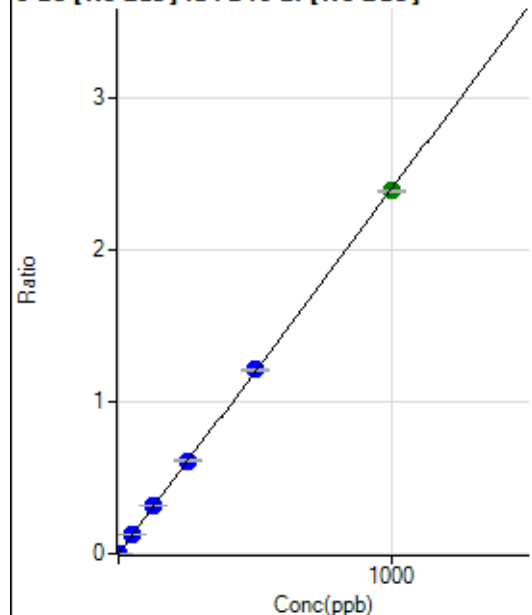


Batch Folder: D:\P8070617.b\
Analysis File: P8070617.batch.bin
DA Date-Time: 2017-07-07 10:47:04
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2017-07-06 11:53:07
2			
3	005CALS.d	S02	2017-07-06 11:59:51
4	006CALS.d	S03	2017-07-06 12:03:22
5	007CALS.d	S04	2017-07-06 12:06:51
6	008CALS.d	S05	2017-07-06 12:10:16
7	009CALS.d	S06	2017-07-06 12:13:35
8	010CALS.d	S07	2017-07-06 12:16:49
9	011CALS.d	S08	2017-07-06 12:19:54

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	48.15	0.0001	P	38.0
2	☐	0.100					
3	☐	1.000	0.899	1066.74	0.0023	P	8.6
4	☐	50.000	52.534	62285.10	0.1263	P	1.7
5	☐	125.000	130.216	156557.63	0.3130	P	0.8
6	☐	250.000	255.785	318421.08	0.6147	P	0.3
7	☐	500.000	504.556	655949.59	1.2124	P	0.9
8	☐	1000.000	995.497	1313651.71	2.3920	A	0.7
9	☐			333.35	0.0006	P	20.3

$$y = 0.0024 * x + 1.0154E-004$$

$$R = 1.0000$$

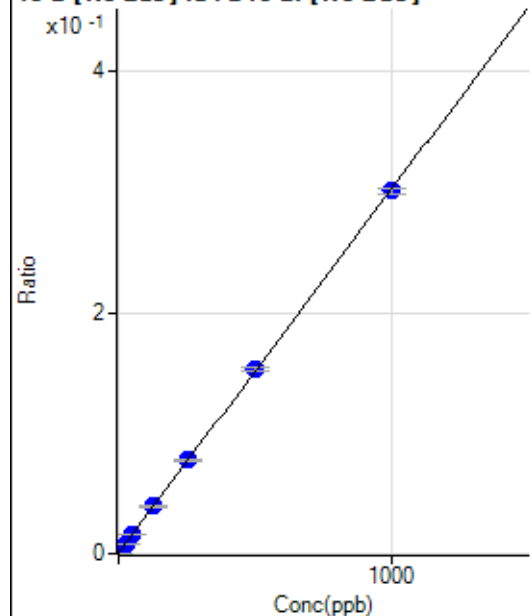
$$DL = 0.04812$$

$$BEC = 0.04226$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	291.68	0.0006	P	35.5
2	☐	2.500					
3	☐	25.000	22.534	3503.36	0.0074	P	5.6
4	☐	50.000	52.021	8052.57	0.0163	P	1.5
5	☐	125.000	128.273	19686.38	0.0394	P	2.5
6	☐	250.000	254.875	40187.97	0.0776	P	2.0
7	☐	500.000	506.332	83051.34	0.1535	P	1.7
8	☐	1000.000	995.167	165354.11	0.3011	P	1.6
9	☐			5693.02	0.0100	P	2.2

$$y = 3.0193E-004 * x + 6.2524E-004$$

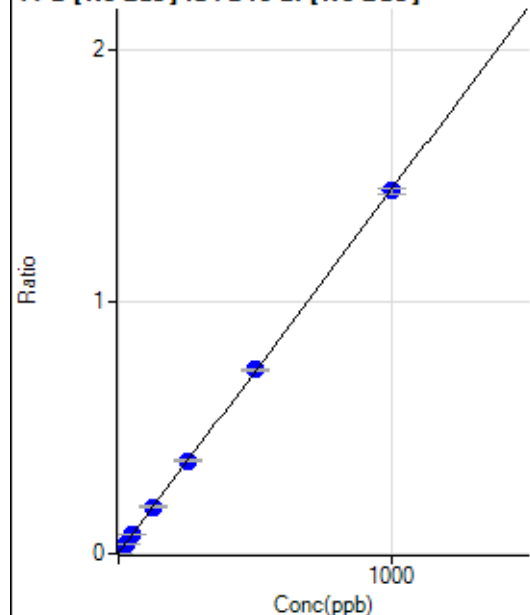
$$R = 0.9999$$

$$DL = 2.204$$

$$BEC = 2.071$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1105.65	0.0023	P	4.8
2	☐	2.500					
3	☐	25.000	22.864	16671.32	0.0353	P	1.7
4	☐	50.000	51.898	38073.61	0.0772	P	1.7
5	☐	125.000	127.665	93306.29	0.1865	P	1.0
6	☐	250.000	254.877	191696.43	0.3701	P	1.3
7	☐	500.000	504.355	394947.11	0.7300	P	0.5
8	☐	1000.000	996.229	790588.20	1.4396	P	1.4
9	☐			27223.89	0.0476	P	6.5

$$y = 0.0014 * x + 0.0023$$

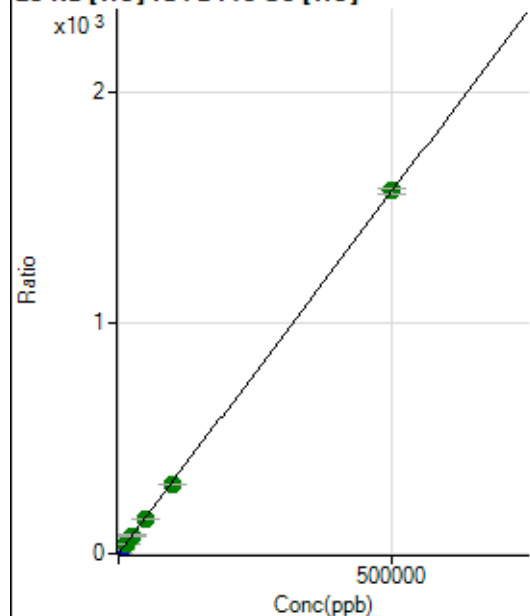
$$R = 1.0000$$

$$DL = 0.235$$

$$BEC = 1.628$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5737.50	0.1427	P	3.1
2	☐	50.000					
3	☐	500.000	452.744	64376.84	1.5620	P	1.0
4	☐	5000.000	4962.305	666333.22	15.6993	P	1.3
5	☐	12500.000	12669.978	1701406.40	39.8624	A	1.6
6	☐	25000.000	24999.419	3329680.98	78.5145	A	2.2
7	☐	50000.000	48525.103	6539704.57	152.2663	A	0.4
8	☐	100000.00	95300.623	12388944.55	298.9050	A	0.8
9	☐	500000.00	501083.56	65379602.85	1,571.012	A	1.6

$$y = 0.0031 * x + 0.1427$$

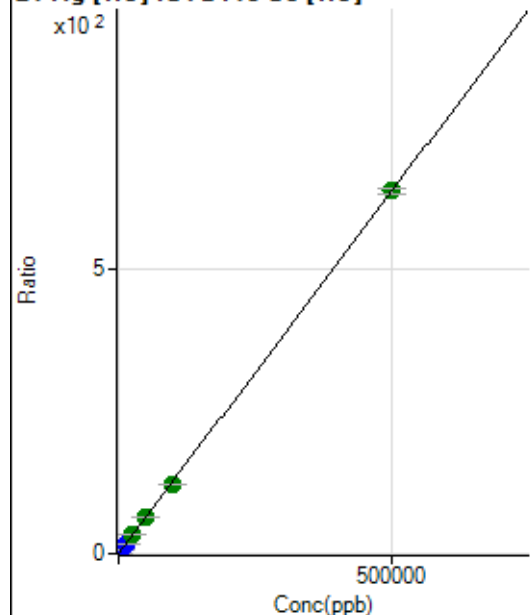
$$R = 0.9999$$

$$DL = 4.204$$

$$BEC = 45.52$$

Weight: <None>

Min Conc: 0

24 Mg [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.23	0.0018	P	34.7
2	☐	50.000					
3	☐	500.000	448.683	23537.01	0.5711	P	1.3
4	☐	5000.000	5064.687	272849.32	6.4284	P	1.1
5	☐	12500.000	12606.648	682837.31	15.9983	P	1.5
6	☐	25000.000	25506.187	1372654.92	32.3665	A	2.0
7	☐	50000.000	49698.285	2708389.02	63.0637	A	1.6
8	☐	100000.00	95885.720	5042983.36	121.6708	A	0.9
9	☐	500000.00	500824.45	26446507.54	635.4958	A	1.6

$$y = 0.0013 * x + 0.0018$$

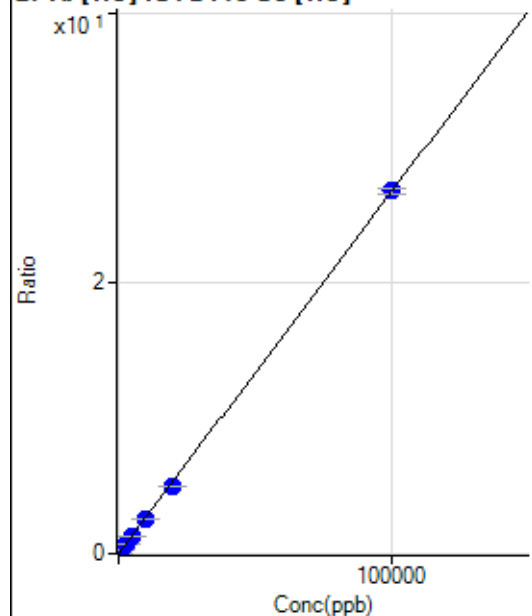
$$R = 1.0000$$

$$DL = 1.475$$

$$BEC = 1.415$$

Weight: <None>

Min Conc: 0

27 Al [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.34	0.0008	P	64.7
2	☐	2.000					
3	☐	20.000	14.050	188.90	0.0046	P	3.1
4	☐	1000.000	977.703	11135.37	0.2624	P	2.4
5	☐	2500.000	2422.793	27697.34	0.6490	P	2.3
6	☐	5000.000	4855.052	55127.41	1.2996	P	0.7
7	☐	10000.000	9644.031	110835.12	2.5808	P	1.7
8	☐	20000.000	18709.540	207481.27	5.0060	P	1.0
9	☐	100000.00	100303.09	1116725.70	26.8338	P	1.5

$$y = 2.6752E-004 * x + 8.2536E-004$$

$$R = 0.9999$$

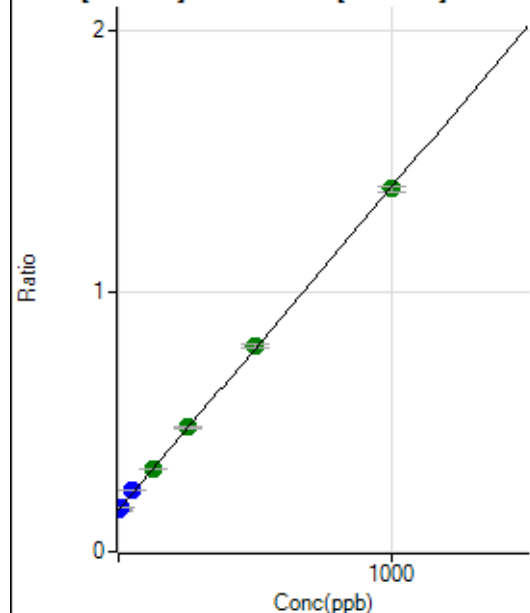
$$DL = 5.984$$

$$BEC = 3.085$$

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	461665.58	0.1602	P	3.9
2	☐	1.000					
3	☐	10.000	6.047	493337.23	0.1677	P	0.9
4	☐	50.000	60.094	714610.89	0.2348	P	1.1
5	☐	125.000	125.641	966790.97	0.3161	A	0.4
6	☐	250.000	255.954	1471714.02	0.4778	A	1.5
7	☐	500.000	507.247	2486170.44	0.7897	A	1.3
8	☐	1000.000	994.342	4269841.55	1.3942	A	1.3
9	☐			489898.45	0.1575	P	0.7

$$y = 0.0012 * x + 0.1602$$

$$R = 0.9999$$

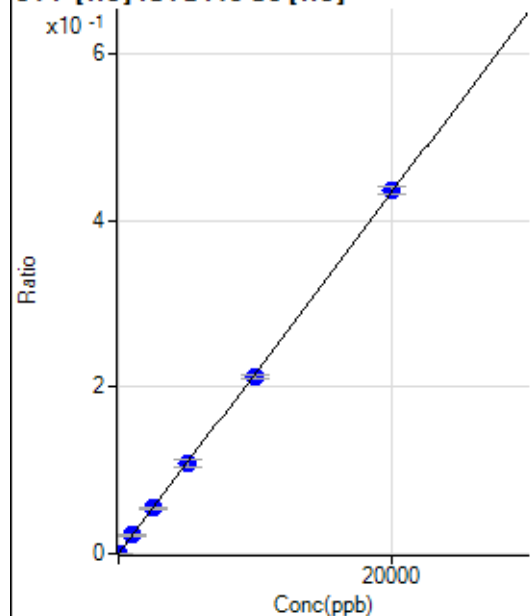
$$DL = 14.99$$

$$BEC = 129.1$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.174	11.11	0.0003	P	86.7
2	☐	0.000					
3	☐	0.000	-0.174	11.11	0.0003	P	44.5
4	☐	1000.000	1016.829	944.52	0.0223	P	6.8
5	☐	2500.000	2510.446	2328.07	0.0546	P	6.7
6	☐	5000.000	5009.844	4603.73	0.1086	P	8.9
7	☐	10000.000	9789.470	9106.10	0.2120	P	2.9
8	☐	20000.000	20100.657	18031.68	0.4350	P	2.0
9	☐			30.56	0.0007	P	63.4

$$y = 2.1627E-005 * x + 2.7415E-004$$

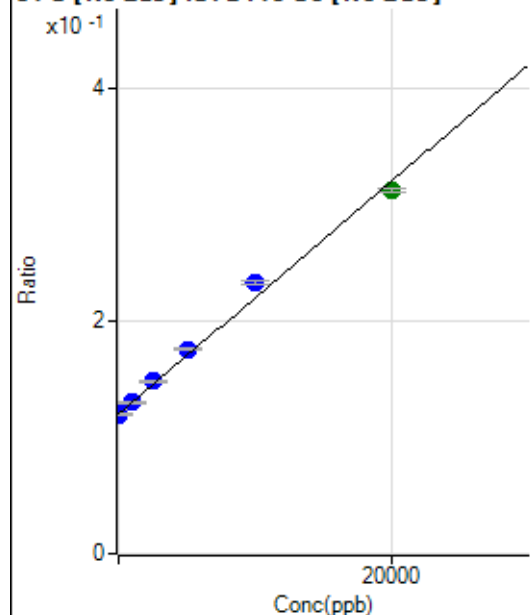
$$R = 0.9999$$

$$DL = 25.05$$

$$BEC = 12.68$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	94.859	348568.00	0.1210	P	4.5
2	☐	0.000					
3	☐	0.000	-94.859	350298.54	0.1191	P	1.1
4	☐	1000.000	1018.924	396296.22	0.1302	P	1.1
5	☐	2500.000	2801.271	452603.25	0.1480	P	0.6
6	☐	5000.000	5522.056	539483.68	0.1752	P	0.8
7	☐	10000.000	11337.614	734253.95	0.2332	P	1.2
8	☐	20000.000	19162.074	953547.91	0.3114	A	1.1
9	☐			388682.84	0.1250	P	1.0

$$y = 9.9859\text{E-}006 * x + 0.1200$$

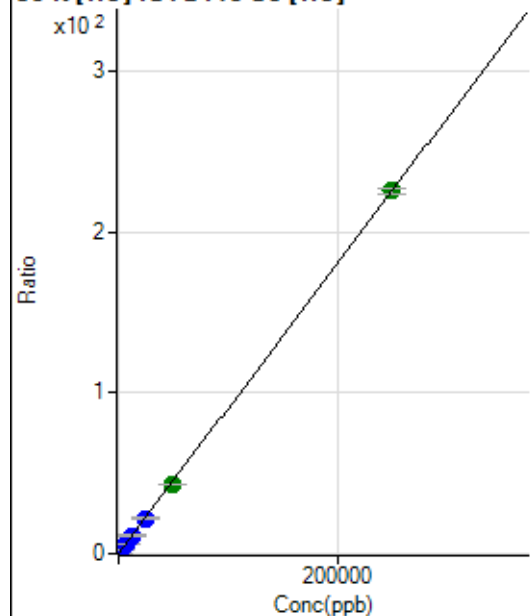
$$R = 0.9960$$

$$DL = 1005$$

$$BEC = 1.202\text{E}+04$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5248.43	0.1306	P	6.6
2	☐	50.000					
3	☐	500.000	465.017	22643.98	0.5495	P	3.1
4	☐	2500.000	2541.701	102717.81	2.4202	P	1.8
5	☐	6250.000	6211.235	244386.13	5.7258	P	1.5
6	☐	12500.000	12413.375	479779.66	11.3127	P	2.0
7	☐	25000.000	24365.693	948271.49	22.0795	P	1.2
8	☐	50000.000	48132.525	1802531.31	43.4889	A	0.6
9	☐	250000.00	250441.87	9394153.86	225.7311	A	1.5

$$y = 9.0081\text{E-}004 * x + 0.1306$$

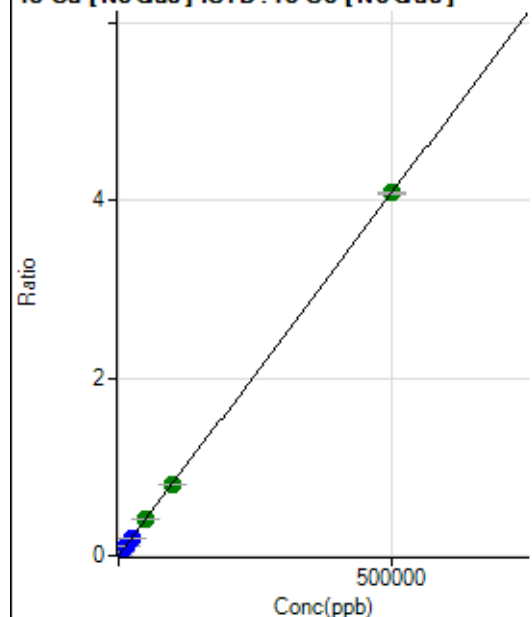
$$R = 1.0000$$

$$DL = 28.79$$

$$BEC = 145$$

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	5073.41	0.0018	P	6.3
2	☐	50.000					
3	☐	500.000	416.365	15153.27	0.0052	P	3.1
4	☐	5000.000	4888.855	126692.68	0.0416	P	2.2
5	☐	12500.000	12341.366	313161.63	0.1024	P	0.2
6	☐	25000.000	24735.415	626677.14	0.2035	P	1.0
7	☐	50000.000	49943.985	1287753.71	0.4090	A	0.5
8	☐	100000.00	98408.449	2463010.02	0.8042	A	1.0
9	☐	500000.00	500342.30	12694473.46	4.0818	A	0.5

$$y = 8.1546E-006 * x + 0.0018$$

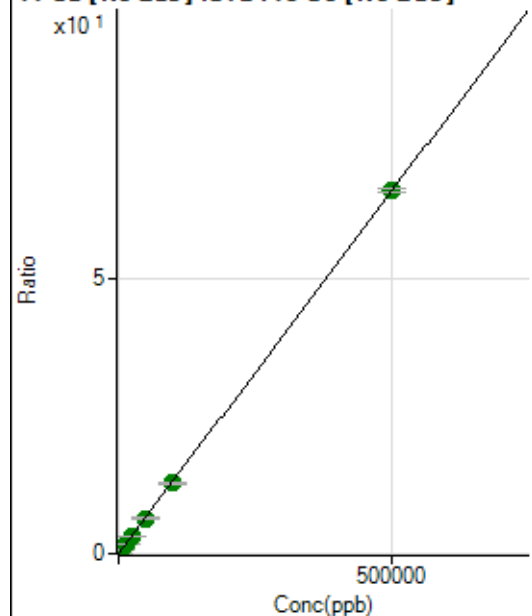
$$R = 1.0000$$

$$DL = 40.5$$

$$BEC = 215.2$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	73794.10	0.0256	P	3.8
2	☐	50.000					
3	☐	500.000	429.810	242369.72	0.0824	P	0.4
4	☐	5000.000	5008.808	2092037.46	0.6872	A	0.8
5	☐	12500.000	12368.258	5074883.93	1.6594	A	1.2
6	☐	25000.000	24622.721	10096763.85	3.2781	A	0.9
7	☐	50000.000	48762.383	20358992.99	6.4668	A	0.9
8	☐	100000.00	96924.160	39289745.67	12.8286	A	0.6
9	☐	500000.00	500761.06	205789646.2	66.1724	A	1.1

$$y = 1.3209E-004 * x + 0.0256$$

$$R = 1.0000$$

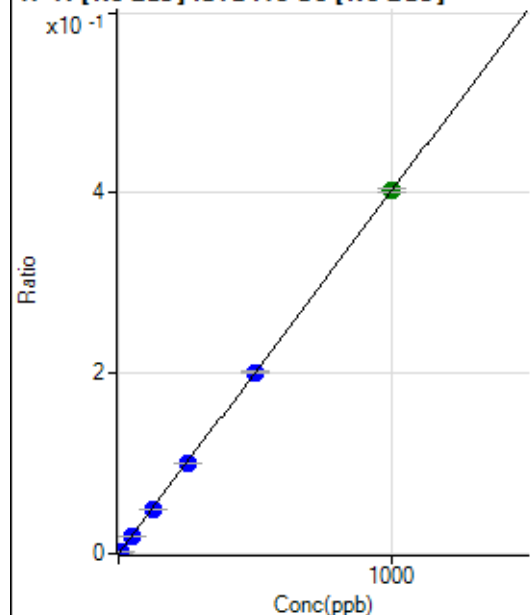
$$DL = 22.1$$

$$BEC = 193.8$$

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	208.34	0.0001	P	30.1
2	☐	0.500					
3	☐	5.000	4.448	5476.32	0.0019	P	8.7
4	☐	50.000	49.894	61318.21	0.0201	P	0.6
5	☐	125.000	123.823	152558.40	0.0499	P	0.5
6	☐	250.000	250.663	310803.68	0.1009	P	0.5
7	☐	500.000	499.409	632706.13	0.2010	P	0.6
8	☐	1000.000	1000.285	1232584.84	0.4025	A	1.0
9	☐			1544.61	0.0005	P	3.1

$$y = 4.0227\text{E-}004 * x + 7.2534\text{E-}005$$

$$R = 1.0000$$

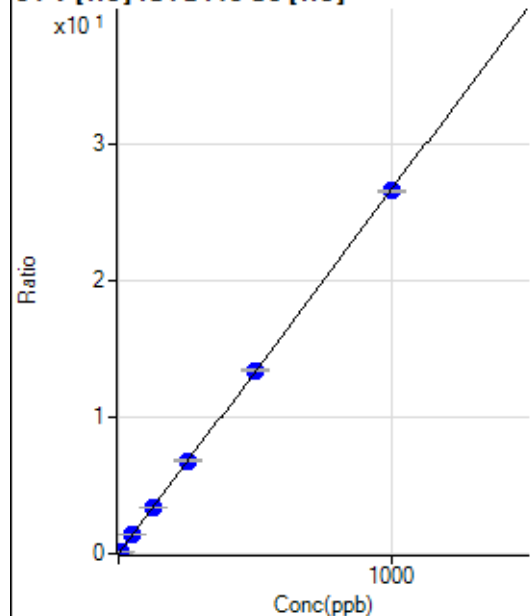
$$DL = 0.1627$$

$$BEC = 0.1803$$

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	26.67	0.0007	P	57.1
2	☐	0.500					
3	☐	5.000	4.527	4998.76	0.1213	P	3.6
4	☐	50.000	51.401	58166.99	1.3705	P	1.8
5	☐	125.000	127.449	144989.91	3.3972	P	2.1
6	☐	250.000	255.630	288944.69	6.8132	P	2.1
7	☐	500.000	503.742	576605.17	13.4254	P	0.5
8	☐	1000.000	996.348	1100597.10	26.5533	P	0.5
9	☐			574.47	0.0138	P	4.5

$$y = 0.0266 * x + 6.6881\text{E-}004$$

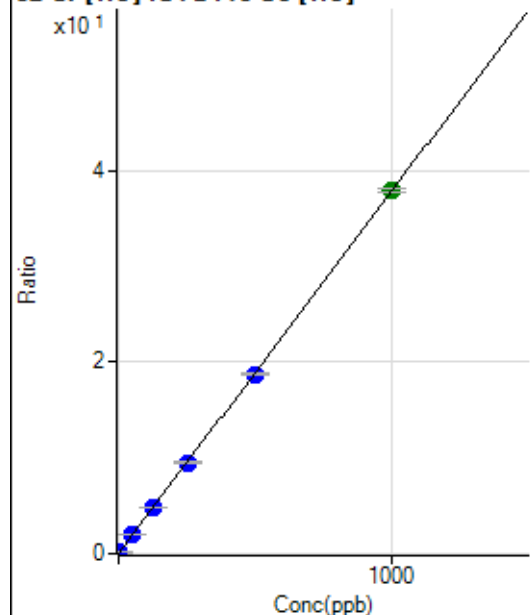
$$R = 1.0000$$

$$DL = 0.04295$$

$$BEC = 0.0251$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1123.40	0.0279	P	2.7
2	☐	0.200					
3	☐	2.000	1.976	4230.71	0.1026	P	2.5
4	☐	50.000	50.985	82995.16	1.9554	P	1.1
5	☐	125.000	126.066	204614.48	4.7937	P	1.2
6	☐	250.000	251.358	404133.21	9.5303	P	2.8
7	☐	500.000	495.634	805912.04	18.7649	P	1.0
8	☐	1000.000	1001.661	1570809.30	37.8947	A	0.9
9	☐			39052.29	0.9385	P	2.2

$$y = 0.0378 * x + 0.0279$$

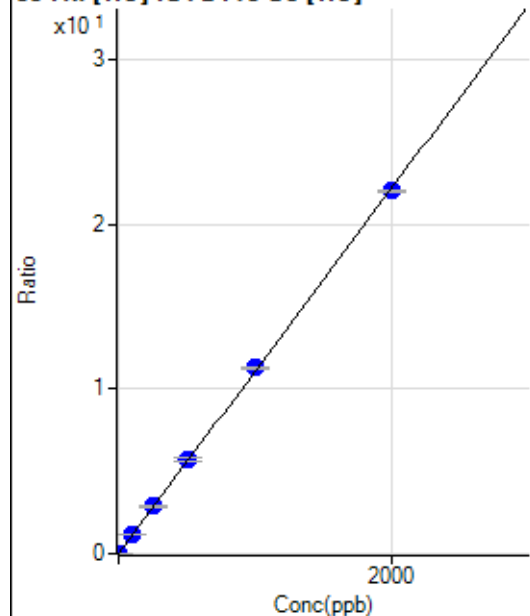
$$R = 1.0000$$

$$DL = 0.06017$$

$$BEC = 0.739$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	71.11	0.0018	P	5.3
2	☐	0.100					
3	☐	1.000	0.933	500.02	0.0121	P	6.6
4	☐	100.000	104.576	49351.49	1.1627	P	1.1
5	☐	250.000	258.496	122563.82	2.8715	P	1.2
6	☐	500.000	516.172	243090.51	5.7321	P	2.2
7	☐	1000.000	1016.317	484655.64	11.2845	P	0.7
8	☐	2000.000	1986.508	914142.92	22.0552	P	0.7
9	☐			3847.25	0.0924	P	3.1

$$y = 0.0111 * x + 0.0018$$

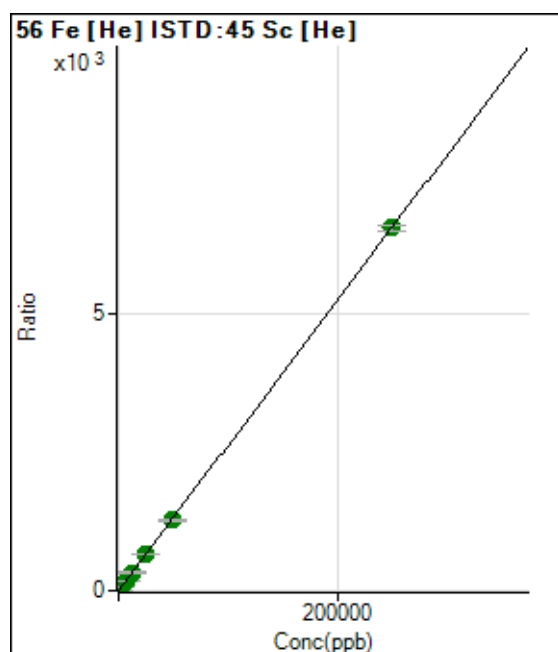
$$R = 0.9999$$

$$DL = 0.02554$$

$$BEC = 0.1592$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3965.48	0.0986	P	4.7
2	☐	5.000					
3	☐	50.000	44.587	52283.37	1.2686	P	1.0
4	☐	2500.000	2567.350	2863541.82	67.4684	A	1.5
5	☐	6250.000	6250.743	7004782.62	164.1242	A	2.1
6	☐	12500.000	12585.668	14010168.14	330.3589	A	2.1
7	☐	25000.000	24814.993	27970337.66	651.2684	A	1.2
8	☐	50000.000	48623.465	52887656.74	1,276.026	A	0.9
9	☐	250000.00	250288.83	273321724.6	6,567.923	A	1.8

$$y = 0.0262 * x + 0.0986$$

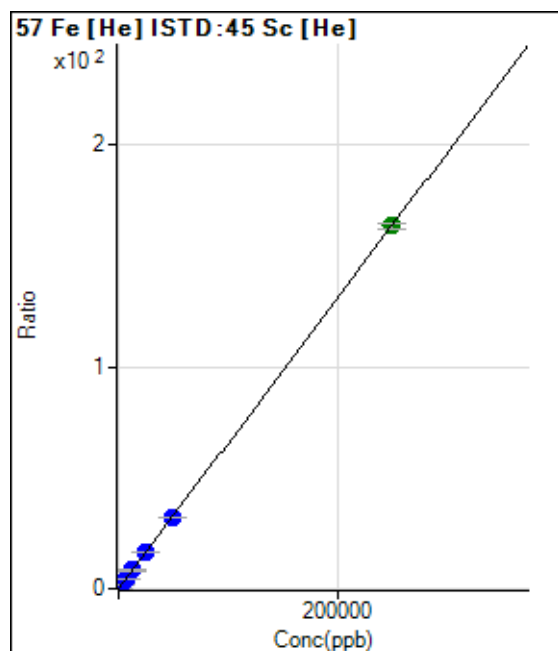
$$R = 1.0000$$

$$DL = 0.532$$

$$BEC = 3.757$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	100.01	0.0025	P	29.7
2	☐	5.000					
3	☐	50.000	43.828	1281.58	0.0311	P	17.1
4	☐	2500.000	2555.657	70933.48	1.6711	P	0.8
5	☐	6250.000	6273.243	174913.76	4.0984	P	2.5
6	☐	12500.000	12651.173	350411.27	8.2627	P	2.2
7	☐	25000.000	24979.310	700571.48	16.3120	P	0.9
8	☐	50000.000	48930.532	1324275.33	31.9503	P	0.6
9	☐	250000.00	250207.26	6798856.29	163.3681	A	1.4

$$y = 6.5292E-004 * x + 0.0025$$

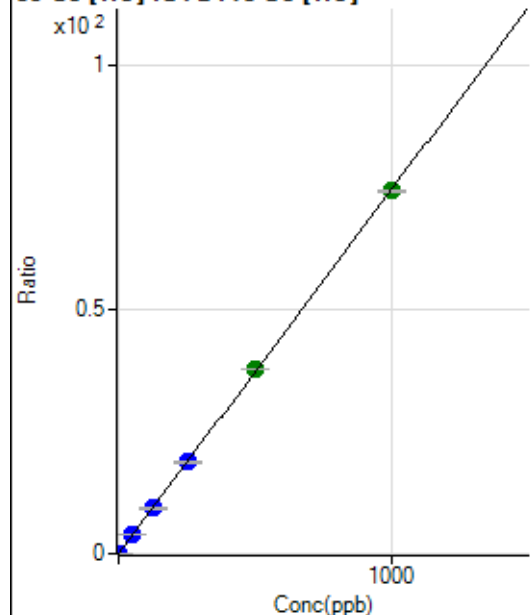
$$R = 1.0000$$

$$DL = 3.398$$

$$BEC = 3.813$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	93.34	0.0023	P	29.3
2	☐	0.100					
3	☐	1.000	0.922	2930.36	0.0711	P	5.7
4	☐	50.000	50.608	160413.44	3.7795	P	1.5
5	☐	125.000	124.723	397407.86	9.3112	P	2.0
6	☐	250.000	251.258	795377.21	18.7554	P	2.3
7	☐	500.000	506.523	1623796.99	37.8076	A	0.6
8	☐	1000.000	996.428	3082540.55	74.3726	A	0.8
9	☐			5122.13	0.1231	P	1.3

$$y = 0.0746 * x + 0.0023$$

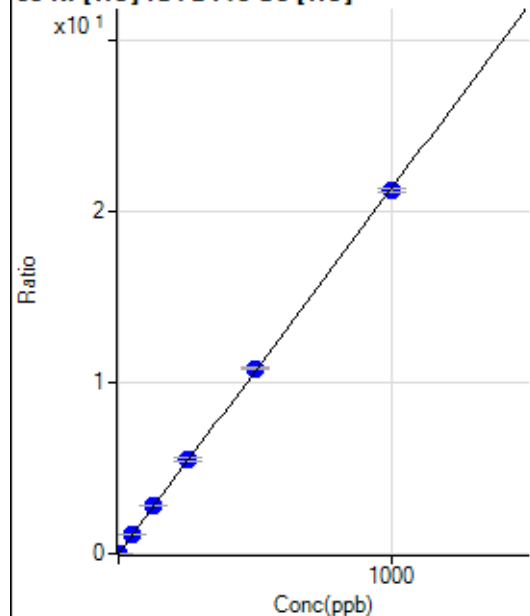
$$R = 1.0000$$

$$DL = 0.02721$$

$$BEC = 0.03095$$

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	73.33	0.0018	P	11.4
2	☐	0.100					
3	☐	1.000	0.912	877.82	0.0213	P	3.5
4	☐	50.000	52.402	47572.23	1.1209	P	2.0
5	☐	125.000	129.985	118560.37	2.7777	P	1.4
6	☐	250.000	258.690	234343.68	5.5263	P	2.8
7	☐	500.000	507.487	465540.35	10.8396	P	0.9
8	☐	1000.000	993.341	879313.08	21.2153	P	1.1
9	☐			13528.98	0.3251	P	0.8

$$y = 0.0214 * x + 0.0018$$

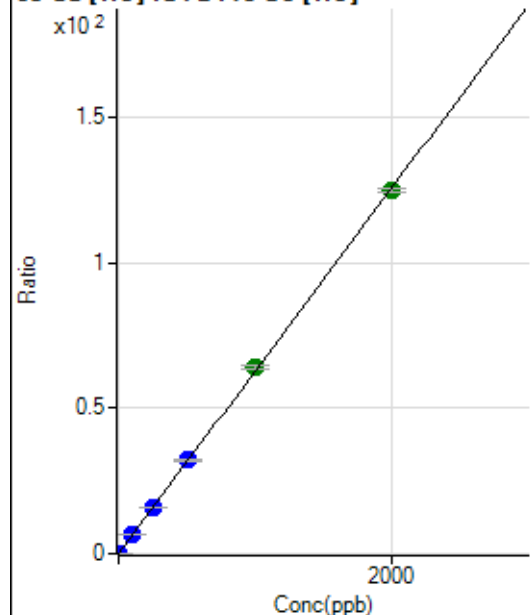
$$R = 0.9999$$

$$DL = 0.02912$$

$$BEC = 0.08552$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	625.58	0.0155	P	5.3
2	☐	0.200					
3	☐	2.000	2.114	6118.11	0.1484	P	2.3
4	☐	100.000	103.061	275619.56	6.4941	P	1.8
5	☐	250.000	255.483	686144.12	16.0756	P	1.4
6	☐	500.000	510.656	1361950.55	32.1162	P	2.4
7	☐	1000.000	1020.978	2756998.22	64.1958	A	1.7
8	☐	2000.000	1986.008	5175171.90	124.8591	A	1.2
9	☐			11188.02	0.2688	P	1.0

$$y = 0.0629 * x + 0.0155$$

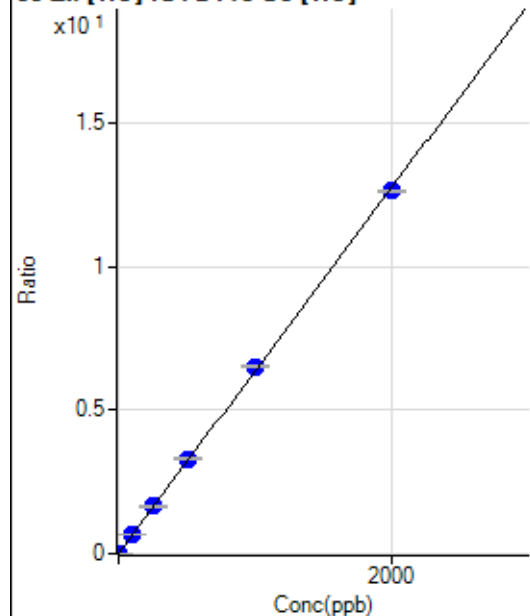
$$R = 0.9999$$

$$DL = 0.0396$$

$$BEC = 0.2472$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	47.78	0.0012	P	15.0
2	☐	0.200					
3	☐	2.000	2.081	595.58	0.0144	P	5.6
4	☐	100.000	105.988	28710.99	0.6764	P	1.6
5	☐	250.000	257.485	70064.80	1.6417	P	2.2
6	☐	500.000	515.923	139454.71	3.2882	P	1.8
7	☐	1000.000	1022.466	279817.62	6.5154	P	1.5
8	☐	2000.000	1983.551	523840.96	12.6386	P	0.8
9	☐			4814.25	0.1157	P	3.3

$$y = 0.0064 * x + 0.0012$$

$$R = 0.9999$$

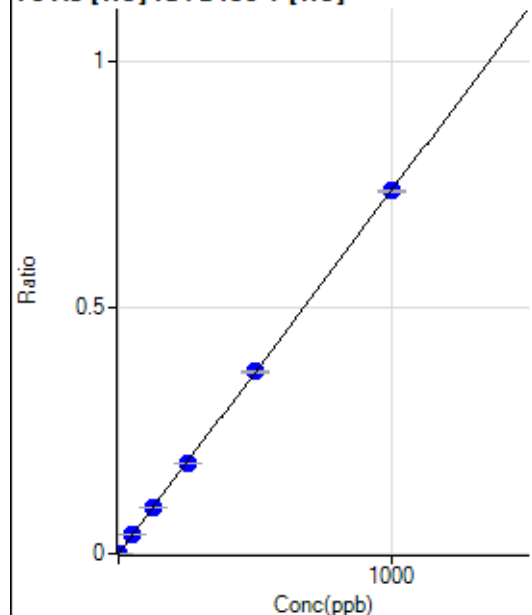
$$DL = 0.08369$$

$$BEC = 0.1866$$

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	6.17	0.0000	P	35.2
2	☐	0.100					
3	☐	1.000	0.937	184.57	0.0007	P	6.3
4	☐	50.000	51.041	10135.88	0.0376	P	2.1
5	☐	125.000	125.499	24874.26	0.0925	P	0.5
6	☐	250.000	250.371	49955.93	0.1844	P	0.7
7	☐	500.000	501.599	101165.93	0.3695	P	0.8
8	☐	1000.000	998.993	193006.36	0.7359	P	0.6
9	☐			116.67	0.0004	P	12.1

$$y = 7.3660E-004 * x + 2.4159E-005$$

$$R = 1.0000$$

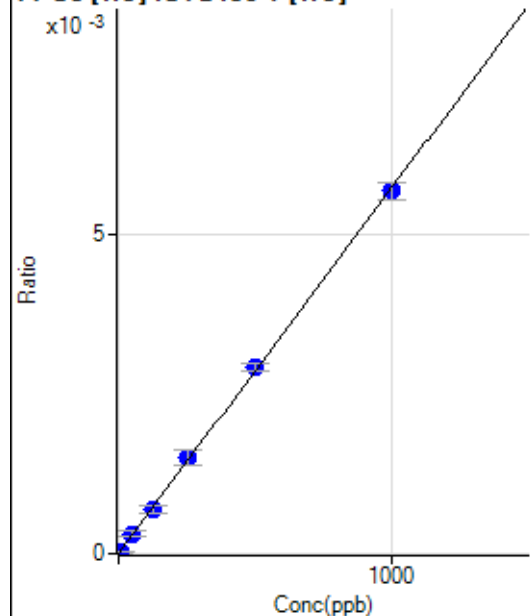
$$DL = 0.03463$$

$$BEC = 0.0328$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.2
2	☐	0.500					
3	☐	5.000	4.469	7.78	0.0000	P	89.3
4	☐	50.000	53.438	83.34	0.0003	P	28.2
5	☐	125.000	118.700	183.34	0.0007	P	17.2
6	☐	250.000	263.761	408.90	0.0015	P	16.5
7	☐	500.000	509.718	797.81	0.0029	P	4.0
8	☐	1000.000	992.319	1486.77	0.0057	P	5.1
9	☐			1.11	0.0000	P	173.2

$$y = 5.7083E-006 * x + 4.4315E-006$$

$$R = 0.9998$$

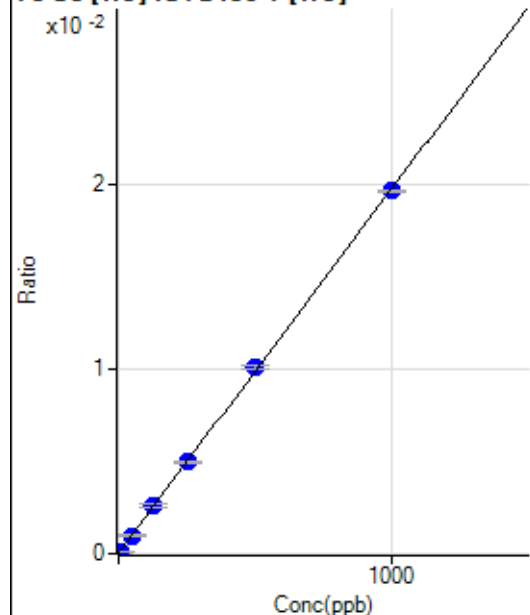
$$DL = 4.034$$

$$BEC = 0.7763$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8.02	0.0000	P	57.0
2	☐	0.500					
3	☐	5.000	3.765	27.16	0.0001	P	31.7
4	☐	50.000	48.283	264.20	0.0010	P	16.9
5	☐	125.000	130.244	697.56	0.0026	P	5.4
6	☐	250.000	249.509	1337.73	0.0049	P	3.2
7	☐	500.000	508.817	2749.07	0.0100	P	2.0
8	☐	1000.000	995.151	5142.36	0.0196	P	0.4
9	☐			9.26	0.0000	P	71.2

$$y = 1.9671\text{E-}005 * x + 3.1283\text{E-}005$$

$$R = 0.9999$$

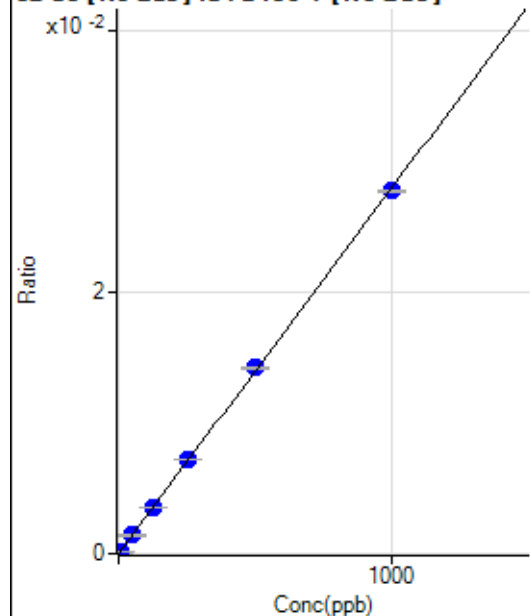
$$DL = 2.72$$

$$BEC = 1.59$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4.76	0.0000	P	2595.
2	☐	0.500					
3	☐	5.000	3.773	462.76	0.0001	P	39.4
4	☐	50.000	50.257	6326.90	0.0014	P	2.5
5	☐	125.000	126.873	16186.12	0.0036	P	1.2
6	☐	250.000	255.804	33084.33	0.0072	P	0.2
7	☐	500.000	510.217	67623.30	0.0143	P	1.1
8	☐	1000.000	993.200	130441.98	0.0278	P	0.4
9	☐			86.25	0.0000	P	184.9

$$y = 2.7974\text{E-}005 * x + 9.7360\text{E-}007$$

$$R = 0.9999$$

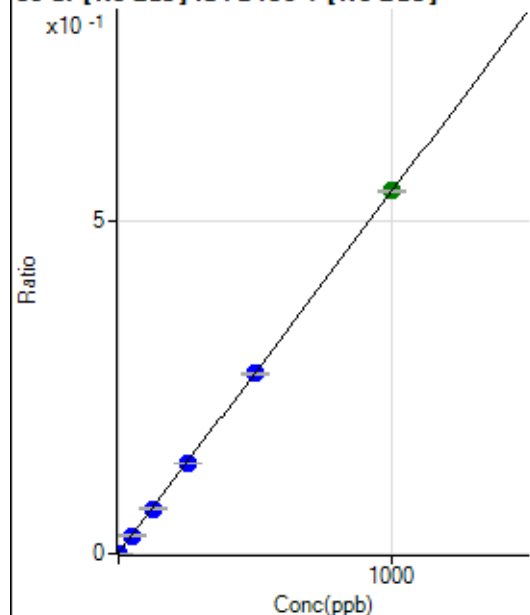
$$DL = 2.71$$

$$BEC = 0.0348$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2547.60	0.0006	P	1.3
2	☐	0.100					
3	☐	1.000	0.961	4859.41	0.0011	P	6.1
4	☐	50.000	49.421	123485.00	0.0275	P	1.6
5	☐	125.000	123.603	309012.27	0.0678	P	0.5
6	☐	250.000	248.255	626462.58	0.1355	P	0.3
7	☐	500.000	496.643	1281554.94	0.2705	P	0.6
8	☐	1000.000	1002.319	2560192.76	0.5453	A	0.6
9	☐			90622.30	0.0193	P	1.5

$$y = 5.4346\text{E-}004 * x + 5.9772\text{E-}004$$

$$R = 1.0000$$

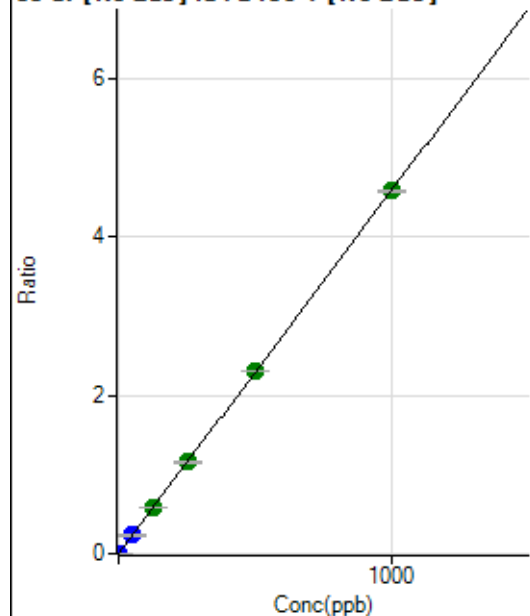
$$DL = 0.04246$$

$$BEC = 1.1$$

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	119.45	0.0000	P	9.9
2	☐	0.100					
3	☐	1.000	0.912	18276.86	0.0042	P	1.9
4	☐	50.000	50.409	1039886.81	0.2312	P	1.8
5	☐	125.000	126.849	2652599.99	0.5818	A	0.5
6	☐	250.000	251.886	5340175.12	1.1552	A	0.7
7	☐	500.000	500.510	10875172.56	2.2954	A	0.0
8	☐	1000.000	999.022	21509884.16	4.5817	A	0.6
9	☐			761041.21	0.1621	P	0.8

$$y = 0.0046 * x + 2.8063\text{E-}005$$

$$R = 1.0000$$

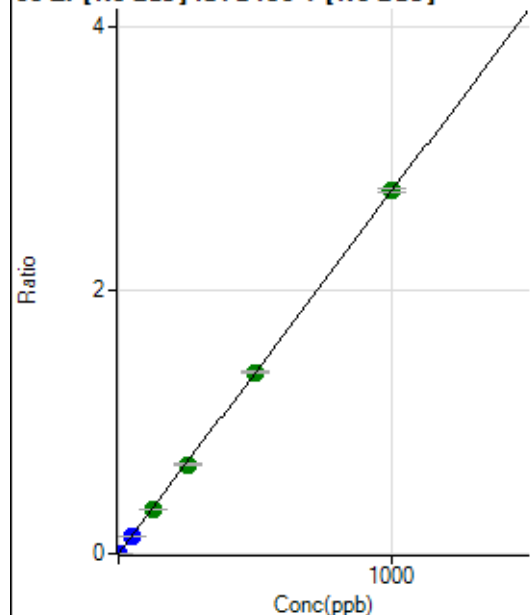
$$DL = 0.001817$$

$$BEC = 0.006119$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	269.46	0.0001	P	11.1
2	☐	0.100					
3	☐	1.000	0.969	11844.54	0.0027	P	5.8
4	☐	50.000	47.853	592932.63	0.1318	P	0.6
5	☐	125.000	122.341	1536215.59	0.3369	A	0.6
6	☐	250.000	246.511	3137959.10	0.6788	A	1.1
7	☐	500.000	500.284	6526545.68	1.3776	A	0.7
8	☐	1000.000	1001.170	12941860.18	2.7567	A	1.1
9	☐			3225.53	0.0007	P	9.5

$$y = 0.0028 * x + 6.3255E-005$$

$$R = 1.0000$$

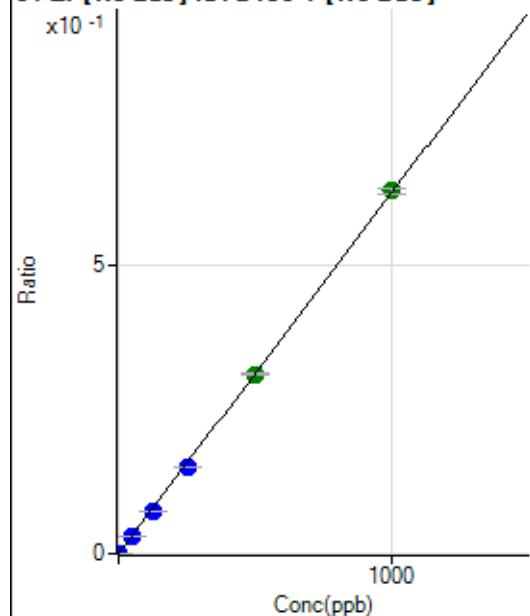
$$DL = 0.007666$$

$$BEC = 0.02297$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.22	0.0000	P	3.5
2	☐	0.100					
3	☐	1.000	0.944	2628.15	0.0006	P	2.5
4	☐	50.000	47.237	132576.96	0.0295	P	1.9
5	☐	125.000	118.427	336857.03	0.0739	P	0.4
6	☐	250.000	238.318	687208.84	0.1487	P	0.5
7	☐	500.000	496.448	1467116.01	0.3097	A	1.3
8	☐	1000.000	1005.656	2944739.65	0.6272	A	1.5
9	☐			802.84	0.0002	P	14.3

$$y = 6.2370E-004 * x + 1.6930E-005$$

$$R = 0.9999$$

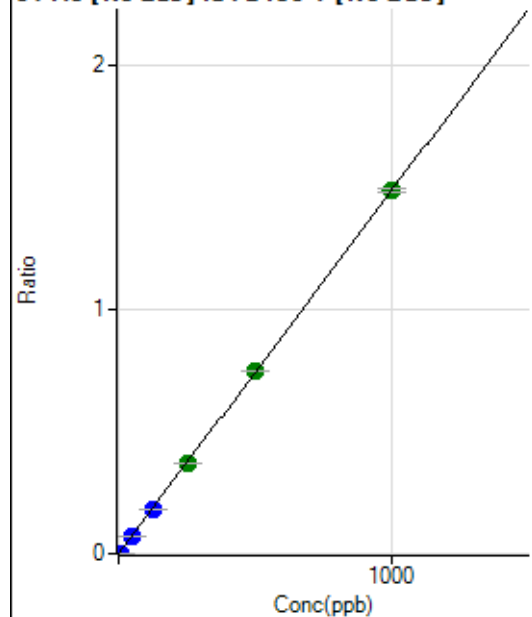
$$DL = 0.002874$$

$$BEC = 0.02714$$

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	127.78	0.0000	P	30.6
2	☐	0.500					
3	☐	5.000	2.037	13282.11	0.0031	P	3.9
4	☐	50.000	48.742	326334.83	0.0726	P	2.5
5	☐	125.000	121.571	825037.70	0.1809	P	0.3
6	☐	250.000	248.375	1708805.47	0.3696	A	0.3
7	☐	500.000	502.408	3542337.14	0.7477	A	0.2
8	☐	1000.000	999.709	6984441.74	1.4877	A	1.0
9	☐			11029.95	0.0023	P	3.8

$$y = 0.0015 * x + 2.9807E-005$$

$$R = 1.0000$$

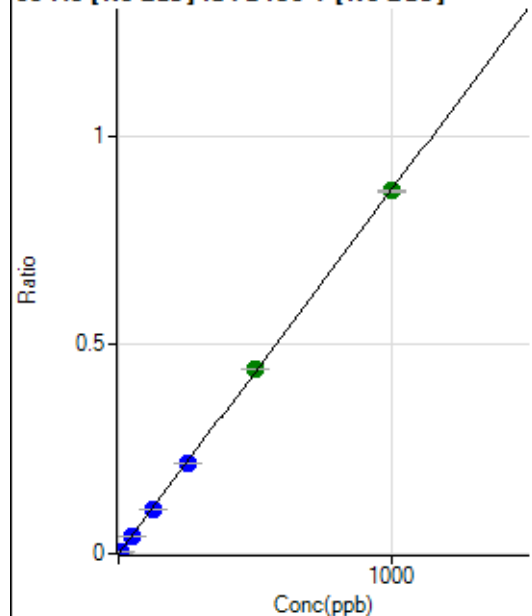
$$DL = 0.01838$$

$$BEC = 0.02003$$

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	16.67	0.0000	P	132.1
2	☐	0.500					
3	☐	5.000	4.399	16621.86	0.0038	P	2.6
4	☐	50.000	48.916	191471.63	0.0426	P	2.5
5	☐	125.000	121.826	483438.43	0.1060	P	0.2
6	☐	250.000	247.137	994270.16	0.2151	P	0.4
7	☐	500.000	507.226	2091394.30	0.4414	A	0.2
8	☐	1000.000	997.556	4075813.16	0.8682	A	0.7
9	☐			17117.00	0.0036	P	1.6

$$y = 8.7028E-004 * x + 3.8321E-006$$

$$R = 1.0000$$

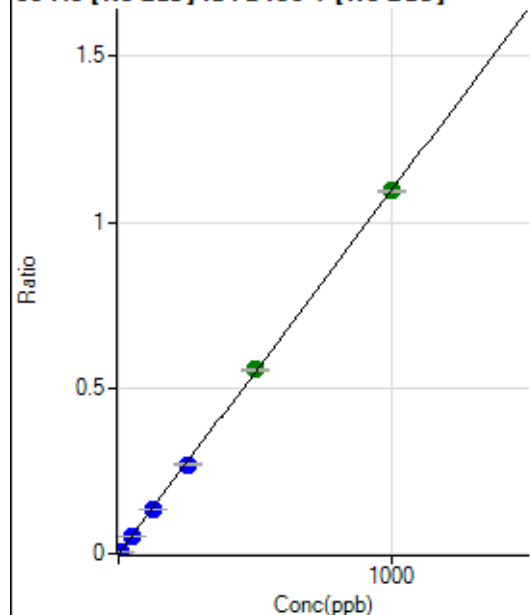
$$DL = 0.01746$$

$$BEC = 0.004403$$

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	75.00	0.0000	P	11.1
2	☐	0.500					
3	☐	5.000	3.851	18377.09	0.0042	P	1.1
4	☐	50.000	48.629	239674.66	0.0533	P	0.8
5	☐	125.000	120.636	602614.42	0.1322	P	0.4
6	☐	250.000	245.246	1241941.37	0.2687	P	0.9
7	☐	500.000	506.664	2629559.50	0.5550	A	0.8
8	☐	1000.000	998.477	5135000.03	1.0938	A	0.2
9	☐			20844.49	0.0044	P	4.0

$$y = 0.0011 * x + 1.7604E-005$$

$$R = 0.9999$$

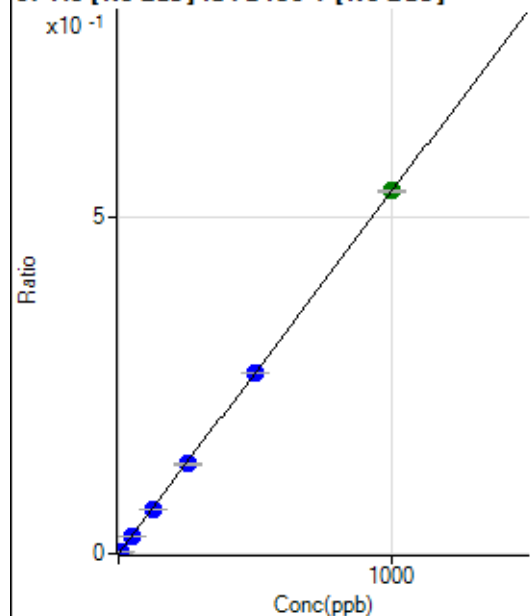
$$DL = 0.005375$$

$$BEC = 0.01607$$

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	50.00	0.0000	P	32.6
2	☐	0.500					
3	☐	5.000	4.390	10296.00	0.0024	P	4.2
4	☐	50.000	49.775	120535.17	0.0268	P	1.1
5	☐	125.000	122.436	300482.52	0.0659	P	0.6
6	☐	250.000	247.601	616021.29	0.1333	P	1.1
7	☐	500.000	498.221	1270353.04	0.2681	P	0.4
8	☐	1000.000	1001.824	2531209.98	0.5392	A	0.6
9	☐			10587.94	0.0023	P	1.2

$$y = 5.3817E-004 * x + 1.1732E-005$$

$$R = 1.0000$$

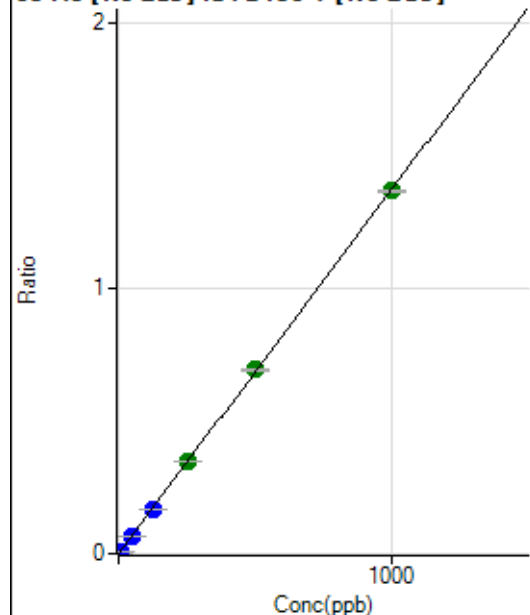
$$DL = 0.02134$$

$$BEC = 0.0218$$

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	47.22	0.0000	P	49.4
2	☐	0.500					
3	☐	5.000	4.326	25769.80	0.0059	P	2.8
4	☐	50.000	49.413	304702.19	0.0677	P	1.8
5	☐	125.000	122.936	768425.95	0.1685	P	0.8
6	☐	250.000	253.657	1607425.90	0.3477	A	1.2
7	☐	500.000	505.115	3280483.25	0.6924	A	0.9
8	☐	1000.000	996.819	6415302.40	1.3665	A	0.5
9	☐			26963.81	0.0057	P	0.8

$$y = 0.0014 * x + 1.1032E-005$$

$$R = 1.0000$$

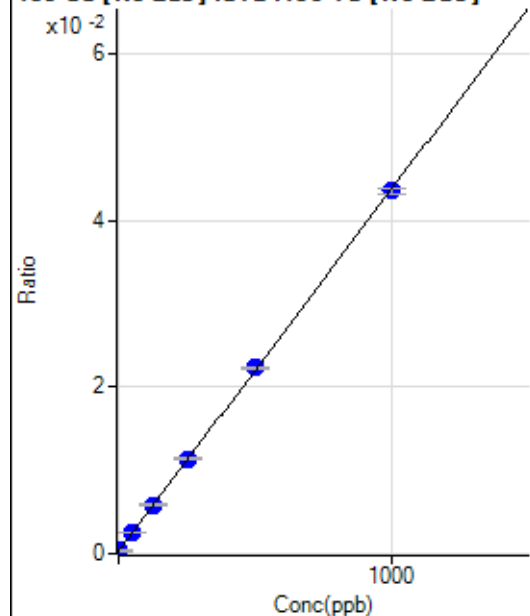
$$DL = 0.01192$$

$$BEC = 0.008048$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1150.10	0.0003	P	2.5
2	☐	0.100					
3	☐	1.000	1.378	1419.58	0.0003	P	10.6
4	☐	50.000	52.261	10802.02	0.0026	P	4.0
5	☐	125.000	127.633	25015.75	0.0058	P	1.9
6	☐	250.000	255.565	50470.61	0.0114	P	1.1
7	☐	500.000	505.863	102331.56	0.0223	P	0.5
8	☐	1000.000	995.235	200666.86	0.0436	P	1.3
9	☐			1264.01	0.0003	P	5.8

$$y = 4.3509E-005 * x + 2.8887E-004$$

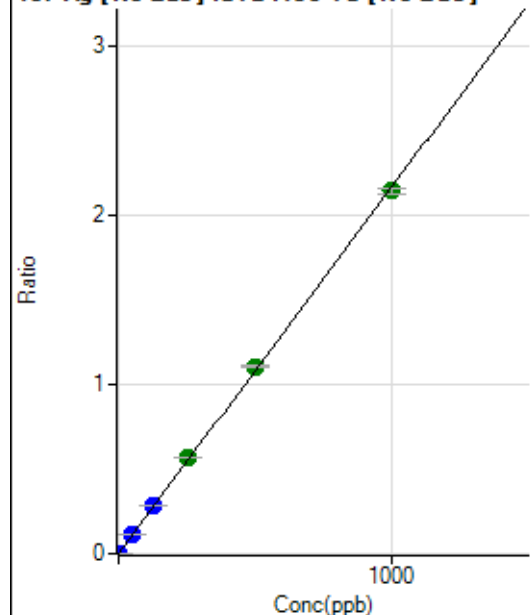
$$R = 1.0000$$

$$DL = 0.4975$$

$$BEC = 6.639$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	83.34	0.0000	P	44.7
2	☐	0.100					
3	☐	1.000	1.253	11130.04	0.0027	P	1.9
4	☐	50.000	52.707	481557.15	0.1142	P	0.7
5	☐	125.000	130.714	1213010.02	0.2833	P	1.1
6	☐	250.000	262.610	2517617.18	0.5691	A	1.3
7	☐	500.000	511.176	5083607.02	1.1077	A	0.7
8	☐	1000.000	990.409	9879641.80	2.1462	A	1.5
9	☐			1847.45	0.0004	P	5.9

$$y = 0.0022 * x + 2.0916E-005$$

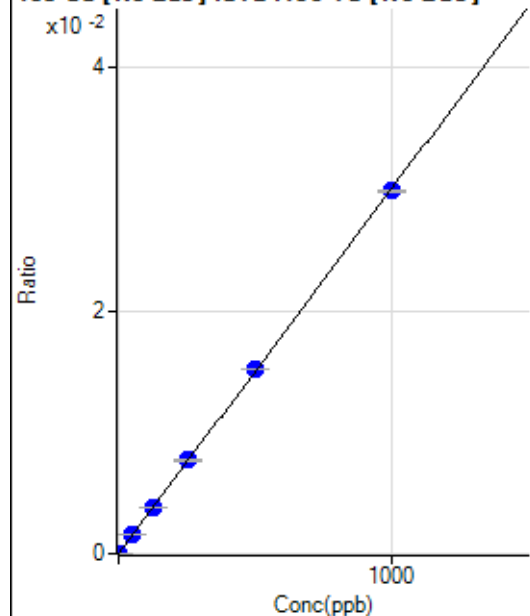
$$R = 0.9998$$

$$DL = 0.01294$$

$$BEC = 0.009652$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2.78	0.0000	P	86.7
2	☐	0.100					
3	☐	1.000	0.954	119.45	0.0000	P	10.2
4	☐	50.000	51.192	6483.65	0.0015	P	2.4
5	☐	125.000	128.250	16497.87	0.0039	P	0.4
6	☐	250.000	255.852	33998.67	0.0077	P	0.6
7	☐	500.000	506.737	69848.13	0.0152	P	0.5
8	☐	1000.000	994.703	137532.09	0.0299	P	0.8
9	☐			52.78	0.0000	P	30.4

$$y = 3.0034E-005 * x + 7.0786E-007$$

$$R = 0.9999$$

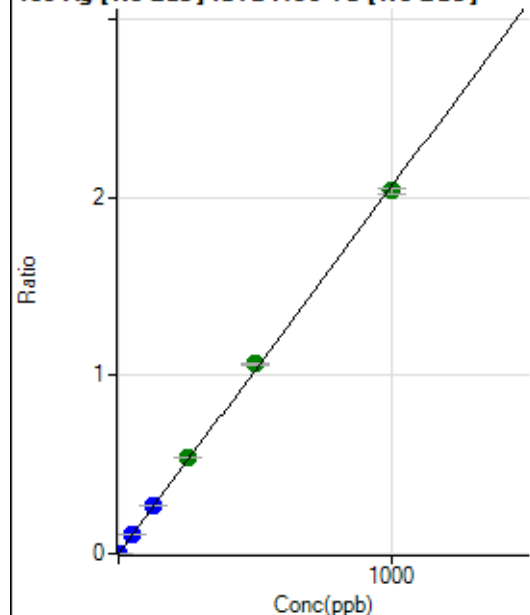
$$DL = 0.06133$$

$$BEC = 0.02357$$

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	22.22	0.0000	P	59.9
2	☐	0.100					
3	☐	1.000	1.301	10938.30	0.0027	P	2.3
4	☐	50.000	52.292	454645.87	0.1079	P	1.4
5	☐	125.000	128.928	1138725.44	0.2659	P	0.6
6	☐	250.000	262.462	2394881.78	0.5413	A	0.3
7	☐	500.000	516.298	4886806.31	1.0648	A	0.4
8	☐	1000.000	988.130	9381721.39	2.0380	A	1.5
9	☐			1833.55	0.0004	P	4.5

$$y = 0.0021 * x + 5.6426E-006$$

$$R = 0.9997$$

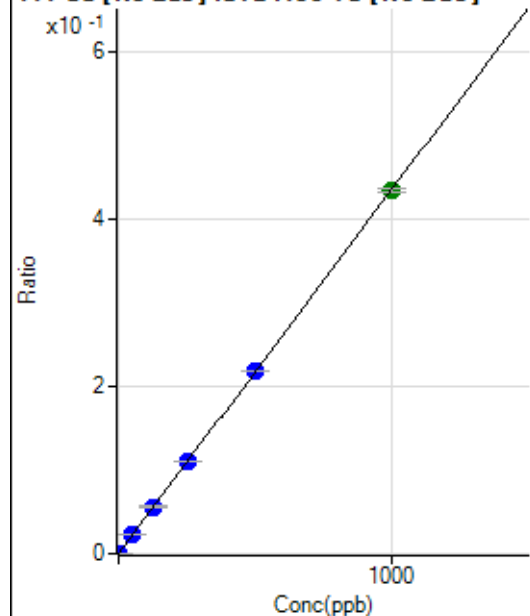
$$DL = 0.004914$$

$$BEC = 0.002736$$

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	808.68	0.0002	P	1.8
2	☐	0.100					
3	☐	1.000	1.004	2601.90	0.0006	P	6.8
4	☐	50.000	51.773	95688.02	0.0227	P	0.6
5	☐	125.000	128.581	240111.10	0.0561	P	1.3
6	☐	250.000	254.372	489876.34	0.1107	P	0.8
7	☐	500.000	502.215	1002384.42	0.2184	P	0.2
8	☐	1000.000	997.263	1995754.02	0.4335	A	1.2
9	☐			1350.66	0.0003	P	7.3

$$y = 4.3451E-004 * x + 2.0308E-004$$

$$R = 1.0000$$

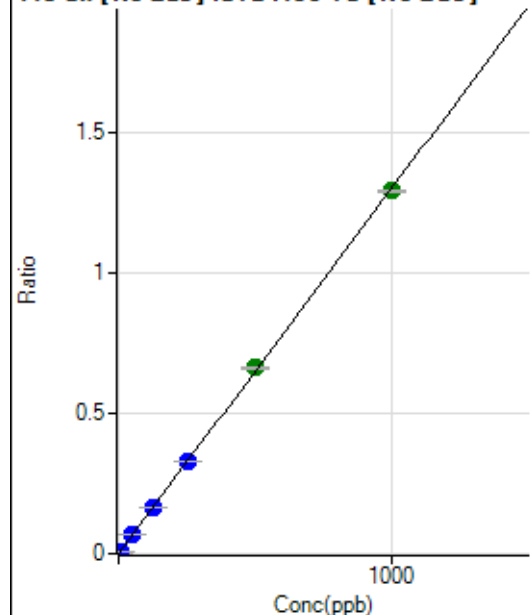
$$DL = 0.02572$$

$$BEC = 0.4674$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	808.39	0.0002	P	5.9
2	☐	0.500					
3	☐	5.000	4.565	24990.98	0.0061	P	1.2
4	☐	50.000	51.055	280932.43	0.0666	P	0.4
5	☐	125.000	127.592	711839.81	0.1662	P	1.7
6	☐	250.000	253.341	1459353.24	0.3299	P	1.4
7	☐	500.000	509.911	3046022.49	0.6637	A	1.2
8	☐	1000.000	993.835	5954561.72	1.2935	A	0.6
9	☐			6849.26	0.0015	P	1.4

$$y = 0.0013 * x + 2.0268E-004$$

$$R = 0.9999$$

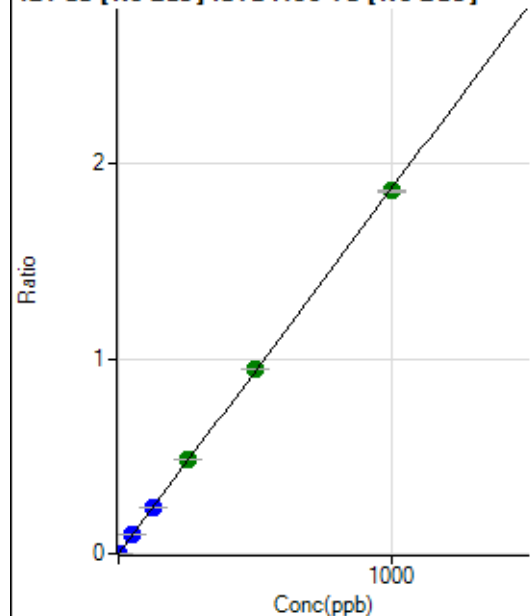
$$DL = 0.02778$$

$$BEC = 0.1558$$

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	13.89	0.0000	P	67.5
2	☐	0.200					
3	☐	2.000	1.861	14188.61	0.0035	P	1.9
4	☐	50.000	51.132	403489.01	0.0957	P	1.8
5	☐	125.000	128.049	1026462.88	0.2397	P	1.2
6	☐	250.000	257.103	2129382.49	0.4813	A	0.8
7	☐	500.000	507.650	4361204.57	0.9503	A	0.2
8	☐	1000.000	993.962	8565742.64	1.8607	A	0.5
9	☐			19356.48	0.0042	P	1.2

$$y = 0.0019 * x + 3.4626E-006$$

$$R = 0.9999$$

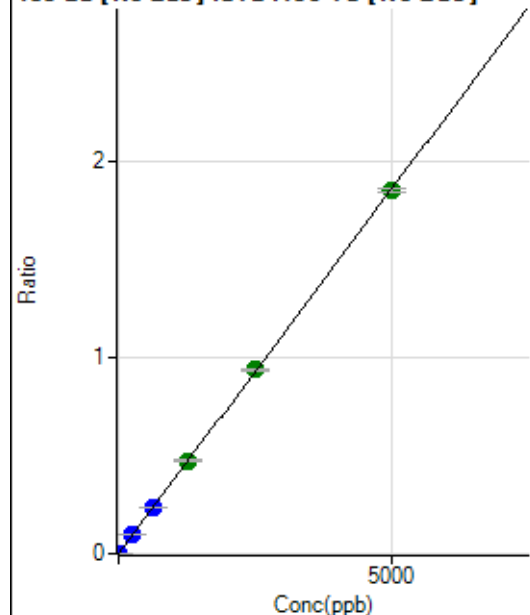
$$DL = 0.003747$$

$$BEC = 0.00185$$

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	19.44	0.0000	P	50.9
2	☐	1.000					
3	☐	10.000	9.001	13640.90	0.0034	P	1.0
4	☐	250.000	253.891	398095.24	0.0944	P	1.0
5	☐	625.000	630.643	1004455.94	0.2346	P	1.2
6	☐	1250.000	1279.234	2104996.38	0.4758	A	0.8
7	☐	2500.000	2526.694	4312848.05	0.9398	A	0.8
8	☐	5000.000	4978.447	8524243.33	1.8517	A	1.1
9	☐			4281.44	0.0009	P	3.4

$$y = 3.7194\text{E-}004 * x + 4.9230\text{E-}006$$

$$R = 1.0000$$

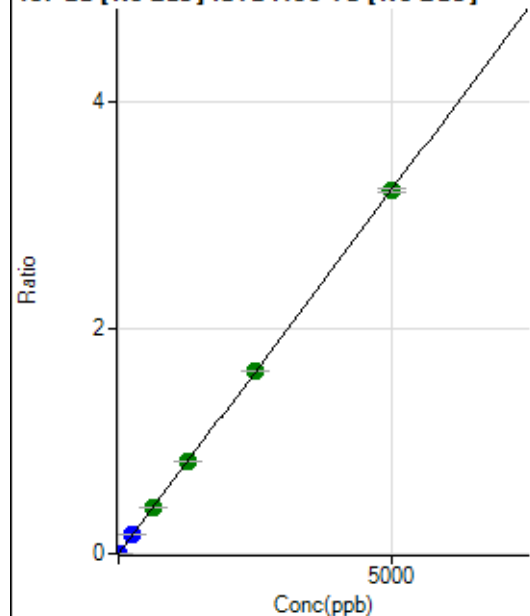
$$DL = 0.02022$$

$$BEC = 0.01324$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	55.56	0.0000	P	50.3
2	☐	1.000					
3	☐	10.000	8.974	23594.11	0.0058	P	0.6
4	☐	250.000	254.574	691817.92	0.1641	P	1.8
5	☐	625.000	637.427	1759678.79	0.4109	A	0.8
6	☐	1250.000	1271.019	3624938.14	0.8194	A	0.7
7	☐	2500.000	2508.264	7420515.09	1.6169	A	0.5
8	☐	5000.000	4988.833	14804822.03	3.2160	A	1.2
9	☐			7524.71	0.0016	P	1.8

$$y = 6.4464\text{E-}004 * x + 1.3778\text{E-}005$$

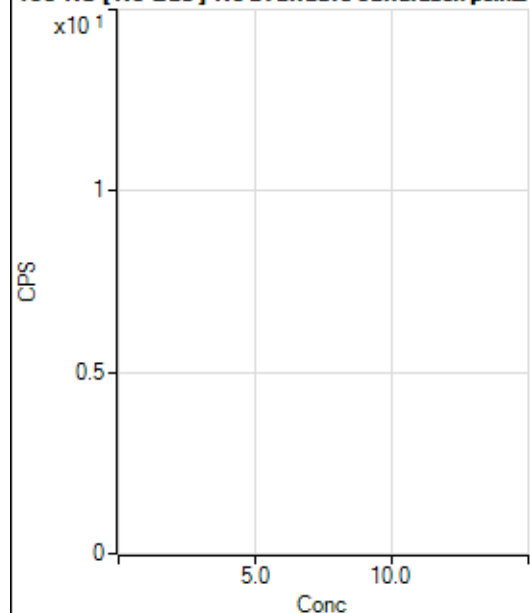
$$R = 1.0000$$

$$DL = 0.03224$$

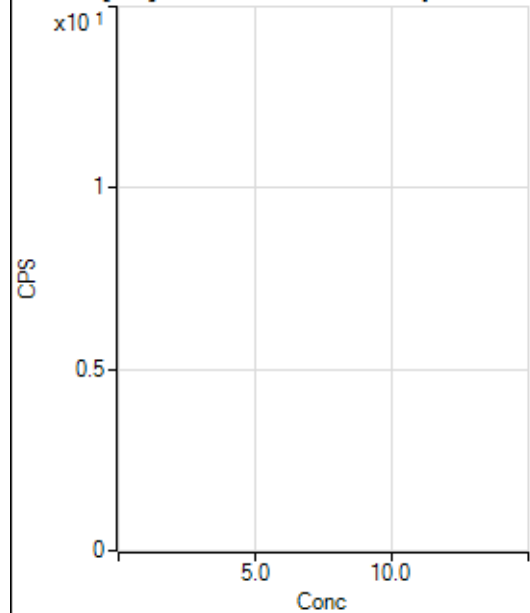
$$BEC = 0.02137$$

Weight: <None>

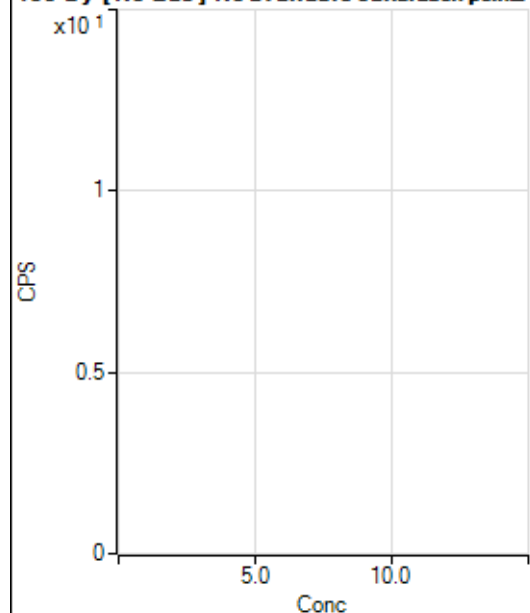
Min Conc: 0

150 Nd [No Gas] No available calibration points

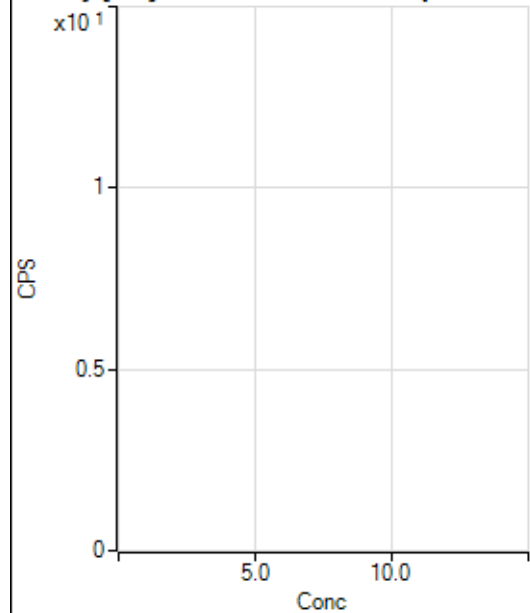
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.2
2	☐						
3	☐			11.11		P	34.6
4	☐			17.78		P	57.3
5	☐			35.56		P	47.2
6	☐			66.67		P	40.0
7	☐			117.78		P	17.3
8	☐			251.12		P	12.0
9	☐			115.56		P	29.6

150 Nd [He] No available calibration points

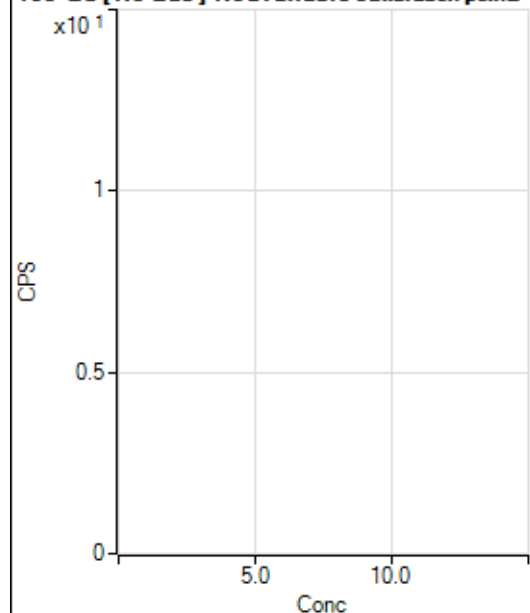
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐						
3	☐			0.00		P	
4	☐			2.22		P	86.6
5	☐			2.22		P	86.6
6	☐			6.67		P	100.0
7	☐			5.55		P	69.3
8	☐			11.11		P	62.5
9	☐			22.22		P	34.7

156 Dy [No Gas] No available calibration points

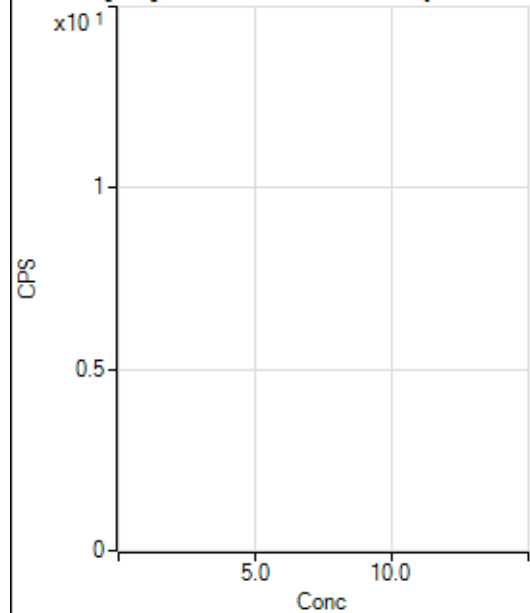
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	34.7
2	☐						
3	☐			11.11		P	43.3
4	☐			13.89		P	69.3
5	☐			30.56		P	31.5
6	☐			41.67		P	0.0
7	☐			55.56		P	70.9
8	☐			125.01		P	17.6
9	☐			100.01		P	41.7

156 Dy [He] No available calibration points

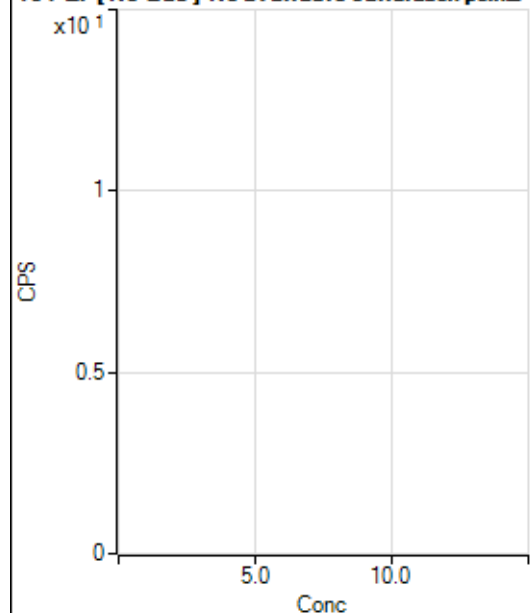
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐						
3	☐			3.33		P	100.1
4	☐			0.00		P	
5	☐			1.11		P	173.2
6	☐			2.22		P	86.6
7	☐			7.78		P	65.5
8	☐			14.45		P	26.7
9	☐			27.78		P	6.9

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

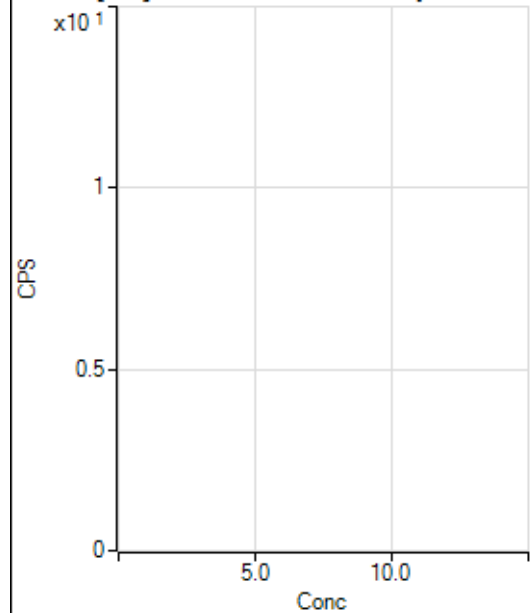
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			44.45		P	47.2
2	☐						
3	☐			66.67		P	0.0
4	☐			44.44		P	21.7
5	☐			41.67		P	20.0
6	☐			41.67		P	34.6
7	☐			91.67		P	15.7
8	☐			88.89		P	42.3
9	☐			138.90		P	6.9

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	0.0
2	☐						
3	☐			10.00		P	57.7
4	☐			11.11		P	17.3
5	☐			14.45		P	48.0
6	☐			10.00		P	100.0
7	☐			26.67		P	33.1
8	☐			23.33		P	42.9
9	☐			60.00		P	19.2

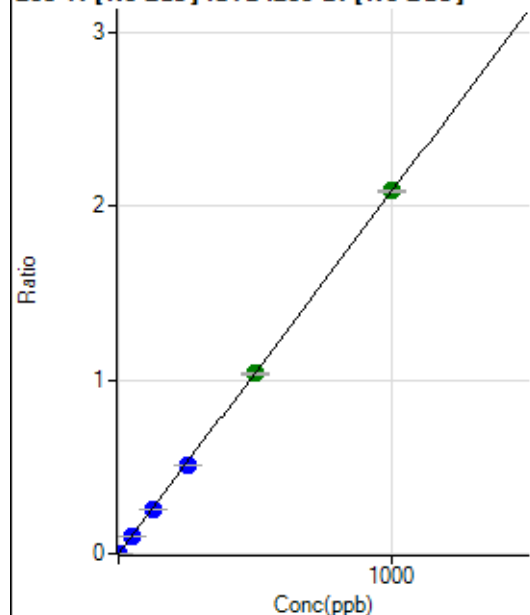
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	21.6
2	☐						
3	☐			22.22		P	86.6
4	☐			13.89		P	91.6
5	☐			8.33		P	0.0
6	☐			38.89		P	86.6
7	☐			30.56		P	31.5
8	☐			30.56		P	103.3
9	☐			55.56		P	34.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	100.0
2	☐						
3	☐			6.67		P	86.6
4	☐			15.56		P	32.7
5	☐			6.67		P	100.0
6	☐			8.89		P	57.3
7	☐			4.44		P	43.4
8	☐			6.66		P	86.6
9	☐			20.00		P	28.9

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0000	P	10.6
2	☐	0.100					
3	☐	1.000	0.930	4198.13	0.0020	P	6.2
4	☐	50.000	49.054	230634.38	0.1023	P	1.1
5	☐	125.000	123.551	581185.39	0.2575	P	0.1
6	☐	250.000	246.248	1201834.86	0.5133	P	0.6
7	☐	500.000	497.953	2530399.95	1.0379	A	1.5
8	☐	1000.000	1002.190	5111115.74	2.0889	A	0.4
9	☐			2344.79	0.0010	P	5.7

$$y = 0.0021 * x + 3.0120E-005$$

$$R = 1.0000$$

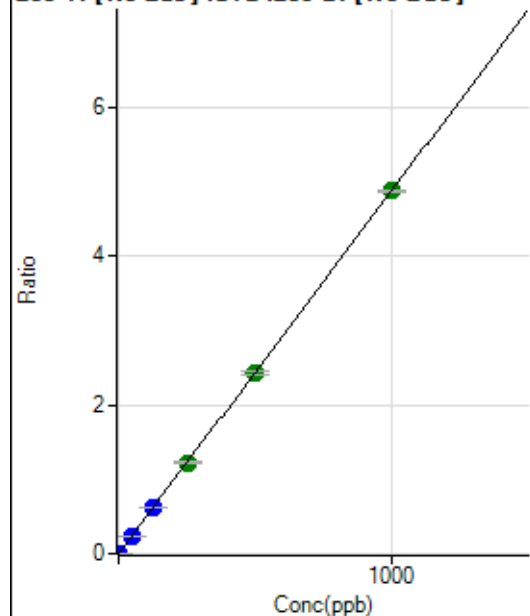
$$DL = 0.004599$$

$$BEC = 0.01445$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	97.23	0.0000	P	22.3
2	☐	0.100					
3	☐	1.000	0.937	9854.30	0.0046	P	1.7
4	☐	50.000	49.545	545696.31	0.2420	P	1.5
5	☐	125.000	125.560	1383779.92	0.6132	P	0.1
6	☐	250.000	251.219	2872494.75	1.2269	A	0.5
7	☐	500.000	498.928	5940163.94	2.4365	A	1.7
8	☐	1000.000	1000.184	11951290.63	4.8844	A	0.7
9	☐			5748.78	0.0024	P	4.7

$$y = 0.0049 * x + 4.6003E-005$$

$$R = 1.0000$$

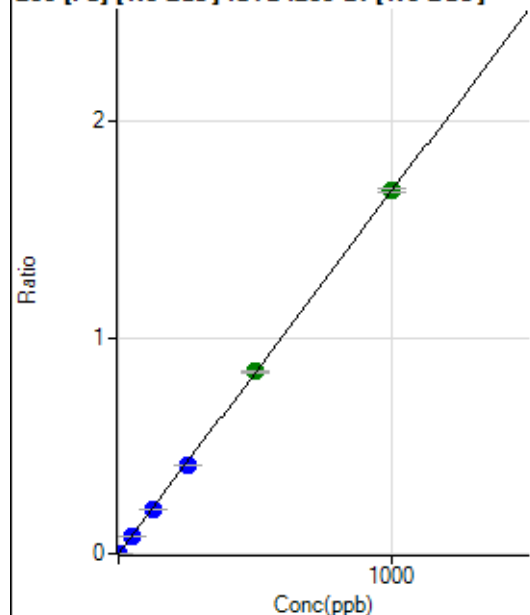
$$DL = 0.006303$$

$$BEC = 0.00942$$

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	216.68	0.0001	P	8.2
2	☐	0.100					
3	☐	1.000	1.036	3921.10	0.0018	P	5.4
4	☐	50.000	48.386	183288.45	0.0813	P	1.6
5	☐	125.000	123.512	467828.93	0.2073	P	1.5
6	☐	250.000	242.858	954240.28	0.4076	P	0.6
7	☐	500.000	502.108	2054149.06	0.8425	A	1.0
8	☐	1000.000	1000.998	4109550.90	1.6796	A	0.9
9	☐			10693.69	0.0045	P	3.8

$$y = 0.0017 * x + 1.0192E-004$$

$$R = 1.0000$$

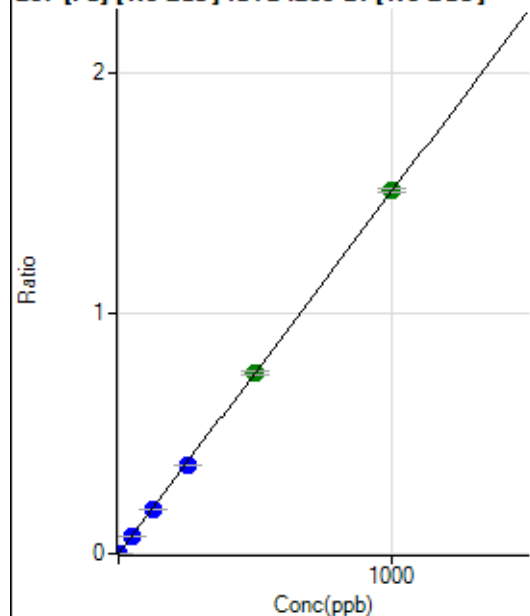
$$DL = 0.01487$$

$$BEC = 0.06074$$

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	205.56	0.0001	P	10.4
2	☐	0.100					
3	☐	1.000	1.044	3558.02	0.0017	P	2.3
4	☐	50.000	48.336	164397.50	0.0729	P	1.6
5	☐	125.000	123.768	420874.10	0.1865	P	1.0
6	☐	250.000	243.308	858267.78	0.3666	P	0.3
7	☐	500.000	498.785	1831788.26	0.7514	A	1.5
8	☐	1000.000	1002.518	3694917.50	1.5101	A	1.0
9	☐			8894.14	0.0038	P	2.7

$$y = 0.0015 * x + 9.6626E-005$$

$$R = 1.0000$$

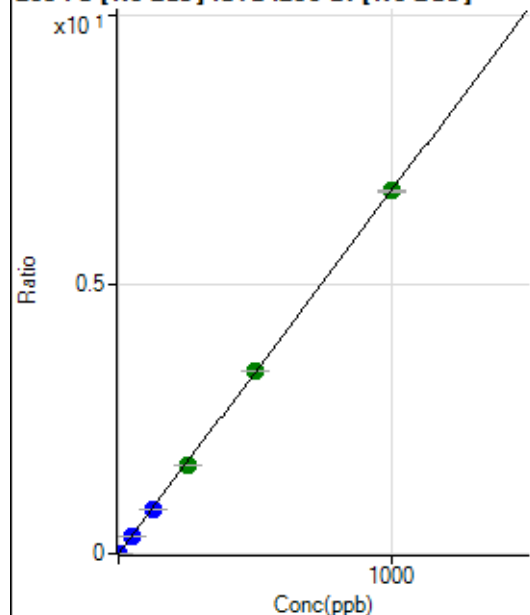
$$DL = 0.01992$$

$$BEC = 0.06415$$

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	914.86	0.0004	P	7.9
2	☐	0.100					
3	☐	1.000	1.037	15817.28	0.0074	P	0.5
4	☐	50.000	48.688	741217.50	0.3287	P	0.8
5	☐	125.000	124.021	1887752.84	0.8366	P	0.6
6	☐	250.000	245.488	3876047.93	1.6555	A	0.6
7	☐	500.000	504.227	8289060.17	3.3999	A	0.6
8	☐	1000.000	999.202	16483987.12	6.7369	A	0.6
9	☐			41852.28	0.0177	P	1.3

$$y = 0.0067 * x + 4.3055E-004$$

$$R = 1.0000$$

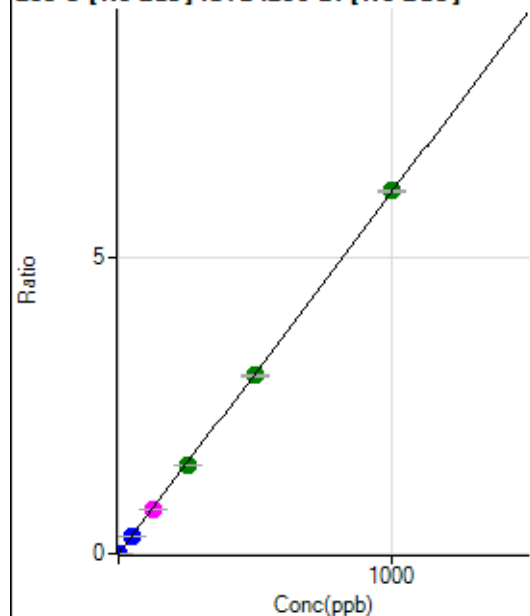
$$DL = 0.01517$$

$$BEC = 0.06386$$

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	69.45	0.0000	P	41.6
2	☐	0.100					
3	☐	1.000	0.874	11425.18	0.0054	P	2.2
4	☐	50.000	47.299	650197.25	0.2883	P	1.7
5	☐	125.000	121.911	1677016.12	0.7431	M	0.9
6	☐	250.000	246.111	3512495.96	1.5002	A	0.4
7	☐	500.000	492.973	7326181.68	3.0049	A	1.1
8	☐	1000.000	1005.007	14989238.36	6.1260	A	0.6
9	☐			3778.53	0.0016	P	5.3

$$y = 0.0061 * x + 3.2720E-005$$

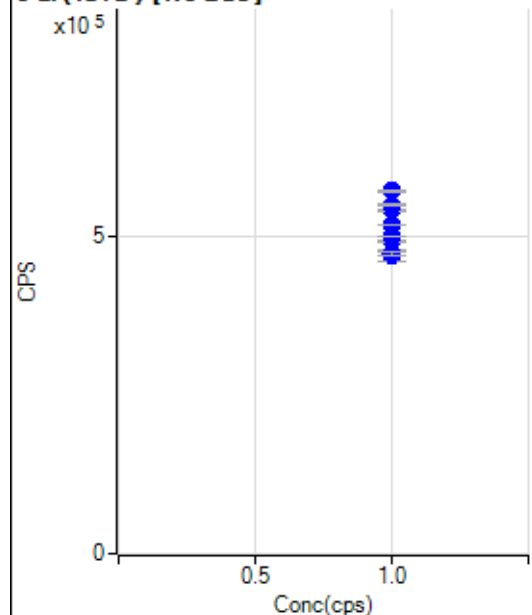
$$R = 1.0000$$

$$DL = 0.006697$$

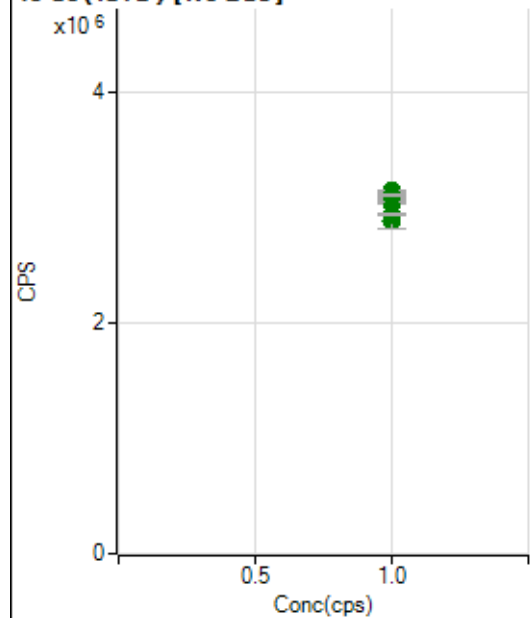
$$BEC = 0.005368$$

Weight: <None>

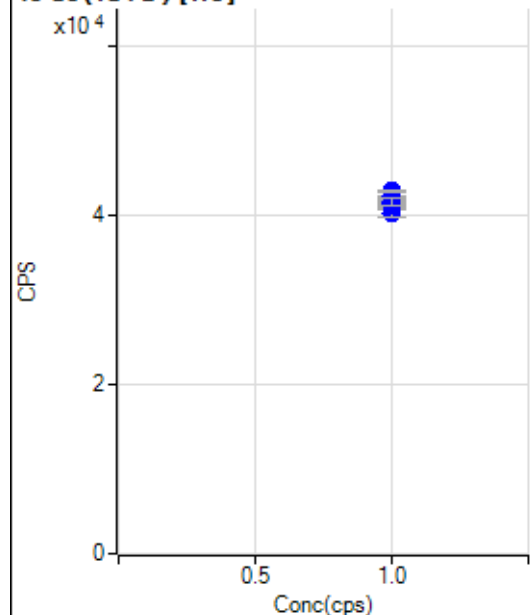
Min Conc: 0

6 Li (ISTD) [No Gas]

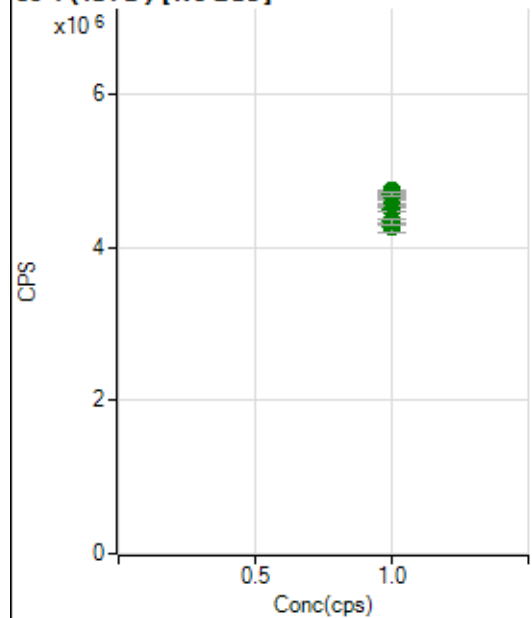
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		470220.88		P	3.6
2	☐	1.000					
3	☐	1.000		471810.57		P	1.4
4	☐	1.000		493082.81		P	0.7
5	☐	1.000		500223.82		P	0.1
6	☐	1.000		518028.23		P	0.5
7	☐	1.000		541036.50		P	0.2
8	☐	1.000		549195.56		P	0.5
9	☐	1.000		571715.67		P	0.8

45 Sc (ISTD) [No Gas]

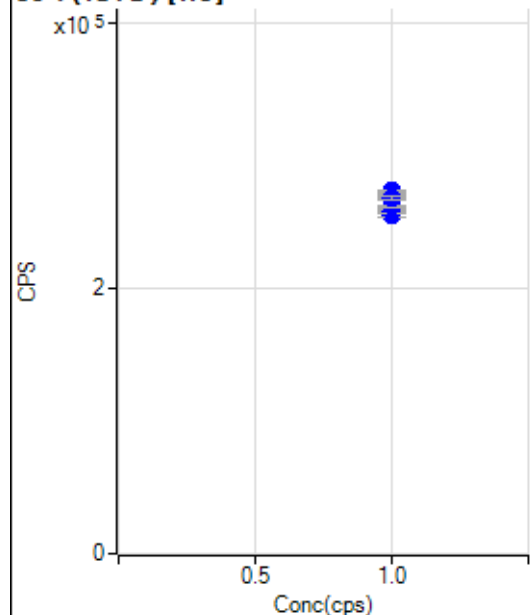
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2885553.19		A	4.4
2	☐	1.000					
3	☐	1.000		2942224.57		A	0.6
4	☐	1.000		3044192.80		A	0.7
5	☐	1.000		3058410.11		A	0.4
6	☐	1.000		3080168.95		A	0.7
7	☐	1.000		3148356.12		A	0.5
8	☐	1.000		3062738.11		A	1.0
9	☐	1.000		3109984.01		A	0.4

45 Sc (ISTD) [He]

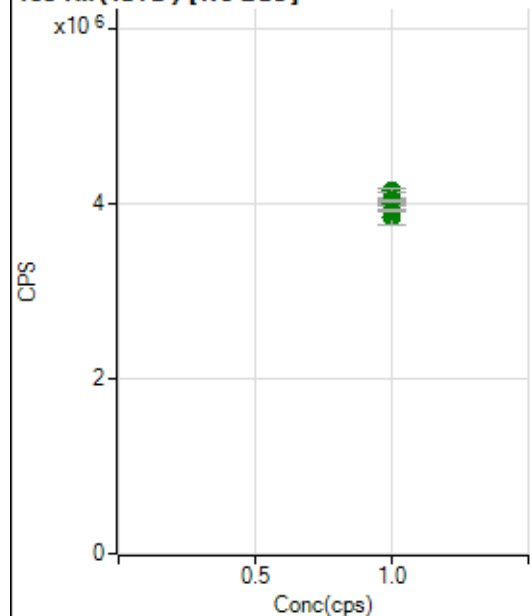
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		40220.88		P	2.3
2	☐	1.000					
3	☐	1.000		41214.90		P	1.1
4	☐	1.000		42448.56		P	1.4
5	☐	1.000		42687.03		P	1.3
6	☐	1.000		42421.78		P	2.1
7	☐	1.000		42950.01		P	0.8
8	☐	1.000		41449.97		P	1.2
9	☐	1.000		41623.93		P	1.9

89 Y (ISTD) [No Gas]

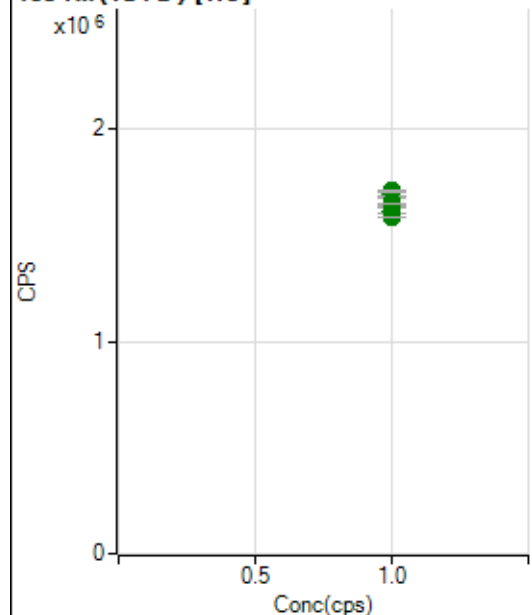
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		4262829.83		A	3.2
2	☐	1.000					
3	☐	1.000		4338289.90		A	1.6
4	☐	1.000		4498156.04		A	1.3
5	☐	1.000		4559591.11		A	0.7
6	☐	1.000		4622794.27		A	0.5
7	☐	1.000		4737743.96		A	0.5
8	☐	1.000		4694815.04		A	0.5
9	☐	1.000		4695240.69		A	0.7

89 Y (ISTD) [He]

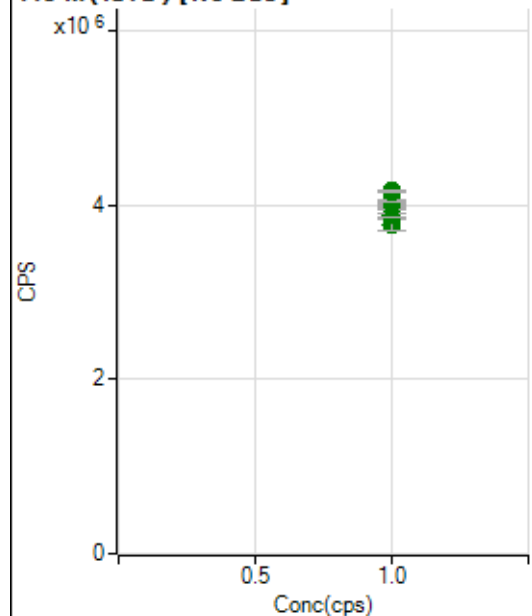
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		255951.46		P	1.9
2	☐	1.000					
3	☐	1.000		258389.41		P	1.0
4	☐	1.000		269433.29		P	0.6
5	☐	1.000		269008.57		P	0.7
6	☐	1.000		270837.83		P	0.2
7	☐	1.000		273797.22		P	0.6
8	☐	1.000		262275.09		P	0.3
9	☐	1.000		269058.79		P	1.1

103 Rh (ISTD) [No Gas]

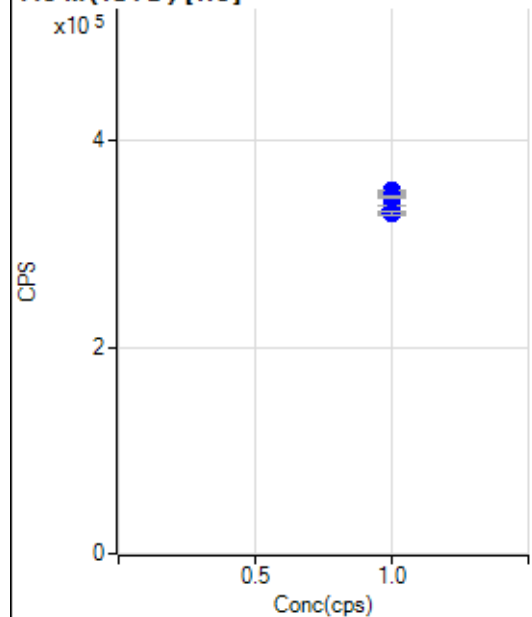
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		3844966.01		A	3.7
2	☐	1.000					
3	☐	1.000		3913738.28		A	0.3
4	☐	1.000		4000585.20		A	0.6
5	☐	1.000		4007766.80		A	1.3
6	☐	1.000		4058460.12		A	0.3
7	☐	1.000		4154127.35		A	0.9
8	☐	1.000		4041796.71		A	0.1
9	☐	1.000		3919998.22		A	0.6

103 Rh (ISTD) [He]

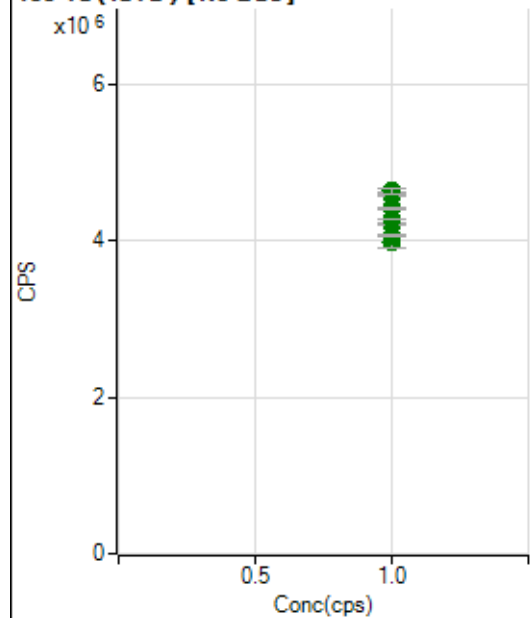
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1617516.35		A	1.1
2	☐	1.000					
3	☐	1.000		1637127.35		A	0.6
4	☐	1.000		1697330.93		A	1.1
5	☐	1.000		1677458.07		A	0.5
6	☐	1.000		1696014.61		A	0.7
7	☐	1.000		1709730.01		A	0.4
8	☐	1.000		1648285.13		A	0.2
9	☐	1.000		1587770.60		A	0.2

115 In (ISTD) [No Gas]

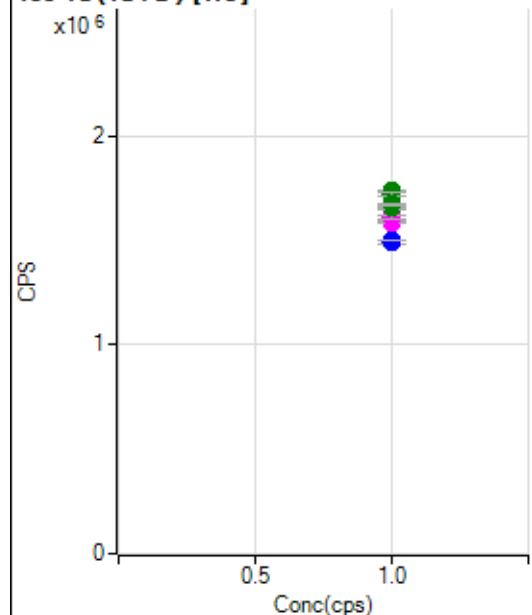
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		3772084.33		A	3.5
2	☐	1.000					
3	☐	1.000		3894310.49		A	1.1
4	☐	1.000		3965906.19		A	0.2
5	☐	1.000		4009444.26		A	0.8
6	☐	1.000		4059826.41		A	0.2
7	☐	1.000		4166413.47		A	0.4
8	☐	1.000		4051432.44		A	0.5
9	☐	1.000		4159534.39		A	0.5

115 In (ISTD) [He]

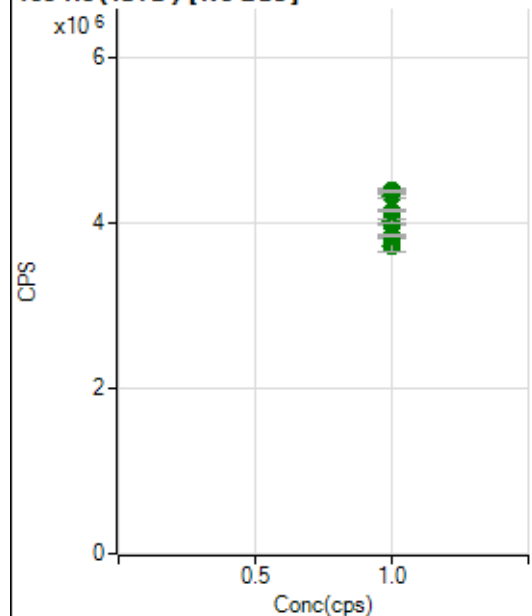
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		333620.83		P	1.8
2	☐	1.000					
3	☐	1.000		337406.67		P	0.4
4	☐	1.000		351473.25		P	0.4
5	☐	1.000		348147.35		P	0.4
6	☐	1.000		350704.79		P	0.3
7	☐	1.000		351374.25		P	0.4
8	☐	1.000		329390.43		P	0.8
9	☐	1.000		345848.36		P	0.4

159 Tb (ISTD) [No Gas]

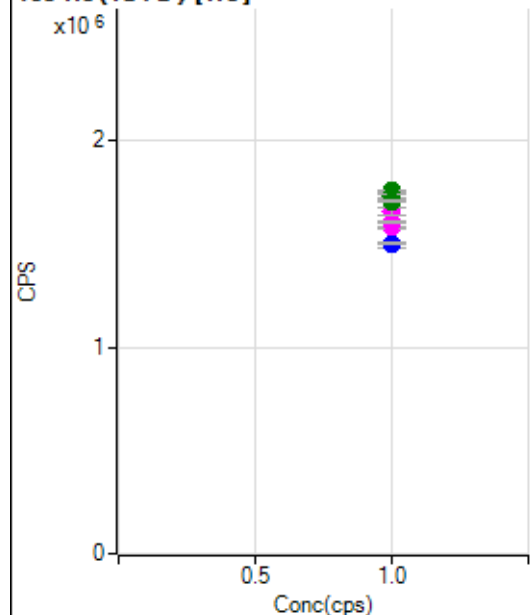
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		3983652.27		A	3.9
2	☐	1.000					
3	☐	1.000		4068672.89		A	0.4
4	☐	1.000		4215690.49		A	0.9
5	☐	1.000		4282356.88		A	0.6
6	☐	1.000		4424235.18		A	0.8
7	☐	1.000		4589273.27		A	0.3
8	☐	1.000		4603680.87		A	0.6
9	☐	1.000		4643202.08		A	1.5

159 Tb (ISTD) [He]

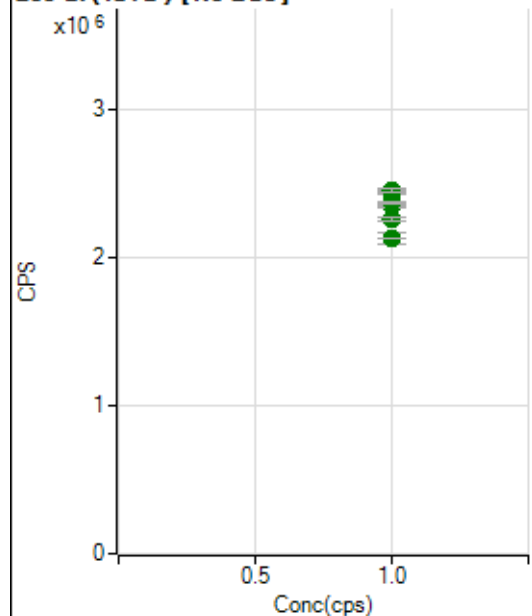
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1491863.22		P	1.4
2	☐	1.000					
3	☐	1.000		1499935.01		P	0.2
4	☐	1.000		1586287.65		M	0.4
5	☐	1.000		1605632.86		M	1.2
6	☐	1.000		1653982.63		A	0.8
7	☐	1.000		1735793.06		A	0.7
8	☐	1.000		1722928.81		A	1.1
9	☐	1.000		1672573.57		A	0.4

165 Ho (ISTD) [No Gas]

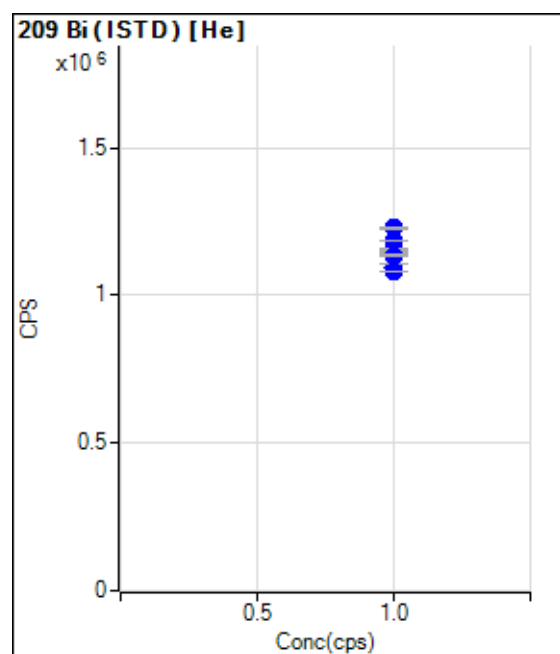
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		3734617.14		A	3.9
2	☐	1.000					
3	☐	1.000		3851490.10		A	0.8
4	☐	1.000		3977286.42		A	0.4
5	☐	1.000		4025611.94		A	0.8
6	☐	1.000		4143769.93		A	0.5
7	☐	1.000		4330740.72		A	0.7
8	☐	1.000		4390910.43		A	1.1
9	☐	1.000		4380810.56		A	0.7

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1493330.62		P	1.5
2	☐	1.000					
3	☐	1.000		1502218.12		P	0.7
4	☐	1.000		1578986.39		M	0.4
5	☐	1.000		1603926.66		M	0.7
6	☐	1.000		1652402.03		M	2.4
7	☐	1.000		1755263.34		A	0.7
8	☐	1.000		1726822.80		A	1.2
9	☐	1.000		1706291.56		A	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2126558.27		A	4.1
2	☐	1.000					
3	☐	1.000		2131489.99		A	0.0
4	☐	1.000		2255195.31		A	1.0
5	☐	1.000		2256601.84		A	0.7
6	☐	1.000		2341376.30		A	0.7
7	☐	1.000		2438111.27		A	0.7
8	☐	1.000		2446767.90		A	0.9
9	☐	1.000		2367707.15		A	0.2



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1093998.58		P	2.0
2	☐	1.000					
3	☐	1.000		1080352.66		P	0.4
4	☐	1.000		1142835.54		P	0.4
5	☐	1.000		1156548.59		P	0.3
6	☐	1.000		1185113.26		P	0.4
7	☐	1.000		1229008.72		P	0.7
8	☐	1.000		1228306.29		P	0.9
9	☐	1.000		1135316.66		P	0.9

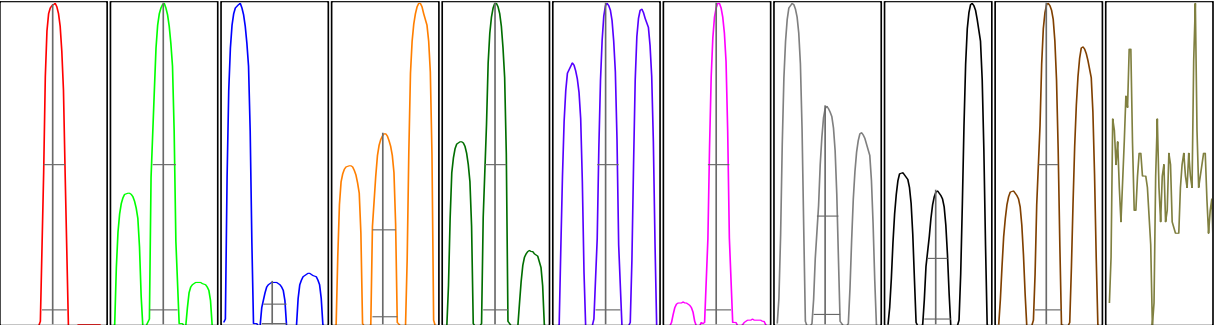
US EPA Tune Check Sample Report

Batch Folder D:\P8070617.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	6322	0.92	5.00	
24	107019	1.28	5.00	
25	14353	0.99	5.00	
26	17194	0.99	5.00	
59	79274	0.62	5.00	
113	9582	1.23	5.00	
115	131047	1.55	5.00	
206	17016	1.58	5.00	
207	15228	1.79	5.00	
208	36375	2.17	5.00	
220	1	17.64		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	6328	6364	6326	6370	6225
24	106393	105239	106663	108478	108322
25	14335	14122	14369	14480	14458
26	17113	17011	17151	17462	17234
59	79943	78773	78829	79540	79283
113	9686	9513	9659	9408	9644
115	130940	129101	134180	129449	131565
206	16654	16844	17059	17210	17314
207	15045	14962	15101	15441	15589
208	35930	35999	35580	36860	37507
220	1	1	1	1	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	10217	9.00	8.9 - 9.1		0.741	0.900	
24	170042	24.00	23.9 - 24.1		0.789	0.900	
25	22925	24.95	24.9 - 25.1		0.742	0.900	
26	27474	25.95	25.9 - 26.1		0.742	0.900	
59	132724	59.00	58.9 - 59.1		0.740	0.900	
113	17480	113.00	112.9 - 113.1		0.735	0.900	
115	235391	115.00	114.9 - 115.1		0.735	0.900	
206	30436	205.95	205.9 - 206.1		0.777	0.900	
207	26854	206.95	206.9 - 207.1		0.779	0.900	
208	64278	207.95	207.9 - 208.1		0.778	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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	10.4	V	Deflect	13.8	V
Extract 2	-245.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-115	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	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	14998	0.16	
89	2096	0.84	
205	15956	0.79	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	15036	14973	15003	14989	14989
89	2120	2109	2092	2079	2082
205	16100	16002	15948	15978	15755

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	10.4	V	Deflect	1.8	V
Extract 2	-245.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-115	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	5.0	mL/min	OctP RF	200	V			