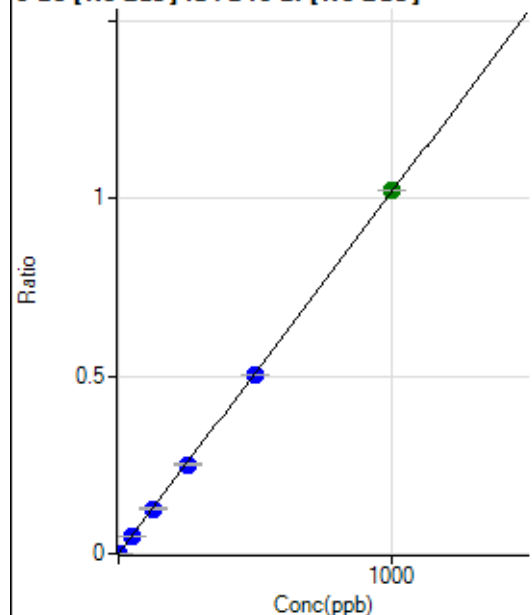


Batch Folder: D:\P8100617-MS.b\
Analysis File: P8100617-MS.batch.bin
DA Date-Time: 2017-10-07 10:43:02
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2017-10-06 16:09:27
2			
3	005CALS.d	S02	2017-10-06 16:16:23
4	006CALS.d	S03	2017-10-06 16:19:52
5	007CALS.d	S04	2017-10-06 16:23:19
6	008CALS.d	S05	2017-10-06 16:26:41
7	009CALS.d	S06	2017-10-06 16:29:57
8	010CALS.d	S07	2017-10-06 16:33:09
9	011CALS.d	S08	2017-10-06 16:36:18

9 Be [No Gas] ISTD:6 Li [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.34	0.0000	P	29.7
2	☐	0.100					
3	☐	1.000	0.917	1057.48	0.0010	P	7.9
4	☐	50.000	49.910	55198.70	0.0507	P	1.1
5	☐	125.000	124.354	136988.05	0.1264	P	2.0
6	☐	250.000	245.633	264614.13	0.2496	P	1.9
7	☐	500.000	494.809	525149.07	0.5029	P	0.9
8	☐	1000.000	1003.772	1045766.05	1.0201	A	0.1
9	☐			185.19	0.0002	P	11.8

$$y = 0.0010 * x + 3.0312E-005$$

$$R = 1.0000$$

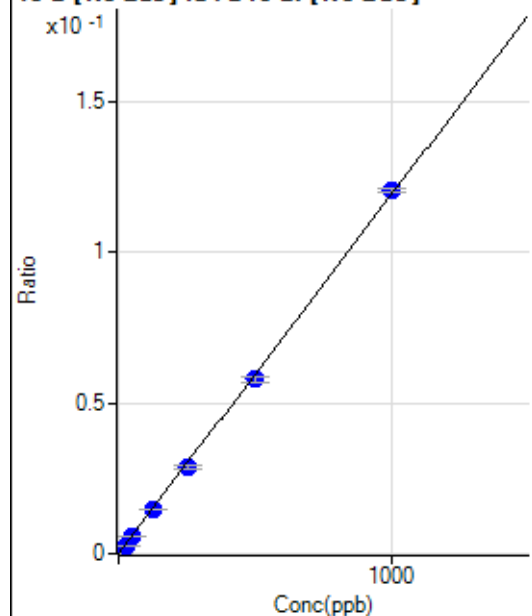
$$DL = 0.02657$$

$$BEC = 0.02983$$

Weight: <None>

Min Conc: 0

10 B [No Gas] ISTD:6 Li [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	75.01	0.0001	P	38.2
2	☐	2.500					
3	☐	25.000	20.876	2811.53	0.0026	P	5.1
4	☐	50.000	48.797	6401.69	0.0059	P	1.1
5	☐	125.000	120.841	15689.73	0.0145	P	0.6
6	☐	250.000	242.224	30678.16	0.0289	P	3.8
7	☐	500.000	484.607	60397.40	0.0578	P	3.7
8	☐	1000.000	1010.323	123561.87	0.1205	P	1.0
9	☐			4845.46	0.0045	P	10.6

$$y = 1.1922E-004 * x + 6.8057E-005$$

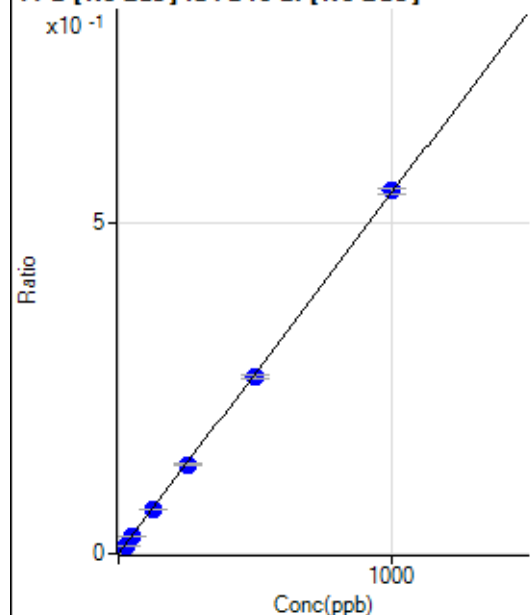
$$R = 0.9998$$

$$DL = 0.6542$$

$$BEC = 0.5708$$

Weight: <None>

Min Conc: 0

11 B [No Gas] ISTD:6 Li [No Gas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	411.14	0.0004	P	11.6
2	☐	2.500					
3	☐	25.000	20.983	12948.04	0.0118	P	3.9
4	☐	50.000	49.433	29626.03	0.0272	P	1.8
5	☐	125.000	121.642	72056.56	0.0665	P	2.2
6	☐	250.000	246.140	142198.36	0.1341	P	1.4
7	☐	500.000	491.191	279143.27	0.2673	P	2.6
8	☐	1000.000	1005.918	560857.05	0.5471	P	1.6
9	☐			21619.97	0.0203	P	9.7

$$y = 5.4348\text{E-}004 * x + 3.7341\text{E-}004$$

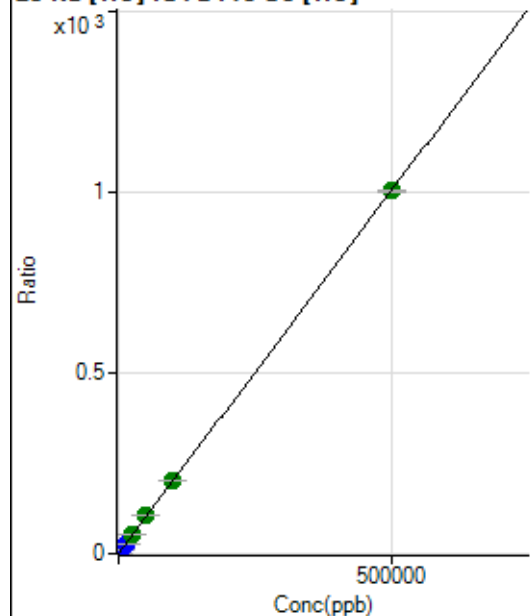
$$R = 0.9999$$

$$DL = 0.2385$$

$$BEC = 0.6871$$

Weight: <None>

Min Conc: 0

23 Na [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10026.21	0.3057	P	4.1
2	☐	50.000					
3	☐	500.000	459.943	40433.73	1.2306	P	0.9
4	☐	5000.000	5436.445	361261.92	11.2376	P	1.6
5	☐	12500.000	13349.357	879625.84	27.1493	P	0.2
6	☐	25000.000	26739.729	1697956.24	54.0753	A	2.1
7	☐	50000.000	52151.415	3490139.31	105.1745	A	0.9
8	☐	100000.00	100644.37	7100287.57	202.6867	A	1.9
9	☐	500000.00	499543.43	37823520.98	1,004.814	A	0.5

$$y = 0.0020 * x + 0.3057$$

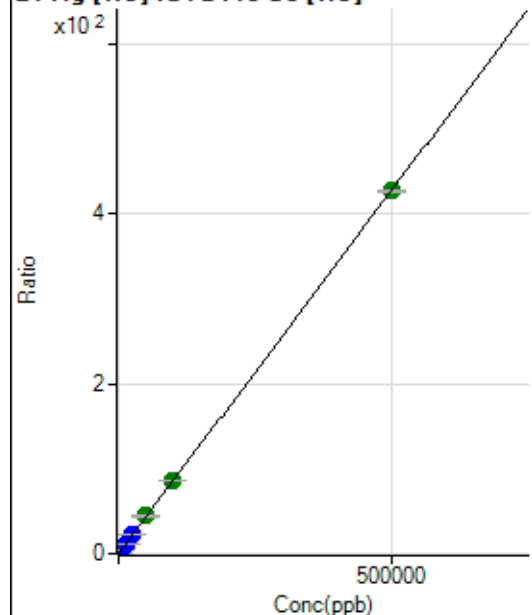
$$R = 1.0000$$

$$DL = 18.81$$

$$BEC = 152$$

Weight: <None>

Min Conc: 0

24 Mg [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	75.00	0.0023	P	21.8
2	☐	50.000					
3	☐	500.000	460.408	13003.70	0.3957	P	2.6
4	☐	5000.000	5425.778	149137.94	4.6391	P	1.4
5	☐	12500.000	13333.612	369248.96	11.3971	P	1.4
6	☐	25000.000	26238.423	704188.25	22.4254	P	1.6
7	☐	50000.000	51904.790	1472046.01	44.3597	A	1.2
8	☐	100000.00	101109.28	3027227.41	86.4095	A	1.0
9	☐	500000.00	499500.68	16068503.31	426.8715	A	0.2

$$y = 8.5459\text{E-}004 * x + 0.0023$$

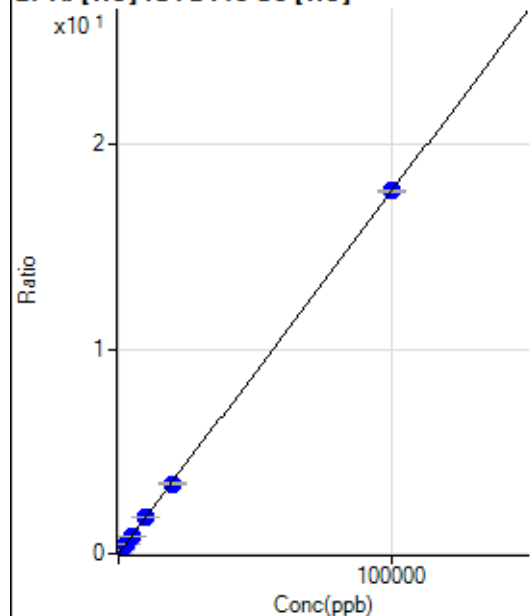
$$R = 1.0000$$

$$DL = 1.75$$

$$BEC = 2.674$$

Weight: <None>

Min Conc: 0

27 Al [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.89	0.0004	P	69.0
2	☐	2.000					
3	☐	20.000	15.772	105.56	0.0032	P	50.4
4	☐	1000.000	1006.991	5745.87	0.1787	P	3.3
5	☐	2500.000	2458.562	14115.93	0.4357	P	2.4
6	☐	5000.000	4987.918	27750.20	0.8834	P	1.0
7	☐	10000.000	9935.039	58379.37	1.7592	P	1.5
8	☐	20000.000	19337.548	119947.90	3.4237	P	0.7
9	☐	100000.00	100140.55	667331.12	17.7282	P	0.3

$$y = 1.7703\text{E-}004 * x + 4.2283\text{E-}004$$

$$R = 1.0000$$

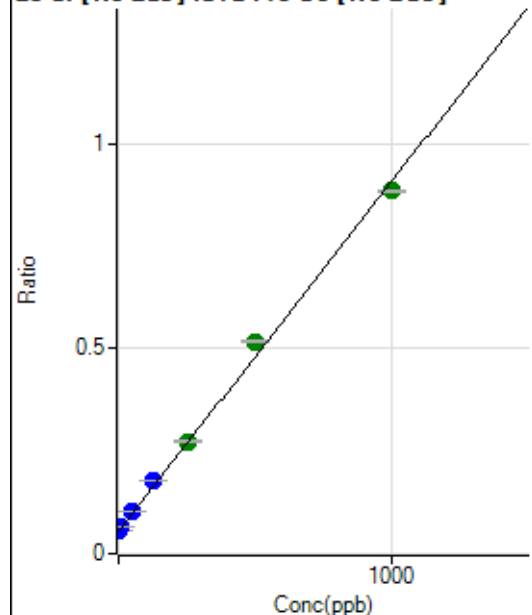
$$DL = 4.942$$

$$BEC = 2.388$$

Weight: <None>

Min Conc: 0

28 Si [No Gas] ISTD : 45 Sc [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	237612.31	0.0543	P	0.6
2	☐	1.000					
3	☐	10.000	14.524	290487.91	0.0667	P	1.1
4	☐	50.000	57.305	449844.27	0.1031	P	0.5
5	☐	125.000	143.447	760792.58	0.1765	P	0.4
6	☐	250.000	257.087	1171074.11	0.2734	A	1.5
7	☐	500.000	543.682	2217941.93	0.5175	A	0.6
8	☐	1000.000	973.671	3842292.92	0.8839	A	0.4
9	☐			281446.46	0.0633	P	1.6

$$y = 8.5201\text{E-}004 * x + 0.0543$$

$$R = 0.9985$$

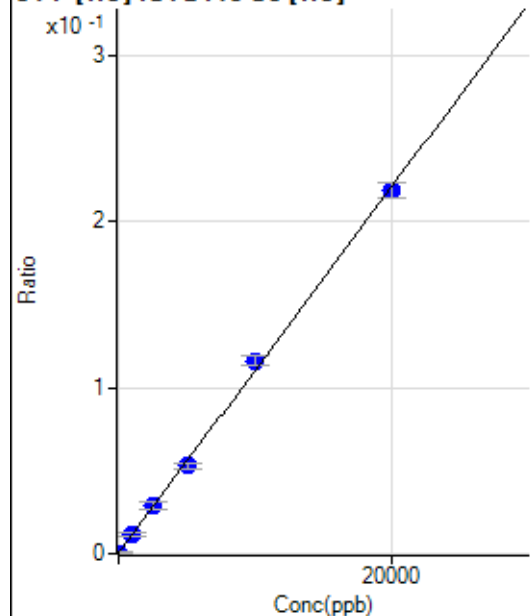
$$DL = 1.158$$

$$BEC = 63.75$$

Weight: <None>

Min Conc: 0

31 P [He] ISTD : 45 Sc [He]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-19.181	2.78	0.0001	P	173.2
2	☐	0.000					
3	☐	0.000	19.181	16.67	0.0005	P	99.9
4	☐	1000.000	1037.151	377.80	0.0117	P	20.0
5	☐	2500.000	2567.562	927.86	0.0286	P	16.2
6	☐	5000.000	4790.308	1669.61	0.0531	P	6.6
7	☐	10000.000	10507.792	3856.27	0.1162	P	5.5
8	☐	20000.000	19788.224	7657.99	0.2186	P	4.4
9	☐			5.55	0.0001	P	86.6

$$y = 1.1033\text{E-}005 * x + 2.9599\text{E-}004$$

$$R = 0.9995$$

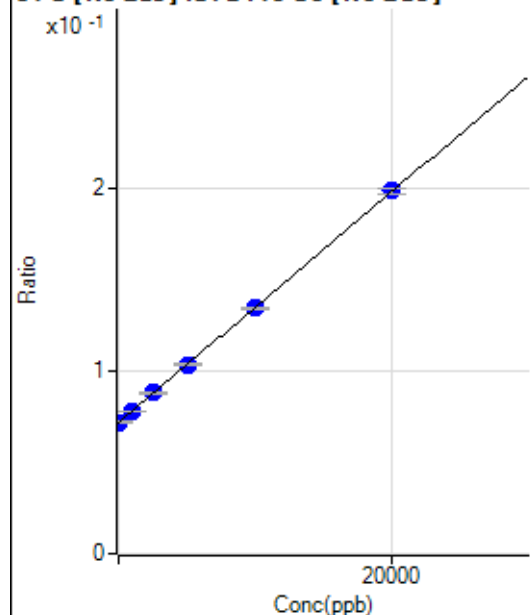
$$DL = 88.82$$

$$BEC = 26.83$$

Weight: <None>

Min Conc: 0

34 S [No Gas] ISTD:45 Sc [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-33.857	314227.89	0.0718	P	0.7
2	☐	0.000					
3	☐	0.000	33.857	314740.37	0.0723	P	1.1
4	☐	1000.000	925.938	339775.02	0.0779	P	0.7
5	☐	2500.000	2545.250	379915.45	0.0882	P	0.7
6	☐	5000.000	4970.803	443470.75	0.1035	P	1.0
7	☐	10000.000	9883.884	576897.62	0.1346	P	0.6
8	☐	20000.000	20063.404	865307.94	0.1991	P	1.6
9	☐			303389.95	0.0682	P	1.8

$$y = 6.3315\text{E-}006 * x + 0.0720$$

R = 1.0000

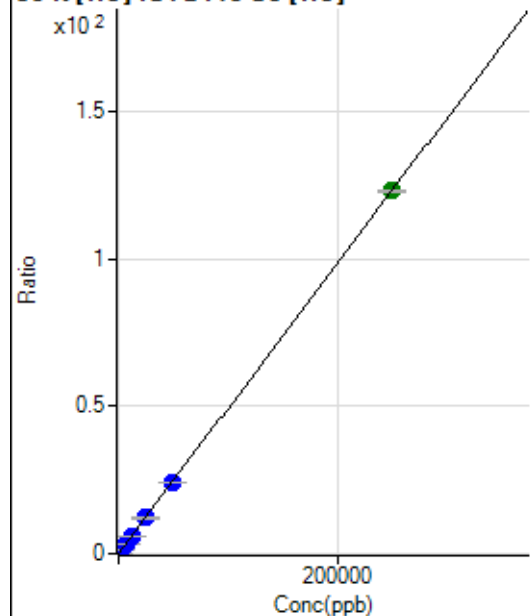
DL = 302.8

BEC = 1.138E+04

Weight: <None>

Min Conc: 0

39 K [He] ISTD:45 Sc [He]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2105.81	0.0642	P	4.8
2	☐	50.000					
3	☐	500.000	432.196	9100.60	0.2770	P	4.4
4	☐	2500.000	2549.765	42423.37	1.3194	P	1.6
5	☐	6250.000	6253.673	101825.12	3.1429	P	1.0
6	☐	12500.000	12371.340	193271.79	6.1546	P	1.1
7	☐	25000.000	24518.593	402668.06	12.1347	P	1.4
8	☐	50000.000	48712.620	842389.19	24.0454	P	1.0
9	☐	250000.00	250311.59	4641024.71	123.2923	A	0.6

$$y = 4.9230\text{E-}004 * x + 0.0642$$

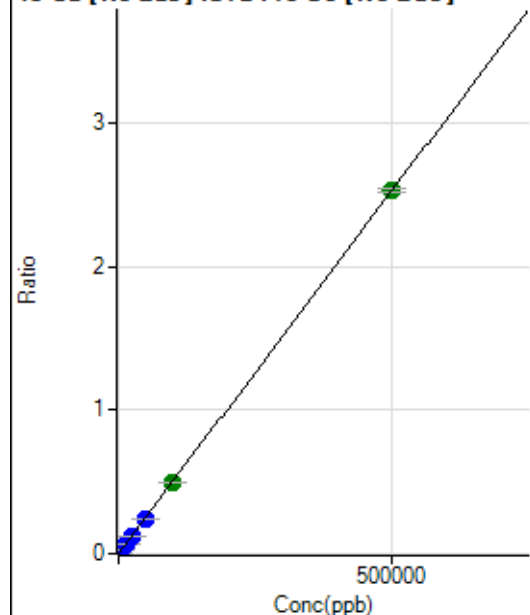
R = 1.0000

DL = 18.92

BEC = 130.4

Weight: <None>

Min Conc: 0

43 Ca [No Gas] ISTD:45 Sc [No Gas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	894.51	0.0002	P	6.3
2	☐	50.000					
3	☐	500.000	413.745	9981.78	0.0023	P	2.0
4	☐	5000.000	4803.316	106569.50	0.0244	P	1.2
5	☐	12500.000	12164.828	265335.71	0.0616	P	0.8
6	☐	25000.000	24285.902	525714.49	0.1227	P	0.7
7	☐	50000.000	48275.859	1044428.13	0.2437	P	0.7
8	☐	100000.00	98492.938	2160565.72	0.4970	A	0.9
9	☐	500000.00	500519.96	11233749.12	2.5249	A	1.1

$$y = 5.0442\text{E-}006 * x + 2.0446\text{E-}004$$

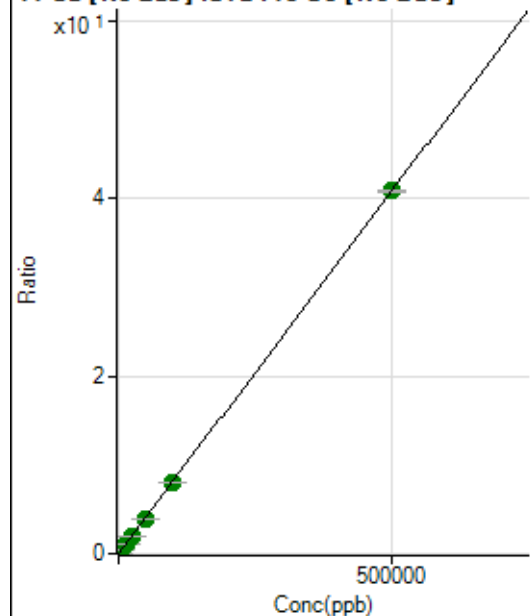
$$R = 1.0000$$

$$DL = 7.668$$

$$BEC = 40.53$$

Weight: <None>

Min Conc: 0

44 Ca [No Gas] ISTD:45 Sc [No Gas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11193.81	0.0026	P	1.5
2	☐	50.000					
3	☐	500.000	427.708	163144.33	0.0375	P	1.5
4	☐	5000.000	4925.582	1763836.15	0.4044	A	1.3
5	☐	12500.000	12185.382	4295470.06	0.9967	A	0.6
6	☐	25000.000	24219.810	8476568.16	1.9785	A	0.8
7	☐	50000.000	48525.499	16976513.23	3.9615	A	0.9
8	☐	100000.00	97209.362	34486518.48	7.9334	A	0.6
9	☐	500000.00	500753.26	181775572.1	40.8568	A	0.8

$$y = 8.1585\text{E-}005 * x + 0.0026$$

$$R = 1.0000$$

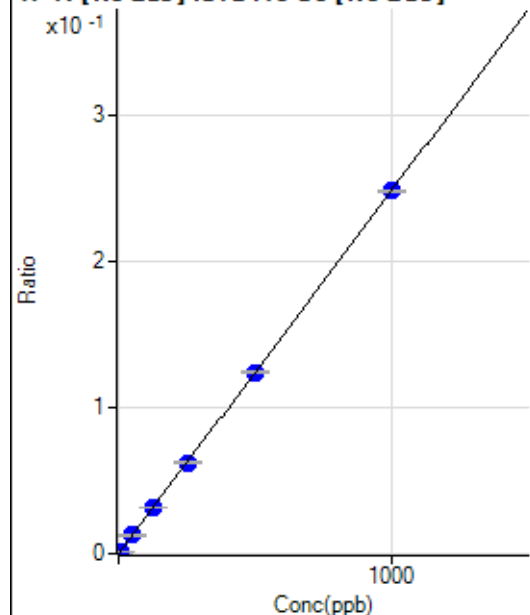
$$DL = 1.394$$

$$BEC = 31.36$$

Weight: <None>

Min Conc: 0

47 Ti [No Gas] ISTD:45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	102.78	0.0000	P	53.0
2	☐	0.500					
3	☐	5.000	4.515	4984.48	0.0011	P	5.0
4	☐	50.000	50.354	54629.63	0.0125	P	2.2
5	☐	125.000	126.112	135040.26	0.0313	P	0.5
6	☐	250.000	251.227	267324.97	0.0624	P	0.8
7	☐	500.000	499.763	531804.26	0.1241	P	1.6
8	☐	1000.000	999.658	1078982.07	0.2482	P	0.7
9	☐			758.39	0.0002	P	9.8

$$y = 2.4828\text{E-}004 * x + 2.3510\text{E-}005$$

$$R = 1.0000$$

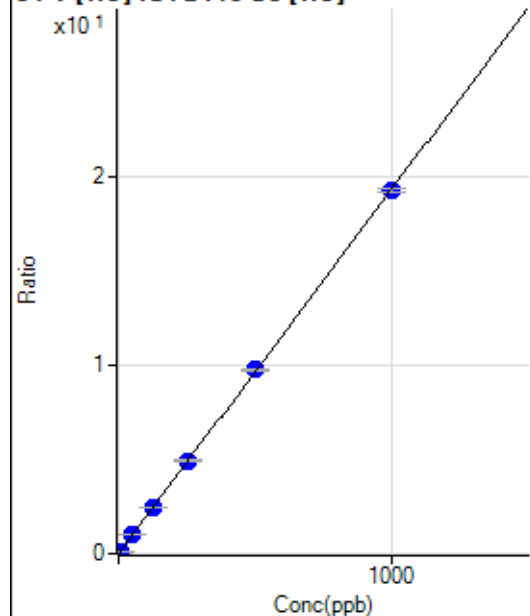
$$DL = 0.1506$$

$$BEC = 0.09469$$

Weight: <None>

Min Conc: 0

51 V [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	8.89	0.0003	P	94.4
2	☐	0.500					
3	☐	5.000	4.423	2820.34	0.0858	P	5.3
4	☐	50.000	51.577	32080.19	0.9979	P	2.3
5	☐	125.000	127.996	80227.01	2.4761	P	0.8
6	☐	250.000	254.525	154611.97	4.9236	P	1.6
7	☐	500.000	504.671	323943.25	9.7622	P	1.2
8	☐	1000.000	996.083	675005.82	19.2677	P	1.1
9	☐			96.67	0.0026	P	18.1

$$y = 0.0193 * x + 2.7042\text{E-}004$$

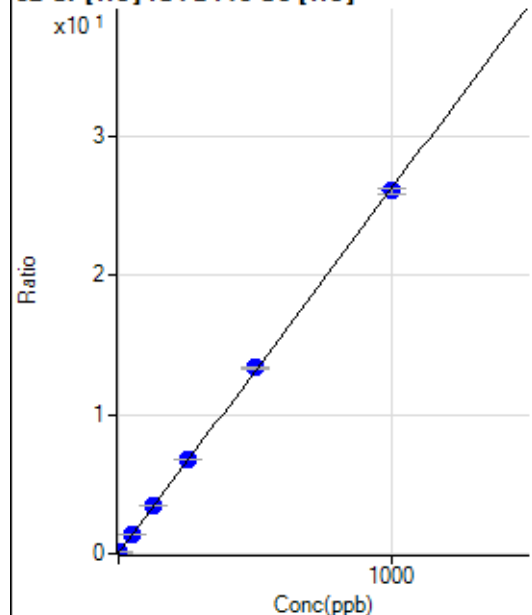
$$R = 1.0000$$

$$DL = 0.0396$$

$$BEC = 0.01398$$

Weight: <None>

Min Conc: 0

52 Cr [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	752.26	0.0229	P	0.7
2	☐	0.200					
3	☐	2.000	1.991	2470.27	0.0752	P	3.0
4	☐	50.000	52.364	44908.61	1.3969	P	2.0
5	☐	125.000	129.677	110984.90	3.4256	P	0.7
6	☐	250.000	257.345	212762.85	6.7755	P	1.3
7	☐	500.000	508.118	443177.76	13.3556	P	1.4
8	☐	1000.000	993.402	913966.31	26.0892	P	1.3
9	☐			9836.94	0.2613	P	2.7

$$y = 0.0262 * x + 0.0229$$

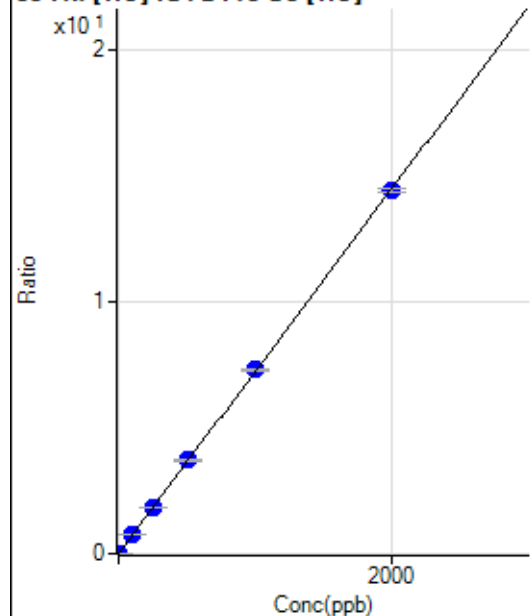
$$R = 0.9999$$

$$DL = 0.01757$$

$$BEC = 0.8741$$

Weight: <None>

Min Conc: 0

55 Mn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	28.89	0.0009	P	29.4
2	☐	0.100					
3	☐	1.000	0.897	242.23	0.0074	P	14.9
4	☐	100.000	105.158	24508.37	0.7624	P	2.1
5	☐	250.000	256.995	60322.99	1.8619	P	0.9
6	☐	500.000	512.281	116518.67	3.7105	P	1.5
7	☐	1000.000	1009.766	242664.71	7.3130	P	1.5
8	☐	2000.000	1990.915	505104.36	14.4179	P	1.1
9	☐			1653.46	0.0439	P	9.3

$$y = 0.0072 * x + 8.8144E-004$$

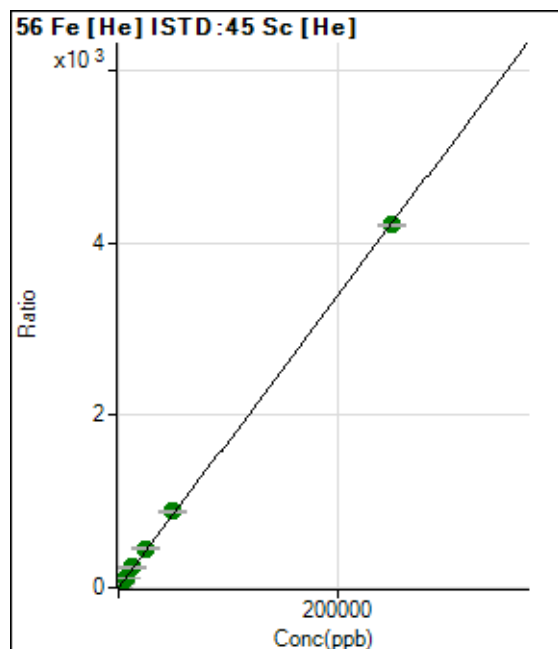
$$R = 1.0000$$

$$DL = 0.1073$$

$$BEC = 0.1217$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1131.56	0.0345	P	4.4
2	☐	5.000					
3	☐	50.000	49.196	28475.80	0.8666	P	2.0
4	☐	2500.000	2901.280	1578715.92	49.1083	A	1.7
5	☐	6250.000	7035.471	3856693.43	119.0362	A	0.8
6	☐	12500.000	13892.743	7381017.01	235.0237	A	1.1
7	☐	25000.000	26988.328	15149131.47	456.5293	A	1.3
8	☐	50000.000	52393.952	31046618.05	886.2533	A	1.7
9	☐	250000.00	249229.09	158686464.6	4,215.626	A	0.4

$$y = 0.0169 * x + 0.0345$$

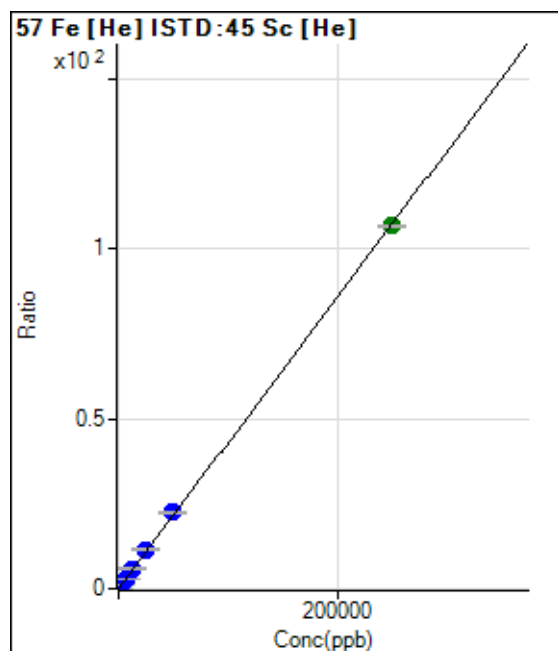
$$R = 0.9999$$

$$DL = 0.2714$$

$$BEC = 2.04$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0008	P	34.5
2	☐	5.000					
3	☐	50.000	49.368	722.26	0.0220	P	6.8
4	☐	2500.000	2862.467	39421.15	1.2262	P	0.8
5	☐	6250.000	6955.018	96490.80	2.9781	P	0.2
6	☐	12500.000	13816.624	185746.97	5.9154	P	1.7
7	☐	25000.000	26939.474	382715.88	11.5330	P	1.0
8	☐	50000.000	52484.835	787120.92	22.4684	P	1.3
9	☐	250000.00	249222.00	4015963.54	106.6871	A	0.3

$$y = 4.2808E-004 * x + 8.4667E-004$$

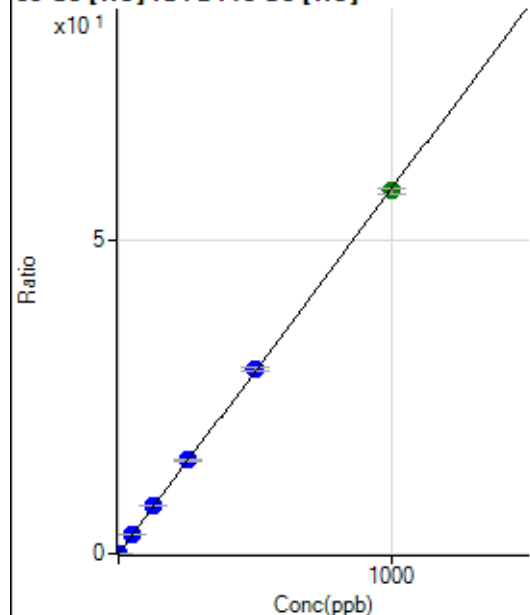
$$R = 0.9999$$

$$DL = 2.046$$

$$BEC = 1.978$$

Weight: <None>

Min Conc: 0

59 Co [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	70.00	0.0021	P	16.9
2	☐	0.100					
3	☐	1.000	0.888	1770.15	0.0539	P	2.6
4	☐	50.000	53.578	100438.59	3.1242	P	1.0
5	☐	125.000	129.682	244902.73	7.5589	P	0.7
6	☐	250.000	257.192	470674.32	14.9890	P	1.7
7	☐	500.000	506.224	978902.28	29.5003	P	1.4
8	☐	1000.000	994.326	2029836.25	57.9426	A	1.5
9	☐			2055.75	0.0546	P	2.3

$$y = 0.0583 * x + 0.0021$$

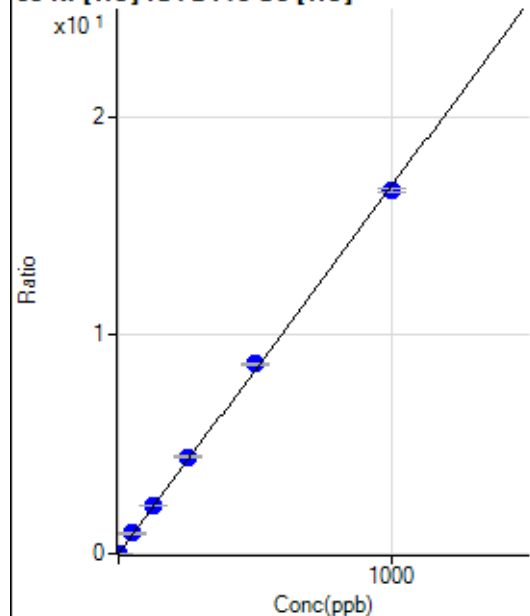
$$R = 0.9999$$

$$DL = 0.0186$$

$$BEC = 0.03662$$

Weight: <None>

Min Conc: 0

60 Ni [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	46.67	0.0014	P	21.0
2	☐	0.100					
3	☐	1.000	1.071	638.91	0.0194	P	4.8
4	☐	50.000	54.964	29778.70	0.9263	P	1.7
5	☐	125.000	131.833	71921.31	2.2198	P	0.2
6	☐	250.000	264.022	139569.71	4.4442	P	1.2
7	☐	500.000	516.528	288477.78	8.6931	P	0.9
8	☐	1000.000	987.128	581968.69	16.6120	P	1.1
9	☐			2730.32	0.0725	P	3.3

$$y = 0.0168 * x + 0.0014$$

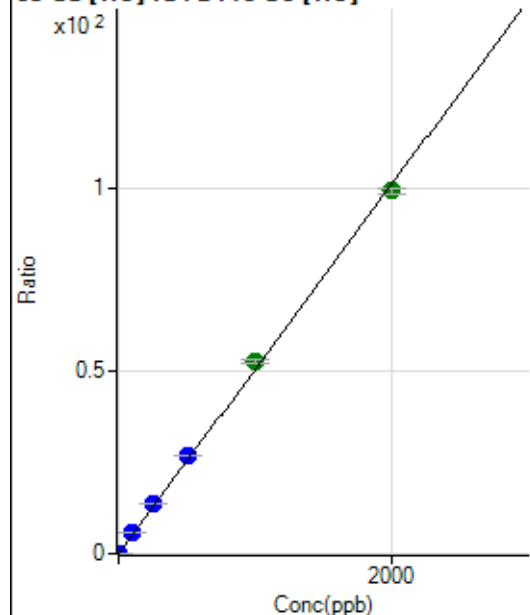
$$R = 0.9997$$

$$DL = 0.0533$$

$$BEC = 0.08452$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.00	0.0040	P	11.5
2	☐	0.200					
3	☐	2.000	1.937	3344.90	0.1018	P	3.3
4	☐	100.000	110.329	179315.25	5.5778	P	1.5
5	☐	250.000	269.527	441294.52	13.6204	P	0.2
6	☐	500.000	533.061	845839.87	26.9342	P	1.3
7	☐	1000.000	1044.864	1751636.61	52.7904	A	2.1
8	☐	2000.000	1966.346	3480174.81	99.3437	A	1.6
9	☐			3692.78	0.0981	P	0.8

$$y = 0.0505 * x + 0.0040$$

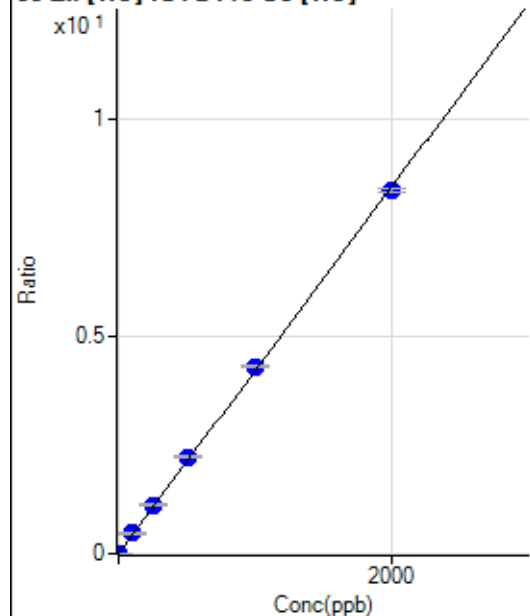
$$R = 0.9995$$

$$DL = 0.02703$$

$$BEC = 0.07845$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.33	0.0019	P	10.2
2	☐	0.200					
3	☐	2.000	1.775	308.90	0.0094	P	12.7
4	☐	100.000	110.194	14974.93	0.4658	P	1.7
5	☐	250.000	265.443	36266.40	1.1194	P	1.3
6	☐	500.000	527.951	69858.33	2.2245	P	0.7
7	☐	1000.000	1021.841	142802.33	4.3036	P	1.8
8	☐	2000.000	1979.652	292026.25	8.3357	P	1.1
9	☐			656.69	0.0174	P	2.6

$$y = 0.0042 * x + 0.0019$$

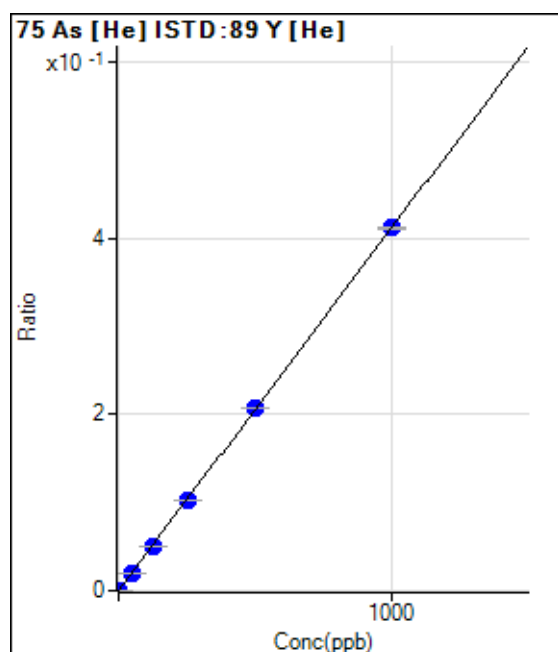
$$R = 0.9998$$

$$DL = 0.1404$$

$$BEC = 0.4586$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.94	0.0000	P	21.9
2	☐	0.100					
3	☐	1.000	0.952	101.24	0.0004	P	16.9
4	☐	50.000	49.546	5028.74	0.0204	P	3.1
5	☐	125.000	122.900	12390.81	0.0507	P	0.8
6	☐	250.000	248.616	24244.76	0.1025	P	0.6
7	☐	500.000	501.048	50650.33	0.2065	P	0.0
8	☐	1000.000	1000.107	104721.06	0.4121	P	0.5
9	☐			34.57	0.0001	P	21.3

$$y = 4.1206\text{E-}004 * x + 2.0127\text{E-}005$$

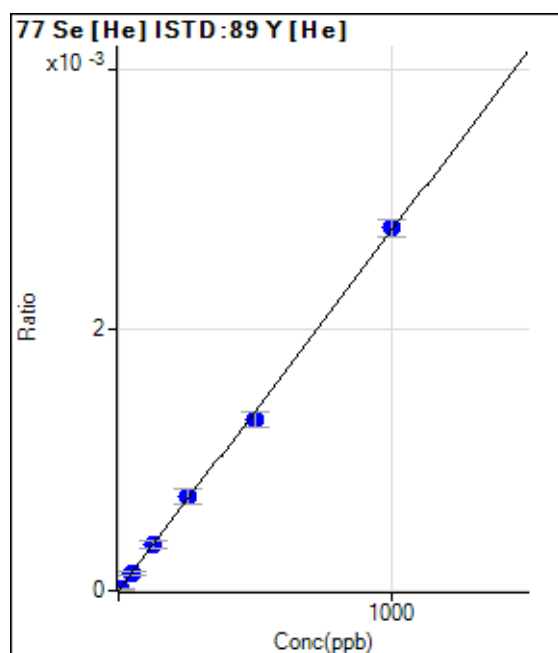
$$R = 1.0000$$

$$DL = 0.03208$$

$$BEC = 0.04884$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	3.277	2.22	0.0000	P	86.6
4	☐	50.000	49.134	33.33	0.0001	P	20.4
5	☐	125.000	126.834	85.56	0.0003	P	16.3
6	☐	250.000	260.236	170.01	0.0007	P	16.9
7	☐	500.000	477.854	323.34	0.0013	P	9.1
8	☐	1000.000	1008.337	706.70	0.0028	P	4.5
9	☐			1.11	0.0000	P	173.2

$$y = 2.7583\text{E-}006 * x + 0.0000\text{E+}000$$

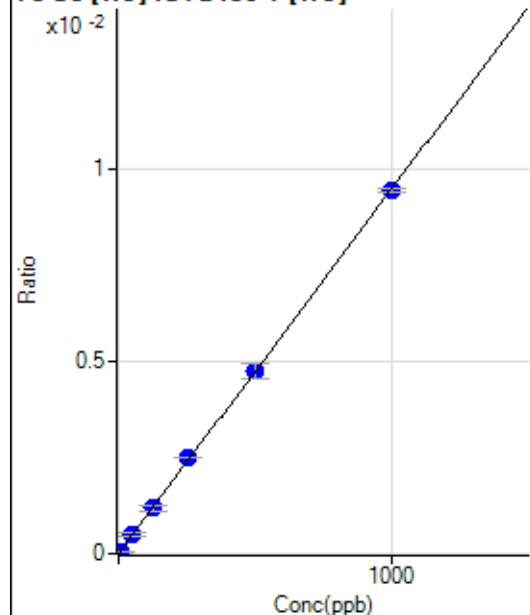
$$R = 0.9996$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

78 Se [He] ISTD:89 Y [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.23	0.0000	P	86.6
2	☐	0.500					
3	☐	5.000	4.250	11.11	0.0000	P	43.9
4	☐	50.000	51.705	121.61	0.0005	P	12.8
5	☐	125.000	123.834	287.66	0.0012	P	12.4
6	☐	250.000	264.873	593.85	0.0025	P	0.6
7	☐	500.000	501.608	1164.88	0.0047	P	8.3
8	☐	1000.000	995.542	2393.44	0.0094	P	1.1
9	☐			3.70	0.0000	P	100.0

$$y = 9.4562\text{E-}006 * x + 5.0245\text{E-}006$$

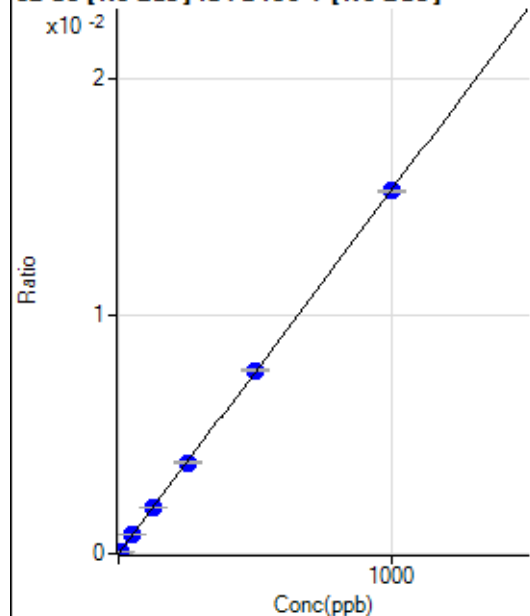
$$R = 0.9999$$

$$DL = 1.381$$

$$BEC = 0.5314$$

Weight: <None>

Min Conc: 0

82 Se [No Gas] ISTD:89 Y [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-25.48	0.0000	P	-214.
2	☐	0.500					
3	☐	5.000	4.579	577.26	0.0001	P	15.0
4	☐	50.000	50.954	6688.99	0.0008	P	1.4
5	☐	125.000	125.848	16387.05	0.0019	P	1.3
6	☐	250.000	250.390	32506.04	0.0038	P	1.4
7	☐	500.000	503.378	65329.54	0.0077	P	0.8
8	☐	1000.000	998.062	130031.54	0.0152	P	0.3
9	☐			66.83	0.0000	P	43.4

$$y = 1.5282\text{E-}005 * x - 2.9165\text{E-}006$$

$$R = 1.0000$$

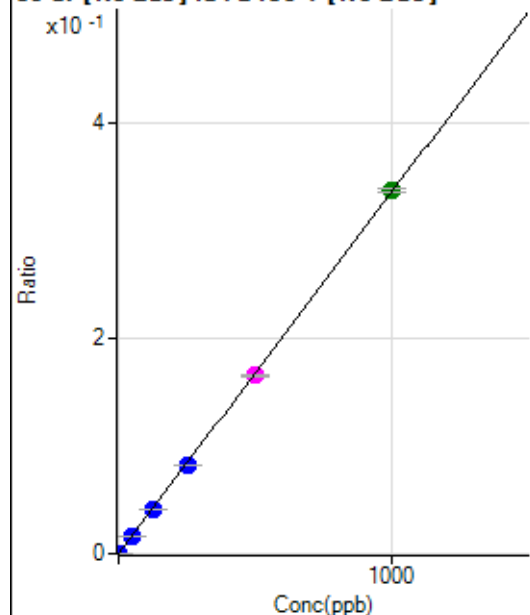
$$DL = 1.227$$

$$BEC = -0.1908$$

Weight: <None>

Min Conc: 0

86 Sr [No Gas] ISTD:89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	547.26	0.0001	P	4.2
2	☐	0.100					
3	☐	1.000	0.859	3019.92	0.0004	P	0.7
4	☐	50.000	49.180	142922.19	0.0166	P	0.7
5	☐	125.000	123.661	354872.79	0.0416	P	0.5
6	☐	250.000	246.533	704277.58	0.0828	P	0.5
7	☐	500.000	493.992	1409664.95	0.1659	M	0.9
8	☐	1000.000	1004.079	2875144.57	0.3372	A	1.1
9	☐			96112.34	0.0115	P	1.5

$$y = 3.3577E-004 * x + 6.2635E-005$$

$$R = 1.0000$$

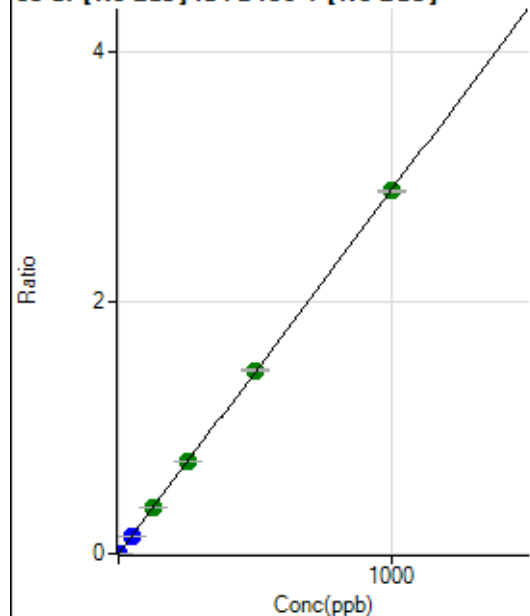
$$DL = 0.0233$$

$$BEC = 0.1865$$

Weight: <None>

Min Conc: 0

88 Sr [No Gas] ISTD:89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	180.57	0.0000	P	16.8
2	☐	0.100					
3	☐	1.000	0.881	22129.94	0.0026	P	3.0
4	☐	50.000	49.977	1248561.83	0.1448	P	0.2
5	☐	125.000	127.285	3146796.84	0.3688	A	1.5
6	☐	250.000	251.941	6205218.93	0.7299	A	0.4
7	☐	500.000	502.628	12370250.45	1.4561	A	1.1
8	☐	1000.000	997.916	24649970.69	2.8910	A	0.6
9	☐			836119.74	0.1003	P	0.4

$$y = 0.0029 * x + 2.0647E-005$$

$$R = 1.0000$$

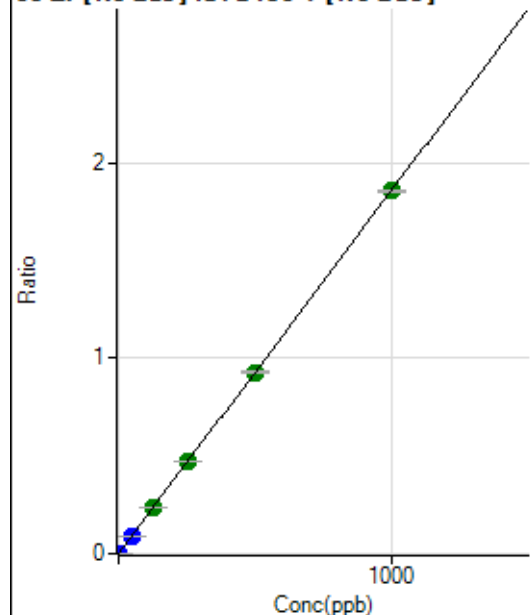
$$DL = 0.003583$$

$$BEC = 0.007127$$

Weight: <None>

Min Conc: 0

90 Zr [No Gas] ISTD : 89 Y [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	480.59	0.0001	P	10.1
2	☐	0.100					
3	☐	1.000	0.850	14077.27	0.0016	P	0.3
4	☐	50.000	49.519	794515.84	0.0921	P	0.0
5	☐	125.000	127.945	2030884.23	0.2380	A	1.3
6	☐	250.000	252.781	3997092.45	0.4702	A	0.9
7	☐	500.000	500.154	7902422.66	0.9302	A	1.2
8	☐	1000.000	998.884	15839582.82	1.8577	A	0.5
9	☐			2289.56	0.0003	P	16.0

$$y = 0.0019 * x + 5.5013E-005$$

$$R = 1.0000$$

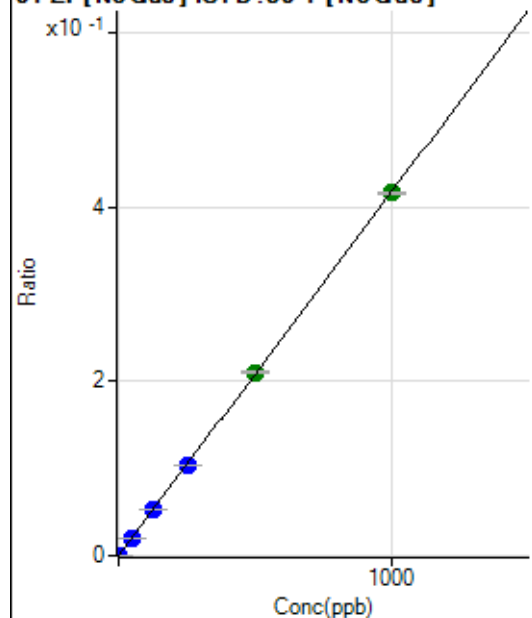
$$DL = 0.008921$$

$$BEC = 0.02958$$

Weight: <None>

Min Conc: 0

91 Zr [No Gas] ISTD : 89 Y [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	125.00	0.0000	P	44.2
2	☐	0.100					
3	☐	1.000	0.836	3122.73	0.0004	P	6.1
4	☐	50.000	49.276	177200.05	0.0206	P	0.3
5	☐	125.000	125.382	446044.91	0.0523	P	1.0
6	☐	250.000	249.786	885172.06	0.1041	P	0.3
7	☐	500.000	504.549	1786508.85	0.2103	A	1.3
8	☐	1000.000	997.767	3545786.89	0.4159	A	0.6
9	☐			463.92	0.0001	P	11.8

$$y = 4.1677E-004 * x + 1.4330E-005$$

$$R = 1.0000$$

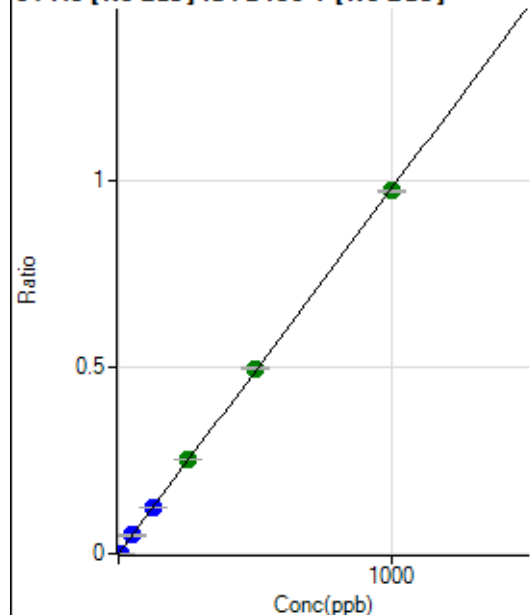
$$DL = 0.04563$$

$$BEC = 0.03438$$

Weight: <None>

Min Conc: 0

94 Mo [No Gas] ISTD:89 Y [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	258.35	0.0000	P	14.0
2	☐	0.500					
3	☐	5.000	1.976	16889.01	0.0020	P	0.5
4	☐	50.000	50.043	422358.75	0.0490	P	0.5
5	☐	125.000	127.183	1061988.79	0.1244	P	0.6
6	☐	250.000	257.211	2139353.57	0.2516	A	0.7
7	☐	500.000	507.701	4219452.14	0.4967	A	1.5
8	☐	1000.000	994.087	8291985.34	0.9725	A	0.6
9	☐			5176.23	0.0006	P	4.1

$$y = 9.7825\text{E-}004 * x + 2.9560\text{E-}005$$

$$R = 0.9999$$

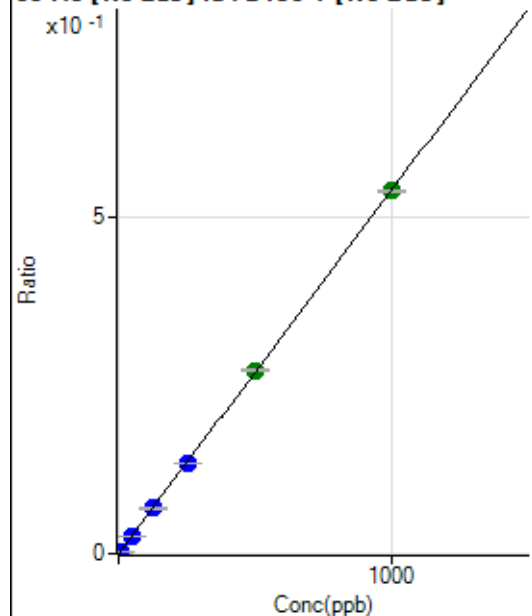
$$DL = 0.01267$$

$$BEC = 0.03022$$

Weight: <None>

Min Conc: 0

95 Mo [No Gas] ISTD:89 Y [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0000	P	19.6
2	☐	0.500					
3	☐	5.000	4.292	20007.20	0.0023	P	1.6
4	☐	50.000	49.447	230090.53	0.0267	P	0.6
5	☐	125.000	124.802	574625.76	0.0673	P	0.9
6	☐	250.000	248.258	1138656.10	0.1339	P	1.2
7	☐	500.000	504.342	2311479.22	0.2721	A	1.2
8	☐	1000.000	998.320	4592175.15	0.5386	A	0.6
9	☐			8380.74	0.0010	P	1.6

$$y = 5.3947\text{E-}004 * x + 1.0173\text{E-}005$$

$$R = 1.0000$$

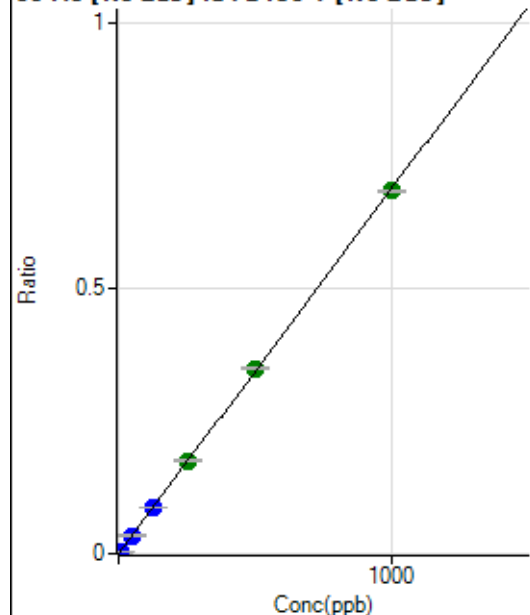
$$DL = 0.01111$$

$$BEC = 0.01886$$

Weight: <None>

Min Conc: 0

96 Mo [No Gas] ISTD:89 Y [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0000	P	20.1
2	☐	0.500					
3	☐	5.000	3.764	22321.98	0.0026	P	1.9
4	☐	50.000	49.933	295677.35	0.0343	P	1.0
5	☐	125.000	125.457	735100.47	0.0861	P	1.2
6	☐	250.000	255.457	1491050.98	0.1754	A	1.8
7	☐	500.000	508.457	2965630.84	0.3491	A	1.4
8	☐	1000.000	994.360	5821196.18	0.6827	A	0.8
9	☐			10818.64	0.0013	P	4.2

$$y = 6.8656E-004 * x + 1.0180E-005$$

$$R = 0.9999$$

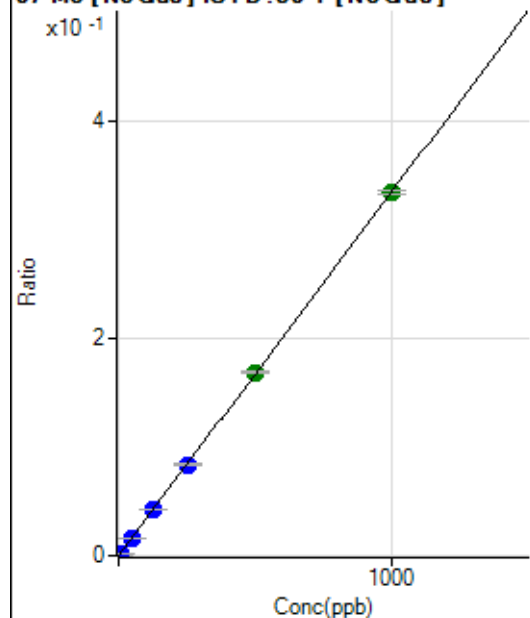
$$DL = 0.008931$$

$$BEC = 0.01483$$

Weight: <None>

Min Conc: 0

97 Mo [No Gas] ISTD:89 Y [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38.89	0.0000	P	75.4
2	☐	0.500					
3	☐	5.000	4.310	12428.49	0.0014	P	4.3
4	☐	50.000	49.410	142411.48	0.0165	P	0.7
5	☐	125.000	125.194	357063.02	0.0418	P	0.9
6	☐	250.000	250.107	710571.38	0.0836	P	1.5
7	☐	500.000	503.965	1430823.52	0.1684	A	0.8
8	☐	1000.000	997.999	2843703.65	0.3335	A	1.1
9	☐			4759.39	0.0006	P	2.3

$$y = 3.3418E-004 * x + 4.4461E-006$$

$$R = 1.0000$$

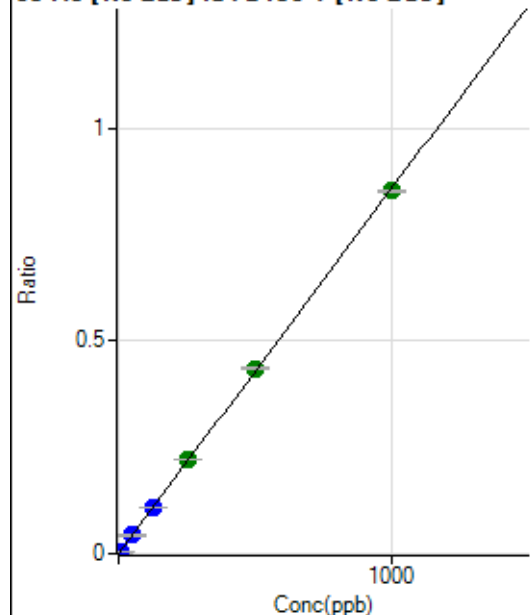
$$DL = 0.03011$$

$$BEC = 0.0133$$

Weight: <None>

Min Conc: 0

98 Mo [No Gas] ISTD:89 Y [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	97.23	0.0000	P	5.6
2	☐	0.500					
3	☐	5.000	4.396	32540.08	0.0038	P	1.1
4	☐	50.000	50.168	371139.15	0.0430	P	1.3
5	☐	125.000	127.122	930636.68	0.1091	P	0.6
6	☐	250.000	257.981	1881352.86	0.2213	A	1.2
7	☐	500.000	507.562	3698795.74	0.4354	A	1.0
8	☐	1000.000	993.953	7269765.36	0.8526	A	0.8
9	☐			11110.61	0.0013	P	3.8

$$y = 8.5779\text{E-}004 * x + 1.1129\text{E-}005$$

$$R = 0.9999$$

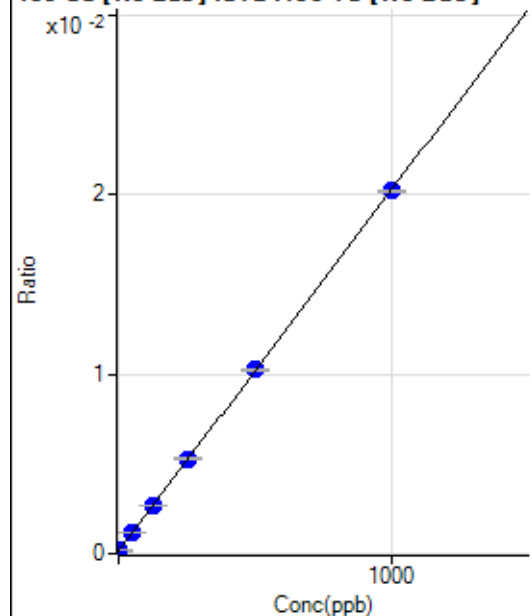
$$DL = 0.002176$$

$$BEC = 0.01297$$

Weight: <None>

Min Conc: 0

106 Cd [No Gas] ISTD:159 Tb [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1705.74	0.0001	P	6.0
2	☐	0.100					
3	☐	1.000	1.115	1939.12	0.0002	P	3.2
4	☐	50.000	50.734	13740.89	0.0012	P	0.9
5	☐	125.000	127.326	31679.93	0.0027	P	0.5
6	☐	250.000	255.506	61535.50	0.0053	P	0.9
7	☐	500.000	502.569	119486.43	0.0103	P	0.9
8	☐	1000.000	997.012	233967.02	0.0202	P	0.6
9	☐			1752.97	0.0002	P	2.6

$$y = 2.0131\text{E-}005 * x + 1.4427\text{E-}004$$

$$R = 1.0000$$

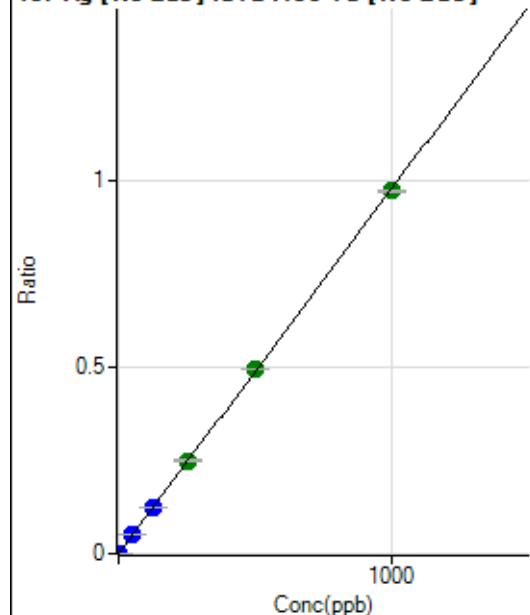
$$DL = 1.295$$

$$BEC = 7.167$$

Weight: <None>

Min Conc: 0

107 Ag [No Gas] ISTD:159 Tb [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0000	P	53.8
2	☐	0.100					
3	☐	1.000	0.910	10451.75	0.0009	P	3.2
4	☐	50.000	50.689	585137.55	0.0496	P	0.3
5	☐	125.000	127.567	1461481.44	0.1249	P	1.0
6	☐	250.000	255.161	2907303.01	0.2498	A	1.3
7	☐	500.000	506.821	5778212.28	0.4962	A	0.7
8	☐	1000.000	994.944	11274553.64	0.9741	A	0.6
9	☐			983.42	0.0001	P	12.3

$$y = 9.7909\text{E-}004 * x + 7.9851\text{E-}006$$

$$R = 0.9999$$

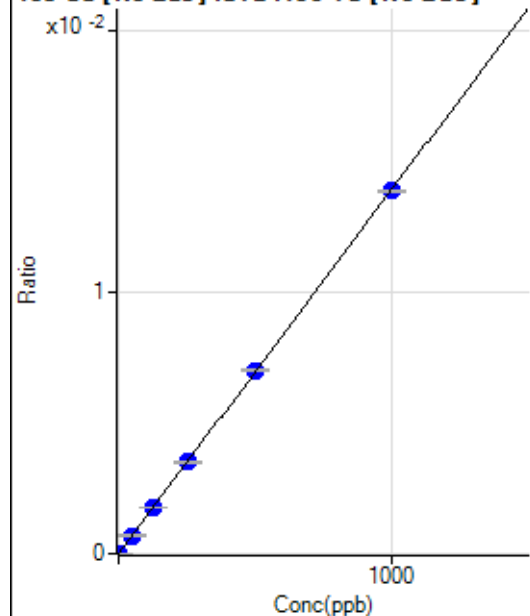
$$DL = 0.01316$$

$$BEC = 0.008156$$

Weight: <None>

Min Conc: 0

108 Cd [No Gas] ISTD:159 Tb [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.17	0.0000	P	100.0
2	☐	0.100					
3	☐	1.000	0.988	163.89	0.0000	P	19.8
4	☐	50.000	50.149	8215.18	0.0007	P	1.4
5	☐	125.000	127.236	20681.39	0.0018	P	0.5
6	☐	250.000	252.497	40812.00	0.0035	P	1.9
7	☐	500.000	503.841	81487.57	0.0070	P	1.1
8	☐	1000.000	997.168	160297.91	0.0139	P	0.7
9	☐			29.17	0.0000	P	27.6

$$y = 1.3889\text{E-}005 * x + 3.5246\text{E-}007$$

$$R = 1.0000$$

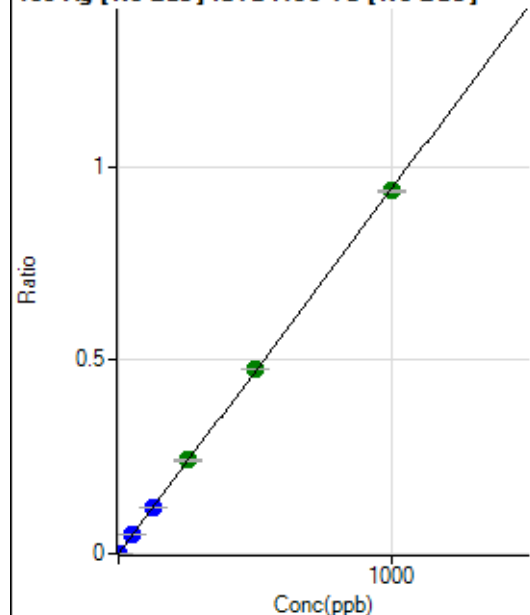
$$DL = 0.07616$$

$$BEC = 0.02538$$

Weight: <None>

Min Conc: 0

109 Ag [No Gas] ISTD:159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0000	P	33.1
2	☐	0.100					
3	☐	1.000	0.890	9806.78	0.0008	P	3.6
4	☐	50.000	50.612	561880.48	0.0477	P	0.8
5	☐	125.000	126.543	1394325.43	0.1192	P	0.3
6	☐	250.000	255.967	2805064.80	0.2410	A	0.7
7	☐	500.000	506.957	5558788.45	0.4774	A	0.7
8	☐	1000.000	994.806	10842006.58	0.9368	A	0.6
9	☐			958.41	0.0001	P	9.4

$$y = 9.4166\text{E-}004 * x + 5.6397\text{E-}006$$

$$R = 0.9999$$

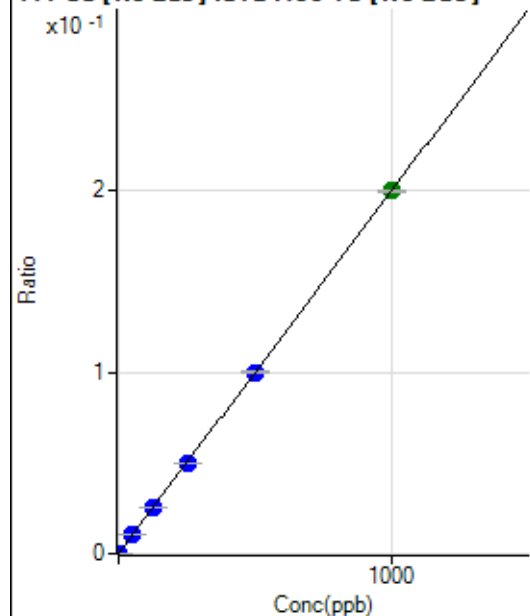
$$DL = 0.005955$$

$$BEC = 0.005989$$

Weight: <None>

Min Conc: 0

111 Cd [No Gas] ISTD:159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1213.33	0.0001	P	5.4
2	☐	0.100					
3	☐	1.000	0.870	3213.68	0.0003	P	1.3
4	☐	50.000	50.156	119258.71	0.0101	P	0.6
5	☐	125.000	125.647	294729.85	0.0252	P	0.8
6	☐	250.000	249.409	580681.16	0.0499	P	0.9
7	☐	500.000	500.081	1163822.97	0.0999	P	0.6
8	☐	1000.000	1000.019	2312031.93	0.1998	A	0.8
9	☐			1342.78	0.0001	P	1.7

$$y = 1.9966\text{E-}004 * x + 1.0262\text{E-}004$$

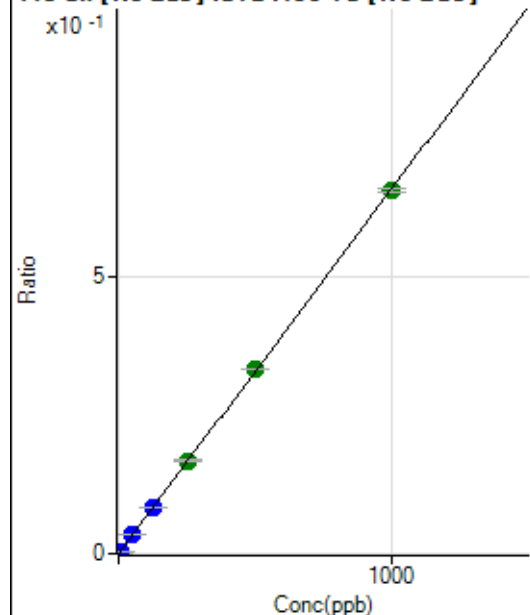
$$R = 1.0000$$

$$DL = 0.08339$$

$$BEC = 0.514$$

Weight: <None>

Min Conc: 0

118 Sn [No Gas] ISTD :159 Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	805.62	0.0001	P	8.9
2	☐	0.500					
3	☐	5.000	4.362	34211.54	0.0029	P	2.4
4	☐	50.000	50.612	393986.52	0.0334	P	0.4
5	☐	125.000	127.055	980477.85	0.0838	P	0.6
6	☐	250.000	254.840	1954999.31	0.1680	A	1.8
7	☐	500.000	506.222	3885346.31	0.3337	A	0.5
8	☐	1000.000	995.394	7592676.99	0.6560	A	0.9
9	☐			3839.61	0.0004	P	7.6

$$y = 6.5900\text{E-}004 * x + 6.8145\text{E-}005$$

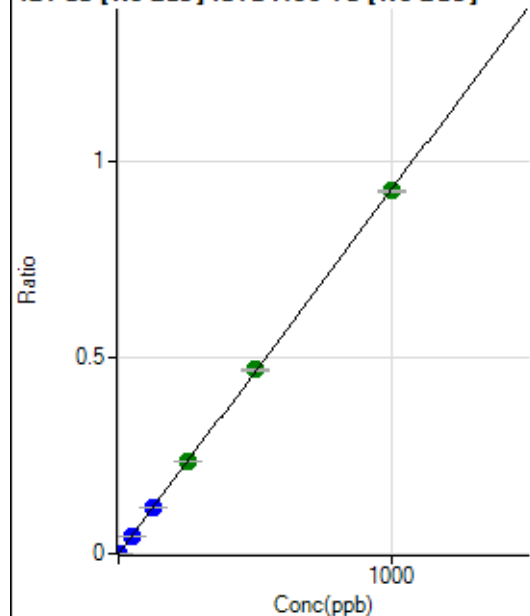
$$R = 1.0000$$

$$DL = 0.02766$$

$$BEC = 0.1034$$

Weight: <None>

Min Conc: 0

121 Sb [No Gas] ISTD :159 Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.23	0.0000	P	46.5
2	☐	0.200					
3	☐	2.000	1.789	19336.87	0.0017	P	4.6
4	☐	50.000	49.687	542902.16	0.0461	P	0.6
5	☐	125.000	125.442	1360338.03	0.1163	P	0.4
6	☐	250.000	254.598	2745904.14	0.2360	A	0.6
7	☐	500.000	504.471	5443930.33	0.4675	A	1.1
8	☐	1000.000	996.576	10689527.24	0.9236	A	0.5
9	☐			12117.08	0.0011	P	4.0

$$y = 9.2677\text{E-}004 * x + 6.1069\text{E-}006$$

$$R = 1.0000$$

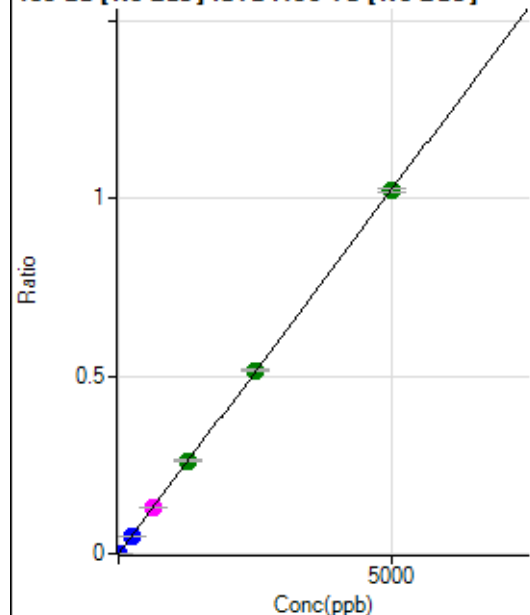
$$DL = 0.009194$$

$$BEC = 0.006589$$

Weight: <None>

Min Conc: 0

135 Ba [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	47.23	0.0000	P	27.0
2	☐	1.000					
3	☐	10.000	9.119	21749.10	0.0019	P	1.3
4	☐	250.000	248.466	599615.63	0.0509	P	0.3
5	☐	625.000	628.767	1506023.95	0.1287	M	0.7
6	☐	1250.000	1278.489	3045635.40	0.2617	A	1.0
7	☐	2500.000	2513.865	5991909.29	0.5146	A	1.0
8	☐	5000.000	4985.553	11811371.97	1.0205	A	1.2
9	☐			2806.00	0.0003	P	1.8

$$y = 2.0470\text{E-}004 * x + 3.9944\text{E-}006$$

$$R = 1.0000$$

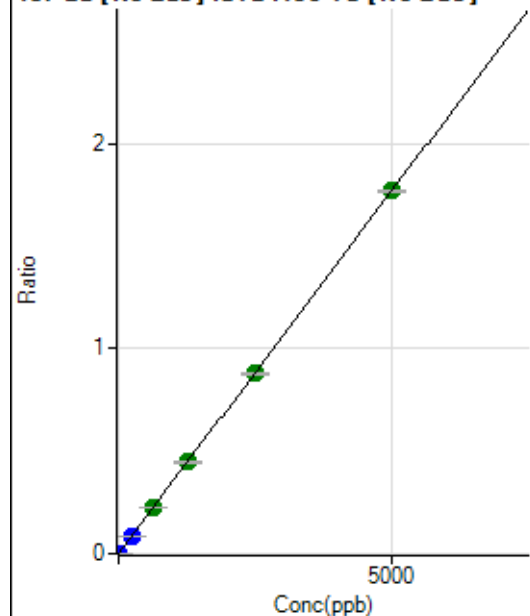
$$DL = 0.01578$$

$$BEC = 0.01951$$

Weight: <None>

Min Conc: 0

137 Ba [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	77.78	0.0000	P	16.4
2	☐	1.000					
3	☐	10.000	8.863	36523.83	0.0031	P	2.7
4	☐	250.000	249.971	1042393.01	0.0884	P	0.4
5	☐	625.000	639.354	2646198.75	0.2262	A	0.4
6	☐	1250.000	1261.841	5194286.05	0.4463	A	1.0
7	☐	2500.000	2482.266	10223913.86	0.8780	A	0.6
8	☐	5000.000	5004.116	20486053.41	1.7701	A	0.8
9	☐			4759.40	0.0004	P	2.5

$$y = 3.5372\text{E-}004 * x + 6.5793\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.009176$$

$$BEC = 0.0186$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	100.0
2	☐						
3	☐			11.11		P	34.6
4	☐			40.00		P	33.3
5	☐			68.89		P	20.1
6	☐			140.01		P	21.8
7	☐			193.34		P	12.4
8	☐			466.69		P	13.6
9	☐			131.12		P	21.2

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			1.11		P	173.2
5	☐			2.22		P	86.6
6	☐			1.11		P	173.2
7	☐			3.33		P	100.1
8	☐			3.33		P	100.1
9	☐			20.00		P	44.1

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.78		P	173.2
2	☐						
3	☐			13.89		P	34.7
4	☐			16.67		P	50.0
5	☐			36.11		P	66.6
6	☐			52.78		P	50.8
7	☐			105.56		P	25.4
8	☐			136.12		P	28.9
9	☐			83.33		P	17.3

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐						
3	☐			2.22		P	86.6
4	☐			2.22		P	86.6
5	☐			3.33		P	100.1
6	☐			6.66		P	86.6
7	☐			11.11		P	69.3
8	☐			21.11		P	9.1
9	☐			12.22		P	15.7

160 Gd [No Gas] Noavailable calibration poin...

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	32.7
2	☐						
3	☐			66.67		P	43.3
4	☐			55.56		P	37.7
5	☐			50.00		P	16.7
6	☐			80.56		P	57.0
7	☐			91.67		P	31.5
8	☐			147.23		P	31.2
9	☐			94.45		P	22.2

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			7.78		P	65.5
2	☐						
3	☐			3.33		P	100.1
4	☐			6.67		P	50.0
5	☐			14.44		P	35.3
6	☐			11.11		P	62.5
7	☐			11.11		P	75.5
8	☐			27.78		P	13.9
9	☐			27.78		P	25.0

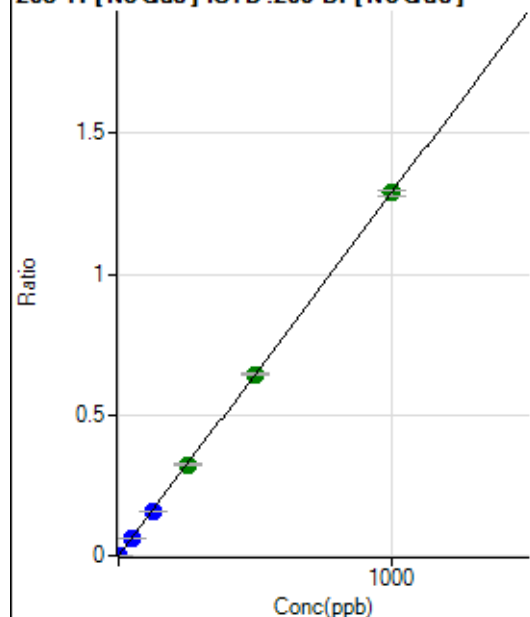
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41.67		P	72.1
2	☐						
3	☐			63.89		P	27.2
4	☐			30.56		P	110.2
5	☐			55.56		P	22.9
6	☐			36.11		P	35.3
7	☐			36.11		P	70.5
8	☐			86.11		P	14.8
9	☐			94.45		P	10.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	34.6
2	☐						
3	☐			6.67		P	50.0
4	☐			14.44		P	13.4
5	☐			3.33		P	100.1
6	☐			3.33		P	100.1
7	☐			8.89		P	43.3
8	☐			11.11		P	69.3
9	☐			14.45		P	48.0

203 Tl [No Gas] ISTD :209 Bi [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	272.24	0.0000	P	31.2
2	☐	0.100					
3	☐	1.000	0.860	8767.30	0.0011	P	3.8
4	☐	50.000	48.665	480341.91	0.0627	P	0.2
5	☐	125.000	122.212	1206857.21	0.1575	P	1.9
6	☐	250.000	251.202	2443587.94	0.3236	A	0.9
7	☐	500.000	500.599	4805585.96	0.6449	A	0.6
8	☐	1000.000	999.815	9277810.36	1.2879	A	1.4
9	☐			2992.16	0.0005	P	9.3

$$y = 0.0013 * x + 3.5290E-005$$

$$R = 1.0000$$

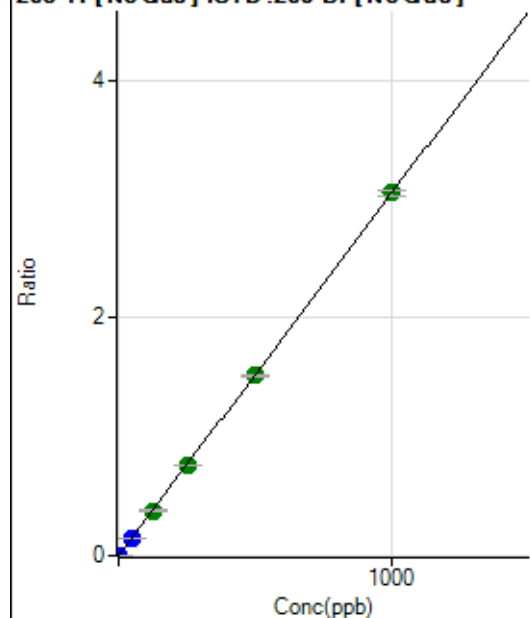
$$DL = 0.02567$$

$$BEC = 0.0274$$

Weight: <None>

Min Conc: 0

205 Tl [No Gas] ISTD :209 Bi [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	622.27	0.0001	P	2.5
2	☐	0.100					
3	☐	1.000	0.879	21168.53	0.0028	P	1.8
4	☐	50.000	49.156	1147798.34	0.1499	P	1.1
5	☐	125.000	124.598	2910862.72	0.3798	A	2.2
6	☐	250.000	248.546	5719886.02	0.7575	A	1.3
7	☐	500.000	498.073	11311884.28	1.5179	A	0.8
8	☐	1000.000	1001.420	21985241.12	3.0519	A	1.3
9	☐			7202.39	0.0011	P	6.6

$$y = 0.0030 * x + 8.0696E-005$$

$$R = 1.0000$$

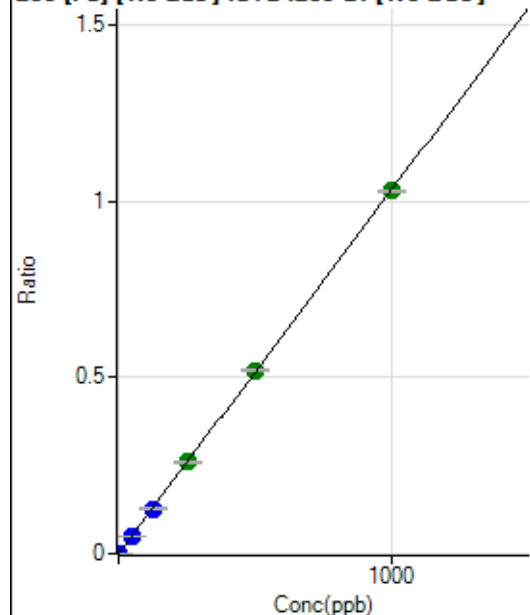
$$DL = 0.002021$$

$$BEC = 0.02648$$

Weight: <None>

Min Conc: 0

206 [Pb] [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	688.93	0.0001	P	1.8
2	☐	0.100					
3	☐	1.000	0.868	7569.12	0.0010	P	2.9
4	☐	50.000	49.168	389745.38	0.0509	P	1.2
5	☐	125.000	123.604	979621.10	0.1278	P	1.9
6	☐	250.000	251.439	1962512.06	0.2599	A	0.7
7	☐	500.000	504.507	3885588.28	0.5214	A	1.2
8	☐	1000.000	997.603	7426609.77	1.0309	A	0.7
9	☐			7787.80	0.0012	P	4.1

$$y = 0.0010 * x + 8.9341E-005$$

$$R = 1.0000$$

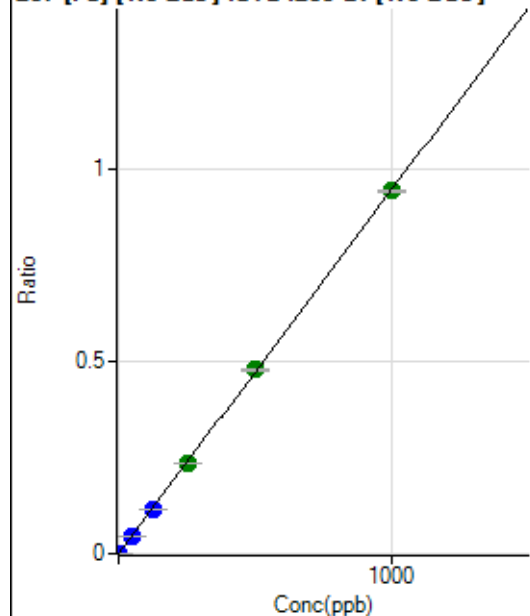
$$DL = 0.004747$$

$$BEC = 0.08646$$

Weight: <None>

Min Conc: 0

207 [Pb] [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	588.92	0.0001	P	6.8
2	☐	0.100					
3	☐	1.000	0.865	6863.19	0.0009	P	6.3
4	☐	50.000	48.777	354113.63	0.0462	P	1.2
5	☐	125.000	121.826	884412.41	0.1154	P	0.7
6	☐	250.000	250.394	1790122.77	0.2371	A	0.4
7	☐	500.000	505.567	3566340.76	0.4786	A	0.3
8	☐	1000.000	997.576	6802156.17	0.9442	A	0.6
9	☐			6412.92	0.0010	P	1.9

$$y = 9.4644E-004 * x + 7.6383E-005$$

$$R = 1.0000$$

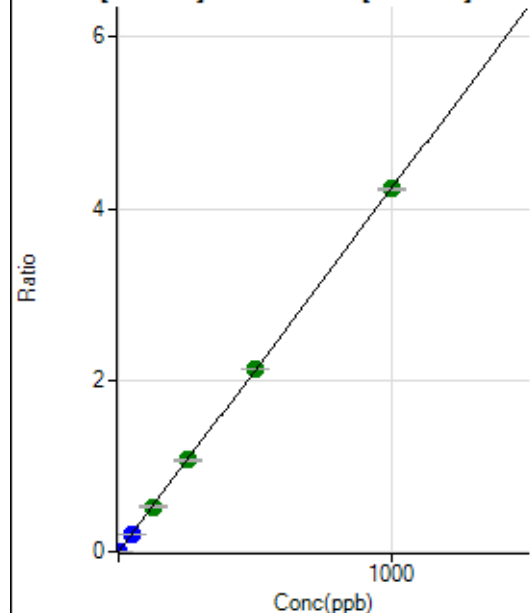
$$DL = 0.01654$$

$$BEC = 0.08071$$

Weight: <None>

Min Conc: 0

208 Pb [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2842.82	0.0004	P	1.0
2	☐	0.100					
3	☐	1.000	0.869	31043.60	0.0040	P	1.3
4	☐	50.000	48.871	1587974.08	0.2074	P	0.8
5	☐	125.000	124.054	4030088.96	0.5258	A	1.5
6	☐	250.000	251.719	8053153.42	1.0665	A	0.8
7	☐	500.000	501.791	15840734.61	2.1257	A	0.4
8	☐	1000.000	998.850	30479382.63	4.2309	A	0.7
9	☐			30096.28	0.0048	P	1.1

$$y = 0.0042 * x + 3.6867E-004$$

$$R = 1.0000$$

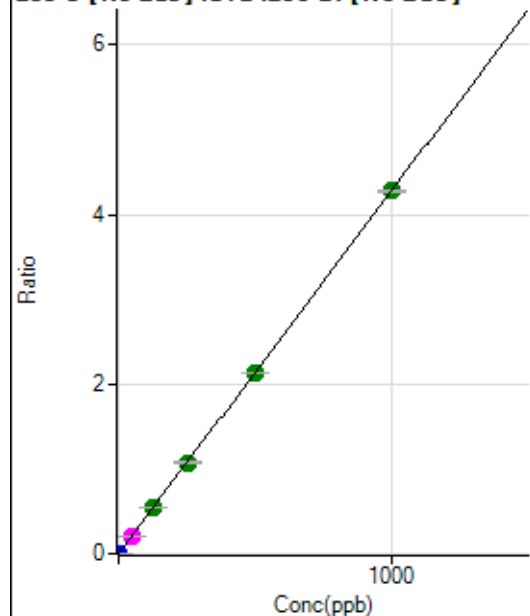
$$DL = 0.002576$$

$$BEC = 0.08704$$

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	297.24	0.0000	P	23.6
2	☐	0.100					
3	☐	1.000	0.844	28010.27	0.0037	P	1.3
4	☐	50.000	49.524	1623095.13	0.2119	M	0.2
5	☐	125.000	126.571	4151593.41	0.5416	A	0.8
6	☐	250.000	251.313	8119795.06	1.0753	A	1.1
7	☐	500.000	499.142	15915739.59	2.1357	A	0.5
8	☐	1000.000	999.928	30822014.58	4.2784	A	0.4
9	☐			1800.22	0.0003	P	5.0

$$y = 0.0043 * x + 3.8555E-005$$

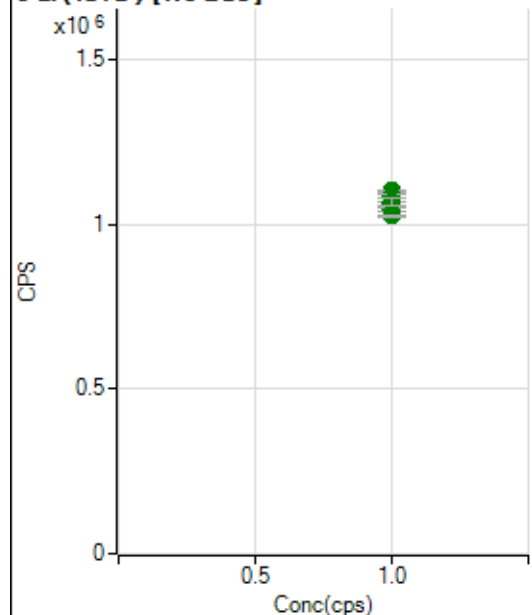
$$R = 1.0000$$

$$DL = 0.00638$$

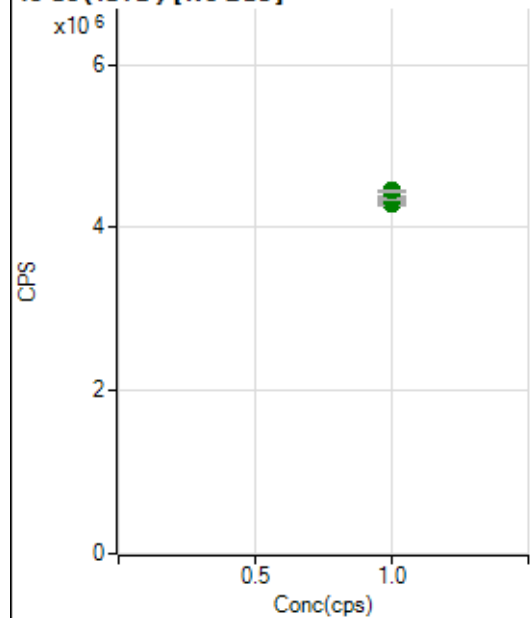
$$BEC = 0.009011$$

Weight: <None>

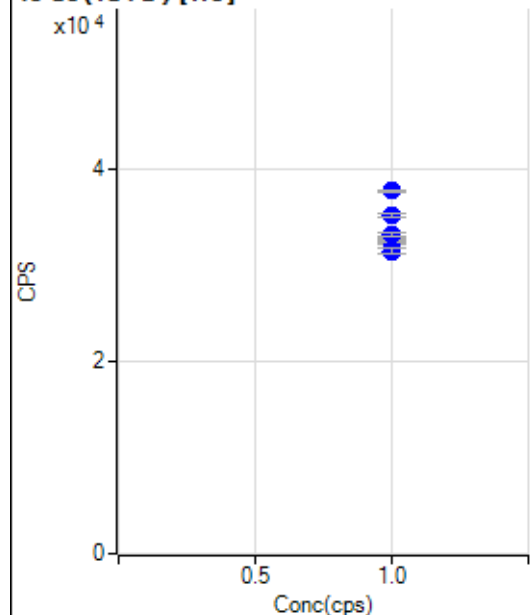
Min Conc: 0

6 Li (ISTD) [No Gas]

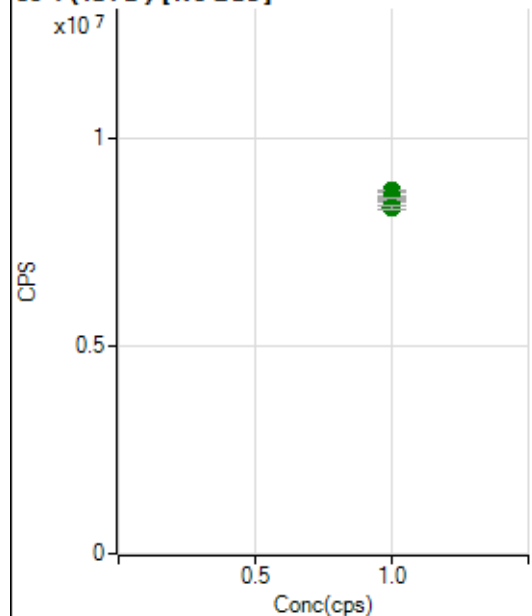
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1101416.73		A	0.8
2	☐	1.000					
3	☐	1.000		1099433.10		A	0.5
4	☐	1.000		1087718.48		A	1.1
5	☐	1.000		1083903.96		A	1.1
6	☐	1.000		1060196.87		A	1.8
7	☐	1.000		1044393.31		A	1.2
8	☐	1.000		1025184.50		A	0.7
9	☐	1.000		1068510.39		A	2.3

45 Sc (ISTD) [No Gas]

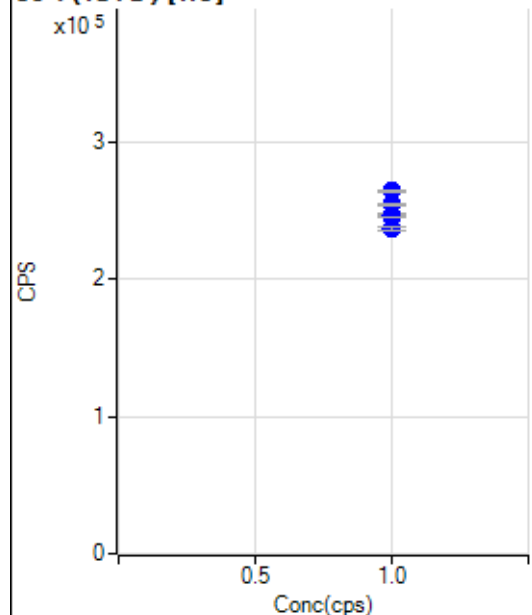
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4374874.36		A	0.4
2	☐	1.000					
3	☐	1.000		4356392.59		A	1.2
4	☐	1.000		4361669.07		A	0.6
5	☐	1.000		4309738.20		A	0.5
6	☐	1.000		4284403.96		A	0.7
7	☐	1.000		4285517.41		A	0.7
8	☐	1.000		4347119.20		A	0.8
9	☐	1.000		4449151.75		A	0.3

45 Sc (ISTD) [He]

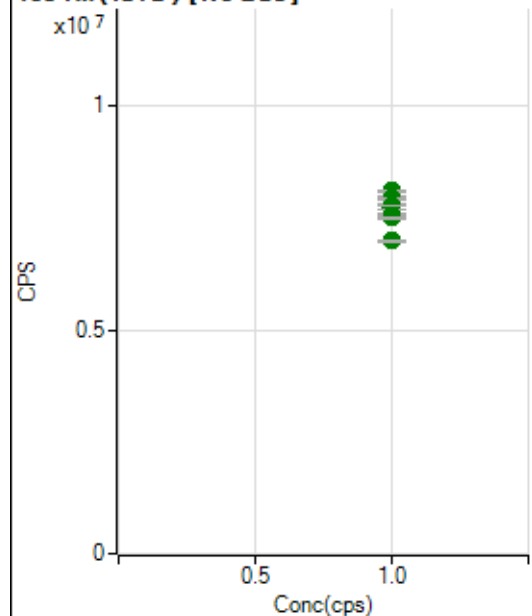
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		32796.13		P	0.5
2	☐	1.000					
3	☐	1.000		32858.54		P	0.2
4	☐	1.000		32150.26		P	0.8
5	☐	1.000		32399.64		P	0.5
6	☐	1.000		31407.47		P	2.2
7	☐	1.000		33187.05		P	1.3
8	☐	1.000		35036.09		P	1.2
9	☐	1.000		37642.63		P	0.3

89 Y (ISTD) [No Gas]

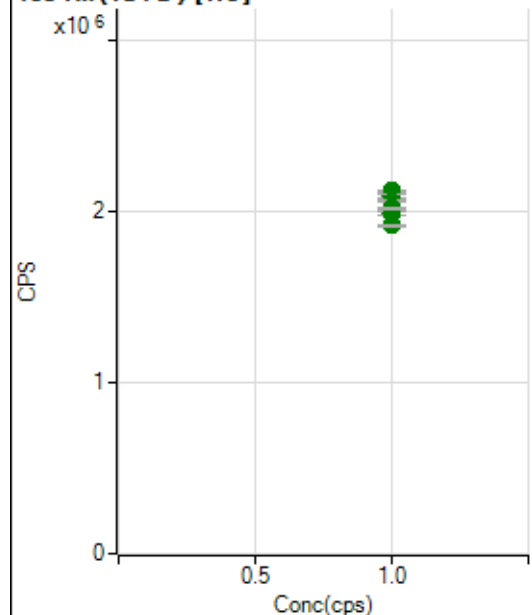
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8739018.21		A	0.7
2	☐	1.000					
3	☐	1.000		8603585.43		A	0.7
4	☐	1.000		8622410.15		A	0.3
5	☐	1.000		8533965.01		A	0.8
6	☐	1.000		8501708.14		A	0.7
7	☐	1.000		8495760.15		A	0.8
8	☐	1.000		8526685.43		A	0.6
9	☐	1.000		8332757.24		A	1.0

89 Y (ISTD) [He]

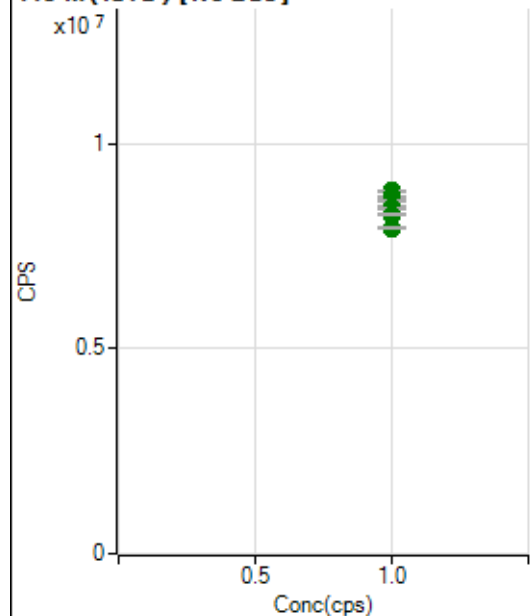
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		245510.57		P	0.2
2	☐	1.000					
3	☐	1.000		245640.96		P	0.3
4	☐	1.000		246122.51		P	1.0
5	☐	1.000		244579.44		P	0.1
6	☐	1.000		236606.51		P	1.6
7	☐	1.000		245304.16		P	0.2
8	☐	1.000		254103.92		P	0.2
9	☐	1.000		263977.53		P	0.4

103 Rh (ISTD) [No Gas]

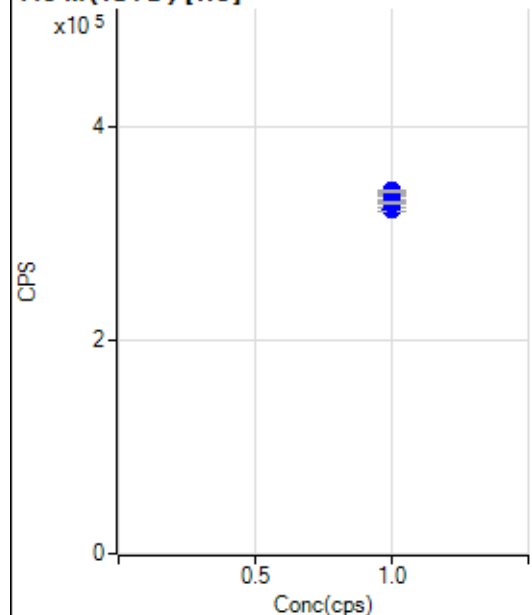
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8101966.07		A	0.3
2	☐	1.000					
3	☐	1.000		7945374.91		A	0.8
4	☐	1.000		7921348.27		A	0.6
5	☐	1.000		7784038.80		A	0.4
6	☐	1.000		7723621.18		A	1.0
7	☐	1.000		7573346.52		A	0.4
8	☐	1.000		7496822.82		A	0.4
9	☐	1.000		6985914.56		A	0.9

103 Rh (ISTD) [He]

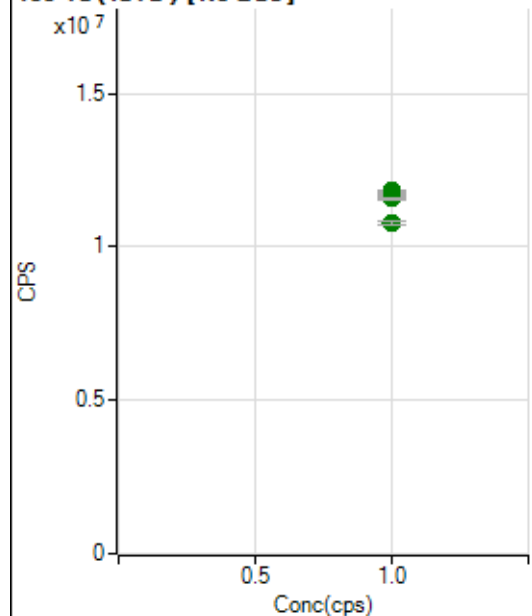
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2121533.70		A	0.8
2	☐	1.000					
3	☐	1.000		2106012.43		A	0.8
4	☐	1.000		2086704.14		A	1.1
5	☐	1.000		2060512.66		A	0.4
6	☐	1.000		1995319.55		A	2.1
7	☐	1.000		2007118.20		A	0.8
8	☐	1.000		2019326.58		A	0.9
9	☐	1.000		1918515.87		A	0.4

115 In (ISTD) [No Gas]

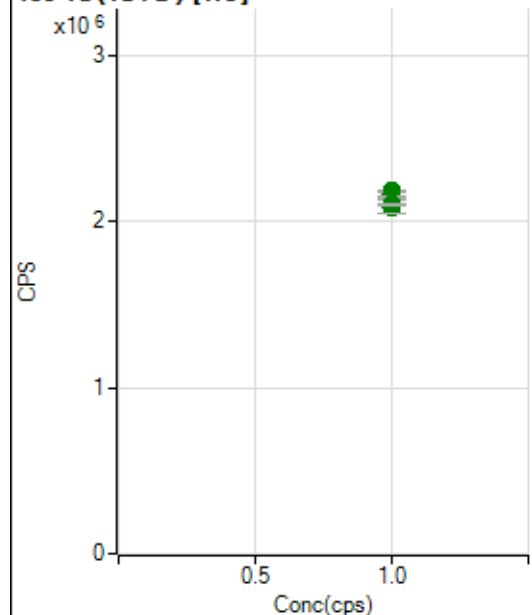
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8848105.88		A	0.4
2	☐	1.000					
3	☐	1.000		8685409.60		A	1.2
4	☐	1.000		8719583.98		A	0.5
5	☐	1.000		8609500.57		A	0.5
6	☐	1.000		8461256.43		A	0.7
7	☐	1.000		8403138.31		A	0.6
8	☐	1.000		8277153.64		A	0.5
9	☐	1.000		7946335.31		A	0.6

115 In (ISTD) [He]

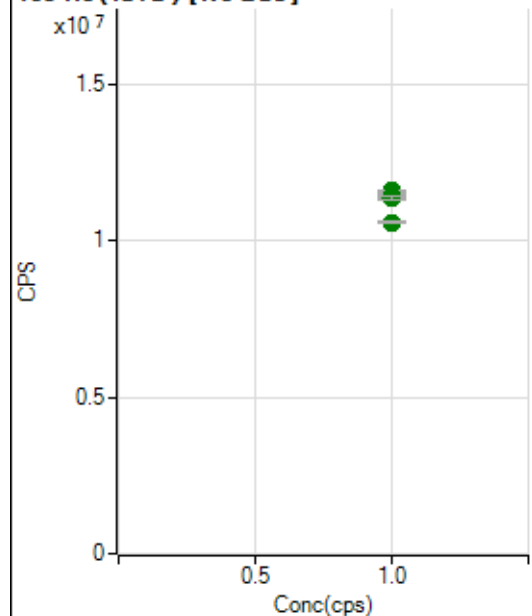
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		339568.45		P	0.3
2	☐	1.000					
3	☐	1.000		340268.46		P	0.3
4	☐	1.000		338831.84		P	1.0
5	☐	1.000		336615.41		P	0.2
6	☐	1.000		323093.83		P	1.5
7	☐	1.000		331090.66		P	0.6
8	☐	1.000		328877.90		P	0.8
9	☐	1.000		340224.01		P	0.6

159 Tb (ISTD) [No Gas]

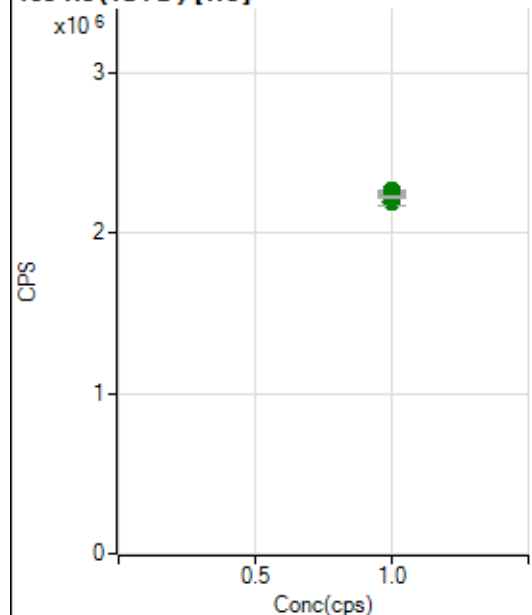
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11823008.85		A	0.1
2	☐	1.000					
3	☐	1.000		11627859.13		A	1.3
4	☐	1.000		11788331.21		A	0.3
5	☐	1.000		11700778.71		A	0.5
6	☐	1.000		11637651.77		A	0.9
7	☐	1.000		11644371.77		A	0.5
8	☐	1.000		11573866.49		A	0.3
9	☐	1.000		10778462.55		A	1.1

159 Tb (ISTD) [He]

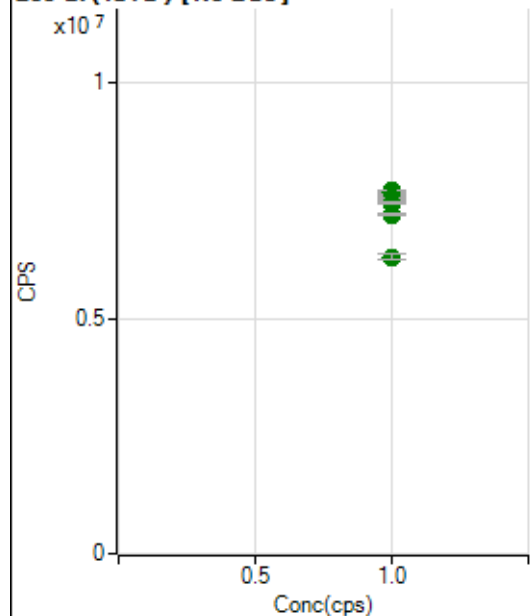
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2183874.20		A	0.5
2	☐	1.000					
3	☐	1.000		2143083.06		A	1.3
4	☐	1.000		2160048.89		A	1.4
5	☐	1.000		2151861.62		A	0.4
6	☐	1.000		2089280.47		A	3.5
7	☐	1.000		2143931.84		A	0.5
8	☐	1.000		2145281.82		A	0.5
9	☐	1.000		2104030.28		A	0.4

165 Ho (ISTD) [No Gas]

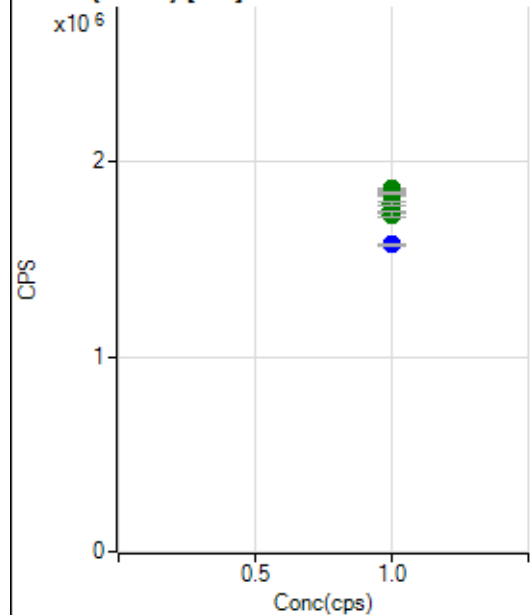
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11583595.14		A	0.8
2	☐	1.000					
3	☐	1.000		11500138.80		A	0.7
4	☐	1.000		11590751.22		A	0.3
5	☐	1.000		11551910.42		A	0.5
6	☐	1.000		11444128.38		A	0.1
7	☐	1.000		11403242.18		A	1.1
8	☐	1.000		11361028.12		A	0.9
9	☐	1.000		10595727.41		A	1.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2264368.93		A	0.7
2	☐	1.000					
3	☐	1.000		2239754.60		A	1.0
4	☐	1.000		2265845.87		A	0.7
5	☐	1.000		2261476.30		A	0.6
6	☐	1.000		2198102.59		A	2.3
7	☐	1.000		2243732.61		A	0.4
8	☐	1.000		2234811.60		A	0.6
9	☐	1.000		2227043.33		A	0.6

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7710923.36		A	0.3
2	☐	1.000					
3	☐	1.000		7670296.97		A	0.5
4	☐	1.000		7658457.04		A	0.9
5	☐	1.000		7665920.51		A	1.4
6	☐	1.000		7551251.83		A	0.7
7	☐	1.000		7452203.99		A	0.3
8	☐	1.000		7204186.35		A	0.6
9	☐	1.000		6312519.14		A	1.4

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1862866.51		A	0.5
2	☐	1.000					
3	☐	1.000		1841244.38		A	1.2
4	☐	1.000		1837262.85		A	0.3
5	☐	1.000		1842600.06		A	0.5
6	☐	1.000		1757352.79		A	2.4
7	☐	1.000		1785135.77		A	0.9
8	☐	1.000		1732481.00		A	1.2
9	☐	1.000		1575489.14		P	0.2

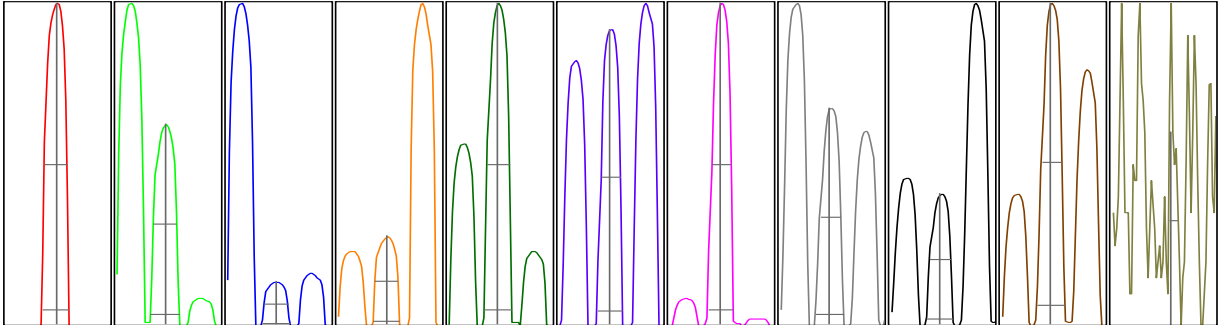
US EPA Tune Check Sample Report

Batch Folder D:\P8100617-MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	7090	0.81	5.00	
24	49949	0.67	5.00	
25	6866	0.63	5.00	
26	7994	0.89	5.00	
59	98971	0.86	5.00	
113	14721	0.32	5.00	
115	190047	0.60	5.00	
206	47717	0.55	5.00	
207	42783	0.23	5.00	
208	104521	0.63	5.00	
220	1	30.27		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	7103	7158	7128	7025	7036
24	50301	49961	50192	49850	49443
25	6929	6880	6870	6835	6818
26	8086	8027	8005	7952	7900
59	100051	99066	99405	98496	97835
113	14671	14709	14798	14716	14714
115	190604	191211	190764	188567	189089
206	47257	47898	47828	47775	47825
207	42778	42760	42721	42703	42950
208	105134	105099	104609	103550	104215
220	1	1	1	1	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	11463	9.00	8.9 - 9.1		0.783	0.900	
24	78976	23.95	23.9 - 24.1		0.827	0.900	
25	10746	24.95	24.9 - 25.1		0.815	0.900	
26	12849	25.95	25.9 - 26.1		0.745	0.900	
59	161279	58.95	58.9 - 59.1		0.789	0.900	
113	25966	113.00	112.9 - 113.1		0.734	0.900	
115	336948	115.00	114.9 - 115.1		0.739	0.900	
206	82125	205.95	205.9 - 206.1		0.816	0.900	
207	73608	206.95	206.9 - 207.1		0.758	0.900	
208	179968	207.95	207.9 - 208.1		0.813	0.900	
220	1	220.25	-				

X% = 5 Integration Time [sec] = 0.1 Acquisition Time [sec] = 268 Y Axis = Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	10.5	V	Deflect	13.8	V
Extract 2	-245.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-110	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination	5.0	V
He Flow	0.0	mL/min	OctP RF	180	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	12318	2.05	
89	2638	1.70	
205	20370	1.59	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	12519	11907	12418	12495	12250
89	2674	2575	2658	2675	2606
205	20634	19836	20415	20615	20350

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	10.5	V	Deflect	1.8	V
Extract 2	-245.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-110	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination	5.0	V
He Flow	5.0	mL/min	OctP RF	190	V			