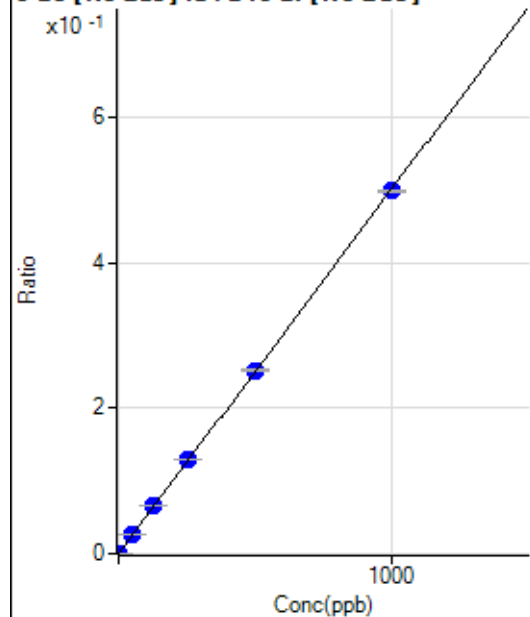


Calibration for 005CALS.d

Batch Folder: D:\ICP-MS Data\P7012220MS.b\
 Analysis File: P7012220MS.batch.bin
 DA Date-Time: 2020-01-23 01:02:15
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-01-22 11:40:23
2	004CALS.d	S02	2020-01-22 11:44:04
3	005CALS.d	S03	2020-01-22 11:48:39
4	006CALS.d	S04	2020-01-22 11:52:41
5	007CALS.d	S05	2020-01-22 11:56:40
6	008CALS.d	S06	2020-01-22 12:00:36
7	009CALS.d	S07	2020-01-22 12:04:29
8	010CALS.d	S08	2020-01-22 12:08:21

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	81.48	0.0000	P	23.8
2	☐	1.000	1.098	1516.78	0.0006	P	1.7
3	☐	50.000	52.486	66503.24	0.0263	P	1.2
4	☐	125.000	130.301	160854.44	0.0653	P	0.4
5	☐	250.000	257.449	310277.14	0.1290	P	1.0
6	☐	500.000	502.941	596587.43	0.2520	P	0.7
7	☐	1000.000	995.880	1149038.19	0.4989	P	0.5
8	☐			894.49	0.0004	P	7.0

$$y = 5.0098\text{E-}004 * x + 3.1004\text{E-}005$$

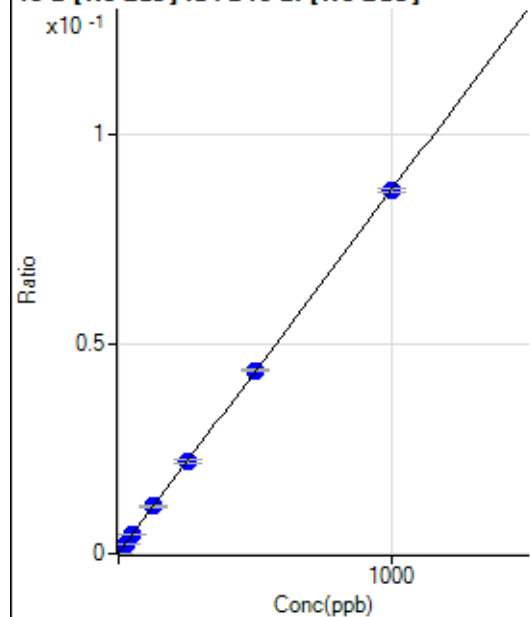
$$R = 1.0000$$

$$DL = 0.04411$$

$$BEC = 0.06189$$

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	516.69	0.0002	P	6.0
2	☐	25.000	23.813	5901.37	0.0023	P	1.3
3	☐	50.000	51.400	11757.76	0.0047	P	4.4
4	☐	125.000	127.742	27765.21	0.0113	P	2.1
5	☐	250.000	252.302	53094.32	0.0221	P	2.7
6	☐	500.000	503.123	103755.61	0.0438	P	1.3
7	☐	1000.000	997.480	199656.48	0.0867	P	1.2
8	☐			6368.25	0.0029	P	11.6

$$y = 8.6719\text{E-}005 * x + 1.9666\text{E-}004$$

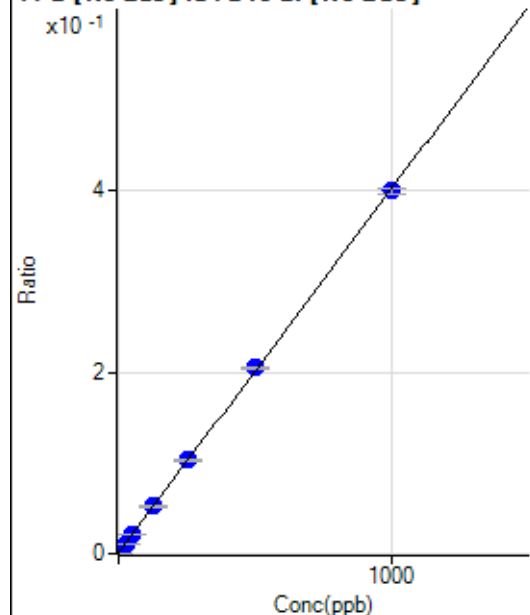
$$R = 1.0000$$

$$DL = 0.4055$$

$$BEC = 2.268$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2378.06	0.0009	P	5.7
2	☐	25.000	24.153	27654.12	0.0106	P	3.0
3	☐	50.000	52.058	55073.79	0.0218	P	1.0
4	☐	125.000	127.950	128691.07	0.0523	P	3.5
5	☐	250.000	254.563	247911.04	0.1031	P	0.7
6	☐	500.000	508.534	485343.69	0.2050	P	1.2
7	☐	1000.000	994.142	920969.80	0.3999	P	1.7
8	☐			29321.30	0.0134	P	8.5

$$y = 4.0136E-004 * x + 9.0517E-004$$

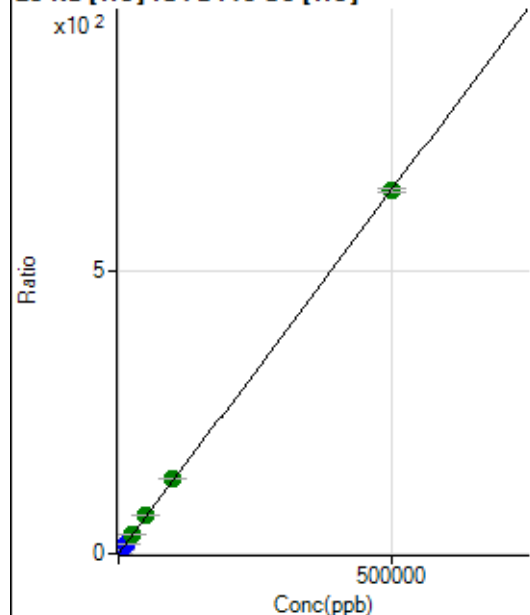
$$R = 0.9999$$

$$DL = 0.3848$$

$$BEC = 2.255$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8958.54	0.0445	P	1.1
2	☐	500.000	546.633	146765.84	0.7456	P	1.2
3	☐	5000.000	5447.800	1348112.11	7.0318	P	0.8
4	☐	12500.000	13582.060	3274603.48	17.4646	P	0.9
5	☐	25000.000	26463.030	6344201.88	33.9855	A	0.5
6	☐	50000.000	52985.002	12507982.40	68.0020	A	0.8
7	☐	100000.00	103687.77	24534304.37	133.0324	A	1.3
8	☐	500000.00	498859.21	114747438.6	639.8712	A	1.1

$$y = 0.0013 * x + 0.0445$$

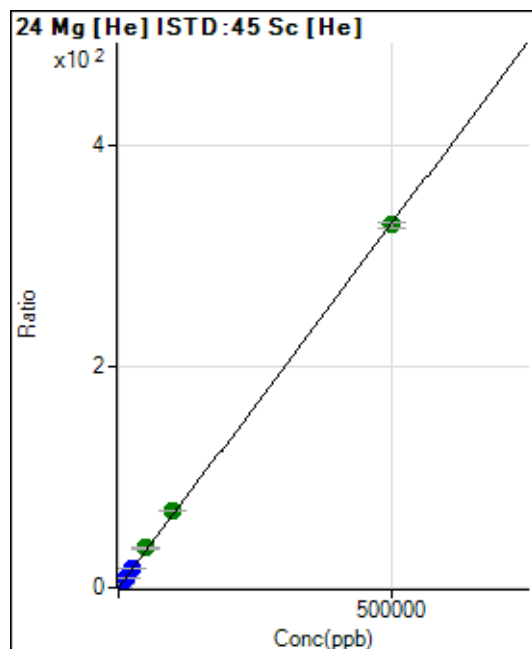
$$R = 1.0000$$

$$DL = 1.113$$

$$BEC = 34.73$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	488.92	0.0024	P	14.5
2	☐	500.000	563.773	73497.67	0.3734	P	1.1
3	☐	5000.000	5625.594	710156.81	3.7042	P	1.2
4	☐	12500.000	13889.293	1714112.97	9.1419	P	1.0
5	☐	25000.000	27279.507	3351368.74	17.9529	P	0.1
6	☐	50000.000	54326.323	6575835.61	35.7503	A	0.7
7	☐	100000.00	105991.62	12863429.80	69.7472	A	0.9
8	☐	500000.00	498214.01	58788695.07	327.8380	A	1.3

$$y = 6.5802\text{E-}004 * x + 0.0024$$

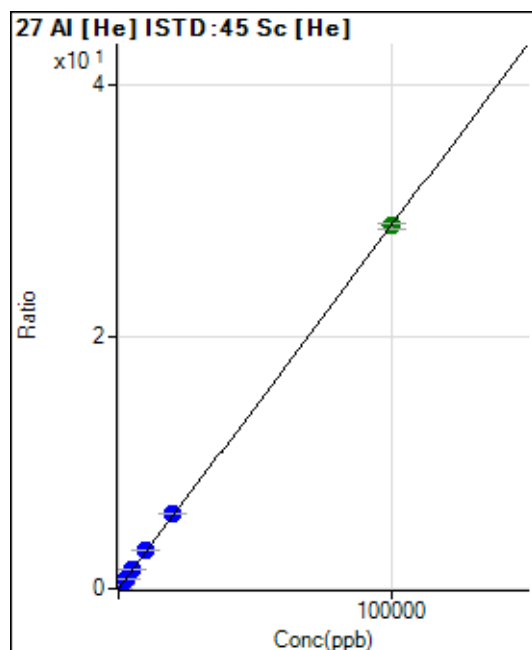
$$R = 0.9999$$

$$DL = 1.611$$

$$BEC = 3.697$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	61.11	0.0003	P	21.5
2	☐	20.000	20.475	1222.32	0.0062	P	3.5
3	☐	1000.000	1062.964	58833.14	0.3069	P	0.7
4	☐	2500.000	2658.573	143820.07	0.7671	P	1.0
5	☐	5000.000	5255.455	283012.00	1.5160	P	0.9
6	☐	10000.000	10381.633	550833.27	2.9945	P	0.2
7	☐	20000.000	20453.788	1088047.21	5.8994	P	0.6
8	☐	100000.00	99853.712	5164345.60	28.7992	A	1.3

$$y = 2.8841\text{E-}004 * x + 3.0410\text{E-}004$$

$$R = 1.0000$$

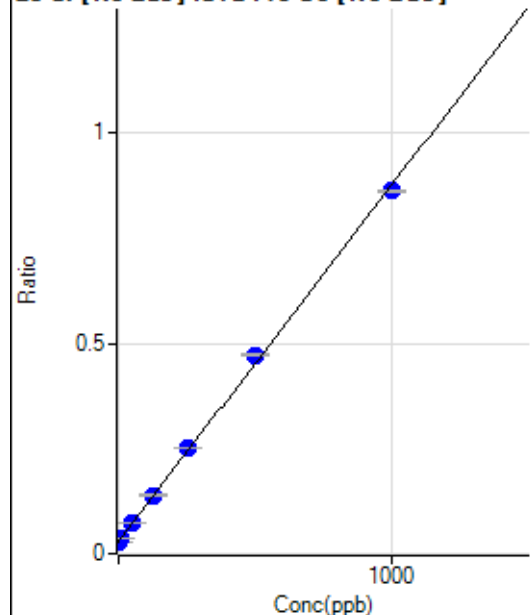
$$DL = 0.6791$$

$$BEC = 1.054$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	145533.68	0.0292	P	1.2
2	☐	10.000	9.036	181199.05	0.0368	P	1.2
3	☐	50.000	50.247	343695.29	0.0717	P	1.0
4	☐	125.000	130.267	654702.60	0.1395	P	0.6
5	☐	250.000	262.524	1165218.97	0.2516	P	1.0
6	☐	500.000	523.745	2166554.58	0.4729	P	0.6
7	☐	1000.000	984.336	3934800.22	0.8631	P	0.2
8	☐			585955.85	0.1350	P	2.4

$$y = 8.4719\text{E-}004 * x + 0.0292$$

$$R = 0.9995$$

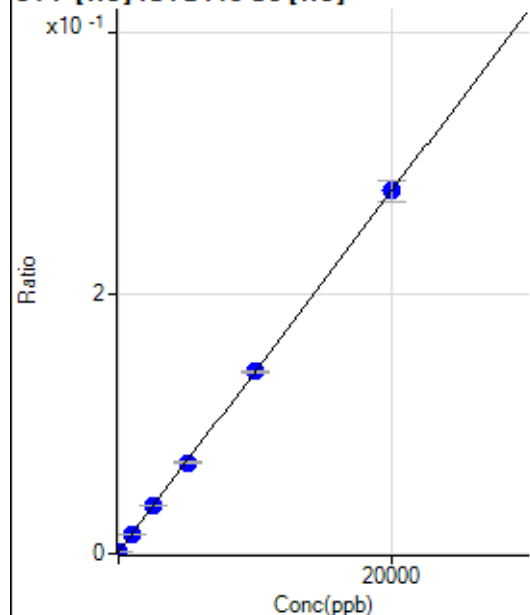
$$DL = 1.193$$

$$BEC = 34.43$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-17.660	225.01	0.0011	P	19.3
2	☐	0.000	17.660	316.68	0.0016	P	9.9
3	☐	1000.000	975.985	2853.17	0.0149	P	2.9
4	☐	2500.000	2543.418	6862.97	0.0366	P	2.3
5	☐	5000.000	4947.720	13047.86	0.0699	P	1.1
6	☐	10000.000	9987.352	25697.91	0.1397	P	0.4
7	☐	20000.000	20015.167	51364.47	0.2786	P	5.5
8	☐			238.90	0.0013	P	21.7

$$y = 1.3852\text{E-}005 * x + 0.0014$$

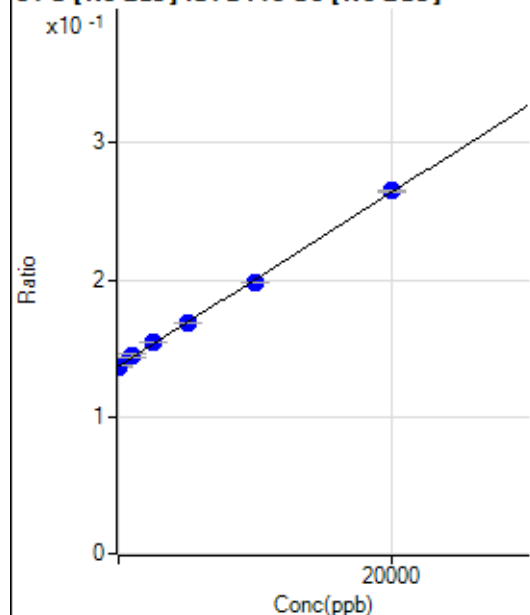
$$R = 1.0000$$

$$DL = 40.61$$

$$BEC = 98.43$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-44.591	682036.91	0.1367	P	0.5
2	☐	0.000	44.591	675401.17	0.1372	P	0.4
3	☐	1000.000	1150.809	691174.71	0.1443	P	1.7
4	☐	2500.000	2807.935	726316.36	0.1548	P	0.3
5	☐	5000.000	4984.697	780937.39	0.1686	P	0.6
6	☐	10000.000	9614.272	907147.44	0.1980	P	0.5
7	☐	20000.000	20150.657	1207606.12	0.2649	P	0.5
8	☐			615188.54	0.1418	P	0.8

$$y = 6.3487\text{E-}006 * x + 0.1370$$

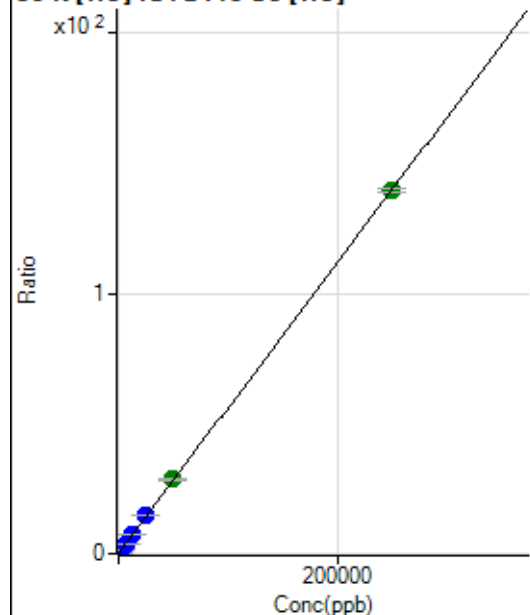
$$R = 0.9996$$

$$DL = 291.2$$

$$BEC = 2.157\text{E}+04$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22826.70	0.1135	P	4.1
2	☐	500.000	530.052	80568.91	0.4093	P	1.5
3	☐	2500.000	2634.743	303660.25	1.5838	P	0.6
4	☐	6250.000	6546.223	706276.46	3.7667	P	0.3
5	☐	12500.000	12943.356	1369564.45	7.3366	P	0.3
6	☐	25000.000	25833.546	2672677.75	14.5301	P	0.4
7	☐	50000.000	50805.093	5250019.52	28.4657	A	0.9
8	☐	250000.00	249724.64	25011737.36	139.4742	A	1.1

$$y = 5.5806\text{E-}004 * x + 0.1135$$

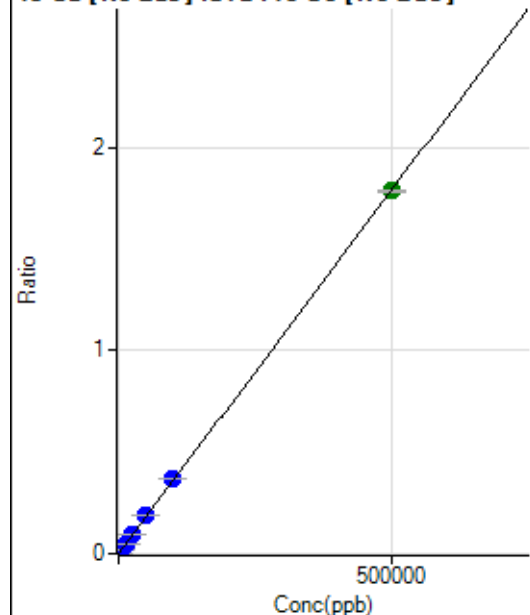
$$R = 1.0000$$

$$DL = 24.73$$

$$BEC = 203.4$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.12	0.0000	P	21.9
2	☐	500.000	523.139	9347.75	0.0019	P	4.3
3	☐	5000.000	5206.053	89394.97	0.0187	P	2.4
4	☐	12500.000	13013.068	218669.27	0.0466	P	0.4
5	☐	25000.000	26184.412	434180.17	0.0937	P	0.3
6	☐	50000.000	52240.923	856765.12	0.1870	P	0.3
7	☐	100000.00	103091.33	1682170.98	0.3690	P	0.4
8	☐	500000.00	499083.51	7751950.44	1.7862	A	0.8

$$y = 3.5789\text{E-}006 * x + 2.7293\text{E-}005$$

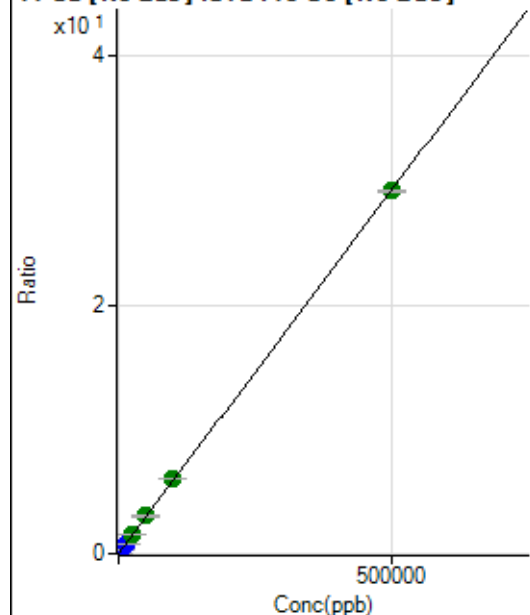
$$R = 1.0000$$

$$DL = 5.001$$

$$BEC = 7.626$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12747.63	0.0026	P	2.4
2	☐	500.000	515.489	160892.03	0.0327	P	0.2
3	☐	5000.000	5184.402	1464427.49	0.3057	P	1.7
4	☐	12500.000	12872.732	3543501.08	0.7551	P	0.6
5	☐	25000.000	25723.670	6977659.01	1.5065	A	0.1
6	☐	50000.000	51587.925	13830397.01	3.0186	A	0.2
7	☐	100000.00	102490.52	27328931.17	5.9946	A	0.5
8	☐	500000.00	499295.74	126691379.2	29.1935	A	0.6

$$y = 5.8464\text{E-}005 * x + 0.0026$$

$$R = 1.0000$$

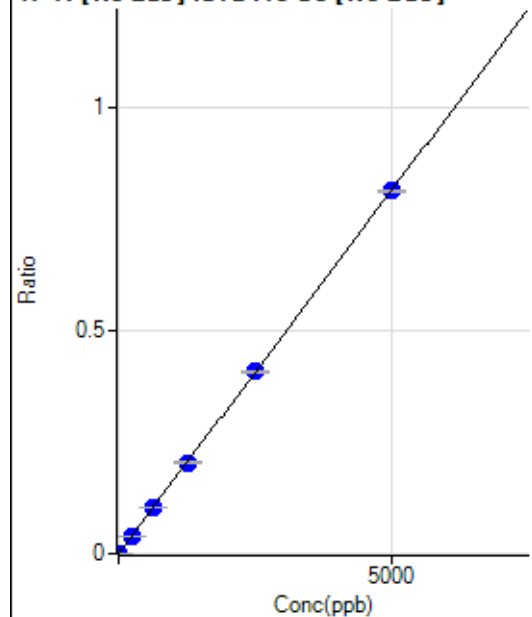
$$DL = 3.155$$

$$BEC = 43.7$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	94.45	0.0000	P	49.9
2	☐	5.000	5.061	4142.42	0.0008	P	3.1
3	☐	250.000	248.659	193760.10	0.0404	P	1.3
4	☐	625.000	626.951	478314.93	0.1019	P	0.7
5	☐	1250.000	1256.859	946426.36	0.2043	P	0.3
6	☐	2500.000	2505.759	1866380.66	0.4074	P	0.3
7	☐	5000.000	4995.229	3702006.51	0.8120	P	0.6
8	☐			711.16	0.0002	P	4.6

$$y = 1.6256E-004 * x + 1.8905E-005$$

$$R = 1.0000$$

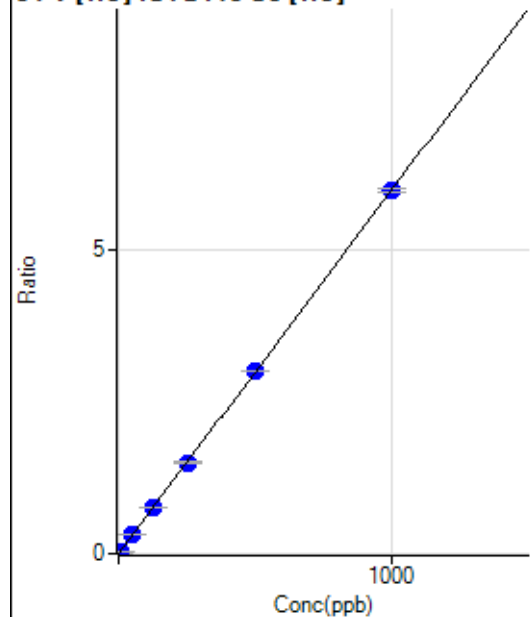
$$DL = 0.1741$$

$$BEC = 0.1163$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.56	0.0000	P	34.2
2	☐	5.000	5.282	6212.50	0.0316	P	3.6
3	☐	50.000	50.642	57971.20	0.3024	P	0.9
4	☐	125.000	126.141	141204.71	0.7531	P	1.5
5	☐	250.000	250.703	279423.61	1.4968	P	0.8
6	☐	500.000	502.618	551974.47	3.0009	P	0.7
7	☐	1000.000	998.339	1099297.10	5.9605	P	1.0
8	☐			503.35	0.0028	P	5.0

$$y = 0.0060 * x + 2.7583E-005$$

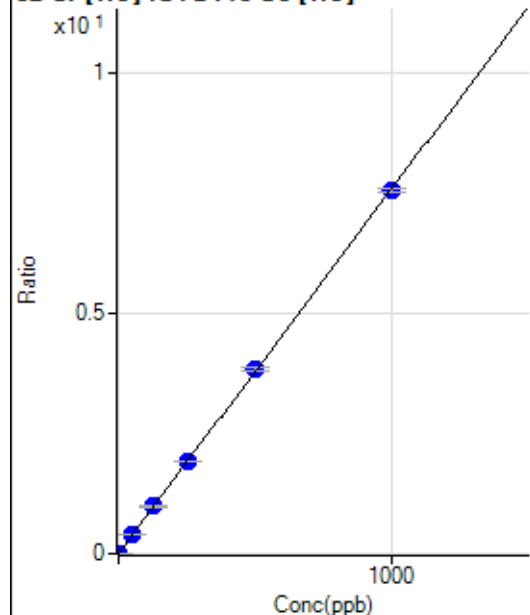
$$R = 1.0000$$

$$DL = 0.004739$$

$$BEC = 0.00462$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	482.24	0.0024	P	10.9
2	☐	2.000	2.032	3504.91	0.0178	P	4.0
3	☐	50.000	51.550	75426.20	0.3934	P	1.1
4	☐	125.000	129.280	184314.63	0.9830	P	0.9
5	☐	250.000	253.869	359912.76	1.9280	P	0.0
6	☐	500.000	506.354	706865.72	3.8431	P	1.2
7	☐	1000.000	995.243	1392694.80	7.5514	P	1.0
8	☐			37066.75	0.2067	P	2.4

$$y = 0.0076 * x + 0.0024$$

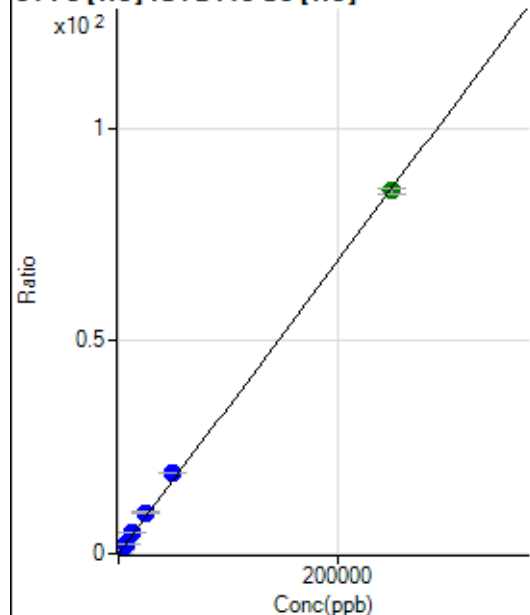
$$R = 1.0000$$

$$DL = 0.1031$$

$$BEC = 0.316$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	467.17	0.0023	P	13.9
2	☐	50.000	60.413	4535.48	0.0230	P	4.4
3	☐	2500.000	2896.847	190907.82	0.9958	P	0.6
4	☐	6250.000	7168.121	461366.46	2.4606	P	0.6
5	☐	12500.000	14204.440	909781.11	4.8736	P	0.4
6	☐	25000.000	28230.909	1781160.01	9.6839	P	1.1
7	☐	50000.000	55207.538	3492178.33	18.9353	P	1.0
8	☐	250000.00	248523.25	15283569.07	85.2313	A	1.5

$$y = 3.4294E-004 * x + 0.0023$$

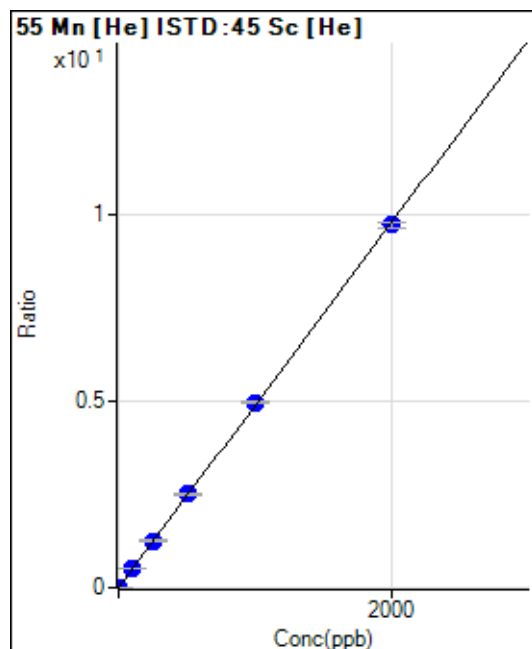
$$R = 0.9997$$

$$DL = 2.818$$

$$BEC = 6.768$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	84.45	0.0004	P	17.6
2	☐	1.000	1.098	1140.06	0.0058	P	4.2
3	☐	100.000	103.637	97330.23	0.5077	P	1.1
4	☐	250.000	257.940	236793.35	1.2629	P	0.8
5	☐	500.000	511.010	466984.95	2.5016	P	0.4
6	☐	1000.000	1016.275	915042.17	4.9746	P	0.3
7	☐	2000.000	1987.935	1794521.01	9.7304	P	1.3
8	☐			7324.16	0.0409	P	4.5

$$y = 0.0049 * x + 4.1953E-004$$

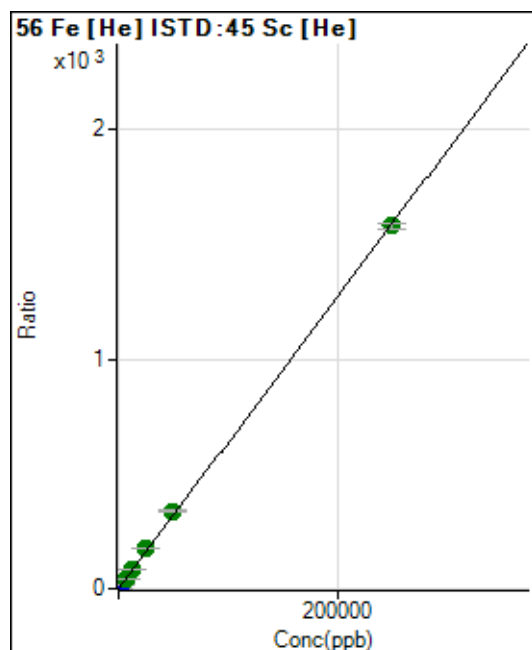
$$R = 0.9999$$

$$DL = 0.0453$$

$$BEC = 0.08571$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3576.49	0.0178	P	1.9
2	☐	50.000	58.160	76178.40	0.3870	P	0.7
3	☐	2500.000	2797.362	3408259.97	17.7771	P	0.2
4	☐	6250.000	6901.200	8218267.54	43.8307	A	0.7
5	☐	12500.000	13699.041	16238453.49	86.9875	A	0.3
6	☐	25000.000	27350.827	31942628.03	173.6572	A	0.5
7	☐	50000.000	53291.297	62398993.52	338.3429	A	1.2
8	☐	250000.00	249027.45	283490739.6	1,580.993	A	1.8

$$y = 0.0063 * x + 0.0178$$

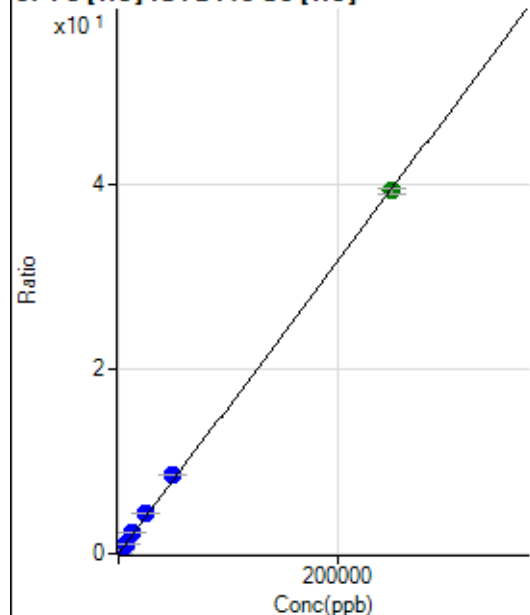
$$R = 0.9999$$

$$DL = 0.1595$$

$$BEC = 2.801$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	70.37	0.0003	P	18.3
2	☐	50.000	60.607	1955.74	0.0099	P	5.0
3	☐	2500.000	2829.805	85853.96	0.4478	P	1.1
4	☐	6250.000	7055.728	209247.77	1.1160	P	0.8
5	☐	12500.000	13907.527	410566.75	2.1994	P	0.3
6	☐	25000.000	27719.148	806254.55	4.3833	P	0.5
7	☐	50000.000	53964.949	1573741.79	8.5332	P	1.2
8	☐	250000.00	248841.27	7055553.57	39.3469	A	1.5

$$y = 1.5812\text{E-}004 * x + 3.4993\text{E-}004$$

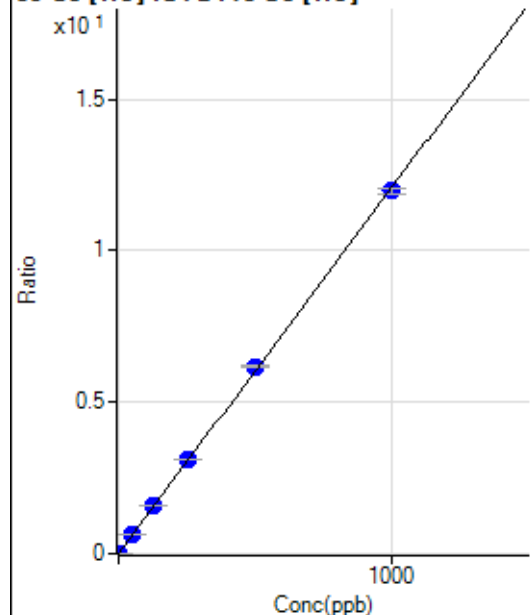
$$R = 0.9998$$

$$DL = 1.215$$

$$BEC = 2.213$$

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	63.34	0.0003	P	8.5
2	☐	1.000	1.093	2658.06	0.0135	P	4.6
3	☐	50.000	53.028	122724.54	0.6401	P	0.2
4	☐	125.000	131.463	297450.20	1.5865	P	1.1
5	☐	250.000	257.566	580171.08	3.1079	P	0.3
6	☐	500.000	510.573	1133147.29	6.1606	P	0.9
7	☐	1000.000	991.863	2207072.78	11.9675	P	1.4
8	☐			4248.46	0.0237	P	5.5

$$y = 0.0121 * x + 3.1478\text{E-}004$$

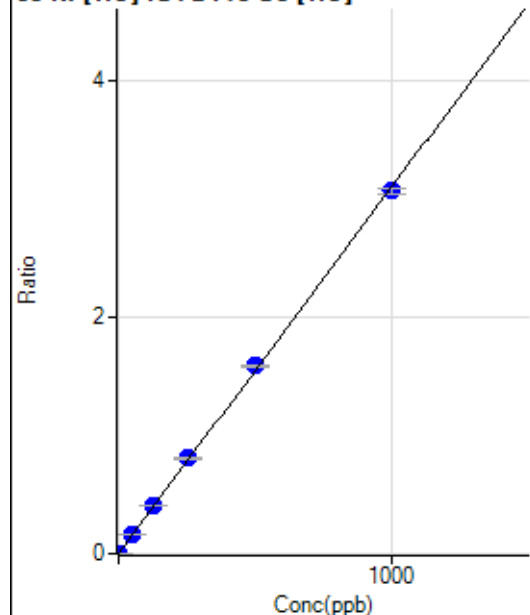
$$R = 0.9999$$

$$DL = 0.006618$$

$$BEC = 0.02609$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	155.56	0.0008	P	9.4
2	☐	1.000	1.188	875.60	0.0044	P	8.5
3	☐	50.000	53.355	31798.02	0.1659	P	1.3
4	☐	125.000	133.121	77377.32	0.4127	P	0.5
5	☐	250.000	260.253	150456.68	0.8060	P	0.7
6	☐	500.000	512.266	291665.82	1.5857	P	1.1
7	☐	1000.000	990.120	565114.37	3.0642	P	1.3
8	☐			11122.12	0.0620	P	1.8

$$y = 0.0031 * x + 7.7308E-004$$

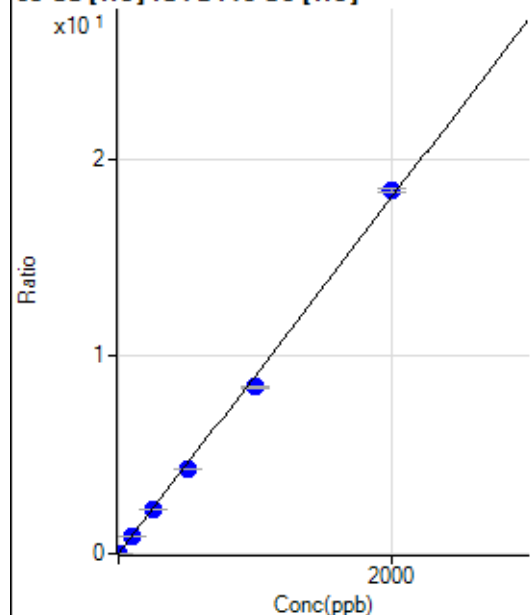
$$R = 0.9998$$

$$DL = 0.07035$$

$$BEC = 0.2499$$

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	828.93	0.0041	P	8.7
2	☐	2.000	2.035	4422.96	0.0225	P	1.2
3	☐	100.000	99.006	171921.66	0.8967	P	0.7
4	☐	250.000	244.764	414545.78	2.2108	P	0.8
5	☐	500.000	478.228	805609.10	4.3156	P	0.2
6	☐	1000.000	936.712	1554051.47	8.4491	P	1.2
7	☐	2000.000	2037.791	3389064.29	18.3759	P	0.9
8	☐			6809.47	0.0380	P	2.8

$$y = 0.0090 * x + 0.0041$$

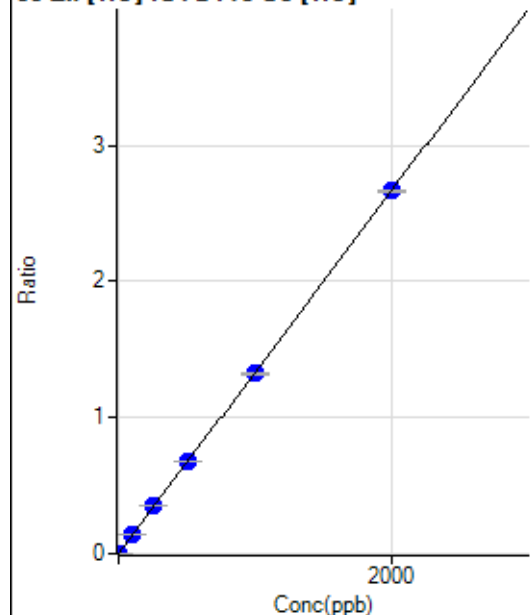
$$R = 0.9992$$

$$DL = 0.1195$$

$$BEC = 0.4571$$

Weight: <None>

Min Conc: 0

66 Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	171.11	0.0009	P	7.4
2	☐	2.000	2.158	733.36	0.0037	P	5.0
3	☐	100.000	104.516	26862.78	0.1401	P	0.7
4	☐	250.000	261.699	65540.91	0.3496	P	1.1
5	☐	500.000	510.110	127043.25	0.6806	P	0.5
6	☐	1000.000	992.137	243323.32	1.3229	P	0.7
7	☐	2000.000	1999.715	491603.08	2.6655	P	0.6
8	☐			7645.44	0.0426	P	2.6

$$y = 0.0013 * x + 8.5046E-004$$

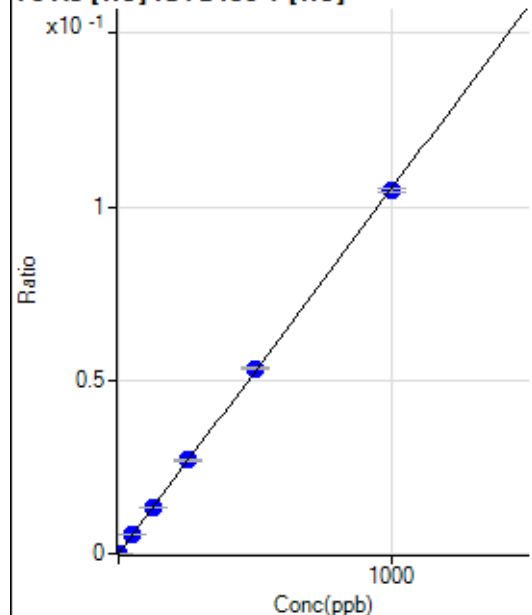
$$R = 1.0000$$

$$DL = 0.141$$

$$BEC = 0.6382$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.70	0.0000	P	100.
2	☐	1.000	1.097	150.62	0.0001	P	2.8
3	☐	50.000	52.562	6910.94	0.0055	P	1.2
4	☐	125.000	128.467	16649.12	0.0135	P	0.7
5	☐	250.000	256.224	32927.97	0.0270	P	0.8
6	☐	500.000	508.001	64866.02	0.0535	P	1.1
7	☐	1000.000	993.882	127791.91	0.1046	P	1.0
8	☐			75.31	0.0001	P	6.3

$$y = 1.0525E-004 * x + 2.8476E-006$$

$$R = 0.9999$$

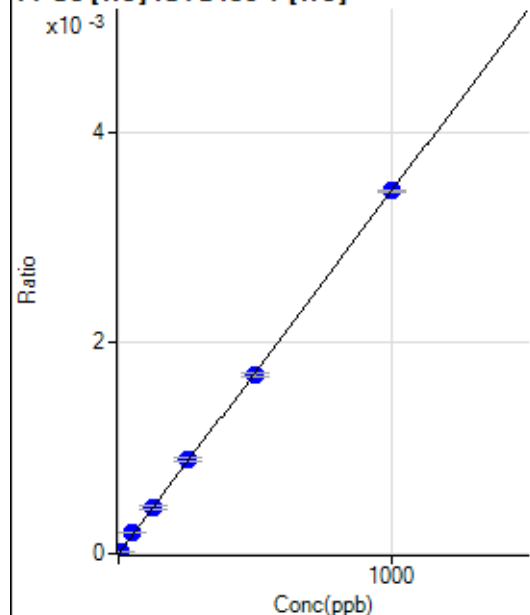
$$DL = 0.08139$$

$$BEC = 0.02706$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	4.319	18.89	0.0000	P	11.0
3	☐	50.000	57.722	247.79	0.0002	P	4.2
4	☐	125.000	127.111	537.80	0.0004	P	9.2
5	☐	250.000	258.347	1084.50	0.0009	P	4.1
6	☐	500.000	493.668	2059.07	0.0017	P	1.6
7	☐	1000.000	1000.432	4201.78	0.0034	P	0.9
8	☐			2.22	0.0000	P	173.

$$y = 3.4378\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9999$$

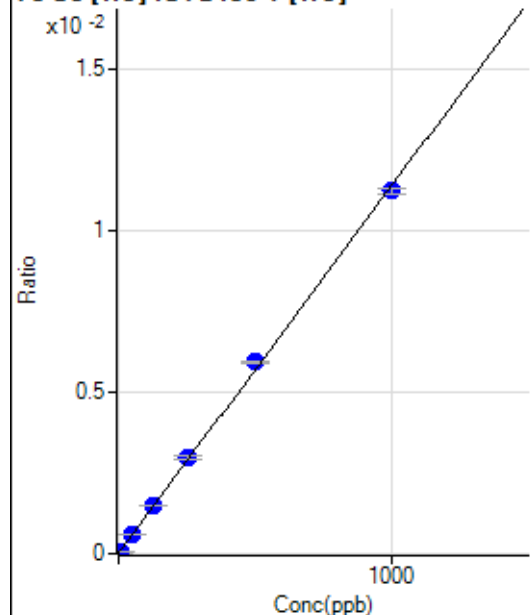
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12.96	0.0000	P	62.9
2	☐	5.000	5.873	97.53	0.0001	P	28.9
3	☐	50.000	51.178	738.30	0.0006	P	5.4
4	☐	125.000	129.710	1826.06	0.0015	P	1.9
5	☐	250.000	260.673	3627.65	0.0030	P	3.6
6	☐	500.000	520.426	7184.55	0.0059	P	0.5
7	☐	1000.000	986.467	13701.61	0.0112	P	1.6
8	☐			27.16	0.0000	P	34.6

$$y = 1.1360\text{E-}005 * x + 9.9424\text{E-}006$$

$$R = 0.9996$$

$$DL = 1.653$$

$$BEC = 0.8752$$

Weight: <None>

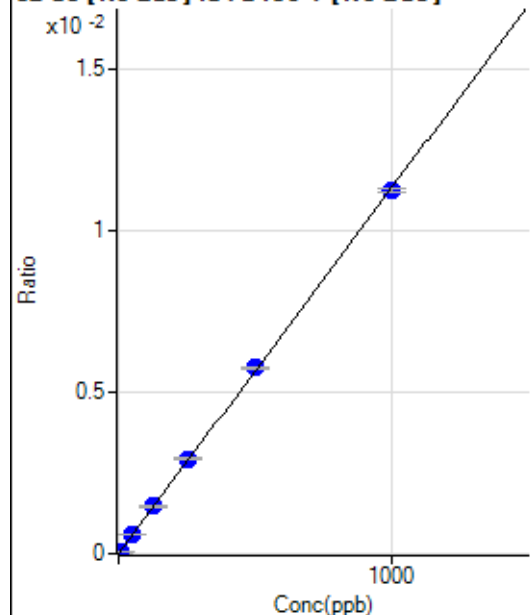
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			40140.63		P	0.6
2	☐			39715.63		P	0.2
3	☐			37481.01		P	5.1
4	☐			36848.38		P	1.6
5	☐			35724.42		P	2.3
6	☐			36115.72		P	0.3
7	☐			34470.21		P	2.3
8	☐			34510.20		P	1.7

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			26.69		P	94.4
2	☐			13.35		P	86.6
3	☐			13.35		P	86.6
4	☐			13.35		P	114.
5	☐			23.36		P	89.2
6	☐			26.69		P	57.3
7	☐			30.03		P	57.7
8	☐			26.69		P	78.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	16.82	0.0000	P	85.5
2	☐	5.000	5.456	649.95	0.0001	P	8.8
3	☐	50.000	52.249	5970.28	0.0006	P	3.2
4	☐	125.000	128.840	14535.64	0.0015	P	1.5
5	☐	250.000	259.294	28815.95	0.0029	P	0.8
6	☐	500.000	509.551	56390.49	0.0058	P	0.8
7	☐	1000.000	992.306	109304.54	0.0112	P	1.0
8	☐			84.89	0.0000	P	23.6

$$y = 1.1297E-005 * x + 1.5764E-006$$

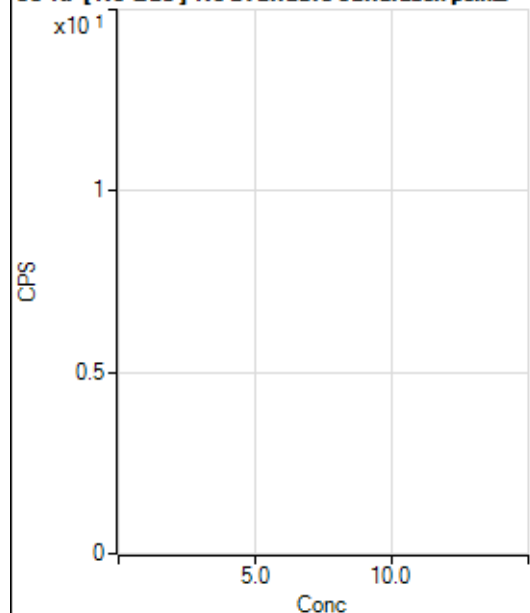
$$R = 0.9999$$

$$DL = 0.358$$

$$BEC = 0.1395$$

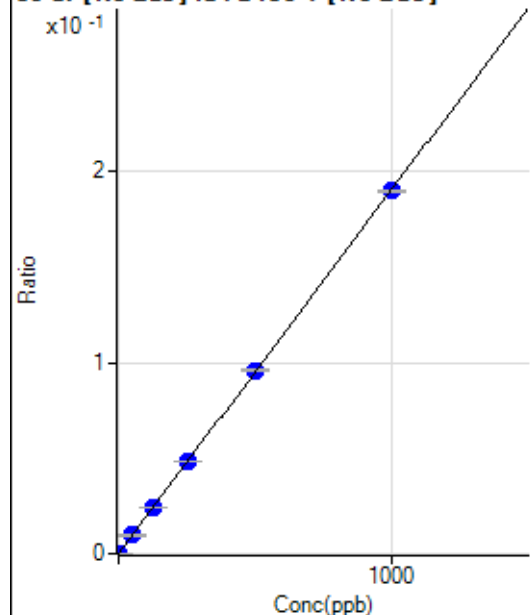
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			214.45		P	11.0
2	☐			223.34		P	3.9
3	☐			238.89		P	5.6
4	☐			201.11		P	9.6
5	☐			226.67		P	15.5
6	☐			250.01		P	12.0
7	☐			281.12		P	19.7
8	☐			212.23		P	7.7

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	311.13	0.0000	P	15.5
2	☐	1.000	1.021	2297.52	0.0002	P	3.9
3	☐	50.000	50.497	97208.97	0.0096	P	2.0
4	☐	125.000	126.486	240335.90	0.0241	P	0.4
5	☐	250.000	252.895	473294.63	0.0481	P	0.4
6	☐	500.000	503.933	939135.33	0.0959	P	1.0
7	☐	1000.000	997.099	1849559.18	0.1897	P	0.4
8	☐			3809.01	0.0004	P	4.9

$$y = 1.9023\text{E-}004 * x + 2.9219\text{E-}005$$

$$R = 1.0000$$

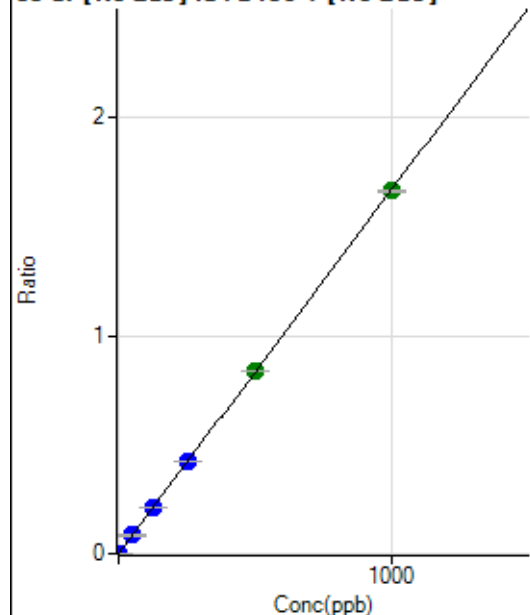
$$DL = 0.07133$$

$$BEC = 0.1536$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	297.24	0.0000	P	30.2
2	☐	1.000	0.968	16893.85	0.0016	P	3.1
3	☐	50.000	50.518	850975.20	0.0843	P	1.4
4	☐	125.000	126.573	2107898.25	0.2113	P	0.1
5	☐	250.000	252.075	4137022.97	0.4208	P	0.5
6	☐	500.000	503.910	8237546.02	0.8411	A	0.3
7	☐	1000.000	997.304	16229508.00	1.6646	A	0.4
8	☐			30897.98	0.0034	P	2.0

$$y = 0.0017 * x + 2.7959\text{E-}005$$

$$R = 1.0000$$

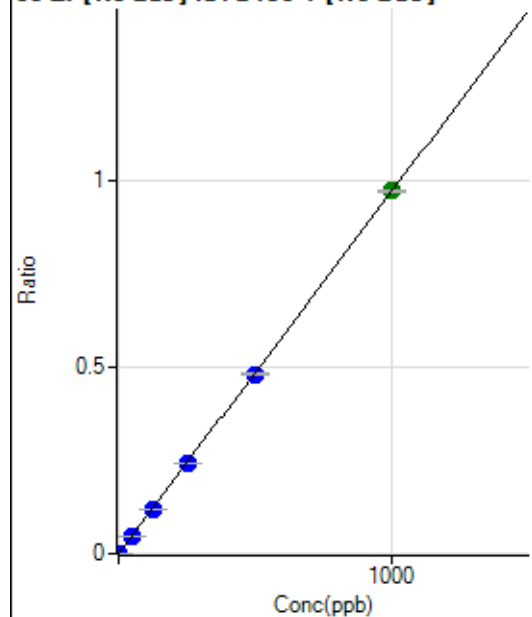
$$DL = 0.01519$$

$$BEC = 0.01675$$

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	650.04	0.0001	P	15.6
2	☐	1.000	0.833	8947.58	0.0009	P	4.0
3	☐	50.000	49.089	481769.28	0.0478	P	0.9
4	☐	125.000	123.862	1201056.51	0.1204	P	0.1
5	☐	250.000	249.593	2384659.10	0.2425	P	0.5
6	☐	500.000	496.332	4722936.82	0.4822	P	0.7
7	☐	1000.000	1002.124	9492325.56	0.9736	A	0.5
8	☐			2694.81	0.0003	P	1.1

$$y = 9.7149E-004 * x + 6.1092E-005$$

$$R = 1.0000$$

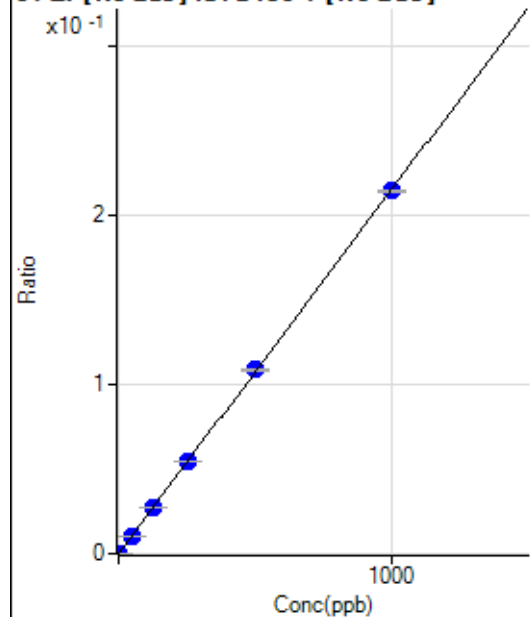
$$DL = 0.02936$$

$$BEC = 0.06289$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	108.34	0.0000	P	55.2
2	☐	1.000	0.813	1902.99	0.0002	P	4.3
3	☐	50.000	49.537	107668.49	0.0107	P	1.1
4	☐	125.000	125.740	270085.48	0.0271	P	0.4
5	☐	250.000	252.321	534037.90	0.0543	P	0.6
6	☐	500.000	505.018	1064593.80	0.1087	P	0.8
7	☐	1000.000	996.841	2091819.71	0.2146	P	0.5
8	☐			608.37	0.0001	P	0.4

$$y = 2.1522E-004 * x + 1.0175E-005$$

$$R = 1.0000$$

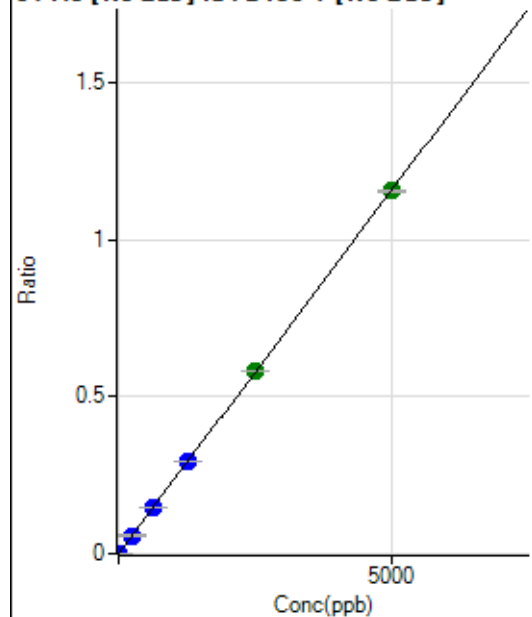
$$DL = 0.0783$$

$$BEC = 0.04728$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.67	0.0000	P	7.3
2	☐	5.000	5.027	12152.87	0.0012	P	1.2
3	☐	250.000	249.995	583080.36	0.0578	P	1.4
4	☐	625.000	623.904	1438605.10	0.1442	P	0.2
5	☐	1250.000	1260.146	2863482.25	0.2912	P	0.3
6	☐	2500.000	2506.829	5673898.69	0.5793	A	0.4
7	☐	5000.000	4994.186	11252615.88	1.1542	A	0.5
8	☐			7852.47	0.0009	P	2.3

$$y = 2.3110E-004 * x + 2.0369E-005$$

$$R = 1.0000$$

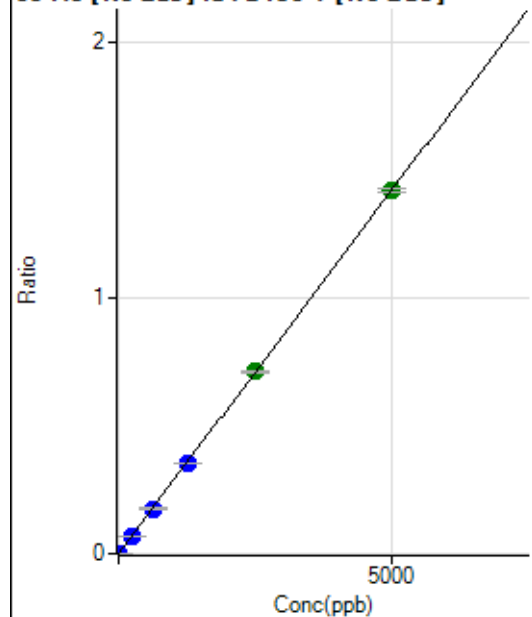
$$DL = 0.01928$$

$$BEC = 0.08814$$

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	102.78	0.0000	P	30.8
2	☐	5.000	5.145	15103.02	0.0015	P	1.7
3	☐	250.000	249.553	714283.46	0.0708	P	1.5
4	☐	625.000	620.529	1756100.28	0.1760	P	1.1
5	☐	1250.000	1250.153	3486768.87	0.3546	P	0.8
6	☐	2500.000	2507.693	6966792.95	0.7113	A	0.5
7	☐	5000.000	4996.696	13818722.88	1.4174	A	1.2
8	☐			12230.67	0.0013	P	2.9

$$y = 2.8366E-004 * x + 9.6615E-006$$

$$R = 1.0000$$

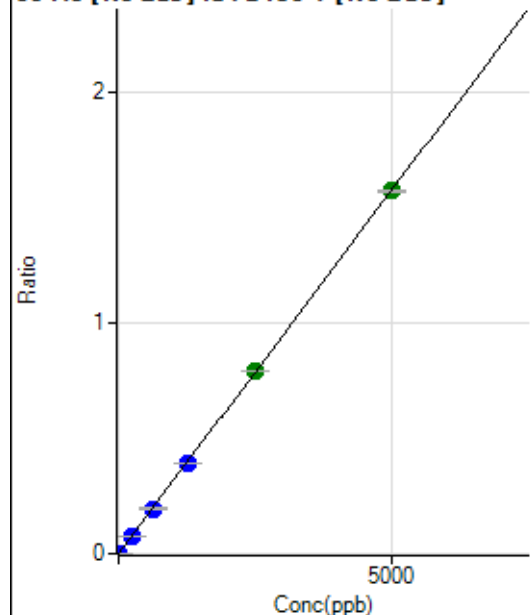
$$DL = 0.0315$$

$$BEC = 0.03406$$

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	116.67	0.0000	P	35.9
2	☐	5.000	5.127	16716.00	0.0016	P	2.4
3	☐	250.000	248.831	790872.61	0.0784	P	1.2
4	☐	625.000	621.955	1954450.85	0.1959	P	0.6
5	☐	1250.000	1248.600	3866950.22	0.3933	P	0.6
6	☐	2500.000	2514.122	7755788.20	0.7919	A	0.8
7	☐	5000.000	4993.728	15335649.99	1.5729	A	0.6
8	☐			14263.21	0.0016	P	0.5

$$y = 3.1498\text{E-}004 * x + 1.0974\text{E-}005$$

$$R = 1.0000$$

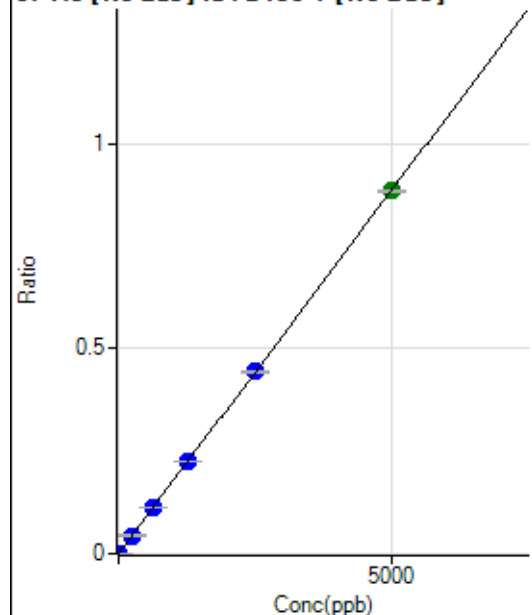
$$DL = 0.03753$$

$$BEC = 0.03484$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	14.7
2	☐	5.000	5.234	9589.80	0.0009	P	3.0
3	☐	250.000	249.667	446326.46	0.0442	P	1.5
4	☐	625.000	626.800	1107918.75	0.1111	P	0.1
5	☐	1250.000	1260.299	2195439.31	0.2233	P	0.4
6	☐	2500.000	2504.910	4346433.13	0.4438	P	0.6
7	☐	5000.000	4994.762	8627527.36	0.8849	A	0.8
8	☐			7735.77	0.0008	P	2.2

$$y = 1.7717\text{E-}004 * x + 5.4844\text{E-}006$$

$$R = 1.0000$$

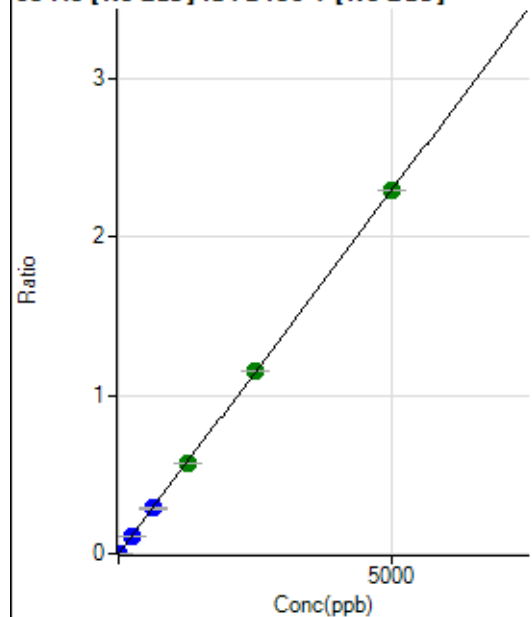
$$DL = 0.01365$$

$$BEC = 0.03096$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.89	0.0000	P	32.8
2	☐	5.000	5.245	24866.92	0.0024	P	0.5
3	☐	250.000	249.196	1154340.53	0.1144	P	0.9
4	☐	625.000	623.269	2854557.27	0.2861	P	0.4
5	☐	1250.000	1252.448	5653444.53	0.5750	A	0.5
6	☐	2500.000	2508.070	11276664.05	1.1514	A	0.5
7	☐	5000.000	4995.609	22360141.65	2.2934	A	0.1
8	☐			19797.79	0.0022	P	3.2

$$y = 4.5908\text{E-}004 * x + 1.0695\text{E-}005$$

$$R = 1.0000$$

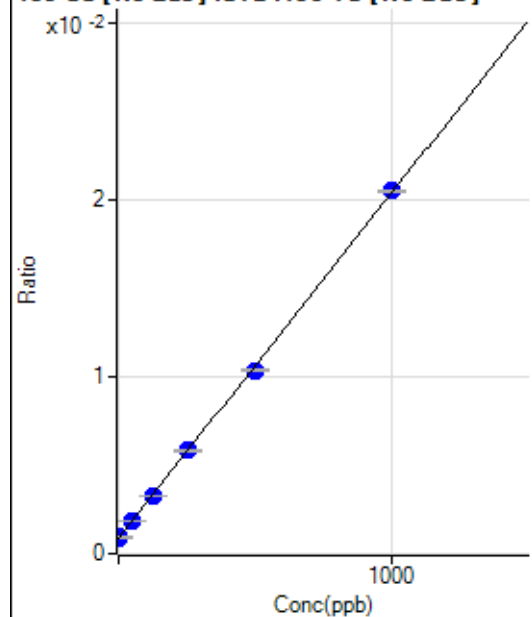
$$DL = 0.0229$$

$$BEC = 0.0233$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11841.55	0.0009	P	1.8
2	☐	1.000	2.074	12058.37	0.0009	P	1.8
3	☐	50.000	49.743	23973.91	0.0019	P	1.1
4	☐	125.000	121.698	41865.64	0.0033	P	1.4
5	☐	250.000	254.080	73647.95	0.0058	P	1.7
6	☐	500.000	486.795	131438.95	0.0104	P	0.8
7	☐	1000.000	1006.007	256926.25	0.0205	P	0.6
8	☐			10546.07	0.0009	P	2.6

$$y = 1.9493\text{E-}005 * x + 8.8482\text{E-}004$$

$$R = 0.9999$$

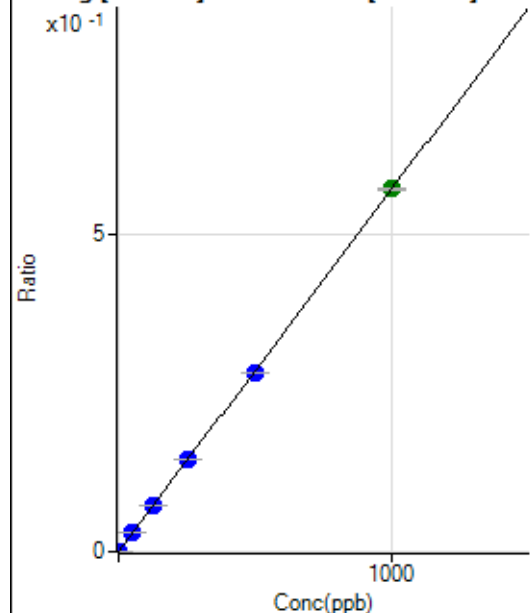
$$DL = 2.502$$

$$BEC = 45.39$$

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	219.46	0.0000	P	2.6
2	☐	1.000	1.022	7830.23	0.0006	P	0.7
3	☐	50.000	52.869	391027.13	0.0302	P	1.5
4	☐	125.000	128.365	943761.38	0.0734	P	0.4
5	☐	250.000	255.357	1842534.33	0.1460	P	0.5
6	☐	500.000	493.190	3573483.76	0.2820	P	0.7
7	☐	1000.000	1001.502	7179673.51	0.5727	A	0.6
8	☐			1097.31	0.0001	P	15.3

$$y = 5.7184\text{E-}004 * x + 1.6399\text{E-}005$$

$$R = 0.9999$$

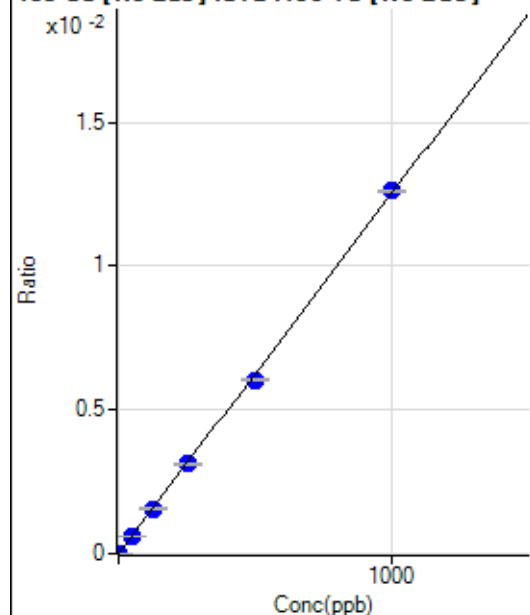
$$DL = 0.002209$$

$$BEC = 0.02868$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	31.94	0.0000	P	32.8
2	☐	1.000	0.857	170.84	0.0000	P	15.3
3	☐	50.000	49.612	8055.23	0.0006	P	3.8
4	☐	125.000	124.927	20124.29	0.0016	P	1.9
5	☐	250.000	250.167	39523.43	0.0031	P	2.5
6	☐	500.000	483.374	76665.96	0.0061	P	0.7
7	☐	1000.000	1008.300	158202.30	0.0126	P	0.6
8	☐			63.89	0.0000	P	8.9

$$y = 1.2513\text{E-}005 * x + 2.3861\text{E-}006$$

$$R = 0.9998$$

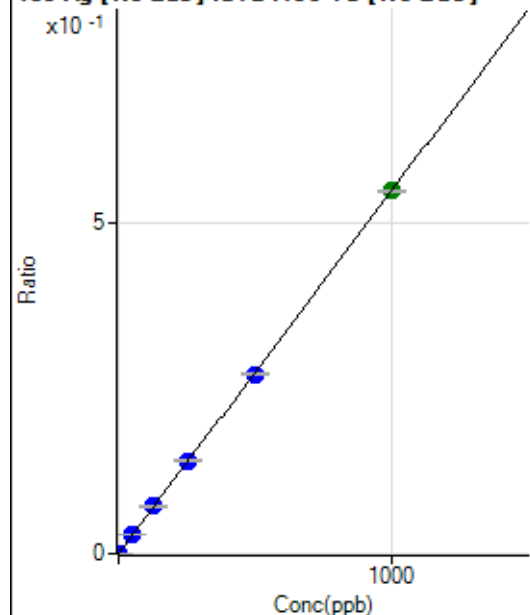
$$DL = 0.1879$$

$$BEC = 0.1907$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	44.44	0.0000	P	60.6
2	☐	1.000	1.032	7424.52	0.0006	P	1.5
3	☐	50.000	53.407	378835.69	0.0293	P	1.7
4	☐	125.000	130.081	917442.51	0.0714	P	0.6
5	☐	250.000	256.962	1778747.96	0.1410	P	1.1
6	☐	500.000	495.123	3441914.66	0.2717	P	0.8
7	☐	1000.000	999.892	6877379.93	0.5486	A	0.2
8	☐			1019.52	0.0001	P	10.7

$$y = 5.4866\text{E-}004 * x + 3.3260\text{E-}006$$

$$R = 0.9999$$

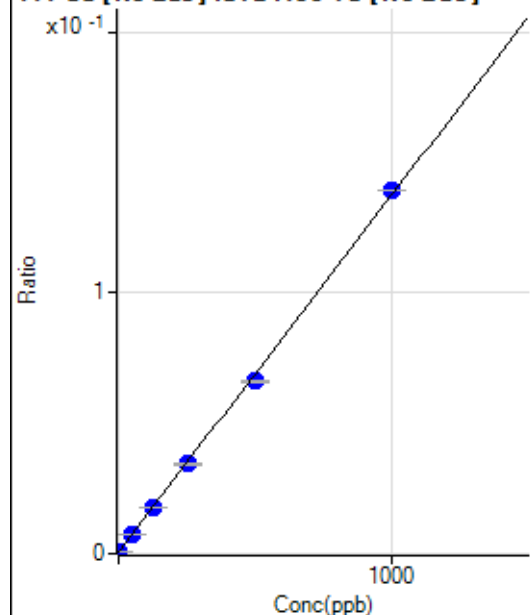
$$DL = 0.01102$$

$$BEC = 0.006062$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8283.39	0.0006	P	1.9
2	☐	1.000	1.073	9981.13	0.0008	P	0.7
3	☐	50.000	49.673	95925.74	0.0074	P	0.7
4	☐	125.000	122.383	223353.81	0.0174	P	0.1
5	☐	250.000	246.392	433436.33	0.0344	P	1.2
6	☐	500.000	478.052	837169.73	0.0661	P	0.7
7	☐	1000.000	1012.219	1745194.86	0.1392	P	0.2
8	☐			7645.87	0.0007	P	2.6

$$y = 1.3692\text{E-}004 * x + 6.1895\text{E-}004$$

$$R = 0.9996$$

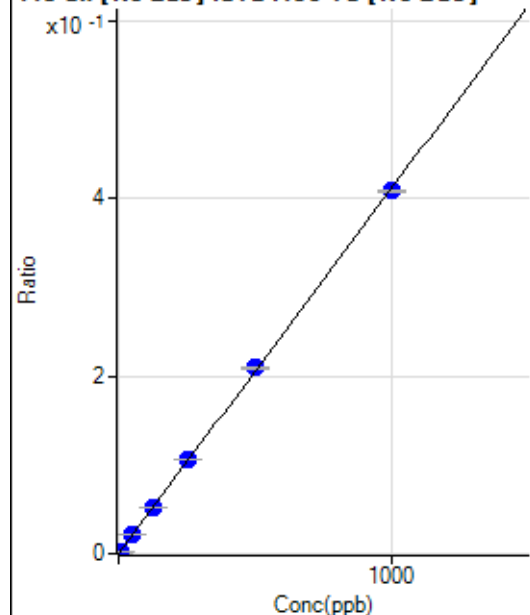
$$DL = 0.2593$$

$$BEC = 4.521$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	711.16	0.0001	P	12.2
2	☐	5.000	5.215	28613.30	0.0022	P	0.9
3	☐	50.000	51.161	272406.55	0.0211	P	1.4
4	☐	125.000	127.715	675126.20	0.0525	P	0.9
5	☐	250.000	257.565	1335725.10	0.1059	P	0.7
6	☐	500.000	508.761	2648933.20	0.2091	P	0.6
7	☐	1000.000	993.330	5116679.15	0.4082	P	0.4
8	☐			3353.34	0.0003	P	2.0

$$y = 4.1084\text{E-}004 * x + 5.3117\text{E-}005$$

$$R = 0.9999$$

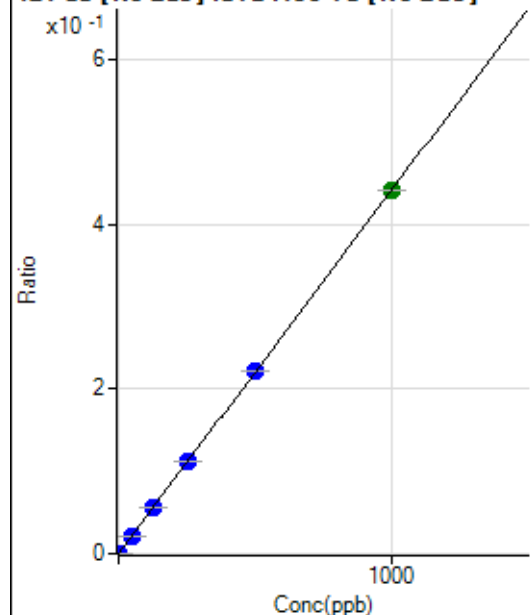
$$DL = 0.0473$$

$$BEC = 0.1293$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0000	P	43.8
2	☐	2.000	1.943	11215.95	0.0009	P	1.2
3	☐	50.000	49.058	280159.97	0.0217	P	1.9
4	☐	125.000	125.403	712075.02	0.0554	P	0.4
5	☐	250.000	253.565	1413175.05	0.1120	P	0.5
6	☐	500.000	501.516	2806841.16	0.2215	P	0.2
7	☐	1000.000	998.348	5528451.25	0.4410	A	0.1
8	☐			7927.58	0.0007	P	4.6

$$y = 4.4173\text{E-}004 * x + 2.4936\text{E-}006$$

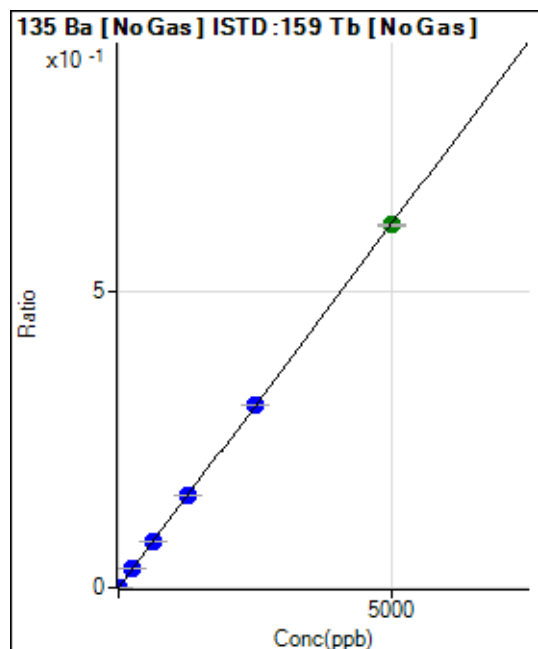
$$R = 1.0000$$

$$DL = 0.007411$$

$$BEC = 0.005645$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0000	P	66.4
2	☐	10.000	10.212	16329.72	0.0013	P	2.8
3	☐	250.000	255.296	404193.18	0.0313	P	1.0
4	☐	625.000	633.290	996905.87	0.0776	P	0.6
5	☐	1250.000	1260.628	1947759.59	0.1544	P	0.5
6	☐	2500.000	2518.330	3907451.65	0.3084	P	0.3
7	☐	5000.000	4986.877	7655907.12	0.6107	A	0.6
8	☐			1944.66	0.0002	P	6.5

$$y = 1.2246\text{E-}004 * x + 2.4981\text{E-}006$$

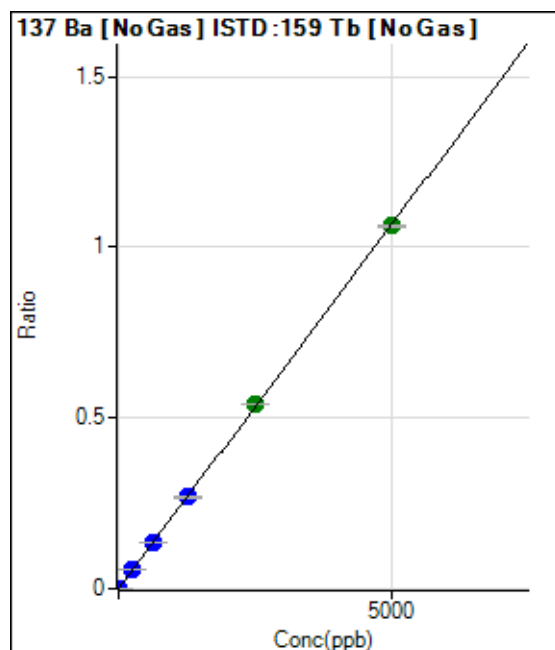
$$R = 1.0000$$

$$DL = 0.04062$$

$$BEC = 0.0204$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.56	0.0000	P	33.8
2	☐	10.000	10.530	29337.41	0.0023	P	0.7
3	☐	250.000	253.357	698386.53	0.0540	P	1.2
4	☐	625.000	634.048	1737825.16	0.1352	P	0.2
5	☐	1250.000	1257.663	3383201.70	0.2682	P	0.5
6	☐	2500.000	2526.437	6824954.88	0.5387	A	0.1
7	☐	5000.000	4983.566	13320408.63	1.0626	A	0.3
8	☐			3478.35	0.0003	P	7.3

$$y = 2.1321\text{E-}004 * x + 6.0286\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.02863$$

$$BEC = 0.02828$$

Weight: <None>

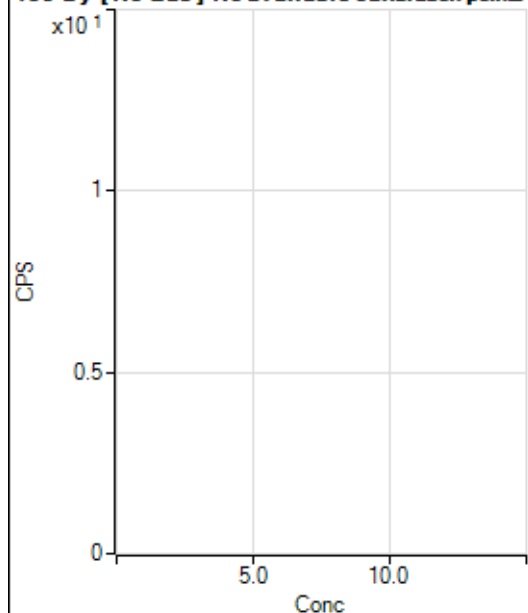
Min Conc: 0

150 Nd [No Gas] No available calibration points

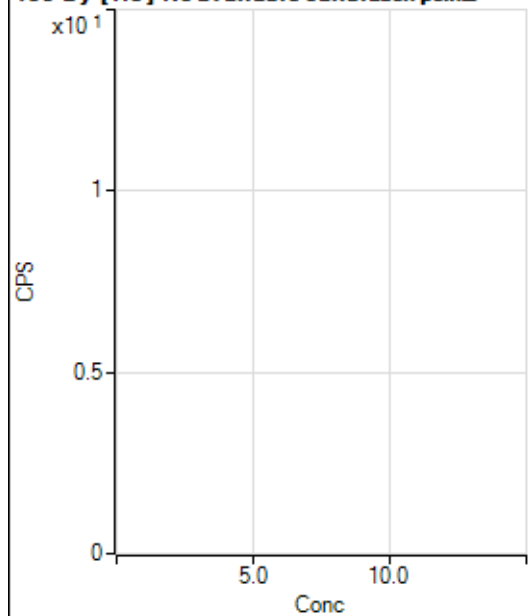
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	100.
2	☐			28.89		P	13.3
3	☐			260.01		P	7.7
4	☐			606.70		P	11.5
5	☐			1177.87		P	12.6
6	☐			2155.81		P	4.8
7	☐			4211.90		P	2.7
8	☐			80.00		P	22.0

150 Nd [He] No available calibration points

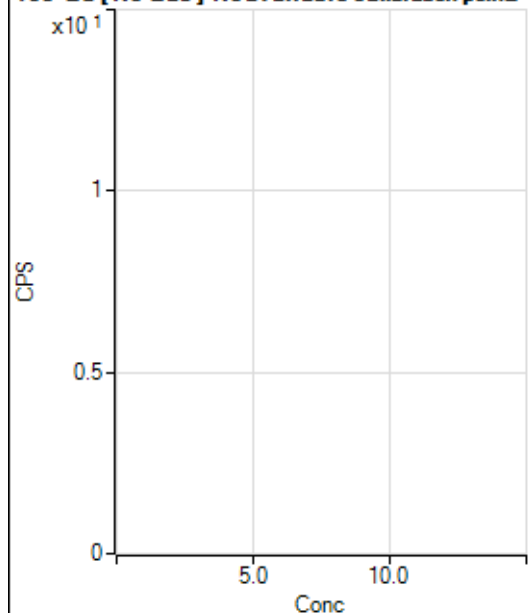
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.56		P	32.8
2	☐			23.33		P	14.3
3	☐			27.78		P	30.2
4	☐			56.67		P	17.6
5	☐			80.00		P	15.0
6	☐			148.89		P	10.3
7	☐			258.90		P	16.4
8	☐			52.22		P	30.2

156 Dy [No Gas] No available calibration points

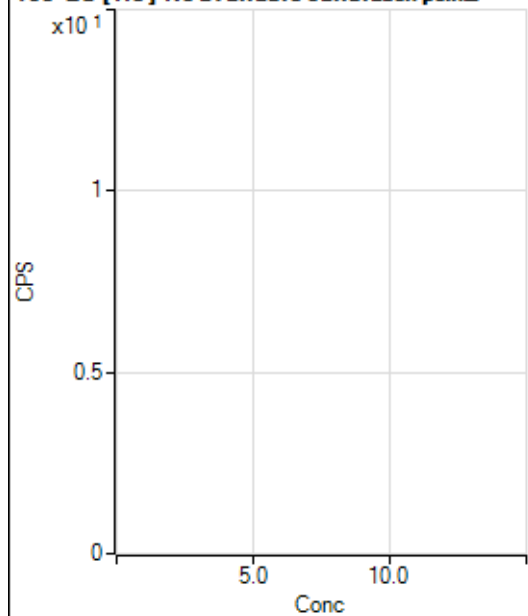
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.56		P	31.5
2	☐			44.45		P	60.3
3	☐			77.78		P	27.0
4	☐			111.12		P	38.5
5	☐			205.57		P	10.2
6	☐			294.46		P	30.3
7	☐			675.04		P	4.3
8	☐			325.02		P	17.9

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			46.66		P	24.7
2	☐			32.22		P	31.6
3	☐			48.89		P	17.2
4	☐			61.11		P	49.5
5	☐			104.45		P	4.9
6	☐			161.11		P	17.8
7	☐			202.23		P	13.4
8	☐			166.67		P	6.9

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

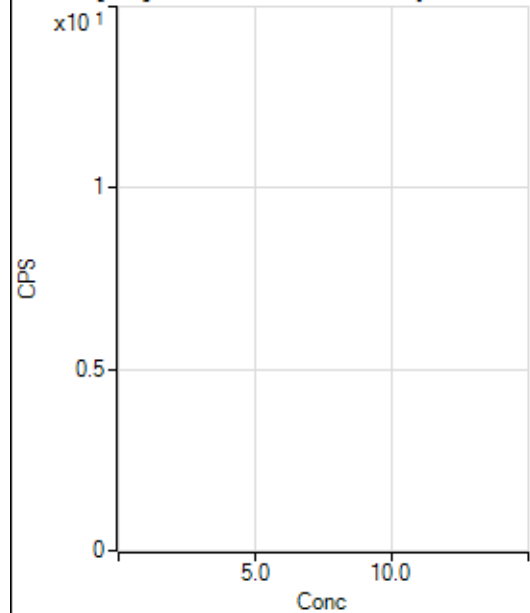
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			155.57		P	48.6
2	☐			119.45		P	28.2
3	☐			150.01		P	22.2
4	☐			133.34		P	43.8
5	☐			155.56		P	37.6
6	☐			194.45		P	16.2
7	☐			188.90		P	25.9
8	☐			388.92		P	2.5

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			231.11		P	12.4
2	☐			228.89		P	11.8
3	☐			195.56		P	4.3
4	☐			256.68		P	6.0
5	☐			255.56		P	9.6
6	☐			274.45		P	12.2
7	☐			322.23		P	10.4
8	☐			367.79		P	9.1

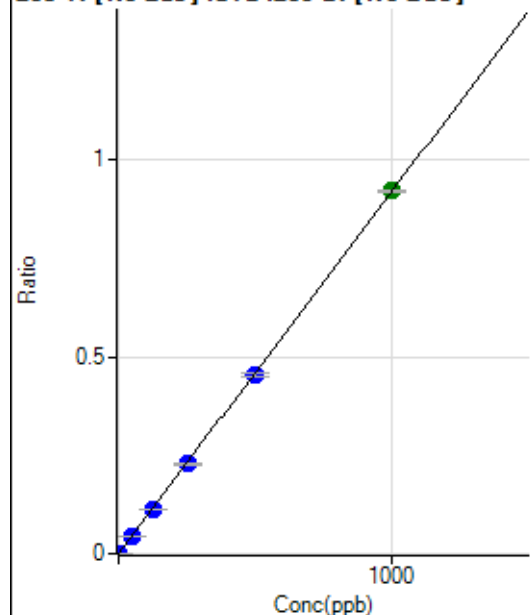
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			77.78		P	62.8
2	☐			116.67		P	31.1
3	☐			77.78		P	44.6
4	☐			130.56		P	37.4
5	☐			111.12		P	15.6
6	☐			102.78		P	52.1
7	☐			94.45		P	10.2
8	☐			130.56		P	16.1

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			101.11		P	18.2
2	☐			84.45		P	6.0
3	☐			95.56		P	5.3
4	☐			83.33		P	22.3
5	☐			88.89		P	19.2
6	☐			114.45		P	11.0
7	☐			106.67		P	19.0
8	☐			117.78		P	5.9

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	975.08	0.0001	P	4.6
2	☐	1.000	0.985	9036.79	0.0010	P	1.7
3	☐	50.000	49.254	400273.56	0.0454	P	1.3
4	☐	125.000	124.022	998688.90	0.1141	P	0.6
5	☐	250.000	248.125	1934379.04	0.2282	P	0.9
6	☐	500.000	494.719	3811420.14	0.4549	P	1.2
7	☐	1000.000	1003.269	7444620.05	0.9225	A	0.2
8	☐			2825.44	0.0004	P	6.4

$$y = 9.1934\text{E-}004 * x + 1.0508\text{E-}004$$

$$R = 1.0000$$

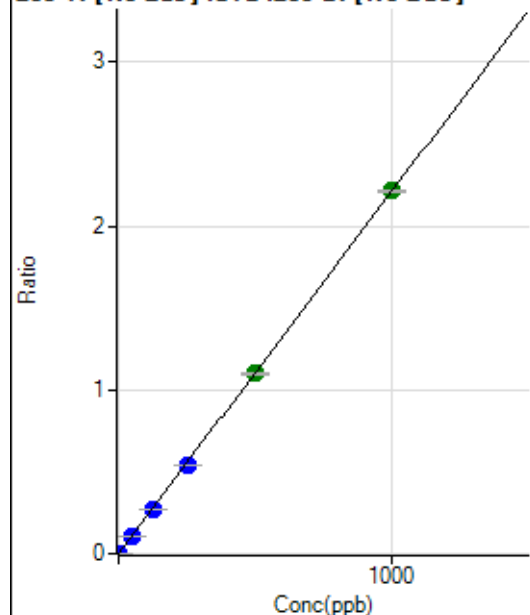
$$DL = 0.01592$$

$$BEC = 0.1143$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1300.12	0.0001	P	8.8
2	☐	1.000	0.982	20644.68	0.0023	P	1.0
3	☐	50.000	49.306	961121.06	0.1090	P	1.2
4	☐	125.000	123.272	2382378.00	0.2723	P	1.0
5	☐	250.000	246.180	4607398.89	0.5436	P	0.5
6	☐	500.000	497.258	9197640.74	1.0978	A	1.0
7	☐	1000.000	1002.577	17862035.64	2.2133	A	0.4
8	☐			6160.06	0.0009	P	2.8

$$y = 0.0022 * x + 1.4009\text{E-}004$$

$$R = 1.0000$$

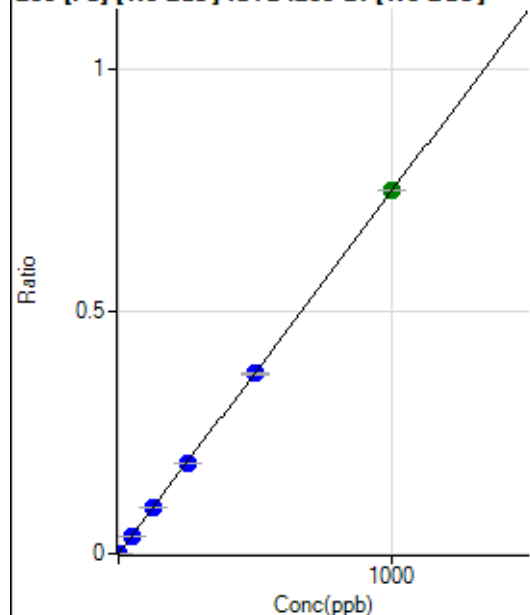
$$DL = 0.0167$$

$$BEC = 0.06346$$

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	1109.34	0.0001	P	5.9
2	☐	1.000	0.963	7504.19	0.0008	P	2.9
3	☐	50.000	49.626	328008.67	0.0372	P	1.2
4	☐	125.000	124.706	816273.35	0.0933	P	0.1
5	☐	250.000	250.089	1584574.79	0.1869	P	0.4
6	☐	500.000	497.304	3113553.71	0.3716	P	0.6
7	☐	1000.000	1001.381	6038227.91	0.7482	A	0.1
8	☐			26302.45	0.0039	P	0.8

$$y = 7.4704\text{E-}004 * x + 1.1954\text{E-}004$$

$$R = 1.0000$$

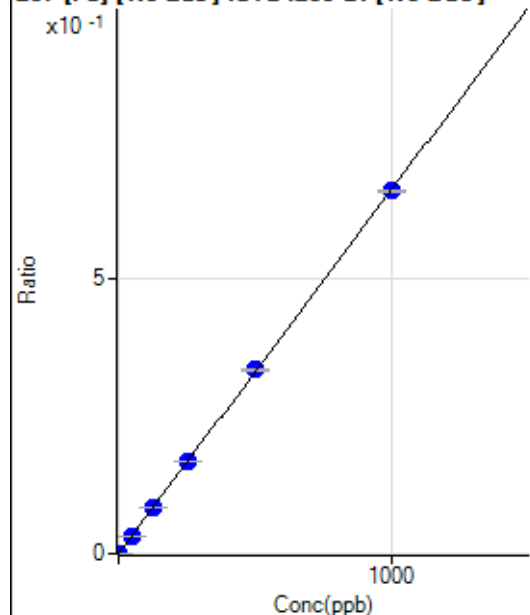
$$DL = 0.02848$$

$$BEC = 0.16$$

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	1138.97	0.0001	P	9.7
2	☐	1.000	0.988	6953.88	0.0008	P	3.1
3	☐	50.000	49.580	290747.63	0.0330	P	1.4
4	☐	125.000	124.888	725054.64	0.0829	P	0.3
5	☐	250.000	252.196	1417187.24	0.1672	P	0.2
6	☐	500.000	505.300	2805592.54	0.3349	P	0.9
7	☐	1000.000	996.836	5330490.69	0.6605	P	0.3
8	☐			24322.72	0.0036	P	0.7

$$y = 6.6247\text{E-}004 * x + 1.2273\text{E-}004$$

$$R = 1.0000$$

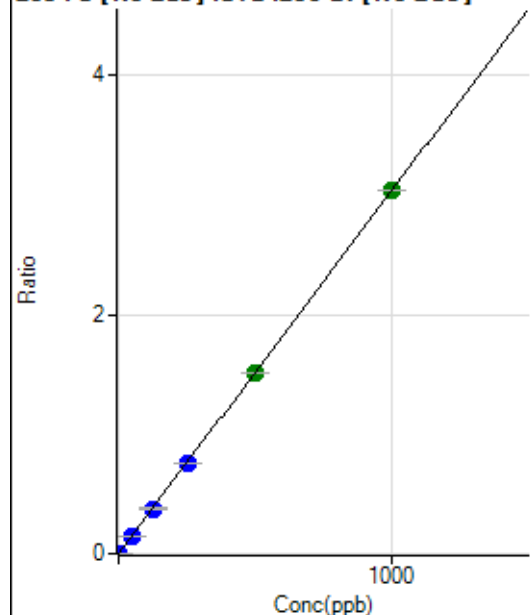
$$DL = 0.05387$$

$$BEC = 0.1853$$

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	3920.70	0.0004	P	4.9
2	☐	1.000	0.971	30101.04	0.0034	P	1.0
3	☐	50.000	49.357	1323337.56	0.1500	P	1.0
4	☐	125.000	124.436	3304752.10	0.3777	P	0.1
5	☐	250.000	250.206	6432792.95	0.7589	P	0.3
6	☐	500.000	499.709	12695506.30	1.5153	A	0.5
7	☐	1000.000	1000.197	24473910.90	3.0325	A	0.0
8	☐			107113.94	0.0161	P	0.2

$$y = 0.0030 * x + 4.2249E-004$$

$$R = 1.0000$$

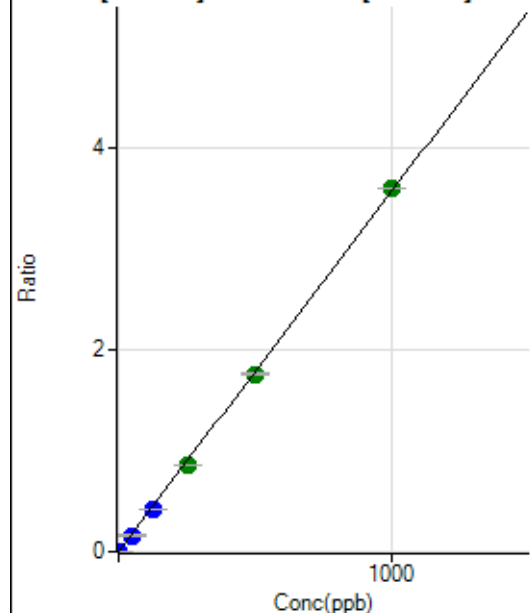
$$DL = 0.0203$$

$$BEC = 0.1394$$

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	3241.24	0.0003	P	10.3
2	☐	1.000	0.736	26599.76	0.0030	P	1.3
3	☐	50.000	45.242	1425661.39	0.1617	P	2.2
4	☐	125.000	116.454	3636638.86	0.4156	P	0.2
5	☐	250.000	240.498	7271413.13	0.8579	A	0.7
6	☐	500.000	493.065	14732630.77	1.7584	A	0.6
7	☐	1000.000	1007.150	28984900.65	3.5915	A	0.2
8	☐			8423.33	0.0013	P	3.7

$$y = 0.0036 * x + 3.4925E-004$$

$$R = 0.9999$$

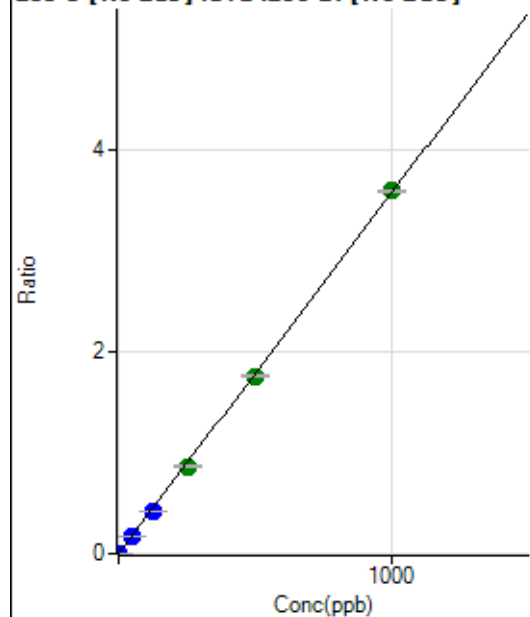
$$DL = 0.03039$$

$$BEC = 0.09795$$

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	3956.34	0.0004	P	4.3
2	☐	1.000	0.899	32561.11	0.0036	P	2.2
3	☐	50.000	46.625	1473537.93	0.1671	P	1.5
4	☐	125.000	117.924	3692258.72	0.4219	P	0.3
5	☐	250.000	242.201	7341512.84	0.8662	A	1.1
6	☐	500.000	493.003	14767726.37	1.7626	A	0.5
7	☐	1000.000	1006.502	29038221.83	3.5981	A	0.5
8	☐			7391.33	0.0011	P	3.3

$$y = 0.0036 * x + 4.2634E-004$$

$$R = 0.9999$$

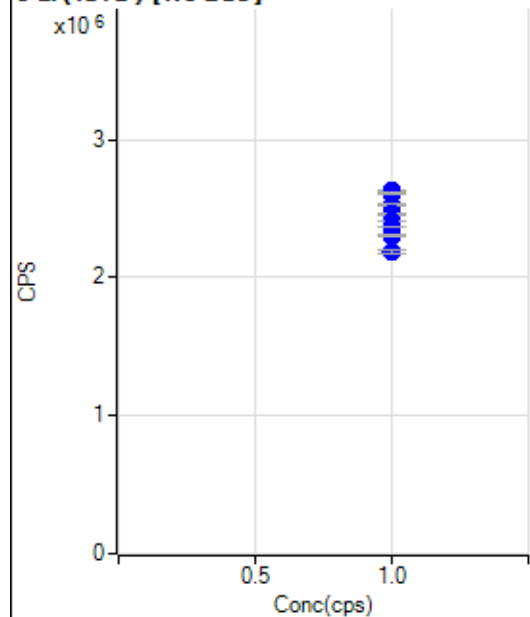
$$DL = 0.0154$$

$$BEC = 0.1193$$

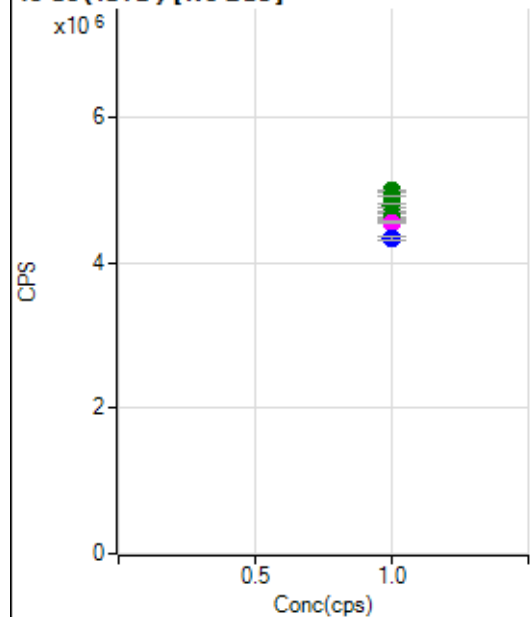
Weight: <None>

Min Conc: 0

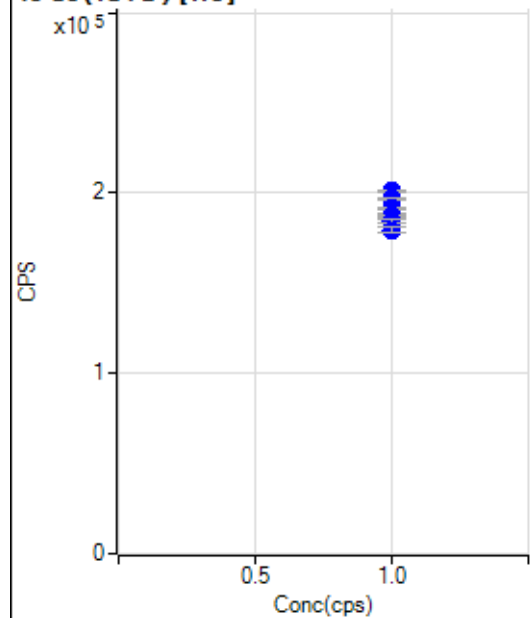
6 Li (ISTD) [No Gas]



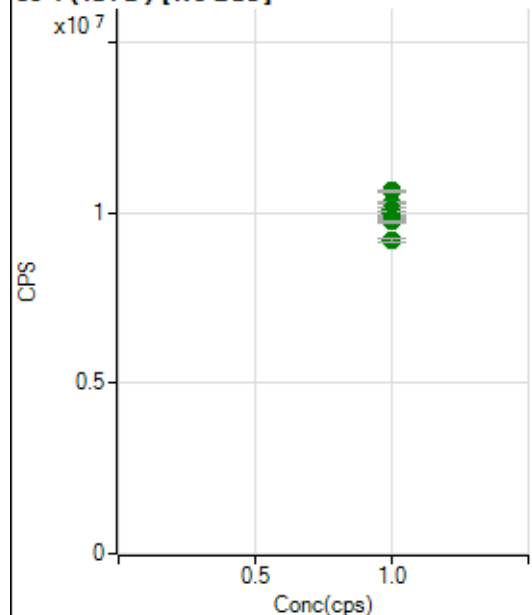
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2627454.63		P	0.2
2	☐	1.000		2609329.87		P	0.5
3	☐	1.000		2526313.87		P	0.6
4	☐	1.000		2462936.77		P	0.7
5	☐	1.000		2405119.15		P	0.2
6	☐	1.000		2367468.72		P	0.4
7	☐	1.000		2302948.56		P	0.2
8	☐	1.000		2187942.43		P	0.8

45 Sc (ISTD) [No Gas]

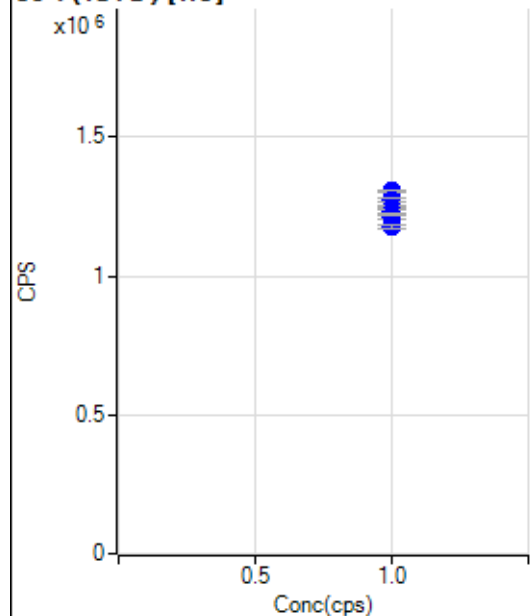
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4990253.11		A	0.5
2	☐	1.000		4921380.93		A	0.3
3	☐	1.000		4791702.10		A	1.2
4	☐	1.000		4692449.93		A	0.5
5	☐	1.000		4631798.59		A	0.2
6	☐	1.000		4581753.53		A	0.5
7	☐	1.000		4558980.57		M	0.4
8	☐	1.000		4339970.58		P	1.4

45 Sc (ISTD) [He]

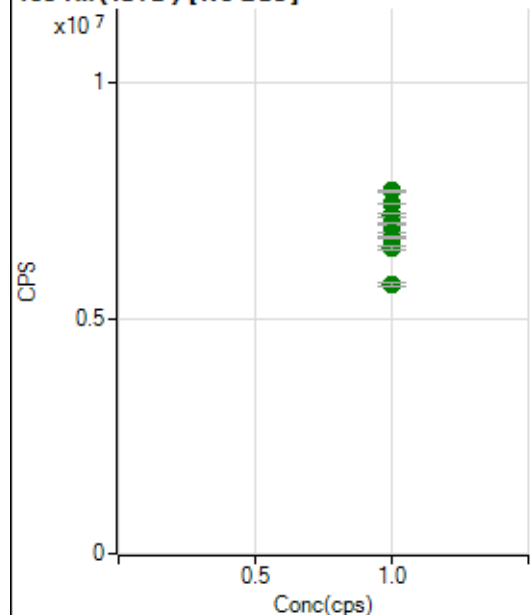
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		201130.43		P	0.8
2	☐	1.000		196840.69		P	0.8
3	☐	1.000		191720.51		P	0.5
4	☐	1.000		187512.16		P	1.4
5	☐	1.000		186674.89		P	0.6
6	☐	1.000		183946.62		P	1.2
7	☐	1.000		184444.55		P	1.4
8	☐	1.000		179352.32		P	1.9

89 Y (ISTD) [No Gas]

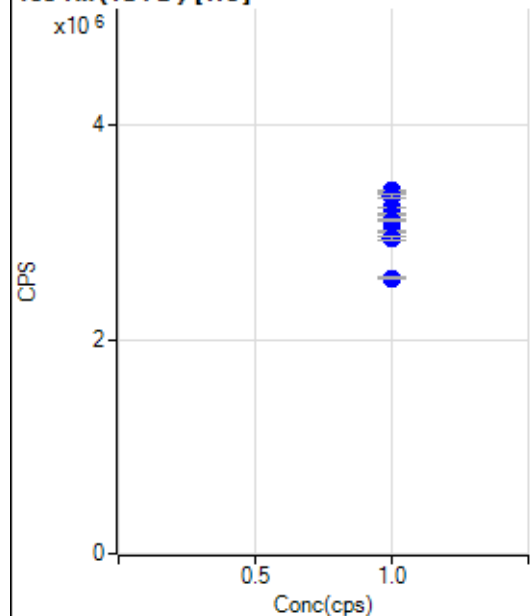
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10640783.11		A	0.7
2	☐	1.000		10281253.39		A	0.3
3	☐	1.000		10089898.39		A	0.9
4	☐	1.000		9976275.82		A	0.7
5	☐	1.000		9832305.20		A	0.4
6	☐	1.000		9793815.76		A	0.2
7	☐	1.000		9749816.66		A	0.6
8	☐	1.000		9199878.47		A	1.1

89 Y (ISTD) [He]

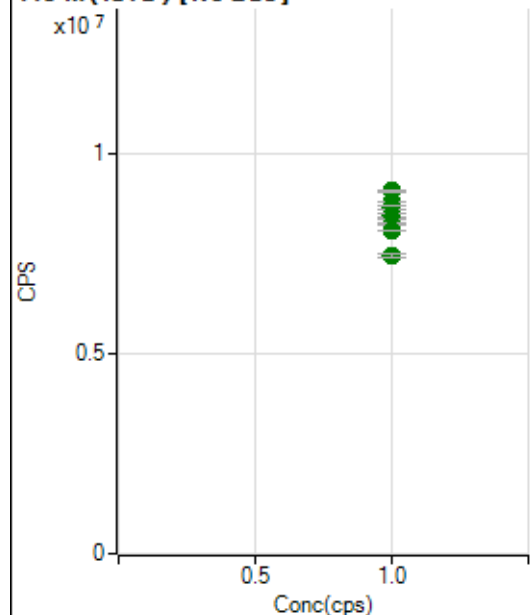
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1307056.98		P	0.7
2	☐	1.000		1272916.70		P	1.1
3	☐	1.000		1248656.40		P	0.6
4	☐	1.000		1231123.82		P	1.0
5	☐	1.000		1220931.22		P	0.5
6	☐	1.000		1213220.08		P	0.9
7	☐	1.000		1221660.04		P	0.7
8	☐	1.000		1176807.00		P	0.8

103 Rh (ISTD) [No Gas]

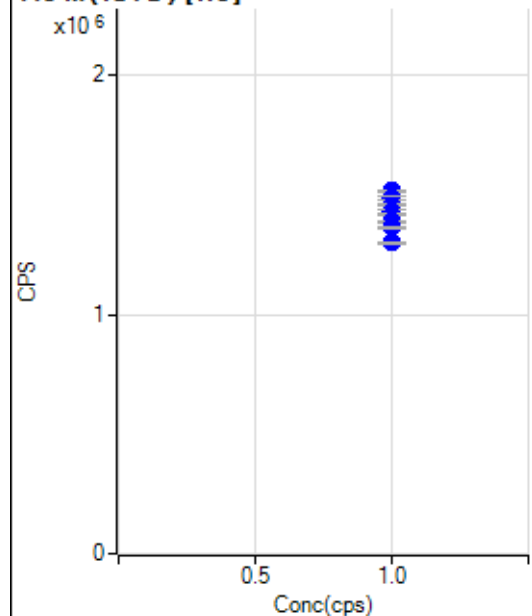
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7705484.90		A	0.5
2	☐	1.000		7437631.85		A	0.2
3	☐	1.000		7175097.73		A	1.1
4	☐	1.000		7006486.96		A	0.9
5	☐	1.000		6817034.70		A	0.4
6	☐	1.000		6712867.08		A	0.3
7	☐	1.000		6492907.18		A	0.7
8	☐	1.000		5713109.94		A	1.5

103 Rh (ISTD) [He]

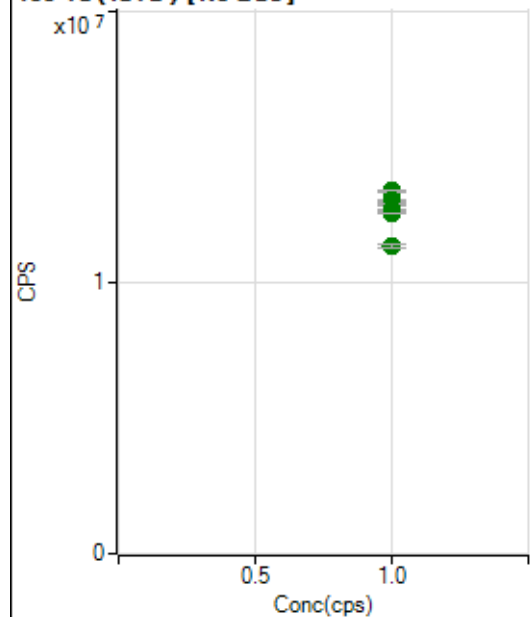
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3387787.80		P	0.8
2	☐	1.000		3338211.17		P	0.8
3	☐	1.000		3237189.78		P	0.2
4	☐	1.000		3168741.69		P	0.9
5	☐	1.000		3112329.68		P	0.8
6	☐	1.000		3012755.23		P	0.7
7	☐	1.000		2945063.05		P	0.8
8	☐	1.000		2574760.59		P	0.8

115 In (ISTD) [No Gas]

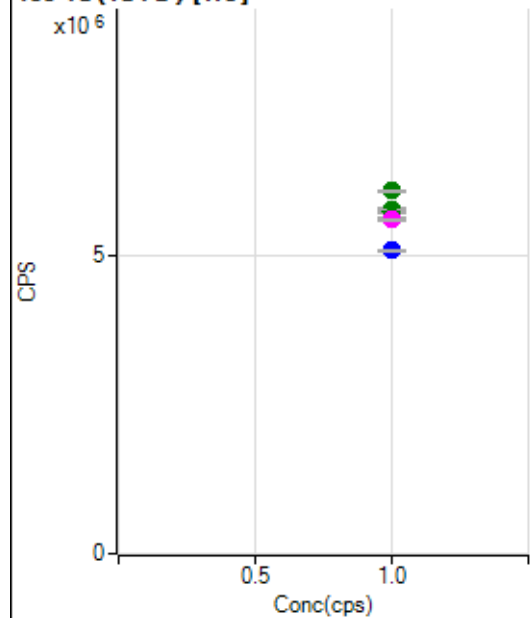
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9056132.77		A	0.2
2	☐	1.000		8782298.69		A	0.3
3	☐	1.000		8640937.91		A	0.7
4	☐	1.000		8454292.88		A	0.8
5	☐	1.000		8350130.57		A	0.2
6	☐	1.000		8228564.13		A	0.9
7	☐	1.000		8066591.89		A	0.4
8	☐	1.000		7433425.32		A	1.1

115 In (ISTD) [He]

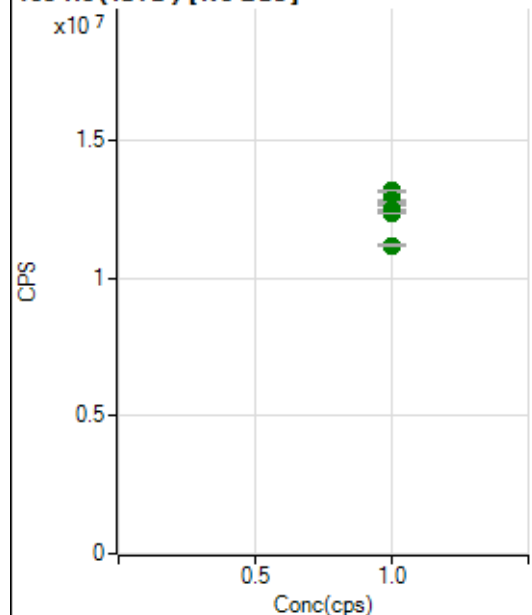
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1515676.38		P	0.5
2	☐	1.000		1485335.95		P	0.8
3	☐	1.000		1455982.31		P	0.4
4	☐	1.000		1428397.27		P	1.0
5	☐	1.000		1417065.53		P	0.4
6	☐	1.000		1387336.71		P	0.5
7	☐	1.000		1363666.48		P	0.8
8	☐	1.000		1300231.42		P	0.5

159 Tb (ISTD) [No Gas]

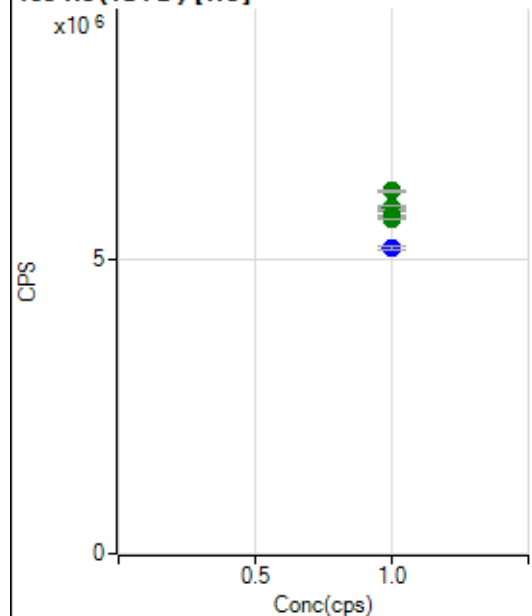
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13383635.22		A	0.7
2	☐	1.000		13032397.72		A	0.6
3	☐	1.000		12928068.70		A	0.9
4	☐	1.000		12854373.84		A	0.8
5	☐	1.000		12616794.95		A	0.5
6	☐	1.000		12669980.37		A	0.3
7	☐	1.000		12536178.70		A	0.2
8	☐	1.000		11348616.91		A	1.2

159 Tb (ISTD) [He]

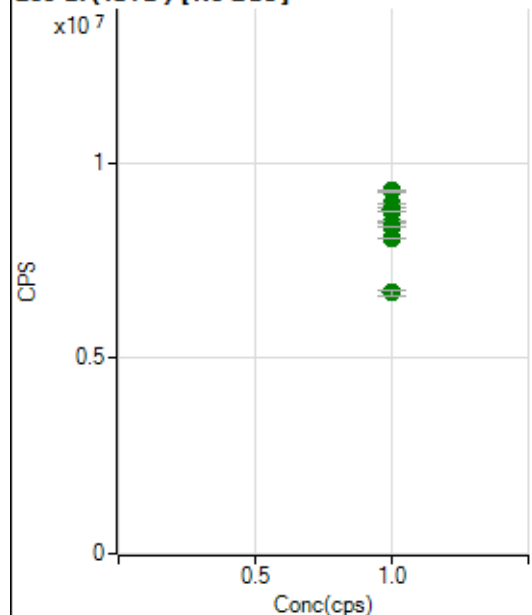
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6088472.83		A	0.5
2	☐	1.000		5787004.01		A	0.8
3	☐	1.000		5751540.89		A	0.7
4	☐	1.000		5750844.78		A	1.1
5	☐	1.000		5635850.89		A	0.9
6	☐	1.000		5637381.10		A	0.8
7	☐	1.000		5601698.74		M	0.5
8	☐	1.000		5095687.84		P	0.7

165 Ho (ISTD) [No Gas]

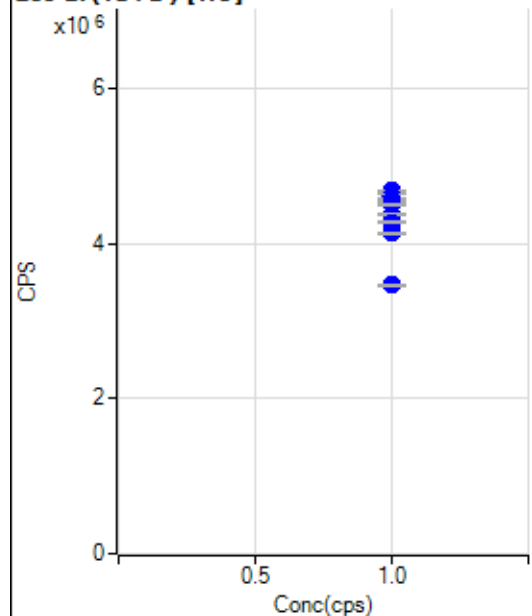
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13164904.38		A	0.8
2	☐	1.000		12847382.58		A	0.3
3	☐	1.000		12675215.56		A	0.8
4	☐	1.000		12732260.26		A	0.4
5	☐	1.000		12429329.53		A	0.2
6	☐	1.000		12474414.25		A	0.6
7	☐	1.000		12362976.14		A	0.3
8	☐	1.000		11176693.56		A	0.8

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6149257.41		A	0.6
2	☐	1.000		5870258.25		A	0.9
3	☐	1.000		5839605.89		A	0.8
4	☐	1.000		5861076.93		A	0.8
5	☐	1.000		5724849.78		A	0.8
6	☐	1.000		5720426.16		A	0.4
7	☐	1.000		5669728.04		A	0.2
8	☐	1.000		5178823.95		P	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9279286.39		A	0.2
2	☐	1.000		8943308.89		A	0.2
3	☐	1.000		8820084.59		A	1.2
4	☐	1.000		8750798.55		A	0.5
5	☐	1.000		8476258.63		A	0.5
6	☐	1.000		8378277.59		A	0.1
7	☐	1.000		8070479.39		A	0.1
8	☐	1.000		6669783.51		A	1.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4680138.54		P	0.5
2	☐	1.000		4615496.01		P	1.0
3	☐	1.000		4559016.91		P	0.4
4	☐	1.000		4502919.45		P	0.6
5	☐	1.000		4373891.78		P	0.5
6	☐	1.000		4274076.92		P	0.6
7	☐	1.000		4136128.76		P	0.4
8	☐	1.000		3462945.61		P	0.5

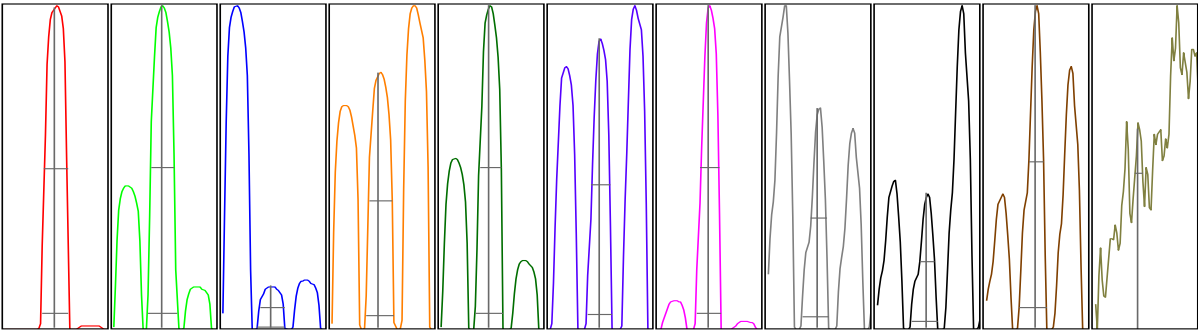
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7012220MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	7449	0.75	5.00	
24	119406	1.12	5.00	
25	16135	0.91	5.00	
26	18115	1.19	5.00	
59	56665	0.75	5.00	
113	7930	0.95	5.00	
115	97593	1.10	5.00	
206	26721	0.78	5.00	
207	24463	0.71	5.00	
208	58304	0.43	5.00	
220	153	2.95		

	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
Mass	Count	Count	Count	Count	Count
9	7473	7525	7406	7459	7383
24	121326	120191	118424	118981	118108
25	16345	16167	16003	16172	15988
26	18412	18234	17904	18103	17922
59	57011	56964	56403	56898	56047
113	8003	7993	7877	7949	7828
115	99047	98293	96637	97424	96566
206	26691	27053	26568	26764	26530
207	24533	24604	24263	24627	24290
208	58313	58548	57903	58491	58265
220	160	147	152	152	155

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	11431	9.00	8.9 - 9.1		0.789	0.900	
24	183006	23.95	23.9 - 24.1		0.863	0.900	
25	24257	24.95	24.9 - 25.1		0.794	0.900	
26	27706	25.90	25.9 - 26.1		0.829	0.900	
59	92135	58.95	58.9 - 59.1		0.810	0.900	
113	15005	113.00	112.9 - 113.1		0.733	0.900	
115	185860	115.00	114.9 - 115.1		0.734	0.900	
206	55771	206.00	205.9 - 206.1		0.777	0.900	
207	50837	207.00	206.9 - 207.1		0.776	0.900	
208	121569	208.00	207.9 - 208.1		0.785	0.900	
220	158	219.80	-				

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	7.1	V	Deflect	13.0	V
Extract 2	-105.0	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	140	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	13023	1.20	
89	24863	1.01	
205	21744	1.15	

	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
Mass	Count	Count	Count	Count	Count
59	13250	13116	12955	12886	12907
89	25238	24952	24844	24682	24599
205	22127	21800	21758	21509	21527

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	7.3	V	Deflect	1.4	V
Extract 2	-110.0	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			