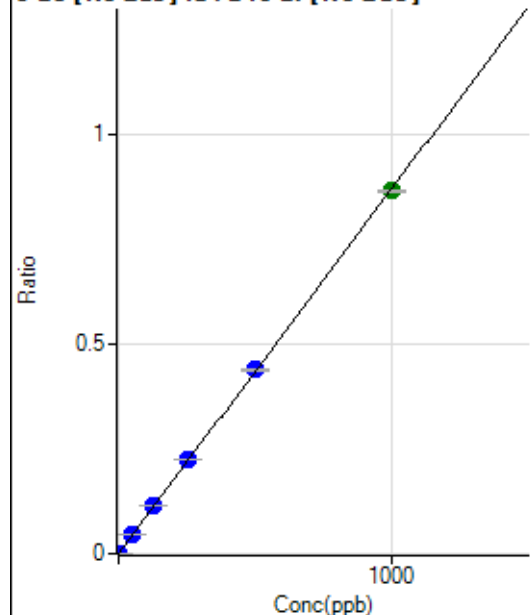


Calibration for 003CALB.d

Batch Folder: D:\ICP-MS Data\P7102418 MS.b\
 Analysis File: P7102418 MS.batch.bin
 DA Date-Time: 2018-10-24 20:08:57
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-10-24 11:27:03
2	004CALS.d	S01	2018-10-24 11:30:37
3	005CALS.d	S02	2018-10-24 11:35:14
4	006CALS.d	S03	2018-10-24 11:39:08
5	007CALS.d	S04	2018-10-24 11:43:09
6	008CALS.d	S05	2018-10-24 11:46:56
7	009CALS.d	S06	2018-10-24 11:50:40
8	010CALS.d	S07	2018-10-24 11:54:23
9	011CALS.d	S08	2018-10-24 11:58:08

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	44.45	0.0000	P	44.0
2	☐	0.100	0.105	574.10	0.0001	P	5.8
3	☐	1.000	1.079	5449.25	0.0009	P	2.2
4	☐	50.000	52.829	267155.89	0.0459	P	1.1
5	☐	125.000	131.771	664763.79	0.1144	P	0.5
6	☐	250.000	257.792	1258495.78	0.2239	P	0.6
7	☐	500.000	504.078	2396674.50	0.4377	P	0.7
8	☐	1000.000	995.025	4622460.93	0.8640	A	0.4
9	☐			618.55	0.0001	P	1.3

$$y = 8.6836E-004 * x + 7.8679E-006$$

$$R = 0.9999$$

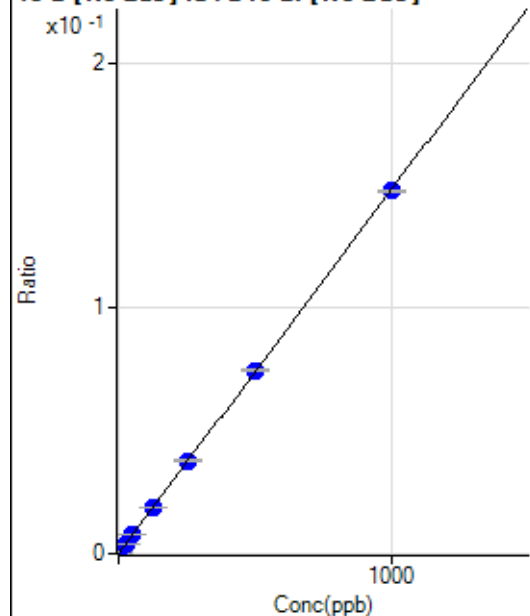
$$DL = 0.01196$$

$$BEC = 0.009061$$

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	347.24	0.0001	P	8.8
2	☐	2.500	2.506	2514.21	0.0004	P	2.4
3	☐	25.000	25.625	22292.18	0.0039	P	1.3
4	☐	50.000	51.068	44491.25	0.0076	P	1.1
5	☐	125.000	127.535	110325.38	0.0190	P	0.5
6	☐	250.000	254.688	212851.76	0.0379	P	1.3
7	☐	500.000	503.967	409893.46	0.0749	P	1.8
8	☐	1000.000	996.458	791537.13	0.1480	P	0.8
9	☐			12778.11	0.0025	P	11.3

$$y = 1.4842E-004 * x + 6.1576E-005$$

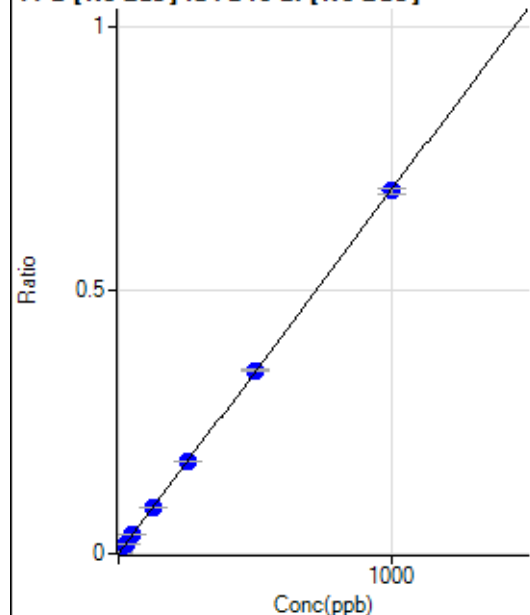
$$R = 1.0000$$

$$DL = 0.1096$$

$$BEC = 0.4149$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1627.93	0.0003	P	10.7
2	☐	2.500	2.599	12096.98	0.0021	P	2.8
3	☐	25.000	25.695	104101.88	0.0180	P	0.8
4	☐	50.000	50.968	206810.83	0.0355	P	0.8
5	☐	125.000	126.882	511175.09	0.0880	P	0.6
6	☐	250.000	254.032	988711.27	0.1759	P	1.5
7	☐	500.000	503.332	1906462.37	0.3482	P	0.9
8	☐	1000.000	997.025	3688249.69	0.6894	P	1.2
9	☐			57463.91	0.0110	P	11.0

$$y = 6.9120E-004 * x + 2.8902E-004$$

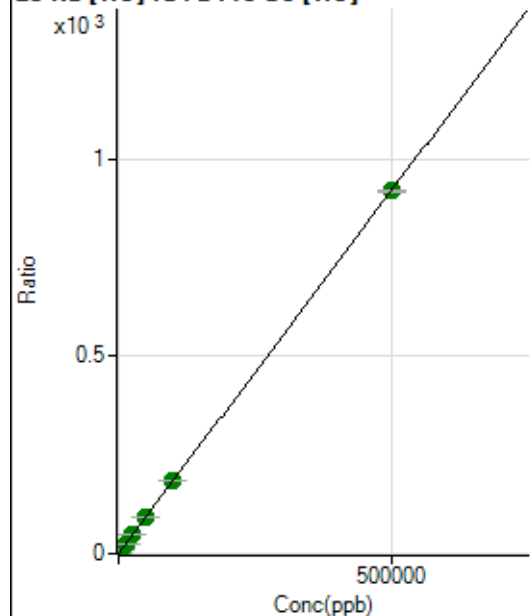
$$R = 1.0000$$

$$DL = 0.1345$$

$$BEC = 0.4181$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14004.28	0.0306	P	2.0
2	☐	50.000	49.267	56487.82	0.1213	P	1.2
3	☐	500.000	490.283	441875.30	0.9337	P	3.2
4	☐	5000.000	5091.528	4379658.65	9.4093	A	0.6
5	☐	12500.000	12725.628	10744647.29	23.4715	A	0.5
6	☐	25000.000	25679.058	20960927.90	47.3320	A	0.6
7	☐	50000.000	51026.615	41210310.30	94.0229	A	0.4
8	☐	100000.00	101671.47	82247787.95	187.3120	A	0.4
9	☐	500000.00	499522.54	439446543.15	920.1635	A	0.5

$$y = 0.0018 * x + 0.0306$$

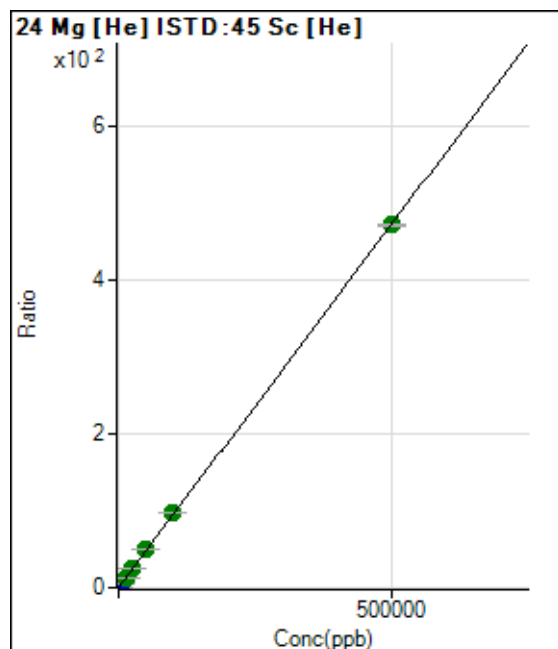
$$R = 1.0000$$

$$DL = 0.979$$

$$BEC = 16.59$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155.56	0.0003	P	25.5
2	☐	50.000	52.252	23168.61	0.0498	P	2.8
3	☐	500.000	508.730	227885.40	0.4815	P	2.5
4	☐	5000.000	5253.721	2312880.39	4.9690	P	0.1
5	☐	12500.000	13059.785	5654277.17	12.3515	A	0.2
6	☐	25000.000	26096.748	10929987.48	24.6811	A	0.8
7	☐	50000.000	51875.174	21503140.06	49.0607	A	0.6
8	☐	100000.00	102421.80	42532700.95	96.8647	A	0.5
9	☐	500000.00	499256.74	225487480.04	472.1672	A	0.3

$$y = 9.4574\text{E-}004 * x + 3.3986\text{E-}004$$

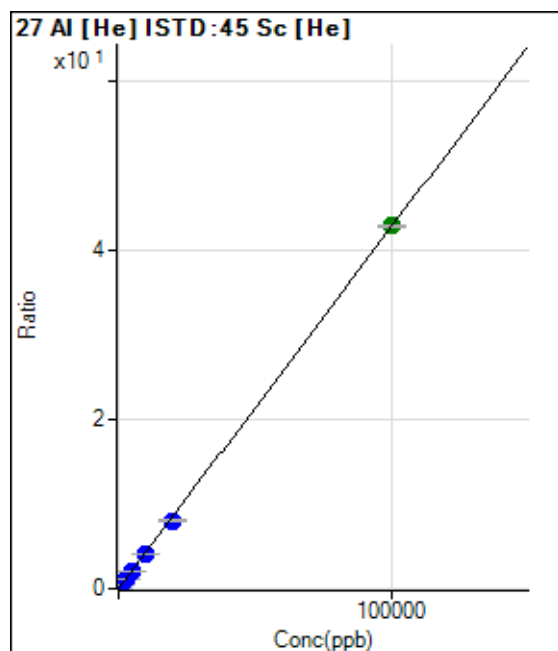
$$R = 1.0000$$

$$DL = 0.2754$$

$$BEC = 0.3594$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61.11	0.0001	P	30.9
2	☐	2.000	1.962	452.80	0.0010	P	15.6
3	☐	20.000	18.992	3900.66	0.0082	P	7.9
4	☐	1000.000	982.241	195378.99	0.4198	P	0.4
5	☐	2500.000	2428.868	475067.07	1.0378	P	0.7
6	☐	5000.000	4860.678	919621.49	2.0766	P	0.9
7	☐	10000.000	9652.272	1807398.18	4.1236	P	0.1
8	☐	20000.000	18853.716	3536715.01	8.0546	P	0.6
9	☐	100000.00	100272.95	20457545.25	42.8373	A	0.4

$$y = 4.2721\text{E-}004 * x + 1.3416\text{E-}004$$

$$R = 0.9999$$

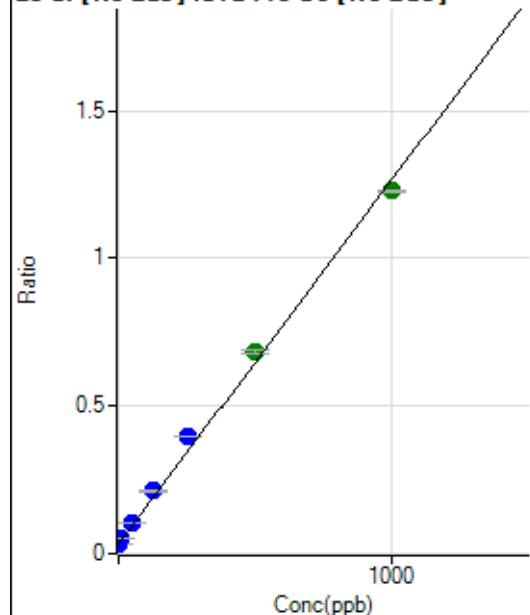
$$DL = 0.291$$

$$BEC = 0.314$$

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	349027.25	0.0326	P	1.6
2	☐	1.000	1.588	373917.98	0.0346	P	0.4
3	☐	10.000	14.902	548754.64	0.0510	P	0.8
4	☐	50.000	57.733	1115667.80	0.1037	P	1.6
5	☐	125.000	145.677	2291270.99	0.2120	P	1.6
6	☐	250.000	296.403	4151573.44	0.3976	P	1.1
7	☐	500.000	528.830	7026207.01	0.6837	A	1.2
8	☐	1000.000	970.963	12555218.86	1.2281	A	0.7
9	☐			996104.11	0.0955	P	0.9

$$y = 0.0012 * x + 0.0326$$

$$R = 0.9981$$

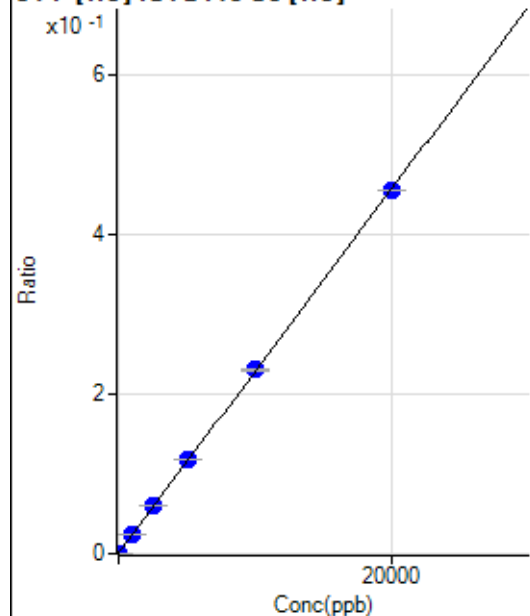
$$DL = 1.305$$

$$BEC = 26.49$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.625	233.35	0.0005	P	16.5
2	☐	0.000	-2.511	216.68	0.0005	P	7.5
3	☐	0.000	3.136	280.57	0.0006	P	22.1
4	☐	1000.000	1024.070	11137.88	0.0239	P	2.4
5	☐	2500.000	2596.257	27403.84	0.0599	P	1.6
6	☐	5000.000	5153.999	52398.19	0.1183	P	0.9
7	☐	10000.000	10097.134	101376.74	0.2313	P	0.9
8	☐	20000.000	19899.697	199939.74	0.4553	P	0.2
9	☐			333.35	0.0007	P	26.1

$$y = 2.2856E-005 * x + 5.2269E-004$$

$$R = 0.9999$$

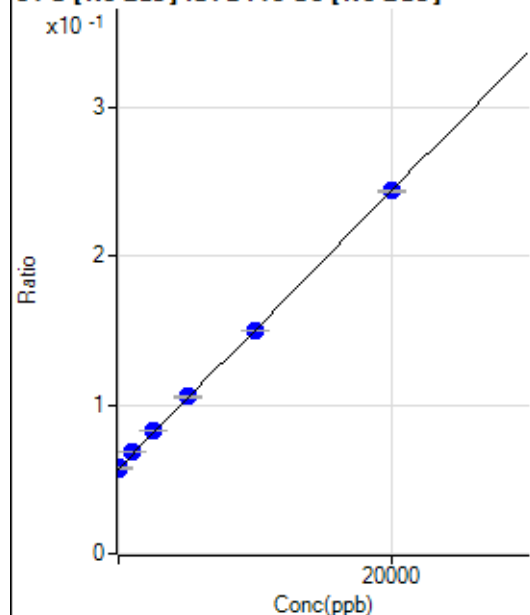
$$DL = 10.93$$

$$BEC = 22.87$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	38.964	617218.69	0.0577	P	1.6
2	☐	0.000	-72.854	612464.78	0.0566	P	0.7
3	☐	0.000	33.891	620467.27	0.0576	P	1.2
4	☐	1000.000	1200.821	737493.32	0.0685	P	0.2
5	☐	2500.000	2694.802	892026.56	0.0825	P	0.7
6	☐	5000.000	5157.102	1102481.52	0.1056	P	0.5
7	☐	10000.000	9916.913	1542766.78	0.1501	P	0.5
8	☐	20000.000	19967.877	2496545.28	0.2442	P	0.5
9	☐			530126.40	0.0508	P	0.9

$$y = 9.3601\text{E-}006 * x + 0.0573$$

R = 0.9999

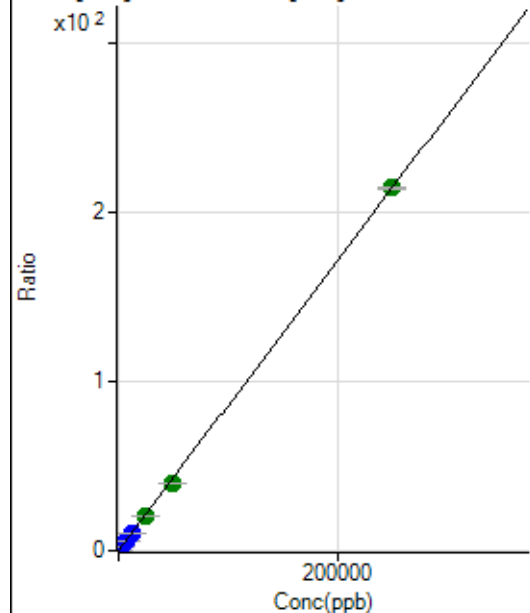
DL = 214.2

BEC = 6122

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	29327.05	0.0640	P	3.0
2	☐	50.000	48.372	49037.56	0.1053	P	1.0
3	☐	500.000	470.359	220299.85	0.4655	P	2.9
4	☐	2500.000	2420.832	991492.02	2.1301	P	0.3
5	☐	6250.000	5991.920	2370341.46	5.1779	P	0.3
6	☐	12500.000	11898.194	4525354.09	10.2187	P	0.6
7	☐	25000.000	23724.502	8902744.82	20.3119	A	0.1
8	☐	50000.000	46906.355	17606303.35	40.0967	A	0.4
9	☐	250000.00	250783.67	102249814.09	214.0975	A	0.8

$$y = 8.5346\text{E-}004 * x + 0.0640$$

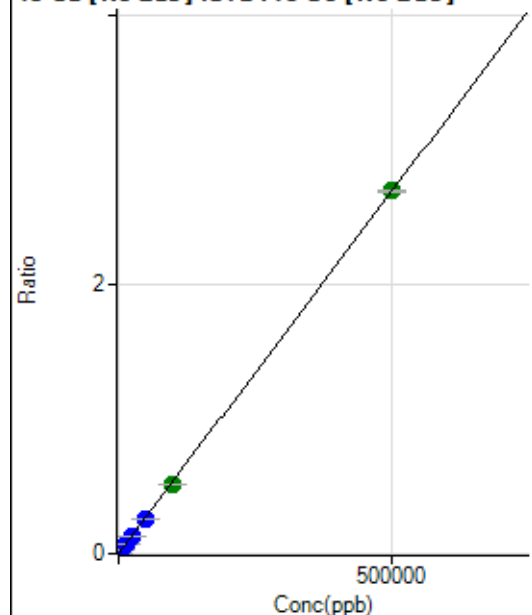
R = 0.9999

DL = 6.771

BEC = 75.03

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	341.68	0.0000	P	5.0
2	☐	50.000	45.809	3011.54	0.0003	P	4.3
3	☐	500.000	472.259	27707.45	0.0026	P	1.4
4	☐	5000.000	4864.042	281961.76	0.0262	P	0.5
5	☐	12500.000	12122.627	705441.45	0.0653	P	0.5
6	☐	25000.000	24208.043	1360664.25	0.1303	P	0.2
7	☐	50000.000	47593.500	2632190.31	0.2561	P	0.6
8	☐	100000.00	95826.518	5272038.96	0.5157	A	0.2
9	☐	500000.00	501125.76	28134293.34	2.6967	A	0.7

$$y = 5.3812E-006 * x + 3.1906E-005$$

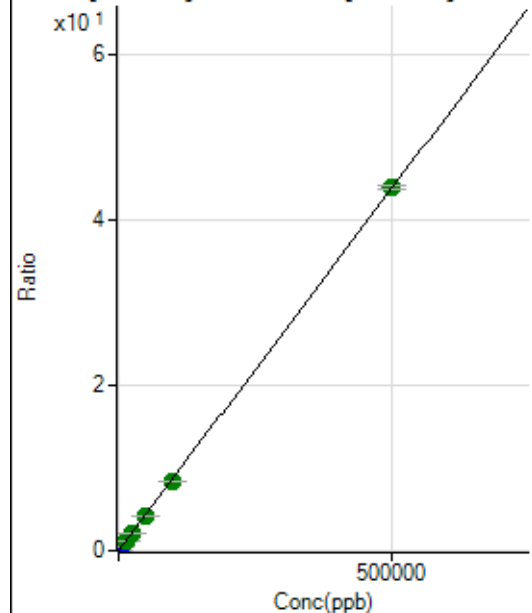
$$R = 1.0000$$

$$DL = 0.8825$$

$$BEC = 5.929$$

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	14510.83	0.0014	P	0.8
2	☐	50.000	46.010	58257.61	0.0054	P	1.1
3	☐	500.000	462.149	450505.92	0.0418	P	0.7
4	☐	5000.000	4770.960	4511055.27	0.4193	P	0.1
5	☐	12500.000	12049.828	11423452.95	1.0569	A	0.2
6	☐	25000.000	24035.205	21999752.40	2.1067	A	0.4
7	☐	50000.000	47819.175	43059189.16	4.1901	A	0.4
8	☐	100000.00	95229.112	85290690.80	8.3430	A	0.8
9	☐	500000.00	501234.08	458098193.57	43.9073	A	1.1

$$y = 8.7596E-005 * x + 0.0014$$

$$R = 0.9999$$

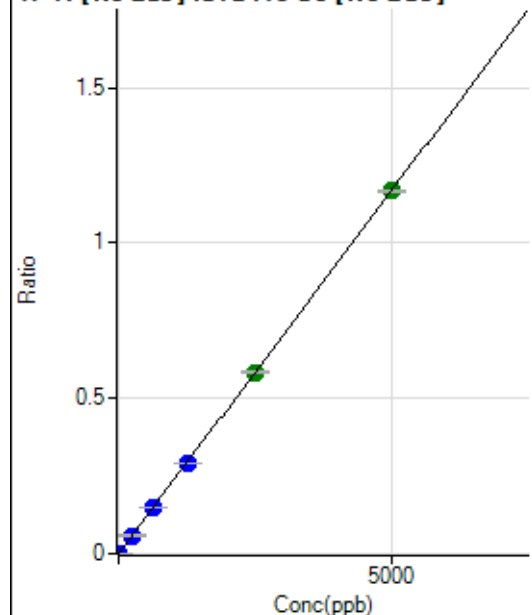
$$DL = 0.3798$$

$$BEC = 15.48$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	136.12	0.0000	P	2.6
2	☐	0.500	0.527	1469.58	0.0001	P	12.1
3	☐	5.000	4.939	12561.43	0.0012	P	2.4
4	☐	250.000	251.459	632154.49	0.0588	P	0.7
5	☐	625.000	630.572	1592278.06	0.1473	P	0.3
6	☐	1250.000	1251.840	3053863.24	0.2924	P	0.3
7	☐	2500.000	2501.579	6005368.93	0.5844	A	0.4
8	☐	5000.000	4997.981	11935912.33	1.1675	A	0.3
9	☐			5956.99	0.0006	P	5.3

$$y = 2.3360E-004 * x + 1.2716E-005$$

$$R = 1.0000$$

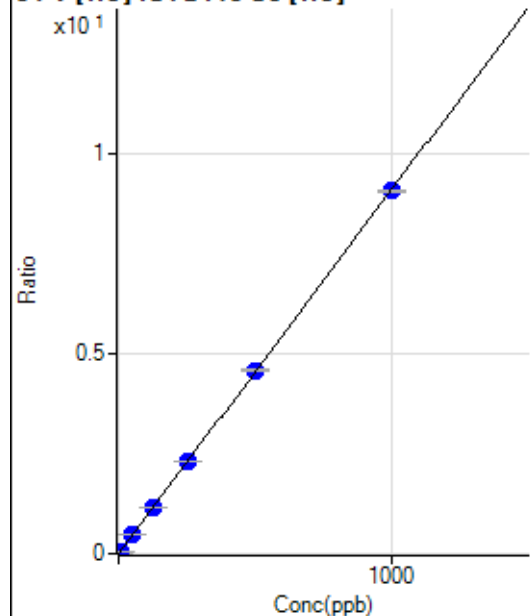
$$DL = 0.00422$$

$$BEC = 0.05443$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	14.45	0.0000	P	47.3
2	☐	0.500	0.519	2216.87	0.0048	P	1.9
3	☐	5.000	4.957	21417.95	0.0453	P	2.8
4	☐	50.000	50.882	216045.26	0.4641	P	0.8
5	☐	125.000	127.326	531673.78	1.1614	P	0.4
6	☐	250.000	253.374	1023493.15	2.3112	P	0.5
7	☐	500.000	504.101	2015392.75	4.5982	P	0.3
8	☐	1000.000	996.771	3992297.44	9.0921	P	0.6
9	☐			2129.08	0.0045	P	1.0

$$y = 0.0091 * x + 3.1502E-005$$

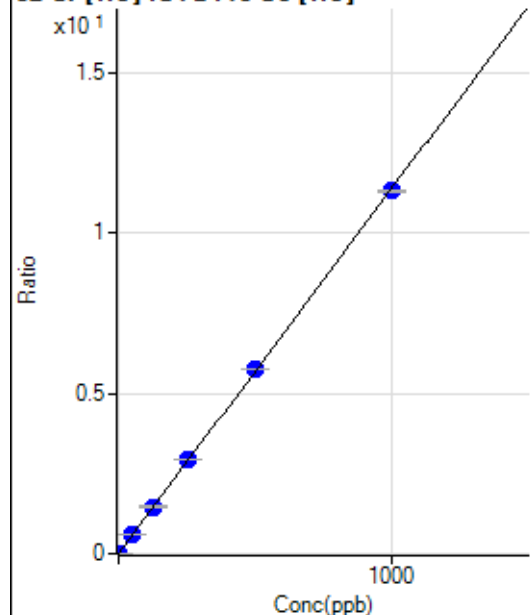
$$R = 1.0000$$

$$DL = 0.004905$$

$$BEC = 0.003454$$

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	821.15	0.0018	P	1.9
2	☐	0.200	0.233	2066.85	0.0044	P	4.6
3	☐	2.000	2.169	12532.17	0.0265	P	1.5
4	☐	50.000	51.640	274355.47	0.5894	P	0.2
5	☐	125.000	128.908	672334.44	1.4687	P	0.4
6	☐	250.000	256.921	1295488.78	2.9254	P	0.7
7	☐	500.000	506.835	2528668.84	5.7693	P	0.3
8	☐	1000.000	994.281	4968858.75	11.3161	P	0.3
9	☐			227367.34	0.4761	P	0.1

$$y = 0.0114 * x + 0.0018$$

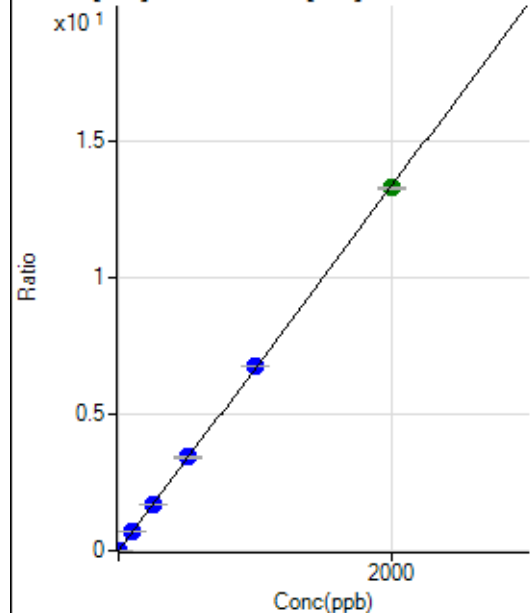
$$R = 0.9999$$

$$DL = 0.00911$$

$$BEC = 0.1574$$

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	92.22	0.0002	P	29.2
2	☐	0.100	0.130	496.68	0.0011	P	5.2
3	☐	1.000	1.112	3608.28	0.0076	P	7.0
4	☐	100.000	103.586	321854.60	0.6915	P	0.2
5	☐	250.000	256.116	782501.41	1.7094	P	0.8
6	☐	500.000	512.695	1515245.71	3.4216	P	0.6
7	☐	1000.000	1011.062	2957435.93	6.7474	P	0.3
8	☐	2000.000	1990.352	5832427.42	13.2826	A	0.3
9	☐			38450.34	0.0805	P	1.1

$$y = 0.0067 * x + 2.0227E-004$$

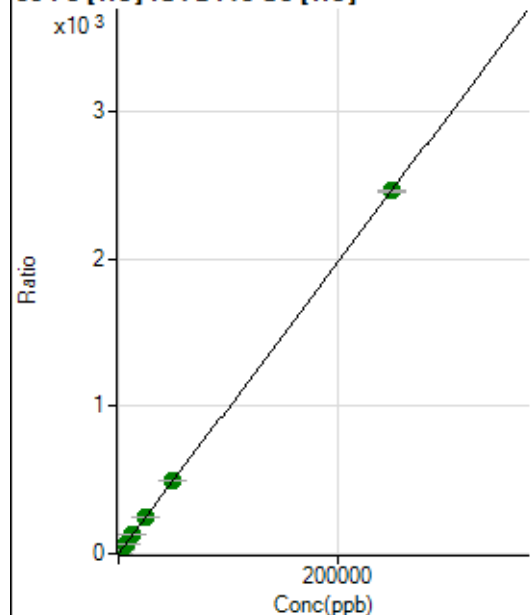
$$R = 1.0000$$

$$DL = 0.02653$$

$$BEC = 0.03031$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7702.22	0.0168	P	4.3
2	☐	5.000	5.154	31441.48	0.0675	P	0.6
3	☐	50.000	50.806	244526.17	0.5166	P	2.2
4	☐	2500.000	2567.567	11764225.03	25.2742	A	0.4
5	☐	6250.000	6386.922	28768929.81	62.8455	A	0.6
6	☐	12500.000	12820.378	55857075.79	126.1319	A	0.6
7	☐	25000.000	25309.105	109129899.66	248.9845	A	0.2
8	☐	50000.000	49824.314	215222471.48	490.1425	A	0.5
9	☐	250000.00	249984.10	1174403774.4	2,459.130	A	0.3

$$y = 0.0098 * x + 0.0168$$

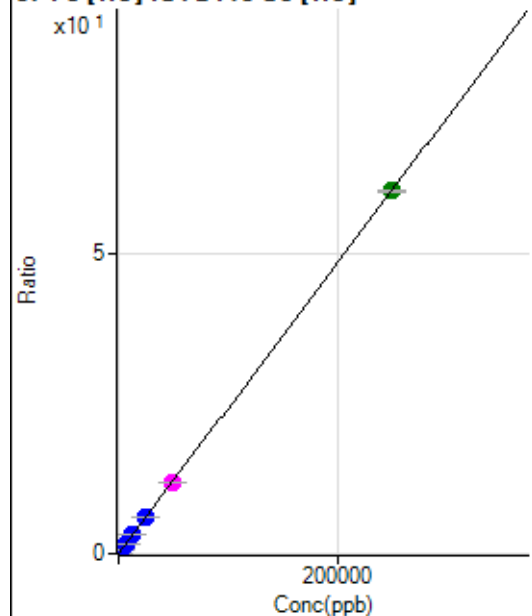
$$R = 1.0000$$

$$DL = 0.2206$$

$$BEC = 1.71$$

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	222.23	0.0005	P	4.5
2	☐	5.000	5.829	881.53	0.0019	P	6.6
3	☐	50.000	51.727	6149.62	0.0130	P	1.1
4	☐	2500.000	2580.906	290604.27	0.6243	P	0.3
5	☐	6250.000	6385.244	706770.53	1.5439	P	0.5
6	☐	12500.000	12806.513	1371070.98	3.0960	P	0.4
7	☐	25000.000	25108.567	2660363.17	6.0697	P	0.6
8	☐	50000.000	49530.025	5257306.31	11.9728	M	0.6
9	☐	250000.00	250063.62	28866303.65	60.4453	A	0.2

$$y = 2.4172E-004 * x + 4.8450E-004$$

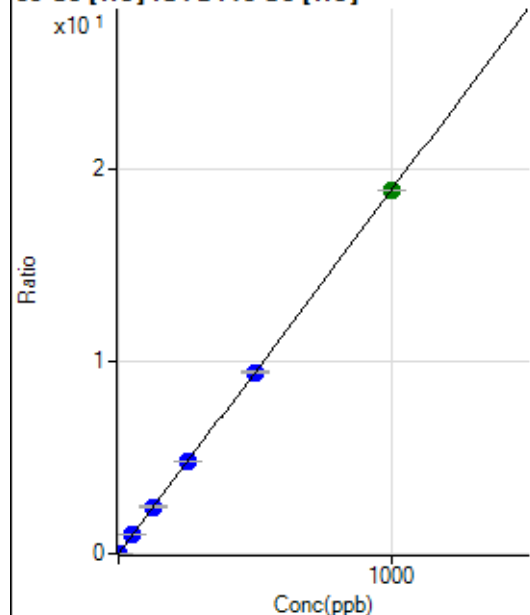
$$R = 1.0000$$

$$DL = 0.2688$$

$$BEC = 2.004$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	102.23	0.0002	P	20.9
2	☐	0.100	0.110	1075.61	0.0023	P	7.3
3	☐	1.000	1.045	9476.53	0.0200	P	4.5
4	☐	50.000	52.150	459891.83	0.9880	P	0.5
5	☐	125.000	129.465	1122700.47	2.4525	P	0.4
6	☐	250.000	255.752	2145421.60	4.8446	P	0.6
7	☐	500.000	499.748	4149059.04	9.4663	P	0.8
8	☐	1000.000	998.022	8300941.13	18.9045	A	0.2
9	☐			16282.52	0.0341	P	2.0

$$y = 0.0189 * x + 2.2393E-004$$

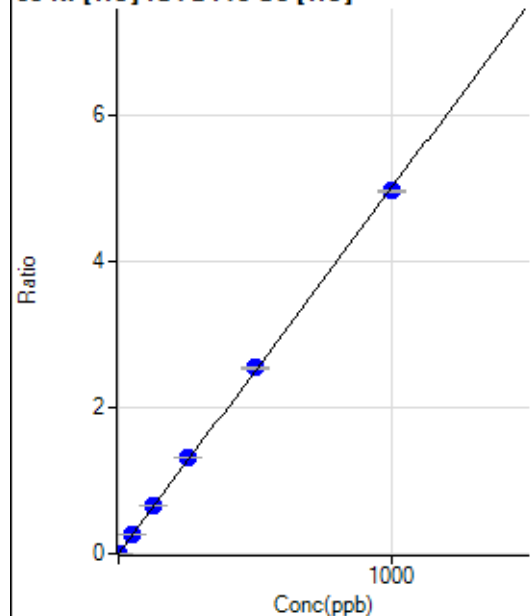
$$R = 1.0000$$

$$DL = 0.007425$$

$$BEC = 0.01182$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	228.89	0.0005	P	3.0
2	☐	0.100	0.109	486.68	0.0010	P	9.9
3	☐	1.000	1.157	2978.13	0.0063	P	2.4
4	☐	50.000	53.492	124924.02	0.2684	P	0.9
5	☐	125.000	132.484	303946.40	0.6640	P	0.8
6	☐	250.000	261.425	579988.57	1.3097	P	0.8
7	☐	500.000	508.294	1115905.11	2.5460	P	0.6
8	☐	1000.000	991.887	2181343.30	4.9678	P	0.5
9	☐			62841.89	0.1316	P	0.3

$$y = 0.0050 * x + 4.9920E-004$$

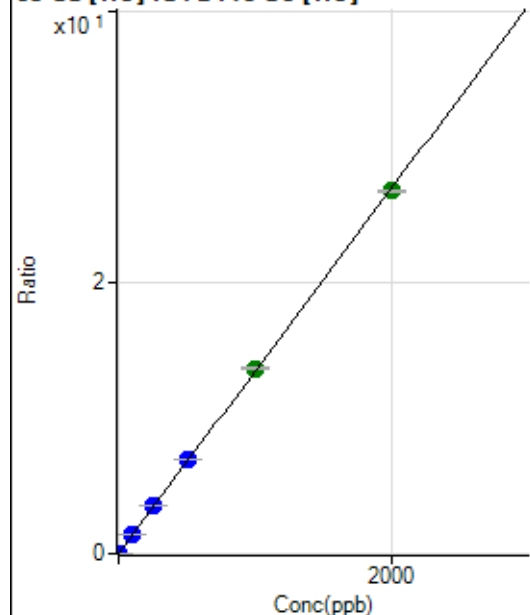
$$R = 0.9999$$

$$DL = 0.008868$$

$$BEC = 0.09968$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	715.58	0.0016	P	3.8
2	☐	0.200	0.234	2193.53	0.0047	P	3.7
3	☐	2.000	2.130	14316.03	0.0302	P	3.1
4	☐	100.000	106.171	666206.65	1.4313	P	0.5
5	☐	250.000	261.813	1614651.47	3.5272	P	0.7
6	☐	500.000	515.348	3073903.36	6.9413	P	0.7
7	☐	1000.000	1015.892	5996640.19	13.6817	A	0.6
8	☐	2000.000	1986.431	11746294.41	26.7511	A	0.2
9	☐			31847.04	0.0667	P	0.5

$$y = 0.0135 * x + 0.0016$$

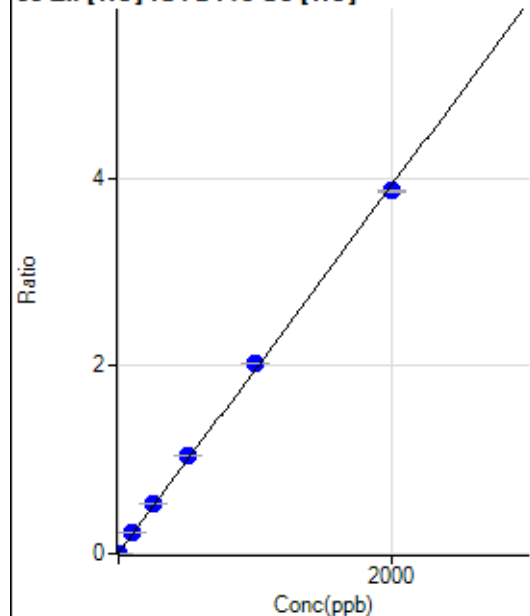
$$R = 0.9999$$

$$DL = 0.01315$$

$$BEC = 0.116$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2310.23	0.0050	P	3.0
2	☐	0.200	0.288	2611.38	0.0056	P	0.6
3	☐	2.000	2.505	4710.84	0.0100	P	3.0
4	☐	100.000	109.978	102669.85	0.2206	P	0.6
5	☐	250.000	269.361	243966.45	0.5329	P	0.5
6	☐	500.000	530.579	462713.37	1.0449	P	0.6
7	☐	1000.000	1035.118	891344.24	2.0336	P	0.6
8	☐	2000.000	1971.877	1699076.68	3.8695	P	0.4
9	☐			22055.74	0.0462	P	0.2

$$y = 0.0020 * x + 0.0050$$

$$R = 0.9996$$

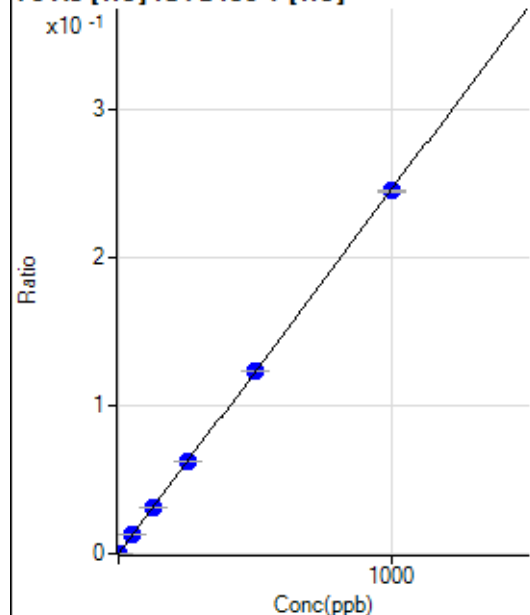
$$DL = 0.2296$$

$$BEC = 2.574$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.66	0.0000	P	42.7
2	☐	0.100	0.102	75.31	0.0000	P	15.1
3	☐	1.000	1.018	604.96	0.0003	P	11.0
4	☐	50.000	51.589	29276.99	0.0127	P	1.1
5	☐	125.000	128.723	71751.61	0.0317	P	0.6
6	☐	250.000	255.230	138461.47	0.0628	P	0.6
7	☐	500.000	503.464	270322.74	0.1239	P	0.1
8	☐	1000.000	996.416	531682.44	0.2451	P	0.5
9	☐			258.03	0.0001	P	8.3

$$y = 2.4601\text{E-}004 * x + 7.3511\text{E-}006$$

$$R = 1.0000$$

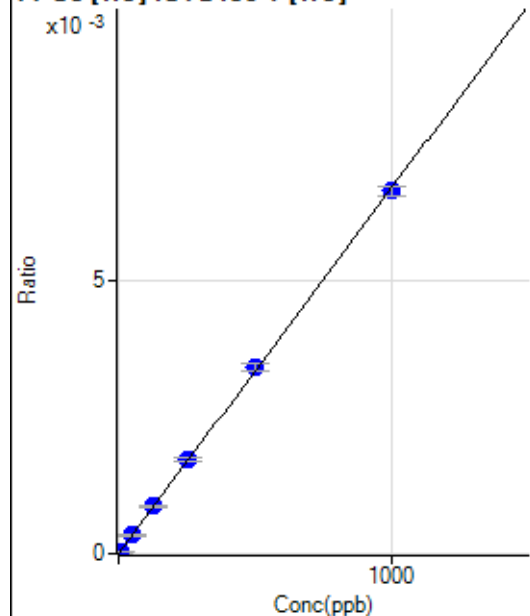
$$DL = 0.03824$$

$$BEC = 0.02988$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	0.500	0.284	5.56	0.0000	P	34.8
3	☐	5.000	4.726	75.55	0.0000	P	29.3
4	☐	50.000	50.189	774.48	0.0003	P	6.1
5	☐	125.000	129.665	1964.61	0.0009	P	3.7
6	☐	250.000	256.662	3783.89	0.0017	P	3.6
7	☐	500.000	510.658	7450.92	0.0034	P	4.2
8	☐	1000.000	992.414	14389.55	0.0066	P	2.6
9	☐			8.89	0.0000	P	95.0

$$y = 6.6842\text{E-}006 * x + 4.8639\text{E-}007$$

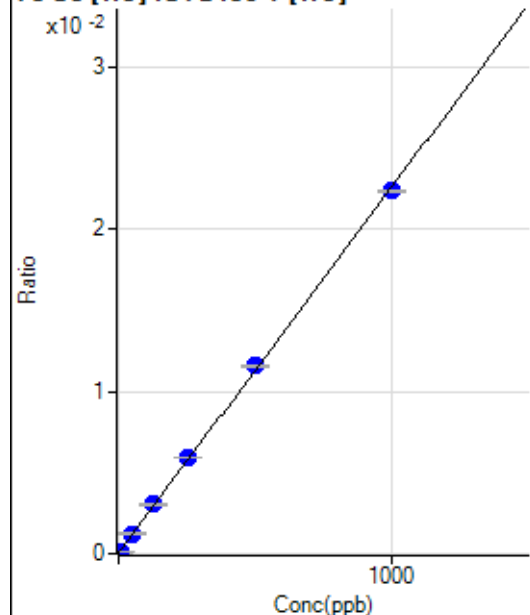
$$R = 0.9999$$

$$DL = 0.3781$$

$$BEC = 0.07277$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	98.15	0.0000	P	4.0
2	☐	0.500	-0.003	100.00	0.0000	P	7.1
3	☐	5.000	5.449	388.90	0.0002	P	2.1
4	☐	50.000	52.601	2830.55	0.0012	P	3.1
5	☐	125.000	132.248	6844.27	0.0030	P	2.0
6	☐	250.000	261.683	13089.95	0.0059	P	1.0
7	☐	500.000	511.328	25226.91	0.0116	P	0.4
8	☐	1000.000	990.377	48472.55	0.0223	P	0.6
9	☐			104.94	0.0000	P	16.6

$$y = 2.2522\text{E-}005 * x + 4.3008\text{E-}005$$

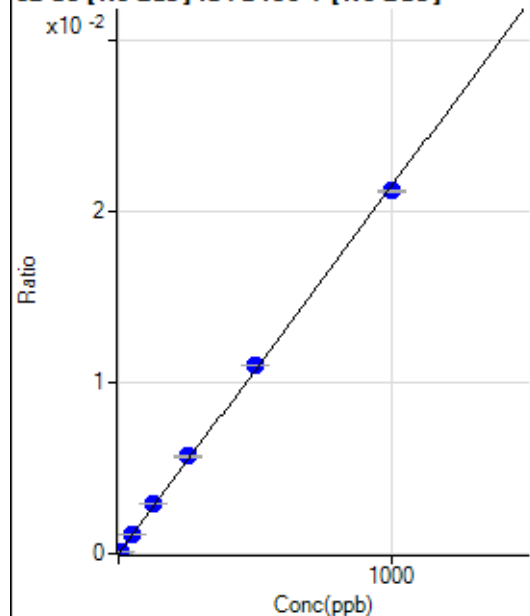
$$R = 0.9998$$

$$DL = 0.2291$$

$$BEC = 1.91$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31.15	0.0000	P	170.
2	☐	0.500	0.553	227.42	0.0000	P	19.0
3	☐	5.000	5.366	1913.46	0.0001	P	2.7
4	☐	50.000	54.551	19170.79	0.0012	P	0.7
5	☐	125.000	135.293	47787.87	0.0029	P	1.1
6	☐	250.000	264.899	91302.44	0.0057	P	1.2
7	☐	500.000	514.109	174525.71	0.0110	P	0.2
8	☐	1000.000	987.705	334259.28	0.0212	P	0.8
9	☐			292.89	0.0000	P	27.6

$$y = 2.1440\text{E-}005 * x + 1.9318\text{E-}006$$

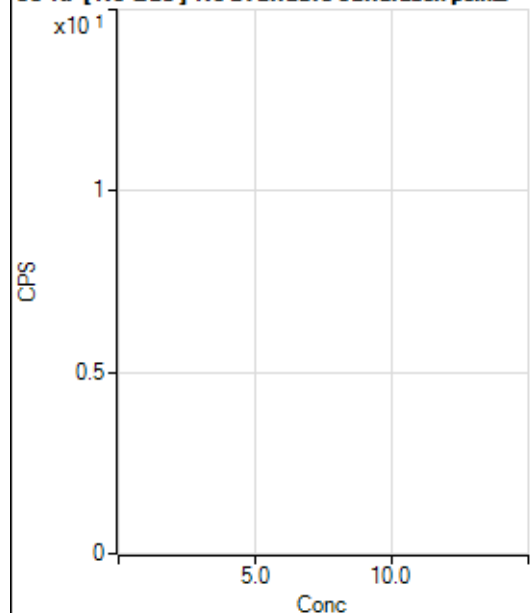
$$R = 0.9997$$

$$DL = 0.4603$$

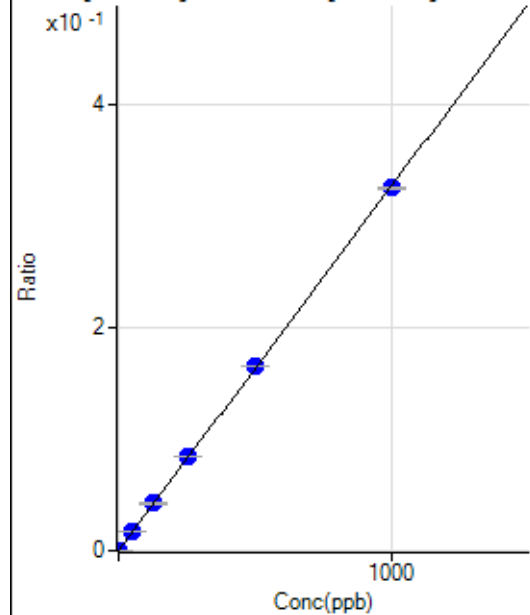
$$BEC = 0.0901$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			598.91		P	10.9
2	☐			602.24		P	6.6
3	☐			615.58		P	10.6
4	☐			615.58		P	4.2
5	☐			601.13		P	7.9
6	☐			616.69		P	7.4
7	☐			591.13		P	8.2
8	☐			571.13		P	4.9
9	☐			665.58		P	8.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1041.75	0.0001	P	4.3
2	☐	0.100	0.094	1558.49	0.0001	P	7.1
3	☐	1.000	1.039	6596.25	0.0004	P	2.7
4	☐	50.000	51.772	278027.97	0.0170	P	0.7
5	☐	125.000	129.136	696123.77	0.0423	P	0.6
6	☐	250.000	256.952	1351062.83	0.0841	P	0.9
7	☐	500.000	505.556	2617602.79	0.1653	P	0.3
8	☐	1000.000	994.878	5134624.16	0.3253	P	0.8
9	☐			28863.14	0.0018	P	2.6

$$y = 3.2694\text{E-}004 * x + 6.3619\text{E-}005$$

$$R = 0.9999$$

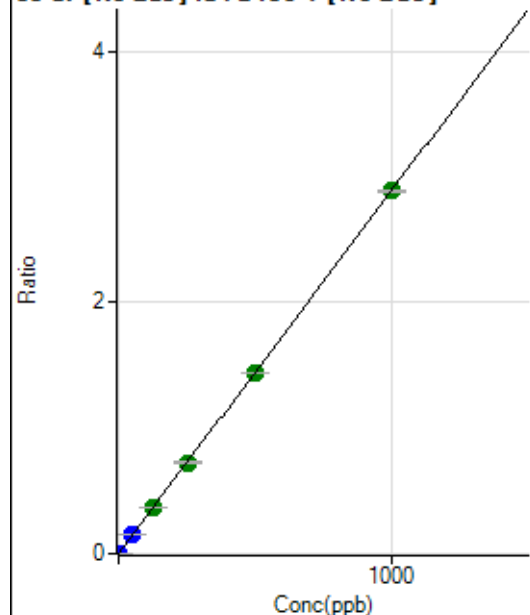
$$DL = 0.02517$$

$$BEC = 0.1946$$

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	250.01	0.0000	P	17.1
2	☐	0.100	0.100	5034.45	0.0003	P	5.9
3	☐	1.000	1.033	49034.57	0.0030	P	1.4
4	☐	50.000	50.651	2393498.97	0.1463	P	0.6
5	☐	125.000	125.823	5981338.11	0.3633	A	0.4
6	☐	250.000	251.595	11674709.29	0.7264	A	0.3
7	☐	500.000	499.670	22839248.77	1.4427	A	0.1
8	☐	1000.000	999.631	45553423.59	2.8862	A	0.4
9	☐			242618.60	0.0154	P	0.7

$$y = 0.0029 * x + 1.5234E-005$$

$$R = 1.0000$$

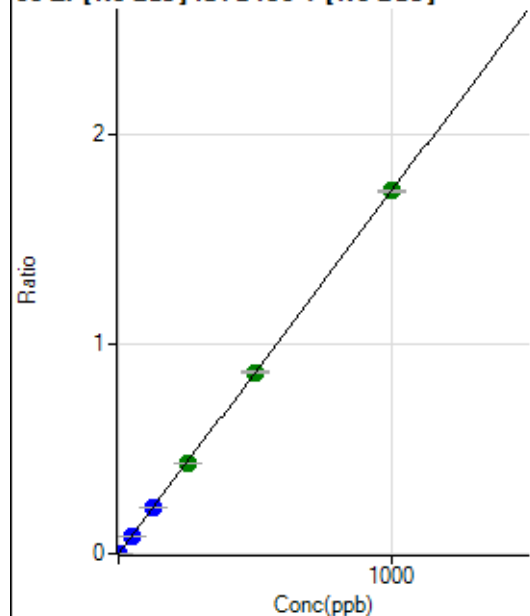
$$DL = 0.002703$$

$$BEC = 0.005276$$

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	1439.02	0.0001	P	6.4
2	☐	0.100	0.108	4545.35	0.0003	P	1.2
3	☐	1.000	1.028	30611.28	0.0019	P	0.8
4	☐	50.000	49.949	1419005.36	0.0867	P	0.4
5	☐	125.000	124.967	3569559.41	0.2168	P	0.1
6	☐	250.000	249.349	6951182.62	0.4325	A	0.4
7	☐	500.000	500.157	13733146.14	0.8675	A	0.4
8	☐	1000.000	1000.091	27376039.85	1.7345	A	0.2
9	☐			16640.83	0.0011	P	3.4

$$y = 0.0017 * x + 8.7797E-005$$

$$R = 1.0000$$

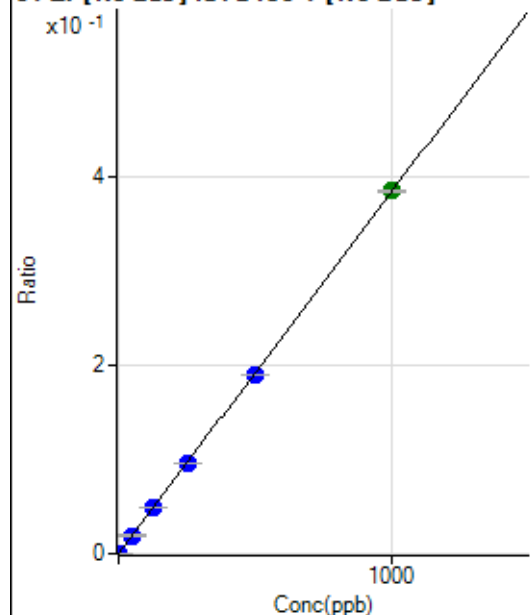
$$DL = 0.009704$$

$$BEC = 0.05062$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	272.24	0.0000	P	4.9
2	☐	0.100	0.102	916.73	0.0001	P	14.8
3	☐	1.000	1.022	6696.27	0.0004	P	0.9
4	☐	50.000	50.301	316473.35	0.0193	P	1.3
5	☐	125.000	126.240	798655.20	0.0485	P	0.3
6	☐	250.000	248.279	1532998.39	0.0954	P	0.8
7	☐	500.000	493.981	3004272.03	0.1898	P	0.6
8	☐	1000.000	1003.270	6082999.09	0.3854	A	0.4
9	☐			3892.36	0.0002	P	1.0

$$y = 3.8414\text{E-}004 * x + 1.6610\text{E-}005$$

$$R = 1.0000$$

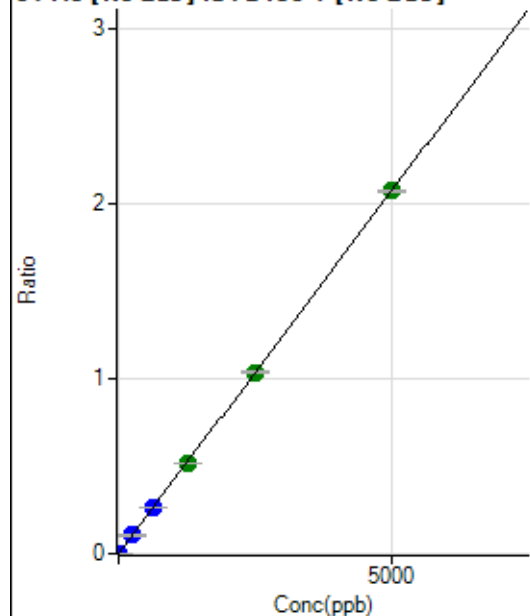
$$DL = 0.006414$$

$$BEC = 0.04324$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	466.70	0.0000	P	13.0
2	☐	0.500	0.525	4059.09	0.0002	P	3.9
3	☐	5.000	5.017	34484.39	0.0021	P	0.5
4	☐	250.000	252.612	1713926.10	0.1047	P	0.9
5	☐	625.000	626.086	4272894.15	0.2595	P	0.6
6	☐	1250.000	1246.788	8305690.64	0.5168	A	0.8
7	☐	2500.000	2498.401	16394358.87	1.0356	A	0.7
8	☐	5000.000	5001.336	32719308.37	2.0731	A	0.5
9	☐			40605.96	0.0026	P	2.7

$$y = 4.1450\text{E-}004 * x + 2.8457\text{E-}005$$

$$R = 1.0000$$

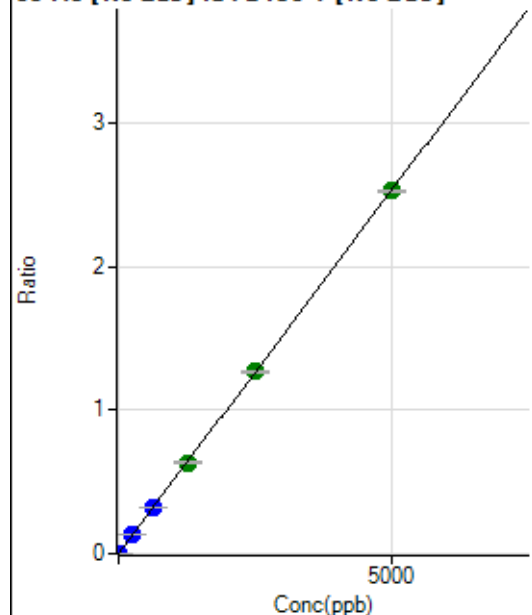
$$DL = 0.02679$$

$$BEC = 0.06865$$

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	58.34	0.0000	P	13.5
2	☐	0.500	0.527	4448.08	0.0003	P	3.9
3	☐	5.000	5.064	41923.52	0.0026	P	1.1
4	☐	250.000	253.894	2100026.22	0.1283	P	0.1
5	☐	625.000	629.909	5241487.27	0.3184	P	0.3
6	☐	1250.000	1256.813	10208561.08	0.6352	A	0.7
7	☐	2500.000	2506.387	20053902.36	1.2668	A	0.9
8	☐	5000.000	4994.295	39839654.71	2.5242	A	0.2
9	☐			59360.44	0.0038	P	1.3

$$y = 5.0542\text{E-}004 * x + 3.5582\text{E-}006$$

$$R = 1.0000$$

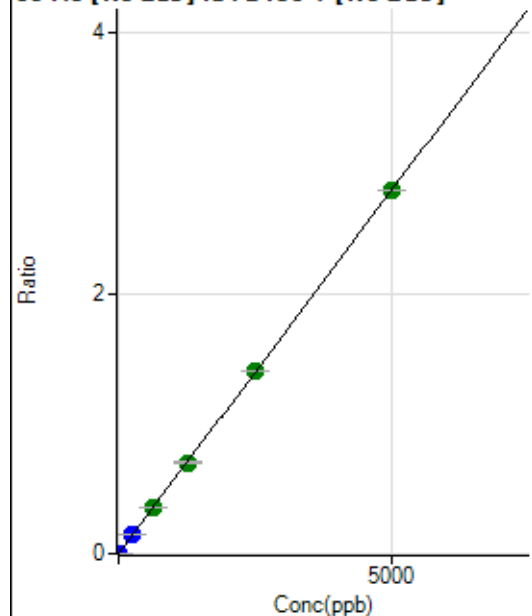
$$DL = 0.002843$$

$$BEC = 0.00704$$

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	169.45	0.0000	P	36.7
2	☐	0.500	0.517	4926.05	0.0003	P	3.0
3	☐	5.000	4.966	45489.93	0.0028	P	2.2
4	☐	250.000	252.572	2306357.88	0.1409	P	0.5
5	☐	625.000	626.936	5759276.60	0.3498	A	0.3
6	☐	1250.000	1254.467	11249012.75	0.7000	A	0.6
7	☐	2500.000	2509.240	22164366.64	1.4001	A	0.6
8	☐	5000.000	4993.893	43978635.01	2.7865	A	0.1
9	☐			76519.48	0.0049	P	1.8

$$y = 5.5797\text{E-}004 * x + 1.0339\text{E-}005$$

$$R = 1.0000$$

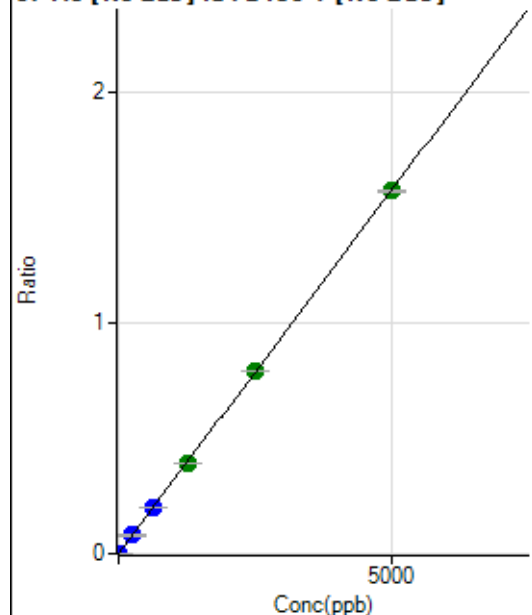
$$DL = 0.02038$$

$$BEC = 0.01853$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.44	0.0000	P	48.7
2	☐	0.500	0.522	2733.71	0.0002	P	2.0
3	☐	5.000	4.985	25746.43	0.0016	P	1.7
4	☐	250.000	252.146	1301740.51	0.0795	P	0.8
5	☐	625.000	625.739	3249943.39	0.1974	P	0.6
6	☐	1250.000	1252.356	6349364.29	0.3951	A	0.7
7	☐	2500.000	2512.949	12550095.24	0.7928	A	0.6
8	☐	5000.000	4992.737	24859555.42	1.5751	A	0.4
9	☐			36948.96	0.0023	P	2.6

$$y = 3.1547\text{E-}004 * x + 1.1813\text{E-}006$$

$$R = 1.0000$$

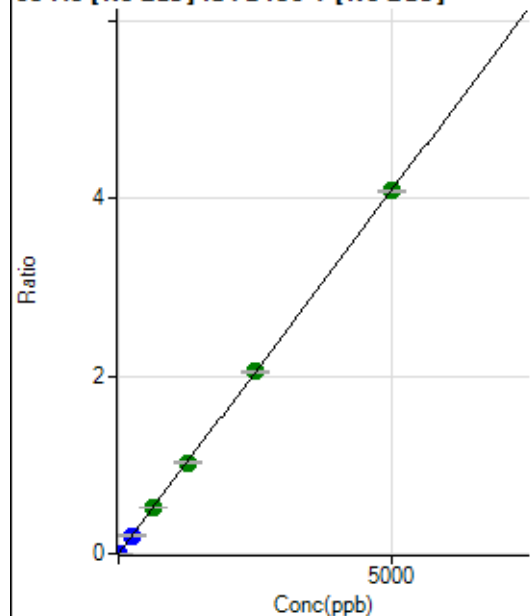
$$DL = 0.005469$$

$$BEC = 0.003744$$

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	108.34	0.0000	P	6.9
2	☐	0.500	0.501	6865.81	0.0004	P	1.8
3	☐	5.000	5.012	67089.09	0.0041	P	1.2
4	☐	250.000	251.373	3361143.35	0.2054	P	1.0
5	☐	625.000	627.242	8437545.93	0.5125	A	0.2
6	☐	1250.000	1254.642	16474350.20	1.0251	A	0.9
7	☐	2500.000	2505.750	32410847.60	2.0474	A	0.6
8	☐	5000.000	4995.616	64421351.44	4.0817	A	0.3
9	☐			94783.63	0.0060	P	2.0

$$y = 8.1706\text{E-}004 * x + 6.6110\text{E-}006$$

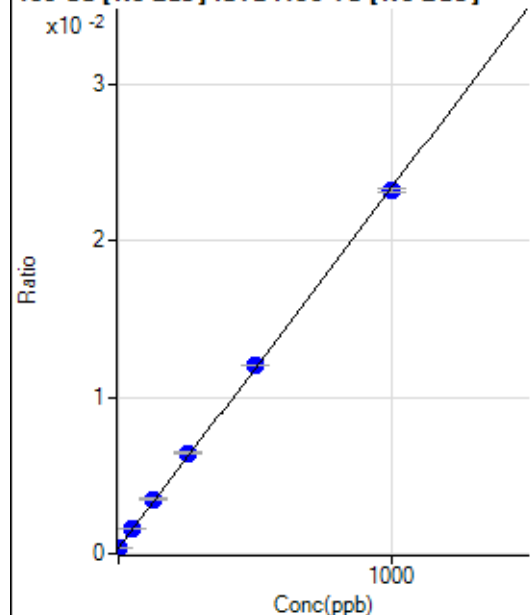
$$R = 1.0000$$

$$DL = 0.001666$$

$$BEC = 0.008091$$

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	7432.83	0.0004	P	1.7
2	☐	0.100	-0.018	7435.61	0.0004	P	4.8
3	☐	1.000	1.038	7880.31	0.0004	P	1.4
4	☐	50.000	54.663	33969.53	0.0016	P	0.3
5	☐	125.000	136.561	74392.93	0.0035	P	0.6
6	☐	250.000	264.801	135455.71	0.0064	P	1.1
7	☐	500.000	505.826	253000.43	0.0120	P	0.3
8	☐	1000.000	991.708	486219.45	0.0232	P	1.1
9	☐			7010.36	0.0003	P	4.2

$$y = 2.2996\text{E-}005 * x + 3.5052\text{E-}004$$

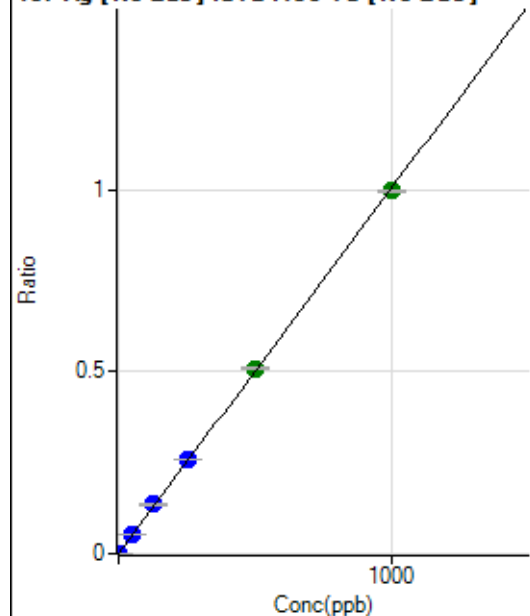
$$R = 0.9998$$

$$DL = 0.7838$$

$$BEC = 15.24$$

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	147.23	0.0000	P	24.4
2	☐	0.100	0.115	2603.14	0.0001	P	14.5
3	☐	1.000	1.109	23601.11	0.0011	P	1.2
4	☐	50.000	54.616	1159363.08	0.0549	P	0.5
5	☐	125.000	134.287	2874460.24	0.1349	P	0.7
6	☐	250.000	258.841	5468844.13	0.2600	P	0.8
7	☐	500.000	507.340	10759960.74	0.5096	A	0.4
8	☐	1000.000	992.728	20937943.70	0.9971	A	0.2
9	☐			2853.19	0.0001	P	5.8

$$y = 0.0010 * x + 6.9544\text{E-}006$$

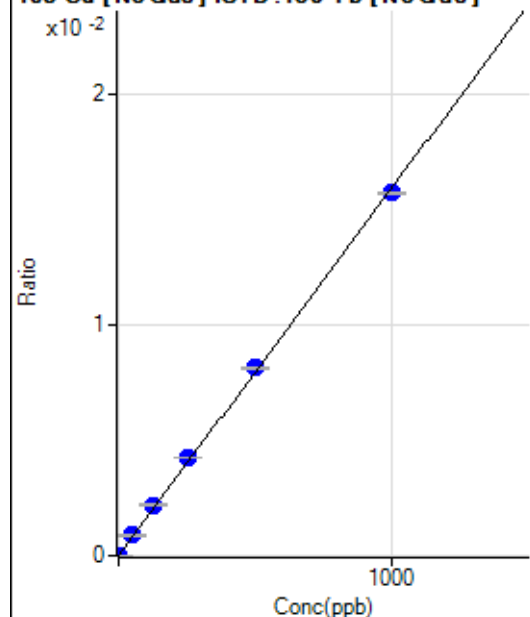
$$R = 0.9999$$

$$DL = 0.005062$$

$$BEC = 0.006924$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	20.83	0.0000	P	58.9
2	☐	0.100	0.132	65.28	0.0000	P	32.3
3	☐	1.000	1.033	366.68	0.0000	P	15.2
4	☐	50.000	54.937	18494.27	0.0009	P	2.2
5	☐	125.000	138.039	46827.26	0.0022	P	1.0
6	☐	250.000	266.664	89273.35	0.0042	P	1.4
7	☐	500.000	512.039	172056.95	0.0081	P	0.6
8	☐	1000.000	987.938	330117.26	0.0157	P	0.6
9	☐			150.00	0.0000	P	30.7

$$y = 1.5913\text{E-}005 * x + 9.7647\text{E-}007$$

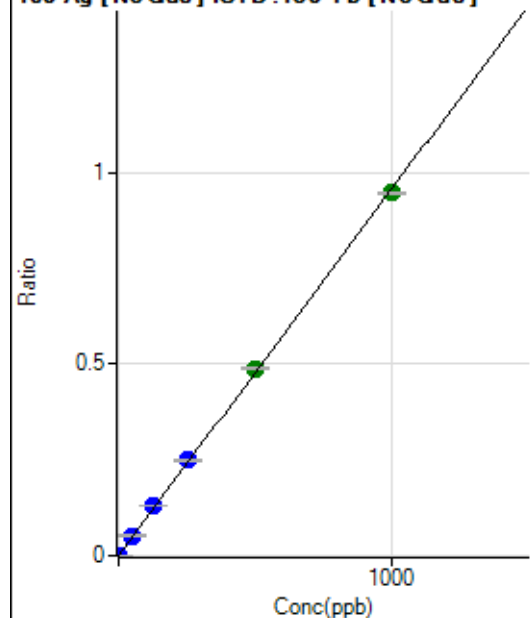
$$R = 0.9997$$

$$DL = 0.1084$$

$$BEC = 0.06136$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	47.23	0.0000	P	56.3
2	☐	0.100	0.115	2386.43	0.0001	P	6.5
3	☐	1.000	1.103	22246.07	0.0011	P	2.0
4	☐	50.000	55.101	1112956.45	0.0527	P	0.8
5	☐	125.000	135.275	2755466.94	0.1293	P	0.2
6	☐	250.000	260.102	5229396.82	0.2486	P	1.1
7	☐	500.000	511.207	10316968.03	0.4886	A	0.2
8	☐	1000.000	990.331	19876148.88	0.9466	A	0.4
9	☐			2650.37	0.0001	P	7.3

$$y = 9.5582\text{E-}004 * x + 2.2170\text{E-}006$$

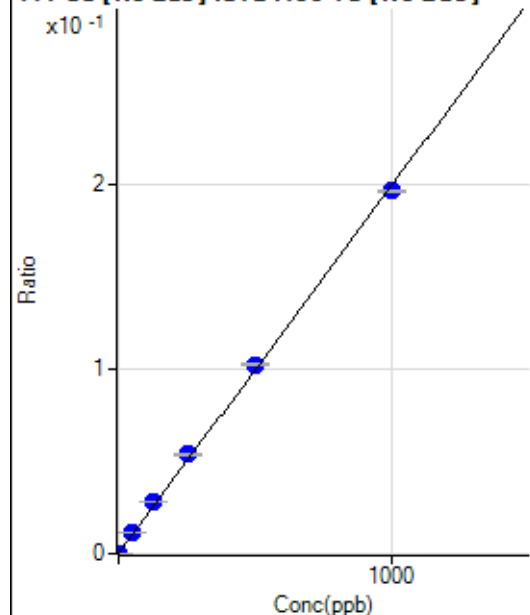
$$R = 0.9998$$

$$DL = 0.003915$$

$$BEC = 0.002319$$

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	2226.38	0.0001	P	2.2
2	☐	0.100	0.103	2664.17	0.0001	P	3.4
3	☐	1.000	1.105	6840.26	0.0003	P	3.4
4	☐	50.000	56.051	237950.56	0.0113	P	0.5
5	☐	125.000	138.718	590591.37	0.0277	P	0.0
6	☐	250.000	269.016	1128430.22	0.0536	P	0.7
7	☐	500.000	513.889	2161739.65	0.1024	P	0.9
8	☐	1000.000	986.284	4124055.73	0.1964	P	0.8
9	☐			2864.82	0.0001	P	4.4

$$y = 1.9903\text{E-}004 * x + 1.0500\text{E-}004$$

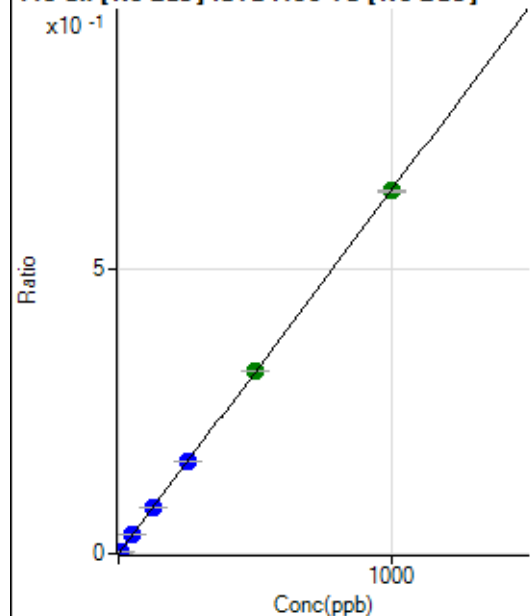
$$R = 0.9996$$

$$DL = 0.03533$$

$$BEC = 0.5275$$

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	797.28	0.0000	P	6.5
2	☐	0.500	0.516	7819.19	0.0004	P	3.2
3	☐	5.000	5.296	72171.64	0.0034	P	2.3
4	☐	50.000	52.102	705768.40	0.0334	P	0.2
5	☐	125.000	129.127	1762749.43	0.0827	P	0.4
6	☐	250.000	253.020	3408621.69	0.1621	P	0.7
7	☐	500.000	501.138	6776158.57	0.3209	A	0.2
8	☐	1000.000	998.054	13419956.38	0.6391	A	0.3
9	☐			16582.62	0.0008	P	4.3

$$y = 6.4032\text{E-}004 * x + 3.7570\text{E-}005$$

$$R = 1.0000$$

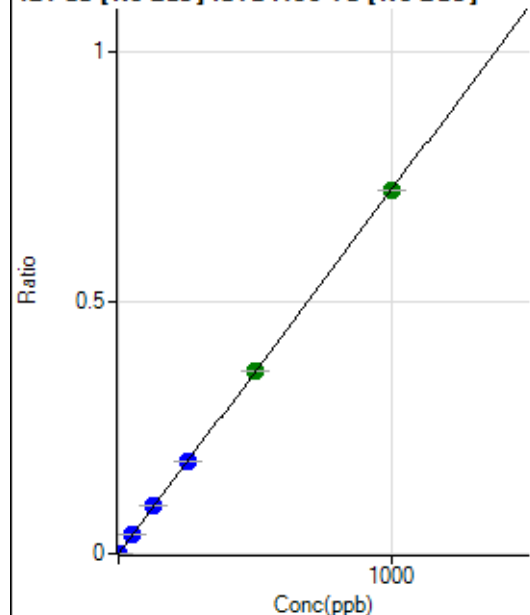
$$DL = 0.01148$$

$$BEC = 0.05867$$

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	80.56	0.0000	P	17.2
2	☐	0.200	0.203	3203.29	0.0002	P	2.7
3	☐	2.000	2.080	31811.90	0.0015	P	2.6
4	☐	50.000	52.302	801179.79	0.0379	P	0.6
5	☐	125.000	130.961	2022894.68	0.0949	P	0.9
6	☐	250.000	255.014	3888206.08	0.1849	P	0.8
7	☐	500.000	502.625	7692653.47	0.3643	A	0.3
8	☐	1000.000	996.573	15168276.90	0.7224	A	0.1
9	☐			21016.43	0.0010	P	1.2

$$y = 7.2486\text{E-}004 * x + 3.8049\text{E-}006$$

$$R = 1.0000$$

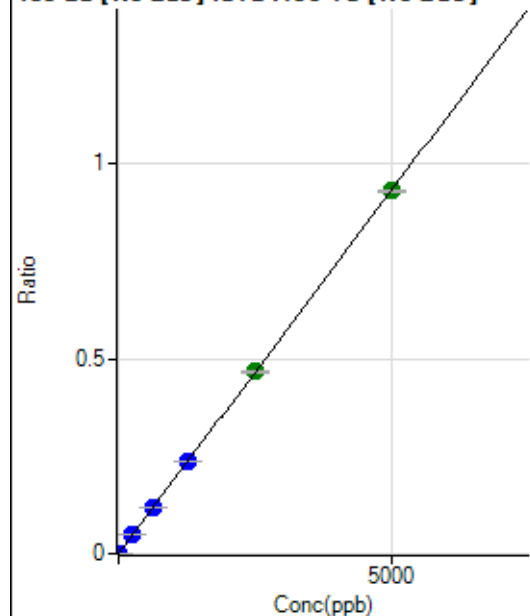
$$DL = 0.002707$$

$$BEC = 0.005249$$

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	61.11	0.0000	P	31.4
2	☐	1.000	1.012	4067.43	0.0002	P	3.7
3	☐	10.000	10.160	39924.85	0.0019	P	1.7
4	☐	250.000	259.157	1020768.71	0.0483	P	0.7
5	☐	625.000	644.440	2559624.02	0.1201	P	1.1
6	☐	1250.000	1265.148	4960153.98	0.2358	P	1.1
7	☐	2500.000	2502.013	9846718.71	0.4664	A	0.8
8	☐	5000.000	4992.318	19539076.13	0.9305	A	0.5
9	☐			6235.00	0.0003	P	6.1

$$y = 1.8639\text{E-}004 * x + 2.8816\text{E-}006$$

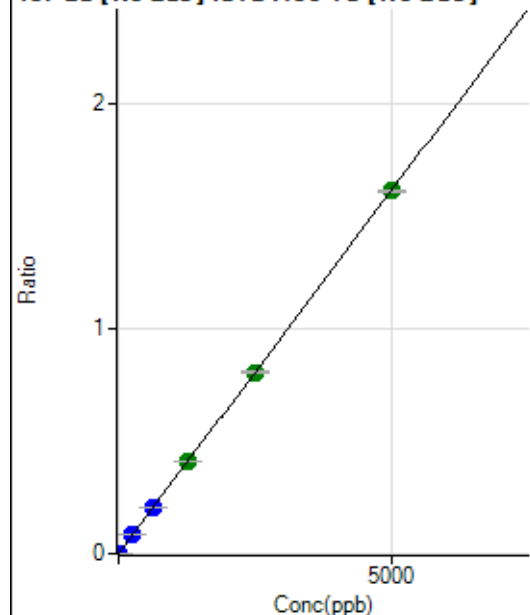
$$R = 1.0000$$

$$DL = 0.01458$$

$$BEC = 0.01546$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.45	0.0000	P	31.4
2	☐	1.000	1.060	7321.66	0.0003	P	4.5
3	☐	10.000	10.172	69083.65	0.0033	P	0.3
4	☐	250.000	260.553	1774715.69	0.0840	P	0.1
5	☐	625.000	642.463	4412662.99	0.2071	P	1.0
6	☐	1250.000	1270.395	8613056.96	0.4095	A	0.8
7	☐	2500.000	2498.240	17001990.14	0.8052	A	0.4
8	☐	5000.000	4993.070	33793290.69	1.6094	A	0.5
9	☐			11093.79	0.0005	P	4.9

$$y = 3.2232\text{E-}004 * x + 3.2813\text{E-}006$$

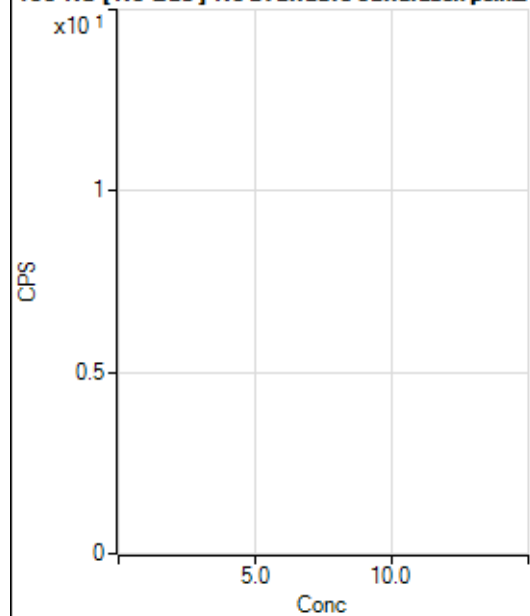
$$R = 1.0000$$

$$DL = 0.009577$$

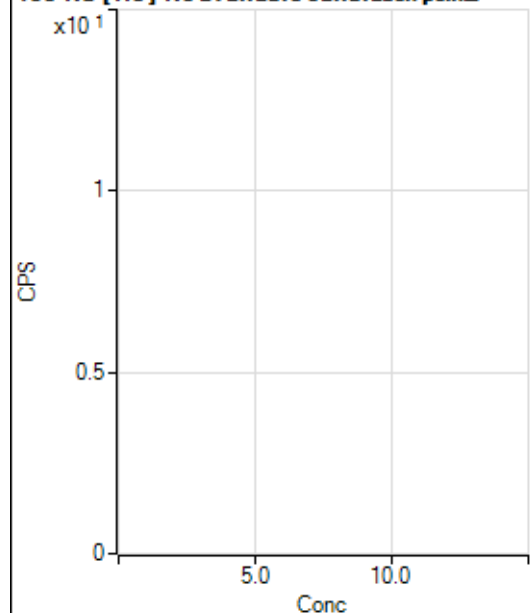
$$BEC = 0.01018$$

Weight: <None>

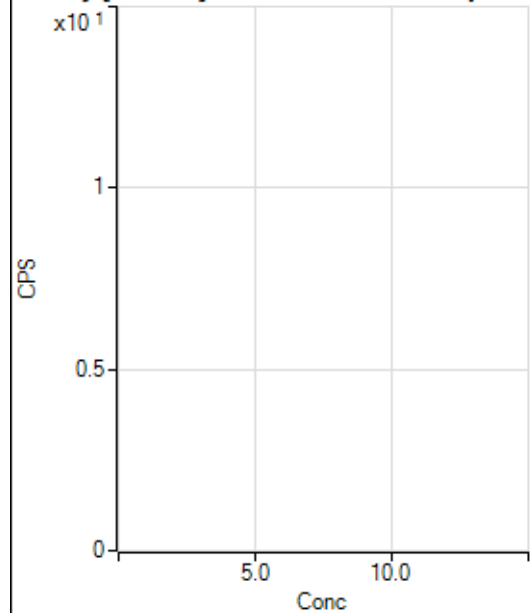
Min Conc: 0

150 Nd [No Gas] No available calibration points

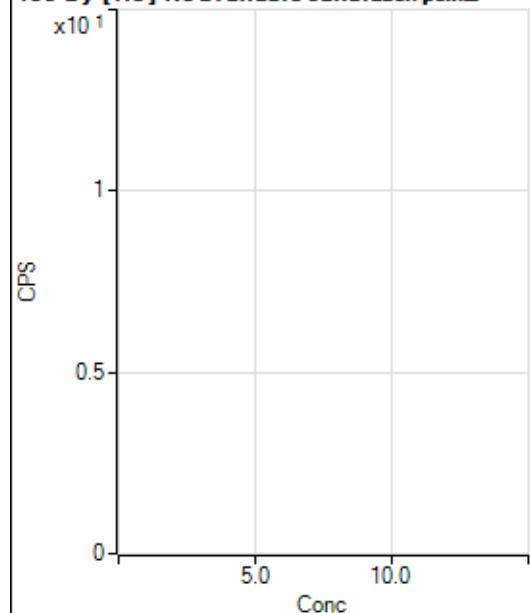
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			15.56		P	89.2
2	☐			8.89		P	43.3
3	☐			6.67		P	0.0
4	☐			95.56		P	29.0
5	☐			200.01		P	8.8
6	☐			360.02		P	13.0
7	☐			691.15		P	2.2
8	☐			1280.11		P	5.0
9	☐			324.46		P	13.2

150 Nd [He] No available calibration points

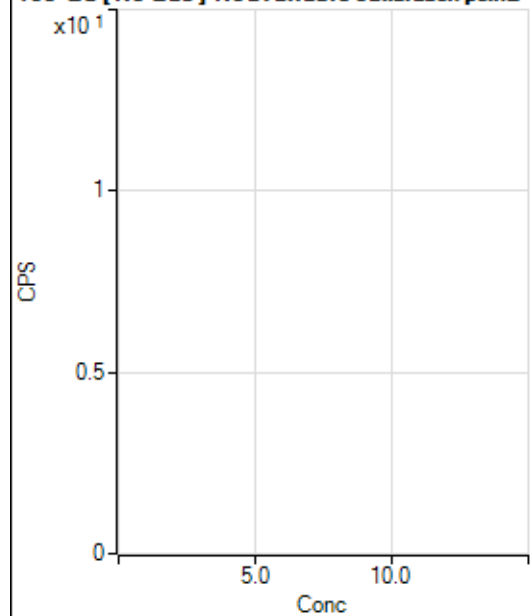
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐			3.33		P	173.
3	☐			1.11		P	173.
4	☐			8.89		P	43.3
5	☐			21.11		P	32.9
6	☐			37.78		P	28.4
7	☐			80.00		P	23.2
8	☐			122.22		P	11.0
9	☐			114.45		P	13.1

156 Dy [No Gas] No available calibration points

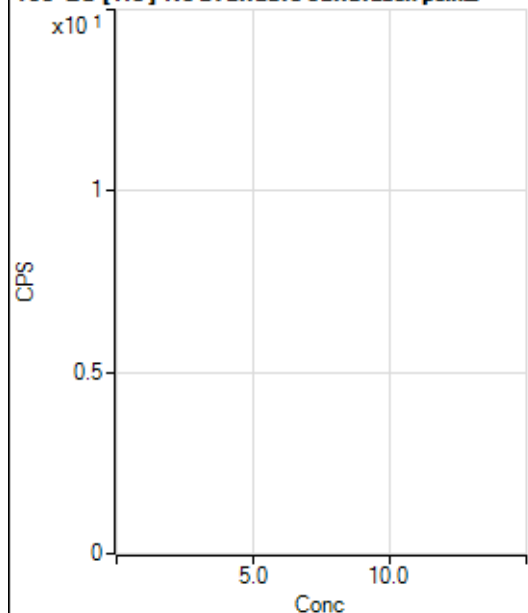
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.33		P	100.
2	☐			22.22		P	57.3
3	☐			13.89		P	124.
4	☐			27.78		P	45.8
5	☐			50.00		P	28.9
6	☐			52.78		P	55.5
7	☐			180.57		P	2.7
8	☐			277.79		P	8.7
9	☐			205.57		P	20.4

156 Dy [He] No available calibration points

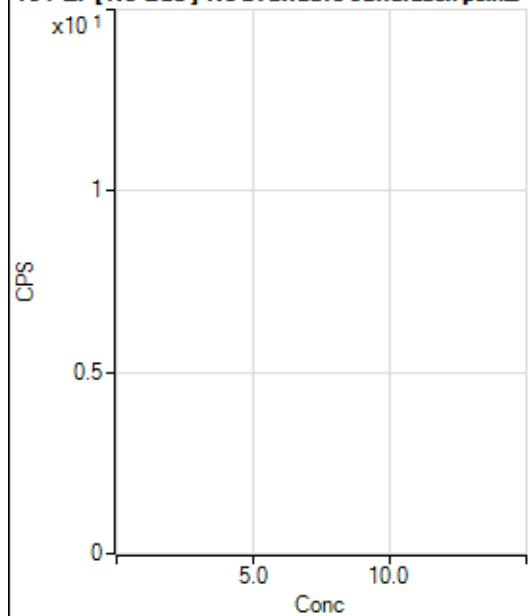
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐			6.67		P	50.0
3	☐			4.44		P	43.4
4	☐			20.00		P	28.9
5	☐			44.44		P	22.9
6	☐			58.89		P	52.6
7	☐			106.67		P	8.3
8	☐			191.12		P	2.0
9	☐			84.45		P	39.5

160 Gd [No Gas] Noavailable calibration poin_

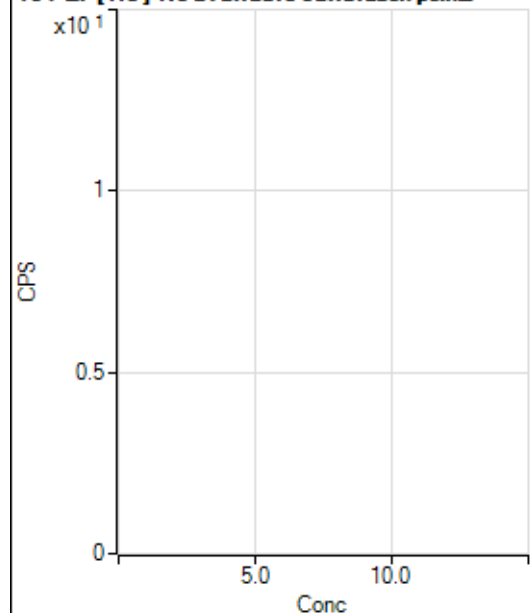
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			205.56		P	18.3
2	☐			130.56		P	7.4
3	☐			191.68		P	30.4
4	☐			163.90		P	11.7
5	☐			177.79		P	14.3
6	☐			169.45		P	29.6
7	☐			175.01		P	20.8
8	☐			186.12		P	22.5
9	☐			272.24		P	7.1

160 Gd [He] No available calibration points

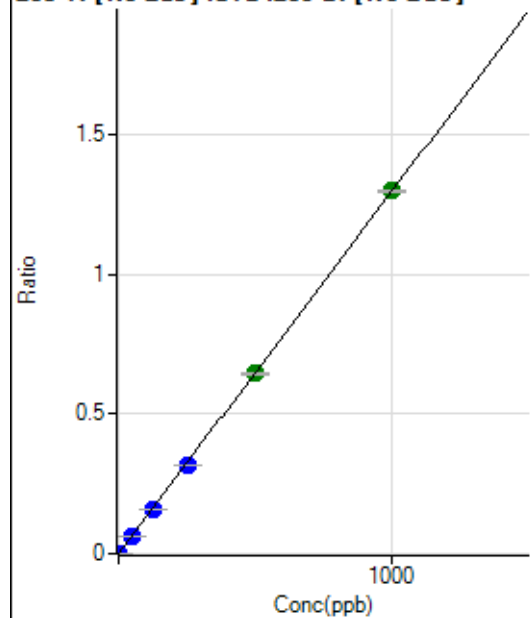
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			237.78		P	7.2
2	☐			220.01		P	12.4
3	☐			228.90		P	9.5
4	☐			226.67		P	8.2
5	☐			227.78		P	7.2
6	☐			217.78		P	10.2
7	☐			265.56		P	15.2
8	☐			246.67		P	14.6
9	☐			264.45		P	4.8

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			88.89		P	14.3
2	☐			100.01		P	8.3
3	☐			97.23		P	40.5
4	☐			44.45		P	10.8
5	☐			61.12		P	61.5
6	☐			91.67		P	24.1
7	☐			66.67		P	33.1
8	☐			88.89		P	28.6
9	☐			97.23		P	9.9

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			38.89		P	19.8
2	☐			31.11		P	24.7
3	☐			40.00		P	22.0
4	☐			34.44		P	44.7
5	☐			31.11		P	48.3
6	☐			32.22		P	47.8
7	☐			43.33		P	38.5
8	☐			54.45		P	51.3
9	☐			52.22		P	38.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	113.90	0.0000	P	40.3
2	☐	0.100	0.113	2216.96	0.0002	P	2.9
3	☐	1.000	0.973	18121.27	0.0013	P	3.0
4	☐	50.000	49.005	900967.92	0.0635	P	0.3
5	☐	125.000	123.569	2279845.56	0.1600	P	0.5
6	☐	250.000	244.014	4418724.62	0.3160	P	0.3
7	☐	500.000	497.632	8913603.93	0.6445	A	0.9
8	☐	1000.000	1002.909	17417850.56	1.2988	A	0.6
9	☐			5540.30	0.0005	P	1.8

$$y = 0.0013 * x + 7.9969E-006$$

$$R = 1.0000$$

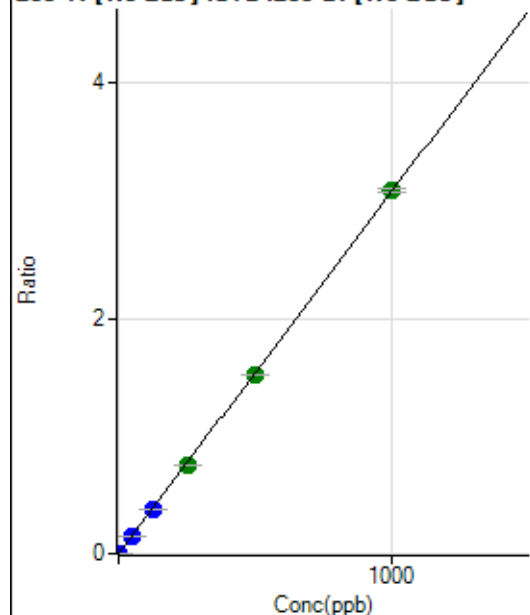
$$DL = 0.00746$$

$$BEC = 0.006175$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	313.91	0.0000	P	5.8
2	☐	0.100	0.103	4865.01	0.0003	P	1.9
3	☐	1.000	0.996	44090.99	0.0031	P	2.1
4	☐	50.000	49.367	2155455.76	0.1518	P	0.7
5	☐	125.000	122.994	5389062.32	0.3783	P	0.2
6	☐	250.000	246.591	10604286.87	0.7584	A	0.2
7	☐	500.000	495.911	21095103.95	1.5252	A	0.4
8	☐	1000.000	1003.179	41373379.05	3.0853	A	1.0
9	☐			13068.02	0.0011	P	2.0

$$y = 0.0031 * x + 2.2026E-005$$

$$R = 1.0000$$

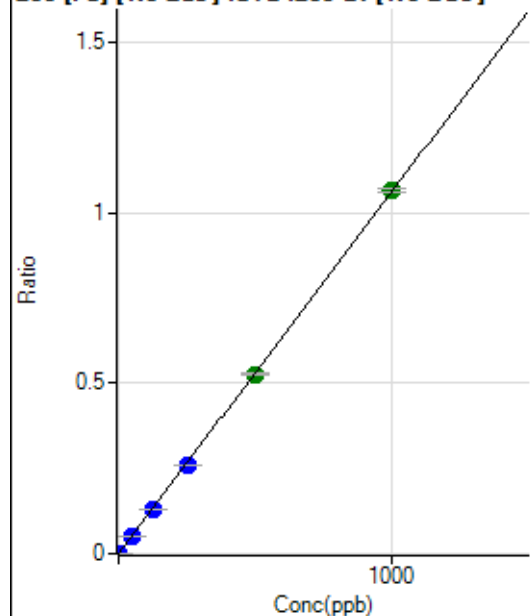
$$DL = 0.001241$$

$$BEC = 0.007162$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	314.83	0.0000	P	3.7
2	☐	0.100	0.103	1900.20	0.0001	P	5.0
3	☐	1.000	0.992	15357.36	0.0011	P	0.8
4	☐	50.000	49.386	744104.46	0.0524	P	1.0
5	☐	125.000	122.938	1858546.97	0.1305	P	0.1
6	☐	250.000	244.319	3624873.14	0.2592	P	0.7
7	☐	500.000	496.456	7285791.13	0.5268	A	0.4
8	☐	1000.000	1003.481	14277838.98	1.0647	A	1.0
9	☐			24400.62	0.0021	P	1.2

$$y = 0.0011 * x + 2.2106E-005$$

$$R = 1.0000$$

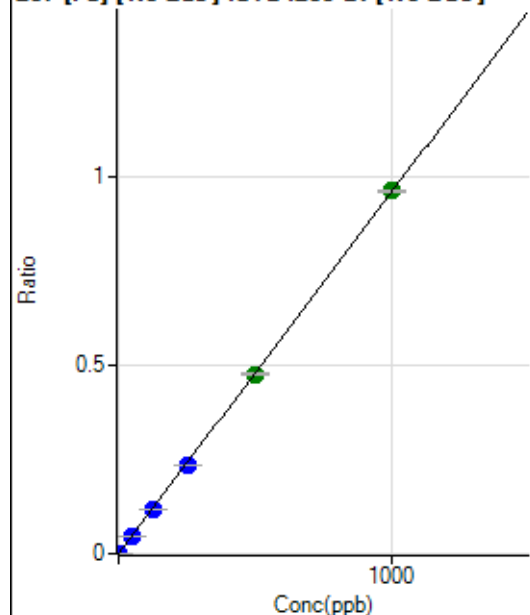
$$DL = 0.002309$$

$$BEC = 0.02084$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	322.24	0.0000	P	18.6
2	☐	0.100	0.101	1716.83	0.0001	P	3.4
3	☐	1.000	0.978	13701.84	0.0010	P	0.8
4	☐	50.000	49.323	670094.56	0.0472	P	0.4
5	☐	125.000	122.941	1675790.99	0.1176	P	0.7
6	☐	250.000	245.223	3280532.42	0.2346	P	0.6
7	☐	500.000	495.730	6559509.64	0.4743	A	1.0
8	☐	1000.000	1003.621	12875747.97	0.9601	A	0.8
9	☐			20761.04	0.0018	P	1.7

$$y = 9.5665\text{E-}004 * x + 2.2607\text{E-}005$$

$$R = 1.0000$$

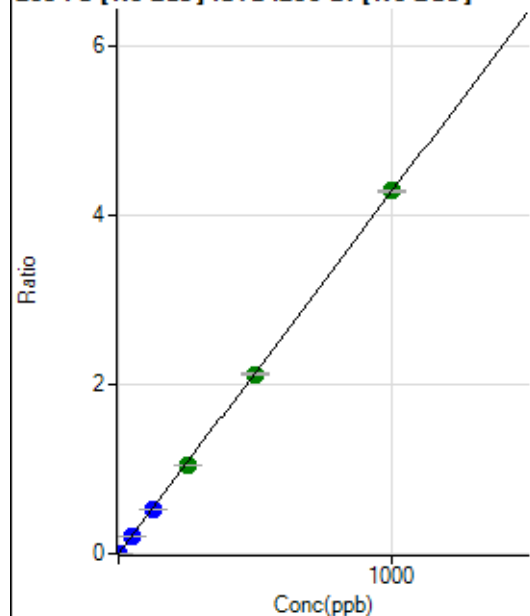
$$DL = 0.01321$$

$$BEC = 0.02363$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1272.28	0.0001	P	1.8
2	☐	0.100	0.102	7588.12	0.0005	P	2.5
3	☐	1.000	0.987	61608.85	0.0043	P	1.3
4	☐	50.000	49.439	3001954.54	0.2115	P	0.4
5	☐	125.000	123.115	7500663.43	0.5265	P	0.3
6	☐	250.000	246.523	14740115.40	1.0542	A	0.2
7	☐	500.000	496.324	29353767.90	2.1223	A	0.6
8	☐	1000.000	1002.971	57512567.25	4.2886	A	0.6
9	☐			97221.10	0.0083	P	0.6

$$y = 0.0043 * x + 8.9296\text{E-}005$$

$$R = 1.0000$$

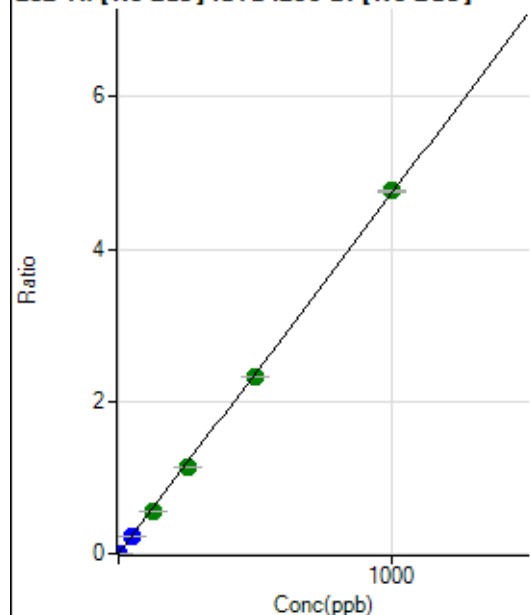
$$DL = 0.00114$$

$$BEC = 0.02088$$

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	150.01	0.0000	P	12.9
2	☐	0.100	0.100	6992.84	0.0005	P	1.0
3	☐	1.000	0.942	63851.84	0.0045	P	1.0
4	☐	50.000	47.305	3176007.77	0.2237	P	0.6
5	☐	125.000	118.651	7994420.95	0.5612	A	1.1
6	☐	250.000	241.154	15948432.19	1.1406	A	0.0
7	☐	500.000	491.256	32136632.43	2.3235	A	0.8
8	☐	1000.000	1007.512	63904047.26	4.7653	A	0.7
9	☐			12754.65	0.0011	P	3.1

$$y = 0.0047 * x + 1.0525E-005$$

$$R = 0.9999$$

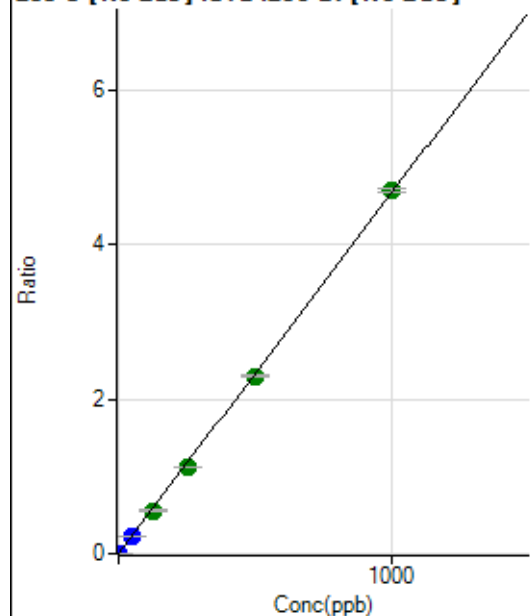
$$DL = 0.0008632$$

$$BEC = 0.002225$$

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	322.24	0.0000	P	21.6
2	☐	0.100	0.095	6715.90	0.0005	P	1.4
3	☐	1.000	0.949	63553.06	0.0044	P	0.5
4	☐	50.000	48.135	3185635.36	0.2244	P	0.3
5	☐	125.000	119.485	7935285.68	0.5571	A	1.4
6	☐	250.000	241.789	15761458.34	1.1272	A	0.5
7	☐	500.000	492.960	31786706.61	2.2982	A	0.6
8	☐	1000.000	1006.355	62915391.68	4.6916	A	1.0
9	☐			12820.70	0.0011	P	1.6

$$y = 0.0047 * x + 2.2579E-005$$

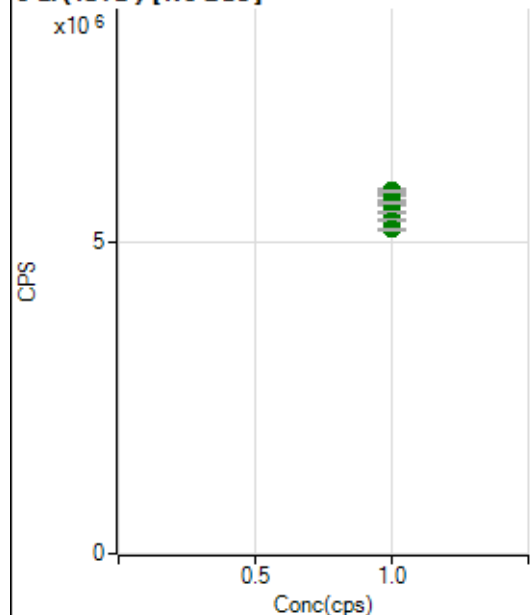
$$R = 0.9999$$

$$DL = 0.003142$$

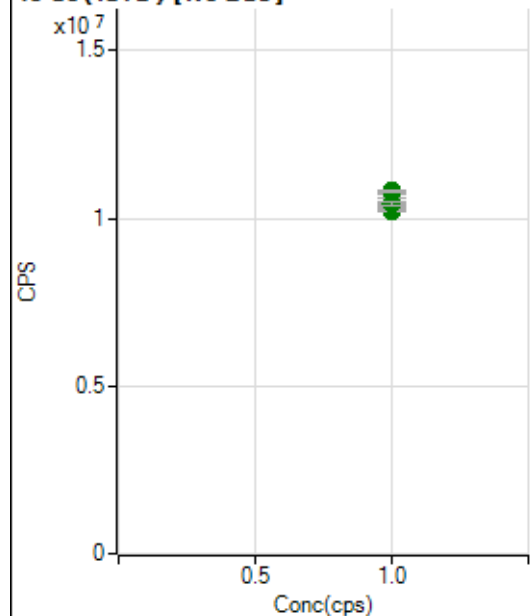
$$BEC = 0.004843$$

Weight: <None>

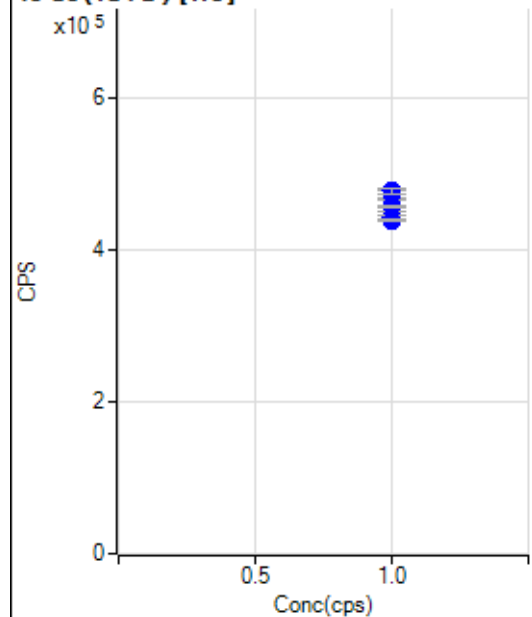
Min Conc: 0

6 Li (ISTD) [No Gas]

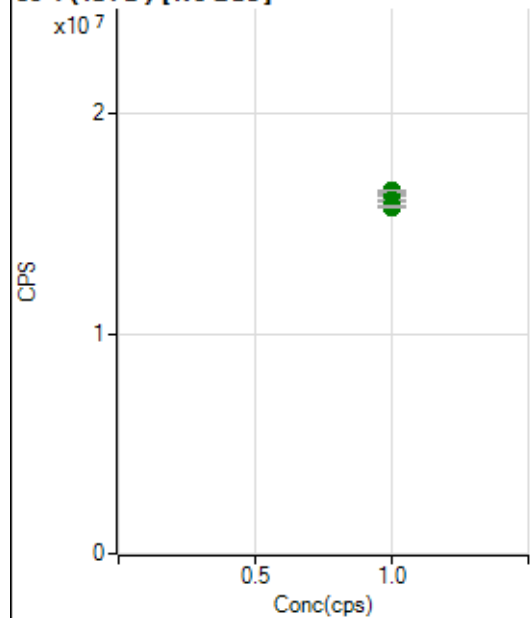
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5635150.06		A	1.3
2	☐	1.000		5800217.20		A	0.4
3	☐	1.000		5767619.99		A	0.5
4	☐	1.000		5823077.83		A	1.3
5	☐	1.000		5809336.16		A	0.7
6	☐	1.000		5621809.92		A	0.5
7	☐	1.000		5475431.10		A	0.7
8	☐	1.000		5349809.51		A	0.4
9	☐	1.000		5205068.60		A	1.0

45 Sc (ISTD) [No Gas]

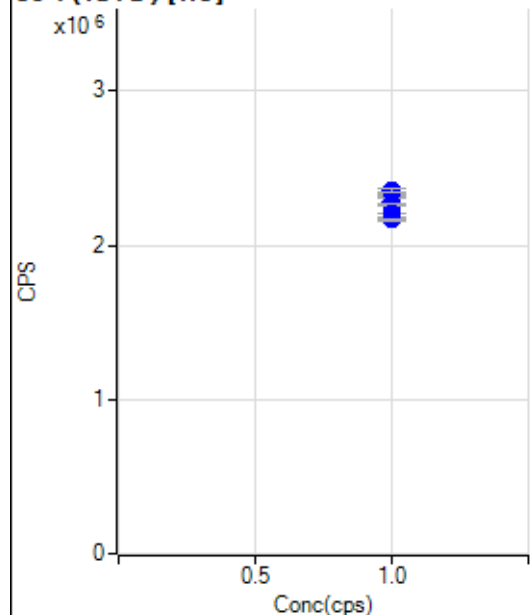
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10703838.69		A	1.8
2	☐	1.000		10816620.90		A	0.4
3	☐	1.000		10768089.74		A	0.5
4	☐	1.000		10759268.99		A	0.4
5	☐	1.000		10808792.26		A	0.2
6	☐	1.000		10442609.61		A	0.3
7	☐	1.000		10276458.30		A	0.3
8	☐	1.000		10223285.90		A	0.6
9	☐	1.000		10432843.90		A	1.2

45 Sc (ISTD) [He]

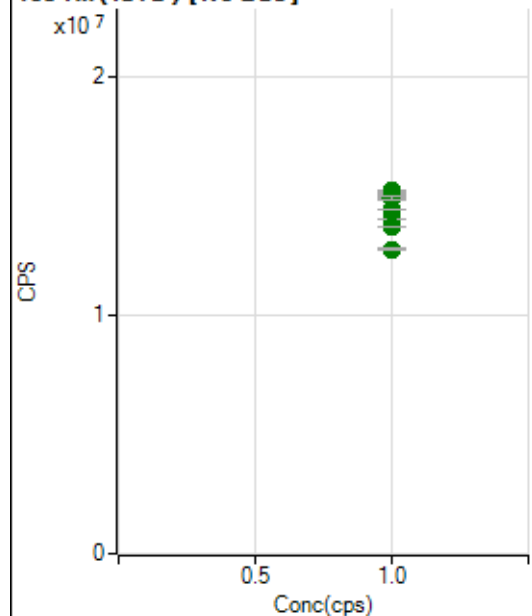
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		458268.78		P	3.1
2	☐	1.000		465620.29		P	0.2
3	☐	1.000		473477.46		P	2.1
4	☐	1.000		465463.05		P	0.1
5	☐	1.000		457780.56		P	0.5
6	☐	1.000		442853.88		P	0.6
7	☐	1.000		438302.60		P	0.4
8	☐	1.000		439098.54		P	0.4
9	☐	1.000		477554.92		P	1.3

89 Y (ISTD) [No Gas]

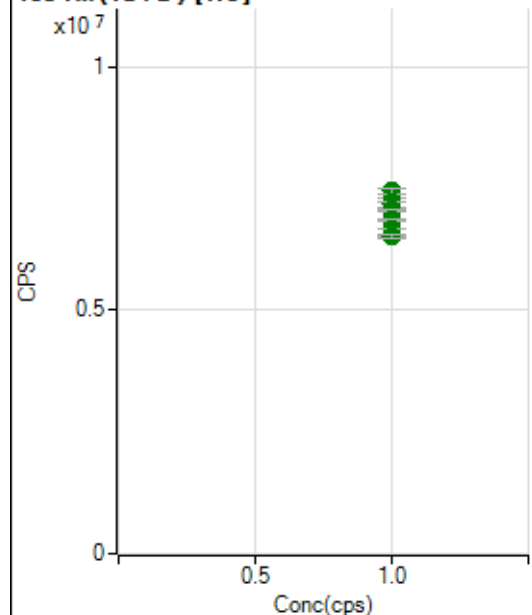
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16382156.84		A	1.6
2	☐	1.000		16490550.87		A	0.4
3	☐	1.000		16358074.62		A	0.2
4	☐	1.000		16364639.48		A	0.6
5	☐	1.000		16463629.06		A	0.7
6	☐	1.000		16071235.04		A	0.7
7	☐	1.000		15830782.54		A	0.3
8	☐	1.000		15783022.13		A	0.4
9	☐	1.000		15772979.90		A	0.8

89 Y(ISTD) [He]

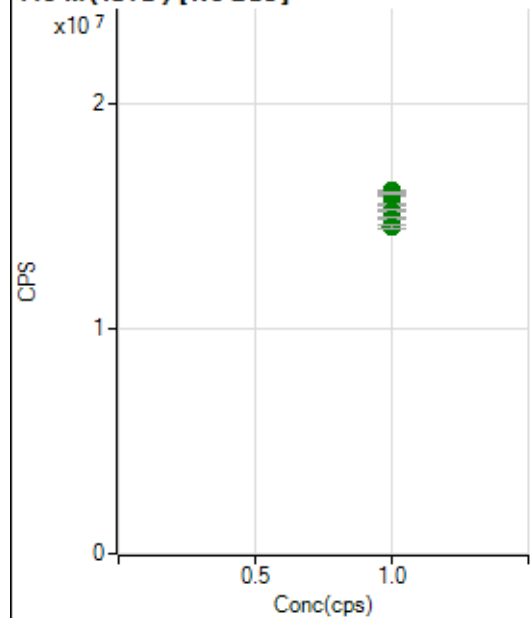
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2283626.13		P	2.7
2	☐	1.000		2328837.97		P	0.4
3	☐	1.000		2347180.10		P	1.8
4	☐	1.000		2305517.40		P	0.3
5	☐	1.000		2265281.82		P	0.5
6	☐	1.000		2204923.09		P	0.1
7	☐	1.000		2182403.89		P	0.3
8	☐	1.000		2168933.67		P	0.5
9	☐	1.000		2353067.00		P	1.2

103 Rh(ISTD) [No Gas]

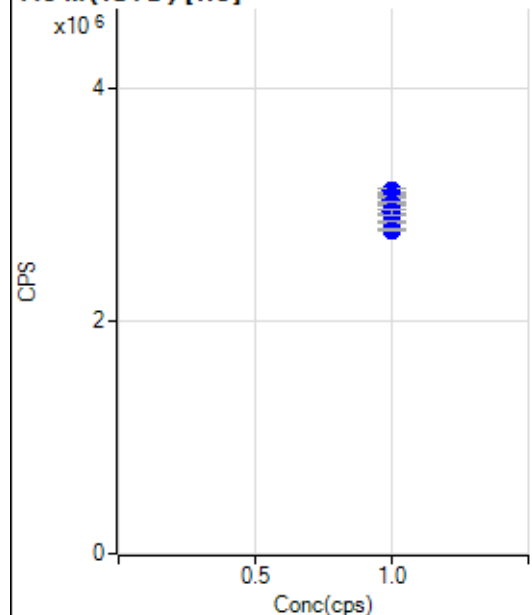
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		15118849.99		A	1.7
2	☐	1.000		15196233.85		A	0.6
3	☐	1.000		15042416.66		A	0.4
4	☐	1.000		14947259.88		A	0.4
5	☐	1.000		14910575.68		A	0.9
6	☐	1.000		14433854.66		A	0.2
7	☐	1.000		14027486.08		A	0.4
8	☐	1.000		13680910.38		A	0.2
9	☐	1.000		12740359.31		A	0.8

103 Rh (ISTD) [He]

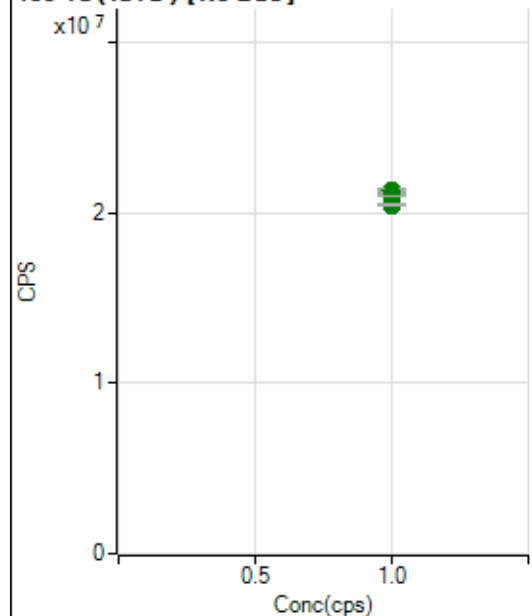
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		7200284.96		A	2.5
2	☐	1.000		7308696.28		A	0.2
3	☐	1.000		7446622.18		A	1.5
4	☐	1.000		7221105.03		A	0.1
5	☐	1.000		7054231.21		A	0.8
6	☐	1.000		6853770.87		A	0.2
7	☐	1.000		6671951.77		A	0.4
8	☐	1.000		6528284.97		A	0.5
9	☐	1.000		6497017.89		A	1.3

115 In (ISTD) [No Gas]

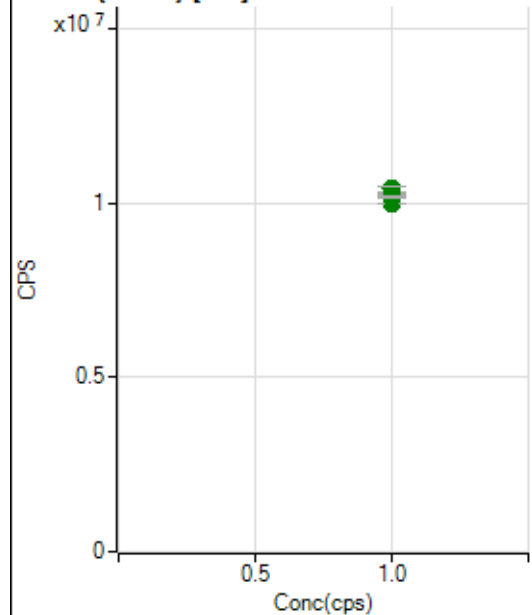
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16050230.29		A	1.6
2	☐	1.000		16141387.93		A	0.2
3	☐	1.000		15989702.04		A	0.6
4	☐	1.000		16008659.74		A	1.0
5	☐	1.000		16043156.14		A	0.9
6	☐	1.000		15557738.16		A	0.5
7	☐	1.000		15259427.33		A	0.4
8	☐	1.000		14921710.84		A	0.1
9	☐	1.000		14551533.89		A	1.1

115 In (ISTD) [He]

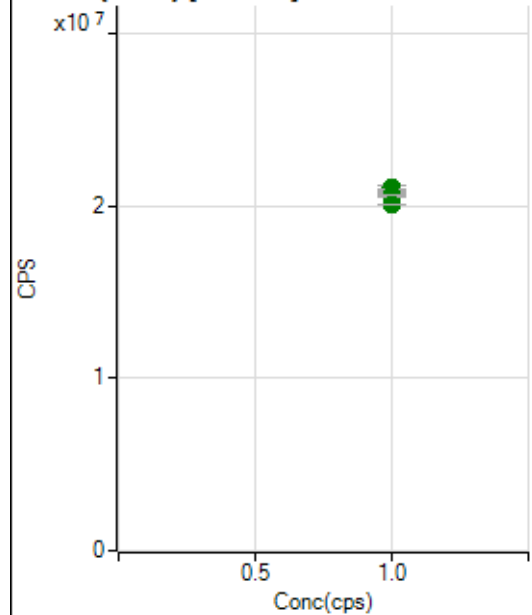
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3039872.02		P	2.8
2	☐	1.000		3104686.26		P	0.1
3	☐	1.000		3119153.37		P	1.3
4	☐	1.000		3068504.64		P	0.4
5	☐	1.000		3015979.79		P	0.9
6	☐	1.000		2915749.11		P	0.6
7	☐	1.000		2852509.53		P	0.2
8	☐	1.000		2781951.58		P	0.6
9	☐	1.000		2934802.59		P	1.5

159 Tb (ISTD) [No Gas]

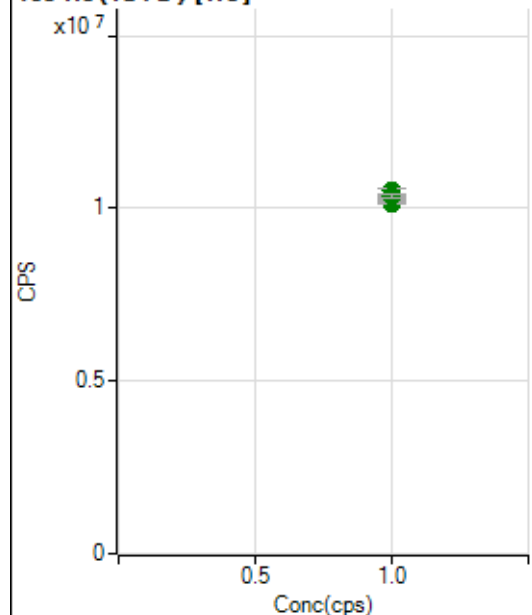
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		21207949.69		A	1.5
2	☐	1.000		21235783.02		A	0.4
3	☐	1.000		21049440.10		A	0.4
4	☐	1.000		21131172.04		A	0.6
5	☐	1.000		21310196.76		A	1.0
6	☐	1.000		21034479.69		A	0.4
7	☐	1.000		21114287.32		A	0.3
8	☐	1.000		20997776.07		A	0.1
9	☐	1.000		20498489.00		A	0.2

159 Tb (ISTD) [He]

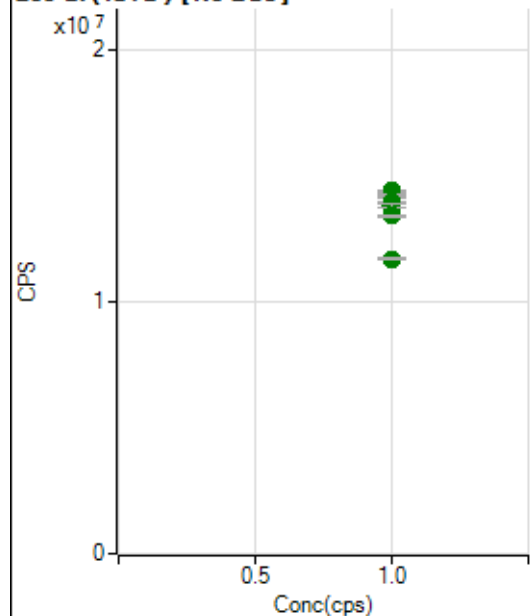
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10157098.81		A	2.9
2	☐	1.000		10259318.04		A	0.6
3	☐	1.000		10421512.00		A	1.8
4	☐	1.000		10209442.00		A	0.3
5	☐	1.000		10190062.69		A	0.6
6	☐	1.000		10005041.45		A	0.2
7	☐	1.000		10019182.56		A	0.1
8	☐	1.000		9993897.08		A	0.5
9	☐	1.000		10189820.68		A	0.8

165 Ho (ISTD) [No Gas]

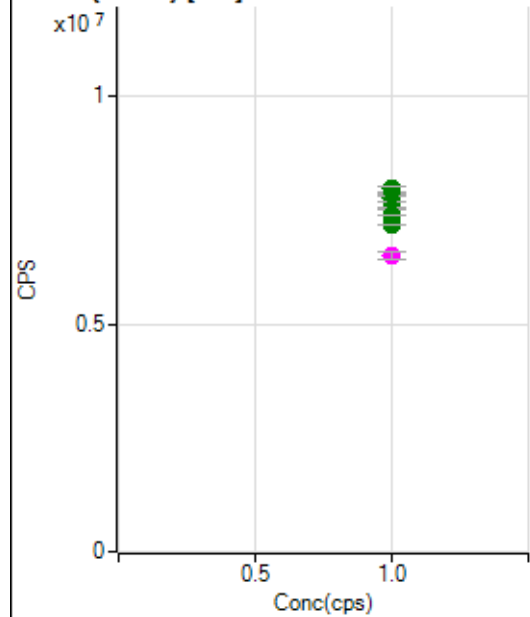
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		20768586.23		A	2.1
2	☐	1.000		20950224.95		A	0.5
3	☐	1.000		20654624.07		A	0.8
4	☐	1.000		20786604.46		A	0.9
5	☐	1.000		21075212.80		A	0.9
6	☐	1.000		20847446.65		A	0.3
7	☐	1.000		20997500.99		A	0.4
8	☐	1.000		20662499.77		A	0.5
9	☐	1.000		20100602.19		A	0.0

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10247614.01		A	2.4
2	☐	1.000		10358962.41		A	0.2
3	☐	1.000		10503384.70		A	1.3
4	☐	1.000		10322482.83		A	0.3
5	☐	1.000		10273648.60		A	0.1
6	☐	1.000		10145905.13		A	0.6
7	☐	1.000		10141663.67		A	0.4
8	☐	1.000		10164962.21		A	0.3
9	☐	1.000		10372325.12		A	1.0

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14247356.04		A	1.7
2	☐	1.000		14413805.20		A	0.6
3	☐	1.000		14295052.43		A	0.4
4	☐	1.000		14194594.37		A	0.6
5	☐	1.000		14246234.51		A	1.0
6	☐	1.000		13982443.82		A	0.2
7	☐	1.000		13831572.43		A	0.7
8	☐	1.000		13410882.30		A	0.9
9	☐	1.000		11701127.60		A	0.4

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7766263.22		A	2.5
2	☐	1.000		7841089.54		A	0.1
3	☐	1.000		7972135.16		A	1.8
4	☐	1.000		7819641.20		A	0.1
5	☐	1.000		7685366.48		A	0.4
6	☐	1.000		7528989.12		A	0.5
7	☐	1.000		7395644.20		A	0.1
8	☐	1.000		7185344.06		A	0.3
9	☐	1.000		6514448.37		M	2.8

US EPA Tune Check Sample Report

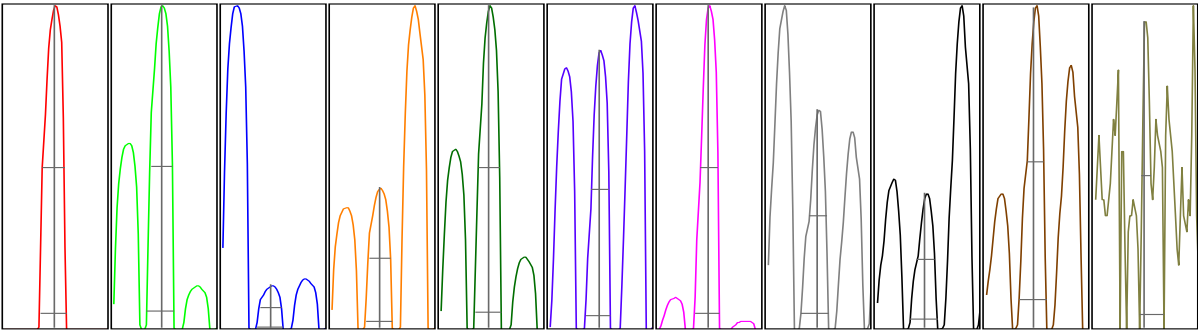
Batch Folder D:\ICP-MS Data\P7102418 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	25611	0.47	5.00	
24	193035	0.61	5.00	
25	25610	0.33	5.00	
26	29723	0.73	5.00	
59	171758	0.48	5.00	
113	20582	0.61	5.00	
115	242251	0.60	5.00	
206	62839	0.42	5.00	
207	58133	0.33	5.00	
208	134715	0.21	5.00	
220	1	34.24		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	25794	25512	25553	25672	25523
24	194829	193581	191847	192524	192393
25	25721	25657	25599	25494	25576
26	30096	29703	29557	29652	29605
59	173073	172067	171099	171335	171214
113	20752	20659	20570	20465	20465
115	244709	242172	242053	241217	241105
206	63196	62799	62481	62961	62757
207	58246	57912	57993	58127	58386
208	134733	134518	134465	135192	134667
220	0	0	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	43705	9.00	8.9 - 9.1		0.781	0.900	
24	315277	23.95	23.9 - 24.1		0.786	0.900	
25	42259	24.95	24.9 - 25.1		0.780	0.900	
26	48961	25.95	25.9 - 26.1		0.785	0.900	
59	296637	58.95	58.9 - 59.1		0.781	0.900	
113	39487	113.00	112.9 - 113.1		0.723	0.900	
115	467318	115.00	114.9 - 115.1		0.721	0.900	
206	122101	206.00	205.9 - 206.1		0.787	0.900	
207	109721	206.95	206.9 - 207.1		0.777	0.900	
208	259770	207.95	207.9 - 208.1		0.781	0.900	
220	1	220.00	-		0.687		

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	7.0	V	Deflect	13.6	V
Extract 2	-150.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-80	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	41748	0.46	
89	20966	0.83	
205	51029	0.71	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	41797	41728	41864	41429	41920
89	20904	21106	21135	20704	20982
205	50947	51153	51532	50531	50982

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	6.9	V	Deflect	2.4	V
Extract 2	-125.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	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			