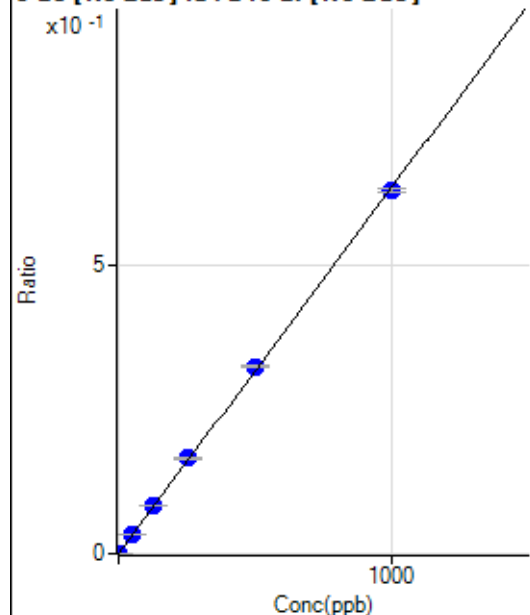


Calibration for 005CALS.d

Batch Folder: D:\ICP-MS Data\P7120819-MS.b\
 Analysis File: P7120819-MS.batch.bin
 DA Date-Time: 2019-12-09 01:02:50
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-12-08 13:41:57
2	004CALS.d	S02	2019-12-08 13:45:34
3	005CALS.d	S03	2019-12-08 13:50:31
4	006CALS.d	S04	2019-12-08 13:54:43
5	007CALS.d	S05	2019-12-08 13:58:33
6	008CALS.d	S06	2019-12-08 14:02:20
7	009CALS.d	S07	2019-12-08 14:06:07
8	010CALS.d	S08	2019-12-08 14:09:55

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	64.82	0.0000	P	4.8
2	☐	1.000	1.092	3089.29	0.0007	P	5.5
3	☐	50.000	52.727	145739.05	0.0334	P	0.9
4	☐	125.000	131.617	357741.86	0.0833	P	0.2
5	☐	250.000	260.122	685299.61	0.1645	P	0.4
6	☐	500.000	510.598	1311948.39	0.3229	P	0.7
7	☐	1000.000	991.207	2548315.02	0.6269	P	1.0
8	☐			4797.17	0.0012	P	7.6

$$y = 6.3243\text{E-}004 * x + 1.4961\text{E-}005$$

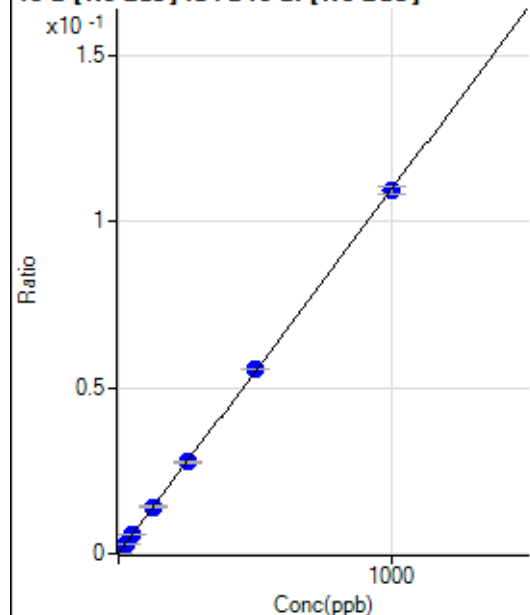
$$R = 0.9999$$

$$DL = 0.003404$$

$$BEC = 0.02366$$

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	355.58	0.0001	P	14.2
2	☐	25.000	25.355	12533.46	0.0029	P	3.5
3	☐	50.000	51.349	24960.27	0.0057	P	2.2
4	☐	125.000	126.933	60156.62	0.0140	P	2.8
5	☐	250.000	252.407	115634.03	0.0278	P	2.0
6	☐	500.000	505.904	225716.75	0.0556	P	0.4
7	☐	1000.000	996.128	444350.03	0.1093	P	2.0
8	☐			8866.83	0.0022	P	9.5

$$y = 1.0966\text{E-}004 * x + 8.2116\text{E-}005$$

$$R = 1.0000$$

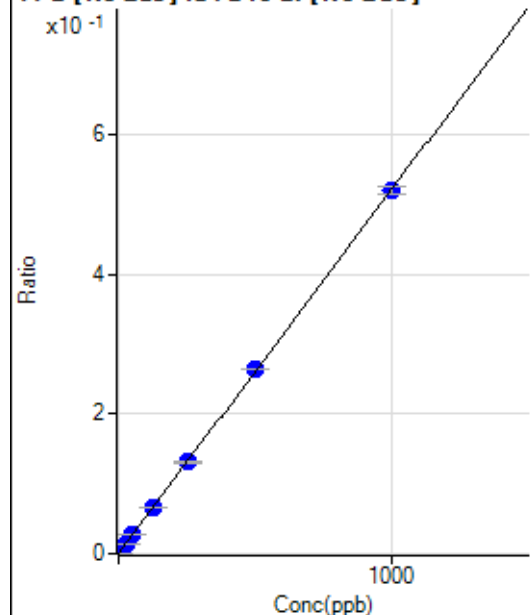
$$DL = 0.3184$$

$$BEC = 0.7488$$

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	1636.28	0.0004	P	6.3
2	☐	25.000	25.152	59088.63	0.0135	P	0.3
3	☐	50.000	51.277	118484.22	0.0271	P	0.9
4	☐	125.000	125.318	282439.90	0.0657	P	1.7
5	☐	250.000	250.356	545437.41	0.1309	P	1.1
6	☐	500.000	506.562	1074815.75	0.2646	P	0.7
7	☐	1000.000	996.523	2114033.49	0.5201	P	2.2
8	☐			42432.82	0.0105	P	7.3

$$y = 5.2153\text{E-}004 * x + 3.7777\text{E-}004$$

$$R = 1.0000$$

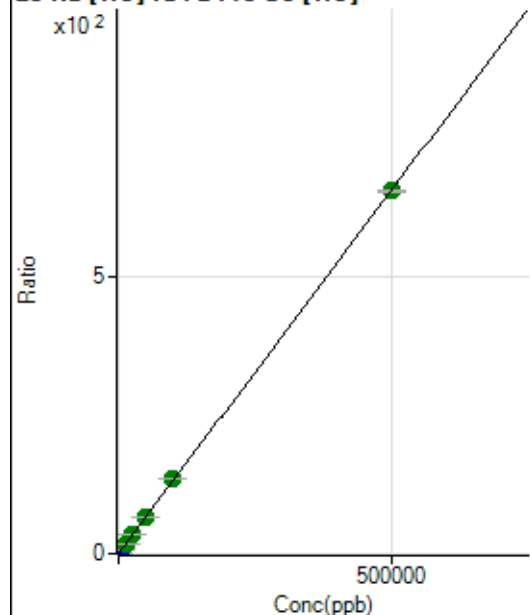
$$DL = 0.1376$$

$$BEC = 0.7244$$

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	21566.19	0.0436	P	3.8
2	☐	500.000	505.570	354870.77	0.7072	P	1.2
3	☐	5000.000	5170.059	3423068.48	6.8298	P	1.0
4	☐	12500.000	12860.845	8181112.94	16.9248	A	0.8
5	☐	25000.000	25732.262	16053428.31	33.8198	A	0.3
6	☐	50000.000	51282.454	31800035.43	67.3571	A	0.7
7	☐	100000.00	103210.30	64857656.31	135.5177	A	0.4
8	☐	500000.00	499182.35	342309015.98	655.2715	A	0.5

$$y = 0.0013 * x + 0.0436$$

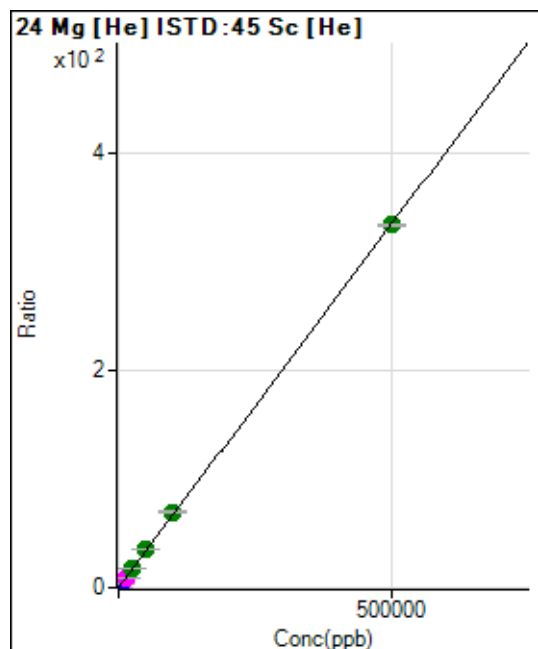
$$R = 1.0000$$

$$DL = 3.829$$

$$BEC = 33.21$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	280.57	0.0006	P	19.2
2	☐	500.000	531.963	178982.79	0.3567	P	1.6
3	☐	5000.000	5302.278	1779375.84	3.5502	P	0.5
4	☐	12500.000	13167.475	4261513.46	8.8156	M	0.3
5	☐	25000.000	26303.372	8358889.77	17.6096	A	0.3
6	☐	50000.000	51920.972	16410310.96	34.7594	A	0.2
7	☐	100000.00	104353.00	33434859.77	69.8605	A	0.5
8	☐	500000.00	498852.39	174459194.18	333.9610	A	0.4

$$y = 6.6946\text{E-}004 * x + 5.6651\text{E-}004$$

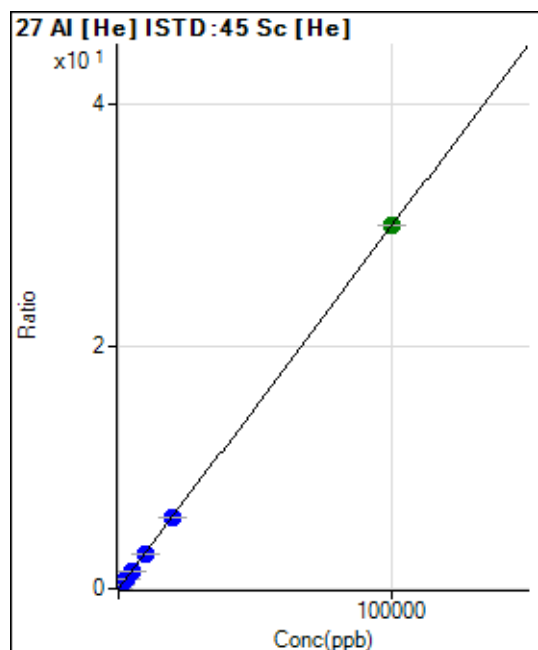
$$R = 1.0000$$

$$DL = 0.4864$$

$$BEC = 0.8462$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	63.89	0.0001	P	28.0
2	☐	20.000	18.987	2919.86	0.0058	P	5.1
3	☐	1000.000	1010.424	151845.68	0.3030	P	0.7
4	☐	2500.000	2490.297	360861.40	0.7465	P	0.5
5	☐	5000.000	5008.513	712603.60	1.5012	P	0.4
6	☐	10000.000	9778.722	1383720.10	2.9309	P	0.2
7	☐	20000.000	19794.890	2839399.54	5.9329	P	0.7
8	☐	100000.00	100062.86	15666581.77	29.9901	A	0.1

$$y = 2.9971\text{E-}004 * x + 1.2931\text{E-}004$$

$$R = 1.0000$$

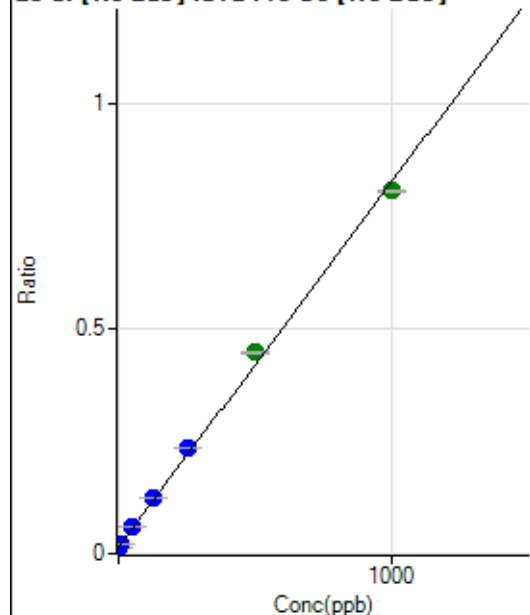
$$DL = 0.363$$

$$BEC = 0.4315$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	172752.58	0.0146	P	0.8
2	☐	10.000	9.630	267662.41	0.0224	P	0.7
3	☐	50.000	54.962	699932.48	0.0591	P	0.6
4	☐	125.000	136.354	1458797.23	0.1250	P	0.8
5	☐	250.000	272.060	2664064.66	0.2348	P	1.1
6	☐	500.000	533.177	5002086.00	0.4461	A	0.3
7	☐	1000.000	976.233	9051876.07	0.8046	A	0.9
8	☐			565168.65	0.0493	P	0.4

$$y = 8.0915E-004 * x + 0.0146$$

R = 0.9989

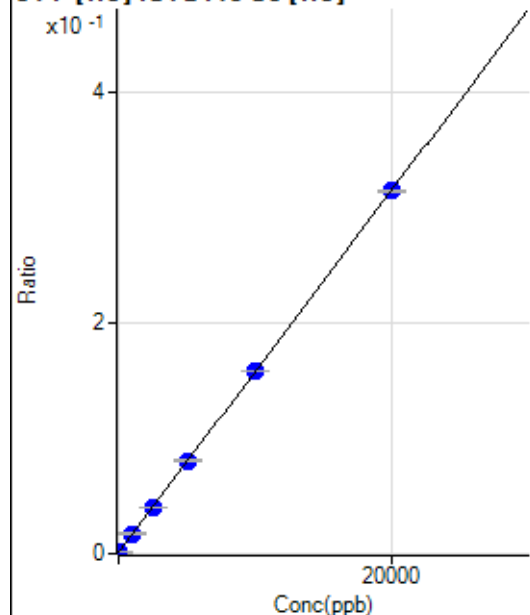
DL = 0.4225

BEC = 18.09

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-29.065	238.90	0.0005	P	27.7
2	☐	0.000	29.065	700.04	0.0014	P	18.7
3	☐	1000.000	1030.925	8586.17	0.0171	P	5.1
4	☐	2500.000	2490.773	19368.73	0.0401	P	3.2
5	☐	5000.000	5056.973	38149.75	0.0804	P	1.8
6	☐	10000.000	10006.885	74653.36	0.1581	P	0.2
7	☐	20000.000	19981.921	150664.22	0.3148	P	0.5
8	☐			311.13	0.0006	P	10.1

$$y = 1.5708E-005 * x + 9.3985E-004$$

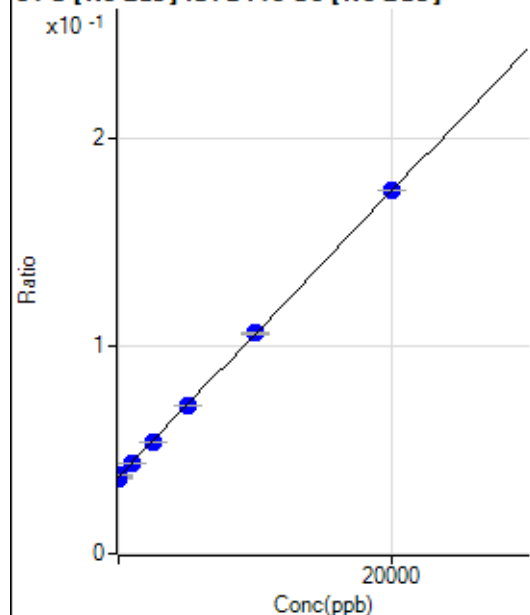
R = 1.0000

DL = 37.7

BEC = 59.83

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	-87.479	431616.26	0.0366	P	0.7
2	☐	0.000	87.479	450804.52	0.0378	P	0.5
3	☐	1000.000	940.014	516862.19	0.0437	P	1.1
4	☐	2500.000	2443.881	630513.63	0.0540	P	0.5
5	☐	5000.000	4978.974	811085.75	0.0715	P	0.8
6	☐	10000.000	10031.651	1191881.37	0.1063	P	0.5
7	☐	20000.000	19999.445	1968443.25	0.1750	P	0.1
8	☐			389840.70	0.0340	P	1.3

$$y = 6.8892\text{E-}006 * x + 0.0372$$

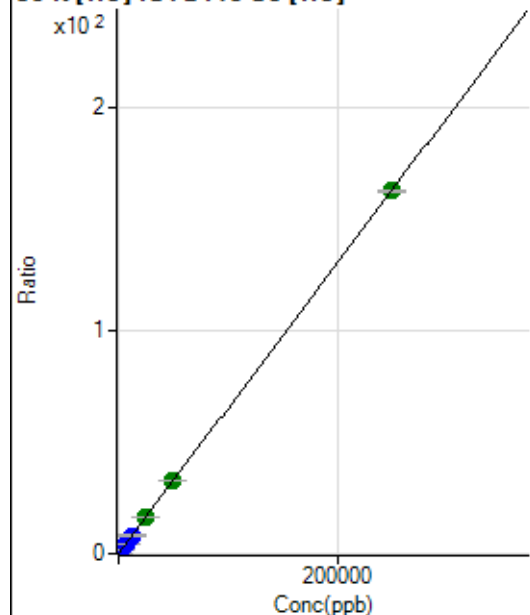
R = 1.0000

DL = 93.66

BEC = 5396

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	20130.98	0.0407	P	3.7
2	☐	500.000	493.717	181847.75	0.3624	P	1.5
3	☐	2500.000	2542.602	850800.13	1.6975	P	0.1
4	☐	6250.000	6276.118	1996558.31	4.1304	P	0.6
5	☐	12500.000	12521.096	3892200.13	8.1997	P	0.3
6	☐	25000.000	24953.583	7695894.10	16.3011	A	0.4
7	☐	50000.000	50037.455	15624415.63	32.6463	A	0.3
8	☐	250000.00	249995.02	85119901.90	162.9436	A	0.2

$$y = 6.5162\text{E-}004 * x + 0.0407$$

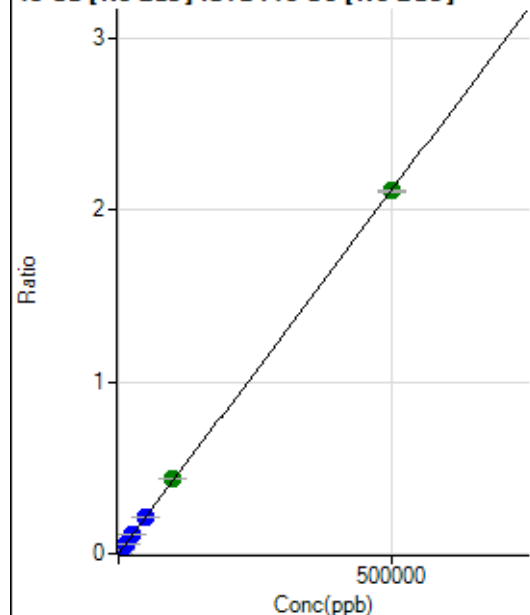
R = 1.0000

DL = 6.99

BEC = 62.43

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	388.91	0.0000	P	7.0
2	☐	500.000	499.185	25597.93	0.0021	P	1.5
3	☐	5000.000	5133.814	257607.11	0.0218	P	0.6
4	☐	12500.000	12825.462	633893.68	0.0543	P	0.4
5	☐	25000.000	25630.290	1231084.11	0.1085	P	0.6
6	☐	50000.000	50684.190	2405387.42	0.2145	P	0.3
7	☐	100000.00	103110.47	4909287.35	0.4363	A	0.4
8	☐	500000.00	499268.49	24205838.91	2.1127	A	0.6

$$y = 4.2314\text{E-}006 * x + 3.2962\text{E-}005$$

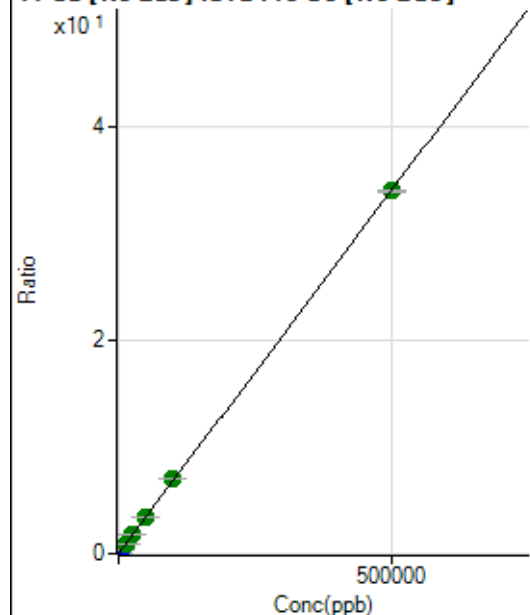
$$R = 1.0000$$

$$DL = 1.63$$

$$BEC = 7.79$$

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	19092.10	0.0016	P	0.9
2	☐	500.000	497.426	423764.83	0.0355	P	0.8
3	☐	5000.000	5142.217	4168271.93	0.3520	P	0.3
4	☐	12500.000	12768.907	10175810.99	0.8717	A	0.2
5	☐	25000.000	25621.977	19830773.88	1.7476	A	0.6
6	☐	50000.000	51208.377	39148496.36	3.4911	A	0.3
7	☐	100000.00	102230.36	78394403.83	6.9678	A	0.5
8	☐	500000.00	499393.84	389913822.60	34.0313	A	0.5

$$y = 6.8142\text{E-}005 * x + 0.0016$$

$$R = 1.0000$$

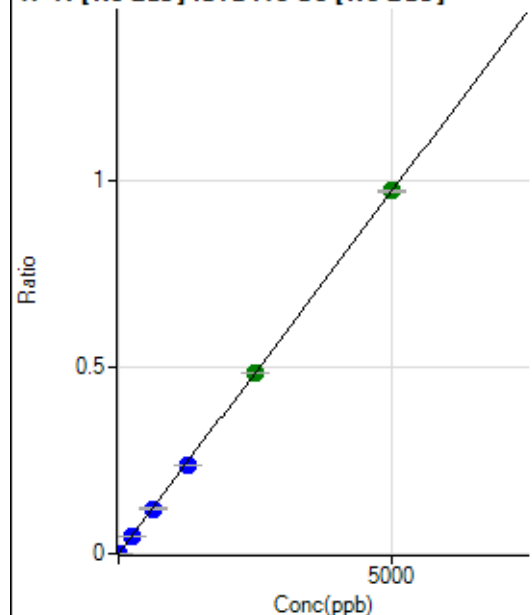
$$DL = 0.628$$

$$BEC = 23.74$$

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	122.22	0.0000	P	31.3
2	☐	5.000	5.206	12166.60	0.0010	P	4.9
3	☐	250.000	248.190	569874.76	0.0481	P	0.2
4	☐	625.000	622.488	1408875.85	0.1207	P	0.6
5	☐	1250.000	1227.450	2700451.62	0.2380	P	0.6
6	☐	2500.000	2492.234	5418374.30	0.4832	A	0.5
7	☐	5000.000	5009.925	10927921.17	0.9713	A	0.5
8	☐			20951.60	0.0018	P	1.5

$$y = 1.9387E-004 * x + 1.0353E-005$$

$$R = 1.0000$$

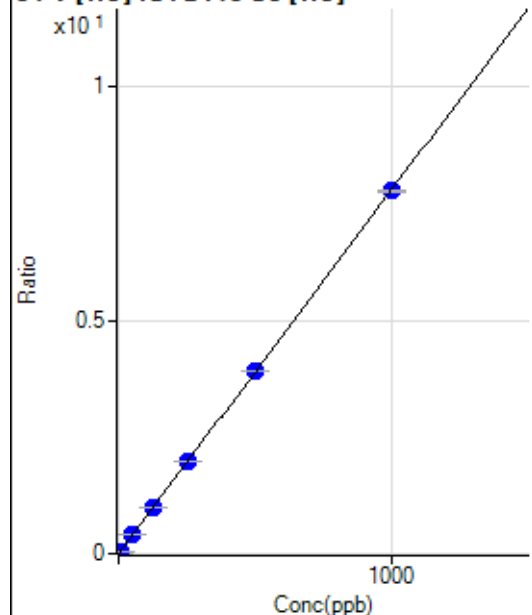
$$DL = 0.0501$$

$$BEC = 0.0534$$

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	22.22	0.0000	P	30.8
2	☐	5.000	5.157	20163.99	0.0402	P	2.6
3	☐	50.000	50.610	197470.59	0.3940	P	0.7
4	☐	125.000	126.632	476508.70	0.9858	P	0.6
5	☐	250.000	252.737	933854.08	1.9674	P	0.2
6	☐	500.000	503.254	1849438.34	3.9174	P	0.4
7	☐	1000.000	997.454	3715895.78	7.7642	P	0.2
8	☐			8092.32	0.0155	P	3.2

$$y = 0.0078 * x + 4.4886E-005$$

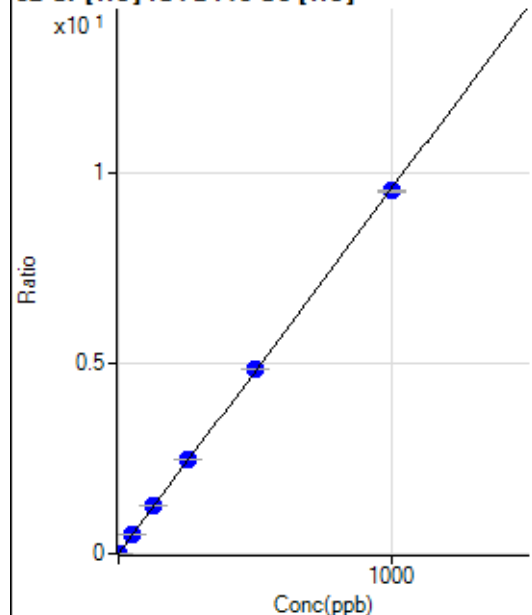
$$R = 1.0000$$

$$DL = 0.005336$$

$$BEC = 0.005766$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1539.00	0.0031	P	1.9
2	☐	2.000	1.980	11075.42	0.0221	P	1.6
3	☐	50.000	51.386	248148.82	0.4951	P	1.0
4	☐	125.000	129.250	599725.36	1.2406	P	0.2
5	☐	250.000	255.718	1163663.79	2.4515	P	0.2
6	☐	500.000	507.547	2295700.82	4.8626	P	0.1
7	☐	1000.000	994.196	4557132.92	9.5220	P	0.5
8	☐			141570.46	0.2710	P	0.6

$$y = 0.0096 * x + 0.0031$$

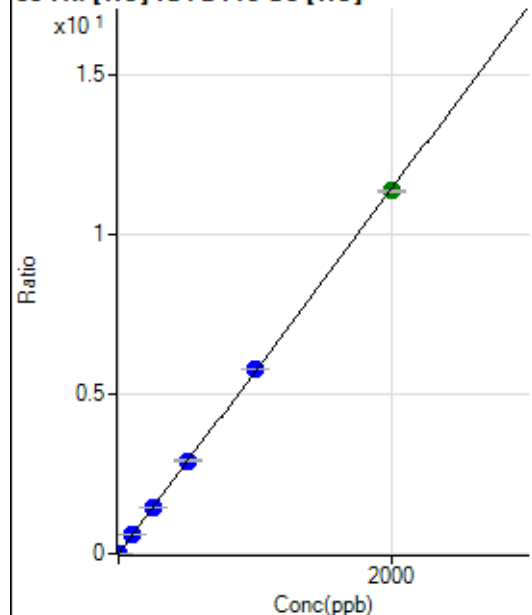
$$R = 0.9999$$

$$DL = 0.01858$$

$$BEC = 0.3248$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	84.44	0.0002	P	27.8
2	☐	1.000	1.010	2982.57	0.0059	P	3.2
3	☐	100.000	103.234	295904.08	0.5904	P	1.3
4	☐	250.000	256.828	709880.87	1.4685	P	0.7
5	☐	500.000	511.214	1387418.00	2.9229	P	0.3
6	☐	1000.000	1012.696	2733522.28	5.7900	P	0.2
7	☐	2000.000	1989.833	5444579.57	11.3765	A	0.5
8	☐			30377.01	0.0582	P	0.7

$$y = 0.0057 * x + 1.7062E-004$$

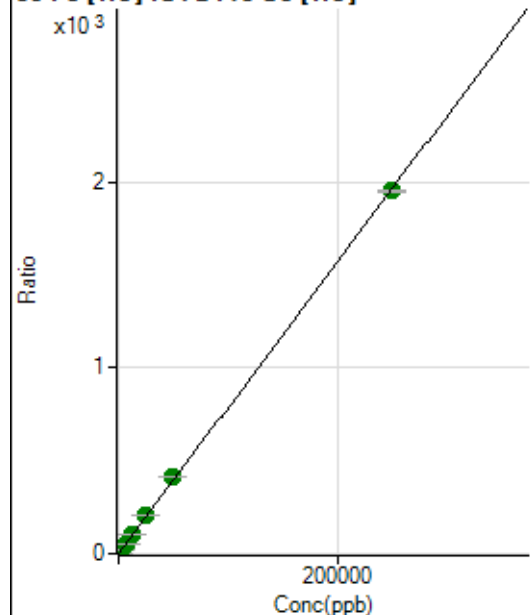
$$R = 1.0000$$

$$DL = 0.02488$$

$$BEC = 0.02984$$

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	4900.94	0.0099	P	2.7
2	☐	50.000	55.263	222216.35	0.4429	P	2.1
3	☐	2500.000	2717.783	10677116.91	21.3030	A	1.1
4	☐	6250.000	6849.698	25945730.21	53.6754	A	1.0
5	☐	12500.000	13684.413	50896579.84	107.2235	A	0.3
6	☐	25000.000	26957.681	99717139.27	211.2159	A	0.2
7	☐	50000.000	53187.730	199434537.79	416.7210	A	0.6
8	☐	250000.00	249090.29	1019507022.7	1,951.563	A	0.6

$$y = 0.0078 * x + 0.0099$$

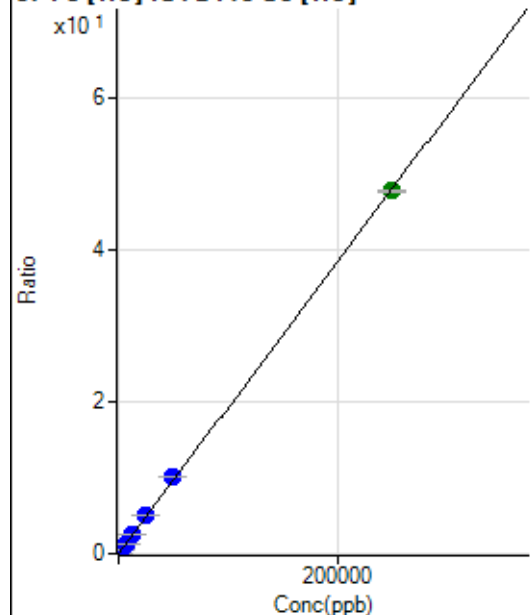
$$R = 0.9999$$

$$DL = 0.1026$$

$$BEC = 1.264$$

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	216.67	0.0004	P	18.7
2	☐	50.000	58.360	5838.37	0.0116	P	3.2
3	☐	2500.000	2734.389	263174.20	0.5251	P	0.7
4	☐	6250.000	6873.511	637694.09	1.3193	P	1.2
5	☐	12500.000	13627.102	1241310.42	2.6151	P	0.5
6	☐	25000.000	26897.460	2436717.85	5.1613	P	0.4
7	☐	50000.000	52949.863	4862445.65	10.1600	P	0.4
8	☐	250000.00	249145.99	24972449.63	47.8046	A	0.3

$$y = 1.9187E-004 * x + 4.3744E-004$$

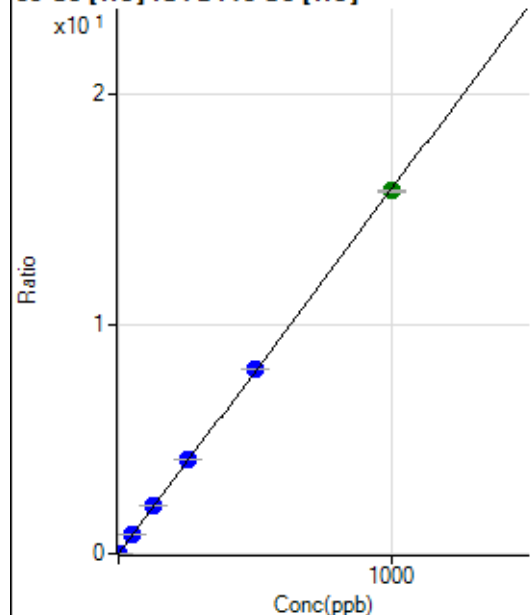
$$R = 0.9999$$

$$DL = 1.278$$

$$BEC = 2.28$$

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	123.33	0.0002	P	28.7
2	☐	1.000	1.031	8351.41	0.0166	P	2.2
3	☐	50.000	52.525	418636.50	0.8353	P	1.0
4	☐	125.000	130.274	1001205.61	2.0713	P	1.2
5	☐	250.000	257.684	1944621.95	4.0968	P	0.6
6	☐	500.000	504.343	3785432.51	8.0181	P	0.3
7	☐	1000.000	995.122	7571213.29	15.8203	A	0.7
8	☐			27238.78	0.0521	P	0.8

$$y = 0.0159 * x + 2.4948E-004$$

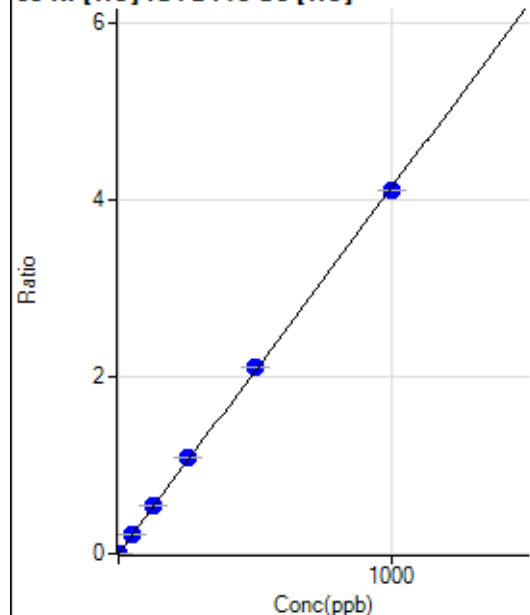
$$R = 0.9999$$

$$DL = 0.0135$$

$$BEC = 0.01569$$

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	56.67	0.0001	P	26.1
2	☐	1.000	1.096	2330.23	0.0046	P	6.2
3	☐	50.000	53.579	111067.40	0.2216	P	1.0
4	☐	125.000	132.756	265345.40	0.5489	P	0.7
5	☐	250.000	260.471	511174.21	1.0769	P	0.1
6	☐	500.000	510.207	995819.67	2.1093	P	0.1
7	☐	1000.000	991.130	1960991.10	4.0974	P	0.1
8	☐			43816.48	0.0839	P	0.9

$$y = 0.0041 * x + 1.1461E-004$$

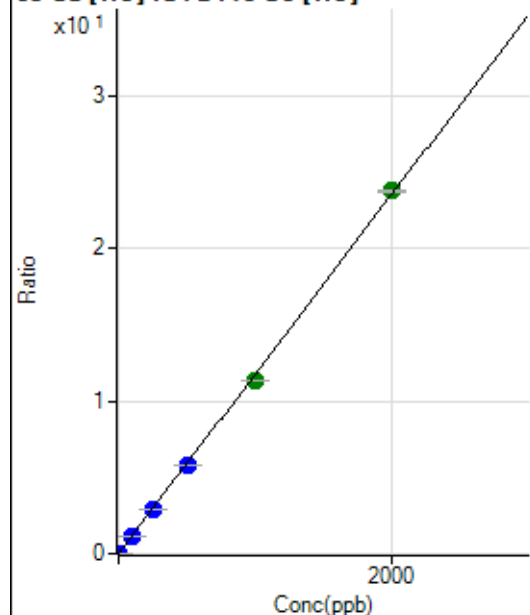
$$R = 0.9998$$

$$DL = 0.02169$$

$$BEC = 0.02772$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1000.05	0.0020	P	9.6
2	☐	2.000	1.967	12613.38	0.0251	P	3.8
3	☐	100.000	100.790	594850.83	1.1869	P	1.0
4	☐	250.000	249.066	1416332.38	2.9299	P	0.4
5	☐	500.000	489.442	2732074.93	5.7557	P	0.4
6	☐	1000.000	963.564	5348679.37	11.3293	A	0.5
7	☐	2000.000	2020.935	11370747.33	23.7594	A	0.6
8	☐			36400.88	0.0697	P	1.6

$$y = 0.0118 * x + 0.0020$$

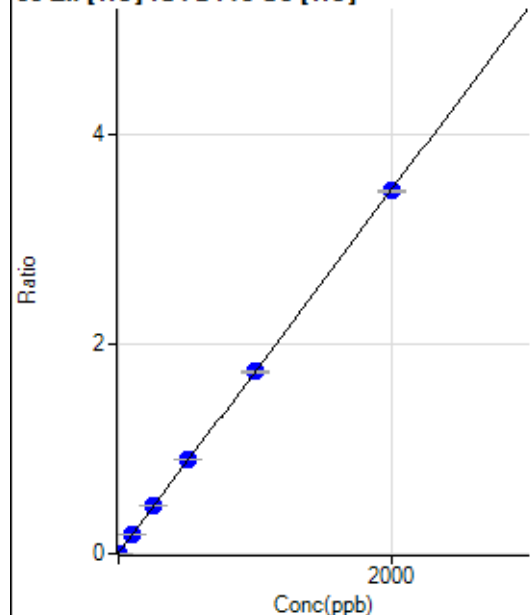
$$R = 0.9997$$

$$DL = 0.04962$$

$$BEC = 0.1718$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2142.41	0.0043	P	5.0
2	☐	2.000	2.174	4059.50	0.0081	P	3.7
3	☐	100.000	104.821	93048.33	0.1856	P	0.4
4	☐	250.000	261.478	220726.45	0.4566	P	1.1
5	☐	500.000	518.500	427797.63	0.9012	P	0.7
6	☐	1000.000	998.829	817757.65	1.7321	P	0.3
7	☐	2000.000	1994.284	1653081.24	3.4541	P	0.4
8	☐			29953.07	0.0573	P	1.1

$$y = 0.0017 * x + 0.0043$$

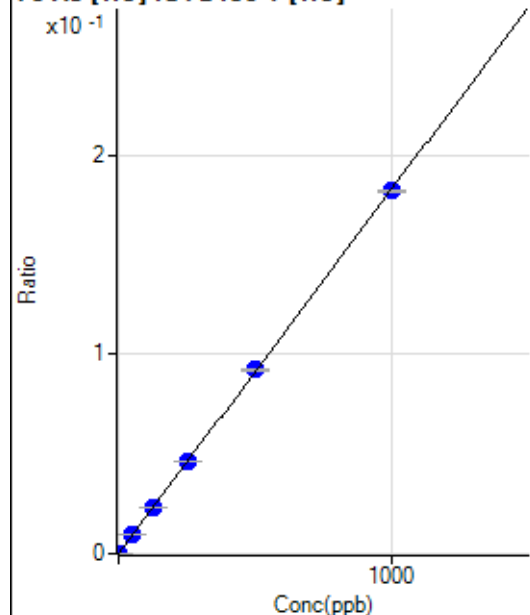
$$R = 0.9999$$

$$DL = 0.3761$$

$$BEC = 2.502$$

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	12.35	0.0000	P	60.9
2	☐	1.000	1.054	553.72	0.0002	P	4.8
3	☐	50.000	51.568	26683.75	0.0094	P	1.4
4	☐	125.000	128.206	64337.08	0.0234	P	0.5
5	☐	250.000	254.565	125498.60	0.0465	P	0.2
6	☐	500.000	504.821	247059.50	0.0923	P	0.4
7	☐	1000.000	995.969	492732.01	0.1820	P	0.3
8	☐			1069.80	0.0004	P	4.3

$$y = 1.8277\text{E-}004 * x + 4.4646\text{E-}006$$

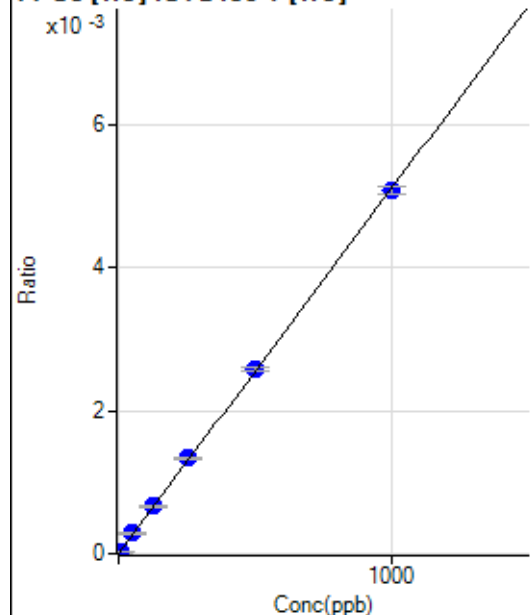
$$R = 1.0000$$

$$DL = 0.04463$$

$$BEC = 0.02443$$

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	2.22	0.0000	P	86.6
2	☐	5.000	5.257	77.78	0.0000	P	22.8
3	☐	50.000	55.500	804.48	0.0003	P	8.1
4	☐	125.000	129.469	1817.92	0.0007	P	1.9
5	☐	250.000	262.538	3619.41	0.0013	P	2.3
6	☐	500.000	504.635	6905.08	0.0026	P	2.7
7	☐	1000.000	993.713	13743.33	0.0051	P	2.1
8	☐			27.78	0.0000	P	24.2

$$y = 5.1088\text{E-}006 * x + 8.0256\text{E-}007$$

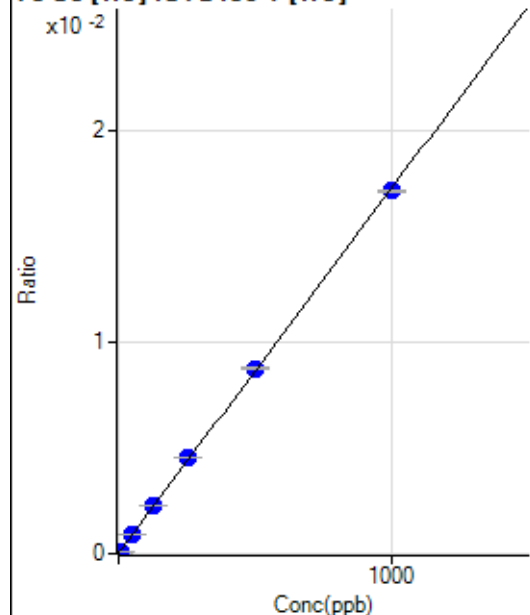
$$R = 0.9999$$

$$DL = 0.4082$$

$$BEC = 0.1571$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77.78	0.0000	P	29.1
2	☐	5.000	5.843	361.74	0.0001	P	4.3
3	☐	50.000	52.300	2632.36	0.0009	P	4.2
4	☐	125.000	131.122	6286.59	0.0023	P	1.2
5	☐	250.000	261.262	12232.41	0.0045	P	0.2
6	☐	500.000	506.534	23473.96	0.0088	P	0.3
7	☐	1000.000	993.033	46448.73	0.0172	P	0.5
8	☐			167.29	0.0001	P	12.7

$$y = 1.7253\text{E-}005 * x + 2.8006\text{E-}005$$

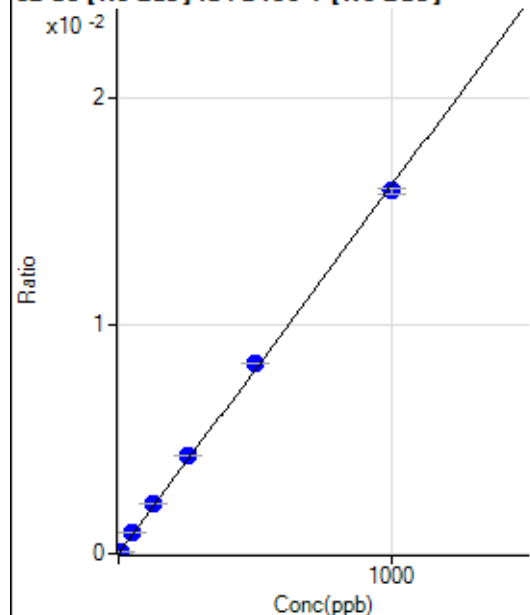
$$R = 0.9999$$

$$DL = 1.415$$

$$BEC = 1.623$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	134.52	0.0000	P	28.2
2	☐	5.000	5.700	2051.68	0.0001	P	5.1
3	☐	50.000	55.195	18650.57	0.0009	P	0.4
4	☐	125.000	135.341	45082.62	0.0022	P	0.8
5	☐	250.000	265.361	86795.09	0.0043	P	1.0
6	☐	500.000	518.081	167379.09	0.0084	P	0.6
7	☐	1000.000	985.563	321376.18	0.0159	P	1.3
8	☐			789.59	0.0000	P	0.7

$$y = 1.6132\text{E-}005 * x + 6.5264\text{E-}006$$

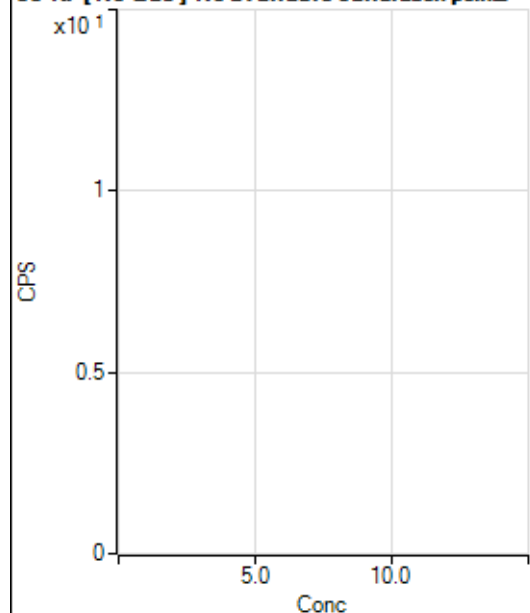
$$R = 0.9996$$

$$DL = 0.3427$$

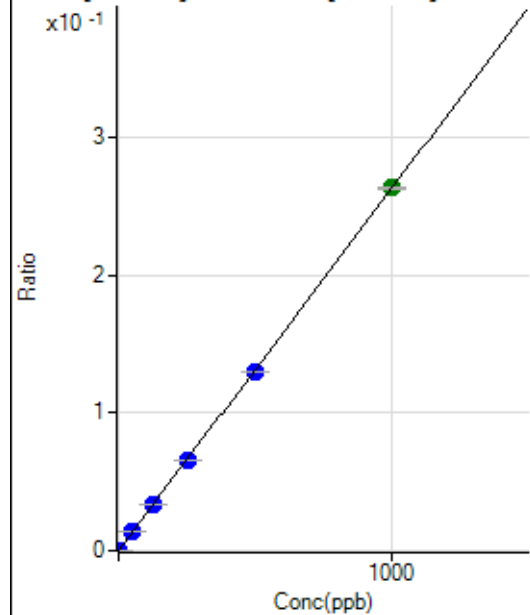
$$BEC = 0.4046$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			1203.41		P	3.4
2	☐			1217.85		P	4.9
3	☐			1225.63		P	2.5
4	☐			1251.19		P	4.8
5	☐			1186.73		P	2.4
6	☐			1176.74		P	4.0
7	☐			1181.18		P	3.1
8	☐			1272.30		P	1.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1994.66	0.0001	P	4.1
2	☐	1.000	1.019	7599.56	0.0004	P	3.6
3	☐	50.000	51.171	281784.78	0.0136	P	0.8
4	☐	125.000	127.708	693346.42	0.0337	P	0.5
5	☐	250.000	250.475	1335338.68	0.0660	P	0.5
6	☐	500.000	494.866	2605999.84	0.1302	P	0.4
7	☐	1000.000	1002.051	5326232.80	0.2636	A	0.6
8	☐			32170.40	0.0016	P	2.4

$$y = 2.6295E-004 * x + 9.6724E-005$$

$$R = 1.0000$$

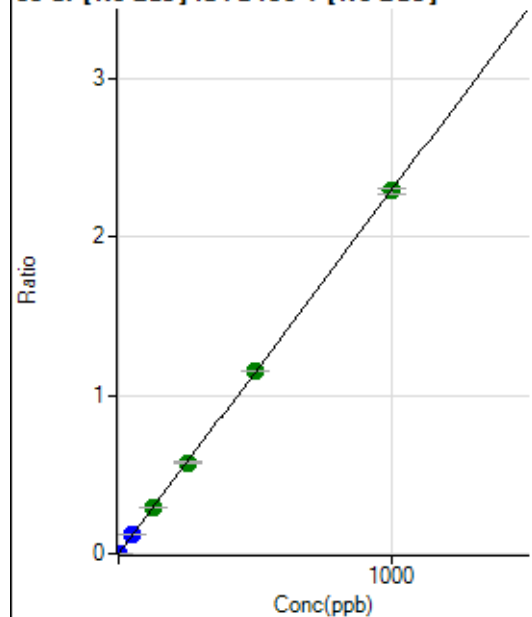
$$DL = 0.04565$$

$$BEC = 0.3678$$

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	275.02	0.0000	P	15.7
2	☐	1.000	1.008	48530.44	0.0023	P	1.9
3	☐	50.000	50.852	2428495.54	0.1168	P	0.5
4	☐	125.000	125.947	5954929.21	0.2892	A	0.1
5	☐	250.000	251.264	11682027.52	0.5770	A	0.2
6	☐	500.000	502.042	23072373.09	1.1529	A	0.2
7	☐	1000.000	998.502	46331552.42	2.2930	A	1.5
8	☐			264554.97	0.0133	P	1.2

$$y = 0.0023 * x + 1.3335E-005$$

$$R = 1.0000$$

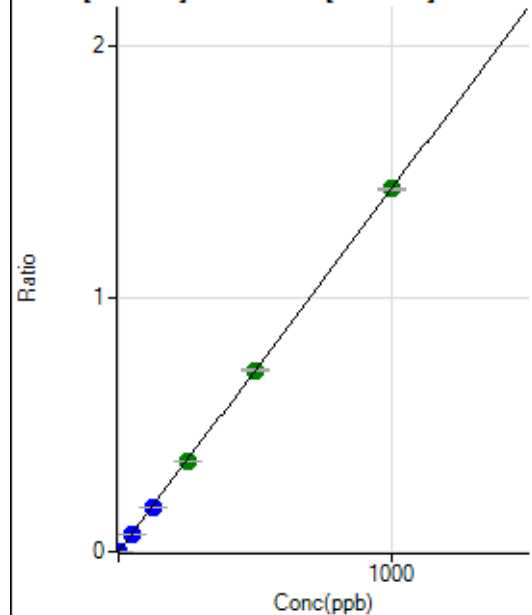
$$DL = 0.002727$$

$$BEC = 0.005807$$

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	1416.81	0.0001	P	6.4
2	☐	1.000	0.846	26703.58	0.0013	P	1.9
3	☐	50.000	49.736	1483580.10	0.0713	P	0.2
4	☐	125.000	124.430	3672826.60	0.1784	P	0.1
5	☐	250.000	249.132	7229968.04	0.3571	A	1.1
6	☐	500.000	500.735	14362695.98	0.7177	A	0.2
7	☐	1000.000	999.934	28958527.73	1.4331	A	0.8
8	☐			51981.31	0.0026	P	1.0

$$y = 0.0014 * x + 6.8711E-005$$

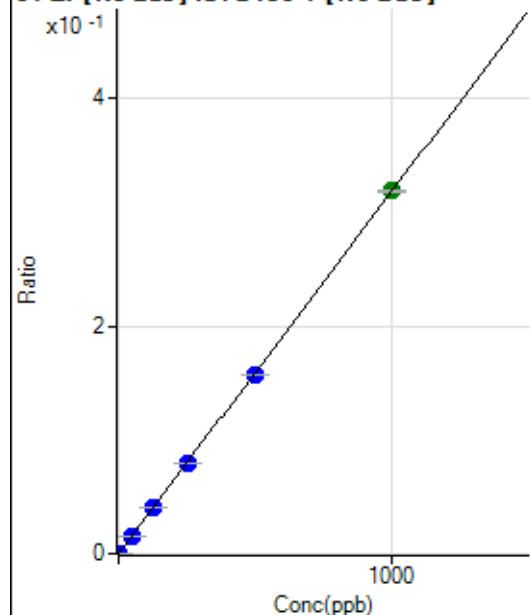
$$R = 1.0000$$

$$DL = 0.009179$$

$$BEC = 0.04794$$

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	238.90	0.0000	P	5.3
2	☐	1.000	0.890	6129.35	0.0003	P	2.8
3	☐	50.000	50.069	330817.06	0.0159	P	0.7
4	☐	125.000	125.990	823808.96	0.0400	P	0.4
5	☐	250.000	248.494	1597538.84	0.0789	P	0.8
6	☐	500.000	494.780	3144051.09	0.1571	P	0.3
7	☐	1000.000	1002.860	6434359.26	0.3184	A	0.7
8	☐			11696.89	0.0006	P	4.1

$$y = 3.1751\text{E-}004 * x + 1.1585\text{E-}005$$

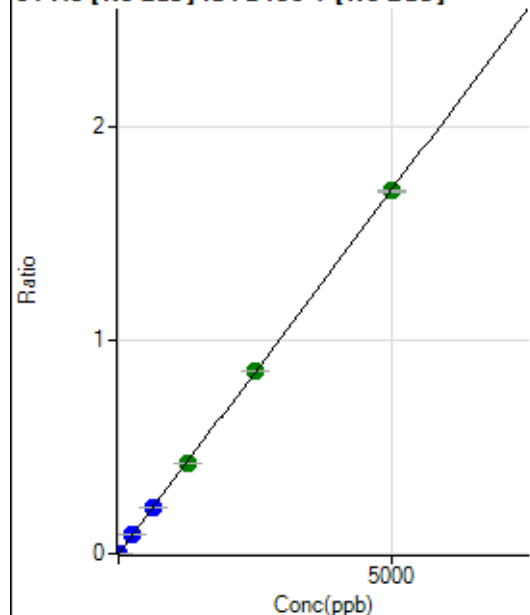
$$R = 1.0000$$

$$DL = 0.005817$$

$$BEC = 0.03649$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	530.59	0.0000	P	17.8
2	☐	5.000	4.958	35676.00	0.0017	P	1.6
3	☐	250.000	252.772	1788263.78	0.0860	P	0.8
4	☐	625.000	631.665	4423951.53	0.2149	P	0.7
5	☐	1250.000	1254.054	8636220.85	0.4266	A	0.3
6	☐	2500.000	2516.651	17131248.99	0.8560	A	0.1
7	☐	5000.000	4989.689	34295090.35	1.6972	A	0.8
8	☐			80806.45	0.0041	P	1.6

$$y = 3.4014\text{E-}004 * x + 2.5722\text{E-}005$$

$$R = 1.0000$$

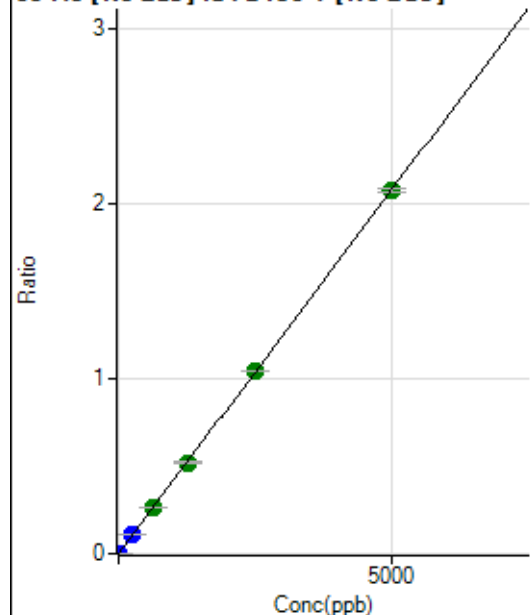
$$DL = 0.04047$$

$$BEC = 0.07562$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	238.90	0.0000	P	15.5
2	☐	5.000	5.171	44982.94	0.0022	P	2.0
3	☐	250.000	253.358	2188131.69	0.1052	P	0.3
4	☐	625.000	630.998	5395398.69	0.2621	A	0.3
5	☐	1250.000	1255.052	10552495.37	0.5212	A	0.4
6	☐	2500.000	2517.156	20920403.24	1.0454	A	0.2
7	☐	5000.000	4989.241	41868147.81	2.0721	A	1.1
8	☐			109643.05	0.0055	P	0.3

$$y = 4.1530\text{E-}004 * x + 1.1582\text{E-}005$$

$$R = 1.0000$$

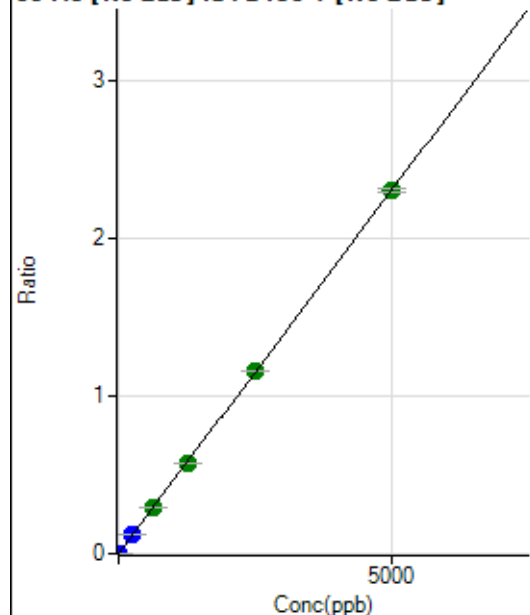
$$DL = 0.01297$$

$$BEC = 0.02789$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	350.02	0.0000	P	2.6
2	☐	5.000	5.208	50406.43	0.0024	P	2.1
3	☐	250.000	252.113	2418598.27	0.1163	P	0.0
4	☐	625.000	627.832	5962869.32	0.2896	A	0.1
5	☐	1250.000	1248.782	11662617.62	0.5761	A	0.4
6	☐	2500.000	2511.693	23186551.21	1.1586	A	0.5
7	☐	5000.000	4993.998	46549488.54	2.3037	A	0.9
8	☐			128868.94	0.0065	P	2.3

$$y = 4.6129\text{E-}004 * x + 1.6974\text{E-}005$$

$$R = 1.0000$$

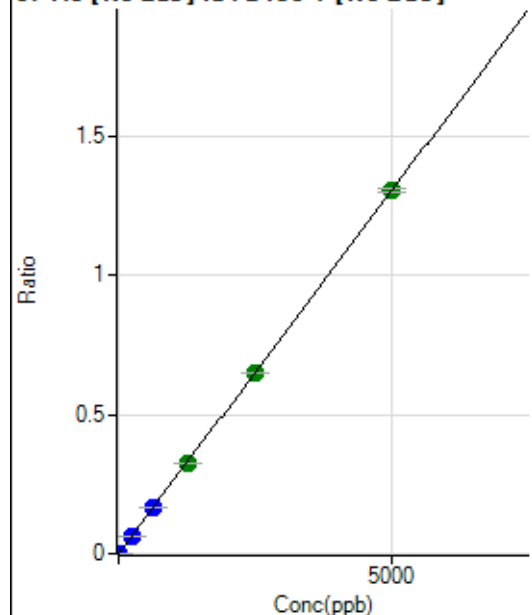
$$DL = 0.002882$$

$$BEC = 0.0368$$

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	100.01	0.0000	P	25.0
2	☐	5.000	5.144	28034.00	0.0013	P	0.8
3	☐	250.000	250.631	1358435.11	0.0653	P	0.4
4	☐	625.000	624.719	3352400.66	0.1628	P	0.4
5	☐	1250.000	1248.438	6587868.94	0.3254	A	0.6
6	☐	2500.000	2500.226	13041290.22	0.6517	A	0.3
7	☐	5000.000	5000.281	26335034.27	1.3033	A	1.0
8	☐			68584.70	0.0035	P	1.4

$$y = 2.6064E-004 * x + 4.8494E-006$$

$$R = 1.0000$$

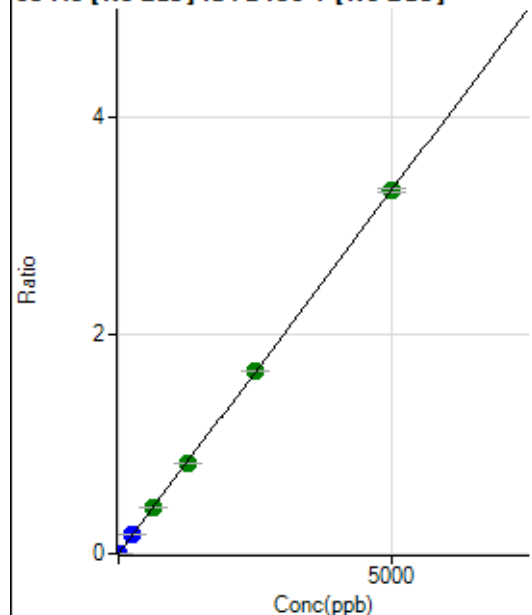
$$DL = 0.01397$$

$$BEC = 0.01861$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	294.46	0.0000	P	8.4
2	☐	5.000	5.161	71745.36	0.0034	P	1.3
3	☐	250.000	253.131	3497215.35	0.1682	P	0.4
4	☐	625.000	627.932	8589308.09	0.4172	A	0.5
5	☐	1250.000	1251.801	16837808.88	0.8317	A	0.6
6	☐	2500.000	2509.681	33368111.86	1.6674	A	0.2
7	☐	5000.000	4994.186	67045930.66	3.3181	A	0.9
8	☐			176350.18	0.0089	P	0.8

$$y = 6.6438E-004 * x + 1.4281E-005$$

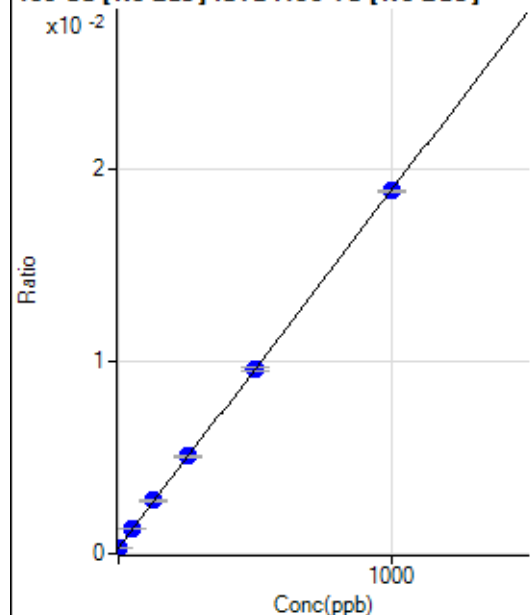
$$R = 1.0000$$

$$DL = 0.005423$$

$$BEC = 0.0215$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8755.86	0.0003	P	2.3
2	☐	1.000	1.117	9445.22	0.0003	P	4.7
3	☐	50.000	53.494	36782.10	0.0013	P	1.5
4	☐	125.000	131.534	77489.66	0.0028	P	1.1
5	☐	250.000	256.411	142016.76	0.0051	P	1.4
6	☐	500.000	498.602	265696.34	0.0096	P	1.7
7	☐	1000.000	998.105	524465.17	0.0189	P	0.6
8	☐			9108.86	0.0004	P	0.3

$$y = 1.8578\text{E-}005 * x + 3.1499\text{E-}004$$

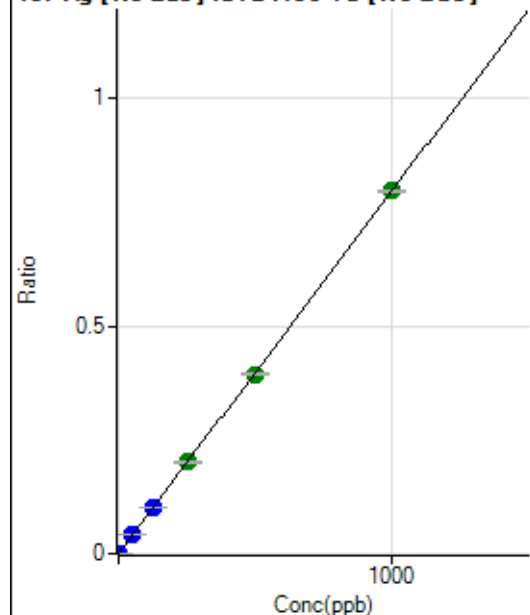
$$R = 1.0000$$

$$DL = 1.159$$

$$BEC = 16.96$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	205.57	0.0000	P	9.5
2	☐	1.000	1.035	23347.73	0.0008	P	2.3
3	☐	50.000	52.750	1178987.96	0.0419	P	0.2
4	☐	125.000	128.856	2877993.75	0.1025	P	1.6
5	☐	250.000	252.250	5608557.33	0.2006	A	0.6
6	☐	500.000	494.354	10903624.29	0.3930	A	1.1
7	☐	1000.000	1001.641	22149510.22	0.7964	A	0.3
8	☐			31330.06	0.0012	P	4.4

$$y = 7.9506\text{E-}004 * x + 7.3957\text{E-}006$$

$$R = 1.0000$$

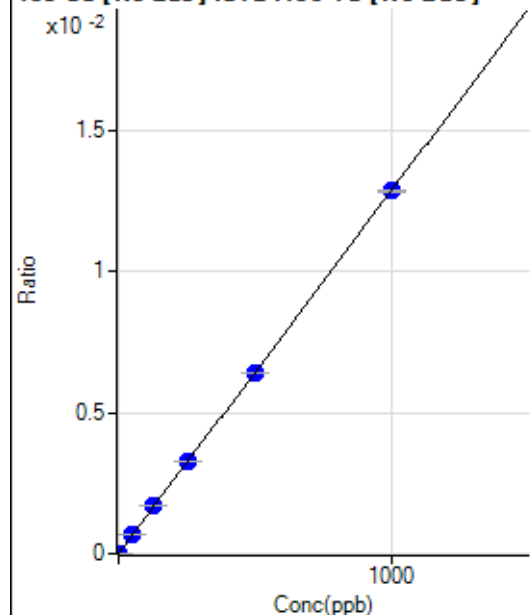
$$DL = 0.002651$$

$$BEC = 0.009302$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	31.94	0.0000	P	30.0
2	☐	1.000	1.106	433.35	0.0000	P	4.7
3	☐	50.000	53.412	19374.71	0.0007	P	0.3
4	☐	125.000	132.085	47840.59	0.0017	P	1.0
5	☐	250.000	253.846	91494.48	0.0033	P	0.9
6	☐	500.000	498.039	178047.06	0.0064	P	0.4
7	☐	1000.000	998.963	358011.92	0.0129	P	0.5
8	☐			633.36	0.0000	P	9.7

$$y = 1.2885\text{E-}005 * x + 1.1487\text{E-}006$$

$$R = 1.0000$$

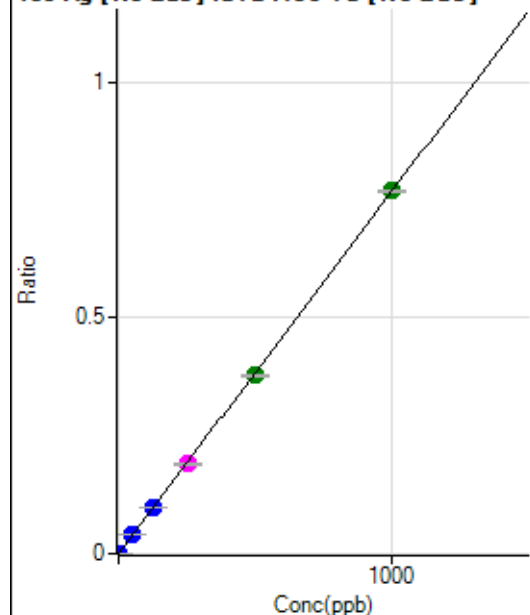
$$DL = 0.08024$$

$$BEC = 0.08916$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	113.89	0.0000	P	43.9
2	☐	1.000	1.023	22190.47	0.0008	P	2.1
3	☐	50.000	52.692	1135809.80	0.0404	P	0.6
4	☐	125.000	128.684	2772281.68	0.0987	P	0.5
5	☐	250.000	247.987	5318203.20	0.1902	M	1.9
6	☐	500.000	493.560	10500105.27	0.3785	A	1.0
7	☐	1000.000	1003.128	21395637.11	0.7693	A	0.3
8	☐			30363.97	0.0012	P	2.7

$$y = 7.6688\text{E-}004 * x + 4.0951\text{E-}006$$

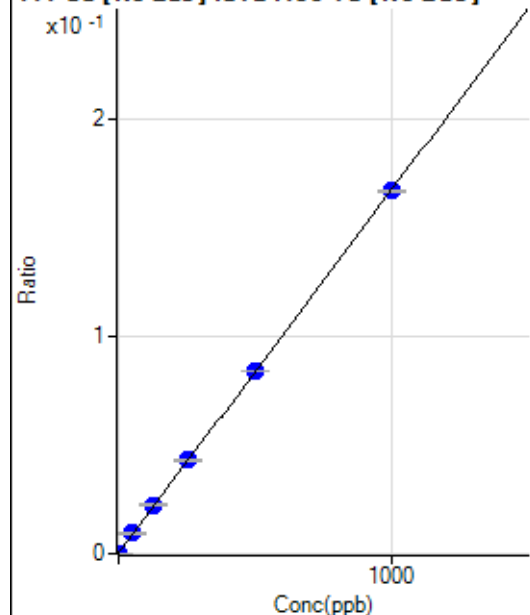
$$R = 1.0000$$

$$DL = 0.00704$$

$$BEC = 0.00534$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6140.07	0.0002	P	2.3
2	☐	1.000	1.075	11259.26	0.0004	P	3.1
3	☐	50.000	54.370	261169.17	0.0093	P	1.0
4	☐	125.000	133.495	631893.25	0.0225	P	0.8
5	☐	250.000	255.532	1198440.40	0.0429	P	0.4
6	☐	500.000	499.473	2318006.52	0.0836	P	0.1
7	☐	1000.000	997.600	4635406.52	0.1667	P	0.9
8	☐			13611.48	0.0005	P	0.7

$$y = 1.6685\text{E-}004 * x + 2.2089\text{E-}004$$

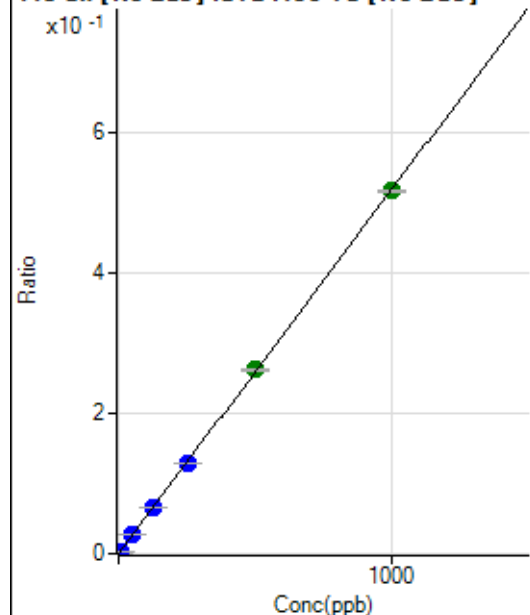
$$R = 1.0000$$

$$DL = 0.09132$$

$$BEC = 1.324$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1236.23	0.0000	P	10.5
2	☐	5.000	5.203	77299.04	0.0027	P	1.9
3	☐	50.000	51.495	753260.54	0.0268	P	0.5
4	☐	125.000	127.887	1867840.21	0.0665	P	0.6
5	☐	250.000	250.026	3634094.05	0.1300	P	0.6
6	☐	500.000	505.171	7282736.79	0.2625	A	0.8
7	☐	1000.000	996.971	14408466.12	0.5181	A	0.7
8	☐			31252.28	0.0012	P	1.1

$$y = 5.1959\text{E-}004 * x + 4.4469\text{E-}005$$

$$R = 1.0000$$

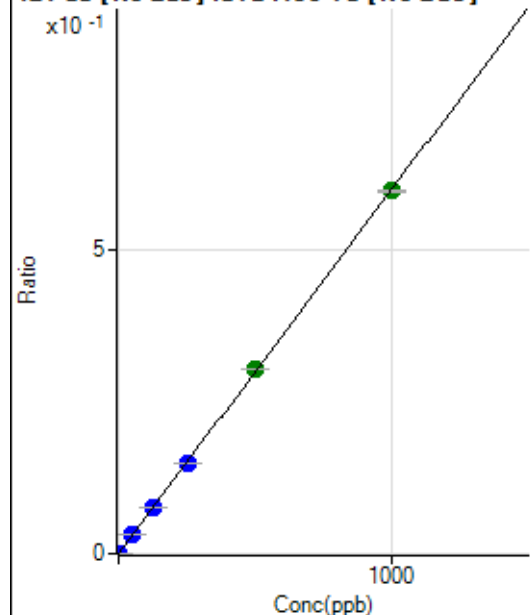
$$DL = 0.02684$$

$$BEC = 0.08559$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	255.57	0.0000	P	14.5
2	☐	2.000	1.977	33582.89	0.0012	P	1.0
3	☐	50.000	50.811	855964.45	0.0305	P	0.4
4	☐	125.000	127.177	2140833.97	0.0762	P	0.6
5	☐	250.000	249.384	4178840.89	0.1494	P	0.3
6	☐	500.000	506.234	8414850.45	0.3033	A	0.7
7	☐	1000.000	996.724	16610164.09	0.5972	A	0.6
8	☐			41793.63	0.0016	P	3.8

$$y = 5.9918\text{E-}004 * x + 9.1924\text{E-}006$$

$$R = 1.0000$$

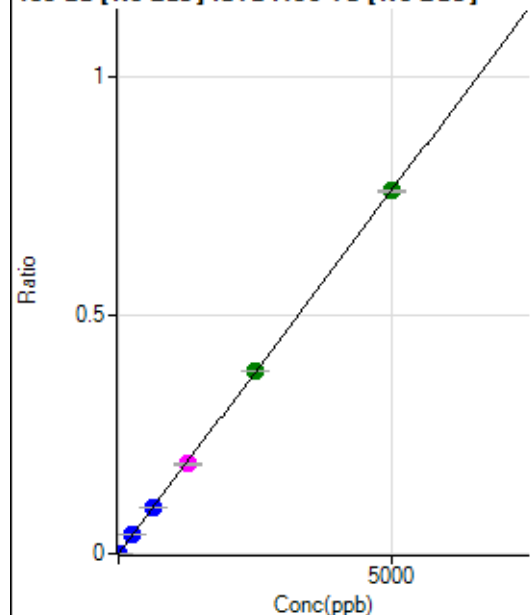
$$DL = 0.006688$$

$$BEC = 0.01534$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155.56	0.0000	P	12.5
2	☐	10.000	10.238	43945.44	0.0016	P	1.3
3	☐	250.000	256.003	1094112.40	0.0389	P	0.3
4	☐	625.000	635.194	2713023.06	0.0966	P	0.5
5	☐	1250.000	1240.172	5272978.59	0.1886	M	1.8
6	☐	2500.000	2509.484	10584513.69	0.3815	A	0.3
7	☐	5000.000	4996.140	21126719.75	0.7596	A	0.4
8	☐			36409.77	0.0014	P	0.7

$$y = 1.5204\text{E-}004 * x + 5.5969\text{E-}006$$

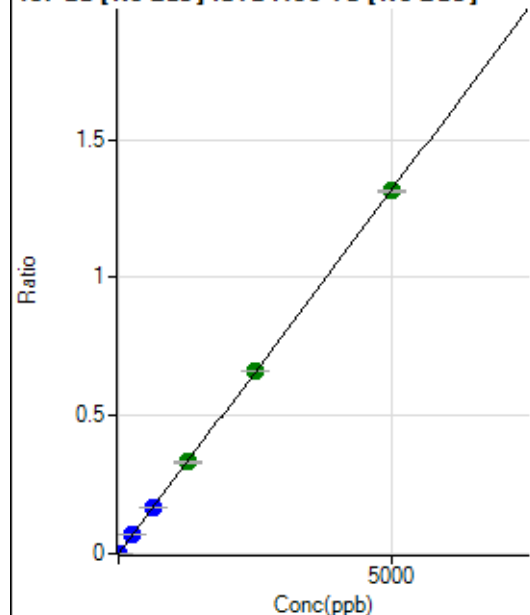
$$R = 1.0000$$

$$DL = 0.01381$$

$$BEC = 0.03681$$

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	255.57	0.0000	P	8.3
2	☐	10.000	10.208	75907.99	0.0027	P	1.0
3	☐	250.000	257.863	1909326.13	0.0679	P	0.2
4	☐	625.000	634.439	4694638.60	0.1671	P	1.1
5	☐	1250.000	1257.873	9265848.21	0.3313	A	1.2
6	☐	2500.000	2511.898	18355392.60	0.6617	A	0.3
7	☐	5000.000	4990.509	36560003.25	1.3145	A	0.9
8	☐			64441.51	0.0025	P	1.3

$$y = 2.6341E-004 * x + 9.1942E-006$$

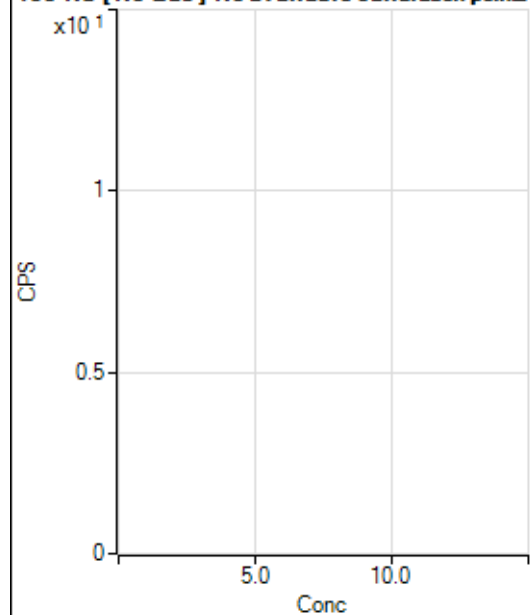
$$R = 1.0000$$

$$DL = 0.008675$$

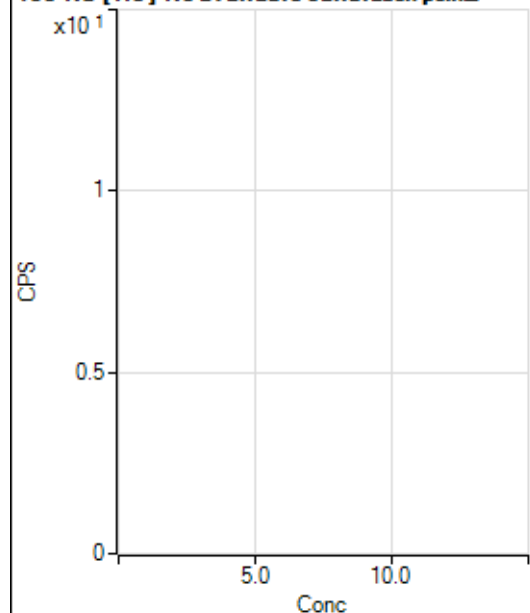
$$BEC = 0.0349$$

Weight: <None>

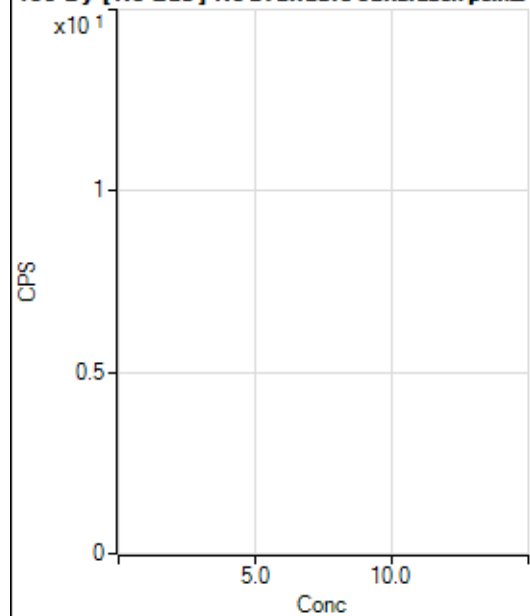
Min Conc: 0

150 Nd [No Gas] No available calibration points

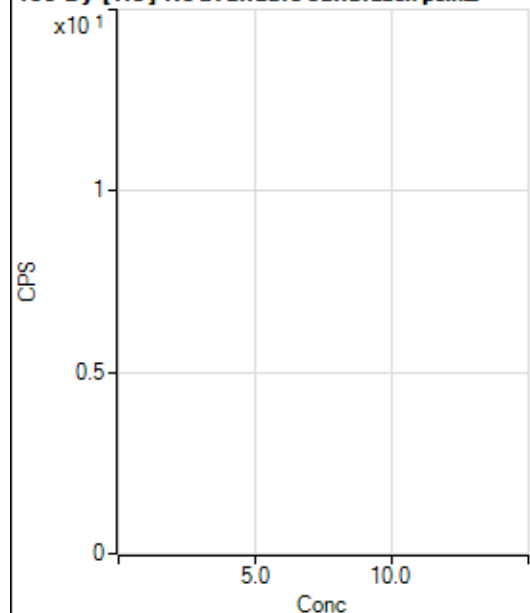
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			8.89		P	114.
2	☐			13.33		P	50.0
3	☐			108.89		P	14.1
4	☐			220.01		P	6.1
5	☐			440.03		P	18.6
6	☐			742.27		P	9.0
7	☐			1391.23		P	1.0
8	☐			171.12		P	19.6

150 Nd [He] No available calibration points

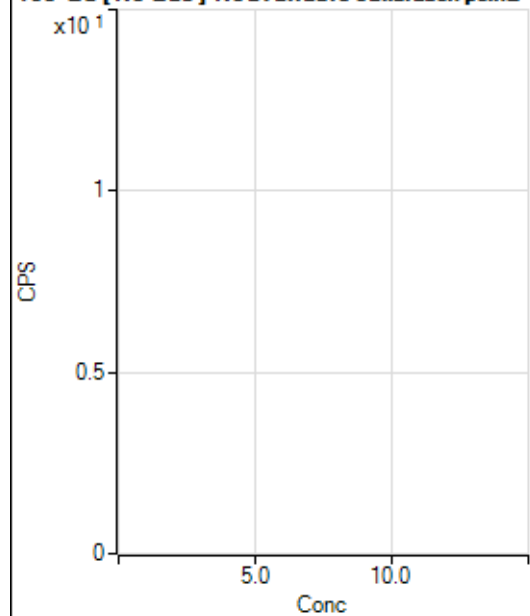
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	69.3
2	☐			10.00		P	57.7
3	☐			17.78		P	78.1
4	☐			25.56		P	19.9
5	☐			31.11		P	43.3
6	☐			76.67		P	19.9
7	☐			143.34		P	7.0
8	☐			88.89		P	14.2

156 Dy [No Gas] No available calibration points

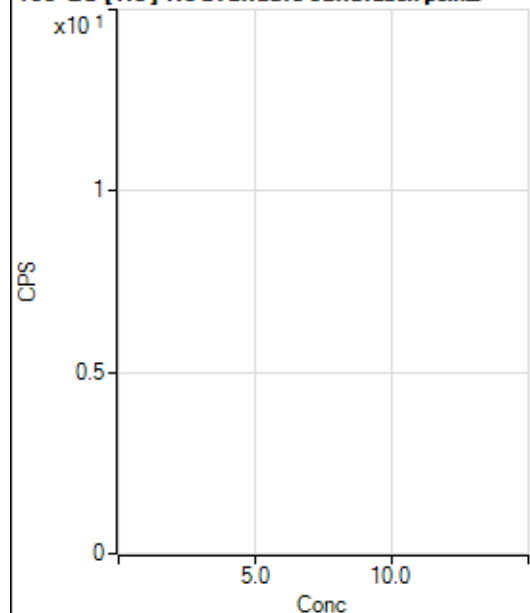
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	35.3
2	☐			47.23		P	40.8
3	☐			91.67		P	18.2
4	☐			77.78		P	34.4
5	☐			130.56		P	29.5
6	☐			197.23		P	6.5
7	☐			361.13		P	7.4
8	☐			116.67		P	21.4

156 Dy [He] No available calibration points

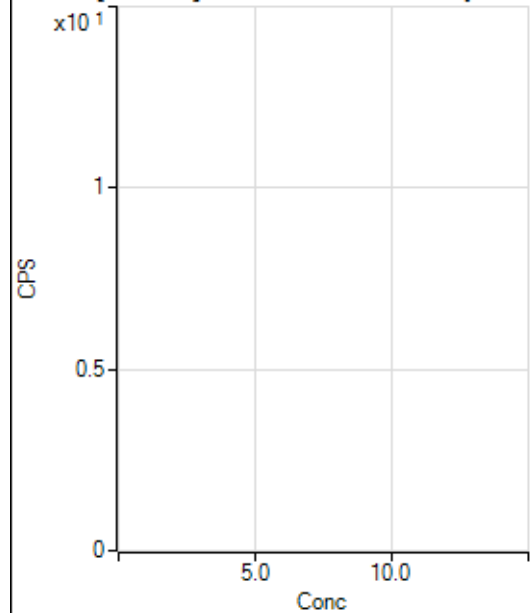
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.67		P	9.1
2	☐			37.78		P	18.4
3	☐			36.67		P	NaN
4	☐			81.11		P	19.4
5	☐			105.56		P	10.1
6	☐			208.89		P	8.2
7	☐			362.23		P	14.0
8	☐			60.00		P	16.7

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

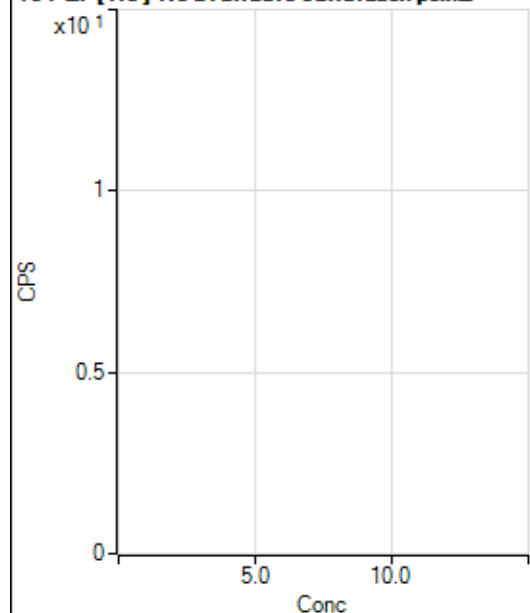
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			225.01		P	11.1
2	☐			263.90		P	11.1
3	☐			213.90		P	25.9
4	☐			263.90		P	7.9
5	☐			305.57		P	12.9
6	☐			241.68		P	20.7
7	☐			319.46		P	23.7
8	☐			272.24		P	1.8

160 Gd [He] No available calibration points

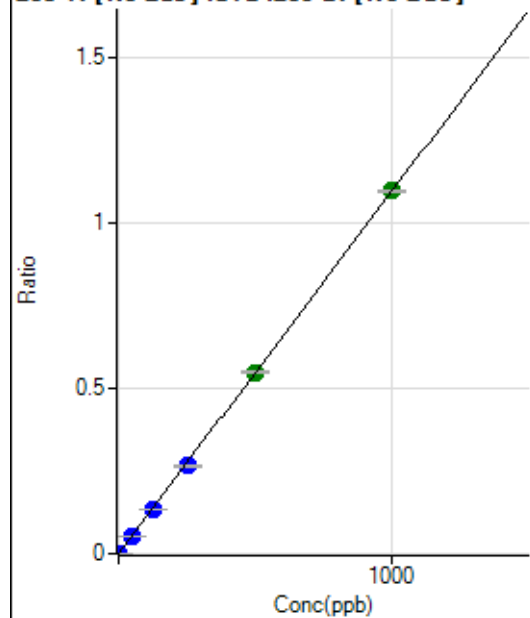
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			456.68		P	3.8
2	☐			420.02		P	3.5
3	☐			470.02		P	8.1
4	☐			438.90		P	0.9
5	☐			410.01		P	6.5
6	☐			407.79		P	2.4
7	☐			392.24		P	3.8
8	☐			441.13		P	7.1

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			150.01		P	22.2
2	☐			119.45		P	10.7
3	☐			172.23		P	12.2
4	☐			161.12		P	18.2
5	☐			161.12		P	14.9
6	☐			191.68		P	13.0
7	☐			211.12		P	12.7
8	☐			161.12		P	19.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			94.45		P	30.8
2	☐			118.89		P	4.3
3	☐			110.00		P	18.9
4	☐			106.67		P	3.1
5	☐			100.01		P	20.8
6	☐			110.00		P	16.0
7	☐			125.56		P	16.0
8	☐			116.67		P	18.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	772.28	0.0000	P	3.6
2	☐	1.000	0.960	19250.76	0.0011	P	0.7
3	☐	50.000	49.231	947227.59	0.0540	P	0.7
4	☐	125.000	122.664	2346496.34	0.1345	P	1.2
5	☐	250.000	241.928	4527993.68	0.2651	P	0.4
6	☐	500.000	499.940	9139646.21	0.5479	A	0.9
7	☐	1000.000	1002.378	17974521.41	1.0984	A	0.3
8	☐			31296.21	0.0023	P	1.1

$$y = 0.0011 * x + 4.4429E-005$$

$$R = 1.0000$$

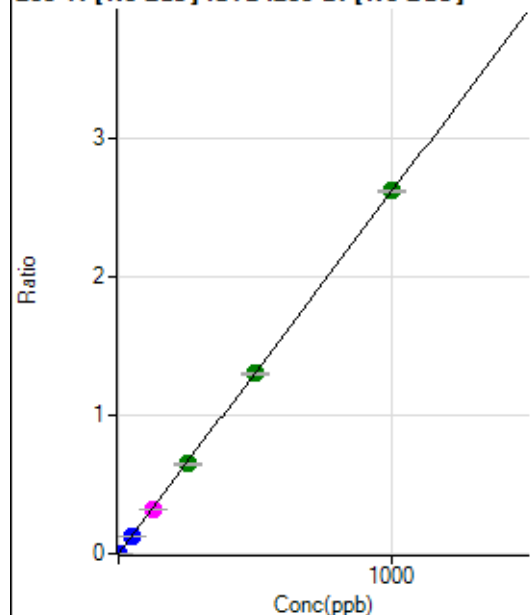
$$DL = 0.004434$$

$$BEC = 0.04054$$

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	1283.46	0.0001	P	13.7
2	☐	1.000	0.942	44444.52	0.0025	P	1.4
3	☐	50.000	49.154	2251421.40	0.1283	P	0.9
4	☐	125.000	121.154	5518210.67	0.3162	M	1.3
5	☐	250.000	247.344	11022975.07	0.6455	A	0.6
6	☐	500.000	497.892	21673905.17	1.2992	A	0.7
7	☐	1000.000	1002.241	42792146.09	2.6153	A	0.9
8	☐			75967.05	0.0055	P	1.8

$$y = 0.0026 * x + 7.3876E-005$$

$$R = 1.0000$$

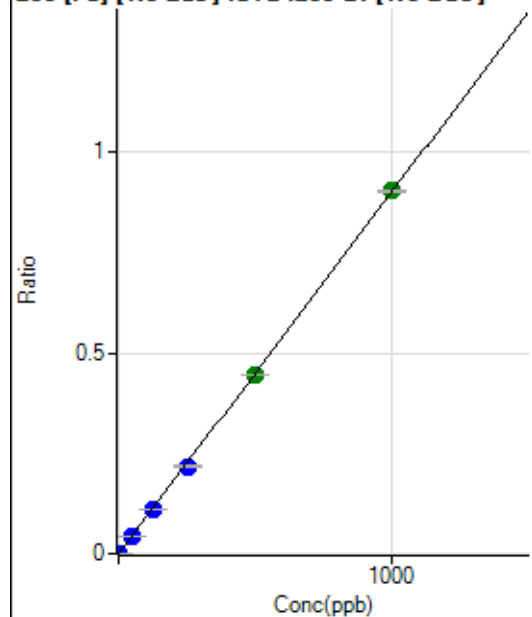
$$DL = 0.01164$$

$$BEC = 0.02831$$

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	3656.16	0.0002	P	1.9
2	☐	1.000	0.930	18374.18	0.0010	P	2.5
3	☐	50.000	49.117	778225.55	0.0444	P	0.6
4	☐	125.000	122.157	1919855.01	0.1100	P	0.7
5	☐	250.000	241.202	3705702.89	0.2170	P	1.7
6	☐	500.000	496.392	7446630.03	0.4464	A	0.5
7	☐	1000.000	1004.403	14775791.19	0.9030	A	0.5
8	☐			73843.17	0.0054	P	0.9

$$y = 8.9883E-004 * x + 2.1037E-004$$

$$R = 0.9999$$

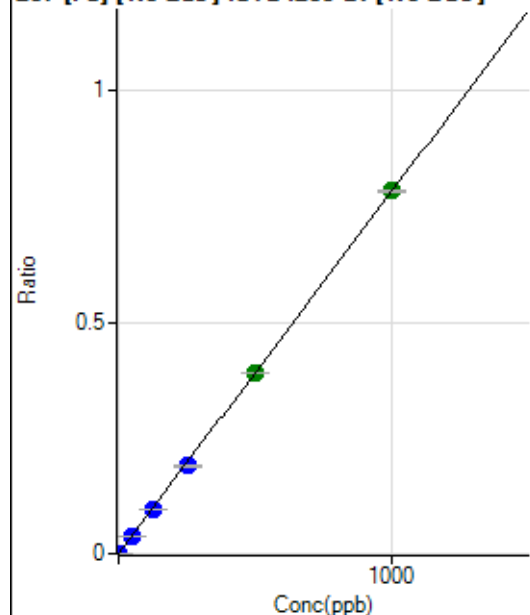
$$DL = 0.01366$$

$$BEC = 0.2341$$

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	3244.93	0.0002	P	5.4
2	☐	1.000	0.954	16371.54	0.0009	P	2.5
3	☐	50.000	49.504	682092.80	0.0389	P	0.8
4	☐	125.000	122.573	1675153.77	0.0960	P	1.2
5	☐	250.000	242.192	3235746.51	0.1895	P	1.4
6	☐	500.000	500.286	6526396.21	0.3912	A	0.4
7	☐	1000.000	1002.137	12819443.23	0.7835	A	0.8
8	☐			65418.29	0.0047	P	2.1

$$y = 7.8160E-004 * x + 1.8672E-004$$

$$R = 1.0000$$

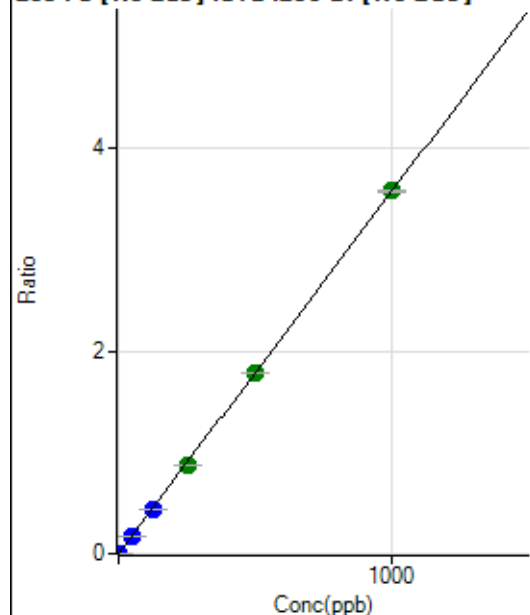
$$DL = 0.03897$$

$$BEC = 0.2389$$

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	14047.65	0.0008	P	1.2
2	☐	1.000	0.941	73244.46	0.0042	P	1.3
3	☐	50.000	49.304	3105410.80	0.1770	P	0.4
4	☐	125.000	122.210	7635652.15	0.4375	P	1.2
5	☐	250.000	243.500	14873721.22	0.8710	A	0.7
6	☐	500.000	499.212	29774929.95	1.7848	A	0.4
7	☐	1000.000	1002.402	58628034.88	3.5830	A	0.6
8	☐			293945.22	0.0213	P	0.3

$$y = 0.0036 * x + 8.0827E-004$$

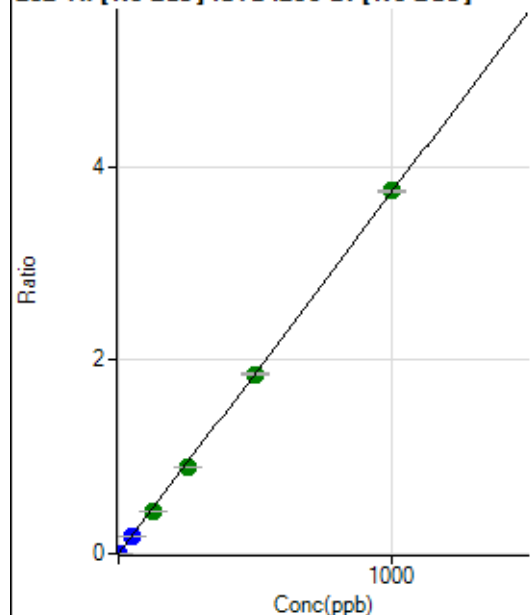
$$R = 1.0000$$

$$DL = 0.008328$$

$$BEC = 0.2262$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3646.91	0.0002	P	10.0
2	☐	1.000	0.807	56529.66	0.0032	P	0.9
3	☐	50.000	46.639	3055699.17	0.1742	P	0.1
4	☐	125.000	118.116	7691980.15	0.4408	A	0.8
5	☐	250.000	240.934	15349763.77	0.8988	A	0.7
6	☐	500.000	496.756	30911714.12	1.8530	A	0.5
7	☐	1000.000	1004.917	61331612.94	3.7483	A	0.9
8	☐			17543.67	0.0013	P	0.8

$$y = 0.0037 * x + 2.0979E-004$$

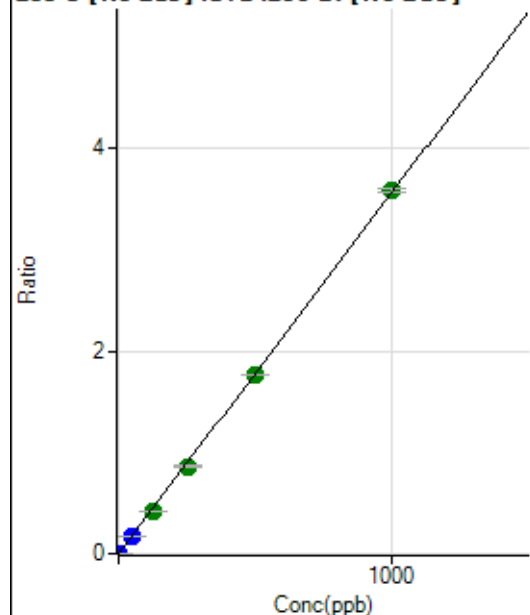
$$R = 0.9999$$

$$DL = 0.01689$$

$$BEC = 0.05625$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3069.94	0.0002	P	6.5
2	☐	1.000	0.915	60327.49	0.0034	P	1.8
3	☐	50.000	47.521	2974708.62	0.1696	P	0.7
4	☐	125.000	119.170	7415610.58	0.4249	A	1.0
5	☐	250.000	241.604	14708557.36	0.8613	A	0.7
6	☐	500.000	495.374	29457571.66	1.7658	A	0.5
7	☐	1000.000	1005.265	58629154.44	3.5832	A	0.9
8	☐			92703.98	0.0067	P	0.4

$$y = 0.0036 * x + 1.7659E-004$$

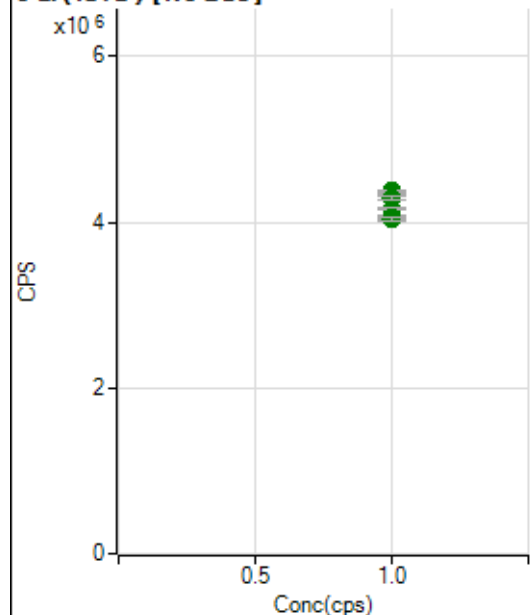
$$R = 0.9999$$

$$DL = 0.009637$$

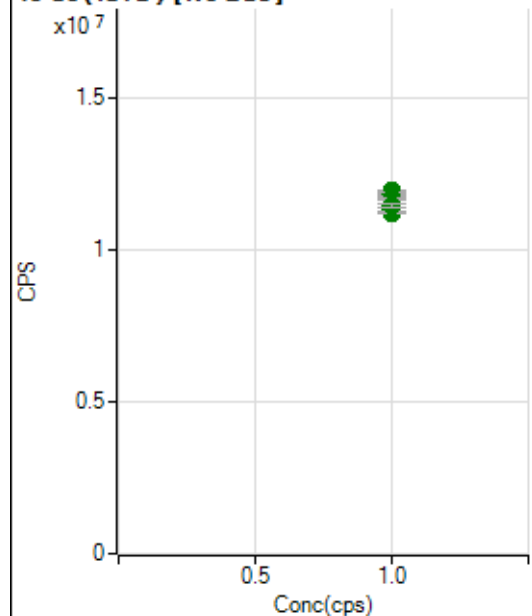
$$BEC = 0.04955$$

Weight: <None>

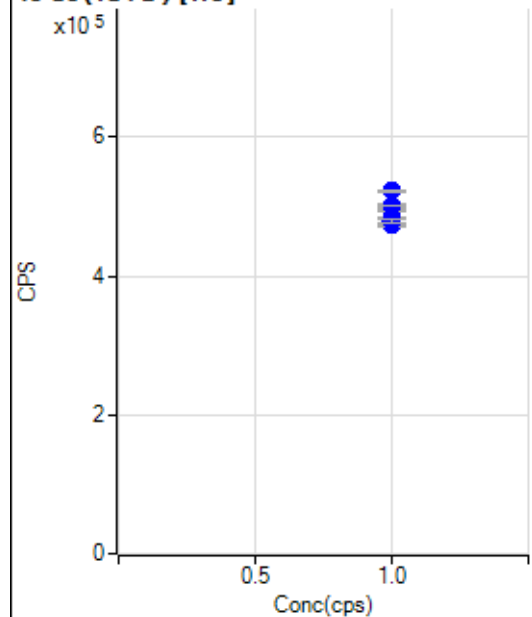
Min Conc: 0

6 Li (ISTD) [No Gas]

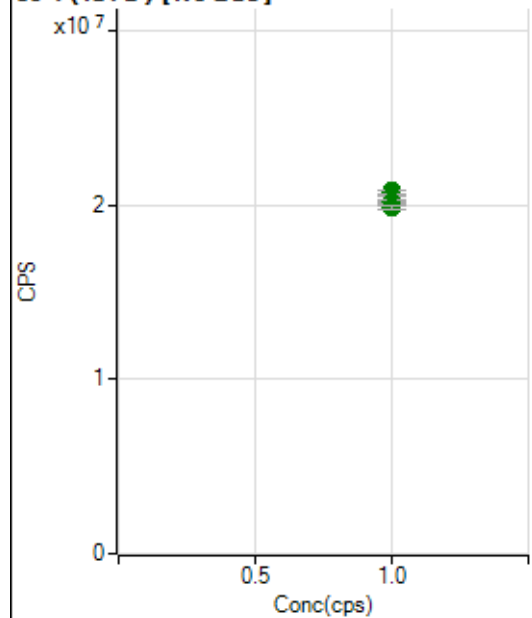
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		4332200.70		A	0.5
2	☐	1.000		4378482.64		A	0.3
3	☐	1.000		4368684.69		A	0.5
4	☐	1.000		4296986.39		A	0.8
5	☐	1.000		4165341.36		A	0.1
6	☐	1.000		4062597.13		A	0.3
7	☐	1.000		4065363.03		A	1.1
8	☐	1.000		4036053.14		A	1.5

45 Sc (ISTD) [No Gas]

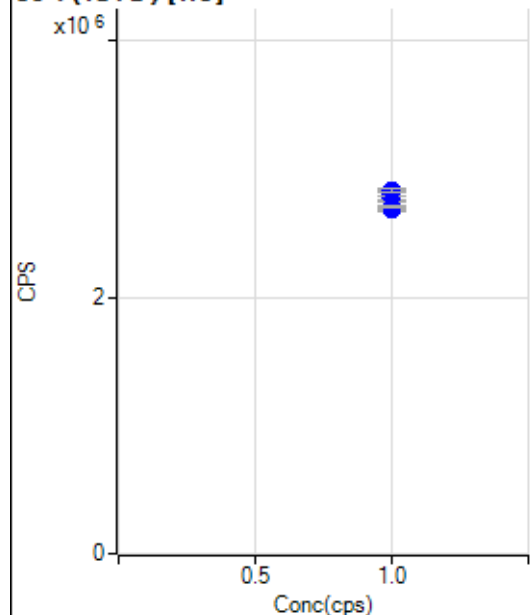
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		11801051.83		A	0.4
2	☐	1.000		11932597.92		A	0.2
3	☐	1.000		11840975.35		A	1.0
4	☐	1.000		11673273.26		A	0.2
5	☐	1.000		11348093.74		A	1.2
6	☐	1.000		11213902.25		A	0.1
7	☐	1.000		11251108.85		A	0.6
8	☐	1.000		11457178.29		A	1.2

45 Sc (ISTD) [He]

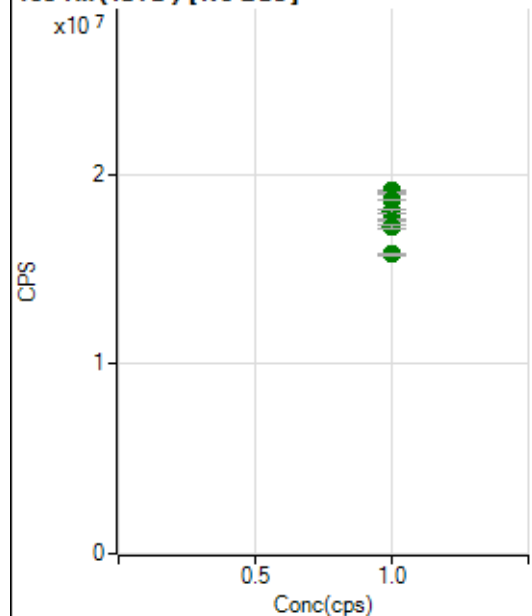
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		494855.45		P	0.8
2	☐	1.000		501837.60		P	1.0
3	☐	1.000		501207.25		P	0.4
4	☐	1.000		483403.68		P	0.9
5	☐	1.000		474677.46		P	0.4
6	☐	1.000		472112.88		P	0.4
7	☐	1.000		478594.80		P	0.8
8	☐	1.000		522394.79		P	0.8

89 Y (ISTD) [No Gas]

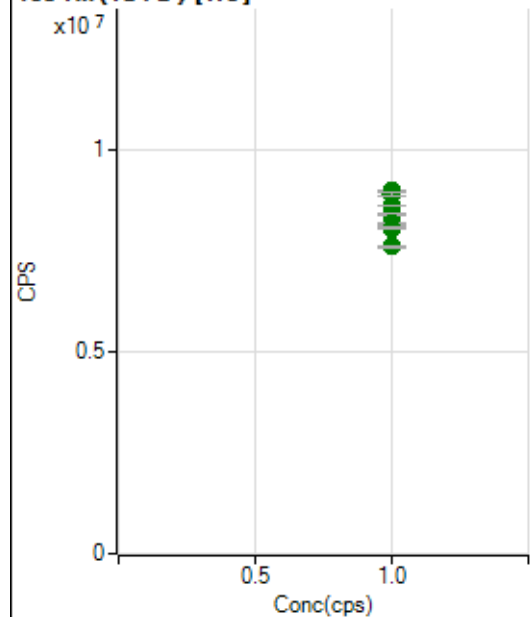
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20622020.67		A	0.3
2	☐	1.000		20835580.66		A	0.1
3	☐	1.000		20793638.02		A	0.9
4	☐	1.000		20587895.11		A	0.2
5	☐	1.000		20245067.62		A	0.3
6	☐	1.000		20012020.12		A	0.3
7	☐	1.000		20207581.64		A	1.1
8	☐	1.000		19856940.81		A	1.0

89 Y (ISTD) [He]

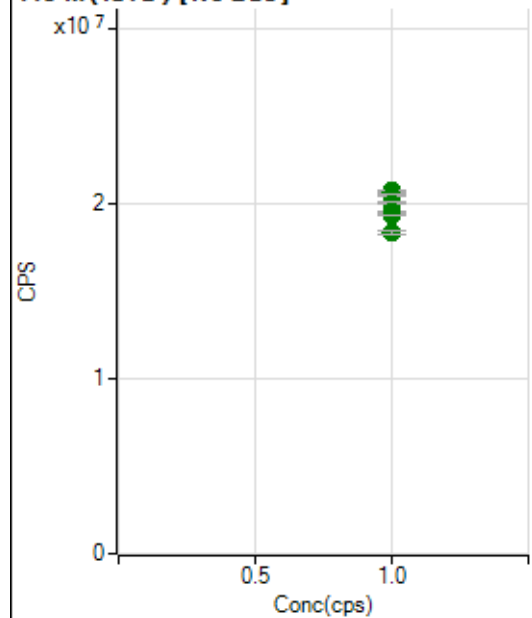
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2772226.94		P	1.0
2	☐	1.000		2808598.22		P	0.9
3	☐	1.000		2829988.88		P	0.7
4	☐	1.000		2745081.52		P	0.5
5	☐	1.000		2697075.79		P	0.6
6	☐	1.000		2677509.96		P	0.3
7	☐	1.000		2706706.59		P	0.7
8	☐	1.000		2827530.16		P	1.1

103 Rh (ISTD) [No Gas]

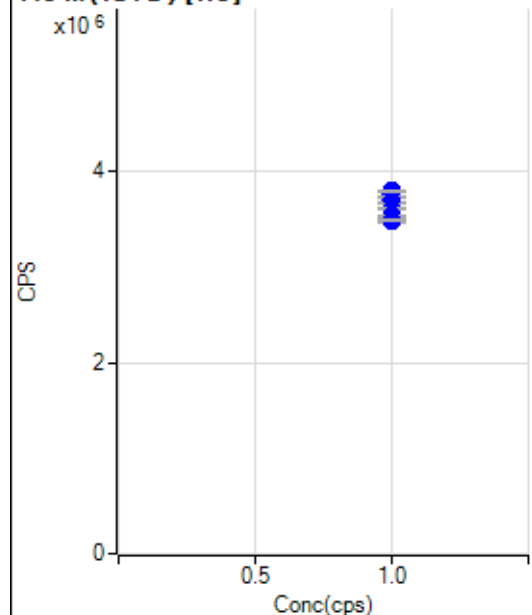
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		19000581.15		A	0.9
2	☐	1.000		19131178.03		A	0.3
3	☐	1.000		18980378.55		A	0.6
4	☐	1.000		18678977.33		A	0.2
5	☐	1.000		18033779.40		A	0.8
6	☐	1.000		17582356.30		A	0.5
7	☐	1.000		17250505.42		A	0.8
8	☐	1.000		15769157.65		A	1.3

103 Rh (ISTD) [He]

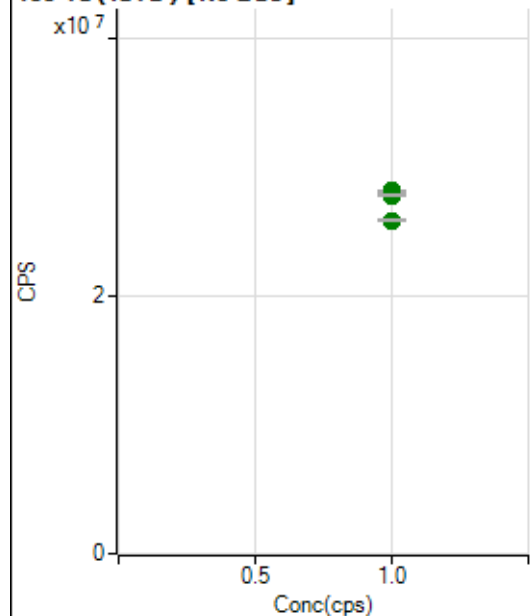
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		8974882.92		A	0.5
2	☐	1.000		8906942.71		A	1.2
3	☐	1.000		8896314.03		A	0.8
4	☐	1.000		8606097.93		A	0.1
5	☐	1.000		8382626.19		A	0.7
6	☐	1.000		8170457.80		A	0.3
7	☐	1.000		8054842.94		A	0.5
8	☐	1.000		7593859.54		A	0.4

115 In (ISTD) [No Gas]

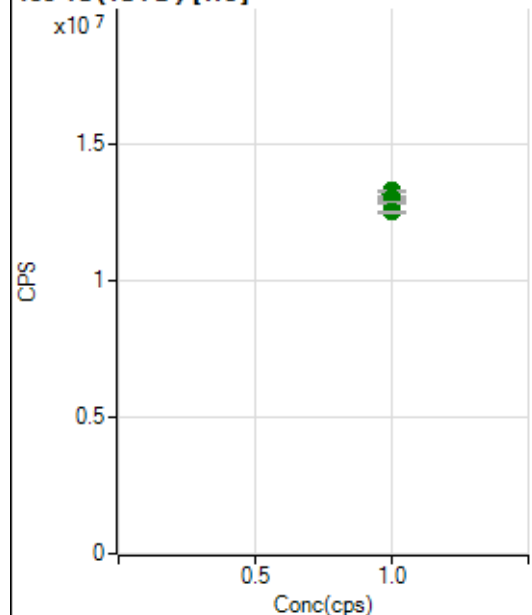
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		20636732.80		A	0.5
2	☐	1.000		20757954.44		A	0.7
3	☐	1.000		20688886.61		A	1.3
4	☐	1.000		20492748.27		A	0.5
5	☐	1.000		20055996.89		A	0.7
6	☐	1.000		19559156.65		A	0.4
7	☐	1.000		19376050.88		A	0.4
8	☐	1.000		18386349.24		A	1.0

115 In (ISTD) [He]

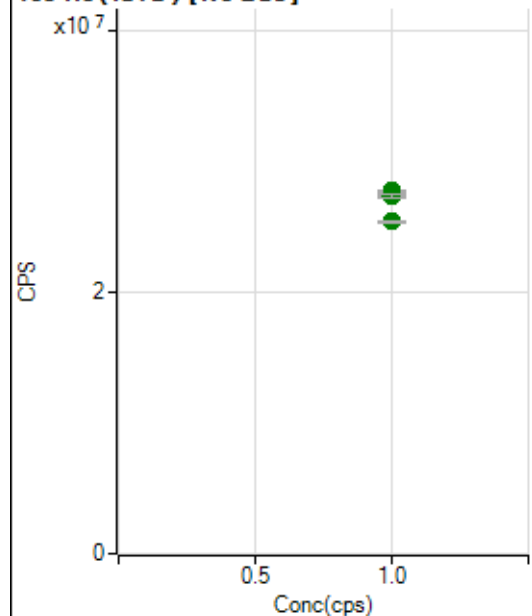
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3701607.59		P	1.0
2	☐	1.000		3767679.13		P	1.3
3	☐	1.000		3796205.81		P	0.5
4	☐	1.000		3662313.81		P	0.2
5	☐	1.000		3606518.60		P	0.4
6	☐	1.000		3533425.88		P	0.7
7	☐	1.000		3473926.41		P	0.9
8	☐	1.000		3490657.68		P	0.9

159 Tb (ISTD) [No Gas]

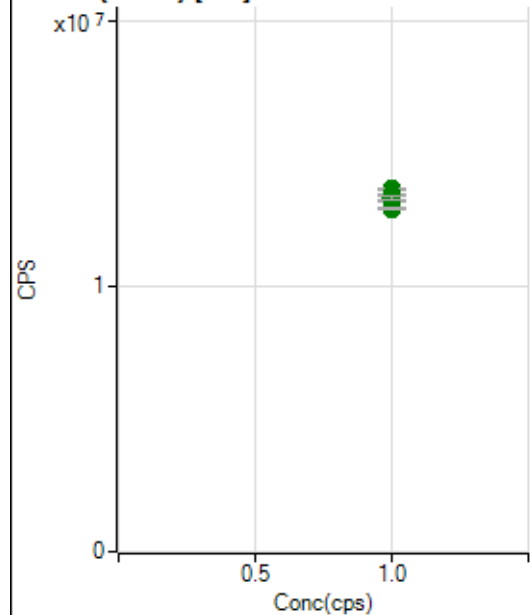
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		27797778.47		A	0.2
2	☐	1.000		28132929.58		A	0.4
3	☐	1.000		28106324.86		A	0.8
4	☐	1.000		28091427.64		A	0.5
5	☐	1.000		27964230.42		A	0.1
6	☐	1.000		27741327.36		A	0.1
7	☐	1.000		27812953.48		A	0.7
8	☐	1.000		25848359.89		A	1.0

159 Tb (ISTD) [He]

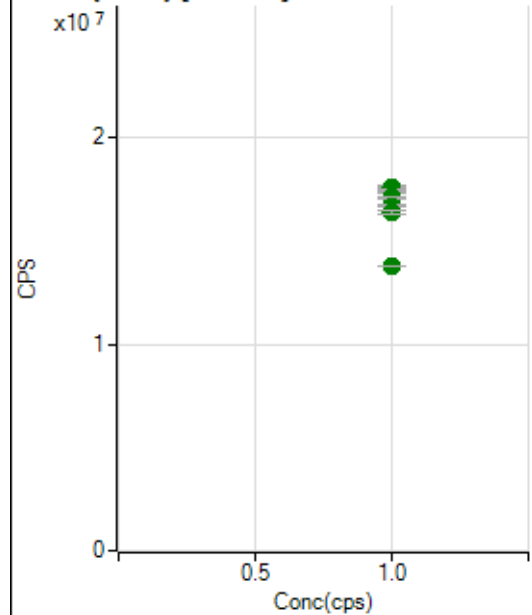
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13173288.42		A	0.7
2	☐	1.000		13165935.64		A	1.4
3	☐	1.000		13298059.94		A	0.3
4	☐	1.000		13056387.72		A	0.6
5	☐	1.000		12997290.92		A	0.2
6	☐	1.000		12819671.75		A	0.3
7	☐	1.000		12866778.14		A	1.0
8	☐	1.000		12521056.20		A	0.7

165 Ho (ISTD) [No Gas]

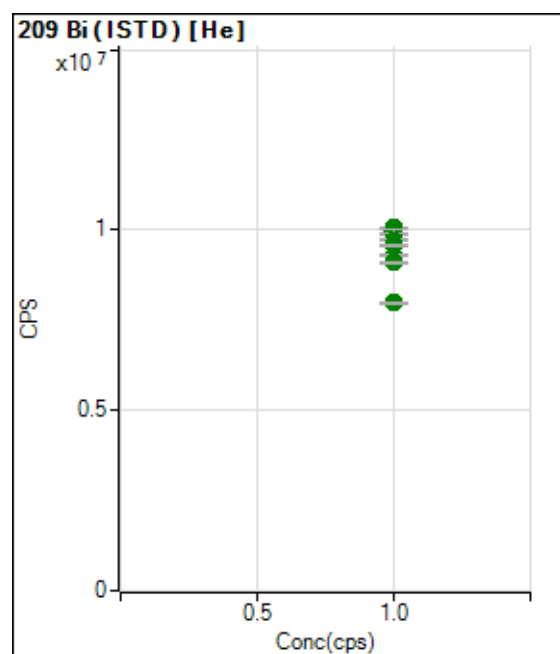
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		27354283.94		A	1.2
2	☐	1.000		27632366.94		A	0.8
3	☐	1.000		27749190.55		A	0.4
4	☐	1.000		27679670.76		A	0.5
5	☐	1.000		27517796.79		A	1.3
6	☐	1.000		27283514.50		A	0.9
7	☐	1.000		27398661.03		A	0.9
8	☐	1.000		25412699.87		A	0.6

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		13669724.10		A	0.5
2	☐	1.000		13606835.07		A	1.2
3	☐	1.000		13686546.74		A	0.3
4	☐	1.000		13450437.72		A	0.4
5	☐	1.000		13459781.05		A	0.4
6	☐	1.000		13246267.02		A	0.7
7	☐	1.000		13346938.41		A	0.7
8	☐	1.000		12930588.56		A	0.7

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		17380633.35		A	0.5
2	☐	1.000		17557131.13		A	0.4
3	☐	1.000		17544939.46		A	1.2
4	☐	1.000		17452621.41		A	0.9
5	☐	1.000		17077647.38		A	0.9
6	☐	1.000		16682440.72		A	0.6
7	☐	1.000		16363533.78		A	1.1
8	☐	1.000		13779240.63		A	0.3



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10057448.88		A	0.6
2	☐	1.000		9948579.09		A	1.3
3	☐	1.000		9971986.52		A	0.8
4	☐	1.000		9715296.66		A	0.7
5	☐	1.000		9583251.94		A	0.6
6	☐	1.000		9290892.64		A	0.5
7	☐	1.000		9091208.27		A	0.6
8	☐	1.000		7975873.14		A	0.3

US EPA Tune Check Sample Report

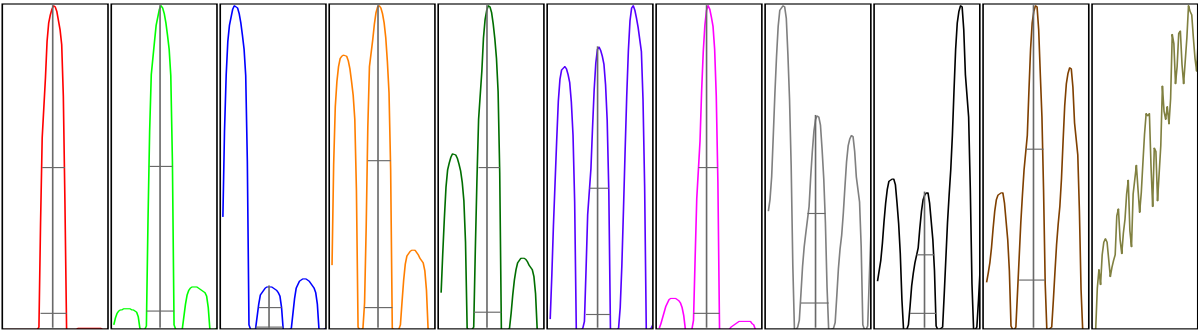
Batch Folder D:\ICP-MS Data\P7120819-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	14799	0.41	5.00	
24	1573406	0.66	5.00	
25	207573	0.57	5.00	
26	243096	0.50	5.00	
59	159547	0.46	5.00	
113	23352	0.29	5.00	
115	276717	0.18	5.00	
206	67649	0.64	5.00	
207	64370	0.47	5.00	
208	145317	0.41	5.00	
220	122	2.44		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	14891	14830	14749	14770	14753
24	1590204	1576304	1569500	1564953	1566072
25	209447	207869	206516	206692	207343
26	244373	243844	243318	241202	242745
59	160477	159627	159960	159081	158590
113	23402	23436	23338	23270	23314
115	277173	277237	276274	276195	276705
206	68316	67695	67563	67122	67550
207	64890	64339	64190	64283	64147
208	145889	145989	144835	145190	144684
220	126	121	119	119	124

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	23636	8.95	8.9 - 9.1		0.787	0.900	
24	2465285	23.90	23.9 - 24.1		0.789	0.900	
25	325838	24.90	24.9 - 25.1		0.787	0.900	
26	384137	25.90	25.9 - 26.1		0.804	0.900	
59	263911	58.90	58.9 - 59.1		0.785	0.900	
113	42900	112.95	112.9 - 113.1		0.738	0.900	
115	509384	114.95	114.9 - 115.1		0.739	0.900	
206	127364	205.95	205.9 - 206.1		0.786	0.900	
207	115734	206.95	206.9 - 207.1		0.756	0.900	
208	273663	207.95	207.9 - 208.1		0.779	0.900	
220			-				

X% = 5 Integration Time [sec] = 0.1 Acquisition Time [sec] = 268 Y Axis = Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.9	V	Deflect	13.0	V
Extract 2	-145.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-70	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	170	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	39893	0.70	
89	601729	0.60	
205	58942	0.65	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	40326	39978	39787	39798	39577
89	606852	603530	597506	601136	599622
205	59174	59475	58521	58689	58850

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.2	V	Deflect	1.6	V
Extract 2	-160.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-80	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	190	V			