQ1812847-03	Carbon, Total Organic	DUP	K1808474-002	Water	2.79 mg/L	10 ml	2.79 mg/L	1	0.07	0.50		8	9/14/18 08:22	N	II
KQ1812847-04	Carbon, Total Organic	DUP	K1808474-003	Water	3.62 mg/L	10 ml	3.62 mg/L	1	0.07	0.50		6	9/14/18 08:54	N	II
KQ1812847-05	Carbon, Total Organic	DUP	K1808474-004	Water	2.34 mg/L	10 ml	2.34 mg/L	1	0.07	0.50		8	9/14/18 09:58	N	II
KQ1812847-06	Carbon, Total Organic	DUP	K1808474-005	Water	2.44 mg/L	10 ml	2.44 mg/L	1	0.07	0.50		5	9/14/18 10:30	N	II
KQ1812847-07	Carbon, Total Organic	DUP	K1808474-006	Water	0.21 mg/L	10 ml	0.21 mg/L J	1	0.07	0.50		NC	9/14/18 11:02	N	II
KQ1812847-08	Carbon, Total Organic	DUP	K1808474-007	Water	0.56 mg/L	10 ml	0.56 mg/L	1	0.07	0.50		5	9/14/18 11:34	N	II
KQ1812847-09	Carbon, Total Organic	DUP	K1808474-008	Water	3.14 mg/L	10 ml	3.14 mg/L	1	0.07	0.50		3	9/14/18 12:05	N	II
KQ1812847-10	Carbon, Total Organic	DUP	K1808474-009	Water	2.57 mg/L	10 ml	2.57 mg/L	1	0.07	0.50		4	9/14/18 12:37	N	II
KQ1812847-11	Carbon, Total Organic	DUP	K1808474-010	Water	4.15 mg/L	10 ml	16.6 mg/L	4	0.3	2.0		3	9/14/18 13:09	N	II
KQ1812847-12	Carbon, Total Organic	DUP	K1808474-011	Water	5.94 mg/L	10 ml	23.7 mg/L	4	0.3	2.0		3	9/14/18 13:40	N	II
KQ1812847-13	Carbon, Total Organic	DUP	K1808474-012	Water	3.10 mg/L	10 ml	3.10 mg/L	1	0.07	0.50		8	9/14/18 14:12	N	II
KQ1812847-14	Carbon, Total Organic	DUP	K1808474-013	Water	5.15 mg/L	10 ml	5.15 mg/L	1	0.07	0.50		4	9/14/18 14:44	N	II
KQ1812847-15	Carbon, Total Organic	DUP	K1808474-014	Water	1.06 mg/L	10 ml	4.3 mg/L	4	0.3	2.0		5	9/14/18 15:49	N	II
KQ1812847-16	Carbon, Total Organic	MB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 05:40	N	II
KQ1812847-17	Carbon, Total Organic	LCS		Water	21.35 mg/L	10 ml	21.3 mg/L	1	0.07	0.50	97		9/14/18 05:56	N	II
KQ1812847-18	Carbon, Total Organic	CCV		Water	24.42 mg/L	10 ml	24.4 mg/L	1			98		9/14/18 05:07	N	II
KQ1812847-19	Carbon, Total Organic	CCV		Water	24.38 mg/L	10 ml	24.4 mg/L	1			98		9/14/18 09:25	N	II
KQ1812847-20	Carbon, Total Organic	CCV		Water	24.51 mg/L	10 ml	24.5 mg/L	1			98		9/14/18 15:16	N	II
KQ1812847-21	Carbon, Total Organic	CCV		Water	24.57 mg/L	10 ml	24.6 mg/L	1			98		9/14/18 16:20	N	II
KQ1812847-22	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 05:23	N	II

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

Analytical Results Summary

Instrument Name: K-TOC-03 **Analyst:** CSETHE **Analysis Lot:** 606448 **Method/Testcode:** SM 5310 C/TOC T

Lab Code	Target Analytes	QC	Parent Sample	Matrix	Raw Result	Sample Amt.	Final Result	Dil	MDL	PQL	% Rec	% RSD	Date Analyzed	QC?	Tier
KQ1812847-23	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 09:42	N	II
KQ1812847-24	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 15:32	N	II
KQ1812847-25	Carbon, Total Organic	CCB		Water	0.00 mg/L	10 ml	0.50 mg/L U	1	0.07	0.50			9/14/18 16:37	N	II

# indicates Final Result is not yet adjusted for Solids because it has not yet been determined.

00919177

StarLIMS Run: K1808312, 8313, 8654, 8655, 8656, 8659, 8383, 8391, 8464, 8468, 8454, 8474

Analysis: DOC

Method: SM 5310 C

CCV: 11-GEN-05-69E 50 ppm LCS: 11-GEN-05-68N 21.9 ppm

ICAL Date: 3/13/18

ICAL ID: 11-GEN-05-65A

ICS ID: 11-GEN-05-67D

ICS TV: 25.0 ppm ICS % R = 1

Spike ID: 11-GEN-05-65K 0.05 ml of 5000 ppm stock ---> 10.0 ml = 25.0 ppm x dilution factor

Sodium Persulfate: 11-GEN-05-69F

21 % H3PO4: 11-GEN-05-69G

Equipment ID: K-TOC-03

PIPETTE ID: 124276B, N11314F, 129001F

FILTER ID: NA

Analyzed By: CES	Date Analyzed: 9/12/18
Reviewed By: [signature]	Date Reviewed: 09/18/18

TOC: 606439, 606442, 606448

Schedule: 09122018

Version: 7
Instrument: Fusion1
Last Saved by: Fusion1 (Fusion1)
Last Saved on: 2018/09/12 18:25 - Wednesday

Position	Sample Type	Sample ID	Method ID (Calibration ID)	Reps
(Clean)	Clean	Clean		1
(Clean)	Clean	Clean		1
(Clean)	Clean	Clean		1
(Blank)	Blank	Reagent/Acid Blank		1
D	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
1	Sample	MB1	Extended Reaction 021711 (Extended Reaction 021711)	1
2	Check Standard	[TOC] LCS ER [21.9 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
3	Sample	ICS	Extended Reaction 021711 (Extended Reaction 021711)	1
4	Sample	K1808312-001.04 2x	Extended Reaction 021711 (Extended Reaction 021711)	2
5	Sample	K1808312-001.04 ms 2x	Extended Reaction 021711 (Extended Reaction 021711)	1
6	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	2
7	Sample	K1808313-001.18	Extended Reaction 021711 (Extended Reaction 021711)	2
8	Sample	K1808313-001.18 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
9	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
10	Sample	K1808654-001.01	Extended Reaction 021711 (Extended Reaction 021711)	2
11	Sample	K1808654-001.01 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
12	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
13	Sample	K1808654-002.01	Extended Reaction 021711 (Extended Reaction 021711)	2
14	Sample	K1808654-003.01	Extended Reaction 021711 (Extended Reaction 021711)	2
15	Sample	K1808655-001.01 4x	Extended Reaction 021711 (Extended Reaction 021711)	2
16	Sample	K1808655-001.01 ms 4x	Extended Reaction 021711 (Extended Reaction 021711)	1
17	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	2
18	Sample	K1808655-002.01	Extended Reaction 021711 (Extended Reaction 021711)	2
19	Sample	K1808655-003.01 4x	Extended Reaction 021711 (Extended Reaction 021711)	2
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
20	Sample	MB2	Extended Reaction 021711 (Extended Reaction 021711)	1
2	Check Standard	[TOC] LCS ER [21.9 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
21	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
22	Sample	K1808655-004.01	Extended Reaction 021711 (Extended Reaction 021711)	2
23	Sample	K1808656-001.01	Extended Reaction 021711 (Extended Reaction 021711)	2
24	Sample	K1808656-001.01 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
25	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	2
26	Sample	K1808659-001.01	Extended Reaction 021711 (Extended Reaction 021711)	2
27	Sample	K1808659-001.01 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
28	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	2
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
29	Sample	K1808383-001.07	Extended Reaction 021711 (Extended Reaction 021711)	4
30	Sample	K1808383-001.07 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
31	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
32	Sample	K1808383-002.07	Extended Reaction 021711 (Extended Reaction 021711)	4
33	Sample	K1808383-004.07	Extended Reaction 021711 (Extended Reaction 021711)	4
34	Sample	K1808383-005.07	Extended Reaction 021711 (Extended Reaction 021711)	4
35	Sample	K1808383-006.07	Extended Reaction 021711 (Extended Reaction 021711)	4
36	Sample	K1808391-003.07	Extended Reaction 021711 (Extended Reaction 021711)	4
37	Sample	K1808391-003.07 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
38	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1

Schedule: 09122018

Position	Sample Type	Sample ID	Method ID (Calibration ID)	Reps
39	Sample	MB3	Extended Reaction 021711 (Extended Reaction 021711)	1
2	Check Standard	[TOC] LCS ER [21.9 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
40	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
41	Sample	K1808391-004.07	Extended Reaction 021711 (Extended Reaction 021711)	4
42	Sample	K1808391-005.07	Extended Reaction 021711 (Extended Reaction 021711)	4
43	Sample	K1808391-006.07	Extended Reaction 021711 (Extended Reaction 021711)	4
44	Sample	K1808464-001.07	Extended Reaction 021711 (Extended Reaction 021711)	4
45	Sample	K1808464-002.07	Extended Reaction 021711 (Extended Reaction 021711)	4
46	Sample	K1808464-003.07	Extended Reaction 021711 (Extended Reaction 021711)	4
47	Sample	K1808464-005.07	Extended Reaction 021711 (Extended Reaction 021711)	4
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
48	Sample	K1808464-005.07 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
49	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
50	Sample	K1808464-006.07	Extended Reaction 021711 (Extended Reaction 021711)	4
51	Sample	K1808468-001.07	Extended Reaction 021711 (Extended Reaction 021711)	4
52	Sample	K1808468-002.07	Extended Reaction 021711 (Extended Reaction 021711)	4
53	Sample	K1808468-003.07	Extended Reaction 021711 (Extended Reaction 021711)	4
54	Sample	K1808468-003.07 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
55	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
56	Sample	K1808468-004.07	Extended Reaction 021711 (Extended Reaction 021711)	4
57	Sample	K1808454-001.01	Extended Reaction 021711 (Extended Reaction 021711)	2
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
58	Sample	MB4	Extended Reaction 021711 (Extended Reaction 021711)	1
2	Check Standard	[TOC] LCS ER [21.9 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
59	Sample	K1808454-001.01 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
60	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
61	Sample	K1808454-003.01	Extended Reaction 021711 (Extended Reaction 021711)	2
62	Sample	K1808474-001.01	Extended Reaction 021711 (Extended Reaction 021711)	2
63	Sample	K1808474-001.01 ms	Extended Reaction 021711 (Extended Reaction 021711)	1
64	Sample	RB	Extended Reaction 021711 (Extended Reaction 021711)	1
65	Sample	K1808474-002.01	Extended Reaction 021711 (Extended Reaction 021711)	2
66	Sample	K1808474-003.01	Extended Reaction 021711 (Extended Reaction 021711)	2
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
67	Sample	K1808474-004.01	Extended Reaction 021711 (Extended Reaction 021711)	2
68	Sample	K1808474-005.01	Extended Reaction 021711 (Extended Reaction 021711)	2
69	Sample	K1808474-006.01	Extended Reaction 021711 (Extended Reaction 021711)	2
70	Sample	K1808474-007.01	Extended Reaction 021711 (Extended Reaction 021711)	2
71	Sample	K1808474-008.01	Extended Reaction 021711 (Extended Reaction 021711)	2
72	Sample	K1808474-009.01	Extended Reaction 021711 (Extended Reaction 021711)	2
73	Sample	K1808474-010.01 4x	Extended Reaction 021711 (Extended Reaction 021711)	2
74	Sample	K1808474-011.01 4x	Extended Reaction 021711 (Extended Reaction 021711)	2
75	Sample	K1808474-012.01	Extended Reaction 021711 (Extended Reaction 021711)	2
1	Sample	K1808474-013.01	Extended Reaction 021711 (Extended Reaction 021711)	2
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
3	Sample	K1808474-014.01 4x	Extended Reaction 021711 (Extended Reaction 021711)	2
B	Check Standard	[TOC] CCV 021711 [25 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1
D	Check Standard	[TOC] CCB 021711 [0.0 ppm]	Extended Reaction 021711 (Extended Reaction 021711)	1

Fusion Report - 09122018
Wednesday, September 12, 2018 12:55 PM

(View - Reps, Unused Reps, Meta-Data, Signature, History)
Printed on 2018/09/17 13:11 - Monday

Report Summary Information

Company Location:	Gen Chem Lab		
Schedule Name:	09122018	Engine Version:	1.1.5.1
Instrument Name:	Fusion1	Firmware Version:	1.2.0696
Report Version:	1 of 1	Connection:	RS232 COM1
Report Creation by Operators (schedule version):	Fusion1 (Fusion1) (v1) Fusion1 (Fusion1) (v2) Fusion1 (Fusion1) (v3) Fusion1 (Fusion1) (v4) Fusion1 (Fusion1) (v5) Fusion1 (Fusion1) (v6) Fusion1 (Fusion1) (v7)		
Comment:			

Report Results

09/18/18

Sample Type: Clean — From Schedule Version 1

	Pos	Analysis Type	Sample ID	Start Time
◈	(clean)		Clean	2018/09/12 12:55

Rep #	Base Analysis Type	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	IC Clean	12.48	18.96	6.47	49.25	05:31
2	TC Clean	8.49	12.24	3.75	49.76	07:15
3	TC Clean	2.22	6.09	3.88	49.72	07:01
4	TC Clean	1.52	5.40	3.88	49.70	07:00

Sample Type: Clean — From Schedule Version 1

	Pos	Analysis Type	Sample ID	Start Time
◈	(clean)		Clean	2018/09/12 13:27

Rep #	Base Analysis Type	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	IC Clean	0.98	4.64	3.67	49.32	05:24

2	TC Clean	4.19	7.85	3.66	49.69	07:18
3	TC Clean	1.96	5.77	3.81	49.69	07:01
4	TC Clean	1.52	5.27	3.74	49.71	07:00

Sample Type: Clean From Schedule Version 2

	Pos	Analysis Type	Sample ID	Start Time
◆	(clean)		Clean	2018/09/12 13:59

Rep #	Base Analysis Type	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	IC Clean	1.08	4.59	3.51	49.09	07:58
2	TC Clean	4.46	8.06	3.60	49.72	07:15
3	TC Clean	1.77	5.53	3.75	49.70	07:03
4	TC Clean	1.78	5.42	3.64	49.69	07:02

Sample Type: Blank (Creating v1150) From Schedule Version 2

	Pos	Analysis Type	Sample ID	Start Time
◆	(blank)		Reagent/Acid Blank	2018/09/12 14:33

Rep #	Base Analysis Type	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	IC Clean	0.83	4.49	3.67	49.07	07:59
2	TC Clean	4.70	8.27	3.58	49.71	07:17
3	TC Clean	1.81	5.64	3.83	49.72	07:03
4	TC Clean	1.86	5.54	3.68	49.76	07:02
5	Reagent Blank	6.21	9.87	3.65	49.75	08:12
6	Acid Blank	1.50	4.94	3.45	49.15	08:04

Sample Type: Sample From Schedule Version 2

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	D	TOC	RB	0.3728 ppm	0.0000 ppm	0.0000%	2018/09/12 15:24

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.3728	3.7276	16.86	20.44	3.58	49.90	12:28

Dilution **Blank Contribution** **Method** **Calibration**

1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 2

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.5635 ppm (PASS)	0.0000 ppm	0%	2018/09/12 15:41

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.5635	245.6351	190.37	194.16	3.80	49.91	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 2

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/12 15:58

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	14.24	17.83	3.60	49.97	12:28

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 2

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	1	TOC	MB1	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/12 16:14

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.17	17.11	3.94	50.00	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> LCS ER From Schedule Version 2

	Pos	BAT	Concentration	Dil	Sample ID	Min / Max	Result	Std. Dev.	RSD	Start Time

			(ppm)			(% dev)				
◈	2	TOC	21.9000	1:1	[TOC] LCS ER [21.9 ppm]	0 / infinity (NA / NA)	21.2939 ppm (PASS)	0.0000 ppm	0%	2018/09/12 16:31

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
2	TOC	21.9 ppm	1	21.2939	212.9387	167.07	170.93	3.87	49.99	12:29

Completion State	Success Action	Method	Calibration	STD Conc - Pos 2
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	21.9 ppmC

Sample Type: Sample — From Schedule Version 3

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	3	TOC	ICS	0.3357 ppm	0.0000 ppm	0.0000%	2018/09/12 16:47

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.3357	3.3571	16.60	20.19	3.59	49.98	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Sample — From Schedule Version 4

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	4	TOC	K1808312-001.04 2x	8.7523 ppm	0.0730 ppm	0.8300%	2018/09/12 17:03

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	8.8040	88.0396	76.94	80.47	3.53	49.96	12:27
2	TOC	8.7007	87.0068	76.21	79.90	3.69	49.94	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Sample — From Schedule Version 5

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	5	TOC	K1808312-001.04 ms 2x	34.9398 ppm	0.0000 ppm	0.0000%	2018/09/12 17:35

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	34.9398	349.3983	263.19	266.81	3.61	49.96	12:27

Dilution	Blank Contribution	Method	Calibration

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	6	TOC	RB	0.1560 ppm	0.2206 ppm	141.4200%	2018/09/12 17:51

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.3120	3.1199	16.43	20.24	3.82	49.96	12:23
2	TOC	0.0000	0.0000	13.87	17.77	3.90	49.94	12:23

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Sample — From Schedule Version 6

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	7	TOC	K1808313-001.18	4.1323 ppm	0.0621 ppm	1.5000%	2018/09/12 18:23

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	4.1762	41.7621	43.97	47.77	3.81	49.93	12:27
2	TOC	4.0884	40.8837	43.34	47.09	3.75	49.95	12:28

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Sample — From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	8	TOC	K1808313-001.18 ms	29.4054 ppm	0.0000 ppm	0.0000%	2018/09/12 18:54

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	29.4054	294.0542	223.75	227.61	3.85	49.98	12:32

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	9	TOC	RB	0.0145 ppm	0.0000 ppm	0.0000%	2018/09/12 19:11

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0145	0.1450	14.31	18.05	3.74	49.96	12:32

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.8367 ppm (PASS)	0.0000 ppm	0%	2018/09/12 19:28

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.8367	248.3673	192.31	196.02	3.71	50.01	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/12 19:44

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	13.86	17.59	3.73	50.01	12:33

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	10	TOC	K1808654-001.01	10.0384 ppm	0.3351 ppm	3.3400%	2018/09/12 20:01

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	10.2753	102.7530	87.43	91.21	3.78	50.04	12:26
2	TOC	9.8014	98.0141	84.05	87.77	3.72	50.08	12:28

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	11	TOC	K1808654-001.01 ms	35.5247 ppm	0.0000 ppm	0.0000%	2018/09/12 20:32

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	35.5247	355.2471	267.36	271.07	3.71	50.09	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	12	TOC	RB	0.1155 ppm	0.0000 ppm	0.0000%	2018/09/12 20:49

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.1155	1.1553	15.03	18.90	3.87	50.10	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	13	TOC	K1808654-002.01	4.1425 ppm	0.1041 ppm	2.5100%	2018/09/12 21:05

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	4.0689	40.6886	43.20	47.04	3.84	50.11	12:27
2	TOC	4.2161	42.1607	44.25	48.10	3.85	50.11	12:21

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	14	TOC	K1808654-003.01	5.6453 ppm	0.0645 ppm	1.1400%	2018/09/12 21:37

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	5.6909	56.9092	54.76	58.51	3.75	50.14	12:27
2	TOC	5.5997	55.9970	54.11	57.99	3.88	50.11	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	15	TOC	K1808655-001.01 4x	2.8789 ppm	0.4980 ppm	17.3000%	2018/09/12 22:09

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.2311	32.3110	37.23	40.94	3.71	50.15	12:24
2	TOC	2.5268	25.2680	32.21	36.16	3.95	50.17	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	16	TOC	K1808655-001.01 ms 4x	28.5052 ppm	0.0000 ppm	0.0000%	2018/09/12 22:40

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	28.5052	285.0521	217.34	221.05	3.71	50.19	12:34

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	17	TOC	RB	0.0231 ppm	0.0327 ppm	141.4200%	2018/09/12 22:56

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0462	0.4621	14.54	18.35	3.81	50.19	12:24
2	TOC	0.0000	0.0000	13.41	17.23	3.81	50.19	12:28

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	18	TOC	K1808655-002.01	5.9341 ppm	0.0740 ppm	1.2500%	2018/09/12 23:28

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	5.9864	59.8645	56.87	60.64	3.77	50.22	12:27
2	TOC	5.8818	58.8176	56.12	59.82	3.70	50.23	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	19	TOC	K1808655-003.01 4x	1.5651 ppm	0.0065 ppm	0.4200%	2018/09/13 00:00

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	1.5605	15.6049	25.33	29.06	3.74	50.28	12:28
2	TOC	1.5698	15.6976	25.39	29.17	3.77	50.25	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.2430 ppm (PASS)	0.0000 ppm	0%	2018/09/13 00:32

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time

B	TOC	25 ppm	1	24.2430	242.4300	188.08	191.76	3.67	50.30	12:34

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◆	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/13 00:48

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	13.29	16.99	3.70	50.32	12:29

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	20	TOC	MB2	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 01:05

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	12.48	16.19	3.71	50.28	12:30

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> LCS ER From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◆	2	TOC	21.9000	1:1	[TOC] LCS ER [21.9 ppm]	0 / infinity (NA / NA)	21.2092 ppm (PASS)	0.0000 ppm	0%	2018/09/13 01:21

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
2	TOC	21.9 ppm	1	21.2092	212.0925	166.46	170.15	3.68	50.31	12:31

Completion State	Success Action	Method	Calibration	STD Conc - Pos 2
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	21.9 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	21	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 01:37

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.30	17.06	3.76	50.32	12:33

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	22	TOC	K1808655-004.01	3.7734 ppm	0.1773 ppm	4.7000%	2018/09/13 01:54

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.6480	36.4802	40.20	43.92	3.72	50.32	12:28
2	TOC	3.8988	38.9878	41.99	45.78	3.79	50.33	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	23	TOC	K1808656-001.01	17.6592 ppm	0.4559 ppm	2.5800%	2018/09/13 02:26

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	17.9816	179.8157	142.34	146.10	3.76	50.34	12:28
2	TOC	17.3368	173.3676	137.75	141.67	3.92	50.35	12:22

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	24	TOC	K1808656-001.01 ms	38.9876 ppm	0.0000 ppm	0.0000%	2018/09/13 02:57

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	38.9876	389.8760	292.04	295.80	3.76	50.35	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	25	TOC	RB	0.1261 ppm	0.1783 ppm	141.4200%	2018/09/13 03:14

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.2522	2.5221	16.00	19.98	3.97	50.35	12:28
2	TOC	0.0000	0.0000	14.07	18.05	3.99	50.38	12:26

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	26	TOC	K1808659-001.01	19.8843 ppm	0.7049 ppm	3.5500%	2018/09/13 03:45

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	20.3827	203.8273	159.46	163.17	3.71	50.40	12:25
2	TOC	19.3858	193.8584	152.35	156.38	4.03	50.36	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	27	TOC	K1808659-001.01 ms	42.1061 ppm	0.0000 ppm	0.0000%	2018/09/13 04:17

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	42.1061	421.0611	314.26	318.08	3.82	50.39	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	28	TOC	RB	0.0700 ppm	0.0990 ppm	141.4200%	2018/09/13 04:33

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.1400	1.3995	15.20	19.12	3.91	50.35	12:24
2	TOC	0.0000	0.0000	13.05	17.08	4.02	50.38	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.2109 ppm (PASS)	0.0000 ppm	0%	2018/09/13 05:05

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.2109	242.1087	187.85	191.80	3.94	50.36	12:31

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711

From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/13 05:21

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	13.88	17.85	3.98	50.36	12:32

Completion State: Success - Criteria met.

Success Action: Do Nothing

Method: Extended Reaction 021711 (v3)

Calibration: Extended Reaction 021711 (v17)

STD Conc - Pos D: 0 ppmC

Sample Type: Sample

From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	29	TOC	K1808383-001.07	0.8358 ppm	0.0489 ppm	5.8500%	2018/09/13 05:38

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.8831	8.8313	20.50	24.25	3.75	50.37	12:28
2	TOC	0.7773	7.7732	19.74	23.69	3.95	50.36	12:24
3	TOC	0.8145	8.1451	20.01	24.01	4.00	50.35	12:24
4	TOC	0.8683	8.6825	20.39	24.15	3.76	50.33	12:25

Dilution: 1:10

Blank Contribution: (TC) 14.2057 (IC) (v1150)

Method: Extended Reaction 021711 (v3)

Calibration: Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	30	TOC	K1808383-001.07 ms	26.1800 ppm	0.0000 ppm	0.0000%	2018/09/13 06:41

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	26.1800	261.7997	200.77	204.45	3.68	50.33	12:31

Dilution: 1:10

Blank Contribution: (TC) 14.2057 (IC) (v1150)

Method: Extended Reaction 021711 (v3)

Calibration: Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	31	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 06:57

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.77	17.70	3.93	50.32	12:32

Dilution: 1:10

Blank Contribution: (TC) 14.2057 (IC) (v1150)

Method: Extended Reaction 021711 (v3)

Calibration: Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	32	TOC	K1808383-002.07	0.8061 ppm	0.0218 ppm	2.7100%	2018/09/13 07:13

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.8308	8.3079	20.13	23.93	3.81	50.32	12:26
2	TOC	0.7904	7.9037	19.84	23.63	3.79	50.33	12:25
3	TOC	0.8179	8.1788	20.03	23.88	3.84	50.33	12:26
4	TOC	0.7853	7.8532	19.80	23.75	3.95	50.31	12:23

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	33	TOC	K1808383-004.07	1.3351 ppm	0.0411 ppm	3.0800%	2018/09/13 08:16

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	1.3924	13.9238	24.13	28.06	3.93	50.32	12:27
2	TOC	1.3371	13.3709	23.73	27.59	3.86	50.32	12:26
3	TOC	1.3097	13.0973	23.54	27.44	3.90	50.30	12:26
4	TOC	1.3013	13.0131	23.48	27.33	3.85	50.28	12:28

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	34	TOC	K1808383-005.07	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 09:19

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.57	17.33	3.76	50.28	12:23
2	TOC	0.0000	0.0000	13.02	16.93	3.91	50.32	12:24
3	TOC	0.0000	0.0000	13.72	17.52	3.80	50.27	12:25
4	TOC	0.0000	0.0000	13.78	17.69	3.91	50.26	12:28

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	35	TOC	K1808383-006.07	0.6270 ppm	0.0427 ppm	6.8100%	2018/09/13 10:22

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.6652	6.6520	18.95	22.86	3.91	50.27	12:26
2	TOC	0.5765	5.7651	18.31	22.17	3.86	50.24	12:24
3	TOC	0.6594	6.5945	18.90	22.70	3.79	50.25	12:28
4	TOC	0.6070	6.0696	18.53	22.48	3.95	50.26	12:24

Dilution	Blank Contribution	Method	Calibration

1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	36	TOC	K1808391-003.07	0.5097 ppm	0.0354 ppm	6.9500%	2018/09/13 11:25

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.5301	5.3006	17.98	21.97	3.98	50.25	12:26
2	TOC	0.5173	5.1729	17.89	21.84	3.95	50.22	12:26
3	TOC	0.4577	4.5765	17.47	21.27	3.81	50.22	12:24
4	TOC	0.5339	5.3385	18.01	21.67	3.66	50.21	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	37	TOC	K1808391-003.07 ms	25.6919 ppm	0.0000 ppm	0.0000%	2018/09/13 12:28

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	25.6919	256.9191	197.29	200.93	3.64	50.22	12:29

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	38	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 12:44

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.58	17.42	3.84	50.19	12:30

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.3724 ppm (PASS)	0.0000 ppm	0%	2018/09/13 13:00

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.3724	243.7239	189.00	192.83	3.82	50.17	12:27

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◆	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/13 13:17

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	12.75	16.61	3.86	50.14	12:29

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	39	TOC	MB3	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 13:33

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	12.62	16.19	3.57	50.09	12:32

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> LCS ER From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◆	2	TOC	21.9000	1:1	[TOC] LCS ER [21.9 ppm]	0 / infinity (NA / NA)	21.1750 ppm (PASS)	0.0000 ppm	0%	2018/09/13 13:50

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
2	TOC	21.9 ppm	1	21.1750	211.7501	166.22	169.80	3.58	50.06	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos 2
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	21.9 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	40	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 14:06

Rep	Base			Adjusted		Baseline	Pressure	Run

#	Analysis Type	ppm	µg	(Abs)	NDIR (Abs)	(Abs)	(psig)	Time
1	TOC	0.0000	0.0000	12.99	16.63	3.64	50.03	12:29

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	41	TOC	K1808391-004.07	0.2390 ppm	0.0328 ppm	13.7100%	2018/09/13 14:23

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.2762	2.7621	16.17	19.93	3.75	49.99	12:25
2	TOC	0.2034	2.0338	15.66	19.46	3.80	49.95	12:26
3	TOC	0.2550	2.5502	16.02	19.74	3.72	49.91	12:25
4	TOC	0.2213	2.2134	15.78	19.46	3.68	49.88	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	42	TOC	K1808391-005.07	0.3332 ppm	0.0208 ppm	6.2300%	2018/09/13 15:25

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.3593	3.5928	16.77	20.44	3.67	49.89	12:24
2	TOC	0.3382	3.3823	16.62	20.25	3.63	49.91	12:25
3	TOC	0.3104	3.1045	16.42	20.15	3.73	49.88	12:24
4	TOC	0.3249	3.2490	16.52	20.28	3.76	49.86	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	43	TOC	K1808391-006.07	0.4072 ppm	0.0396 ppm	9.7300%	2018/09/13 16:28

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.4575	4.5751	17.47	21.10	3.63	49.88	12:28
2	TOC	0.4163	4.1626	17.17	20.94	3.77	49.85	12:26
3	TOC	0.3902	3.9016	16.99	20.61	3.63	49.88	12:25
4	TOC	0.3648	3.6476	16.80	20.58	3.78	49.94	12:26

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	44	TOC	K1808464-001.07	0.5715 ppm	0.0229 ppm	4.0100%	2018/09/13 17:31

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time

1	TOC	0.5803	5.8030	18.34	22.16	3.82	49.93	12:25
2	TOC	0.5372	5.3722	18.03	21.74	3.70	49.93	12:23
3	TOC	0.5855	5.8549	18.38	22.30	3.92	49.94	12:24
4	TOC	0.5828	5.8283	18.36	22.07	3.71	49.95	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	45	TOC	K1808464-002.07	0.2525 ppm	0.0225 ppm	8.9300%	2018/09/13 18:34

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.2445	2.4450	15.95	19.62	3.67	49.98	12:24
2	TOC	0.2275	2.2752	15.83	19.59	3.76	49.97	12:27
3	TOC	0.2811	2.8112	16.21	20.09	3.88	49.96	12:24
4	TOC	0.2567	2.5670	16.04	19.81	3.78	49.99	12:26

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	46	TOC	K1808464-003.07	0.1696 ppm	0.0153 ppm	9.0100%	2018/09/13 19:37

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.1881	1.8808	15.55	19.33	3.78	50.00	12:25
2	TOC	0.1527	1.5272	15.29	18.95	3.66	49.96	12:25
3	TOC	0.1748	1.7475	15.45	19.25	3.79	49.99	12:22
4	TOC	0.1627	1.6268	15.36	19.16	3.79	49.98	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	47	TOC	K1808464-005.07	3.3499 ppm	0.0789 ppm	2.3500%	2018/09/13 20:40

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.4625	34.6250	38.88	42.56	3.68	49.99	12:27
2	TOC	3.3348	33.3481	37.97	41.85	3.88	50.04	12:26
3	TOC	3.2788	32.7881	37.57	41.46	3.89	50.04	12:27
4	TOC	3.3236	33.2358	37.89	41.79	3.90	50.04	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◆	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.6275 ppm (PASS)	0.0000 ppm	0%	2018/09/13 21:42

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.6275	246.2750	190.82	194.43	3.61	50.03	12:27

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◆	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/13 21:59

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	13.35	17.18	3.83	50.05	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	48	TOC	K1808464-005.07 ms	28.9262 ppm	0.0000 ppm	0.0000%	2018/09/13 22:16

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	28.9262	289.2620	220.34	224.01	3.68	50.03	12:29

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◆	49	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/13 22:32

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.49	17.36	3.87	50.00	12:30

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	50	TOC	K1808464-006.07	3.4443 ppm	0.0681 ppm	1.9800%	2018/09/13 22:48

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.4765	34.7654	38.98	42.82	3.84	50.00	12:23
2	TOC	3.3424	33.4238	38.02	41.96	3.93	49.98	12:23
3	TOC	3.4743	34.7429	38.96	42.84	3.88	49.95	12:25
4	TOC	3.4840	34.8397	39.03	42.97	3.94	49.98	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	51	TOC	K1808468-001.07	0.1848 ppm	0.0232 ppm	12.5400%	2018/09/13 23:51

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.1997	1.9973	15.63	19.54	3.91	49.95	12:24
2	TOC	0.1992	1.9917	15.62	19.45	3.82	49.94	12:28
3	TOC	0.1893	1.8935	15.56	19.12	3.57	49.96	12:27
4	TOC	0.1508	1.5076	15.28	19.14	3.86	49.96	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	52	TOC	K1808468-002.07	0.2151 ppm	0.0546 ppm	25.3800%	2018/09/14 00:54

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.2901	2.9010	16.27	19.79	3.52	49.97	12:30
2	TOC	0.1721	1.7209	15.43	19.23	3.80	49.96	12:22
3	TOC	0.2209	2.2092	15.78	19.44	3.66	49.95	12:23
4	TOC	0.1773	1.7728	15.47	19.24	3.77	49.93	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	53	TOC	K1808468-003.07	0.8575 ppm	0.0440 ppm	5.1400%	2018/09/14 01:57

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.9160	9.1597	20.73	24.32	3.58	49.93	12:27
2	TOC	0.8277	8.2770	20.10	23.75	3.64	49.93	12:24
3	TOC	0.8666	8.6657	20.38	24.07	3.69	49.92	12:25
4	TOC	0.8197	8.1970	20.05	23.67	3.62	49.94	12:23

Dilution	Blank Contribution	Method	Calibration

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	54	TOC	K1808468-003.07 ms	26.6452 ppm	0.0000 ppm	0.0000%	2018/09/14 03:00

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	26.6452	266.4516	204.08	207.70	3.62	49.91	12:34

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	55	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/14 03:16

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.81	17.50	3.69	49.93	12:29

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	56	TOC	K1808468-004.07	0.1361 ppm	0.0145 ppm	10.6500%	2018/09/14 03:32

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.1564	1.5637	15.32	19.09	3.77	49.95	12:26
2	TOC	0.1276	1.2760	15.12	18.81	3.69	49.93	12:23
3	TOC	0.1364	1.3644	15.18	18.95	3.77	49.92	12:24
4	TOC	0.1240	1.2395	15.09	18.84	3.75	49.93	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	57	TOC	K1808454-001.01	3.2799 ppm	0.0551 ppm	1.6800%	2018/09/14 04:35

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.3188	33.1881	37.86	41.67	3.82	49.89	12:26
2	TOC	3.2409	32.4093	37.30	41.12	3.82	49.92	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

			Concentration			Min / Max				

	Pos	BAT	(ppm)	Dil	Sample ID	(% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.4184 ppm (PASS)	0.0000 ppm	0%	2018/09/14 05:07

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.4184	244.1842	189.33	193.09	3.76	49.93	12:34

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/14 05:23

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	13.32	17.07	3.75	49.91	12:29

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	58	TOC	MB4	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/14 05:40

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	12.08	15.95	3.87	49.88	12:32

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> LCS ER From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	2	TOC	21.9000	1:1	[TOC] LCS ER [21.9 ppm]	0 / infinity (NA / NA)	21.3482 ppm (PASS)	0.0000 ppm	0%	2018/09/14 05:56

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time

2	TOC	21.9 ppm	1	21.3482	213.4817	167.45	171.22	3.77	49.92	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos 2
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	21.9 ppmC

Sample Type: Sample — From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	59	TOC	K1808454-001.01 ms	29.1555 ppm	0.0000 ppm	0.0000%	2018/09/14 06:13

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	29.1555	291.5549	221.97	225.78	3.81	49.88	12:28

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	60	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/14 06:29

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	13.32	17.13	3.81	49.87	12:30

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	61	TOC	K1808454-003.01	2.4164 ppm	0.0742 ppm	3.0700%	2018/09/14 06:45

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	2.4688	24.6884	31.80	35.54	3.74	49.89	12:23
2	TOC	2.3639	23.6387	31.05	34.79	3.74	49.88	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	62	TOC	K1808474-001.01	4.2765 ppm	0.1319 ppm	3.0800%	2018/09/14 07:18

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	4.1832	41.8323	44.02	47.82	3.81	49.87	12:26
2	TOC	4.3697	43.6973	45.34	49.08	3.73	49.90	12:26

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	63	TOC	K1808474-001.01 ms	31.0033 ppm	0.0000 ppm	0.0000%	2018/09/14 07:49

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	31.0033	310.0334	235.14	238.88	3.74	49.87	12:31

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	64	TOC	RB	0.0000 ppm	0.0000 ppm	0.0000%	2018/09/14 08:06

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.0000	0.0000	14.11	17.92	3.81	49.88	12:27

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	65	TOC	K1808474-002.01	2.9077 ppm	0.1608 ppm	5.5300%	2018/09/14 08:22

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.0215	30.2145	35.74	39.37	3.64	50.00	12:26
2	TOC	2.7940	27.9398	34.12	37.92	3.81	50.07	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	66	TOC	K1808474-003.01	3.7238 ppm	0.1508 ppm	4.0500%	2018/09/14 08:54

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.8304	38.3044	41.50	45.30	3.80	50.13	12:27
2	TOC	3.6171	36.1715	39.98	43.72	3.74	50.20	12:23

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.3779 ppm (PASS)	0.0000 ppm	0%	2018/09/14 09:25

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.3779	243.7786	189.04	192.81	3.77	50.10	12:35

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/14 09:42

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	12.67	16.44	3.77	50.10	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	67	TOC	K1808474-004.01	2.4386 ppm	0.1406 ppm	5.7700%	2018/09/14 09:58

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	2.5380	25.3802	32.29	35.78	3.49	50.08	12:27
2	TOC	2.3392	23.3918	30.87	34.69	3.81	50.09	12:26

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	68	TOC	K1808474-005.01	2.5022 ppm	0.0815 ppm	3.2600%	2018/09/14 10:30

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	2.5598	25.5977	32.45	36.09	3.64	50.09	12:27
2	TOC	2.4446	24.4456	31.63	35.34	3.72	50.08	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	69	TOC	K1808474-006.01	0.2415 ppm	0.0402 ppm	16.6400%	2018/09/14 11:02

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.2699	2.6990	16.13	19.84	3.71	50.06	12:23
2	TOC	0.2131	2.1306	15.72	19.72	3.99	50.03	12:23

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	70	TOC	K1808474-007.01	0.5776 ppm	0.0203 ppm	3.5200%	2018/09/14 11:34

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	0.5919	5.9195	18.42	22.15	3.73	50.03	12:22
2	TOC	0.5632	5.6318	18.22	22.10	3.88	50.01	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	71	TOC	K1808474-008.01	3.1931 ppm	0.0681 ppm	2.1300%	2018/09/14 12:05

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.2412	32.4121	37.30	41.11	3.80	50.00	12:27
2	TOC	3.1449	31.4494	36.62	40.37	3.75	49.97	12:26

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	72	TOC	K1808474-009.01	2.6221 ppm	0.0805 ppm	3.0700%	2018/09/14 12:37

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	2.6791	26.7905	33.30	36.97	3.68	49.97	12:26
2	TOC	2.5652	25.6525	32.49	36.28	3.79	49.93	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	73	TOC	K1808474-010.01 4x	4.2259 ppm	0.1042 ppm	2.4700%	2018/09/14 13:09

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	4.2996	42.9956	44.84	48.74	3.89	49.91	12:23
2	TOC	4.1522	41.5222	43.79	47.56	3.76	49.92	12:24

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC)	Extended Reaction	Extended Reaction

(v1150) 021711 (v3) 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	74	TOC	K1808474-011.01 4x	6.0416 ppm	0.1492 ppm	2.4700%	2018/09/14 13:40

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	6.1471	61.4712	58.01	61.80	3.78	49.91	12:24
2	TOC	5.9361	59.3607	56.51	60.11	3.60	49.90	12:27

Dilution: 1:10
Blank Contribution: (TC) 14.2057 (IC) (v1150)
Method: Extended Reaction 021711 (v3)
Calibration: Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	75	TOC	K1808474-012.01	3.2345 ppm	0.1939 ppm	5.9900%	2018/09/14 14:12

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	3.3716	33.7157	38.23	41.93	3.70	49.89	12:22
2	TOC	3.0974	30.9737	36.28	40.00	3.72	49.90	12:25

Dilution: 1:10
Blank Contribution: (TC) 14.2057 (IC) (v1150)
Method: Extended Reaction 021711 (v3)
Calibration: Extended Reaction 021711 (v17)

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	1	TOC	K1808474-013.01	5.2499 ppm	0.1437 ppm	2.7400%	2018/09/14 14:44

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	5.3515	53.5146	52.34	56.18	3.84	49.86	12:27
2	TOC	5.1483	51.4827	50.89	54.51	3.61	49.95	12:24

Dilution: 1:10
Blank Contribution: (TC) 14.2057 (IC) (v1150)
Method: Extended Reaction 021711 (v3)
Calibration: Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711

From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.5077 ppm (PASS)	0.0000 ppm	0%	2018/09/14 15:16

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.5077	245.0766	189.97	193.67	3.71	49.94	12:29

Completion State: Success - Criteria met.
Success Action: Do Nothing
Method: Extended Reaction 021711 (v3)
Calibration: Extended Reaction 021711 (v17)
STD Conc - Pos B: 50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB 021711 [0.0 ppm]	0 / infinity (NA / NA)	0.0000 ppm (PASS)	0.0000 ppm	0%	2018/09/14 15:32

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	12.78	16.62	3.84	49.90	12:27

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Sample Type: Sample From Schedule Version 7

	Pos	Analysis Type	Sample ID	Result (ppmC)	Std. Dev. (ppmC)	RSD	Start Time
◈	3	TOC	K1808474-014.01 4x	1.0940 ppm	0.0420 ppm	3.8400%	2018/09/14 15:49

Rep #	Base Analysis Type	ppm	µg	Adjusted (Abs)	NDIR (Abs)	Baseline (Abs)	Pressure (psig)	Run Time
1	TOC	1.1237	11.2365	22.21	26.11	3.90	49.86	12:26
2	TOC	1.0643	10.6429	21.79	25.65	3.86	49.96	12:25

Dilution	Blank Contribution	Method	Calibration
1:10	(TC) 14.2057 (IC) (v1150)	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)

Sample Type: Check Standard --> CCV 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	B	TOC	25.0000	1:2	[TOC] CCV 021711 [25 ppm]	0 / infinity (NA / NA)	24.5662 ppm (PASS)	0.0000 ppm	0%	2018/09/14 16:20

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
B	TOC	25 ppm	1	24.5662	245.6618	190.39	194.30	3.92	49.87	12:29

Completion State	Success Action	Method	Calibration	STD Conc - Pos B
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	50 ppmC

Sample Type: Check Standard --> CCB 021711 From Schedule Version 7

	Pos	BAT	Concentration (ppm)	Dil	Sample ID	Min / Max (% dev)	Result	Std. Dev.	RSD	Start Time
◈	D	TOC	0.0000	1:2	[TOC] CCB	0 / infinity	0.0000	0.0000	0%	2018/09/14 16:37

					021711 [0.0 ppm]	(NA / NA)	ppm (PASS)	ppm			

Pos	Base Analysis Type	ID	Rep #	ppm	µg	Adjusted	NDIR	Baseline	Pressure	Run Time
D	TOC	0.0 ppm	1	0.0000	0.0000	13.00	16.82	3.82	49.96	12:30

Completion State	Success Action	Method	Calibration	STD Conc - Pos D
Success - Criteria met.	Do Nothing	Extended Reaction 021711 (v3)	Extended Reaction 021711 (v17)	0 ppmC

Meta Data Used in this Report

Blanks

Version	Reagent (Abs)	Acid (Abs)	DI IC (Abs)	DI TC (Abs)	DI TOC (Abs)	Save Time	Operator
v1149	2.1430	1.7060	0.0000	0.0000	0.0000	2018/09/07 11:57	Fusion1 (Fusion1)
v1150	2.0713	1.4970	0.0000	0.0000	0.0000	2018/09/12 15:24	Fusion1 (Fusion1)

Calibrations

Name: Extended Reaction 021711 (TOC)

Version:	v17	Calibration curve formula:	TOC: y = 7.126x + 15.324
Ver Creation:	2018/03/13 21:33	r^2 value:	TOC: r^2 = 0.99994
Comment:			
Operator:	Fusion1 (Fusion1)		
Basic Analysis Type	TOC		

Basic Analysis Type: TOC

Sample ID	Y Raw Value	X Expected	Message	End Time
0.0 ppm	15.2500	0.0000		2018/03/13 19:55
0.50 ppm	18.8060	0.5000		2018/03/13 20:12
1.00 ppm	21.6980	1.0000		2018/03/13 20:28
5.00 ppm	50.8680	5.0000		2018/03/13 20:43
10.0 ppm	88.5720	10.0000		2018/03/13 21:00
25.0 ppm	192.2360	25.0000		2018/03/13 21:16
50.0 ppm	371.8790	50.0000		2018/03/13 21:32

Methods

Name: Extended Reaction 021711 (TOC)

Version: v3 Operator: Gen Chem Lab (Fusion1)

Ver Creation: 2013/02/04 11:44

Comment:

Parameter	Value
SampleVolume	10.0 mL
Dilution	1:10
AcidVolume	0.5 ml
ReagentVolume	2.0 ml
UVReactorPrerinse	Off
UVReactorPrerinseVolume	5.0
NumberOfUVReactorPrerinses	1
ICSpargeTime	1.00 mins
DetectorSweepFlow	500 ml/min
PreSpargeTime	4.00 mins
SystemFlow	500 ml/min

Advanced Parameter	Value
NeedleRinseVolume	5.0 ml
VialPrimeVolume	2.0 ml
ICSamplePrimeVolume	2.0 ml
ICSpargeRinseVolume	12.0 ml
BaselineStabilizeTime	0.70 min
DetectorPressureFlow	150 ml/min
SyringeSpeedWaste	10
SyringeSpeedAcid	7
SyringeSpeedReagent	7
SyringeSpeedDIWater	7
NDIRPressurization	60 psig
SyringeSpeedSampleDispense	5
SyringeSpeedSampleAspirate	4
SyringeSpeedUVDispense	7
SyringeSpeedUVAspirate	5
SyringeSpeedICDispense	7
SyringeSpeedICAspirate	5
NDIRPressureStabilize	1.75 min
SampleMixing	Off
SampleMixingCycles	1
SampleMixingVolume	10.0
LowLevelFilterNDIR	Off

Acceptance / Approval

Electronic Signatures

Report Version	User Name	Acceptance	Reason	Date

Report History

Report History

Report Version	User Name	System Reason	User Reason	Date
1	Fusion1 (Fusion1)	Schedule completed	Schedule completed	2018/09/14 17:00

LABORATORY REPORT

September 10, 2018

RJ Modashia
ALS Laboratory Group
10450 Stancliff Road Suite 210
Houston, TX 77099-4338

RE: HS18081504

Dear RJ:

Enclosed are the results of the samples submitted to our laboratory on August 31, 2018. For your reference, these analyses have been assigned our service request number P1804546.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental



Kate Kaneko
Project Manager

Client: ALS Laboratory Group Service Request No: P1804546
Project: HS18081504

CASE NARRATIVE

The samples were received intact under chain of custody on August 31, 2018 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Carbon Dioxide Analysis

The samples were analyzed for carbon dioxide using a gas chromatograph equipped with a thermal conductivity detector (TCD). A known amount of liquid was displaced by injecting 8.0 milliliters of helium creating a headspace in the sample vial. Each sample vial was agitated using a sonic disrupter for fifteen minutes and then allowed to equilibrate for at least four hours. A volume of the headspace was withdrawn using a gas-tight syringe and analyzed using a manual injection technique. The amount of dissolved gases (carbon dioxide) in the original sample was calculated using Henry's Law. This method was performed with guidance from RSK 175 as described in laboratory SOP VOA-DISGAS. This analyte is included on the laboratory's NELAP and DoD-ELAP scope of accreditation.

The sample 46WW02-0180829 was received at a pH of 5. A pH at this level could artificially elevate the level of carbon dioxide in solution.

The Matrix Spike (MS) recovery was outside the acceptance limits. The sample contained a high concentration of the analyte relative to the spike amount, therefore, the matrix spike recovery is not an accurate indicator of the accuracy of the analysis. The Laboratory Control Sample (LCS) and Duplicate Laboratory Control Sample (DLCS) recoveries were within the acceptance limits indicating that the analysis was in control.

Methane, Ethene and Ethane Analysis

The samples were also analyzed for methane, ethene and ethane using a gas chromatograph equipped with a flame ionization detector (FID). A known amount of liquid was displaced by injecting 8.0 milliliters of helium creating a headspace in the sample vial. Each sample vial was agitated using a sonic disrupter for fifteen minutes and then allowed to equilibrate for at least two hours. A volume of the headspace was withdrawn using a gas-tight syringe and analyzed using a manual injection technique. The amount of dissolved gases (methane, ethene and ethane) in the original sample was calculated using Henry's Law. This method was performed with guidance from RSK 175. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the laboratory's NELAP or DoD-ELAP accreditation.

The Matrix Spike (MS) and Duplicate Matrix Spike (DMS) recoveries for ethane and ethane were outside the acceptance limits due to suspected matrix interference. However, the Laboratory

Control Sample (LCS) and Duplicate Laboratory Control Sample (DLCS) recoveries were acceptable, indicating that the analysis was in control.

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 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.

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2016036
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1347317
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-005
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-18-9
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272018-9
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: ALS Laboratory Group
Project ID: HS18081504

Service Request: P1804546

Date Received: 8/31/2018
Time Received: 09:30

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	RSK 175 - CO2	RSK 175 - Gases
46WW02-180829	P1804546-001	Water	8/29/2018	08:35	X	X
46WW11-180829	P1804546-002	Water	8/29/2018	09:55	X	X
46WW11-180829-FD	P1804546-003	Water	8/29/2018	09:55	X	X

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

www.alsglobal.com

Subcontract Chain of Custody

COC ID: 9725

SUBCONTRACT TO:

ALS Environmental Suite A
2655 Park Center Drive,
Simi Valley, CA 93065 **Phone:** +1 805 526 7161

CUSTOMER INFORMATION:

Company:	ALS Houston
Contact:	RJ Modashia Ste 210
Address:	10450 Stancliff Rd,
Phone:	+1 281 530 5656
Email:	RJ.Modashia@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:	HS18081504
TSR:	Sonia West

	LAB SAMPLE ID / ANALYSIS REQUESTED	CLIENT SAMPLE ID	MATRIX	COLLECT DATE / DUE DATE
1.	**HS18081504-01**	**46WW02-180829**	**Groundwater**	**29 Aug 2018 08:35** Sep 2018
	MEE + CO2. DOD IV. Equis EDD		10	
2.	**HS18081504-02**	**46WW11-180829**	**Groundwater**	**29 Aug 2018 09:55** Sep 2018
	MEE + CO2. DOD IV. Equis EDD		10	
3.	**HS18081504-03**	**46WW11-180829-FD**	**Groundwater**	**29 Aug 2018 09:55**
	MEE + CO2. DOD IV. Equis EDD		10 Sep 2018	

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.
Sample HS18081504-01 = additional volume for MS/MSD

QC Level: DOD IV (DoD Data Package)

Relinquished By: J. Mayeaux Date/Time: 8/30/18 18:00

Received By: Date/Time: 8/31/18 0930

Cooler ID(s): Temperature(s):

19 COOL 1 Cu

Each set contains
2 x neat Vials
3 x HCL Vials
sample # 1 = additional volume for MS/MSD

ALS Environmental
Sample Acceptance Check Form

Client: ALS Laboratory Group Work order: P1804546

Project: HS18081504

Sample(s) received on: 8/31/18 Date opened: 8/31/18 by: ADAVID

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☒	☐	☐
	Cooler Temperature: ° C Blank Temperature: 1° C Thermometer ID CO907034581 Wet Ic			
8	Were **custody seals** on outside of cooler/Box/Container?	☒	☐	☐
	Location of seal(s)? Cooler lid. Sealing Lid?	☒	☐	☐
	Were signature and date included?	☒	☐	☐
	Were seals intact?	☒	☐	☐
9	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☒	☐	☐
	Is there a client indication that the submitted samples are **pH** preserved?	☒	☐	☐
	Were **VOA vials** checked for presence/absence of air bubbles?	☒	☐	☐
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☒	☐
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1804546-001.01	40mL VOA NP		5		A	MR 9/5/18
P1804546-001.02	40mL VOA NP		5		A	MR 9/5/18
P1804546-001.03	40mL VOA NP		5		A	MR 9/5/18
P1804546-001.04	40ml VOA HCL		1		A	MR 9/1/18
P1804546-001.05	40ml VOA HCL		1		A	MR 9/1/18
P1804546-001.06	40ml VOA HCL		1		A	MR 9/1/18
P1804546-001.07	40mL VOA NP				A	
P1804546-001.08	40mL VOA NP				A	
P1804546-001.09	40mL VOA NP				A	
P1804546-001.10	40ml VOA HCL				A	
P1804546-001.11	40ml VOA HCL				A	
P1804546-001.12	40ml VOA HCL				A	
P1804546-001.13	40ml VOA HCL				A	
P1804546-001.14	40ml VOA HCL				A	
P1804546-001.15	40ml VOA HCL				A	

Explain any discrepancies: (include lab sample ID numbers):

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS Environmental
Sample Acceptance Check Form

Client: ALS Laboratory Group Work order: P1804546

Project: HS18081504

Sample(s) received on: 8/31/18 Date opened: 8/31/18 by: ADAVID

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1804546-002.02	40mL VOA NP		6		A	MR 9/5/18
P1804546-002.03	40mL VOA NP				A	
P1804546-002.04	40ml VOA HCL		1		A	MR 9/1/18
P1804546-002.05	40ml VOA HCL				A	
P1804546-002.06	40ml VOA HCL				A	
P1804546-003.01	40mL VOA NP		6		A	MR 9/5/18
P1804546-003.02	40mL VOA NP				A	
P1804546-003.04	40ml VOA HCL		1		A	MR 9/1/18
P1804546-003.05	40ml VOA HCL				A	
P1804546-003.06	40ml VOA HCL				A	

Explain any discrepancies: (include lab sample ID numbers):

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **ALS Laboratory Group**
Client Project ID: **HS18081504** ALS Project ID: P1804546

Carbon Dioxide

Test Code: RSK 175
Instrument ID: HP5890A/GC10/TCD
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date(s) Collected: 8/29/18
Date Received: 8/31/18
Date Analyzed: 9/5/18

Client Sample ID	ALS Sample ID	Injection Volume ml(s)	Result µg/L	LOQ µg/L	LOD µg/L	MDL µg/L	Data Qualifier
46WW02-180829	P1804546-001	0.050	**740,000**	2,000	1,700	740	**!**
46WW11-180829	P1804546-002	0.050	**790,000**	2,000	1,700	740	
46WW11-180829-FD	P1804546-003	0.050	**730,000**	2,000	1,700	740	
Method Control Sample	P180905-MB	0.10	860	1,000	860	370	**U**

The Method Control Sample is laboratory water carried through the entire analytical process.
U = Compound was analyzed for, but not detected above the laboratory detection limit.
LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
! = See case narrative.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Client: **ALS Laboratory Group**
Client Sample ID: **Duplicate Lab Control Sample**
Client Project ID: **HS18081504**

ALS Project ID: P1804546
ALS Sample ID: P180905-DLCS

Test Code: RSK 175
Instrument ID: HP5890A/GC10/TCD
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/05/18
Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount LCS / DLCS ug/L	Result$_1$ LCS ug/L	Result$_1$ DLCS ug/L	% Recovery LCS	% Recovery DLCS	DOD Acceptance Limits	RPD	RPD Limit	Data Qualifier
124-38-9	Carbon Dioxide	22,900	19,300	18,700	**84**	**82**	80-122	2	15	

$_1$ = The concentration shown includes a subtraction of the Method Control Sample value, even if the result is less than the MRL.

ALS ENVIRONMENTAL

MATRIX SPIKE / DUPLICATE MATRIX SPIKE SUMMARY

Client: **ALS Laboratory Group**
Client Sample ID: **46WW02-180829**
Client Project ID: **HS18081504**

ALS Project ID: P1804546
ALS Sample ID: P1804546-001MS
P1804546-001DMS

Test Code: RSK 175
Instrument ID: HP5890A/GC10/TCD
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: 8/29/18
Date Received: 8/31/18
Date Analyzed: 9/5/18
Volume(s) Analyzed: 0.050 ml(s)

CAS #	Compound	Spike Amount MS / DMS ug/L	Sample Amount ug/L	Result MS ug/L	Result DMS ug/L	% Recovery MS	% Recovery DMS	DOD Acceptance Limits	RPD	RPD Limit	Data Qualifier
124-38-9	Carbon Dioxide	45,800	738,000	747,000	793,000	**20**	**120**	80-122	143	30	**!, N, R**

N = The matrix spike sample recovery is not within control limits. See case narrative.
R = Duplicate precision not met.
! = See case narrative.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **ALS Laboratory Group**
Client Sample ID: **46WW02-180829**
Client Project ID: **HS18081504**

ALS Project ID: P1804546
ALS Sample ID: P1804546-001

Test Code: RSK 175
Instrument ID: HP5890A/GC10/FID
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: 8/29/18
Date Received: 8/31/18
Date Analyzed: 9/1/18
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result µg/L	LOQ µg/L	LOD µg/L	MDL µg/L	Data Qualifier
74-82-8	Methane	1.0	1.3	1.0	0.51	**U**
74-85-1	Ethene	0.55	1.0	0.55	0.24	**U**
74-84-0	Ethane	0.47	0.60	0.47	0.16	**U**

U = Compound was analyzed for, but not detected above the laboratory detection limit.
LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **ALS Laboratory Group**
Client Sample ID: **46WW11-180829**
Client Project ID: **HS18081504**

ALS Project ID: P1804546
ALS Sample ID: P1804546-002

Test Code: RSK 175
Instrument ID: HP5890A/GC10/FID
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: 8/29/18
Date Received: 8/31/18
Date Analyzed: 9/1/18
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result µg/L	LOQ µg/L	LOD µg/L	MDL µg/L	Data Qualifier
74-82-8	Methane	**39**	1.3	1.0	0.51	
74-85-1	Ethene	0.55	1.0	0.55	0.24	**U**
74-84-0	Ethane	0.47	0.60	0.47	0.16	**U**

U = Compound was analyzed for, but not detected above the laboratory detection limit.
LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **ALS Laboratory Group**
Client Sample ID: **46WW11-180829-FD**
Client Project ID: **HS18081504**

ALS Project ID: P1804546
ALS Sample ID: P1804546-003

Test Code: RSK 175
Instrument ID: HP5890A/GC10/FID
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: 8/29/18
Date Received: 8/31/18
Date Analyzed: 9/1/18
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result µg/L	LOQ µg/L	LOD µg/L	MDL µg/L	Data Qualifier
74-82-8	Methane	**36**	1.3	1.0	0.51	
74-85-1	Ethene	0.55	1.0	0.55	0.24	**U**
74-84-0	Ethane	0.47	0.60	0.47	0.16	**U**

U = Compound was analyzed for, but not detected above the laboratory detection limit.
LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **ALS Laboratory Group**
Client Sample ID: **Method Control Sample**
Client Project ID: **HS18081504**

ALS Project ID: P1804546
ALS Sample ID: P180901-MB

Test Code: RSK 175
Instrument ID: HP5890A/GC10/FID
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/01/18
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Result µg/L	LOQ µg/L	LOD µg/L	MDL µg/L	Data Qualifier
74-82-8	Methane	1.0	1.3	1.0	0.51	**U**
74-85-1	Ethene	0.55	1.0	0.55	0.24	**U**
74-84-0	Ethane	0.47	0.60	0.47	0.16	**U**

The Method Control Sample is laboratory water carried through the entire analytical process.
U = Compound was analyzed for, but not detected above the laboratory detection limit.
LOQ = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Client: **ALS Laboratory Group**
Client Sample ID: **Duplicate Lab Control Sample**
Client Project ID: **HS18081504**

ALS Project ID: P1804546
ALS Sample ID: P180901-LCS
P180901-DLCS

Test Code: RSK 175
Instrument ID: HP5890A/GC10/FID
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/01/18
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Spike Amount LCS / DLCS µg/L	Result$_1$ LCS µg/L	Result$_1$ DLCS µg/L	% Recovery LCS	% Recovery DLCS	DOD Acceptance Limits	RPD	RPD Limit	Data Qualifier
74-82-8	Methane	2.50	2.48	2.74	**99**	**110**	73-125	11	12	
74-85-1	Ethene	4.37	4.33	4.49	**99**	**103**	72-133	4	7	
74-84-0	Ethane	4.69	4.58	4.66	**98**	**99**	74-131	1	6	

$_1$ = The concentration shown includes a subtraction of the Method Control Sample value, even if the result is less than the MRL.

ALS ENVIRONMENTAL

MATRIX SPIKE / DUPLICATE MATRIX SPIKE SUMMARY

Client: **ALS Laboratory Group**
Client Sample ID: **46WW02-180829**
Client Project ID: **HS18081504**

ALS Project ID: P1804546
ALS Sample ID: P1804546-001MS
P1804546-001DMS

Test Code: RSK 175
Instrument ID: HP5890A/GC10/FID
Analyst: Wade Henton
Matrix: Water
Test Notes:

Date Collected: 8/29/18
Date Received: 8/31/18
Date Analyzed: 9/1/18
Volume(s) Analyzed: 0.10 ml(s)

CAS #	Compound	Spike Amount MS / DMS µg/L	Sample Amount µg/L	Result MS µg/L	Result DMS µg/L	% Recovery MS	% Recovery DMS	DOD Acceptance Limits	RPD	RPD Limit	Data Qualifier
74-82-8	Methane	2.52	ND	2.00	1.86	**79**	**74**	73-125	7	30	
74-85-1	Ethene	4.40	ND	3.02	3.14	**69**	**71**	72-133	3	30	**N**
74-84-0	Ethane	4.72	ND	3.12	3.23	**66**	**68**	74-131	3	30	**N**

N = The matrix spike sample recovery is not within control limits. See case narrative.

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051811.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 13:42:22
Operator : WH
Sample : P1804546-001 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 07:54:15 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.971f	120361	0.025	ppm
2)	Carbon monoxide	1.971f	120361	N.D.	ppm
3)	Methane (TCD)	3.904	23642	2499.831	ppm
4)	Carbon dioxide	6.009	3967239	16901.346	ppm
6)	Methane (FID)	0.000	0	N.D.	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

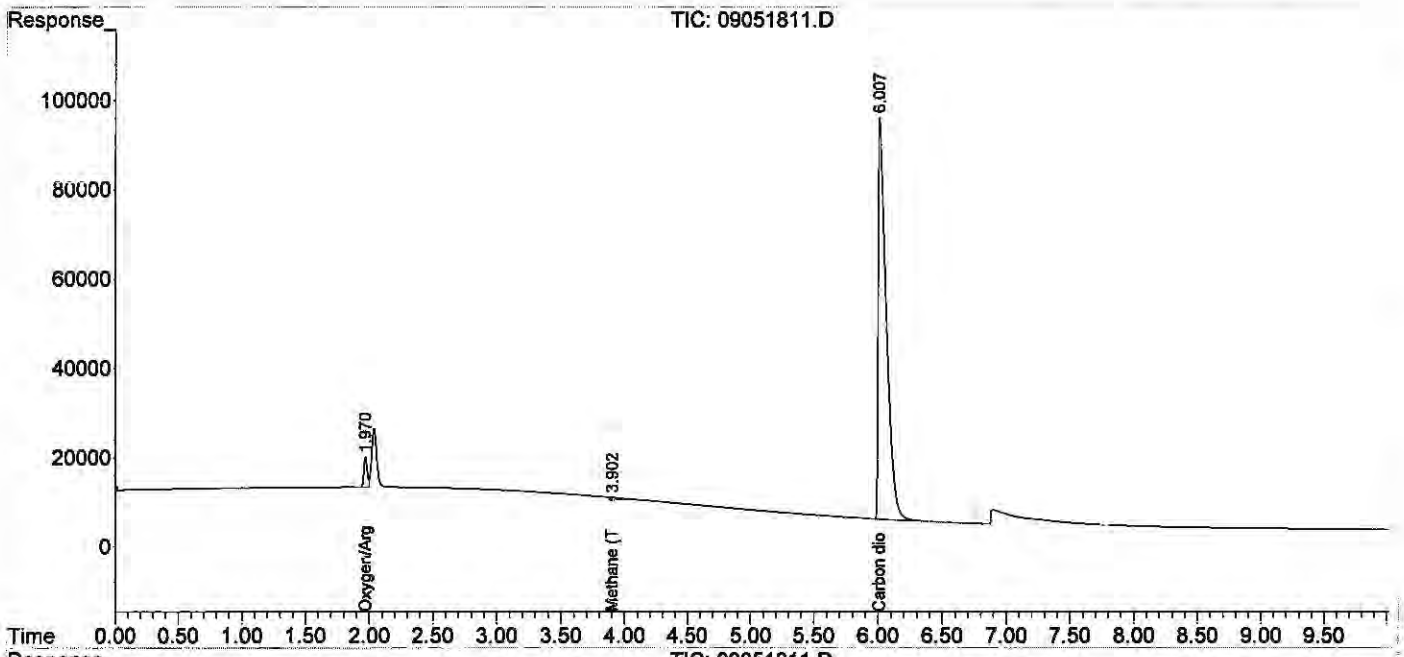
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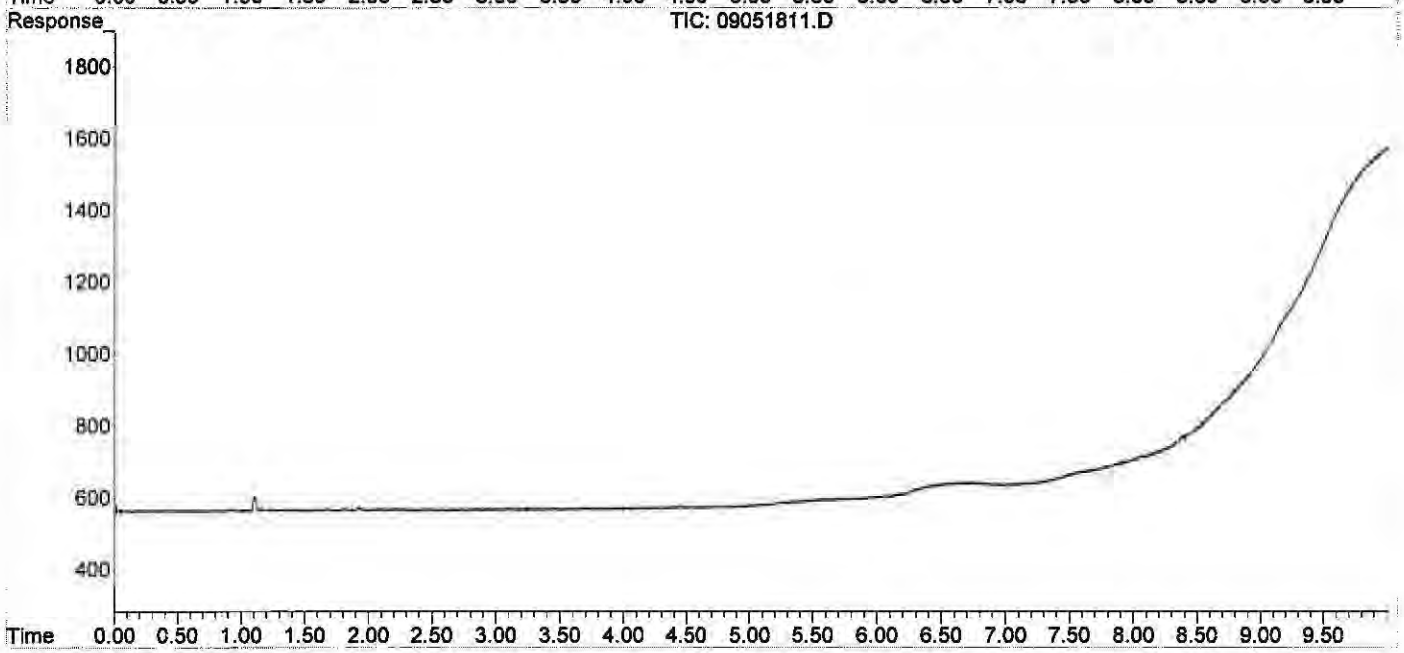
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051811.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 13:42:22
Operator : WH
Sample : P1804546-001 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 07:54:15 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051814.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 14:25:01
Operator : WH
Sample : P1804546-002 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 14:52:54 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.971f	120676	0.025	ppm
2)	Carbon monoxide	1.971f	120676	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.006	4267504	18180.544	ppm
6)	Methane (FID)	1.107	47626	5.041	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

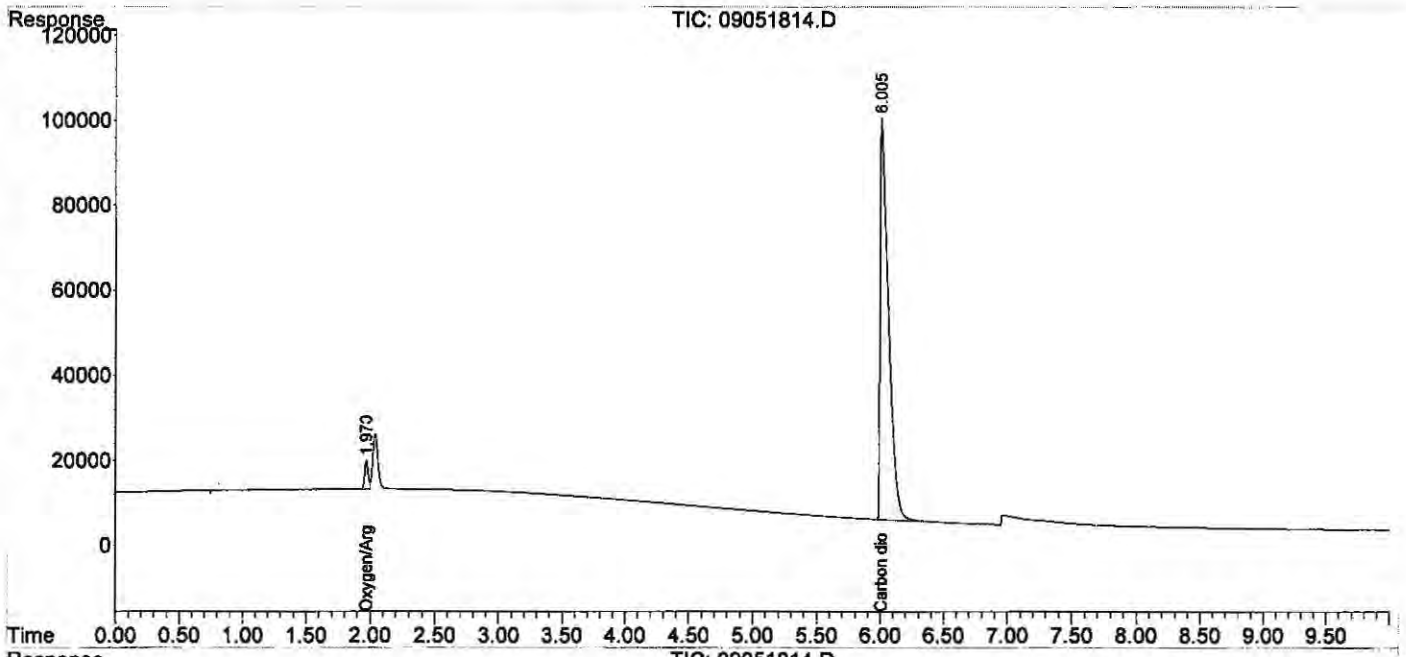
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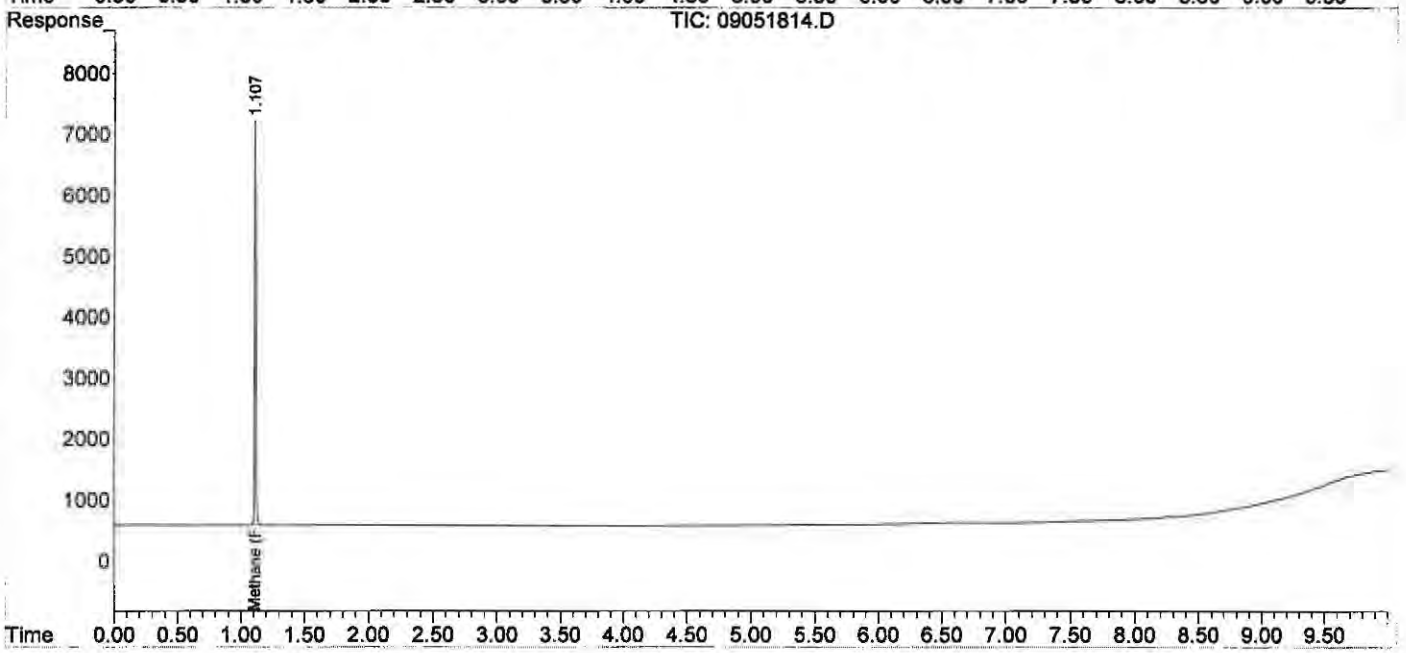
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051814.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 14:25:01
Operator : WH
Sample : P1804546-002 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 14:52:54 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051815.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 14:42:45
Operator : WH
Sample : P1804546-003 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 07:55:27 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.972f	106841	0.022	ppm
2)	Carbon monoxide	1.972f	106841	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.010	3899672	16613.493	ppm
6)	Methane (FID)	1.109	61641	6.524	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

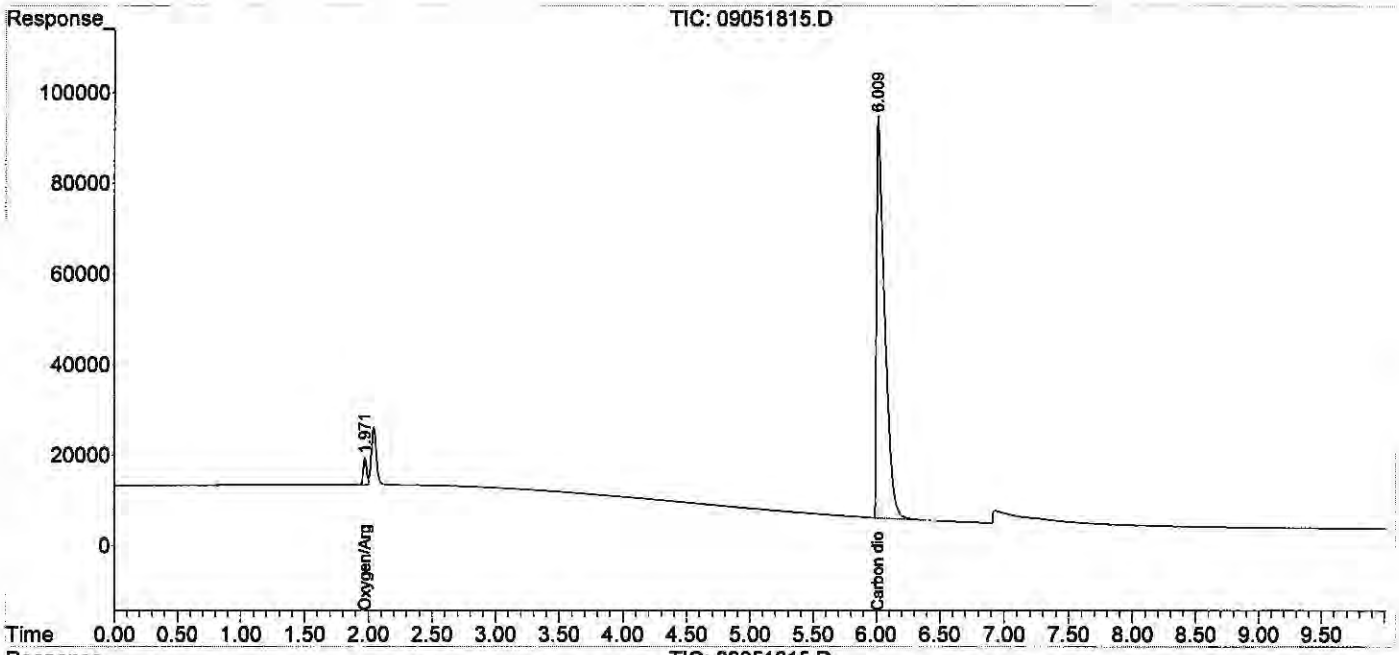
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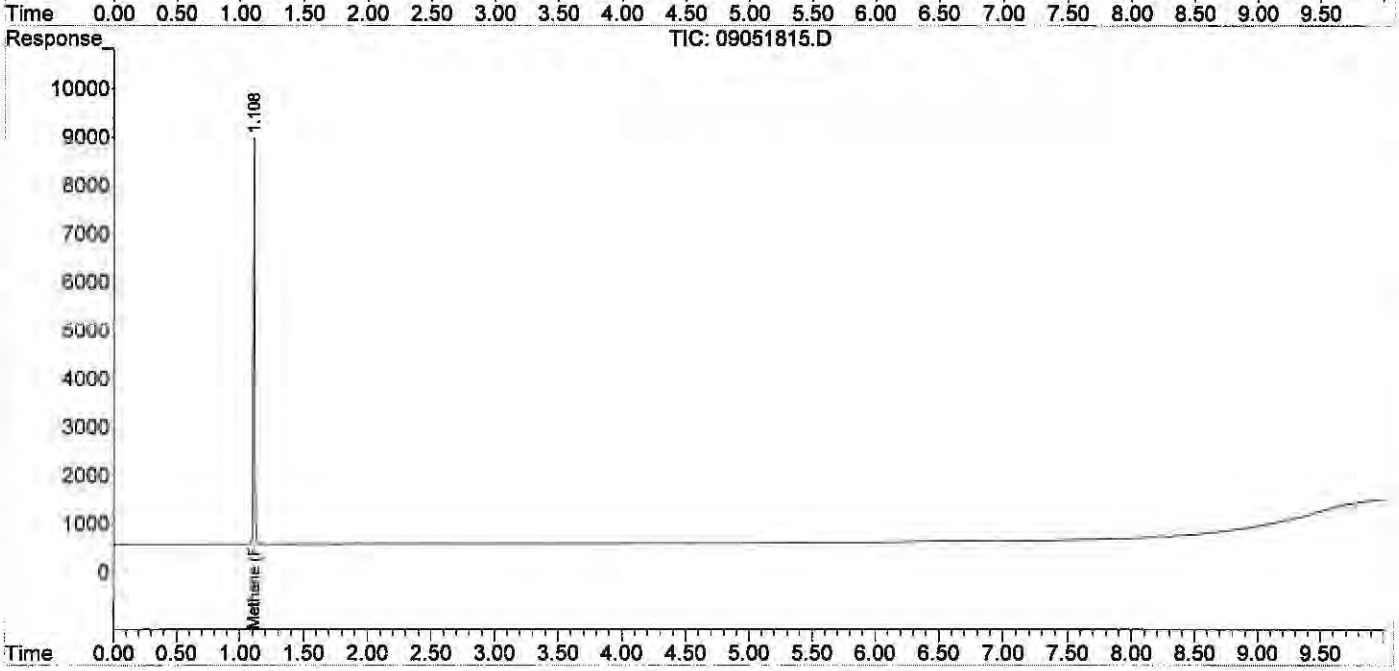
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051815.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 14:42:45
Operator : WH
Sample : P1804546-003 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 07:55:27 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 11:08:16
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 11:44:56 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

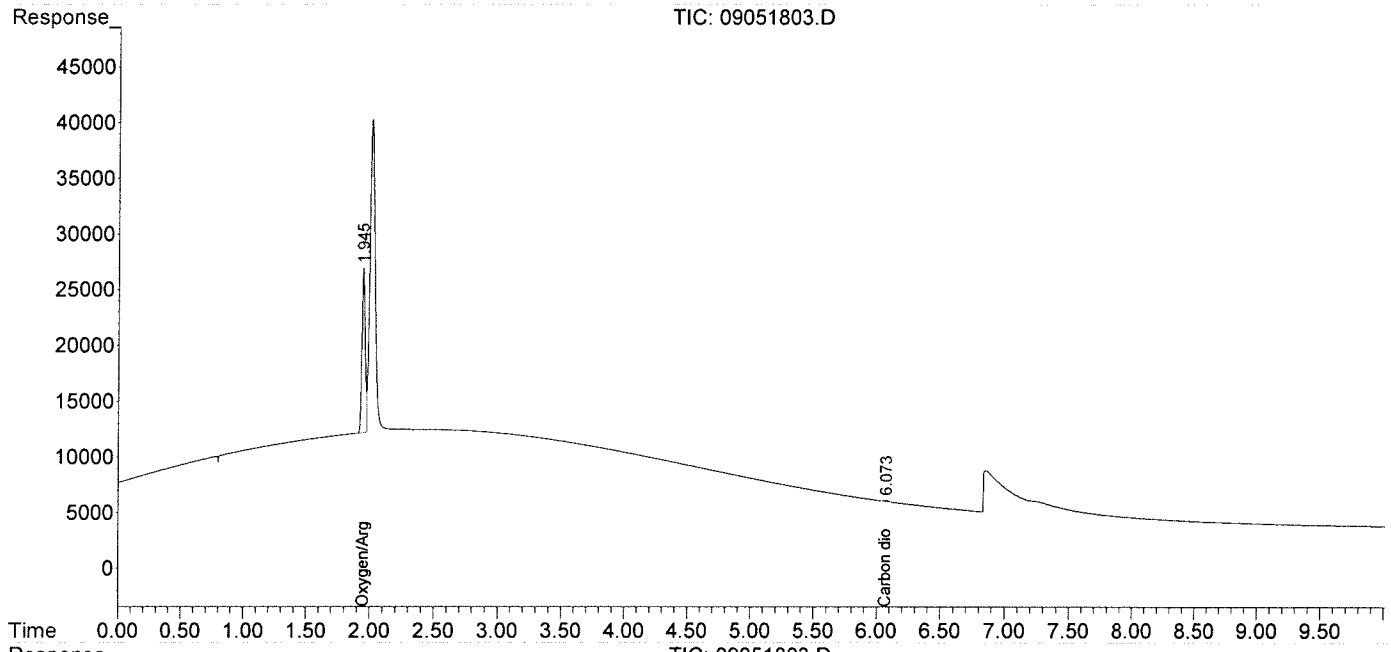
	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.946f	265913	0.056	ppm	
2)	Carbon monoxide	1.946f	265913	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	6.073	2486	10.592	ppm	m
6)	Methane (FID)	1.085	1236	0.131	ppm	
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

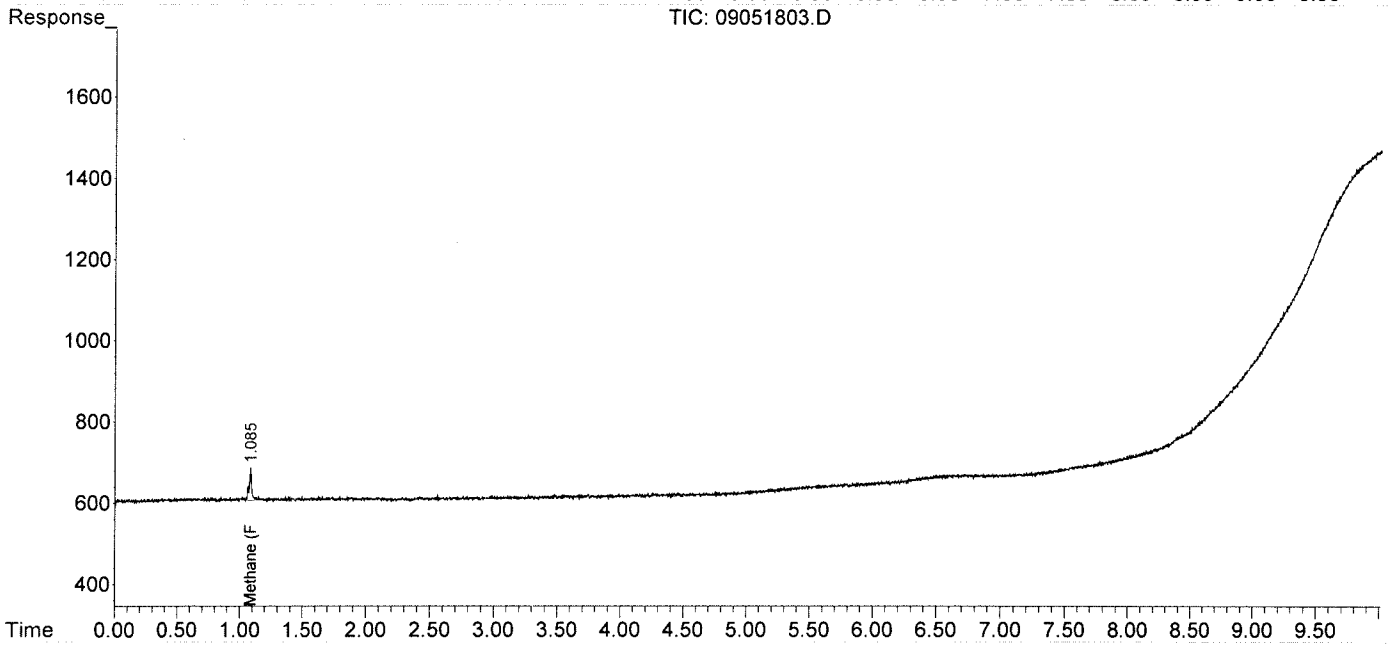
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 11:08:16
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 11:44:56 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

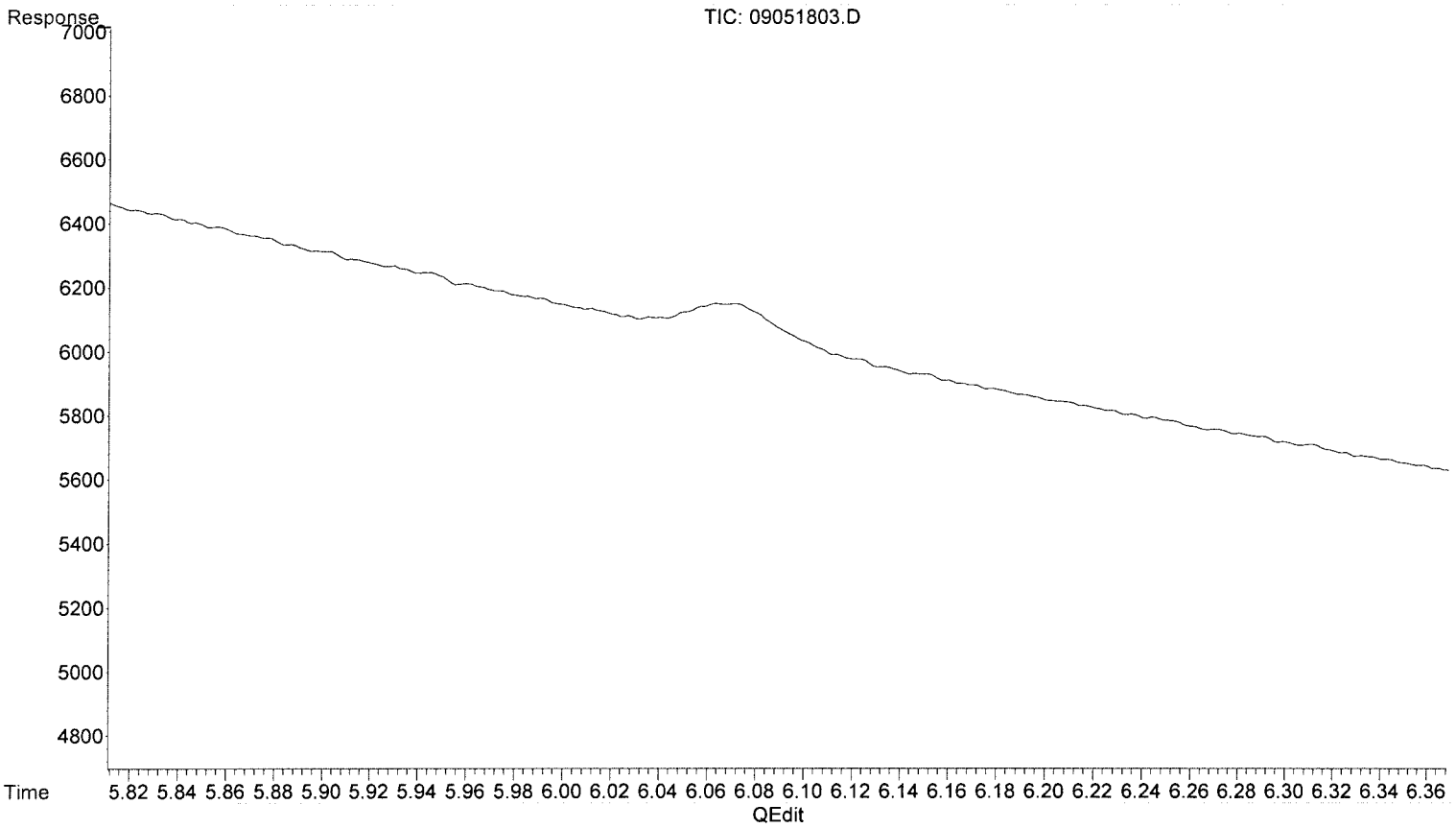




Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 11:08:16
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 11:44:56 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(4) Carbon dioxide

6.039min 0.000 ppm

response 0

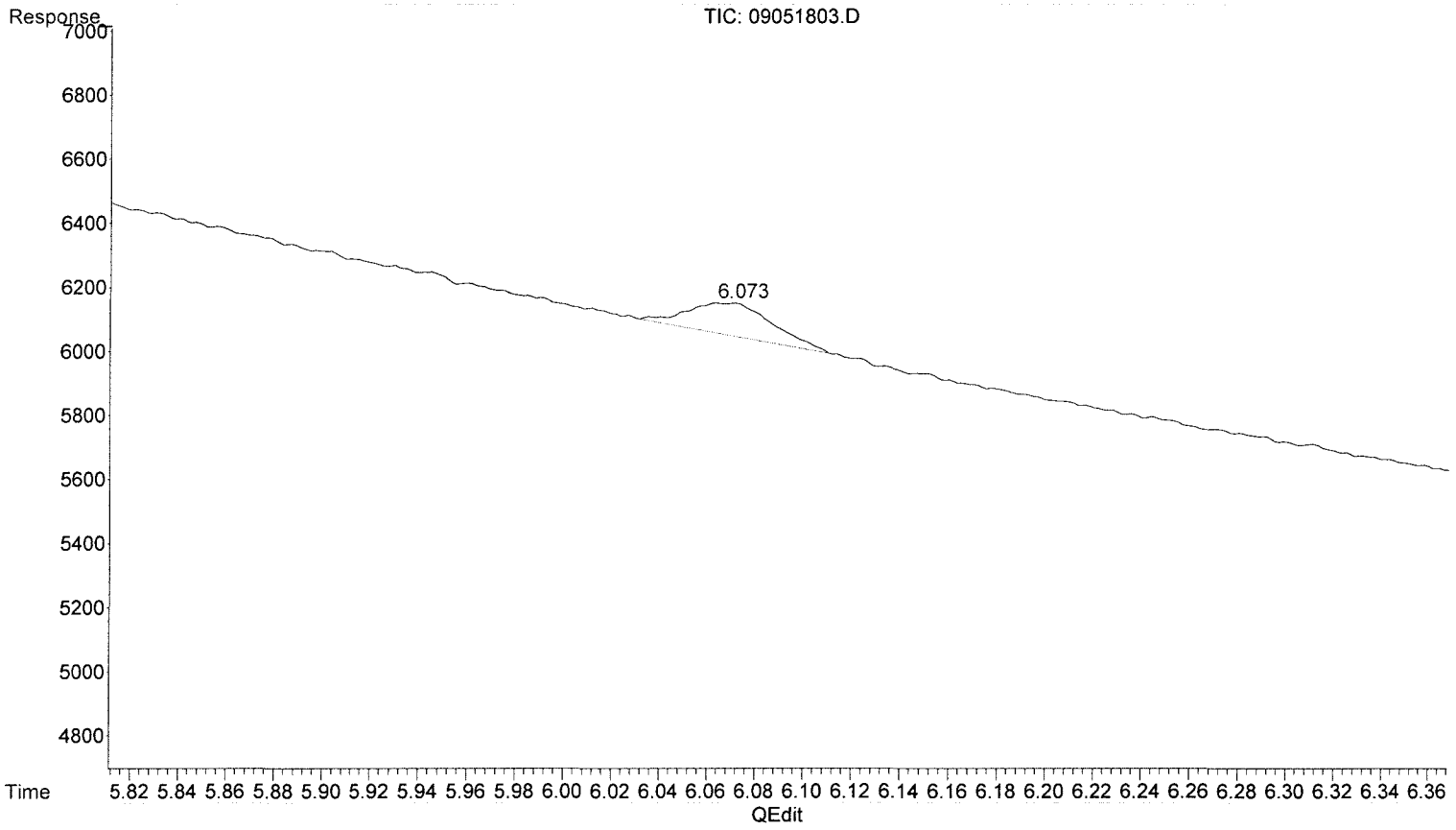
(+) = Expected Retention Time

00919235

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 11:08:16
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 11:44:56 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(4) Carbon dioxide

6.073min 10.592 ppm m

response 2486

MR 9/6/18
MP

(+) = Expected Retention Time

00919236

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\05\
Data File : 09051821.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 16:19:24
Operator : WH
Sample : tcd lcs s32-07241801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 16:36:47 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

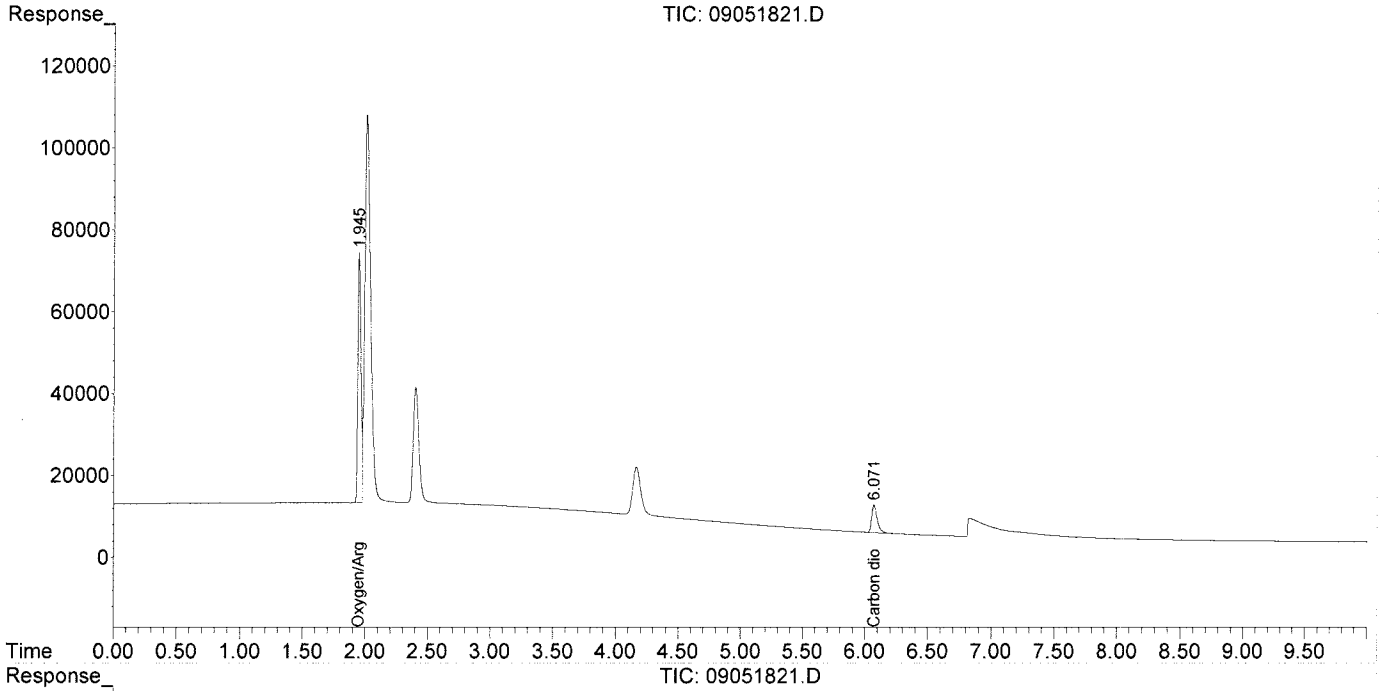
	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.946f	1057053	0.222	ppm
2)	Carbon monoxide	1.946f	1057053	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.072	207605	884.443	ppm
6)	Methane (FID)	1.101	30264009	3203.281	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

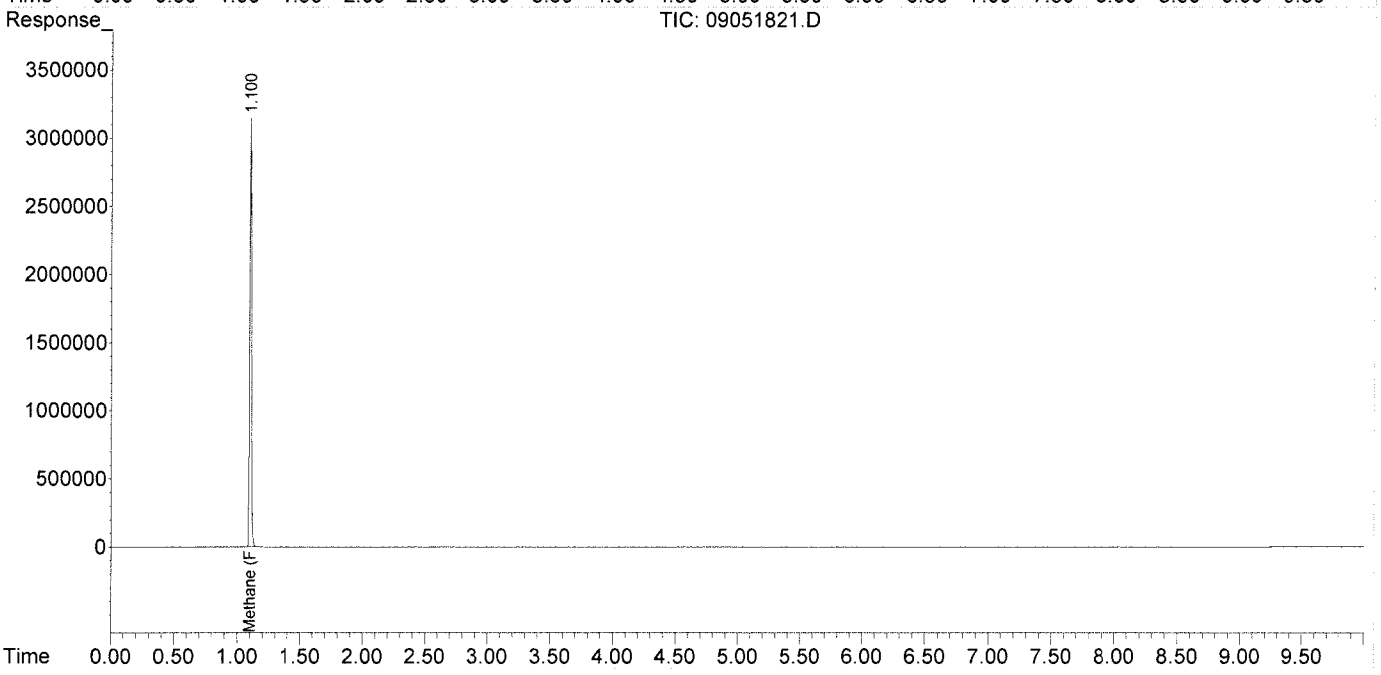
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\05\
Data File : 09051821.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 16:19:24
Operator : WH
Sample : tcd lcs s32-07241801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 16:36:47 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data Path : J:\GC10\DATA\RSK_TCD\2018_09\05\
Data File : 09051822.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 16:37:36
Operator : WH
Sample : tcd lcsd s32-07241801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 16:50:35 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

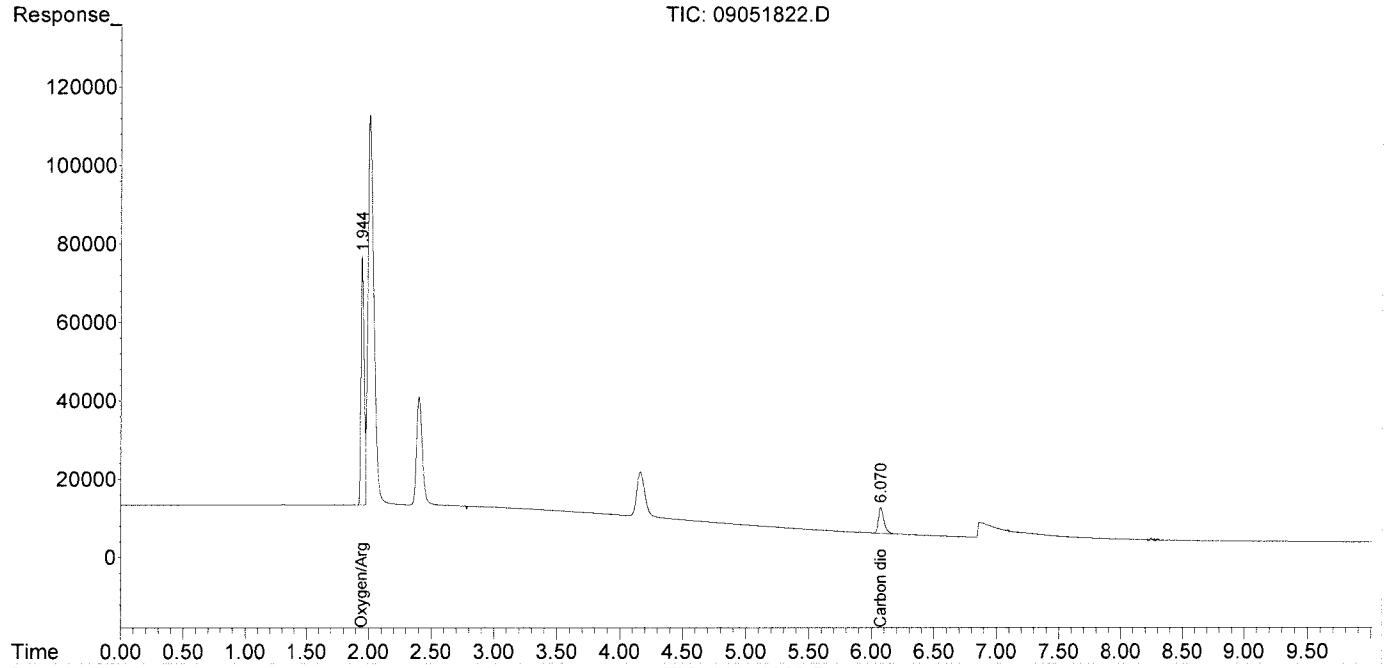
	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.944f	1092694	0.230	ppm
2)	Carbon monoxide	1.944f	1092694	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.071	201522	858.530	ppm
6)	Methane (FID)	1.101	29344075	3105.911	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

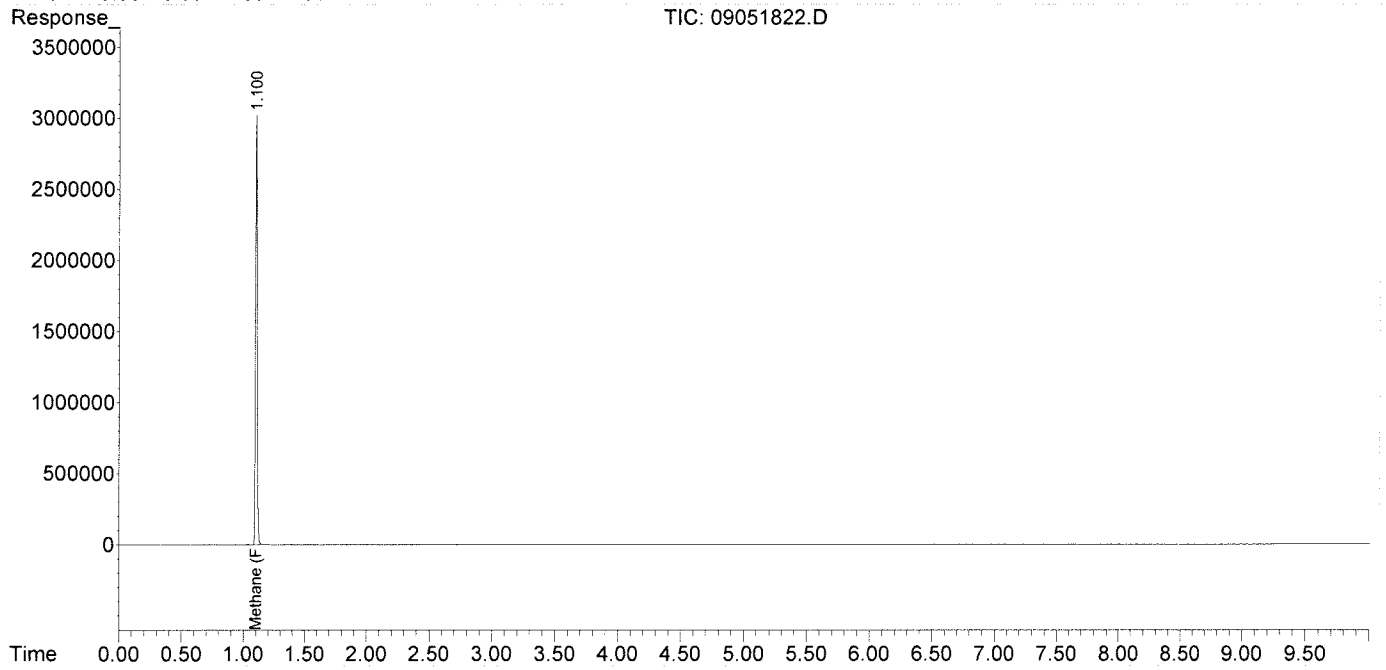
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_TCD\2018_09\05\
Data File : 09051822.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 16:37:36
Operator : WH
Sample : tcd lcsd s32-07241801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 16:50:35 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051812.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 13:55:34
Operator : WH
Sample : P1804546-001 ms 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 07:54:38 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

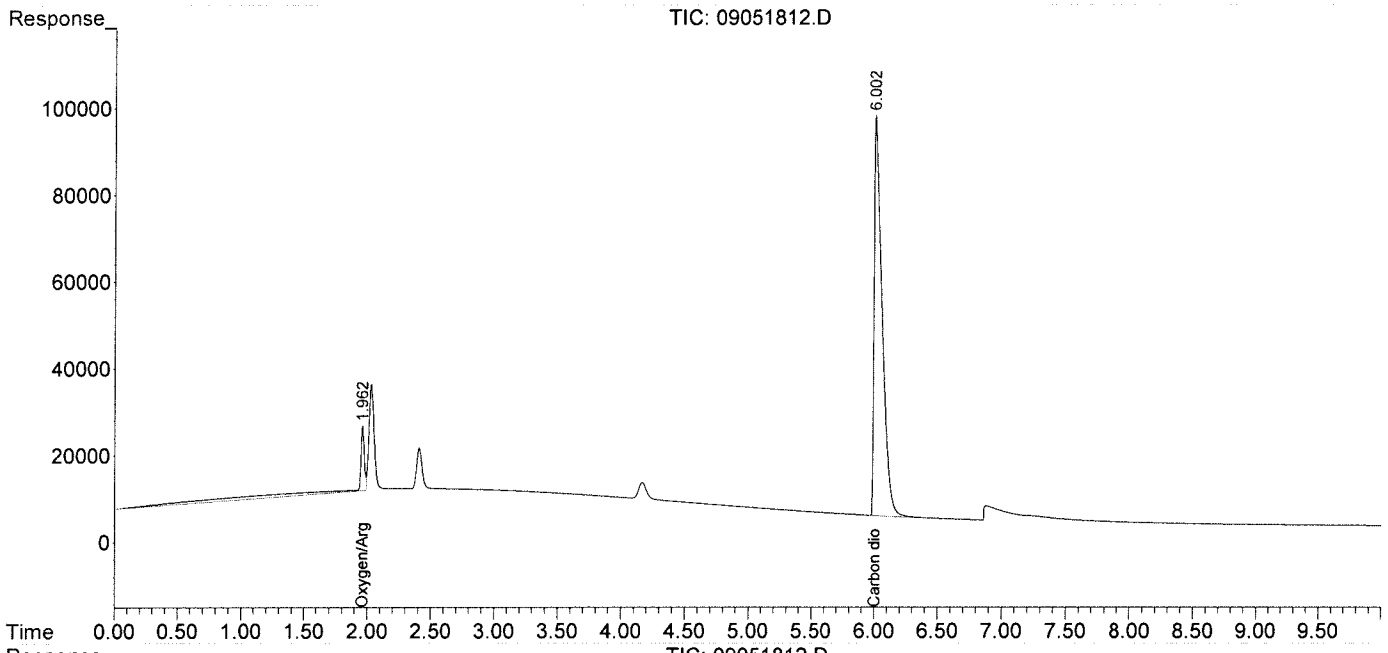
	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.963f	771355	0.162	ppm
2)	Carbon monoxide	1.963f	771355	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.004	4015186	17105.612	ppm
6)	Methane (FID)	1.102	9727034	1029.554	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

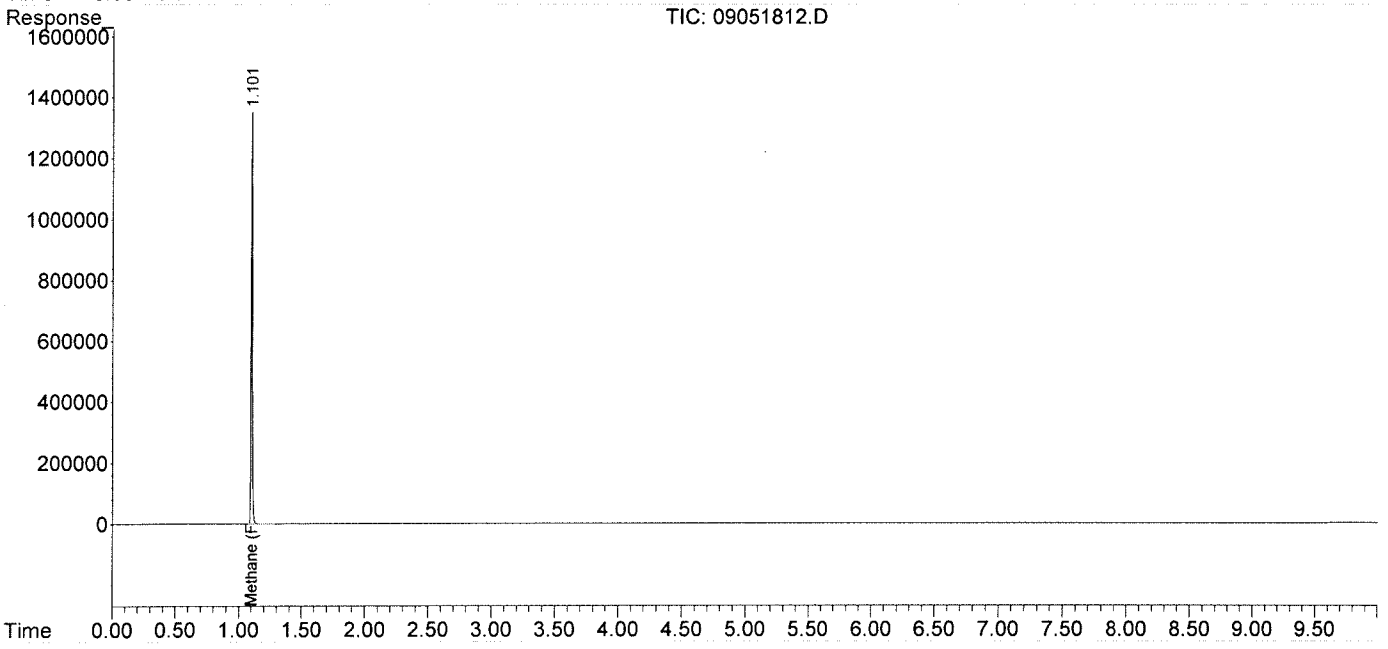
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051812.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 13:55:34
Operator : WH
Sample : P1804546-001 ms 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 07:54:38 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051813.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 14:09:21
Operator : WH
Sample : P1804546-001 msd 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 07:54:58 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

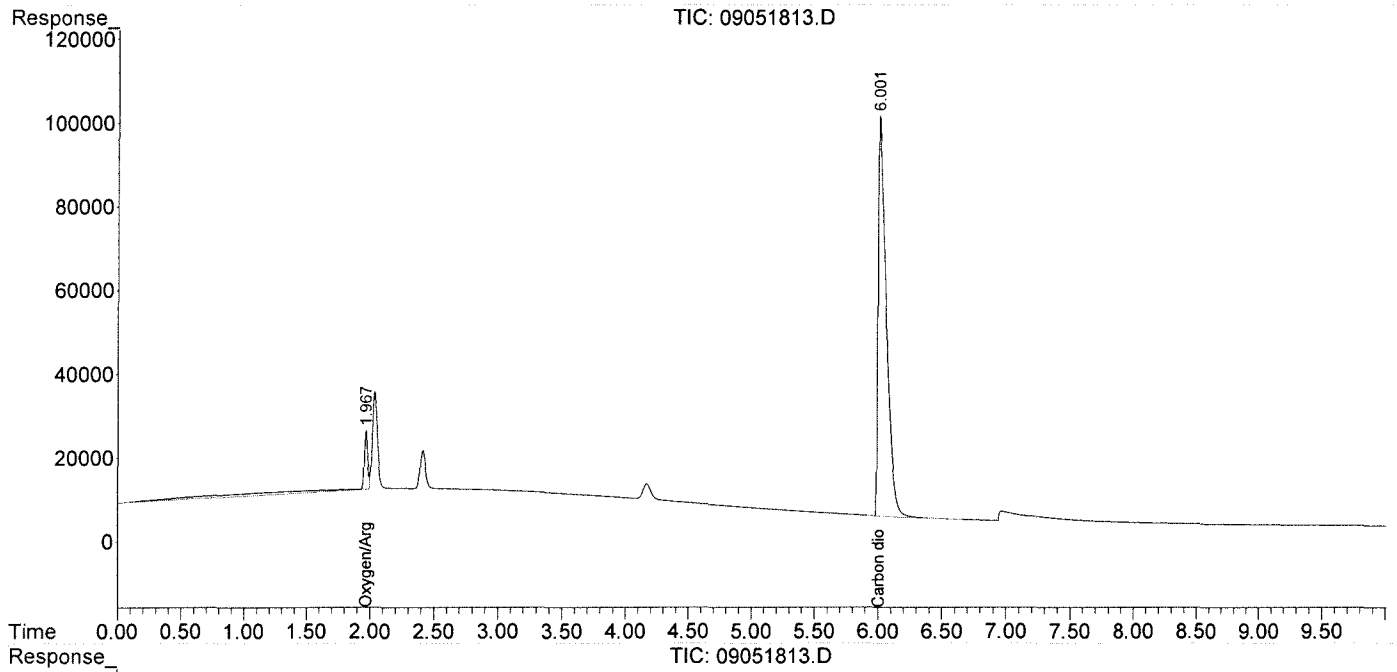
	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.968f	726857	0.153	ppm
2)	Carbon monoxide	1.968f	726857	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.003	4266522	18176.361	ppm
6)	Methane (FID)	1.107	9277364	981.959	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

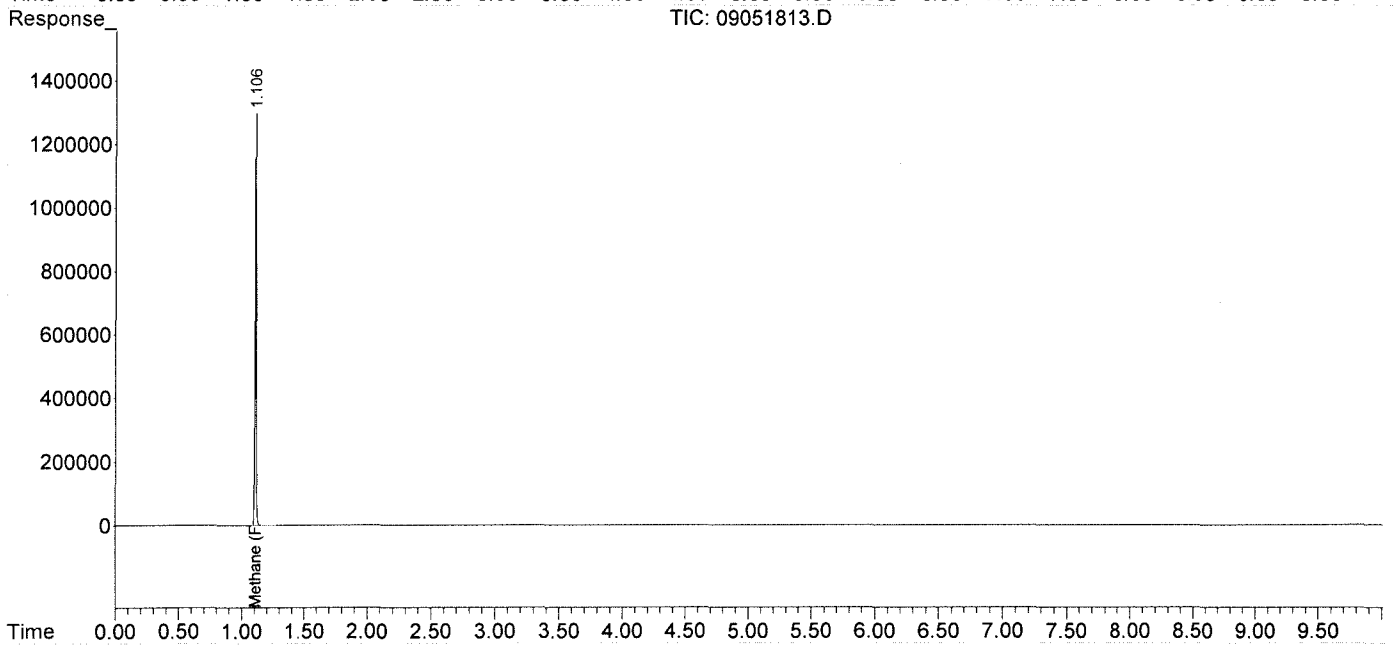
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051813.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 14:09:21
Operator : WH
Sample : P1804546-001 msd 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 07:54:58 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Dissolved Gases by RSK175

ALS Environmental

Method : RSK175 Headspace Method for Dissolved Hydrocarbon in Water by FID/TCD
Client : ALS Laboratory Group
Service Request: P1804546
Sample Vol. (ml) : 32.00 ml
Analyst : WH
Date Analysis : 09/05/18
Head Space Vol.(ml) : 8.00 ml
Instrument : GC#10
Detector : FID#10, TCD#10
Gas Constant : 24.05684 (20°C)

HEAD SPACE RESULT (ppm)

Sample ID	Inj. Vol.	Carbon Dioxide
std s32-08311801	0.100	4846.297
ACTUAL		5000.00
%Difference		3.1%
mcs 0.1ml	0.100	10.592
rb 0.1ml	0.100	0.000
tcd lcsd s32-07241801	0.100	884.443
tcd lcsd s32-07241801	0.100	858.530
P1804546-001 50ul	0.050	16901.35
P1804546-002 50ul	0.050	18180.54
P1804546-003 50ul	0.050	16613.49
P1804546-001 ms 50ul	0.050	17105.61
P1804546-001 msd 50ul	0.050	18176.36
std s32-08311801		4818.184
ACTUAL		5000.00
%Difference		3.6%

FINAL HEAD SPACE RESULT (ppm)

	Carbon Dioxide
WWt.	44.10
HENRY'S CONSTANT	1.42E+03
RL	100.00
mcs 0.1ml	105.920
tcd lcsd s32-07241801	8844.430
tcd lcsd s32-07241801	8585.300
P1804546-001 50ul	338026.92
P1804546-002 50ul	363610.88
P1804546-003 50ul	332269.86
P1804546-001 ms 50ul	342112.24
P1804546-001 msd 50ul	363527.22

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051801.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 10:40:10
Operator : WH
Sample : std s32-08311801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 10:52:20 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.955f	666043	0.140	ppm
2)	Carbon monoxide	1.955f	666043	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.051	1137567	4846.297	ppm
6)	Methane (FID)	1.101	34842055	3687.843	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

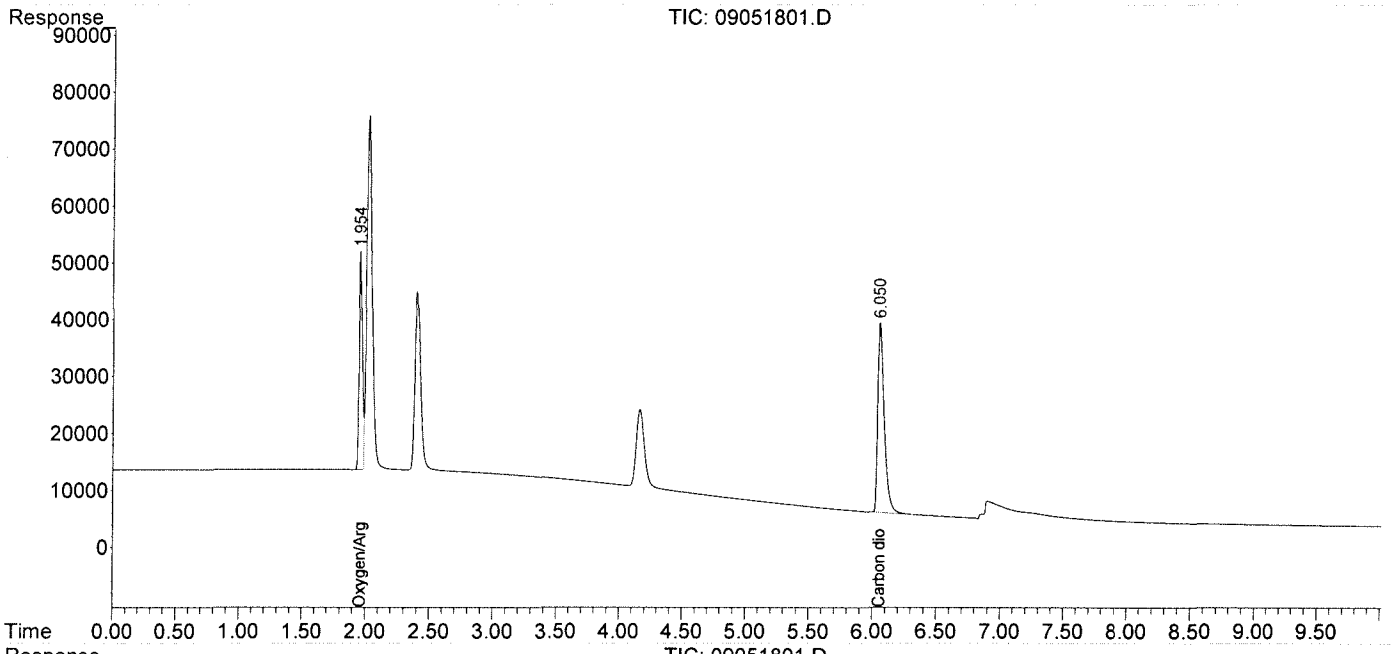
(f)=RT Delta > 1/2 Window (m)=manual int.

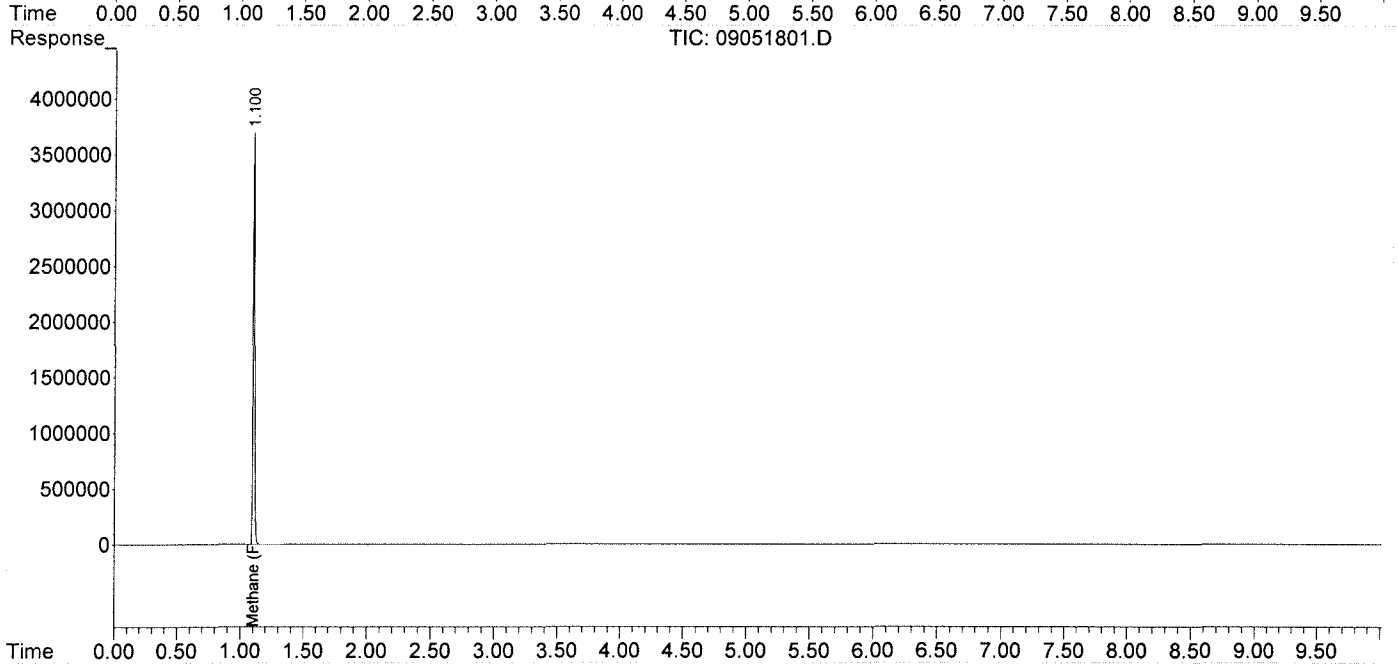
MR 9/11/18

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051801.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 10:40:10
Operator : WH
Sample : std s32-08311801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 10:52:20 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051816.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 14:58:31
Operator : WH
Sample : std s32-08311801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 15:11:33 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

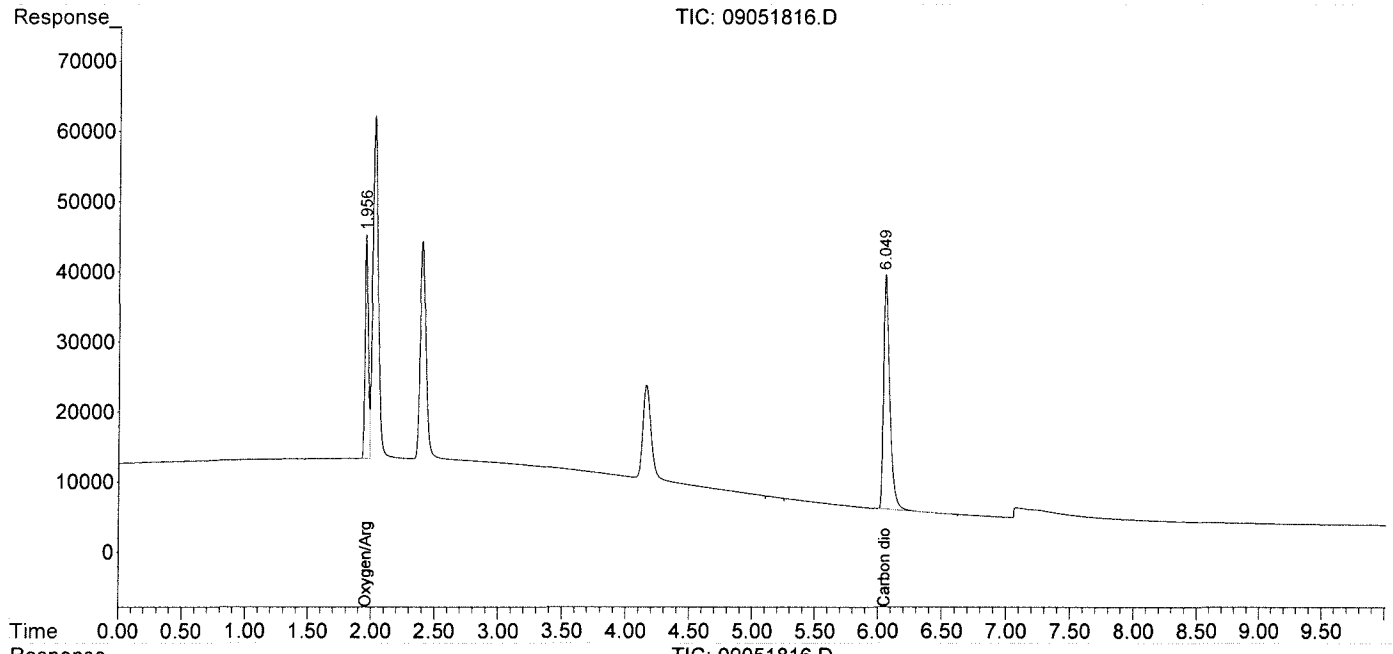
	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.956f	556088	0.117	ppm
2)	Carbon monoxide	1.956f	556088	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	6.050	1130968	4818.184	ppm
6)	Methane (FID)	1.101	34507397	3652.421	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

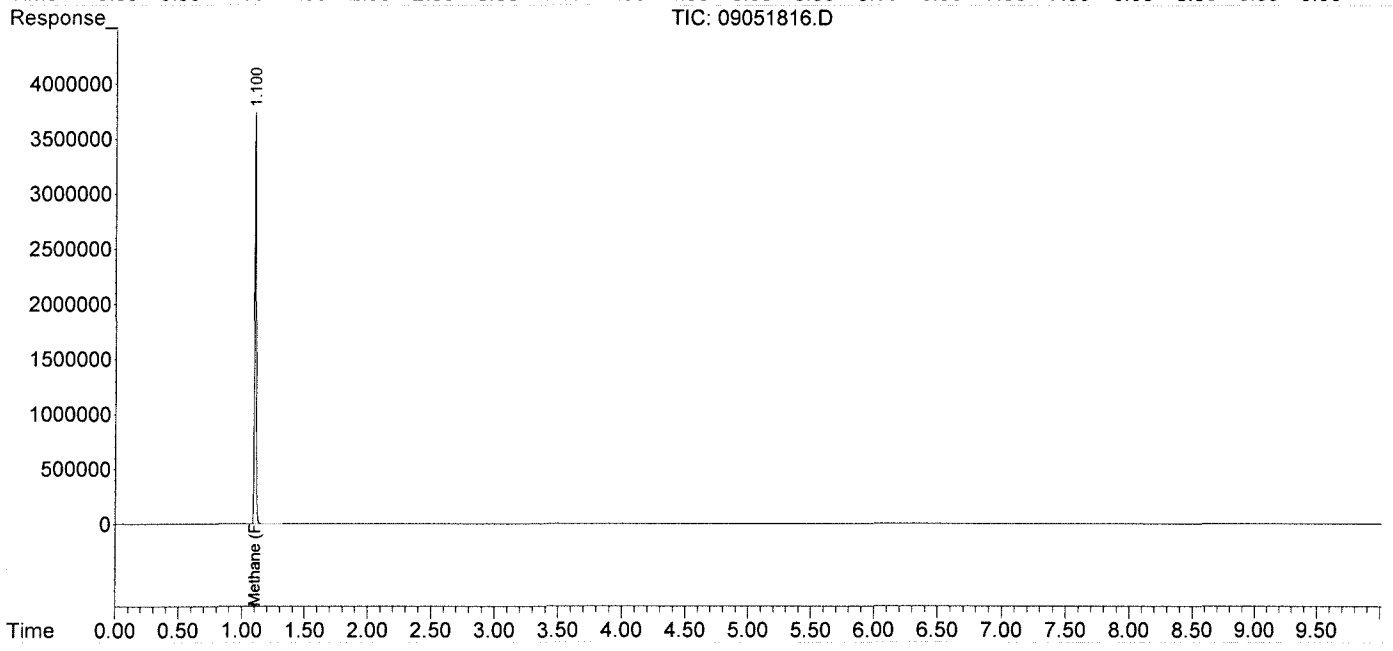
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2018_09\05\
Data File : 09051816.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 05-Sep-2018, 14:58:31
Operator : WH
Sample : std s32-08311801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 05 15:11:33 2018
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Response Factor Report HP5890

Method Path : I:\GC10\METHODS\
Method File : RS082817_CO2.M
Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
Last Update : Tue Aug 29 16:13:13 2017
Response Via : Initial Calibration

Calibration Files
1 =08291715.D 2 =08291716.D 3 =08291717.D
4 =08291719.D 5 =08291720.D 6 =08291721.D

	Compound	1	2	3	4	5	6	Avg		%RSD
1)	Oxygen/Argon	4.760						4.760	E6	0.00
2)	Carbon monoxide	2.775		1.066	0.043	0.033	0.027	0.657	E6	170.12
3)	Methane (TCD)							9.457		0.00
4)	Carbon dioxide	2.717	2.193	2.338	2.272	2.265	2.298	2.347	E2	7.99

Signal #2 Calibration Files
1 =08291715.D 2 =08291716.D 3 =08291717.D
4 =08291719.D 5 =08291720.D 6 =08291721.D

	Compound	1	2	3	4	5	6	Avg		%RSD
6)	Methane (FID)	1.253	1.160	1.005	0.927	0.848	0.848	0.945	E4	15.85
7)	Ethylene	1.677	1.605	1.900	1.749	1.597	1.579	1.684	E4	7.30
8)	Ethane	1.769	1.631	1.866	1.767	1.639	1.667	1.723	E4	5.40
9)	Propylene	2.402	2.309	2.767	2.551	2.331	2.333	2.449	E4	7.32
10)	Propane	2.906	2.737	2.817	2.639	2.410	2.420	2.655	E4	7.75
11)	Isobutylene							0.000		-1.00
12)	Isobutane							0.000		-1.00
13)	n-Butane							0.000		-1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

RS082817_CO2.M Wed Aug 30 13:24:19 2017

dit Compounds -- Compound #4 -- Carbon dioxide

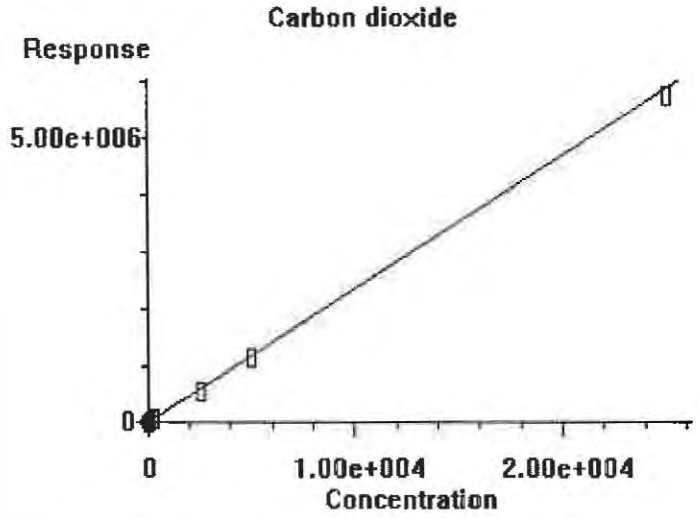
Search by: Ret Time | Name | Index — Find Compound

- Compound Database
- External Standard Compoun
  - Oxygen/Argon
  - Carbon monoxide
  - Methane (TCD)
  - Carbon dioxide
  - Signal #2
  - Methane (FID)
  - Ethylene
  - Ethane
  - Propylene
  - Propane
  - Isobutylene
  - Isobutane
  - n-Butane

Identification | Calibration | User-Defined | Advanced | Reporting

Lvl ID	Concentration	Response
1	25.000000	6793.665186
2	100.000000	21932.418000
3	250.000000	58460.642510
4	2500.000000	568043.388750
5	5000.000000	1132363.215937
6	25000.000000	5744294.891563
7	25000.000000	
8	25000.000000	
9	2000.000000	
10	30000.000000	

Lvl ID	Concentration	Response



0.000e+000	Quadratic term
2.347e+002	Linear term
0.000e+000	Constant term
7.987%	RF Rel Std Dev

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

Calibration Status Report HP5890

Method Path : I:\GC10\METHODS\
Method File : RS082817_CO2.M
Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
Last Update : Tue Aug 29 16:13:13 2017
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	1	0	0	J:\GC10\DATA\RSK_FID\2017_08\29\08291715.D
2	2	0	0	J:\GC10\DATA\RSK_FID\2017_08\29\08291716.D
3	3	3	0	J:\GC10\DATA\RSK_FID\2017_08\29\08291717.D
4	4	10	0	J:\GC10\DATA\RSK_FID\2017_08\29\08291719.D
5	5	25	0	J:\GC10\DATA\RSK_FID\2017_08\29\08291720.D
6	6	125	0	J:\GC10\DATA\RSK_FID\2017_08\29\08291721.D
7	7	5000	0	J:\GC10\DATA\RSK_FID\2017_08\24\08241708.D
8	8	25000	0	J:\GC10\DATA\RSK_FID\2017_08\24\08241709.D
9	9	2000	0	J:\GC10\DATA\RSK_FID\2017_08\24\08241710.D
10	10	30000	0	J:\GC10\DATA\RSK_FID\2017_08\24\08241711.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Aug 29 14:21 2017	Aug 29 14:20 2017	29-Aug-2017, 14:07
2	2	Aug 29 14:52 2017	Aug 29 14:51 2017	29-Aug-2017, 14:22
3	3	Aug 29 15:04 2017	Aug 29 15:04 2017	29-Aug-2017, 14:53
4	4	Aug 29 15:36 2017	Aug 29 15:36 2017	29-Aug-2017, 15:23
5	5	Aug 29 15:57 2017	Aug 29 15:57 2017	29-Aug-2017, 15:44
6	6	Aug 29 16:13 2017	Aug 29 16:13 2017	29-Aug-2017, 16:00
7	7	Aug 25 09:05 2017	Aug 24 16:00 2017	24-Aug-2017, 15:44
8	8	Aug 25 09:06 2017	Aug 24 16:13 2017	24-Aug-2017, 16:02
9	9	Aug 25 09:06 2017	Aug 24 16:31 2017	24-Aug-2017, 16:16
10	10	Aug 25 09:07 2017	Aug 24 16:42 2017	24-Aug-2017, 16:33

RS082817_CO2.M Wed Aug 30 13:24:30 2017

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291715.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:07
Operator : MC
Sample : 25ppm s32-08291701 0.25ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 14:20:06 2017
Quant Method : I:\GC10\METHODS\RS082417.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Fri Aug 25 09:19:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

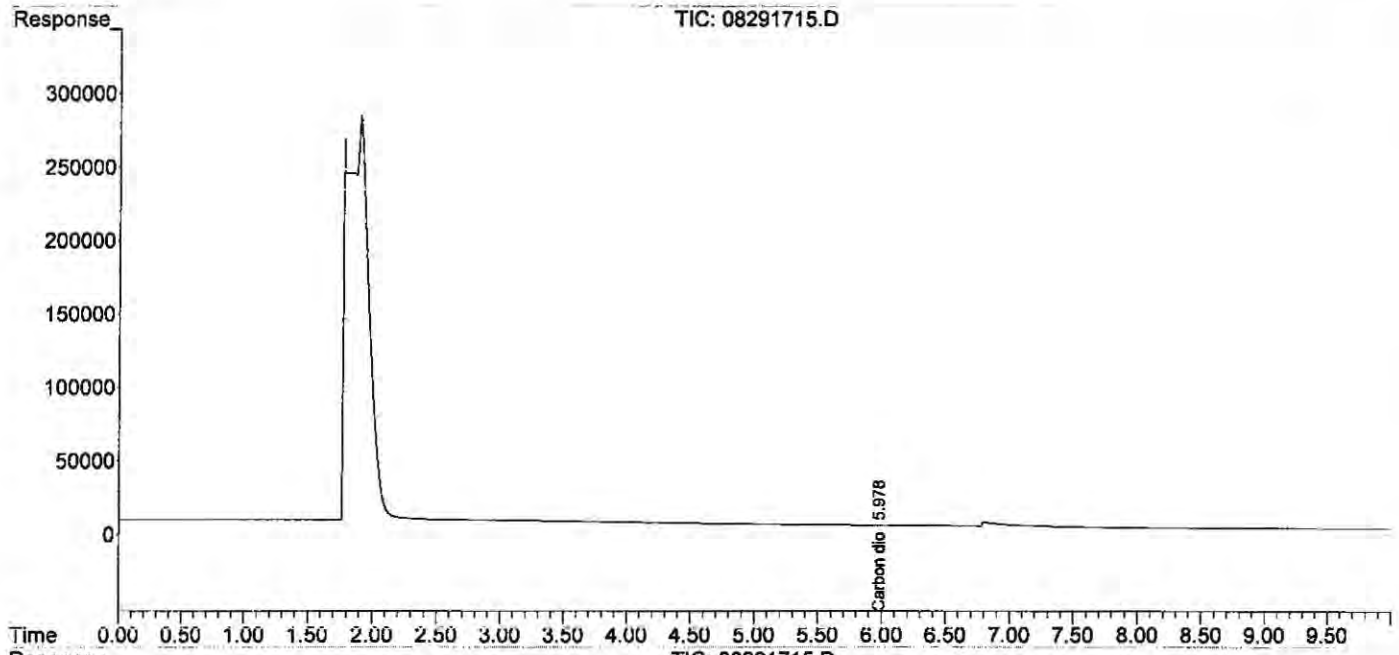
	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	d
2)	Carbon monoxide	1.776	277465	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	5.978	6794	27.870	ppm	m
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

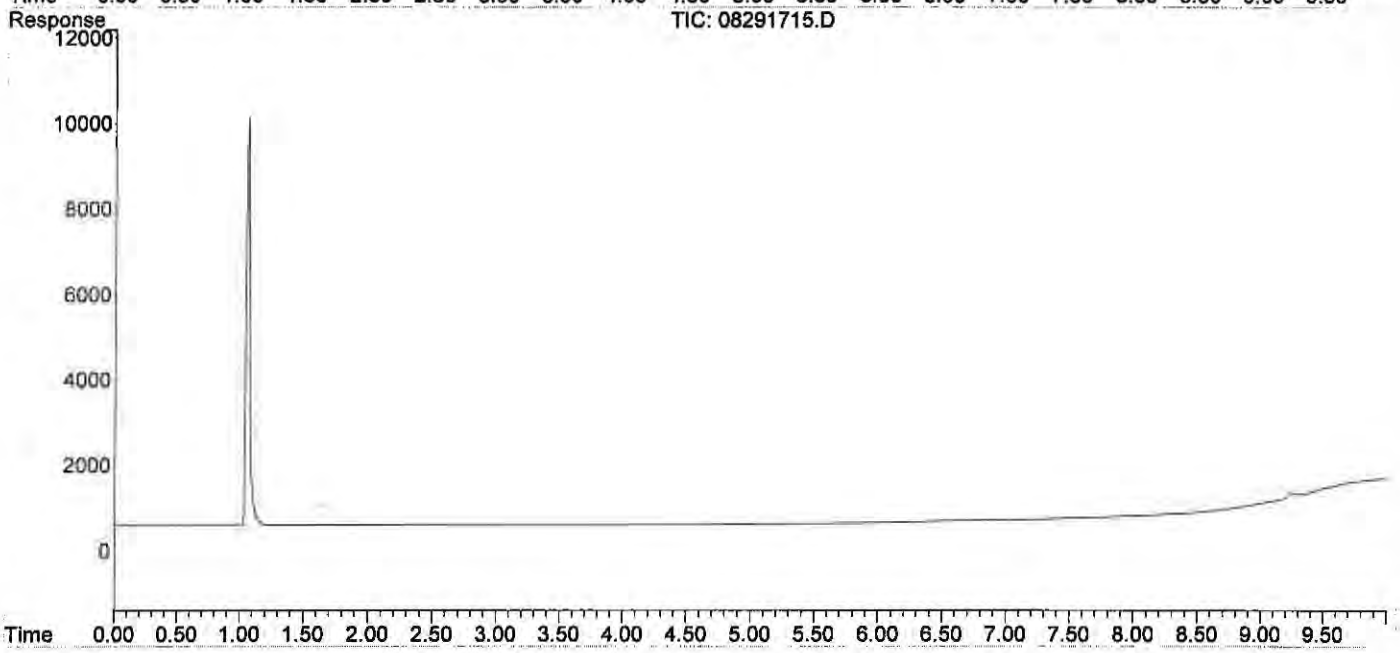
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291715.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:07
Operator : MC
Sample : 25ppm s32-08291701 0.25ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 14:20:06 2017
Quant Method : I:\GC10\METHODS\RS082417.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Fri Aug 25 09:19:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



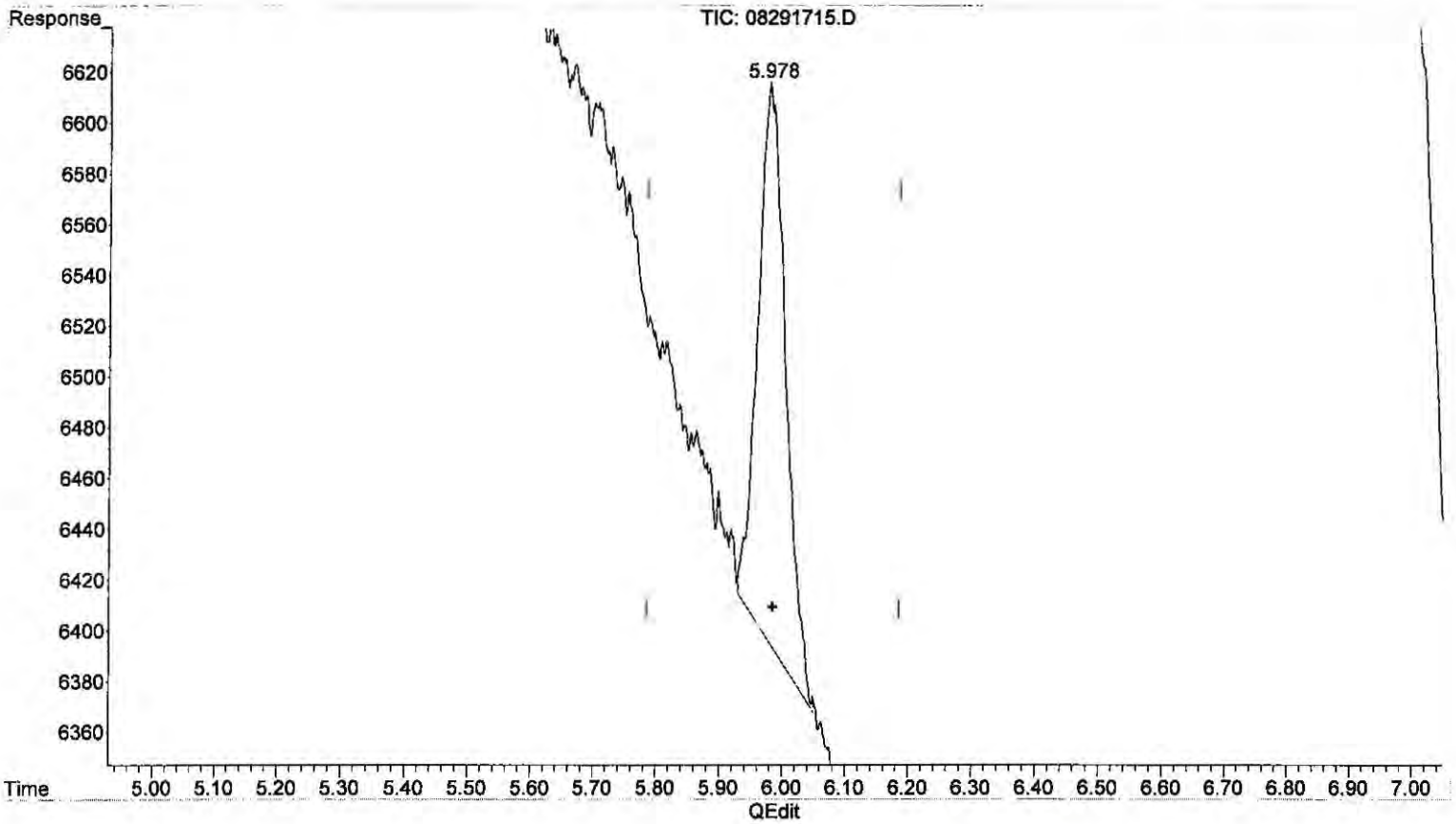


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291715.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:07
Operator : MC
Sample : 25ppm s32-08291701 0.25ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 14:20:06 2017
Quant Method : I:\GC10\METHODS\RS082417.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Fri Aug 25 09:19:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(4) Carbon dioxide

5.978min 27.870 ppm m

response 6794

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291716.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:22
Operator : MC
Sample : 100ppm s32-08291702 0.2ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 14:51:38 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 14:21:08 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

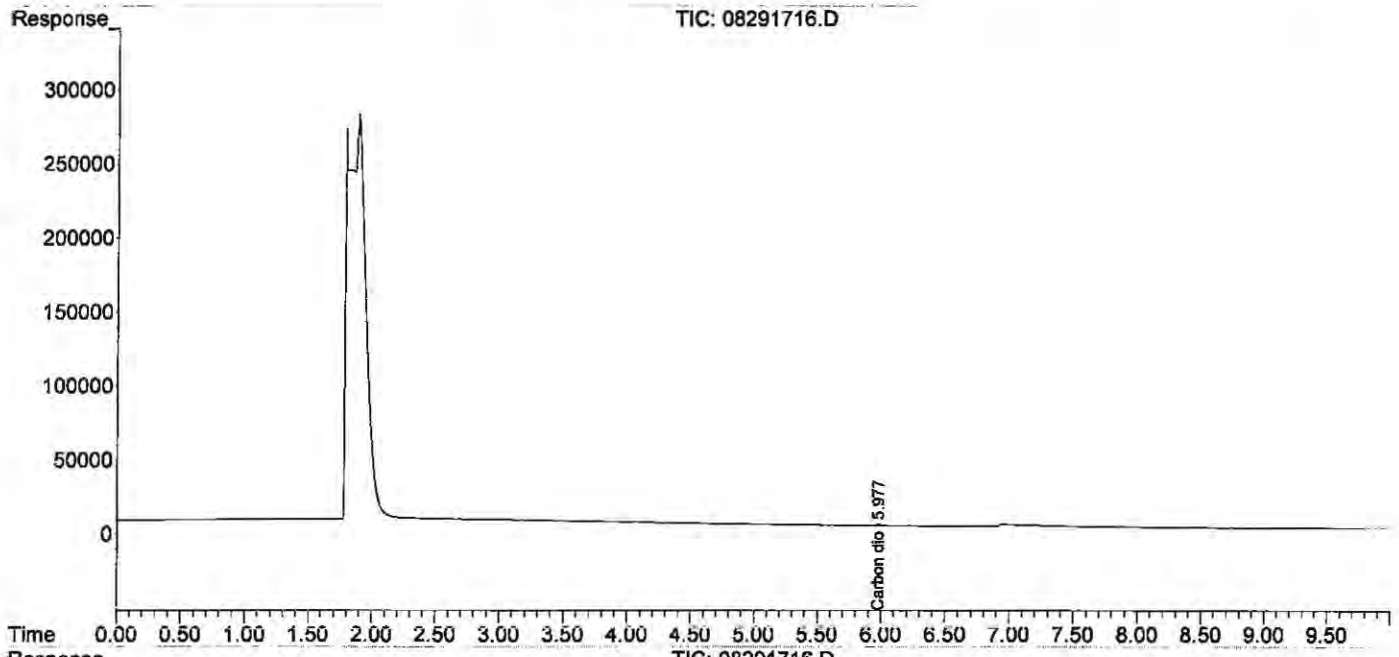
	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.790	-598962	N.D.	ppm	
2)	Carbon monoxide	0.000	0	N.D.	ppm	d
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	5.978	21932	87.858	ppm	
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

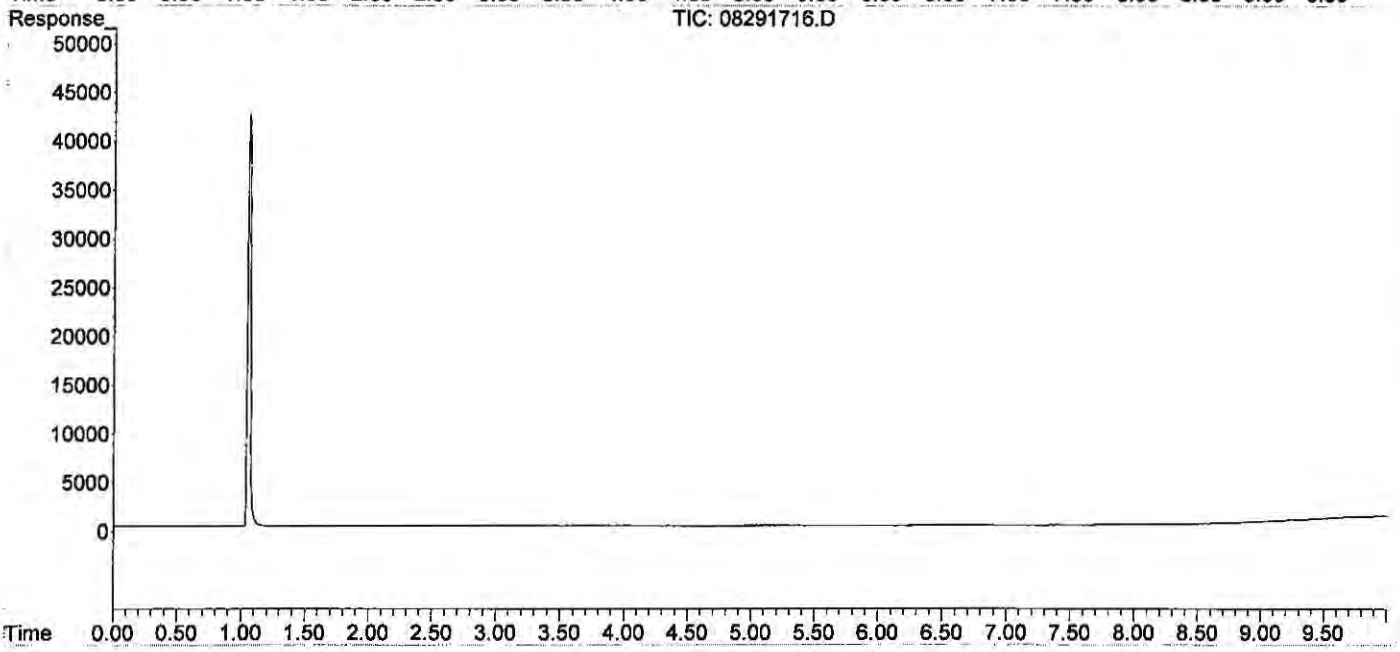
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291716.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:22
Operator : MC
Sample : 100ppm s32-08291702 0.2ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 14:51:38 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 14:21:08 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291717.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:53
Operator : MC
Sample : 250ppm s32-08291702 0.5ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:03:42 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 14:52:06 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

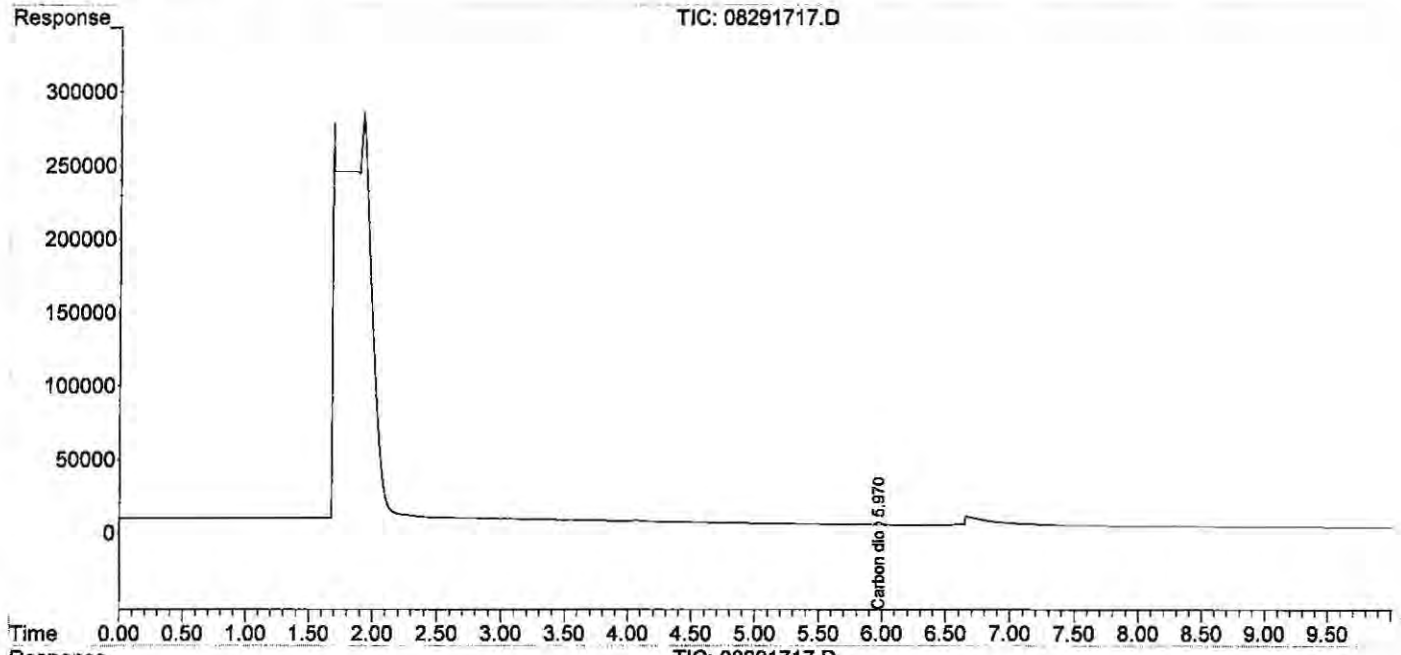
	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.920f	-30716454	N.D.	ppm	
2)	Carbon monoxide	0.000	0	N.D.	ppm	d
3)	Methane (TCD)	0.000	0	N.D.	ppm	d
4)	Carbon dioxide	5.970	58461	240.204	ppm	m
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

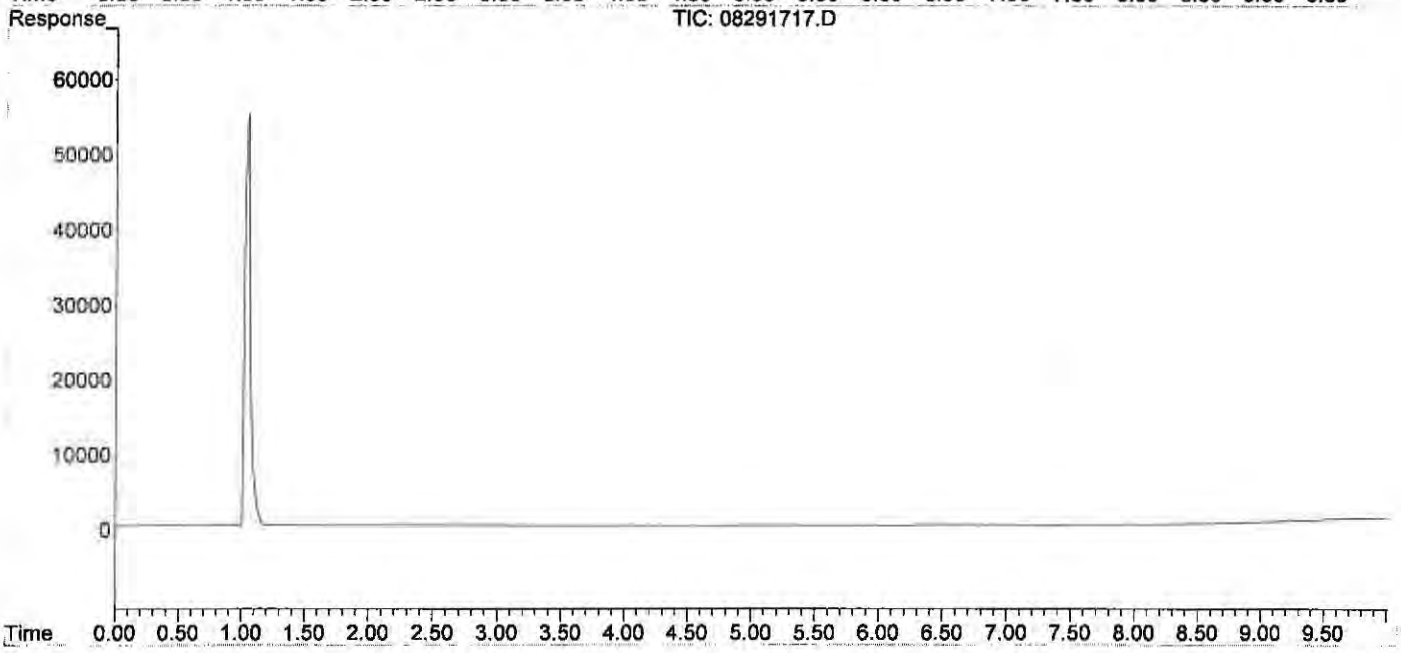
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291717.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:53
Operator : MC
Sample : 250ppm s32-08291702 0.5ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:03:42 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 14:52:06 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



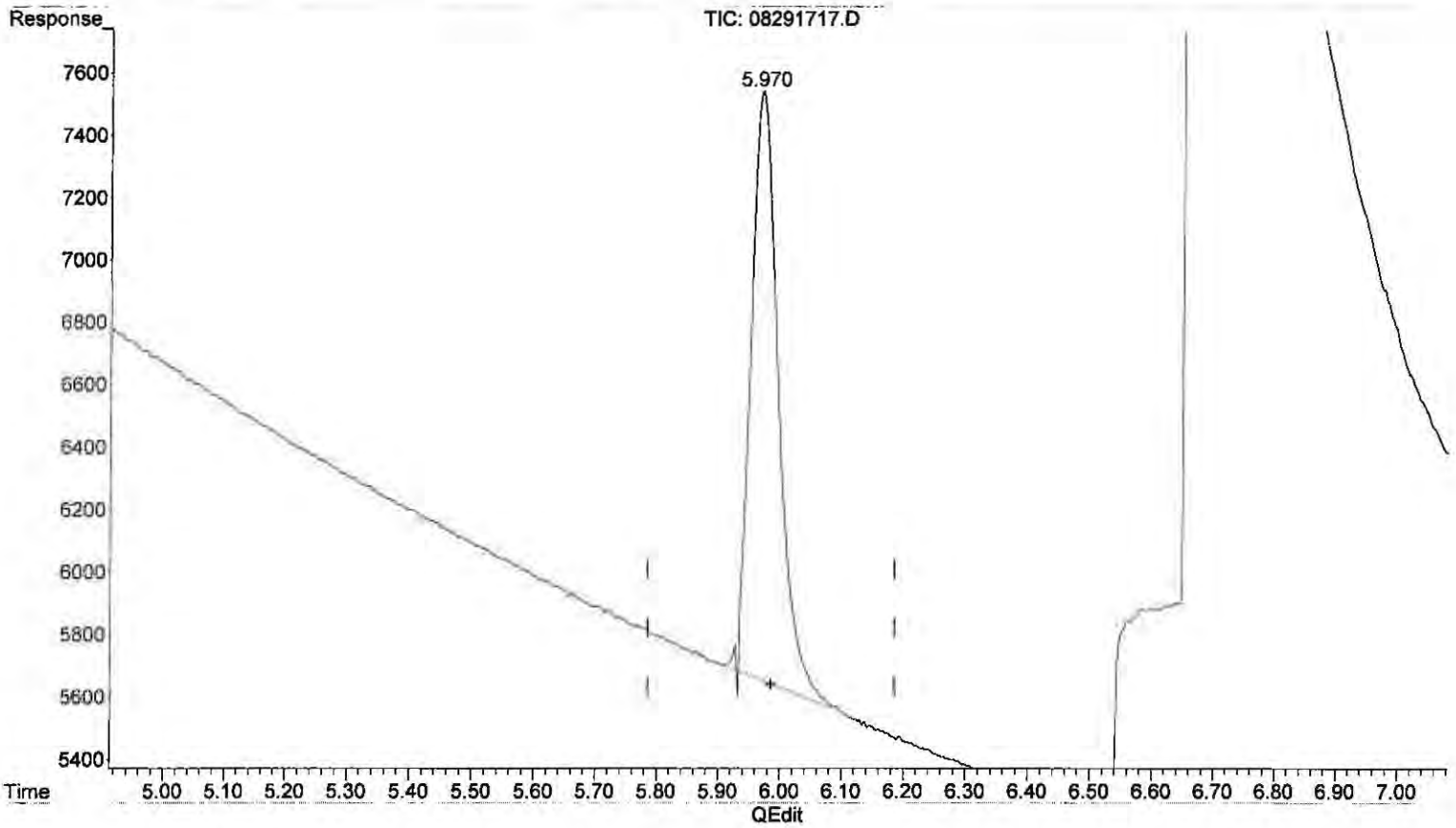


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291717.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 14:53
Operator : MC
Sample : 250ppm s32-08291702 0.5ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:03:42 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 14:52:06 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



(4) Carbon dioxide
5.970min 240.204 ppm m
response 58461

(+) = Expected Retention Time
RS082817_CO2.M Wed Aug 30 13:19:20 2017

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291719.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 15:23
Operator : MC
Sample : 2500ppm s32-08231701 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:35:50 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 15:04:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

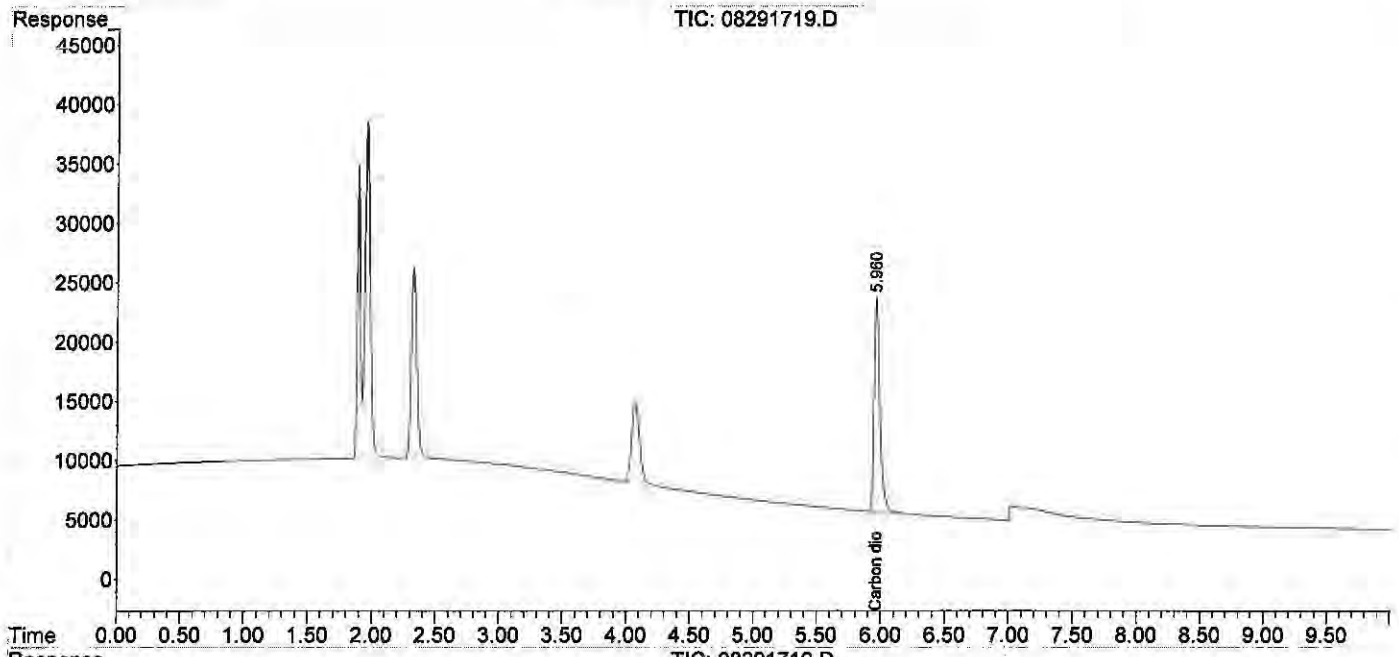
	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	d
2)	Carbon monoxide	1.891	425113	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	d
4)	Carbon dioxide	5.962	568043	2369.673	ppm	
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

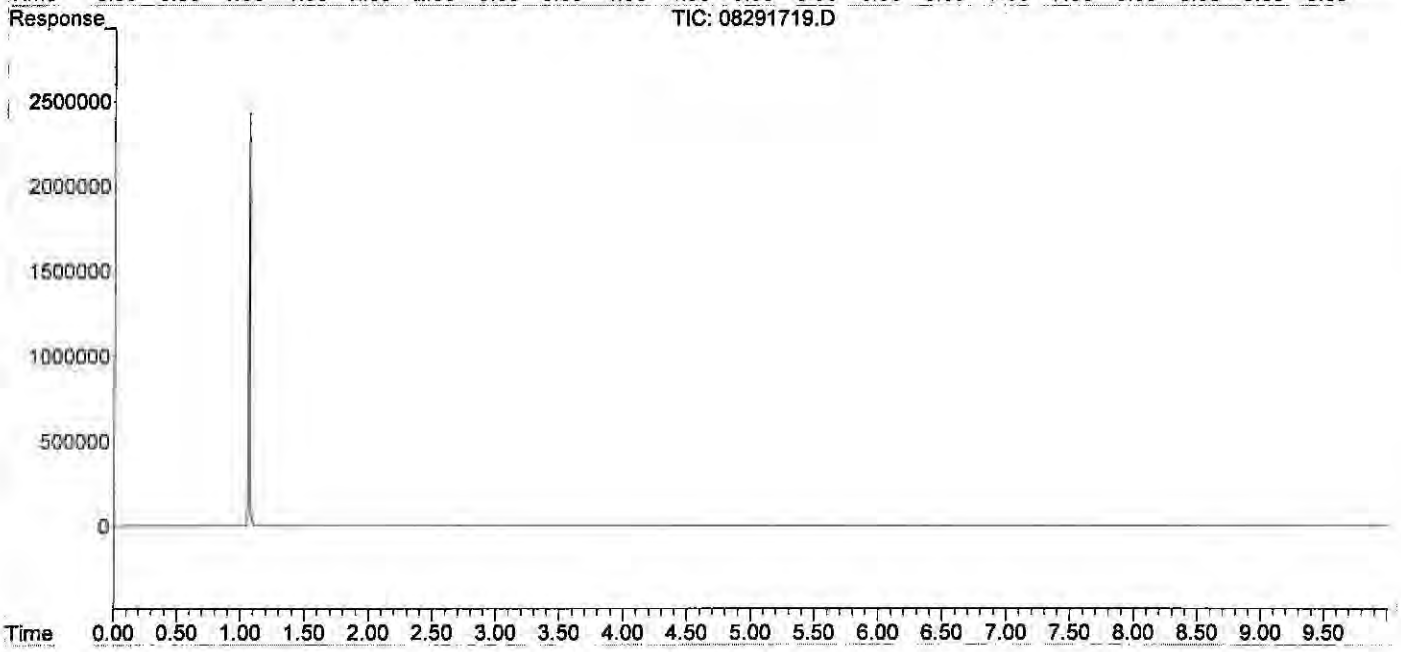
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291719.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 15:23
Operator : MC
Sample : 2500ppm s32-08231701 50ul
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:35:50 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 15:04:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291720.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 15:44
Operator : MC
Sample : 5000ppm s32-08231701 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:57:17 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 15:36:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	d
2)	Carbon monoxide	1.880	819221	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	d
4)	Carbon dioxide	5.948	1132363	4753.126	ppm	
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

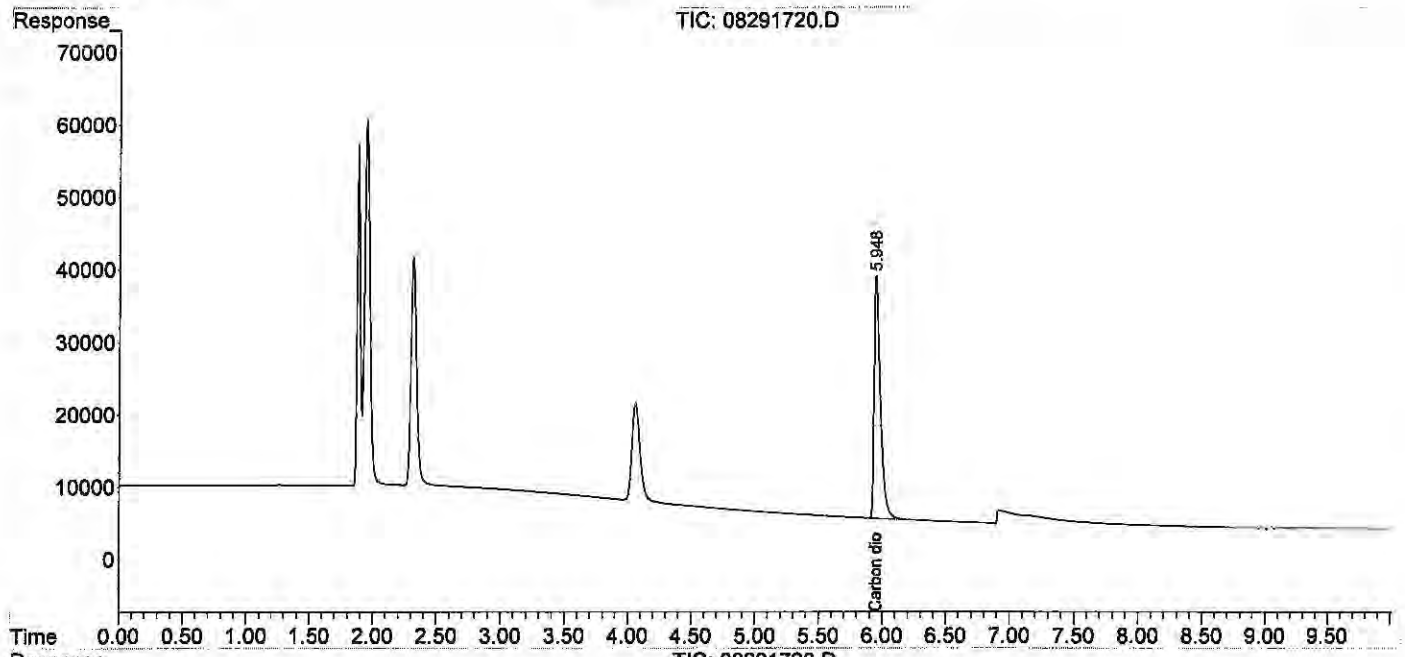
(f)=RT Delta > 1/2 Window (m)=manual int.

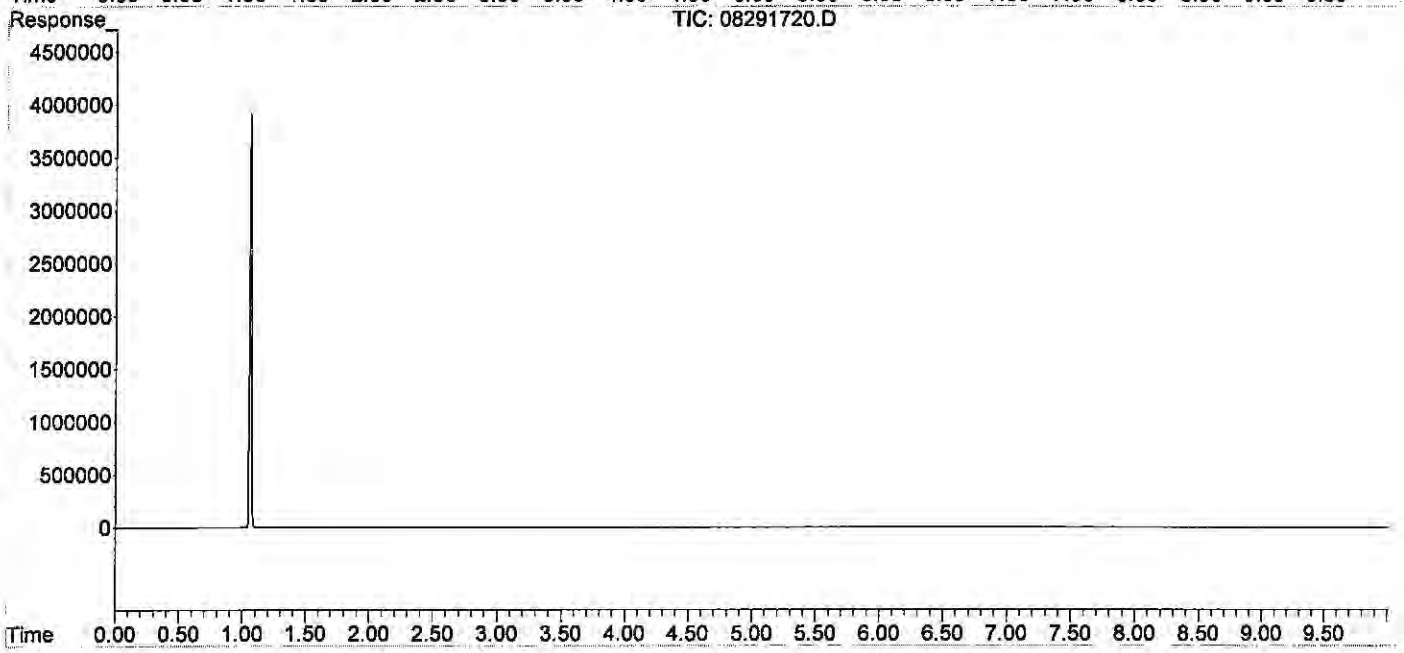
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291720.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 15:44
Operator : MC
Sample : 5000ppm s32-08231701 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 15:57:17 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 15:36:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291721.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 16:00
Operator : MC
Sample : 25000ppm s32-08231701 0.5ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 16:12:53 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 15:57:37 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	d
2)	Carbon monoxide	1.827	3325463	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	d
4)	Carbon dioxide	5.879f	5744295	24443.288	ppm	
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

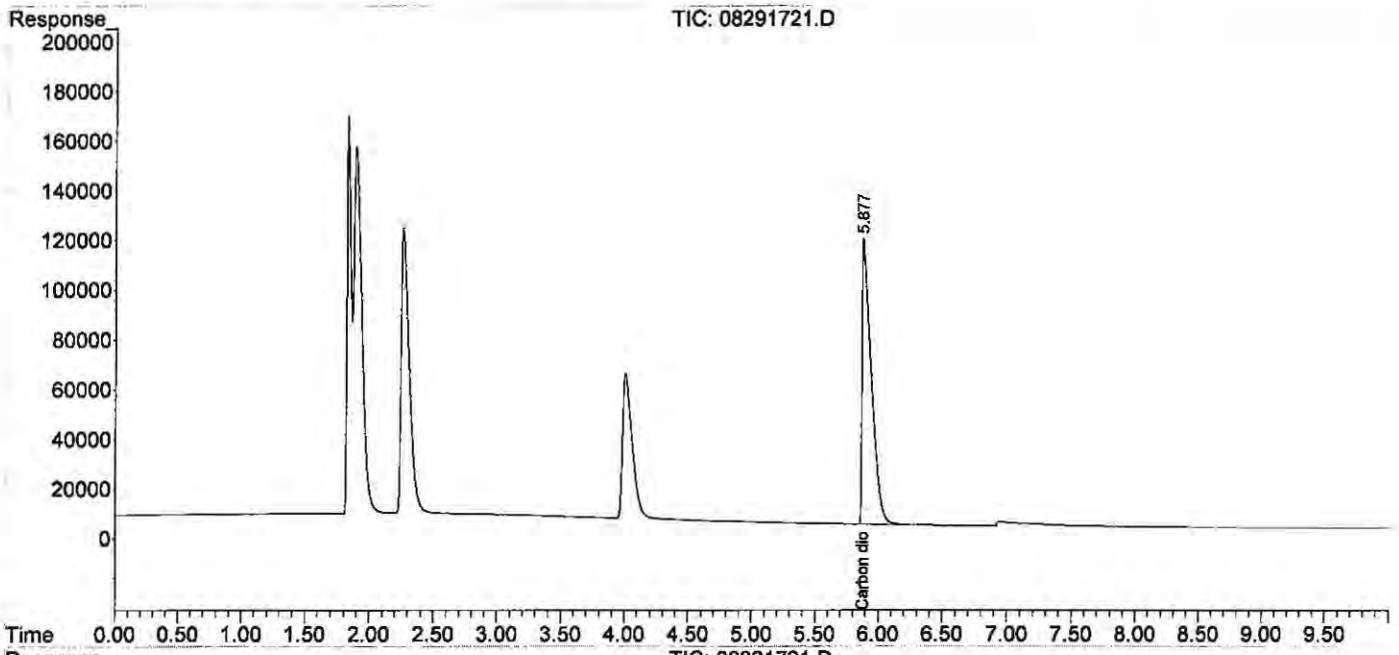
(f)=RT Delta > 1/2 Window (m)=manual int.

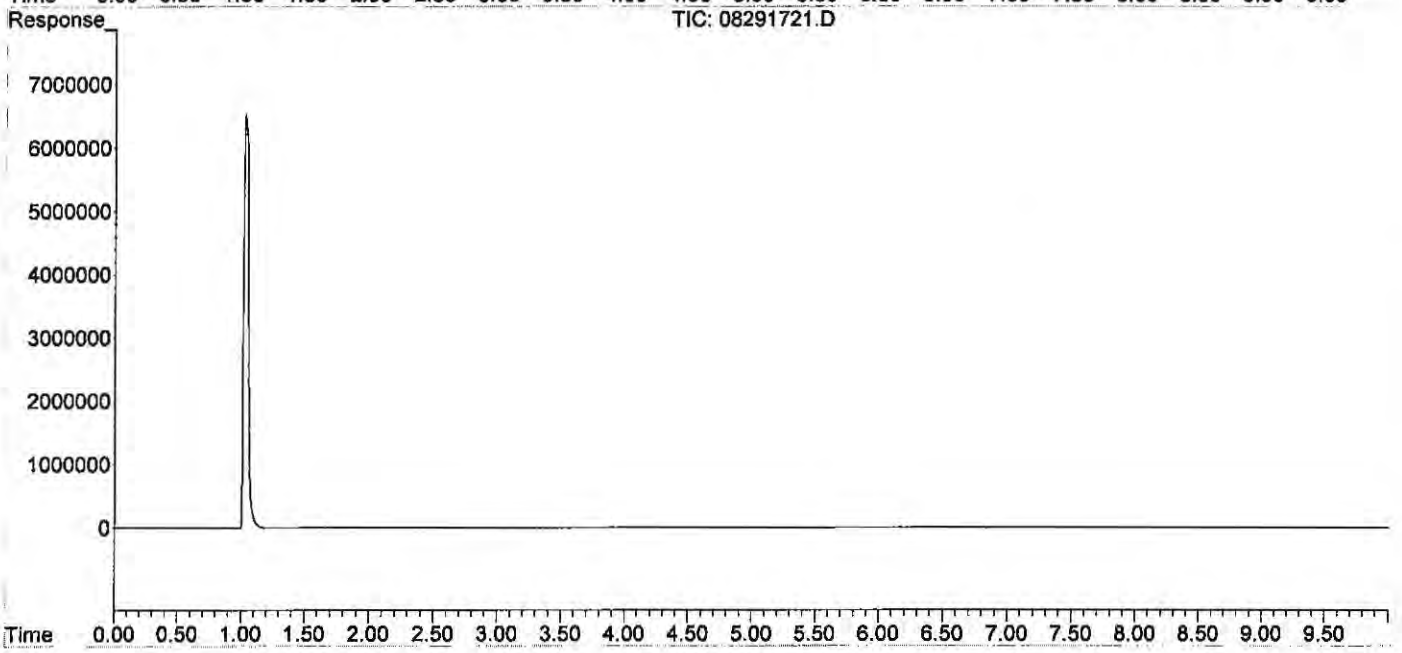
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291721.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 16:00
Operator : MC
Sample : 25000ppm s32-08231701 0.5ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 16:12:53 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 15:57:37 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291723.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 16:35
Operator : MC
Sample : icv s30-07071701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 16:54:07 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.886	536422	0.113	ppm	Actual %D
2)	Carbon monoxide	1.886	536422	N.D.	ppm	
3)	Methane (TCD)	4.059f	626500	66244.710	ppm	
4)	Carbon dioxide	5.947	1163775	4957.948	ppm	5000 99.16
6)	Methane (FID)	1.062	37290742	3947.023	ppm	
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

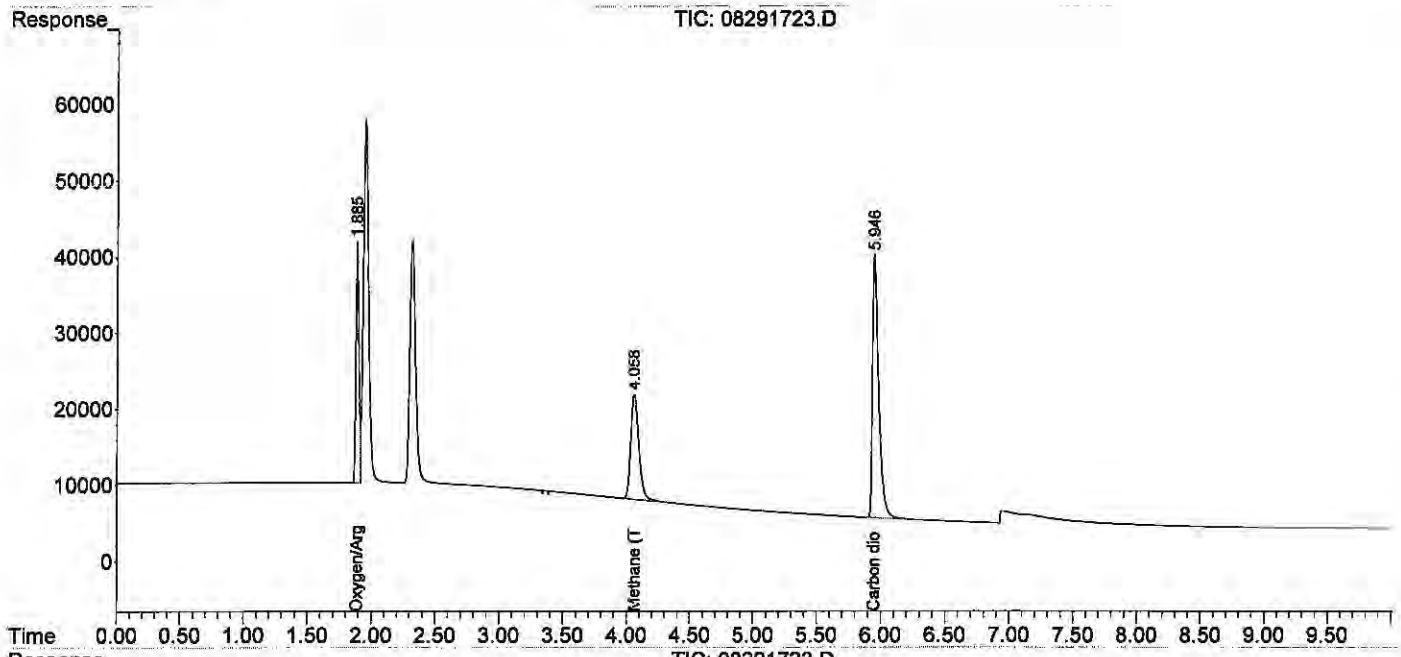
(f)=RT Delta > 1/2 Window (m)=manual int.

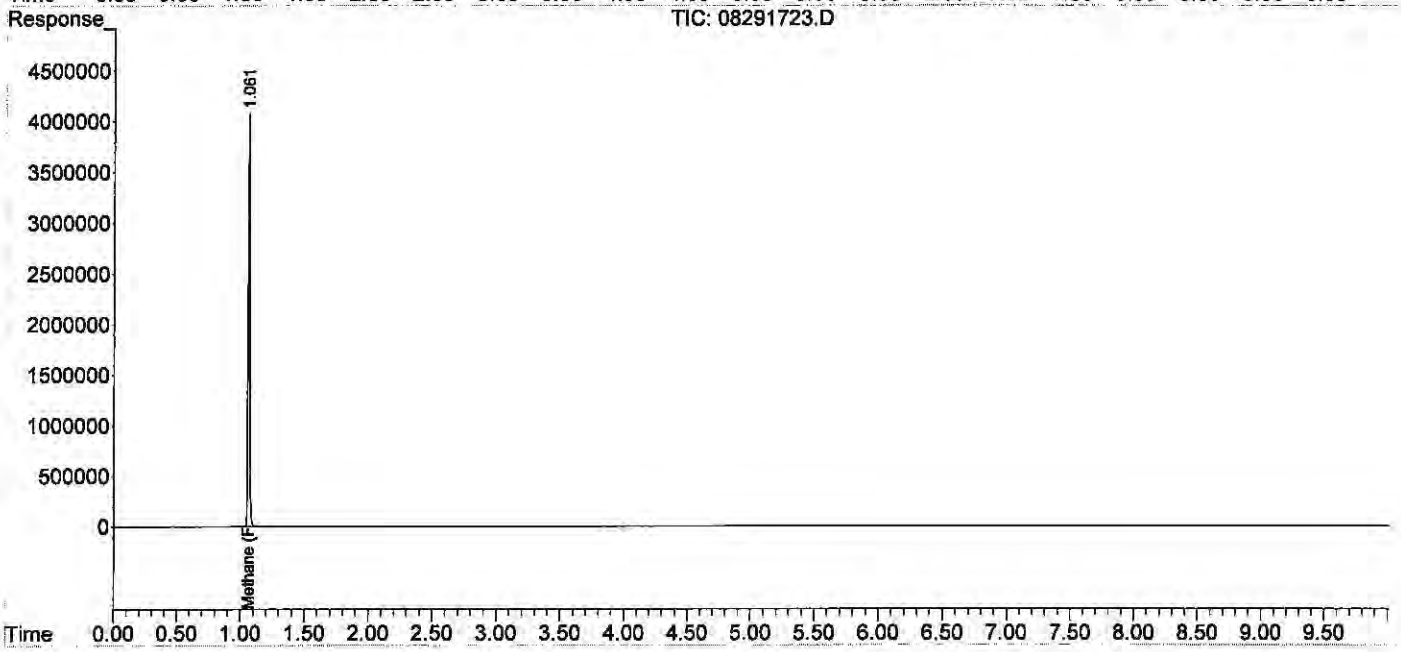
W 9/4/17

Data Path : J:\GC10\DATA\RSK_FID\2017_08\29\
Data File : 08291723.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 29-Aug-2017, 16:35
Operator : MC
Sample : icv s30-07071701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Aug 29 16:54:07 2017
Quant Method : I:\GC10\METHODS\RS082817_CO2.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Tue Aug 29 16:13:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Injection Log

Directory: I:\GC10\DATA\RSK_FID\2017_08\29\

	Date/Time	File Name	Sample ID	Misc Info	Operator	Acquisition Method	Comments
1	29-Aug-17, 07:58:00	08291701.D	std s30-06161601		MC	RSKBOTH.M	Pass
2	29-Aug-17, 08:11:02	08291702.D	mb 0.5ml		MC	RSKBOTH.M	Pass
3	29-Aug-17, 08:24:13	08291703.D	4089-001 0.5ml		MC	RSKBOTH.M	
4	29-Aug-17, 08:39:29	08291704.D	4089-002 0.5ml		MC	RSKBOTH.M	
5	29-Aug-17, 08:53:38	08291705.D	4089-003 0.5ml		MC	RSKBOTH.M	
6	29-Aug-17, 09:33:52	08291706.D	4089-004 0.5ml		MC	RSKBOTH.M	
7	29-Aug-17, 09:50:51	08291707.D	4089-005 0.5ml		MC	RSKBOTH.M	
8	29-Aug-17, 10:07:54	08291708.D	4089-006 0.5ml		MC	RSKBOTH.M	
9	29-Aug-17, 10:42:34	08291709.D	4089-007 0.5ml		MC	RSKBOTH.M	
10	29-Aug-17, 11:06:01	08291710.D	4089-008 0.5ml		MC	RSKBOTH.M	
11	29-Aug-17, 11:23:53	08291711.D	4089-009 0.5ml		MC	RSKBOTH.M	
12	29-Aug-17, 11:37:17	08291712.D	lcs s30-05241604		MC	RSKBOTH.M	Pass
13	29-Aug-17, 11:50:31	08291713.D	lcs s30-05241604		MC	RSKBOTH.M	Pass
14	29-Aug-17, 12:29:45	08291714.D	std s30-06161601		MC	RSKBOTH.M	Pass
15	29-Aug-17, 14:07:01	08291715.D	25ppm s32-08291701 0.25ml		MC	RSKBOTH.M	Curve
16	29-Aug-17, 14:22:12	08291716.D	100ppm s32-08291702 0.2ml		MC	RSKBOTH.M	Curve
17	29-Aug-17, 14:53:00	08291717.D	250ppm s32-08291702 0.5ml		MC	RSKBOTH.M	Curve
18	29-Aug-17, 15:07:43	08291718.D	mls inject		MC	RSKBOTH.M	
19	29-Aug-17, 15:23:21	08291719.D	2500ppm s32-08231701 50ul		MC	RSKBOTH.M	Curve
20	29-Aug-17, 15:44:54	08291720.D	5000ppm s32-08231701 0.1ml		MC	RSKBOTH.M	Curve
21	29-Aug-17, 16:00:09	08291721.D	25000ppm s32-08231701 0.5ml		MC	RSKBOTH.M	Curve
22	29-Aug-17, 16:15:43	08291722.D	mb 0.1ml		MC	RSKBOTH.M	Pass
23	29-Aug-17, 16:35:37	08291723.D	lcv s30-07071701		MC	RSKBOTH.M	Pass

Injection Log

Directory: I:\GC10\DATA\RSK_TCD\2018_09\05\

	Date/Time	File Name	Sample ID	Misc Info	Operator	Acquisition Method	Comments
1	05-Sep-18, 10:40:10	09051801.D	std s32-08311801		WH	RSKBOTH.M	pass
2	05-Sep-18, 10:55:05	09051802.D	rb 0.1ml		WH	RSKBOTH.M	pass
3	05-Sep-18, 11:08:16	09051803.D	mcs 0.1ml		WH	RSKBOTH.M	pass
4	05-Sep-18, 11:23:13	09051804.D	XXtcd lcs		WH	RSKBOTH.M	
5	05-Sep-18, 11:46:17	09051805.D	XXtcd lcsd		WH	RSKBOTH.M	
6	05-Sep-18, 12:01:08	09051806.D	P1804546-001 0.1		WH	RSKBOTH.M	
7	05-Sep-18, 12:18:47	09051807.D	P1804546-001 ms		WH	RSKBOTH.M	
8	05-Sep-18, 12:59:08	09051808.D	P1804546-001 msd		WH	RSKBOTH.M	
9	05-Sep-18, 13:13:10	09051809.D	P1804546-002 0.1		WH	RSKBOTH.M	
10	05-Sep-18, 13:26:28	09051810.D	P1804546-003 0.1		WH	RSKBOTH.M	
11	05-Sep-18, 13:42:22	09051811.D	P1804546-001 50ul		WH	RSKBOTH.M	
12	05-Sep-18, 13:55:34	09051812.D	P1804546-001 ms 50ul		WH	RSKBOTH.M	
13	05-Sep-18, 14:09:21	09051813.D	P1804546-001 msd 50ul		WH	RSKBOTH.M	
14	05-Sep-18, 14:25:01	09051814.D	P1804546-002 50ul		WH	RSKBOTH.M	
15	05-Sep-18, 14:42:45	09051815.D	P1804546-003 50ul		WH	RSKBOTH.M	
16	05-Sep-18, 14:58:31	09051816.D	std s32-08311801		WH	RSKBOTH.M	pass
17	05-Sep-18, 15:12:40	09051817.D	P1804458-001 0.1ml		WH	RSKBOTH.M	
18	05-Sep-18, 15:27:28	09051818.D	P1804458-002 0.1ml		WH	RSKBOTH.M	
19	05-Sep-18, 15:49:26	09051819.D	XXtcd lcs		WH	RSKBOTH.M	
20	05-Sep-18, 16:02:50	09051820.D	XXtcd lcsd		WH	RSKBOTH.M	
21	05-Sep-18, 16:19:24	09051821.D	tcd lcs s32-07241801		WH	RSKBOTH.M	pass
22	05-Sep-18, 16:37:36	09051822.D	tcd lcsd s32-07241801		WH	RSKBOTH.M	pass
23	05-Sep-18, 16:52:15	09051823.D	P1804458-003 0.1ml		WH	RSKBOTH.M	
24	05-Sep-18, 17:03:01	09051824.D	P1804458-004 0.1ml		WH	RSKBOTH.M	
25	05-Sep-18, 17:13:51	09051825.D	P1804458-005 0.1ml		WH	RSKBOTH.M	
26	05-Sep-18, 17:25:44	09051826.D	P1804458-006 0.1ml		WH	RSKBOTH.M	
27	05-Sep-18, 17:36:27	09051827.D	P1804458-007 0.1ml		WH	RSKBOTH.M	
28	05-Sep-18, 17:50:09	09051828.D	P1804458-008 0.1ml		WH	RSKBOTH.M	
29	05-Sep-18, 18:01:14	09051829.D	P1804458-009 0.1ml		WH	RSKBOTH.M	
30	05-Sep-18, 18:14:07	09051830.D	std s32-08311801		WH	RSKBOTH.M	pass
31	05-Sep-18, 20:33:44	09051831.D	P1804458-010 0.1ml		WH	RSKBOTH.M	
32	05-Sep-18, 20:44:59	09051832.D	P1804458-011 0.1ml		WH	RSKBOTH.M	
33	05-Sep-18, 20:57:54	09051833.D	P1804458-012 0.1ml		WH	RSKBOTH.M	
34	05-Sep-18, 21:12:17	09051834.D	P1804458-013 0.1ml		WH	RSKBOTH.M	
35	05-Sep-18, 21:24:47	09051835.D	std s32-08311801		WH	RSKBOTH.M	pass

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011806.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:33:06
Operator : WH
Sample : P1804546-001 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 08:49:51 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	
2)	Carbon monoxide	0.000	0	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	0.000	0	N.D.	ppm	
6)	Methane (FID)	1.108	889	0.098	ppm	m
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

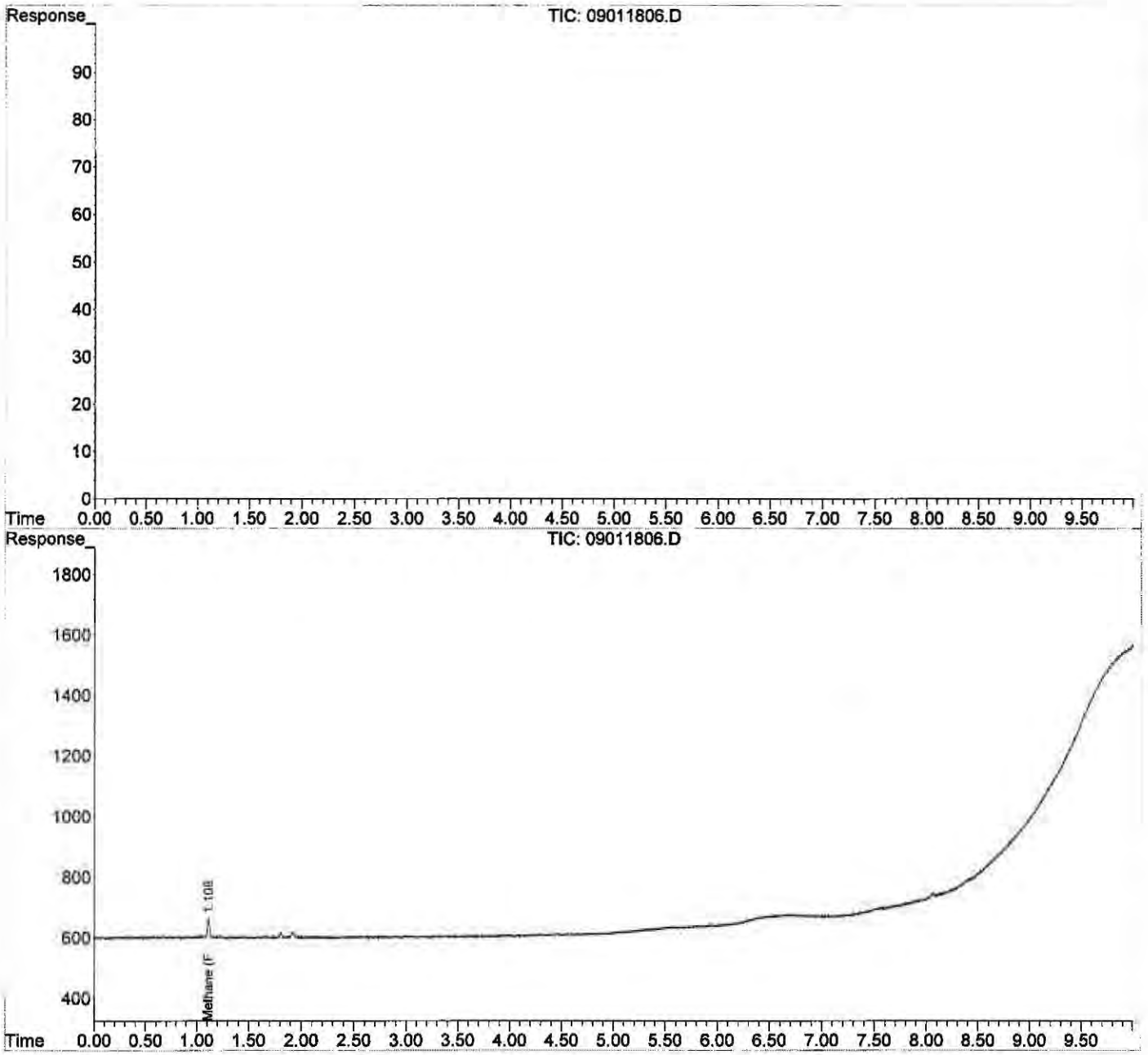
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011806.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:33:06
Operator : WH
Sample : P1804546-001 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 08:49:51 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

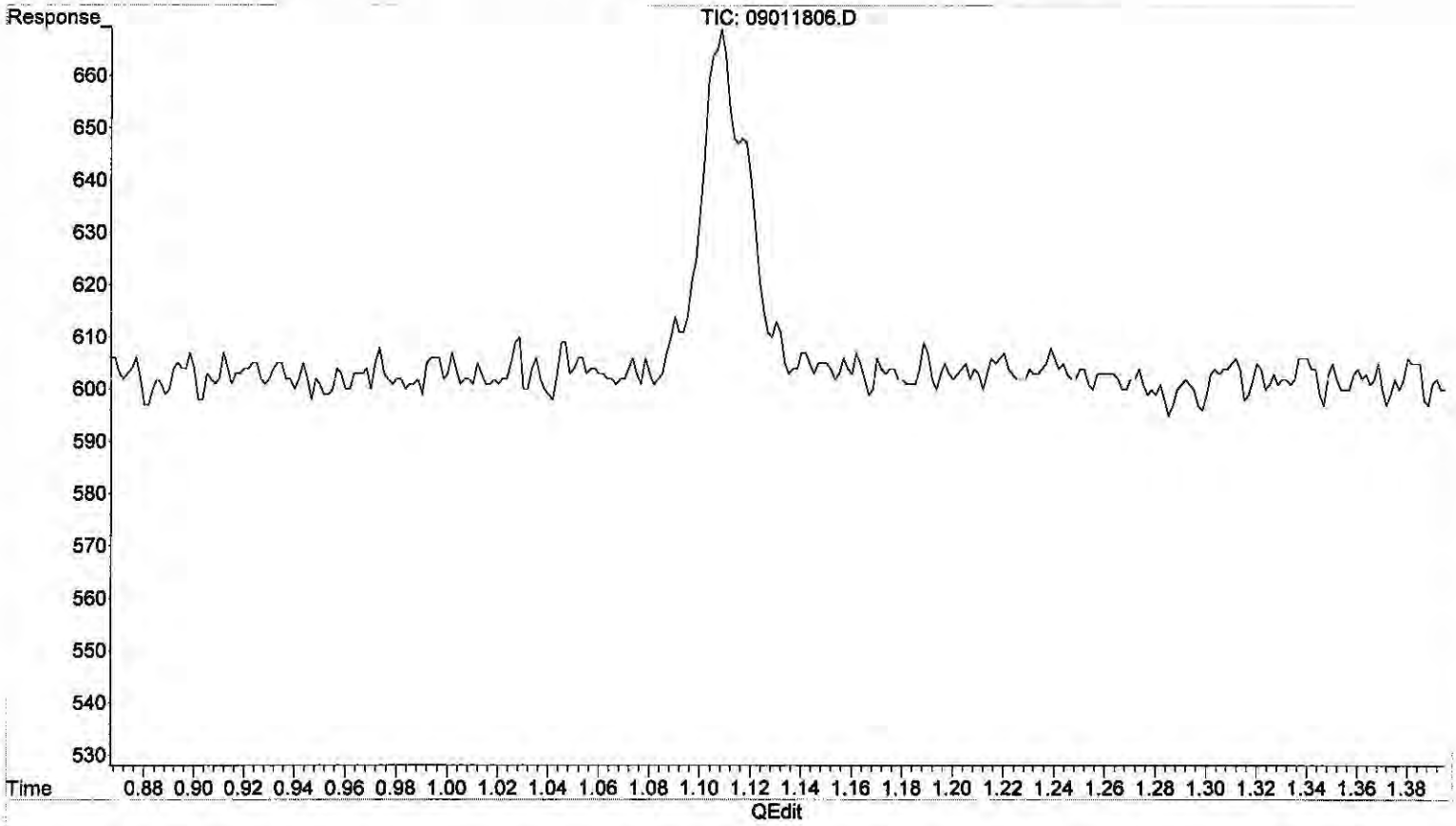


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011806.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:33:06
Operator : WH
Sample : P1804546-001 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 08:49:51 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(6) Methane (FID)

1.115min 0.000 ppm

response 0

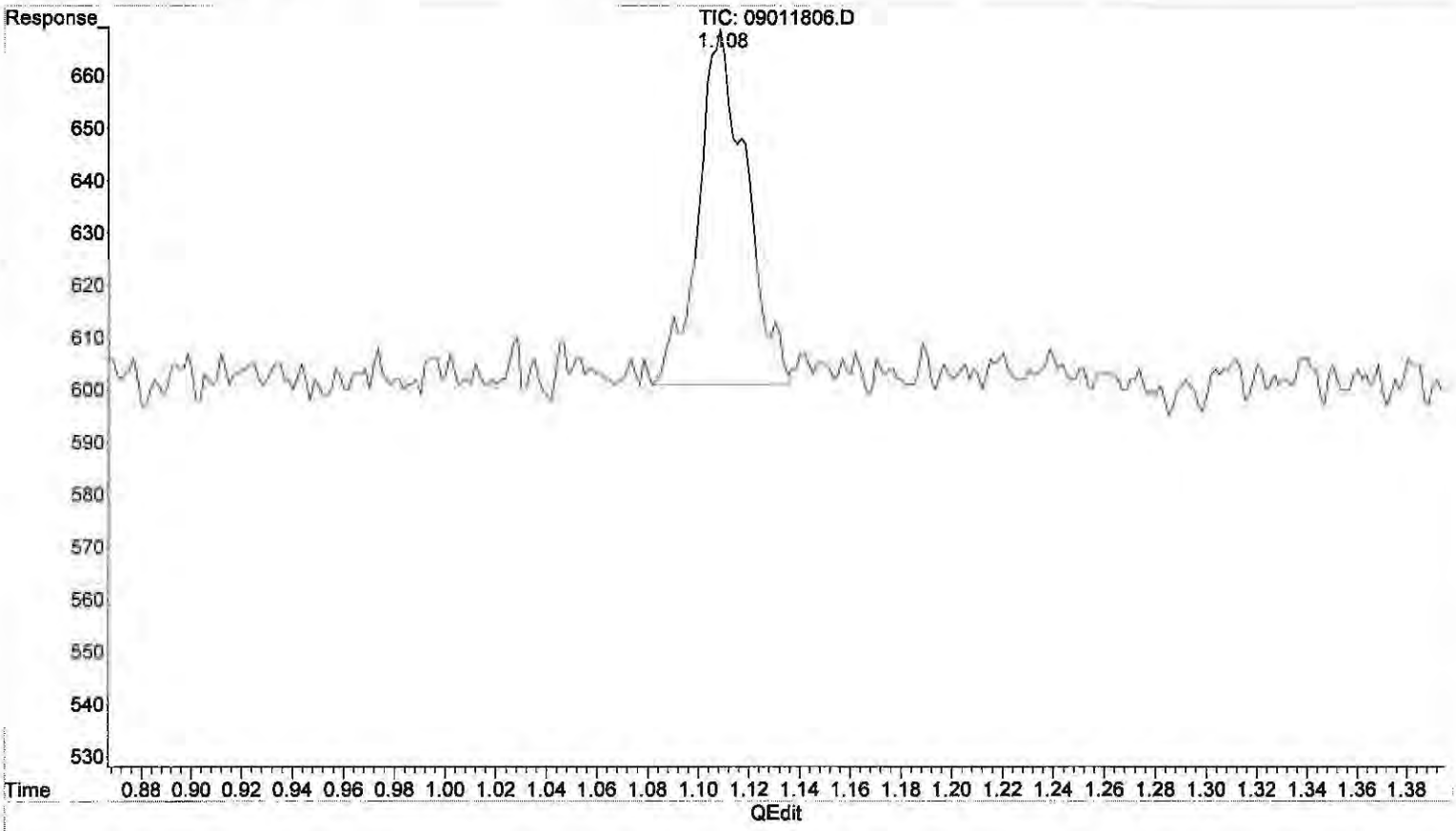
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011806.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:33:06
Operator : WH
Sample : P1804546-001 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 08:49:51 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :



(6) Methane (FID)

1.108min 0.098 ppm m

response 889

MR 9/6/18
MP

9/6/18

(+) = Expected Retention Time

)91217_R.M Thu Sep 06 08:50:18 2018

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011809.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 12:13:48
Operator : WH
Sample : P1804546-002 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 08:51:04 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.105	187011	20.617	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

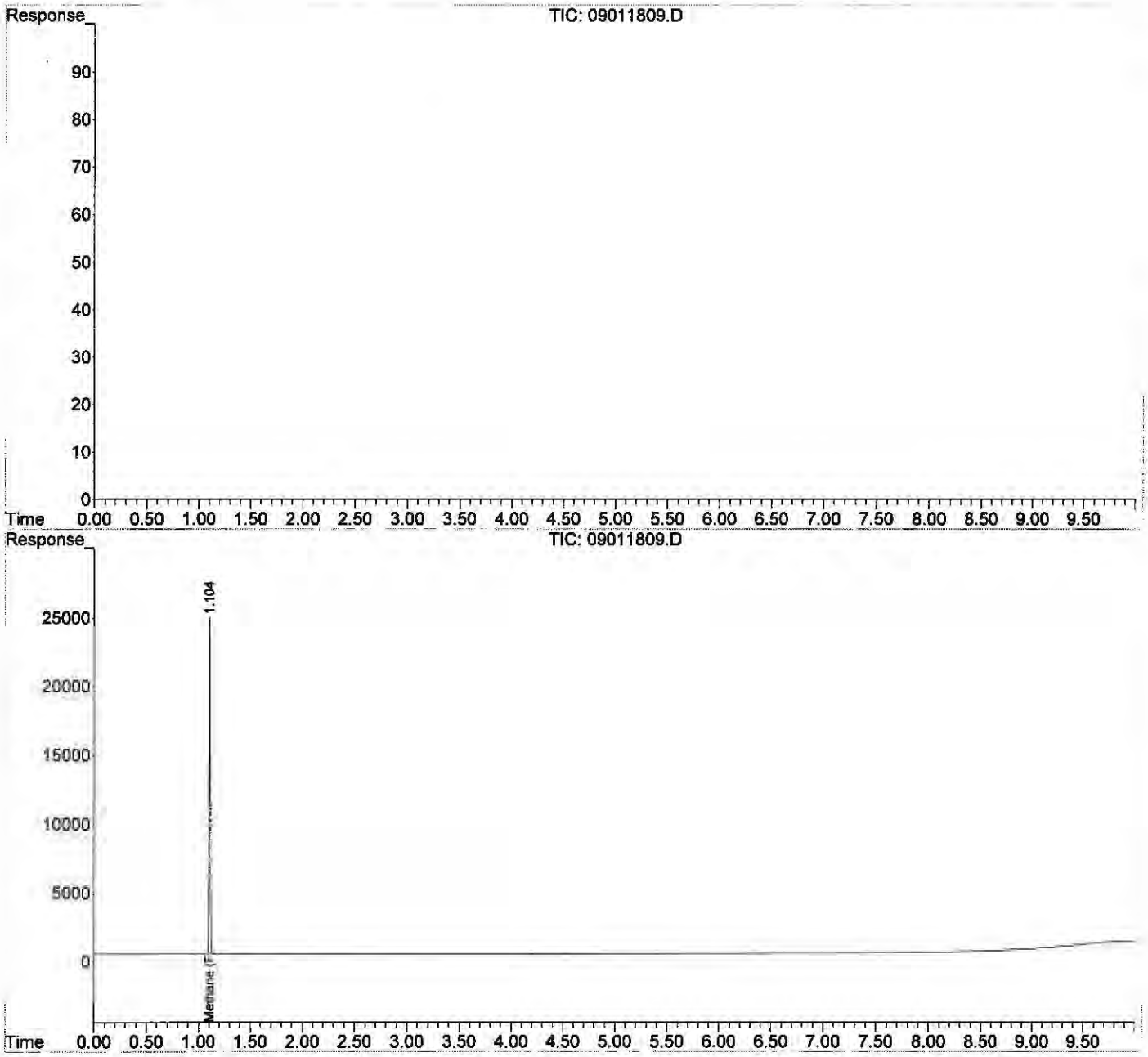
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011809.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 12:13:48
Operator : WH
Sample : P1804546-002 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 08:51:04 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011810.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 12:27:14
Operator : WH
Sample : P1804546-003 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 13:24:04 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.100	170352	18.781	ppm
7)	Ethylene	0.000	0	N.D.	ppm
8)	Ethane	0.000	0	N.D.	ppm
9)	Propylene	0.000	0	N.D.	ppm
10)	Propane	0.000	0	N.D.	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

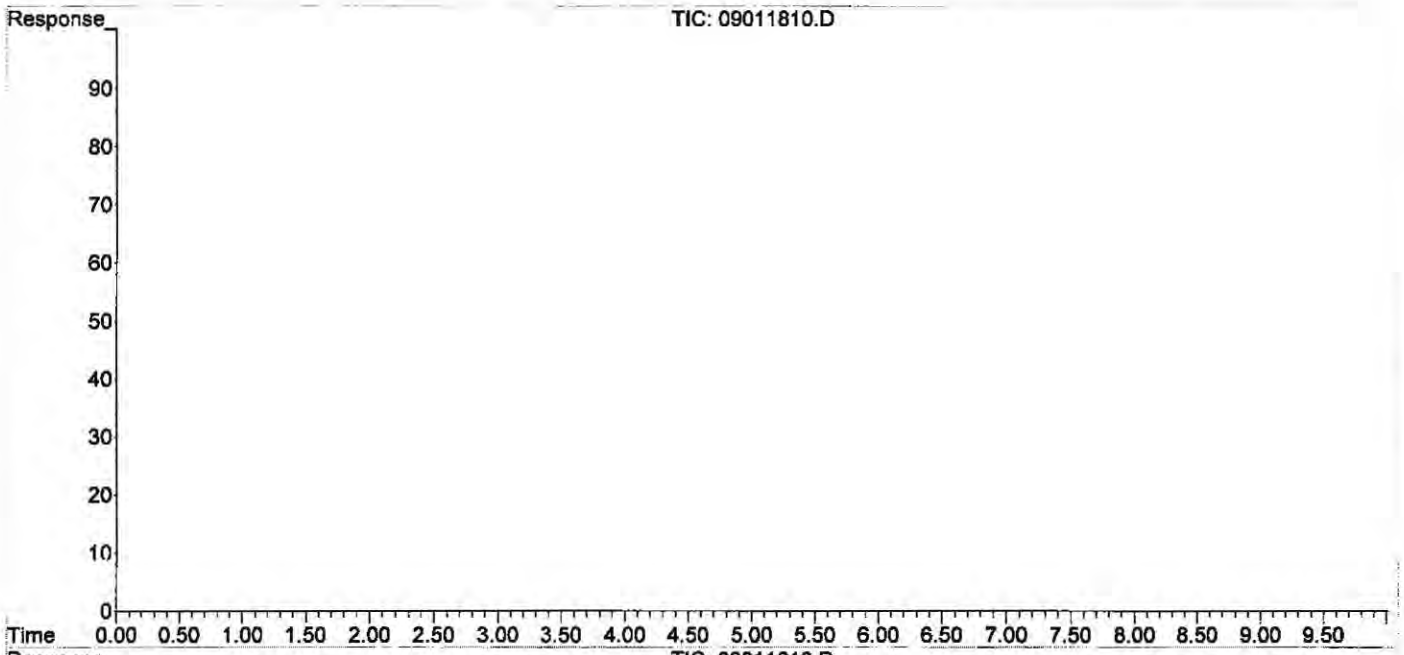
(f)=RT Delta > 1/2 Window (m)=manual int.

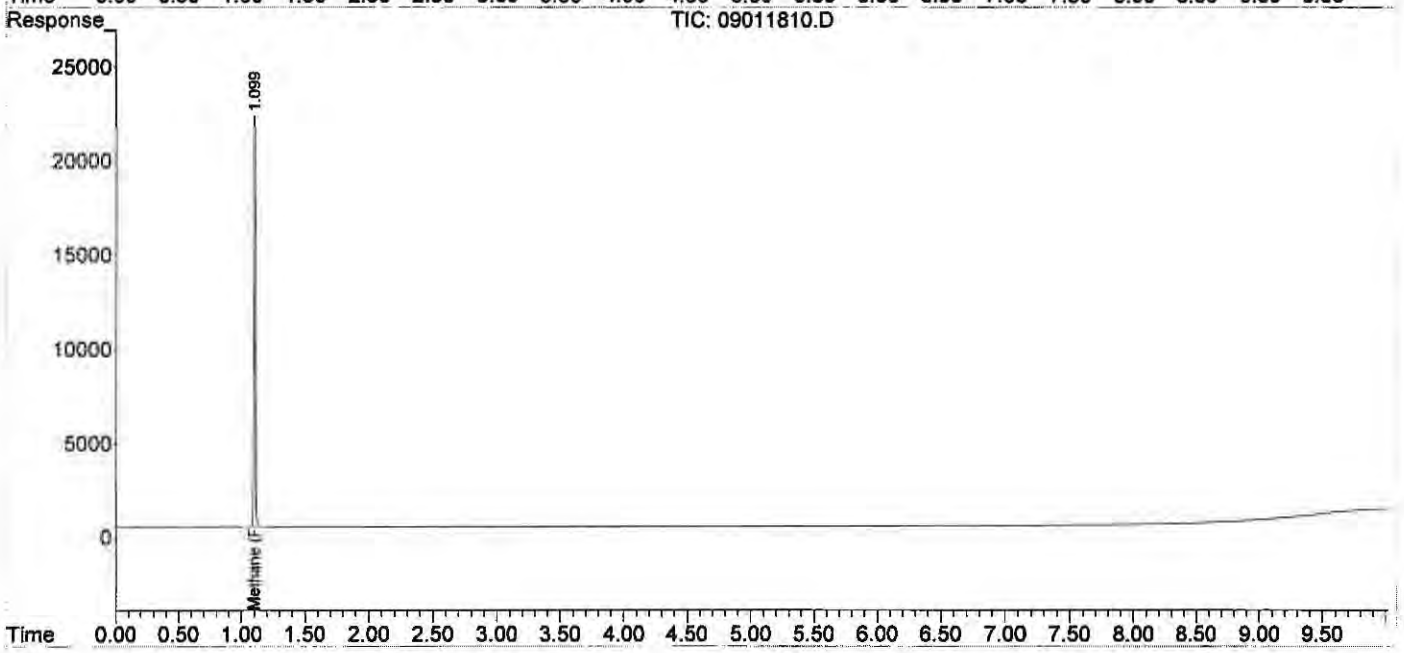
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011810.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 12:27:14
Operator : WH
Sample : P1804546-003 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 13:24:04 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 10:45:52
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 04 10:27:22 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	
2)	Carbon monoxide	0.000	0	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	0.000	0	N.D.	ppm	
6)	Methane (FID)	1.108	1592	0.175	ppm	m
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

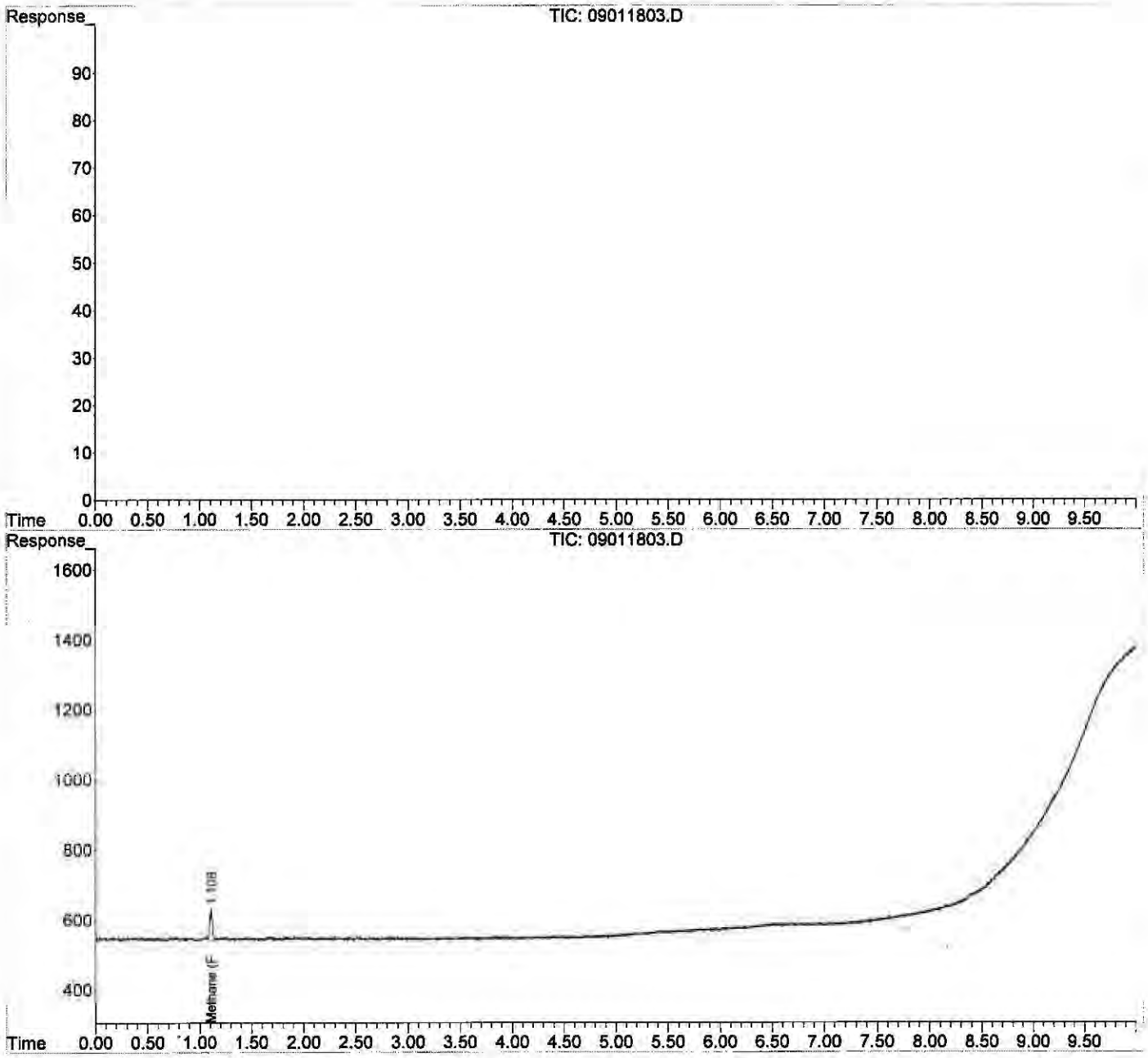
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 10:45:52
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 04 10:27:22 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

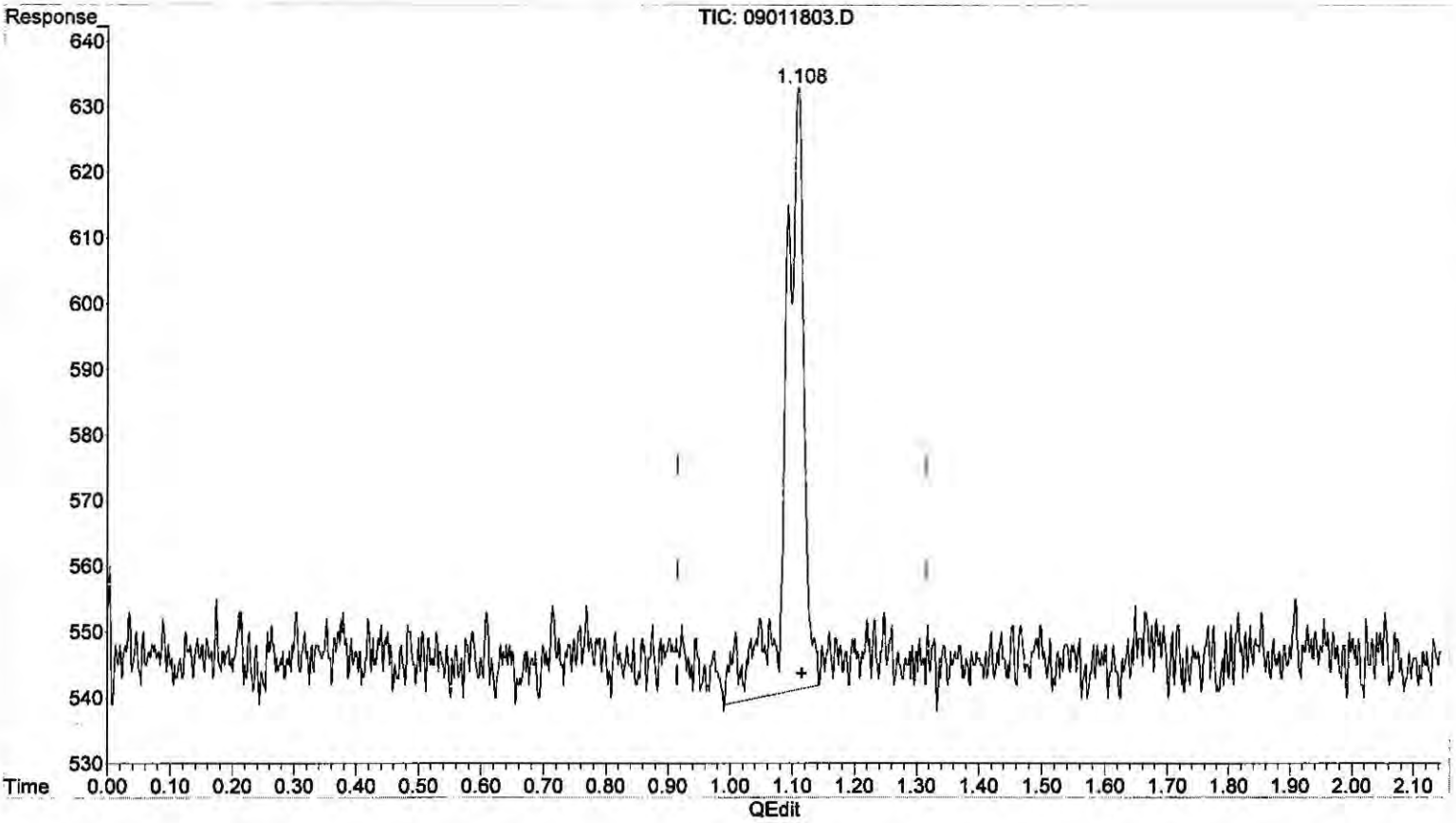


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 10:45:52
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 11:01:56 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(6) Methane (FID)

1.109min 0.219 ppm

response 1984

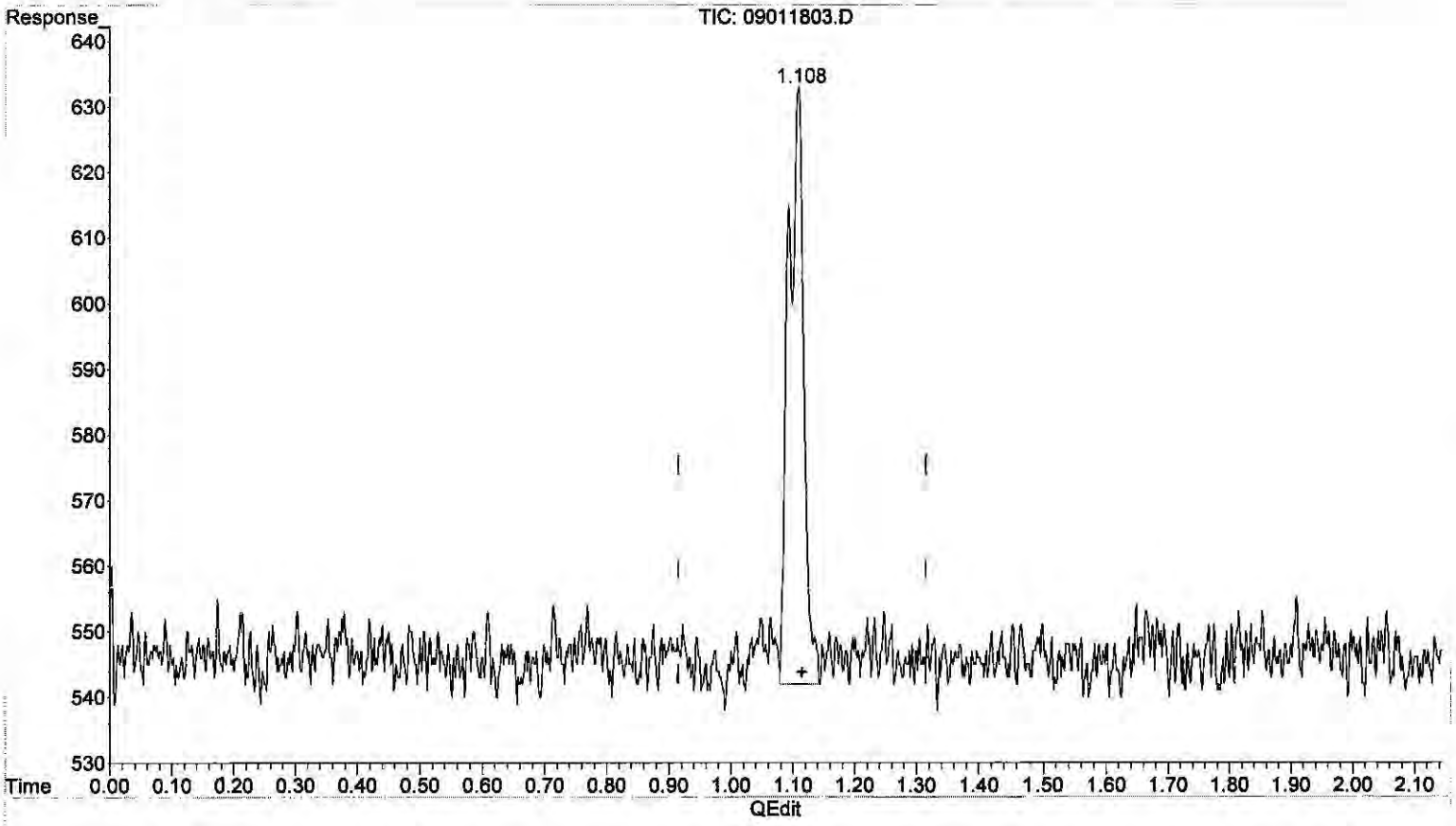
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011803.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 10:45:52
Operator : WH
Sample : mcs 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 11:01:56 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(6) Methane (FID)

1.108min 0.175 ppm m

response 1592

MR 9/4/18

BLC

(+) = Expected Retention Time

091217_R.M Sat Sep 01 11:02:23 2018

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011804.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:05:40
Operator : WH
Sample : fid lcs s30-05241604
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 11:30:08 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.101	13386	1.476	ppm
7)	Ethylene	1.656	16297	0.974	ppm
8)	Ethane	1.916	20646	1.218	ppm
9)	Propylene	4.292	23032	0.983	ppm
10)	Propane	4.415	32181	1.293	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.635f	41948	1.576	ppm
13)	n-Butane	6.635f	41948	1.576	ppm

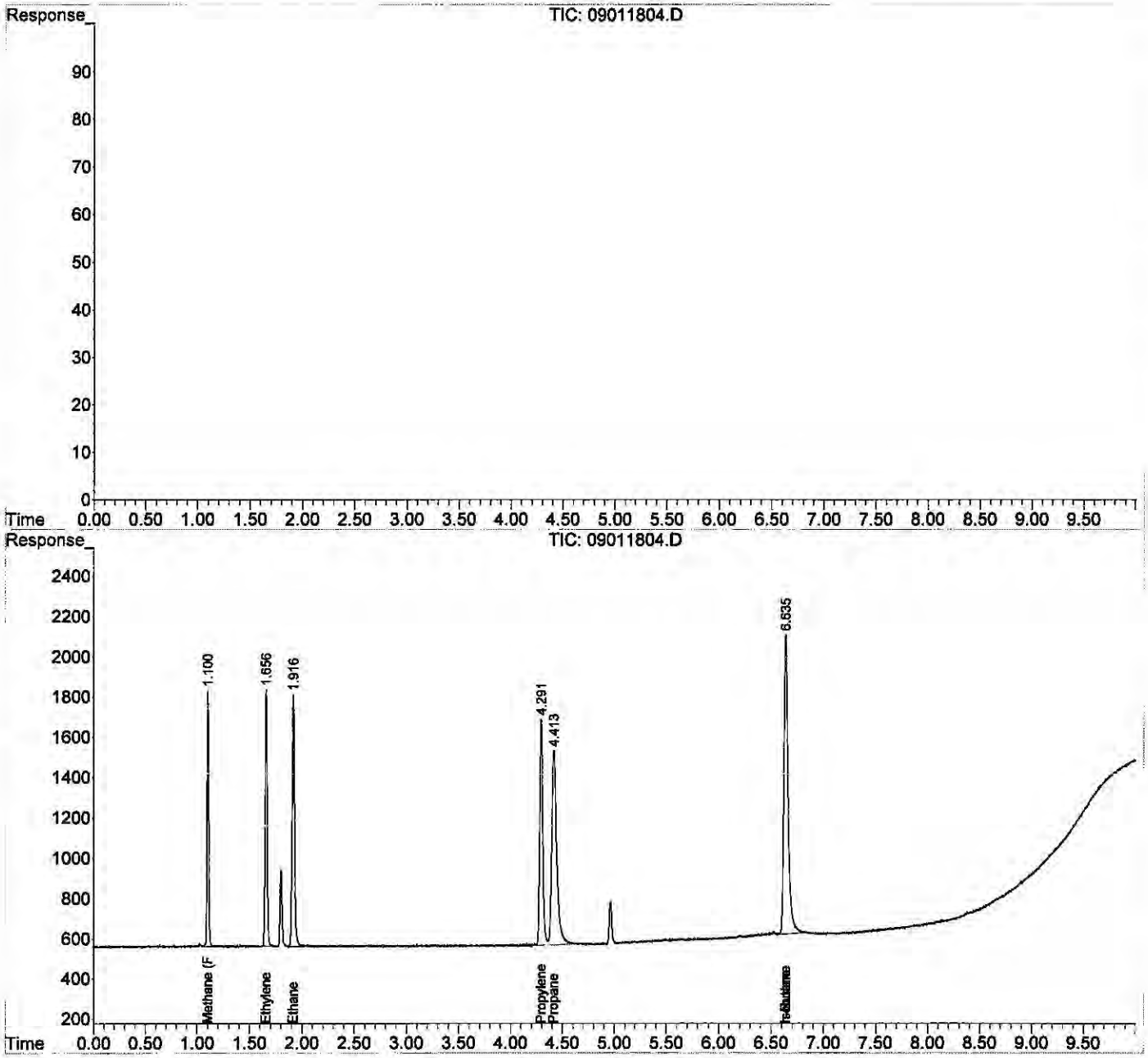
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011804.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:05:40
Operator : WH
Sample : fid lcs s30-05241604
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 11:30:08 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011805.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:19:15
Operator : WH
Sample : fid lcsd s30-05241604
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 11:30:41 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.102	14652	1.615	ppm
7)	Ethylene	1.655	16916	1.011	ppm
8)	Ethane	1.914	21007	1.239	ppm
9)	Propylene	4.292	23059	0.984	ppm
10)	Propane	4.415	32845	1.320	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.636f	43529	1.635	ppm
13)	n-Butane	6.636f	43529	1.635	ppm

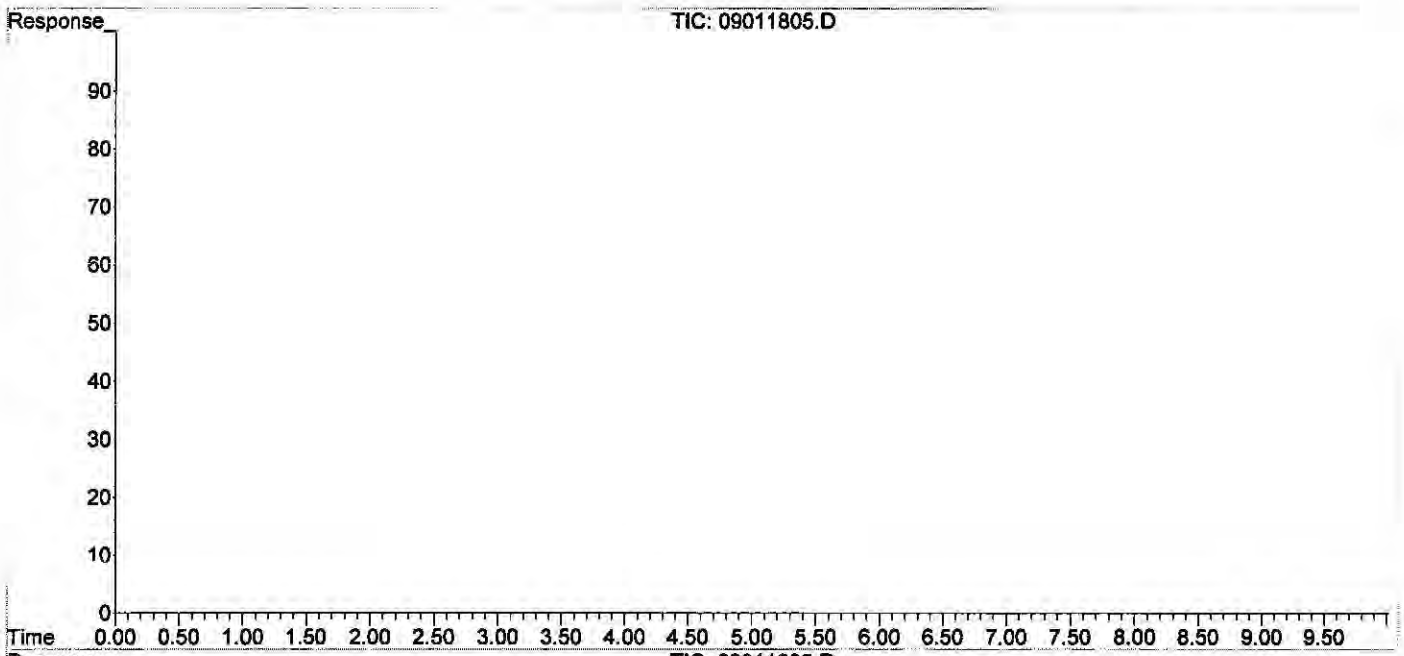
(f)=RT Delta > 1/2 Window (m)=manual int.

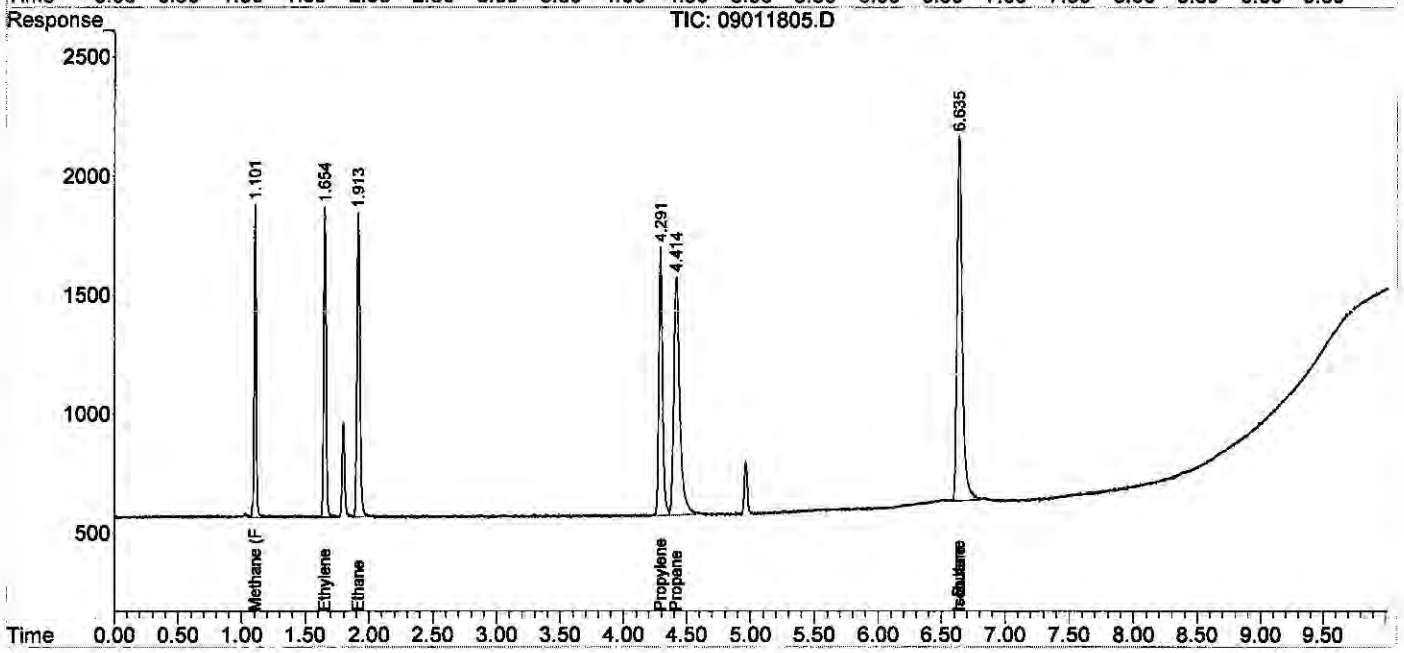
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011805.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:19:15
Operator : WH
Sample : fid lcsd s30-05241604
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 11:30:41 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011807.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:46:17
Operator : WH
Sample : P1804546-001 ms 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 08:49:41 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.105	9533	1.051	ppm
7)	Ethylene	1.655	11377	0.680	ppm
8)	Ethane	1.914	14049	0.829	ppm
9)	Propylene	4.291	15304	0.653	ppm
10)	Propane	4.413	21676	0.871	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.635f	29527	1.109	ppm
13)	n-Butane	6.635f	29527	1.109	ppm

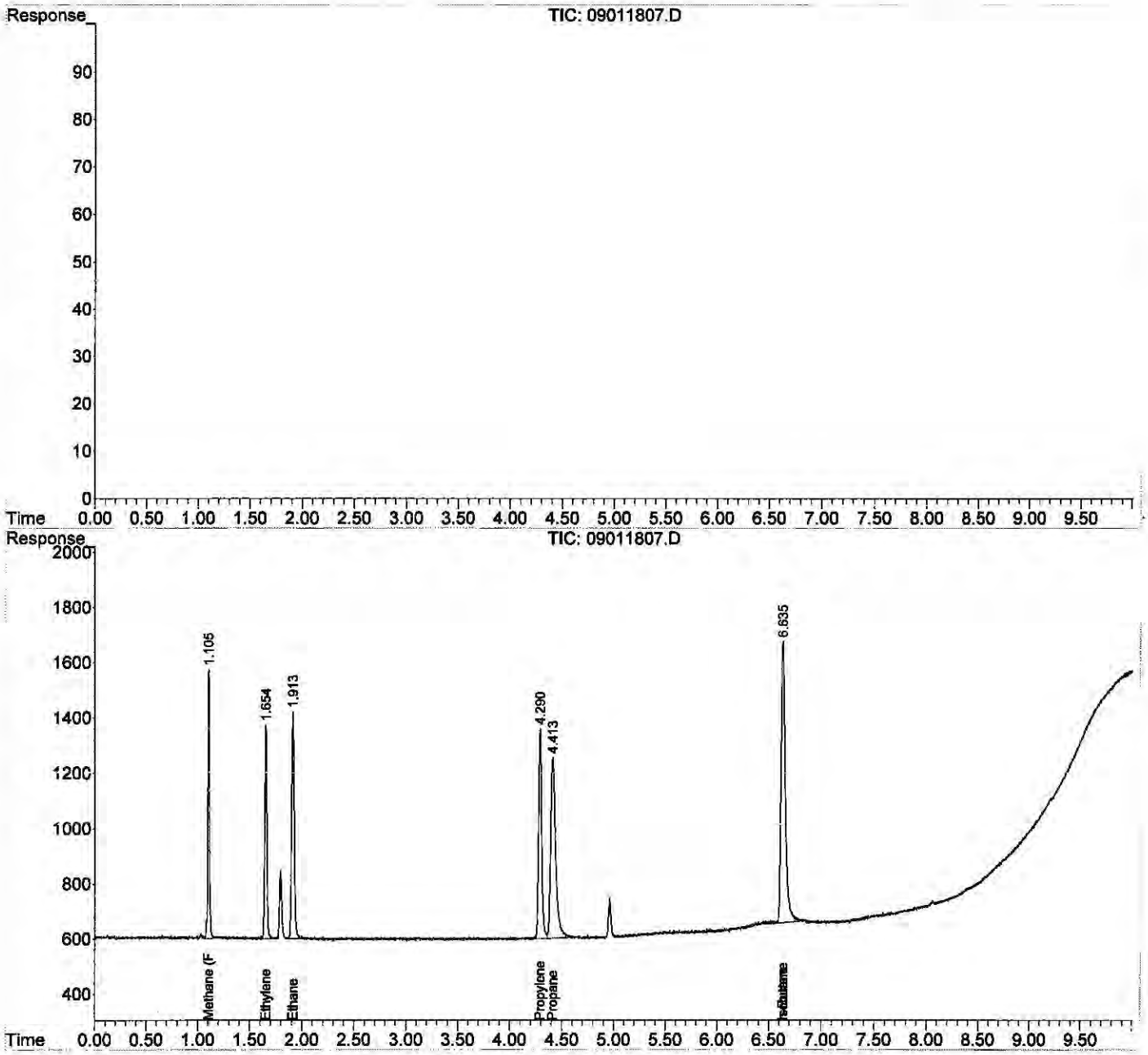
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011807.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 11:46:17
Operator : WH
Sample : P1804546-001 ms 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 08:49:41 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011808.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 12:00:37
Operator : WH
Sample : P1804546-001 msd 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 08:50:45 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.107	8863	0.977	ppm
7)	Ethylene	1.660	11839	0.707	ppm
8)	Ethane	1.921	14535	0.858	ppm
9)	Propylene	4.296	16438	0.702	ppm
10)	Propane	4.418	22459	0.903	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.635f	30487	1.145	ppm
13)	n-Butane	6.635f	30487	1.145	ppm

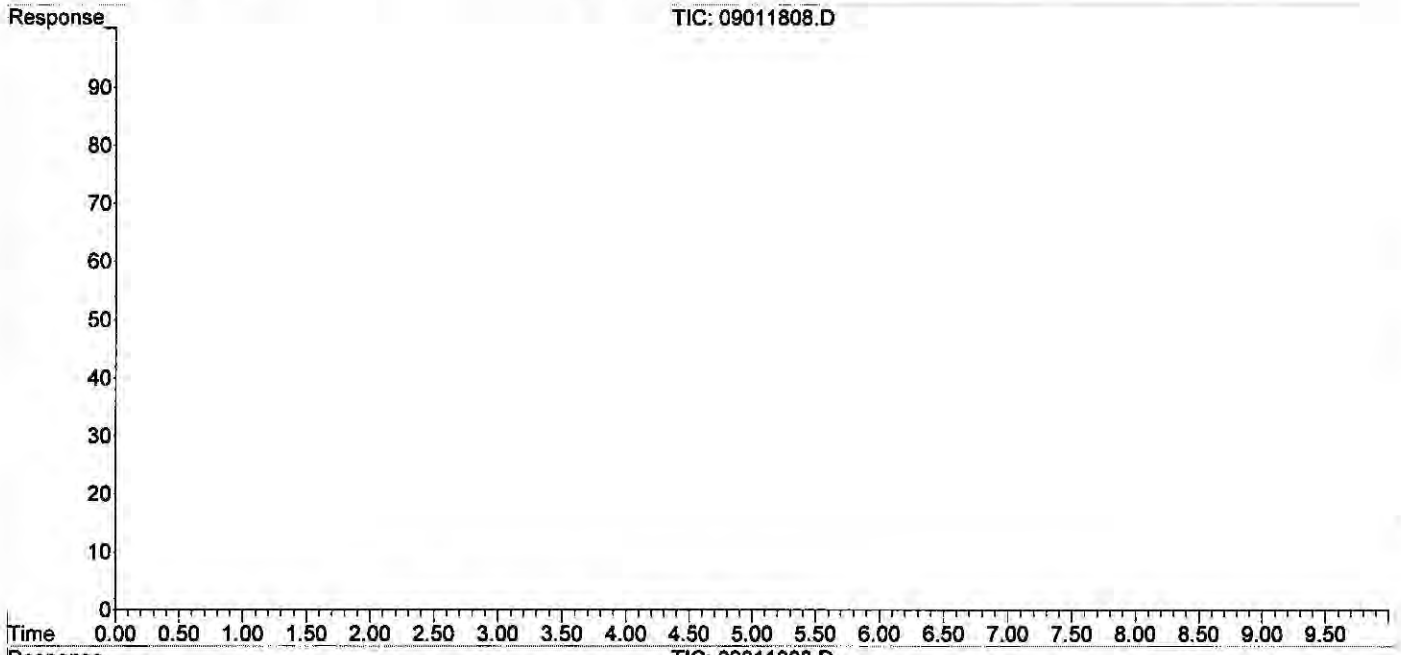
(f)=RT Delta > 1/2 Window (m)=manual int.

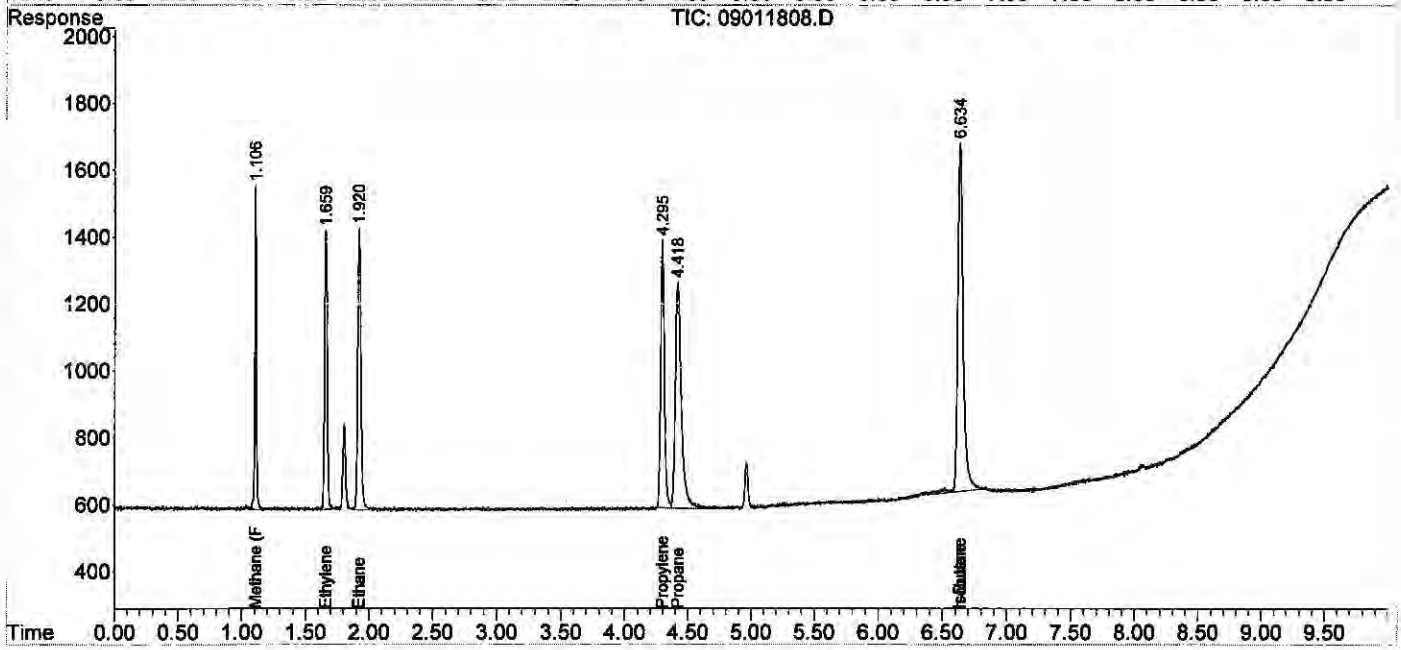
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011808.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 12:00:37
Operator : WH
Sample : P1804546-001 msd 0.1ml
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 06 08:50:45 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Dissolved Gases by RSK175

ALS Environmental

Method : RSK175 Headspace Method for Dissolved Hydrocarbon in Water by FID/TCD
Client : ALS Laboratory Group
Service Request: P1804546
Sample Vol. (ml) : 32.00 ml
Analyst : WH
Date Analysis : 09/01/18
Head Space Vol.(ml) : 8.00 ml
Instrument : GC#10
Detector : FID#10, TCD#10
Gas Constant : 24.05684 (20°C)

HEAD SPACE RESULT (ppm)

Sample ID	Ini. Vol.	Methane	Ethylene	Ethane
std s32-07231801	0.100	1.553	1.593	1.549
ACTUAL		1.51	1.51	1.51
%Difference		2.8%	5.5%	2.6%
mcs 0.1ml	0.100	0.175	0.000	0.000
rb 0.1ml	0.100	0.000	0.000	0.000
fid lcs s30-05241604	0.100	1.476	0.974	1.218
fid lcsd s30-05241604	0.100	1.615	1.011	1.239
P1804546-001 0.1ml	0.100	0.098	0.000	0.000
P1804546-002 0.1ml	0.100	20.617	0.000	0.000
P1804546-003 0.1ml	0.100	18.781	0.000	0.000
P1804546-001 ms 0.1ml	0.100	1.051	0.680	0.829
P1804546-001 msd 0.1ml	0.100	0.977	0.707	0.858
std s32-07231801		1.476	1.536	1.506
ACTUAL		1.51	1.51	1.51
%Difference		2.3%	1.7%	0.3%

FINAL HEAD SPACE RESULT (ppm)

	Methane	Ethylene	Ethane
WWL	16.04	28.05	30.07
HENRY'S CONSTANT	3.76E+04	1.02E+04	2.63E+04
RL	1.30	1.00	0.60
mcs 0.1ml	1.750	0.000	0.000
fid lcs s30-05241604	14.760	9.740	12.180
fid lcsd s30-05241604	16.150	10.110	12.390
P1804546-001 0.1ml	0.980	0.000	0.000
P1804546-002 0.1ml	206.170	0.000	0.000
P1804546-003 0.1ml	187.810	0.000	0.000
P1804546-001 ms 0.1ml	10.510	6.800	8.290
P1804546-001 msd 0.1ml	9.770	7.070	8.580

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011801.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 10:11:03
Operator : WH
Sample : std s32-07231801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 10:26:59 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.101	14089	1.553	ppm
7)	Ethylene	1.656	26662	1.593	ppm
8)	Ethane	1.915	26261	1.549	ppm
9)	Propylene	4.290	37535	1.602	ppm
10)	Propane	4.415	39111	1.572	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.630f	49412	1.856	ppm
13)	n-Butane	6.630f	49412	1.856	ppm

(f)=RT Delta > 1/2 Window (m)=manual int.

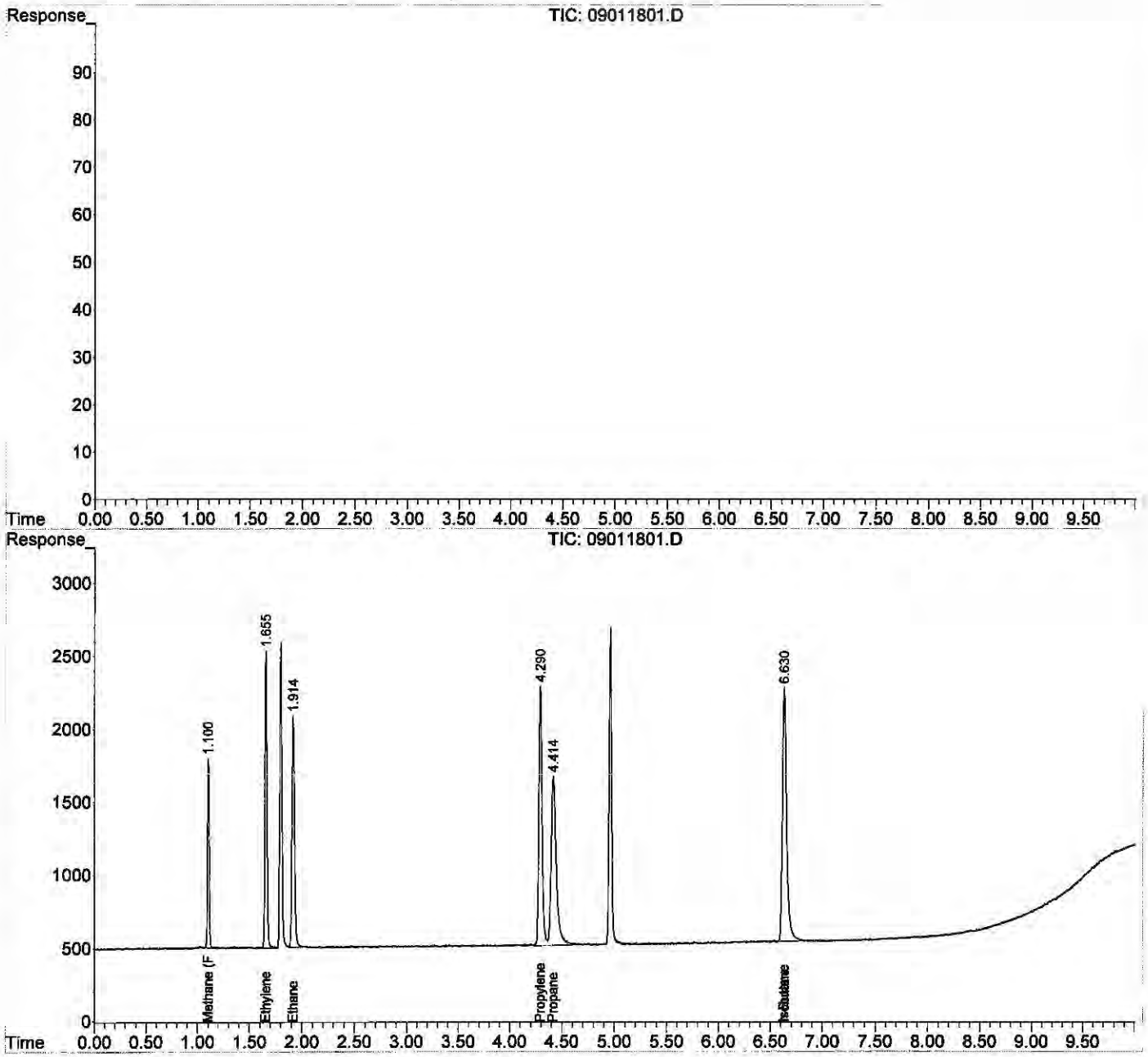
MR 9/6/18

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011801.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 10:11:03
Operator : WH
Sample : std s32-07231801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 10:26:59 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011815.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 13:35:07
Operator : WH
Sample : std s32-07231801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 13:40:09 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	0.000	0	N.D.	ppm
2)	Carbon monoxide	0.000	0	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.103	13389	1.476	ppm
7)	Ethylene	1.653	25707	1.536	ppm
8)	Ethane	1.911	25534	1.506	ppm
9)	Propylene	4.288	36959	1.577	ppm
10)	Propane	4.413	37703	1.515	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

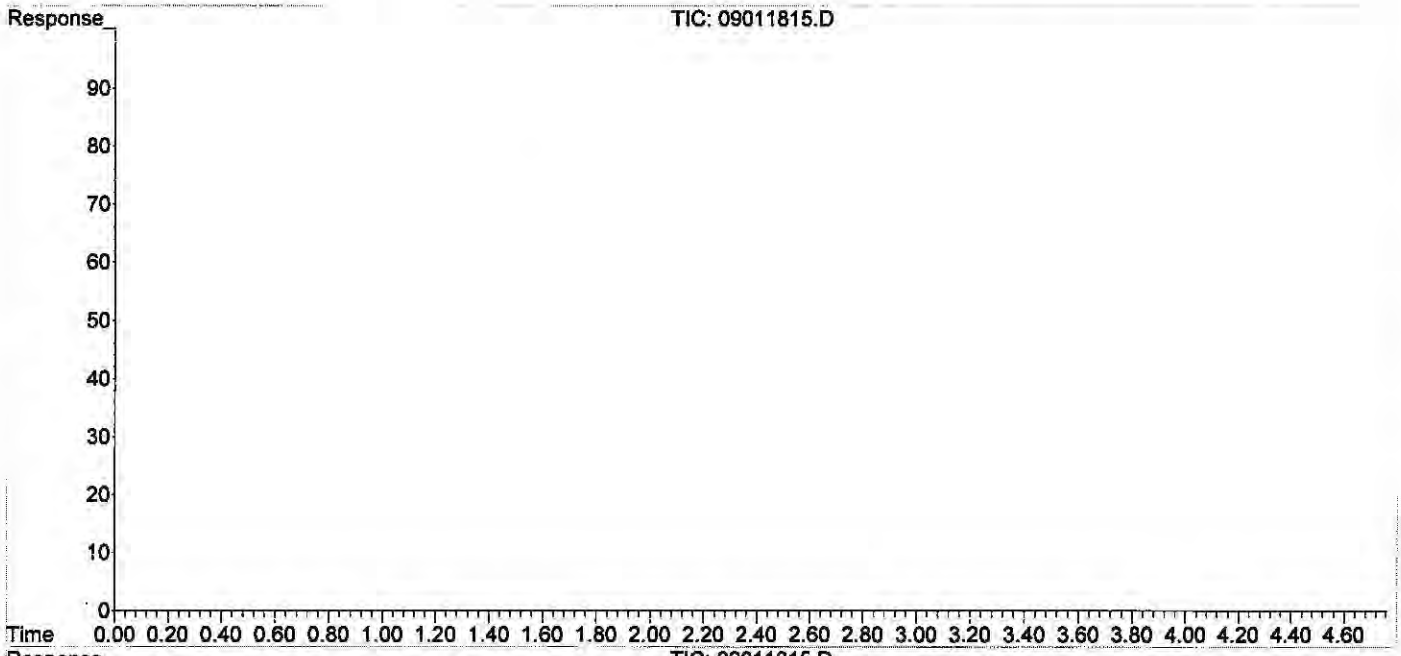
(f)=RT Delta > 1/2 Window (m)=manual int.

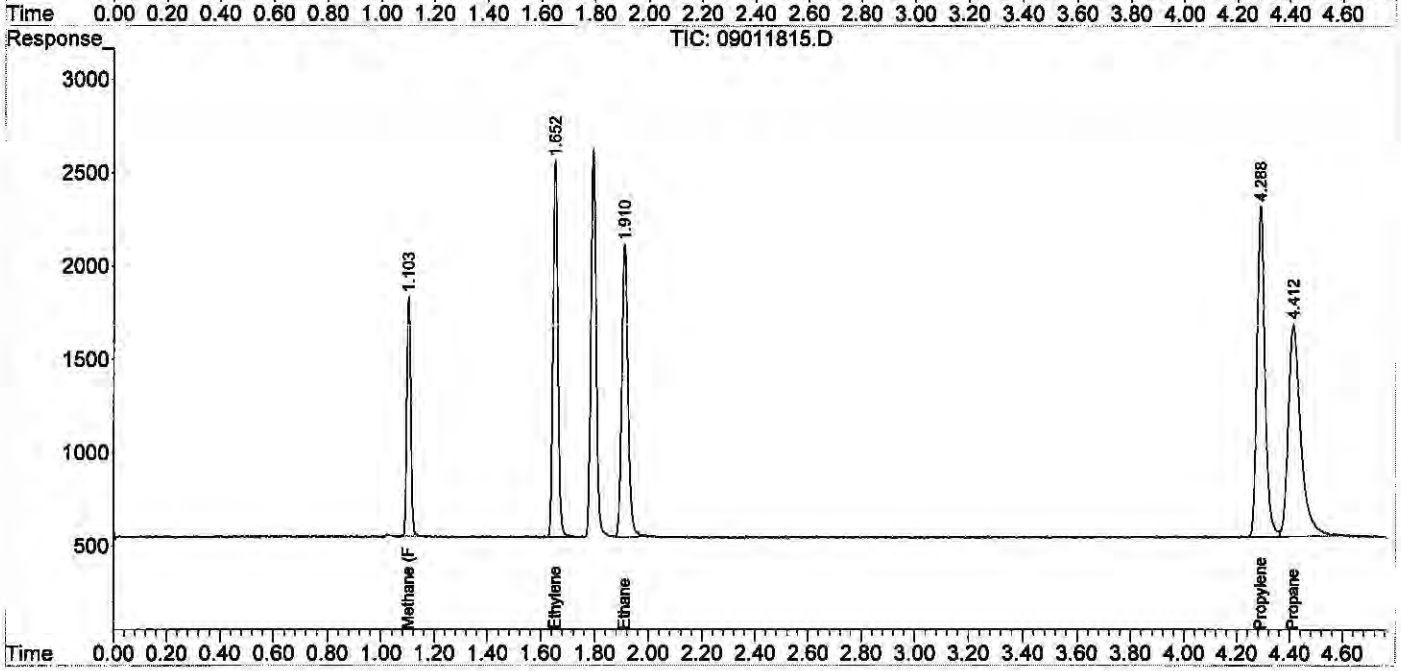
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2018_09\01\
Data File : 09011815.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 01-Sep-2018, 13:35:07
Operator : WH
Sample : std s32-07231801
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 01 13:40:09 2018
Quant Method : I:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:14:47 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Response Factor Report HP5890

Method Path : J:\GC10\METHODS\
Method File : RS091217_R.M
Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
Last Update : Wed Sep 13 11:14:47 2017
Response Via : Initial Calibration

Calibration Files
1 =09121702.D 2 =09121703.D 3 =09121704.D
4 =09121705.D 5 =09121706.D 6 =09121707.D

	Compound	1	2	3	4	5	6	Avg		%RSD
1)	Oxygen/Argon	3.739		1.014			0.001	0.793	E6	189.17
2)	Carbon monoxide	3.739		1.014			0.001	0.594	E6	221.92
3)	Methane (TCD)						2.161	0.951	E2	106.37
4)	Carbon dioxide	2.365	2.569	2.558	2.361	2.459	2.314	2.438	E2	4.44

Signal #2 Calibration Files
1 =09121702.D 2 =09121703.D 3 =09121704.D
4 =09121705.D 5 =09121706.D 6 =09121707.D

	Compound	1	2	3	4	5	6	Avg		%RSD
6)	Methane (FID)		1.180	0.975	0.908	0.870	0.868	0.907	E4	11.66
7)	Ethylene	1.736	1.638	1.780	1.720	1.628	1.670	1.673	E4	3.90
8)	Ethane	1.781	1.676	1.784	1.730	1.692	1.675	1.695	E4	3.83
9)	Propylene	2.505	2.296	2.592	2.480	2.346	2.252	2.343	E4	6.56
10)	Propane	2.439	2.283	2.645	2.555	2.433	2.522	2.488	E4	4.20
11)	Isobutylene							0.652	E1	138.46
12)	Isobutane	6.058	4.793	2.214	1.553	1.353		2.662	E4	86.17
13)	n-Butane	6.058	4.793	2.214	1.553	1.353		2.662	E4	86.17

(#) = Out of Range ### Number of calibration levels exceeded format ###

RS091217_R.M Wed Sep 13 15:11:48 2017

Edit Compounds -- Compound #6 -- Methane (FID)

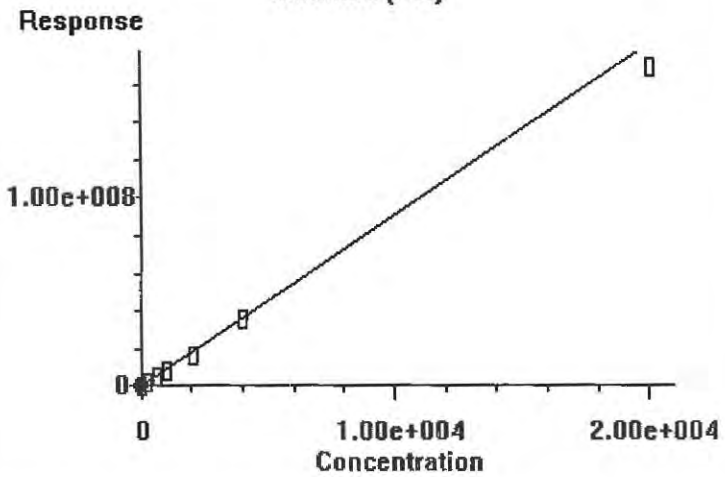
Search by: Ret Time | Name | Index | Find Compound

- Compound Database
- External Standard Compoun
  - Oxygen/Argon
  - Carbon monoxide
  - Methane (TCD)
  - Carbon dioxide
  - Signal #2
  - Methane (FID)
  - Ethylene
  - Ethane
  - Propylene
  - Propane
  - Isobutylene
  - Isobutane
  - n-Butane

Identification | Calibration | User-Defined | Advanced | Reporting

Lvl ID	Concentration	Response
1	0.151000	
2	0.302000	3564.400000
3	1.510000	14725.268625
4	4.530000	41128.575000
5	10.570000	91966.784531
6	200.000000	1735997.497500
7	600.000000	5189848.900000
8	1000.000000	8598533.570000
9	2000.000000	16098209.390000
10	4000.000000	35776839.311362
11	20000.000000	169009160.49199

Methane (FID)



0.000e+000	Quadratic term
9.071e+003	Linear term
0.000e+000	Constant term
11.657%	RF Rel Std Dev

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

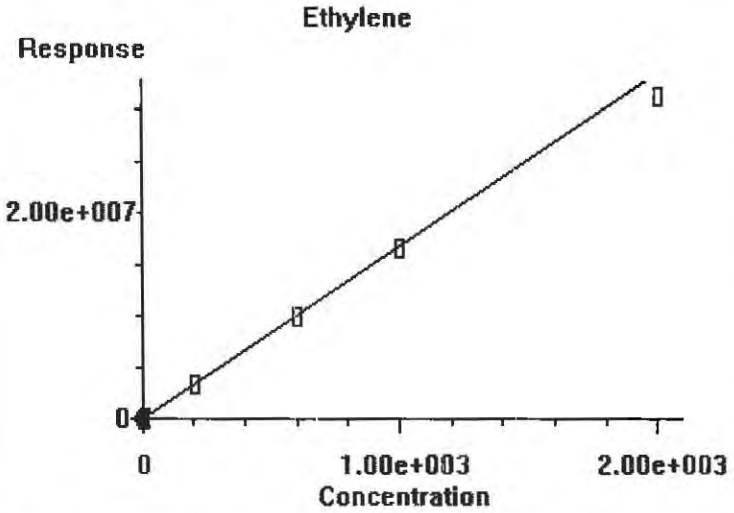
Edit Compounds -- Compound #7 -- Ethylene

Search by: Ret Time | Name | Index | Find Compound

- Compound Database
- External Standard Compoun
  - Oxygen/Argon
  - Carbon monoxide
  - Methane (TCD)
  - Carbon dioxide
  - Signal #2
  - Methane (FID)
  - Ethylene
  - Ethane
  - Propylene
  - Propane
  - Isobutylene
  - Isobutane
  - n-Butane

Identification | Calibration | User-Defined | Advanced | Reporting

Lvl ID	Concentration	Response
1	0.151000	2621.970000
2	0.302000	4946.731301
3	1.510000	26884.746847
4	4.530000	77902.721497
5	10.570000	172085.529560
6	200.000000	3339702.313219
7	600.000000	10007758.776971
8	1000.000000	16608503.805988
9	2000.000000	31192443.898600
10	4000.000000	
11	20000.000000	



0.000e+000	Quadratic term
1.673e+004	Linear term
0.000e+000	Constant term
3.897%	RF Rel Std Dev

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

Edit Compounds -- Compound #8 -- Ethane

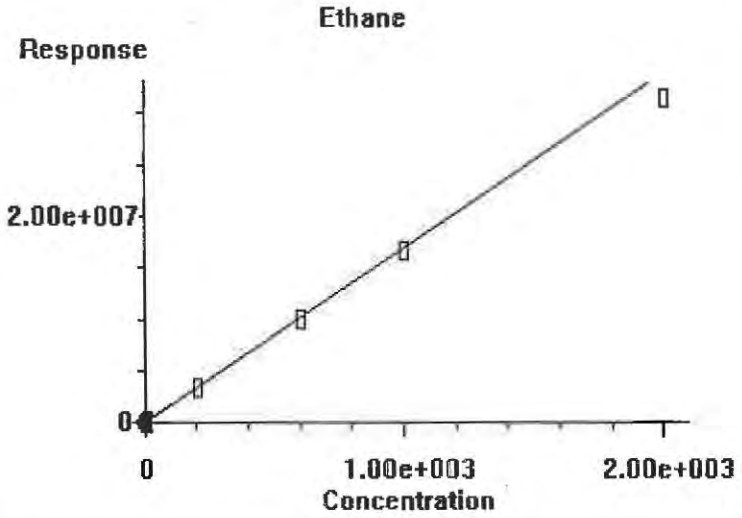
Search by ◉ Ret Time ○ Name ○ Index [ ] Find Compound

- Compound Database
- External Standard Compoun
  - Oxygen/Argon
  - Carbon monoxide
  - Methane (TCD)
  - Carbon dioxide
  - Signal #2
  - Methane (FID)
  - Ethylene
  - Ethane
  - Propylene
  - Propane
  - Isobutylene
  - Isobutane
  - n-Butane

Identification | Calibration | User-Defined | Advanced | Reporting

Lvl ID	Concentration	Response
1	0.151000	2689.928008
2	0.302000	5060.331943
3	1.510000	26943.667500
4	4.530000	78353.525045
5	10.570000	178840.731148
6	200.000000	3350442.319129
7	600.000000	10048964.218029
8	1000.000000	16703164.879012
9	2000.000000	31424217.938900
10	4000.000000	

Lvl ID	Concentration	Response
11	20000.000000	



0.000e+000	Quadratic term
1.695e+004	Linear term
0.000e+000	Constant term
3.831%	RF Rel Std Dev

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

00919298

Edit Compounds -- Compound #9 -- Propylene

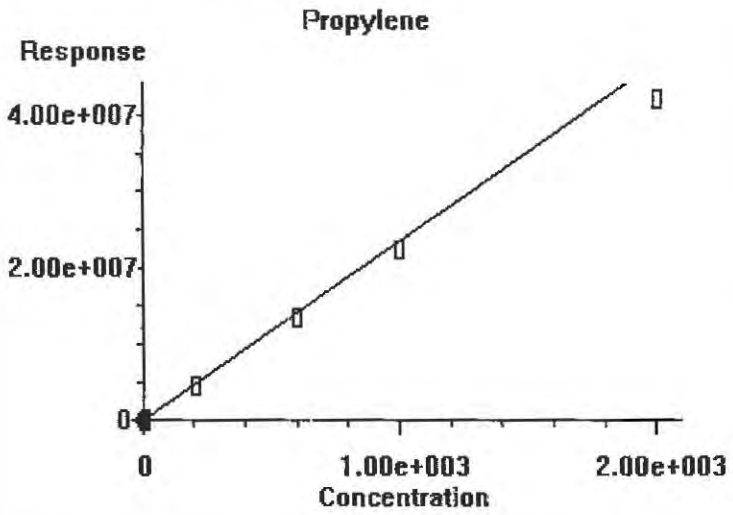
Search by: Ret Time | Name | Index | Find Compound

- Compound Database
- External Standard Compoun
  - Oxygen/Argon
  - Carbon monoxide
  - Methane (TCD)
  - Carbon dioxide
  - Signal #2
  - Methane (FID)
  - Ethylene
  - Ethane
  - Propylene
  - Propane
  - Isobutylene
  - Isobutane
  - n-Butane

Identification | Calibration | User-Defined | Advanced | Reporting

Lvl ID	Concentration	Response
1	0.151000	3782.537646
2	0.302000	6933.285530
3	1.510000	39139.518208
4	4.530000	112341.896872
5	10.570000	248003.903623
6	200.000000	4504060.086084
7	600.000000	13569342.761419
8	1000.000000	22494887.720990
9	2000.000000	42124689.656800
10	4000.000000	

Lvl ID	Concentration	Response
11	20000.000000	



0.000e+000	Quadratic term
2.343e+004	Linear term
0.000e+000	Constant term
6.559%	RF Rel Std Dev

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

Edit Compounds -- Compound #10 -- Propane

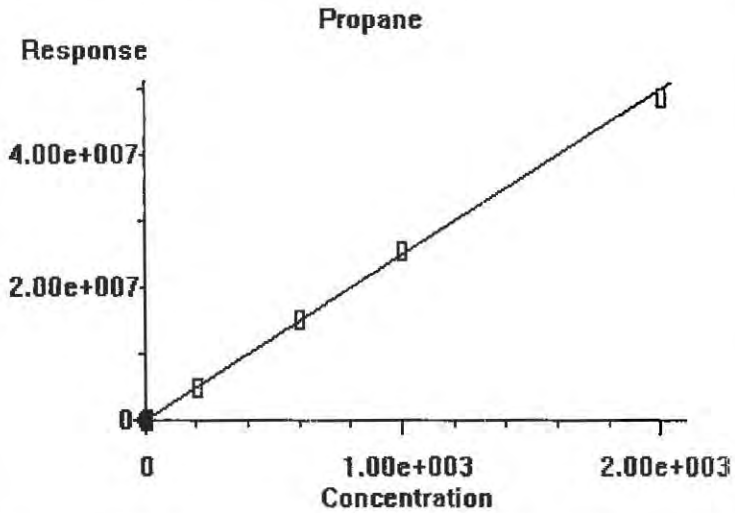
Search by: Ret Time | Name | Index — Find Compound

- Compound Database
- External Standard Compoun
  - Oxygen/Argon
  - Carbon monoxide
  - Methane (TCD)
  - Carbon dioxide
  - Signal #2
  - Methane (FID)
  - Ethylene
  - Ethane
  - Propylene
  - Propane
  - Isobutylene
  - Isobutane
  - n-Butane

Identification | Calibration | User-Defined | Advanced | Reporting

Lvl ID	Concentration	Response
1	0.151000	3682.897354
2	0.302000	6894.237803
3	1.510000	39934.166792
4	4.530000	115723.428128
5	10.570000	257124.432806
6	200.000000	5043035.663316
7	600.000000	15251325.797404
8	1000.000000	25459410.657938
9	2000.000000	48583085.287451
10	4000.000000	

Lvl ID	Concentration	Response
11	20000.000000	



0.000e+000	Quadratic term
2.488e+004	Linear term
0.000e+000	Constant term
4.200%	RF Rel Std Dev

OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

00919300

Calibration Status Report HP5890

Method Path : J:\GC10\METHODS\
Method File : RS091217_R.M
Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
Last Update : Wed Sep 13 11:14:47 2017
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	1	0	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121702.D
2	2	0	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121703.D
3	3	3	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121704.D
4	4	10	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121705.D
5	5	25	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121706.D
6	6	125	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121707.D
7	7	5000	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121708.D
8	8	25000	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121709.D
9	9	2000	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121710.D
10	10	30000	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121711.D
11	11	20000	0	J:\GC10\DATA\RSK_FID\2017_09\12\09121712.D

#	ID	Update Time	Quant Time	Acquisition Time
1	1	Sep 13 11:04 2017	Sep 12 15:03 2017	12-Sep-2017, 10:52
2	2	Sep 13 11:05 2017	Sep 13 11:05 2017	12-Sep-2017, 11:05
3	3	Sep 13 11:06 2017	Sep 13 11:05 2017	12-Sep-2017, 11:45
4	4	Sep 13 11:09 2017	Sep 13 11:06 2017	12-Sep-2017, 12:09
5	5	Sep 13 11:09 2017	Sep 13 11:09 2017	12-Sep-2017, 12:30
6	6	Sep 13 11:10 2017	Sep 13 11:10 2017	12-Sep-2017, 12:47
7	7	Sep 13 11:11 2017	Sep 13 11:10 2017	12-Sep-2017, 13:00
8	8	Sep 13 11:12 2017	Sep 13 11:11 2017	12-Sep-2017, 13:47
9	9	Sep 13 11:12 2017	Sep 13 11:12 2017	12-Sep-2017, 14:07
10	10	Sep 13 11:14 2017	Sep 13 11:13 2017	12-Sep-2017, 14:48
11	11	Sep 13 11:14 2017	Sep 13 11:14 2017	12-Sep-2017, 15:21

RS091217_R.M Wed Sep 13 15:11:22 2017

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121702.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 10:52
Operator : MC
Sample : 0.151ppm 0.250ml s32-09121702
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 12 11:03:15 2017
Quant Method : I:\GC10\METHODS\RS082417.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Fri Aug 25 09:19:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.767	373920	0.128	ppm	
2)	Carbon monoxide	1.767	373920	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	0.000	0	N.D.	ppm	
6)	Methane (FID)	0.000	0	N.D.	ppm	d
7)	Ethylene	1.595	2622	0.156	ppm	
8)	Ethane	1.848	2690	0.156	ppm	
9)	Propylene	4.222	3783	0.154	ppm	
10)	Propane	4.348	3683	0.139	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	6.582f	6058	NoCal	ppm	
13)	n-Butane	6.582f	6058	NoCal	ppm	

(f)=RT Delta > 1/2 Window (m)=manual int.

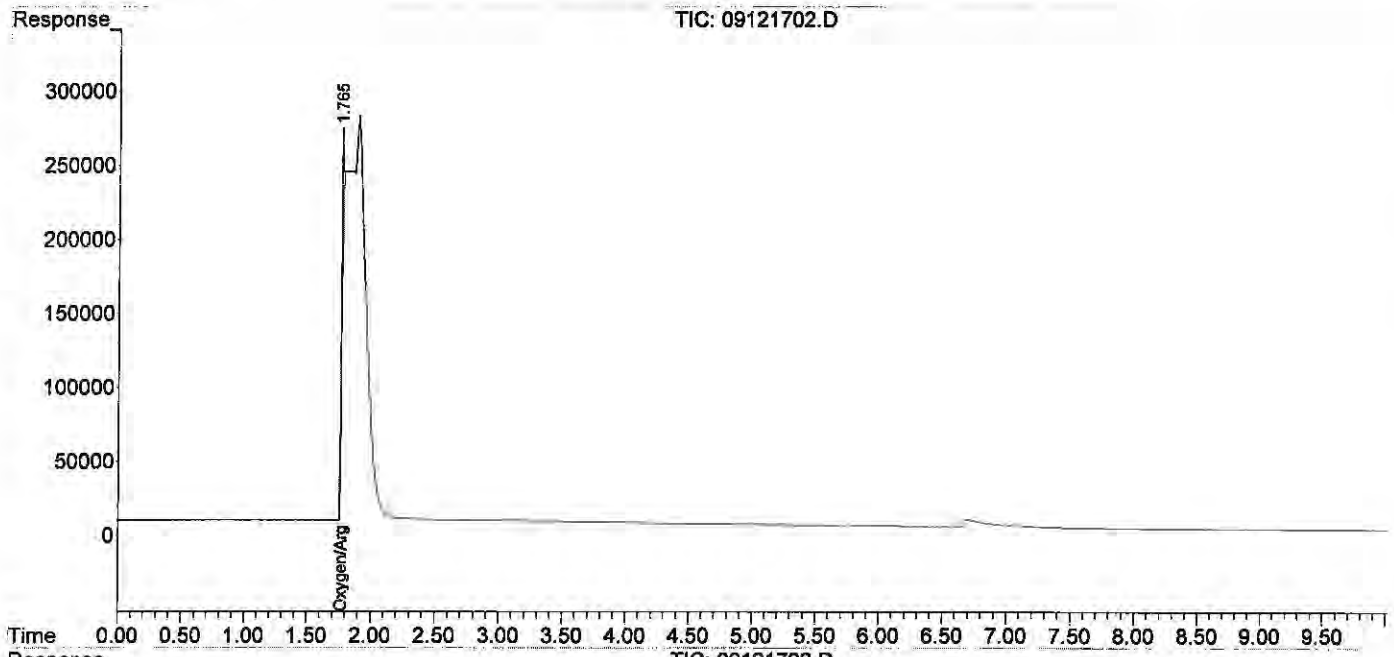
9/13/17

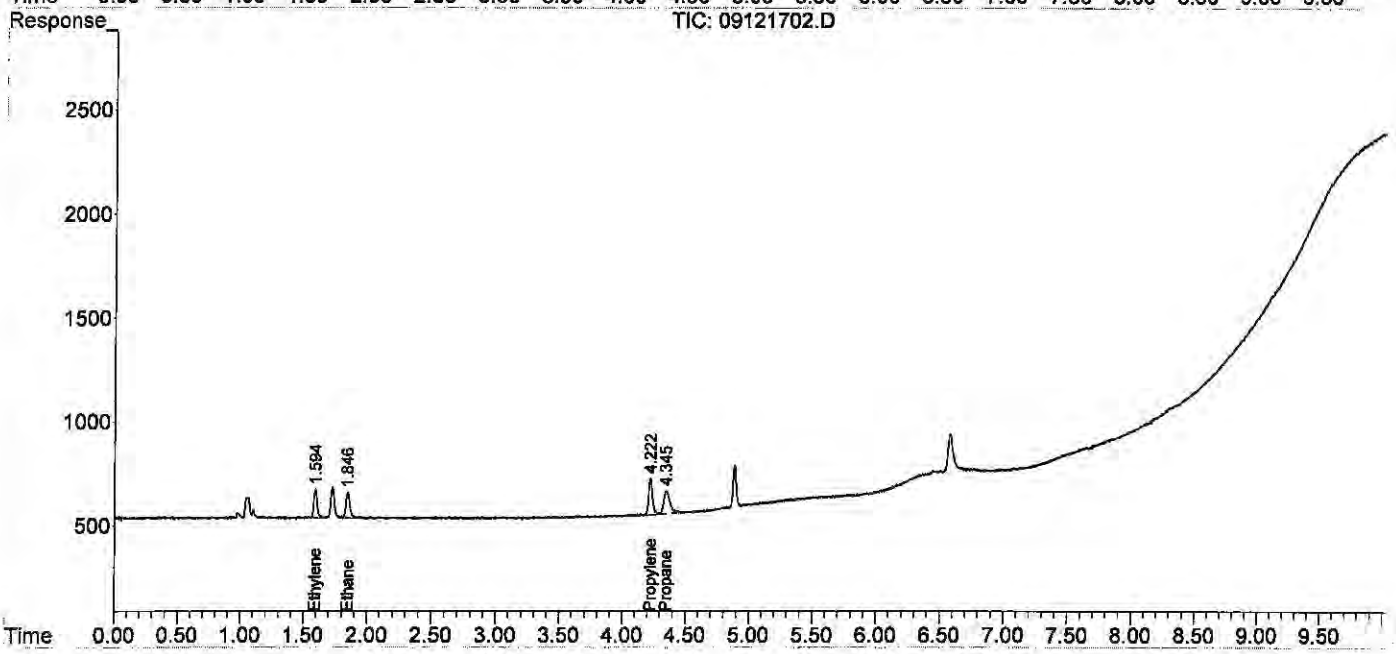
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121702.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 10:52
Operator : MC
Sample : 0.151ppm 0.250ml s32-09121702
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 12 11:03:15 2017
Quant Method : I:\GC10\METHODS\RS082417.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Fri Aug 25 09:19:14 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121703.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 11:05
Operator : MC
Sample : 0.302ppm 0.5ml s32-09121702
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:05:03 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.913f	-25181981	N.D.	ppm	
2)	Carbon monoxide	1.913f	-25181981	1.089	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	
4)	Carbon dioxide	0.000	0	N.D.	ppm	
6)	Methane (FID)	1.049	3564	0.391	ppm	m
7)	Ethylene	1.577	4947	0.292	ppm	
8)	Ethane	1.828	5060	0.293	ppm	
9)	Propylene	4.207	6933	0.281	ppm	
10)	Propane	4.337	6894	0.268	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	6.579f	9587	0.158	ppm	
13)	n-Butane	6.579f	9587	0.158	ppm	

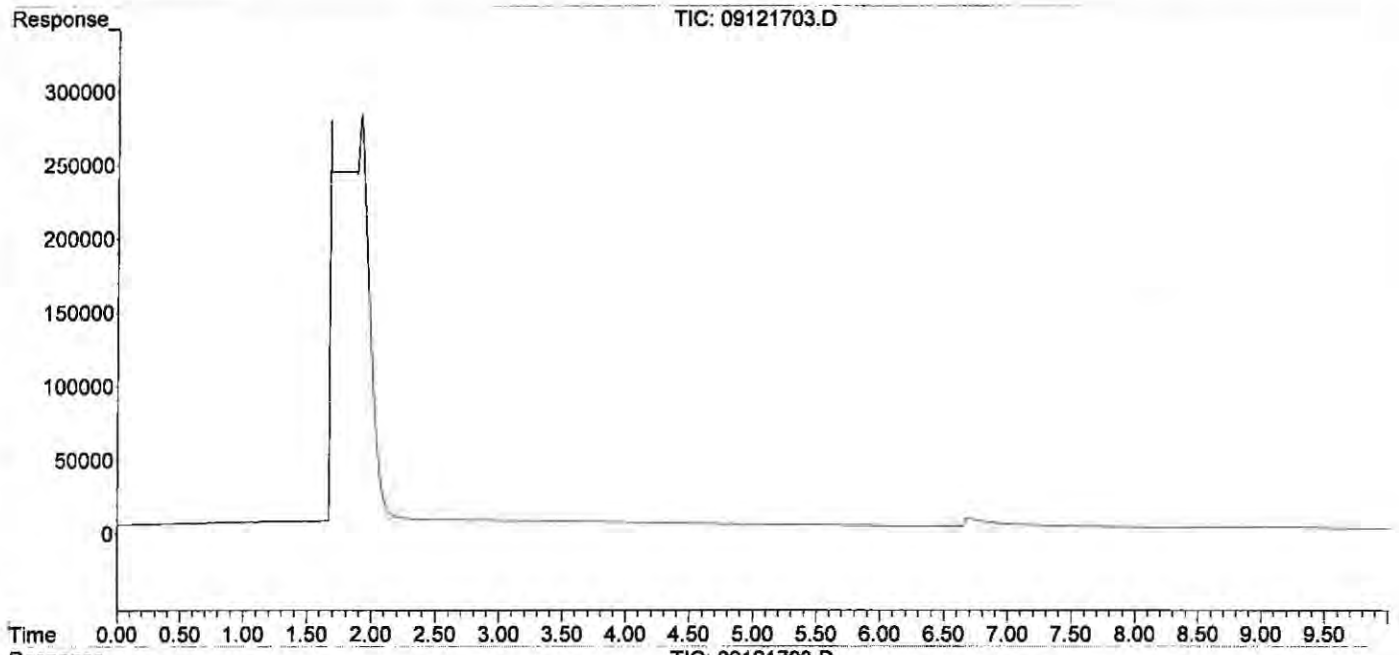
(f)=RT Delta > 1/2 Window (m)=manual int.

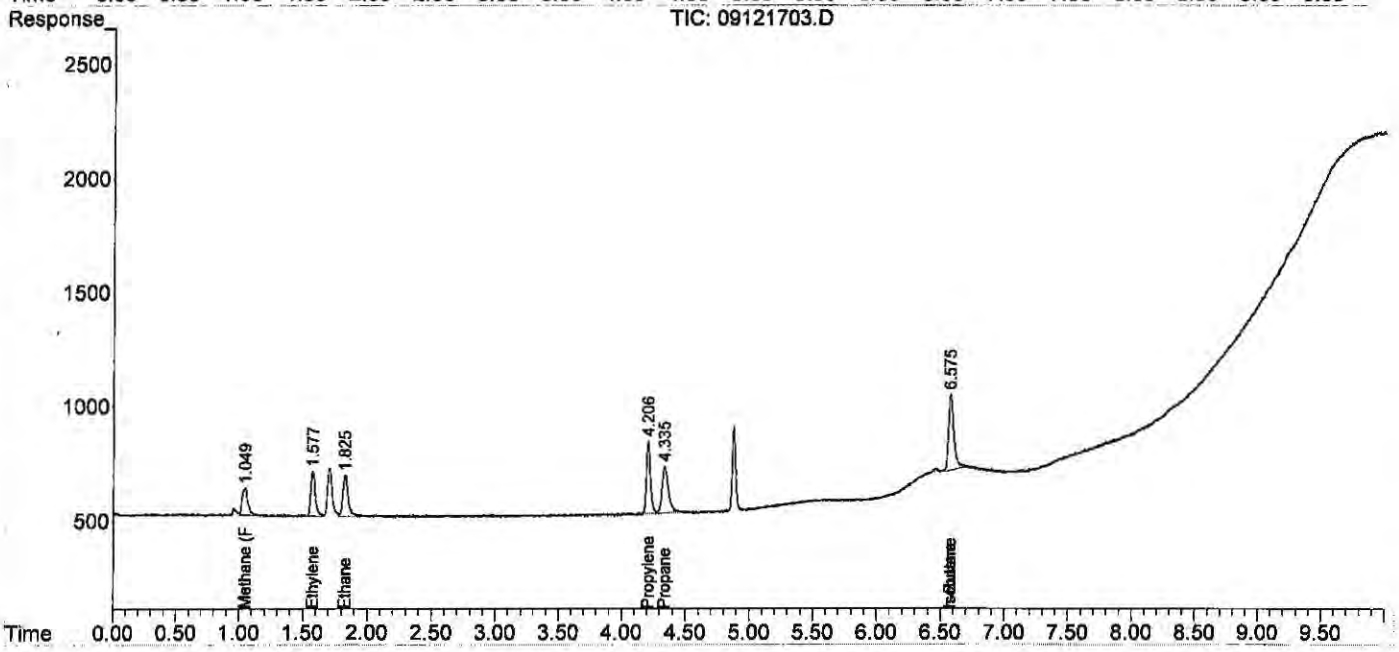
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121703.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 11:05
Operator : MC
Sample : 0.302ppm 0.5ml s32-09121702
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:05:03 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



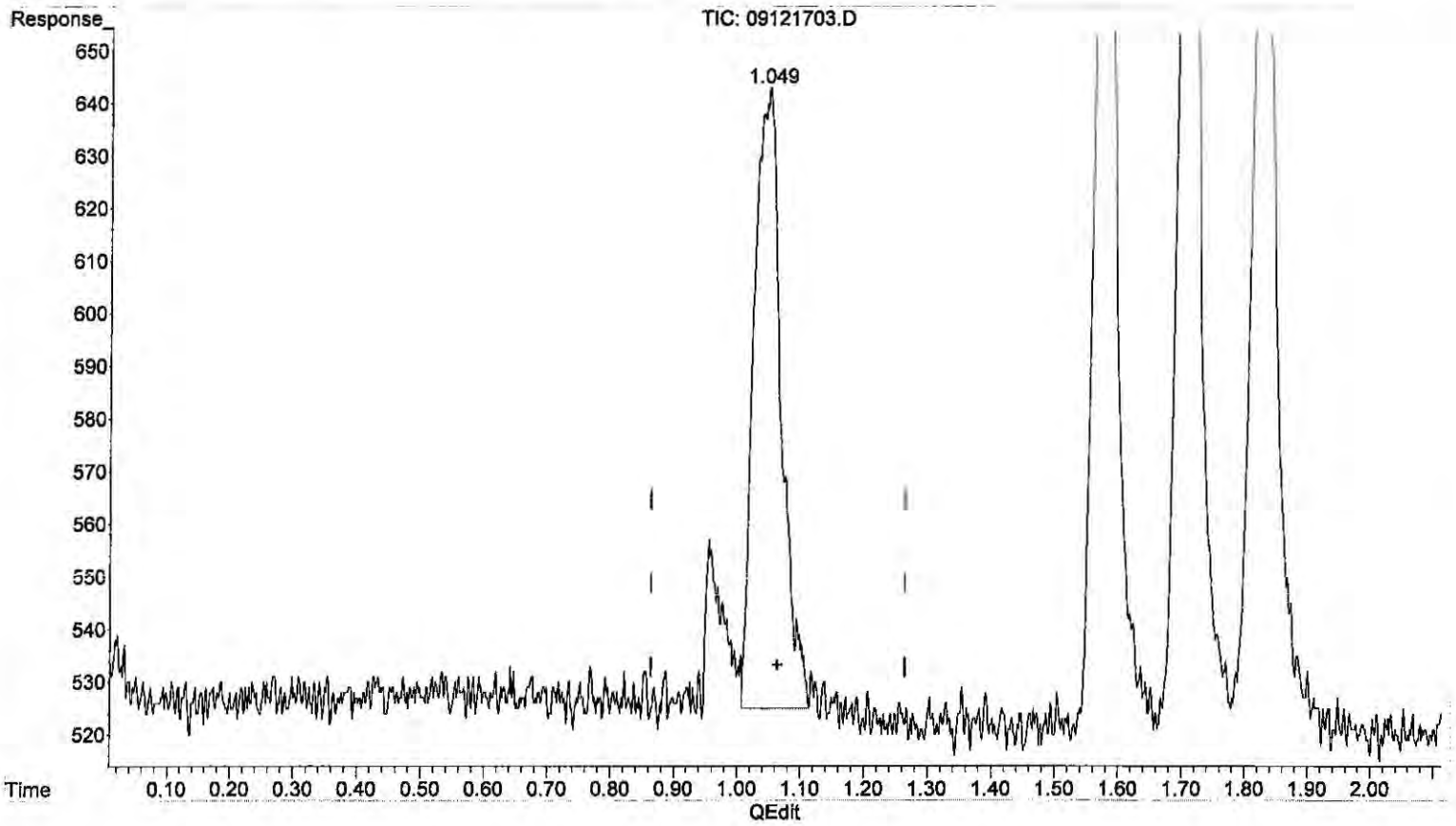


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121703.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 11:05
Operator : MC
Sample : 0.302ppm 0.5ml s32-09121702
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:05:03 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(6) Methane (FID)

1.049min 0.391 ppm m

response 3564

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121704.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 11:45
Operator : MC
Sample : 1.51ppm 0.1ml s32-09051701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:05:55 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.847	2536230	1.056	ppm
2)	Carbon monoxide	1.847	2536230	N.D.	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.064	14725	1.613	ppm
7)	Ethylene	1.598	26885	1.582	ppm
8)	Ethane	1.851	26944	1.555	ppm
9)	Propylene	4.220	39140	1.589	ppm
10)	Propane	4.349	39934	1.596	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.578f	55348	1.020	ppm
13)	n-Butane	6.578f	55348	1.020	ppm

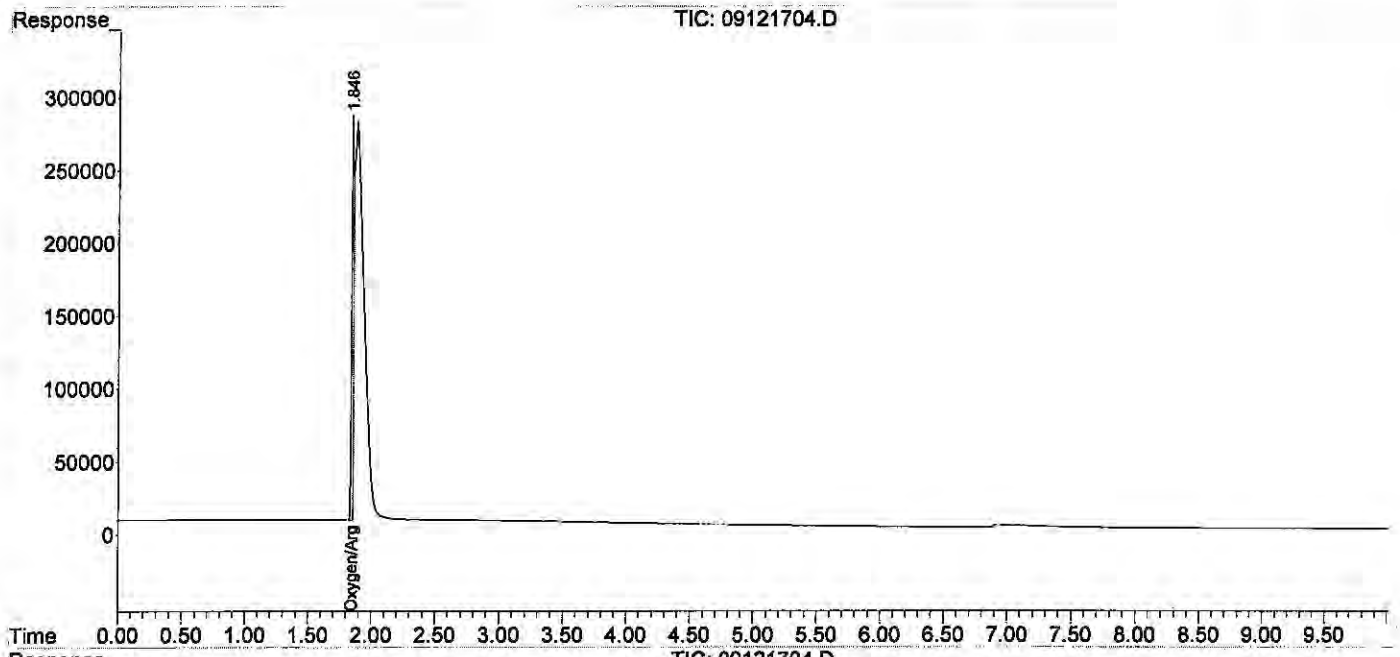
(f)=RT Delta > 1/2 Window (m)=manual int.

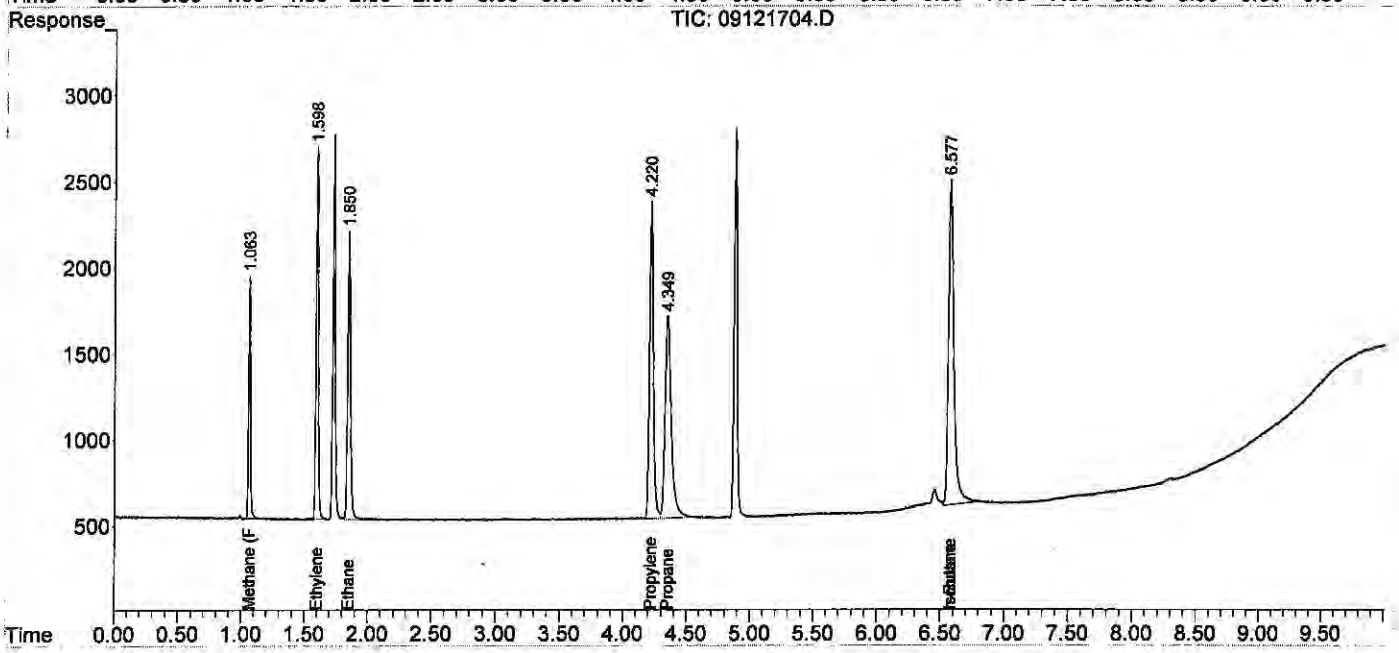
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121704.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 11:45
Operator : MC
Sample : 1.51ppm 0.1ml s32-09051701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:05:55 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121705.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 12:09
Operator : MC
Sample : 4.53ppm 0.3ml s32-09051701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:06:32 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.738	-331216	N.D.	ppm
2)	Carbon monoxide	1.738	-331216	0.019	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.052	41129	4.522	ppm
7)	Ethylene	1.586	77903	4.637	ppm
8)	Ethane	1.838	78354	4.558	ppm
9)	Propylene	4.218	112342	4.614	ppm
10)	Propane	4.347	115723	4.680	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.580f	155256	3.565	ppm
13)	n-Butane	6.580f	155256	3.565	ppm

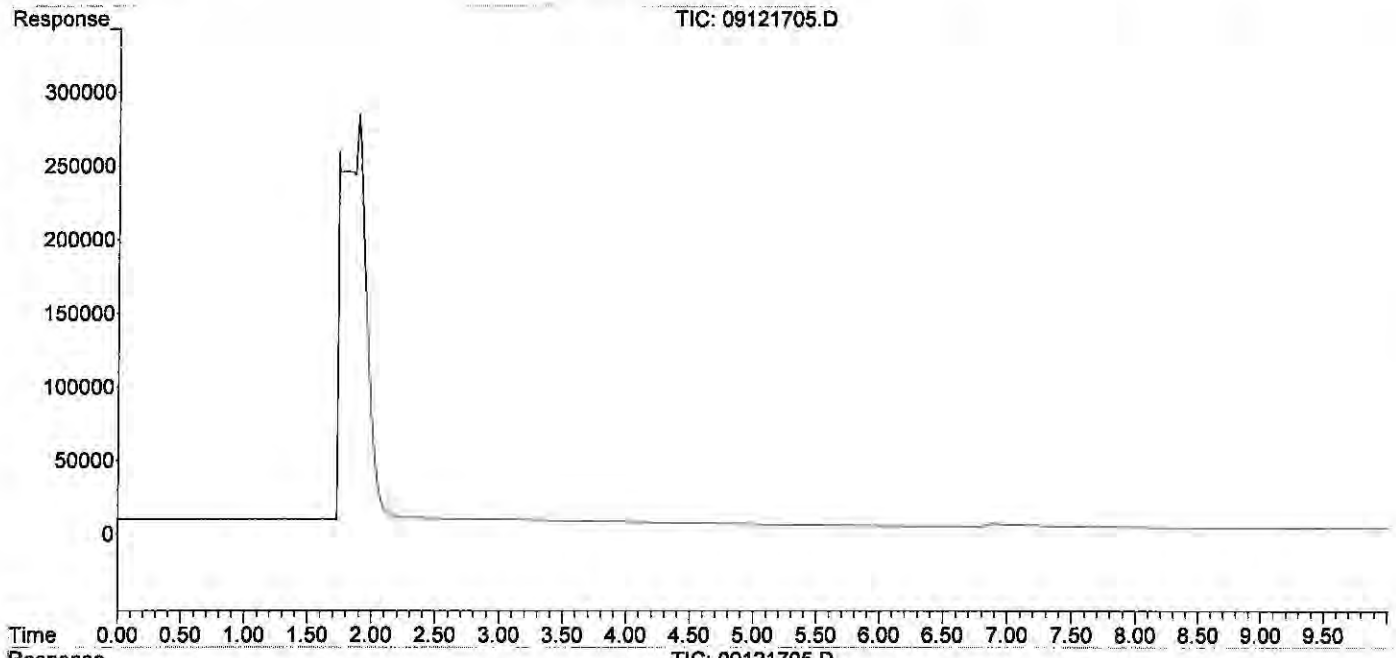
(f)=RT Delta > 1/2 Window (m)=manual int.

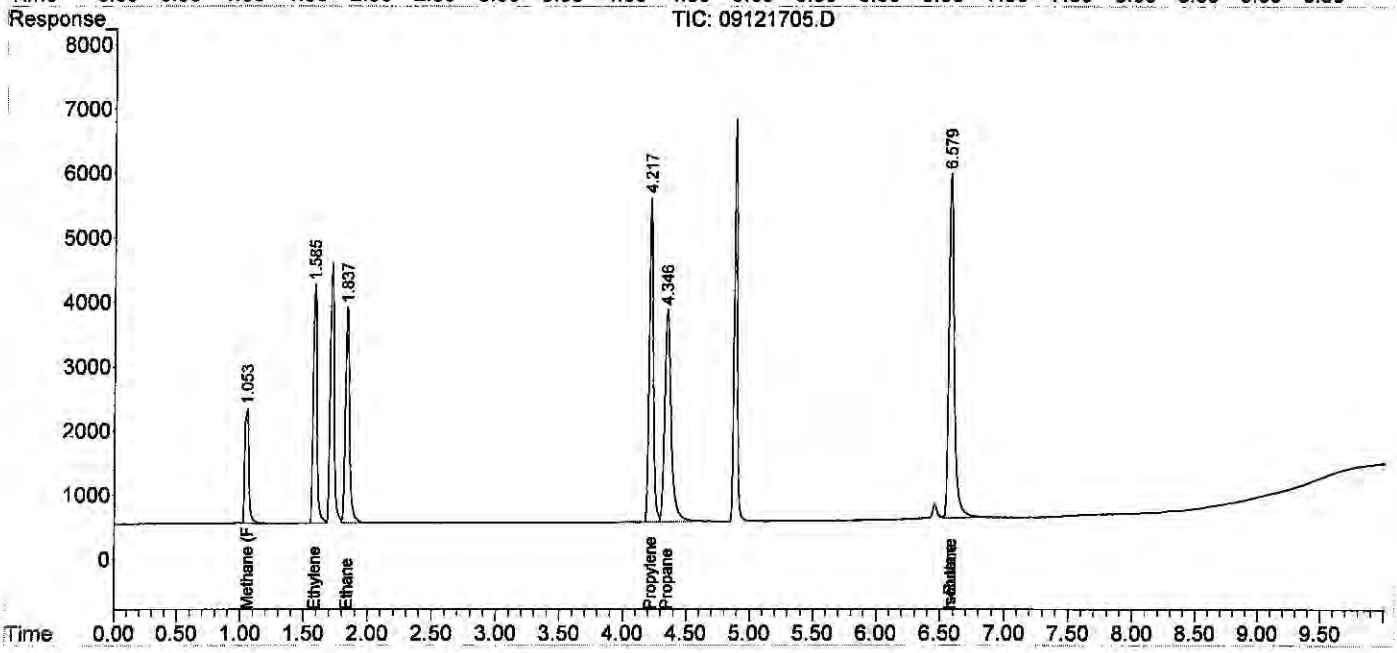
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121705.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 12:09
Operator : MC
Sample : 4.53ppm 0.3ml s32-09051701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:06:32 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121706.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 12:30
Operator : MC
Sample : 10.57ppm 0.7ml s32-09051701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:09:24 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.929f	-31871242	N.D.	ppm
2)	Carbon monoxide	1.929f	-31871242	1.818	ppm
3)	Methane (TCD)	0.000	0	N.D.	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.025	91967	10.135	ppm
7)	Ethylene	1.568	172086	10.273	ppm
8)	Ethane	1.822	178841	10.441	ppm
9)	Propylene	4.214	248004	10.236	ppm
10)	Propane	4.344	257124	10.458	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	6.578f	338181	9.254	ppm
13)	n-Butane	6.578f	338181	9.254	ppm

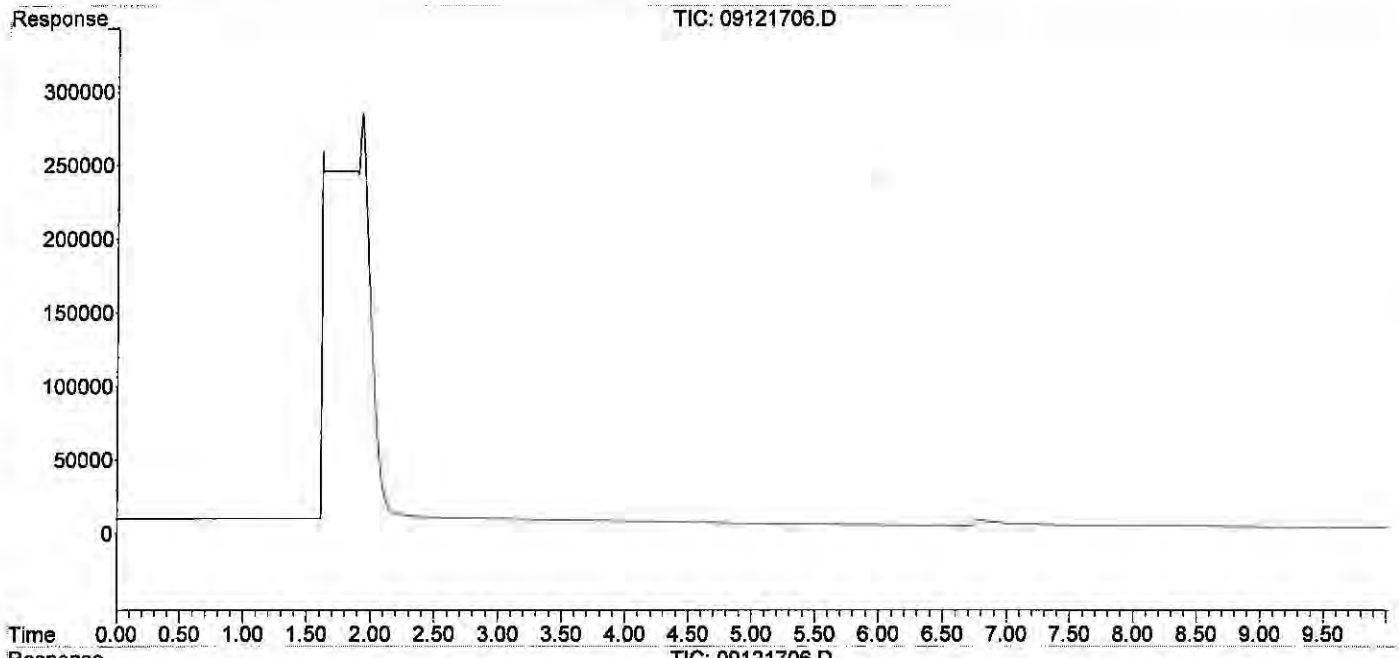
(f)=RT Delta > 1/2 Window (m)=manual int.

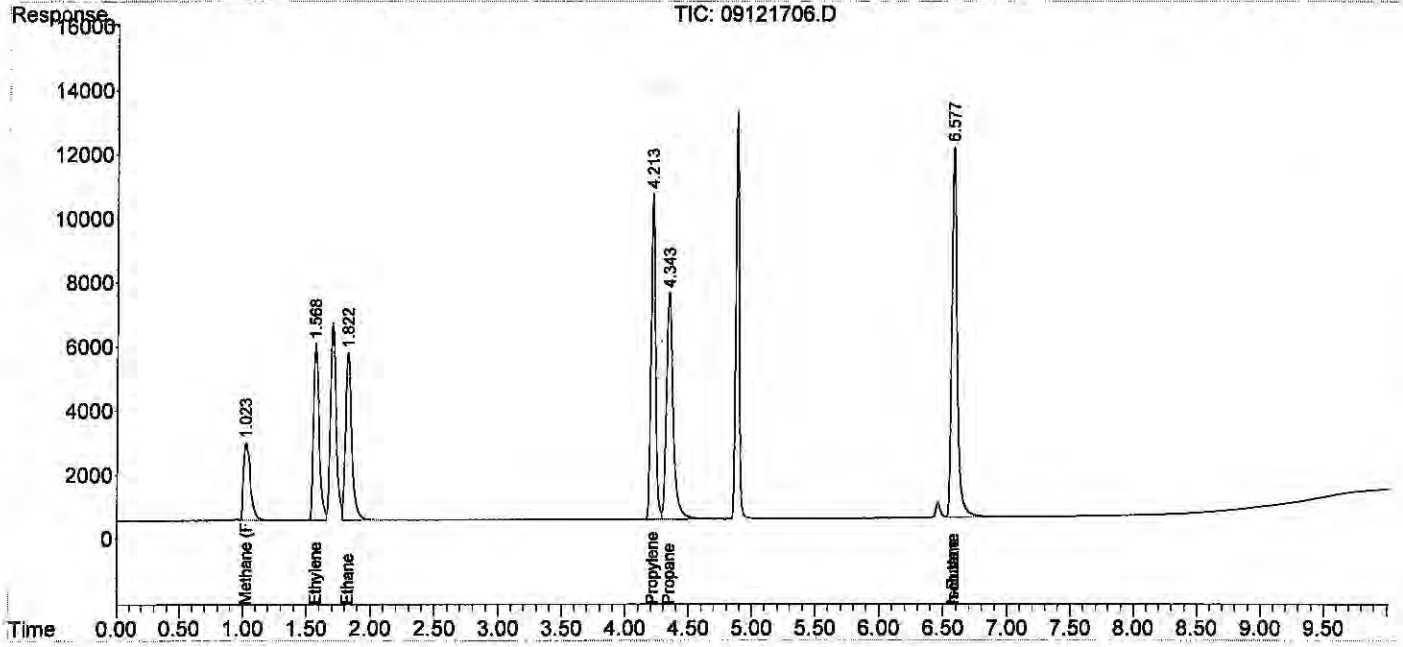
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121706.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 12:30
Operator : MC
Sample : 10.57ppm 0.7ml s32-09051701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:09:24 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121707.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 12:47
Operator : MC
Sample : 200ppm 0.1ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:09:59 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.897	155286	0.065	ppm
2)	Carbon monoxide	1.897	155286	N.D.	ppm
3)	Methane (TCD)	4.079f	27015	2856.472	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.063	1735997	190.792	ppm
7)	Ethylene	1.597	3339702	198.758	ppm
8)	Ethane	1.849	3350442	194.597	ppm
9)	Propylene	4.201	4504060	185.706	ppm
10)	Propane	4.333	5043036	204.809	ppm
11)	Isobutylene	0.000	0	N.D.	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

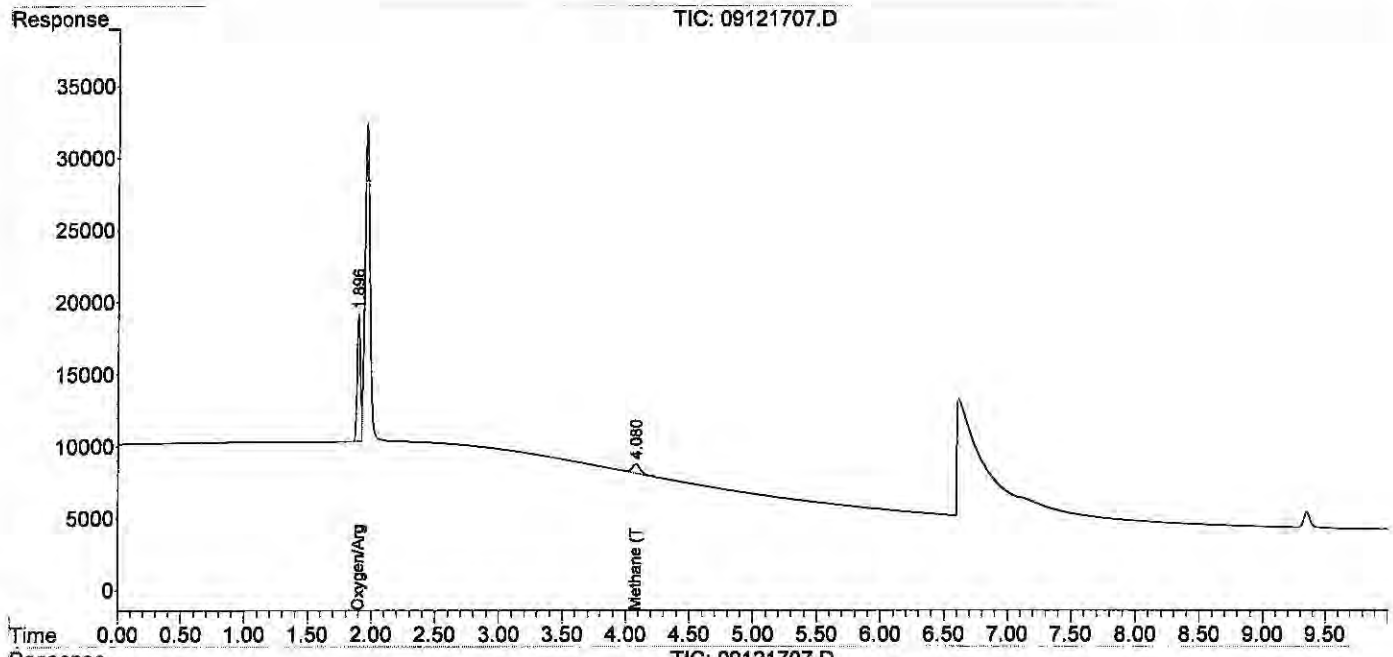
(f)=RT Delta > 1/2 Window (m)=manual int.

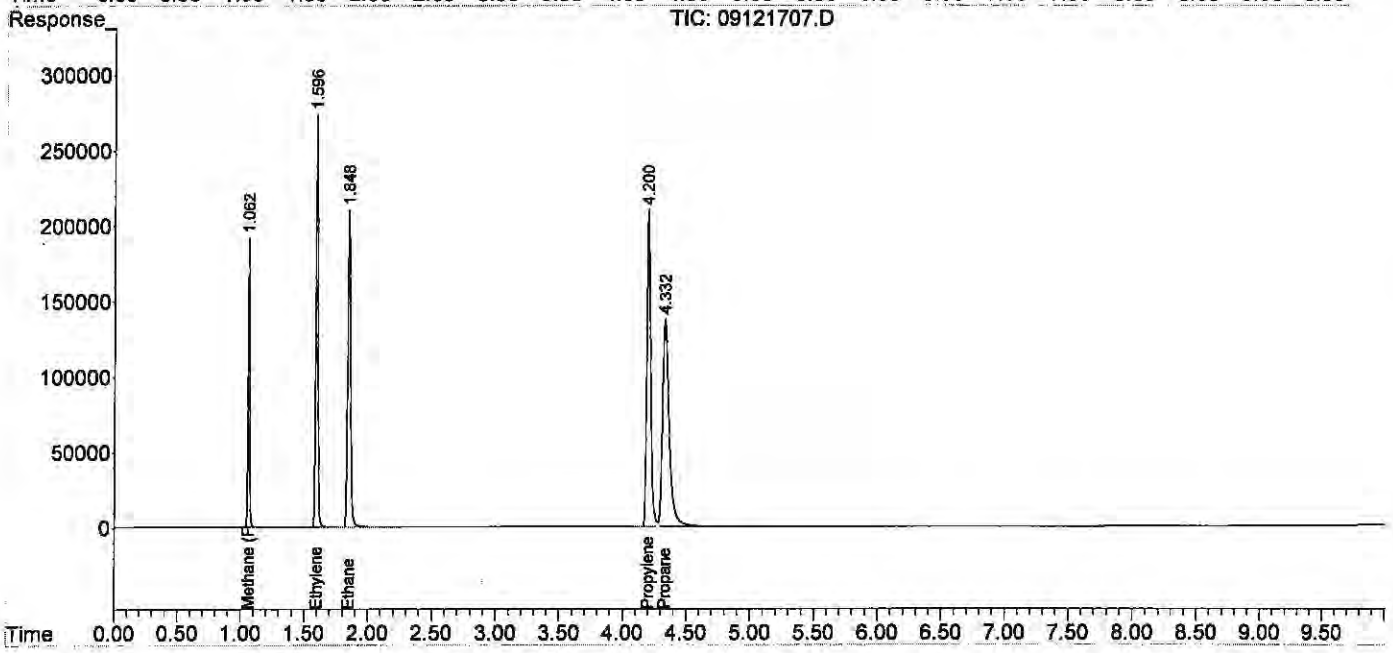
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121707.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 12:47
Operator : MC
Sample : 200ppm 0.1ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:09:59 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:04:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121708.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 13:00
Operator : MC
Sample : 600ppm 0.3ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:10:57 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:10:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.884	196022	0.124	ppm
2)	Carbon monoxide	1.884	196022	N.D.	ppm
3)	Methane (TCD)	4.070f	88282	782.730	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.044	5189849	539.759	ppm
7)	Ethylene	1.573	10007759	590.286	ppm
8)	Ethane	1.822	10048964	583.213	ppm
9)	Propylene	4.160	13569343	562.612	ppm
10)	Propane	4.300	15251326	615.171	ppm
11)	Isobutylene	6.143	9815	NoCal	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

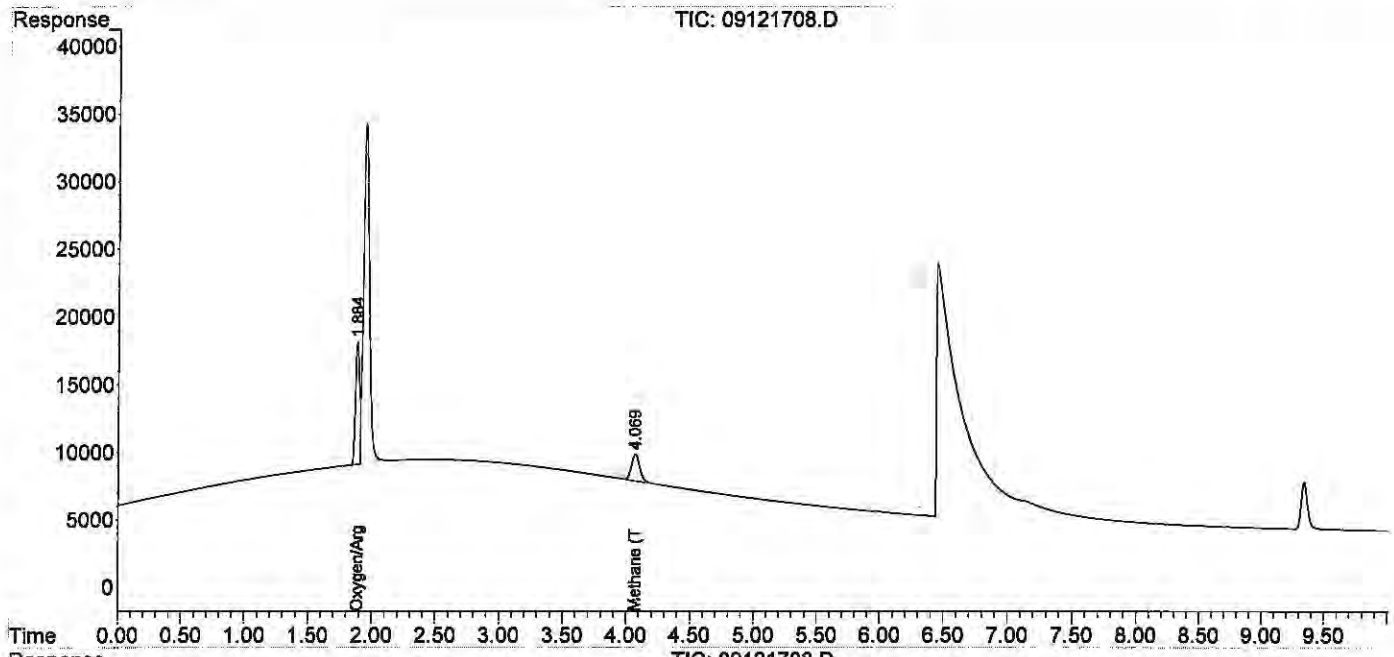
(f)=RT Delta > 1/2 Window (m)=manual int.

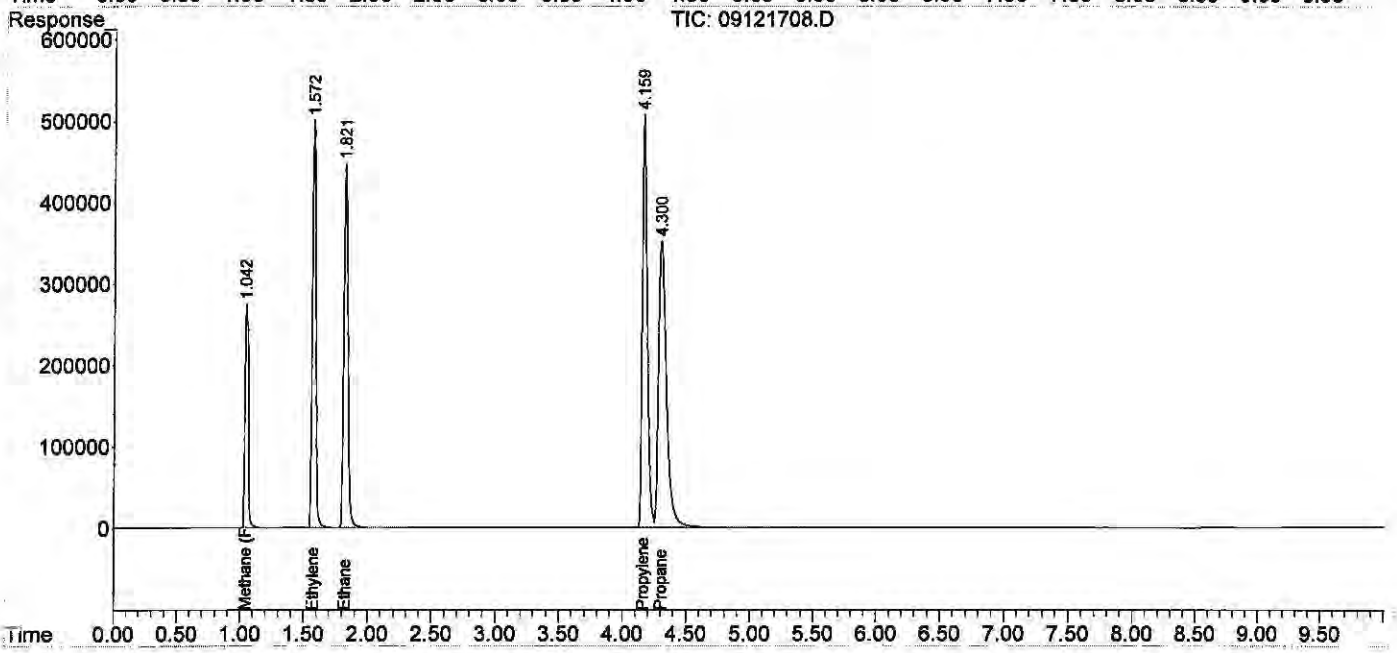
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121708.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 13:00
Operator : MC
Sample : 600ppm 0.3ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:10:57 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:10:50 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121709.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 13:47
Operator : MC
Sample : 1000ppm 0.5ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:11:46 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:11:38 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
Target Compounds					
1)	Oxygen/Argon	1.879	192611	0.162	ppm
2)	Carbon monoxide	1.879	192611	N.D.	ppm
3)	Methane (TCD)	4.070f	145492	1244.729	ppm
4)	Carbon dioxide	0.000	0	N.D.	ppm
6)	Methane (FID)	1.039	8598534	945.644	ppm
7)	Ethylene	1.576	16608504	981.887	ppm
8)	Ethane	1.827	16709165	973.644	ppm
9)	Propylene	4.161	22494888	941.060	ppm
10)	Propane	4.298	25459411	1023.223	ppm
11)	Isobutylene	6.138	16970	8645.243	ppm
12)	Isobutane	0.000	0	N.D.	ppm
13)	n-Butane	0.000	0	N.D.	ppm

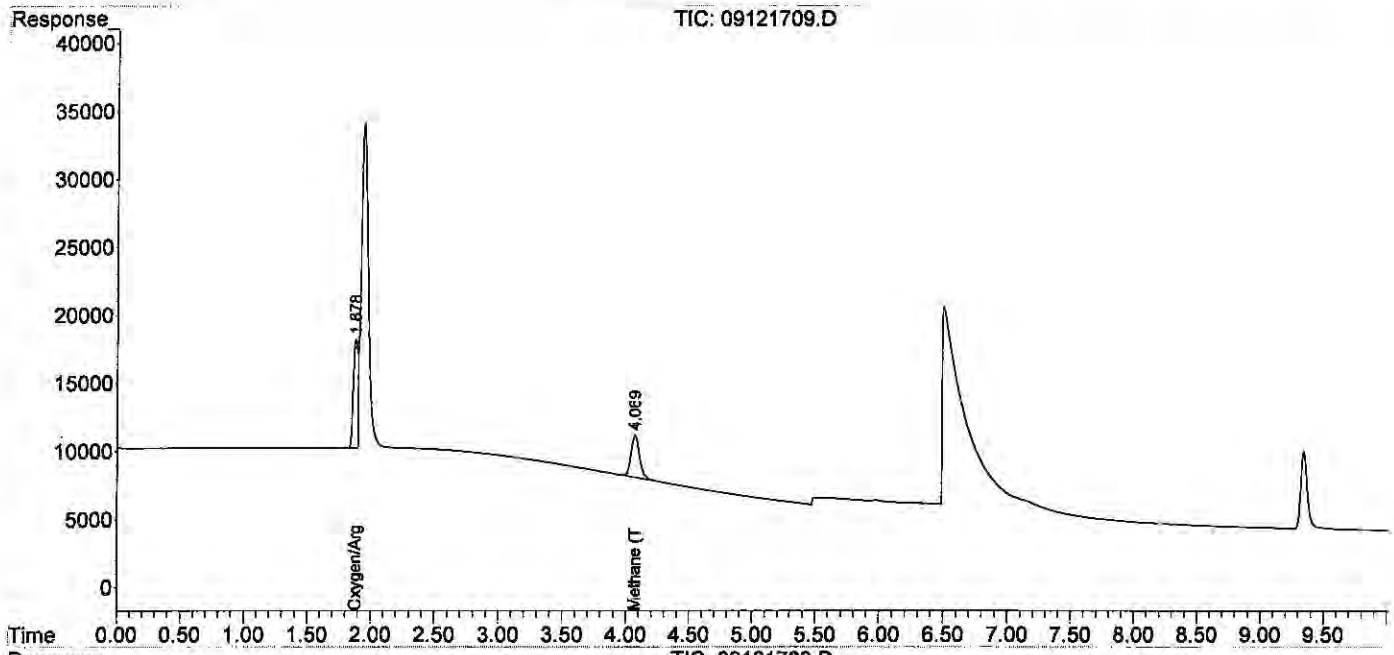
(f)=RT Delta > 1/2 Window (m)=manual int.

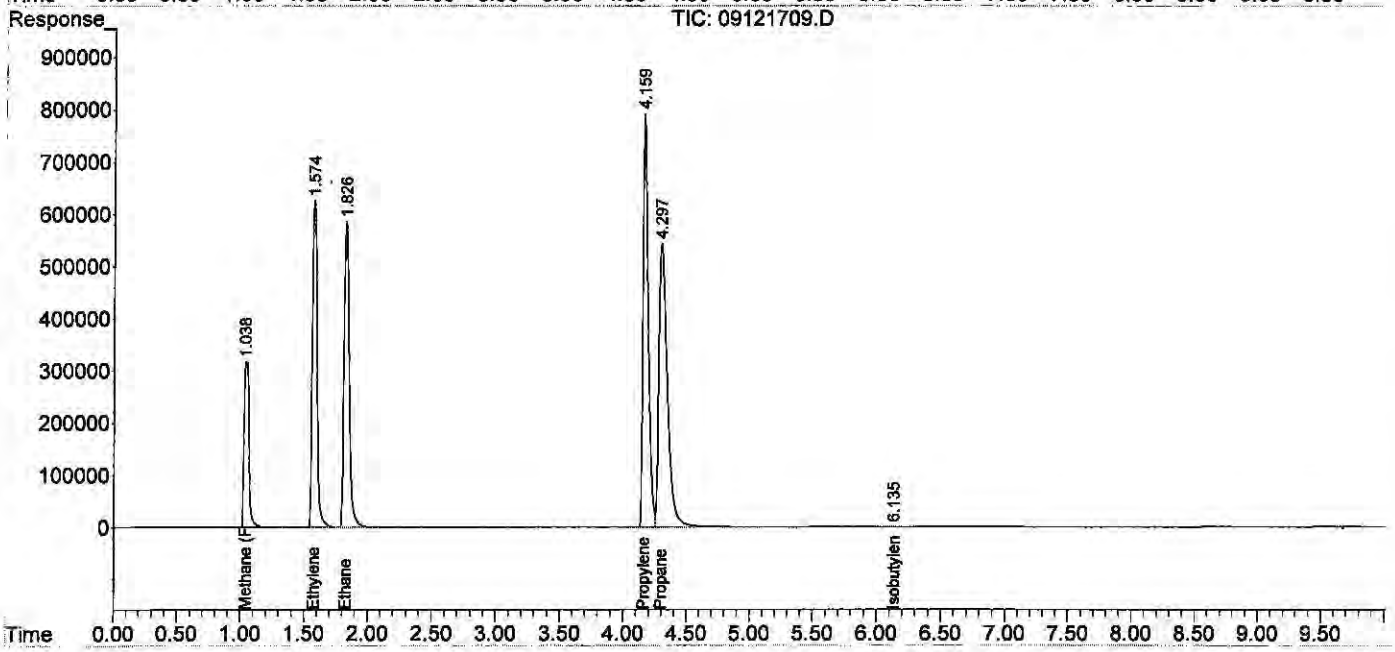
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121709.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 13:47
Operator : MC
Sample : 1000ppm 0.5ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:11:46 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:11:38 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121710.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 14:07
Operator : MC
Sample : 2000ppm 1ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:12:33 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:12:25 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

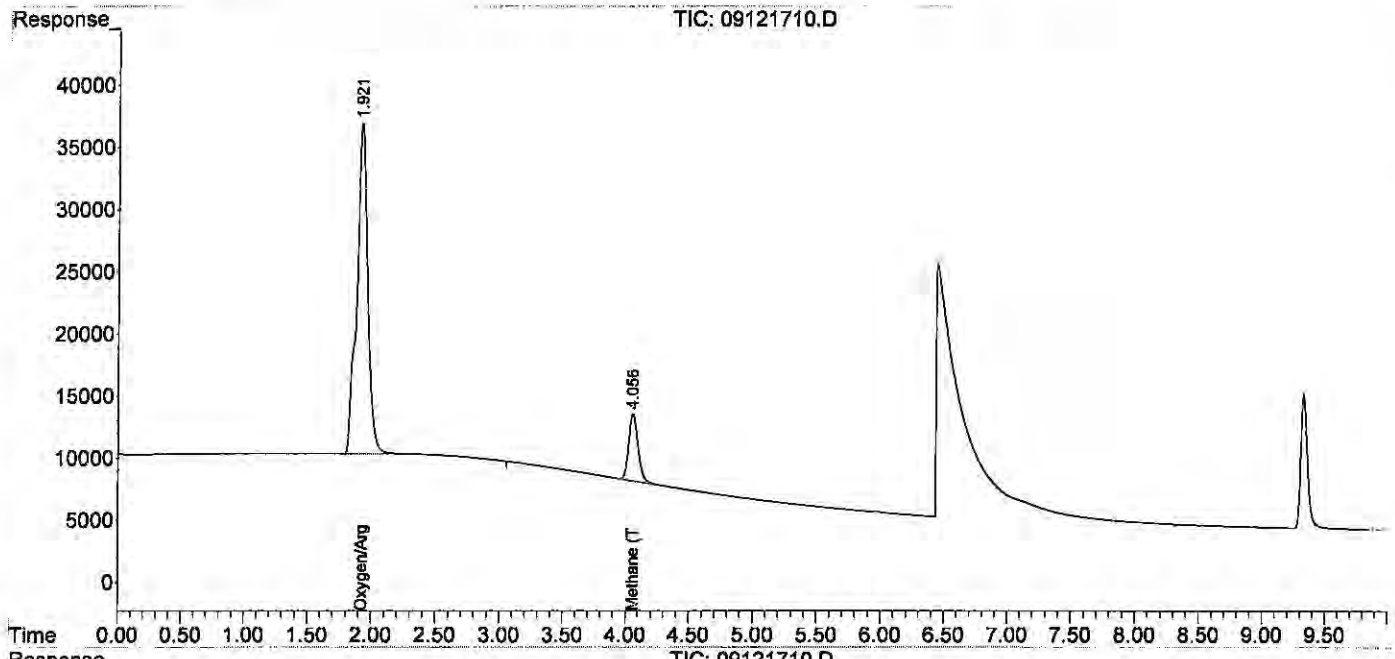
	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.922f	1578147	1.659	ppm	
2)	Carbon monoxide	1.922f	1578147	N.D.	ppm	
3)	Methane (TCD)	4.057f	281651	3526.607	ppm	
4)	Carbon dioxide	0.000	0	N.D.	ppm	
6)	Methane (FID)	1.016	16098209	1763.622	ppm	
7)	Ethylene	1.552	31192444	1848.268	ppm	
8)	Ethane	1.801	31424218	1837.143	ppm	
9)	Propylene	4.129	42124690	1775.341	ppm	m
10)	Propane	4.269	48583085	1946.921	ppm	
11)	Isobutylene	6.136	33832	25613.603	ppm	
12)	Isobutane	6.576f	3845	0.120	ppm	
13)	n-Butane	6.576f	3845	0.120	ppm	

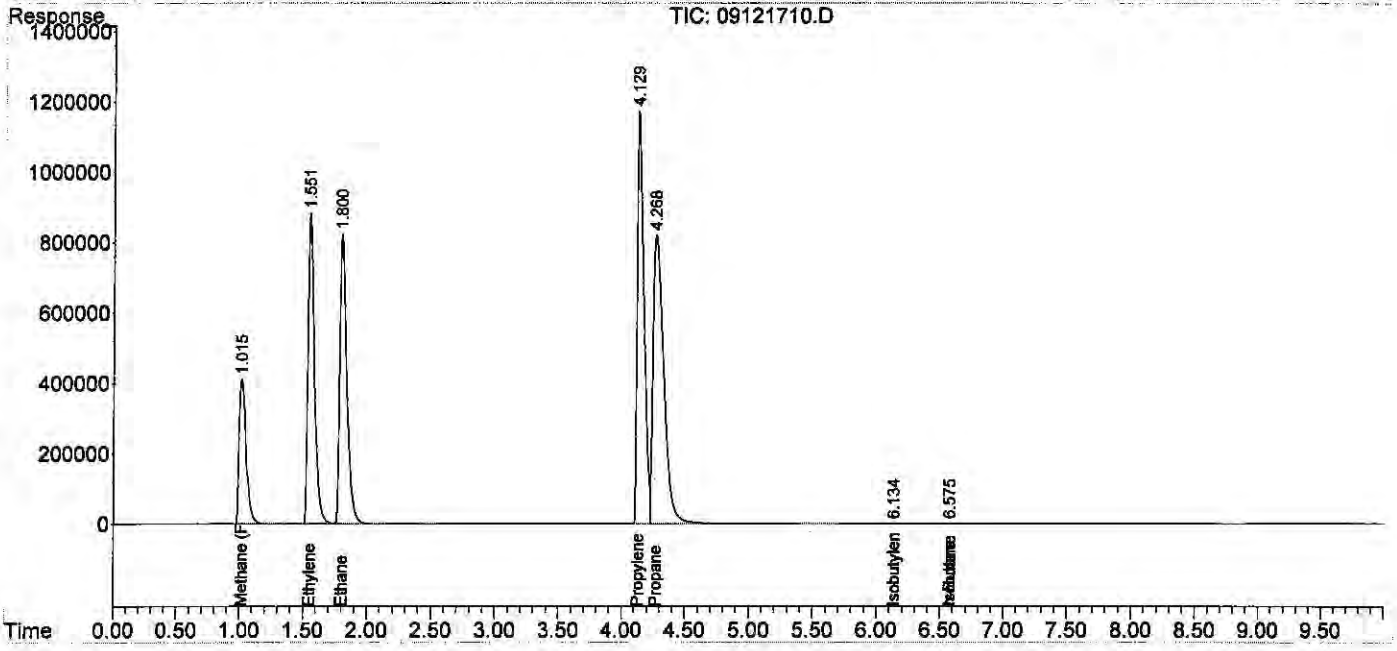
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121710.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 14:07
Operator : MC
Sample : 2000ppm 1ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:12:33 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:12:25 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



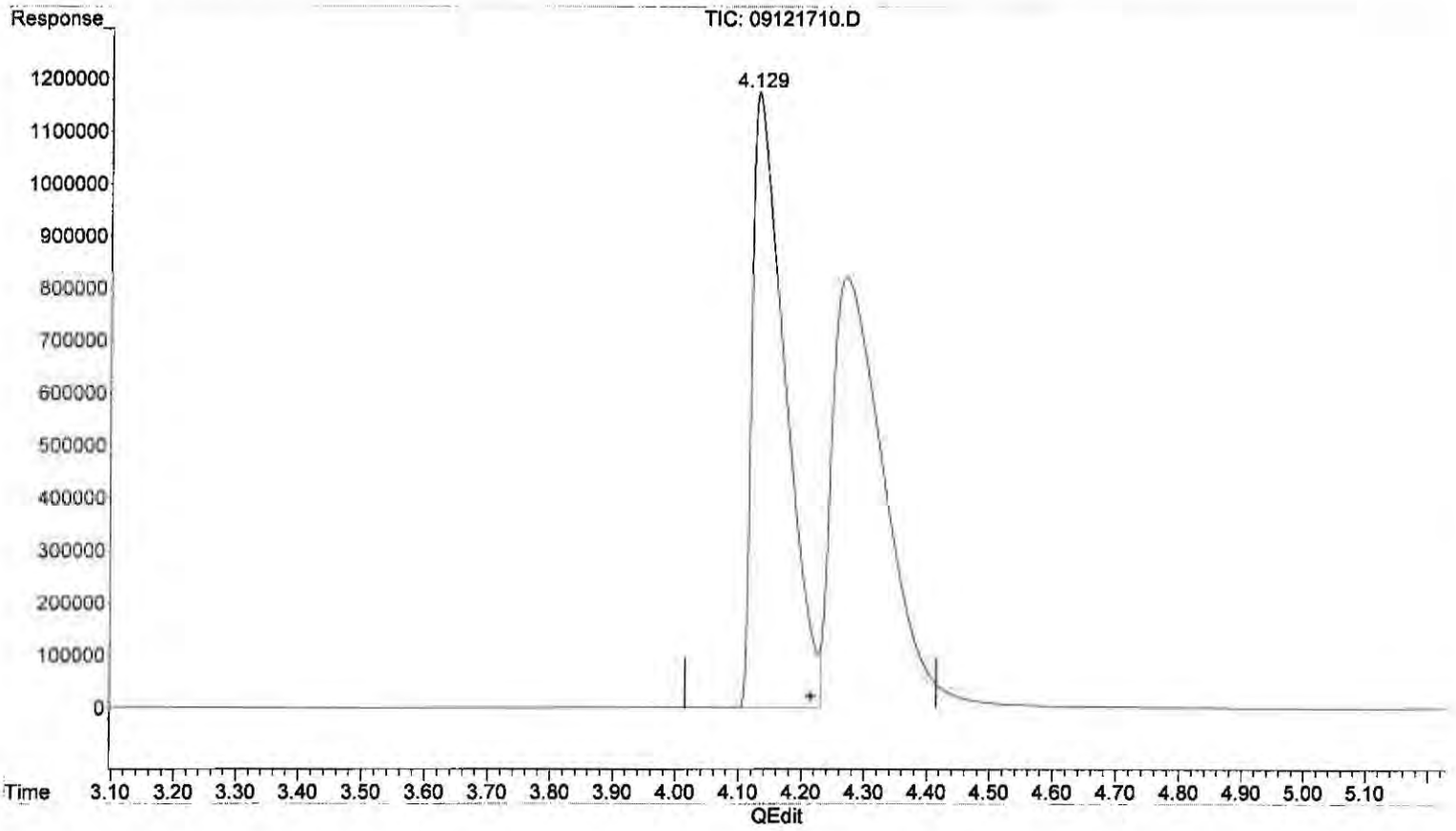


Quantitation Report (Qedit)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121710.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 14:07
Operator : MC
Sample : 2000ppm 1ml s32-09121701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:12:33 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:12:25 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(9) Propylene

4.129min 1775.341 ppm m

response 42124690

(+) = Expected Retention Time

RS091217_R.M Wed Sep 13 15:08:03 2017

Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121711.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 14:48
Operator : MC
Sample : 4000ppm 0.1ml s32-08231701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:13:37 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:13:29 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

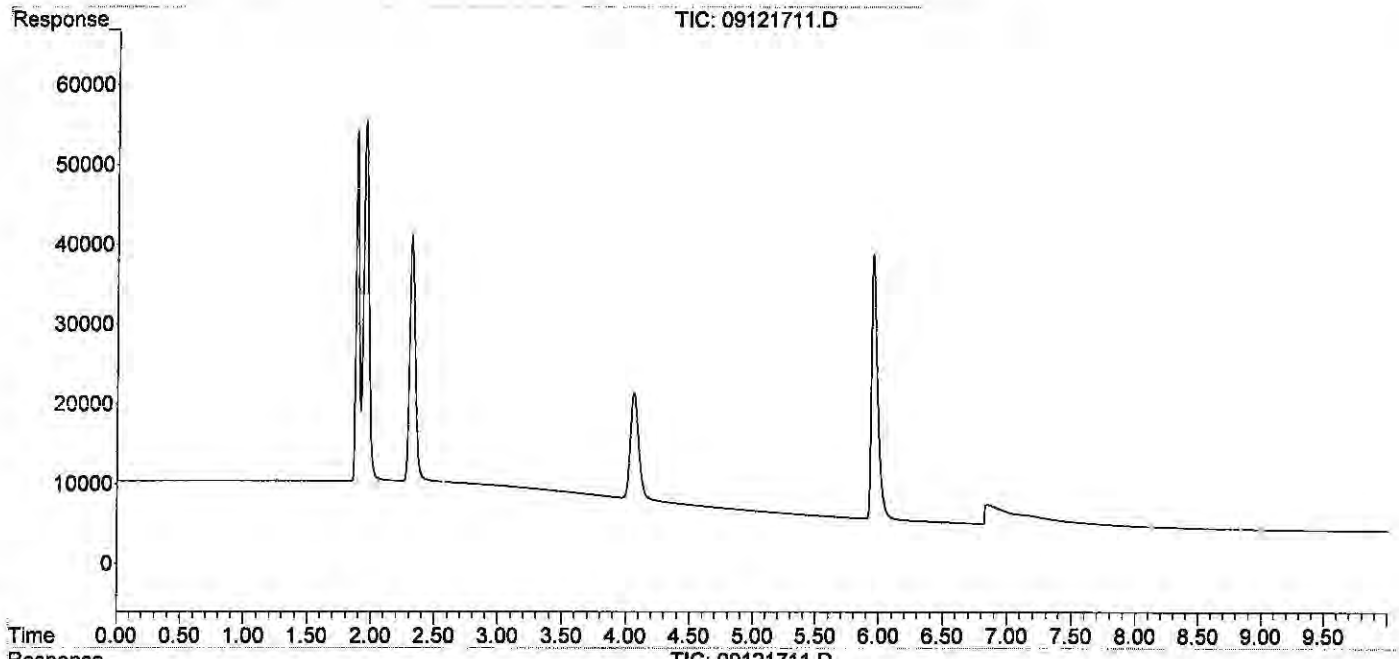
	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	d
2)	Carbon monoxide	0.000	0	N.D.	ppm	d
3)	Methane (TCD)	0.000	0	N.D.	ppm	d
4)	Carbon dioxide	0.000	0	N.D.	ppm	d
6)	Methane (FID)	1.059	35776839	3925.122	ppm	
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

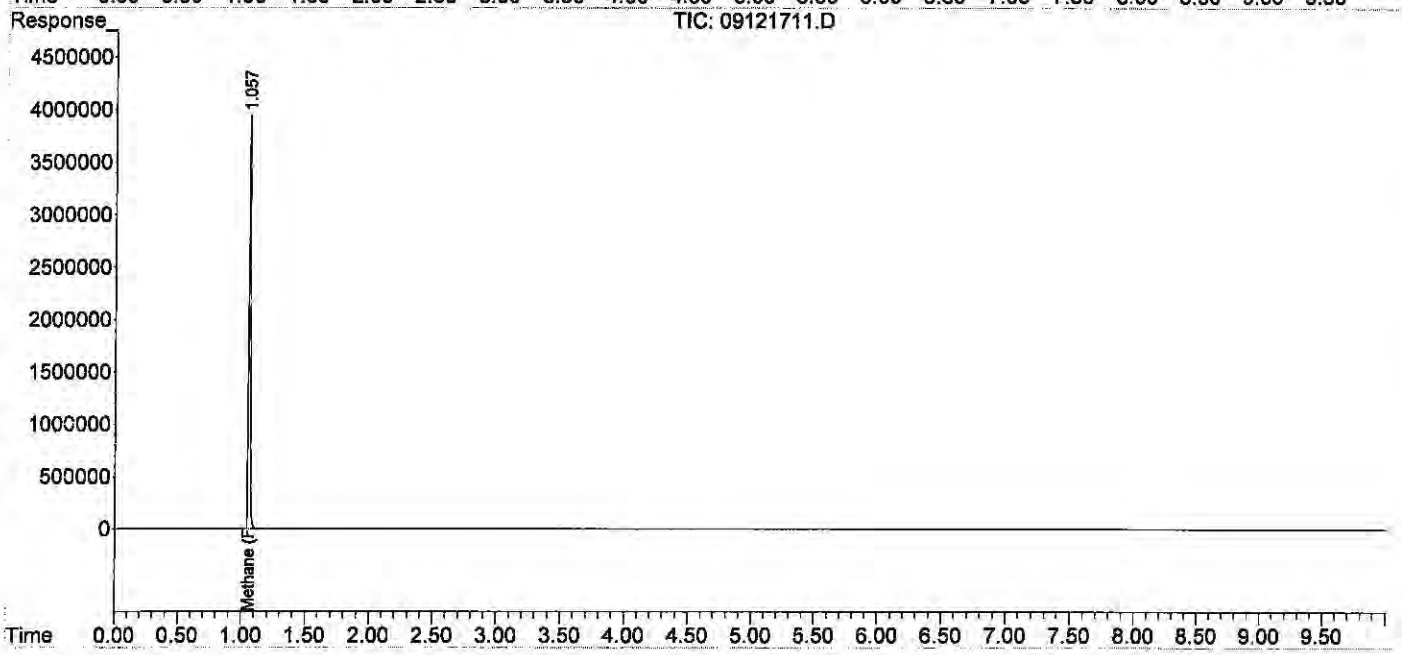
(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121711.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 14:48
Operator : MC
Sample : 4000ppm 0.1ml s32-08231701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:13:37 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:13:29 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase:
Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121712.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 15:21
Operator : MC
Sample : 20000ppm 0.5ml s32-08231701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:14:17 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:13:29 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	0.000	0	N.D.	ppm	d
2)	Carbon monoxide	1.836	3190788	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	d
4)	Carbon dioxide	0.000	0	N.D.	ppm	d
6)	Methane (FID)	1.034	169009160	18492.064	ppm	
7)	Ethylene	0.000	0	N.D.	ppm	
8)	Ethane	0.000	0	N.D.	ppm	
9)	Propylene	0.000	0	N.D.	ppm	
10)	Propane	0.000	0	N.D.	ppm	
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	0.000	0	N.D.	ppm	
13)	n-Butane	0.000	0	N.D.	ppm	

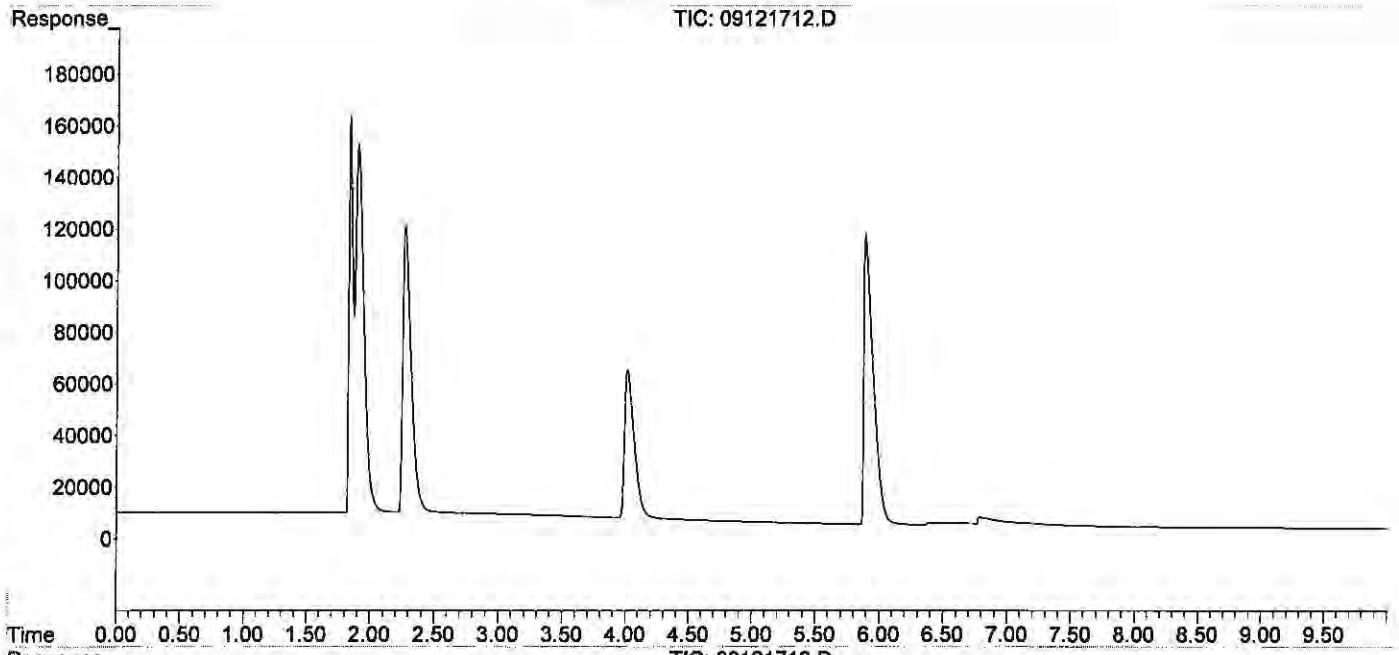
(f)=RT Delta > 1/2 Window (m)=manual int.

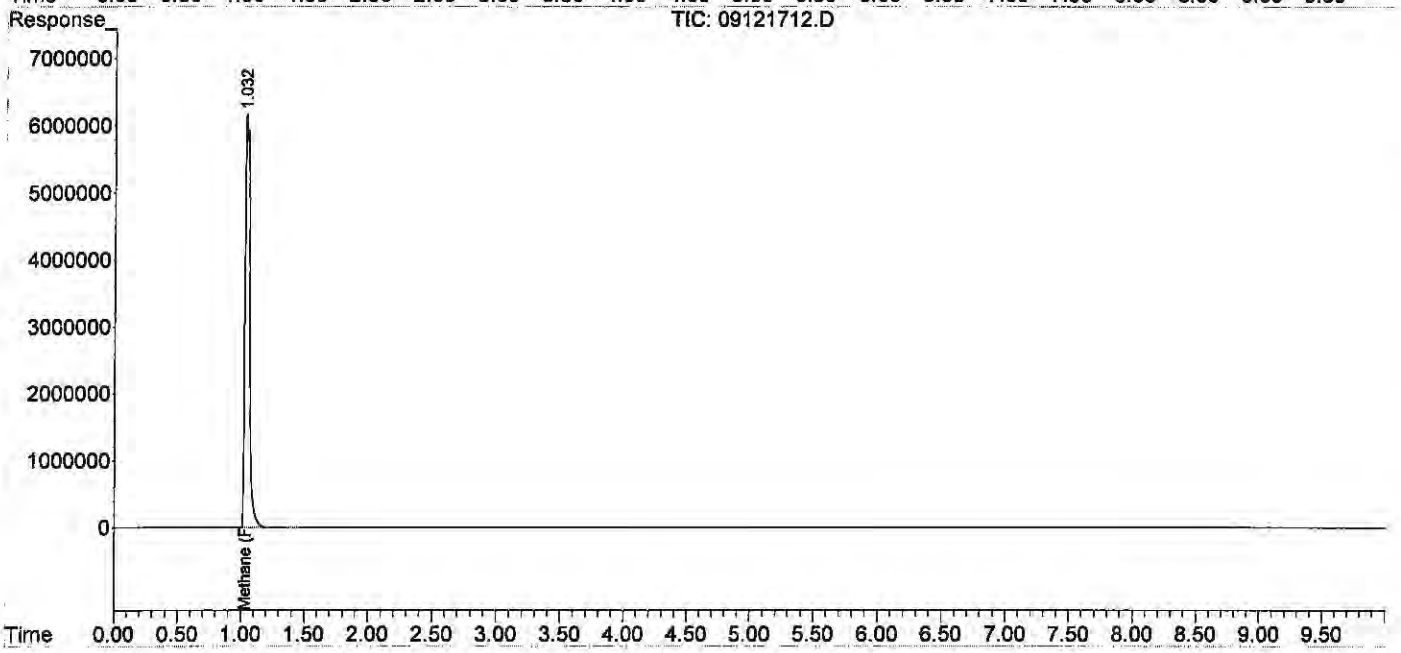
Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121712.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 15:21
Operator : MC
Sample : 20000ppm 0.5ml s32-08231701
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:14:17 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:13:29 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Quantitation Report (QT Reviewed)

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121715.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 16:15
Operator : MC
Sample : icv s30-05241604
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:15:11 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:13:29 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units	
Target Compounds						
1)	Oxygen/Argon	1.843	2922459	3.687	ppm	
2)	Carbon monoxide	1.843	2922459	N.D.	ppm	
3)	Methane (TCD)	0.000	0	N.D.	ppm	actual %D
4)	Carbon dioxide	0.000	0	N.D.	ppm	
6)	Methane (FID)	1.063	13748	1.516	ppm	1.50 101.1
7)	Ethylene	1.598	24153	1.443	ppm	1.50 96.2
8)	Ethane	1.850	24488	1.445	ppm	1.50 96.3
9)	Propylene	4.221	36004	1.537	ppm	1.50 102.5
10)	Propane	4.350	37738	1.517	ppm	1.51 100.5
11)	Isobutylene	0.000	0	N.D.	ppm	
12)	Isobutane	6.579f	48019	1.804	ppm	9/14/2
13)	n-Butane	6.579f	48019	1.804	ppm	

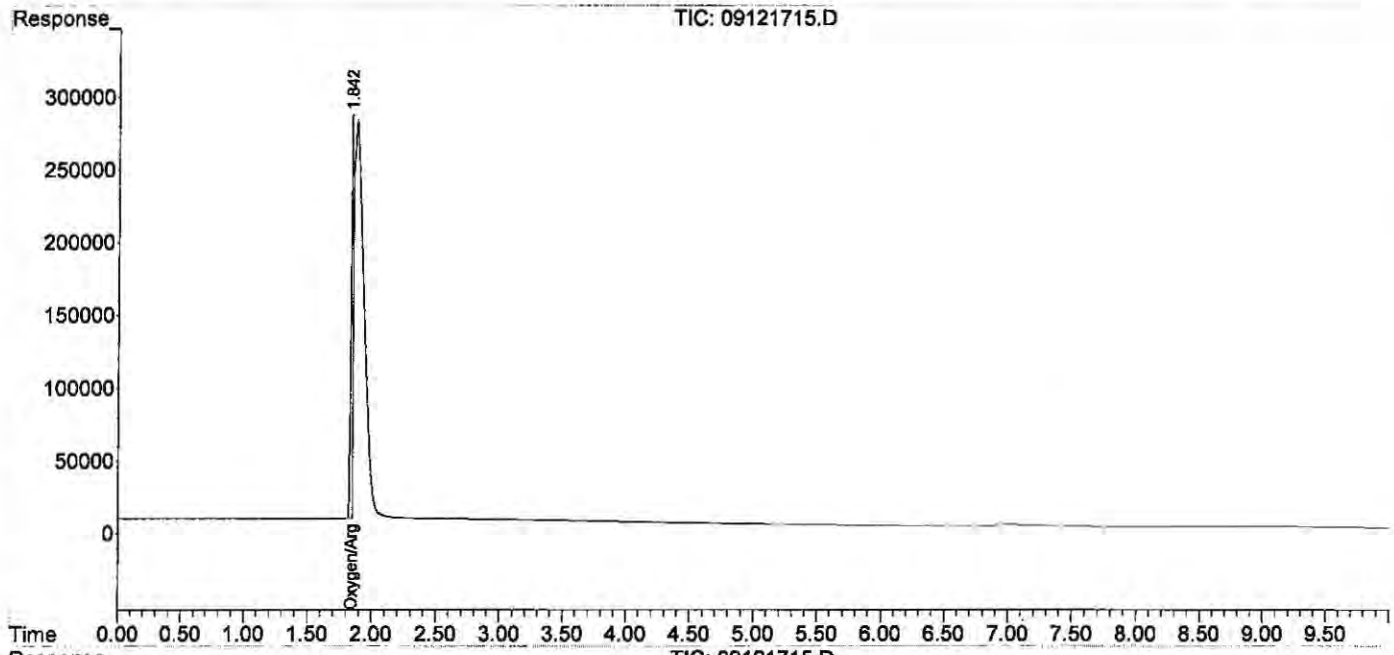
(f)=RT Delta > 1/2 Window (m)=manual int.

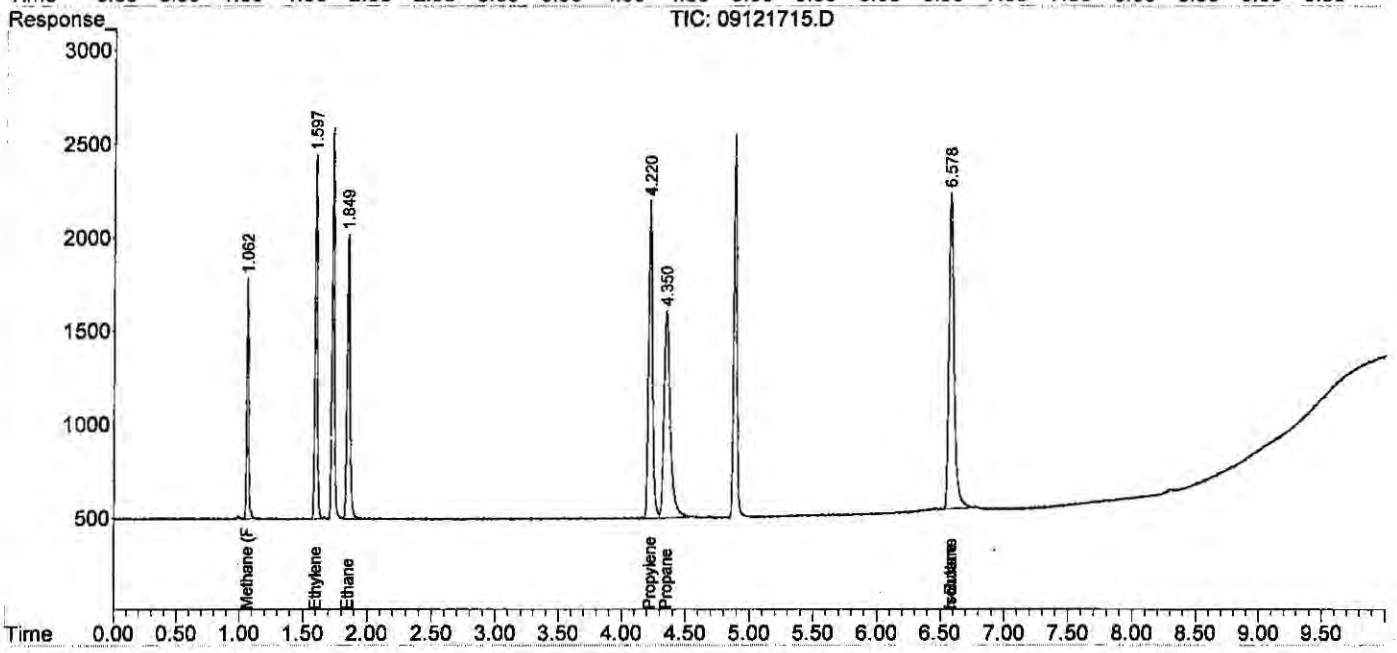
9/14/2017

Data Path : J:\GC10\DATA\RSK_FID\2017_09\12\
Data File : 09121715.D
Signal(s) : Signal #1: TCD1A.CH Signal #2: FID2B.CH
Acq On : 12-Sep-2017, 16:15
Operator : MC
Sample : icv s30-05241604
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Sep 13 11:15:11 2017
Quant Method : J:\GC10\METHODS\RS091217_R.M
Quant Title : RSK175, VOA-DISGAS, VOA-TO3C1C6
QLast Update : Wed Sep 13 11:13:29 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





Injection Log

Directory: I:\GC10\DATA\RSK_FID\2017_09\12\

	Date/Time	File Name	Sample ID	Misc Info	Operator	Acquisition Method	Comments
1	12-Sep-17, 08:38:08	09121701.D	test		MC	RSKBOTH.M	
2	12-Sep-17, 10:52:40	09121702.D	0.151ppm 0.250ml s32-09121702		MC	RSKBOTH.M	Curve
3	12-Sep-17, 11:05:49	09121703.D	0.302ppm 0.5ml s32-09121702		MC	RSKBOTH.M	Curve
4	12-Sep-17, 11:45:34	09121704.D	1.51ppm 0.1ml s32-09051701		MC	RSKBOTH.M	Curve
5	12-Sep-17, 12:09:33	09121705.D	4.53ppm 0.3ml s32-09051701		MC	RSKBOTH.M	Curve
6	12-Sep-17, 12:30:23	09121706.D	10.57ppm 0.7ml s32-09051701		MC	RSKBOTH.M	Curve
7	12-Sep-17, 12:47:18	09121707.D	200ppm 0.1ml s32-09121701		MC	RSKBOTH.M	Curve
8	12-Sep-17, 13:00:22	09121708.D	600ppm 0.3ml s32-09121701		MC	RSKBOTH.M	Curve
9	12-Sep-17, 13:47:48	09121709.D	1000ppm 0.5ml s32-09121701		MC	RSKBOTH.M	Curve
10	12-Sep-17, 14:07:58	09121710.D	2000ppm 1ml s32-09121701		MC	RSKBOTH.M	Curve
11	12-Sep-17, 14:48:48	09121711.D	4000ppm 0.1ml s32-08231701		MC	RSKBOTH.M	Curve
12	12-Sep-17, 15:21:51	09121712.D	20000ppm 0.5ml s32-08231701		MC	RSKBOTH.M	Curve
13	12-Sep-17, 15:38:59	09121713.D	mb 0.5ml		MC	RSKBOTH.M	Pass
14	12-Sep-17, 15:55:35	09121714.D	mb 0.1ml		MC	RSKBOTH.M	Pass
15	12-Sep-17, 16:15:26	09121715.D	icv s30-05241604		MC	RSKBOTH.M	Pass

Injection Log

Directory: I:\GC10\DATA\RSK_FID\2018_09\01\

	Date/Time	File Name	Sample ID	Misc Info	Operator	Acquisition Method	Comments
1	01-Sep-18, 10:11:03	09011801.D	std s32-07231801		WH	RSKBOTH.M	pass
2	01-Sep-18, 10:28:14	09011802.D	rb 0.1ml		WH	RSKBOTH.M	pass
3	01-Sep-18, 10:45:52	09011803.D	mcs 0.1ml		WH	RSKBOTH.M	pass
4	01-Sep-18, 11:05:40	09011804.D	fid lcs s30-05241604		WH	RSKBOTH.M	pass
5	01-Sep-18, 11:19:15	09011805.D	fid lcsd s30-05241604		WH	RSKBOTH.M	pass
6	01-Sep-18, 11:33:06	09011806.D	P1804546-001 0.1ml		WH	RSKBOTH.M	
7	01-Sep-18, 11:46:17	09011807.D	P1804546-001 ms 0.1ml		WH	RSKBOTH.M	
8	01-Sep-18, 12:00:37	09011808.D	P1804546-001 msd 0.1ml		WH	RSKBOTH.M	
9	01-Sep-18, 12:13:48	09011809.D	P1804546-002 0.1ml		WH	RSKBOTH.M	
10	01-Sep-18, 12:27:14	09011810.D	P1804546-003 0.1ml		WH	RSKBOTH.M	
11	01-Sep-18, 12:40:25	09011811.D	P1804548-001 0.1ml		WH	RSKBOTH.M	
12	01-Sep-18, 12:54:38	09011812.D	P1804548-002 0.1ml		WH	RSKBOTH.M	
13	01-Sep-18, 13:07:49	09011813.D	P1804548-003 0.1ml		WH	RSKBOTH.M	
14	01-Sep-18, 13:22:56	09011814.D	P1804548-004 0.1ml		WH	RSKBOTH.M	
15	01-Sep-18, 13:35:07	09011815.D	std s32-07231801		WH	RSKBOTH.M	pass

Data Validation Checklist
Methane, Ethane, Ethene & Carbon dioxide by RSK175

Project Name:	LHAAP-46	SDG/Report No.:	HS18081504 (P1804546)
Project No.:	77501032	Lab ID:	ALS-Houston (Simi Valley)
No. of Samples:	2 Originals & 1 FD	Matrix:	GW
1st / 2nds	SP		

All areas evaluated by QAPP and/or SW846 methods and the identification as to whether qualification is necessary are identified below:

Area Evaluated	Outlier/Qualifier	Qualification Necessary	
		YES	NO
1. Hold Time/Preservation.			X
2. BFB Tune.			X
3. ICAL (RRF and/or %RSD)			X
4. CCAL (RRF and/or %D)			X
5. Blanks (Method and/or Field QC)			X
6. LCS			X
7. MS/MSD		X	
8. Field Duplicate			X
10. Form1 vs Database			X
11. Professional Judgement	X	X	

The following section is intended to specify areas evaluated and to provide an explanation for qualification identified during the review.

Comments/Discussion:

Associated samples (2):
46WW02-180829, 46WW11-180829
MEE plus Carbon dioxide
1. Hold Time/Preservation (QAPP - Worksheet#19/SW846/ASTM methods).
No Qualification Necessary
Rec'd <6ºC; collected 8/29/2018; analyzed CO2: 9/05/2018 & MEE: 9/01/2018
2. BFB Tune (instr. performance criteria) (Table 12)
09011815.D 9/01/2018, 13:35:07 No Qualification Necessary
3. ICAL (Worksheet #24, Table 12) (EPA RSKSOP-175; 20%RSD or R>0.995)
No Qualification Necessary
RS082817 CO2.M 8/29/2017, 16:13:13 All criteria met
09051801.D, 9/05/2018 10:40:10, 09051816.D 9/05/2018 14:58:31 All criteria met

Data Validation Checklist
Methane, Ethane, Ethene & Carbon dioxide by RSK175

4. CCAL (Worksheet #24, Table 12) (EPA RSKSOP-175; 15%D)

09121715.D CO2, MEE All criteria met No Qualification Necessary

5. Blanks "UB" (EPA Region 3&4: Method and/or Field QC)

No Qualification Necessary

P180905-MB-CO2, P180901-MB-MEE Results are non-detected

6. LCS (QAPP – Worksheet#15)

No Qualification Necessary

P180905-DLCS –CO2, P180901-LCS/DLCS-MEE-All criteria met

7. MS/MSD (QAPP – Worksheet#15 Parent sample only)

CO2- P1804546-001MS/DMS Sample concentration greater than four times the spike concentration, No Qualification Necessary. MEE P1804546-001MS/DMS, MEE recoveries below limits, MEE results qualified 08A.

8. Field Duplicate (QAPP – Worksheet#36, Table 23) - WATERS 20% / SOILS 50%)

(non-detect & result <RL no qualifiers / non-detect & result >RL "J/UJ" qualifiers)

46WW11-180829/46WW11-180829-FD

RSK	Method	Units	46WW11-180829	LQ	46WW11-180829 FD	LQ	%RPD
Carbon Dioxide	RSK 175	ug/L	790000	2000	730000	2000	8
Methane			39	1.3	36	1.3	8

9. Form 1 vs Database

Check laboratory's Form1 against Database; one sample per SDG per fraction; list sample number:

10. Multiple Results

No Qualification Necessary

11. Professional Judgement:

46WW02-180829: Carbon dioxide-The laboratory Case Narrative indicates that the sample had a pH of 5 which may give a high bias to the CO2 results; therefore, CO2 results for this sample are estimated J19.

Data Validation Checklist
Inorganic Metals by SW846 6010/6020/7470/7471

Project Name:	LHAAP-46	SDG/Report No.:	HS18081504
Project No.:	77501032	Lab ID:	ALS-Houston
No. of Samples:	2 Originals & 1 FD	Matrix:	GW
1st / 2nd by	SP		

* Note: If field QC samples (i.e. TB, ER, FB, etc.) are reported in another SDG, the SDG, blanks, detected contaminants, and associated samples are identified in the comment/discussion section provided below

All areas evaluated by QAPP and/or test methods and the identification as to whether qualification is necessary are identified below:

Area Evaluated	Outlier Reports	Qualification Necessary	
		YES	NO
1. Hold Time/Preservation.			X
2. ICAL			X
3. CCAL			X
4. LLICV-Low			X
5. Blanks (Method, Calibration and/or Field QC)			X
6. LCS			X
7. ICP Check Standards			X
8. MS/MSD			X
9. Field Duplicate			X
10. Serial Dilutions			X
11. Internal Standards (6020)			X
12. Form 1 vs Database			X

The following section is intended to specify areas evaluated and to provide an explanation for qualification identified during the review.

Comments/Discussion:

Associated samples (2):
46WW02-180829, 46WW11-180829
Iron, total and dissolved; and manganese dissolved.
1. Hold Time/Preservation. (QAPP - Worksheet#19/SW846)
No Qualification Necessary
Received <6.0°C; collected: 8/29/2018; digested: 9/04, 05/2018; analyzed: 9/05, 06/2018
2. ICAL (Worksheet #24, Table 12) (DoD_5.0/SW846: R^2>0.990)
(090518A.batch.bin., 9/05/2018 16:21, 090518A.9/05/2018 16:21) No qualification necessary
3. CCV (Worksheet #24, Table 12) (DoD_5.0 and/or SW846: ±10%D)

Data Validation Checklist
Inorganic Metals by SW846 6010/6020/7470/7471

(ICPMS05_322873, ICPMS05_322949) No Qualification Necessary

4. LLICV-Low Level ICV - CRDL (Worksheet #24, Table 12) (DoD_5.0 <±20% / SW846<±30%) <±20% applicable

LLICV2 (013SMPL.d 9/05/2018 12:01:33), LLICV5 (014LICV.d 9/05/2018 12:03:31

LLICV2 (059SMPL.d 9/05/2018 13:37:55), LLICV5 (060LICV.d 9/05/2018 13:39:56)

No qualification Necessary

5. Blanks "UB" 5X(EPA Region#&4: Method and/or Field QC)

(ICPMS05_QC Batch 132159, ICPMS05_QC Batch 132160) –Results were non-detected No Qualification Necessary

6. LCS (QAPP –Worksheet #15) (DoD_5.0 QSM limits)

(Form 7's) No Qualification Necessary

7. ICP Check Standards (Worksheet #24, Table 12) (DoD_5.0 and SW846/QAPP – worksheet#24, Table 12: ±20%)

(ICPMS05_322873, ICPMS05_322949) No Qualification Necessary

8. MS/MSD (QAPP - Worksheet#15 (QSM/DoD/Lab); parent sample only

(Form 5A's) HS18081504-01MS (46WW02-180829). All criteria are met for iron, manganese recovery lower than QAPP/DOD QSM 5.1 specified limit, sample concentration greater than four times the spike concentration. No Qualification Necessary

9. Field Duplicate (QAPP – worksheet#36 _Table 23) 20% waters / 50% soils)

(non-detect & result <RL or both <RL no qualifiers / non-detect & result >RL "J/UJ" qualifiers)

46WW11-180829/46WW11-180829-FD

Metals	Method	Units	46WW11-180829	LQ	46WW11-180829 FD	LQ	%RPD
Iron, total	6020A	ug/L	0.544	0.2	0.505	0.2	7.4
Iron, dissolved			0.547	0.2	0.526	0.2	3.9
Manganese, dissolved			0.124	0.005	0.122	0.005	1.6

10. Serial Dilutions (DoD_5.0/SW846/QAAP: Worksheet # 28, Table 15) ±10%; SW6010/6020 >50X MDL; parent sample)

(Form 8's) HS18081504-01SD (46WW02-180829) All criteria met. No Qualification Necessary

Data Validation Checklist
Inorganic Metals by SW846 6010/6020/7470/7471

11. Internal Standard (6020 only: DoD5.0: 30-120% and/or NFG 60-125%) applicable by lab
12. Form 1 vs Database
Check laboratory's Form1 against Database; minimum one sample per SDG per fraction; list sample number:
11. Multiple Results
No Qualification Necessary

Data Validation Checklist
Volatile Organics by SW846 8260C

Project Name:	LHAAP-46	SDG/Report No.:	HS18081504
Project No.:	77501032	Lab ID:	ALS-Houston
No. of Samples:	2 Originals & 1 FD	Matrix:	GW
1ST / 2nd by			

* Note: If field QC samples (i.e. TB, ER, FB, etc.) are reported in another SDG, the SDG, blanks, detected contaminants, and associated samples are identified in the comment/discussion section provided below

All areas evaluated by QAPP and/or SW846 8260 methods and the identification as to whether qualification is necessary are identified below:

Area Evaluated	Outlier/Qualifier	Qualification Necessary	
		YES	NO
1. Hold Time/Preservation.			X
2. BFB Tune.			X
3. ICAL (RRF and/or %RSD)			X
4. CCAL opening (RRF and/or 20% D)			X
5. CCAL closing (%D<±50%)			X
6. Blanks (Method and/or Field QC)			X
7. LCS			X
8. Surrogates			X
9. MS/MSD		X	
10. Field Duplicate			X
11. Internal Standards			X
12. Form1 vs Database			X

The following section is intended to specify areas evaluated and to provide an explanation for qualification identified during the review.

Comments/Discussion:

Associated samples(2): 46WW02-180829, 46WW11-180829
1. Hold Time/Preservation (QAPP - Worksheet#19/SW846/ASTM methods).
No Qualification Necessary
Rec'd <6ºC; collected 8/29/2018. Analyzed 9/04/2018.
2. BFB Tune (instr. performance criteria) (Table 12)
8/02/2018 @7:45 PM (E080201.D), 9/04/2018 @ 8:43 AM (D090401.D)- No Qualification Necessary

Data Validation Checklist
Volatile Organics by SW846 8260C

3. ICAL (Worksheet #24, Table 12) (DoD: RSD≤15% or linear R^2≥0.99 and Avg RRF's; 2-butanone & acetone >0.05;
J/UJ < recommended criteria)

8/02/2018 @ 10:37 PM -No Qualification Necessary

4. ICV (Worksheet #24, Table 12) (20%D only) /CCAL opening (DoD: %D≤20% and/or SW846 8260 Table 4 Avg RRF's: J/UJ < recommended criteria)

9/04/2018 @ 09:07 (D090402.D)-No Qualification Necessary

5. Closing CCV (Worksheet #24, Table 12) (DoD_5.0: %D<±50%) (if applicable by lab)

9/04/2018 @ 20:11 (D090429.D)- No Qualification Necessary

6. Blanks "UB" 5X/10X (EPA Region 3&4: Method and/or Field QC)

No Qualification Necessary

Trip Blank ALS-080318-8-Results are non detect.

VBLKW-180904 (QC Batch No. R322857) - Results are non detect.

7. LCS (QAPP – Worksheet#15)

No Qualification Necessary

VLCSW-180904 (QC Batch No. R322857) - Criteria were met.

8. Surrogates (QAPP - Worksheet#15)

No Qualification Necessary-All recoveries were within acceptance criteria.

9. MS/MSD (DoD/QAPP – Worksheet#15; parent sample only)

Qualification Necessary

46WW02-180829 (QC Batch No. R322857)- Chloroethane recovery low, sample results non-detect, UJ (08A) qualified.

Note: Lab identified chloromethane w/ outlier; however, no qualification required since QAPP/DOD QSM 5.1 limits were met.

10. Field Duplicate (QAPP – Worksheet#36 – Table 23 WATERS ≤20% / SOILS ≤50%)
(non-detect & result <RL or both <RL no qualifiers / non-detect & result >RL "J/UJ" qualifiers)

No Qualification Necessary – Criteria were met.

46WW11-180829/46WW11-180829-FD

VOCs	Method	Units	46WW11-180829	LQ	46WW11-180829 FD	LQ	%RPD
Trichloroethylene	8260B	ug/L	13	1.0	12	1.0	8.00

Data Validation Checklist
Volatile Organics by SW846 8260C

11.Internal Standards (Worksheet #24, Table 12) (-50% to +100% and RT ±0.30 sec)
9/04/2018 (D090402.D)-No Qualification Necessary
12. Form 1 vs Database
Check laboratory's Form1 against Database; one sample per SDG per fraction; list sample number:
13. Multiple Results
No Qualification Necessary

Data Validation Checklist
Wet Chemistry

Project Name:	LHAAP-46	SDG/Report No.:	HS18081504
Project No.:	77501032	Lab ID:	ALS-Houston
No. of Samples:	2 Originals & 1 FD	Analysis:	Alkalinity, Anions (chloride, Nitrate/Nitrite, sulfate) Phosphorous, Sulfide, TOC.
1st / 2nd by	SP		

All areas evaluated by QAPP and **SW846** methods and the identification as to whether qualification is necessary are identified below:

Area Evaluated	Outlier/Qualifier	Qualification Necessary	
		YES	NO
1. Hold Time/Preservation.			X
2. ICAL			X
3. CCAL			X
4. Limit of Detection Verification (LODV)			X
5. Blanks (Method, Calibration and/or Field QC)			X
6. LCS			X
7. Duplicate Analysis			X
8. MS/MSD		X	
9. Field Duplicate		X	
10. Form1 vs Database			X

The following section is intended to specify areas evaluated and to provide an explanation for qualification identified during the review.

Comments/Discussion:

Associated samples(4):
46WW02-180829, 46WW11-180829
1. Hold Time/Preservation. (QAPP - Worksheet#19/SW846/ASTM methods)
No Qualification Necessary
Rec'd <6°C; collected 8/29/2018, analyzed: TOC: 9/19/2018, anions 8/30/2018, phosphorus 9/07/2018, alkalinity 9/04/2018, Sulfide 9/05/2018
Professional judgment – no qualification for hold time.
2. ICAL (QAPP - Worksheet#24, Table 12)/SW846/ASTM methods: RSD≤20%/r≥0.995)
No Qualification Necessary
3. ICV/CCAL (QAPP - Worksheet#24, Table 12/)/SW846/ASTM methods: ±10%D)
TOC KQ1812842-60 to -65: All criteria were met No Qualification Necessary

Data Validation Checklist
Wet Chemistry

4. Limit of Detection Verification (LODV) (QAAP/DoD_4.2; ±30%D)

No Qualification Necessary

5. Blanks "UB" (EPA Region 3&4: Method and/or Field QC)

Phosphorus MBLK-132252 (QC Batch 132252), Anions WBLKW1-083018 (QC Batch R322692), Alkalinity WBLKW1-180904 (QC Batch R322912), Sulfide MBLK-322994 (QC Batch R322994), TOC: K1808654-MB1, -MB2: Results non-detected. No Qualification Necessary

6. LCS (QAPP - Worksheet#15)

Phosphorus LCS-132252 (QC Batch 132252), Anions WLCSW1/WLCSDW1-083018 (QC Batch R322692), Alkalinity WLCS1/SD1-180904 (QC Batch R322912), Sulfide LCS/LCSD-322994 (QC Batch R322994), TOC K1808654-LSD1/LCS2: All criteria were met No Qualification Necessary

7. Duplicate Analysis (QAPP - Worksheet#28, Table 15-Worksheet #15)/SW846/ASTM methods DoD-4.2<15%)

Alkalinity HS18081504-01 DUP (QC Batch R322912), TOC: K1808654-001DUP, -002DUP, -003DUP: All criteria were met. No Qualification Necessary

8. MS/MSD (QAPP - Worksheet#19/#28; DoD_4.2= ±20%MS/MSD / 15%RPD)

Phosphorus HS18081504-01MS (QC Batch 132252), Anions HS18081504-01MS (QC Batch R322692), Sulfate recovery low, sample concentration greater than four time the spike concentration-No Qualification Necessary, Sulfide HS18081504-01 MS (QC Batch R322994) recover low, sulfide data qualified J08A, TOC K1808654-001 (46WW02-180829) MS: All criteria were met. No Qualification Necessary

9. Field Duplicate (QAPP – worksheet#35: 20% waters / 50% soils)

(non-detect & result <RL no qualifiers / non-detect & result >RL "J/UJ" qualifiers)

46WW11-180829/46WW11-180829-FD

	Method	Units	46WW11-180829	LQ	46WW11-180829 FD	LQ	%RPD
Sulfide	E376.1	mg/L	15.3	1.00	19.5	1.00	**24**
Alkalinity , Total (as CaCO3)	SM2320B	mg/L	32.4	5.00	34.9	5.00	7
Phosphorus, total (As P)	SM4500 P E	mg/L	0.110	0.0500	0.0940	0.0500	16
Chloride	SW9056A	mg/L	201	5.00	205	5.00	2
Sulfate	SW9056A	mg/L	274	5.00	282	5.00	3
TOC	SM5310 C	mg/L	4.07	0.50	5.69	0.50	**33**

Sulfide and TOC results are qualified J17.

Data Validation Checklist
Wet Chemistry

10. Form 1 vs Database
Check laboratory's Form1 against Database; minimum one sample per SDG per fraction; list sample number:
11. Multiple Results
No Qualification Necessary

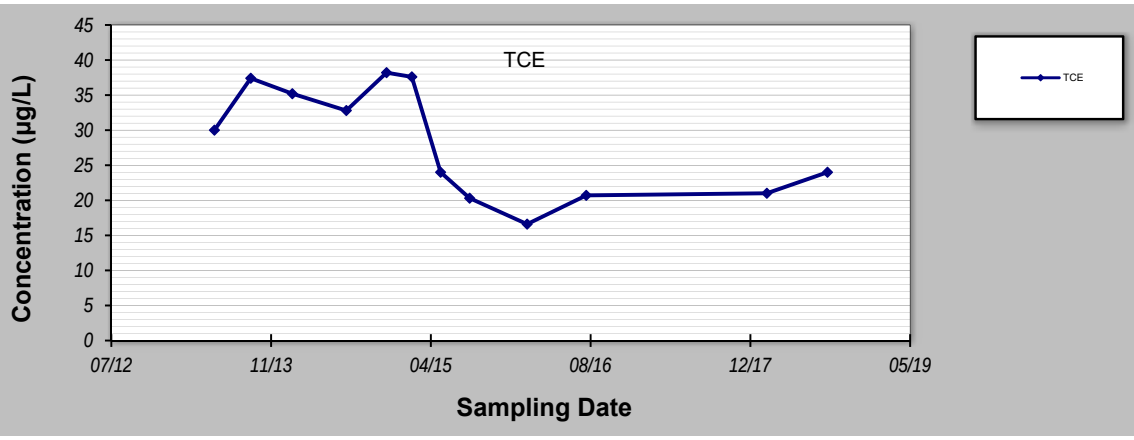
Appendix F

Mann-Kendall Trend Analysis

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Oct-18	Job ID:	501032
Facility Name:	LHAAP-46	Constituent:	46WW02
Conducted By:	Robert Mayer	Concentration Units:	µg/L
Sampling Point ID:	TCE		

Sampling Event	Sampling Date	46WW02 CONCENTRATION (µg/L)
1	5/28/2013	30
2	9/19/2013	37.4
3	1/27/2014	35.2
4	7/15/2014	32.8
5	########	38.2
6	2/5/2015	37.6
7	5/6/2015	24
8	8/5/2015	20.3
9	2/1/2016	16.6
10	8/4/2016	20.7
11	2/20/2018	21
12	8/29/2018	24
13		
14		
15		
16		
17		
18		
19		
20		
Coefficient of Variation:		0.28
Mann-Kendall Statistic (S):		-25
Confidence Factor:		95.0%
Concentration Trend:		Prob. Decreasing



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

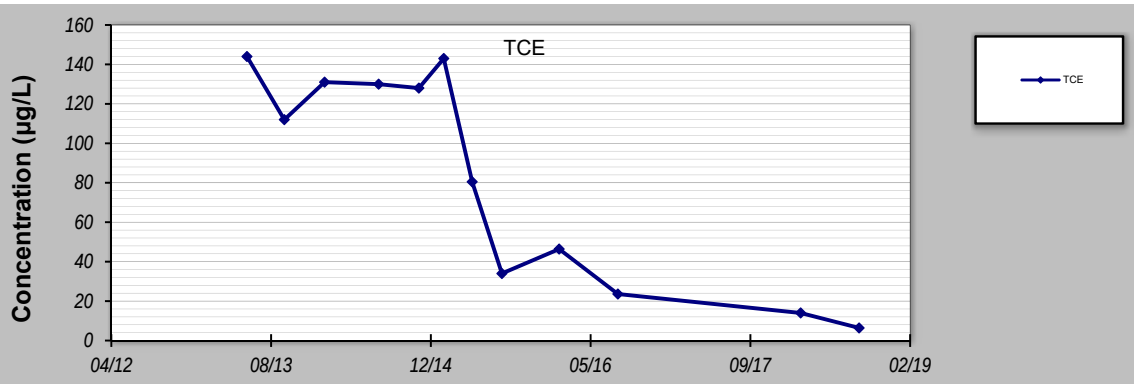
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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Oct-18	Job ID:	501032
Facility Name:	LHAAP-46	Constituent:	64WW05
Conducted By:	Robert Mayer	Concentration Units:	µg/L
Sampling Point ID:	TCE		

Sampling Event	Sampling Date	64WW05 CONCENTRATION (µg/L)
1	5/30/2013	144
2	9/24/2013	112
3	1/28/2014	131
4	7/16/2014	130
5	########	128
6	2/5/2015	143
7	5/5/2015	80.5
8	8/6/2015	34
9	2/1/2016	46.4
10	8/3/2016	23.6
11	2/26/2018	14
12	8/28/2018	6.4
13		
14		
15		
16		
17		
18		
19		
20		
Coefficient of Variation:		0.66
Mann-Kendall Statistic (S):		-50
Confidence Factor:		>99.9%
Concentration Trend:		Decreasing



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

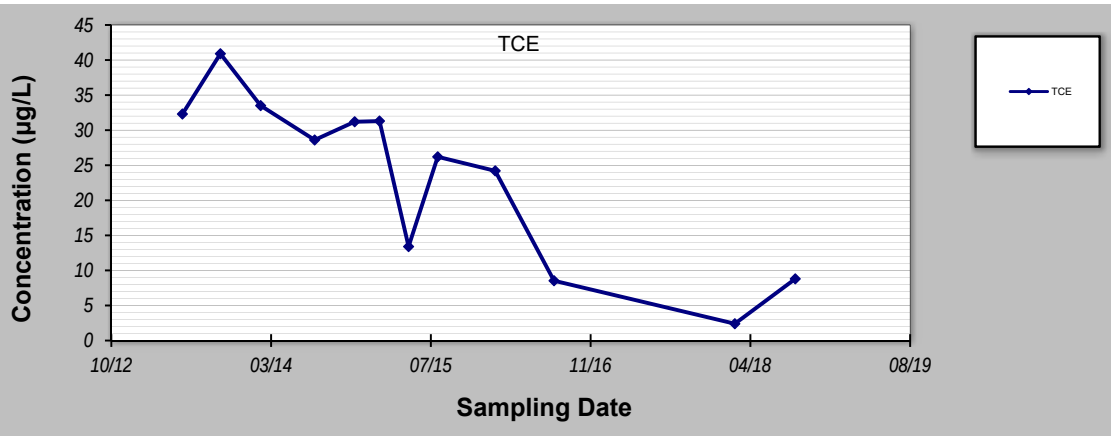
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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Oct-18	Job ID:	501032
Facility Name:	LHAAP-46	Constituent:	LHSMW19
Conducted By:	Robert Mayer	Concentration Units:	µg/L
Sampling Point ID:	TCE		

Sampling Event	Sampling Date	LHSMW19 CONCENTRATION (µg/L)
1	5/28/2013	32.3
2	9/24/2013	40.9
3	1/28/2014	33.5
4	7/16/2014	28.6
5	11/18/2014	31.2
6	2/4/2015	31.3
7	5/6/2015	13.4
8	8/5/2015	26.2
9	2/1/2016	24.2
10	8/3/2016	8.53
11	2/20/2018	2.4
12	8/28/2018	8.8
13		
14		
15		
16		
17		
18		
19		
20		
Coefficient of Variation:		0.52
Mann-Kendall Statistic (S):		-48
Confidence Factor:		>99.9%
Concentration Trend:		Decreasing



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

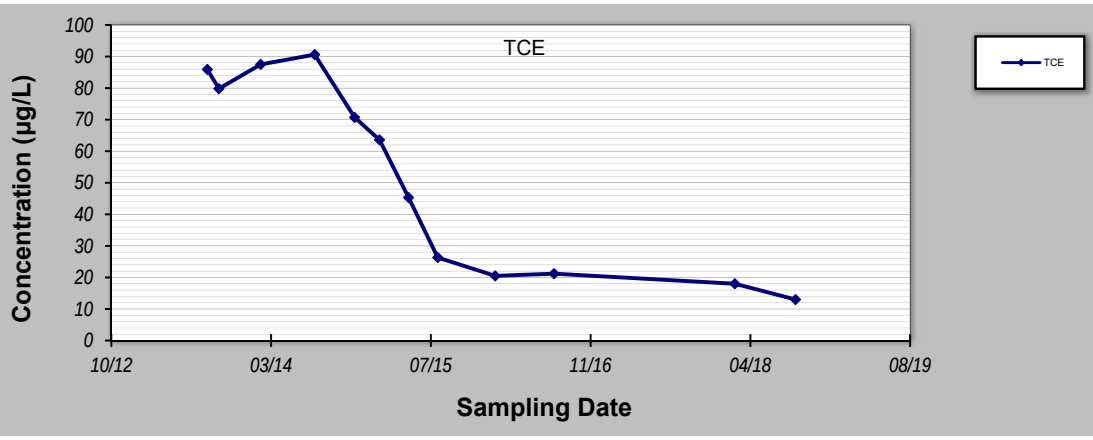
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GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	4-Oct-18	Job ID:	501032
Facility Name:	LHAAP-46	Constituent:	46WW11
Conducted By:	Robert Mayer	Concentration Units:	µg/L
Sampling Point ID:	TCE		

Sampling Event	Sampling Date	46WW11 CONCENTRATION (µg/L)
1	8/14/2013	85.9
2	9/19/2013	79.8
3	1/28/2014	87.5
4	7/16/2014	90.6
5	11/18/2014	70.7
6	2/4/2015	63.6
7	5/6/2015	45.3
8	8/5/2015	26.3
9	2/1/2016	20.5
10	8/3/2016	21.2
11	2/20/2018	18
12	8/29/2018	13
13		
14		
15		
16		
17		
18		
19		
20		
Coefficient of Variation:		0.60
Mann-Kendall Statistic (S):		-54
Confidence Factor:		>99.9%
Concentration Trend:		Decreasing



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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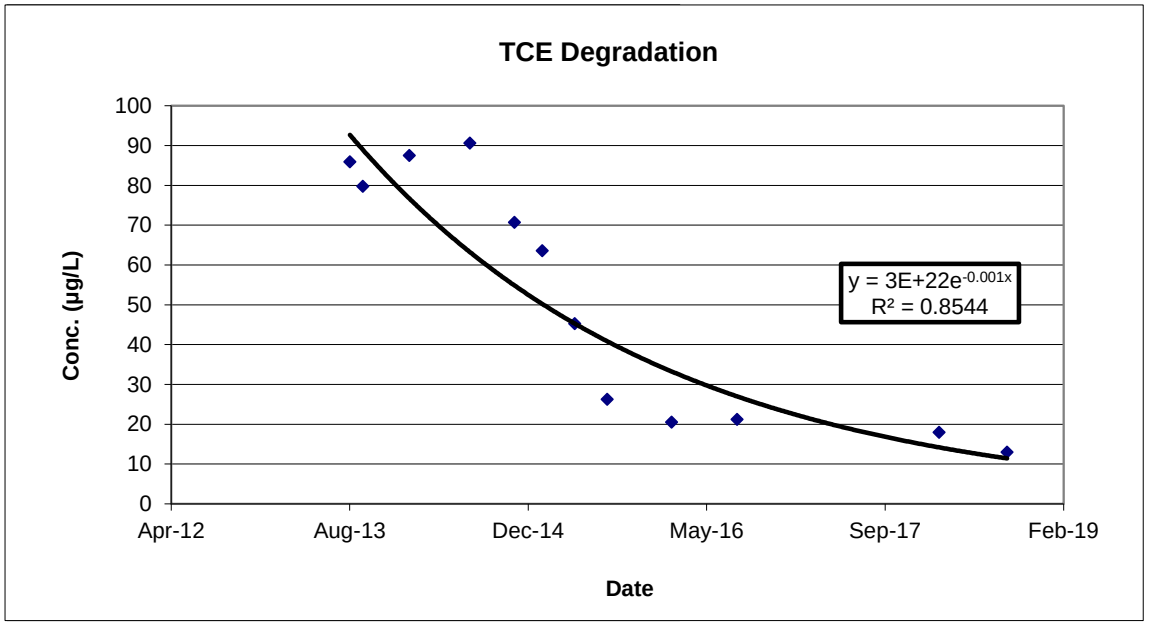
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Appendix G

Predictive Modeling

Figure G-1
Time-Dependent Attenuation Rate Constant and Estimated Cleanup Time
46WW11

Date	TCE (µg/L)
8/14/2013	85.9
9/19/2013	79.8
1/28/2014	87.5
7/16/2014	90.6
11/18/2014	70.7
2/4/2015	63.6
5/6/2015	45.3
8/5/2015	26.3
2/1/2016	20.5
8/3/2016	21.2
2/20/2018	18
8/29/2018	13



Chemical: TCE Well ID	Attenuation Rate Constant (day^{-1})	Attenuation Half-life (days)	Attenuation Half-life (years)	Current Conc. (µg/L)	Target Concentration for TCE (µg/L)	Estimated Cleanup Time (years)
46WW11	0.001	693.1	1.9	13	5	2.6

Notes:

The estimated cleanup time was calculated as the time it would take the most recent detected TCE concentration to reach the MCL using the site-specific attenuation rate, and assuming first order degradation kinetics.

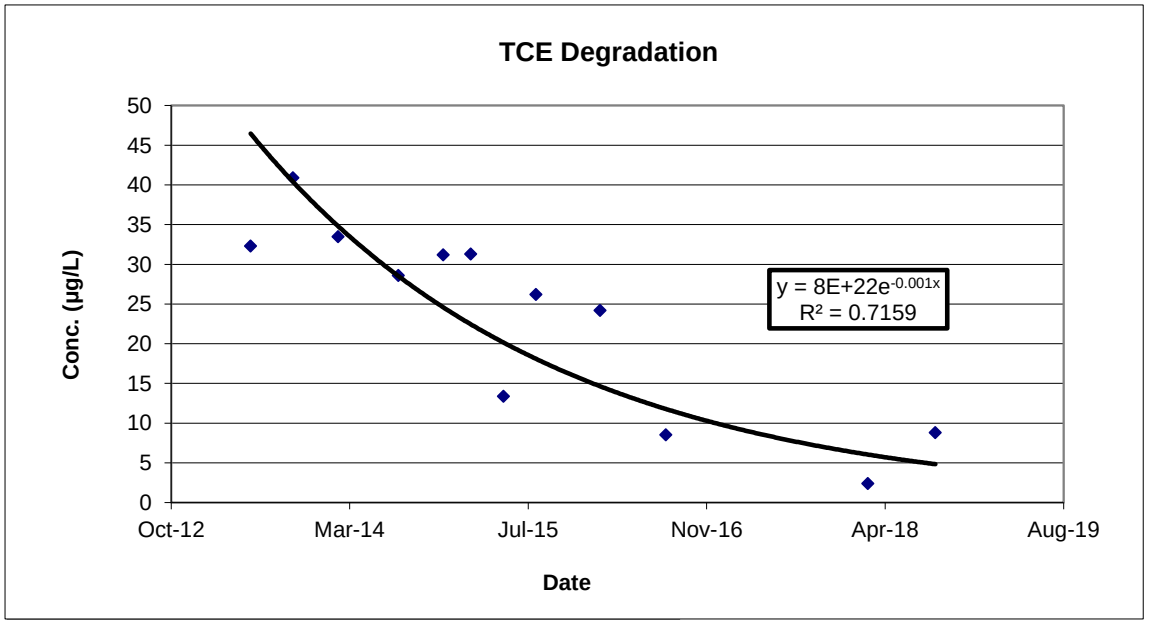
µg/L - micrograms per liter

MCL - maximum contaminant level

TCE - trichloroethene

Figure G-2
Time-Dependent Attenuation Rate Constant and Estimated Cleanup Time
LHSMW19

Date	TCE (µg/L)
5/28/2013	32.3
9/24/2013	40.9
1/28/2014	33.5
7/16/2014	28.6
11/18/2014	31.2
2/4/2015	31.3
5/6/2015	13.4
8/5/2015	26.2
2/1/2016	24.2
8/3/2016	8.53
2/20/2018	2.4
8/28/2018	8.8



Chemical: TCE Well ID	Attenuation Rate Constant (day^{-1})	Attenuation Half-life (days)	Attenuation Half-life (years)	Current Conc. (µg/L)	Target Concentration for TCE (µg/L)	Estimated Cleanup Time (years)
LHSMW19	0.001	693.1	1.9	8.8	5	1.5

Notes:

The estimated cleanup time was calculated as the time it would take the most recent detected TCE concentration to reach the MCL using the site-specific attenuation rate, and assuming first order degradation kinetics.

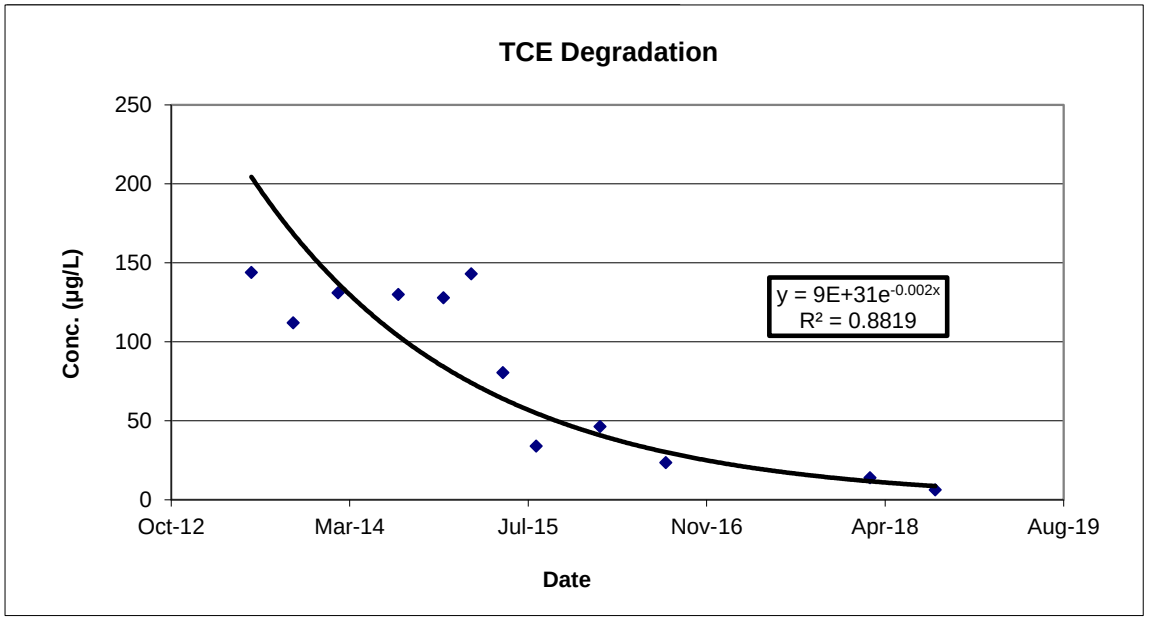
µg/L - micrograms per liter

MCL - maximum contaminant level

TCE - trichloroethene

Figure G-3
Time-Dependent Attenuation Rate Constant and Estimated Cleanup Time
45WW05

Date	TCE (µg/L)
5/30/2013	144
9/24/2013	112
1/28/2014	131
7/16/2014	130
11/19/2014	128
2/5/2015	143
5/5/2015	80.5
8/6/2015	34
2/1/2016	46.4
8/3/2016	23.6
2/26/2018	14
8/28/2018	6.4



Chemical: TCE Well ID	Attenuation Rate Constant (day^{-1})	Attenuation Half-life (days)	Attenuation Half-life (years)	Current Conc. (µg/L)	Target Concentration for TCE (µg/L)	Estimated Cleanup Time (years)
46WW05	0.002	346.6	0.9	6.4	5	0.3

Notes:

The estimated cleanup time was calculated as the time it would take the most recent detected TCE concentration to reach the MCL using the site-specific attenuation rate, and assuming first order degradation kinetics.

µg/L - micrograms per liter

MCL - maximum contaminant level

TCE - trichloroethene