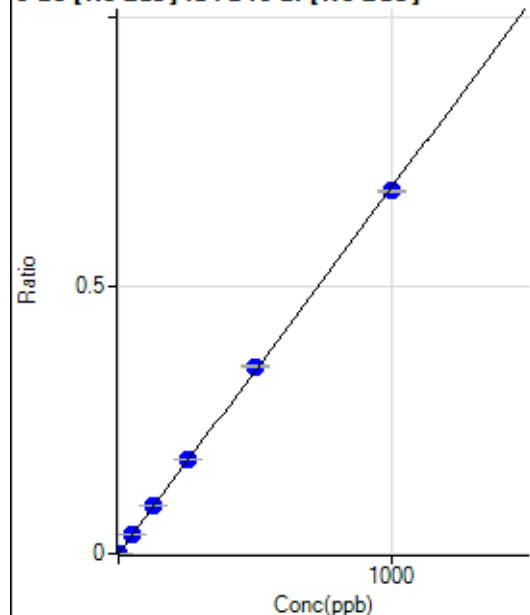


Calibration for 006CAL.S.d

Batch Folder: D:\ICP-MS Data\P7120319 MS .b\
 Analysis File: P7120319 MS .batch.bin
 DA Date-Time: 2019-12-04 00:25:13
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-12-03 15:35:59
2	004CAL.S.d	S02	2019-12-03 15:39:35
3	005CAL.S.d	S03	2019-12-03 15:44:26
4	006CAL.S.d	S04	2019-12-03 15:48:36
5	007CAL.S.d	S05	2019-12-03 15:52:27
6	008CAL.S.d	S06	2019-12-03 15:56:16
7	009CAL.S.d	S07	2019-12-03 16:00:03
8	010CAL.S.d	S08	2019-12-03 16:03:52

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	81.48	0.0000	P	46.5
2	☐	1.000	1.061	4391.50	0.0007	P	3.3
3	☐	50.000	53.111	207830.58	0.0363	P	0.1
4	☐	125.000	130.346	480258.17	0.0891	P	0.4
5	☐	250.000	258.278	906822.21	0.1765	P	0.9
6	☐	500.000	511.852	1795135.77	0.3498	P	0.2
7	☐	1000.000	991.181	3339659.71	0.6774	P	0.8
8	☐			477.80	0.0001	P	13.7

$$y = 6.8338\text{E-}004 * x + 1.3523\text{E-}005$$

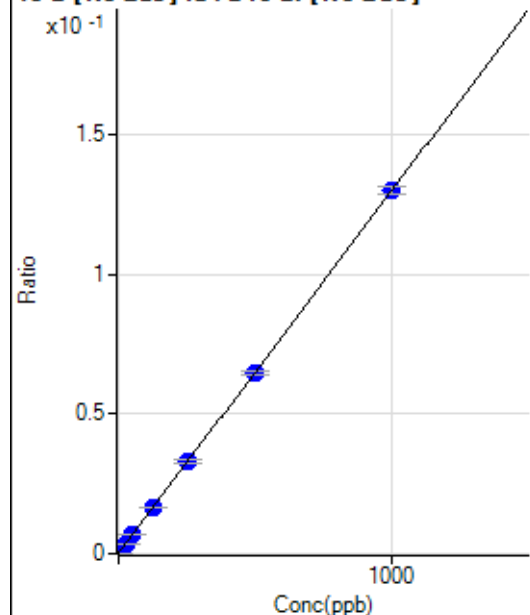
$$R = 0.9999$$

$$DL = 0.02763$$

$$BEC = 0.01979$$

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	675.04	0.0001	P	12.2
2	☐	25.000	24.377	19452.11	0.0033	P	0.4
3	☐	50.000	51.112	38561.21	0.0067	P	0.9
4	☐	125.000	126.737	89162.69	0.0165	P	0.8
5	☐	250.000	254.193	169823.57	0.0331	P	2.8
6	☐	500.000	496.917	331111.72	0.0645	P	2.0
7	☐	1000.000	1000.236	639817.39	0.1298	P	2.0
8	☐			13795.72	0.0028	P	10.5

$$y = 1.2962\text{E-}004 * x + 1.1201\text{E-}004$$

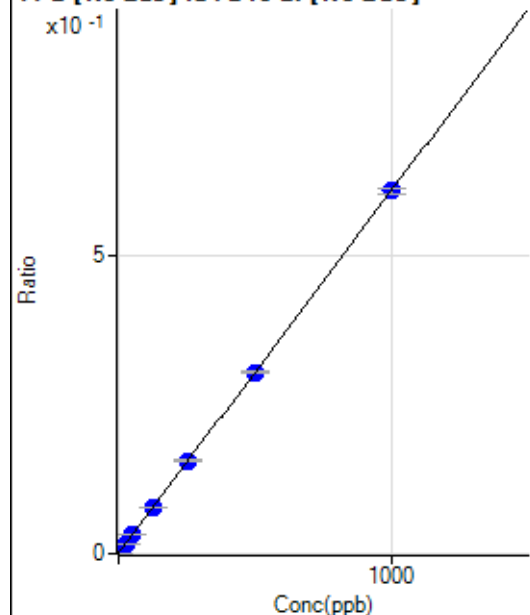
$$R = 1.0000$$

$$DL = 0.317$$

$$BEC = 0.8642$$

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	3814.51	0.0006	P	3.4
2	☐	25.000	23.957	90406.10	0.0152	P	0.4
3	☐	50.000	50.471	179342.13	0.0313	P	1.3
4	☐	125.000	126.658	418762.38	0.0777	P	0.8
5	☐	250.000	255.859	802745.62	0.1563	P	2.5
6	☐	500.000	498.842	1560484.99	0.3041	P	1.6
7	☐	1000.000	998.910	2999286.12	0.6083	P	1.8
8	☐			64511.64	0.0132	P	9.7

$$y = 6.0832\text{E-}004 * x + 6.3284\text{E-}004$$

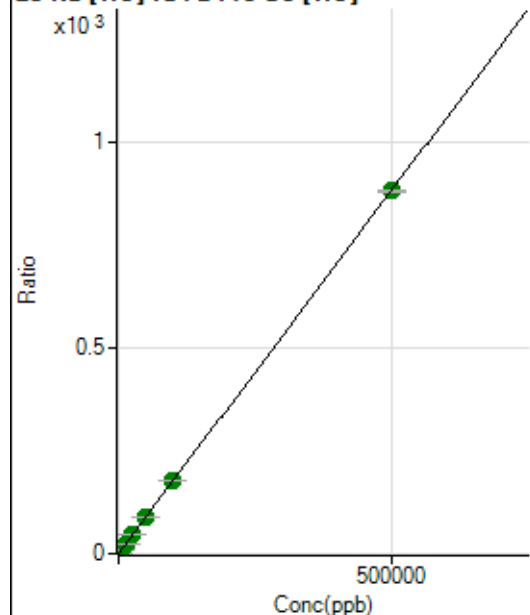
$$R = 1.0000$$

$$DL = 0.1054$$

$$BEC = 1.04$$

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	15772.74	0.0372	P	1.2
2	☐	500.000	499.674	393788.78	0.9199	P	1.6
3	☐	5000.000	5257.621	3915158.29	9.3250	A	0.3
4	☐	12500.000	13044.422	8951264.78	23.0807	A	0.4
5	☐	25000.000	26047.625	17585913.07	46.0513	A	0.4
6	☐	50000.000	51295.395	35052232.73	90.6525	A	0.7
7	☐	100000.00	101605.43	69044095.99	179.5272	A	0.2
8	☐	500000.00	499480.80	349595785.5	882.3899	A	0.8

$$y = 0.0018 * x + 0.0372$$

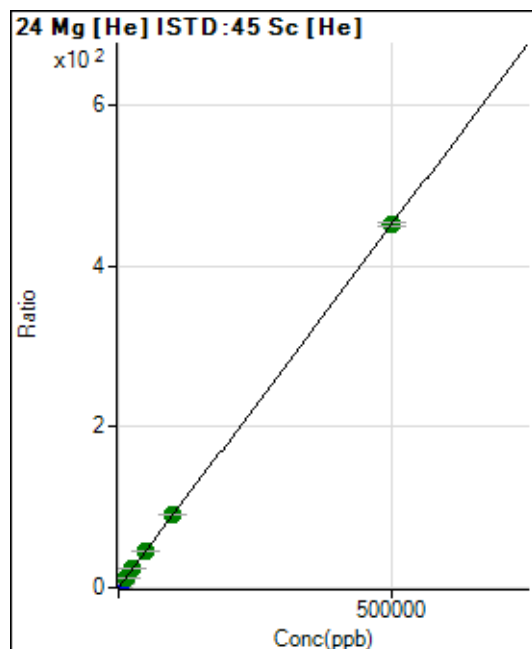
$$R = 1.0000$$

$$DL = 0.7603$$

$$BEC = 21.04$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	258.35	0.0006	P	6.1
2	☐	500.000	516.783	199952.00	0.4670	P	3.9
3	☐	5000.000	5262.810	1994291.30	4.7499	P	0.5
4	☐	12500.000	13051.171	4568063.42	11.7784	A	0.2
5	☐	25000.000	25933.743	8937511.57	23.4041	A	0.2
6	☐	50000.000	50809.929	17729792.41	45.8532	A	1.0
7	☐	100000.00	100345.56	34825622.65	90.5557	A	0.5
8	☐	500000.00	499786.78	178700010.9	451.0246	A	1.0

$$y = 9.0243\text{E-}004 * x + 6.0813\text{E-}004$$

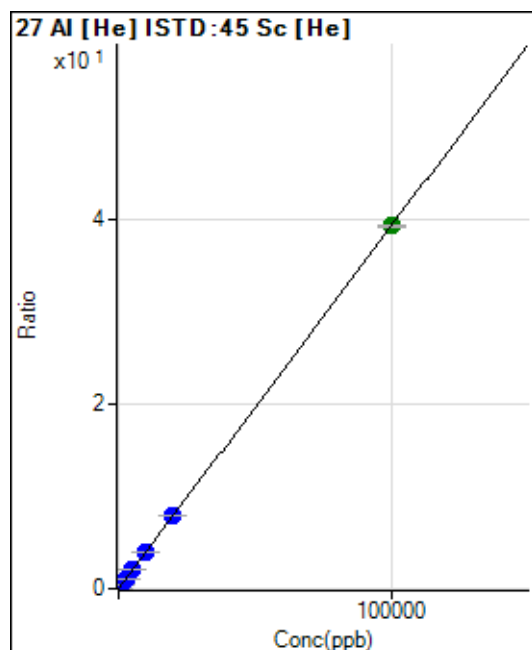
$$R = 1.0000$$

$$DL = 0.1236$$

$$BEC = 0.6739$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	47.23	0.0001	P	38.0
2	☐	20.000	18.164	3114.33	0.0073	P	10.4
3	☐	1000.000	1059.858	175470.54	0.4179	P	1.0
4	☐	2500.000	2605.982	398463.80	1.0275	P	0.8
5	☐	5000.000	5173.667	778923.10	2.0397	P	0.5
6	☐	10000.000	10191.858	1553627.95	4.0180	P	0.7
7	☐	20000.000	20040.423	3038348.40	7.9006	P	0.5
8	☐	100000.00	99960.798	15613796.53	39.4072	A	0.5

$$y = 3.9423\text{E-}004 * x + 1.1171\text{E-}004$$

$$R = 1.0000$$

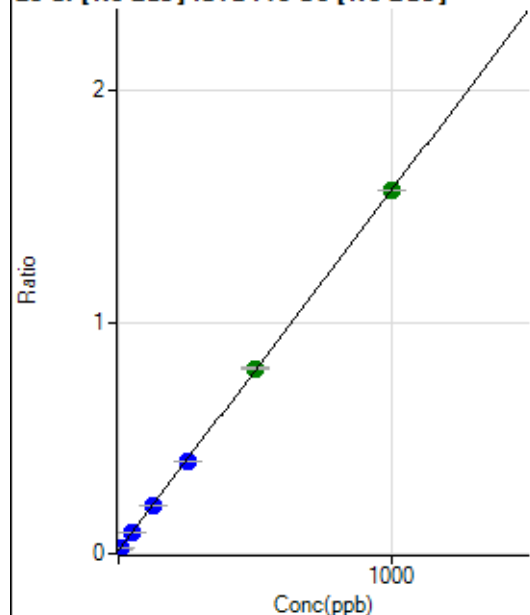
$$DL = 0.3232$$

$$BEC = 0.2834$$

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	155545.41	0.0145	P	0.8
2	☐	10.000	6.872	260856.10	0.0252	P	0.2
3	☐	50.000	50.214	936060.46	0.0926	P	0.7
4	☐	125.000	124.624	1981834.57	0.2083	P	0.7
5	☐	250.000	246.044	3644776.30	0.3970	P	1.2
6	☐	500.000	505.419	7405957.37	0.8002	A	0.8
7	☐	1000.000	998.347	14277384.35	1.5664	A	0.0
8	☐			1101076.47	0.1245	P	0.6

$$y = 0.0016 * x + 0.0145$$

$$R = 1.0000$$

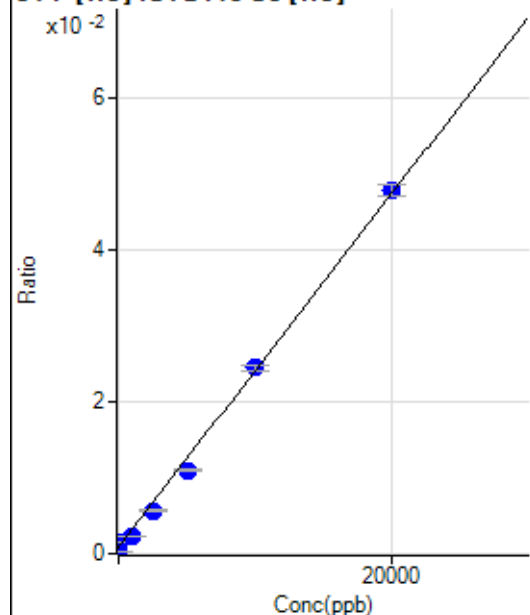
$$DL = 0.2144$$

$$BEC = 9.348$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-260.320	113.89	0.0003	P	10.8
2	☐	0.000	260.320	633.37	0.0015	P	10.2
3	☐	1000.000	611.866	963.96	0.0023	P	2.1
4	☐	2500.000	2062.072	2197.48	0.0057	P	3.8
5	☐	5000.000	4337.010	4184.08	0.0110	P	2.9
6	☐	10000.000	10136.746	9450.55	0.0244	P	3.2
7	☐	20000.000	20171.522	18367.56	0.0478	P	3.3
8	☐			202.79	0.0005	P	6.0

$$y = 2.3248E-006 * x + 8.7348E-004$$

$$R = 0.9990$$

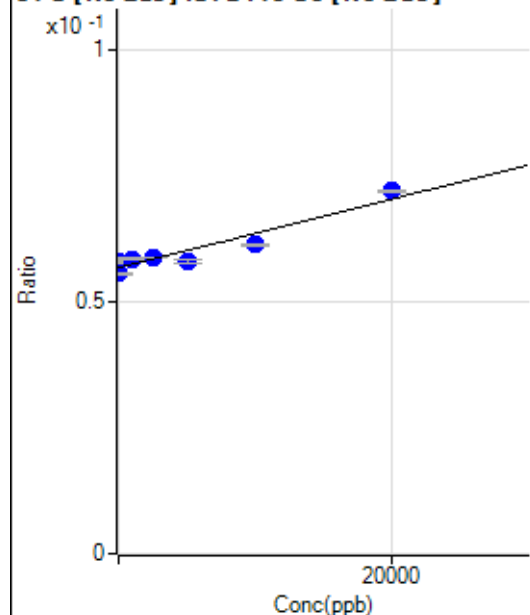
$$DL = 116.3$$

$$BEC = 375.7$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-1736.456	595986.80	0.0557	P	1.0
2	☐	0.000	1736.456	600407.34	0.0580	P	0.7
3	☐	1000.000	2516.056	592106.56	0.0586	P	0.5
4	☐	2500.000	2755.783	558846.29	0.0587	P	0.3
5	☐	5000.000	1658.171	532293.73	0.0580	P	1.5
6	☐	10000.000	6659.741	568085.47	0.0614	P	0.3
7	☐	20000.000	22397.811	656869.36	0.0721	P	0.8
8	☐			483050.61	0.0546	P	0.3

$$y = 6.7939\text{E-}007 * x + 0.0569$$

$$R = 0.9533$$

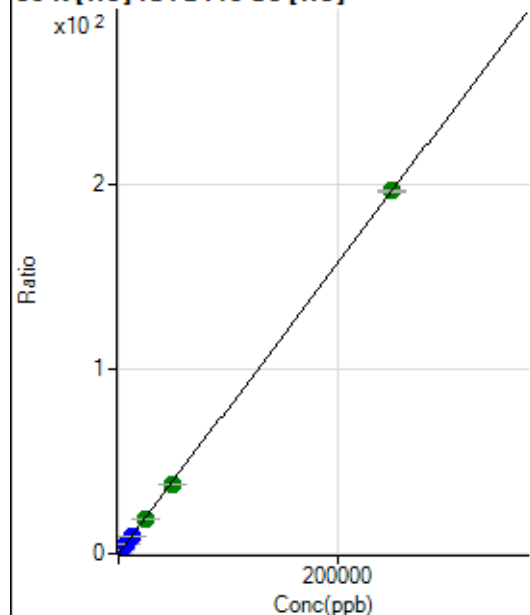
$$\text{DL} = 2088$$

$$\text{BEC} = 8.368\text{E}+04$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	21310.48	0.0502	P	0.9
2	☐	500.000	496.853	188050.41	0.4393	P	0.8
3	☐	2500.000	2512.482	847169.10	2.0178	P	0.7
4	☐	6250.000	6210.871	1905890.28	4.9140	P	0.4
5	☐	12500.000	12270.187	3688622.69	9.6591	P	0.3
6	☐	25000.000	24201.256	7347663.79	19.0025	A	0.2
7	☐	50000.000	48148.434	14520956.92	37.7558	A	0.2
8	☐	250000.00	250462.53	77745412.16	196.1904	A	0.2

$$y = 7.8311\text{E-}004 * x + 0.0502$$

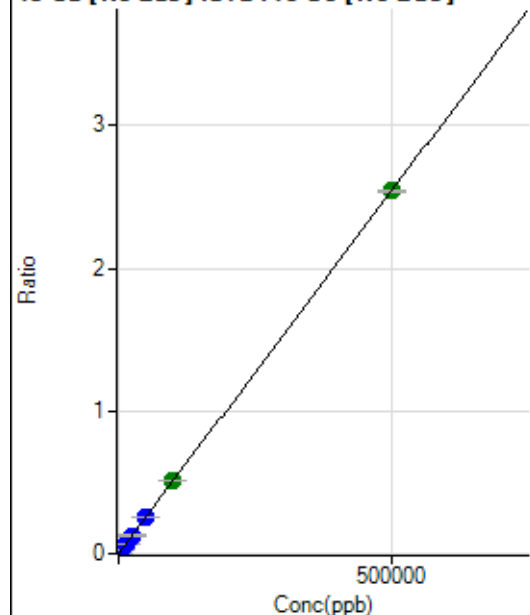
$$R = 1.0000$$

$$\text{DL} = 1.717$$

$$\text{BEC} = 64.12$$

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	325.02	0.0000	P	19.0
2	☐	500.000	486.547	25901.28	0.0025	P	3.0
3	☐	5000.000	5101.565	262502.82	0.0260	P	0.8
4	☐	12500.000	12768.566	617951.26	0.0649	P	0.6
5	☐	25000.000	25162.011	1174716.95	0.1279	P	0.3
6	☐	50000.000	50006.938	2353054.89	0.2542	P	0.4
7	☐	100000.00	99591.502	4614615.86	0.5063	A	0.2
8	☐	500000.00	500065.18	22485093.38	2.5420	A	0.4

$$y = 5.0833\text{E-}006 * x + 3.0383\text{E-}005$$

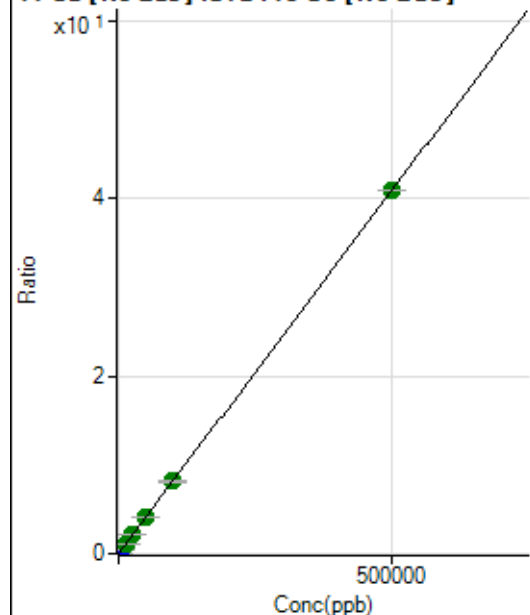
$$R = 1.0000$$

$$DL = 3.414$$

$$BEC = 5.977$$

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	9864.84	0.0009	P	3.4
2	☐	500.000	493.585	426670.84	0.0412	P	0.6
3	☐	5000.000	5072.172	4198330.43	0.4153	P	0.3
4	☐	12500.000	12624.575	9822568.28	1.0322	A	0.4
5	☐	25000.000	25243.746	18942072.65	2.0630	A	0.3
6	☐	50000.000	50314.795	38049501.54	4.1110	A	0.6
7	☐	100000.00	99398.621	74017084.99	8.1205	A	0.6
8	☐	500000.00	500072.77	361342560.8	40.8503	A	0.2

$$y = 8.1687\text{E-}005 * x + 9.2144\text{E-}004$$

$$R = 1.0000$$

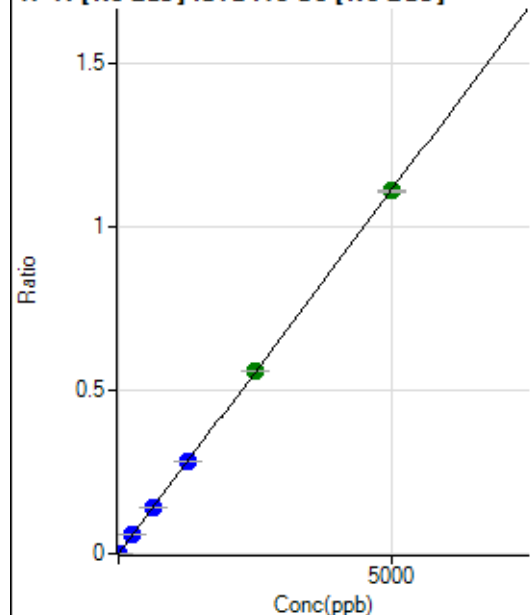
$$DL = 1.153$$

$$BEC = 11.28$$

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	113.90	0.0000	P	45.8
2	☐	5.000	5.103	11846.88	0.0011	P	2.1
3	☐	250.000	254.551	572208.92	0.0566	P	0.5
4	☐	625.000	637.022	1347657.91	0.1416	P	0.5
5	☐	1250.000	1262.495	2576920.76	0.2807	P	0.1
6	☐	2500.000	2511.416	5167206.32	0.5583	A	0.5
7	☐	5000.000	4989.438	10109334.60	1.1091	A	0.3
8	☐			2250.27	0.0003	P	5.4

$$y = 2.2229\text{E-}004 * x + 1.0619\text{E-}005$$

$$R = 1.0000$$

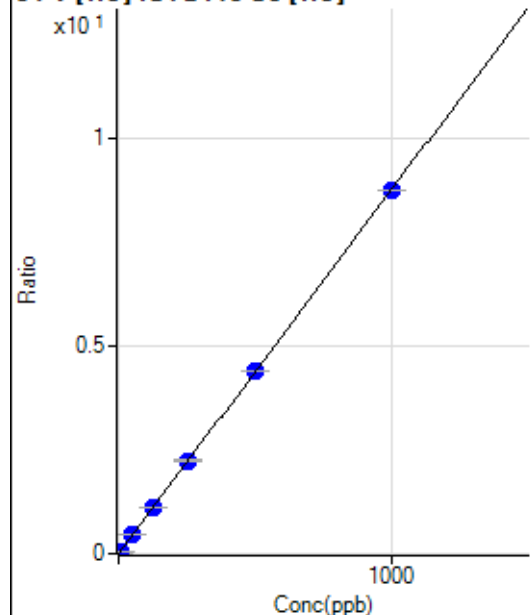
$$DL = 0.06558$$

$$BEC = 0.04777$$

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	2.22	0.0000	P	86.7
2	☐	5.000	5.106	19128.18	0.0447	P	4.4
3	☐	50.000	51.265	188302.84	0.4485	P	0.5
4	☐	125.000	127.865	433836.61	1.1186	P	0.2
5	☐	250.000	255.634	854036.73	2.2364	P	0.5
6	☐	500.000	503.155	1702036.17	4.4018	P	0.4
7	☐	1000.000	996.592	3353083.63	8.7186	P	0.1
8	☐			1164.51	0.0029	P	3.9

$$y = 0.0087 * x + 5.1853\text{E-}006$$

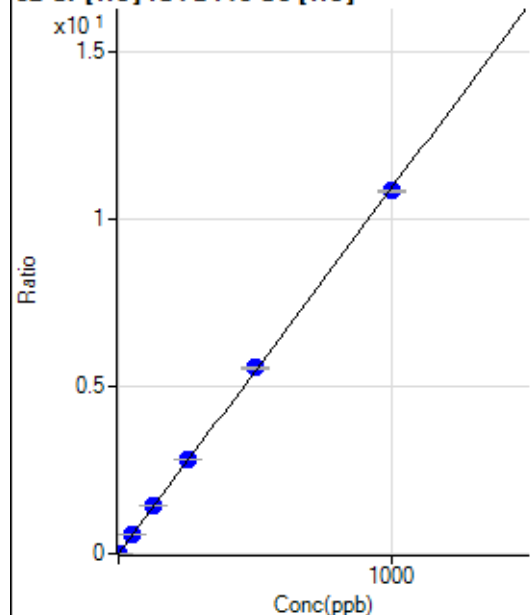
$$R = 1.0000$$

$$DL = 0.001541$$

$$BEC = 0.0005927$$

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	861.15	0.0020	P	7.5
2	☐	2.000	1.962	10032.45	0.0234	P	2.8
3	☐	50.000	52.550	241593.47	0.5754	P	0.6
4	☐	125.000	130.290	552145.93	1.4237	P	0.3
5	☐	250.000	258.726	1078854.45	2.8251	P	0.4
6	☐	500.000	508.117	2144585.40	5.5463	P	0.5
7	☐	1000.000	992.972	4167531.57	10.8368	P	0.6
8	☐			117501.40	0.2965	P	0.3

$$y = 0.0109 * x + 0.0020$$

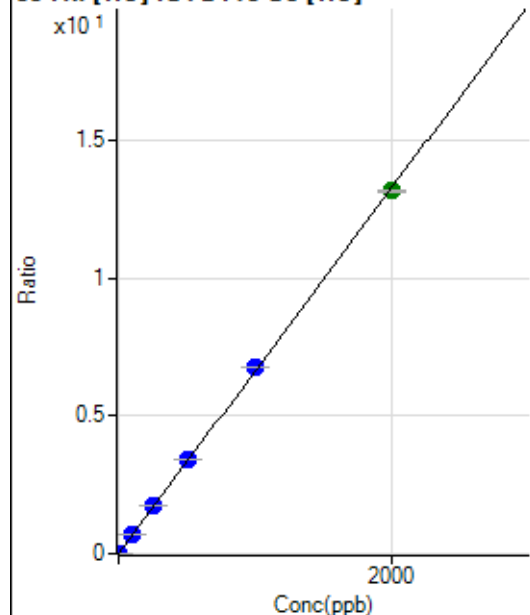
$$R = 0.9999$$

$$DL = 0.0419$$

$$BEC = 0.1859$$

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	48.89	0.0001	P	28.8
2	☐	1.000	1.076	3103.71	0.0072	P	1.4
3	☐	100.000	104.155	290053.32	0.6908	P	0.5
4	☐	250.000	260.510	670084.69	1.7277	P	0.2
5	☐	500.000	518.871	1314115.35	3.4411	P	0.4
6	☐	1000.000	1017.593	2609445.01	6.7485	P	0.3
7	☐	2000.000	1984.965	5062644.34	13.1639	A	0.5
8	☐			18739.94	0.0473	P	0.7

$$y = 0.0066 * x + 1.1479E-004$$

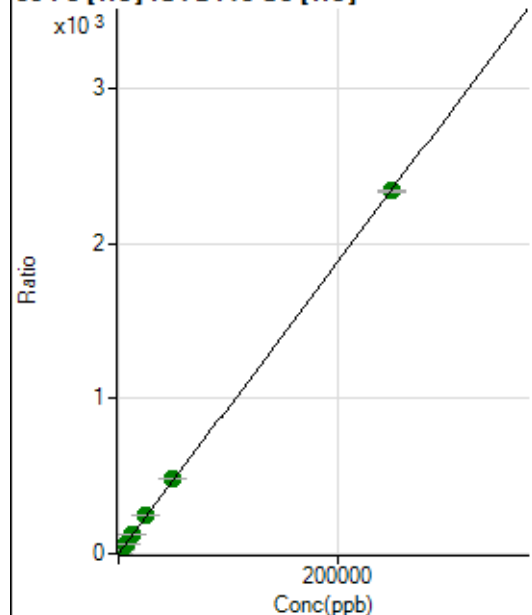
$$R = 0.9999$$

$$DL = 0.01498$$

$$BEC = 0.01731$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5373.35	0.0127	P	2.1
2	☐	50.000	53.477	220024.37	0.5138	P	3.9
3	☐	2500.000	2692.995	10601812.51	25.2510	A	0.5
4	☐	6250.000	6726.369	24453159.11	63.0512	A	0.5
5	☐	12500.000	13383.630	47903370.05	125.4421	A	0.6
6	☐	25000.000	26312.889	95358756.76	246.6133	A	0.5
7	☐	50000.000	51583.183	185921800.4	483.4430	A	0.6
8	☐	250000.00	249494.05	926545154.0	2,338.235	A	0.2

$$y = 0.0094 * x + 0.0127$$

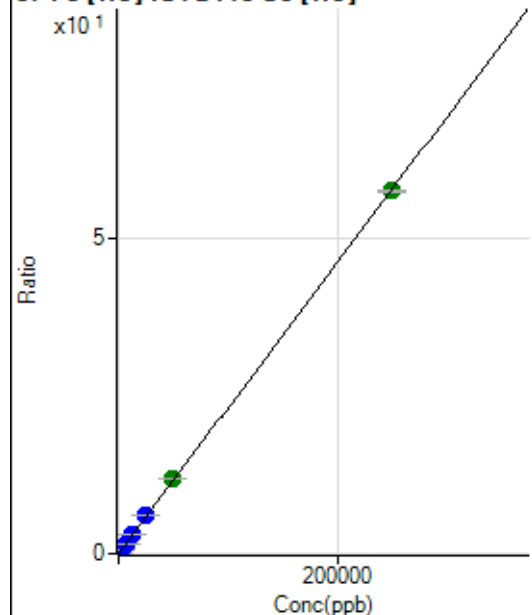
R = 1.0000

DL = 0.0861

BEC = 1.351

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	172.23	0.0004	P	1.3
2	☐	50.000	55.516	5645.70	0.0132	P	5.9
3	☐	2500.000	2763.187	267205.23	0.6364	P	0.3
4	☐	6250.000	6824.277	609374.10	1.5712	P	0.3
5	☐	12500.000	13511.547	1187790.58	3.1104	P	0.5
6	☐	25000.000	26556.828	2363736.28	6.1131	P	0.1
7	☐	50000.000	51342.258	4544845.53	11.8180	A	0.7
8	☐	250000.00	249508.29	22758310.46	57.4305	A	0.3

$$y = 2.3017E-004 * x + 4.0575E-004$$

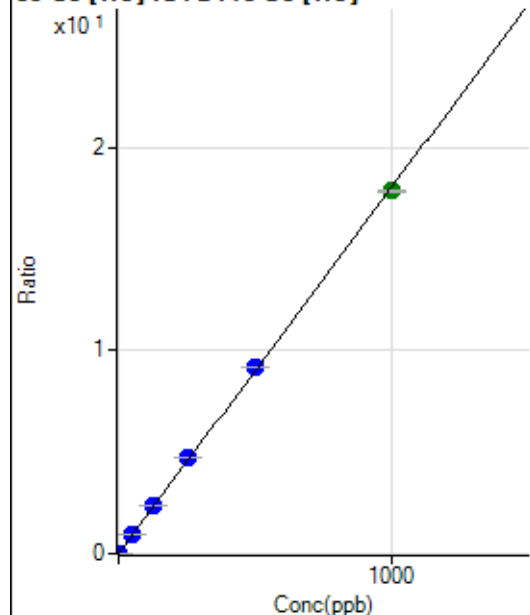
R = 1.0000

DL = 0.06847

BEC = 1.763

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	60.00	0.0001	P	5.8
2	☐	1.000	1.022	7941.15	0.0185	P	3.9
3	☐	50.000	53.801	406939.11	0.9692	P	0.5
4	☐	125.000	132.823	927901.90	2.3926	P	0.6
5	☐	250.000	262.639	1806616.86	4.7309	P	0.5
6	☐	500.000	509.586	3549241.27	9.1790	P	0.1
7	☐	1000.000	990.880	6864199.48	17.8483	A	0.4
8	☐			13206.12	0.0333	P	3.0

$$y = 0.0180 * x + 1.4141E-004$$

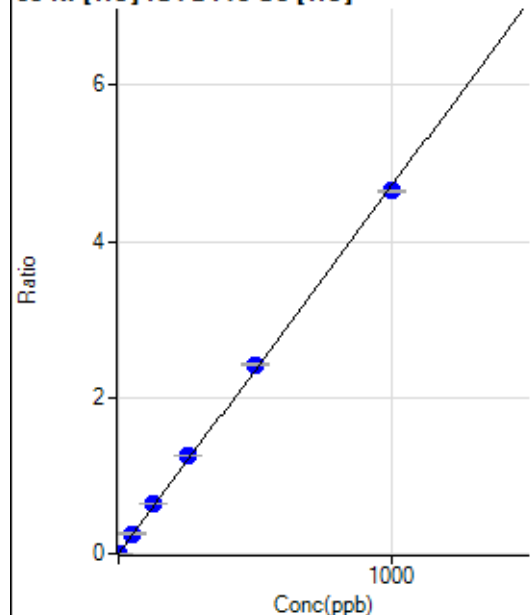
$$R = 0.9998$$

$$DL = 0.001367$$

$$BEC = 0.00785$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	46.67	0.0001	P	38.6
2	☐	1.000	1.053	2170.20	0.0051	P	6.5
3	☐	50.000	54.736	108195.55	0.2577	P	1.0
4	☐	125.000	135.267	246915.10	0.6367	P	0.7
5	☐	250.000	267.013	479896.18	1.2567	P	0.4
6	☐	500.000	514.578	936389.13	2.4217	P	0.6
7	☐	1000.000	986.937	1786205.09	4.6446	P	0.5
8	☐			34770.26	0.0878	P	1.6

$$y = 0.0047 * x + 1.1012E-004$$

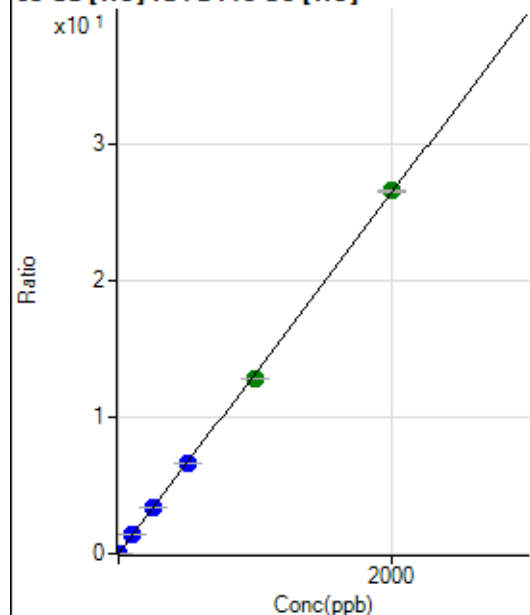
$$R = 0.9997$$

$$DL = 0.02713$$

$$BEC = 0.0234$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	734.48	0.0017	P	6.7
2	☐	2.000	1.972	11891.66	0.0278	P	1.9
3	☐	100.000	104.238	578795.17	1.3785	P	0.2
4	☐	250.000	255.983	1312006.45	3.3829	P	0.7
5	☐	500.000	502.372	2534636.47	6.6373	P	0.3
6	☐	1000.000	971.371	4961726.87	12.8320	A	0.1
7	☐	2000.000	2012.762	10224820.33	26.5870	A	0.5
8	☐			15718.62	0.0397	P	1.0

$$y = 0.0132 * x + 0.0017$$

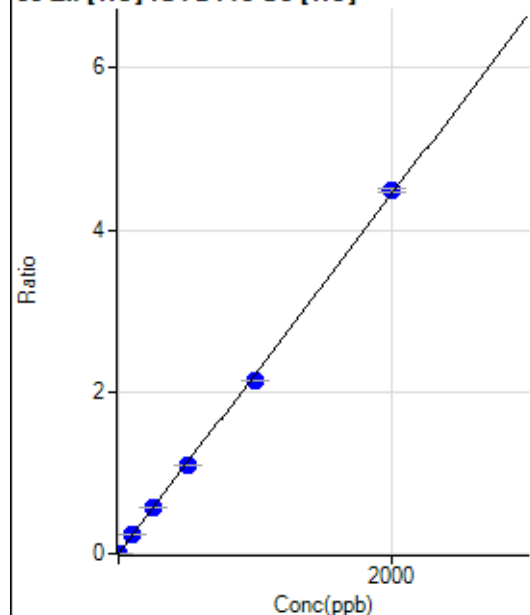
$$R = 0.9998$$

$$DL = 0.02638$$

$$BEC = 0.1311$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1050.05	0.0025	P	1.7
2	☐	2.000	2.157	3105.94	0.0073	P	3.3
3	☐	100.000	105.375	99151.92	0.2362	P	0.8
4	☐	250.000	254.456	219818.97	0.5668	P	0.4
5	☐	500.000	494.309	419567.07	1.0987	P	0.4
6	☐	1000.000	962.162	825992.29	2.1362	P	0.8
7	☐	2000.000	2019.516	1723237.42	4.4810	P	0.9
8	☐			20441.17	0.0516	P	1.6

$$y = 0.0022 * x + 0.0025$$

$$R = 0.9997$$

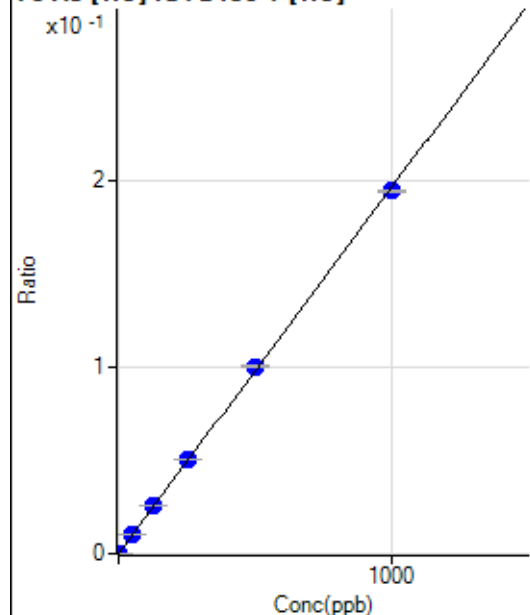
$$DL = 0.05649$$

$$BEC = 1.116$$

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	8.64	0.0000	P	54.5
2	☐	1.000	1.040	521.00	0.0002	P	6.2
3	☐	50.000	54.694	26541.63	0.0108	P	1.5
4	☐	125.000	131.230	59427.13	0.0258	P	0.3
5	☐	250.000	257.968	116571.41	0.0508	P	0.3
6	☐	500.000	512.039	231331.64	0.1007	P	0.4
7	☐	1000.000	990.975	442215.23	0.1949	P	0.2
8	☐			158.65	0.0001	P	22.5

$$y = 1.9672\text{E-}004 * x + 3.5125\text{E-}006$$

$$R = 0.9999$$

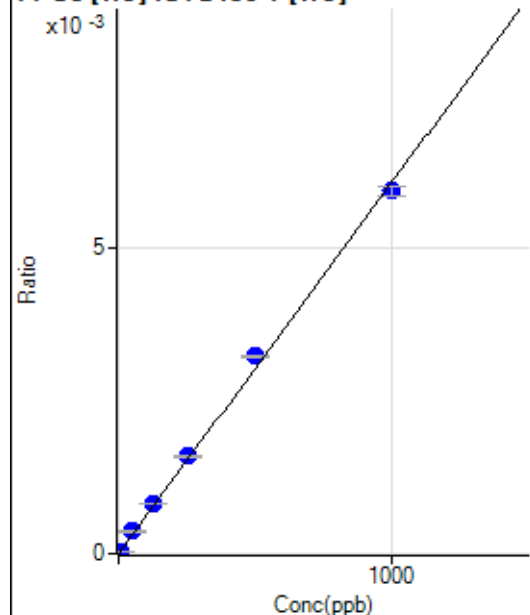
$$DL = 0.02922$$

$$BEC = 0.01786$$

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	0.00	0.0000	P	
2	☐	5.000	5.268	80.00	0.0000	P	22.2
3	☐	50.000	59.924	895.60	0.0004	P	3.4
4	☐	125.000	134.863	1881.26	0.0008	P	1.5
5	☐	250.000	264.075	3676.08	0.0016	P	2.2
6	☐	500.000	532.341	7408.66	0.0032	P	0.7
7	☐	1000.000	978.580	13449.72	0.0059	P	2.4
8	☐			11.11	0.0000	P	35.1

$$y = 6.0600\text{E-}006 * x + 0.0000\text{E+}000$$

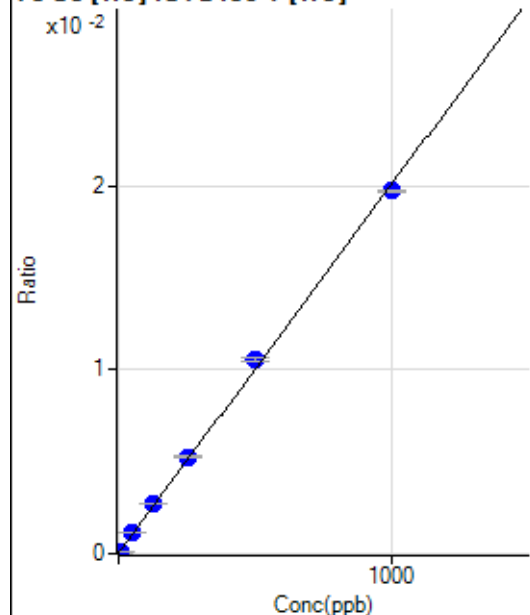
$$R = 0.9991$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	48.15	0.0000	P	6.1
2	☐	5.000	5.911	345.07	0.0001	P	9.4
3	☐	50.000	58.577	2941.68	0.0012	P	1.2
4	☐	125.000	136.150	6321.81	0.0027	P	0.2
5	☐	250.000	261.457	12073.61	0.0053	P	1.1
6	☐	500.000	524.956	24191.27	0.0105	P	1.7
7	☐	1000.000	982.831	44701.43	0.0197	P	0.3
8	☐			79.63	0.0000	P	11.7

$$y = 2.0030\text{E-}005 * x + 1.9479\text{E-}005$$

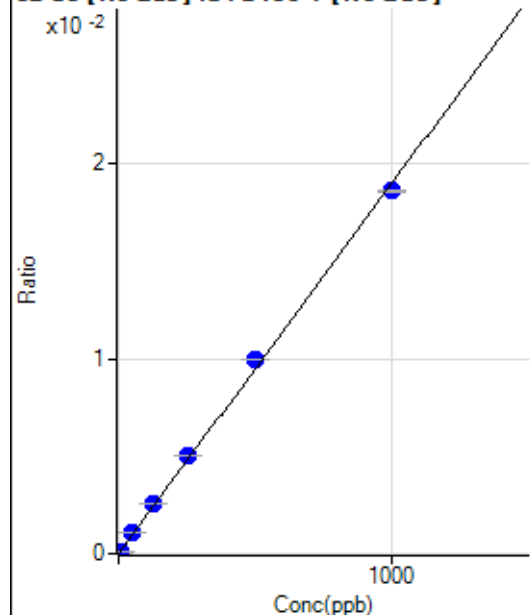
$$R = 0.9994$$

$$DL = 0.1777$$

$$BEC = 0.9725$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-0.59	0.0000	P	-6172.
2	☐	5.000	6.076	2237.39	0.0001	P	4.4
3	☐	50.000	58.400	21147.73	0.0011	P	1.4
4	☐	125.000	137.012	47428.81	0.0026	P	0.8
5	☐	250.000	265.932	89723.29	0.0050	P	0.8
6	☐	500.000	525.764	179128.47	0.0100	P	0.5
7	☐	1000.000	981.208	325868.50	0.0186	P	0.7
8	☐			81.81	0.0000	P	97.9

$$y = 1.8946\text{E-}005 * x - 2.9349\text{E-}008$$

$$R = 0.9993$$

$$DL = 0.2868$$

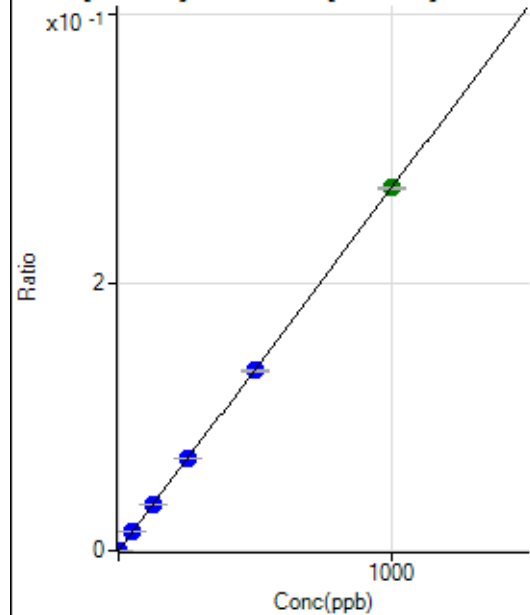
$$BEC = -0.001549$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			1046.72		P	2.9
2	☐			1122.28		P	4.3
3	☐			992.27		P	1.9
4	☐			986.72		P	6.3
5	☐			991.16		P	4.3
6	☐			1016.72		P	2.6
7	☐			1004.50		P	11.9
8	☐			1073.39		P	6.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1680.72	0.0001	P	2.6
2	☐	1.000	1.050	7152.04	0.0004	P	2.6
3	☐	50.000	50.895	264547.04	0.0138	P	1.1
4	☐	125.000	128.316	635332.69	0.0348	P	1.0
5	☐	250.000	252.719	1218167.30	0.0684	P	0.2
6	☐	500.000	497.049	2417810.84	0.1345	P	0.6
7	☐	1000.000	1000.336	4741737.00	0.2705	A	0.3
8	☐			20721.10	0.0012	P	3.2

$$y = 2.7034\text{E-}004 * x + 8.3917\text{E-}005$$

$$R = 1.0000$$

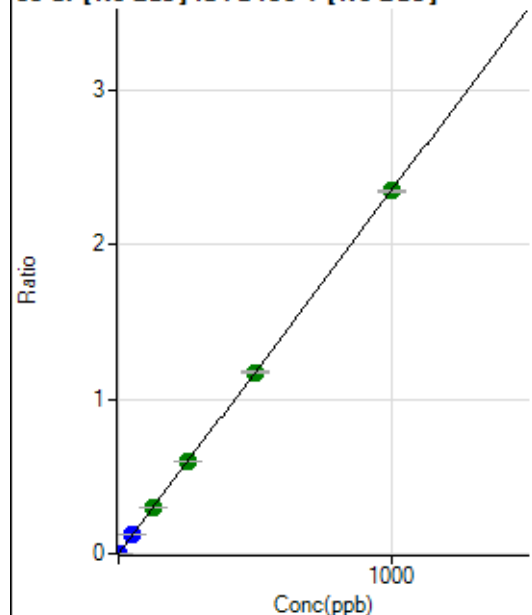
$$DL = 0.02464$$

$$BEC = 0.3104$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	236.12	0.0000	P	11.5
2	☐	1.000	1.038	47655.01	0.0025	P	1.8
3	☐	50.000	50.856	2284327.07	0.1195	P	0.5
4	☐	125.000	126.621	5437038.62	0.2976	A	1.0
5	☐	250.000	252.558	10570029.75	0.5935	A	0.6
6	☐	500.000	500.230	21139996.13	1.1756	A	0.4
7	☐	1000.000	999.000	41151829.74	2.3477	A	0.2
8	☐			167807.89	0.0100	P	0.5

$$y = 0.0024 * x + 1.1791E-005$$

$$R = 1.0000$$

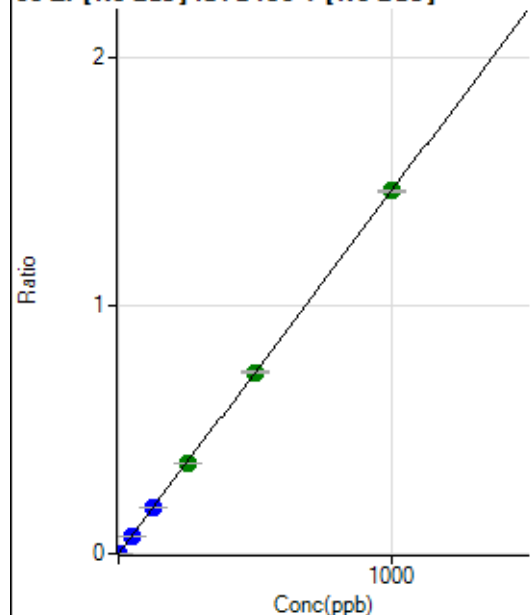
$$DL = 0.001724$$

$$BEC = 0.005017$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1108.43	0.0001	P	7.3
2	☐	1.000	0.739	22112.22	0.0011	P	4.7
3	☐	50.000	49.667	1390213.54	0.0727	P	0.6
4	☐	125.000	124.991	3343018.52	0.1830	P	0.4
5	☐	250.000	249.905	6513611.99	0.3658	A	0.2
6	☐	500.000	500.259	13165946.48	0.7321	A	0.4
7	☐	1000.000	999.912	25650372.10	1.4633	A	0.3
8	☐			6985.37	0.0004	P	6.0

$$y = 0.0015 * x + 5.5350E-005$$

$$R = 1.0000$$

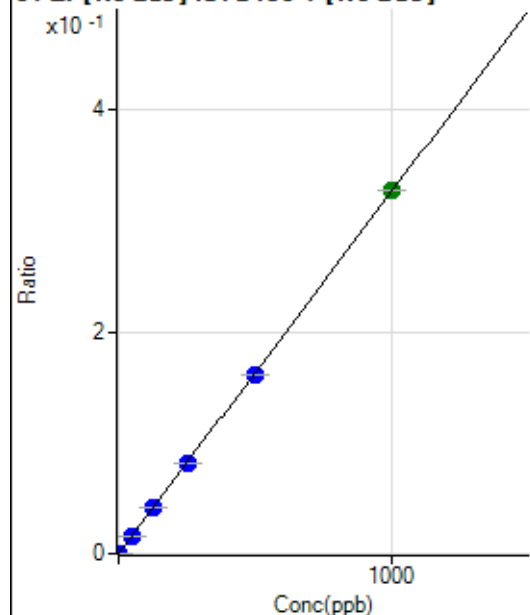
$$DL = 0.008329$$

$$BEC = 0.03782$$

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	197.23	0.0000	P	4.7
2	☐	1.000	0.769	5070.55	0.0003	P	9.1
3	☐	50.000	50.051	312184.46	0.0163	P	0.2
4	☐	125.000	125.989	750947.83	0.0411	P	0.6
5	☐	250.000	250.745	1456440.42	0.0818	P	0.9
6	☐	500.000	494.503	2900381.56	0.1613	P	0.7
7	☐	1000.000	1002.436	5731008.11	0.3269	A	0.1
8	☐			1461.25	0.0001	P	2.8

$$y = 3.2615\text{E-}004 * x + 9.8475\text{E-}006$$

$$R = 1.0000$$

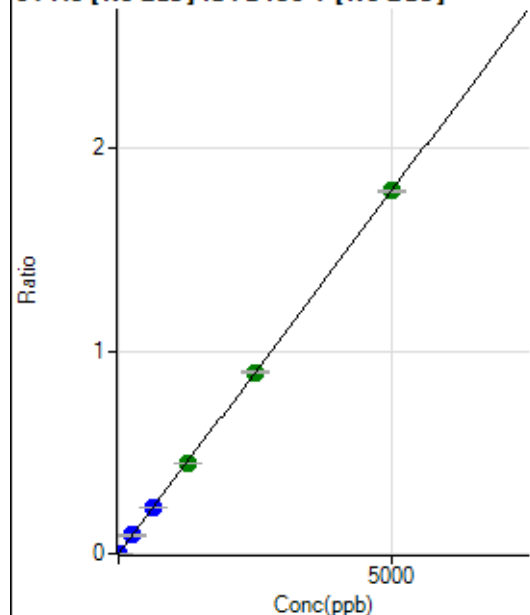
$$DL = 0.004253$$

$$BEC = 0.03019$$

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	400.02	0.0000	P	2.1
2	☐	5.000	4.665	32858.28	0.0017	P	2.7
3	☐	250.000	252.301	1726932.94	0.0904	P	0.7
4	☐	625.000	627.589	4106313.46	0.2247	P	0.4
5	☐	1250.000	1253.311	7992257.30	0.4488	A	0.1
6	☐	2500.000	2497.436	16081931.95	0.8943	A	0.7
7	☐	5000.000	5000.016	31382889.94	1.7904	A	0.2
8	☐			22126.26	0.0013	P	4.6

$$y = 3.5807\text{E-}004 * x + 1.9974\text{E-}005$$

$$R = 1.0000$$

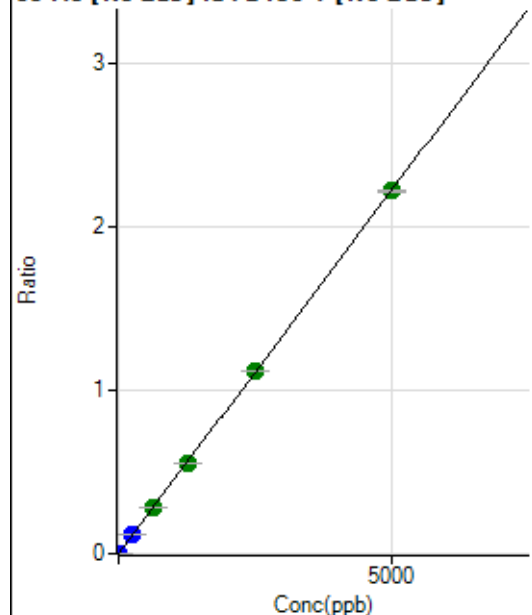
$$DL = 0.003493$$

$$BEC = 0.05578$$

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	191.68	0.0000	P	26.3
2	☐	5.000	5.032	43634.23	0.0022	P	1.9
3	☐	250.000	253.005	2147675.57	0.1124	P	0.9
4	☐	625.000	626.998	5088062.70	0.2785	A	0.1
5	☐	1250.000	1255.157	9927514.20	0.5575	A	0.2
6	☐	2500.000	2509.516	20042413.64	1.1145	A	0.6
7	☐	5000.000	4993.553	38874858.85	2.2178	A	0.3
8	☐			35522.85	0.0021	P	1.5

$$y = 4.4412\text{E-}004 * x + 9.5676\text{E-}006$$

$$R = 1.0000$$

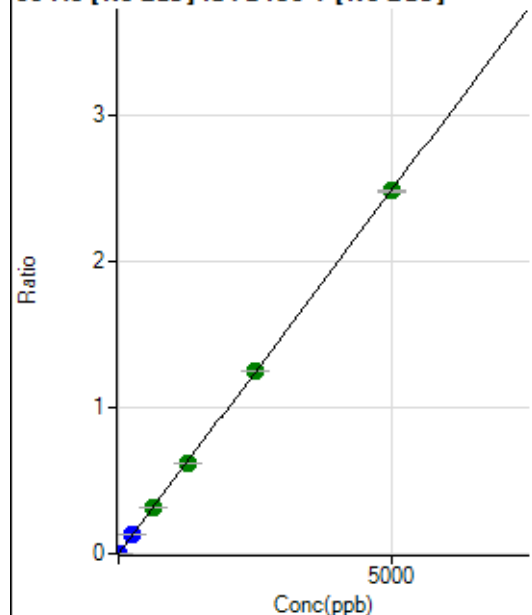
$$DL = 0.01697$$

$$BEC = 0.02154$$

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	266.68	0.0000	P	21.8
2	☐	5.000	4.978	48302.44	0.0025	P	0.6
3	☐	250.000	252.025	2391325.98	0.1251	P	0.2
4	☐	625.000	629.296	5707914.84	0.3124	A	0.2
5	☐	1250.000	1251.658	11065133.15	0.6213	A	0.0
6	☐	2500.000	2513.636	22438638.00	1.2478	A	0.1
7	☐	5000.000	4992.129	43439048.19	2.4781	A	0.3
8	☐			43403.16	0.0026	P	2.0

$$y = 4.9640\text{E-}004 * x + 1.3314\text{E-}005$$

$$R = 1.0000$$

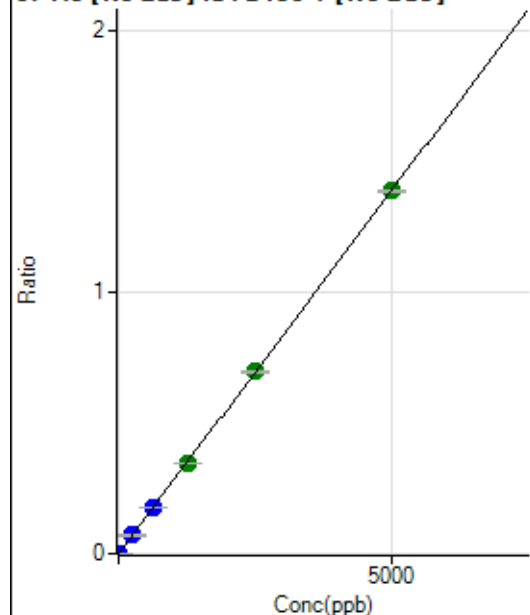
$$DL = 0.01757$$

$$BEC = 0.02682$$

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	163.90	0.0000	P	6.0
2	☐	5.000	4.987	27101.55	0.0014	P	0.7
3	☐	250.000	251.848	1337845.73	0.0700	P	0.6
4	☐	625.000	627.835	3188249.96	0.1745	P	0.4
5	☐	1250.000	1248.465	6179232.65	0.3470	A	0.3
6	☐	2500.000	2504.108	12514987.17	0.6959	A	0.4
7	☐	5000.000	4997.883	24348089.61	1.3890	A	0.5
8	☐			21706.14	0.0013	P	1.3

$$y = 2.7792\text{E-}004 * x + 8.1838\text{E-}006$$

R = 1.0000

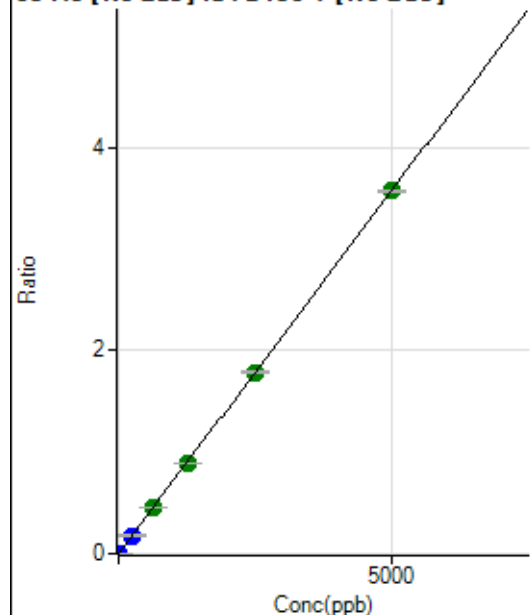
DL = 0.005274

BEC = 0.02945

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	411.14	0.0000	P	20.3
2	☐	5.000	4.994	69833.08	0.0036	P	0.7
3	☐	250.000	251.408	3436649.47	0.1798	P	1.1
4	☐	625.000	626.774	8190573.79	0.4483	A	0.5
5	☐	1250.000	1251.443	15939593.58	0.8950	A	0.3
6	☐	2500.000	2499.312	32144516.69	1.7875	A	0.7
7	☐	5000.000	4999.691	62678225.01	3.5758	A	0.4
8	☐			55364.13	0.0033	P	1.1

$$y = 7.1519\text{E-}004 * x + 2.0524\text{E-}005$$

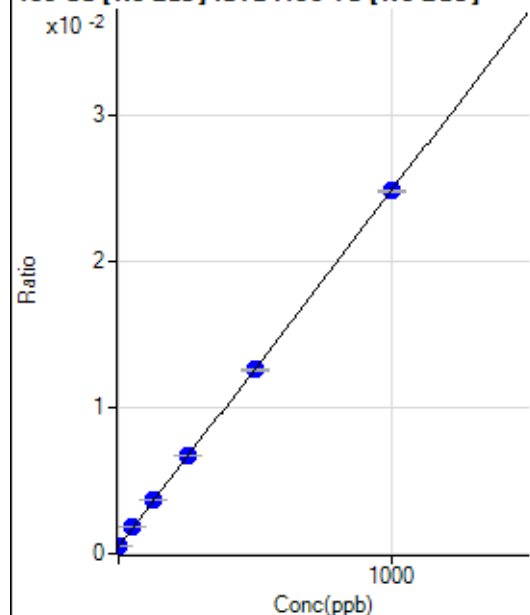
R = 1.0000

DL = 0.01749

BEC = 0.0287

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	10974.17	0.0005	P	2.4
2	☐	1.000	0.866	11104.79	0.0005	P	4.1
3	☐	50.000	54.991	40389.03	0.0018	P	3.4
4	☐	125.000	130.566	79531.57	0.0037	P	0.2
5	☐	250.000	256.704	144124.55	0.0067	P	0.8
6	☐	500.000	497.115	274569.48	0.0126	P	1.3
7	☐	1000.000	998.821	523433.44	0.0248	P	0.5
8	☐			9520.22	0.0005	P	1.7

$$y = 2.4360\text{E-}005 * x + 4.7228\text{E-}004$$

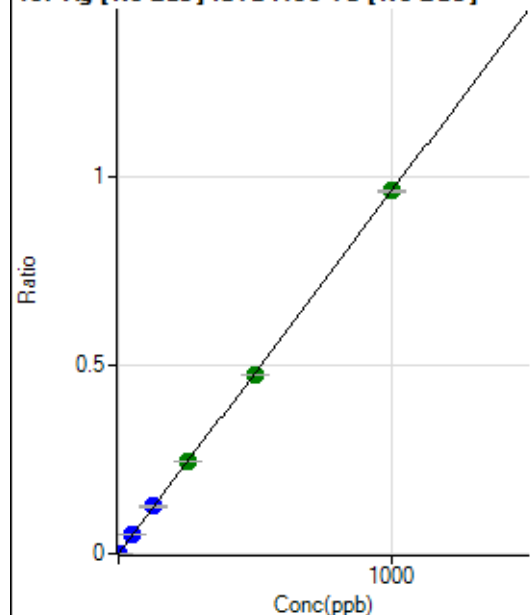
$$R = 1.0000$$

$$DL = 1.409$$

$$BEC = 19.39$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	186.12	0.0000	P	11.0
2	☐	1.000	0.922	20084.43	0.0009	P	2.5
3	☐	50.000	54.306	1161912.72	0.0521	P	0.3
4	☐	125.000	130.503	2726031.25	0.1252	P	0.9
5	☐	250.000	256.223	5268461.66	0.2458	A	0.3
6	☐	500.000	493.379	10330460.22	0.4734	A	0.3
7	☐	1000.000	1000.852	20263859.65	0.9602	A	0.5
8	☐			2369.74	0.0001	P	1.5

$$y = 9.5942\text{E-}004 * x + 8.0085\text{E-}006$$

$$R = 0.9999$$

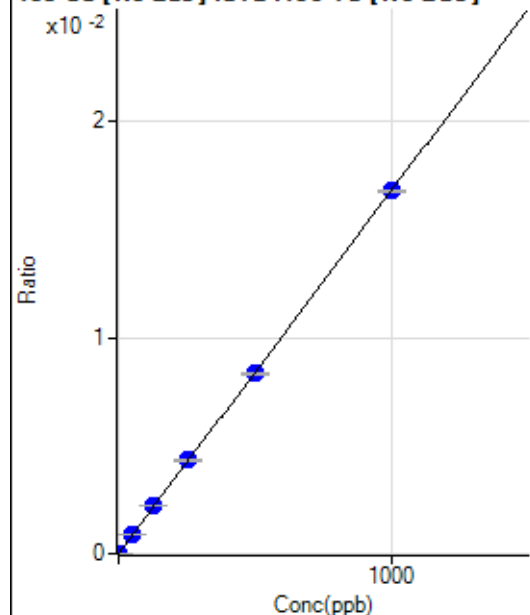
$$DL = 0.002765$$

$$BEC = 0.008347$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0000	P	10.9
2	☐	1.000	1.085	431.96	0.0000	P	15.9
3	☐	50.000	55.071	20658.36	0.0009	P	0.9
4	☐	125.000	132.601	48540.09	0.0022	P	0.9
5	☐	250.000	257.711	92839.28	0.0043	P	0.8
6	☐	500.000	495.936	181922.56	0.0083	P	0.8
7	☐	1000.000	998.900	354314.09	0.0168	P	0.6
8	☐			106.95	0.0000	P	22.0

$$y = 1.6807\text{E-}005 * x + 9.5627\text{E-}007$$

R = 0.9999

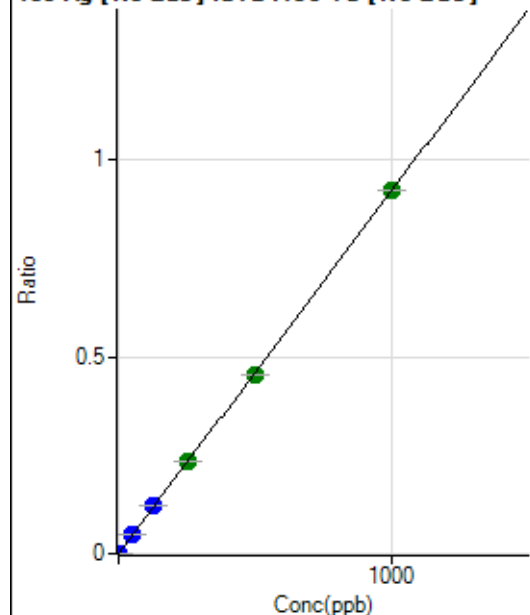
DL = 0.01852

BEC = 0.0569

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	55.56	0.0000	P	34.4
2	☐	1.000	0.926	19283.25	0.0009	P	0.3
3	☐	50.000	54.387	1118483.81	0.0502	P	0.3
4	☐	125.000	130.461	2619610.80	0.1203	P	0.4
5	☐	250.000	256.398	5067637.31	0.2365	A	0.1
6	☐	500.000	494.743	9957804.65	0.4563	A	0.3
7	☐	1000.000	1000.127	19464728.91	0.9224	A	0.1
8	☐			2147.48	0.0001	P	0.7

$$y = 9.2228\text{E-}004 * x + 2.3894\text{E-}006$$

R = 0.9999

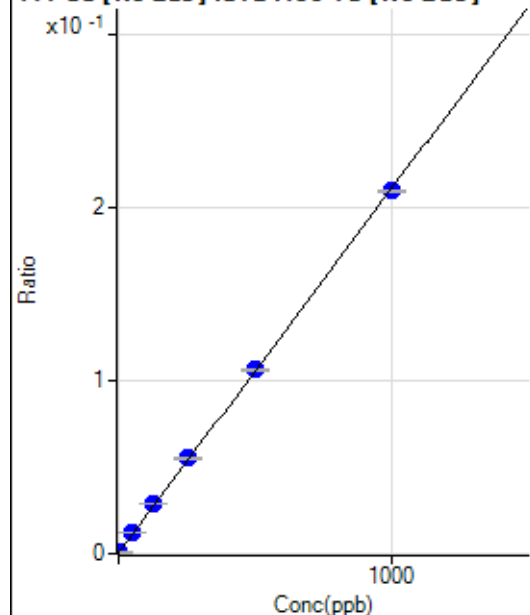
DL = 0.002677

BEC = 0.002591

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7699.70	0.0003	P	2.4
2	☐	1.000	1.065	12499.74	0.0006	P	1.9
3	☐	50.000	55.718	268637.67	0.0120	P	0.8
4	☐	125.000	133.877	620167.98	0.0285	P	0.4
5	☐	250.000	260.572	1181337.52	0.0551	P	0.9
6	☐	500.000	503.748	2319006.82	0.1063	P	0.8
7	☐	1000.000	994.088	4418594.59	0.2094	P	0.5
8	☐			7444.89	0.0004	P	2.0

$$y = 2.1030\text{E-}004 * x + 3.3136\text{E-}004$$

$$R = 0.9999$$

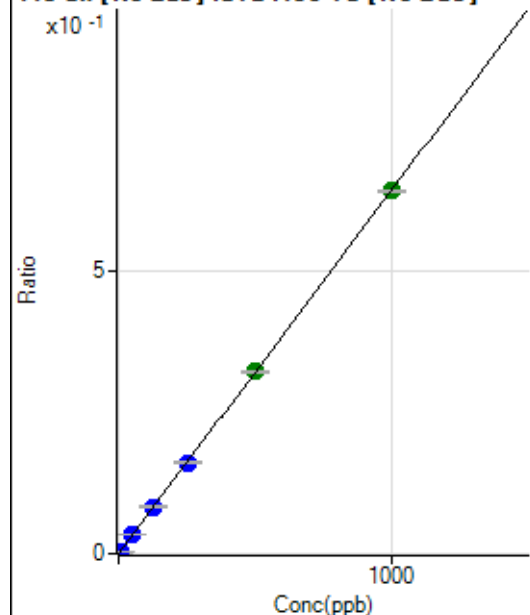
$$DL = 0.1153$$

$$BEC = 1.576$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	980.63	0.0000	P	10.8
2	☐	5.000	5.063	74065.09	0.0033	P	1.6
3	☐	50.000	52.132	746808.37	0.0335	P	0.7
4	☐	125.000	128.970	1802590.49	0.0828	P	1.1
5	☐	250.000	251.282	3456273.78	0.1613	P	0.4
6	☐	500.000	501.100	7017886.53	0.3216	A	0.4
7	☐	1000.000	998.526	13521581.38	0.6408	A	0.3
8	☐			8500.13	0.0004	P	3.7

$$y = 6.4167\text{E-}004 * x + 4.2208\text{E-}005$$

$$R = 1.0000$$

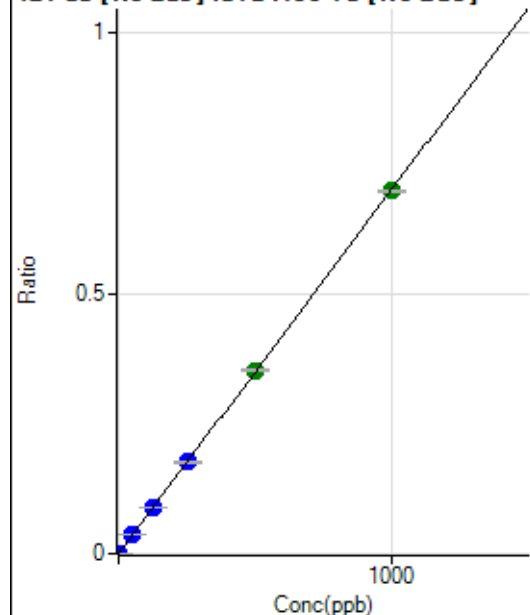
$$DL = 0.0213$$

$$BEC = 0.06578$$

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	211.12	0.0000	P	26.5
2	☐	2.000	2.026	32084.76	0.0014	P	2.1
3	☐	50.000	51.727	806456.23	0.0362	P	1.2
4	☐	125.000	128.273	1952554.43	0.0897	P	0.4
5	☐	250.000	251.327	3765292.79	0.1757	P	1.0
6	☐	500.000	504.016	7689761.37	0.3524	A	0.5
7	☐	1000.000	997.165	14711026.37	0.6971	A	0.2
8	☐			15167.13	0.0008	P	9.7

$$y = 6.9910E-004 * x + 9.0898E-006$$

$$R = 1.0000$$

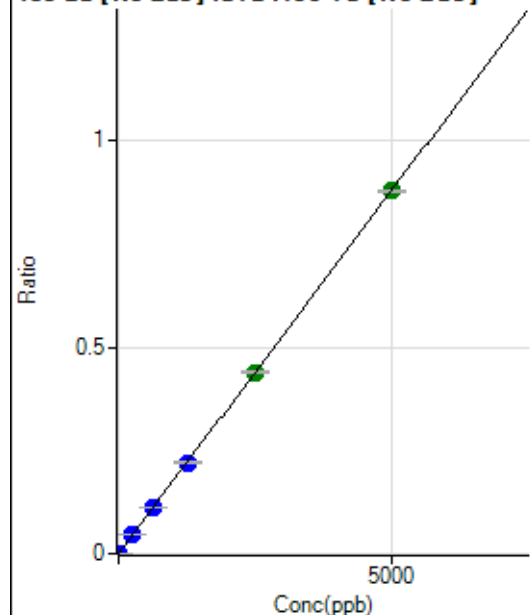
$$DL = 0.01032$$

$$BEC = 0.013$$

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	63.89	0.0000	P	7.5
2	☐	10.000	10.350	41022.61	0.0018	P	1.8
3	☐	250.000	260.031	1019449.28	0.0457	P	1.1
4	☐	625.000	642.094	2458066.46	0.1129	P	0.2
5	☐	1250.000	1251.350	4714808.44	0.2200	P	1.1
6	☐	2500.000	2499.627	9591559.68	0.4395	A	0.4
7	☐	5000.000	4997.210	18541938.95	0.8787	A	0.3
8	☐			3025.46	0.0002	P	6.3

$$y = 1.7583E-004 * x + 2.7497E-006$$

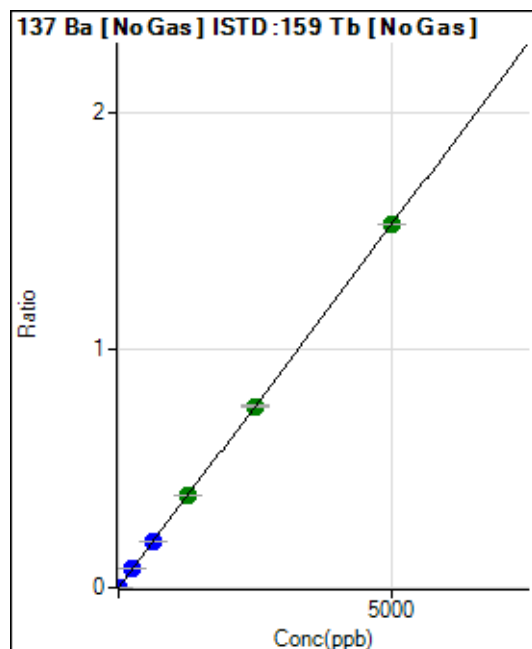
$$R = 1.0000$$

$$DL = 0.003531$$

$$BEC = 0.01564$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	75.00	0.0000	P	40.1
2	☐	10.000	10.406	71635.26	0.0032	P	0.6
3	☐	250.000	259.440	1767574.87	0.0793	P	1.3
4	☐	625.000	635.407	4227318.50	0.1942	P	0.3
5	☐	1250.000	1265.545	8287261.12	0.3867	A	0.5
6	☐	2500.000	2496.483	16647670.68	0.7629	A	0.6
7	☐	5000.000	4996.099	32216583.36	1.5267	A	0.2
8	☐			5606.94	0.0003	P	6.9

$$y = 3.0557E-004 * x + 3.2288E-006$$

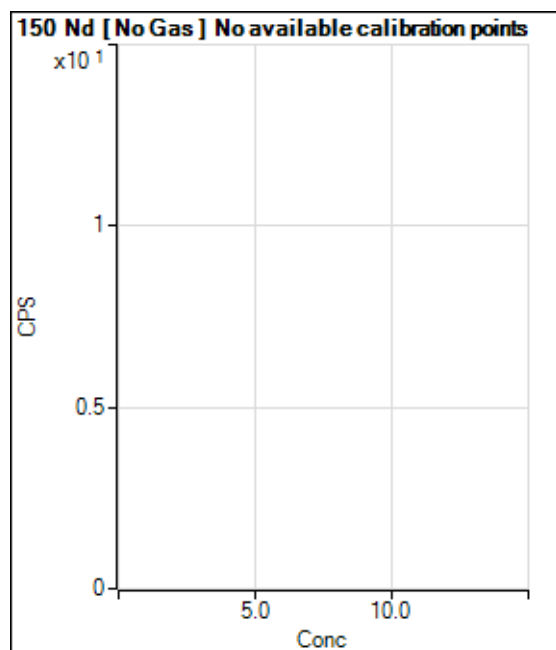
$$R = 1.0000$$

$$DL = 0.01272$$

$$BEC = 0.01057$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			15.56		P	65.5
2	☐			6.67		P	100.0
3	☐			115.56		P	40.5
4	☐			277.79		P	9.7
5	☐			526.69		P	17.6
6	☐			982.29		P	10.2
7	☐			1920.20		P	3.2
8	☐			162.23		P	12.6

150 Nd [He] No available calibration points

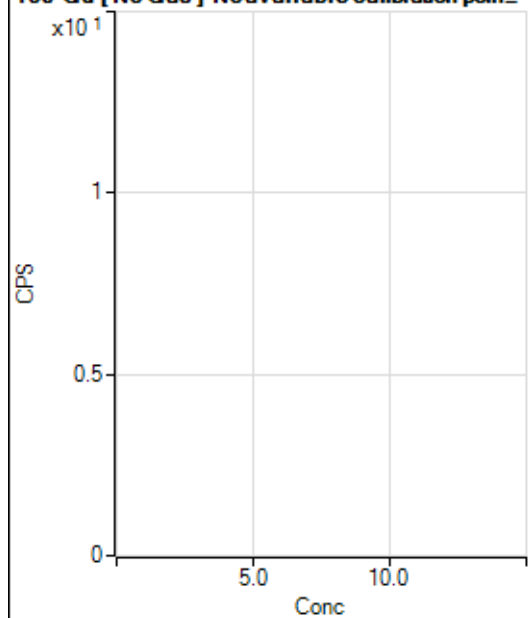
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	57.8
2	☐			24.45		P	68.6
3	☐			33.33		P	36.1
4	☐			36.67		P	24.1
5	☐			53.33		P	25.0
6	☐			75.56		P	24.3
7	☐			176.67		P	8.2
8	☐			66.67		P	18.0

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.44		P	49.5
2	☐			38.89		P	12.4
3	☐			69.45		P	25.0
4	☐			88.89		P	51.6
5	☐			122.23		P	19.7
6	☐			225.02		P	13.4
7	☐			458.36		P	4.8
8	☐			102.78		P	18.7

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			31.11		P	22.3
2	☐			38.89		P	4.9
3	☐			57.78		P	28.5
4	☐			74.45		P	35.9
5	☐			125.56		P	4.1
6	☐			232.23		P	7.9
7	☐			392.24		P	15.4
8	☐			55.55		P	12.5

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			205.57		P	22.3
2	☐			175.01		P	40.7
3	☐			222.24		P	15.2
4	☐			258.35		P	11.2
5	☐			238.90		P	8.8
6	☐			266.68		P	17.4
7	☐			291.69		P	33.7
8	☐			227.79		P	14.8

160 Gd [He] No available calibration points

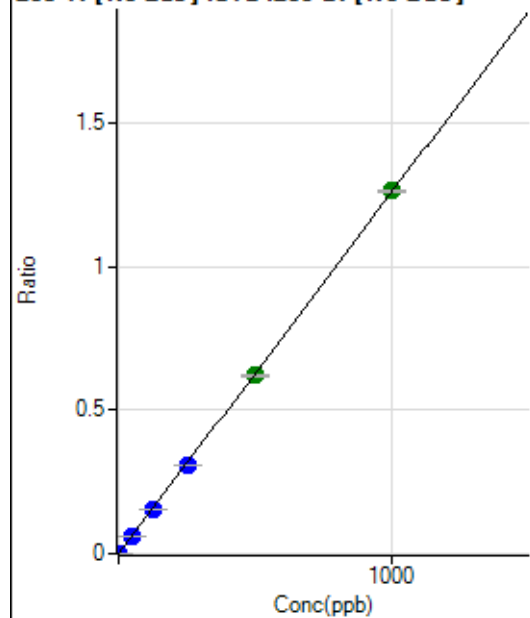
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			368.90		P	5.3
2	☐			402.23		P	7.2
3	☐			401.13		P	11.3
4	☐			387.79		P	1.3
5	☐			362.23		P	7.1
6	☐			437.79		P	14.3
7	☐			437.79		P	11.7
8	☐			370.01		P	10.2

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			116.67		P	31.1
2	☐			138.90		P	19.3
3	☐			125.01		P	6.7
4	☐			141.67		P	11.8
5	☐			113.89		P	15.2
6	☐			122.23		P	20.8
7	☐			200.01		P	15.0
8	☐			163.90		P	11.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			77.78		P	10.8
2	☐			87.78		P	19.5
3	☐			104.45		P	8.0
4	☐			108.89		P	17.9
5	☐			88.89		P	22.9
6	☐			102.22		P	13.2
7	☐			147.78		P	16.6
8	☐			94.45		P	21.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	922.30	0.0001	P	7.2
2	☐	1.000	0.954	17937.77	0.0013	P	1.8
3	☐	50.000	49.117	862237.96	0.0618	P	0.8
4	☐	125.000	122.531	2102073.05	0.1542	P	1.2
5	☐	250.000	243.674	4083164.80	0.3066	P	1.0
6	☐	500.000	493.906	8247791.85	0.6213	A	1.3
7	☐	1000.000	1004.981	15773803.65	1.2642	A	0.3
8	☐			3214.41	0.0003	P	6.4

$$y = 0.0013 * x + 6.2779E-005$$

$$R = 0.9999$$

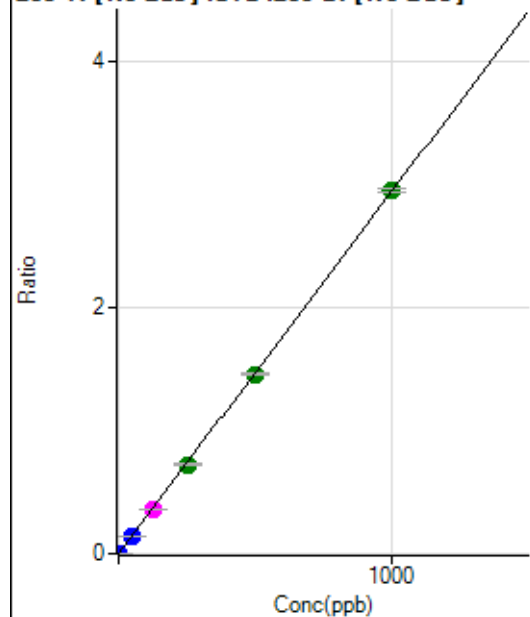
$$DL = 0.01072$$

$$BEC = 0.04991$$

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	1519.60	0.0001	P	9.9
2	☐	1.000	0.960	41493.83	0.0029	P	0.8
3	☐	50.000	49.525	2028355.36	0.1455	P	0.6
4	☐	125.000	121.729	4873009.48	0.3574	M	0.9
5	☐	250.000	247.162	9665360.55	0.7256	A	0.2
6	☐	500.000	496.162	19334887.41	1.4565	A	0.4
7	☐	1000.000	1003.061	36741491.45	2.9445	A	0.9
8	☐			6846.51	0.0007	P	5.1

$$y = 0.0029 * x + 1.0350E-004$$

$$R = 1.0000$$

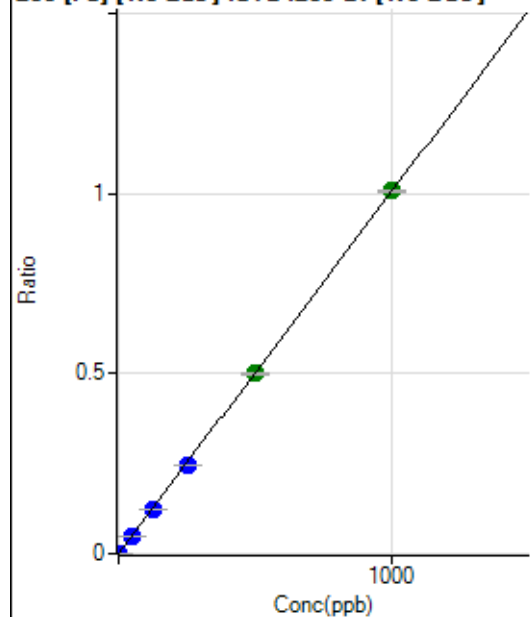
$$DL = 0.01051$$

$$BEC = 0.03526$$

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	1548.29	0.0001	P	3.0
2	☐	1.000	0.943	14943.99	0.0011	P	3.3
3	☐	50.000	49.491	694186.01	0.0498	P	0.3
4	☐	125.000	123.767	1695453.64	0.1244	P	0.8
5	☐	250.000	245.647	3286181.24	0.2467	P	0.7
6	☐	500.000	497.461	6630606.05	0.4995	A	1.0
7	☐	1000.000	1002.538	12559858.04	1.0066	A	0.4
8	☐			42020.44	0.0041	P	1.1

$$y = 0.0010 * x + 1.0543E-004$$

$$R = 1.0000$$

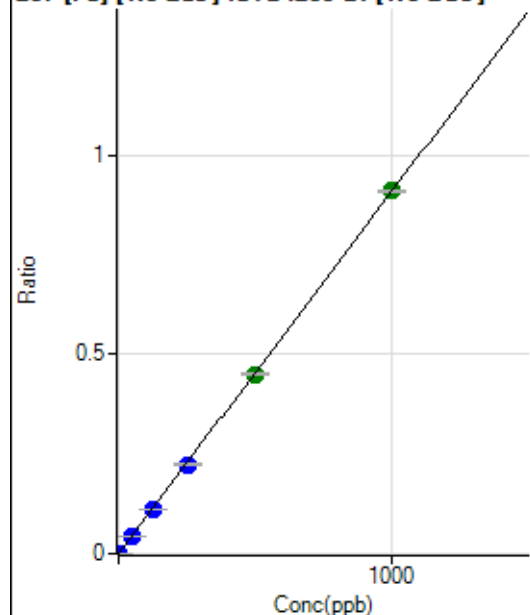
$$DL = 0.009333$$

$$BEC = 0.105$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1414.93	0.0001	P	1.9
2	☐	1.000	0.993	14165.29	0.0010	P	3.2
3	☐	50.000	49.626	629313.93	0.0451	P	0.6
4	☐	125.000	124.431	1541046.16	0.1130	P	0.5
5	☐	250.000	247.132	2988965.55	0.2244	P	0.6
6	☐	500.000	495.492	5971114.78	0.4498	A	0.9
7	☐	1000.000	1003.061	11360843.66	0.9105	A	0.7
8	☐			38617.58	0.0038	P	2.5

$$y = 9.0764E-004 * x + 9.6336E-005$$

$$R = 1.0000$$

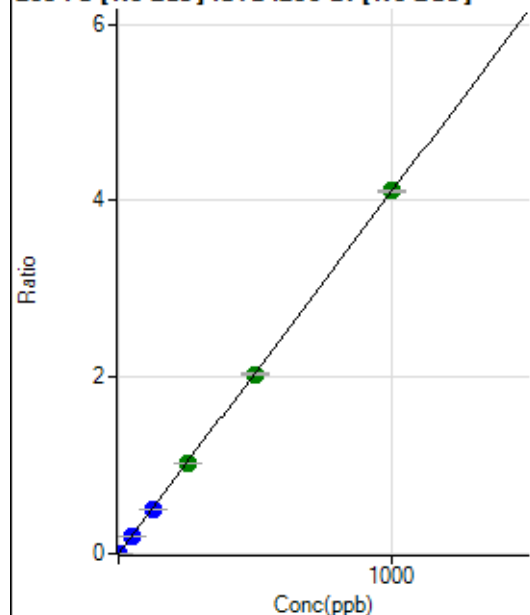
$$DL = 0.005897$$

$$BEC = 0.1061$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5606.15	0.0004	P	3.1
2	☐	1.000	0.966	61679.28	0.0043	P	1.9
3	☐	50.000	49.553	2837468.50	0.2035	P	0.4
4	☐	125.000	124.019	6936378.50	0.5088	P	0.1
5	☐	250.000	247.728	13532096.71	1.0159	A	0.4
6	☐	500.000	496.227	27007699.16	2.0346	A	0.5
7	☐	1000.000	1002.599	51287630.78	4.1104	A	0.5
8	☐			173214.51	0.0168	P	0.9

$$y = 0.0041 * x + 3.8175E-004$$

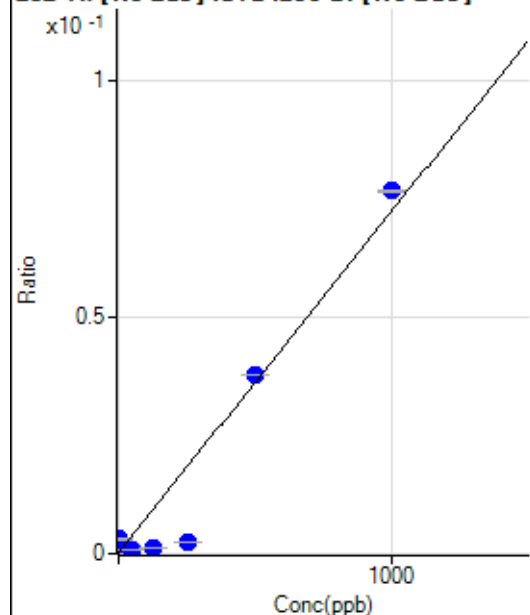
$$R = 1.0000$$

$$DL = 0.008548$$

$$BEC = 0.09312$$

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	2754.08	0.0002	P	1.7
2	☐	1.000	40.371	43974.40	0.0031	P	4.6
3	☐	50.000	7.582	10228.33	0.0007	P	3.9
4	☐	125.000	16.172	18441.21	0.0014	P	1.1
5	☐	250.000	31.855	33060.76	0.0025	P	2.4
6	☐	500.000	520.398	500166.83	0.0377	P	0.5
7	☐	1000.000	1060.022	955302.21	0.0766	P	0.8
8	☐			3491.31	0.0003	P	4.4

$$y = 7.2045\text{E-}005 * x + 1.8751\text{E-}004$$

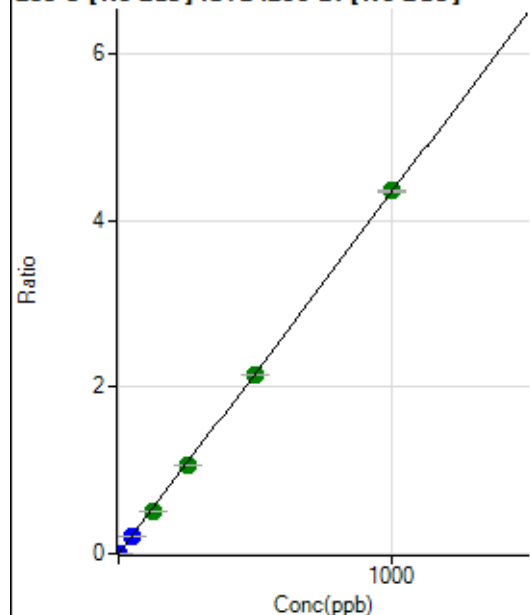
$$R = 0.9735$$

$$DL = 0.129$$

$$BEC = 2.603$$

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	3481.18	0.0002	P	3.4
2	☐	1.000	0.918	59871.87	0.0042	P	1.2
3	☐	50.000	47.161	2852707.83	0.2046	P	0.4
4	☐	125.000	119.087	7038815.87	0.5163	A	0.8
5	☐	250.000	243.392	14052174.79	1.0550	A	0.4
6	☐	500.000	495.841	28525704.46	2.1489	A	0.2
7	☐	1000.000	1004.613	54323973.78	4.3537	A	0.4
8	☐			7841.61	0.0008	P	2.3

$$y = 0.0043 * x + 2.3705\text{E-}004$$

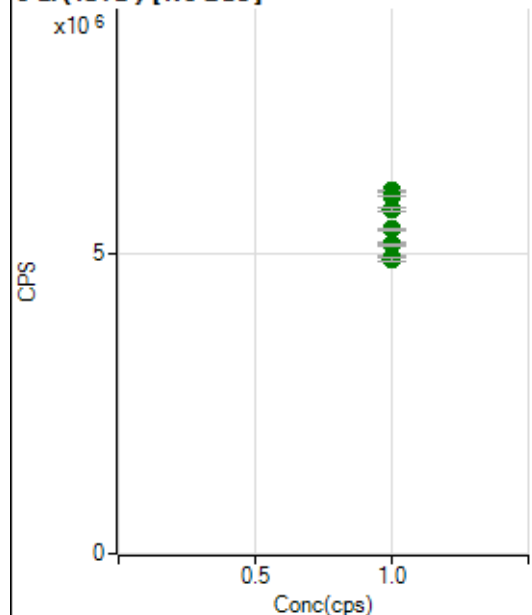
$$R = 1.0000$$

$$DL = 0.005645$$

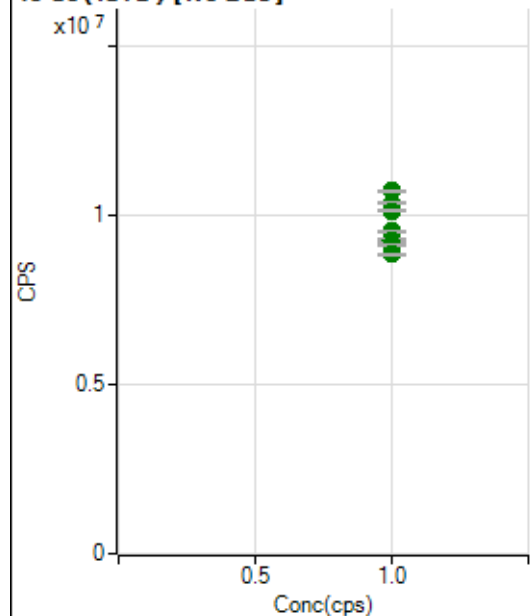
$$BEC = 0.0547$$

Weight: <None>

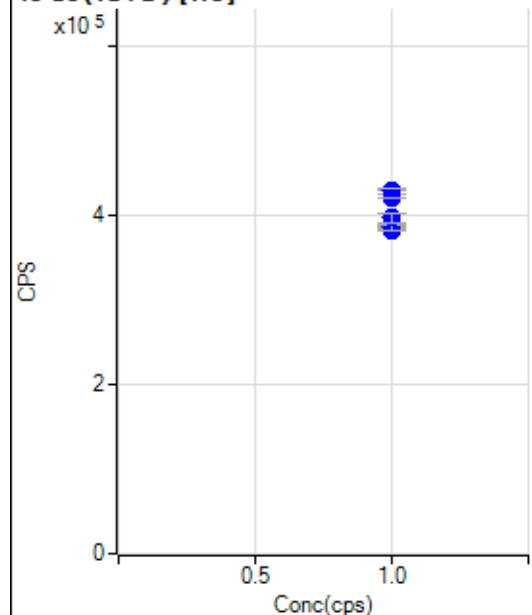
Min Conc: 0

6 Li (ISTD) [No Gas]

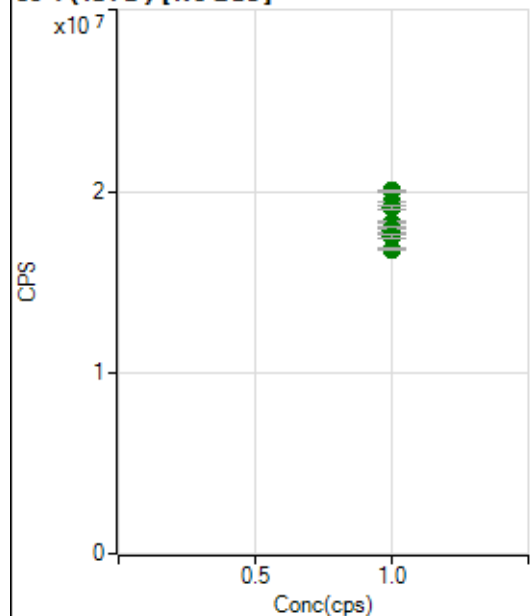
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		6027857.13		A	0.3
2	☐	1.000		5945295.33		A	0.1
3	☐	1.000		5724023.32		A	1.4
4	☐	1.000		5390864.15		A	0.7
5	☐	1.000		5137691.66		A	1.1
6	☐	1.000		5131831.49		A	0.7
7	☐	1.000		4930490.00		A	0.7
8	☐	1.000		4877126.45		A	1.2

45 Sc (ISTD) [No Gas]

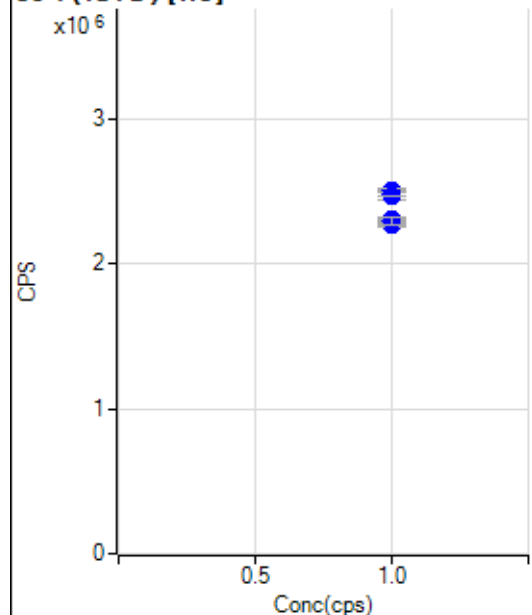
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		10704975.41		A	0.6
2	☐	1.000		10346076.19		A	0.8
3	☐	1.000		10110448.14		A	0.7
4	☐	1.000		9516343.18		A	0.5
5	☐	1.000		9181925.46		A	1.4
6	☐	1.000		9255731.11		A	1.1
7	☐	1.000		9114629.72		A	0.7
8	☐	1.000		8845551.33		A	0.6

45 Sc (ISTD) [He]

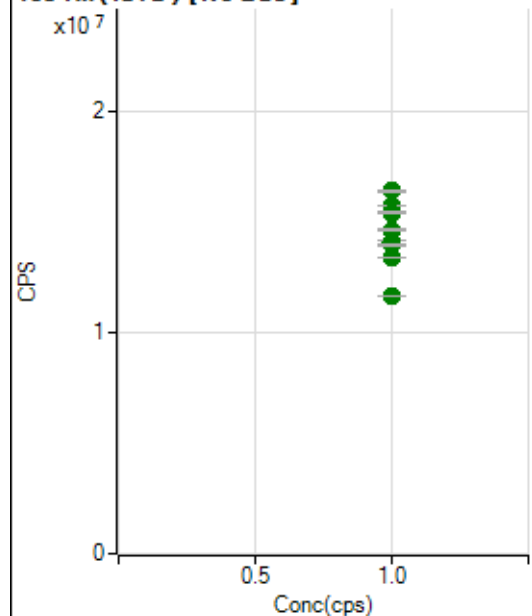
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		424432.09		P	2.5
2	☐	1.000		428044.84		P	1.4
3	☐	1.000		419859.29		P	0.3
4	☐	1.000		387837.76		P	1.1
5	☐	1.000		381880.66		P	0.6
6	☐	1.000		386669.56		P	0.3
7	☐	1.000		384593.70		P	1.4
8	☐	1.000		396257.61		P	3.1

89 Y (ISTD) [No Gas]

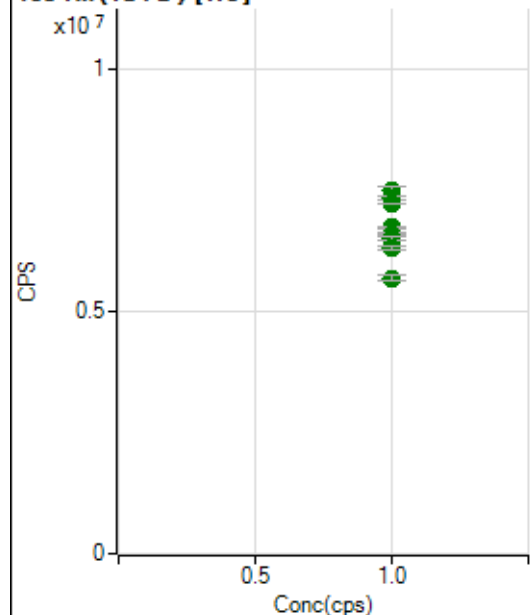
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		20027667.06		A	0.2
2	☐	1.000		19440548.46		A	0.2
3	☐	1.000		19112567.77		A	1.2
4	☐	1.000		18271157.37		A	0.6
5	☐	1.000		17808443.76		A	1.1
6	☐	1.000		17982686.40		A	0.8
7	☐	1.000		17528739.74		A	0.9
8	☐	1.000		16809572.53		A	0.2

89 Y(ISTD) [He]

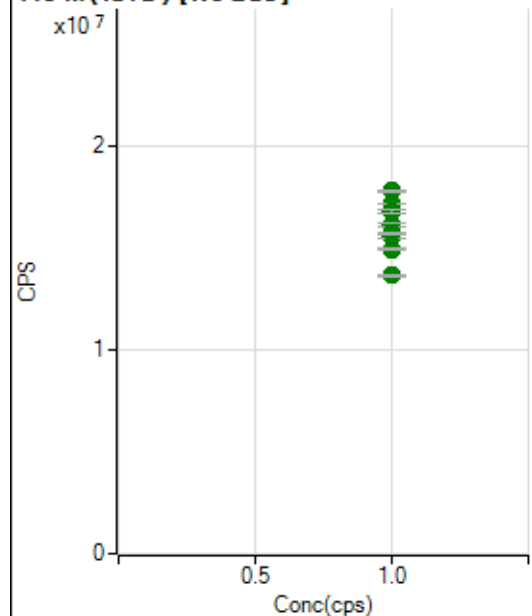
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2474230.78		P	2.3
2	☐	1.000		2502084.03		P	1.2
3	☐	1.000		2466145.99		P	0.4
4	☐	1.000		2301664.83		P	1.1
5	☐	1.000		2296966.89		P	0.6
6	☐	1.000		2296597.47		P	0.7
7	☐	1.000		2268414.81		P	1.1
8	☐	1.000		2295500.14		P	2.4

103 Rh(ISTD) [No Gas]

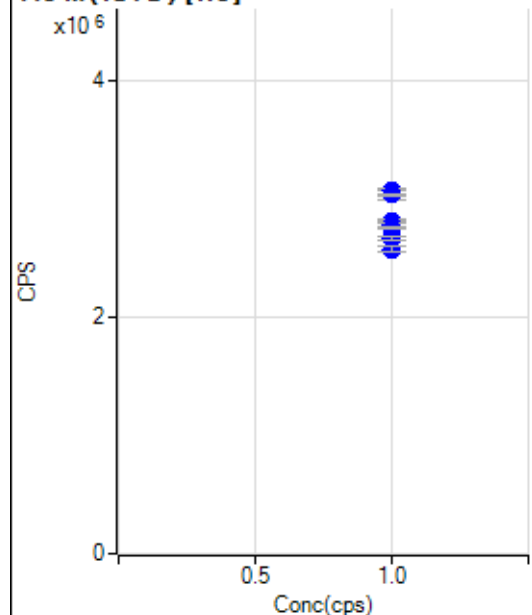
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16417694.98		A	0.5
2	☐	1.000		15724535.94		A	0.2
3	☐	1.000		15439712.67		A	0.9
4	☐	1.000		14642458.49		A	0.8
5	☐	1.000		14099249.97		A	1.0
6	☐	1.000		13980778.44		A	1.0
7	☐	1.000		13400588.49		A	0.4
8	☐	1.000		11668546.35		A	0.2

103 Rh (ISTD) [He]

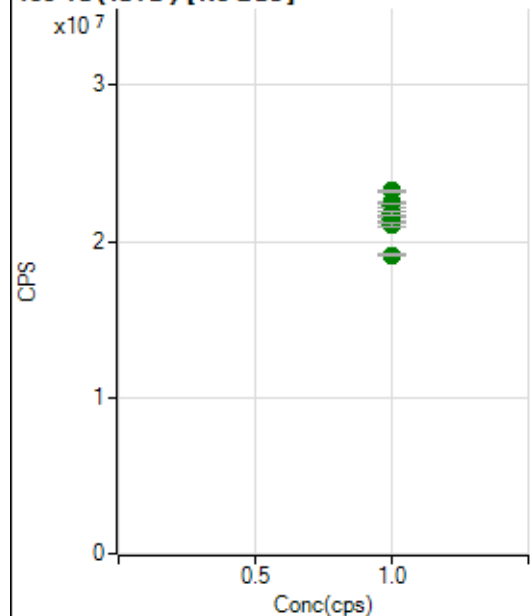
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		7482098.22		A	2.9
2	☐	1.000		7332851.21		A	0.7
3	☐	1.000		7217936.01		A	0.5
4	☐	1.000		6724492.82		A	0.8
5	☐	1.000		6591346.22		A	0.6
6	☐	1.000		6503997.40		A	0.8
7	☐	1.000		6299272.96		A	1.3
8	☐	1.000		5686798.11		A	1.7

115 In (ISTD) [No Gas]

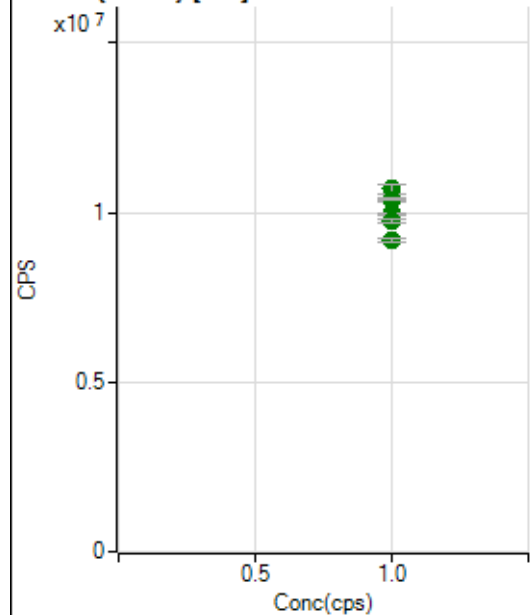
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		17760825.56		A	0.3
2	☐	1.000		17125680.70		A	0.3
3	☐	1.000		16784169.10		A	0.9
4	☐	1.000		16116229.33		A	1.0
5	☐	1.000		15560844.52		A	1.5
6	☐	1.000		15676116.48		A	0.6
7	☐	1.000		14886100.59		A	0.8
8	☐	1.000		13631470.52		A	0.6

115 In (ISTD) [He]

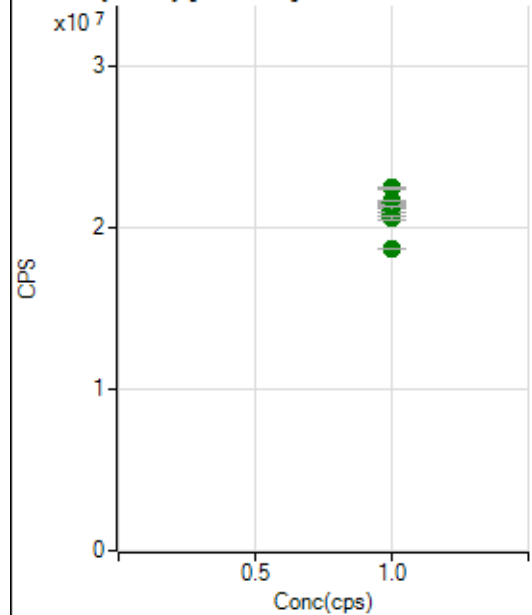
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		3036860.96		P	2.6
2	☐	1.000		3066746.69		P	1.5
3	☐	1.000		3031591.37		P	0.6
4	☐	1.000		2818121.71		P	1.0
5	☐	1.000		2779120.78		P	1.0
6	☐	1.000		2752742.56		P	0.4
7	☐	1.000		2665097.17		P	1.2
8	☐	1.000		2574068.49		P	2.0

159 Tb (ISTD) [No Gas]

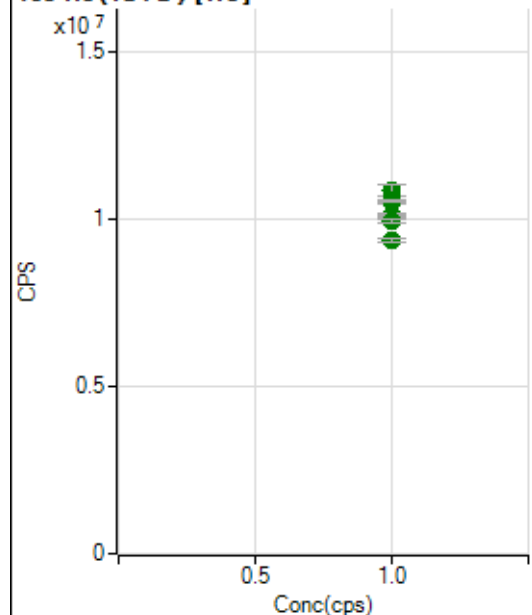
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		23236352.99		A	0.3
2	☐	1.000		22506064.11		A	0.4
3	☐	1.000		22297773.83		A	1.4
4	☐	1.000		21771862.18		A	1.0
5	☐	1.000		21430419.13		A	1.3
6	☐	1.000		21823239.39		A	0.9
7	☐	1.000		21102231.63		A	1.0
8	☐	1.000		19136369.99		A	0.6

159 Tb (ISTD) [He]

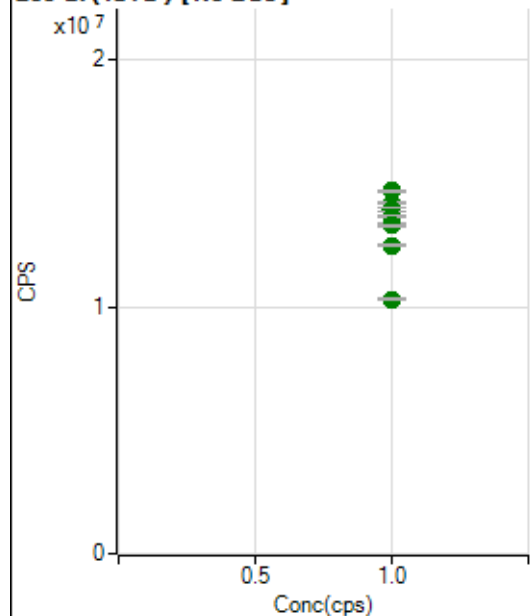
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		10692359.63		A	2.9
2	☐	1.000		10354759.01		A	1.0
3	☐	1.000		10376026.44		A	0.6
4	☐	1.000		9949450.48		A	1.0
5	☐	1.000		9896774.50		A	0.1
6	☐	1.000		9940212.91		A	0.6
7	☐	1.000		9749561.38		A	1.5
8	☐	1.000		9187199.79		A	1.6

165 Ho (ISTD) [No Gas]

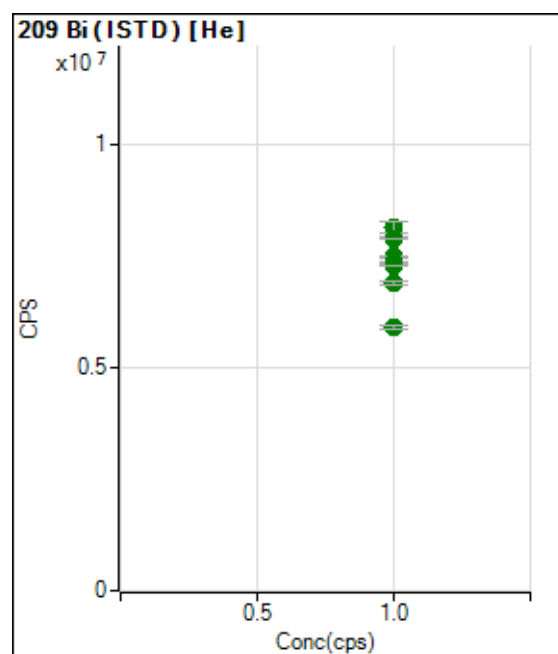
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		22490391.82		A	0.9
2	☐	1.000		21649047.19		A	0.6
3	☐	1.000		21582603.09		A	0.9
4	☐	1.000		21112070.26		A	1.2
5	☐	1.000		20864910.71		A	1.1
6	☐	1.000		21152954.64		A	1.8
7	☐	1.000		20604509.49		A	0.8
8	☐	1.000		18698507.88		A	0.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		10851415.74		A	3.3
2	☐	1.000		10503302.06		A	0.9
3	☐	1.000		10564221.58		A	0.5
4	☐	1.000		10065262.97		A	1.0
5	☐	1.000		10084790.62		A	0.8
6	☐	1.000		10142707.76		A	0.5
7	☐	1.000		9945908.05		A	1.1
8	☐	1.000		9366318.12		A	1.6

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		14687562.42		A	0.7
2	☐	1.000		14202031.04		A	0.4
3	☐	1.000		13941987.57		A	0.7
4	☐	1.000		13633354.38		A	0.5
5	☐	1.000		13320162.30		A	1.2
6	☐	1.000		13274412.02		A	0.6
7	☐	1.000		12477832.87		A	0.9
8	☐	1.000		10290778.81		A	0.5



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		8122640.51		A	3.2
2	☐	1.000		7888360.51		A	0.7
3	☐	1.000		7874451.82		A	0.4
4	☐	1.000		7481356.97		A	0.8
5	☐	1.000		7340879.13		A	0.5
6	☐	1.000		7281514.89		A	0.3
7	☐	1.000		6905379.90		A	1.2
8	☐	1.000		5891578.59		A	1.8

US EPA Tune Check Sample Report

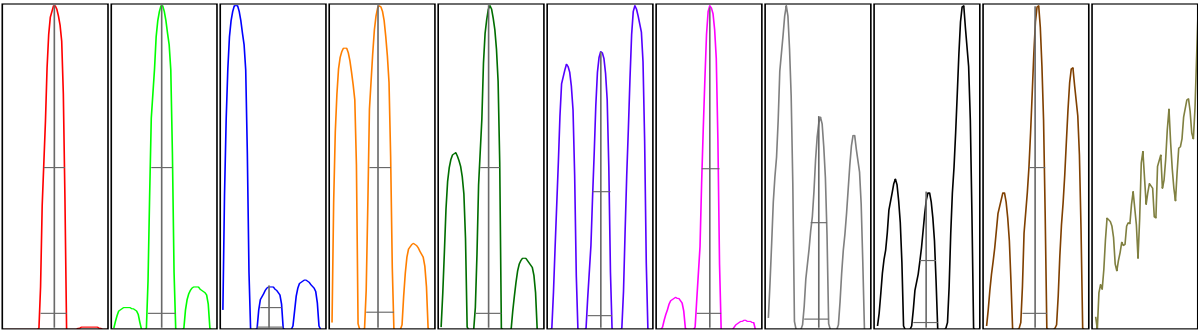
Batch Folder D:\ICP-MS Data\P7120319 MS .b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	19603	0.59	5.00	
24	1613264	0.71	5.00	
25	216041	0.46	5.00	
26	244344	0.47	5.00	
59	150260	0.90	5.00	
113	20606	0.67	5.00	
115	241069	2.11	5.00	
206	55773	0.48	5.00	
207	51380	0.60	5.00	
208	121928	0.65	5.00	
220	165	5.67		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	19739	19585	19704	19502	19482
24	1623160	1617947	1622534	1605156	1597522
25	217514	216032	216265	215570	214824
26	243823	244850	246045	243947	243055
59	151684	150488	151348	149228	148551
113	20734	20660	20697	20551	20390
115	246542	242831	243797	233520	238654
206	55815	56079	55862	55340	55767
207	51629	51168	51735	50993	51377
208	121883	121775	122398	120741	122844
220	156	168	157	166	179

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	33066	9.00	8.9 - 9.1		0.775	0.900	
24	2656935	23.95	23.9 - 24.1		0.819	0.900	
25	349443	24.90	24.9 - 25.1		0.744	0.900	
26	402907	25.90	25.9 - 26.1		0.816	0.900	
59	266531	58.95	58.9 - 59.1		0.759	0.900	
113	41959	113.05	112.9 - 113.1		0.717	0.900	
115	497383	115.05	114.9 - 115.1		0.713	0.900	
206	121033	206.05	205.9 - 206.1		0.731	0.900	
207	110213	207.00	206.9 - 207.1		0.731	0.900	
208	260190	208.00	207.9 - 208.1		0.729	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	7.6	V	Deflect	12.8	V
Extract 2	-135.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	140	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	37160	0.35	
89	484549	0.40	
205	48677	0.32	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	37243	37280	37233	37070	36975
89	483890	487821	483787	484592	482657
205	48755	48791	48822	48545	48472

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.5	V	Deflect	1.4	V
Extract 2	-140.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	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			