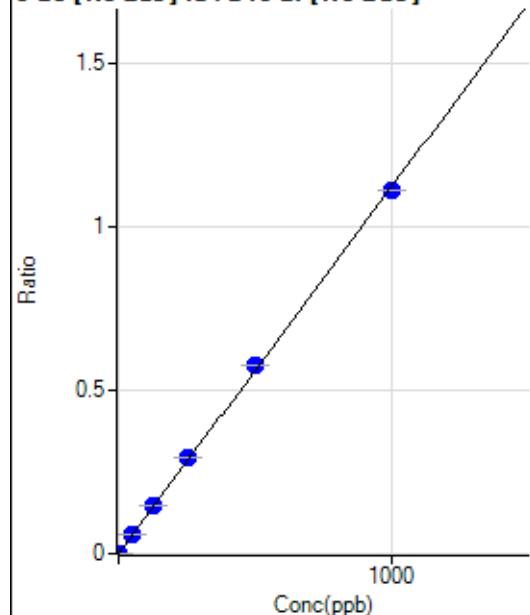


Batch Folder: D:\ICP-MS Data\P7051519MS.b\
Analysis File: P7051519MS.batch.bin
DA Date-Time: 2019-05-15 18:20:08
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-05-15 14:10:57
2			
3	005CAL.S.d	S02	2019-05-15 14:18:54
4	006CAL.S.d	S03	2019-05-15 14:22:50
5	007CAL.S.d	S04	2019-05-15 14:27:00
6	008CAL.S.d	S05	2019-05-15 14:30:51
7	009CAL.S.d	S06	2019-05-15 14:34:40
8	010CAL.S.d	S07	2019-05-15 14:38:27
9	011CAL.S.d	S08	2019-05-15 14:42:12

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.78	0.0000	P	16.6
2	☐	0.100					
3	☐	1.000	0.946	1826.81	0.0011	P	3.4
4	☐	50.000	53.153	102685.89	0.0597	P	0.4
5	☐	125.000	131.306	246799.79	0.1474	P	0.2
6	☐	250.000	262.976	465003.88	0.2952	P	0.9
7	☐	500.000	513.177	873917.63	0.5760	P	0.7
8	☐	1000.000	989.221	1650608.34	1.1104	P	0.0
9	☐			437.79	0.0003	P	10.9

$$y = 0.0011 * x + 2.8781E-005$$

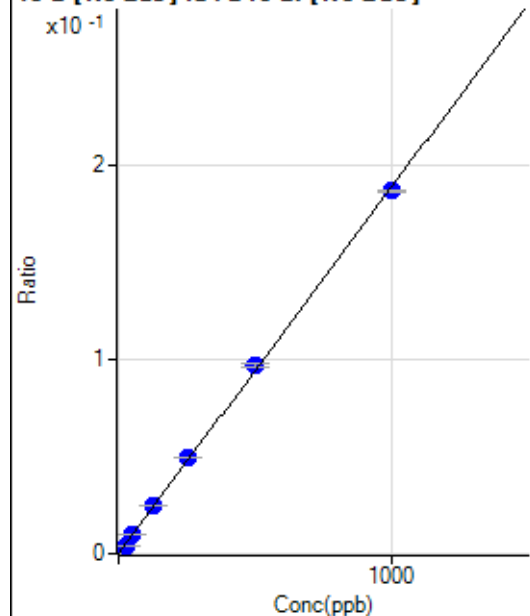
$$R = 0.9998$$

$$DL = 0.01279$$

$$BEC = 0.02564$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	186.12	0.0001	P	20.7
2	☐	2.500					
3	☐	25.000	22.297	7218.70	0.0043	P	1.6
4	☐	50.000	52.132	17074.01	0.0099	P	0.5
5	☐	125.000	129.758	41078.83	0.0245	P	2.1
6	☐	250.000	260.104	77297.55	0.0491	P	0.2
7	☐	500.000	513.616	146850.91	0.0968	P	1.9
8	☐	1000.000	990.032	277191.03	0.1865	P	0.8
9	☐			10315.00	0.0068	P	8.0

$$y = 1.8823E-004 * x + 1.1207E-004$$

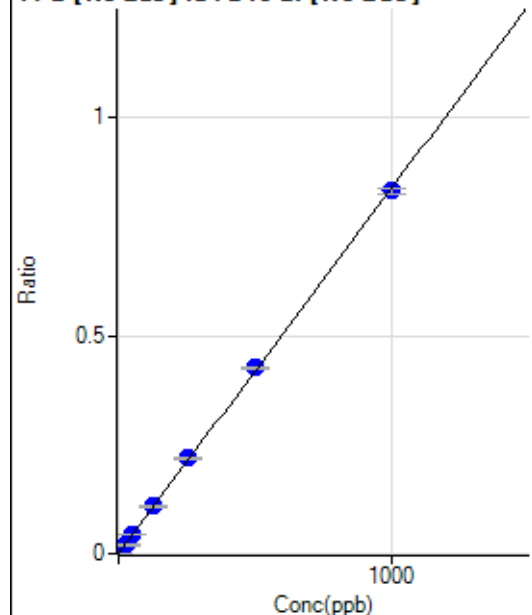
$$R = 0.9998$$

$$DL = 0.3703$$

$$BEC = 0.5954$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	941.73	0.0006	P	9.4
2	☐	2.500					
3	☐	25.000	23.255	33607.75	0.0201	P	2.3
4	☐	50.000	51.307	74961.38	0.0436	P	0.6
5	☐	125.000	128.362	181088.96	0.1082	P	1.0
6	☐	250.000	260.853	345314.95	0.2192	P	1.0
7	☐	500.000	507.715	646529.04	0.4262	P	1.2
8	☐	1000.000	992.987	1238172.91	0.8329	P	1.9
9	☐			46350.23	0.0307	P	7.5

$$y = 8.3824\text{E-}004 * x + 5.6715\text{E-}004$$

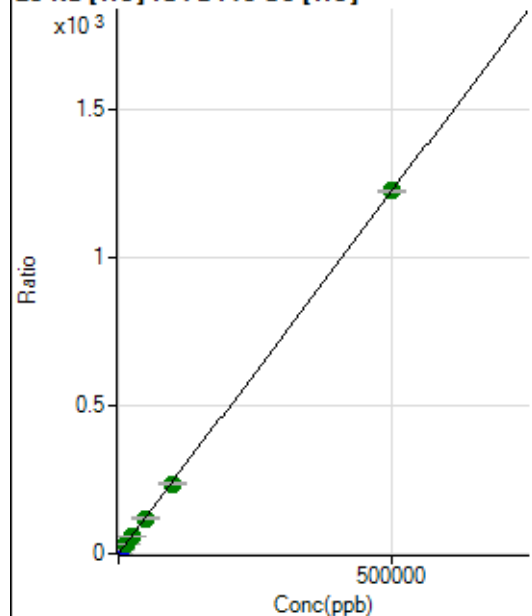
$$R = 0.9999$$

$$DL = 0.1904$$

$$BEC = 0.6766$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5009.39	0.0267	P	2.3
2	☐	50.000					
3	☐	500.000	431.379	205989.86	1.0808	P	1.0
4	☐	5000.000	4676.185	2154913.03	11.4527	P	2.3
5	☐	12500.000	12165.230	5156124.20	29.7517	A	0.6
6	☐	25000.000	24832.907	9957358.12	60.7045	A	0.4
7	☐	50000.000	49057.688	19284515.36	119.8964	A	0.3
8	☐	100000.00	96681.826	37822508.49	236.2632	A	0.5
9	☐	500000.00	500777.89	221701202.1	1,223.649	A	0.3

$$y = 0.0024 * x + 0.0267$$

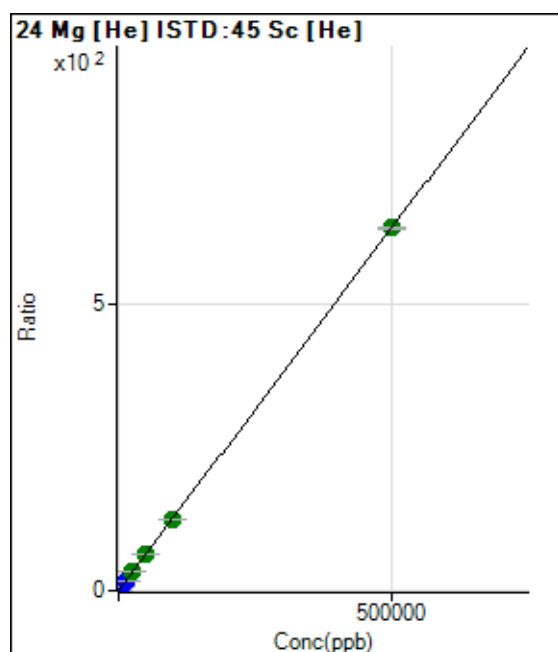
$$R = 1.0000$$

$$DL = 0.7589$$

$$BEC = 10.93$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	150.01	0.0008	P	15.0
2	☐	50.000					
3	☐	500.000	456.941	110497.16	0.5797	P	0.8
4	☐	5000.000	4708.543	1122720.21	5.9665	P	5.7
5	☐	12500.000	12611.571	2769377.30	15.9795	P	0.5
6	☐	25000.000	25530.849	5306062.84	32.3481	A	0.6
7	☐	50000.000	50208.307	10231979.57	63.6142	A	0.6
8	☐	100000.00	98462.615	19971179.79	124.7519	A	0.1
9	☐	500000.00	500260.27	114834587.2	633.8256	A	0.5

$$y = 0.0013 * x + 7.9992E-004$$

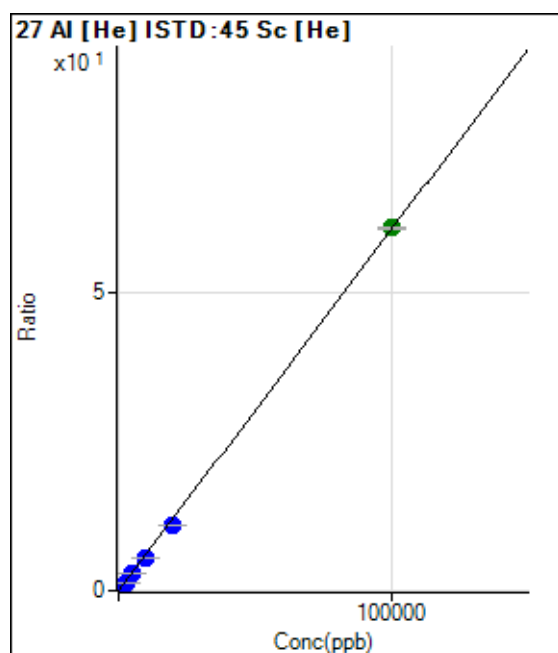
$$R = 1.0000$$

$$DL = 0.2841$$

$$BEC = 0.6314$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1341.78	0.0072	P	10.3
2	☐	2.000					
3	☐	20.000	6.186	2078.01	0.0109	P	7.7
4	☐	1000.000	871.240	100775.92	0.5355	P	7.2
5	☐	2500.000	2310.482	244083.55	1.4084	P	0.5
6	☐	5000.000	4717.508	470468.33	2.8682	P	0.5
7	☐	10000.000	9221.224	900655.76	5.5996	P	0.2
8	☐	20000.000	18199.296	1768075.47	11.0445	P	0.7
9	☐	100000.00	100458.17	11039524.72	60.9323	A	0.6

$$y = 6.0647E-004 * x + 0.0072$$

$$R = 0.9998$$

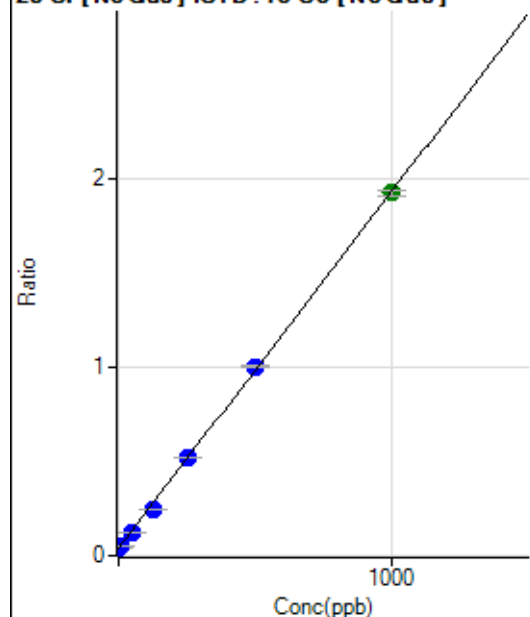
$$DL = 3.637$$

$$BEC = 11.79$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	144873.89	0.0398	P	0.6
2	☐	1.000					
3	☐	10.000	7.082	195851.82	0.0532	P	0.8
4	☐	50.000	42.897	447082.93	0.1210	P	0.8
5	☐	125.000	110.061	871049.93	0.2481	P	0.6
6	☐	250.000	253.495	1661424.04	0.5195	P	0.3
7	☐	500.000	509.032	3100299.05	1.0031	P	1.3
8	☐	1000.000	996.862	5845610.11	1.9263	A	1.3
9	☐			333090.97	0.1027	P	0.4

$$y = 0.0019 * x + 0.0398$$

$$R = 0.9998$$

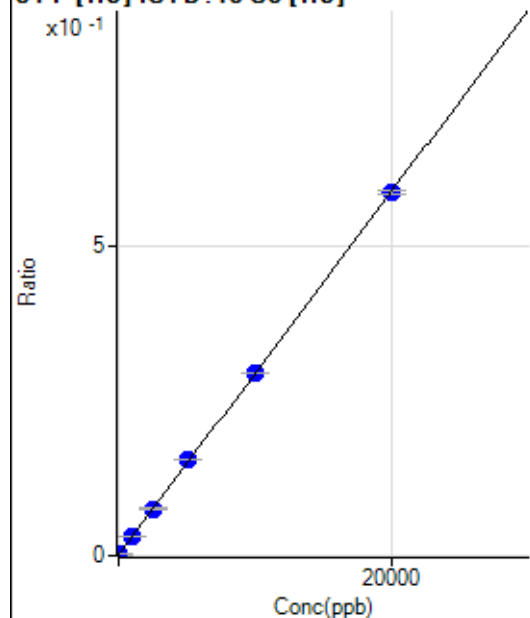
$$DL = 0.4051$$

$$BEC = 21.02$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-24.858	116.68	0.0006	P	7.3
2	☐	0.000					
3	☐	0.000	24.858	397.25	0.0021	P	10.9
4	☐	1000.000	994.051	5756.90	0.0306	P	4.8
5	☐	2500.000	2525.903	13111.86	0.0757	P	2.2
6	☐	5000.000	5233.075	25472.64	0.1553	P	0.8
7	☐	10000.000	10026.561	47657.68	0.2963	P	0.4
8	☐	20000.000	19925.510	94051.36	0.5875	P	1.0
9	☐			169.45	0.0009	P	27.9

$$y = 2.9416E-005 * x + 0.0014$$

$$R = 0.9999$$

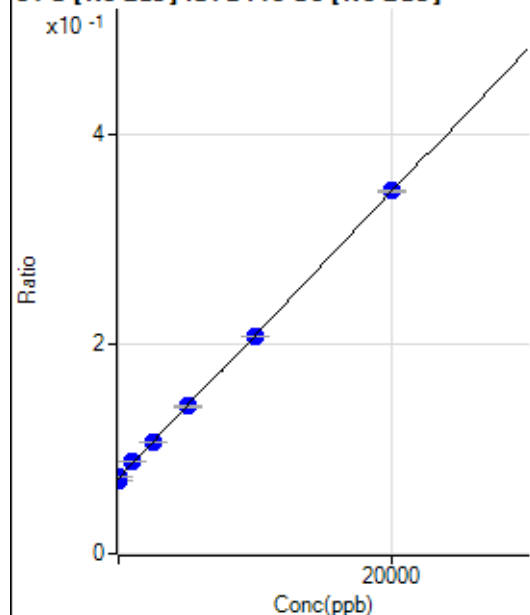
$$DL = 13.94$$

$$BEC = 46$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-146.899	255025.24	0.0700	P	1.1
2	☐	0.000					
3	☐	0.000	146.899	272653.57	0.0740	P	0.3
4	☐	1000.000	1136.567	323588.78	0.0875	P	0.2
5	☐	2500.000	2525.555	373984.57	0.1065	P	1.0
6	☐	5000.000	5014.632	449279.60	0.1405	P	1.3
7	☐	10000.000	9883.610	639649.78	0.2070	P	0.8
8	☐	20000.000	20044.514	1048989.90	0.3457	P	0.7
9	☐			244744.48	0.0754	P	2.1

$$y = 1.3652E-005 * x + 0.0720$$

$$R = 0.9999$$

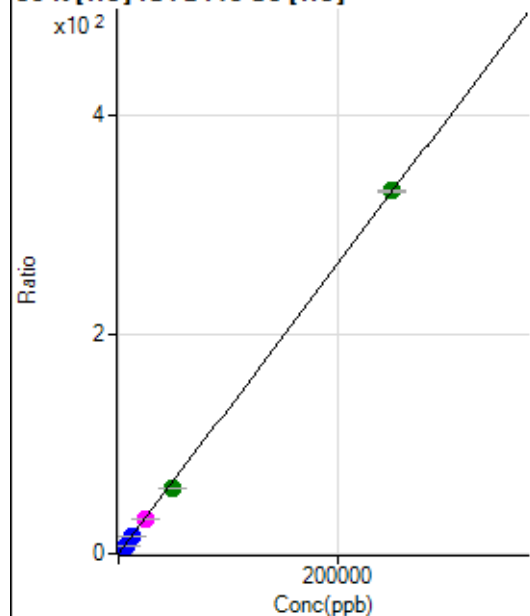
$$DL = 114.1$$

$$BEC = 5276$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15194.54	0.0810	P	2.4
2	☐	50.000					
3	☐	500.000	429.962	123387.34	0.6474	P	0.9
4	☐	2500.000	2318.475	589870.38	3.1350	P	1.9
5	☐	6250.000	5864.650	1352867.29	7.8063	P	0.5
6	☐	12500.000	11900.751	2584681.98	15.7574	P	0.1
7	☐	25000.000	23346.197	4959441.69	30.8340	M	0.6
8	☐	50000.000	45550.687	9618482.68	60.0831	A	0.7
9	☐	250000.00	251096.79	59940477.04	330.8407	A	0.5

$$y = 0.0013 * x + 0.0810$$

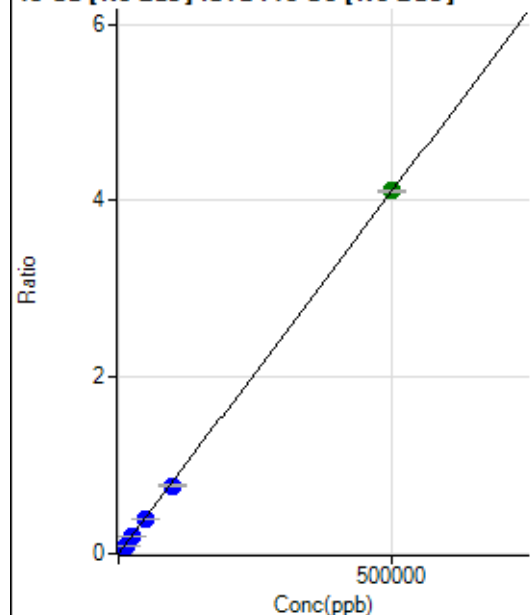
$$R = 0.9998$$

$$DL = 4.393$$

$$BEC = 61.49$$

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	75.00	0.0000	P	33.4
2	☐	50.000					
3	☐	500.000	416.311	12647.55	0.0034	P	0.5
4	☐	5000.000	4638.274	140648.89	0.0381	P	0.3
5	☐	12500.000	11833.483	340772.14	0.0970	P	1.0
6	☐	25000.000	24133.775	632893.61	0.1979	P	1.0
7	☐	50000.000	47575.912	1205729.06	0.3901	P	0.6
8	☐	100000.00	94298.499	2346380.82	0.7732	P	0.7
9	☐	500000.00	501446.38	13337841.18	4.1115	A	0.9

$$y = 8.1992\text{E-}006 * x + 2.0601\text{E-}005$$

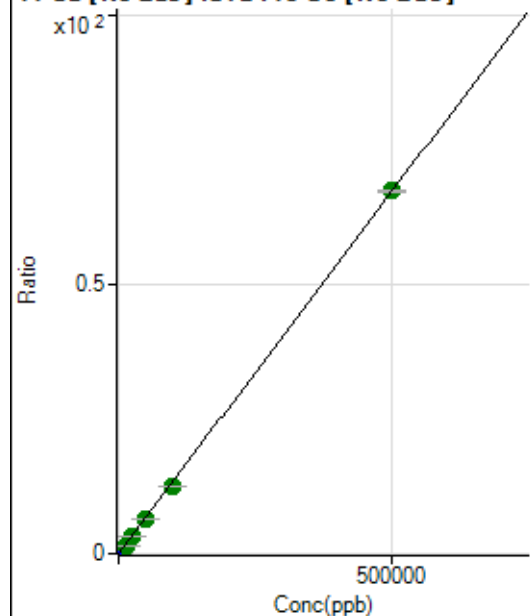
$$R = 0.9999$$

$$DL = 2.516$$

$$BEC = 2.513$$

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	5009.46	0.0014	P	5.9
2	☐	50.000					
3	☐	500.000	418.838	212448.78	0.0577	P	0.9
4	☐	5000.000	4666.224	2323920.99	0.6287	P	0.1
5	☐	12500.000	11671.096	5514446.04	1.5704	A	0.7
6	☐	25000.000	23976.342	10312885.04	3.2247	A	1.3
7	☐	50000.000	47472.242	19729893.15	6.3835	A	0.4
8	☐	100000.00	93690.267	38228063.70	12.5971	A	0.4
9	☐	500000.00	501590.04	218762068.7	67.4350	A	0.7

$$y = 1.3444\text{E-}004 * x + 0.0014$$

$$R = 0.9999$$

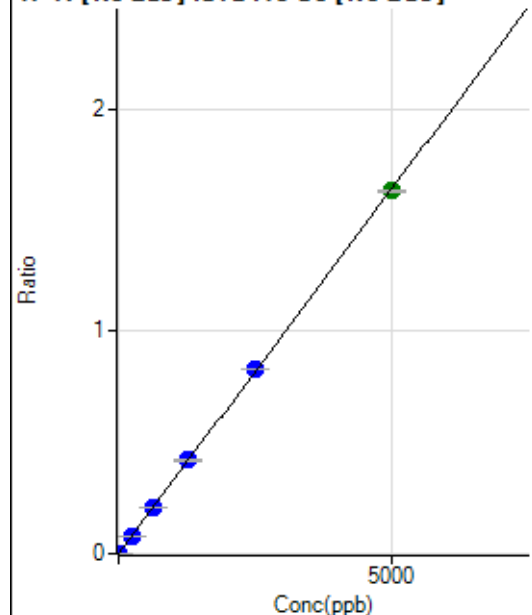
$$DL = 1.821$$

$$BEC = 10.23$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	80.56	0.0000	P	30.8
2	☐	0.500					
3	☐	5.000	4.758	5831.95	0.0016	P	1.5
4	☐	250.000	250.347	303728.49	0.0822	P	0.1
5	☐	625.000	624.048	719119.48	0.2048	P	0.6
6	☐	1250.000	1286.287	1349871.02	0.4221	P	1.7
7	☐	2500.000	2527.153	2563034.35	0.8293	P	0.1
8	☐	5000.000	4977.454	4956449.20	1.6333	A	0.4
9	☐			3039.32	0.0009	P	5.7

$$y = 3.2813E-004 * x + 2.2154E-005$$

$$R = 0.9999$$

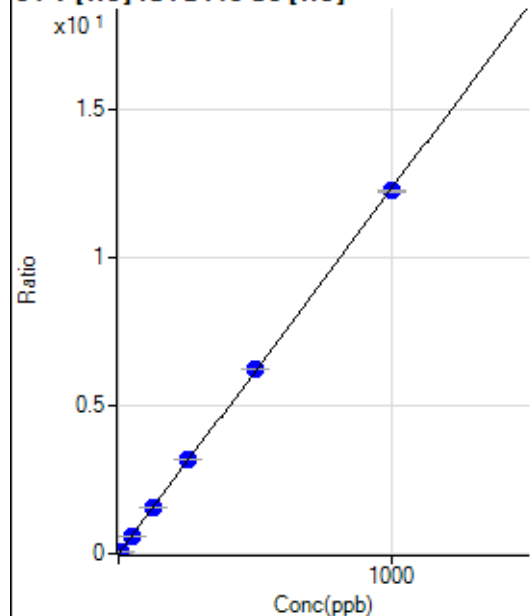
$$DL = 0.06231$$

$$BEC = 0.06752$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8.89	0.0000	P	21.6
2	☐	0.500					
3	☐	5.000	4.868	11429.04	0.0600	P	1.6
4	☐	50.000	48.365	112023.48	0.5953	P	5.9
5	☐	125.000	127.258	271455.95	1.5664	P	0.6
6	☐	250.000	258.390	521671.58	3.1803	P	0.0
7	☐	500.000	506.846	1003401.82	6.2384	P	0.2
8	☐	1000.000	994.280	1959107.26	12.2378	P	0.2
9	☐			522.24	0.0029	P	8.8

$$y = 0.0123 * x + 4.7391E-005$$

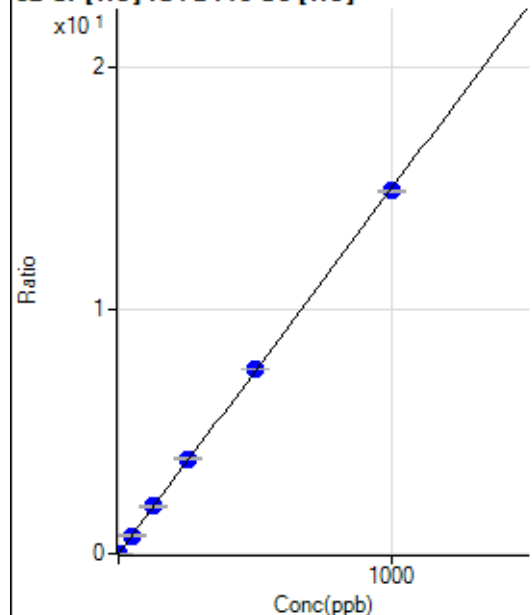
$$R = 0.9999$$

$$DL = 0.002498$$

$$BEC = 0.00385$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	640.03	0.0034	P	2.6
2	☐	0.200					
3	☐	2.000	1.868	5992.43	0.0314	P	0.1
4	☐	50.000	49.064	139204.58	0.7398	P	6.6
5	☐	125.000	129.002	336118.95	1.9394	P	0.3
6	☐	250.000	260.214	641136.26	3.9087	P	0.4
7	☐	500.000	506.949	1224276.38	7.6116	P	0.2
8	☐	1000.000	993.519	2387516.25	14.9140	P	0.6
9	☐			17844.67	0.0985	P	2.8

$$y = 0.0150 * x + 0.0034$$

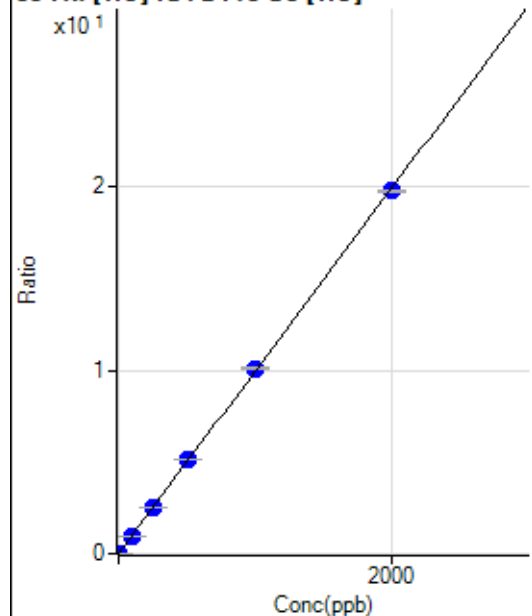
$$R = 0.9999$$

$$DL = 0.0174$$

$$BEC = 0.2274$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32.22	0.0002	P	62.1
2	☐	0.100					
3	☐	1.000	0.935	1805.70	0.0095	P	7.4
4	☐	100.000	96.669	181021.21	0.9620	P	5.5
5	☐	250.000	256.548	442408.85	2.5528	P	0.5
6	☐	500.000	518.799	846742.40	5.1621	P	0.3
7	☐	1000.000	1015.783	1625656.83	10.1070	P	0.3
8	☐	2000.000	1986.757	3164601.24	19.7681	P	0.4
9	☐			15100.14	0.0834	P	2.3

$$y = 0.0099 * x + 1.7152E-004$$

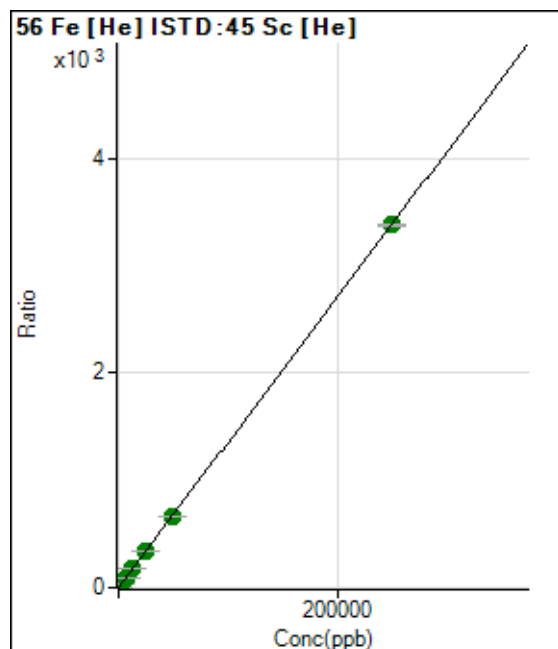
$$R = 0.9999$$

$$DL = 0.03211$$

$$BEC = 0.01724$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3670.92	0.0196	P	2.3
2	☐	5.000					
3	☐	50.000	48.535	128742.95	0.6755	P	0.7
4	☐	2500.000	2411.244	6135462.75	32.6049	A	7.0
5	☐	6250.000	6392.841	14975456.47	86.4118	A	0.6
6	☐	12500.000	13004.308	28829681.20	175.7585	A	0.2
7	☐	25000.000	25460.358	55344506.33	344.0884	A	0.5
8	☐	50000.000	49470.460	107028111.6	668.5585	A	0.1
9	☐	250000.00	250031.97	612192591.4	3,378.927	A	0.2

$$y = 0.0135 * x + 0.0196$$

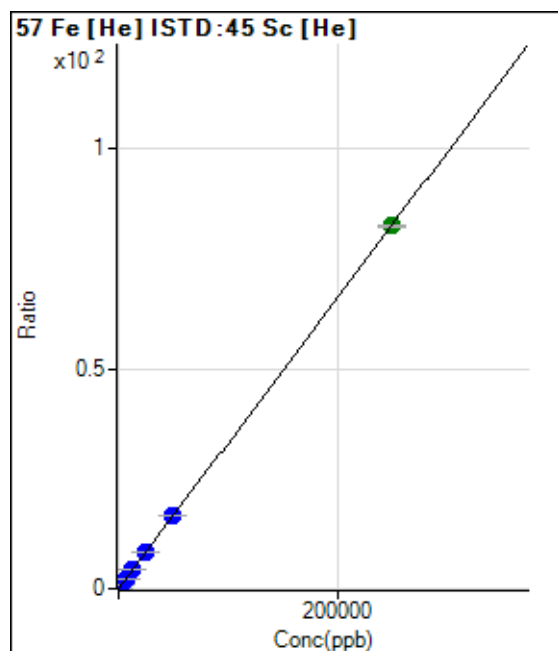
$$R = 1.0000$$

$$DL = 0.0999$$

$$BEC = 1.448$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	144.45	0.0008	P	21.3
2	☐	5.000					
3	☐	50.000	52.132	3428.28	0.0180	P	0.7
4	☐	2500.000	2431.745	151268.79	0.8039	P	6.9
5	☐	6250.000	6472.668	370585.26	2.1384	P	1.0
6	☐	12500.000	13092.995	709394.29	4.3248	P	0.6
7	☐	25000.000	25578.895	1358861.53	8.4483	P	0.4
8	☐	50000.000	49800.017	2633022.16	16.4475	P	0.4
9	☐	250000.00	249947.57	14955297.90	82.5473	A	0.5

$$y = 3.3026E-004 * x + 7.6990E-004$$

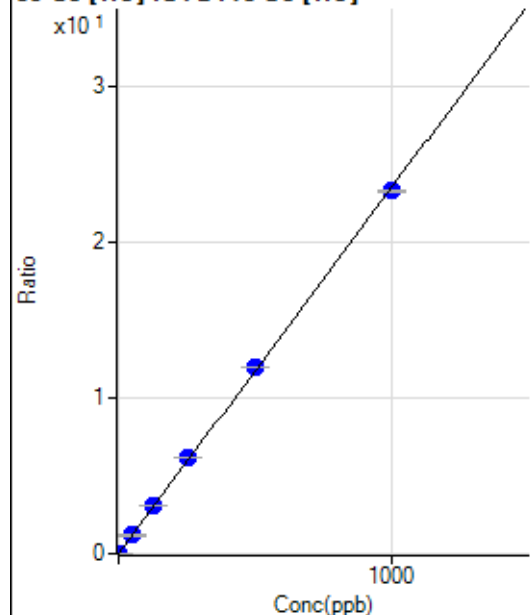
$$R = 1.0000$$

$$DL = 1.487$$

$$BEC = 2.331$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.78	0.0003	P	11.0
2	☐	0.100					
3	☐	1.000	0.943	4274.02	0.0224	P	1.7
4	☐	50.000	50.092	221676.14	1.1781	P	5.4
5	☐	125.000	131.239	534826.09	3.0860	P	0.5
6	☐	250.000	263.165	1015012.92	6.1880	P	0.2
7	☐	500.000	509.295	1926128.11	11.9752	P	0.4
8	☐	1000.000	991.277	3731283.56	23.3079	P	0.3
9	☐			49614.79	0.2739	P	0.8

$$y = 0.0235 * x + 2.5475E-004$$

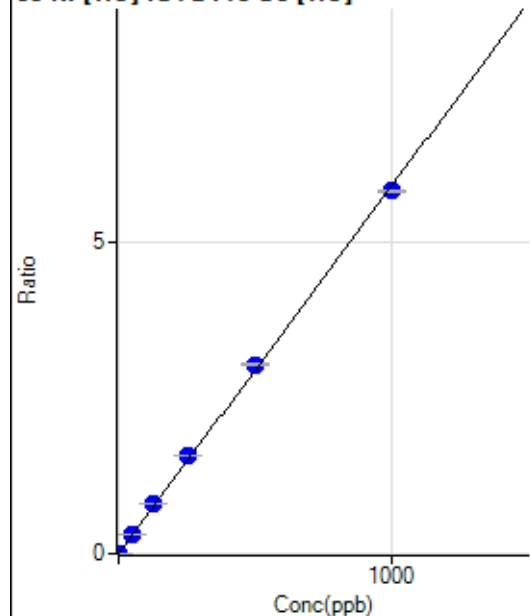
$$R = 0.9998$$

$$DL = 0.003573$$

$$BEC = 0.01083$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0004	P	32.9
2	☐	0.100					
3	☐	1.000	0.949	1132.29	0.0059	P	7.0
4	☐	50.000	51.895	57558.58	0.3059	P	5.2
5	☐	125.000	134.047	136833.35	0.7896	P	0.5
6	☐	250.000	267.578	258461.22	1.5757	P	0.5
7	☐	500.000	514.135	486919.16	3.0273	P	0.6
8	☐	1000.000	987.312	930595.61	5.8131	P	0.5
9	☐			12900.33	0.0712	P	1.3

$$y = 0.0059 * x + 3.5550E-004$$

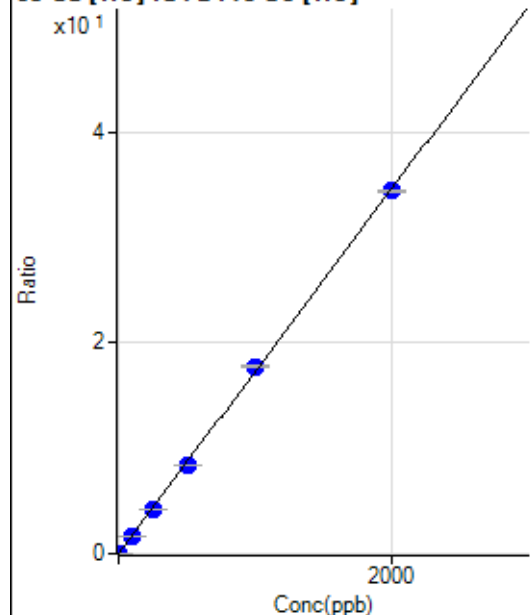
$$R = 0.9997$$

$$DL = 0.05954$$

$$BEC = 0.06038$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	338.90	0.0018	P	14.1
2	☐	0.200					
3	☐	2.000	1.790	6244.76	0.0328	P	4.1
4	☐	100.000	93.683	305235.94	1.6221	P	5.3
5	☐	250.000	244.132	732093.31	4.2243	P	0.3
6	☐	500.000	486.766	1381268.40	8.4208	P	0.2
7	☐	1000.000	1027.944	2859944.40	17.7809	P	0.5
8	☐	2000.000	1990.386	5511302.97	34.4271	P	0.6
9	☐			8309.15	0.0459	P	2.1

$$y = 0.0173 * x + 0.0018$$

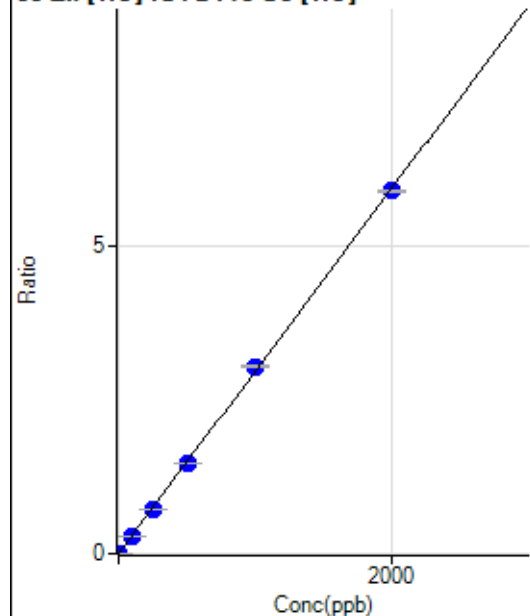
$$R = 0.9998$$

$$DL = 0.04418$$

$$BEC = 0.1044$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	295.56	0.0016	P	23.4
2	☐	0.200					
3	☐	2.000	1.779	1304.52	0.0068	P	5.9
4	☐	100.000	93.614	52473.36	0.2788	P	7.4
5	☐	250.000	245.054	126055.13	0.7274	P	1.2
6	☐	500.000	495.539	241007.46	1.4693	P	0.3
7	☐	1000.000	1027.124	489568.96	3.0438	P	0.4
8	☐	2000.000	1988.491	943099.94	5.8912	P	0.5
9	☐			13201.72	0.0729	P	1.9

$$y = 0.0030 * x + 0.0016$$

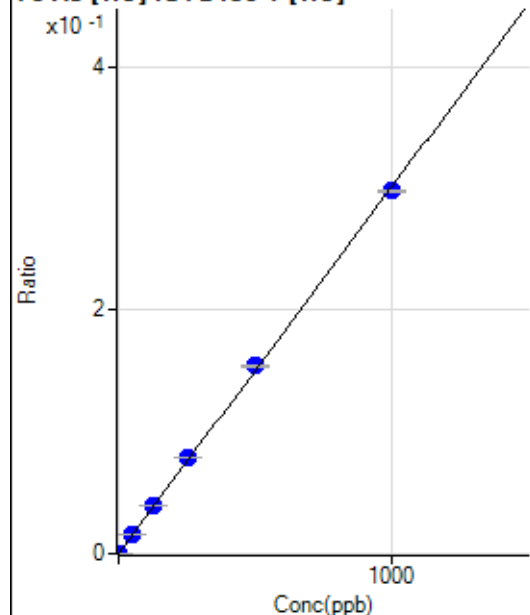
$$R = 0.9999$$

$$DL = 0.3731$$

$$BEC = 0.5322$$

Weight: <None>

Min Conc: 0

75 As [He] ISTD:89 Y [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.47	0.0000	P	86.6
2	☐	0.100					
3	☐	1.000	1.046	335.81	0.0003	P	2.3
4	☐	50.000	51.435	16311.12	0.0155	P	6.1
5	☐	125.000	130.035	38789.21	0.0392	P	1.0
6	☐	250.000	261.149	74172.86	0.0786	P	0.3
7	☐	500.000	512.658	140837.47	0.1543	P	1.1
8	☐	1000.000	990.182	271297.12	0.2981	P	0.6
9	☐			424.70	0.0004	P	4.4

$$y = 3.0107\text{E-}004 * x + 2.3295\text{E-}006$$

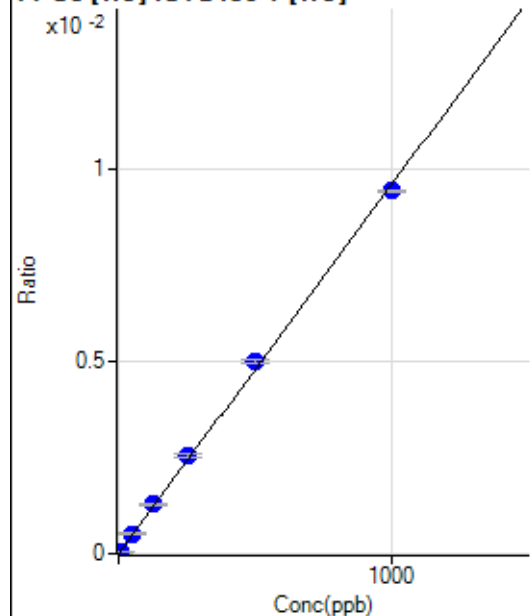
$$R = 0.9998$$

$$DL = 0.0201$$

$$BEC = 0.007737$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	3.942	41.11	0.0000	P	32.8
4	☐	50.000	53.719	543.36	0.0005	P	3.8
5	☐	125.000	133.128	1265.63	0.0013	P	3.8
6	☐	250.000	265.352	2400.24	0.0025	P	3.1
7	☐	500.000	522.547	4571.92	0.0050	P	1.6
8	☐	1000.000	983.692	8581.56	0.0094	P	0.2
9	☐			1.11	0.0000	P	173.

$$y = 9.5853\text{E-}006 * x + 1.0476\text{E-}006$$

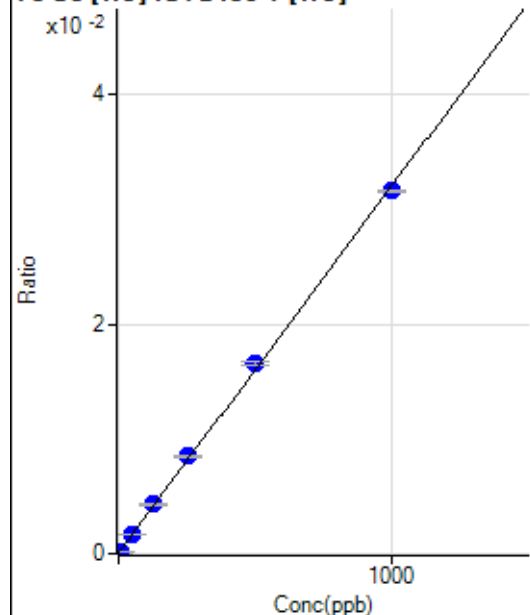
$$R = 0.9995$$

$$DL = 0.5679$$

$$BEC = 0.1093$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	59.88	0.0001	P	20.7
2	☐	0.500					
3	☐	5.000	5.547	247.53	0.0002	P	3.0
4	☐	50.000	52.215	1816.18	0.0017	P	3.5
5	☐	125.000	133.264	4273.51	0.0043	P	3.2
6	☐	250.000	263.068	7980.03	0.0085	P	3.1
7	☐	500.000	516.253	15096.82	0.0165	P	2.6
8	☐	1000.000	987.460	28755.08	0.0316	P	0.5
9	☐			62.97	0.0001	P	10.6

$$y = 3.1942\text{E-}005 * x + 5.6693\text{E-}005$$

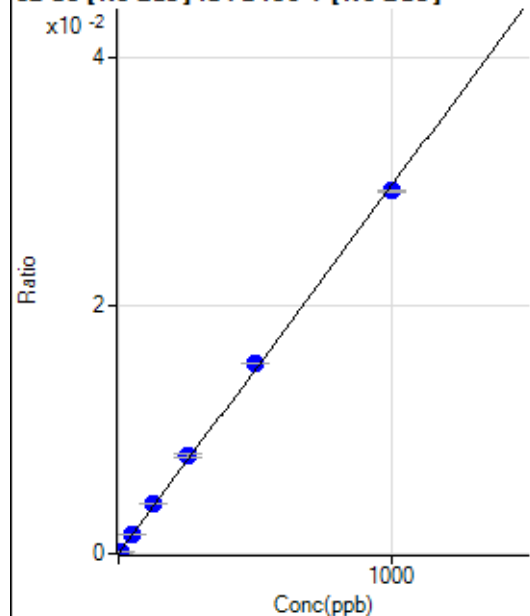
$$R = 0.9997$$

$$DL = 1.105$$

$$BEC = 1.775$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	89.47	0.0000	P	50.4
2	☐	0.500					
3	☐	5.000	5.390	1076.98	0.0002	P	2.5
4	☐	50.000	53.993	10047.63	0.0016	P	0.6
5	☐	125.000	134.830	24029.14	0.0040	P	1.4
6	☐	250.000	266.323	45024.16	0.0079	P	2.3
7	☐	500.000	516.721	85095.93	0.0153	P	0.4
8	☐	1000.000	986.128	161049.96	0.0293	P	0.7
9	☐			90.49	0.0000	P	15.5

$$y = 2.9661\text{E-}005 * x + 1.4561\text{E-}005$$

$$R = 0.9996$$

$$DL = 0.7428$$

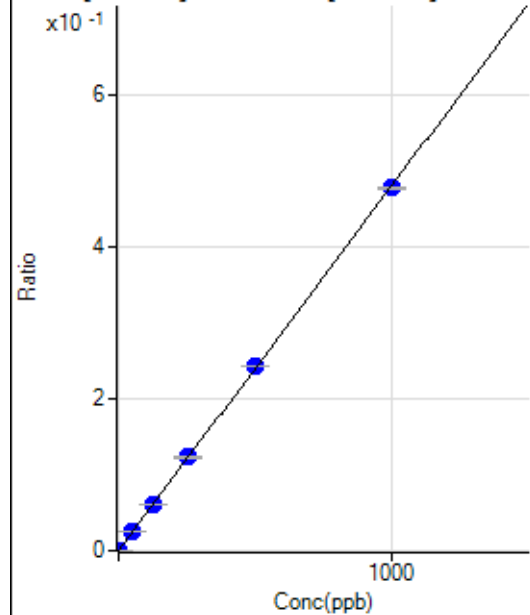
$$BEC = 0.4909$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			342.23		P	13.0
2	☐						
3	☐			336.68		P	13.6
4	☐			346.68		P	10.7
5	☐			366.68		P	13.4
6	☐			301.12		P	6.1
7	☐			292.23		P	3.5
8	☐			287.79		P	16.6
9	☐			381.12		P	8.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	591.71	0.0001	P	16.8
2	☐	0.100					
3	☐	1.000	0.937	3372.76	0.0005	P	1.6
4	☐	50.000	50.498	151448.66	0.0244	P	0.7
5	☐	125.000	128.067	368949.98	0.0616	P	0.5
6	☐	250.000	256.257	701037.65	0.1232	P	2.0
7	☐	500.000	505.848	1348673.48	0.2431	P	0.7
8	☐	1000.000	995.103	2631764.95	0.4782	P	0.6
9	☐			12397.54	0.0022	P	1.5

$$y = 4.8046E-004 * x + 9.6213E-005$$

$$R = 0.9999$$

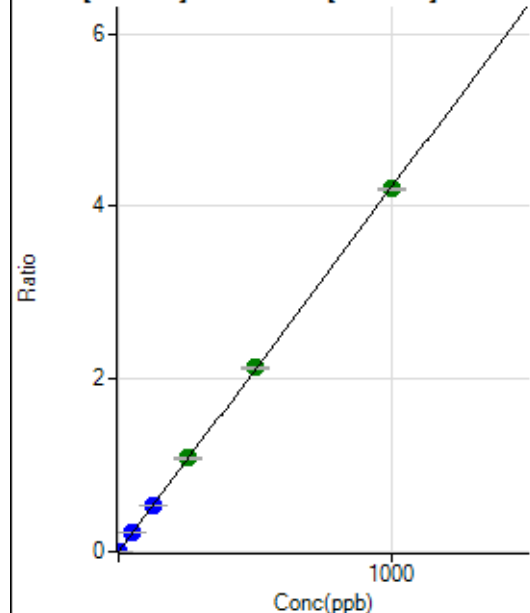
$$DL = 0.1007$$

$$BEC = 0.2003$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.56	0.0000	P	29.9
2	☐	0.100					
3	☐	1.000	0.951	24903.02	0.0040	P	3.0
4	☐	50.000	50.600	1327924.43	0.2136	P	0.3
5	☐	125.000	127.987	3234045.73	0.5402	P	0.5
6	☐	250.000	257.574	6185094.54	1.0871	A	2.0
7	☐	500.000	504.065	11800918.06	2.1274	A	0.3
8	☐	1000.000	995.670	23126810.07	4.2023	A	0.3
9	☐			109034.82	0.0196	P	1.3

$$y = 0.0042 * x + 2.1224E-005$$

$$R = 1.0000$$

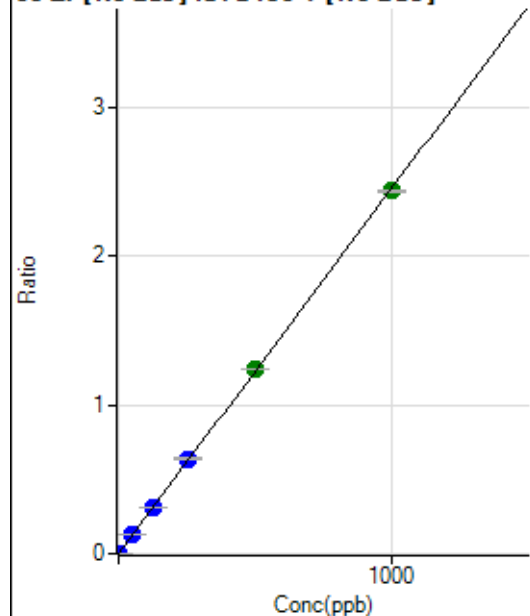
$$DL = 0.004518$$

$$BEC = 0.005029$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	411.14	0.0001	P	15.4
2	☐	0.100					
3	☐	1.000	0.878	13734.89	0.0022	P	1.5
4	☐	50.000	50.521	772242.37	0.1242	P	0.2
5	☐	125.000	127.788	1880214.19	0.3141	P	0.7
6	☐	250.000	258.647	3616112.19	0.6356	P	2.4
7	☐	500.000	507.141	6912628.37	1.2462	A	0.4
8	☐	1000.000	993.894	13440409.50	2.4422	A	0.7
9	☐			4545.35	0.0008	P	4.2

$$y = 0.0025 * x + 6.6863E-005$$

$$R = 0.9999$$

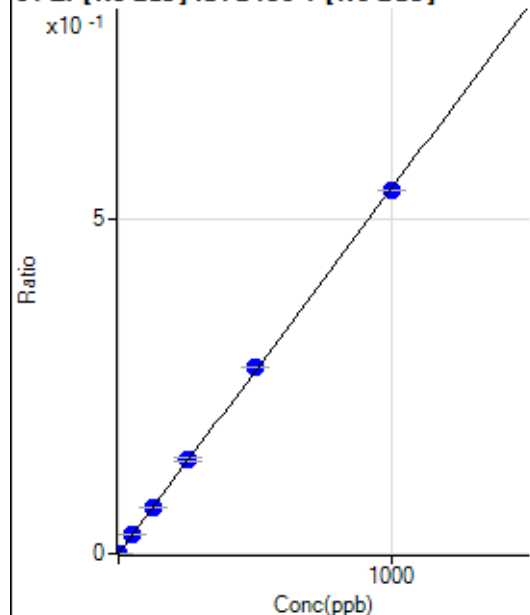
$$DL = 0.01254$$

$$BEC = 0.02721$$

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	66.67	0.0000	P	12.4
2	☐	0.100					
3	☐	1.000	0.912	3147.72	0.0005	P	5.2
4	☐	50.000	50.626	172277.57	0.0277	P	0.5
5	☐	125.000	127.912	419044.63	0.0700	P	0.4
6	☐	250.000	257.506	801559.33	0.1409	P	2.6
7	☐	500.000	508.416	1543019.18	0.2782	P	0.1
8	☐	1000.000	993.520	2991526.52	0.5436	P	0.1
9	☐			905.63	0.0002	P	7.9

$$y = 5.4711\text{E-}004 * x + 1.0841\text{E-}005$$

$$R = 0.9999$$

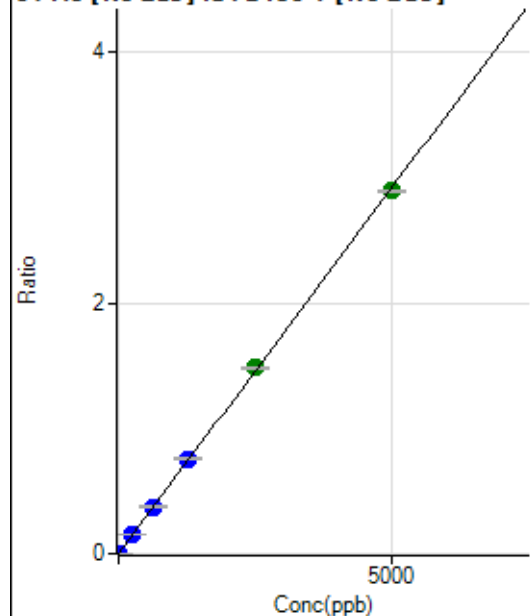
$$DL = 0.007347$$

$$BEC = 0.01982$$

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	163.89	0.0000	P	12.7
2	☐	0.500					
3	☐	5.000	4.832	17553.20	0.0028	P	2.4
4	☐	250.000	253.995	920409.18	0.1480	P	0.2
5	☐	625.000	644.377	2248177.44	0.3755	P	0.5
6	☐	1250.000	1299.771	4309262.38	0.7574	P	2.3
7	☐	2500.000	2542.009	8216911.12	1.4813	A	0.3
8	☐	5000.000	4963.931	15919507.65	2.8927	A	0.2
9	☐			10101.23	0.0018	P	3.9

$$y = 5.8273\text{E-}004 * x + 2.6651\text{E-}005$$

$$R = 0.9999$$

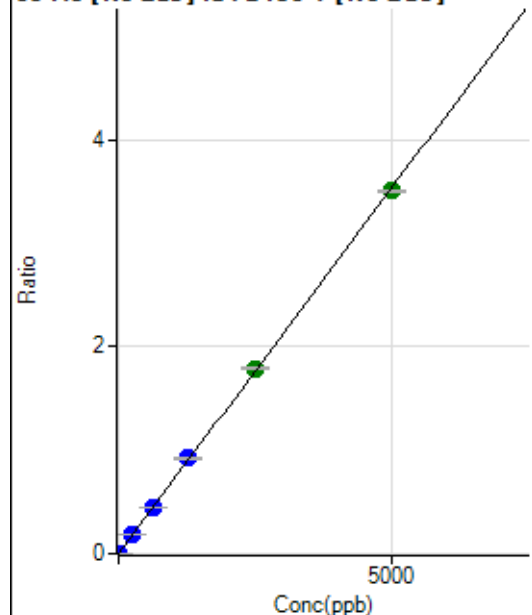
$$DL = 0.01741$$

$$BEC = 0.04573$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0000	P	21.4
2	☐	0.500					
3	☐	5.000	4.988	21750.72	0.0035	P	1.9
4	☐	250.000	256.184	1123727.37	0.1807	P	0.3
5	☐	625.000	643.478	2717820.59	0.4540	P	0.2
6	☐	1250.000	1308.936	5253466.44	0.9234	P	2.6
7	☐	2500.000	2537.250	9929054.13	1.7900	A	0.5
8	☐	5000.000	4964.022	19273187.06	3.5020	A	0.2
9	☐			15383.89	0.0028	P	2.4

$$y = 7.0548\text{E-}004 * x + 3.6128\text{E-}006$$

$$R = 0.9999$$

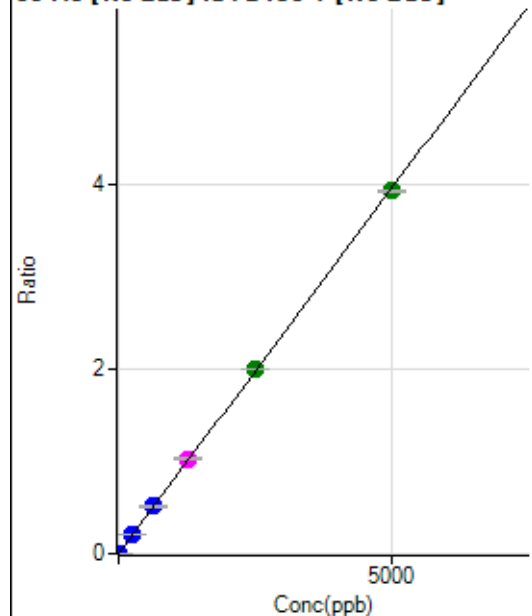
$$DL = 0.003294$$

$$BEC = 0.005121$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.12	0.0000	P	5.4
2	☐	0.500					
3	☐	5.000	4.941	24168.55	0.0039	P	1.7
4	☐	250.000	255.199	1252543.42	0.2015	P	0.9
5	☐	625.000	645.564	3050822.14	0.5096	P	0.3
6	☐	1250.000	1297.675	5827700.57	1.0243	M	2.2
7	☐	2500.000	2531.907	11086052.50	1.9986	A	0.4
8	☐	5000.000	4969.297	21587231.56	3.9225	A	0.3
9	☐			20974.41	0.0038	P	4.1

$$y = 7.8935\text{E-}004 * x + 1.4004\text{E-}005$$

$$R = 0.9999$$

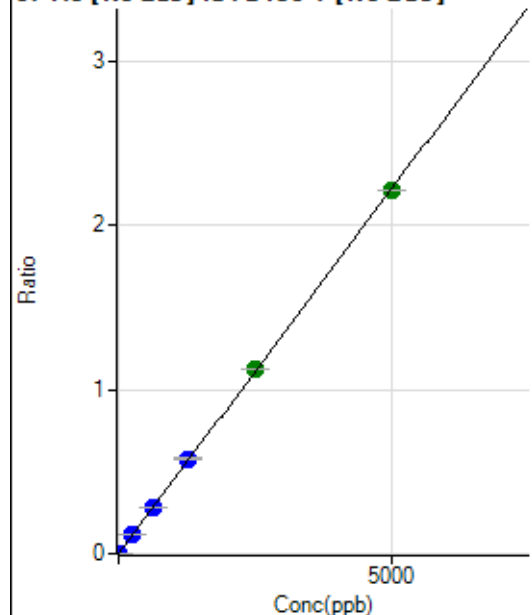
$$DL = 0.002851$$

$$BEC = 0.01774$$

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	33.34	0.0000	P	49.8
2	☐	0.500					
3	☐	5.000	4.790	13189.95	0.0021	P	0.8
4	☐	250.000	253.302	700621.73	0.1127	P	0.3
5	☐	625.000	639.019	1701889.95	0.2843	P	0.4
6	☐	1250.000	1295.267	3278103.70	0.5762	P	2.5
7	☐	2500.000	2524.742	6230020.23	1.1231	A	0.2
8	☐	5000.000	4974.395	12178251.57	2.2129	A	0.2
9	☐			9036.62	0.0016	P	4.5

$$y = 4.4485E-004 * x + 5.4166E-006$$

$$R = 0.9999$$

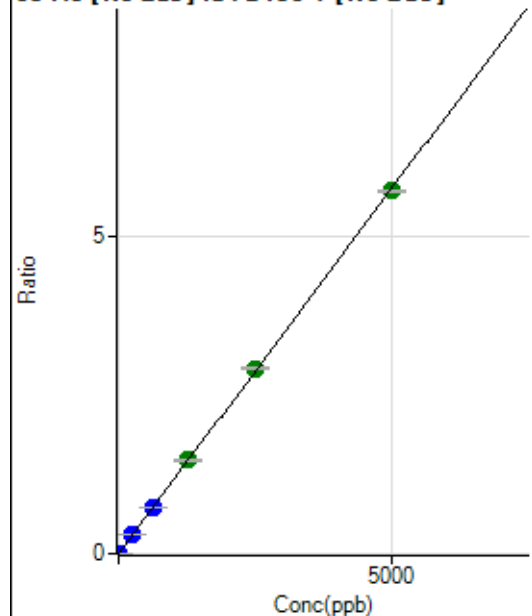
$$DL = 0.01818$$

$$BEC = 0.01218$$

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	63.89	0.0000	P	15.0
2	☐	0.500					
3	☐	5.000	4.930	35071.90	0.0057	P	1.7
4	☐	250.000	253.371	1811761.65	0.2914	P	0.3
5	☐	625.000	644.027	4434309.47	0.7407	P	0.0
6	☐	1250.000	1281.259	8383483.70	1.4735	A	2.0
7	☐	2500.000	2536.715	16182657.48	2.9174	A	0.6
8	☐	5000.000	4971.281	31464180.91	5.7173	A	0.2
9	☐			22835.73	0.0041	P	3.1

$$y = 0.0012 * x + 1.0391E-005$$

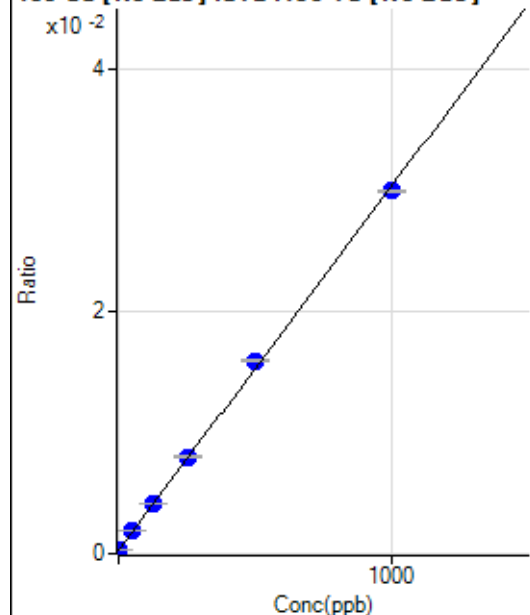
$$R = 0.9999$$

$$DL = 0.004077$$

$$BEC = 0.009035$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2414.21	0.0003	P	5.7
2	☐	0.100					
3	☐	1.000	1.114	2703.17	0.0003	P	4.9
4	☐	50.000	54.671	17678.36	0.0019	P	2.0
5	☐	125.000	129.572	38096.88	0.0042	P	0.4
6	☐	250.000	256.759	71631.62	0.0080	P	2.1
7	☐	500.000	519.948	140045.26	0.0159	P	1.2
8	☐	1000.000	987.531	265269.78	0.0299	P	0.4
9	☐			2233.61	0.0003	P	5.7

$$y = 3.0017\text{E-}005 * x + 2.6432\text{E-}004$$

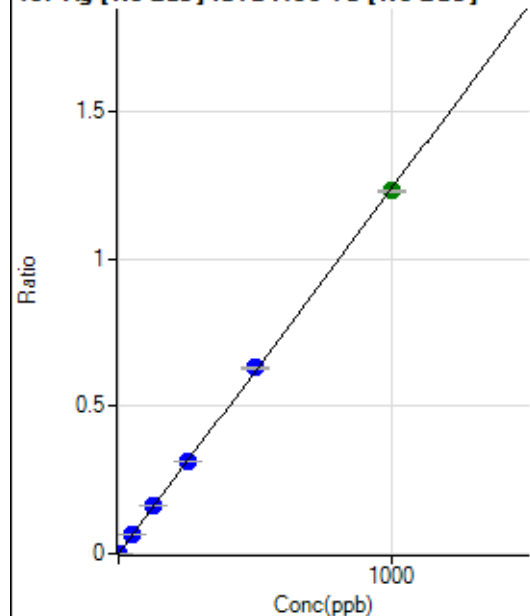
$$R = 0.9997$$

$$DL = 1.499$$

$$BEC = 8.806$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	94.45	0.0000	P	22.1
2	☐	0.100					
3	☐	1.000	1.019	11546.81	0.0013	P	1.1
4	☐	50.000	53.165	610861.67	0.0658	P	1.2
5	☐	125.000	129.637	1472212.46	0.1605	P	0.1
6	☐	250.000	252.765	2812285.09	0.3130	P	0.1
7	☐	500.000	508.717	5557390.14	0.6298	P	0.2
8	☐	1000.000	994.212	10918044.25	1.2309	A	0.5
9	☐			11154.83	0.0013	P	3.1

$$y = 0.0012 * x + 1.0340\text{E-}005$$

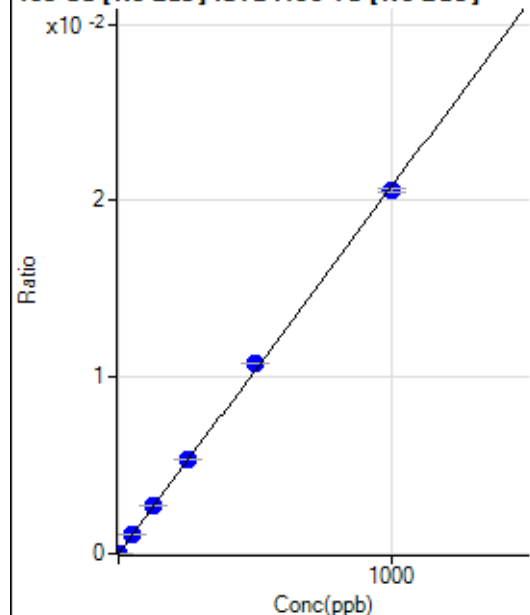
$$R = 0.9999$$

$$DL = 0.005534$$

$$BEC = 0.008351$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8.33	0.0000	P	49.8
2	☐	0.100					
3	☐	1.000	1.016	200.01	0.0000	P	8.9
4	☐	50.000	54.264	10479.07	0.0011	P	2.1
5	☐	125.000	130.591	24915.20	0.0027	P	1.0
6	☐	250.000	256.488	47933.94	0.0053	P	1.7
7	☐	500.000	518.075	95060.40	0.0108	P	0.5
8	☐	1000.000	988.429	182310.85	0.0206	P	0.9
9	☐			45.83	0.0000	P	63.1

$$y = 2.0794E-005 * x + 9.1153E-007$$

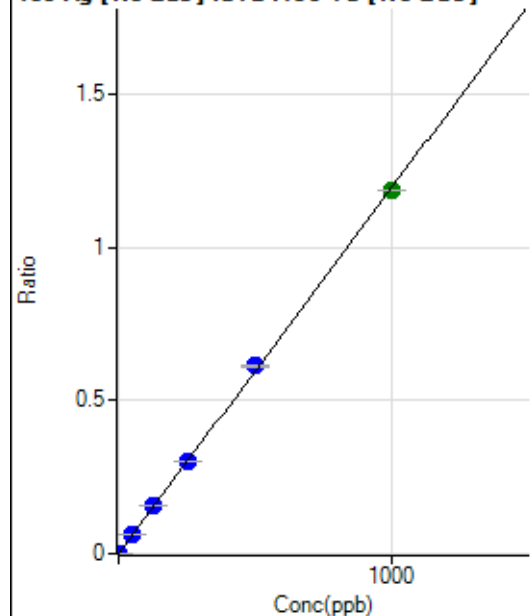
$$R = 0.9997$$

$$DL = 0.06545$$

$$BEC = 0.04384$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	80.56	0.0000	P	23.6
2	☐	0.100					
3	☐	1.000	0.992	10826.77	0.0012	P	3.7
4	☐	50.000	53.476	592305.95	0.0638	P	0.6
5	☐	125.000	129.289	1415402.94	0.1543	P	0.5
6	☐	250.000	252.263	2705746.13	0.3011	P	0.3
7	☐	500.000	512.832	5400782.37	0.6121	P	0.6
8	☐	1000.000	992.308	10505260.39	1.1844	A	0.1
9	☐			11449.54	0.0013	P	2.9

$$y = 0.0012 * x + 8.8162E-006$$

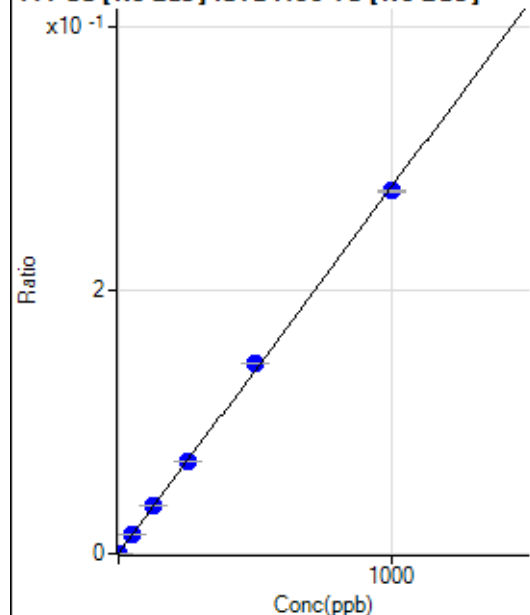
$$R = 0.9999$$

$$DL = 0.005235$$

$$BEC = 0.007386$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1691.06	0.0002	P	5.5
2	☐	0.100					
3	☐	1.000	1.018	4248.33	0.0005	P	1.9
4	☐	50.000	52.746	137729.96	0.0148	P	1.2
5	☐	125.000	128.695	329718.31	0.0360	P	0.8
6	☐	250.000	252.084	631190.51	0.0702	P	0.5
7	☐	500.000	518.481	1272983.40	0.1443	P	0.0
8	☐	1000.000	989.640	2441068.76	0.2752	P	0.4
9	☐			1952.29	0.0002	P	5.1

$$y = 2.7790\text{E-}004 * x + 1.8515\text{E-}004$$

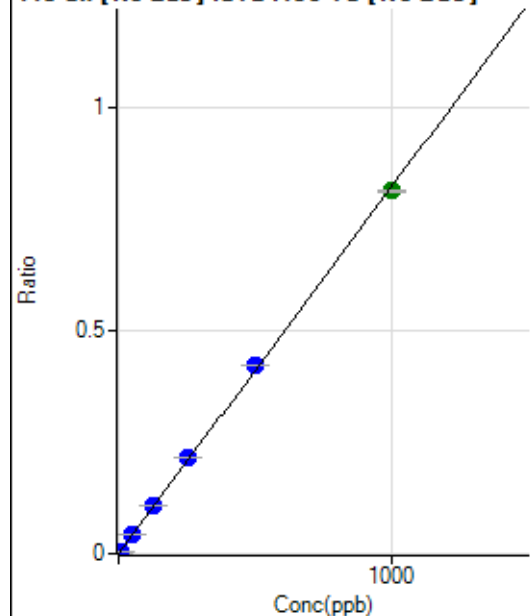
$$R = 0.9997$$

$$DL = 0.1102$$

$$BEC = 0.6662$$

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	466.69	0.0001	P	12.3
2	☐	0.500					
3	☐	5.000	5.124	38640.14	0.0043	P	2.0
4	☐	50.000	52.891	403309.00	0.0435	P	1.2
5	☐	125.000	132.508	998058.79	0.1088	P	0.6
6	☐	250.000	261.895	1932247.00	0.2150	P	1.0
7	☐	500.000	513.289	3718063.88	0.4214	P	0.7
8	☐	1000.000	989.298	7203260.05	0.8121	A	0.4
9	☐			6993.71	0.0008	P	1.9

$$y = 8.2085\text{E-}004 * x + 5.1092\text{E-}005$$

$$R = 0.9998$$

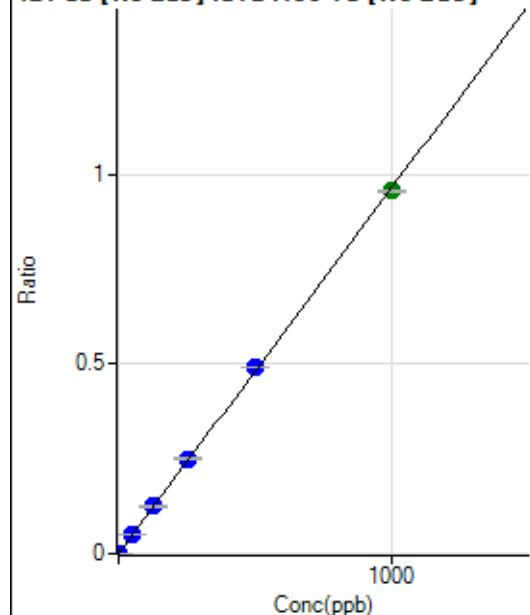
$$DL = 0.02305$$

$$BEC = 0.06224$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.22	0.0000	P	44.2
2	☐	0.200					
3	☐	2.000	1.884	16527.02	0.0018	P	1.1
4	☐	50.000	51.591	461288.92	0.0497	P	0.5
5	☐	125.000	129.263	1142378.57	0.1246	P	0.7
6	☐	250.000	259.529	2247185.12	0.2501	P	1.0
7	☐	500.000	508.814	4325867.55	0.4903	P	0.2
8	☐	1000.000	992.599	8483211.30	0.9564	A	0.6
9	☐			11986.20	0.0014	P	0.5

$$y = 9.6355\text{E-}004 * x + 5.1664\text{E-}006$$

$$R = 0.9999$$

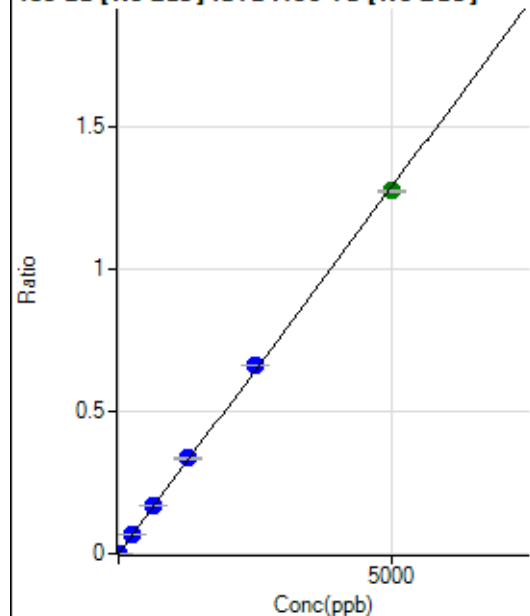
$$DL = 0.007117$$

$$BEC = 0.005362$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.45	0.0000	P	54.0
2	☐	1.000					
3	☐	10.000	9.744	22833.34	0.0025	P	4.2
4	☐	250.000	260.115	621949.95	0.0670	P	0.3
5	☐	625.000	650.844	1538199.18	0.1677	P	0.3
6	☐	1250.000	1300.046	3010229.04	0.3350	P	1.0
7	☐	2500.000	2569.910	5842850.13	0.6622	P	0.4
8	☐	5000.000	4948.798	11310542.18	1.2752	A	0.7
9	☐			2291.95	0.0003	P	7.8

$$y = 2.5767\text{E-}004 * x + 4.8614\text{E-}006$$

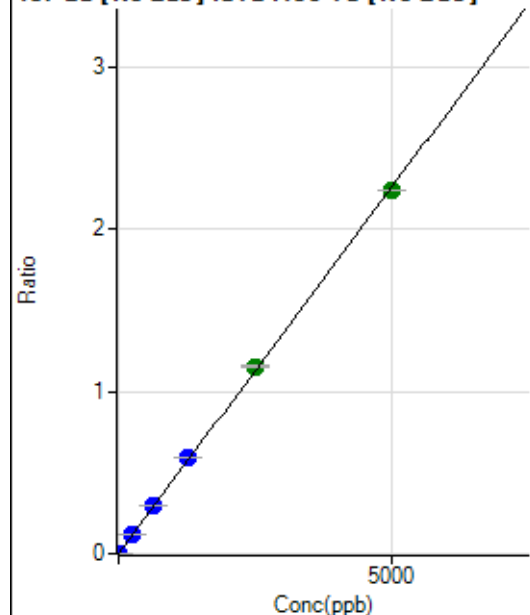
$$R = 0.9998$$

$$DL = 0.03055$$

$$BEC = 0.01887$$

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	38.89	0.0000	P	12.1
2	☐	1.000					
3	☐	10.000	9.928	40657.80	0.0045	P	0.8
4	☐	250.000	260.441	1089232.37	0.1174	P	0.4
5	☐	625.000	646.233	2671475.30	0.2913	P	0.6
6	☐	1250.000	1306.378	5291136.10	0.5888	P	0.9
7	☐	2500.000	2556.132	10165283.65	1.1521	A	0.9
8	☐	5000.000	4954.664	19807749.58	2.2332	A	0.1
9	☐			4206.38	0.0005	P	5.4

$$y = 4.5072\text{E-}004 * x + 4.2570\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.003426$$

$$BEC = 0.009445$$

Weight: <None>

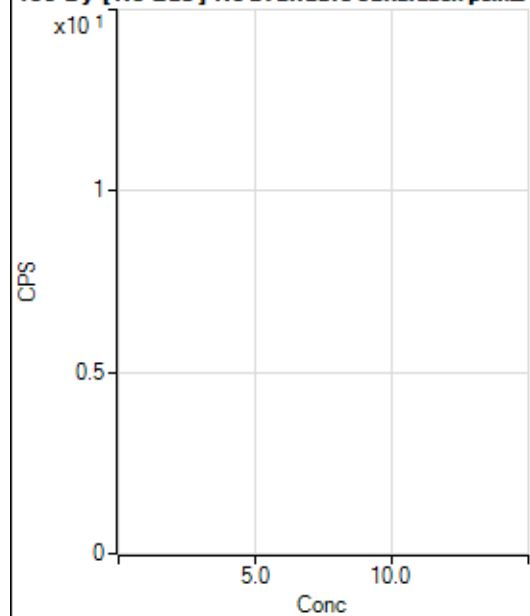
Min Conc: 0

150 Nd [No Gas] No available calibration points

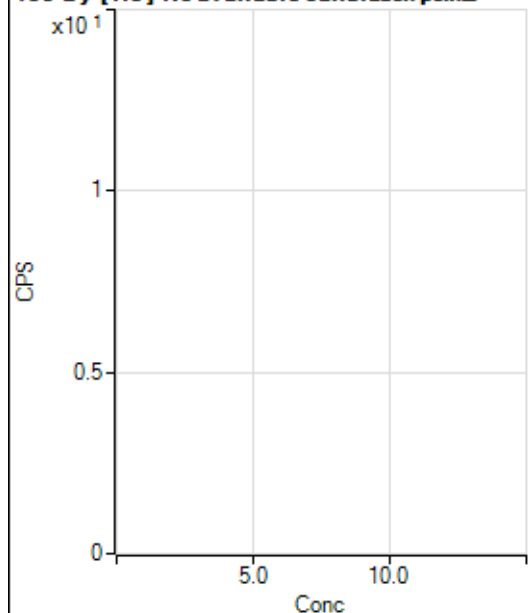
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	173.
2	☐						
3	☐			4.45		P	86.6
4	☐			40.00		P	16.7
5	☐			131.11		P	25.6
6	☐			248.90		P	19.0
7	☐			506.70		P	3.5
8	☐			933.41		P	9.4
9	☐			188.90		P	7.3

150 Nd [He] No available calibration points

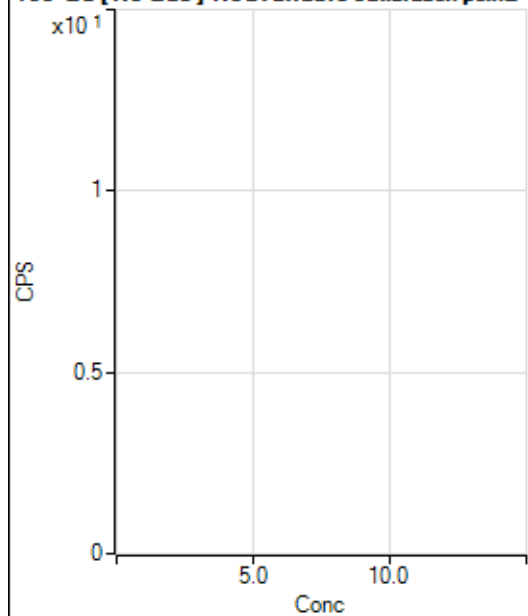
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			1.11		P	173.
4	☐			8.89		P	43.3
5	☐			22.22		P	8.7
6	☐			26.67		P	54.5
7	☐			61.11		P	32.9
8	☐			113.34		P	17.6
9	☐			84.45		P	30.1

156 Dy [No Gas] No available calibration points

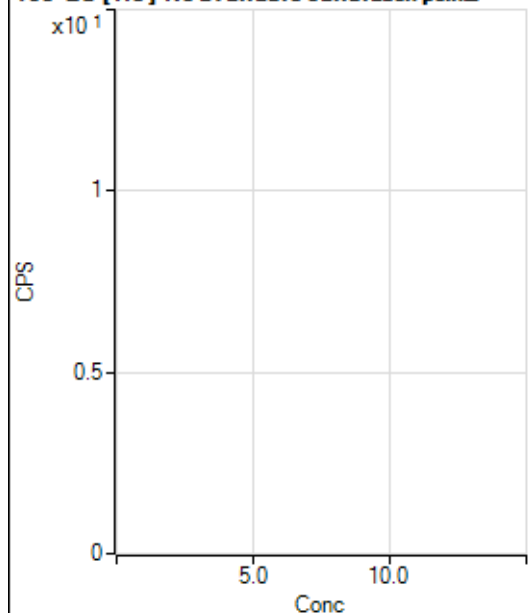
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.33		P	100.
2	☐						
3	☐			2.78		P	173.
4	☐			16.67		P	50.0
5	☐			44.45		P	57.3
6	☐			38.89		P	75.3
7	☐			127.78		P	24.7
8	☐			188.90		P	16.7
9	☐			88.89		P	28.6

156 Dy [He] No available calibration points

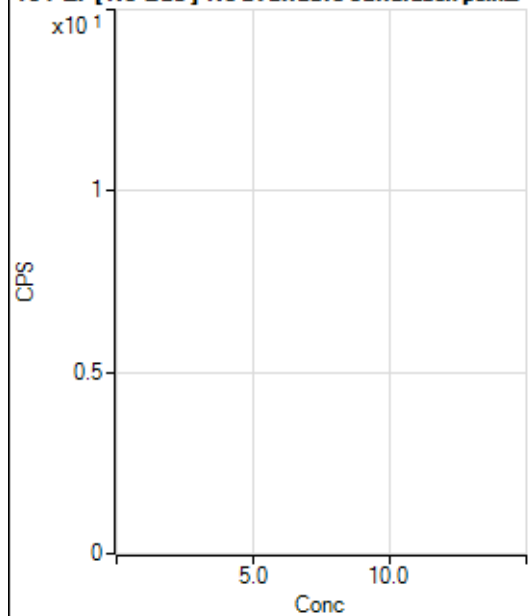
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	0.0
2	☐						
3	☐			3.33		P	100.
4	☐			10.00		P	33.3
5	☐			27.78		P	38.6
6	☐			62.22		P	26.4
7	☐			114.45		P	24.8
8	☐			227.78		P	18.9
9	☐			60.00		P	27.8

160 Gd [No Gas] Noavailable calibration poin_

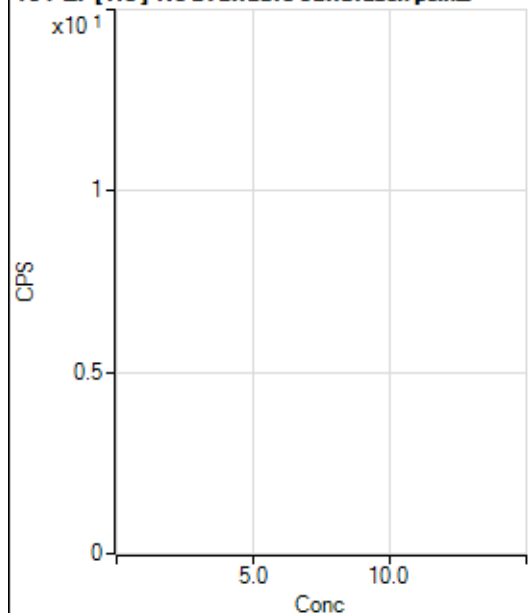
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.56		P	56.8
2	☐						
3	☐			25.00		P	57.7
4	☐			44.45		P	10.8
5	☐			36.11		P	13.3
6	☐			50.00		P	16.7
7	☐			66.67		P	0.0
8	☐			72.22		P	29.0
9	☐			125.01		P	33.3

160 Gd [He] No available calibration points

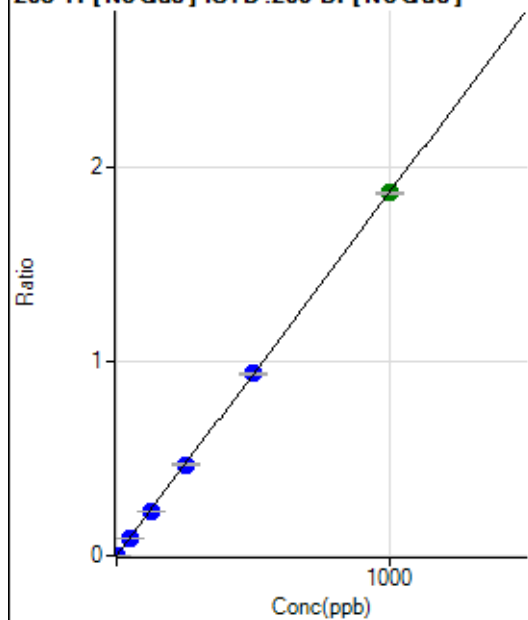
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			152.22		P	8.9
2	☐						
3	☐			157.78		P	18.0
4	☐			131.12		P	5.3
5	☐			140.00		P	10.4
6	☐			136.67		P	19.4
7	☐			147.78		P	1.3
8	☐			148.89		P	4.7
9	☐			167.78		P	8.0

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	35.3
2	☐						
3	☐			36.11		P	48.0
4	☐			36.11		P	13.3
5	☐			19.44		P	65.5
6	☐			36.11		P	35.3
7	☐			66.67		P	87.5
8	☐			63.89		P	30.1
9	☐			58.34		P	28.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	33.3
2	☐						
3	☐			14.44		P	70.5
4	☐			11.11		P	62.5
5	☐			18.89		P	81.5
6	☐			14.45		P	48.0
7	☐			17.78		P	10.8
8	☐			25.55		P	65.7
9	☐			37.78		P	22.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	108.34	0.0000	P	13.7
2	☐	0.100					
3	☐	1.000	0.861	10549.03	0.0016	P	2.9
4	☐	50.000	47.634	593312.12	0.0891	P	0.1
5	☐	125.000	121.907	1499209.51	0.2279	P	1.3
6	☐	250.000	250.900	3034883.64	0.4690	P	0.9
7	☐	500.000	502.196	5951799.70	0.9387	P	0.8
8	☐	1000.000	999.182	11566137.15	1.8677	A	0.5
9	☐			2247.51	0.0004	P	15.8

$$y = 0.0019 * x + 1.6641E-005$$

$$R = 1.0000$$

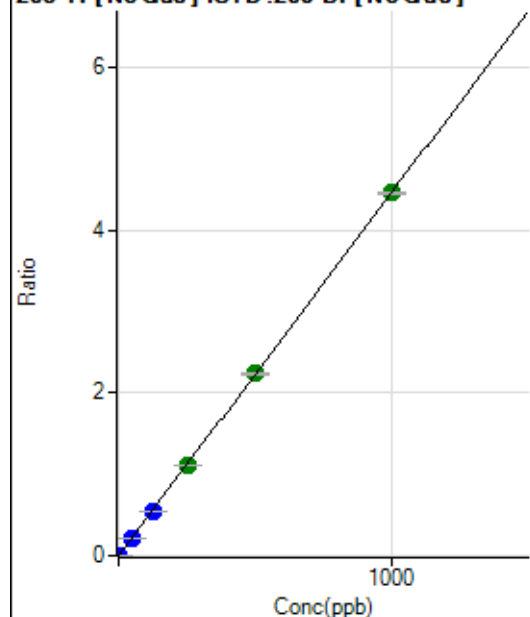
$$DL = 0.003665$$

$$BEC = 0.008903$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	327.80	0.0001	P	9.5
2	☐	0.100					
3	☐	1.000	0.883	25870.54	0.0040	P	1.3
4	☐	50.000	48.265	1434138.65	0.2153	P	0.9
5	☐	125.000	123.075	3610601.86	0.5488	P	0.9
6	☐	250.000	250.386	7224723.95	1.1165	A	1.0
7	☐	500.000	500.915	14161929.48	2.2336	A	0.4
8	☐	1000.000	999.773	27606892.28	4.4579	A	0.6
9	☐			5484.75	0.0010	P	13.2

$$y = 0.0045 * x + 5.0398E-005$$

$$R = 1.0000$$

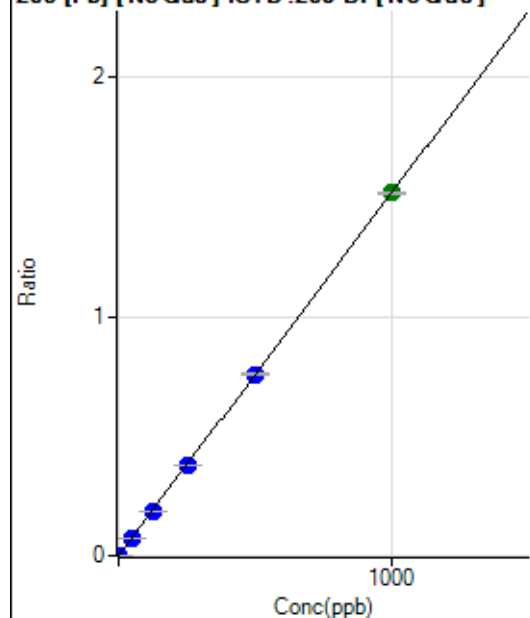
$$DL = 0.003211$$

$$BEC = 0.0113$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	661.15	0.0001	P	2.6
2	☐	0.100					
3	☐	1.000	0.884	9362.78	0.0014	P	2.9
4	☐	50.000	48.158	487094.29	0.0731	P	0.4
5	☐	125.000	122.296	1220434.08	0.1855	P	0.8
6	☐	250.000	249.486	2448105.90	0.3783	P	1.3
7	☐	500.000	500.257	4809237.49	0.7585	P	0.7
8	☐	1000.000	1000.430	9393188.29	1.5168	A	0.3
9	☐			12693.39	0.0023	P	2.8

$$y = 0.0015 * x + 1.0173E-004$$

$$R = 1.0000$$

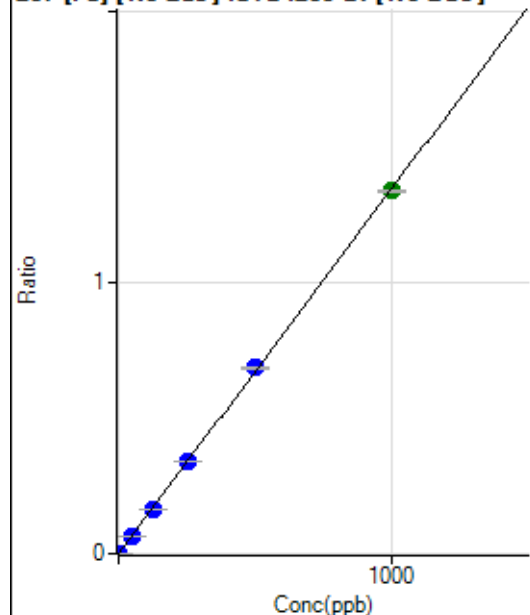
$$DL = 0.005147$$

$$BEC = 0.0671$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	594.48	0.0001	P	19.9
2	☐	0.100					
3	☐	1.000	0.858	8095.28	0.0012	P	1.3
4	☐	50.000	48.670	437087.73	0.0656	P	0.6
5	☐	125.000	123.155	1091152.97	0.1659	P	1.1
6	☐	250.000	253.273	2206691.73	0.3410	P	0.6
7	☐	500.000	509.082	4345389.24	0.6853	P	0.6
8	☐	1000.000	994.938	8294301.57	1.3393	A	0.3
9	☐			10571.18	0.0019	P	1.1

$$y = 0.0013 * x + 9.1691E-005$$

$$R = 0.9999$$

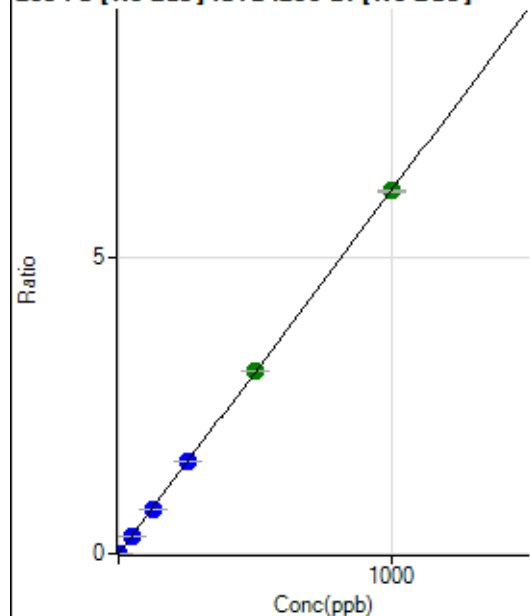
$$DL = 0.04071$$

$$BEC = 0.06812$$

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	2679.81	0.0004	P	10.0
2	☐	0.100					
3	☐	1.000	0.877	37518.12	0.0058	P	0.7
4	☐	50.000	48.220	1969572.59	0.2956	P	0.2
5	☐	125.000	122.635	4941967.64	0.7512	P	1.1
6	☐	250.000	252.693	10013515.34	1.5475	P	0.8
7	☐	500.000	502.052	19491192.13	3.0741	A	0.5
8	☐	1000.000	998.685	37866910.22	6.1146	A	0.4
9	☐			49787.80	0.0092	P	0.8

$$y = 0.0061 * x + 4.1280E-004$$

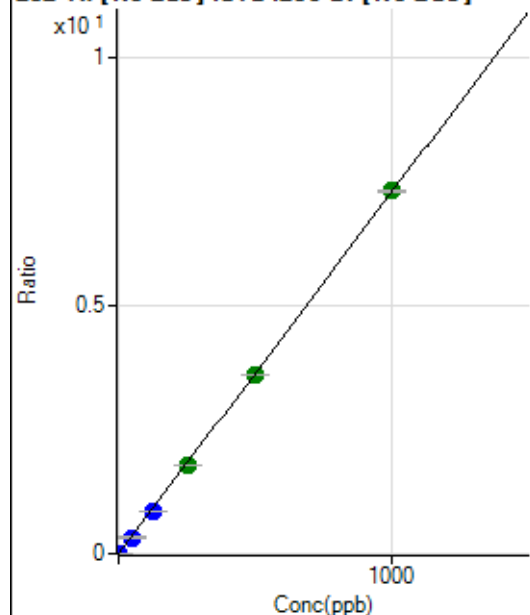
$$R = 1.0000$$

$$DL = 0.0202$$

$$BEC = 0.06743$$

Weight: <None>

Min Conc: 0

232 Th [No Gas] ISTD :209 Bi [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42.59	0.0000	P	39.3
2	☐	0.100					
3	☐	1.000	0.789	37311.15	0.0057	P	0.6
4	☐	50.000	45.122	2187885.02	0.3284	P	0.6
5	☐	125.000	118.669	5681908.52	0.8637	P	0.7
6	☐	250.000	243.691	11476652.57	1.7736	A	0.7
7	☐	500.000	495.676	22873195.19	3.6075	A	0.4
8	☐	1000.000	1004.774	45285851.47	7.3126	A	0.4
9	☐			6703.77	0.0012	P	8.1

$$y = 0.0073 * x + 6.5507E-006$$

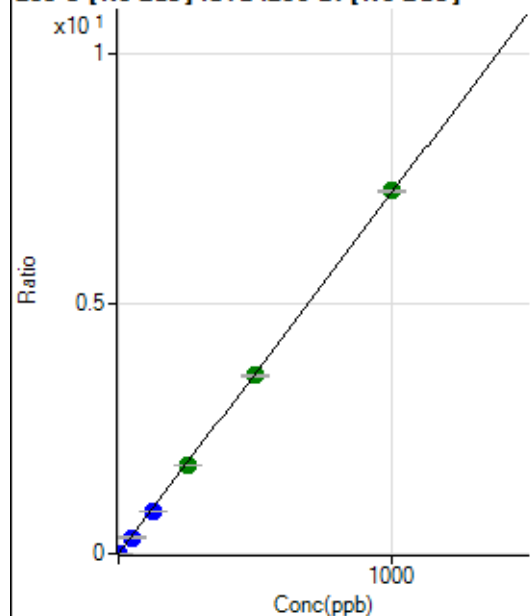
$$R = 1.0000$$

$$DL = 0.001061$$

$$BEC = 0.0009001$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.34	0.0000	P	39.7
2	☐	0.100					
3	☐	1.000	0.800	37625.09	0.0058	P	0.6
4	☐	50.000	45.205	2176436.90	0.3267	P	1.1
5	☐	125.000	118.203	5619453.25	0.8542	P	1.0
6	☐	250.000	244.156	11416853.90	1.7644	A	1.3
7	☐	500.000	494.361	22650997.55	3.5724	A	0.9
8	☐	1000.000	1005.370	44992385.38	7.2652	A	0.7
9	☐			4609.37	0.0008	P	11.7

$$y = 0.0072 * x + 1.2830E-005$$

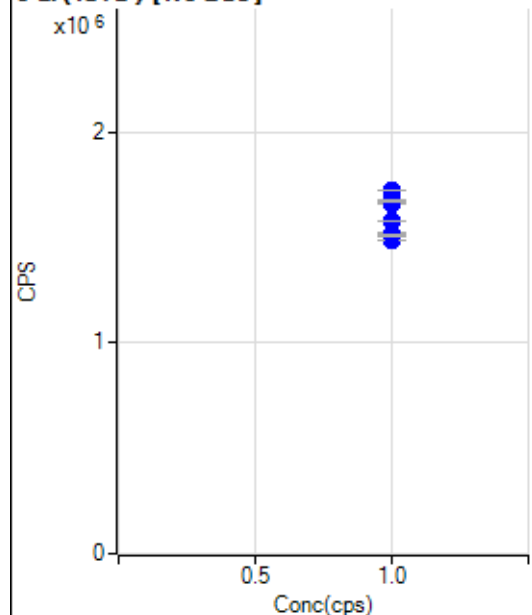
$$R = 0.9999$$

$$DL = 0.002117$$

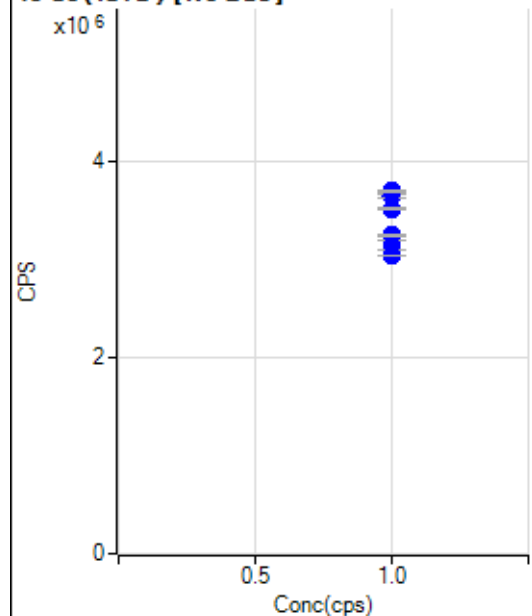
$$BEC = 0.001775$$

Weight: <None>

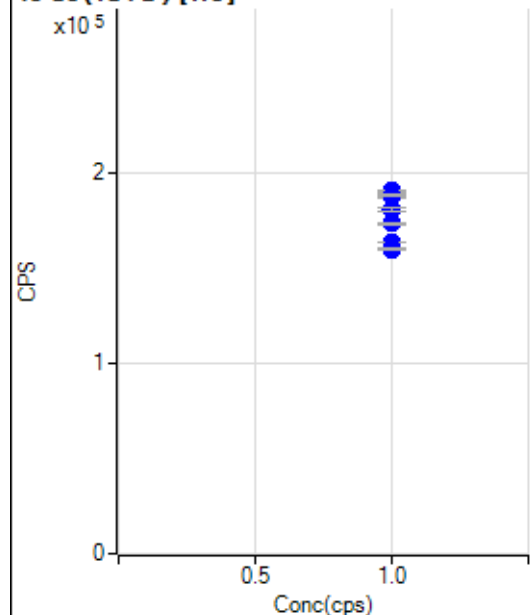
Min Conc: 0

6 Li (ISTD) [No Gas]

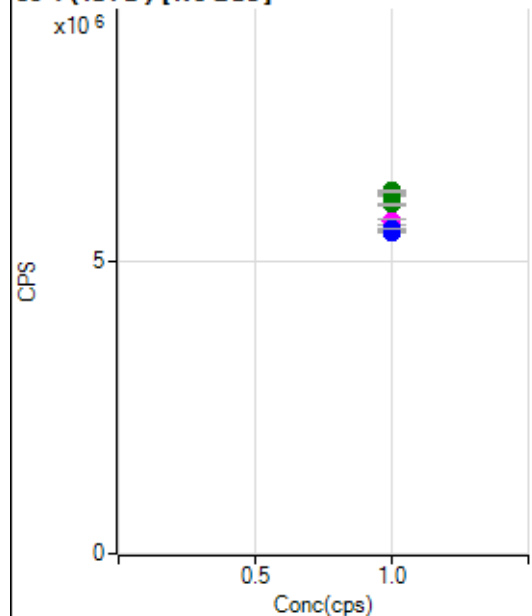
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1660865.11		P	0.5
2	☐	1.000					
3	☐	1.000		1675247.57		P	0.4
4	☐	1.000		1720295.71		P	0.1
5	☐	1.000		1674204.27		P	0.2
6	☐	1.000		1575179.64		P	0.1
7	☐	1.000		1517124.91		P	0.4
8	☐	1.000		1486524.98		P	0.1
9	☐	1.000		1509445.55		P	0.8

45 Sc (ISTD) [No Gas]

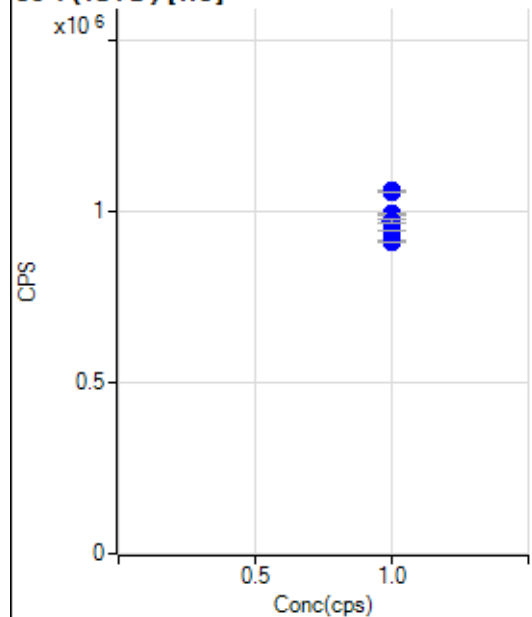
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3642397.52		P	0.8
2	☐	1.000					
3	☐	1.000		3682983.81		P	0.1
4	☐	1.000		3696368.66		P	0.6
5	☐	1.000		3511533.63		P	0.7
6	☐	1.000		3198094.13		P	0.2
7	☐	1.000		3090743.77		P	0.2
8	☐	1.000		3034677.65		P	0.5
9	☐	1.000		3243926.94		P	1.1

45 Sc (ISTD) [He]

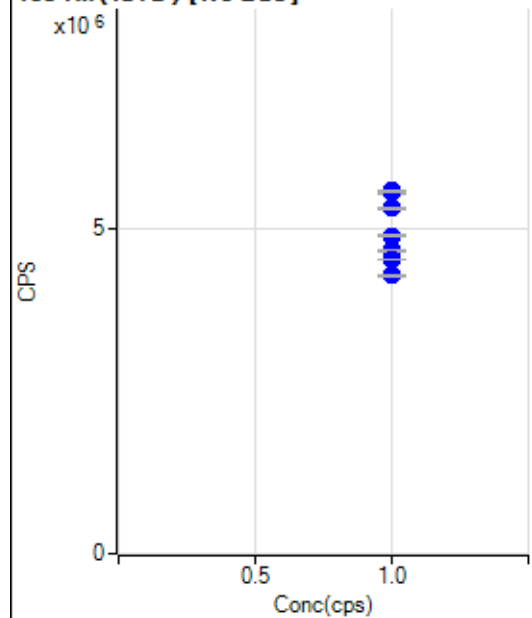
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		187587.92		P	0.3
2	☐	1.000					
3	☐	1.000		190596.16		P	0.3
4	☐	1.000		188148.44		P	0.3
5	☐	1.000		173310.53		P	1.1
6	☐	1.000		164029.86		P	0.1
7	☐	1.000		160843.64		P	0.1
8	☐	1.000		160087.49		P	0.2
9	☐	1.000		181179.53		P	1.2

89 Y (ISTD) [No Gas]

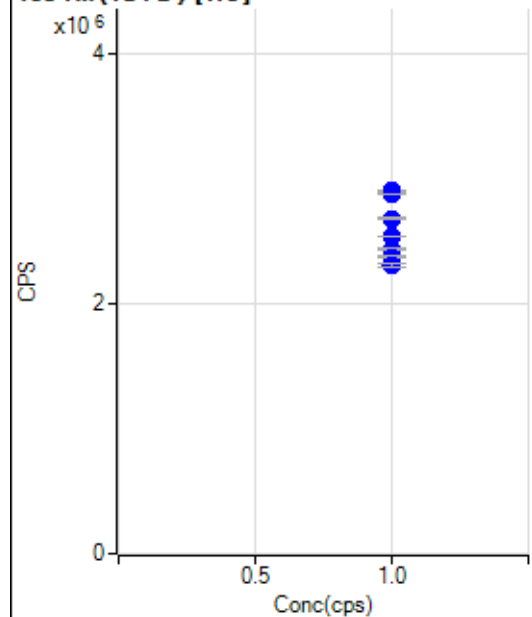
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6149144.63		A	0.3
2	☐	1.000					
3	☐	1.000		6174725.60		A	0.3
4	☐	1.000		6217423.73		A	0.3
5	☐	1.000		5986843.18		A	0.4
6	☐	1.000		5690674.78		M	1.7
7	☐	1.000		5546977.42		P	0.1
8	☐	1.000		5503385.82		P	0.3
9	☐	1.000		5568893.11		P	0.4

89 Y(ISTD) [He]

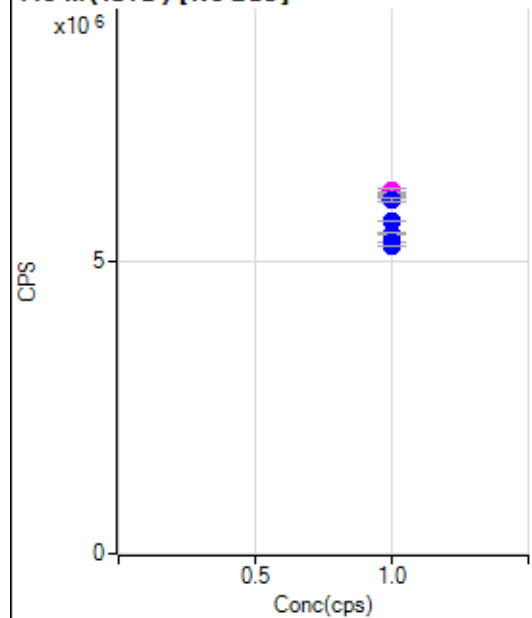
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1055718.92		P	0.5
2	☐	1.000					
3	☐	1.000		1058356.23		P	0.5
4	☐	1.000		1053082.14		P	0.2
5	☐	1.000		990776.13		P	0.9
6	☐	1.000		943353.57		P	0.3
7	☐	1.000		912520.24		P	1.0
8	☐	1.000		910025.03		P	0.2
9	☐	1.000		972808.47		P	1.2

103 Rh(ISTD) [No Gas]

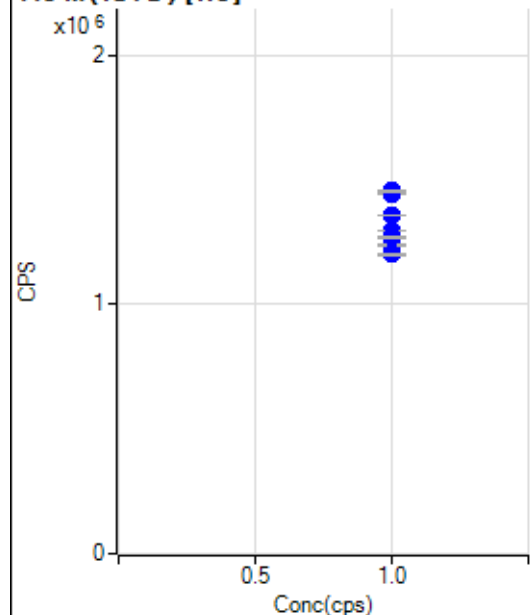
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5567312.02		P	0.9
2	☐	1.000					
3	☐	1.000		5577639.75		P	0.2
4	☐	1.000		5567705.90		P	0.5
5	☐	1.000		5316926.29		P	0.5
6	☐	1.000		4886530.19		P	0.5
7	☐	1.000		4665548.02		P	0.5
8	☐	1.000		4516258.39		P	0.3
9	☐	1.000		4279131.30		P	0.6

103 Rh (ISTD) [He]

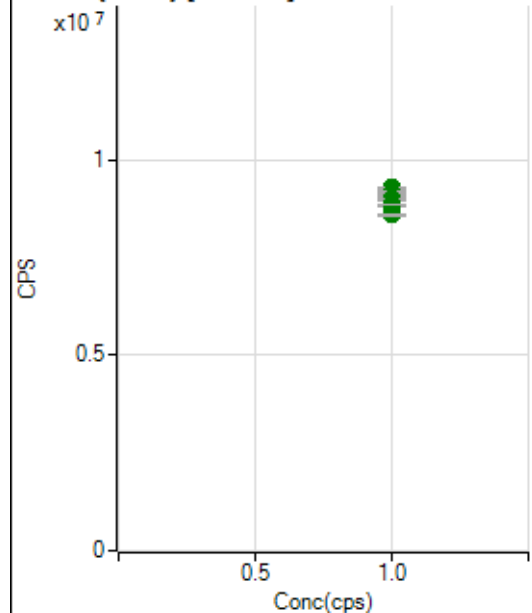
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2884004.57		P	0.6
2	☐	1.000					
3	☐	1.000		2898605.62		P	0.3
4	☐	1.000		2874670.62		P	0.4
5	☐	1.000		2680622.64		P	0.3
6	☐	1.000		2534204.81		P	0.2
7	☐	1.000		2429799.04		P	0.6
8	☐	1.000		2370572.86		P	0.4
9	☐	1.000		2303567.45		P	1.1

115 In (ISTD) [No Gas]

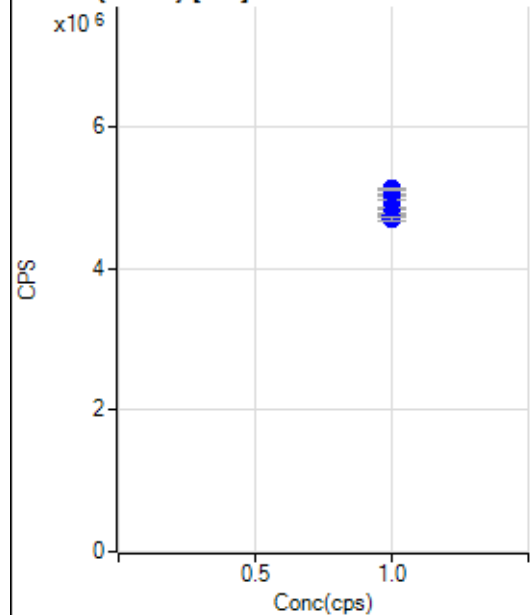
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6157447.31		M	1.2
2	☐	1.000					
3	☐	1.000		6179763.64		P	0.3
4	☐	1.000		6210897.33		M	0.9
5	☐	1.000		6053580.64		P	0.7
6	☐	1.000		5688859.07		P	0.3
7	☐	1.000		5480641.37		P	0.6
8	☐	1.000		5335411.65		P	0.1
9	☐	1.000		5257266.76		P	0.1

115 In (ISTD) [He]

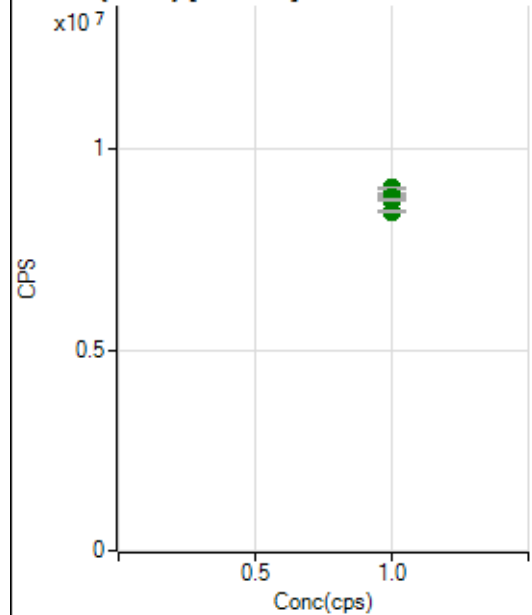
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1445776.59		P	0.5
2	☐	1.000					
3	☐	1.000		1454904.59		P	0.5
4	☐	1.000		1452047.81		P	0.4
5	☐	1.000		1357441.22		P	0.2
6	☐	1.000		1293843.78		P	0.1
7	☐	1.000		1237916.04		P	0.6
8	☐	1.000		1199374.07		P	0.7
9	☐	1.000		1269492.75		P	0.9

159 Tb (ISTD) [No Gas]

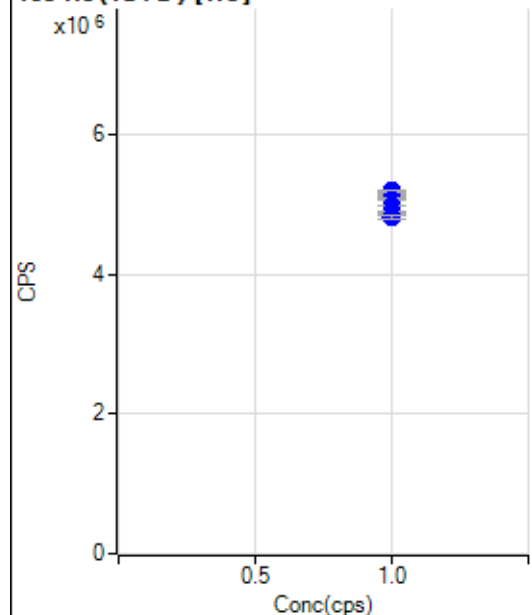
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9133187.44		A	0.3
2	☐	1.000					
3	☐	1.000		9077334.52		A	0.5
4	☐	1.000		9278799.23		A	0.7
5	☐	1.000		9171970.35		A	0.8
6	☐	1.000		8986212.23		A	0.3
7	☐	1.000		8823397.51		A	0.3
8	☐	1.000		8869783.20		A	0.1
9	☐	1.000		8596649.53		A	0.5

159 Tb (ISTD) [He]

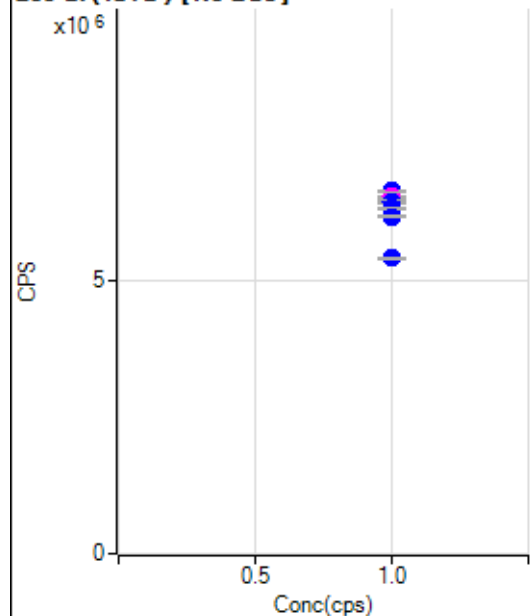
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5053586.90		P	0.4
2	☐	1.000					
3	☐	1.000		5030487.91		P	0.3
4	☐	1.000		5133702.84		P	0.7
5	☐	1.000		4975936.14		P	0.2
6	☐	1.000		4860058.37		P	0.2
7	☐	1.000		4777478.12		P	0.4
8	☐	1.000		4760869.48		P	0.7
9	☐	1.000		4711475.34		P	0.8

165 Ho (ISTD) [No Gas]

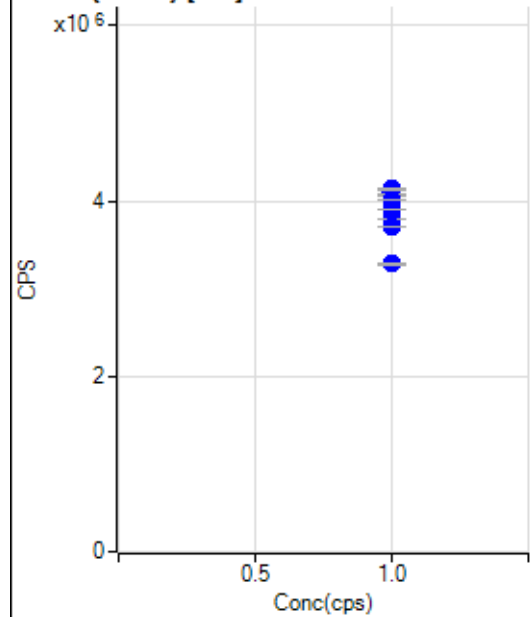
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8896330.32		A	0.7
2	☐	1.000					
3	☐	1.000		8836923.98		A	0.1
4	☐	1.000		9041821.64		A	0.2
5	☐	1.000		9021276.50		A	0.7
6	☐	1.000		8827560.62		A	0.3
7	☐	1.000		8793012.96		A	0.8
8	☐	1.000		8741258.27		A	0.2
9	☐	1.000		8454719.11		A	0.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5145912.28		P	0.2
2	☐	1.000					
3	☐	1.000		5137723.95		P	0.2
4	☐	1.000		5201631.59		P	0.5
5	☐	1.000		5080449.99		P	0.3
6	☐	1.000		4983349.19		P	0.1
7	☐	1.000		4896531.42		P	0.3
8	☐	1.000		4891977.95		P	0.2
9	☐	1.000		4826721.73		P	1.0

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6500208.31		M	1.9
2	☐	1.000					
3	☐	1.000		6490751.43		P	0.3
4	☐	1.000		6662394.83		P	0.4
5	☐	1.000		6579188.03		M	1.3
6	☐	1.000		6471252.96		P	0.9
7	☐	1.000		6340622.47		P	0.8
8	☐	1.000		6192817.20		P	0.2
9	☐	1.000		5424313.39		P	0.8

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4099164.00		P	0.7
2	☐	1.000					
3	☐	1.000		4065796.85		P	0.1
4	☐	1.000		4137539.03		P	0.6
5	☐	1.000		4012247.23		P	0.3
6	☐	1.000		3911019.70		P	0.0
7	☐	1.000		3787302.48		P	0.2
8	☐	1.000		3711498.90		P	0.1
9	☐	1.000		3283755.23		P	0.8

US EPA Tune Check Sample Report

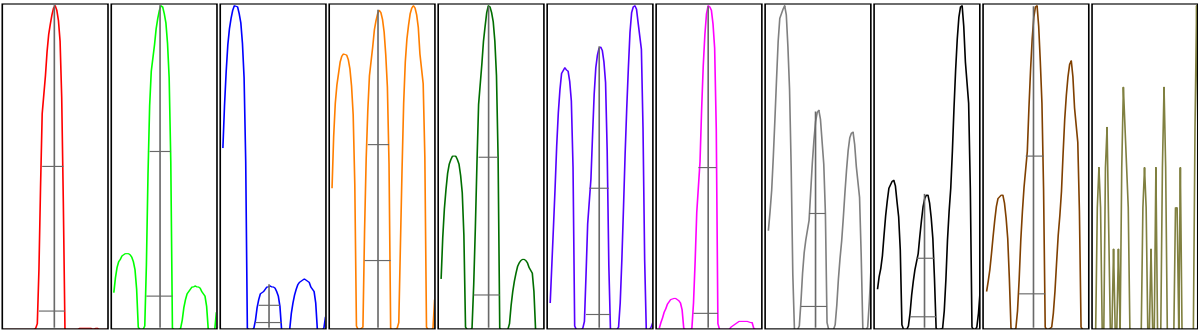
Batch Folder D:\ICP-MS Data\P7051519MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	8753	1.40	5.00	
24	173091	1.20	5.00	
25	23881	1.09	5.00	
26	27192	1.18	5.00	
59	68890	1.31	5.00	
113	10183	0.95	5.00	
115	122581	1.50	5.00	
206	36573	0.74	5.00	
207	33775	0.70	5.00	
208	79714	0.96	5.00	
220	0	60.86		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	8896	8860	8710	8696	8602
24	175285	174694	173316	171990	170170
25	24138	24082	23869	23837	23478
26	27556	27401	27228	27049	26726
59	69779	69642	68981	68469	67579
113	10273	10225	10234	10155	10026
115	124747	123931	122088	122126	120014
206	36892	36713	36599	36490	36170
207	33642	33908	33999	33900	33427
208	80464	80200	79412	79959	78533
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	14819	9.00	8.9 - 9.1		0.780	0.900	
24	285192	23.90	23.9 - 24.1		0.766	0.900	
25	37977	24.90	24.9 - 25.1		0.753	0.900	
26	44028	25.90	25.9 - 26.1		0.745	0.900	
59	119458	58.95	58.9 - 59.1		0.752	0.900	
113	19824	113.00	112.9 - 113.1		0.732	0.900	
115	239703	115.00	114.9 - 115.1		0.717	0.900	
206	71454	205.95	205.9 - 206.1		0.754	0.900	
207	64749	206.95	206.9 - 207.1		0.753	0.900	
208	155990	207.95	207.9 - 208.1		0.759	0.900	
220			-				

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
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.3	V	Deflect	14.6	V
Extract 2	-105.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	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	190	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	19010	0.49	
89	78801	0.29	
205	33907	0.47	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	18974	19119	19096	18898	18964
89	78686	79148	78885	78560	78724
205	33709	33981	33888	34130	33826

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.3	V	Deflect	1.8	V
Extract 2	-110.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-60	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	4.1	mL/min	OctP RF	200	V			