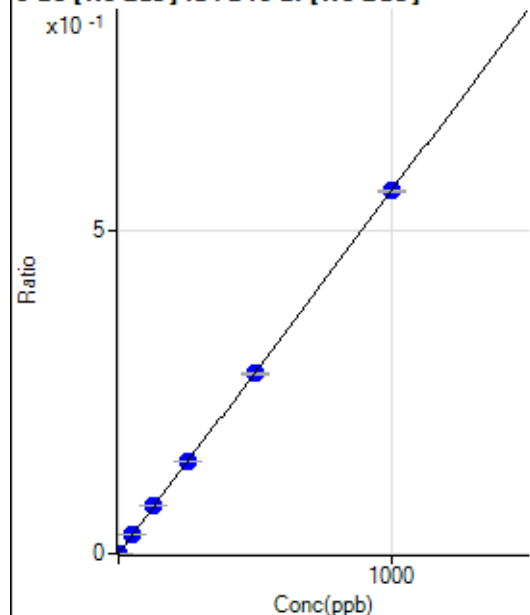


Batch Folder: D:\ICP-MS Data\P7061519MS.b\
Analysis File: P7061519MS.batch.bin
DA Date-Time: 2019-06-15 23:41:45
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-06-15 14:47:06
2	004CAL.S.d	S01	2019-06-15 14:50:42
3	005CAL.S.d	S02	2019-06-15 14:54:52
4	006CAL.S.d	S03	2019-06-15 14:58:48
5	007CAL.S.d	S04	2019-06-15 15:02:45
6	008CAL.S.d	S05	2019-06-15 15:06:39
7	009CAL.S.d	S06	2019-06-15 15:10:29
8	010CAL.S.d	S07	2019-06-15 15:14:20
9	011CAL.S.d	S08	2019-06-15 15:18:07

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0000	P	21.5
2	☐	0.100	0.080	150.00	0.0001	P	9.4
3	☐	1.000	0.874	966.72	0.0005	P	0.4
4	☐	50.000	51.759	52782.51	0.0292	P	0.3
5	☐	125.000	131.694	131103.70	0.0742	P	0.3
6	☐	250.000	256.173	240255.33	0.1442	P	0.2
7	☐	500.000	495.473	444812.26	0.2790	P	0.8
8	☐	1000.000	999.796	883953.57	0.5629	P	0.5
9	☐			363.35	0.0002	P	12.9

$$y = 5.6294\text{E-}004 * x + 3.6425\text{E-}005$$

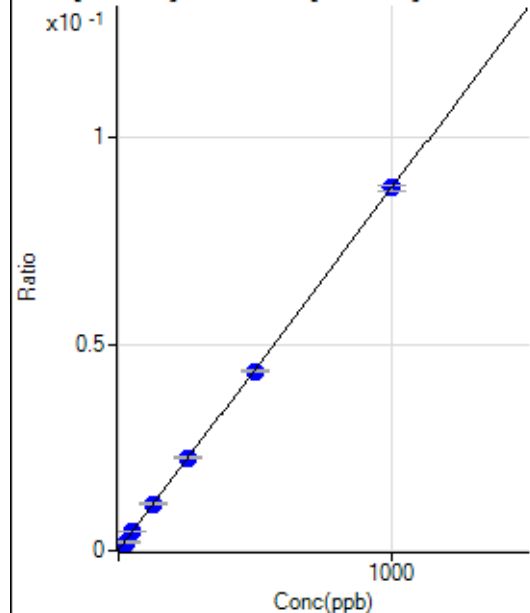
$$R = 0.9999$$

$$DL = 0.04177$$

$$BEC = 0.06471$$

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	180.56	0.0001	P	9.9
2	☐	2.500	2.599	600.03	0.0003	P	11.6
3	☐	25.000	22.452	3786.75	0.0021	P	4.0
4	☐	50.000	50.668	8222.01	0.0045	P	3.5
5	☐	125.000	128.962	20177.96	0.0114	P	1.3
6	☐	250.000	255.391	37494.38	0.0225	P	1.0
7	☐	500.000	495.014	69432.07	0.0435	P	1.0
8	☐	1000.000	1000.680	138052.28	0.0879	P	1.6
9	☐			6090.38	0.0040	P	5.6

$$y = 8.7753\text{E-}005 * x + 9.8722\text{E-}005$$

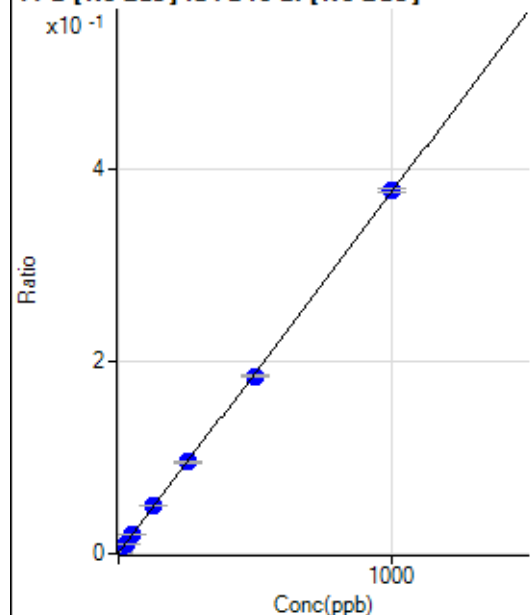
$$R = 1.0000$$

$$DL = 0.3352$$

$$BEC = 1.125$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	883.40	0.0005	P	4.1
2	☐	2.500	2.548	2644.77	0.0014	P	1.3
3	☐	25.000	22.973	16676.49	0.0091	P	1.9
4	☐	50.000	50.270	35033.27	0.0194	P	0.8
5	☐	125.000	130.386	87405.19	0.0495	P	1.4
6	☐	250.000	253.527	159382.95	0.0957	P	1.9
7	☐	500.000	490.067	294293.82	0.1845	P	1.0
8	☐	1000.000	1003.449	592595.20	0.3774	P	1.2
9	☐			26120.65	0.0172	P	7.0

$$y = 3.7558E-004 * x + 4.8293E-004$$

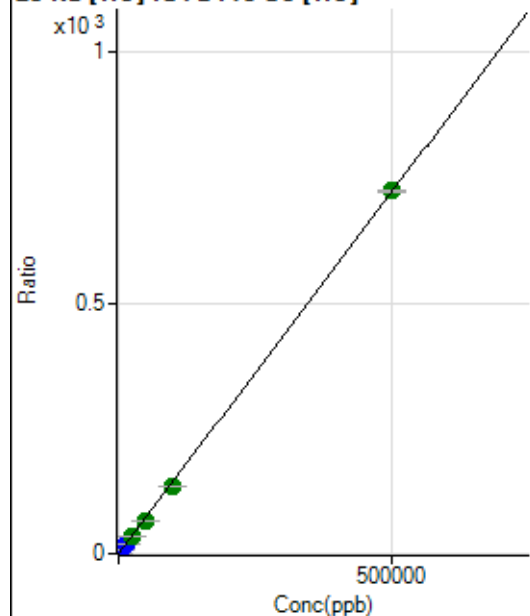
$$R = 0.9999$$

$$DL = 0.1573$$

$$BEC = 1.286$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2422.52	0.0154	P	9.4
2	☐	50.000	46.549	13008.86	0.0824	P	1.8
3	☐	500.000	427.918	100326.01	0.6319	P	0.2
4	☐	5000.000	4657.150	1031274.19	6.7254	P	1.1
5	☐	12500.000	12170.913	2566695.46	17.5513	P	0.8
6	☐	25000.000	23792.430	4629524.80	34.2956	A	1.9
7	☐	50000.000	45430.243	8900771.90	65.4716	A	0.8
8	☐	100000.00	93546.620	18033087.21	134.7980	A	1.0
9	☐	500000.00	501819.75	96411208.40	723.0407	A	0.5

$$y = 0.0014 * x + 0.0154$$

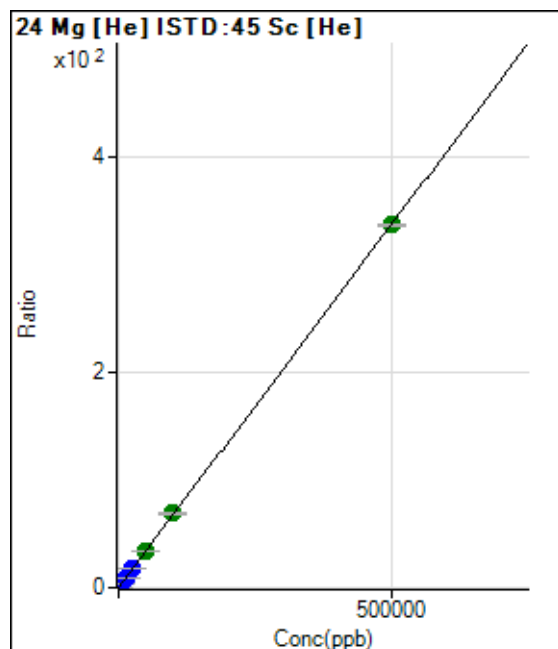
$$R = 0.9999$$

$$DL = 3.011$$

$$BEC = 10.66$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	122.23	0.0008	P	41.2
2	☐	50.000	55.128	5993.13	0.0380	P	2.7
3	☐	500.000	491.143	52735.41	0.3322	P	0.1
4	☐	5000.000	5165.754	534550.91	3.4861	P	1.3
5	☐	12500.000	13413.163	1323554.71	9.0507	P	0.9
6	☐	25000.000	26318.855	2397140.20	17.7583	P	2.1
7	☐	50000.000	49699.195	4558818.90	33.5332	A	0.6
8	☐	100000.00	102128.38	9218326.25	68.9075	A	1.1
9	☐	500000.00	499513.98	44938244.41	337.0262	A	0.7

$$y = 6.7471\text{E-}004 * x + 7.7471\text{E-}004$$

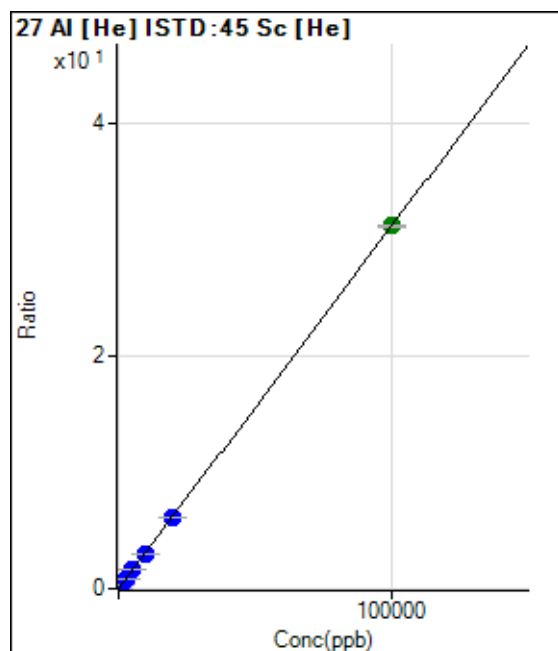
$$R = 1.0000$$

$$DL = 1.419$$

$$BEC = 1.148$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0002	P	35.0
2	☐	2.000	109.825	5431.74	0.0344	P	4.8
3	☐	20.000	16.539	847.28	0.0053	P	15.8
4	☐	1000.000	997.539	47715.78	0.3112	P	2.2
5	☐	2500.000	2569.322	117172.38	0.8012	P	0.9
6	☐	5000.000	5113.882	215240.13	1.5946	P	2.5
7	☐	10000.000	9650.856	409086.52	3.0091	P	0.9
8	☐	20000.000	19732.897	823069.10	6.1525	P	1.4
9	☐	100000.00	100080.93	4160761.94	31.2036	A	0.4

$$y = 3.1178\text{E-}004 * x + 1.7634\text{E-}004$$

$$R = 1.0000$$

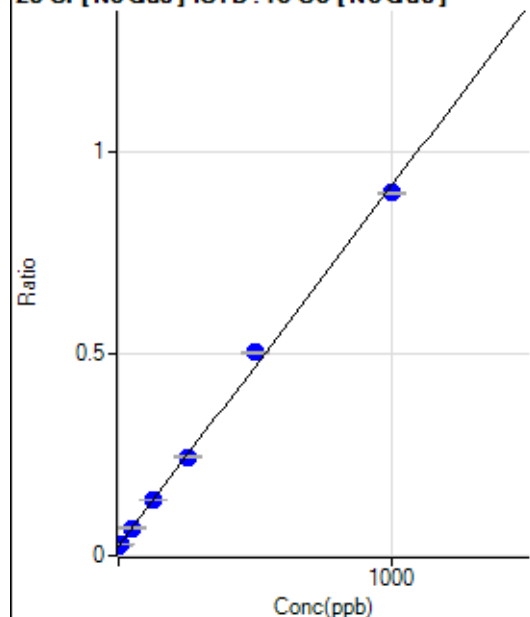
$$DL = 0.5947$$

$$BEC = 0.5656$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	74614.45	0.0232	P	1.7
2	☐	1.000	0.719	76973.38	0.0238	P	0.9
3	☐	10.000	8.123	97690.65	0.0304	P	0.5
4	☐	50.000	50.817	216260.57	0.0686	P	1.5
5	☐	125.000	129.857	422968.62	0.1391	P	0.9
6	☐	250.000	248.123	695056.71	0.2448	P	0.8
7	☐	500.000	538.947	1388799.03	0.5045	P	0.9
8	☐	1000.000	980.367	2432406.61	0.8987	P	0.6
9	☐			202958.22	0.0786	P	1.5

$$y = 8.9301E-004 * x + 0.0232$$

$$R = 0.9989$$

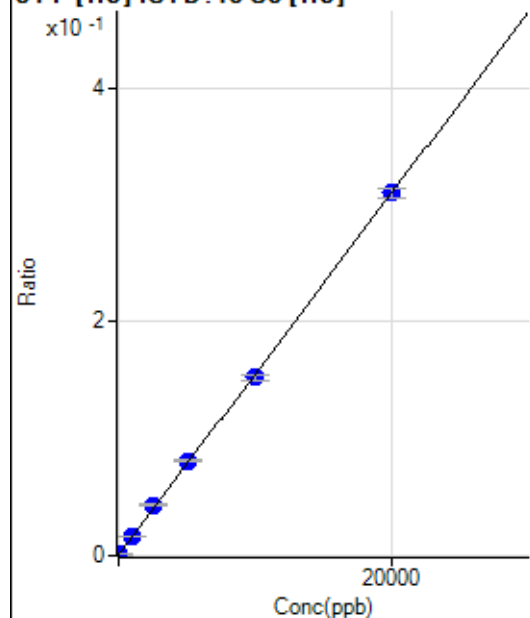
$$DL = 1.31$$

$$BEC = 25.96$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-14.282	55.56	0.0004	P	22.4
2	☐	0.000	-15.451	52.78	0.0003	P	72.9
3	☐	0.000	29.733	163.89	0.0010	P	13.6
4	☐	1000.000	1008.291	2480.85	0.0162	P	0.7
5	☐	2500.000	2751.340	6309.91	0.0432	P	3.5
6	☐	5000.000	5214.275	10973.87	0.0813	P	3.3
7	☐	10000.000	9804.491	20703.94	0.1523	P	3.2
8	☐	20000.000	20012.354	41505.90	0.3103	P	2.4
9	☐			83.34	0.0006	P	20.1

$$y = 1.5475E-005 * x + 5.7296E-004$$

$$R = 0.9998$$

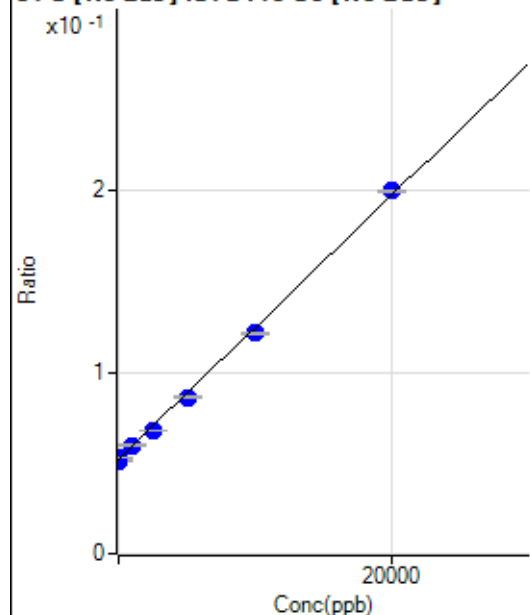
$$DL = 29.92$$

$$BEC = 37.02$$

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	-157.393	164015.69	0.0510	P	1.8
2	☐	0.000	23.736	168902.95	0.0523	P	0.8
3	☐	0.000	133.657	170349.47	0.0531	P	1.6
4	☐	1000.000	1064.812	188792.59	0.0598	P	0.5
5	☐	2500.000	2200.666	207041.38	0.0681	P	0.6
6	☐	5000.000	4657.029	244157.00	0.0860	P	1.2
7	☐	10000.000	9582.855	335279.42	0.1218	P	0.8
8	☐	20000.000	20328.491	541214.01	0.2000	P	0.5
9	☐			126564.14	0.0490	P	0.5

$$y = 7.2730E-006 * x + 0.0521$$

R = 0.9994

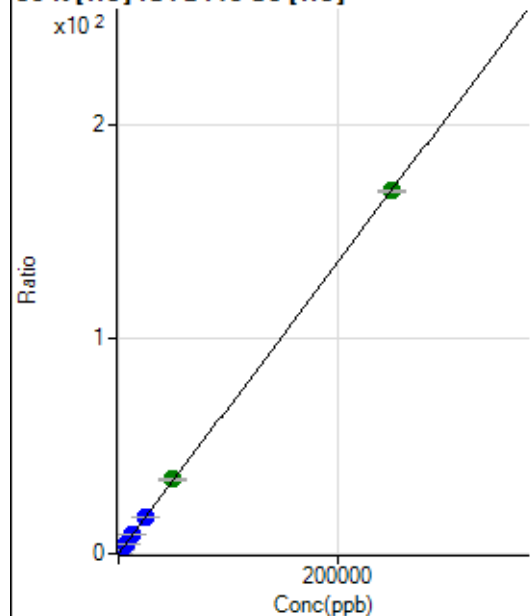
DL = 297.3

BEC = 7164

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	8374.90	0.0531	P	4.8
2	☐	50.000	50.607	13787.45	0.0874	P	2.6
3	☐	500.000	477.134	59712.35	0.3761	P	1.3
4	☐	2500.000	2602.491	278300.98	1.8148	P	0.6
5	☐	6250.000	6717.095	672731.70	4.6002	P	0.8
6	☐	12500.000	13125.179	1206565.57	8.9381	P	1.7
7	☐	25000.000	24954.428	2303790.92	16.9459	P	0.7
8	☐	50000.000	51044.974	4629730.74	34.6077	A	1.3
9	☐	250000.00	249751.64	22551476.72	169.1210	A	0.6

$$y = 6.7694E-004 * x + 0.0531$$

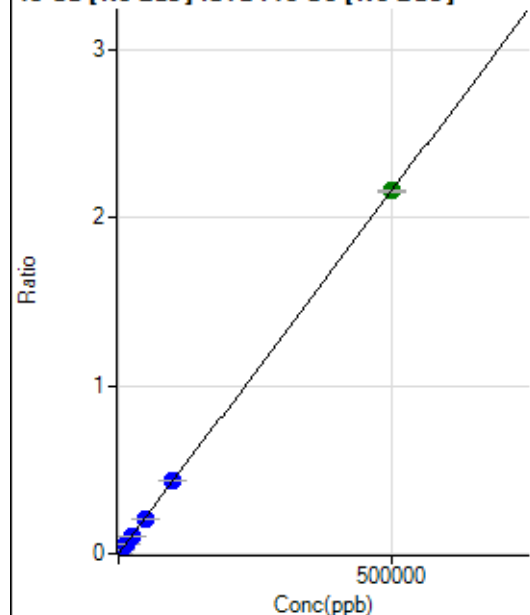
R = 1.0000

DL = 11.25

BEC = 78.44

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	14.7
2	☐	50.000	66.064	980.63	0.0003	P	7.4
3	☐	500.000	463.183	6476.67	0.0020	P	2.8
4	☐	5000.000	4952.516	67504.78	0.0214	P	1.2
5	☐	12500.000	12921.635	169637.12	0.0558	P	0.7
6	☐	25000.000	24991.419	306465.10	0.1079	P	0.5
7	☐	50000.000	48478.290	576198.24	0.2093	P	0.6
8	☐	100000.00	100398.36	1173295.07	0.4335	P	0.3
9	☐	500000.00	500062.89	5572638.97	2.1590	A	0.5

$$y = 4.3173\text{E-}006 * x + 1.8131\text{E-}005$$

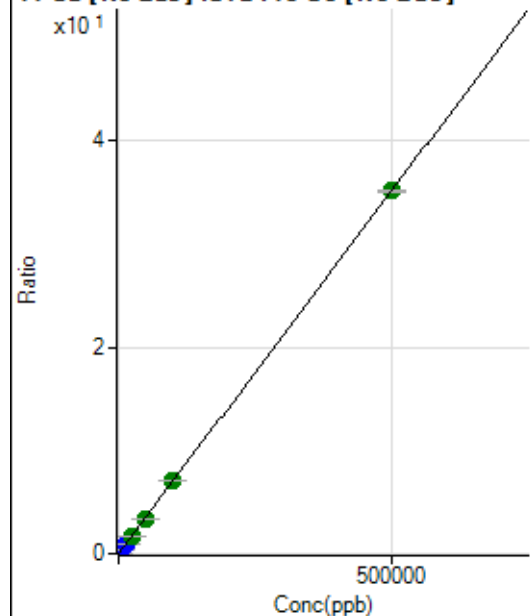
$$R = 1.0000$$

$$DL = 1.854$$

$$BEC = 4.2$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3094.95	0.0010	P	5.6
2	☐	50.000	71.840	19435.69	0.0060	P	1.2
3	☐	500.000	467.760	108708.68	0.0339	P	1.1
4	☐	5000.000	4935.970	1098378.76	0.3482	P	0.7
5	☐	12500.000	12782.574	2736548.67	0.9002	P	0.4
6	☐	25000.000	24906.690	4978733.57	1.7532	A	0.6
7	☐	50000.000	48398.334	9375606.72	3.4058	A	0.3
8	☐	100000.00	100378.61	19116600.43	7.0626	A	0.5
9	☐	500000.00	500082.71	90809439.53	35.1820	A	0.7

$$y = 7.0350\text{E-}005 * x + 9.6161\text{E-}004$$

$$R = 1.0000$$

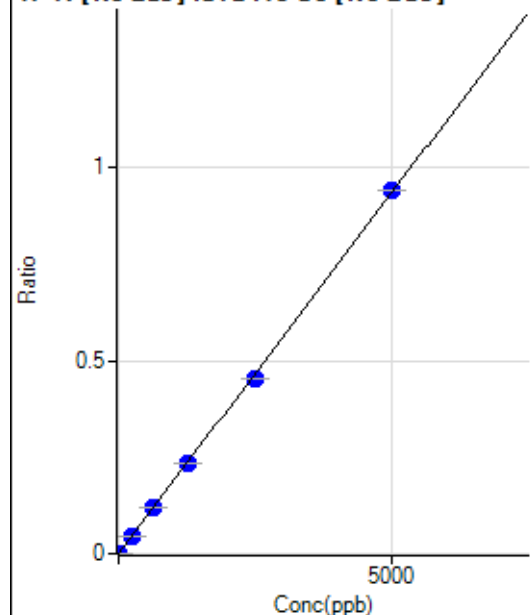
$$DL = 2.3$$

$$BEC = 13.67$$

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	47.22	0.0000	P	26.6
2	☐	0.500	0.524	363.91	0.0001	P	19.7
3	☐	5.000	4.885	2975.42	0.0009	P	4.9
4	☐	250.000	249.302	146920.05	0.0466	P	0.9
5	☐	625.000	646.750	367225.23	0.1208	P	0.7
6	☐	1250.000	1257.386	666887.24	0.2348	P	0.7
7	☐	2500.000	2433.081	1250902.26	0.4544	P	0.1
8	☐	5000.000	5028.929	2542138.64	0.9392	P	0.2
9	☐			1316.78	0.0005	P	9.4

$$y = 1.8675E-004 * x + 1.4659E-005$$

$$R = 0.9999$$

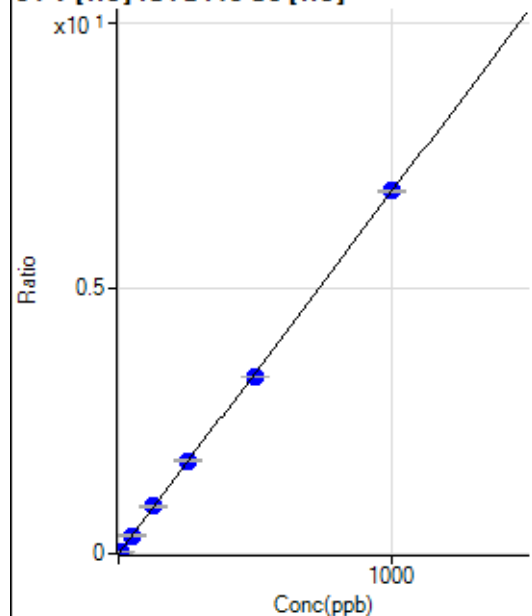
$$DL = 0.06266$$

$$BEC = 0.07849$$

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	2.22	0.0000	P	173.
2	☐	0.500	0.521	563.35	0.0036	P	19.7
3	☐	5.000	4.766	5164.31	0.0325	P	2.2
4	☐	50.000	50.341	52653.83	0.3434	P	0.8
5	☐	125.000	130.626	130292.38	0.8910	P	1.0
6	☐	250.000	257.018	236633.33	1.7530	P	2.1
7	☐	500.000	489.601	454002.19	3.3394	P	0.3
8	☐	1000.000	1002.726	914957.40	6.8393	P	0.8
9	☐			258.90	0.0019	P	16.2

$$y = 0.0068 * x + 1.4126E-005$$

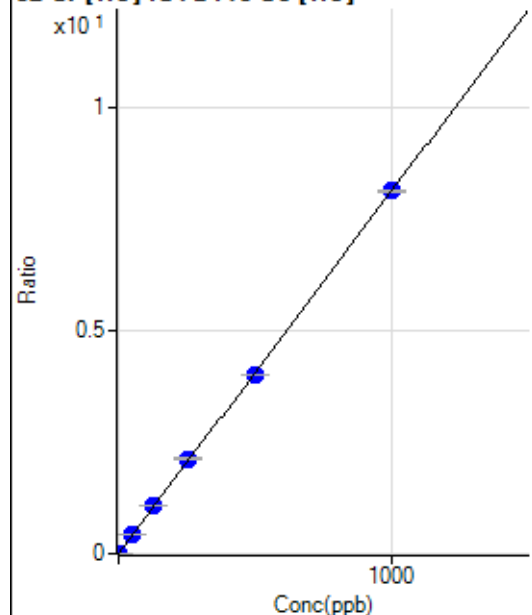
$$R = 0.9999$$

$$DL = 0.01076$$

$$BEC = 0.002071$$

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	335.56	0.0021	P	4.5
2	☐	0.200	0.311	734.47	0.0047	P	6.5
3	☐	2.000	1.822	2684.74	0.0169	P	3.0
4	☐	50.000	50.848	63587.66	0.4147	P	0.6
5	☐	125.000	132.054	156984.99	1.0735	P	0.8
6	☐	250.000	260.287	285339.77	2.1138	P	2.0
7	☐	500.000	491.817	542751.99	3.9922	P	0.4
8	☐	1000.000	1000.596	1086294.93	8.1200	P	0.6
9	☐			17592.90	0.1319	P	0.1

$$y = 0.0081 * x + 0.0021$$

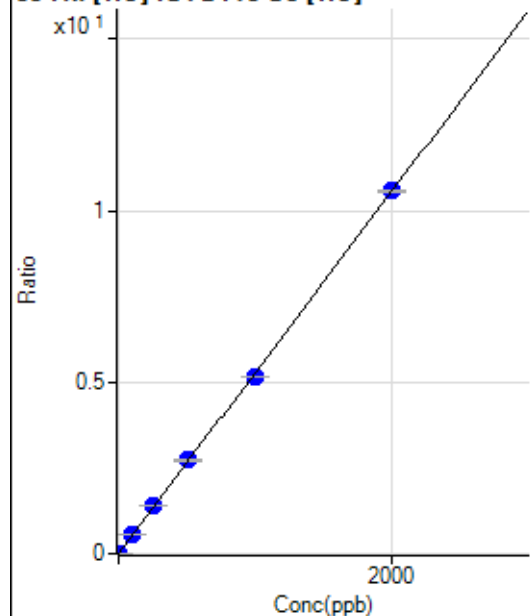
$$R = 0.9999$$

$$DL = 0.03545$$

$$BEC = 0.2622$$

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	23.33	0.0001	P	28.8
2	☐	0.100	0.290	264.45	0.0017	P	2.1
3	☐	1.000	0.956	824.48	0.0052	P	9.4
4	☐	100.000	101.927	82486.25	0.5379	P	1.2
5	☐	250.000	261.680	201937.09	1.3808	P	0.4
6	☐	500.000	515.951	367492.82	2.7224	P	2.0
7	☐	1000.000	979.693	702769.67	5.1693	P	0.3
8	☐	2000.000	2004.609	1415000.66	10.5770	P	0.6
9	☐			5845.69	0.0438	P	4.5

$$y = 0.0053 * x + 1.4794E-004$$

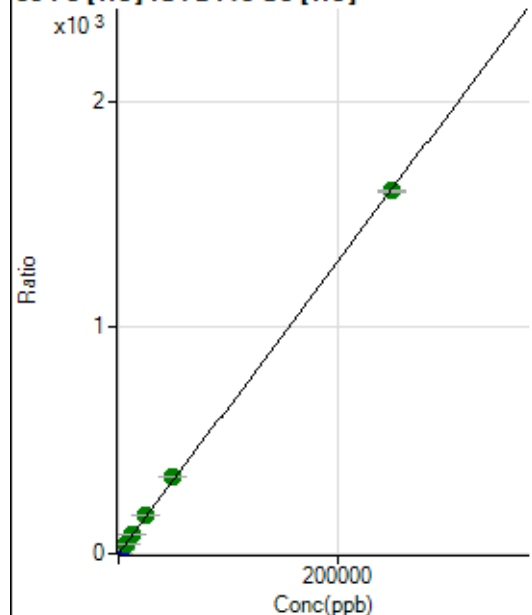
$$R = 0.9999$$

$$DL = 0.0242$$

$$BEC = 0.02804$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1731.63	0.0110	P	2.7
2	☐	5.000	6.922	8763.93	0.0555	P	2.6
3	☐	50.000	54.657	57587.24	0.3627	P	1.3
4	☐	2500.000	2747.742	2713294.59	17.6948	P	1.1
5	☐	6250.000	6929.868	6523547.43	44.6100	A	1.2
6	☐	12500.000	13714.326	11915701.66	88.2732	A	2.0
7	☐	25000.000	25990.970	22742402.13	167.2829	A	0.5
8	☐	50000.000	53122.789	45738445.47	341.8971	A	1.1
9	☐	250000.00	249196.15	213852112.1	1,603.780	A	0.3

$$y = 0.0064 * x + 0.0110$$

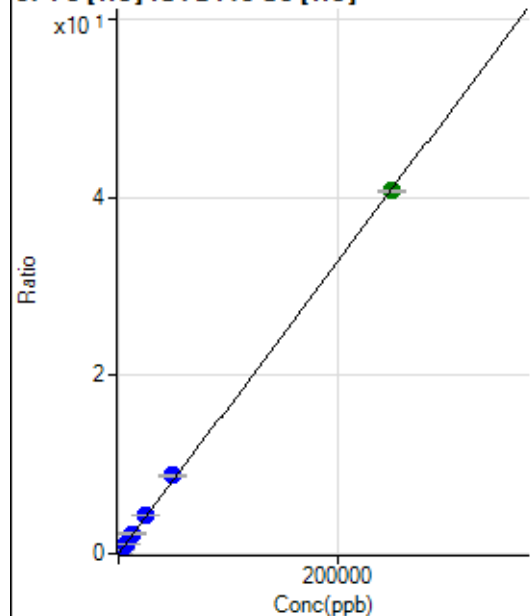
$$R = 0.9999$$

$$DL = 0.1387$$

$$BEC = 1.706$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	103.71	0.0007	P	16.9
2	☐	5.000	5.595	248.16	0.0016	P	10.3
3	☐	50.000	51.007	1427.88	0.0090	P	9.1
4	☐	2500.000	2715.537	68169.01	0.4446	P	1.4
5	☐	6250.000	7030.719	168180.67	1.1500	P	0.1
6	☐	12500.000	13787.509	304325.38	2.2545	P	2.2
7	☐	25000.000	26225.848	582940.12	4.2879	P	0.5
8	☐	50000.000	53469.398	1169443.37	8.7414	P	0.5
9	☐	250000.00	249097.48	5429649.43	40.7212	A	0.7

$$y = 1.6347E-004 * x + 6.5778E-004$$

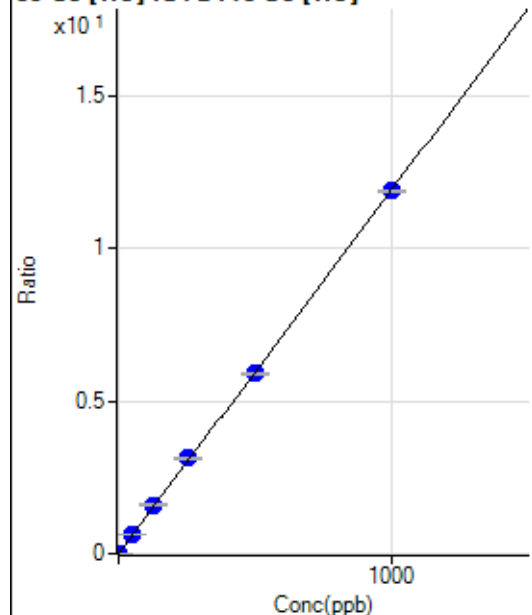
$$R = 0.9999$$

$$DL = 2.036$$

$$BEC = 4.024$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	28.89	0.0002	P	28.5
2	☐	0.100	0.093	203.34	0.0013	P	13.3
3	☐	1.000	0.965	1856.82	0.0117	P	4.8
4	☐	50.000	52.229	95530.62	0.6230	P	1.7
5	☐	125.000	134.197	234052.09	1.6005	P	1.0
6	☐	250.000	262.880	423174.62	3.1351	P	2.4
7	☐	500.000	495.313	803057.27	5.9069	P	0.4
8	☐	1000.000	997.863	1591976.94	11.8999	P	0.6
9	☐			18505.18	0.1388	P	2.4

$$y = 0.0119 * x + 1.8295E-004$$

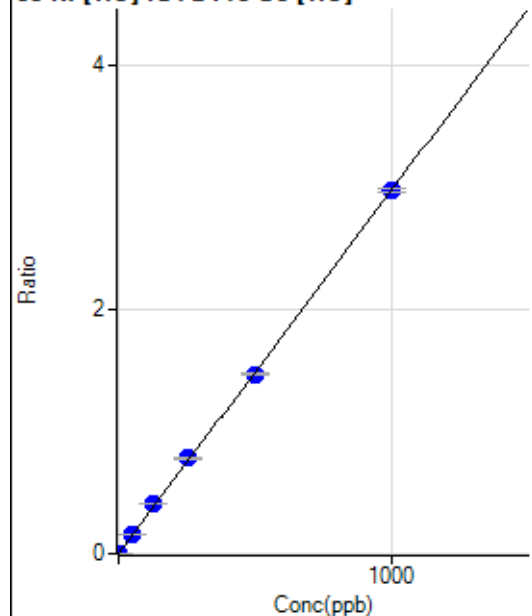
$$R = 0.9999$$

$$DL = 0.01313$$

$$BEC = 0.01534$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	27.78	0.0002	P	49.3
2	☐	0.100	0.182	113.34	0.0007	P	8.0
3	☐	1.000	1.054	525.57	0.0033	P	7.9
4	☐	50.000	52.231	23848.45	0.1555	P	1.6
5	☐	125.000	135.234	58854.29	0.4024	P	0.3
6	☐	250.000	262.298	105337.07	0.7804	P	2.2
7	☐	500.000	494.345	199933.09	1.4706	P	0.4
8	☐	1000.000	998.362	397294.34	2.9698	P	1.0
9	☐			6996.24	0.0525	P	3.3

$$y = 0.0030 * x + 1.7574E-004$$

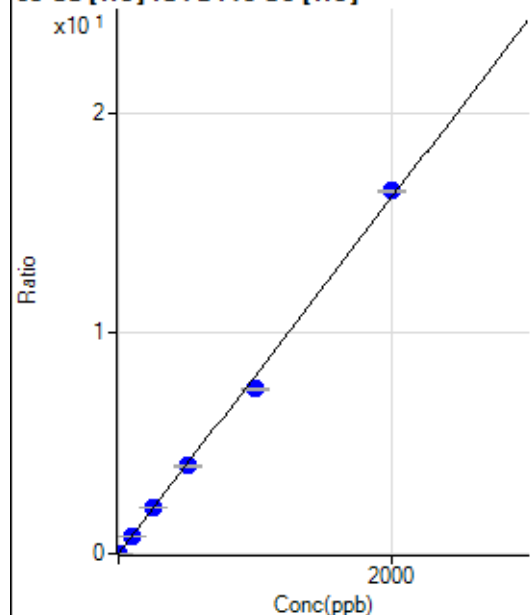
$$R = 0.9999$$

$$DL = 0.08744$$

$$BEC = 0.05908$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	191.11	0.0012	P	14.2
2	☐	0.200	0.344	630.02	0.0040	P	3.7
3	☐	2.000	1.817	2521.37	0.0159	P	0.7
4	☐	100.000	98.947	122704.37	0.8003	P	1.7
5	☐	250.000	254.797	301077.33	2.0588	P	0.7
6	☐	500.000	495.745	540560.48	4.0046	P	2.0
7	☐	1000.000	925.213	1015918.59	7.4727	P	0.5
8	☐	2000.000	2037.911	2201797.45	16.4582	P	0.5
9	☐			3033.70	0.0228	P	0.5

$$y = 0.0081 * x + 0.0012$$

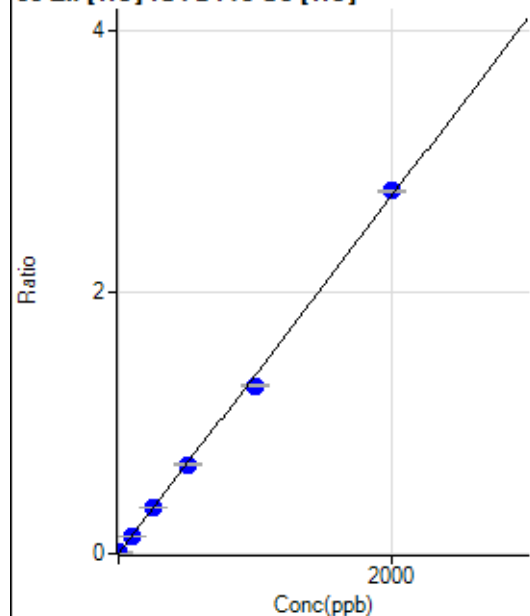
$$R = 0.9990$$

$$DL = 0.06394$$

$$BEC = 0.15$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0006	P	7.9
2	☐	0.200	7.146	1636.79	0.0104	P	3.6
3	☐	2.000	1.931	514.46	0.0032	P	7.4
4	☐	100.000	98.507	20744.89	0.1353	P	0.5
5	☐	250.000	256.246	51324.48	0.3509	P	0.1
6	☐	500.000	497.540	91902.23	0.6808	P	2.3
7	☐	1000.000	939.736	174750.59	1.2854	P	0.8
8	☐	2000.000	2030.040	371390.67	2.7761	P	0.5
9	☐			5783.46	0.0434	P	1.5

$$y = 0.0014 * x + 5.9889E-004$$

$$R = 0.9993$$

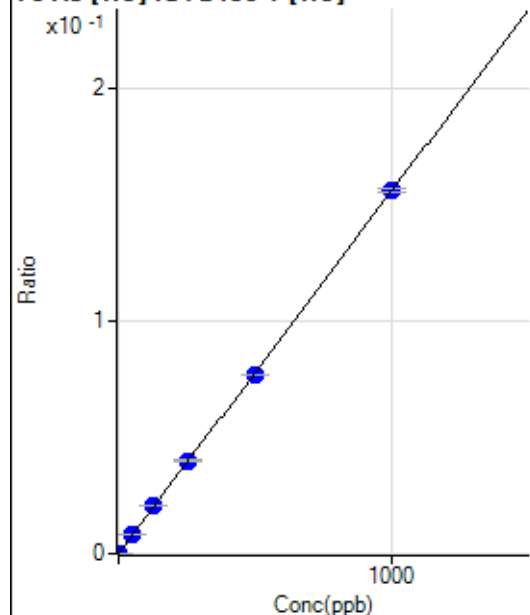
$$DL = 0.1039$$

$$BEC = 0.438$$

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	4.32	0.0000	P	89.1
2	☐	0.100	0.091	16.67	0.0000	P	33.7
3	☐	1.000	0.911	127.78	0.0001	P	11.1
4	☐	50.000	51.787	6816.46	0.0081	P	3.1
5	☐	125.000	132.464	16708.43	0.0207	P	0.6
6	☐	250.000	256.986	30509.14	0.0401	P	3.2
7	☐	500.000	492.824	58979.29	0.0768	P	0.8
8	☐	1000.000	1000.819	117528.34	0.1560	P	0.9
9	☐			150.62	0.0002	P	10.3

$$y = 1.5591\text{E-}004 * x + 4.9799\text{E-}006$$

$$R = 0.9999$$

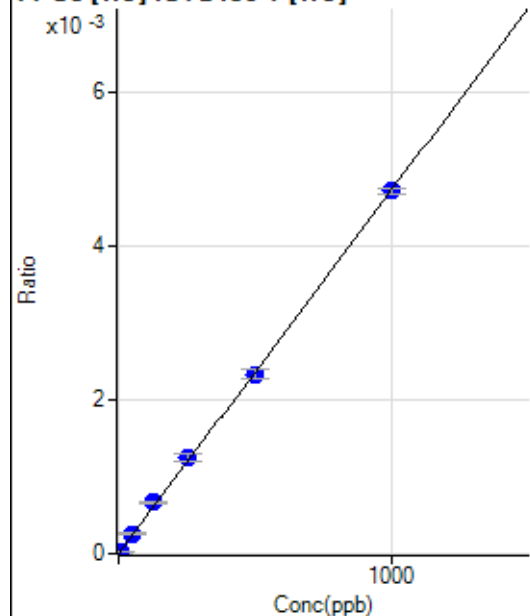
$$DL = 0.08534$$

$$BEC = 0.03194$$

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	0.00	0.0000	P	
2	☐	0.500	0.806	3.33	0.0000	P	99.9
3	☐	5.000	4.049	16.67	0.0000	P	19.7
4	☐	50.000	55.393	221.12	0.0003	P	14.7
5	☐	125.000	140.707	538.91	0.0007	P	4.0
6	☐	250.000	263.927	951.16	0.0012	P	9.3
7	☐	500.000	492.872	1791.25	0.0023	P	5.3
8	☐	1000.000	997.854	3559.39	0.0047	P	1.3
9	☐			1.11	0.0000	P	173.

$$y = 4.7356\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9998$$

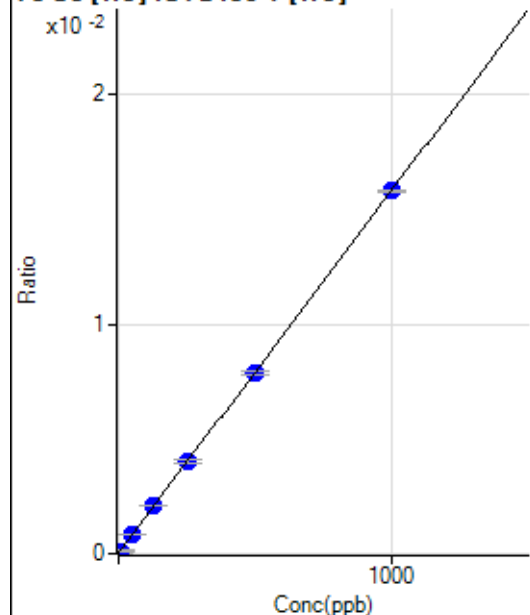
$$DL = 0$$

$$BEC = 0$$

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	27.16	0.0000	P	10.1
2	☐	0.500	1.073	41.98	0.0000	P	9.7
3	☐	5.000	5.934	108.64	0.0001	P	6.4
4	☐	50.000	49.478	685.82	0.0008	P	1.3
5	☐	125.000	132.044	1711.85	0.0021	P	1.8
6	☐	250.000	254.543	3084.31	0.0041	P	4.7
7	☐	500.000	496.905	6046.36	0.0079	P	2.1
8	☐	1000.000	999.552	11911.75	0.0158	P	0.6
9	☐			29.63	0.0000	P	27.4

$$y = 1.5791\text{E-}005 * x + 3.1336\text{E-}005$$

$$R = 1.0000$$

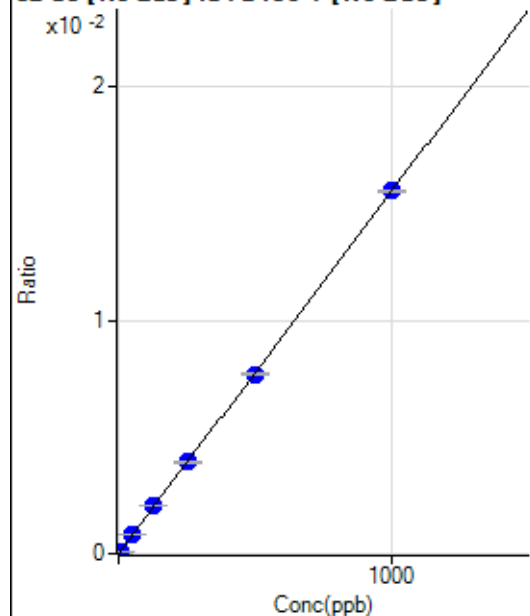
$$DL = 0.6002$$

$$BEC = 1.984$$

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	30.00	0.0000	P	35.7
2	☐	0.500	0.839	96.54	0.0000	P	34.8
3	☐	5.000	5.014	429.97	0.0001	P	8.5
4	☐	50.000	51.159	4055.81	0.0008	P	2.7
5	☐	125.000	132.672	10128.97	0.0021	P	0.7
6	☐	250.000	252.102	18457.46	0.0039	P	1.4
7	☐	500.000	493.997	35166.61	0.0077	P	0.9
8	☐	1000.000	1001.459	70671.60	0.0156	P	0.3
9	☐			65.15	0.0000	P	12.0

$$y = 1.5522\text{E-}005 * x + 5.6973\text{E-}006$$

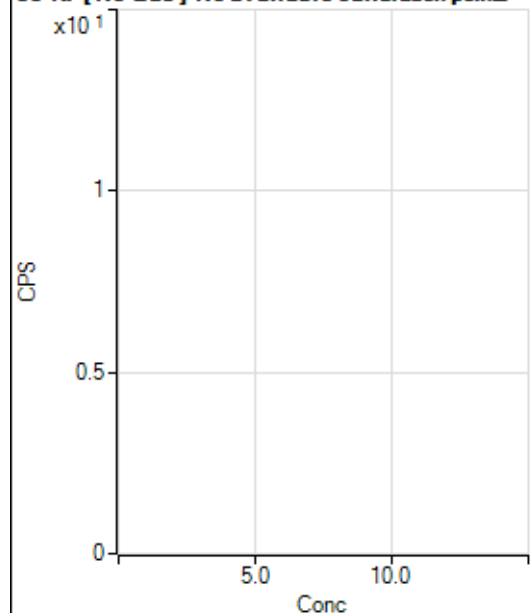
$$R = 0.9999$$

$$DL = 0.3933$$

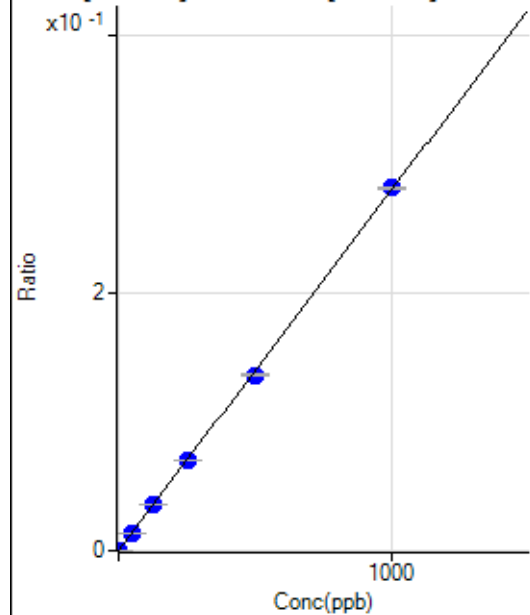
$$BEC = 0.367$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			147.78		P	15.0
2	☐			124.45		P	20.3
3	☐			128.89		P	26.2
4	☐			141.11		P	19.7
5	☐			127.78		P	30.2
6	☐			135.56		P	20.5
7	☐			114.45		P	20.5
8	☐			111.12		P	18.3
9	☐			145.56		P	3.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	188.90	0.0000	P	22.2
2	☐	0.100	0.166	425.02	0.0001	P	16.7
3	☐	1.000	0.933	1527.93	0.0003	P	3.8
4	☐	50.000	50.236	71394.72	0.0141	P	0.2
5	☐	125.000	128.624	176538.16	0.0360	P	0.8
6	☐	250.000	250.270	329675.21	0.0700	P	0.4
7	☐	500.000	486.861	623858.10	0.1361	P	1.2
8	☐	1000.000	1006.037	1278283.87	0.2813	P	0.4
9	☐			5526.28	0.0013	P	2.9

$$y = 2.7955E-004 * x + 3.5883E-005$$

$$R = 0.9999$$

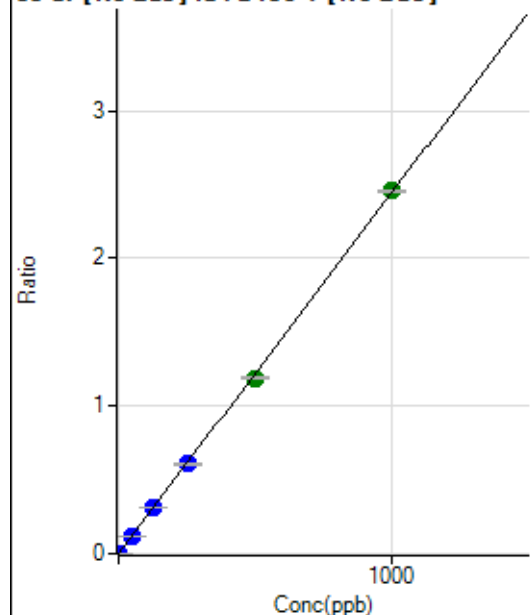
$$DL = 0.08533$$

$$BEC = 0.1284$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	37.3
2	☐	0.100	0.108	1419.57	0.0003	P	6.5
3	☐	1.000	0.885	11188.13	0.0022	P	0.8
4	☐	50.000	49.749	615987.26	0.1215	P	0.3
5	☐	125.000	129.088	1545965.01	0.3152	P	0.7
6	☐	250.000	248.211	2854254.99	0.6060	P	0.4
7	☐	500.000	487.384	5453331.16	1.1900	A	0.9
8	☐	1000.000	1006.257	11165343.57	2.4569	A	0.4
9	☐			46660.21	0.0110	P	3.5

$$y = 0.0024 * x + 1.1060E-005$$

$$R = 0.9999$$

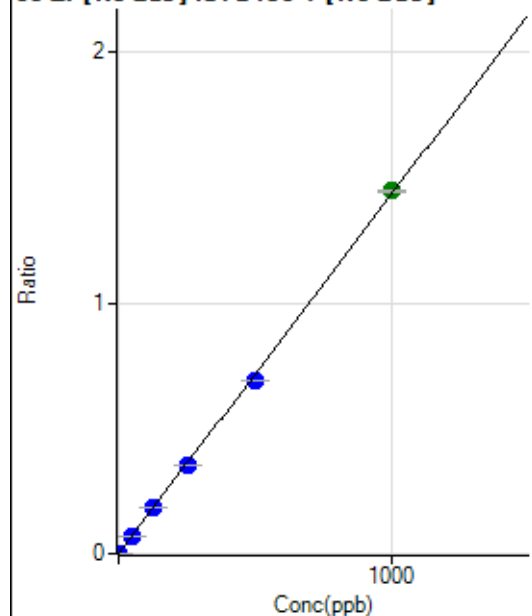
$$DL = 0.005063$$

$$BEC = 0.00453$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	369.47	0.0001	P	9.4
2	☐	0.100	0.089	1022.30	0.0002	P	12.0
3	☐	1.000	0.872	6801.86	0.0013	P	1.9
4	☐	50.000	48.944	356363.15	0.0703	P	0.2
5	☐	125.000	128.380	903604.27	0.1842	P	0.5
6	☐	250.000	248.152	1676784.41	0.3560	P	0.4
7	☐	500.000	480.842	3161262.64	0.6898	P	0.4
8	☐	1000.000	1009.671	6582254.18	1.4484	A	0.2
9	☐			2878.19	0.0007	P	11.8

$$y = 0.0014 * x + 7.0138E-005$$

$$R = 0.9997$$

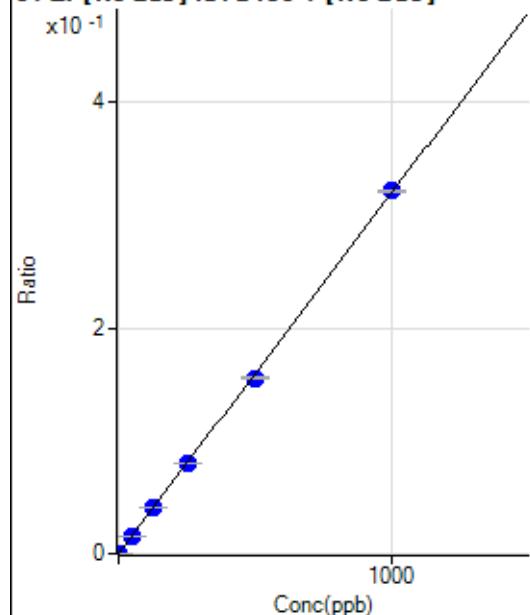
$$DL = 0.01383$$

$$BEC = 0.0489$$

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	33.4
2	☐	0.100	0.107	241.68	0.0000	P	24.3
3	☐	1.000	0.820	1414.02	0.0003	P	6.9
4	☐	50.000	49.456	80228.01	0.0158	P	0.5
5	☐	125.000	129.405	202959.07	0.0414	P	1.0
6	☐	250.000	251.466	378643.01	0.0804	P	0.4
7	☐	500.000	487.233	713832.89	0.1558	P	0.3
8	☐	1000.000	1005.494	1460730.33	0.3214	P	0.8
9	☐			633.37	0.0001	P	23.3

$$y = 3.1966\text{E-}004 * x + 1.2664\text{E-}005$$

$$R = 0.9999$$

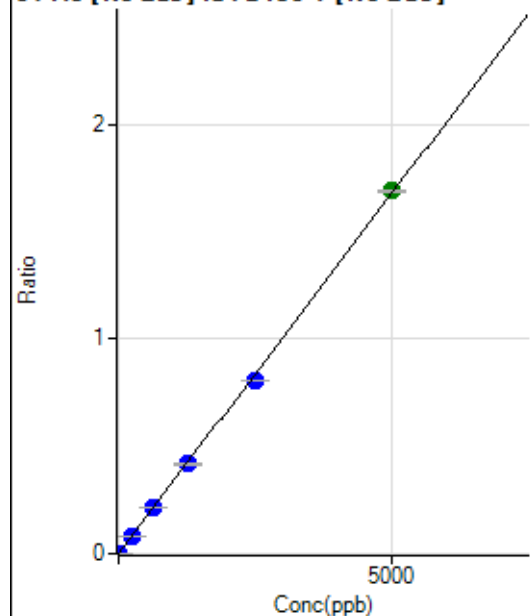
$$DL = 0.03973$$

$$BEC = 0.03962$$

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	127.79	0.0000	P	16.4
2	☐	0.500	0.457	916.74	0.0002	P	10.6
3	☐	5.000	4.858	8514.00	0.0017	P	4.3
4	☐	250.000	247.663	421264.62	0.0831	P	0.1
5	☐	625.000	646.752	1063929.49	0.2169	P	0.6
6	☐	1250.000	1247.136	1969833.05	0.4182	P	0.7
7	☐	2500.000	2412.220	3707321.44	0.8089	P	0.3
8	☐	5000.000	5042.004	7684018.05	1.6908	A	0.5
9	☐			5348.44	0.0013	P	10.7

$$y = 3.3534\text{E-}004 * x + 2.4256\text{E-}005$$

$$R = 0.9998$$

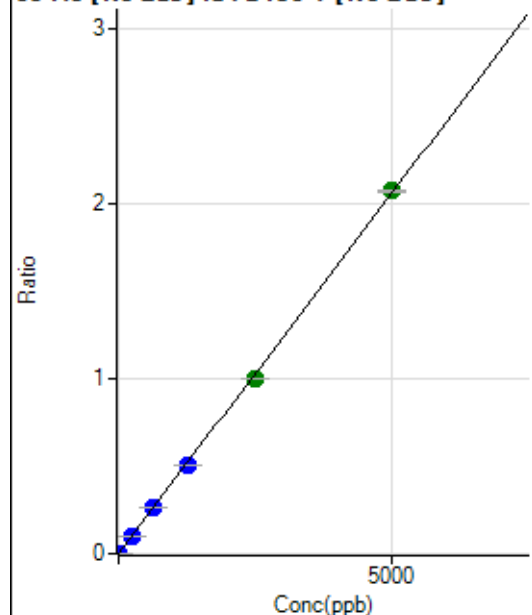
$$DL = 0.03556$$

$$BEC = 0.07233$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	17.0
2	☐	0.500	0.512	1136.21	0.0002	P	5.1
3	☐	5.000	4.965	10554.33	0.0020	P	1.4
4	☐	250.000	244.326	509264.93	0.1004	P	0.9
5	☐	625.000	640.217	1290705.01	0.2631	P	0.5
6	☐	1250.000	1233.073	2386943.41	0.5068	P	0.5
7	☐	2500.000	2428.443	4574320.29	0.9981	A	0.3
8	☐	5000.000	5038.392	9411039.71	2.0708	A	0.6
9	☐			7555.10	0.0018	P	6.1

$$y = 4.1101\text{E-}004 * x + 9.4961\text{E-}006$$

$$R = 0.9998$$

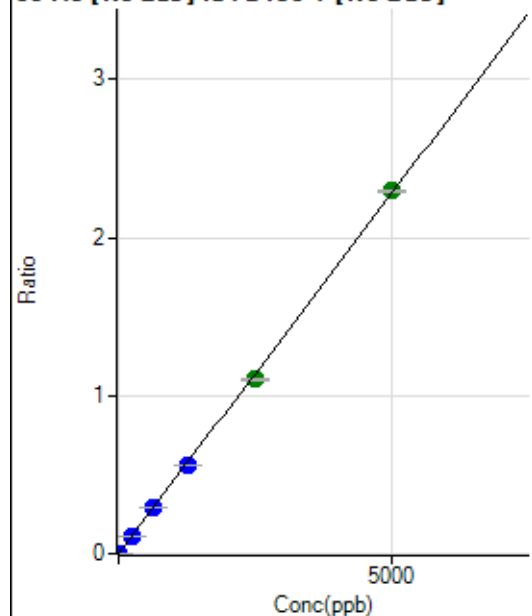
$$DL = 0.01177$$

$$BEC = 0.0231$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77.78	0.0000	P	49.8
2	☐	0.500	0.509	1275.11	0.0002	P	6.1
3	☐	5.000	4.787	11304.98	0.0022	P	3.1
4	☐	250.000	245.435	567151.88	0.1118	P	0.7
5	☐	625.000	642.159	1435253.90	0.2926	P	0.6
6	☐	1250.000	1233.533	2647221.46	0.5621	P	0.4
7	☐	2500.000	2427.278	5068431.71	1.1060	A	0.9
8	☐	5000.000	5038.561	10433708.82	2.2959	A	0.3
9	☐			10048.35	0.0024	P	4.6

$$y = 4.5565\text{E-}004 * x + 1.4790\text{E-}005$$

$$R = 0.9998$$

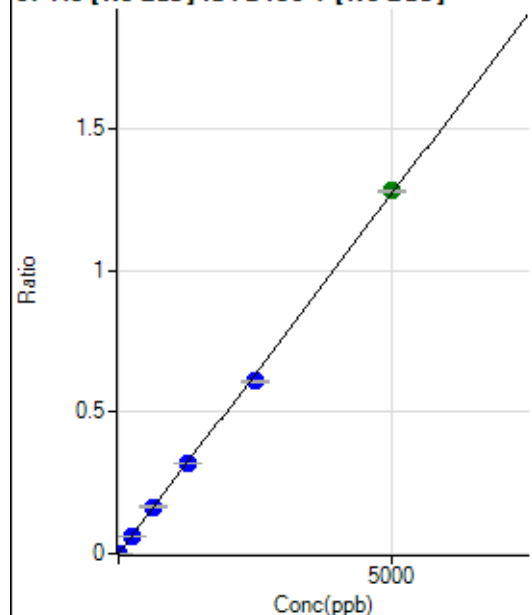
$$DL = 0.04846$$

$$BEC = 0.03246$$

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	52.78	0.0000	P	45.5
2	☐	0.500	0.468	666.71	0.0001	P	20.4
3	☐	5.000	5.053	6671.25	0.0013	P	1.8
4	☐	250.000	248.674	320905.96	0.0633	P	0.7
5	☐	625.000	651.795	813501.68	0.1659	P	1.0
6	☐	1250.000	1256.197	1505473.81	0.3197	P	0.5
7	☐	2500.000	2402.516	2801416.64	0.6113	P	1.2
8	☐	5000.000	5043.910	5832724.52	1.2834	A	0.4
9	☐			4420.32	0.0010	P	4.9

$$y = 2.5445\text{E-}004 * x + 1.0016\text{E-}005$$

$$R = 0.9997$$

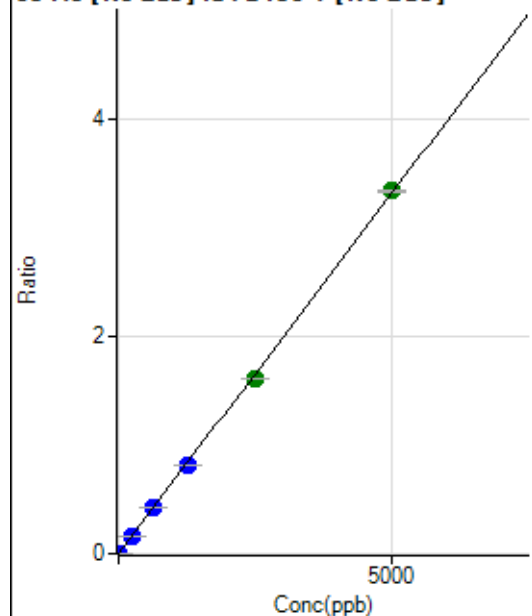
$$DL = 0.05374$$

$$BEC = 0.03936$$

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	75.00	0.0000	P	57.6
2	☐	0.500	0.507	1811.31	0.0004	P	12.0
3	☐	5.000	4.944	16941.22	0.0033	P	0.7
4	☐	250.000	246.232	827507.15	0.1632	P	0.2
5	☐	625.000	640.380	2081546.66	0.4244	P	0.8
6	☐	1250.000	1231.511	3843730.51	0.8161	P	0.5
7	☐	2500.000	2426.523	7369312.41	1.6081	A	0.6
8	☐	5000.000	5039.627	15177910.93	3.3397	A	0.4
9	☐			11652.44	0.0027	P	1.5

$$y = 6.6269\text{E-}004 * x + 1.4218\text{E-}005$$

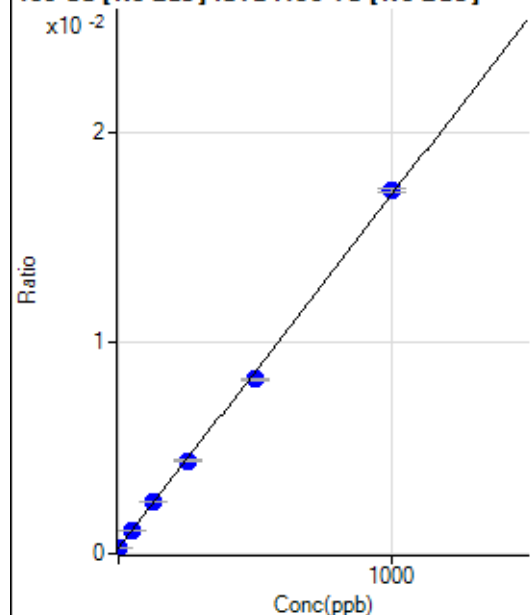
$$R = 0.9998$$

$$DL = 0.03706$$

$$BEC = 0.02146$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2028.01	0.0003	P	5.7
2	☐	0.100	0.711	2083.58	0.0003	P	7.7
3	☐	1.000	0.741	2086.35	0.0003	P	3.4
4	☐	50.000	50.290	8069.37	0.0011	P	3.0
5	☐	125.000	129.455	17469.73	0.0024	P	0.5
6	☐	250.000	246.407	30970.98	0.0044	P	1.6
7	☐	500.000	477.591	57408.81	0.0083	P	1.8
8	☐	1000.000	1011.532	120139.46	0.0172	P	0.9
9	☐			1655.73	0.0003	P	9.9

$$y = 1.6737\text{E-}005 * x + 2.7312\text{E-}004$$

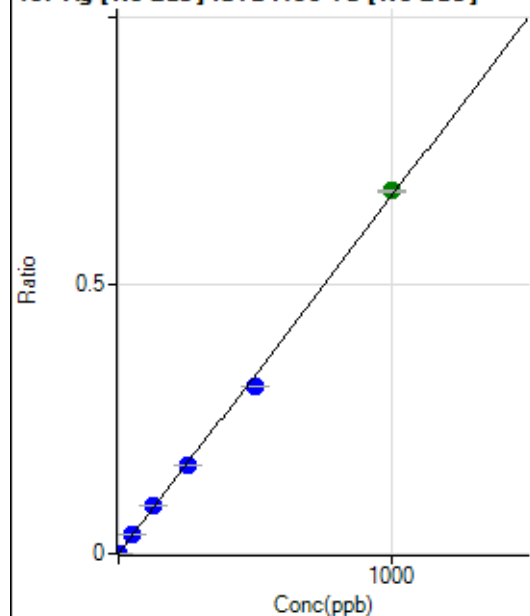
$$R = 0.9996$$

$$DL = 2.813$$

$$BEC = 16.32$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	33.2
2	☐	0.100	0.095	511.14	0.0001	P	11.5
3	☐	1.000	0.993	4881.59	0.0007	P	3.0
4	☐	50.000	51.895	250082.95	0.0346	P	0.6
5	☐	125.000	132.268	630535.15	0.0881	P	0.5
6	☐	250.000	248.069	1163176.69	0.1651	P	0.4
7	☐	500.000	468.770	2167492.13	0.3121	P	0.3
8	☐	1000.000	1015.094	4719425.80	0.6758	A	0.6
9	☐			847.29	0.0001	P	11.0

$$y = 6.6571\text{E-}004 * x + 6.7340\text{E-}006$$

$$R = 0.9993$$

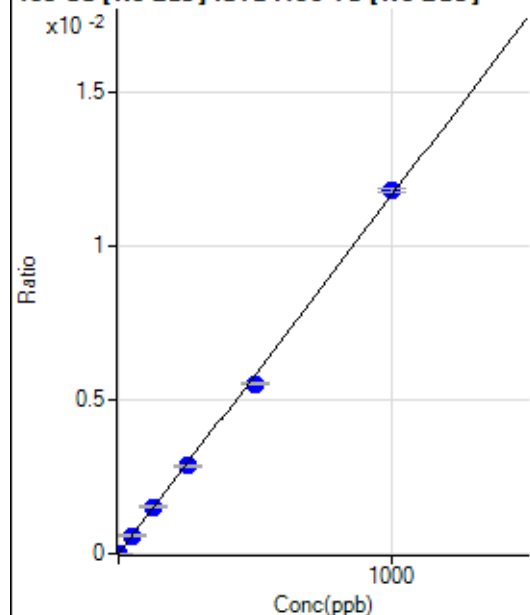
$$DL = 0.01008$$

$$BEC = 0.01012$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.94	0.0000	P	34.9
2	☐	0.100	0.001	6.95	0.0000	P	124.
3	☐	1.000	0.998	91.67	0.0000	P	11.9
4	☐	50.000	50.443	4253.49	0.0006	P	2.7
5	☐	125.000	131.399	10951.64	0.0015	P	1.5
6	☐	250.000	246.231	20179.92	0.0029	P	1.8
7	☐	500.000	474.747	38359.07	0.0055	P	1.7
8	☐	1000.000	1012.747	82280.05	0.0118	P	1.0
9	☐			23.61	0.0000	P	54.4

$$y = 1.1633\text{E-}005 * x + 9.3590\text{E-}007$$

$$R = 0.9995$$

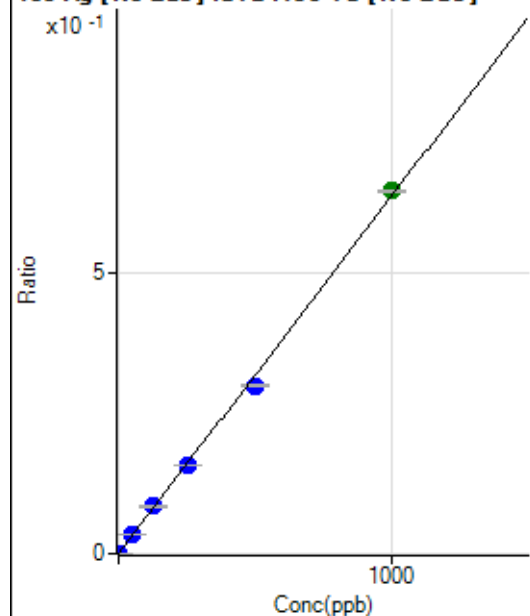
$$DL = 0.08413$$

$$BEC = 0.08045$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.22	0.0000	P	83.1
2	☐	0.100	0.095	491.70	0.0001	P	5.9
3	☐	1.000	1.022	4817.67	0.0007	P	3.7
4	☐	50.000	52.346	241981.99	0.0334	P	1.4
5	☐	125.000	132.010	603689.47	0.0843	P	1.1
6	☐	250.000	247.307	1112443.79	0.1579	P	0.4
7	☐	500.000	469.506	2082545.14	0.2999	P	0.6
8	☐	1000.000	1014.927	4526796.67	0.6482	A	0.7
9	☐			775.05	0.0001	P	15.8

$$y = 6.3864\text{E-}004 * x + 6.3427\text{E-}006$$

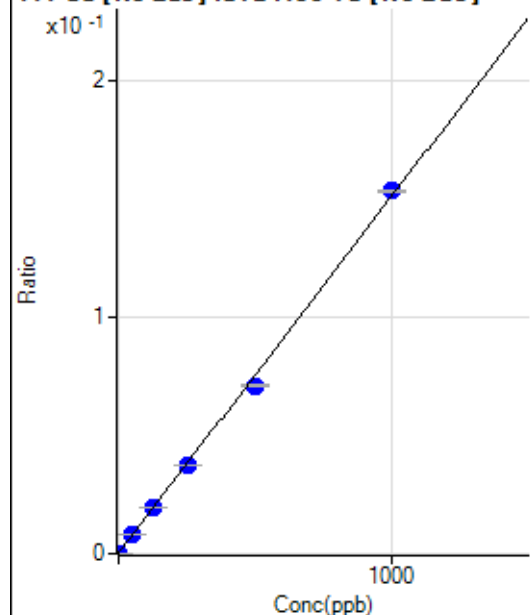
$$R = 0.9993$$

$$DL = 0.02476$$

$$BEC = 0.009932$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1418.91	0.0002	P	5.4
2	☐	0.100	0.153	1564.76	0.0002	P	6.9
3	☐	1.000	0.907	2393.56	0.0003	P	3.1
4	☐	50.000	50.723	56647.40	0.0078	P	1.3
5	☐	125.000	129.384	140835.70	0.0197	P	1.0
6	☐	250.000	245.661	261831.84	0.0372	P	0.3
7	☐	500.000	469.517	492263.23	0.0709	P	0.6
8	☐	1000.000	1015.742	1069253.25	0.1531	P	0.6
9	☐			1475.83	0.0002	P	9.0

$$y = 1.5055\text{E-}004 * x + 1.9109\text{E-}004$$

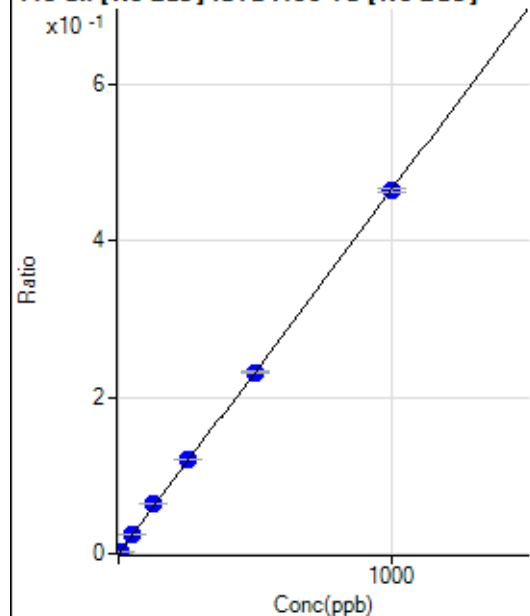
$$R = 0.9993$$

$$DL = 0.2041$$

$$BEC = 1.269$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	150.01	0.0000	P	19.5
2	☐	0.500	0.575	2103.03	0.0003	P	5.3
3	☐	5.000	5.137	17597.74	0.0024	P	3.6
4	☐	50.000	52.848	177951.69	0.0246	P	1.8
5	☐	125.000	135.570	451418.48	0.0630	P	1.0
6	☐	250.000	258.351	846062.60	0.1201	P	0.6
7	☐	500.000	497.758	1607291.84	0.2314	P	0.9
8	☐	1000.000	997.569	3239011.31	0.4638	P	0.9
9	☐			2650.36	0.0004	P	4.8

$$y = 4.6489\text{E-}004 * x + 2.0189\text{E-}005$$

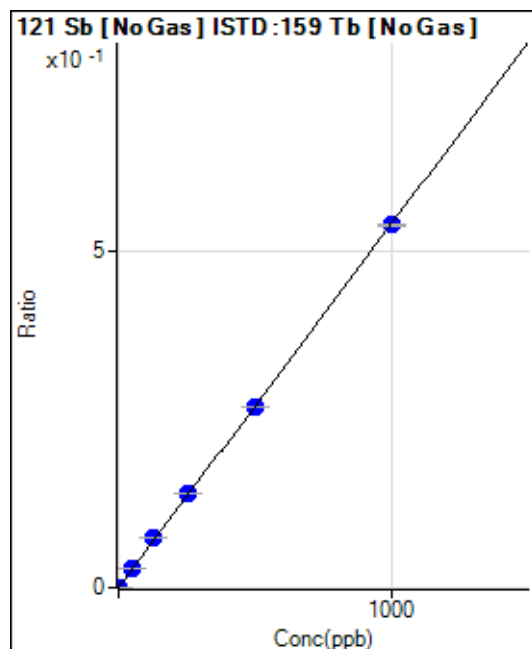
$$R = 0.9999$$

$$DL = 0.02545$$

$$BEC = 0.04343$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77.78	0.0000	P	51.0
2	☐	0.200	0.208	900.07	0.0001	P	4.2
3	☐	2.000	1.881	7499.53	0.0010	P	5.1
4	☐	50.000	52.141	203885.22	0.0282	P	0.2
5	☐	125.000	135.536	524205.30	0.0732	P	0.7
6	☐	250.000	260.008	989122.88	0.1404	P	0.4
7	☐	500.000	497.524	1866302.10	0.2687	P	0.7
8	☐	1000.000	997.312	3761636.89	0.5386	P	0.5
9	☐			5737.52	0.0009	P	3.9

$$y = 5.4008\text{E-}004 * x + 1.0492\text{E-}005$$

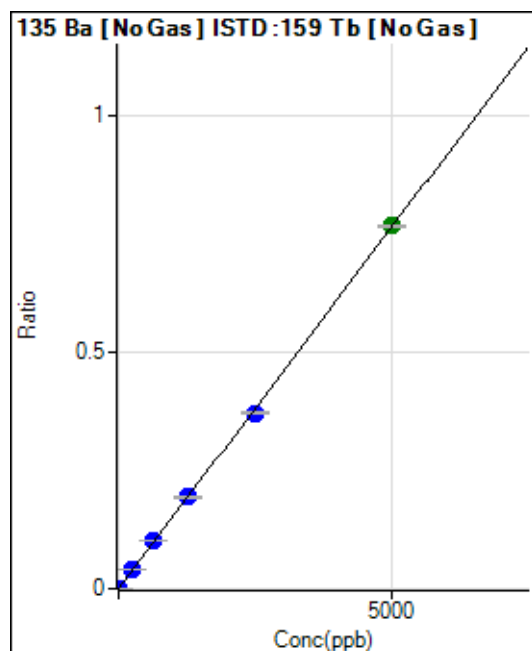
$$R = 0.9999$$

$$DL = 0.02974$$

$$BEC = 0.01943$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.89	0.0000	P	124.
2	☐	1.000	1.034	1169.54	0.0002	P	4.8
3	☐	10.000	10.181	11388.43	0.0016	P	4.4
4	☐	250.000	257.663	285149.09	0.0394	P	0.9
5	☐	625.000	665.671	728810.33	0.1018	P	1.1
6	☐	1250.000	1266.070	1363521.85	0.1936	P	0.2
7	☐	2500.000	2433.101	2583970.87	0.3720	P	0.6
8	☐	5000.000	5023.965	5364989.97	0.7682	A	0.3
9	☐			1522.37	0.0002	P	16.2

$$y = 1.5291\text{E-}004 * x + 1.8625\text{E-}006$$

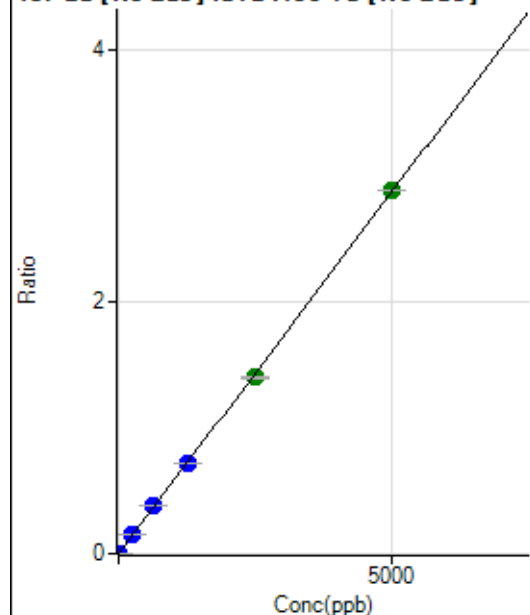
$$R = 0.9998$$

$$DL = 0.04564$$

$$BEC = 0.01218$$

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	44.45	0.0000	P	59.9
2	☐	1.000	1.049	4439.33	0.0006	P	0.7
3	☐	10.000	10.120	42416.42	0.0058	P	2.9
4	☐	250.000	256.696	1064618.86	0.1471	P	0.7
5	☐	625.000	663.055	2720560.39	0.3800	P	1.0
6	☐	1250.000	1258.524	5079482.62	0.7212	P	0.1
7	☐	2500.000	2440.330	9712425.26	1.3984	A	0.5
8	☐	5000.000	5022.612	20100413.47	2.8782	A	0.1
9	☐			5603.43	0.0009	P	11.3

$$y = 5.7304\text{E-}004 * x + 5.9752\text{E-}006$$

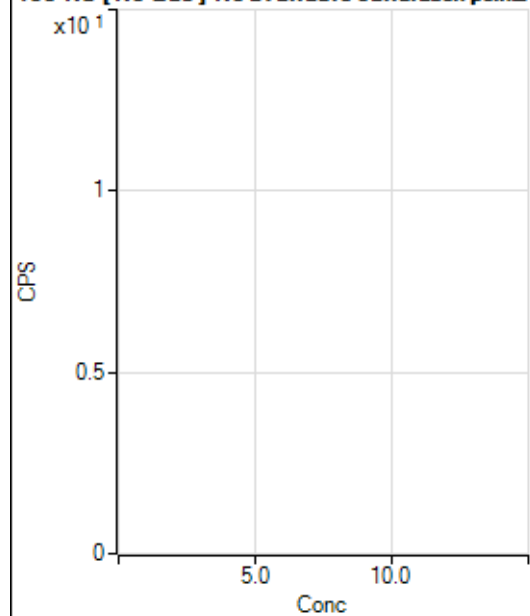
$$R = 0.9999$$

$$DL = 0.01873$$

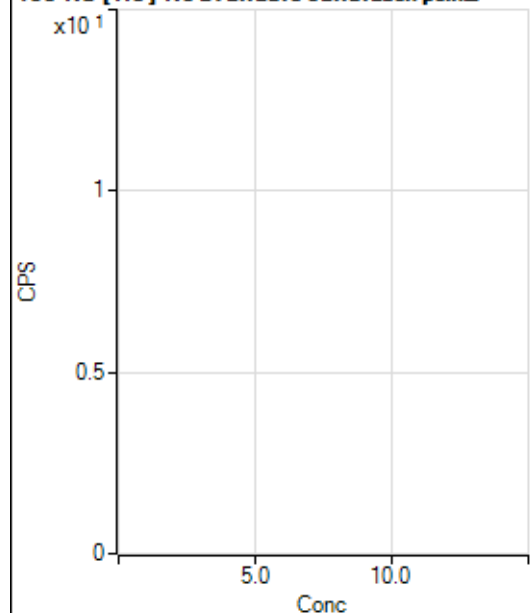
$$BEC = 0.01043$$

Weight: <None>

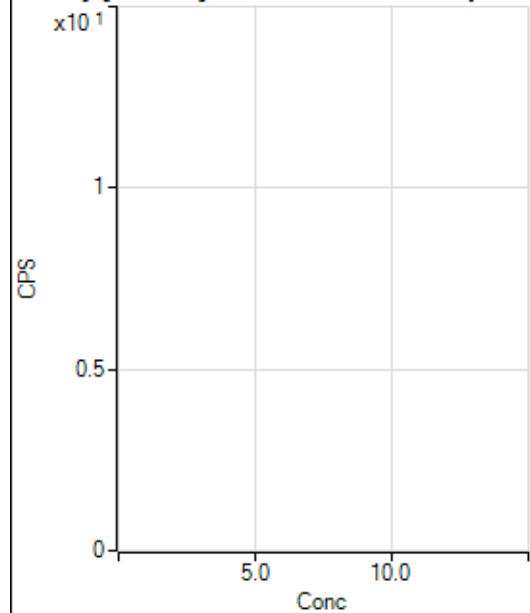
Min Conc: 0

150 Nd [No Gas] No available calibration points

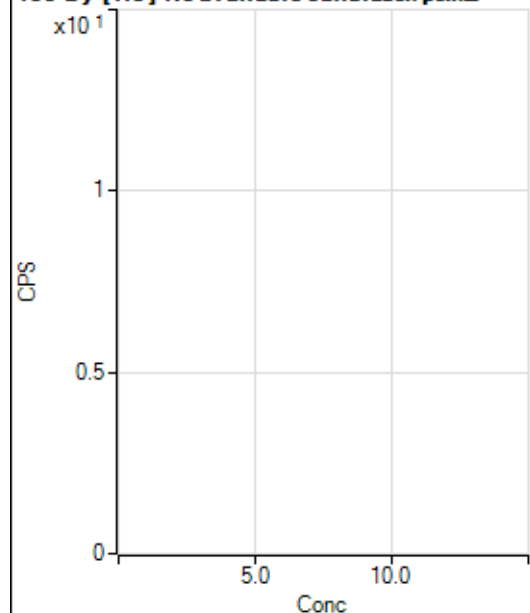
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐			0.00		P	
3	☐			2.22		P	173.
4	☐			35.56		P	43.3
5	☐			71.11		P	10.8
6	☐			115.56		P	12.0
7	☐			246.68		P	9.7
8	☐			466.69		P	6.2
9	☐			86.67		P	26.6

150 Nd [He] No available calibration points

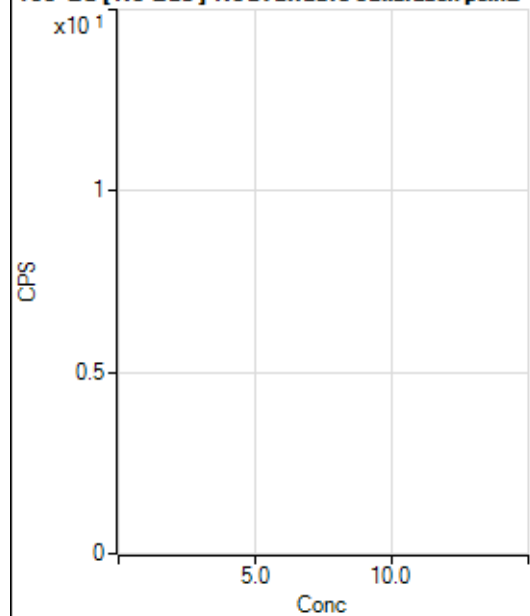
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			1.11		P	173.
3	☐			1.11		P	173.
4	☐			8.89		P	43.3
5	☐			7.78		P	65.5
6	☐			7.78		P	107.
7	☐			25.56		P	19.9
8	☐			52.22		P	37.4
9	☐			42.22		P	50.1

156 Dy [No Gas] No available calibration points

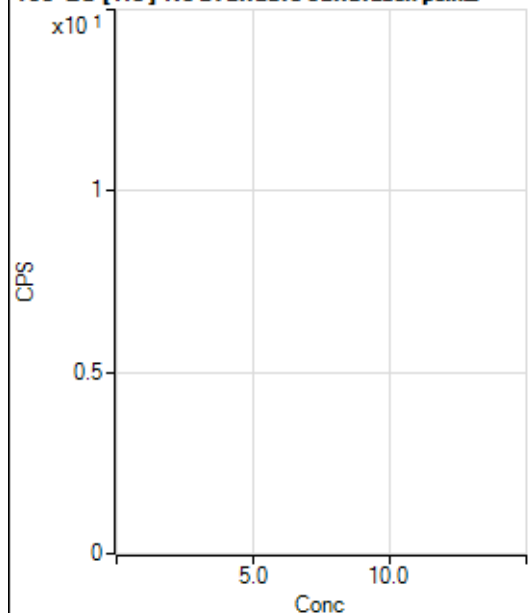
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			8.33		P	100.
3	☐			0.00		P	
4	☐			5.56		P	173.
5	☐			11.11		P	86.6
6	☐			36.11		P	70.5
7	☐			55.56		P	74.0
8	☐			86.11		P	31.1
9	☐			52.78		P	18.2

156 Dy [He] No available calibration points

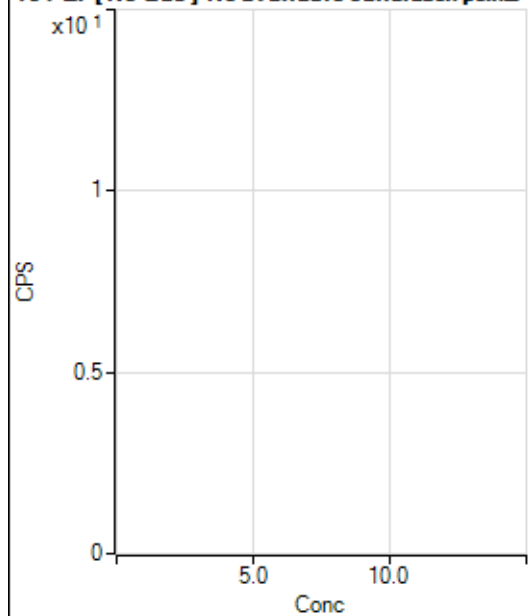
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐			2.22		P	86.6
3	☐			1.11		P	173.
4	☐			6.67		P	100.
5	☐			20.00		P	0.0
6	☐			40.00		P	22.0
7	☐			64.44		P	23.3
8	☐			107.78		P	6.4
9	☐			24.44		P	75.1

160 Gd [No Gas] Noavailable calibration poin_

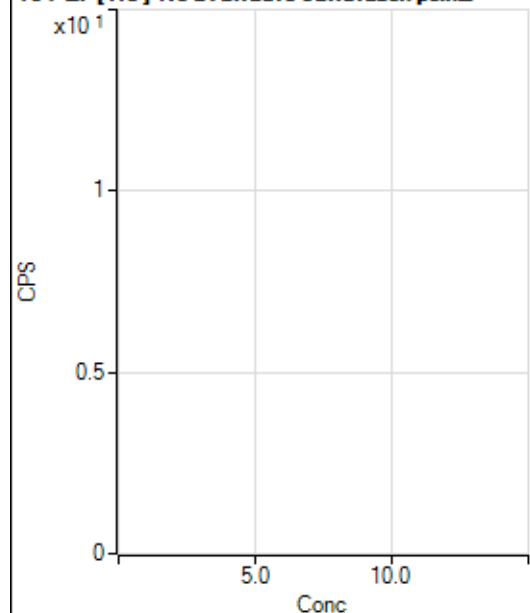
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	21.6
2	☐			30.56		P	31.5
3	☐			16.67		P	NaN
4	☐			25.00		P	33.3
5	☐			27.78		P	45.8
6	☐			16.67		P	50.0
7	☐			33.34		P	43.3
8	☐			55.56		P	31.2
9	☐			52.78		P	45.6

160 Gd [He] No available calibration points

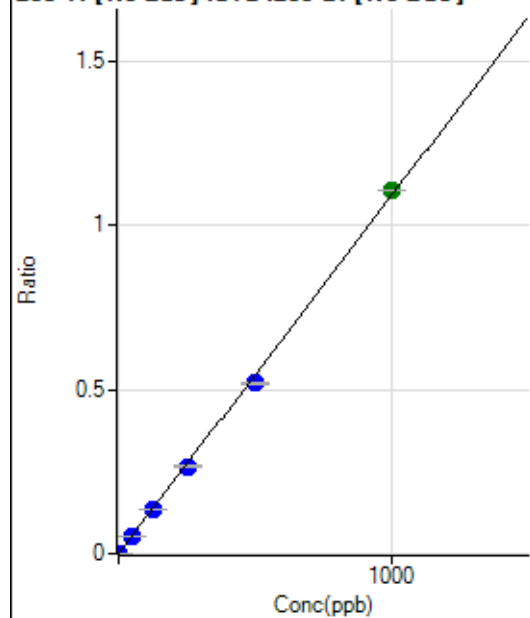
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			103.34		P	12.9
2	☐			108.89		P	22.1
3	☐			85.56		P	33.6
4	☐			104.45		P	29.0
5	☐			103.34		P	11.6
6	☐			97.78		P	2.0
7	☐			115.56		P	14.2
8	☐			86.67		P	43.3
9	☐			98.89		P	7.0

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	43.3
2	☐			27.78		P	69.3
3	☐			38.89		P	12.4
4	☐			19.44		P	89.2
5	☐			38.89		P	32.7
6	☐			13.89		P	34.7
7	☐			25.00		P	57.7
8	☐			22.22		P	21.6
9	☐			55.56		P	43.3

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			12.22		P	41.7
2	☐			8.89		P	21.6
3	☐			10.00		P	57.8
4	☐			17.78		P	21.7
5	☐			12.22		P	15.7
6	☐			15.56		P	61.9
7	☐			15.56		P	49.5
8	☐			13.33		P	66.2
9	☐			21.11		P	55.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	77.78	0.0000	P	44.8
2	☐	0.100	0.084	519.48	0.0001	P	13.2
3	☐	1.000	0.897	4778.84	0.0010	P	5.1
4	☐	50.000	48.004	249085.22	0.0524	P	1.6
5	☐	125.000	125.315	643109.58	0.1367	P	0.3
6	☐	250.000	243.891	1231460.19	0.2661	P	0.7
7	☐	500.000	475.930	2360925.12	0.5192	P	0.5
8	☐	1000.000	1013.623	4939704.67	1.1058	A	0.0
9	☐			1894.67	0.0005	P	18.3

$$y = 0.0011 * x + 1.5769E-005$$

$$R = 0.9996$$

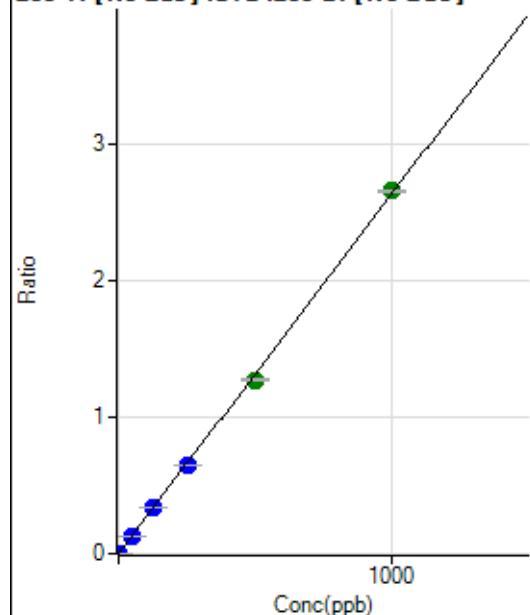
$$DL = 0.01941$$

$$BEC = 0.01445$$

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	219.46	0.0000	P	25.8
2	☐	0.100	0.097	1441.81	0.0003	P	3.0
3	☐	1.000	0.857	11088.45	0.0023	P	2.6
4	☐	50.000	48.502	608514.12	0.1280	P	1.0
5	☐	125.000	126.507	1569712.65	0.3337	P	0.6
6	☐	250.000	245.068	2991830.67	0.6464	P	0.2
7	☐	500.000	483.399	5797720.92	1.2751	A	0.6
8	☐	1000.000	1009.420	11893552.00	2.6625	A	0.5
9	☐			4839.96	0.0012	P	8.3

$$y = 0.0026 * x + 4.4505E-005$$

$$R = 0.9998$$

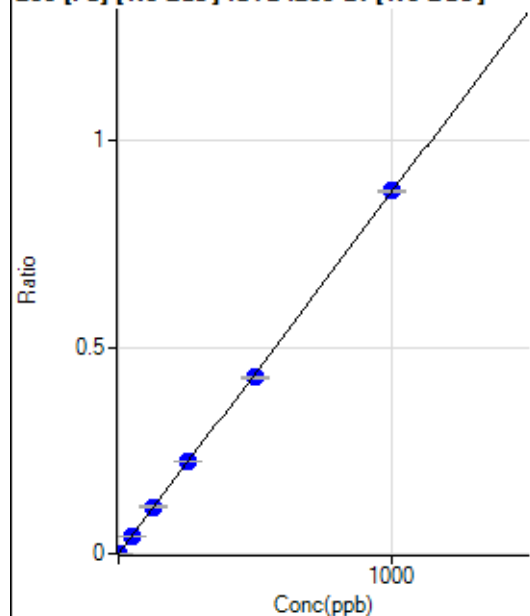
$$DL = 0.01304$$

$$BEC = 0.01687$$

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	398.16	0.0001	P	9.5
2	☐	0.100	0.116	877.83	0.0002	P	13.8
3	☐	1.000	0.915	4235.99	0.0009	P	4.9
4	☐	50.000	49.992	208458.80	0.0438	P	0.9
5	☐	125.000	130.304	536879.03	0.1141	P	0.9
6	☐	250.000	253.194	1026116.21	0.2217	P	0.1
7	☐	500.000	487.732	1941628.59	0.4270	P	0.8
8	☐	1000.000	1004.673	3928840.42	0.8795	P	0.5
9	☐			6840.82	0.0018	P	0.9

$$y = 8.7535E-004 * x + 8.0642E-005$$

$$R = 0.9999$$

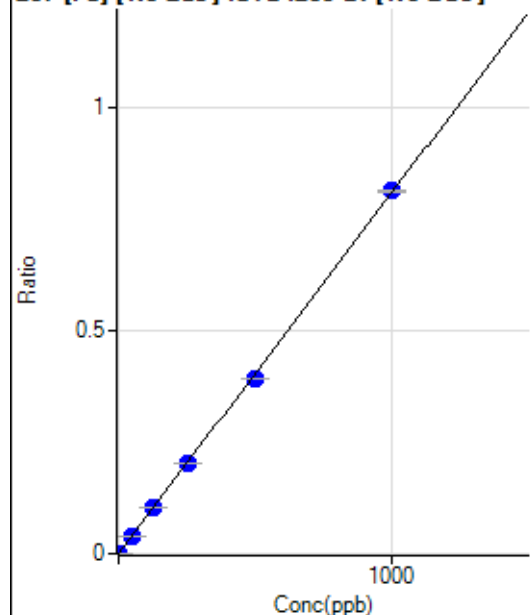
$$DL = 0.02635$$

$$BEC = 0.09213$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	394.46	0.0001	P	1.8
2	☐	0.100	0.107	800.05	0.0002	P	4.4
3	☐	1.000	0.879	3796.96	0.0008	P	1.6
4	☐	50.000	49.284	189653.07	0.0399	P	1.1
5	☐	125.000	129.941	494016.66	0.1050	P	0.8
6	☐	250.000	250.115	935306.44	0.2021	P	0.3
7	☐	500.000	485.849	1784671.77	0.3925	P	0.5
8	☐	1000.000	1006.465	3631635.76	0.8130	P	0.2
9	☐			5970.02	0.0015	P	2.6

$$y = 8.0769\text{E-}004 * x + 7.9924\text{E-}005$$

$$R = 0.9998$$

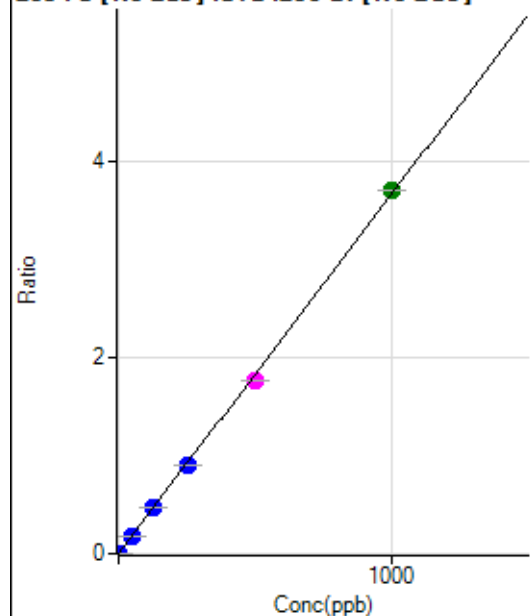
$$DL = 0.005384$$

$$BEC = 0.09895$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1624.16	0.0003	P	4.2
2	☐	0.100	0.114	3587.33	0.0007	P	1.5
3	☐	1.000	0.890	17221.61	0.0036	P	1.2
4	☐	50.000	48.913	852026.73	0.1792	P	0.7
5	☐	125.000	128.269	2207675.17	0.4694	P	0.6
6	☐	250.000	248.069	4199612.52	0.9074	P	0.4
7	☐	500.000	481.338	8004797.94	1.7604	M	0.3
8	☐	1000.000	1009.460	16490190.62	3.6916	A	0.1
9	☐			27611.97	0.0071	P	2.1

$$y = 0.0037 * x + 3.2909\text{E-}004$$

$$R = 0.9997$$

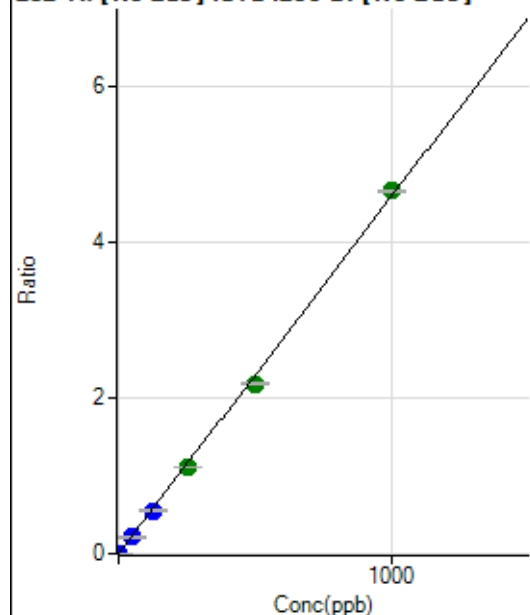
$$DL = 0.01144$$

$$BEC = 0.09$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	168.53	0.0000	P	4.3
2	☐	0.100	0.085	2044.67	0.0004	P	1.2
3	☐	1.000	0.802	17873.72	0.0037	P	1.9
4	☐	50.000	45.800	1000711.39	0.2105	P	0.8
5	☐	125.000	120.916	2613119.99	0.5556	P	0.7
6	☐	250.000	240.364	5111130.96	1.1043	A	0.3
7	☐	500.000	475.529	9934325.45	2.1848	A	0.4
8	☐	1000.000	1015.365	20838553.01	4.6650	A	0.2
9	☐			8112.00	0.0021	P	12.8

$$y = 0.0046 * x + 3.4149E-005$$

$$R = 0.9995$$

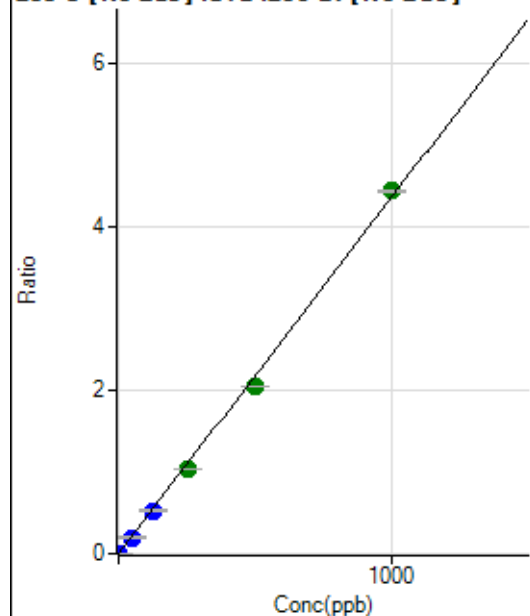
$$DL = 0.0009634$$

$$BEC = 0.007433$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	97.23	0.0000	P	27.6
2	☐	0.100	0.092	2025.27	0.0004	P	7.3
3	☐	1.000	0.875	18452.72	0.0038	P	2.0
4	☐	50.000	45.732	948787.38	0.1995	P	1.0
5	☐	125.000	121.325	2489837.71	0.5293	P	0.4
6	☐	250.000	237.878	4803277.32	1.0378	A	0.1
7	☐	500.000	470.818	9340676.86	2.0541	A	0.4
8	☐	1000.000	1018.294	19845505.13	4.4427	A	0.3
9	☐			4620.51	0.0012	P	20.8

$$y = 0.0044 * x + 1.9698E-005$$

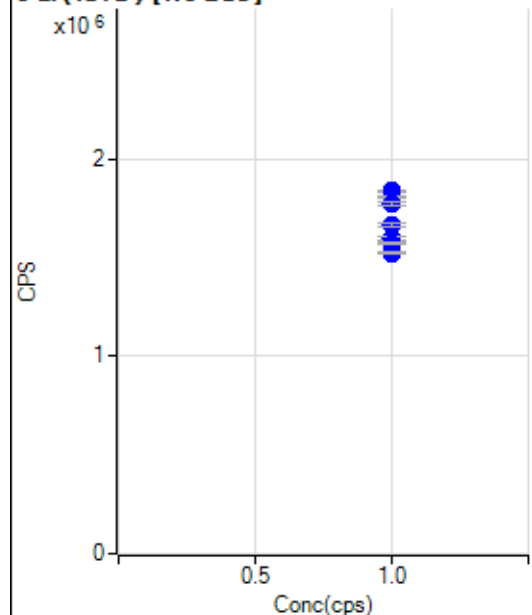
$$R = 0.9993$$

$$DL = 0.003737$$

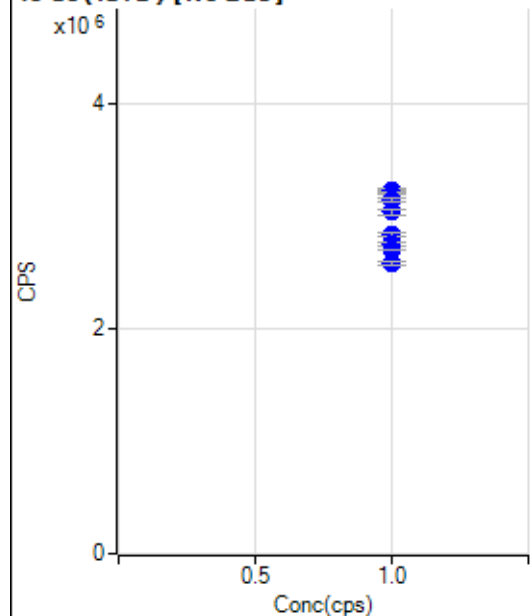
$$BEC = 0.004515$$

Weight: <None>

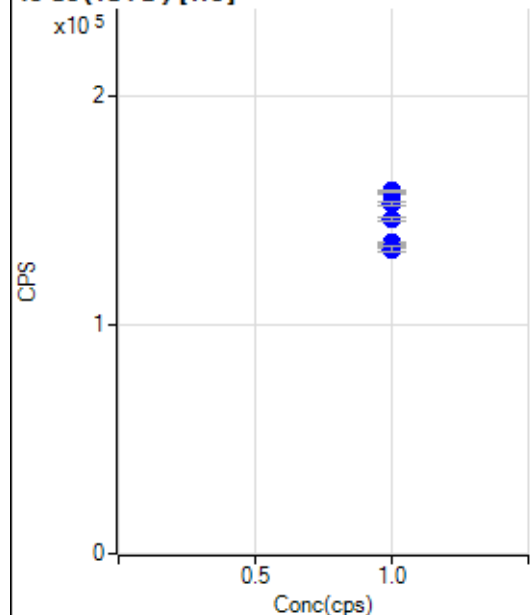
Min Conc: 0

6 Li (ISTD) [No Gas]

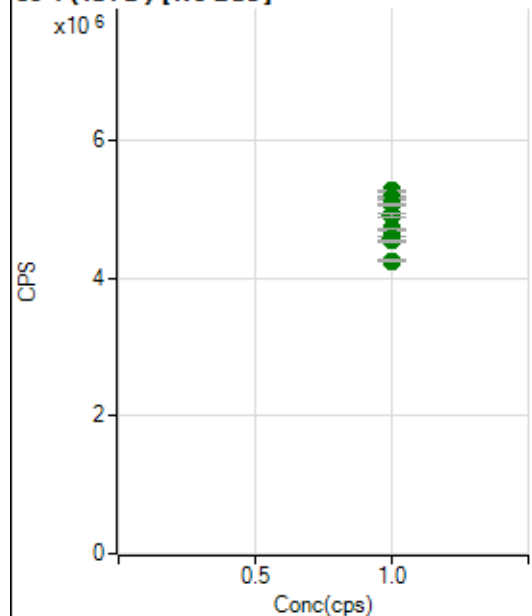
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1829380.47		P	0.3
2	☐	1.000		1836819.27		P	0.6
3	☐	1.000		1830303.57		P	0.1
4	☐	1.000		1809238.15		P	0.5
5	☐	1.000		1767580.84		P	1.1
6	☐	1.000		1665578.88		P	0.9
7	☐	1.000		1594629.49		P	1.2
8	☐	1.000		1570464.29		P	0.7
9	☐	1.000		1522718.43		P	1.0

45 Sc (ISTD) [No Gas]

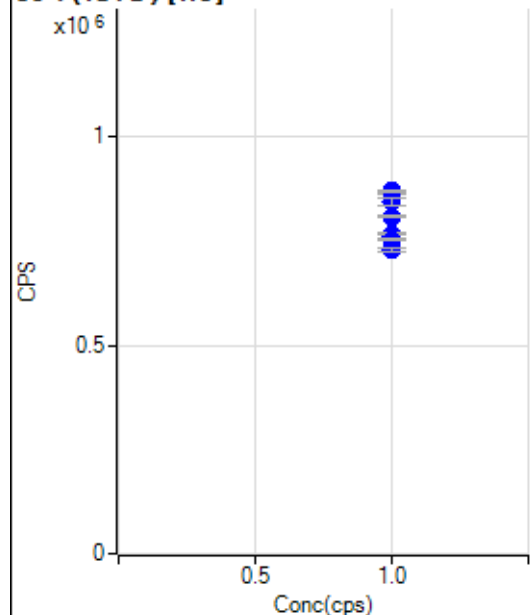
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3218828.11		P	0.6
2	☐	1.000		3231109.47		P	1.0
3	☐	1.000		3209782.99		P	0.5
4	☐	1.000		3154499.40		P	1.0
5	☐	1.000		3039945.27		P	1.2
6	☐	1.000		2839954.47		P	1.2
7	☐	1.000		2752874.50		P	1.2
8	☐	1.000		2706767.23		P	0.5
9	☐	1.000		2581261.04		P	1.1

45 Sc (ISTD) [He]

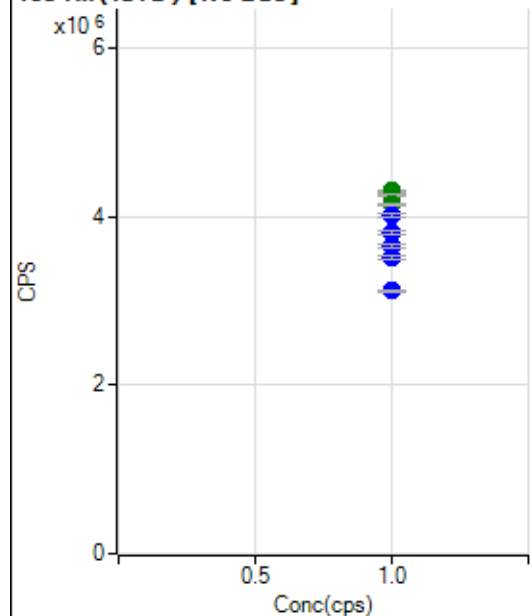
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		157752.71		P	0.6
2	☐	1.000		157835.28		P	0.4
3	☐	1.000		158768.73		P	0.9
4	☐	1.000		153351.98		P	1.2
5	☐	1.000		146246.42		P	1.0
6	☐	1.000		135014.47		P	1.6
7	☐	1.000		135954.26		P	0.9
8	☐	1.000		133783.68		P	0.5
9	☐	1.000		133344.18		P	1.4

89 Y (ISTD) [No Gas]

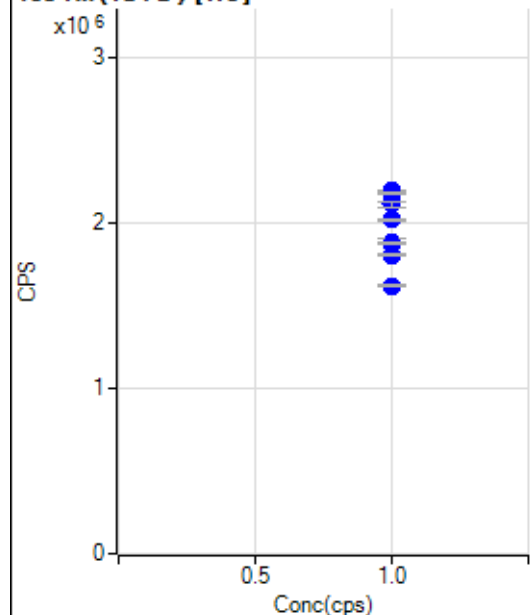
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5267857.80		A	0.5
2	☐	1.000		5165886.31		A	0.7
3	☐	1.000		5148631.63		A	0.3
4	☐	1.000		5070804.02		A	0.3
5	☐	1.000		4905114.55		A	1.2
6	☐	1.000		4709690.94		A	0.5
7	☐	1.000		4583016.67		A	1.5
8	☐	1.000		4544624.86		A	0.7
9	☐	1.000		4256182.47		A	0.8

89 Y (ISTD) [He]

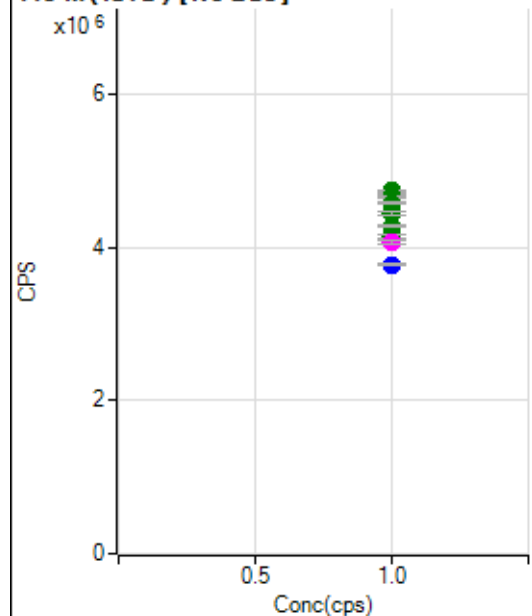
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		866532.71		P	0.5
2	☐	1.000		869853.17		P	0.5
3	☐	1.000		868820.08		P	0.6
4	☐	1.000		844058.42		P	2.1
5	☐	1.000		808830.33		P	0.4
6	☐	1.000		761631.96		P	1.7
7	☐	1.000		767546.04		P	0.4
8	☐	1.000		753199.64		P	0.7
9	☐	1.000		729148.17		P	1.1

103 Rh (ISTD) [No Gas]

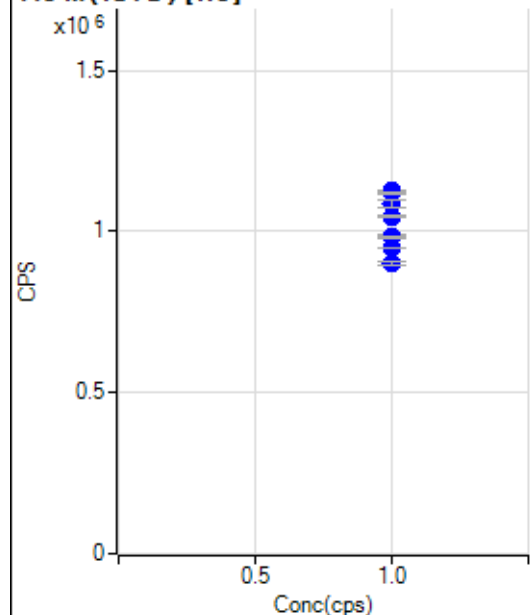
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4304231.48		A	0.6
2	☐	1.000		4264287.64		A	0.8
3	☐	1.000		4256719.24		A	0.5
4	☐	1.000		4147377.22		A	0.7
5	☐	1.000		4006026.57		P	1.2
6	☐	1.000		3803689.49		P	1.0
7	☐	1.000		3650670.18		P	1.4
8	☐	1.000		3518802.34		P	1.0
9	☐	1.000		3118786.83		P	1.0

103 Rh (ISTD) [He]

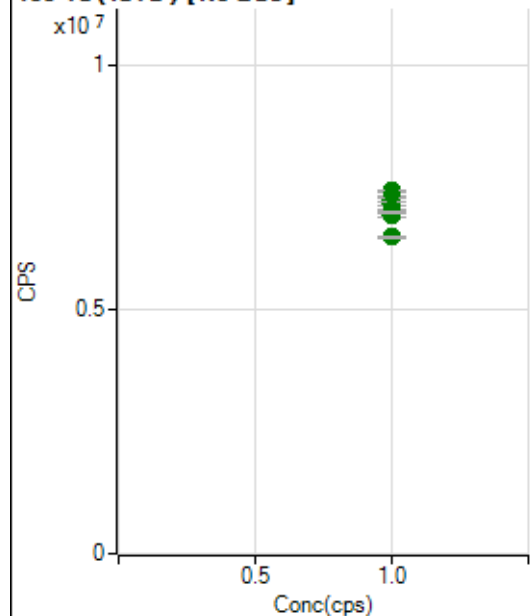
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2191294.97		P	0.5
2	☐	1.000		2197931.08		P	0.5
3	☐	1.000		2183990.11		P	0.4
4	☐	1.000		2115939.79		P	2.1
5	☐	1.000		2025618.95		P	0.5
6	☐	1.000		1891782.26		P	1.6
7	☐	1.000		1880908.79		P	0.5
8	☐	1.000		1808007.44		P	0.6
9	☐	1.000		1623085.15		P	1.1

115 In (ISTD) [No Gas]

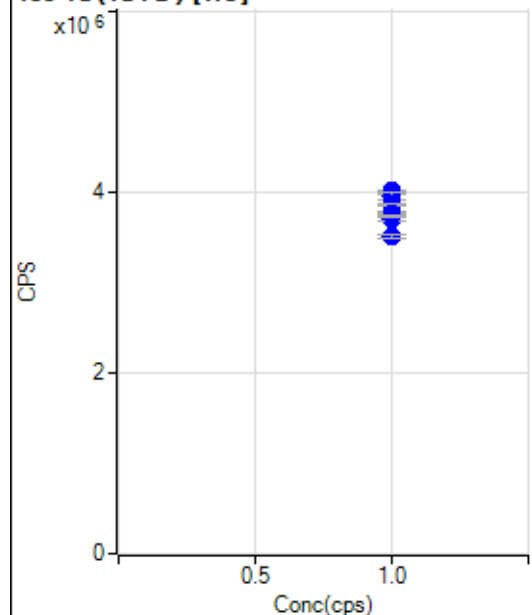
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4743842.15		A	0.3
2	☐	1.000		4677589.30		A	0.7
3	☐	1.000		4669949.81		A	0.8
4	☐	1.000		4585396.66		A	0.5
5	☐	1.000		4454921.50		A	1.2
6	☐	1.000		4277169.40		A	0.6
7	☐	1.000		4158533.47		A	1.2
8	☐	1.000		4069057.23		M	1.2
9	☐	1.000		3782565.59		P	1.0

115 In (ISTD) [He]

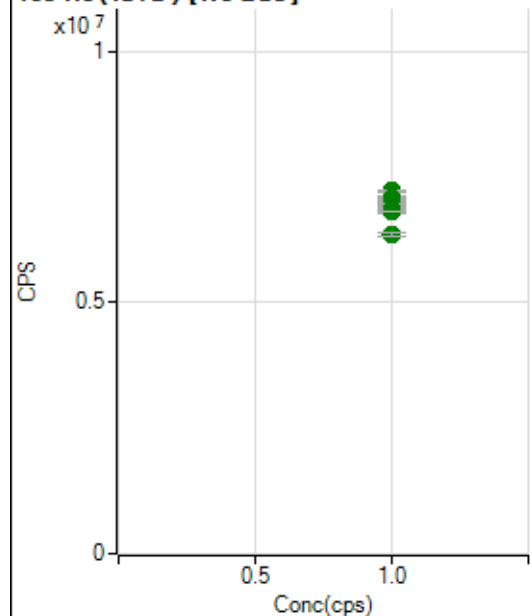
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1120349.45		P	0.6
2	☐	1.000		1125925.46		P	0.6
3	☐	1.000		1119087.76		P	0.5
4	☐	1.000		1086831.97		P	2.2
5	☐	1.000		1046516.79		P	0.5
6	☐	1.000		983686.80		P	1.6
7	☐	1.000		982397.20		P	0.2
8	☐	1.000		948033.54		P	0.3
9	☐	1.000		898913.12		P	1.2

159 Tb (ISTD) [No Gas]

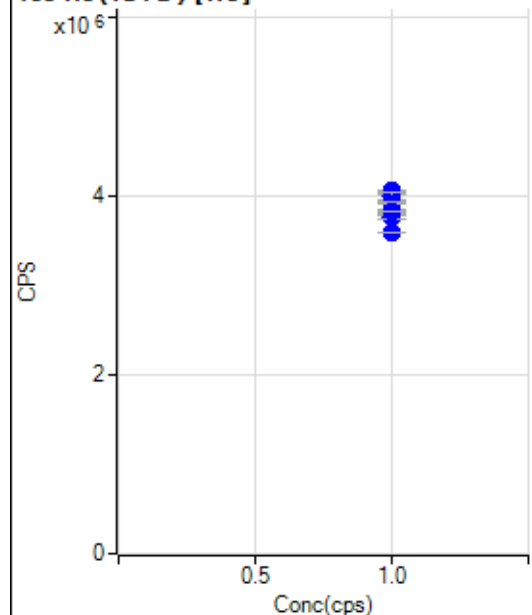
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7425290.79		A	0.7
2	☐	1.000		7311119.27		A	0.4
3	☐	1.000		7306863.92		A	0.2
4	☐	1.000		7237500.93		A	0.8
5	☐	1.000		7160633.92		A	1.1
6	☐	1.000		7043216.15		A	0.4
7	☐	1.000		6945625.66		A	1.3
8	☐	1.000		6983768.16		A	0.6
9	☐	1.000		6479776.15		A	0.5

159 Tb (ISTD) [He]

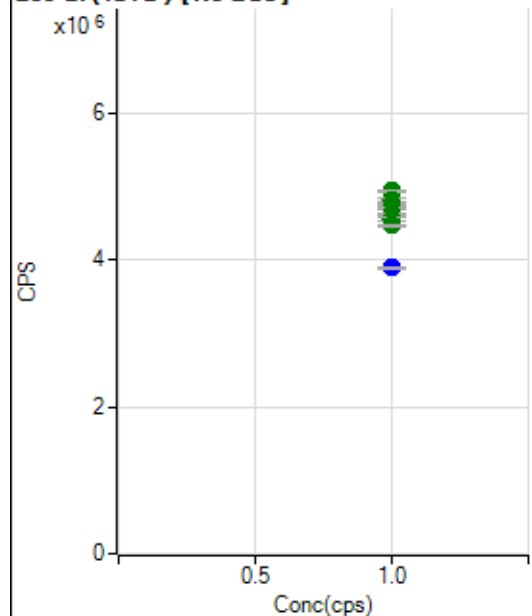
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4007521.30		P	0.3
2	☐	1.000		4008677.09		P	0.5
3	☐	1.000		3977962.16		P	0.2
4	☐	1.000		3943229.39		P	2.2
5	☐	1.000		3859643.76		P	0.2
6	☐	1.000		3701169.04		P	1.6
7	☐	1.000		3770380.29		P	0.7
8	☐	1.000		3732339.32		P	0.8
9	☐	1.000		3513186.02		P	1.1

165 Ho (ISTD) [No Gas]

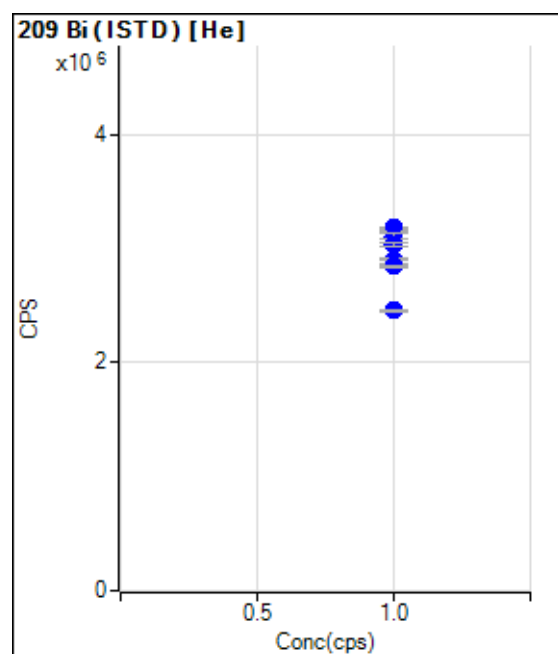
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7218540.00		A	0.5
2	☐	1.000		7076968.82		A	0.9
3	☐	1.000		7045600.76		A	0.6
4	☐	1.000		6985320.99		A	0.1
5	☐	1.000		6936789.48		A	0.8
6	☐	1.000		6836619.55		A	1.0
7	☐	1.000		6805203.27		A	1.0
8	☐	1.000		6817264.69		A	0.3
9	☐	1.000		6347498.84		A	0.9

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4060285.74		P	0.2
2	☐	1.000		4063745.81		P	0.6
3	☐	1.000		4046815.95		P	0.5
4	☐	1.000		4014459.49		P	2.1
5	☐	1.000		3927996.23		P	0.5
6	☐	1.000		3771692.62		P	1.3
7	☐	1.000		3838874.81		P	0.8
8	☐	1.000		3829772.13		P	0.3
9	☐	1.000		3596315.30		P	0.6

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4935775.62		A	0.6
2	☐	1.000		4815375.42		A	0.8
3	☐	1.000		4807671.98		A	1.1
4	☐	1.000		4755112.57		A	0.8
5	☐	1.000		4703635.76		A	0.5
6	☐	1.000		4628129.79		A	0.6
7	☐	1.000		4547201.43		A	1.4
8	☐	1.000		4467003.34		A	0.4
9	☐	1.000		3888138.87		P	0.8



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3171018.04		P	0.3
2	☐	1.000		3179686.69		P	0.8
3	☐	1.000		3146064.05		P	0.6
4	☐	1.000		3104881.28		P	1.8
5	☐	1.000		3038228.32		P	1.0
6	☐	1.000		2893968.95		P	1.5
7	☐	1.000		2906326.24		P	0.3
8	☐	1.000		2841113.43		P	0.7
9	☐	1.000		2456245.95		P	0.8

US EPA Tune Check Sample Report

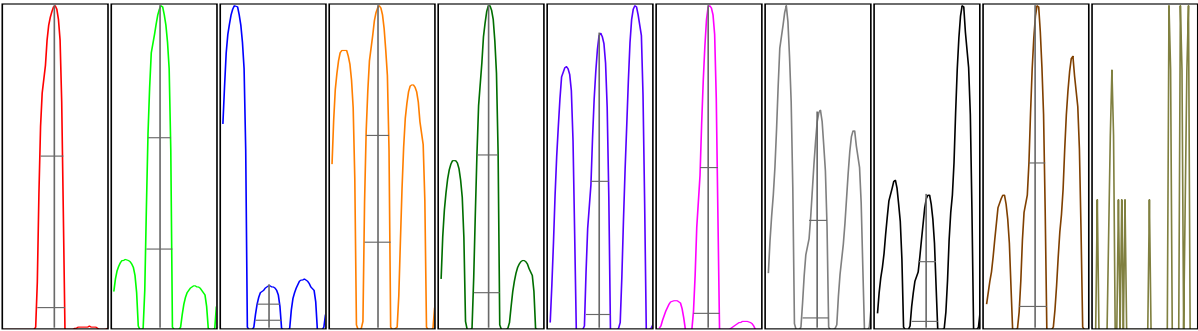
Batch Folder D:\ICP-MS Data\P7061519MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	5670	0.42	5.00	
24	136258	0.47	5.00	
25	18962	0.50	5.00	
26	21441	0.57	5.00	
59	36498	0.38	5.00	
113	5475	0.42	5.00	
115	66441	0.29	5.00	
206	19547	0.70	5.00	
207	17639	0.37	5.00	
208	42325	0.20	5.00	
220	0	223.61		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	5644	5704	5683	5666	5653
24	135643	137252	136478	136128	135791
25	18893	19121	18945	18884	18969
26	21292	21574	21558	21386	21393
59	36366	36652	36601	36345	36526
113	5456	5503	5488	5447	5480
115	66509	66648	66526	66390	66132
206	19436	19756	19608	19436	19501
207	17629	17738	17566	17657	17603
208	42309	42418	42398	42207	42292
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	9094	9.00	8.9 - 9.1		0.819	0.900	
24	218676	23.90	23.9 - 24.1		0.753	0.900	
25	29165	24.90	24.9 - 25.1		0.751	0.900	
26	33788	25.90	25.9 - 26.1		0.743	0.900	
59	62433	58.95	58.9 - 59.1		0.755	0.900	
113	10425	113.00	112.9 - 113.1		0.733	0.900	
115	129403	115.00	114.9 - 115.1		0.748	0.900	
206	38724	206.00	205.9 - 206.1		0.776	0.900	
207	35316	207.00	206.9 - 207.1		0.777	0.900	
208	84808	208.00	207.9 - 208.1		0.782	0.900	
220	0	220.00	-		0.050		

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	7.7	V	Deflect	14.0	V
Extract 2	-100.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	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	9527	0.26	
89	20753	0.30	
205	17685	0.26	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	9522	9538	9503	9564	9508
89	20723	20862	20737	20721	20721
205	17658	17662	17759	17697	17649

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	8.2	V	Deflect	1.6	V
Extract 2	-100.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	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			