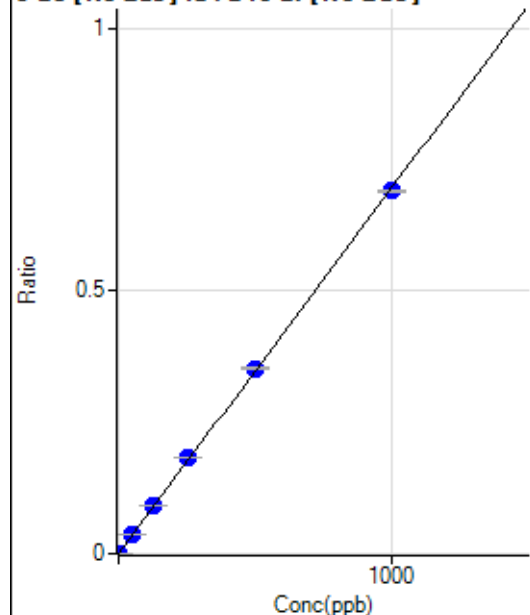


Batch Folder: D:\ICP-MS Data\P7080219-IMS.b\
Analysis File: P7080219-IMS.batch.bin
DA Date-Time: 2019-08-03 01:49:56
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-08-02 16:31:16
2	003CALS.d	S01	2019-08-02 16:34:53
3	004CALS.d	S02	2019-08-02 16:39:46
4	005CALS.d	S03	2019-08-02 16:43:43
5	006CALS.d	S04	2019-08-02 16:47:49
6	007CALS.d	S05	2019-08-02 16:51:40
7	008CALS.d	S06	2019-08-02 16:55:29
8	009CALS.d	S07	2019-08-02 16:59:16
9	010CALS.d	S08	2019-08-02 17:03:04

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	127.78	0.0000	P	19.1
2	☐	0.100	0.108	366.68	0.0001	P	5.0
3	☐	1.000	1.053	2502.47	0.0008	P	0.9
4	☐	50.000	54.310	118023.69	0.0378	P	1.0
5	☐	125.000	132.910	271146.14	0.0926	P	0.3
6	☐	250.000	261.733	492053.76	0.1822	P	0.4
7	☐	500.000	506.518	961786.18	0.3527	P	0.5
8	☐	1000.000	992.604	1807108.72	0.6910	P	0.2
9	☐			565.58	0.0002	P	27.3

$$y = 6.9615E-004 * x + 3.9899E-005$$

$$R = 0.9999$$

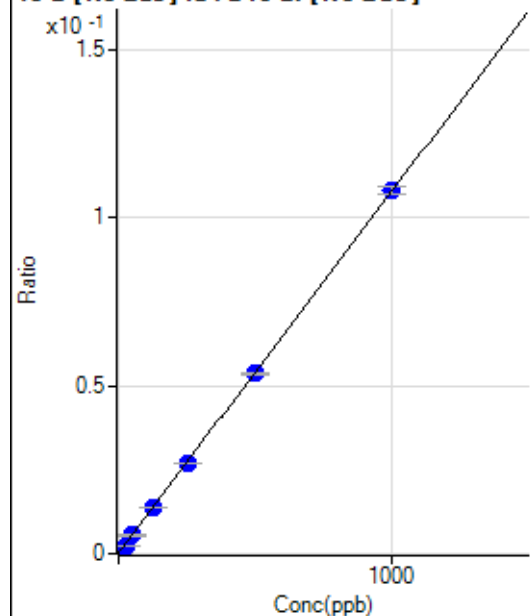
$$DL = 0.03282$$

$$BEC = 0.05731$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	758.38	0.0002	P	6.5
2	☐	2.500	1.970	1430.69	0.0004	P	9.8
3	☐	25.000	21.423	8216.44	0.0025	P	2.1
4	☐	50.000	49.165	17196.60	0.0055	P	4.6
5	☐	125.000	123.754	39614.07	0.0135	P	1.2
6	☐	250.000	249.135	72862.42	0.0270	P	1.0
7	☐	500.000	496.461	146020.60	0.0535	P	1.7
8	☐	1000.000	1002.274	282026.49	0.1079	P	2.2
9	☐			15970.16	0.0061	P	4.7

$$y = 1.0737E-004 * x + 2.3685E-004$$

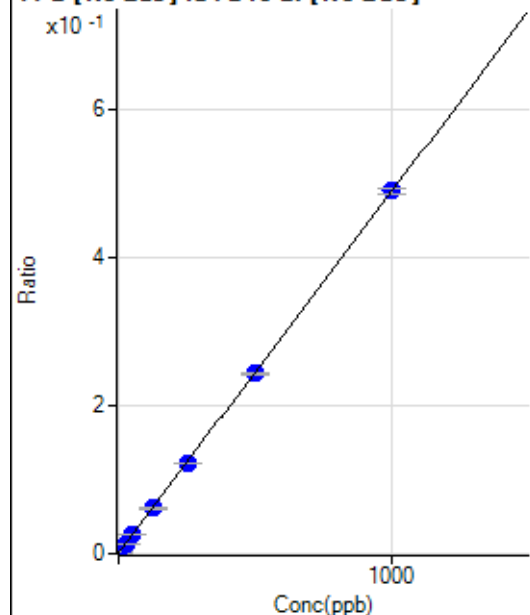
$$R = 1.0000$$

$$DL = 0.4317$$

$$BEC = 2.206$$

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	3314.38	0.0010	P	2.6
2	☐	2.500	2.262	6832.38	0.0021	P	2.1
3	☐	25.000	22.644	39199.10	0.0121	P	2.2
4	☐	50.000	49.468	78624.29	0.0252	P	2.1
5	☐	125.000	123.000	179150.11	0.0612	P	1.2
6	☐	250.000	249.178	331674.32	0.1228	P	0.8
7	☐	500.000	497.007	665423.54	0.2440	P	1.2
8	☐	1000.000	1002.038	1283629.06	0.4909	P	1.6
9	☐			74060.33	0.0282	P	9.0

$$y = 4.8885E-004 * x + 0.0010$$

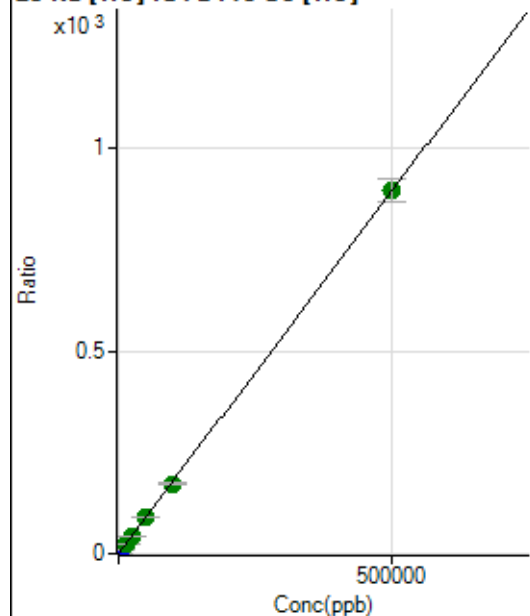
$$R = 1.0000$$

$$DL = 0.1659$$

$$BEC = 2.117$$

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	11635.53	0.0439	P	3.5
2	☐	50.000	42.909	32538.94	0.1207	P	0.8
3	☐	500.000	465.068	239369.85	0.8755	P	0.5
4	☐	5000.000	4870.781	2287542.69	8.7528	P	0.5
5	☐	12500.000	12213.106	5270853.42	21.8807	A	0.5
6	☐	25000.000	24807.505	10120520.80	44.3992	A	0.1
7	☐	50000.000	49746.886	20189444.72	88.9902	A	1.4
8	☐	100000.00	95656.807	39313813.72	171.0761	A	2.7
9	☐	500000.00	500912.07	192722707.0	895.6630	A	6.4

$$y = 0.0018 * x + 0.0439$$

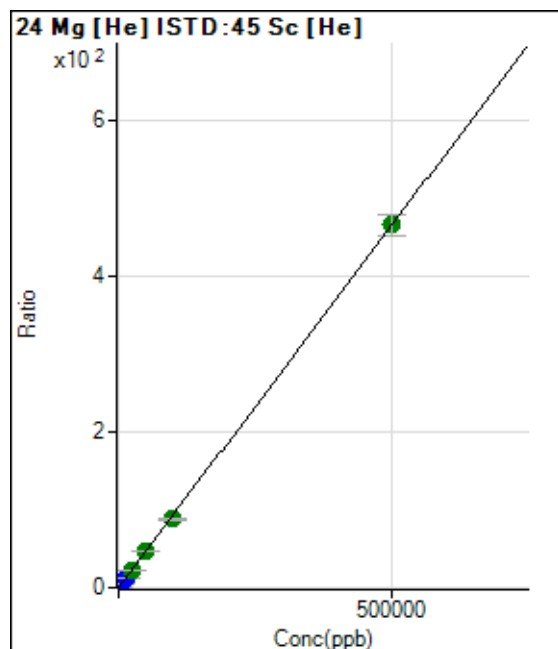
$$R = 1.0000$$

$$DL = 2.575$$

$$BEC = 24.57$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.68	0.0008	P	10.9
2	☐	50.000	49.210	12566.77	0.0466	P	1.0
3	☐	500.000	494.057	125895.68	0.4604	P	0.5
4	☐	5000.000	4944.971	1202536.70	4.6012	P	0.3
5	☐	12500.000	12422.906	2784222.02	11.5580	P	0.5
6	☐	25000.000	24970.940	5295477.51	23.2315	A	0.3
7	☐	50000.000	49880.026	10528493.81	46.4047	A	0.8
8	☐	100000.00	95453.163	20406422.16	88.8018	A	2.7
9	☐	500000.00	500925.30	100289799.4	466.0165	A	5.9

$$y = 9.3031\text{E-}004 * x + 8.1767\text{E-}004$$

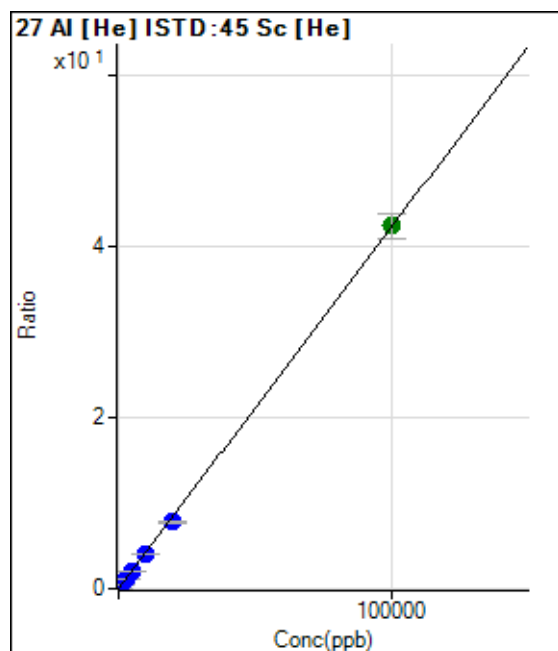
$$R = 1.0000$$

$$DL = 0.288$$

$$BEC = 0.8789$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.57	0.0003	P	35.9
2	☐	2.000	1.901	301.69	0.0011	P	9.7
3	☐	20.000	19.691	2361.11	0.0086	P	6.1
4	☐	1000.000	965.273	106639.60	0.4080	P	1.2
5	☐	2500.000	2403.757	244662.70	1.0157	P	0.5
6	☐	5000.000	4841.403	466223.53	2.0453	P	0.2
7	☐	10000.000	9640.877	923980.16	4.0726	P	1.2
8	☐	20000.000	18541.310	1799862.49	7.8322	P	2.5
9	☐	100000.00	100338.33	9118813.03	42.3832	A	6.6

$$y = 4.2240\text{E-}004 * x + 3.1537\text{E-}004$$

$$R = 0.9999$$

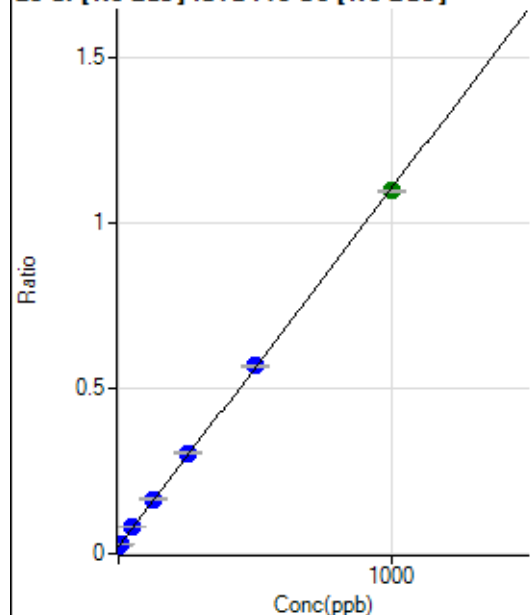
$$DL = 0.8045$$

$$BEC = 0.7466$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	129341.43	0.0213	P	1.4
2	☒	1.000					
3	☐	10.000	9.253	196045.43	0.0314	P	0.9
4	☐	50.000	54.683	477879.35	0.0806	P	1.7
5	☐	125.000	133.175	919906.14	0.1656	P	0.7
6	☐	250.000	261.613	1565834.80	0.3046	P	0.6
7	☐	500.000	505.615	2943364.37	0.5689	P	0.8
8	☐	1000.000	993.041	5456780.68	1.0967	A	0.5
9	☐			437710.09	0.0865	P	0.4

$$y = 0.0011 * x + 0.0213$$

$$R = 0.9999$$

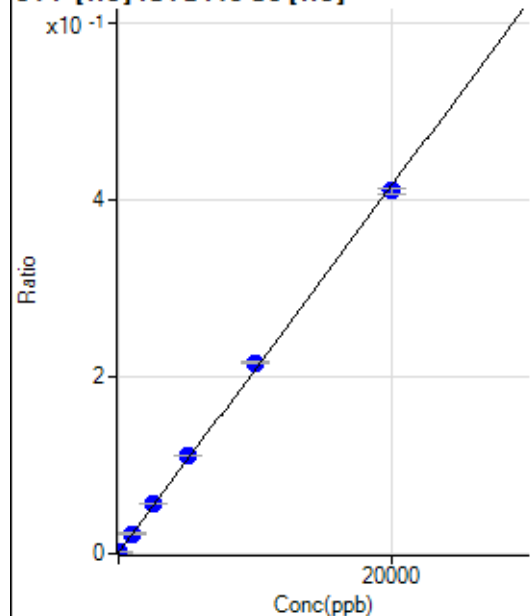
$$DL = 0.8314$$

$$BEC = 19.71$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-35.477	66.67	0.0003	P	32.9
2	☒	0.000					
3	☐	0.000	35.477	472.25	0.0017	P	26.6
4	☐	1000.000	1038.975	5901.42	0.0226	P	3.7
5	☐	2500.000	2671.447	13606.71	0.0565	P	3.3
6	☐	5000.000	5288.535	25269.54	0.1109	P	1.6
7	☐	10000.000	10363.441	49079.21	0.2163	P	0.6
8	☐	20000.000	19722.766	94400.69	0.4107	P	1.8
9	☐			83.34	0.0004	P	6.4

$$y = 2.0775E-005 * x + 9.8869E-004$$

$$R = 0.9996$$

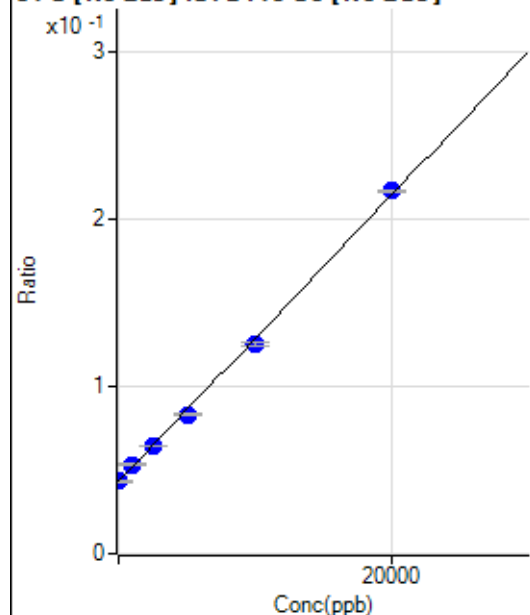
$$DL = 39.15$$

$$BEC = 47.59$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-1.984	261838.49	0.0432	P	1.2
2	☒	0.000					
3	☐	0.000	1.984	270259.37	0.0432	P	1.3
4	☐	1000.000	1198.476	317349.31	0.0535	P	1.9
5	☐	2500.000	2496.175	359160.64	0.0646	P	0.8
6	☐	5000.000	4685.882	428808.26	0.0834	P	0.9
7	☐	10000.000	9587.285	649267.65	0.1255	P	1.4
8	☐	20000.000	20275.441	1080810.38	0.2172	P	0.5
9	☐			204523.99	0.0404	P	0.7

$$y = 8.5818\text{E-}006 * x + 0.0432$$

$$R = 0.9994$$

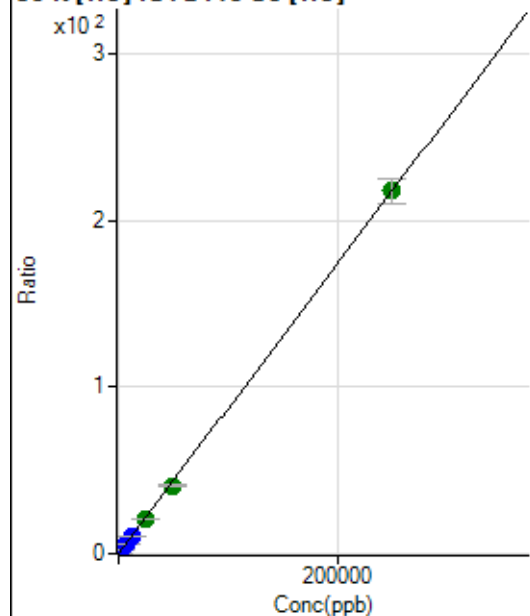
$$DL = 189$$

$$BEC = 5035$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17741.62	0.0670	P	2.0
2	☐	50.000	40.809	27612.65	0.1024	P	1.2
3	☐	500.000	470.945	130040.62	0.4756	P	0.8
4	☐	2500.000	2445.702	572076.77	2.1889	P	0.1
5	☐	6250.000	6094.947	1289946.27	5.3550	P	0.8
6	☐	12500.000	12156.463	2419396.06	10.6139	P	0.3
7	☐	25000.000	24373.555	4812982.27	21.2135	A	1.1
8	☐	50000.000	47051.459	9396294.66	40.8888	A	2.6
9	☐	250000.00	250674.00	46806813.55	217.5515	A	6.6

$$y = 8.6760\text{E-}004 * x + 0.0670$$

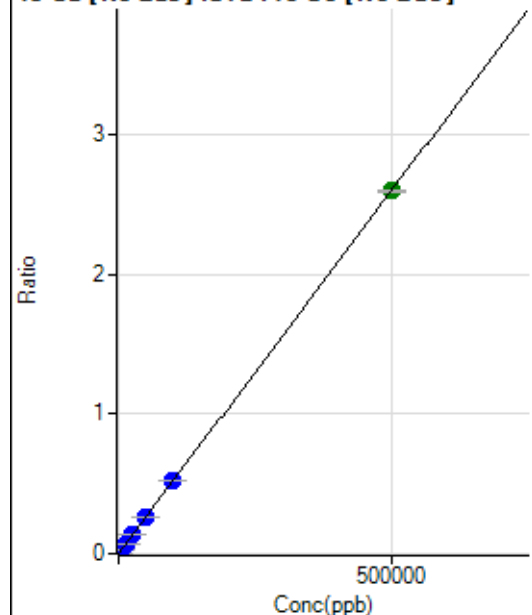
$$R = 0.9999$$

$$DL = 4.54$$

$$BEC = 77.21$$

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	269.46	0.0000	P	19.6
2	☐	50.000	43.724	1664.05	0.0003	P	4.1
3	☐	500.000	488.263	16153.90	0.0026	P	0.5
4	☐	5000.000	5197.360	160647.52	0.0271	P	1.0
5	☐	12500.000	12835.729	371182.82	0.0668	P	1.3
6	☐	25000.000	25704.768	687393.80	0.1337	P	0.2
7	☐	50000.000	50583.911	1361452.02	0.2631	P	1.0
8	☐	100000.00	100949.19	2612666.10	0.5251	P	0.3
9	☐	500000.00	499706.17	13148604.20	2.5990	A	0.7

$$y = 5.2009\text{E-}006 * x + 4.4491\text{E-}005$$

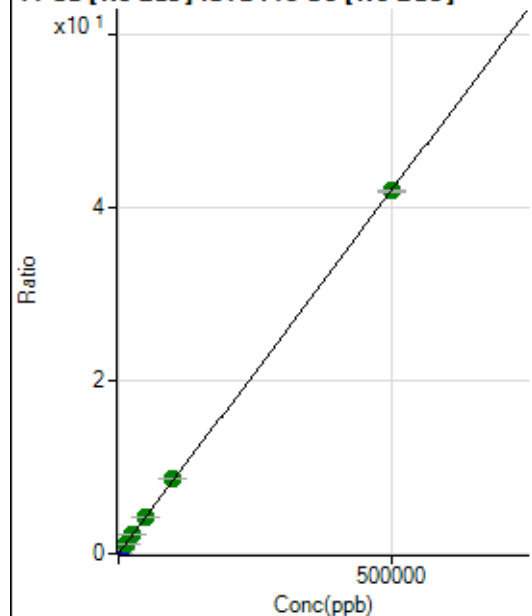
$$R = 1.0000$$

$$DL = 5.03$$

$$BEC = 8.554$$

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	7088.17	0.0012	P	6.0
2	☐	50.000	45.724	30610.52	0.0050	P	1.2
3	☐	500.000	486.193	262029.22	0.0419	P	1.1
4	☐	5000.000	5216.246	2600397.52	0.4383	P	1.7
5	☐	12500.000	12892.654	6010324.48	1.0816	A	0.9
6	☐	25000.000	25640.922	11051194.95	2.1500	A	0.5
7	☐	50000.000	50800.853	22034460.04	4.2585	A	0.8
8	☐	100000.00	102120.83	42590052.34	8.5594	A	0.1
9	☐	500000.00	499451.73	211762049.1	41.8578	A	0.6

$$y = 8.3805\text{E-}005 * x + 0.0012$$

$$R = 1.0000$$

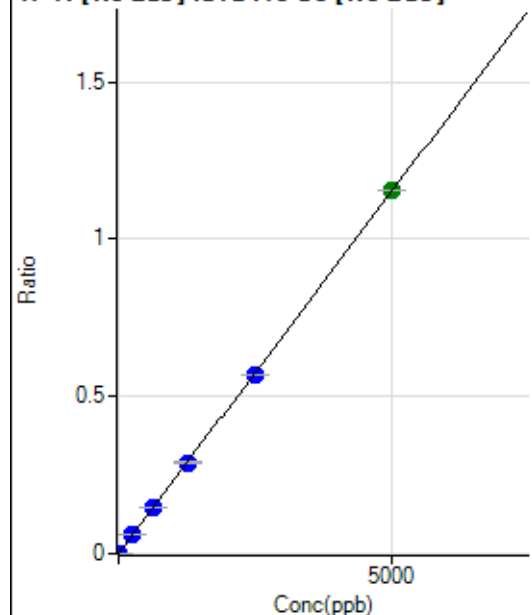
$$DL = 2.518$$

$$BEC = 13.96$$

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	72.23	0.0000	P	43.2
2	☐	0.500	0.538	830.62	0.0001	P	10.0
3	☐	5.000	5.282	7674.56	0.0012	P	4.9
4	☐	250.000	256.169	349811.75	0.0590	P	1.5
5	☐	625.000	630.125	805785.42	0.1450	P	0.8
6	☐	1250.000	1259.991	1490398.03	0.2900	P	0.5
7	☐	2500.000	2469.700	2940647.83	0.5683	P	0.7
8	☐	5000.000	5011.703	5738567.97	1.1533	A	0.1
9	☐			2225.26	0.0004	P	11.6

$$y = 2.3012\text{E-}004 * x + 1.1898\text{E-}005$$

$$R = 1.0000$$

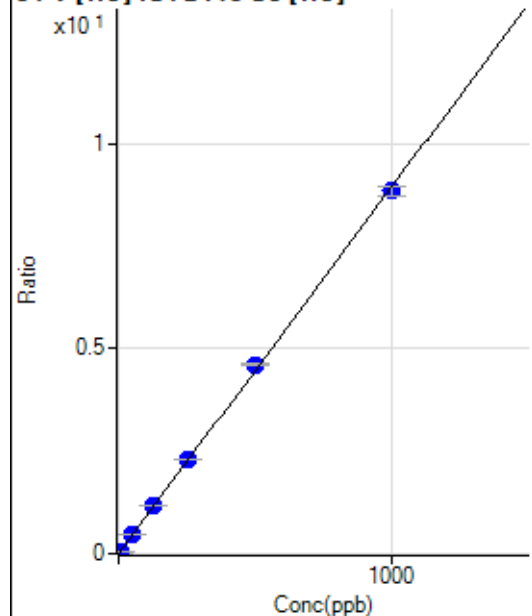
$$DL = 0.06693$$

$$BEC = 0.0517$$

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	23.33	0.0001	P	37.4
2	☐	0.500	0.520	1278.97	0.0047	P	4.8
3	☐	5.000	5.316	13029.27	0.0477	P	1.2
4	☐	50.000	51.780	121109.66	0.4634	P	0.7
5	☐	125.000	129.605	279370.78	1.1597	P	0.5
6	☐	250.000	258.334	526904.25	2.3116	P	0.3
7	☐	500.000	514.743	1044956.36	4.6058	P	1.1
8	☐	1000.000	989.878	2035436.00	8.8571	P	2.4
9	☐			362.23	0.0017	P	17.5

$$y = 0.0089 * x + 8.7963\text{E-}005$$

$$R = 0.9998$$

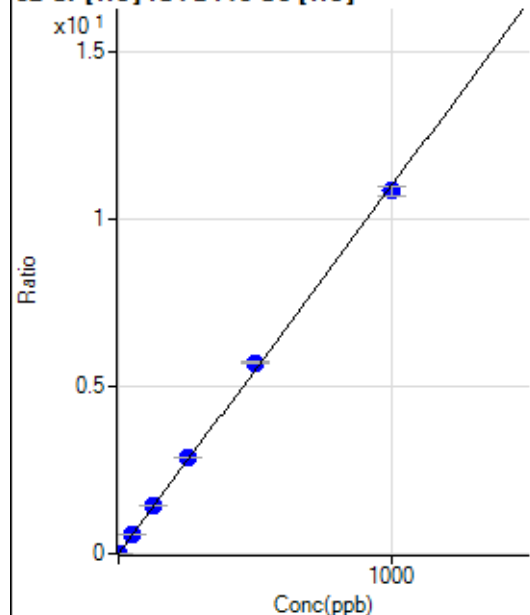
$$DL = 0.01102$$

$$BEC = 0.009831$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	444.46	0.0017	P	18.0
2	☐	0.200	0.182	990.05	0.0037	P	2.5
3	☐	2.000	1.998	6462.61	0.0236	P	3.2
4	☐	50.000	52.181	150297.82	0.5751	P	0.3
5	☐	125.000	130.799	346638.18	1.4390	P	0.4
6	☐	250.000	262.259	657271.82	2.8835	P	0.7
7	☐	500.000	519.108	1294548.98	5.7059	P	1.1
8	☐	1000.000	986.547	2491660.42	10.8424	P	2.5
9	☐			37502.29	0.1744	P	7.3

$$y = 0.0110 * x + 0.0017$$

$$R = 0.9996$$

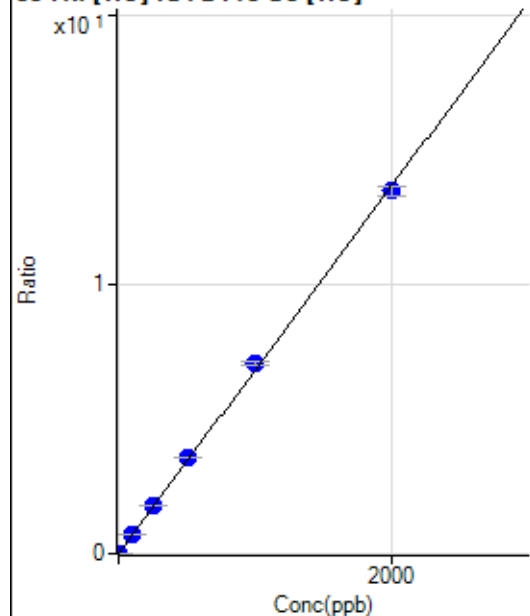
$$DL = 0.08241$$

$$BEC = 0.1526$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	82.22	0.0003	P	16.4
2	☐	0.100	0.093	254.45	0.0009	P	19.6
3	☐	1.000	1.036	2017.95	0.0074	P	5.9
4	☐	100.000	103.286	184246.12	0.7050	P	0.4
5	☐	250.000	259.919	427241.46	1.7736	P	0.5
6	☐	500.000	523.638	814388.23	3.5728	P	0.4
7	☐	1000.000	1036.872	1604971.49	7.0743	P	1.3
8	☐	2000.000	1974.250	3095439.99	13.4695	P	2.4
9	☐			11353.43	0.0527	P	4.9

$$y = 0.0068 * x + 3.1043E-004$$

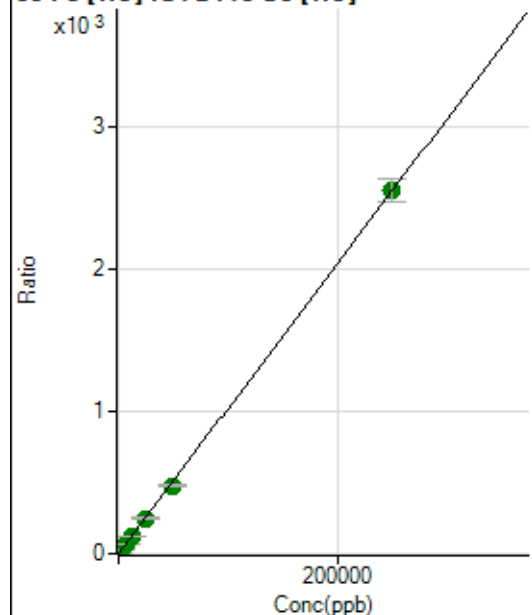
$$R = 0.9997$$

$$DL = 0.0224$$

$$BEC = 0.0455$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3302.32	0.0125	P	6.0
2	☐	5.000	5.129	17416.27	0.0646	P	3.1
3	☐	50.000	49.882	142000.81	0.5193	P	0.1
4	☐	2500.000	2431.252	6459791.64	24.7173	A	0.6
5	☐	6250.000	6151.126	15059699.06	62.5163	A	0.3
6	☐	12500.000	12380.173	28677908.51	125.8119	A	0.2
7	☐	25000.000	24536.277	56568763.30	249.3345	A	1.1
8	☐	50000.000	46726.887	109121556.1	474.8213	A	2.2
9	☐	250000.00	250710.14	548167938.1	2,547.569	A	6.3

$$y = 0.0102 * x + 0.0125$$

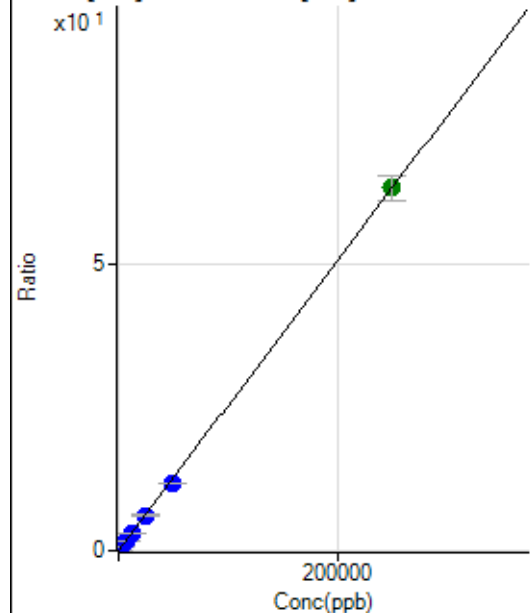
$$R = 0.9999$$

$$DL = 0.22$$

$$BEC = 1.227$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	214.82	0.0008	P	2.0
2	☐	5.000	5.428	588.92	0.0022	P	3.7
3	☐	50.000	49.375	3635.73	0.0133	P	2.2
4	☐	2500.000	2456.553	162577.41	0.6221	P	0.4
5	☐	6250.000	6164.911	375764.63	1.5599	P	0.1
6	☐	12500.000	12366.538	713043.90	3.1282	P	0.9
7	☐	25000.000	24513.843	1406642.31	6.2002	P	1.5
8	☐	50000.000	46563.758	2706413.55	11.7765	P	2.3
9	☐	250000.00	250745.09	13643380.51	63.4129	A	6.6

$$y = 2.5289E-004 * x + 8.1110E-004$$

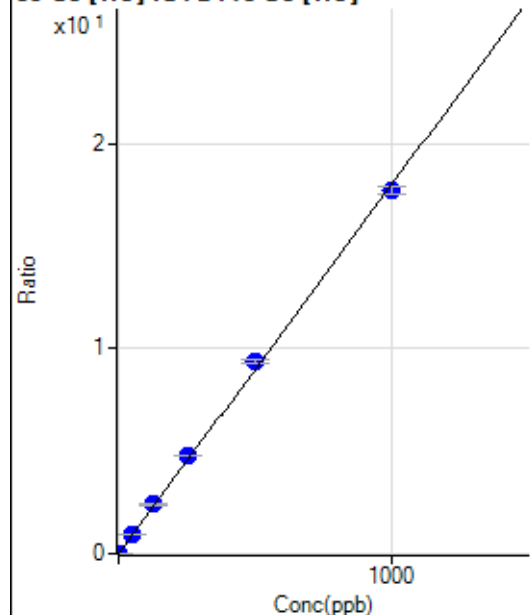
$$R = 0.9999$$

$$DL = 0.197$$

$$BEC = 3.207$$

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	125.56	0.0005	P	12.4
2	☐	0.100	0.098	604.47	0.0022	P	4.8
3	☐	1.000	1.046	5271.02	0.0193	P	3.4
4	☐	50.000	53.699	252380.70	0.9657	P	0.5
5	☐	125.000	133.200	576858.81	2.3947	P	0.7
6	☐	250.000	267.472	1096006.62	4.8082	P	0.4
7	☐	500.000	521.604	2127107.28	9.3761	P	1.7
8	☐	1000.000	983.620	4063426.57	17.6806	P	2.1
9	☐			49503.40	0.2300	P	6.2

$$y = 0.0180 * x + 4.7399E-004$$

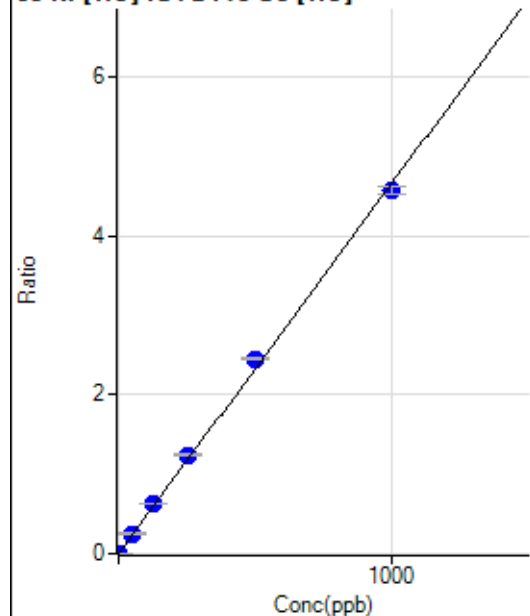
$$R = 0.9995$$

$$DL = 0.009838$$

$$BEC = 0.02637$$

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	90.00	0.0003	P	22.0
2	☒	0.100					
3	☐	1.000	1.048	1427.87	0.0052	P	6.8
4	☐	50.000	54.319	66241.11	0.2535	P	0.8
5	☐	125.000	134.483	151045.14	0.6270	P	0.4
6	☐	250.000	267.504	284219.17	1.2469	P	0.6
7	☐	500.000	526.823	557062.40	2.4553	P	1.1
8	☐	1000.000	980.811	1050493.58	4.5709	P	2.1
9	☐			18571.99	0.0863	P	6.0

$$y = 0.0047 * x + 3.3955E-004$$

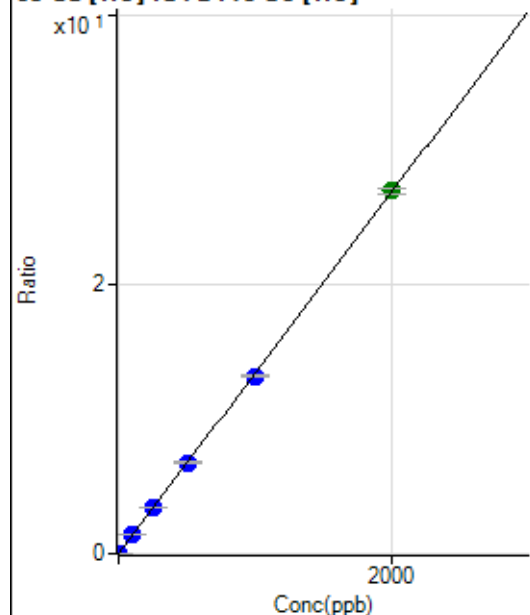
$$R = 0.9993$$

$$DL = 0.04802$$

$$BEC = 0.07286$$

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	1065.61	0.0040	P	6.2
2	☒	0.200					
3	☐	2.000	1.928	8179.07	0.0299	P	2.3
4	☐	100.000	101.965	358838.46	1.3730	P	0.4
5	☐	250.000	252.429	817377.31	3.3931	P	0.5
6	☐	500.000	504.525	1544955.97	6.7778	P	0.4
7	☐	1000.000	980.877	2988695.30	13.1733	P	1.3
8	☐	2000.000	2008.028	6197157.55	26.9639	A	1.9
9	☐			7616.55	0.0354	P	8.3

$$y = 0.0134 * x + 0.0040$$

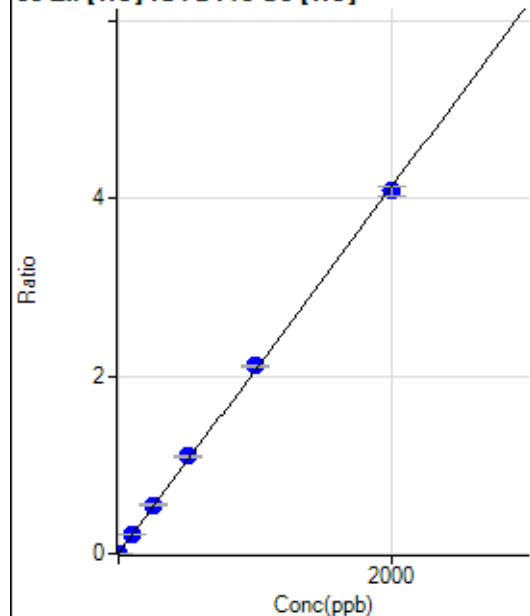
$$R = 0.9999$$

$$DL = 0.05544$$

$$BEC = 0.2996$$

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	716.70	0.0027	P	6.8
2	☒	0.200					
3	☐	2.000	1.493	1581.23	0.0058	P	8.0
4	☐	100.000	106.351	58002.56	0.2219	P	1.3
5	☐	250.000	266.048	132769.31	0.5512	P	0.7
6	☐	500.000	529.682	249519.55	1.0946	P	1.0
7	☐	1000.000	1023.440	479261.84	2.1125	P	1.6
8	☐	2000.000	1978.536	937992.18	4.0815	P	2.3
9	☐			9061.82	0.0421	P	7.6

$$y = 0.0021 * x + 0.0027$$

$$R = 0.9998$$

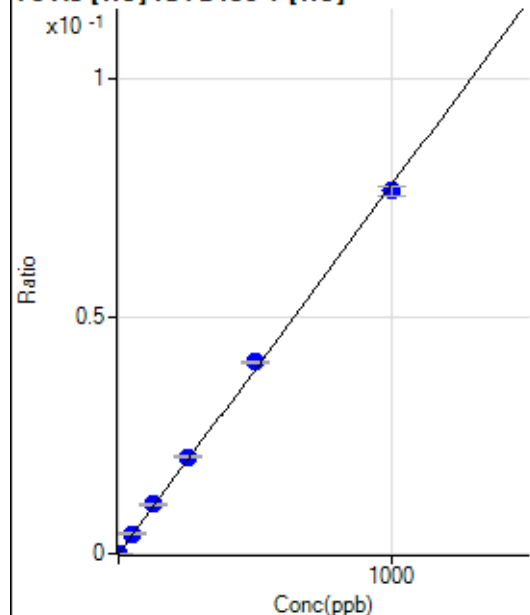
$$DL = 0.2662$$

$$BEC = 1.313$$

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	11.11	0.0000	P	33.2
2	☒	0.100					
3	☐	1.000	1.007	343.83	0.0001	P	8.3
4	☐	50.000	54.367	17222.62	0.0042	P	2.5
5	☐	125.000	133.248	39476.88	0.0103	P	0.4
6	☐	250.000	262.912	74674.27	0.0204	P	0.5
7	☐	500.000	521.644	147241.26	0.0405	P	1.0
8	☐	1000.000	984.700	280419.68	0.0764	P	2.8
9	☐			388.90	0.0001	P	7.0

$$y = 7.7578\text{E-}005 * x + 2.6894\text{E-}006$$

$$R = 0.9995$$

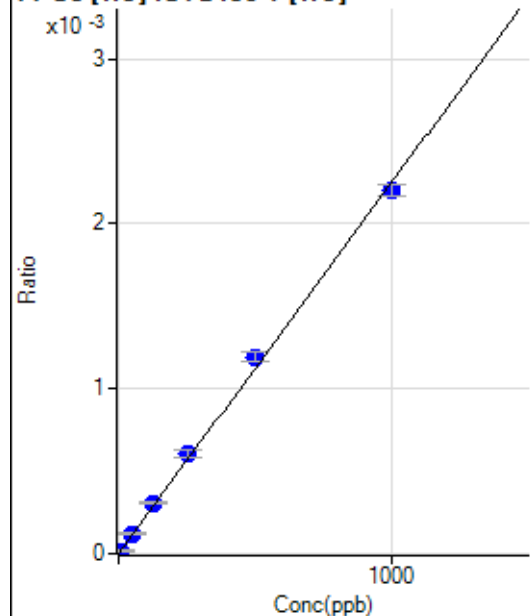
$$DL = 0.03456$$

$$BEC = 0.03467$$

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					
3	☐	5.000	7.214	68.89	0.0000	P	37.0
4	☐	50.000	53.625	492.24	0.0001	P	12.1
5	☐	125.000	137.273	1178.96	0.0003	P	5.0
6	☐	250.000	269.609	2219.10	0.0006	P	8.3
7	☐	500.000	530.861	4345.17	0.0012	P	5.3
8	☐	1000.000	977.941	8073.49	0.0022	P	3.1
9	☐			5.56	0.0000	P	38.1

$$y = 2.2490\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9990$$

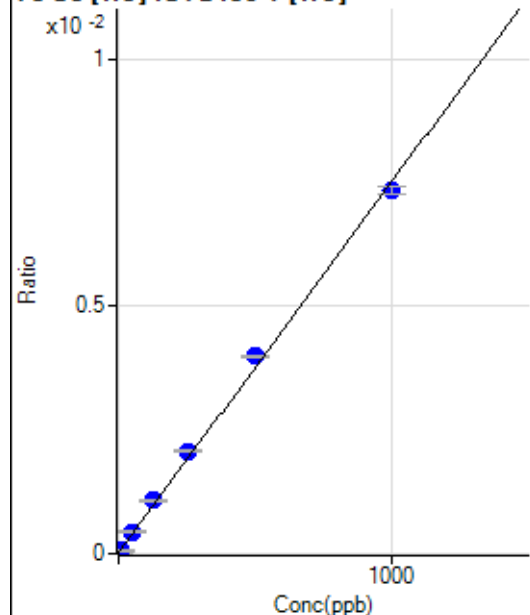
$$DL = 0$$

$$BEC = 0$$

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	72.84	0.0000	P	10.5
2	☒	0.500					
3	☐	5.000	5.471	249.39	0.0001	P	5.7
4	☐	50.000	57.198	1821.73	0.0004	P	2.0
5	☐	125.000	140.565	4090.74	0.0011	P	2.0
6	☐	250.000	273.788	7577.96	0.0021	P	1.9
7	☐	500.000	530.958	14546.88	0.0040	P	0.7
8	☐	1000.000	976.266	26939.23	0.0073	P	2.0
9	☐			67.90	0.0000	P	38.9

$$y = 7.4967\text{E-}006 * x + 1.7632\text{E-}005$$

$$R = 0.9989$$

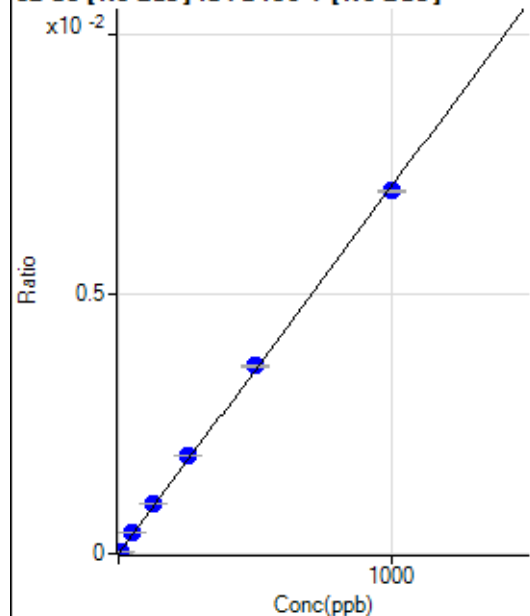
$$DL = 0.7383$$

$$BEC = 2.352$$

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	14.28	0.0000	P	132.
2	☒	0.500					
3	☐	5.000	5.740	1249.05	0.0000	P	3.9
4	☐	50.000	56.595	11673.54	0.0004	P	1.2
5	☐	125.000	137.465	27168.50	0.0010	P	0.8
6	☐	250.000	267.812	50301.93	0.0019	P	0.5
7	☐	500.000	511.423	97832.19	0.0036	P	0.8
8	☐	1000.000	987.944	181508.64	0.0070	P	0.5
9	☐			154.36	0.0000	P	25.5

$$y = 7.0819\text{E-}006 * x + 4.7984\text{E-}007$$

$$R = 0.9997$$

$$DL = 0.2698$$

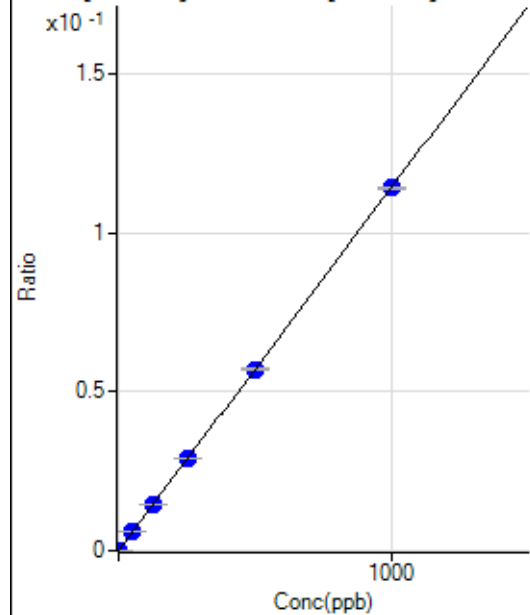
$$BEC = 0.06776$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			298.90		P	8.4
2	☐			266.67		P	3.7
3	☐			277.79		P	8.2
4	☐			302.23		P	3.2
5	☐			286.67		P	3.5
6	☐			286.67		P	27.2
7	☐			244.45		P	11.6
8	☐			243.34		P	9.9
9	☐			296.68		P	5.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	466.70	0.0000	P	6.6
2	☐	0.100	0.107	833.39	0.0000	P	5.8
3	☐	1.000	0.982	3881.23	0.0001	P	4.9
4	☐	50.000	51.532	171672.32	0.0059	P	0.8
5	☐	125.000	128.754	410621.35	0.0147	P	0.5
6	☐	250.000	255.066	772816.68	0.0291	P	0.7
7	☐	500.000	499.105	1539948.58	0.0570	P	1.0
8	☐	1000.000	998.635	2959070.36	0.1141	P	0.2
9	☐			12503.19	0.0005	P	1.7

$$y = 1.1421\text{E-}004 * x + 1.5734\text{E-}005$$

$$R = 1.0000$$

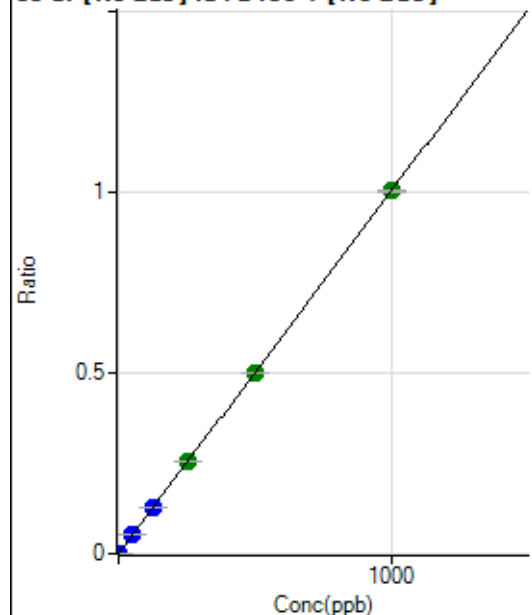
$$DL = 0.02711$$

$$BEC = 0.1378$$

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	280.57	0.0000	P	2.8
2	☐	0.100	0.095	3122.69	0.0001	P	4.4
3	☐	1.000	0.962	29578.52	0.0010	P	1.2
4	☐	50.000	51.341	1498447.08	0.0515	P	1.5
5	☐	125.000	127.378	3564471.39	0.1278	P	0.6
6	☐	250.000	253.404	6740446.16	0.2542	A	0.5
7	☐	500.000	498.508	13506455.68	0.5001	A	0.8
8	☐	1000.000	999.531	26010643.98	1.0027	A	0.4
9	☐			107708.61	0.0043	P	3.3

$$y = 0.0010 * x + 9.4565E-006$$

$$R = 1.0000$$

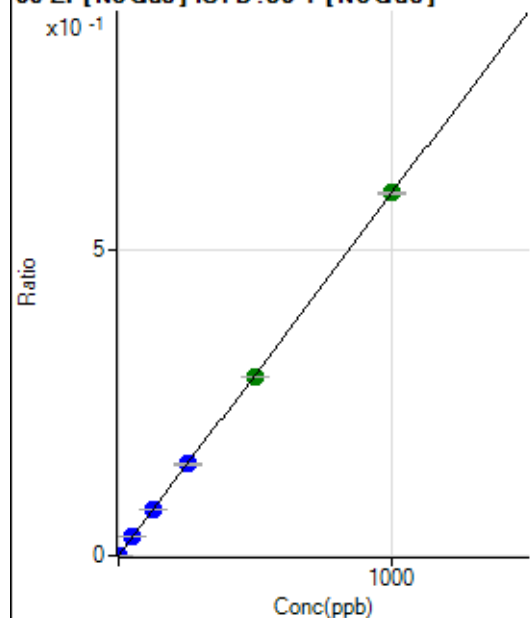
$$DL = 0.0008032$$

$$BEC = 0.009427$$

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	911.19	0.0000	P	11.2
2	☐	0.100	0.086	2439.21	0.0001	P	0.9
3	☐	1.000	0.886	16877.25	0.0006	P	1.1
4	☐	50.000	51.263	884819.43	0.0304	P	1.9
5	☐	125.000	126.865	2098561.44	0.0752	P	0.7
6	☐	250.000	252.107	3963295.97	0.1495	P	0.4
7	☐	500.000	495.374	7931809.73	0.2937	A	0.3
8	☐	1000.000	1001.490	15401014.41	0.5937	A	0.3
9	☐			6171.01	0.0002	P	11.7

$$y = 5.9278E-004 * x + 3.0723E-005$$

$$R = 1.0000$$

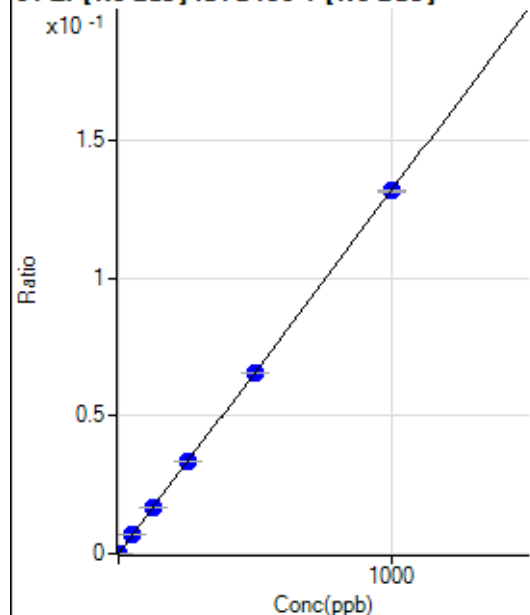
$$DL = 0.01746$$

$$BEC = 0.05183$$

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	177.79	0.0000	P	14.1
2	☐	0.100	0.084	508.37	0.0000	P	21.1
3	☐	1.000	0.923	3875.72	0.0001	P	3.6
4	☐	50.000	51.475	197412.01	0.0068	P	1.7
5	☐	125.000	128.160	471065.98	0.0169	P	0.4
6	☐	250.000	255.275	891772.09	0.0336	P	0.3
7	☐	500.000	499.100	1775820.94	0.0658	P	0.2
8	☐	1000.000	998.663	3412676.38	0.1316	P	0.4
9	☐			1350.13	0.0001	P	11.4

$$y = 1.3173\text{E-}004 * x + 5.9963\text{E-}006$$

$$R = 1.0000$$

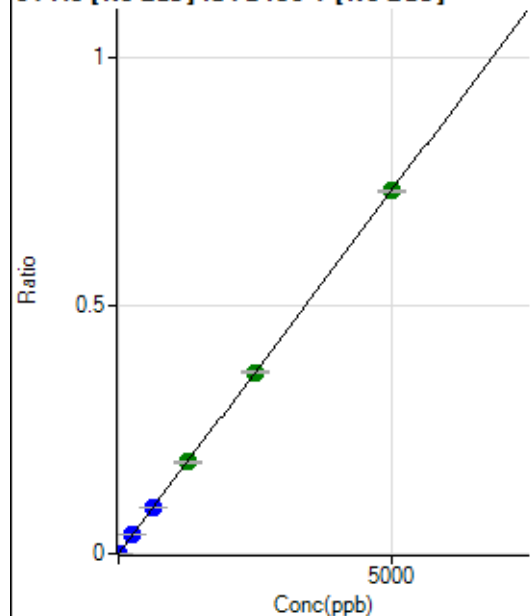
$$DL = 0.0192$$

$$BEC = 0.04552$$

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	358.36	0.0000	P	20.9
2	☐	0.500	0.431	2241.94	0.0001	P	6.8
3	☐	5.000	4.705	21302.72	0.0007	P	0.9
4	☐	250.000	258.788	1103685.29	0.0379	P	1.7
5	☐	625.000	638.192	2609471.85	0.0936	P	0.6
6	☐	1250.000	1260.665	4899658.96	0.1848	A	0.8
7	☐	2500.000	2495.482	9878970.71	0.3658	A	0.7
8	☐	5000.000	4997.505	19001682.89	0.7325	A	0.7
9	☐			11827.68	0.0005	P	9.7

$$y = 1.4657\text{E-}004 * x + 1.2073\text{E-}005$$

$$R = 1.0000$$

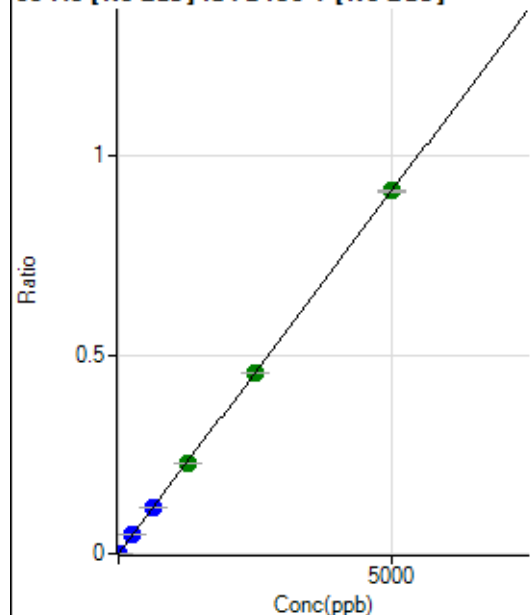
$$DL = 0.0517$$

$$BEC = 0.08237$$

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	177.79	0.0000	P	21.3
2	☐	0.500	0.474	2753.16	0.0001	P	3.1
3	☐	5.000	4.793	26731.39	0.0009	P	2.2
4	☐	250.000	256.648	1362249.24	0.0468	P	1.5
5	☐	625.000	636.372	3238718.95	0.1161	P	0.6
6	☐	1250.000	1255.088	6071670.23	0.2290	A	0.6
7	☐	2500.000	2489.304	12266329.79	0.4542	A	0.5
8	☐	5000.000	5002.322	23675235.43	0.9127	A	0.5
9	☐			16109.69	0.0006	P	7.8

$$y = 1.8245E-004 * x + 5.9939E-006$$

$$R = 1.0000$$

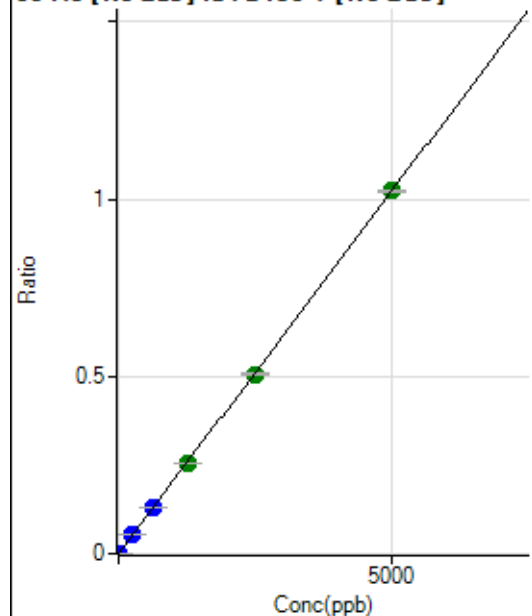
$$DL = 0.02101$$

$$BEC = 0.03285$$

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	308.35	0.0000	P	33.0
2	☐	0.500	0.470	3167.16	0.0001	P	6.7
3	☐	5.000	4.688	29395.16	0.0010	P	1.2
4	☐	250.000	255.515	1518903.90	0.0522	P	1.9
5	☐	625.000	629.935	3590445.65	0.1287	P	0.7
6	☐	1250.000	1254.879	6798584.62	0.2564	A	0.7
7	☐	2500.000	2481.306	13693072.53	0.5070	A	0.2
8	☐	5000.000	5007.235	26539922.64	1.0231	A	0.6
9	☐			26339.23	0.0010	P	8.3

$$y = 2.0432E-004 * x + 1.0398E-005$$

$$R = 1.0000$$

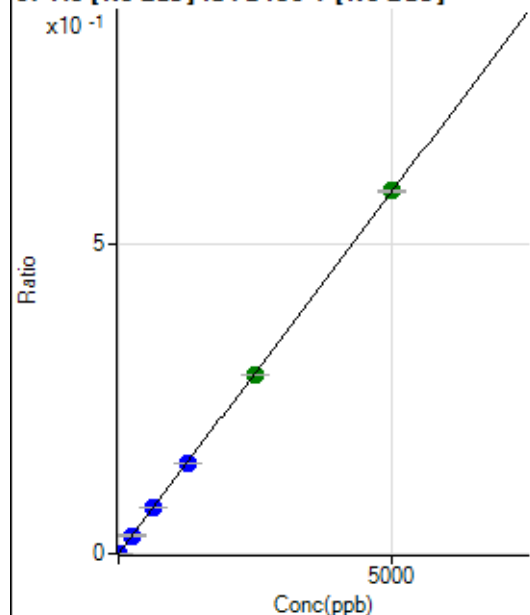
$$DL = 0.05041$$

$$BEC = 0.05089$$

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	130.56	0.0000	P	38.9
2	☐	0.500	0.455	1708.52	0.0001	P	10.2
3	☐	5.000	4.599	16396.09	0.0005	P	1.2
4	☐	250.000	252.412	855240.66	0.0294	P	0.9
5	☐	625.000	627.703	2039138.33	0.0731	P	0.7
6	☐	1250.000	1244.754	3843603.39	0.1450	P	0.6
7	☐	2500.000	2467.886	7762207.73	0.2874	A	0.2
8	☐	5000.000	5016.910	15155780.55	0.5842	A	0.8
9	☐			10229.09	0.0004	P	9.4

$$y = 1.1645\text{E-}004 * x + 4.4069\text{E-}006$$

$$R = 1.0000$$

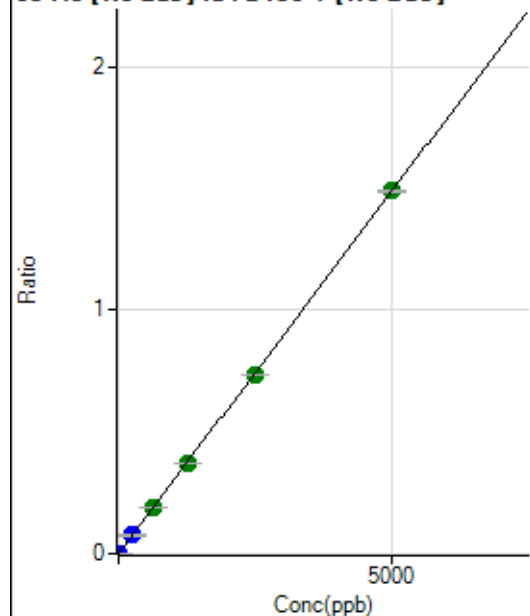
$$DL = 0.04417$$

$$BEC = 0.03784$$

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	286.13	0.0000	P	22.0
2	☐	0.500	0.463	4384.18	0.0001	P	5.2
3	☐	5.000	4.689	42586.86	0.0014	P	1.5
4	☐	250.000	254.177	2197181.86	0.0755	P	1.6
5	☐	625.000	630.167	5223033.58	0.1872	A	0.7
6	☐	1250.000	1249.760	9846094.32	0.3713	A	1.0
7	☐	2500.000	2478.887	19893376.49	0.7366	A	0.0
8	☐	5000.000	5009.762	38614356.42	1.4885	A	0.2
9	☐			25529.33	0.0010	P	12.3

$$y = 2.9713\text{E-}004 * x + 9.6531\text{E-}006$$

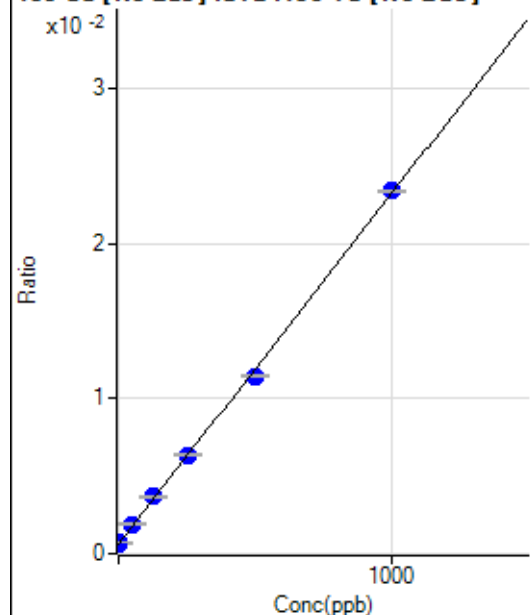
$$R = 1.0000$$

$$DL = 0.02141$$

$$BEC = 0.03249$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8230.52	0.0006	P	3.4
2	☒	0.100					
3	☐	1.000	3.220	9281.23	0.0007	P	1.8
4	☐	50.000	57.237	25048.00	0.0019	P	1.2
5	☐	125.000	134.836	47686.79	0.0037	P	1.0
6	☐	250.000	253.749	81221.99	0.0063	P	1.4
7	☐	500.000	479.201	151901.39	0.0114	P	1.0
8	☐	1000.000	1007.869	300204.03	0.0234	P	0.7
9	☐			7958.16	0.0007	P	4.4

$$y = 2.2570\text{E-}005 * x + 6.2184\text{E-}004$$

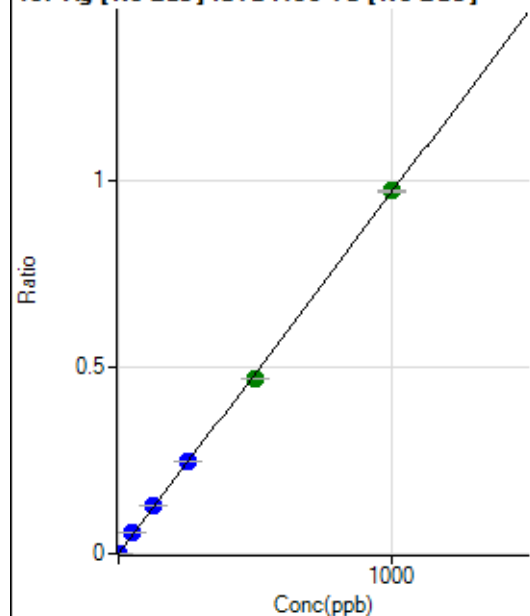
$$R = 0.9996$$

$$DL = 2.796$$

$$BEC = 27.55$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	216.68	0.0000	P	20.9
2	☐	0.100	0.112	1636.27	0.0001	P	10.1
3	☐	1.000	1.138	14897.27	0.0011	P	0.6
4	☐	50.000	56.413	713127.40	0.0545	P	1.3
5	☐	125.000	134.420	1688852.95	0.1298	P	1.0
6	☐	250.000	254.559	3144536.64	0.2458	P	0.3
7	☐	500.000	484.984	6219142.15	0.4683	A	0.7
8	☐	1000.000	1004.870	12463741.86	0.9702	A	0.6
9	☐			1955.79	0.0002	P	21.2

$$y = 9.6551\text{E-}004 * x + 1.6383\text{E-}005$$

$$R = 0.9998$$

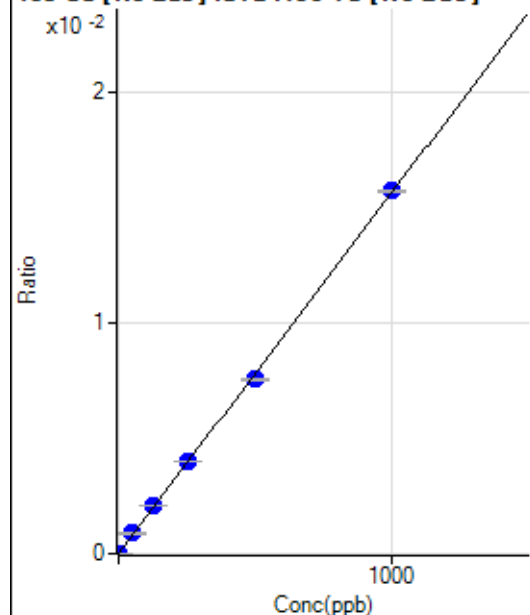
$$DL = 0.01062$$

$$BEC = 0.01697$$

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	37.50	0.0000	P	33.0
2	☒	0.100					
3	☐	1.000	0.976	241.67	0.0000	P	21.7
4	☐	50.000	55.865	11481.26	0.0009	P	2.3
5	☐	125.000	133.266	27177.72	0.0021	P	0.7
6	☐	250.000	255.590	51217.49	0.0040	P	1.4
7	☐	500.000	483.563	100560.31	0.0076	P	0.8
8	☐	1000.000	1005.495	202214.08	0.0157	P	0.5
9	☐			68.06	0.0000	P	50.0

$$y = 1.5652\text{E-}005 * x + 2.8307\text{E-}006$$

$$R = 0.9997$$

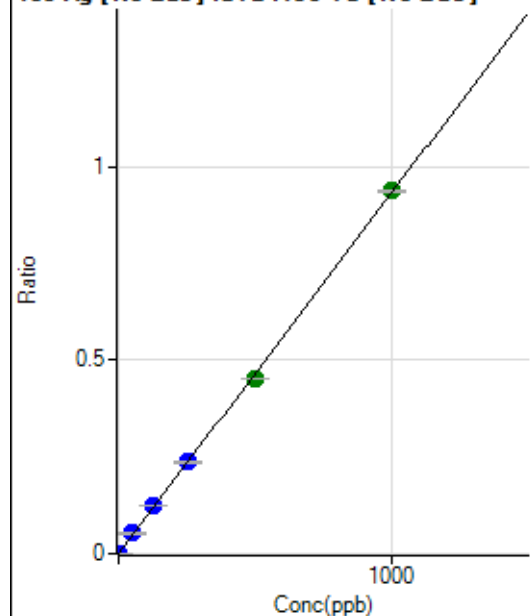
$$DL = 0.1788$$

$$BEC = 0.1808$$

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	77.78	0.0000	P	27.4
2	☐	0.100	0.115	1494.59	0.0001	P	8.0
3	☐	1.000	1.104	13826.78	0.0010	P	2.3
4	☐	50.000	56.215	685577.36	0.0524	P	1.2
5	☐	125.000	133.708	1620873.39	0.1246	P	1.0
6	☐	250.000	253.796	3025105.23	0.2365	P	0.5
7	☐	500.000	483.639	5984524.96	0.4506	A	0.1
8	☐	1000.000	1005.832	12038255.48	0.9371	A	0.4
9	☐			1816.86	0.0001	P	23.7

$$y = 9.3165\text{E-}004 * x + 5.8814\text{E-}006$$

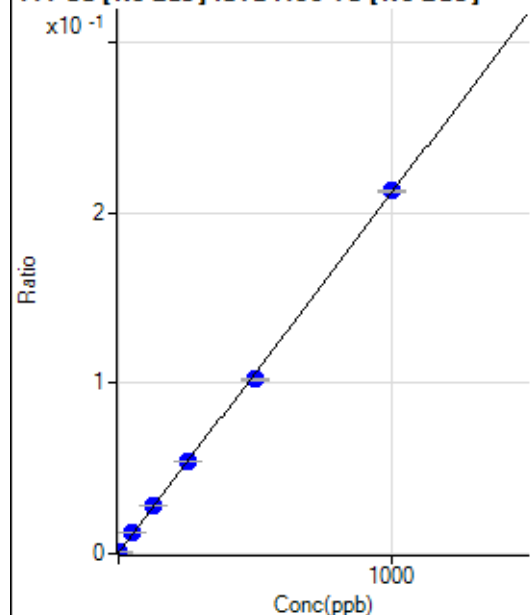
$$R = 0.9998$$

$$DL = 0.00519$$

$$BEC = 0.006313$$

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	5782.34	0.0004	P	3.4
2	☒	0.100					
3	☐	1.000	1.189	9193.32	0.0007	P	2.6
4	☐	50.000	55.138	158080.50	0.0121	P	0.8
5	☐	125.000	132.973	370929.26	0.0285	P	0.9
6	☐	250.000	256.171	697457.00	0.0545	P	0.3
7	☐	500.000	482.814	1359478.61	0.1024	P	0.8
8	☐	1000.000	1005.797	2733271.71	0.2128	P	0.3
9	☐			6106.43	0.0005	P	4.0

$$y = 2.1111\text{E-}004 * x + 4.3687\text{E-}004$$

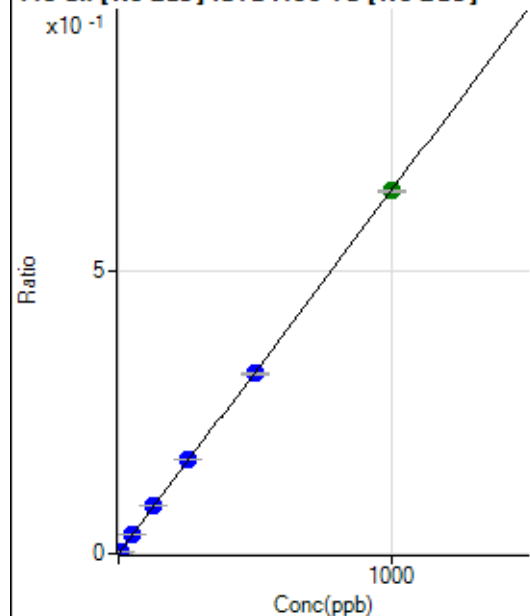
$$R = 0.9997$$

$$DL = 0.2113$$

$$BEC = 2.069$$

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	1061.19	0.0001	P	12.3
2	☐	0.500	0.529	5548.57	0.0004	P	5.2
3	☐	5.000	5.298	46633.86	0.0035	P	1.0
4	☐	50.000	54.670	461554.38	0.0353	P	1.6
5	☐	125.000	133.485	1118754.92	0.0860	P	0.6
6	☐	250.000	259.378	2136524.16	0.1670	P	0.5
7	☐	500.000	496.031	4240588.24	0.3193	P	1.1
8	☐	1000.000	998.344	8254377.96	0.6426	A	0.7
9	☐			4737.13	0.0004	P	12.5

$$y = 6.4355\text{E-}004 * x + 8.0190\text{E-}005$$

$$R = 0.9999$$

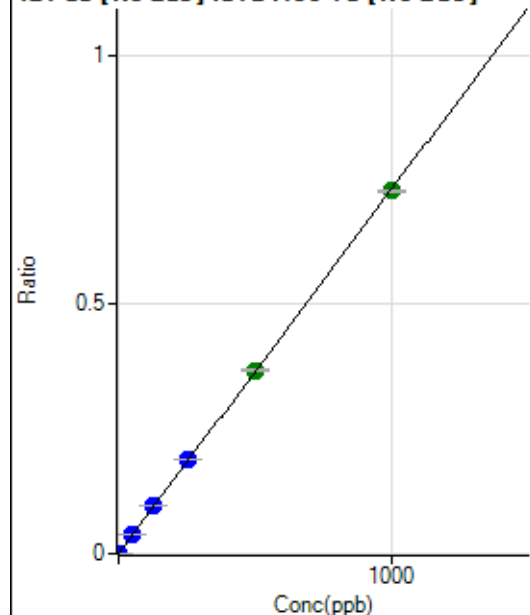
$$DL = 0.04599$$

$$BEC = 0.1246$$

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	300.02	0.0000	P	21.5
2	☐	0.200	0.176	1997.44	0.0002	P	2.7
3	☐	2.000	1.972	19569.88	0.0015	P	0.2
4	☐	50.000	54.099	517915.87	0.0396	P	1.7
5	☐	125.000	132.536	1260866.39	0.0969	P	0.7
6	☐	250.000	258.135	2414382.39	0.1887	P	0.4
7	☐	500.000	501.960	4873503.02	0.3670	A	1.1
8	☐	1000.000	995.839	9351666.27	0.7280	A	0.6
9	☐			15000.16	0.0012	P	1.5

$$y = 7.3100\text{E-}004 * x + 2.2664\text{E-}005$$

$$R = 0.9999$$

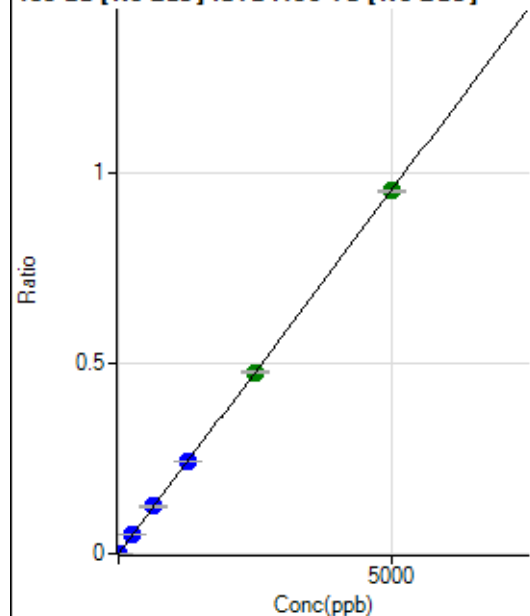
$$DL = 0.02001$$

$$BEC = 0.031$$

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	69.45	0.0000	P	14.1
2	☐	1.000	0.983	2544.78	0.0002	P	3.3
3	☐	10.000	10.414	26662.54	0.0020	P	3.3
4	☐	250.000	266.337	666264.99	0.0509	P	1.5
5	☐	625.000	648.563	1612700.55	0.1239	P	1.0
6	☐	1250.000	1274.259	3115411.27	0.2435	P	0.5
7	☐	2500.000	2497.212	6338099.19	0.4772	A	0.7
8	☐	5000.000	4991.566	12254250.80	0.9539	A	0.3
9	☐			2839.30	0.0002	P	16.7

$$y = 1.9110\text{E-}004 * x + 5.2488\text{E-}006$$

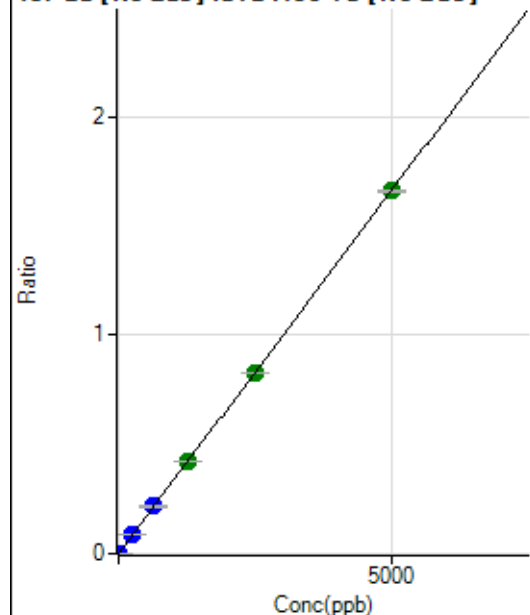
$$R = 1.0000$$

$$DL = 0.01163$$

$$BEC = 0.02747$$

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	138.89	0.0000	P	20.7
2	☐	1.000	1.045	4714.90	0.0004	P	3.9
3	☐	10.000	10.432	46445.37	0.0035	P	1.6
4	☐	250.000	266.432	1158524.96	0.0885	P	1.6
5	☐	625.000	648.862	2804584.24	0.2156	P	0.6
6	☐	1250.000	1273.734	5413096.22	0.4231	A	0.7
7	☐	2500.000	2486.985	10972261.79	0.8261	A	0.2
8	☐	5000.000	4996.769	21322628.60	1.6598	A	0.2
9	☐			4912.22	0.0004	P	22.4

$$y = 3.3218\text{E-}004 * x + 1.0488\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.01957$$

$$BEC = 0.03157$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	91.7
2	☐			11.11		P	34.6
3	☐			8.89		P	43.3
4	☐			48.89		P	78.7
5	☐			115.56		P	38.4
6	☐			222.23		P	4.6
7	☐			384.46		P	10.6
8	☐			873.40		P	7.9
9	☐			215.56		P	31.6

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			7.78		P	24.7
2	☐			1.11		P	173.
3	☐			22.22		P	8.7
4	☐			15.55		P	44.6
5	☐			24.45		P	28.4
6	☐			26.67		P	25.0
7	☐			47.78		P	20.1
8	☐			78.89		P	21.3
9	☐			88.89		P	4.3

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	124.
2	☐			19.44		P	89.2
3	☐			38.89		P	53.9
4	☐			13.89		P	69.3
5	☐			33.33		P	25.0
6	☐			33.33		P	86.6
7	☐			94.45		P	27.0
8	☐			169.45		P	17.3
9	☐			105.56		P	35.6

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.33		P	17.3
2	☐			22.22		P	22.9
3	☐			22.22		P	45.8
4	☐			41.11		P	30.7
5	☐			53.33		P	22.5
6	☐			91.11		P	23.8
7	☐			130.00		P	20.5
8	☐			277.78		P	13.6
9	☐			67.78		P	10.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			63.89		P	7.5
2	☐			66.67		P	76.0
3	☐			75.01		P	29.4
4	☐			69.45		P	70.3
5	☐			100.00		P	8.3
6	☐			50.00		P	16.7
7	☐			94.45		P	31.0
8	☐			136.12		P	15.4
9	☐			116.67		P	7.1

160 Gd [He] No available calibration points

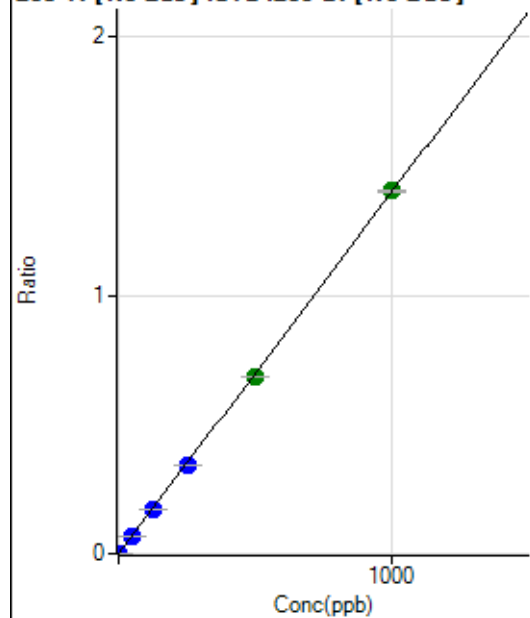
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			235.56		P	3.6
2	☐			261.12		P	12.8
3	☐			223.34		P	15.1
4	☐			228.89		P	4.7
5	☐			214.45		P	9.5
6	☐			178.89		P	7.5
7	☐			213.34		P	21.7
8	☐			228.89		P	7.3
9	☐			220.01		P	14.9

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			69.45		P	6.9
2	☐			86.11		P	14.8
3	☐			66.67		P	0.0
4	☐			55.56		P	22.9
5	☐			72.22		P	63.6
6	☐			75.00		P	22.2
7	☐			52.78		P	45.6
8	☐			63.89		P	39.8
9	☐			97.23		P	27.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			65.56		P	12.8
2	☐			72.22		P	29.3
3	☐			86.67		P	10.2
4	☐			75.56		P	29.4
5	☐			75.56		P	6.7
6	☐			51.11		P	46.3
7	☐			48.89		P	19.7
8	☐			61.11		P	36.3
9	☐			58.89		P	18.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	755.62	0.0001	P	9.7
2	☐	0.100	0.094	1775.20	0.0002	P	4.4
3	☐	1.000	0.915	10676.92	0.0014	P	1.6
4	☐	50.000	49.248	522061.29	0.0689	P	2.2
5	☐	125.000	123.670	1314114.50	0.1728	P	0.9
6	☐	250.000	246.678	2606117.44	0.3445	P	0.6
7	☐	500.000	492.215	5320076.42	0.6873	A	0.1
8	☐	1000.000	1004.927	10314333.13	1.4032	A	0.7
9	☐			3053.28	0.0005	P	18.5

$$y = 0.0014 * x + 9.7290E-005$$

$$R = 1.0000$$

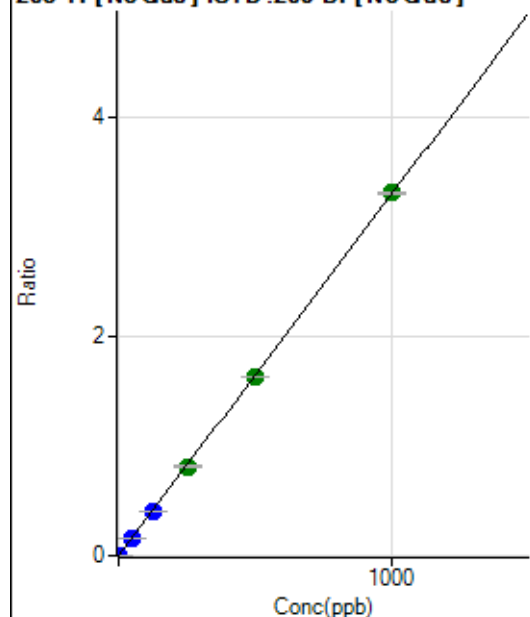
$$DL = 0.02036$$

$$BEC = 0.06968$$

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	1197.33	0.0002	P	11.2
2	☐	0.100	0.098	3709.03	0.0005	P	2.3
3	☐	1.000	0.915	24579.12	0.0032	P	1.5
4	☐	50.000	49.629	1239744.38	0.1635	P	1.0
5	☐	125.000	123.758	3099447.77	0.4075	P	0.8
6	☐	250.000	246.277	6133026.39	0.8107	A	1.1
7	☐	500.000	494.305	12593780.49	1.6271	A	0.3
8	☐	1000.000	1003.952	24290189.08	3.3045	A	0.6
9	☐			6818.76	0.0011	P	14.3

$$y = 0.0033 * x + 1.5430E-004$$

$$R = 1.0000$$

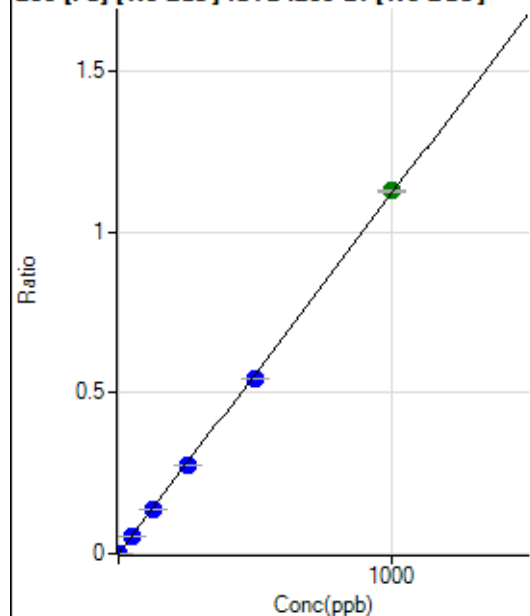
$$DL = 0.01579$$

$$BEC = 0.04688$$

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	1092.67	0.0001	P	7.0
2	☐	0.100	0.088	1853.88	0.0002	P	0.9
3	☐	1.000	0.908	8968.12	0.0012	P	3.5
4	☐	50.000	49.529	420771.50	0.0555	P	0.6
5	☐	125.000	123.834	1053668.82	0.1385	P	0.5
6	☐	250.000	246.255	2082648.54	0.2753	P	1.6
7	☐	500.000	485.429	4199781.98	0.5426	P	0.6
8	☐	1000.000	1008.391	8284227.73	1.1270	A	0.5
9	☐			7155.86	0.0011	P	8.1

$$y = 0.0011 * x + 1.4082E-004$$

$$R = 0.9998$$

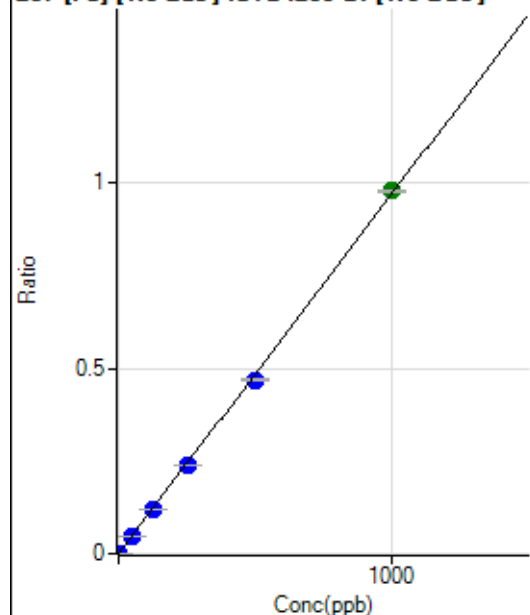
$$DL = 0.02651$$

$$BEC = 0.126$$

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	988.95	0.0001	P	5.5
2	☐	0.100	0.085	1627.93	0.0002	P	6.0
3	☐	1.000	0.858	7441.19	0.0010	P	2.6
4	☐	50.000	49.280	362832.85	0.0479	P	1.6
5	☐	125.000	122.433	902871.26	0.1187	P	0.3
6	☐	250.000	245.462	1799154.68	0.2378	P	1.2
7	☐	500.000	483.803	3627521.81	0.4687	P	0.6
8	☐	1000.000	1009.590	7187889.40	0.9779	A	0.7
9	☐			5871.85	0.0009	P	7.2

$$y = 9.6846\text{E-}004 * x + 1.2742\text{E-}004$$

$$R = 0.9998$$

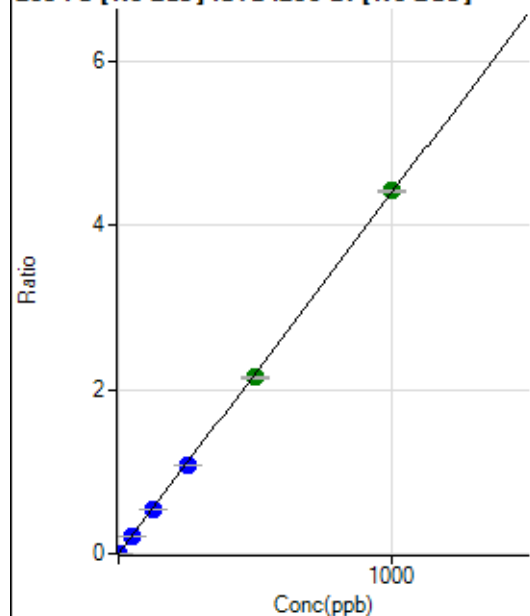
$$DL = 0.02171$$

$$BEC = 0.1316$$

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	3805.87	0.0005	P	3.3
2	☐	0.100	0.081	6578.57	0.0008	P	3.0
3	☐	1.000	0.898	34427.66	0.0044	P	1.9
4	☐	50.000	49.599	1655030.63	0.2183	P	1.3
5	☐	125.000	123.499	4128447.24	0.5428	P	0.4
6	☐	250.000	246.804	8201224.10	1.0842	P	0.8
7	☐	500.000	488.714	16612938.24	2.1464	A	0.5
8	☐	1000.000	1006.650	32493709.29	4.4205	A	0.4
9	☐			26829.73	0.0042	P	6.9

$$y = 0.0044 * x + 4.9037\text{E-}004$$

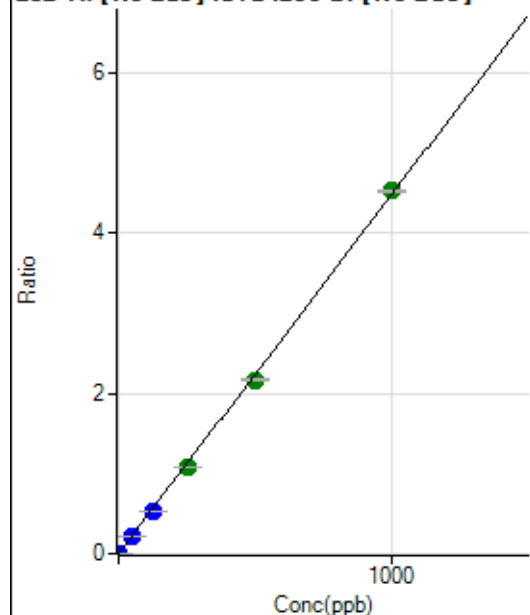
$$R = 0.9999$$

$$DL = 0.01094$$

$$BEC = 0.1117$$

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	2355.83	0.0003	P	7.9
2	☐	0.100	0.073	4888.12	0.0006	P	2.8
3	☐	1.000	0.795	29981.64	0.0039	P	3.1
4	☐	50.000	46.521	1580204.26	0.2084	P	1.4
5	☐	125.000	118.642	4039083.66	0.5310	P	1.3
6	☐	250.000	241.144	8162533.40	1.0790	A	0.5
7	☐	500.000	484.665	16783215.65	2.1684	A	0.9
8	☐	1000.000	1010.851	33241306.53	4.5222	A	0.4
9	☐			12563.98	0.0020	P	18.6

$$y = 0.0045 * x + 3.0363E-004$$

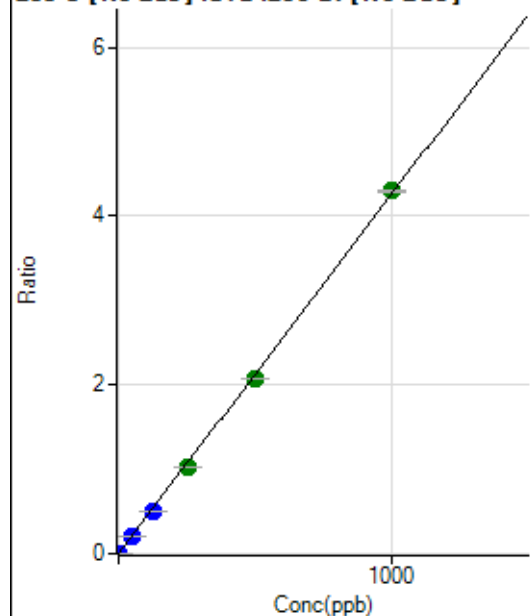
$$R = 0.9998$$

$$DL = 0.01604$$

$$BEC = 0.06787$$

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	3317.27	0.0004	P	4.0
2	☐	0.100	0.085	6110.08	0.0008	P	3.6
3	☐	1.000	0.848	31364.42	0.0040	P	1.6
4	☐	50.000	46.730	1511905.49	0.1994	P	1.8
5	☐	125.000	118.855	3852743.62	0.5065	P	0.6
6	☐	250.000	242.772	7823169.31	1.0342	A	0.2
7	☐	500.000	485.999	16020511.30	2.0698	A	0.5
8	☐	1000.000	1009.740	31607285.08	4.2999	A	0.2
9	☐			8606.09	0.0014	P	17.9

$$y = 0.0043 * x + 4.2730E-004$$

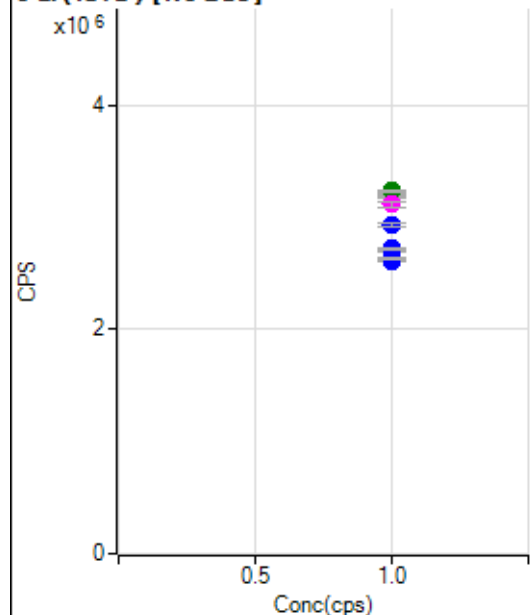
$$R = 0.9998$$

$$DL = 0.01217$$

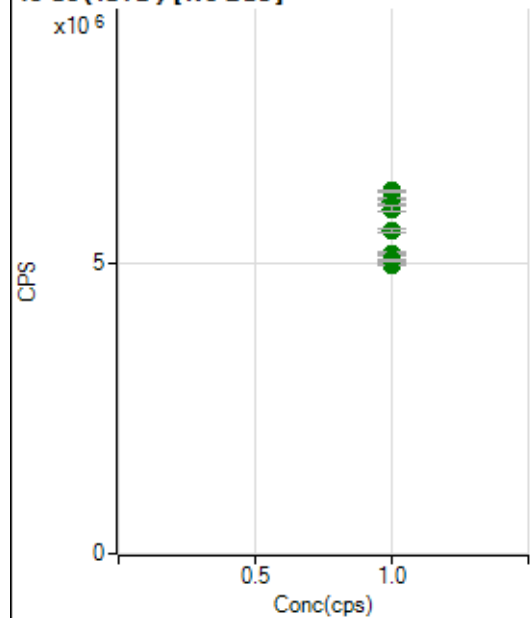
$$BEC = 0.1004$$

Weight: <None>

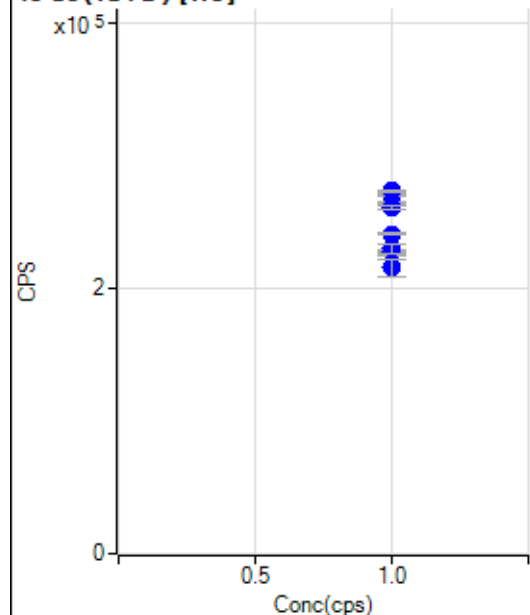
Min Conc: 0

6 Li (ISTD) [No Gas]

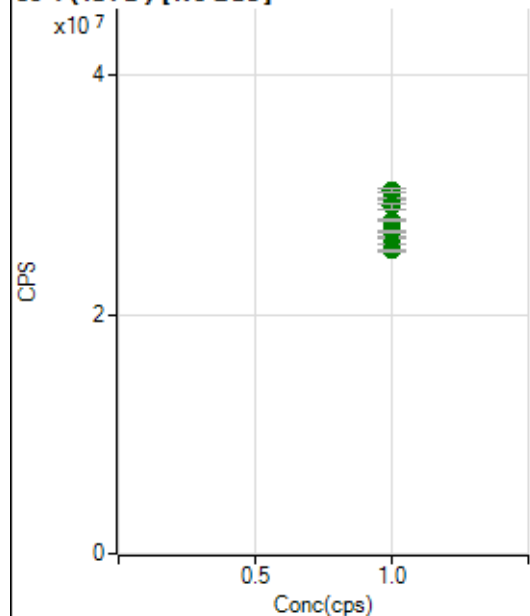
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3201911.06		A	0.2
2	☐	1.000		3191441.03		A	0.6
3	☐	1.000		3238371.32		A	0.5
4	☐	1.000		3118512.76		M	1.5
5	☐	1.000		2929295.41		P	1.2
6	☐	1.000		2699953.16		P	0.3
7	☐	1.000		2727341.46		P	0.7
8	☐	1.000		2615028.91		P	0.3
9	☐	1.000		2631117.00		P	0.8

45 Sc (ISTD) [No Gas]

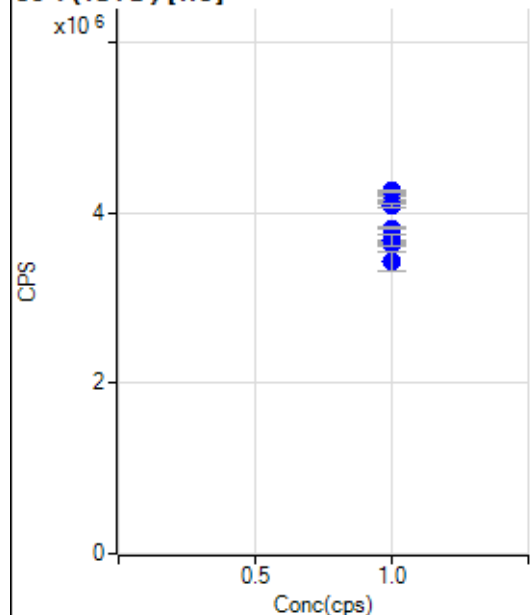
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6061582.52		A	0.7
2	☐	1.000		6120219.23		A	0.0
3	☐	1.000		6251651.31		A	0.7
4	☐	1.000		5933468.14		A	1.7
5	☐	1.000		5556970.39		A	1.4
6	☐	1.000		5140034.31		A	0.2
7	☐	1.000		5174371.60		A	0.8
8	☐	1.000		4975807.53		A	0.5
9	☐	1.000		5059275.55		A	0.9

45 Sc (ISTD) [He]

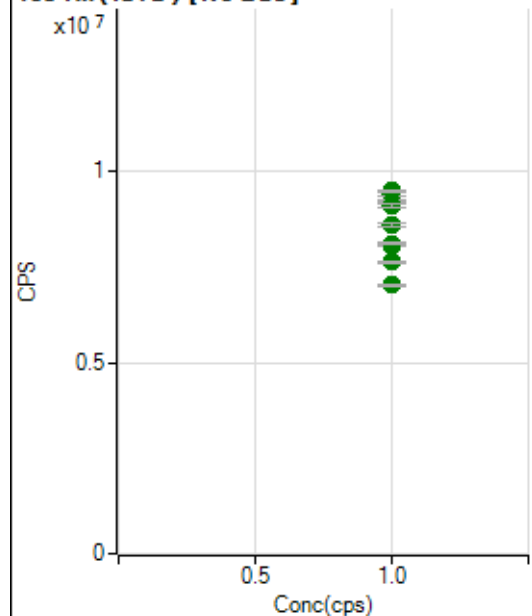
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		264875.26		P	0.6
2	☐	1.000		269688.50		P	0.6
3	☐	1.000		273426.39		P	0.7
4	☐	1.000		261358.96		P	1.1
5	☐	1.000		240893.11		P	0.4
6	☐	1.000		227944.63		P	0.6
7	☐	1.000		226903.23		P	1.5
8	☐	1.000		229911.64		P	2.8
9	☐	1.000		215711.21		P	5.9

89 Y (ISTD) [No Gas]

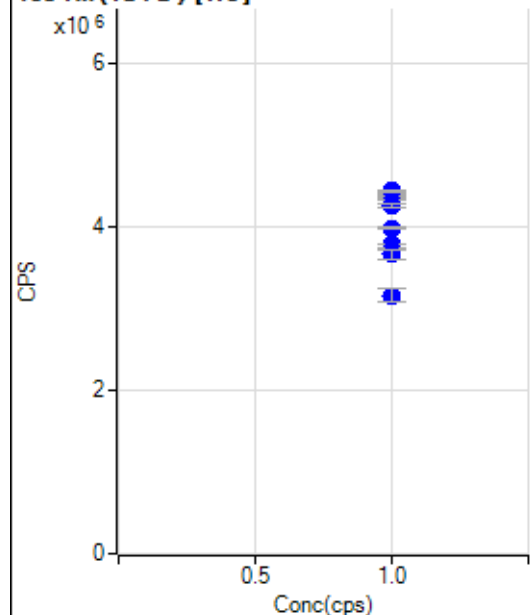
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		29666326.50		A	0.6
2	☐	1.000		29782232.34		A	0.3
3	☐	1.000		30360475.66		A	1.0
4	☐	1.000		29092771.79		A	1.4
5	☐	1.000		27893802.64		A	0.8
6	☐	1.000		26515209.88		A	0.5
7	☐	1.000		27008678.77		A	0.5
8	☐	1.000		25940931.00		A	0.1
9	☐	1.000		25346026.84		A	0.8

89 Y (ISTD) [He]

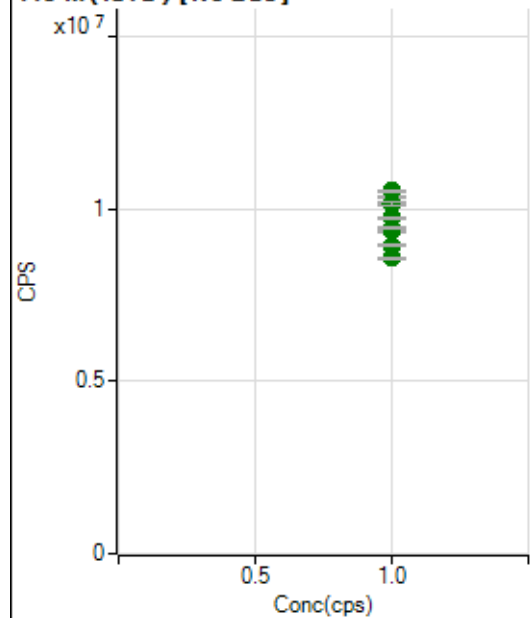
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4130930.04		P	0.3
2	☐	1.000		4205224.77		P	0.4
3	☐	1.000		4252753.83		P	0.8
4	☐	1.000		4080611.95		P	0.7
5	☐	1.000		3817881.96		P	0.6
6	☐	1.000		3660770.78		P	0.6
7	☐	1.000		3638399.53		P	0.8
8	☐	1.000		3673052.20		P	3.4
9	☐	1.000		3420143.49		P	6.4

103 Rh (ISTD) [No Gas]

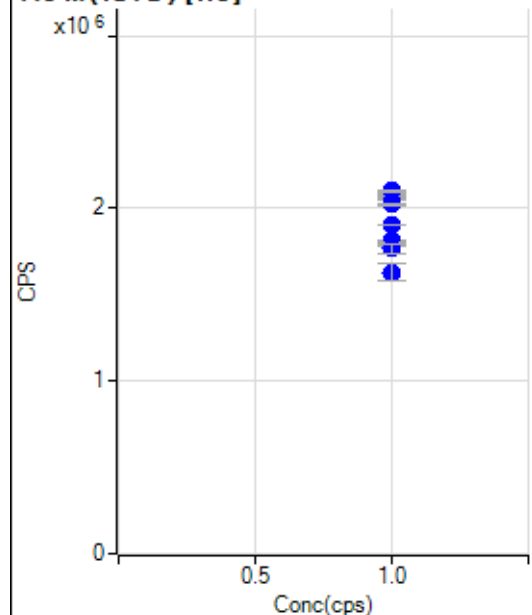
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9224720.87		A	0.4
2	☐	1.000		9391527.21		A	1.1
3	☐	1.000		9499178.25		A	0.8
4	☐	1.000		9110996.73		A	1.1
5	☐	1.000		8626752.62		A	1.1
6	☐	1.000		8079392.28		A	0.5
7	☐	1.000		8128093.93		A	0.7
8	☐	1.000		7629245.74		A	0.1
9	☐	1.000		7044811.27		A	0.7

103 Rh (ISTD) [He]

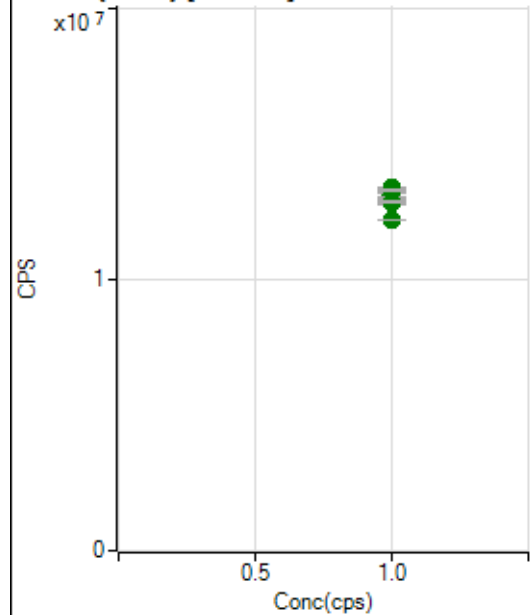
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4335601.04		P	0.5
2	☐	1.000		4398797.02		P	0.7
3	☐	1.000		4443940.98		P	0.5
4	☐	1.000		4270008.34		P	1.1
5	☐	1.000		3989245.64		P	0.5
6	☐	1.000		3795088.90		P	0.4
7	☐	1.000		3726626.47		P	0.9
8	☐	1.000		3664909.81		P	3.4
9	☐	1.000		3162988.60		P	5.5

115 In (ISTD) [No Gas]

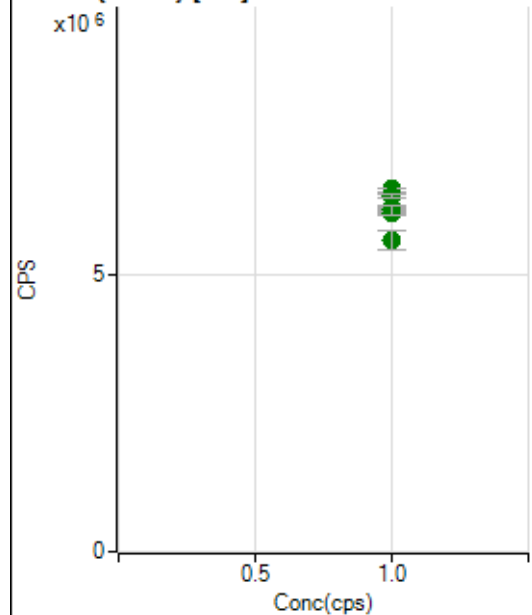
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10202765.16		A	0.8
2	☐	1.000		10374721.54		A	0.6
3	☐	1.000		10537462.84		A	0.5
4	☐	1.000		10188080.33		A	1.0
5	☐	1.000		9762310.24		A	0.6
6	☐	1.000		9361942.49		A	0.3
7	☐	1.000		9466637.85		A	0.7
8	☐	1.000		8963786.36		A	0.3
9	☐	1.000		8580473.25		A	0.9

115 In (ISTD) [He]

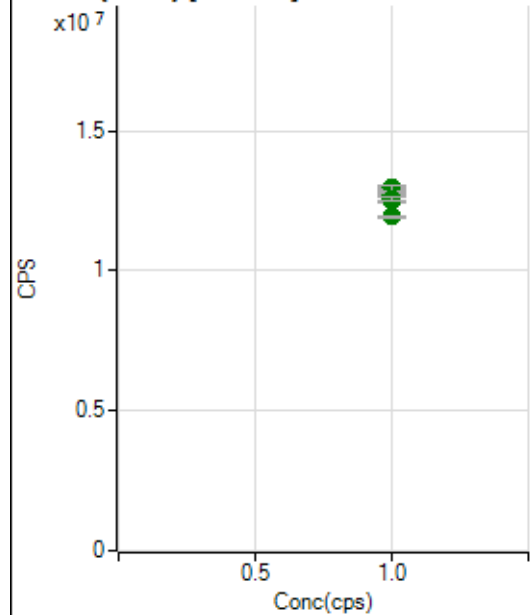
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2056235.21		P	0.4
2	☐	1.000		2079832.69		P	0.6
3	☐	1.000		2100480.39		P	0.6
4	☐	1.000		2021710.69		P	0.6
5	☐	1.000		1902639.78		P	0.4
6	☐	1.000		1815487.17		P	0.4
7	☐	1.000		1788832.57		P	1.1
8	☐	1.000		1765193.17		P	3.3
9	☐	1.000		1626647.53		P	6.1

159 Tb (ISTD) [No Gas]

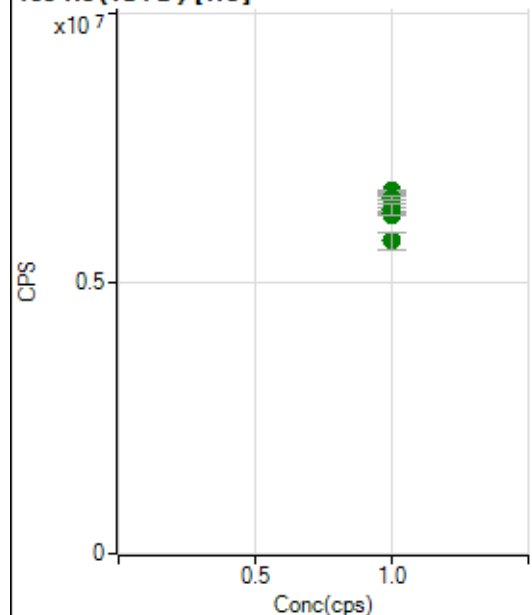
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13234773.28		A	0.5
2	☐	1.000		13182862.58		A	0.1
3	☐	1.000		13362744.25		A	0.6
4	☐	1.000		13089964.94		A	1.1
5	☐	1.000		13011450.36		A	0.7
6	☐	1.000		12793427.59		A	0.4
7	☐	1.000		13281474.25		A	0.7
8	☐	1.000		12846257.17		A	0.6
9	☐	1.000		12171512.60		A	0.3

159 Tb (ISTD) [He]

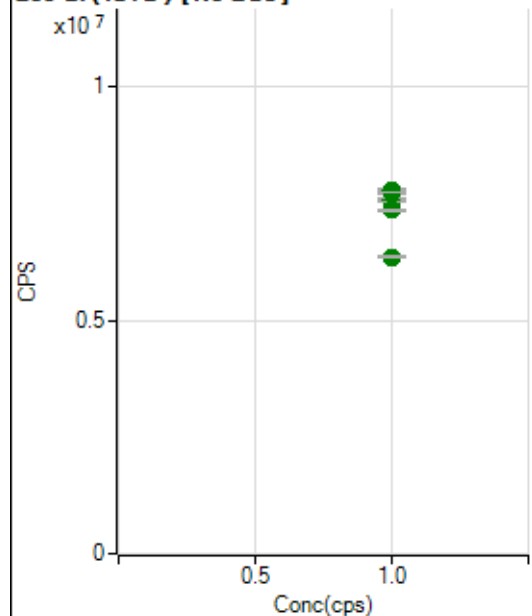
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6506736.71		A	0.1
2	☐	1.000		6485862.47		A	0.6
3	☐	1.000		6568672.75		A	0.1
4	☐	1.000		6425219.83		A	1.1
5	☐	1.000		6215930.05		A	0.4
6	☐	1.000		6111111.72		A	0.1
7	☐	1.000		6129234.63		A	0.9
8	☐	1.000		6195510.88		A	2.8
9	☐	1.000		5629586.17		A	6.3

165 Ho (ISTD) [No Gas]

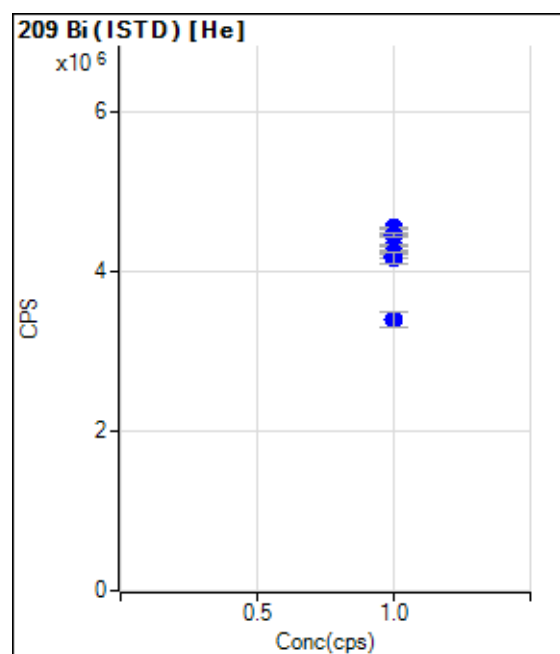
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12809211.66		A	0.6
2	☐	1.000		12831060.09		A	0.9
3	☐	1.000		12957375.46		A	0.7
4	☐	1.000		12672014.08		A	0.9
5	☐	1.000		12683132.92		A	1.0
6	☐	1.000		12478262.78		A	0.4
7	☐	1.000		12953619.04		A	1.4
8	☐	1.000		12577304.45		A	0.7
9	☐	1.000		11916019.28		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6631838.86		A	0.3
2	☐	1.000		6641776.64		A	0.5
3	☐	1.000		6711742.12		A	0.3
4	☐	1.000		6589632.12		A	1.1
5	☐	1.000		6368998.59		A	0.8
6	☐	1.000		6271525.39		A	0.4
7	☐	1.000		6296613.59		A	1.5
8	☐	1.000		6368972.20		A	3.2
9	☐	1.000		5784860.05		A	5.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7762779.47		A	1.0
2	☐	1.000		7761492.80		A	0.3
3	☐	1.000		7764296.06		A	1.2
4	☐	1.000		7583087.80		A	1.2
5	☐	1.000		7606525.17		A	0.6
6	☐	1.000		7564891.69		A	0.9
7	☐	1.000		7740139.05		A	0.4
8	☐	1.000		7350706.97		A	0.5
9	☐	1.000		6353134.00		A	0.7



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4485467.85		P	0.6
2	☐	1.000		4546013.65		P	0.3
3	☐	1.000		4553790.66		P	0.6
4	☐	1.000		4466198.37		P	1.3
5	☐	1.000		4325212.54		P	0.5
6	☐	1.000		4250898.37		P	0.8
7	☐	1.000		4200580.04		P	0.7
8	☐	1.000		4173274.62		P	3.1
9	☐	1.000		3404093.49		P	5.4

US EPA Tune Check Sample Report

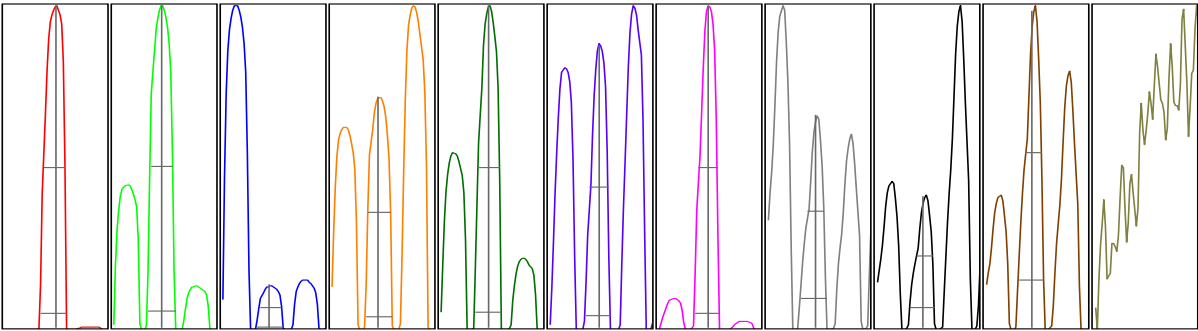
Batch Folder D:\ICP-MS Data\P7080219-IMS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	9363	1.13	5.00	
24	131392	1.14	5.00	
25	17615	1.27	5.00	
26	20074	1.30	5.00	
59	76399	1.25	5.00	
113	10855	1.41	5.00	
115	131189	1.81	5.00	
206	30726	1.48	5.00	
207	29421	1.43	5.00	
208	65822	1.37	5.00	
220	140	1.49		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	9394	9454	9429	9187	9350
24	131669	132374	132683	128875	131360
25	17670	17785	17726	17225	17671
26	20128	20283	20239	19628	20093
59	76677	76652	77243	74750	76673
113	10901	10949	11010	10622	10793
115	131784	132596	133933	127958	129672
206	30708	30850	31195	29977	30900
207	29751	29590	29626	28692	29446
208	65967	66111	66562	64260	66209
220	137	141	137	141	142

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	15336	9.05	8.9 - 9.1		0.778	0.900	
24	211195	23.95	23.9 - 24.1		0.822	0.900	
25	28218	24.90	24.9 - 25.1		0.785	0.900	
26	32414	25.90	25.9 - 26.1		0.784	0.900	
59	129955	58.95	58.9 - 59.1		0.781	0.900	
113	21311	113.00	112.9 - 113.1		0.733	0.900	
115	254705	115.00	114.9 - 115.1		0.729	0.900	
206	61819	205.95	205.9 - 206.1		0.749	0.900	
207	55197	206.90	206.9 - 207.1		0.701	0.900	
208	133032	207.90	207.9 - 208.1		0.734	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	7.7	V	Deflect	13.8	V
Extract 2	-110.0	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	19960	0.44	
89	37651	0.32	
205	26779	0.81	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	19934	20074	19900	20024	19865
89	37757	37783	37594	37630	37490
205	26687	27072	26838	26813	26483

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	7.4	V	Deflect	2.0	V
Extract 2	-95.0	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			