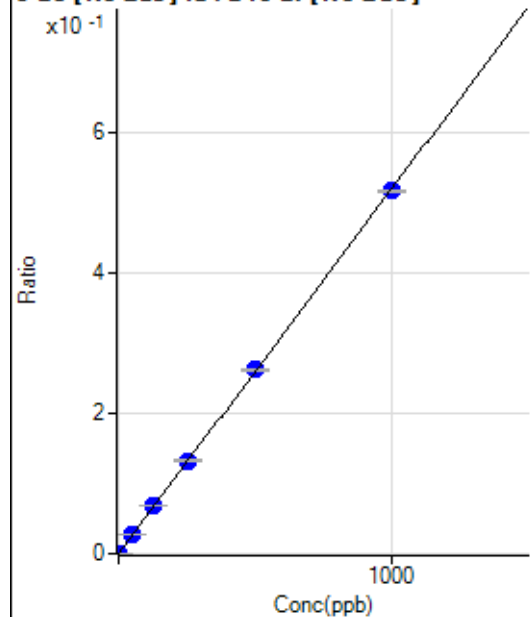


Batch Folder: D:\ICP-MS Data\P7082319MS.b\
Analysis File: P7082319MS.batch.bin
DA Date-Time: 2019-08-24 20:31:40
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-08-23 10:01:13
2	003CALS.d	S02	2019-08-23 10:04:49
3	004CALS.d	S03	2019-08-23 10:09:43
4	005CALS.d	S04	2019-08-23 10:13:39
5	006CALS.d	S05	2019-08-23 10:17:31
6	007CALS.d	S06	2019-08-23 10:21:21
7	008CALS.d	S07	2019-08-23 10:25:08
8	009CALS.d	S08	2019-08-23 10:28:54

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	27.78	0.0000	P	27.8
2	☐	1.000	1.054	1645.67	0.0006	P	6.7
3	☐	50.000	52.636	79228.42	0.0274	P	1.0
4	☐	125.000	131.501	190495.55	0.0683	P	0.4
5	☐	250.000	255.157	333837.12	0.1326	P	0.9
6	☐	500.000	504.764	626839.03	0.2623	P	0.8
7	☐	1000.000	995.384	1271492.76	0.5172	P	0.4
8	☐			262.23	0.0001	P	8.5

$$y = 5.1957\text{E-}004 * x + 9.4706\text{E-}006$$

$$R = 1.0000$$

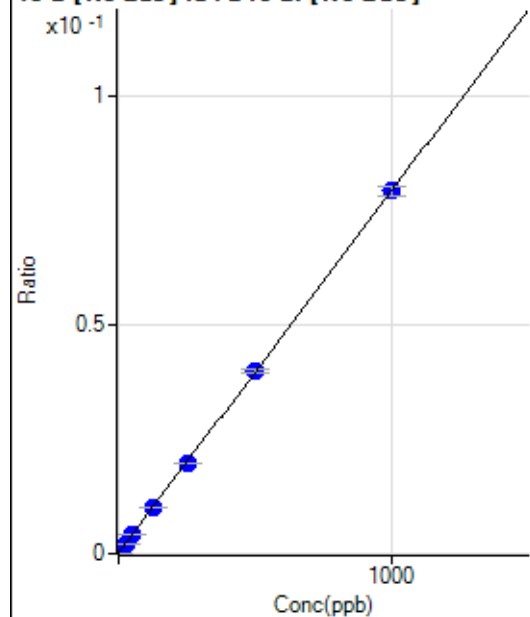
$$DL = 0.01522$$

$$BEC = 0.01823$$

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	544.48	0.0002	P	11.8
2	☐	25.000	23.907	6134.81	0.0021	P	4.1
3	☐	50.000	49.324	11835.65	0.0041	P	1.1
4	☐	125.000	124.454	27960.14	0.0100	P	0.7
5	☐	250.000	246.045	49468.10	0.0196	P	0.7
6	☐	500.000	502.317	95413.65	0.0399	P	1.5
7	☐	1000.000	999.960	194906.85	0.0793	P	2.3
8	☐			9431.10	0.0037	P	11.2

$$y = 7.9095\text{E-}005 * x + 1.8562\text{E-}004$$

$$R = 1.0000$$

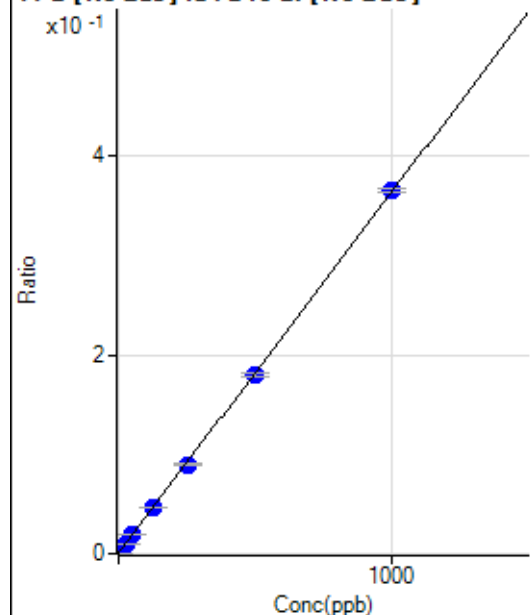
$$DL = 0.8274$$

$$BEC = 2.347$$

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	2419.74	0.0008	P	3.4
2	☐	25.000	23.668	27787.54	0.0094	P	2.0
3	☐	50.000	49.970	54861.41	0.0189	P	0.8
4	☐	125.000	123.459	127091.53	0.0456	P	0.3
5	☐	250.000	244.843	225602.51	0.0896	P	0.9
6	☐	500.000	494.407	430449.76	0.1801	P	1.4
7	☐	1000.000	1004.313	897309.14	0.3650	P	1.1
8	☐			42566.69	0.0168	P	8.0

$$y = 3.6259\text{E-}004 * x + 8.2487\text{E-}004$$

$$R = 1.0000$$

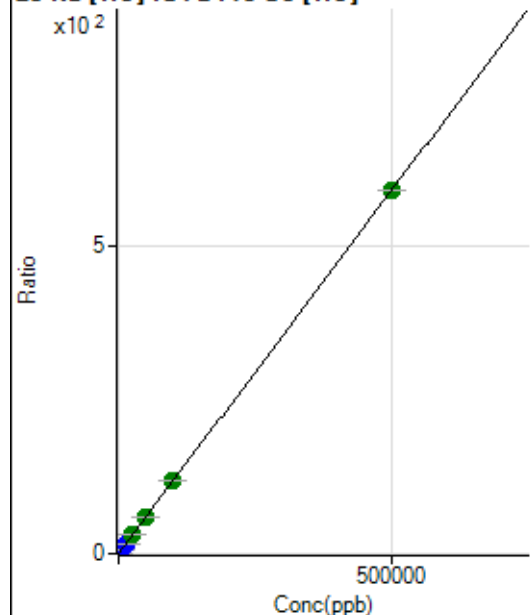
$$DL = 0.2355$$

$$BEC = 2.275$$

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	6334.91	0.0282	P	1.8
2	☐	500.000	486.117	135492.62	0.6010	P	1.5
3	☐	5000.000	5139.317	1296929.71	6.0840	P	0.4
4	☐	12500.000	12905.478	3071579.65	15.2352	P	0.4
5	☐	25000.000	26142.728	5559901.64	30.8332	A	1.4
6	☐	50000.000	51021.018	11122593.65	60.1484	A	0.5
7	☐	100000.00	101252.06	23104759.02	119.3377	A	0.4
8	☐	500000.00	499578.83	118975601.2	588.7026	A	0.2

$$y = 0.0012 * x + 0.0282$$

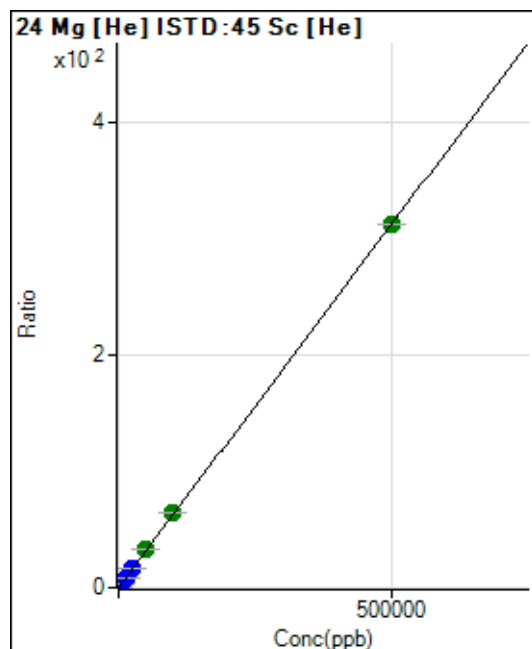
$$R = 1.0000$$

$$DL = 1.264$$

$$BEC = 23.91$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77.78	0.0003	P	5.6
2	☐	500.000	503.517	70909.87	0.3145	P	2.5
3	☐	5000.000	5238.960	696858.15	3.2690	P	0.8
4	☐	12500.000	13080.019	1645408.05	8.1612	P	0.7
5	☐	25000.000	26284.460	2957142.93	16.3997	P	1.7
6	☐	50000.000	52041.041	6004206.64	32.4697	A	0.7
7	☐	100000.00	102272.07	12354056.44	63.8098	A	0.7
8	☐	500000.00	499260.36	62953067.38	311.4983	A	0.1

$$y = 6.2392\text{E-}004 * x + 3.4585\text{E-}004$$

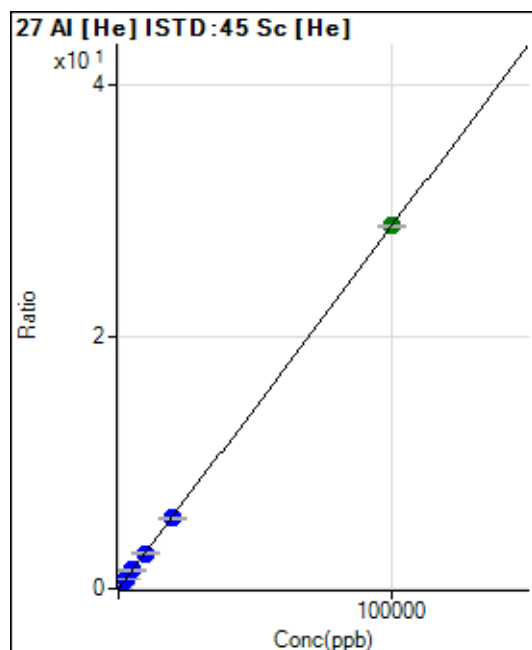
$$R = 1.0000$$

$$DL = 0.09379$$

$$BEC = 0.5543$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.56	0.0001	P	32.1
2	☐	20.000	18.203	1211.21	0.0054	P	6.4
3	☐	1000.000	1003.917	61605.54	0.2890	P	1.6
4	☐	2500.000	2524.029	146444.22	0.7264	P	1.0
5	☐	5000.000	5048.349	261936.68	1.4527	P	1.7
6	☐	10000.000	9769.327	519786.74	2.8110	P	1.2
7	☐	20000.000	19419.841	1081818.63	5.5876	P	0.7
8	☐	100000.00	100136.04	5822778.12	28.8115	A	0.3

$$y = 2.8772\text{E-}004 * x + 1.3605\text{E-}004$$

$$R = 1.0000$$

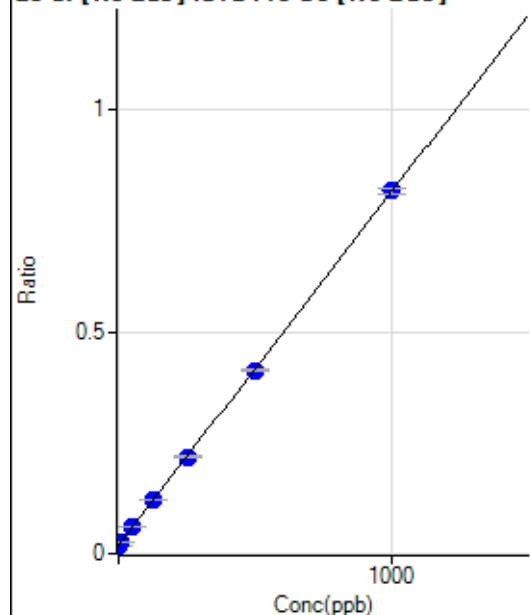
$$DL = 0.4553$$

$$BEC = 0.4729$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	105258.25	0.0193	P	0.3
2	☐	10.000	9.419	144034.47	0.0268	P	1.1
3	☐	50.000	53.447	324586.72	0.0619	P	0.5
4	☐	125.000	127.799	613991.96	0.1211	P	0.6
5	☐	250.000	249.201	993535.57	0.2177	P	2.0
6	☐	500.000	493.490	1784524.19	0.4122	P	0.9
7	☐	1000.000	1002.939	3701141.58	0.8178	P	1.7
8	☐			250834.14	0.0528	P	0.6

$$y = 7.9618\text{E-}004 * x + 0.0193$$

$$R = 1.0000$$

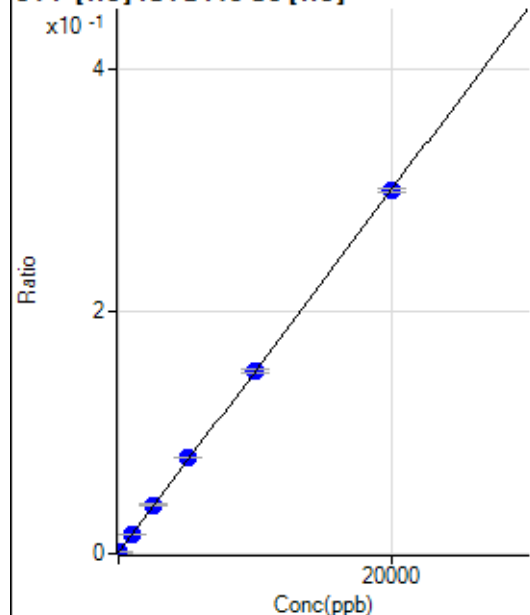
$$DL = 0.254$$

$$BEC = 24.26$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-28.306	97.23	0.0004	P	36.0
2	☐	0.000	28.306	288.90	0.0013	P	25.8
3	☐	1000.000	1017.814	3433.87	0.0161	P	4.9
4	☐	2500.000	2623.798	8099.72	0.0402	P	3.1
5	☐	5000.000	5243.655	14324.10	0.0794	P	1.4
6	☐	10000.000	9983.300	27821.20	0.1505	P	2.0
7	☐	20000.000	19931.071	57988.43	0.2995	P	1.2
8	☐			102.78	0.0005	P	28.2

$$y = 1.4985\text{E-}005 * x + 8.5707\text{E-}004$$

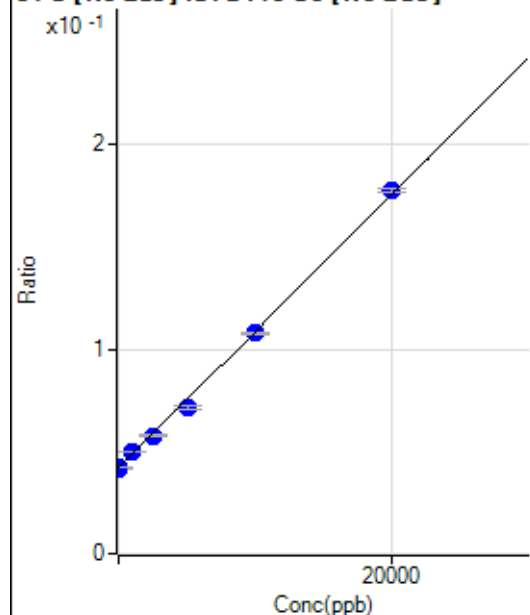
$$R = 0.9999$$

$$DL = 48.61$$

$$BEC = 57.19$$

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	-53.697	226673.45	0.0416	P	0.9
2	☐	0.000	53.697	227298.69	0.0423	P	0.7
3	☐	1000.000	1159.578	260833.78	0.0497	P	1.3
4	☐	2500.000	2345.600	292394.17	0.0577	P	0.8
5	☐	5000.000	4431.059	326783.68	0.0716	P	2.8
6	☐	10000.000	9823.114	466206.36	0.1077	P	1.0
7	☐	20000.000	20241.999	802947.00	0.1774	P	1.0
8	☐			172572.07	0.0363	P	2.4

$$y = 6.6920\text{E-}006 * x + 0.0420$$

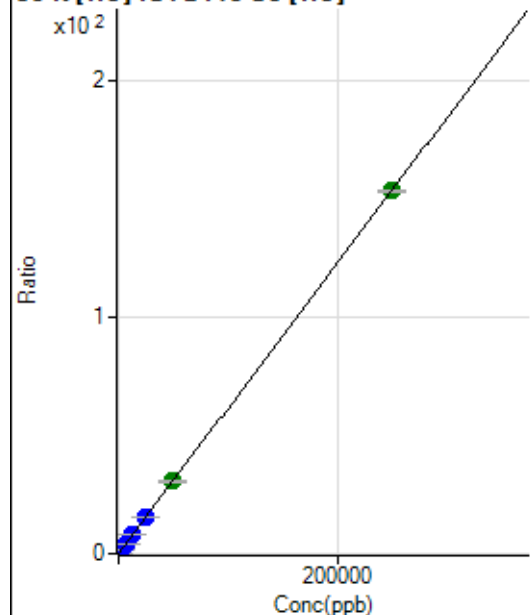
$$R = 0.9994$$

$$DL = 152.5$$

$$BEC = 6270$$

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	12008.13	0.0534	P	2.8
2	☐	500.000	489.703	79647.09	0.3533	P	0.8
3	☐	2500.000	2590.424	349526.19	1.6396	P	0.5
4	☐	6250.000	6416.618	802945.93	3.9826	P	0.6
5	☐	12500.000	12775.484	1420252.72	7.8765	P	1.7
6	☐	25000.000	24945.642	2834650.91	15.3289	P	0.3
7	☐	50000.000	49668.642	5898803.34	30.4680	A	0.8
8	☐	250000.00	250052.88	30956165.28	153.1733	A	0.3

$$y = 6.1235\text{E-}004 * x + 0.0534$$

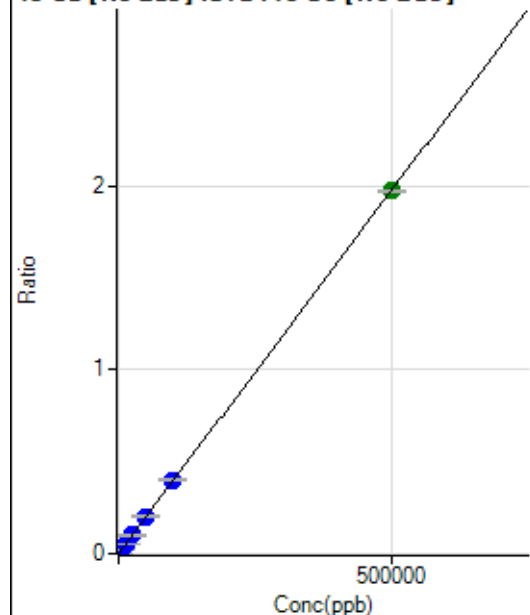
$$R = 1.0000$$

$$DL = 7.323$$

$$BEC = 87.2$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0000	P	35.6
2	☐	500.000	489.708	10487.50	0.0020	P	1.7
3	☐	5000.000	5228.395	108538.04	0.0207	P	0.8
4	☐	12500.000	12898.799	258733.75	0.0510	P	0.9
5	☐	25000.000	25453.754	459324.03	0.1007	P	2.7
6	☐	50000.000	51424.012	880267.26	0.2033	P	1.0
7	☐	100000.00	101582.93	1817845.44	0.4017	P	1.3
8	☐	500000.00	499506.08	9382156.81	1.9751	A	0.2

$$y = 3.9540\text{E-}006 * x + 1.6319\text{E-}005$$

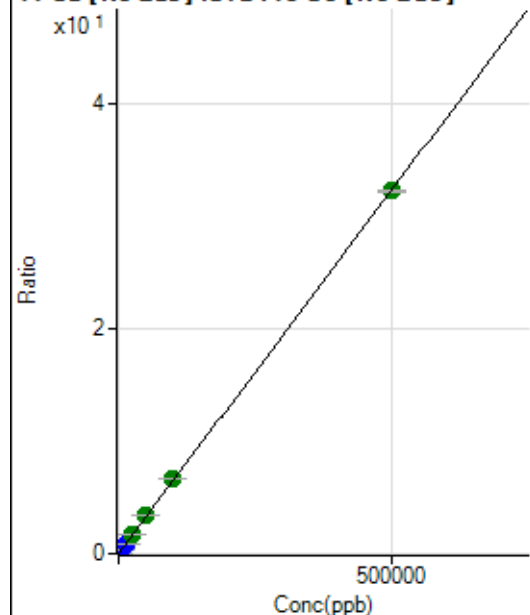
$$R = 1.0000$$

$$DL = 4.407$$

$$BEC = 4.127$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7403.63	0.0014	P	3.4
2	☐	500.000	482.951	175039.98	0.0326	P	0.4
3	☐	5000.000	5163.408	1758741.01	0.3353	P	1.1
4	☐	12500.000	12766.405	4193659.08	0.8269	P	0.7
5	☐	25000.000	25499.839	7530673.43	1.6503	A	2.2
6	☐	50000.000	51837.196	14516835.39	3.3535	A	0.7
7	☐	100000.00	102598.02	30031947.89	6.6359	A	1.1
8	☐	500000.00	499263.40	153370296.4	32.2866	A	0.3

$$y = 6.4666\text{E-}005 * x + 0.0014$$

$$R = 1.0000$$

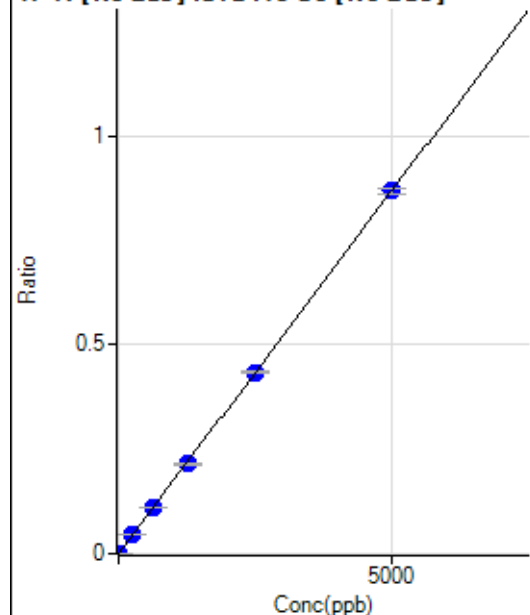
$$DL = 2.144$$

$$BEC = 21.01$$

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	55.56	0.0000	P	17.5
2	☐	5.000	4.915	4637.06	0.0009	P	1.8
3	☐	250.000	253.205	230653.35	0.0440	P	0.7
4	☐	625.000	626.125	551308.91	0.1087	P	0.6
5	☐	1250.000	1235.874	979073.40	0.2146	P	2.2
6	☐	2500.000	2497.061	1876560.53	0.4335	P	1.1
7	☐	5000.000	5004.700	3931965.32	0.8688	P	1.2
8	☐			1672.39	0.0004	P	3.1

$$y = 1.7360E-004 * x + 1.0199E-005$$

$$R = 1.0000$$

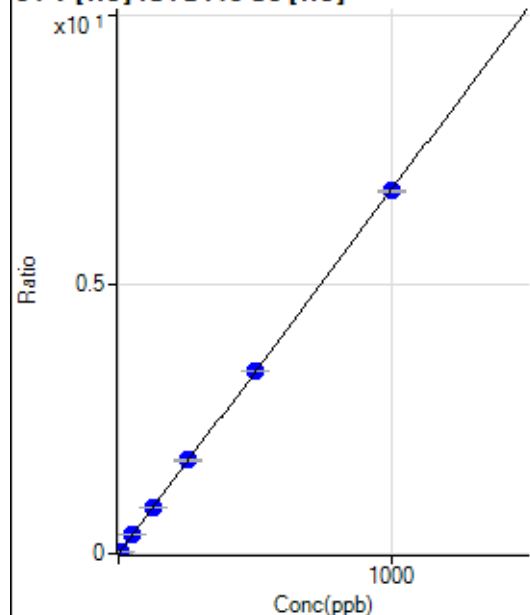
$$DL = 0.03092$$

$$BEC = 0.05875$$

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	1.11	0.0000	P	173.
2	☐	5.000	5.105	7779.94	0.0345	P	2.6
3	☐	50.000	51.567	74300.39	0.3486	P	0.6
4	☐	125.000	128.536	175163.73	0.8688	P	1.1
5	☐	250.000	256.727	312898.23	1.7352	P	1.5
6	☐	500.000	501.765	627155.20	3.3915	P	0.4
7	☐	1000.000	996.915	1304574.16	6.7383	P	0.4
8	☐			352.23	0.0017	P	7.5

$$y = 0.0068 * x + 4.9671E-006$$

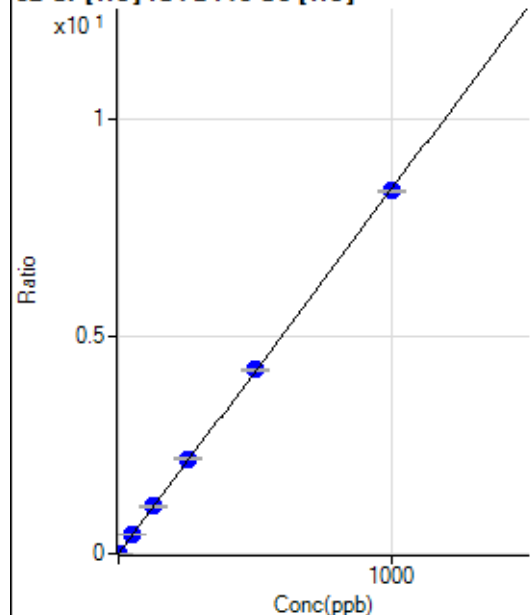
$$R = 1.0000$$

$$DL = 0.003819$$

$$BEC = 0.0007349$$

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	282.23	0.0013	P	8.1
2	☐	2.000	2.045	4158.43	0.0184	P	5.0
3	☐	50.000	52.368	94098.75	0.4414	P	0.2
4	☐	125.000	129.232	219252.40	1.0875	P	0.6
5	☐	250.000	259.064	392876.10	2.1788	P	1.5
6	☐	500.000	503.883	783421.85	4.2365	P	0.5
7	☐	1000.000	995.145	1619681.00	8.3658	P	0.2
8	☐			43315.85	0.2143	P	1.0

$$y = 0.0084 * x + 0.0013$$

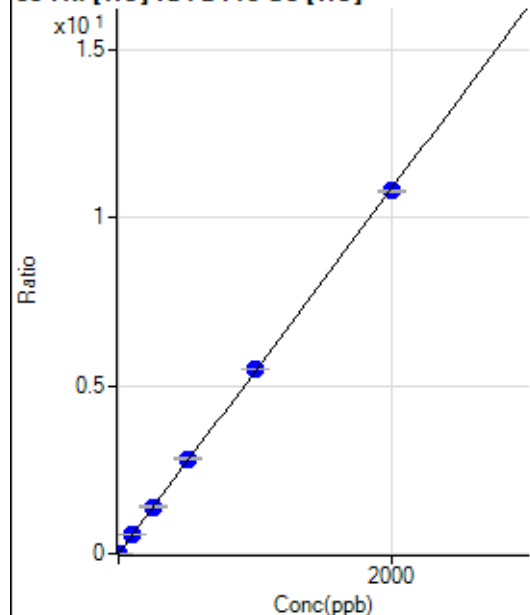
$$R = 0.9999$$

$$DL = 0.03632$$

$$BEC = 0.1494$$

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	302.23	0.0013	P	14.3
2	☐	1.000	0.956	1473.43	0.0065	P	5.6
3	☐	100.000	103.001	119498.43	0.5606	P	0.5
4	☐	250.000	257.585	282220.15	1.3999	P	0.4
5	☐	500.000	518.731	508102.11	2.8177	P	1.3
6	☐	1000.000	1012.219	1016526.03	5.4971	P	0.3
7	☐	2000.000	1988.109	2090107.43	10.7955	P	0.4
8	☐			7616.51	0.0377	P	1.2

$$y = 0.0054 * x + 0.0013$$

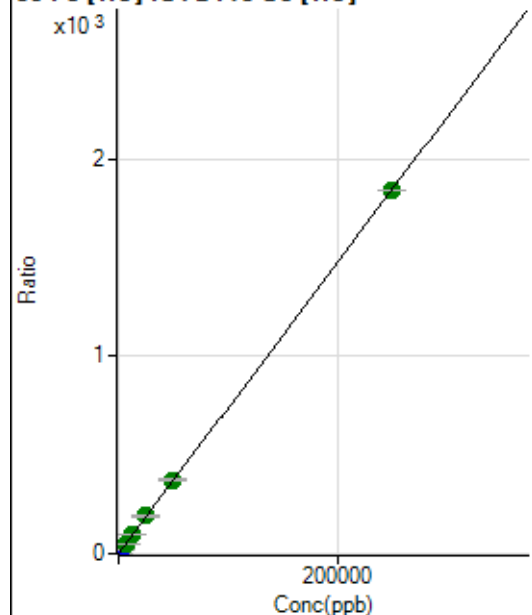
$$R = 0.9999$$

$$DL = 0.106$$

$$BEC = 0.2477$$

Weight: <None>

Min Conc: 0

56 Fe [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3076.33	0.0137	P	1.4
2	☐	50.000	52.296	89991.26	0.3991	P	2.1
3	☐	2500.000	2630.608	4136243.84	19.4034	P	0.2
4	☐	6250.000	6580.931	9782098.14	48.5206	A	0.2
5	☐	12500.000	13297.540	17676390.56	98.0275	A	1.4
6	☐	25000.000	25883.331	35281517.45	190.7952	A	0.6
7	☐	50000.000	50803.114	72500620.14	374.4746	A	0.6
8	☐	250000.00	249701.58	371963286.0	1,840.520	A	0.2

$$y = 0.0074 * x + 0.0137$$

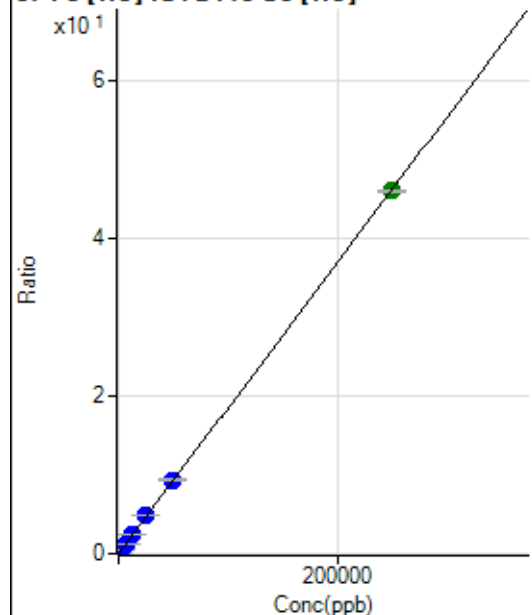
$$R = 1.0000$$

$$DL = 0.07562$$

$$BEC = 1.856$$

Weight: <None>

Min Conc: 0

57 Fe [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	148.15	0.0007	P	9.1
2	☐	50.000	52.401	2322.47	0.0103	P	8.1
3	☐	2500.000	2678.331	105218.91	0.4936	P	0.5
4	☐	6250.000	6666.525	247497.19	1.2276	P	0.6
5	☐	12500.000	13381.612	444231.20	2.4635	P	1.0
6	☐	25000.000	25964.464	883798.18	4.7793	P	0.2
7	☐	50000.000	50865.930	1812614.49	9.3623	P	0.6
8	☐	250000.00	249674.09	9286685.39	45.9519	A	0.4

$$y = 1.8404E-004 * x + 6.5876E-004$$

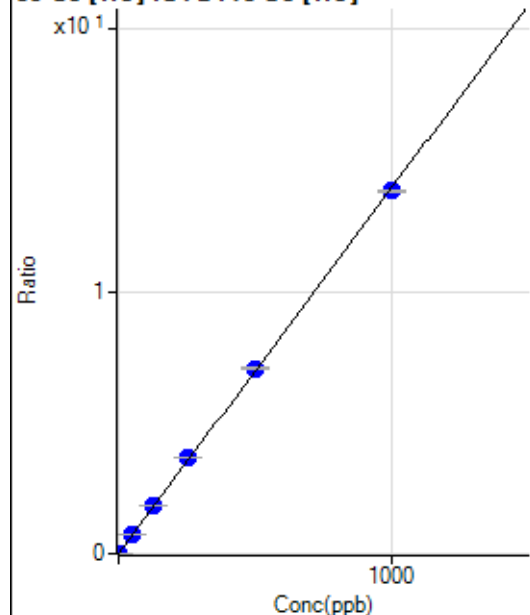
$$R = 1.0000$$

$$DL = 0.9795$$

$$BEC = 3.579$$

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	105.56	0.0005	P	8.6
2	☐	1.000	0.981	3189.29	0.0141	P	3.0
3	☐	50.000	53.821	160047.45	0.7508	P	0.3
4	☐	125.000	132.066	371280.31	1.8416	P	0.1
5	☐	250.000	262.992	661196.70	3.6668	P	1.5
6	☐	500.000	506.679	1306292.36	7.0640	P	0.5
7	☐	1000.000	992.338	2678483.45	13.8346	P	0.2
8	☐			34282.51	0.1696	P	0.9

$$y = 0.0139 * x + 4.6931E-004$$

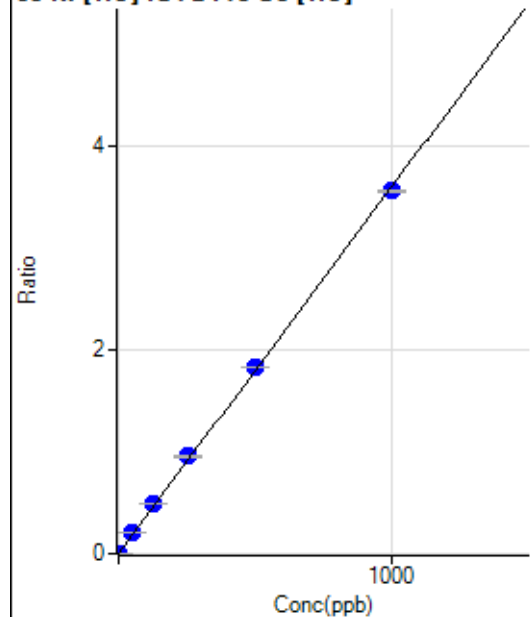
$$R = 0.9999$$

$$DL = 0.008642$$

$$BEC = 0.03366$$

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	87.78	0.0004	P	18.5
2	☐	1.000	1.078	961.16	0.0043	P	7.6
3	☐	50.000	56.431	43313.91	0.2032	P	0.7
4	☐	125.000	134.534	97553.88	0.4839	P	1.2
5	☐	250.000	266.009	172445.84	0.9563	P	1.5
6	☐	500.000	509.250	338493.79	1.8305	P	0.3
7	☐	1000.000	989.860	688783.82	3.5576	P	0.4
8	☐			18369.50	0.0909	P	0.3

$$y = 0.0036 * x + 3.9068E-004$$

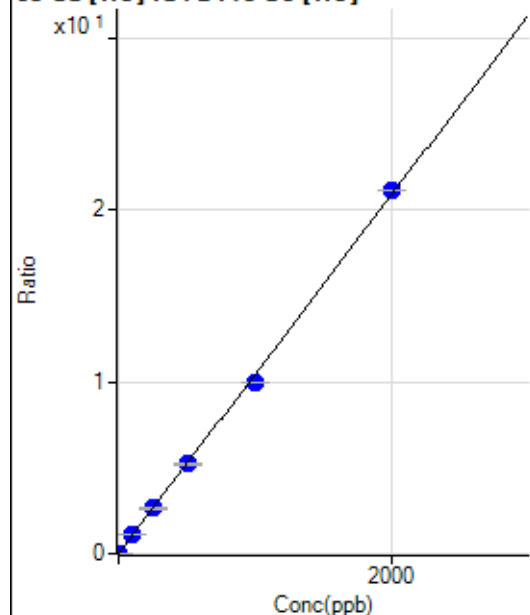
$$R = 0.9998$$

$$DL = 0.0603$$

$$BEC = 0.1087$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	451.13	0.0020	P	10.0
2	☐	2.000	1.911	4947.59	0.0219	P	5.2
3	☐	100.000	102.897	229331.00	1.0758	P	0.2
4	☐	250.000	252.392	531424.37	2.6359	P	0.7
5	☐	500.000	499.777	940835.53	5.2175	P	1.4
6	☐	1000.000	955.958	1845193.64	9.9781	P	0.3
7	☐	2000.000	2021.633	4084986.36	21.0992	P	0.1
8	☐			6391.49	0.0316	P	0.3

$$y = 0.0104 * x + 0.0020$$

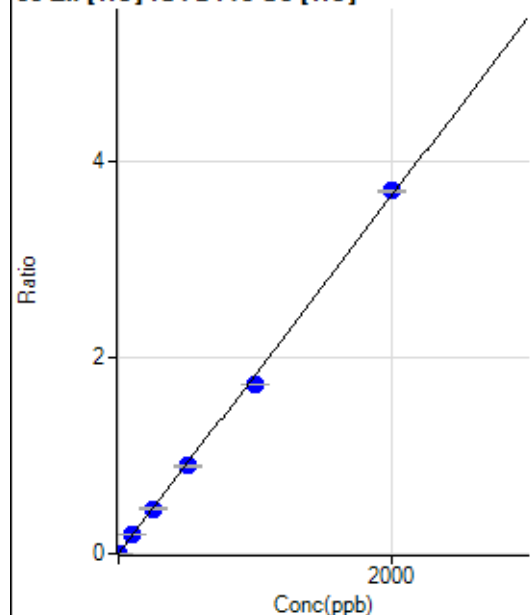
$$R = 0.9996$$

$$DL = 0.05754$$

$$BEC = 0.1923$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	191.12	0.0009	P	15.7
2	☐	2.000	1.859	954.49	0.0042	P	6.5
3	☐	100.000	110.758	43158.14	0.2025	P	0.6
4	☐	250.000	252.045	92671.60	0.4596	P	1.1
5	☐	500.000	492.087	161671.44	0.8966	P	1.7
6	☐	1000.000	945.867	318545.13	1.7226	P	0.6
7	☐	2000.000	2028.252	714958.10	3.6928	P	0.4
8	☐			6518.22	0.0323	P	3.0

$$y = 0.0018 * x + 8.5036E-004$$

$$R = 0.9994$$

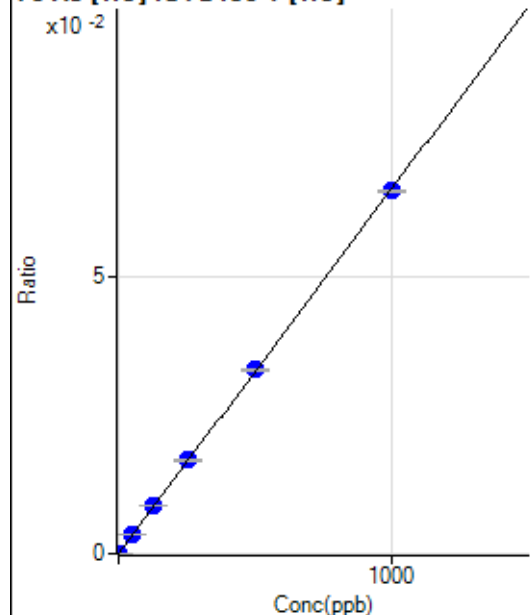
$$DL = 0.2202$$

$$BEC = 0.4672$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8.64	0.0000	P	49.5
2	☐	1.000	1.069	243.83	0.0001	P	8.4
3	☐	50.000	54.233	11560.22	0.0036	P	1.3
4	☐	125.000	132.704	27093.13	0.0088	P	0.3
5	☐	250.000	257.191	48084.62	0.0170	P	1.6
6	☐	500.000	503.854	96079.81	0.0333	P	0.7
7	☐	1000.000	995.100	196468.75	0.0657	P	0.7
8	☐			331.49	0.0001	P	7.7

$$y = 6.6046\text{E-}005 * x + 2.6129\text{E-}006$$

$$R = 0.9999$$

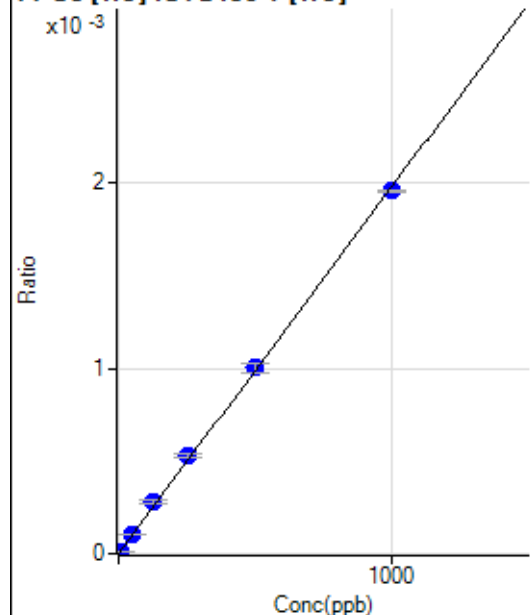
$$DL = 0.05874$$

$$BEC = 0.03956$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	5.235	34.45	0.0000	P	20.2
3	☐	50.000	53.361	340.01	0.0001	P	1.6
4	☐	125.000	143.058	873.38	0.0003	P	7.0
5	☐	250.000	266.532	1491.21	0.0005	P	3.5
6	☐	500.000	507.072	2892.56	0.0010	P	5.1
7	☐	1000.000	989.905	5846.82	0.0020	P	0.4
8	☐			1.11	0.0000	P	173.

$$y = 1.9758\text{E-}006 * x + 0.0000\text{E+}000$$

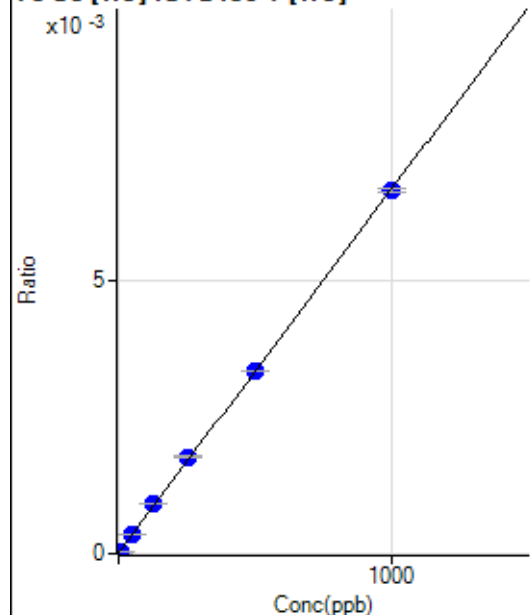
$$R = 0.9997$$

$$DL = 0$$

$$BEC = 0$$

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	46.30	0.0000	P	6.3
2	☐	5.000	5.321	164.82	0.0000	P	5.5
3	☐	50.000	52.238	1168.58	0.0004	P	4.1
4	☐	125.000	136.112	2847.83	0.0009	P	2.0
5	☐	250.000	264.371	5030.54	0.0018	P	1.5
6	☐	500.000	498.673	9640.31	0.0033	P	0.1
7	☐	1000.000	995.568	19885.93	0.0067	P	1.0
8	☐			58.64	0.0000	P	21.4

$$y = 6.6679\text{E-}006 * x + 1.4000\text{E-}005$$

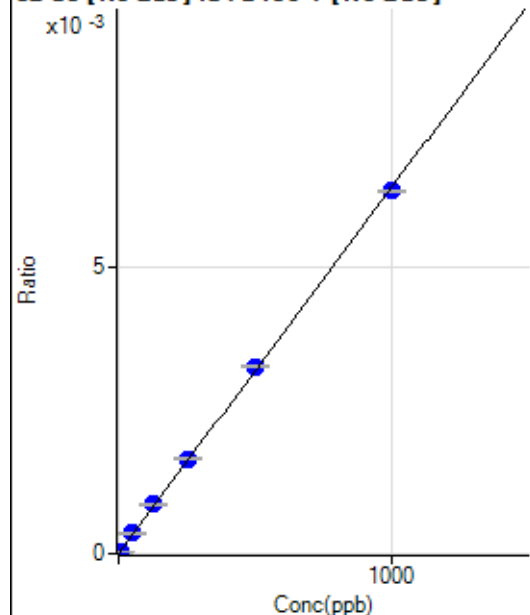
$$R = 0.9998$$

$$DL = 0.3997$$

$$BEC = 2.1$$

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	63.12	0.0000	P	60.4
2	☐	5.000	5.396	867.74	0.0000	P	0.7
3	☐	50.000	55.080	8197.55	0.0004	P	1.8
4	☐	125.000	134.273	19575.94	0.0009	P	1.0
5	☐	250.000	258.814	35055.94	0.0017	P	2.1
6	☐	500.000	510.176	66862.82	0.0033	P	1.3
7	☐	1000.000	991.293	134856.59	0.0063	P	0.6
8	☐			259.39	0.0000	P	12.5

$$y = 6.3938\text{E-}006 * x + 2.6938\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.7634$$

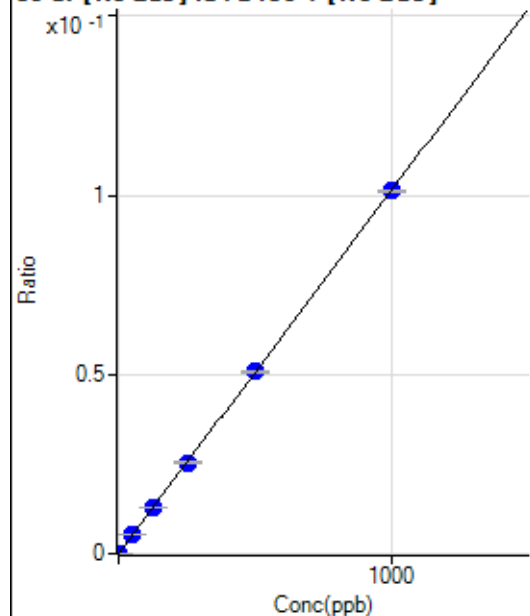
$$BEC = 0.4213$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			197.78		P	12.9
2	☐			194.45		P	13.0
3	☐			222.23		P	8.3
4	☐			198.90		P	7.6
5	☐			182.23		P	1.1
6	☐			157.78		P	38.0
7	☐			207.78		P	16.4
8	☐			245.56		P	21.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	325.02	0.0000	P	19.4
2	☐	1.000	1.038	2778.19	0.0001	P	15.5
3	☐	50.000	51.538	120998.13	0.0052	P	1.0
4	☐	125.000	126.769	292368.12	0.0129	P	0.9
5	☐	250.000	250.196	536659.78	0.0254	P	1.5
6	☐	500.000	501.979	1042359.43	0.0509	P	1.3
7	☐	1000.000	998.664	2153106.12	0.1012	P	0.4
8	☐			9406.20	0.0004	P	1.8

$$y = 1.0136E-004 * x + 1.3882E-005$$

$$R = 1.0000$$

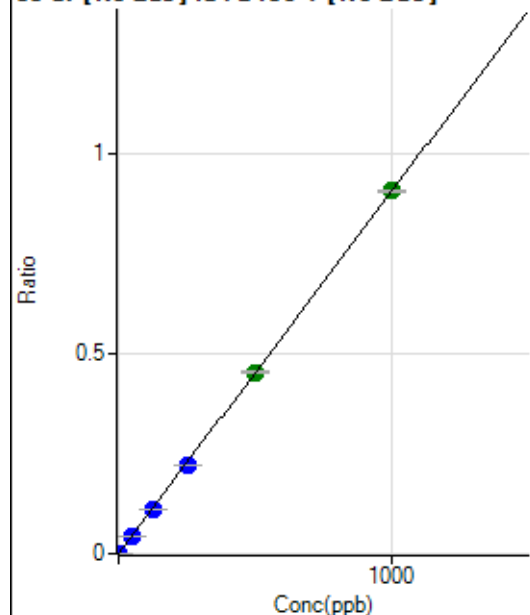
$$DL = 0.07991$$

$$BEC = 0.137$$

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	83.34	0.0000	P	19.9
2	☐	1.000	0.986	20904.85	0.0009	P	1.7
3	☐	50.000	50.236	1050758.05	0.0455	P	0.7
4	☐	125.000	123.956	2551015.22	0.1122	P	0.3
5	☐	250.000	243.985	4672009.87	0.2209	P	1.8
6	☐	500.000	499.522	9262495.52	0.4522	A	1.2
7	☐	1000.000	1001.861	19290545.05	0.9070	A	0.6
8	☐			80598.48	0.0038	P	1.7

$$y = 9.0535E-004 * x + 3.5585E-006$$

$$R = 1.0000$$

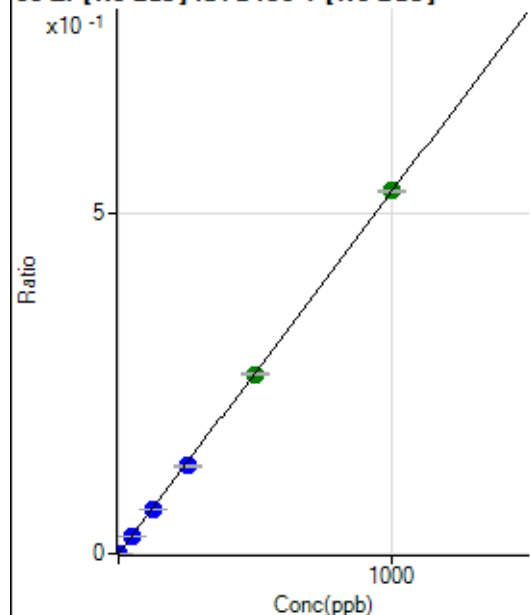
$$DL = 0.002344$$

$$BEC = 0.00393$$

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	791.73	0.0000	P	8.8
2	☐	1.000	0.820	10962.96	0.0005	P	2.4
3	☐	50.000	49.910	614318.46	0.0266	P	0.8
4	☐	125.000	124.542	1507177.75	0.0663	P	0.3
5	☐	250.000	243.218	2738036.13	0.1295	P	1.9
6	☐	500.000	497.054	5417956.63	0.2645	A	1.1
7	☐	1000.000	1003.230	11354566.22	0.5339	A	0.5
8	☐			4206.35	0.0002	P	5.2

$$y = 5.3213E-004 * x + 3.3803E-005$$

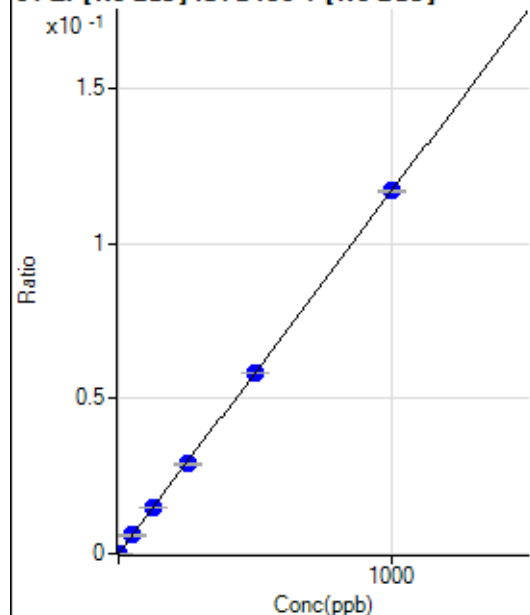
$$R = 1.0000$$

$$DL = 0.01677$$

$$BEC = 0.06352$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	150.01	0.0000	P	25.4
2	☐	1.000	0.862	2497.56	0.0001	P	6.2
3	☐	50.000	50.418	136071.22	0.0059	P	1.6
4	☐	125.000	126.045	334513.02	0.0147	P	0.6
5	☐	250.000	247.772	611702.60	0.0289	P	1.8
6	☐	500.000	498.677	1192097.93	0.0582	P	1.0
7	☐	1000.000	1001.067	2484843.33	0.1168	P	0.2
8	☐			969.52	0.0000	P	6.8

$$y = 1.1670\text{E-}004 * x + 6.4055\text{E-}006$$

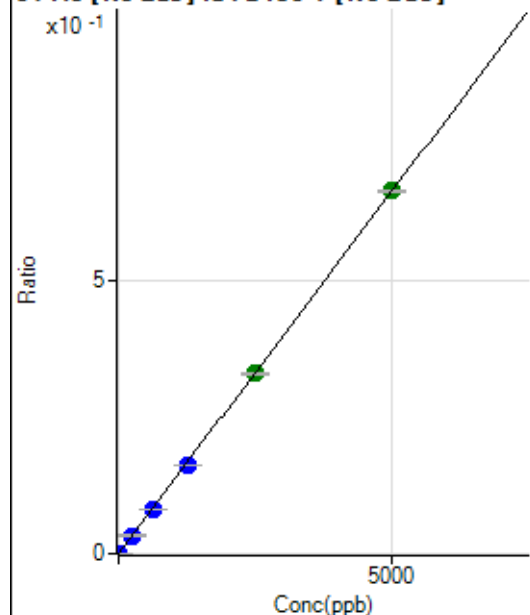
$$R = 1.0000$$

$$DL = 0.04181$$

$$BEC = 0.05489$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	283.35	0.0000	P	11.8
2	☐	5.000	4.486	14129.71	0.0006	P	2.7
3	☐	250.000	251.186	768103.68	0.0332	P	1.0
4	☐	625.000	620.365	1866137.43	0.0821	P	0.9
5	☐	1250.000	1221.972	3420022.69	0.1617	P	2.0
6	☐	2500.000	2490.289	6749209.27	0.3295	A	1.2
7	☐	5000.000	5012.383	14106108.82	0.6633	A	0.4
8	☐			10648.87	0.0005	P	1.2

$$y = 1.3232\text{E-}004 * x + 1.2101\text{E-}005$$

$$R = 1.0000$$

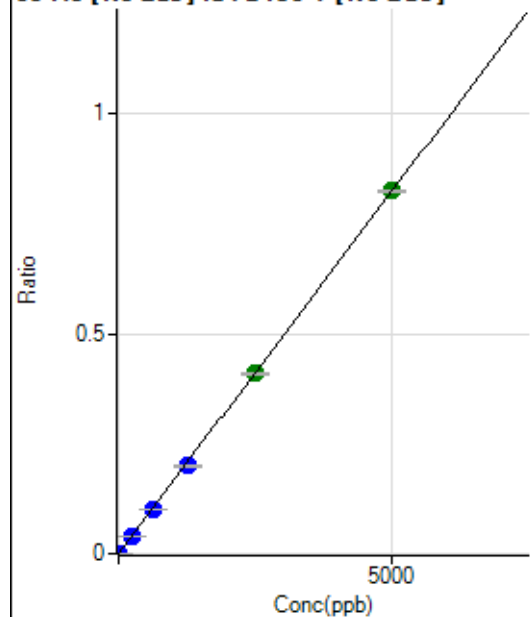
$$DL = 0.03248$$

$$BEC = 0.09145$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0000	P	43.7
2	☐	5.000	4.698	18070.46	0.0008	P	3.6
3	☐	250.000	251.110	955404.63	0.0414	P	0.8
4	☐	625.000	620.582	2323183.04	0.1022	P	0.6
5	☐	1250.000	1215.712	4234600.40	0.2002	P	2.1
6	☐	2500.000	2494.835	8415420.50	0.4109	A	1.1
7	☐	5000.000	5011.652	17553954.91	0.8254	A	0.6
8	☐			16518.63	0.0008	P	2.8

$$y = 1.6469\text{E-}004 * x + 9.4994\text{E-}007$$

$$R = 1.0000$$

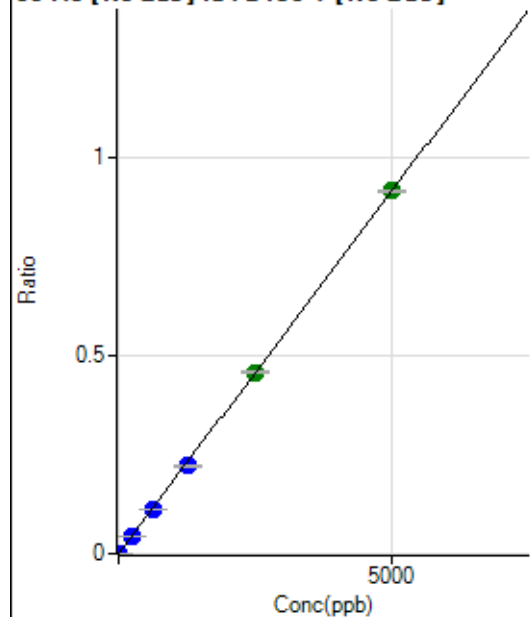
$$DL = 0.007555$$

$$BEC = 0.005768$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	111.12	0.0000	P	15.3
2	☐	5.000	4.636	19920.08	0.0009	P	2.1
3	☐	250.000	249.733	1056849.63	0.0457	P	1.2
4	☐	625.000	619.194	2578205.68	0.1134	P	0.4
5	☐	1250.000	1215.873	4710561.04	0.2227	P	2.1
6	☐	2500.000	2501.776	9385984.76	0.4583	A	1.0
7	☐	5000.000	5008.383	19511180.82	0.9174	A	0.4
8	☐			23486.81	0.0011	P	3.0

$$y = 1.8317\text{E-}004 * x + 4.7433\text{E-}006$$

$$R = 1.0000$$

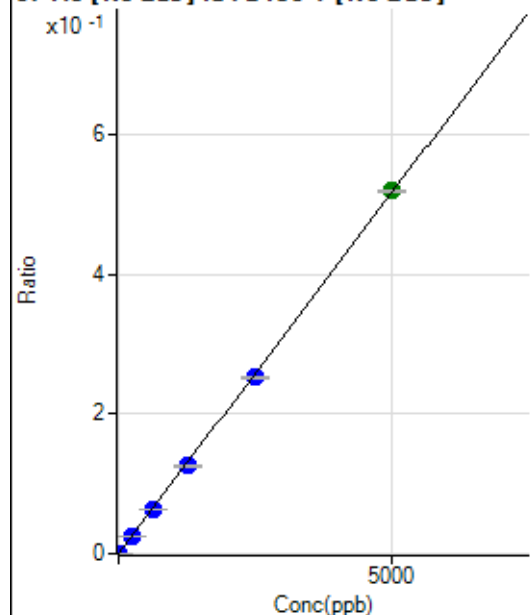
$$DL = 0.01188$$

$$BEC = 0.0259$$

Weight: <None>

Min Conc: 0

97 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	43.7
2	☐	5.000	4.623	11140.93	0.0005	P	2.6
3	☐	250.000	251.147	598209.31	0.0259	P	0.8
4	☐	625.000	621.234	1455923.04	0.0641	P	0.2
5	☐	1250.000	1221.049	2662682.07	0.1259	P	2.2
6	☐	2500.000	2450.280	5174359.45	0.2526	P	0.8
7	☐	5000.000	5032.512	11035124.03	0.5189	A	0.5
8	☐			10217.95	0.0005	P	1.9

$$y = 1.0310\text{E-}004 * x + 9.4994\text{E-}007$$

$$R = 0.9999$$

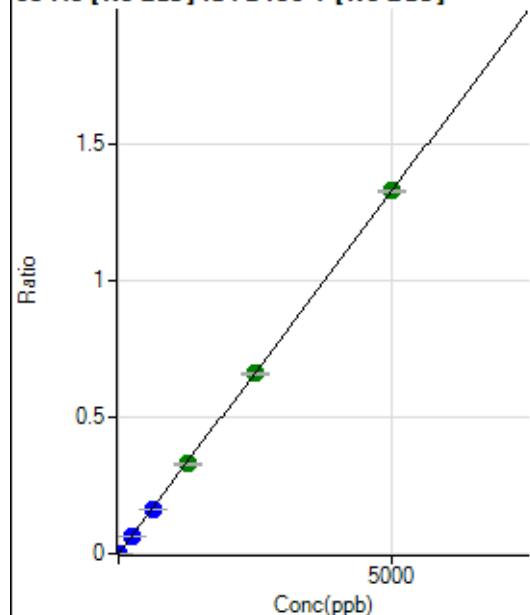
$$DL = 0.01207$$

$$BEC = 0.009213$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.23	0.0000	P	13.2
2	☐	5.000	4.707	29269.89	0.0013	P	1.2
3	☐	250.000	250.748	1540367.77	0.0667	P	0.7
4	☐	625.000	619.562	3744812.89	0.1647	P	0.2
5	☐	1250.000	1236.601	6954586.27	0.3288	A	1.9
6	☐	2500.000	2491.434	13568801.00	0.6625	A	0.9
7	☐	5000.000	5008.275	28322606.88	1.3317	A	0.7
8	☐			25651.81	0.0012	P	1.8

$$y = 2.6591\text{E-}004 * x + 3.0841\text{E-}006$$

$$R = 1.0000$$

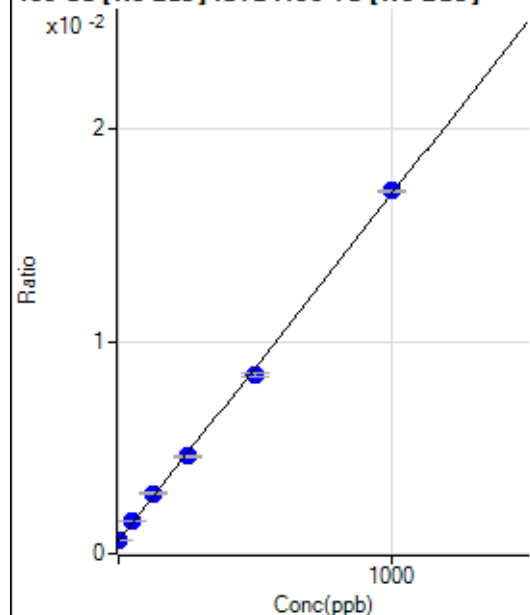
$$DL = 0.004605$$

$$BEC = 0.0116$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7999.80	0.0006	P	2.4
2	☐	1.000	3.487	8602.93	0.0007	P	2.3
3	☐	50.000	55.987	20070.50	0.0015	P	3.0
4	☐	125.000	136.460	37943.43	0.0028	P	1.5
5	☐	250.000	244.012	60239.75	0.0046	P	1.5
6	☐	500.000	479.983	109610.20	0.0084	P	2.0
7	☐	1000.000	1009.771	230247.27	0.0171	P	0.2
8	☐			7260.55	0.0006	P	1.0

$$y = 1.6337\text{E-}005 * x + 6.0563\text{E-}004$$

$$R = 0.9996$$

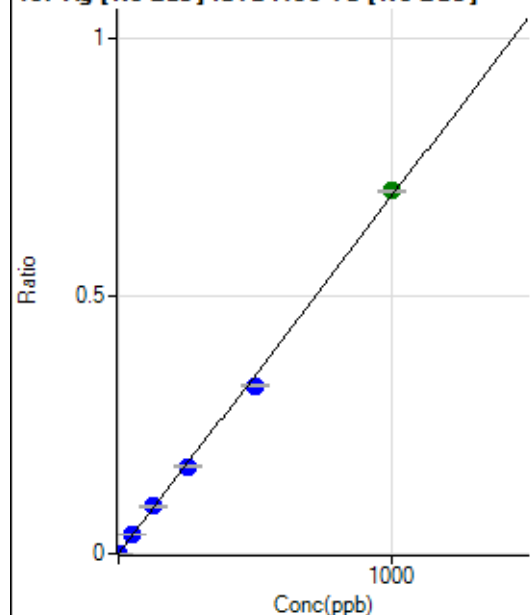
$$DL = 2.696$$

$$BEC = 37.07$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	155.56	0.0000	P	10.9
2	☐	1.000	1.113	10176.29	0.0008	P	3.3
3	☐	50.000	54.939	503089.12	0.0381	P	1.4
4	☐	125.000	131.998	1225053.55	0.0915	P	0.6
5	☐	250.000	243.686	2216412.05	0.1690	P	2.0
6	☐	500.000	469.853	4227722.75	0.3258	P	0.9
7	☐	1000.000	1015.530	9479503.16	0.7041	A	0.3
8	☐			1347.34	0.0001	P	6.8

$$y = 6.9335\text{E-}004 * x + 1.1775\text{E-}005$$

$$R = 0.9992$$

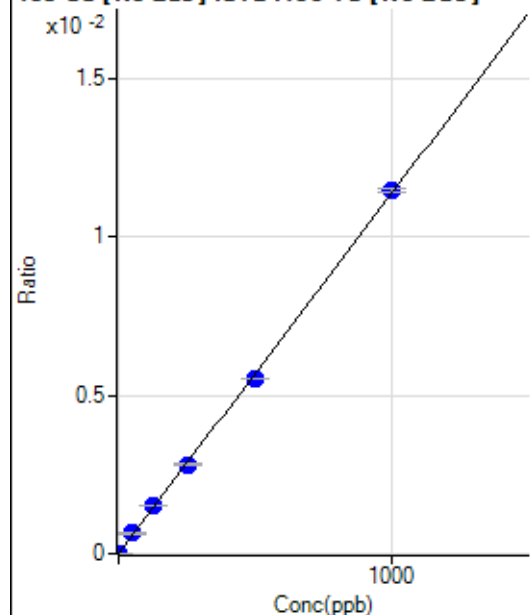
$$DL = 0.005565$$

$$BEC = 0.01698$$

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	30.56	0.0000	P	41.8
2	☐	1.000	0.840	154.17	0.0000	P	19.0
3	☐	50.000	56.048	8441.55	0.0006	P	2.4
4	☐	125.000	132.561	20196.60	0.0015	P	2.0
5	☐	250.000	246.665	36809.13	0.0028	P	1.5
6	☐	500.000	484.687	71529.44	0.0055	P	0.6
7	☐	1000.000	1007.243	154165.97	0.0115	P	1.1
8	☐			55.56	0.0000	P	23.9

$$y = 1.1367\text{E-}005 * x + 2.3148\text{E-}006$$

$$R = 0.9998$$

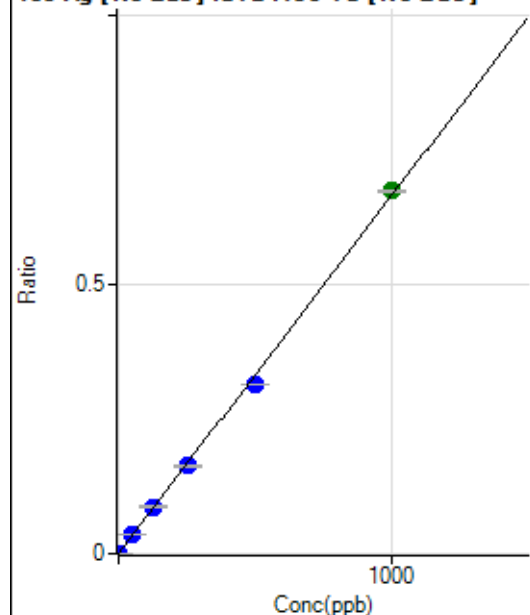
$$DL = 0.2554$$

$$BEC = 0.2036$$

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	41.67	0.0000	P	34.8
2	☐	1.000	1.129	9778.82	0.0008	P	1.5
3	☐	50.000	55.120	483250.18	0.0366	P	1.2
4	☐	125.000	131.348	1167248.74	0.0872	P	0.9
5	☐	250.000	244.651	2130596.38	0.1624	P	2.6
6	☐	500.000	472.911	4074635.68	0.3140	P	1.1
7	☐	1000.000	1013.832	9062323.90	0.6731	A	0.6
8	☐			1194.55	0.0001	P	6.3

$$y = 6.6396\text{E-}004 * x + 3.1561\text{E-}006$$

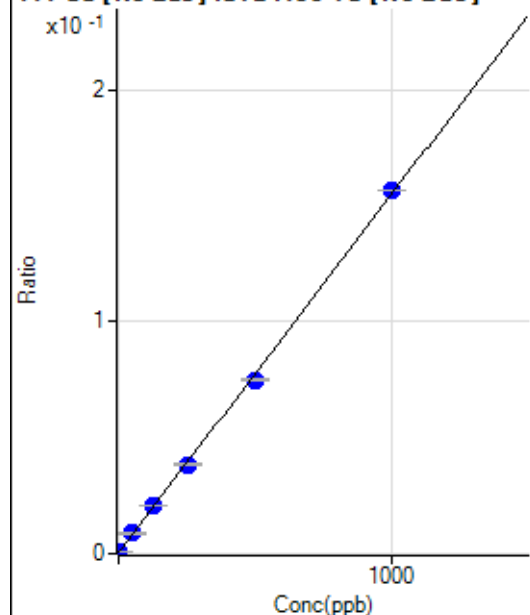
$$R = 0.9994$$

$$DL = 0.004963$$

$$BEC = 0.004754$$

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	5606.25	0.0004	P	2.4
2	☐	1.000	1.211	7940.71	0.0006	P	1.8
3	☐	50.000	54.077	115936.21	0.0088	P	1.7
4	☐	125.000	131.450	277568.44	0.0207	P	1.5
5	☐	250.000	245.037	502244.29	0.0383	P	2.2
6	☐	500.000	480.885	969849.22	0.0747	P	1.0
7	☐	1000.000	1009.788	2106526.92	0.1565	P	0.1
8	☐			5476.84	0.0004	P	1.7

$$y = 1.5453\text{E-}004 * x + 4.2442\text{E-}004$$

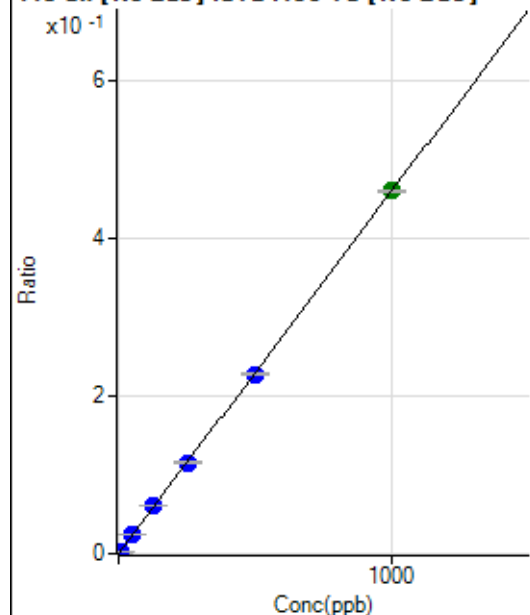
$$R = 0.9997$$

$$DL = 0.1948$$

$$BEC = 2.746$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	819.50	0.0001	P	15.0
2	☐	5.000	5.384	32925.62	0.0025	P	0.4
3	☐	50.000	53.978	328220.25	0.0249	P	1.8
4	☐	125.000	131.614	810100.62	0.0605	P	0.7
5	☐	250.000	249.802	1506148.83	0.1148	P	1.8
6	☐	500.000	495.685	2955909.46	0.2278	P	1.0
7	☐	1000.000	1001.180	6193057.34	0.4600	A	0.3
8	☐			4175.79	0.0003	P	4.3

$$y = 4.5941\text{E-}004 * x + 6.2056\text{E-}005$$

$$R = 1.0000$$

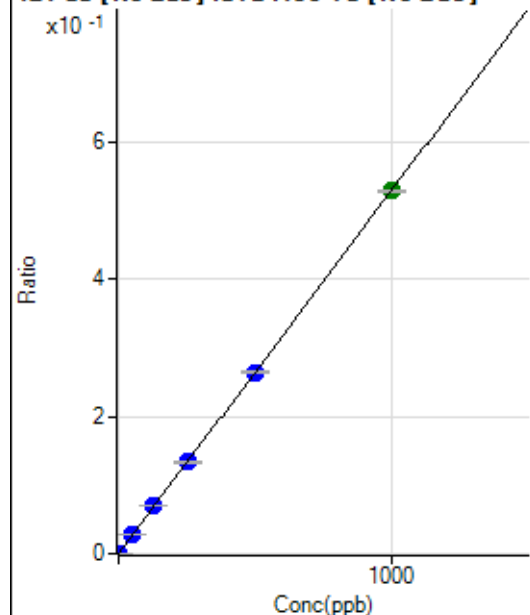
$$DL = 0.06085$$

$$BEC = 0.1351$$

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	77.78	0.0000	P	54.1
2	☐	2.000	2.042	14093.77	0.0011	P	1.7
3	☐	50.000	53.849	375962.21	0.0285	P	0.7
4	☐	125.000	131.368	929607.20	0.0695	P	1.0
5	☐	250.000	252.010	1747607.18	0.1332	P	2.0
6	☐	500.000	498.784	3421989.49	0.2637	P	0.8
7	☐	1000.000	999.117	7111038.44	0.5282	A	0.2
8	☐			11841.57	0.0009	P	2.0

$$y = 5.2866\text{E-}004 * x + 5.8930\text{E-}006$$

$$R = 1.0000$$

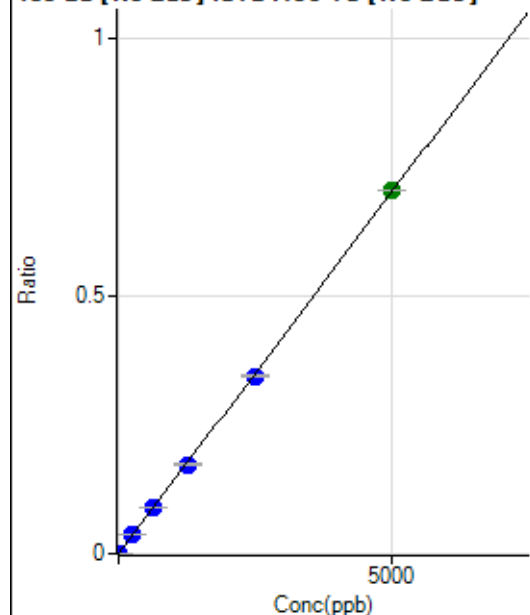
$$DL = 0.01808$$

$$BEC = 0.01115$$

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	30.56	0.0000	P	56.9
2	☐	10.000	10.367	18905.14	0.0015	P	1.1
3	☐	250.000	263.899	488521.31	0.0370	P	2.2
4	☐	625.000	645.925	1212152.08	0.0906	P	1.0
5	☐	1250.000	1238.014	2276848.42	0.1736	P	2.0
6	☐	2500.000	2452.219	4461631.65	0.3438	P	1.2
7	☐	5000.000	5023.575	9482440.58	0.7043	A	0.2
8	☐			1989.11	0.0002	P	9.9

$$y = 1.4021\text{E-}004 * x + 2.3148\text{E-}006$$

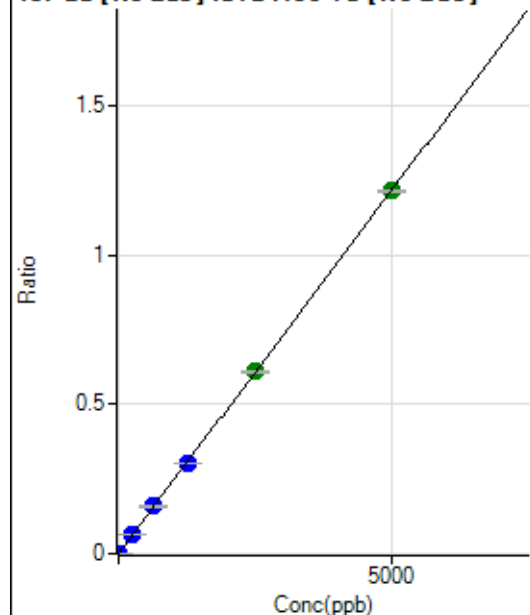
$$R = 0.9999$$

$$DL = 0.02818$$

$$BEC = 0.01651$$

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	55.56	0.0000	P	22.7
2	☐	10.000	10.445	33023.58	0.0025	P	0.5
3	☐	250.000	264.745	849684.68	0.0644	P	1.5
4	☐	625.000	648.897	2111052.00	0.1577	P	0.5
5	☐	1250.000	1243.636	3965234.81	0.3023	P	1.7
6	☐	2500.000	2502.826	7894713.54	0.6084	A	1.0
7	☐	5000.000	4996.453	16350246.72	1.2145	A	0.5
8	☐			3311.66	0.0003	P	2.6

$$y = 2.4307E-004 * x + 4.2052E-006$$

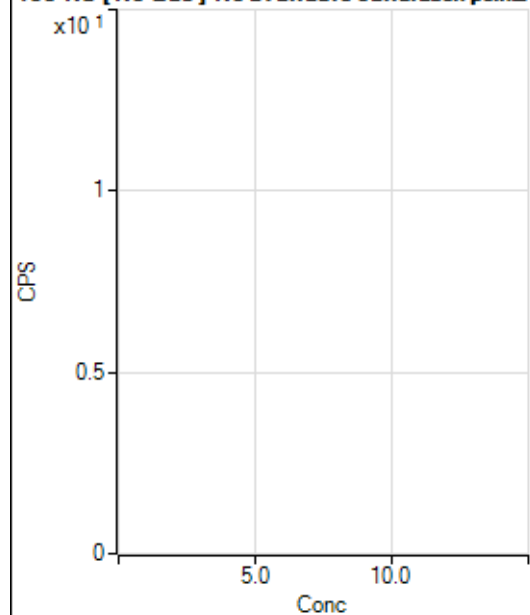
$$R = 1.0000$$

$$DL = 0.01181$$

$$BEC = 0.0173$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

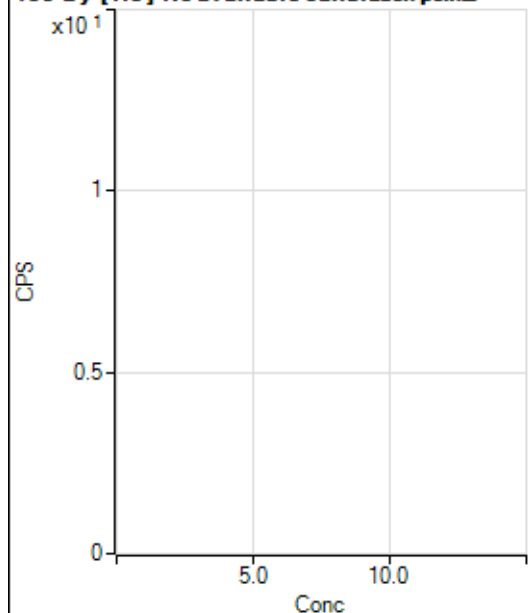
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	100.
2	☐			15.56		P	89.2
3	☐			37.78		P	36.7
4	☐			106.67		P	16.5
5	☐			171.12		P	37.0
6	☐			362.24		P	18.2
7	☐			648.93		P	15.1
8	☐			80.00		P	44.1

150 Nd [He] No available calibration points

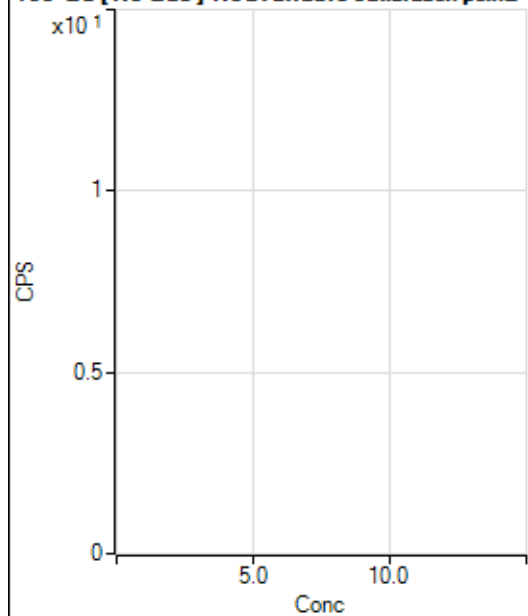
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	34.6
2	☐			7.78		P	49.5
3	☐			11.11		P	69.3
4	☐			14.45		P	26.7
5	☐			18.89		P	83.4
6	☐			45.55		P	8.5
7	☐			76.67		P	17.4
8	☐			50.00		P	6.7

156 Dy [No Gas] No available calibration points

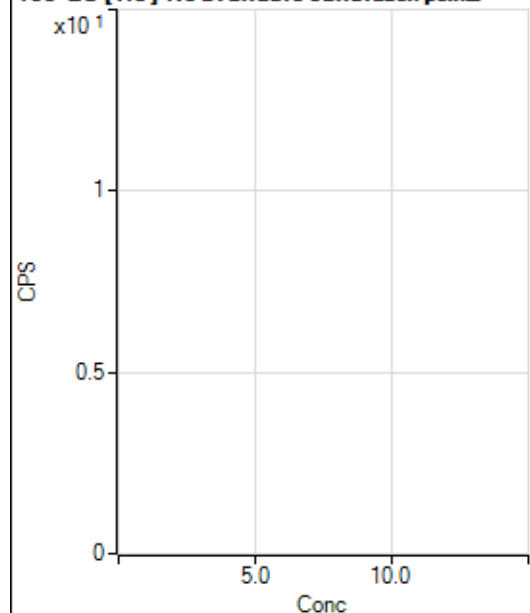
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	12.4
2	☐			55.56		P	48.2
3	☐			44.45		P	57.3
4	☐			86.12		P	24.4
5	☐			180.57		P	97.5
6	☐			150.01		P	30.9
7	☐			197.23		P	29.7
8	☐			88.89		P	21.7

156 Dy [He] No available calibration points

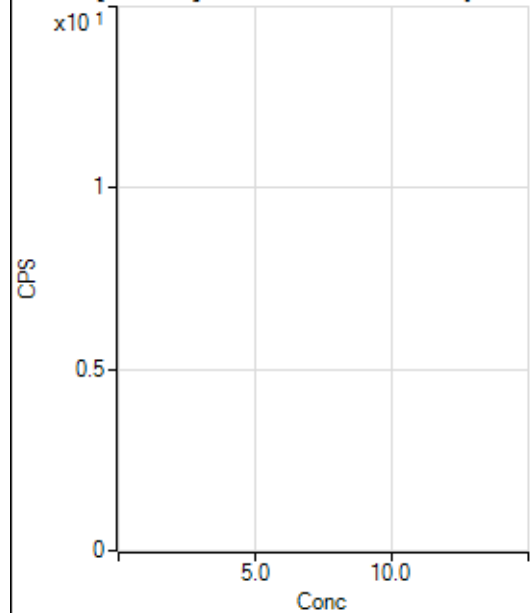
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			20.00		P	57.7
2	☐			13.33		P	NaN
3	☐			27.78		P	25.0
4	☐			41.11		P	32.8
5	☐			78.89		P	16.0
6	☐			87.78		P	9.6
7	☐			191.11		P	5.0
8	☐			57.78		P	33.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			75.00		P	11.1
2	☐			91.67		P	24.1
3	☐			72.23		P	13.3
4	☐			61.11		P	28.4
5	☐			44.45		P	28.7
6	☐			61.11		P	47.9
7	☐			147.23		P	19.9
8	☐			111.12		P	15.6

160 Gd [He] No available calibration points

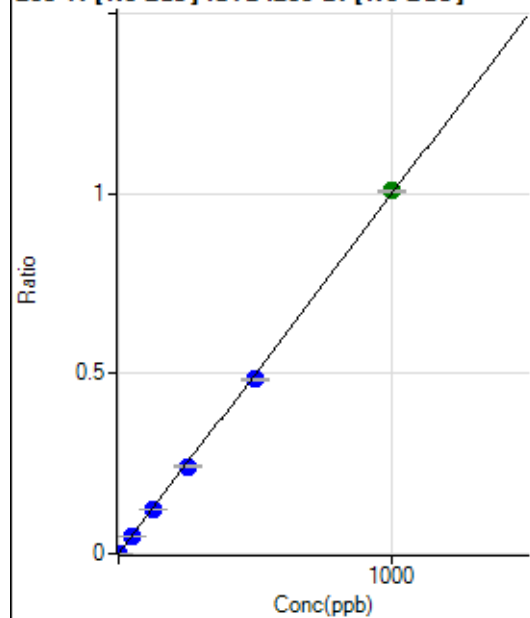
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			255.56		P	10.9
2	☐			272.23		P	1.9
3	☐			223.34		P	10.4
4	☐			224.45		P	12.0
5	☐			224.45		P	5.6
6	☐			221.12		P	10.0
7	☐			247.79		P	20.2
8	☐			217.78		P	10.2

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			55.56		P	75.5
2	☐			58.33		P	24.7
3	☐			63.89		P	32.8
4	☐			80.56		P	51.0
5	☐			77.78		P	37.6
6	☐			69.45		P	18.3
7	☐			97.23		P	26.2
8	☐			97.23		P	13.1

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			75.56		P	20.9
2	☐			75.56		P	10.2
3	☐			70.00		P	4.8
4	☐			70.00		P	33.3
5	☐			63.33		P	19.0
6	☐			46.67		P	37.8
7	☐			64.45		P	37.4
8	☐			61.11		P	63.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	513.93	0.0001	P	15.8
2	☐	1.000	0.928	8225.13	0.0010	P	2.7
3	☐	50.000	49.556	419556.80	0.0495	P	1.4
4	☐	125.000	122.353	1061969.25	0.1221	P	0.6
5	☐	250.000	242.761	2089911.29	0.2423	P	1.2
6	☐	500.000	485.826	4121387.46	0.4848	P	0.8
7	☐	1000.000	1009.250	8661327.10	1.0071	A	0.4
8	☐			3028.26	0.0004	P	1.0

$$y = 9.9776E-004 * x + 6.0517E-005$$

$$R = 0.9998$$

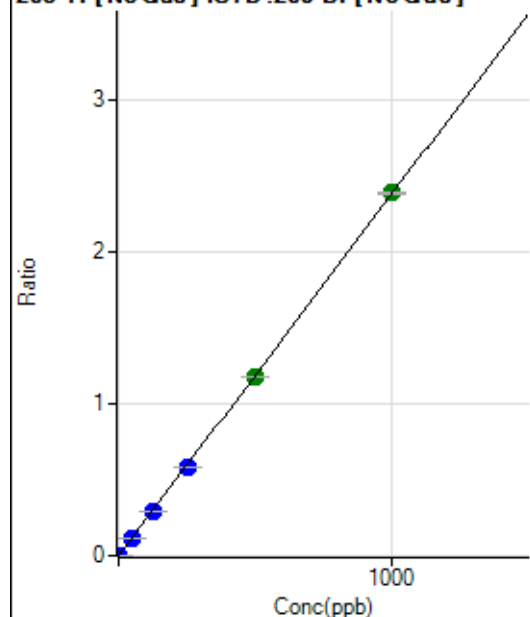
$$DL = 0.02875$$

$$BEC = 0.06065$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	538.92	0.0001	P	9.0
2	☐	1.000	0.928	18947.48	0.0023	P	2.2
3	☐	50.000	49.750	1003991.81	0.1185	P	1.1
4	☐	125.000	122.451	2534426.49	0.2915	P	0.5
5	☐	250.000	243.647	5002681.88	0.5799	P	0.8
6	☐	500.000	494.995	10015561.25	1.1781	A	0.8
7	☐	1000.000	1004.422	20560164.70	2.3905	A	0.8
8	☐			6315.70	0.0008	P	2.1

$$y = 0.0024 * x + 6.3464E-005$$

$$R = 1.0000$$

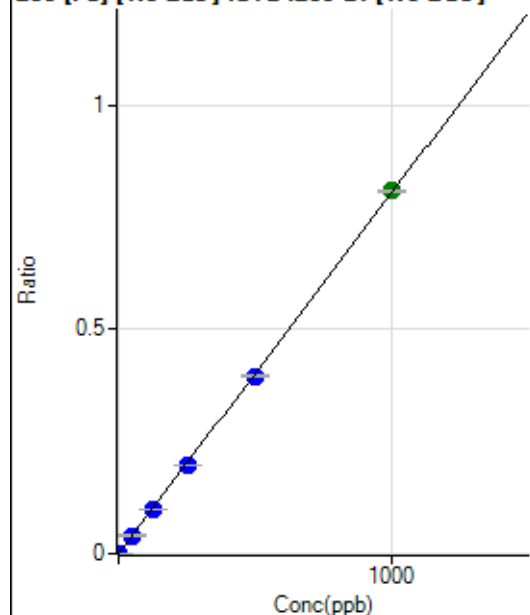
$$DL = 0.007177$$

$$BEC = 0.02667$$

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	757.45	0.0001	P	7.4
2	☐	1.000	0.952	7133.64	0.0009	P	4.0
3	☐	50.000	50.202	343095.26	0.0405	P	1.3
4	☐	125.000	123.434	864323.57	0.0994	P	0.3
5	☐	250.000	245.420	1704116.73	0.1976	P	1.3
6	☐	500.000	491.671	3363929.27	0.3957	P	0.6
7	☐	1000.000	1005.495	6959026.02	0.8091	A	0.6
8	☐			4610.20	0.0006	P	1.9

$$y = 8.0462E-004 * x + 8.9205E-005$$

$$R = 0.9999$$

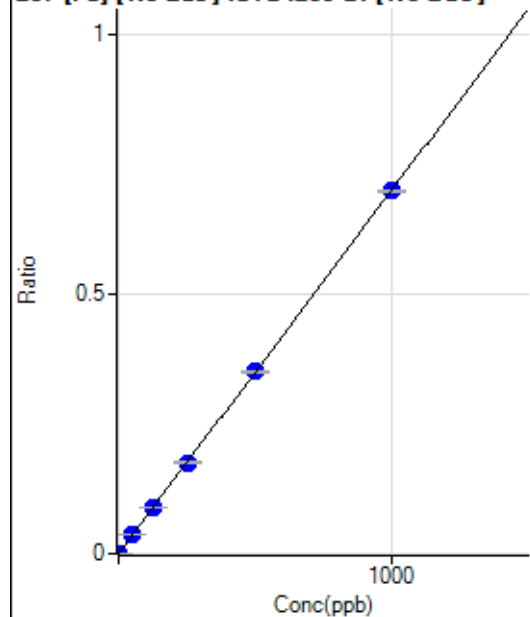
$$DL = 0.02465$$

$$BEC = 0.1109$$

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	811.16	0.0001	P	11.4
2	☐	1.000	0.923	6179.41	0.0007	P	2.1
3	☐	50.000	50.921	302656.75	0.0357	P	1.1
4	☐	125.000	126.511	770221.17	0.0886	P	0.2
5	☐	250.000	250.039	1509350.28	0.1750	P	1.6
6	☐	500.000	501.437	2982424.66	0.3508	P	0.7
7	☐	1000.000	999.037	6010644.69	0.6989	P	0.6
8	☐			4058.15	0.0005	P	1.8

$$y = 6.9944\text{E-}004 * x + 9.5521\text{E-}005$$

$$R = 1.0000$$

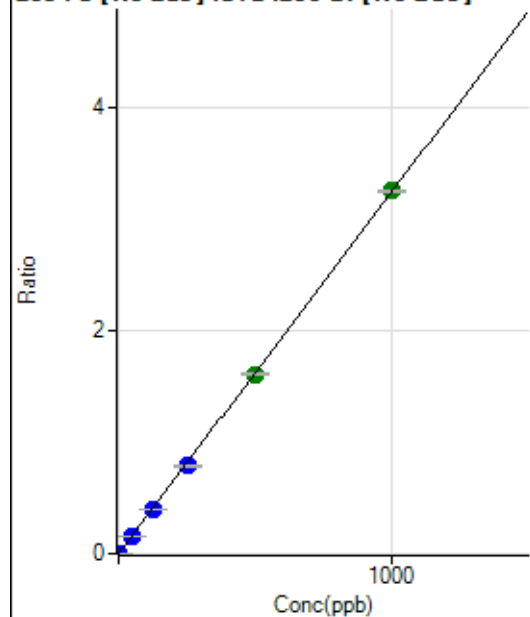
$$DL = 0.04681$$

$$BEC = 0.1366$$

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	2689.07	0.0003	P	5.3
2	☐	1.000	0.939	27973.31	0.0034	P	2.1
3	☐	50.000	49.848	1369053.44	0.1615	P	1.0
4	☐	125.000	123.655	3480137.98	0.4003	P	0.3
5	☐	250.000	243.662	6800385.29	0.7884	P	1.6
6	☐	500.000	496.466	13653414.46	1.6060	A	0.7
7	☐	1000.000	1003.527	27918274.29	3.2460	A	0.3
8	☐			17532.66	0.0023	P	0.5

$$y = 0.0032 * x + 3.1667\text{E-}004$$

$$R = 1.0000$$

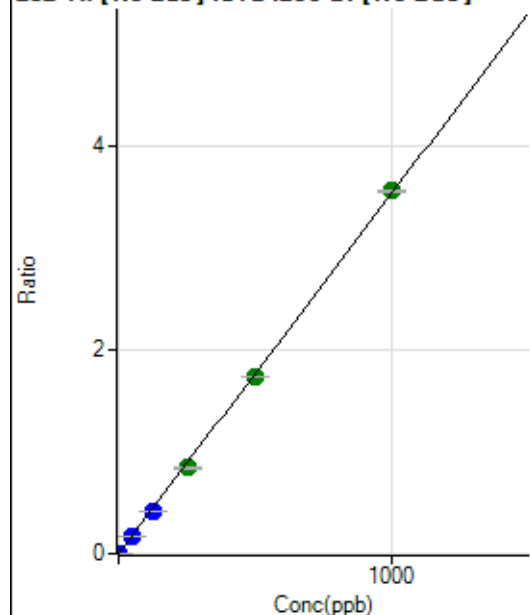
$$DL = 0.0157$$

$$BEC = 0.09791$$

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	2315.08	0.0003	P	2.6
2	☐	1.000	0.801	25855.65	0.0031	P	1.5
3	☐	50.000	46.207	1384815.03	0.1634	P	1.0
4	☐	125.000	117.220	3600491.05	0.4141	P	0.5
5	☐	250.000	239.898	7307371.00	0.8472	A	1.9
6	☐	500.000	492.321	14778120.47	1.7383	A	0.6
7	☐	1000.000	1007.527	30594009.25	3.5572	A	0.5
8	☐			11264.39	0.0015	P	2.7

$$y = 0.0035 * x + 2.7264E-004$$

$$R = 0.9999$$

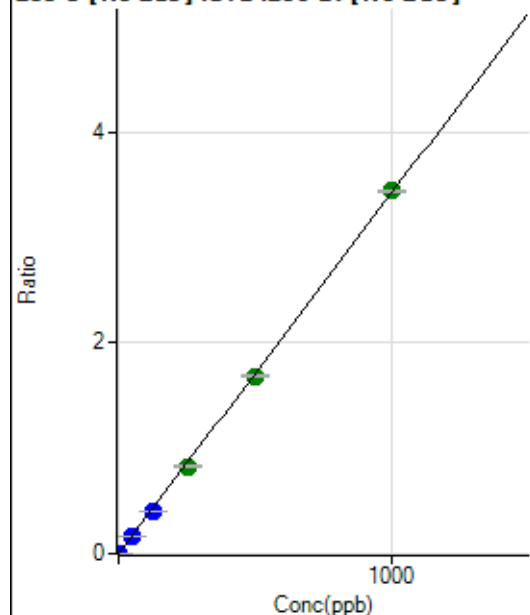
$$DL = 0.006043$$

$$BEC = 0.07723$$

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	2781.00	0.0003	P	3.9
2	☐	1.000	0.889	28098.03	0.0034	P	0.1
3	☐	50.000	46.243	1343691.83	0.1585	P	0.9
4	☐	125.000	118.025	3513874.38	0.4041	P	0.5
5	☐	250.000	240.836	7110166.74	0.8243	A	1.9
6	☐	500.000	493.212	14348764.64	1.6878	A	0.7
7	☐	1000.000	1006.745	29628280.18	3.4448	A	0.2
8	☐			6465.83	0.0008	P	6.2

$$y = 0.0034 * x + 3.2752E-004$$

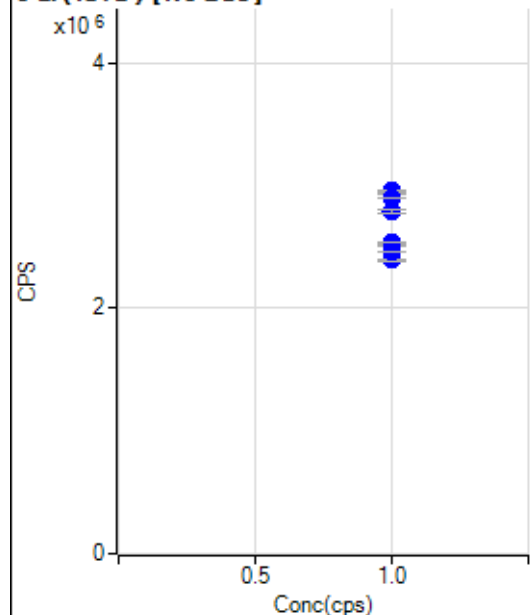
$$R = 0.9999$$

$$DL = 0.01125$$

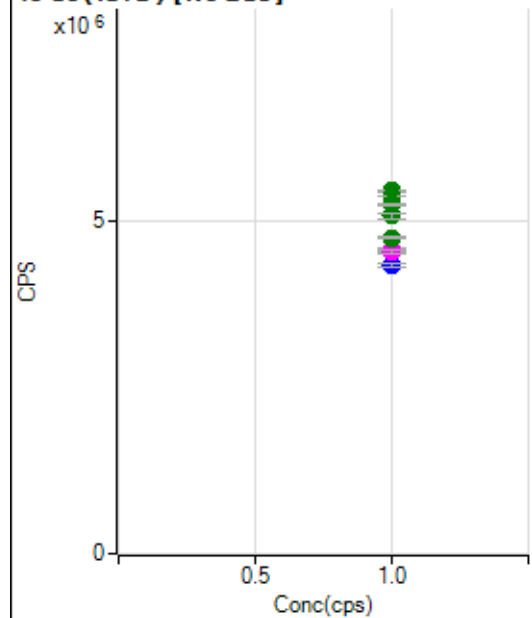
$$BEC = 0.09573$$

Weight: <None>

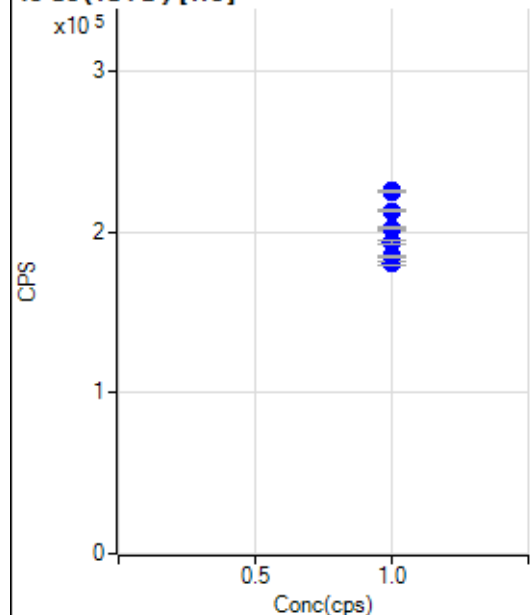
Min Conc: 0

6 Li (ISTD) [No Gas]

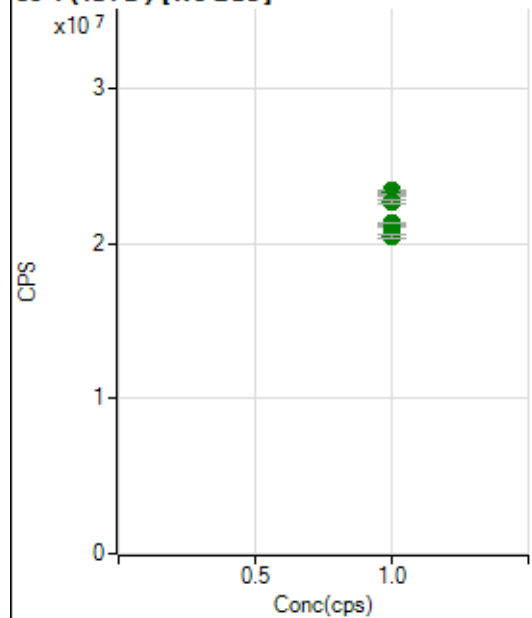
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2933420.30		P	0.1
2	☐	1.000		2954057.88		P	0.6
3	☐	1.000		2896039.03		P	0.3
4	☐	1.000		2787776.10		P	1.4
5	☐	1.000		2517939.28		P	0.8
6	☐	1.000		2390148.16		P	0.9
7	☐	1.000		2458522.17		P	0.4
8	☐	1.000		2533839.43		P	0.3

45 Sc (ISTD) [No Gas]

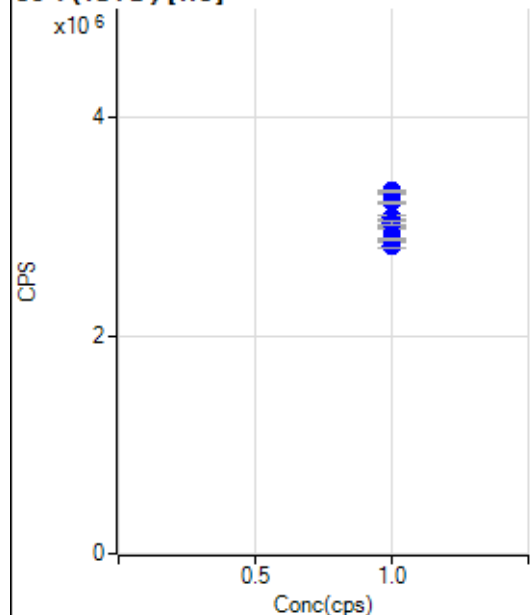
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5448674.65		A	0.3
2	☐	1.000		5371019.52		A	0.4
3	☐	1.000		5246203.68		A	0.7
4	☐	1.000		5071575.37		A	1.4
5	☐	1.000		4563981.79		M	1.4
6	☐	1.000		4329092.59		P	0.8
7	☐	1.000		4525976.53		M	1.0
8	☐	1.000		4750246.42		A	0.3

45 Sc (ISTD) [He]

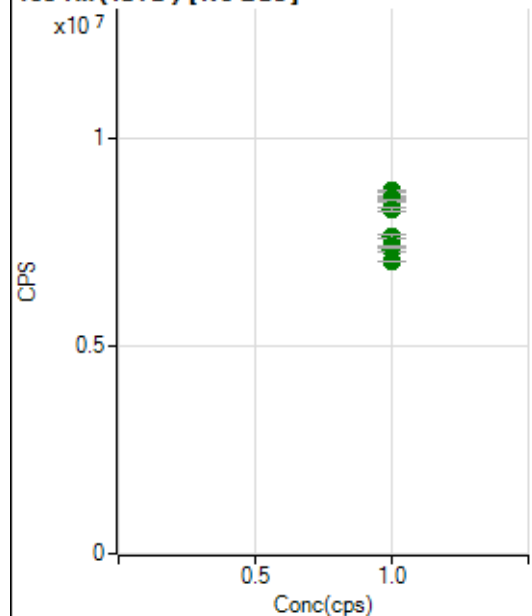
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		224850.70		P	0.6
2	☐	1.000		225464.45		P	0.8
3	☐	1.000		213171.25		P	0.4
4	☐	1.000		201607.28		P	0.7
5	☐	1.000		180347.03		P	1.6
6	☐	1.000		184925.12		P	0.9
7	☐	1.000		193609.28		P	0.6
8	☐	1.000		202097.95		P	0.5

89 Y (ISTD) [No Gas]

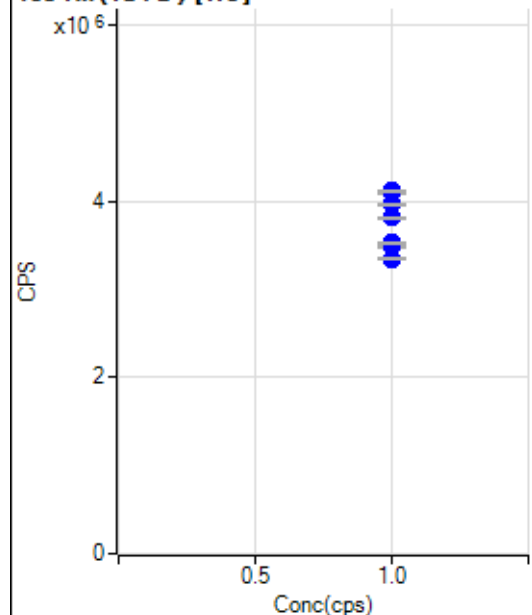
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		23417498.54		A	0.4
2	☐	1.000		23328849.09		A	0.6
3	☐	1.000		23102121.32		A	0.6
4	☐	1.000		22730674.66		A	1.3
5	☐	1.000		21152430.52		A	1.1
6	☐	1.000		20483032.61		A	1.2
7	☐	1.000		21268209.54		A	0.8
8	☐	1.000		21378584.40		A	0.1

89 Y (ISTD) [He]

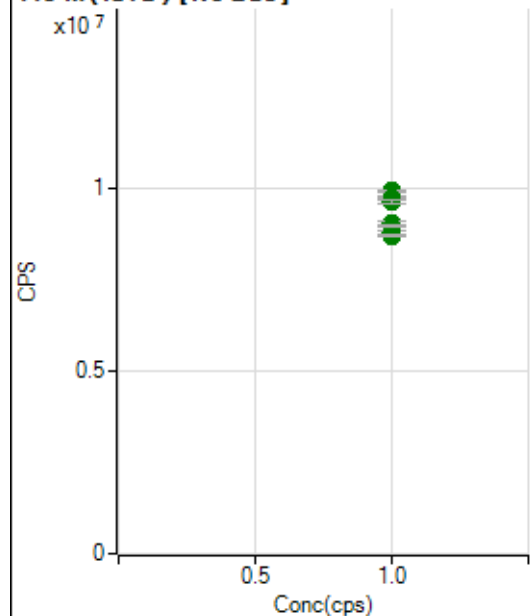
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3306084.19		P	0.8
2	☐	1.000		3330678.42		P	0.4
3	☐	1.000		3224936.27		P	0.5
4	☐	1.000		3090353.46		P	0.8
5	☐	1.000		2830816.55		P	1.6
6	☐	1.000		2887105.79		P	0.7
7	☐	1.000		2989351.93		P	0.7
8	☐	1.000		3038782.66		P	0.9

103 Rh (ISTD) [No Gas]

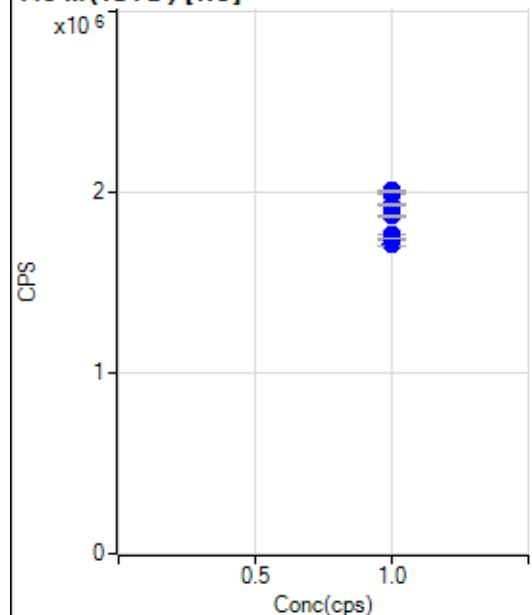
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8748656.53		A	0.2
2	☐	1.000		8600943.68		A	0.4
3	☐	1.000		8516274.50		A	0.6
4	☐	1.000		8300800.19		A	1.2
5	☐	1.000		7638381.42		A	1.0
6	☐	1.000		7314472.39		A	1.2
7	☐	1.000		7405396.43		A	0.3
8	☐	1.000		7060447.29		A	0.3

103 Rh (ISTD) [He]

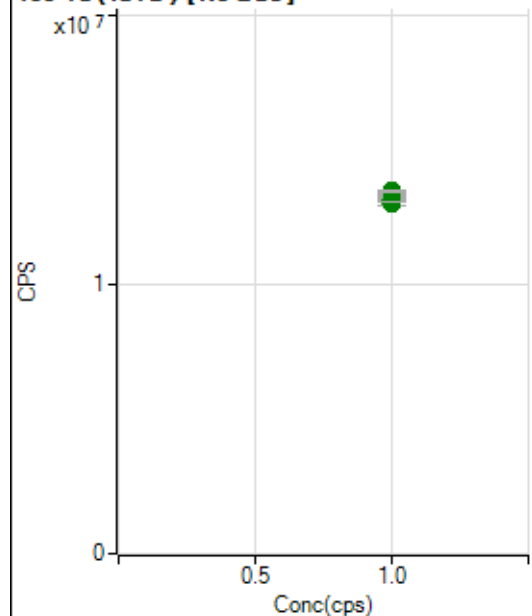
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4095532.16		P	0.5
2	☐	1.000		4116343.00		P	0.3
3	☐	1.000		3962749.08		P	0.4
4	☐	1.000		3809398.73		P	0.5
5	☐	1.000		3481740.82		P	1.3
6	☐	1.000		3493622.34		P	0.4
7	☐	1.000		3528969.36		P	0.6
8	☐	1.000		3348611.37		P	0.3

115 In (ISTD) [No Gas]

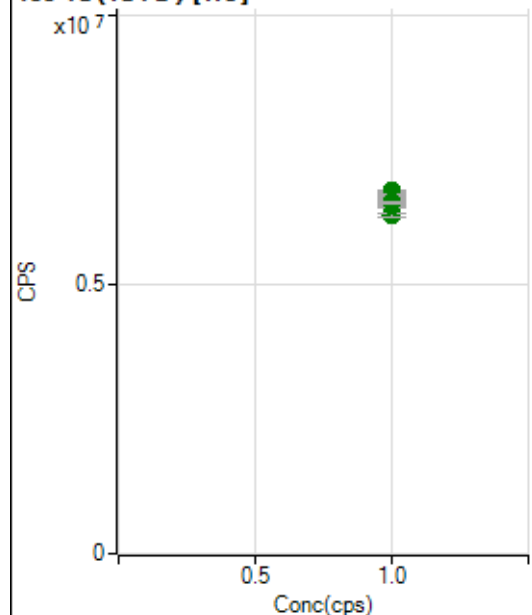
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9929874.35		A	0.2
2	☐	1.000		9754850.80		A	0.6
3	☐	1.000		9703383.42		A	0.8
4	☐	1.000		9641549.42		A	1.4
5	☐	1.000		9050703.16		A	1.2
6	☐	1.000		8783467.90		A	1.3
7	☐	1.000		8957033.20		A	0.5
8	☐	1.000		8704389.84		A	0.2

115 In (ISTD) [He]

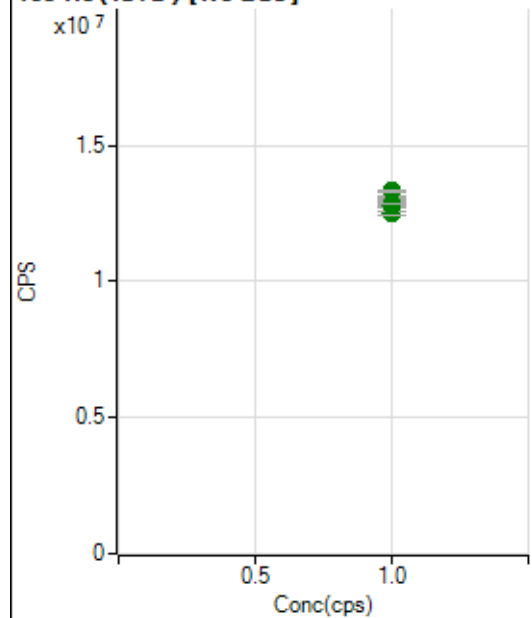
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1992582.64		P	0.5
2	☐	1.000		2006555.37		P	0.6
3	☐	1.000		1928480.11		P	0.3
4	☐	1.000		1869245.52		P	0.6
5	☐	1.000		1716631.77		P	1.6
6	☐	1.000		1738814.15		P	0.5
7	☐	1.000		1764491.61		P	0.3
8	☐	1.000		1744142.01		P	0.5

159 Tb (ISTD) [No Gas]

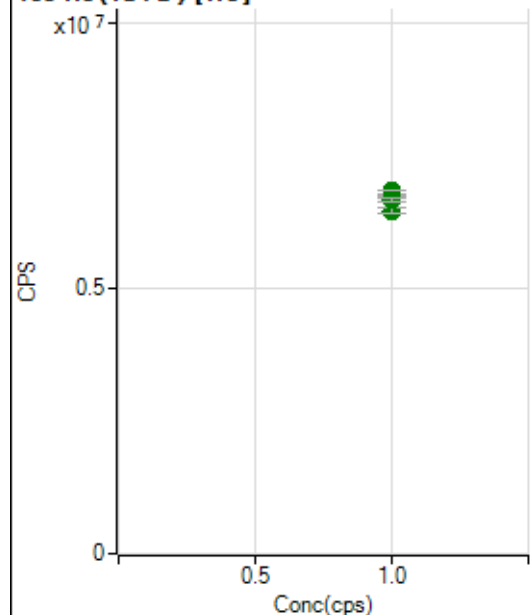
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13208776.33		A	0.2
2	☐	1.000		12985425.64		A	1.0
3	☐	1.000		13204481.75		A	1.1
4	☐	1.000		13383822.86		A	0.7
5	☐	1.000		13118847.17		A	1.2
6	☐	1.000		12977964.25		A	1.4
7	☐	1.000		13462793.97		A	0.5
8	☐	1.000		13059745.92		A	0.2

159 Tb (ISTD) [He]

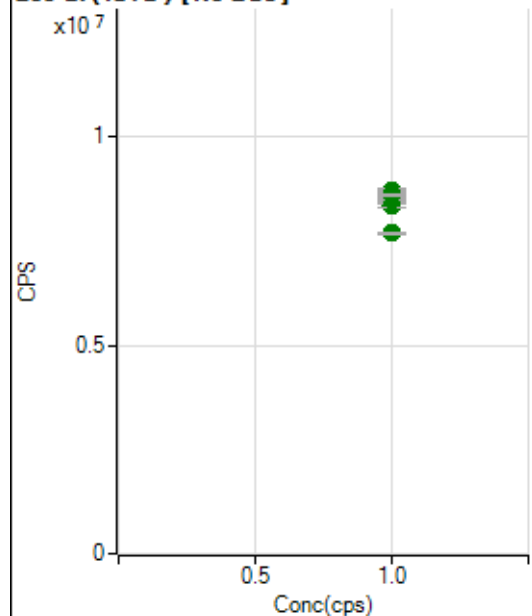
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6732489.20		A	0.2
2	☐	1.000		6663530.87		A	0.4
3	☐	1.000		6578280.11		A	0.4
4	☐	1.000		6549160.39		A	0.6
5	☐	1.000		6270286.37		A	1.4
6	☐	1.000		6448460.18		A	0.5
7	☐	1.000		6659416.99		A	0.4
8	☐	1.000		6516419.83		A	0.7

165 Ho (ISTD) [No Gas]

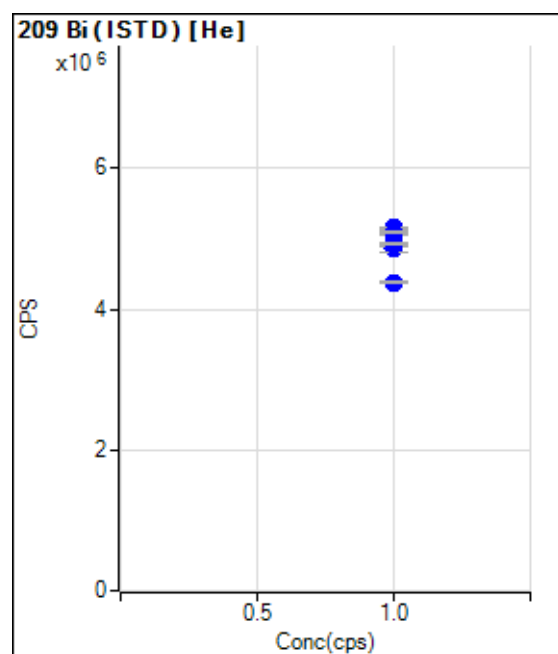
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12713835.18		A	0.4
2	☐	1.000		12513268.94		A	1.1
3	☐	1.000		12938430.50		A	0.9
4	☐	1.000		13112676.16		A	1.0
5	☐	1.000		12848303.07		A	1.1
6	☐	1.000		12819406.28		A	1.2
7	☐	1.000		13330089.79		A	0.7
8	☐	1.000		12872657.23		A	0.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6768582.96		A	0.1
2	☐	1.000		6714442.12		A	0.3
3	☐	1.000		6732697.54		A	0.8
4	☐	1.000		6738509.41		A	0.5
5	☐	1.000		6458951.15		A	1.4
6	☐	1.000		6659962.54		A	0.7
7	☐	1.000		6831190.87		A	0.2
8	☐	1.000		6663657.68		A	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8491372.86		A	0.1
2	☐	1.000		8340937.79		A	0.8
3	☐	1.000		8475445.43		A	0.8
4	☐	1.000		8694922.23		A	1.0
5	☐	1.000		8626933.48		A	1.4
6	☐	1.000		8501594.67		A	0.9
7	☐	1.000		8600825.01		A	0.7
8	☐	1.000		7677234.19		A	0.4



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5109898.26		P	0.2
2	☐	1.000		5151447.39		P	0.3
3	☐	1.000		5076344.12		P	0.6
4	☐	1.000		5081186.77		P	0.6
5	☐	1.000		4851855.03		P	1.6
6	☐	1.000		4901276.73		P	0.4
7	☐	1.000		4929539.16		P	0.4
8	☐	1.000		4381963.34		P	0.8

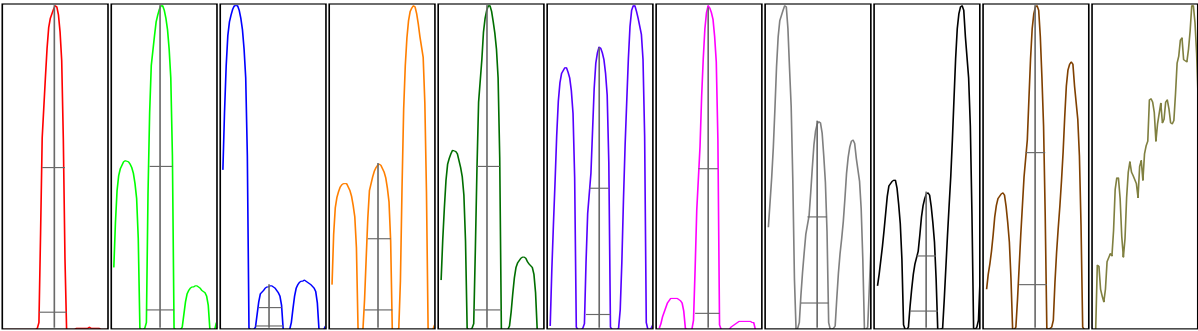
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7082319MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	7688	0.53	5.00	
24	83016	0.63	5.00	
25	11092	0.71	5.00	
26	12586	0.43	5.00	
59	65938	0.69	5.00	
113	10619	0.58	5.00	
115	125132	0.91	5.00	
206	31454	0.33	5.00	
207	29557	0.46	5.00	
208	67329	0.54	5.00	
220	126	3.76		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	7712	7695	7734	7670	7629
24	83250	83293	83456	82931	82151
25	11137	11115	11182	11042	10984
26	12558	12593	12676	12551	12551
59	66226	66105	66358	65785	65218
113	10661	10690	10627	10576	10539
115	125462	125925	126267	124559	123445
206	31328	31380	31455	31574	31533
207	29375	29682	29496	29535	29697
208	66800	67557	67760	67308	67221
220	123	120	128	133	127

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	12789	9.00	8.9 - 9.1		0.783	0.900	
24	126970	23.90	23.9 - 24.1		0.790	0.900	
25	16976	24.90	24.9 - 25.1		0.790	0.900	
26	19210	25.90	25.9 - 26.1		0.807	0.900	
59	106466	58.90	58.9 - 59.1		0.786	0.900	
113	18868	113.00	112.9 - 113.1		0.739	0.900	
115	224275	115.00	114.9 - 115.1		0.740	0.900	
206	55826	206.00	205.9 - 206.1		0.802	0.900	
207	50853	207.00	206.9 - 207.1		0.794	0.900	
208	120808	208.00	207.9 - 208.1		0.807	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	7.4	V	Deflect	14.4	V
Extract 2	-95.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-50	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	160	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	16078	0.81	
89	26060	0.84	
205	30361	1.03	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	16114	16095	16121	16204	15859
89	25987	26127	26166	26294	25723
205	30358	30386	30479	30718	29862

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	7.9	V	Deflect	1.8	V
Extract 2	-100.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-50	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			