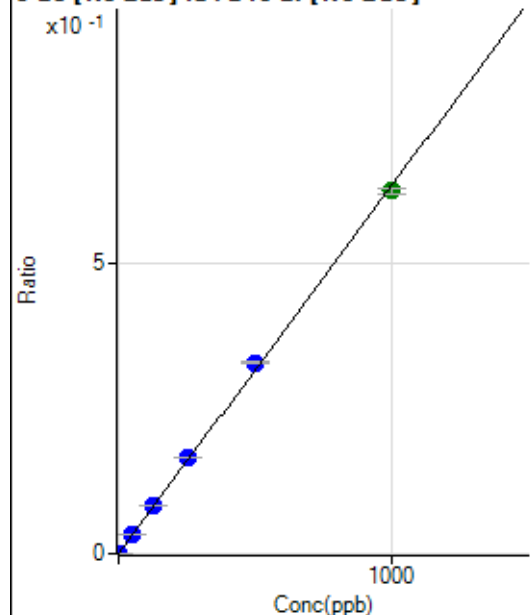


Batch Folder: D:\ICP-MS Data\P7041819.b\
Analysis File: P7041819.batch.bin
DA Date-Time: 2019-04-18 23:27:21
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2019-04-18 18:16:27
2	005CAL.S.d	S01	2019-04-18 18:20:03
3	006CAL.S.d	S02	2019-04-18 18:24:52
4	007CAL.S.d	S03	2019-04-18 18:28:47
5	008CAL.S.d	S04	2019-04-18 18:32:57
6	009CAL.S.d	S05	2019-04-18 18:36:46
7	010CAL.S.d	S06	2019-04-18 18:40:30
8	011CAL.S.d	S07	2019-04-18 18:44:15
9	012CAL.S.d	S08	2019-04-18 18:48:01

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	108.89	0.0000	P	12.1
2	☐	0.100	0.108	745.59	0.0001	P	6.1
3	☐	1.000	0.991	6309.20	0.0006	P	4.7
4	☐	50.000	52.847	302224.31	0.0335	P	0.5
5	☐	125.000	131.472	701957.59	0.0834	P	0.3
6	☐	250.000	260.710	1316060.80	0.1654	P	0.2
7	☐	500.000	519.458	2617472.06	0.3296	P	0.4
8	☐	1000.000	986.642	4854009.37	0.6260	A	1.3
9	☐			568.91	0.0001	P	10.8

$$y = 6.3450E-004 * x + 1.1223E-005$$

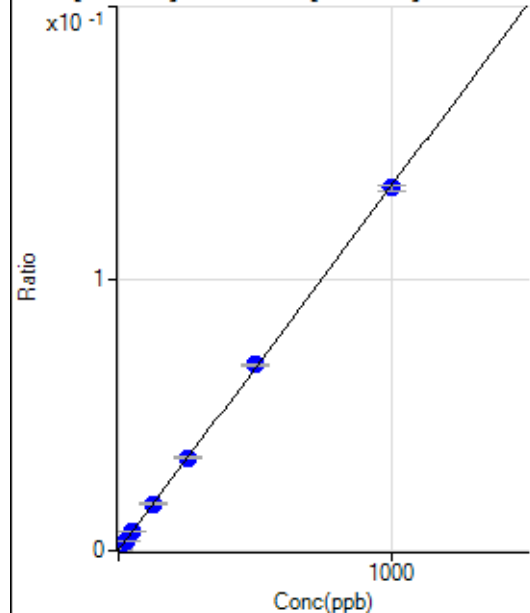
$$R = 0.9997$$

$$DL = 0.006418$$

$$BEC = 0.01769$$

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	1300.11	0.0001	P	7.7
2	☐	2.500	2.511	4389.71	0.0005	P	0.6
3	☐	25.000	23.495	32368.86	0.0033	P	2.5
4	☐	50.000	51.890	63866.59	0.0071	P	1.4
5	☐	125.000	127.714	145129.55	0.0173	P	1.9
6	☐	250.000	254.616	272524.01	0.0343	P	2.3
7	☐	500.000	508.661	542394.99	0.0683	P	1.6
8	☐	1000.000	994.119	1034084.56	0.1334	P	1.5
9	☐			39388.87	0.0052	P	10.4

$$y = 1.3402E-004 * x + 1.3402E-004$$

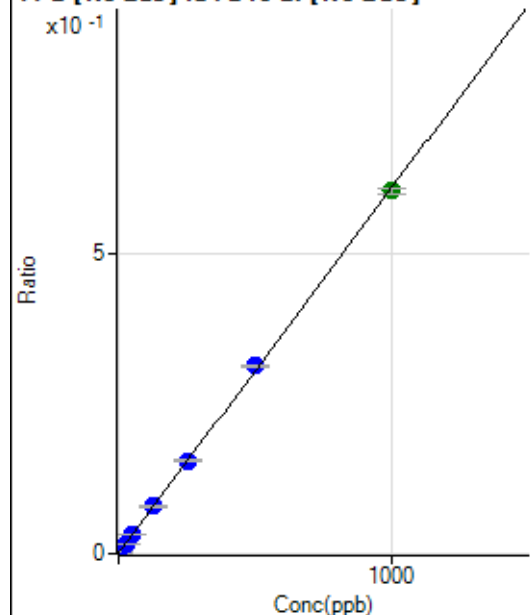
$$R = 0.9999$$

$$DL = 0.2316$$

$$BEC = 1$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6098.72	0.0006	P	2.1
2	☐	2.500	2.602	20625.90	0.0022	P	2.1
3	☐	25.000	23.486	147049.71	0.0149	P	1.4
4	☐	50.000	51.595	288381.75	0.0320	P	0.7
5	☐	125.000	128.436	662467.25	0.0787	P	0.9
6	☐	250.000	253.066	1229334.63	0.1545	P	2.1
7	☐	500.000	513.069	2482838.75	0.3127	P	1.0
8	☐	1000.000	992.227	4683748.98	0.6041	A	1.7
9	☐			182025.18	0.0241	P	9.8

$$y = 6.0817E-004 * x + 6.2870E-004$$

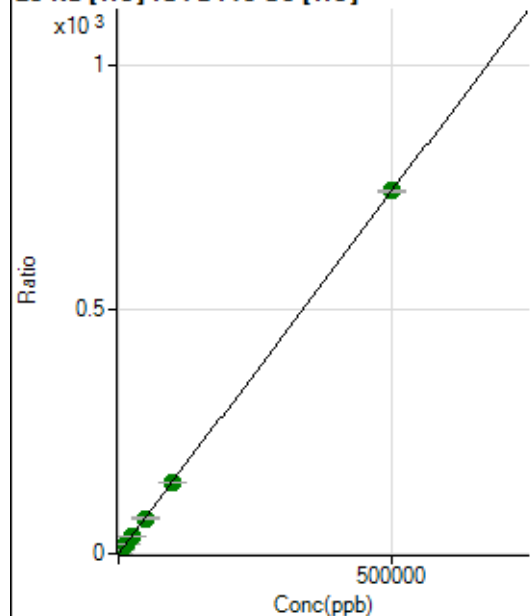
$$R = 0.9999$$

$$DL = 0.06472$$

$$BEC = 1.034$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5906.98	0.0081	P	0.9
2	☐	50.000	47.012	57675.74	0.0778	P	2.9
3	☐	500.000	471.731	523064.69	0.7067	P	0.7
4	☐	5000.000	4840.635	4930279.19	7.1767	A	0.5
5	☐	12500.000	12313.105	11333406.85	18.2429	A	0.6
6	☐	25000.000	24445.417	22024410.21	36.2099	A	0.9
7	☐	50000.000	48956.993	43794148.20	72.5097	A	0.6
8	☐	100000.00	97286.226	87065048.47	144.0816	A	0.8
9	☐	500000.00	500681.07	468928693.82	741.4786	A	0.4

$$y = 0.0015 * x + 0.0081$$

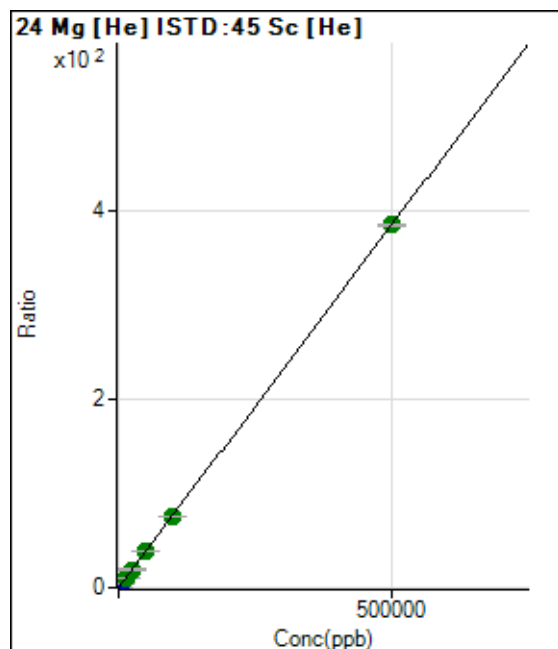
$$R = 1.0000$$

$$DL = 0.1489$$

$$BEC = 5.495$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	238.91	0.0003	P	17.8
2	☐	50.000	49.992	28834.30	0.0389	P	1.3
3	☐	500.000	498.432	284687.77	0.3846	P	0.4
4	☐	5000.000	5021.543	2660146.69	3.8722	P	0.2
5	☐	12500.000	12721.084	6093827.30	9.8090	A	0.4
6	☐	25000.000	25106.281	11774500.18	19.3587	A	1.3
7	☐	50000.000	50147.996	23354076.91	38.6672	A	0.7
8	☐	100000.00	98431.383	45862316.65	75.8964	A	0.7
9	☐	500000.00	500287.86	243960458.23	385.7500	A	0.7

$$y = 7.7106\text{E-}004 * x + 3.2909\text{E-}004$$

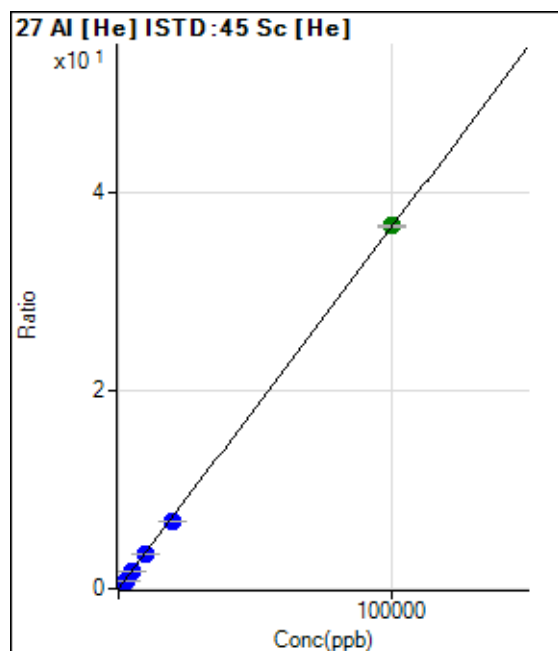
$$R = 1.0000$$

$$DL = 0.2277$$

$$BEC = 0.4268$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0001	P	33.1
2	☐	2.000	1.859	572.26	0.0008	P	11.6
3	☐	20.000	18.158	4981.59	0.0067	P	5.9
4	☐	1000.000	942.844	236933.01	0.3449	P	0.3
5	☐	2500.000	2382.424	541318.54	0.8713	P	0.3
6	☐	5000.000	4686.060	1042389.54	1.7138	P	1.0
7	☐	10000.000	9395.214	2075239.07	3.4359	P	0.4
8	☐	20000.000	18517.408	4092060.99	6.7719	P	1.0
9	☐	100000.00	100376.20	23214915.45	36.7076	A	0.4

$$y = 3.6570\text{E-}004 * x + 9.1867\text{E-}005$$

$$R = 0.9999$$

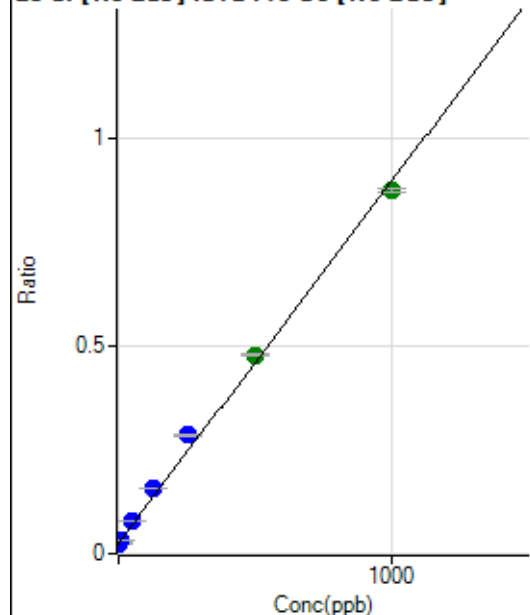
$$DL = 0.2498$$

$$BEC = 0.2512$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	400494.16	0.0253	P	0.2
2	☐	1.000	1.457	412932.96	0.0266	P	1.3
3	☐	10.000	8.183	541934.43	0.0324	P	2.8
4	☐	50.000	61.010	1173115.31	0.0785	P	1.4
5	☐	125.000	151.863	2186532.82	0.1577	P	1.1
6	☐	250.000	299.263	3765420.53	0.2862	P	1.5
7	☐	500.000	520.224	6270806.17	0.4788	A	0.9
8	☐	1000.000	973.681	11180182.98	0.8742	A	1.1
9	☐			1274757.93	0.1013	P	2.0

$$y = 8.7183\text{E-}004 * x + 0.0253$$

$$R = 0.9981$$

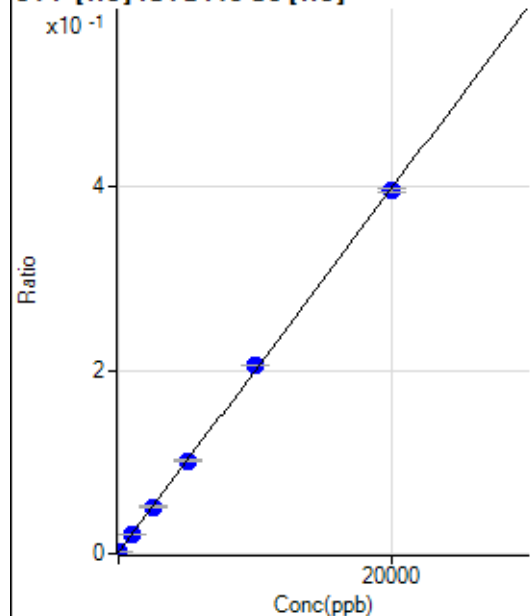
$$DL = 0.2096$$

$$BEC = 29.01$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-15.995	927.85	0.0013	P	11.2
2	☐	0.000	-12.282	1002.86	0.0014	P	11.9
3	☐	0.000	28.277	1597.38	0.0022	P	5.6
4	☐	1000.000	988.181	14579.95	0.0212	P	1.4
5	☐	2500.000	2494.822	31773.53	0.0511	P	2.9
6	☐	5000.000	5022.255	61636.63	0.1013	P	2.5
7	☐	10000.000	10263.141	124082.26	0.2054	P	0.6
8	☐	20000.000	19864.104	239364.35	0.3961	P	1.0
9	☐			944.52	0.0015	P	18.1

$$y = 1.9861\text{E-}005 * x + 0.0016$$

$$R = 0.9999$$

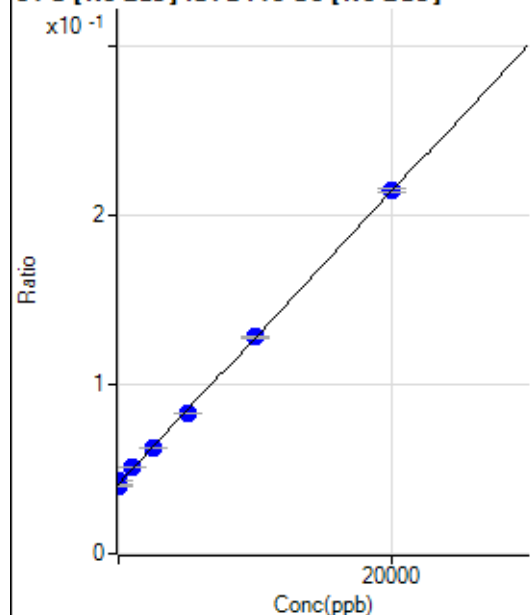
$$DL = 21.39$$

$$BEC = 80.37$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-20.358	650676.47	0.0411	P	0.4
2	☐	0.000	159.348	662983.06	0.0426	P	0.1
3	☐	0.000	-138.991	669686.92	0.0401	P	2.1
4	☐	1000.000	1133.079	763287.18	0.0511	P	0.2
5	☐	2500.000	2433.006	863935.68	0.0623	P	0.6
6	☐	5000.000	4815.535	1090626.45	0.0829	P	0.0
7	☐	10000.000	10053.149	1678463.57	0.1282	P	1.2
8	☐	20000.000	20021.262	2741206.16	0.2143	P	1.1
9	☐			510431.94	0.0406	P	0.6

$$y = 8.6442\text{E-}006 * x + 0.0413$$

$$R = 0.9998$$

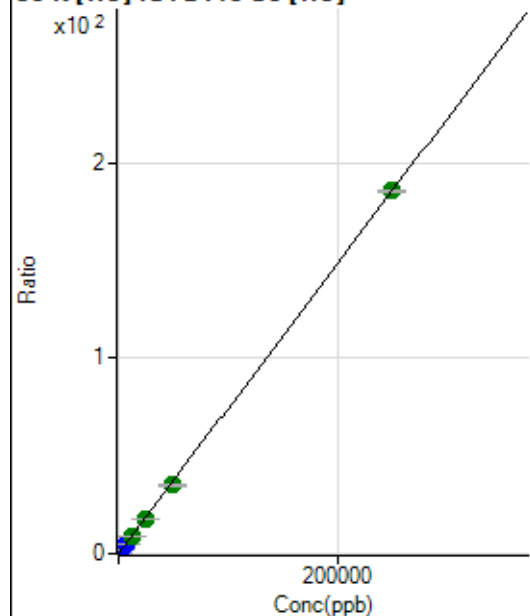
$$DL = 119.3$$

$$BEC = 4774$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22996.42	0.0317	P	3.7
2	☐	50.000	47.594	49634.09	0.0669	P	1.5
3	☐	500.000	468.065	279916.41	0.3782	P	0.6
4	☐	2500.000	2430.909	1258124.34	1.8314	P	0.5
5	☐	6250.000	6075.638	2814086.74	4.5297	P	0.3
6	☐	12500.000	11926.692	5389819.91	8.8615	A	1.5
7	☐	25000.000	23963.195	10734272.29	17.7726	A	0.5
8	☐	50000.000	47249.575	21157162.97	35.0124	A	0.5
9	☐	250000.00	250687.54	117395112.35	185.6257	A	0.6

$$y = 7.4034\text{E-}004 * x + 0.0317$$

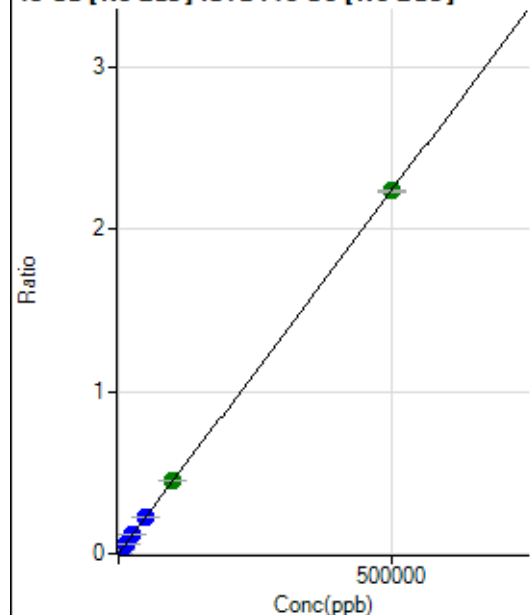
$$R = 0.9999$$

$$DL = 4.729$$

$$BEC = 42.79$$

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	350.02	0.0000	P	6.6
2	☐	50.000	47.078	3617.28	0.0002	P	1.3
3	☐	500.000	449.670	33981.65	0.0020	P	3.1
4	☐	5000.000	5108.953	341899.66	0.0229	P	0.6
5	☐	12500.000	12907.224	800817.35	0.0578	P	0.6
6	☐	25000.000	25462.050	1498626.62	0.1139	P	0.6
7	☐	50000.000	51300.195	3005149.33	0.2295	P	0.6
8	☐	100000.00	100191.21	5731512.93	0.4481	A	0.8
9	☐	500000.00	499797.41	28132632.23	2.2354	A	0.7

$$y = 4.4726\text{E-}006 * x + 2.2108\text{E-}005$$

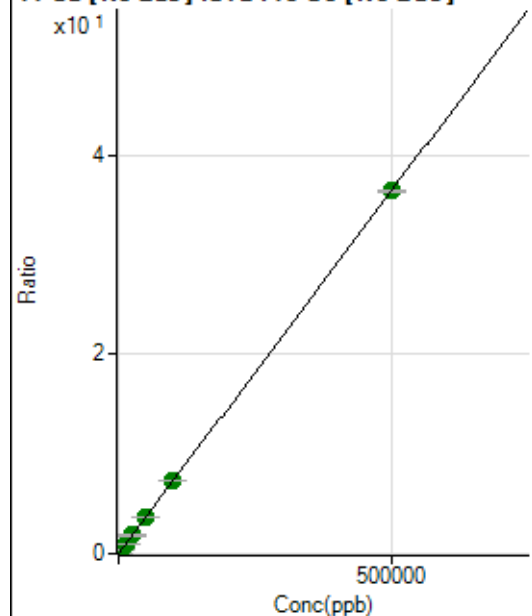
$$R = 1.0000$$

$$DL = 0.9829$$

$$BEC = 4.943$$

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	27611.85	0.0017	P	0.7
2	☐	50.000	50.941	84754.82	0.0055	P	0.4
3	☐	500.000	457.421	585629.48	0.0350	P	2.4
4	☐	5000.000	5050.532	5521285.58	0.3694	A	0.3
5	☐	12500.000	12704.998	12847800.81	0.9265	A	0.2
6	☐	25000.000	25180.926	24137613.56	1.8346	A	0.4
7	☐	50000.000	50530.906	48190696.22	3.6798	A	0.3
8	☐	100000.00	100190.22	93289217.36	7.2943	A	1.1
9	☐	500000.00	499894.23	457946904.68	36.3878	A	0.4

$$y = 7.2787\text{E-}005 * x + 0.0017$$

$$R = 1.0000$$

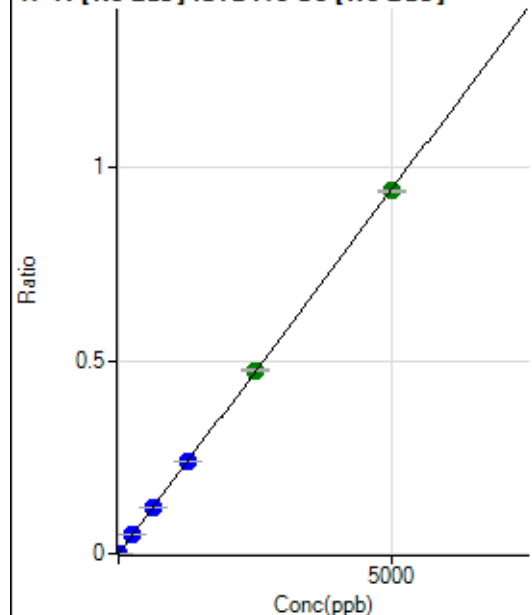
$$DL = 0.4938$$

$$BEC = 23.96$$

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	286.12	0.0000	P	9.7
2	☐	0.500	0.509	1775.18	0.0001	P	9.9
3	☐	5.000	4.807	15461.39	0.0009	P	4.5
4	☐	250.000	253.864	716535.72	0.0479	P	0.2
5	☐	625.000	638.957	1672620.75	0.1206	P	0.5
6	☐	1250.000	1266.272	3144817.32	0.2390	P	0.5
7	☐	2500.000	2520.948	6231853.74	0.4758	A	0.3
8	☐	5000.000	4983.520	12030544.71	0.9407	A	0.8
9	☐			4903.81	0.0004	P	3.9

$$y = 1.8875E-004 * x + 1.8074E-005$$

$$R = 1.0000$$

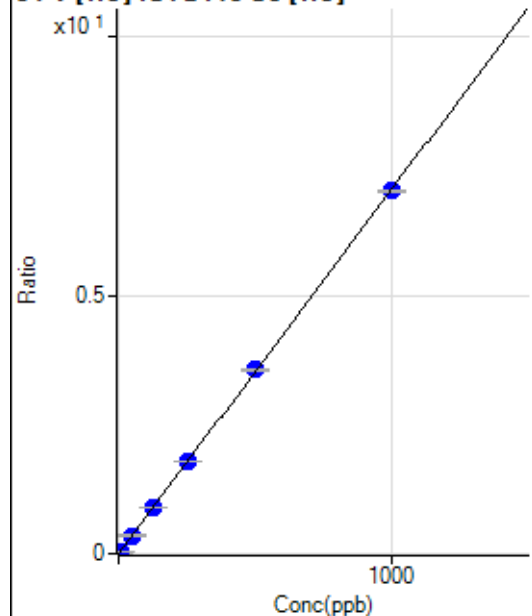
$$DL = 0.02798$$

$$BEC = 0.09575$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.56	0.0000	P	91.7
2	☐	0.500	0.504	2640.28	0.0036	P	3.5
3	☐	5.000	5.136	26799.02	0.0362	P	1.6
4	☐	50.000	50.104	242642.56	0.3532	P	0.3
5	☐	125.000	126.757	555106.80	0.8935	P	0.5
6	☐	250.000	253.140	1085362.27	1.7844	P	0.9
7	☐	500.000	504.905	2149657.01	3.5591	P	0.2
8	☐	1000.000	996.537	4244867.44	7.0247	P	0.6
9	☐			661.14	0.0010	P	6.6

$$y = 0.0070 * x + 7.6675E-006$$

$$R = 1.0000$$

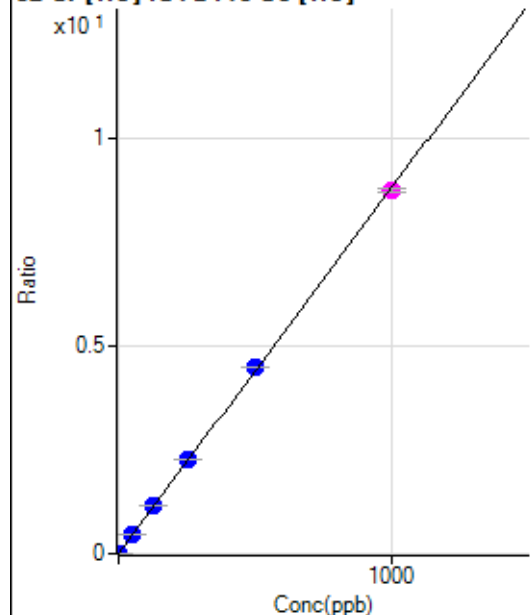
$$DL = 0.002992$$

$$BEC = 0.001088$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1742.36	0.0024	P	8.4
2	☐	0.200	0.179	2947.00	0.0040	P	4.9
3	☐	2.000	2.017	14925.50	0.0202	P	0.3
4	☐	50.000	51.391	312618.31	0.4551	P	0.1
5	☐	125.000	129.884	712220.86	1.1464	P	0.7
6	☐	250.000	257.348	1380191.63	2.2692	P	0.9
7	☐	500.000	511.258	2721313.50	4.5056	P	0.3
8	☐	1000.000	991.854	5280681.42	8.7388	M	1.0
9	☐			16990.00	0.0269	P	0.5

$$y = 0.0088 * x + 0.0024$$

$$R = 0.9999$$

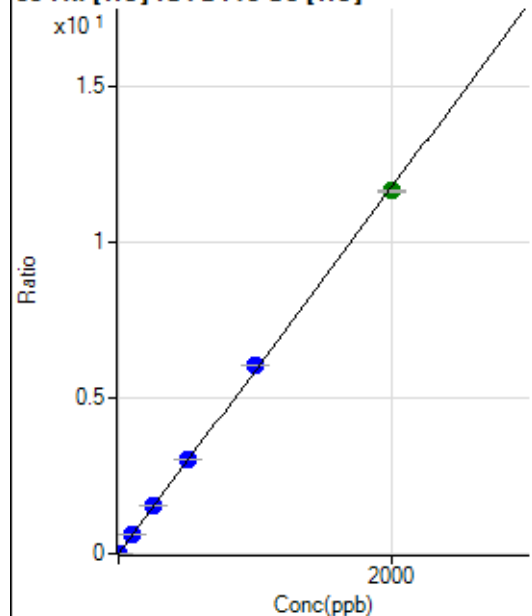
$$DL = 0.06855$$

$$BEC = 0.2725$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0001	P	25.8
2	☐	0.100	0.108	553.35	0.0007	P	9.3
3	☐	1.000	1.012	4481.87	0.0061	P	2.3
4	☐	100.000	102.394	413397.50	0.6018	P	0.5
5	☐	250.000	260.074	949436.34	1.5283	P	0.5
6	☐	500.000	515.160	1841206.83	3.0271	P	1.0
7	☐	1000.000	1027.704	3647297.83	6.0387	P	0.3
8	☐	2000.000	1980.979	7033722.81	11.6400	A	0.9
9	☐			18163.59	0.0287	P	1.7

$$y = 0.0059 * x + 1.1017E-004$$

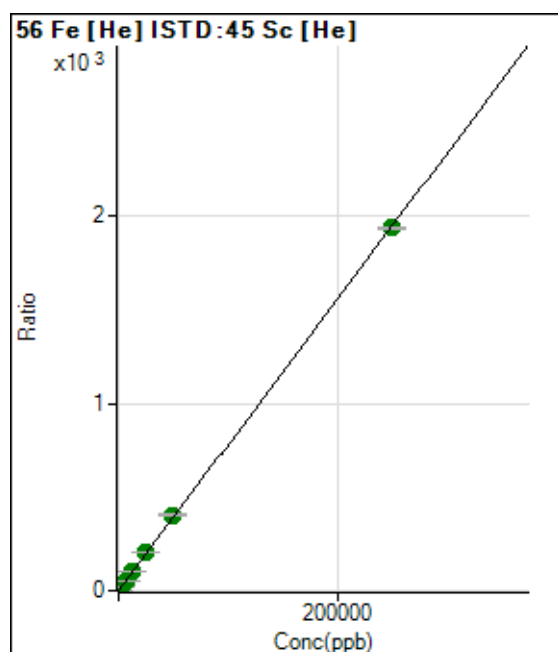
$$R = 0.9998$$

$$DL = 0.01452$$

$$BEC = 0.01875$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9410.71	0.0130	P	0.5
2	☐	5.000	5.512	41347.67	0.0557	P	1.2
3	☐	50.000	54.904	324979.65	0.4391	P	1.0
4	☐	2500.000	2692.564	14365828.44	20.9114	A	0.2
5	☐	6250.000	6835.924	32969844.49	53.0701	A	0.5
6	☐	12500.000	13532.054	63890872.72	105.0423	A	1.0
7	☐	25000.000	26906.437	126139605.60	208.8478	A	0.5
8	☐	50000.000	52006.762	243923422.12	403.6645	A	0.8
9	☐	250000.00	249339.82	1223916605.1	1,935.269	A	0.4

$$y = 0.0078 * x + 0.0130$$

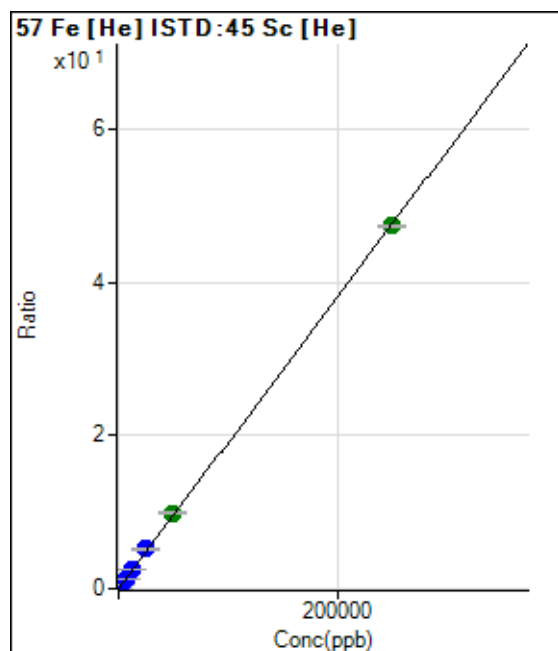
$$R = 0.9999$$

$$DL = 0.02454$$

$$BEC = 1.67$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	212.97	0.0003	P	21.9
2	☐	5.000	5.271	961.17	0.0013	P	2.4
3	☐	50.000	56.369	8152.49	0.0110	P	1.7
4	☐	2500.000	2713.204	354743.80	0.5164	P	0.5
5	☐	6250.000	6893.289	814756.59	1.3115	P	1.0
6	☐	12500.000	13699.429	1585100.19	2.6061	P	1.3
7	☐	25000.000	27095.099	3112978.72	5.1541	P	0.2
8	☐	50000.000	52133.866	5992399.84	9.9168	A	1.0
9	☐	250000.00	249285.53	29987869.19	47.4173	A	0.3

$$y = 1.9021E-004 * x + 2.9331E-004$$

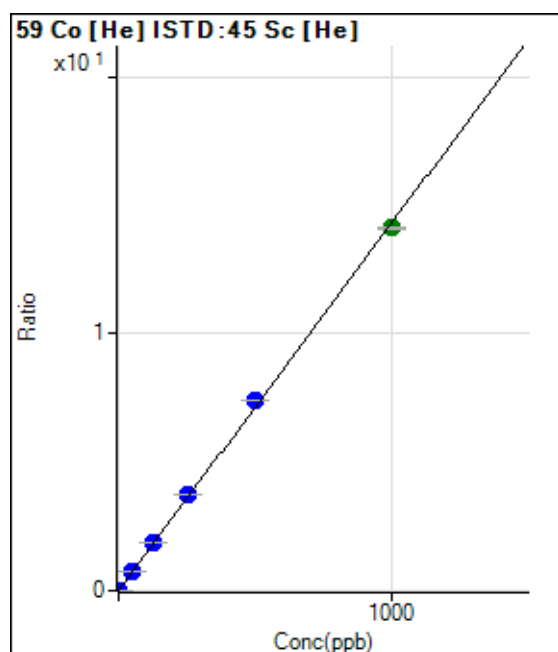
$$R = 0.9999$$

$$DL = 1.015$$

$$BEC = 1.542$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	466.68	0.0006	P	21.1
2	☐	0.100	0.087	1403.43	0.0019	P	1.3
3	☐	1.000	1.008	11138.82	0.0150	P	2.4
4	☐	50.000	52.611	517157.80	0.7528	P	0.2
5	☐	125.000	132.293	1175370.87	1.8919	P	0.5
6	☐	250.000	262.086	2279430.81	3.7475	P	0.6
7	☐	500.000	516.483	4460087.43	7.3845	P	0.2
8	☐	1000.000	987.695	8532977.09	14.1211	A	0.8
9	☐			99579.43	0.1575	P	0.4

$$y = 0.0143 * x + 6.4316E-004$$

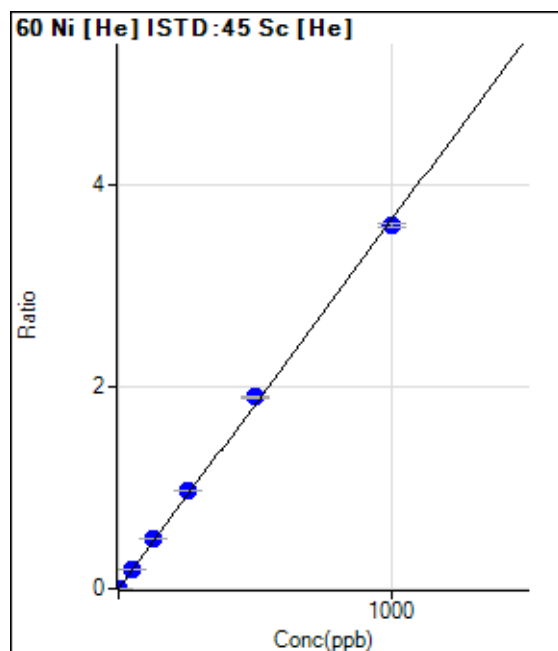
$$R = 0.9997$$

$$DL = 0.02842$$

$$BEC = 0.04499$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	181.12	0.0002	P	16.7
2	☐	0.100	0.123	517.80	0.0007	P	11.7
3	☐	1.000	1.098	3147.06	0.0043	P	3.6
4	☐	50.000	54.303	136077.79	0.1981	P	0.2
5	☐	125.000	136.102	308189.76	0.4961	P	0.1
6	☐	250.000	266.789	591319.88	0.9722	P	1.0
7	☐	500.000	520.152	1144664.21	1.8952	P	0.6
8	☐	1000.000	984.124	2166615.63	3.5855	P	1.1
9	☐			21136.54	0.0334	P	0.7

$$y = 0.0036 * x + 2.4952E-004$$

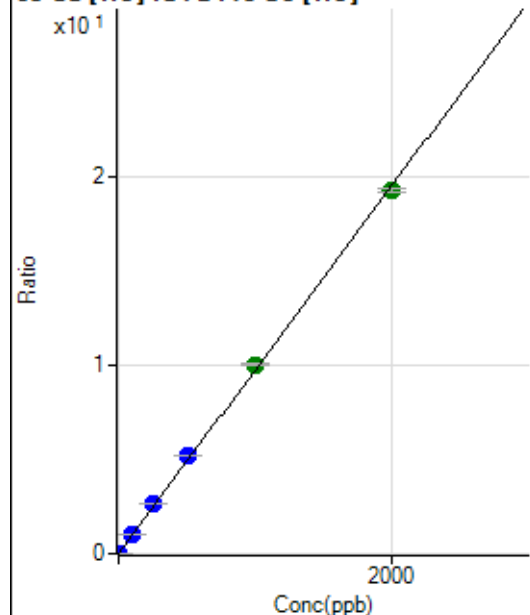
$$R = 0.9995$$

$$DL = 0.03435$$

$$BEC = 0.06849$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2214.65	0.0031	P	6.0
2	☐	0.200	0.215	3820.56	0.0052	P	3.1
3	☐	2.000	2.084	17334.90	0.0234	P	1.3
4	☐	100.000	108.226	728869.62	1.0610	P	0.4
5	☐	250.000	271.273	1649281.73	2.6548	P	0.4
6	☐	500.000	534.104	3177459.12	5.2240	P	0.8
7	☐	1000.000	1028.722	6075403.04	10.0589	A	0.4
8	☐	2000.000	1974.043	11662143.72	19.2995	A	0.9
9	☐			9641.11	0.0152	P	2.6

$$y = 0.0098 * x + 0.0031$$

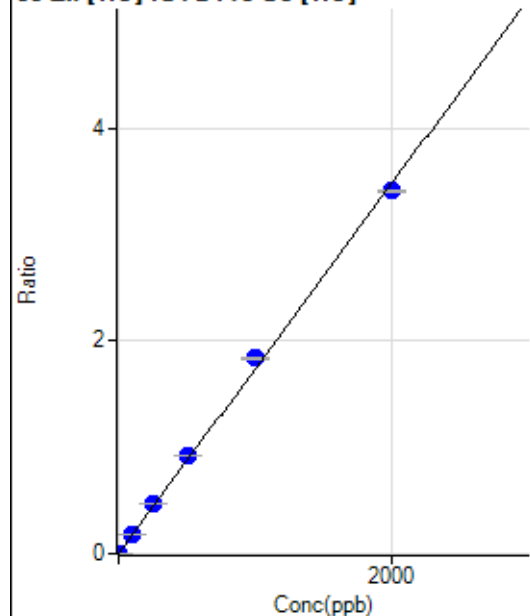
$$R = 0.9997$$

$$DL = 0.05664$$

$$BEC = 0.3121$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	393.35	0.0005	P	3.3
2	☐	0.200	0.378	890.04	0.0012	P	23.2
3	☐	2.000	2.135	3147.07	0.0043	P	1.3
4	☐	100.000	105.351	126132.50	0.1836	P	1.4
5	☐	250.000	266.449	287957.75	0.4635	P	0.3
6	☐	500.000	529.726	560190.20	0.9210	P	0.6
7	☐	1000.000	1055.899	1108448.26	1.8352	P	0.2
8	☐	2000.000	1962.295	2060662.30	3.4102	P	0.8
9	☐			12534.45	0.0198	P	2.0

$$y = 0.0017 * x + 5.4193E-004$$

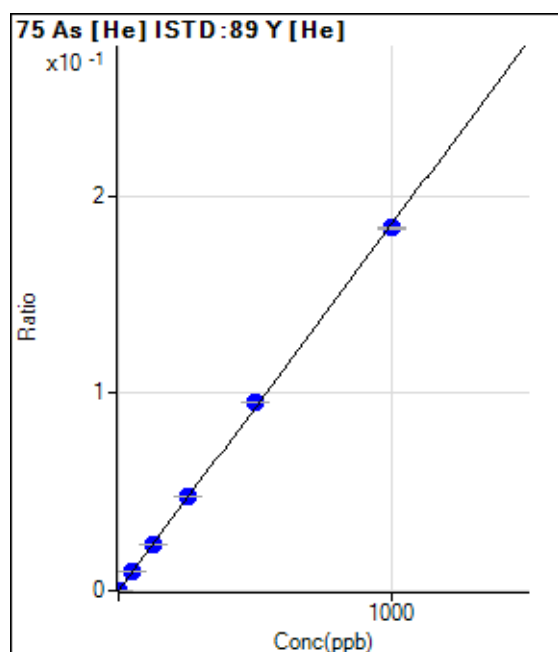
$$R = 0.9993$$

$$DL = 0.031$$

$$BEC = 0.3119$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.13	0.0000	P	47.7
2	☐	0.100	0.100	92.59	0.0000	P	18.8
3	☐	1.000	1.027	766.70	0.0002	P	0.4
4	☐	50.000	50.648	34643.67	0.0094	P	0.7
5	☐	125.000	127.508	80508.05	0.0237	P	0.8
6	☐	250.000	256.199	158439.63	0.0476	P	0.5
7	☐	500.000	515.077	316682.22	0.0957	P	0.4
8	☐	1000.000	990.565	600458.45	0.1840	P	0.9
9	☐			787.07	0.0002	P	5.3

$$y = 1.8572\text{E-}004 * x + 4.9891\text{E-}006$$

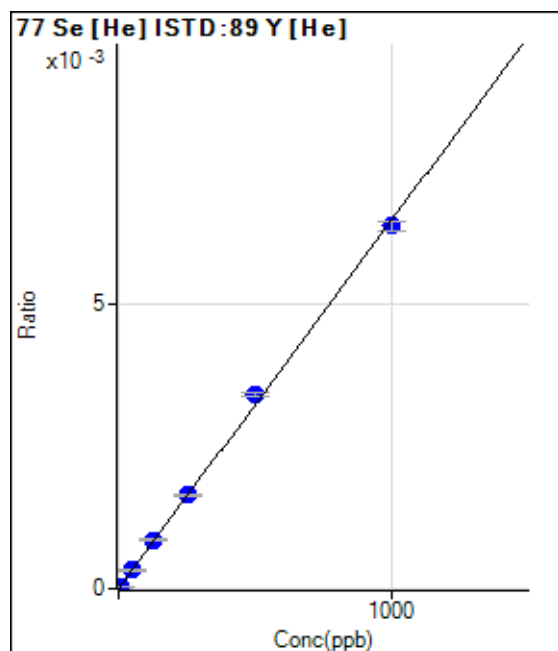
$$R = 0.9998$$

$$DL = 0.03842$$

$$BEC = 0.02686$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.22	0.0000	P	173.
2	☐	0.500	0.610	17.78	0.0000	P	10.5
3	☐	5.000	6.604	170.00	0.0000	P	23.4
4	☐	50.000	49.874	1191.18	0.0003	P	3.1
5	☐	125.000	130.613	2877.00	0.0008	P	4.2
6	☐	250.000	254.454	5488.90	0.0016	P	1.6
7	☐	500.000	525.934	11277.87	0.0034	P	1.6
8	☐	1000.000	985.216	20826.32	0.0064	P	2.5
9	☐			4.45	0.0000	P	86.6

$$y = 6.4762\text{E-}006 * x + 5.8461\text{E-}007$$

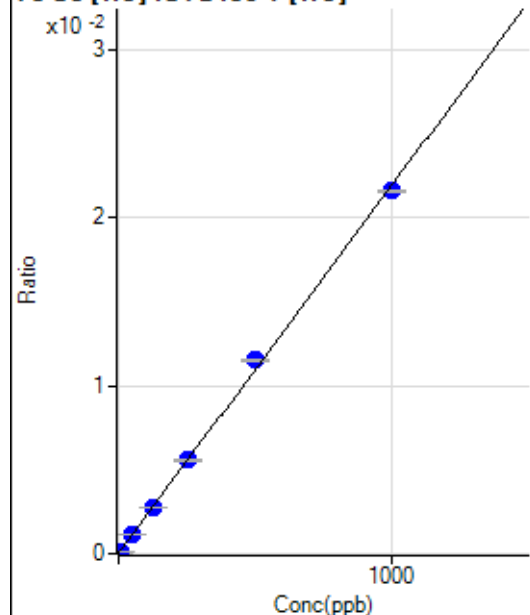
$$R = 0.9995$$

$$DL = 0.4691$$

$$BEC = 0.09027$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.34	0.0000	P	14.6
2	☐	0.500	0.532	130.86	0.0000	P	9.1
3	☐	5.000	5.437	550.63	0.0001	P	6.0
4	☐	50.000	49.229	4040.72	0.0011	P	1.5
5	☐	125.000	126.003	9434.62	0.0028	P	0.9
6	☐	250.000	253.778	18539.70	0.0056	P	1.3
7	☐	500.000	525.680	38106.09	0.0115	P	0.5
8	☐	1000.000	986.126	70417.20	0.0216	P	0.5
9	☐			83.95	0.0000	P	15.4

$$y = 2.1856\text{E-}005 * x + 2.1745\text{E-}005$$

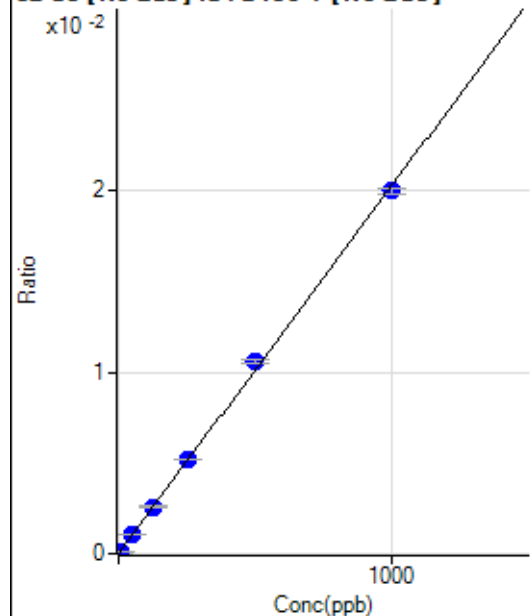
$$R = 0.9995$$

$$DL = 0.4348$$

$$BEC = 0.9949$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	175.56	0.0000	P	33.2
2	☐	0.500	0.541	444.18	0.0000	P	16.2
3	☐	5.000	5.279	2981.43	0.0001	P	2.9
4	☐	50.000	50.807	24759.69	0.0010	P	1.5
5	☐	125.000	127.545	58883.13	0.0026	P	1.0
6	☐	250.000	256.293	113800.24	0.0052	P	1.1
7	☐	500.000	522.212	231332.23	0.0106	P	1.4
8	☐	1000.000	986.961	424210.01	0.0200	P	1.5
9	☐			174.70	0.0000	P	52.8

$$y = 2.0252\text{E-}005 * x + 7.0657\text{E-}006$$

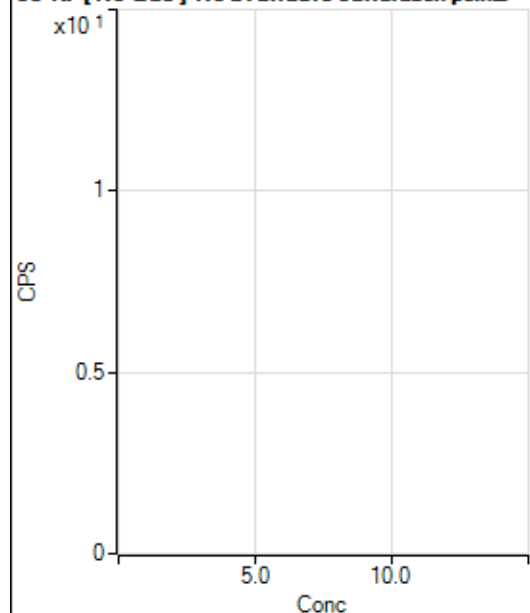
$$R = 0.9996$$

$$DL = 0.3476$$

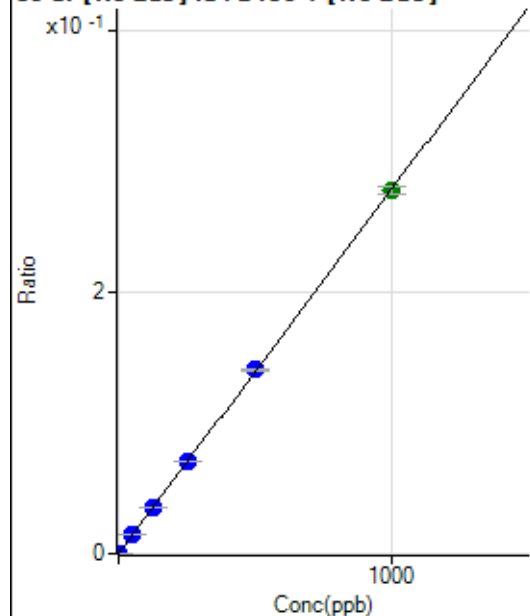
$$BEC = 0.3489$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			568.91		P	6.2
2	☐			601.14		P	8.3
3	☐			606.69		P	4.7
4	☐			578.91		P	8.1
5	☐			525.58		P	11.9
6	☐			467.79		P	8.6
7	☐			507.80		P	7.6
8	☐			533.35		P	3.7
9	☐			661.14		P	10.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1022.31	0.0000	P	8.8
2	☐	0.100	0.102	1714.07	0.0001	P	5.5
3	☐	1.000	0.893	7580.10	0.0003	P	4.0
4	☐	50.000	50.495	336846.96	0.0141	P	0.7
5	☐	125.000	127.970	810556.35	0.0357	P	1.6
6	☐	250.000	252.652	1540441.54	0.0704	P	0.2
7	☐	500.000	505.666	3077158.88	0.1408	P	0.7
8	☐	1000.000	996.108	5881966.32	0.2773	A	2.0
9	☐			23931.87	0.0012	P	2.4

$$y = 2.7830E-004 * x + 4.1193E-005$$

$$R = 1.0000$$

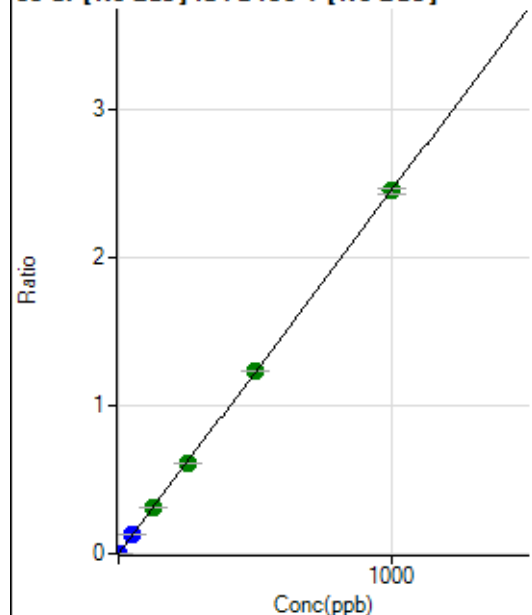
$$DL = 0.03914$$

$$BEC = 0.148$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	294.46	0.0000	P	21.0
2	☐	0.100	0.098	6223.84	0.0003	P	2.8
3	☐	1.000	0.908	58523.14	0.0022	P	2.0
4	☐	50.000	50.707	2971138.63	0.1243	P	0.4
5	☐	125.000	125.769	7009539.91	0.3083	A	0.1
6	☐	250.000	249.203	13376029.29	0.6109	A	0.3
7	☐	500.000	501.976	26900005.12	1.2306	A	0.3
8	☐	1000.000	999.080	51959485.19	2.4492	A	1.7
9	☐			199923.82	0.0100	P	1.2

$$y = 0.0025 * x + 1.1854E-005$$

$$R = 1.0000$$

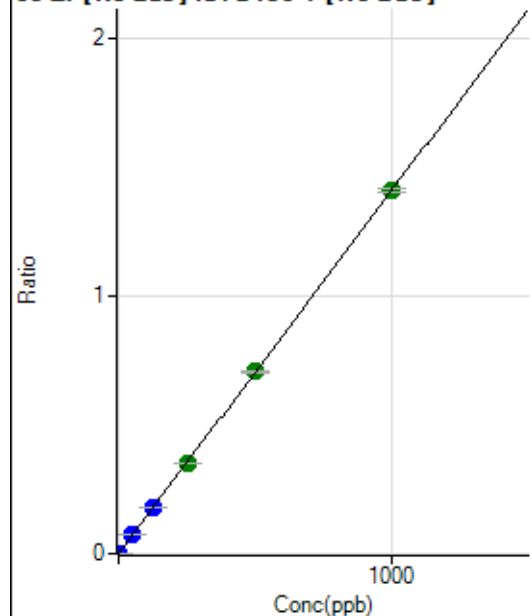
$$DL = 0.003047$$

$$BEC = 0.004836$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1983.55	0.0001	P	3.1
2	☐	0.100	0.089	5053.89	0.0002	P	3.8
3	☐	1.000	0.874	34236.57	0.0013	P	2.9
4	☐	50.000	50.514	1699542.31	0.0711	P	0.6
5	☐	125.000	127.152	4066682.12	0.1789	P	0.4
6	☐	250.000	248.646	7657162.76	0.3497	A	0.7
7	☐	500.000	501.048	15403984.72	0.7047	A	0.2
8	☐	1000.000	999.520	29821963.17	1.4056	A	1.1
9	☐			8636.28	0.0004	P	2.3

$$y = 0.0014 * x + 7.9939E-005$$

$$R = 1.0000$$

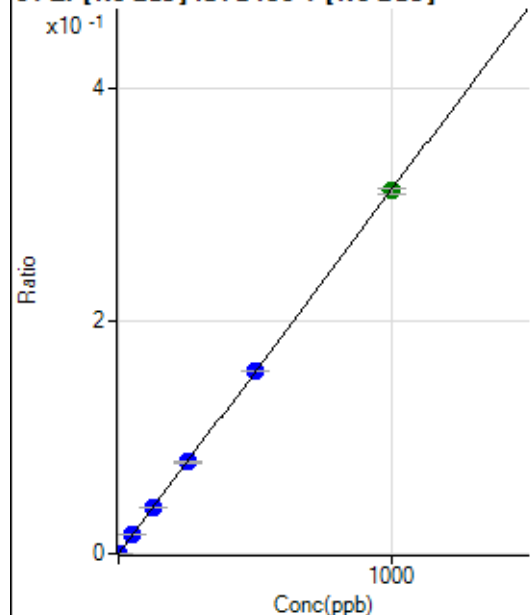
$$DL = 0.005295$$

$$BEC = 0.05685$$

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	352.80	0.0000	P	5.5
2	☐	0.100	0.084	997.30	0.0000	P	13.4
3	☐	1.000	0.859	7402.28	0.0003	P	7.1
4	☐	50.000	50.394	377005.06	0.0158	P	0.6
5	☐	125.000	127.248	905040.03	0.0398	P	0.6
6	☐	250.000	251.588	1723048.20	0.0787	P	0.9
7	☐	500.000	504.401	3448733.28	0.1578	P	0.1
8	☐	1000.000	997.102	6616263.17	0.3119	A	1.4
9	☐			1833.54	0.0001	P	7.0

$$y = 3.1275\text{E-}004 * x + 1.4214\text{E-}005$$

$$R = 1.0000$$

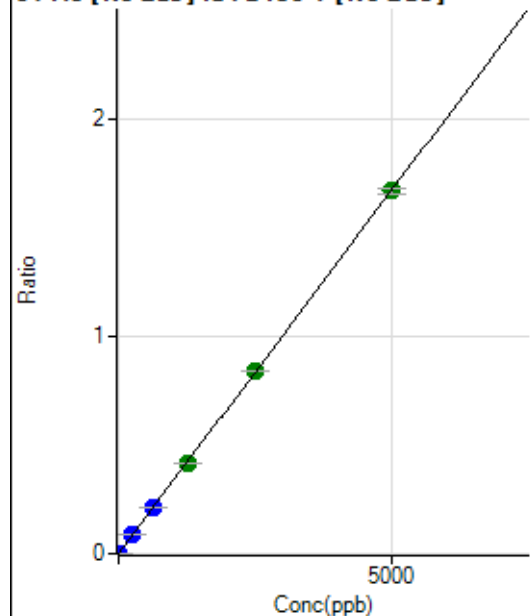
$$DL = 0.007487$$

$$BEC = 0.04545$$

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	650.05	0.0000	P	11.4
2	☐	0.500	0.474	4559.26	0.0002	P	3.7
3	☐	5.000	4.707	41895.70	0.0016	P	1.4
4	☐	250.000	254.412	2035442.63	0.0852	P	0.7
5	☐	625.000	642.497	4888813.17	0.2150	P	0.3
6	☐	1250.000	1243.343	9110853.76	0.4161	A	0.6
7	☐	2500.000	2510.256	18364497.29	0.8401	A	0.4
8	☐	5000.000	4994.129	35457435.17	1.6713	A	1.8
9	☐			14986.23	0.0008	P	3.2

$$y = 3.3466\text{E-}004 * x + 2.6200\text{E-}005$$

$$R = 1.0000$$

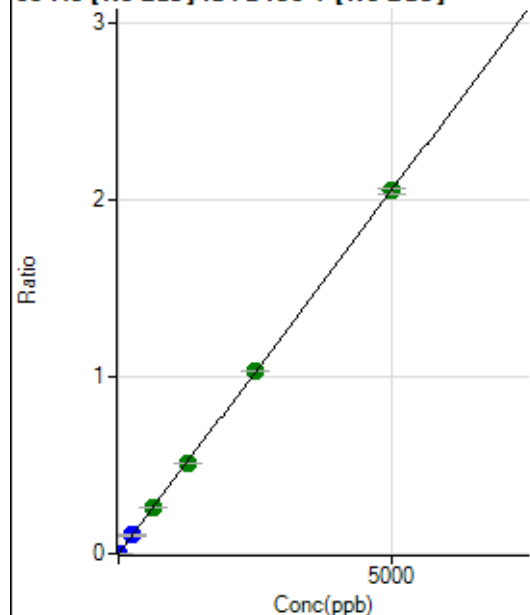
$$DL = 0.02666$$

$$BEC = 0.07829$$

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	161.12	0.0000	P	33.9
2	☐	0.500	0.511	5320.66	0.0002	P	1.8
3	☐	5.000	4.866	52363.63	0.0020	P	3.4
4	☐	250.000	253.056	2480117.42	0.1038	P	1.4
5	☐	625.000	626.578	5841615.80	0.2569	A	0.2
6	☐	1250.000	1244.703	11175641.31	0.5104	A	0.8
7	☐	2500.000	2509.654	22496889.74	1.0291	A	0.5
8	☐	5000.000	4996.147	43464731.18	2.0488	A	1.8
9	☐			21141.46	0.0011	P	4.2

$$y = 4.1007\text{E-}004 * x + 6.4823\text{E-}006$$

$$R = 1.0000$$

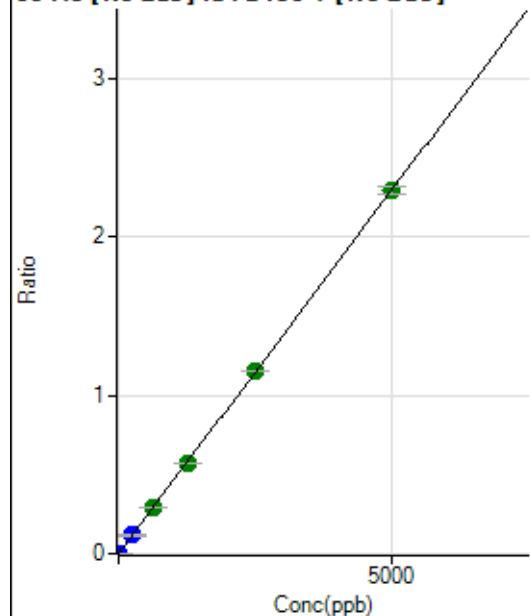
$$DL = 0.01607$$

$$BEC = 0.01581$$

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	336.13	0.0000	P	1.1
2	☐	0.500	0.521	6209.95	0.0003	P	3.6
3	☐	5.000	4.737	57098.57	0.0022	P	2.9
4	☐	250.000	251.501	2752825.71	0.1152	P	0.9
5	☐	625.000	624.466	6501540.12	0.2860	A	0.3
6	☐	1250.000	1244.171	12475061.30	0.5698	A	0.4
7	☐	2500.000	2512.995	25156543.10	1.1508	A	0.5
8	☐	5000.000	4994.952	48525851.78	2.2874	A	2.0
9	☐			35255.81	0.0018	P	5.3

$$y = 4.5794\text{E-}004 * x + 1.3545\text{E-}005$$

$$R = 1.0000$$

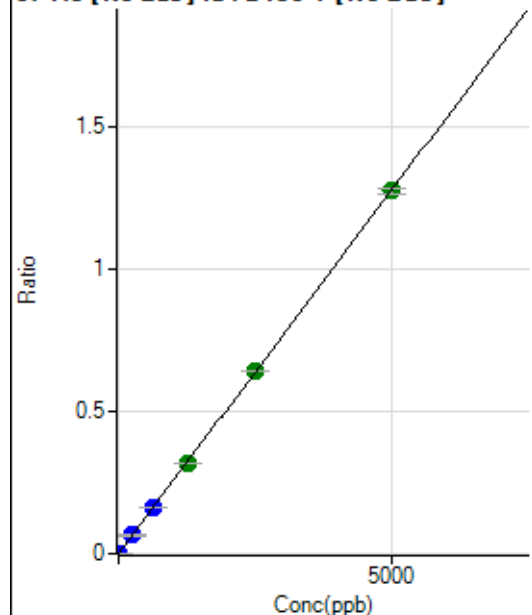
$$DL = 0.0009905$$

$$BEC = 0.02958$$

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	113.89	0.0000	P	23.0
2	☐	0.500	0.479	3128.27	0.0001	P	5.7
3	☐	5.000	4.912	32936.15	0.0013	P	1.2
4	☐	250.000	252.020	1538055.06	0.0644	P	1.0
5	☐	625.000	633.138	3675379.42	0.1617	P	0.9
6	☐	1250.000	1246.276	6967735.40	0.3182	A	0.5
7	☐	2500.000	2515.120	14039182.09	0.6422	A	0.5
8	☐	5000.000	4992.253	27043639.15	1.2748	A	1.8
9	☐			12472.64	0.0006	P	6.9

$$y = 2.5535E-004 * x + 4.5938E-006$$

$$R = 1.0000$$

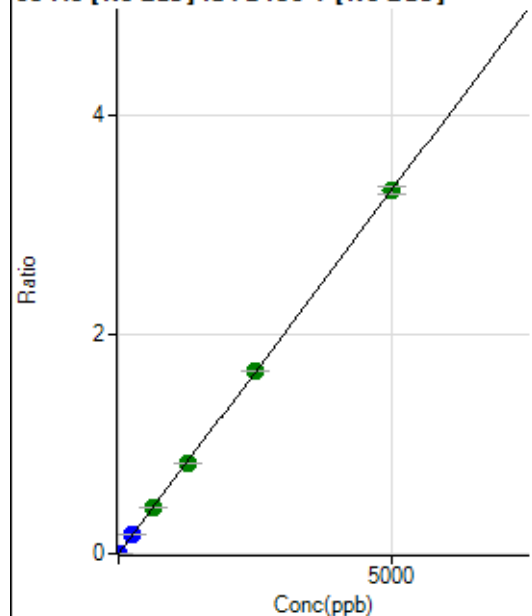
$$DL = 0.01243$$

$$BEC = 0.01799$$

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	194.46	0.0000	P	6.0
2	☐	0.500	0.500	8369.53	0.0003	P	2.1
3	☐	5.000	4.818	83759.67	0.0032	P	1.8
4	☐	250.000	253.082	4010193.66	0.1678	P	0.7
5	☐	625.000	627.722	9461357.68	0.4162	A	0.4
6	☐	1250.000	1248.192	18118786.69	0.8275	A	0.4
7	☐	2500.000	2512.223	36409303.94	1.6655	A	0.2
8	☐	5000.000	4993.847	70235637.68	3.3108	A	2.2
9	☐			30736.87	0.0015	P	5.9

$$y = 6.6298E-004 * x + 7.8340E-006$$

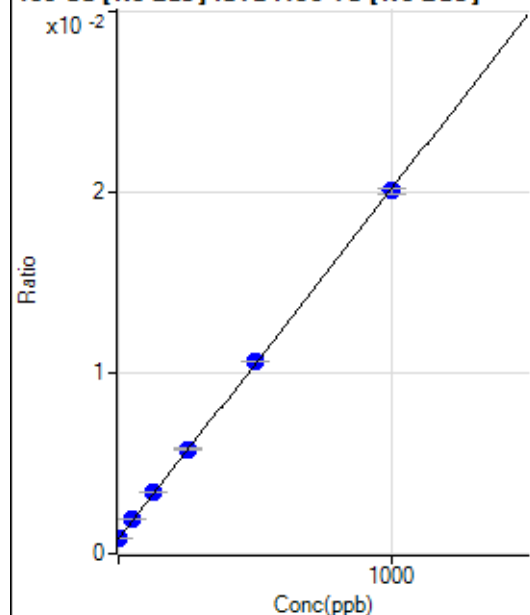
$$R = 1.0000$$

$$DL = 0.002111$$

$$BEC = 0.01182$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27769.74	0.0008	P	1.3
2	☐	0.100	1.907	28783.01	0.0009	P	1.1
3	☐	1.000	3.192	31452.56	0.0009	P	2.9
4	☐	50.000	56.930	63777.96	0.0019	P	0.9
5	☐	125.000	132.880	111032.79	0.0034	P	1.7
6	☐	250.000	254.906	186894.95	0.0058	P	1.7
7	☐	500.000	505.914	346627.24	0.0106	P	0.3
8	☐	1000.000	994.483	636561.37	0.0201	P	1.6
9	☐			22885.89	0.0008	P	0.8

$$y = 1.9388\text{E-}005 * x + 8.2310\text{E-}004$$

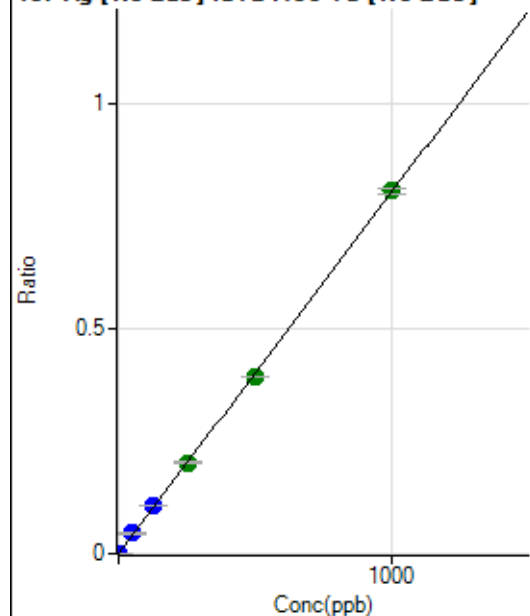
$$R = 0.9999$$

$$DL = 1.612$$

$$BEC = 42.45$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	444.47	0.0000	P	4.9
2	☐	0.100	0.120	3658.97	0.0001	P	3.9
3	☐	1.000	1.071	31079.52	0.0009	P	3.1
4	☐	50.000	55.945	1490684.91	0.0450	P	0.6
5	☐	125.000	134.707	3541431.81	0.1084	P	0.8
6	☐	250.000	251.856	6571351.80	0.2027	A	0.7
7	☐	500.000	488.409	12815400.72	0.3931	A	0.4
8	☐	1000.000	1003.821	25579693.45	0.8079	A	1.5
9	☐			1800.20	0.0001	P	6.4

$$y = 8.0479\text{E-}004 * x + 1.3175\text{E-}005$$

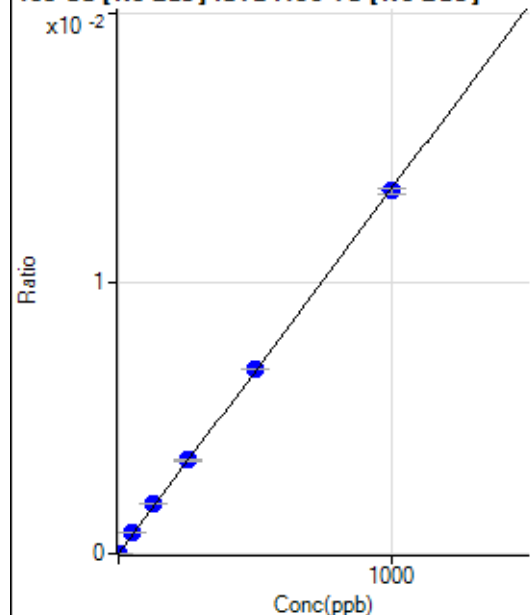
$$R = 0.9998$$

$$DL = 0.002396$$

$$BEC = 0.01637$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	76.39	0.0000	P	6.5
2	☐	0.100	0.057	101.39	0.0000	P	6.2
3	☐	1.000	0.989	555.58	0.0000	P	18.1
4	☐	50.000	56.078	25112.80	0.0008	P	1.0
5	☐	125.000	134.815	59473.16	0.0018	P	0.8
6	☐	250.000	257.333	112601.32	0.0035	P	1.5
7	☐	500.000	504.786	222067.03	0.0068	P	0.5
8	☐	1000.000	994.243	424706.95	0.0134	P	1.8
9	☐			127.78	0.0000	P	9.9

$$y = 1.3489\text{E-}005 * x + 2.2645\text{E-}006$$

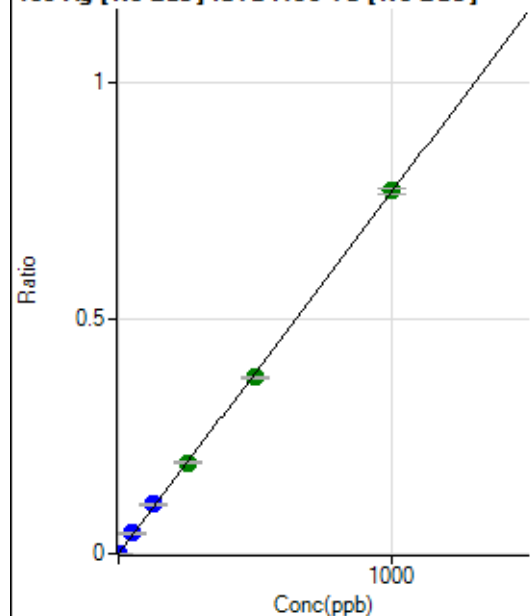
$$R = 0.9999$$

$$DL = 0.03298$$

$$BEC = 0.1679$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	275.01	0.0000	P	10.9
2	☐	0.100	0.117	3289.43	0.0001	P	3.5
3	☐	1.000	1.106	30492.11	0.0009	P	1.3
4	☐	50.000	56.004	1425505.38	0.0431	P	0.8
5	☐	125.000	135.746	3409304.46	0.1044	P	0.7
6	☐	250.000	252.564	6295343.89	0.1942	A	1.3
7	☐	500.000	488.428	12243410.60	0.3755	A	1.1
8	☐	1000.000	1003.501	24429282.66	0.7716	A	1.8
9	☐			1680.74	0.0001	P	3.1

$$y = 7.6886\text{E-}004 * x + 8.1512\text{E-}006$$

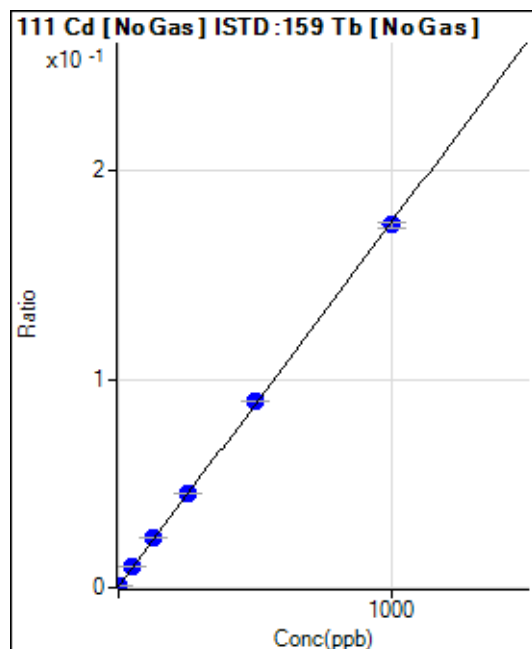
$$R = 0.9998$$

$$DL = 0.003474$$

$$BEC = 0.0106$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	19395.07	0.0006	P	1.2
2	☐	0.100	0.248	20688.27	0.0006	P	1.4
3	☐	1.000	1.188	27804.35	0.0008	P	1.5
4	☐	50.000	54.374	333488.44	0.0101	P	0.5
5	☐	125.000	133.055	778123.78	0.0238	P	1.2
6	☐	250.000	256.407	1470970.99	0.0454	P	1.2
7	☐	500.000	508.565	2915751.94	0.0894	P	0.2
8	☐	1000.000	992.890	5510967.66	0.1741	P	1.9
9	☐			16386.25	0.0006	P	1.0

$$y = 1.7472\text{E-}004 * x + 5.7487\text{E-}004$$

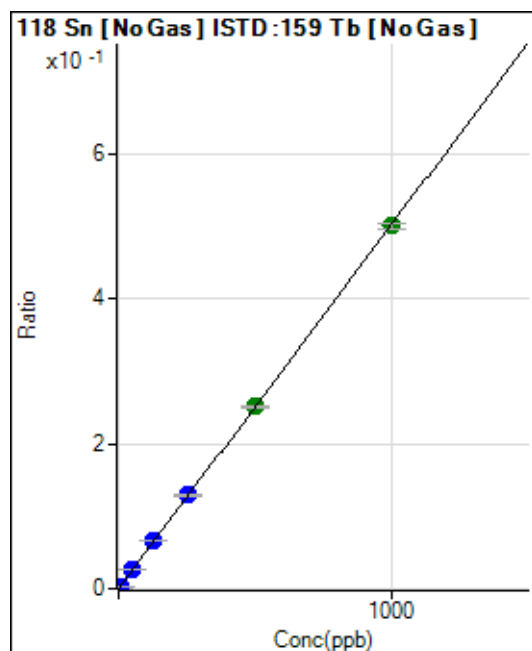
$$R = 0.9999$$

$$DL = 0.1216$$

$$BEC = 3.29$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1294.57	0.0000	P	5.1
2	☐	0.500	0.553	10568.31	0.0003	P	5.4
3	☐	5.000	5.060	91502.54	0.0026	P	3.9
4	☐	50.000	53.527	890071.49	0.0269	P	0.3
5	☐	125.000	132.377	2170393.63	0.0664	P	0.5
6	☐	250.000	257.177	4183722.58	0.1291	P	1.0
7	☐	500.000	501.333	8200713.38	0.2515	A	1.0
8	☐	1000.000	996.440	15829144.80	0.4999	A	1.3
9	☐			6521.24	0.0002	P	3.7

$$y = 5.0167\text{E-}004 * x + 3.8369\text{E-}005$$

$$R = 1.0000$$

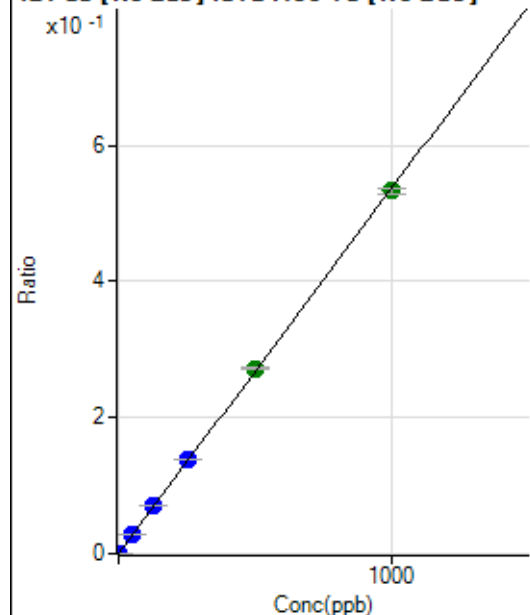
$$DL = 0.01165$$

$$BEC = 0.07648$$

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	102.78	0.0000	P	40.9
2	☐	0.200	0.205	3781.27	0.0001	P	6.9
3	☐	2.000	1.961	37467.69	0.0011	P	3.6
4	☐	50.000	53.401	948383.77	0.0287	P	0.4
5	☐	125.000	131.824	2310162.33	0.0707	P	0.3
6	☐	250.000	257.974	4486853.79	0.1384	P	1.0
7	☐	500.000	506.607	8861095.94	0.2718	A	1.1
8	☐	1000.000	993.680	16879326.59	0.5331	A	1.9
9	☐			17920.40	0.0006	P	1.5

$$y = 5.3650E-004 * x + 3.0482E-006$$

$$R = 0.9999$$

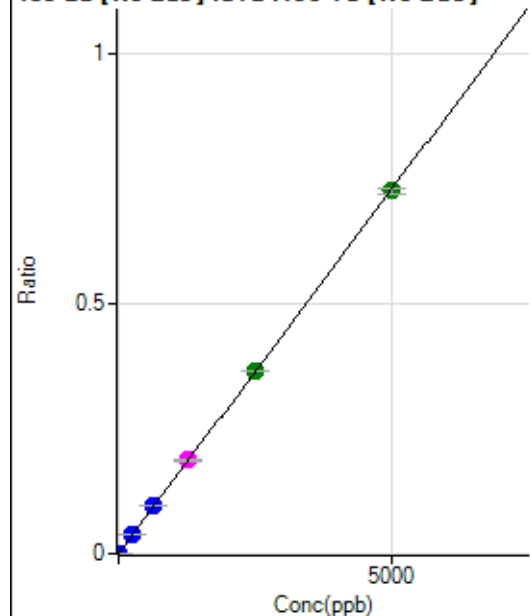
$$DL = 0.006977$$

$$BEC = 0.005682$$

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	36.11	0.0000	P	48.1
2	☐	1.000	1.065	5228.99	0.0002	P	6.0
3	☐	10.000	9.769	50582.02	0.0014	P	2.5
4	☐	250.000	264.321	1274475.40	0.0385	P	0.8
5	☐	625.000	657.924	3130505.47	0.0958	P	0.2
6	☐	1250.000	1280.888	6048570.19	0.1866	M	2.1
7	☐	2500.000	2512.283	11931234.82	0.3660	A	0.5
8	☐	5000.000	4981.305	22975465.96	0.7256	A	1.5
9	☐			2547.57	0.0001	P	1.5

$$y = 1.4567E-004 * x + 1.0704E-006$$

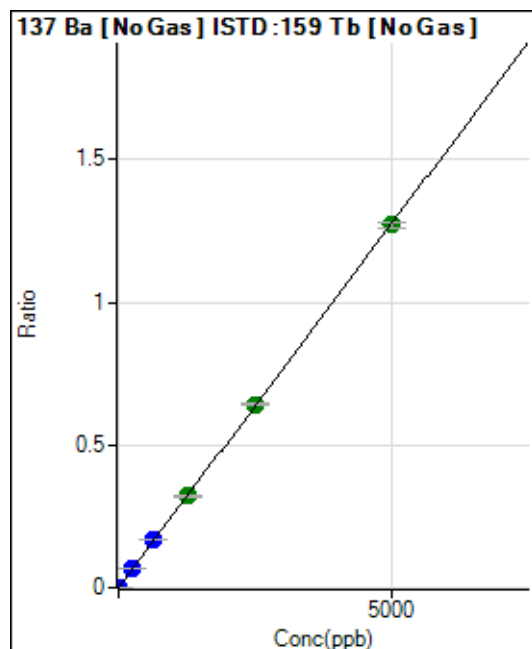
$$R = 1.0000$$

$$DL = 0.0106$$

$$BEC = 0.007348$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0000	P	12.7
2	☐	1.000	1.067	9175.61	0.0003	P	3.3
3	☐	10.000	9.923	89979.28	0.0025	P	2.2
4	☐	250.000	265.672	2242935.08	0.0678	P	0.4
5	☐	625.000	661.201	5508548.08	0.1686	P	1.0
6	☐	1250.000	1256.327	10388323.32	0.3204	A	0.4
7	☐	2500.000	2515.210	20915260.88	0.6415	A	0.8
8	☐	5000.000	4985.505	40263146.04	1.2716	A	1.3
9	☐			4717.67	0.0002	P	2.5

$$y = 2.5506E-004 * x + 1.9764E-006$$

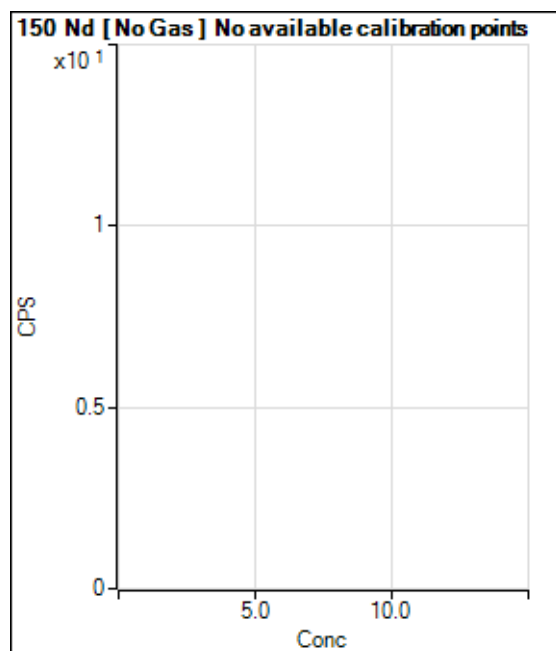
$$R = 1.0000$$

$$DL = 0.002944$$

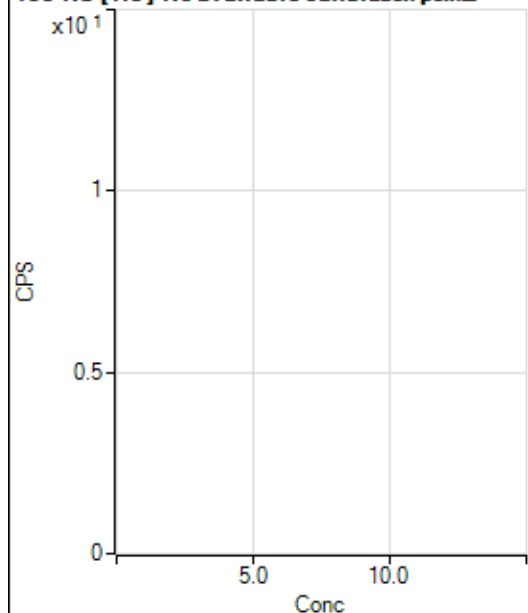
$$BEC = 0.007749$$

Weight: <None>

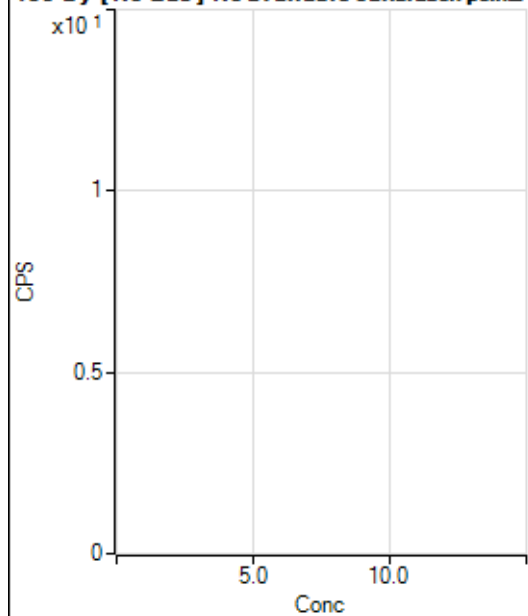
Min Conc: 0



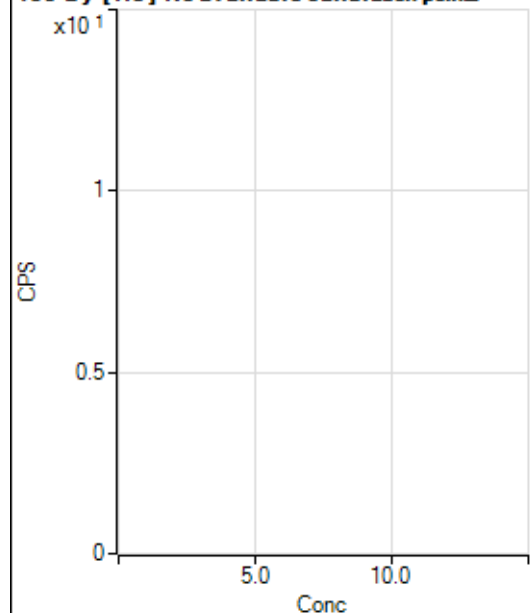
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2.22		P	173.
2	☐			2.22		P	173.
3	☐			11.11		P	91.7
4	☐			133.34		P	26.5
5	☐			388.91		P	12.2
6	☐			651.15		P	18.4
7	☐			1395.67		P	3.6
8	☐			2451.41		P	8.7
9	☐			411.13		P	9.5

150 Nd [He] No available calibration points

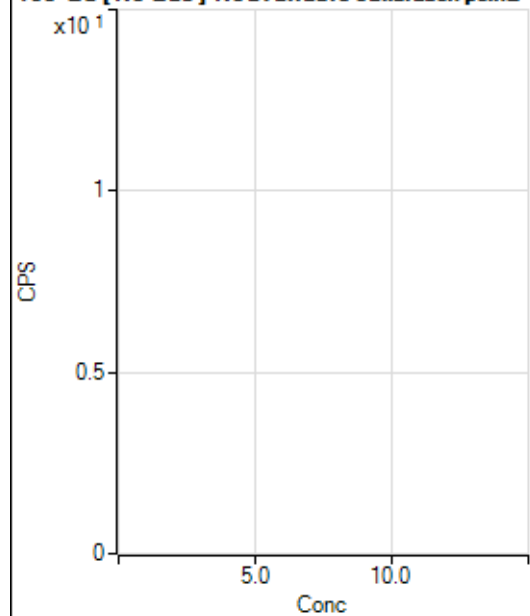
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐			2.22		P	86.6
3	☐			4.44		P	114.
4	☐			14.44		P	35.3
5	☐			35.56		P	32.9
6	☐			73.33		P	15.7
7	☐			143.34		P	7.0
8	☐			206.67		P	17.1
9	☐			162.23		P	13.4

156 Dy [No Gas] No available calibration points

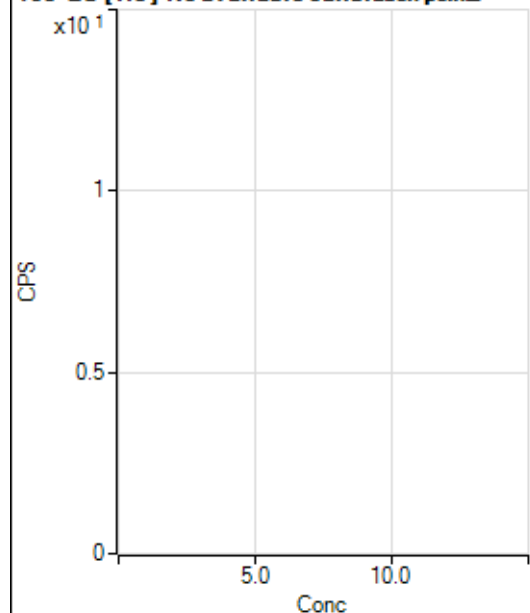
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	124.
2	☐			36.11		P	135.
3	☐			27.78		P	45.8
4	☐			47.22		P	27.0
5	☐			141.67		P	25.6
6	☐			194.46		P	38.4
7	☐			319.46		P	4.0
8	☐			750.05		P	2.9
9	☐			222.23		P	26.6

156 Dy [He] No available calibration points

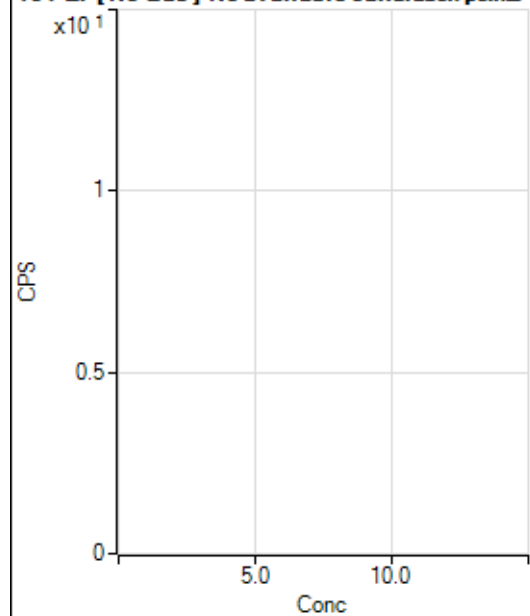
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	33.3
2	☐			10.00		P	115.
3	☐			13.33		P	66.1
4	☐			41.11		P	49.5
5	☐			83.34		P	10.6
6	☐			157.78		P	12.9
7	☐			267.79		P	6.3
8	☐			525.58		P	8.9
9	☐			105.56		P	16.2

160 Gd [No Gas] Noavailable calibration poin_

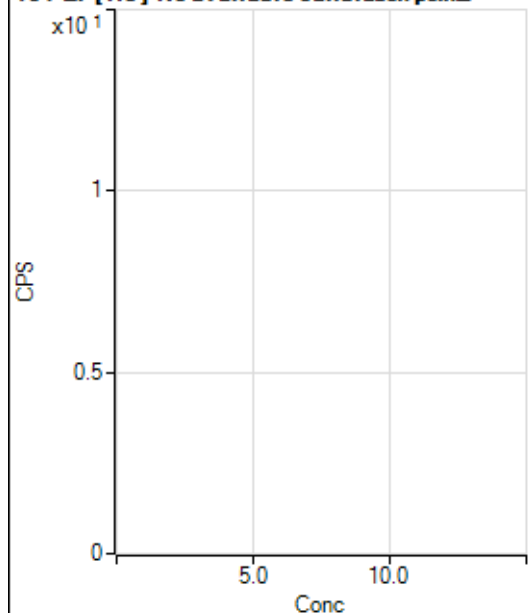
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			341.69		P	10.6
2	☐			297.24		P	5.8
3	☐			411.14		P	16.9
4	☐			330.58		P	8.1
5	☐			325.02		P	9.2
6	☐			327.80		P	5.9
7	☐			388.91		P	24.1
8	☐			338.91		P	8.6
9	☐			416.69		P	24.3

160 Gd [He] No available calibration points

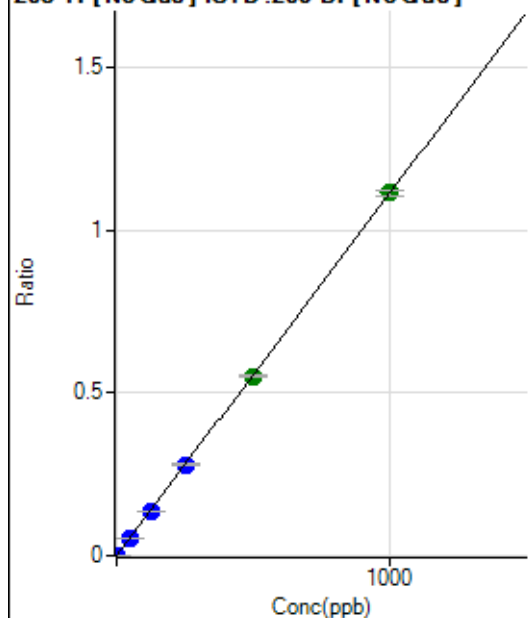
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			697.81		P	5.3
2	☐			692.25		P	3.7
3	☐			644.47		P	6.2
4	☐			635.58		P	8.7
5	☐			640.03		P	9.6
6	☐			560.02		P	8.6
7	☐			620.02		P	6.6
8	☐			552.25		P	2.7
9	☐			614.47		P	3.9

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			125.01		P	40.0
2	☐			75.00		P	22.2
3	☐			122.23		P	21.9
4	☐			91.67		P	36.4
5	☐			144.45		P	12.0
6	☐			122.23		P	23.9
7	☐			122.23		P	32.2
8	☐			163.90		P	33.1
9	☐			147.23		P	25.5

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			67.78		P	19.9
2	☐			51.11		P	15.1
3	☐			51.11		P	26.4
4	☐			42.22		P	4.6
5	☐			44.44		P	26.3
6	☐			55.56		P	17.3
7	☐			62.22		P	21.7
8	☐			60.00		P	29.4
9	☐			63.34		P	27.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	433.36	0.0000	P	17.7
2	☐	0.100	0.093	2769.85	0.0001	P	4.6
3	☐	1.000	0.838	22670.16	0.0010	P	1.0
4	☐	50.000	48.732	1192094.43	0.0542	P	0.8
5	☐	125.000	124.136	3008609.16	0.1380	P	0.6
6	☐	250.000	250.912	5990663.07	0.2789	P	1.1
7	☐	500.000	495.869	11712485.33	0.5512	A	0.8
8	☐	1000.000	1002.009	22325369.25	1.1138	A	1.7
9	☐			1852.98	0.0001	P	5.6

$$y = 0.0011 * x + 1.9211E-005$$

$$R = 1.0000$$

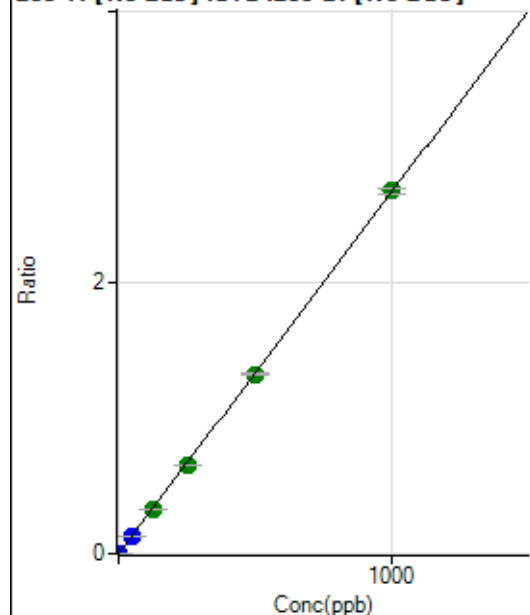
$$DL = 0.009192$$

$$BEC = 0.01728$$

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	1022.31	0.0000	P	2.3
2	☐	0.100	0.090	6429.61	0.0003	P	1.1
3	☐	1.000	0.861	55824.15	0.0023	P	3.0
4	☐	50.000	49.081	2879330.36	0.1309	P	1.2
5	☐	125.000	121.925	7086884.10	0.3251	A	0.5
6	☐	250.000	244.222	13984017.67	0.6511	A	0.7
7	☐	500.000	496.249	28111161.74	1.3229	A	0.5
8	☐	1000.000	1003.751	53635790.78	2.6758	A	1.5
9	☐			4392.60	0.0003	P	4.6

$$y = 0.0027 * x + 4.5259E-005$$

$$R = 1.0000$$

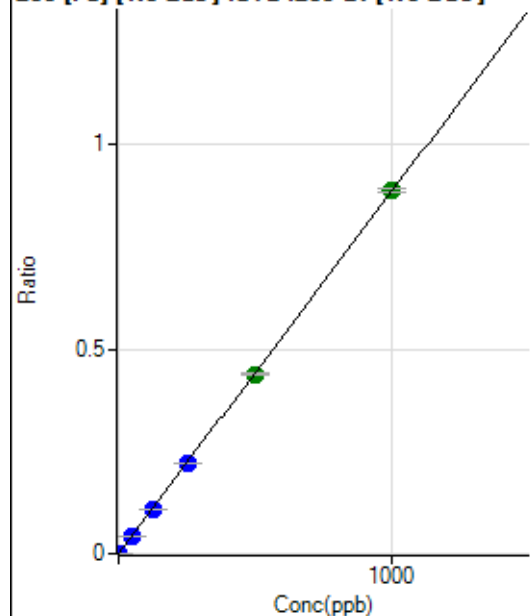
$$DL = 0.001188$$

$$BEC = 0.01698$$

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	1394.56	0.0001	P	5.4
2	☐	0.100	0.102	3420.91	0.0002	P	3.9
3	☐	1.000	0.866	19718.77	0.0008	P	2.1
4	☐	50.000	49.069	955304.24	0.0434	P	1.4
5	☐	125.000	124.187	2393963.97	0.1098	P	0.8
6	☐	250.000	249.980	4746075.80	0.2210	P	0.7
7	☐	500.000	495.807	9311804.26	0.4382	A	0.4
8	☐	1000.000	1002.250	17755603.99	0.8858	A	1.0
9	☐			17081.77	0.0011	P	2.0

$$y = 8.8372E-004 * x + 6.1737E-005$$

$$R = 1.0000$$

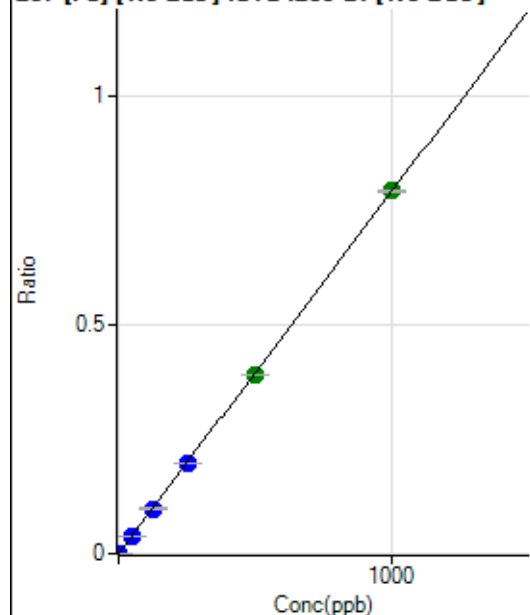
$$DL = 0.01127$$

$$BEC = 0.06986$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1227.87	0.0001	P	8.5
2	☐	0.100	0.092	2868.91	0.0001	P	1.6
3	☐	1.000	0.872	17773.38	0.0007	P	2.8
4	☐	50.000	49.189	858489.37	0.0390	P	0.4
5	☐	125.000	124.648	2153976.15	0.0988	P	0.9
6	☐	250.000	251.480	4280097.41	0.1993	P	0.6
7	☐	500.000	494.184	8320177.50	0.3915	A	0.2
8	☐	1000.000	1002.622	15922983.11	0.7943	A	0.8
9	☐			15057.12	0.0009	P	2.1

$$y = 7.9220\text{E-}004 * x + 5.4395\text{E-}005$$

$$R = 1.0000$$

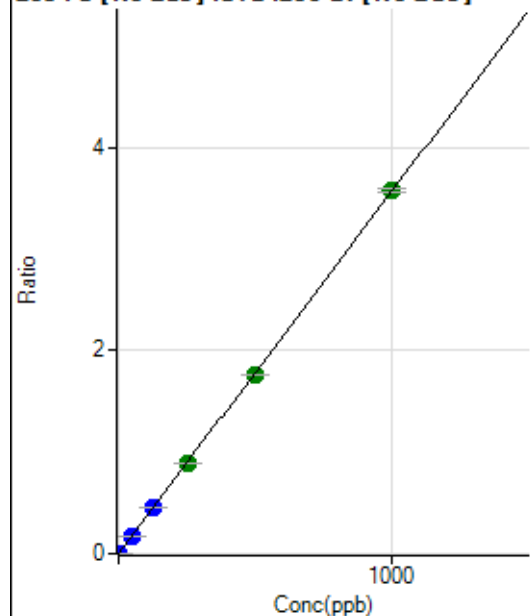
$$DL = 0.01753$$

$$BEC = 0.06866$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5776.61	0.0003	P	0.9
2	☐	0.100	0.093	13227.03	0.0006	P	0.9
3	☐	1.000	0.864	79440.55	0.0033	P	2.0
4	☐	50.000	49.120	3851406.34	0.1751	P	0.7
5	☐	125.000	125.438	9737915.47	0.4467	P	0.4
6	☐	250.000	248.235	18979946.11	0.8837	A	0.5
7	☐	500.000	495.107	37447106.97	1.7623	A	0.1
8	☐	1000.000	1002.877	71548231.46	3.5693	A	1.1
9	☐			67878.28	0.0042	P	2.9

$$y = 0.0036 * x + 2.5578\text{E-}004$$

$$R = 1.0000$$

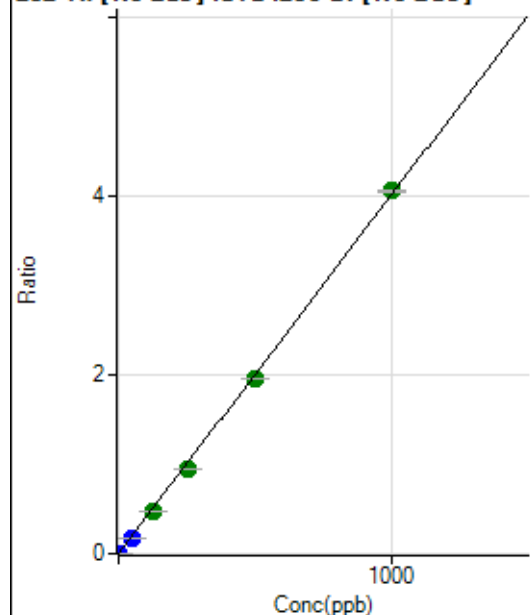
$$DL = 0.001881$$

$$BEC = 0.07187$$

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	750.04	0.0000	P	7.5
2	☐	0.100	0.074	7430.12	0.0003	P	4.0
3	☐	1.000	0.749	72530.88	0.0030	P	2.7
4	☐	50.000	45.424	4016279.72	0.1826	P	0.2
5	☐	125.000	116.676	10221595.48	0.4689	A	0.6
6	☐	250.000	237.307	20480881.24	0.9536	A	0.4
7	☐	500.000	487.481	41623384.73	1.9588	A	0.4
8	☐	1000.000	1010.702	81409368.49	4.0612	A	0.9
9	☐			18224.46	0.0011	P	9.3

$$y = 0.0040 * x + 3.3229E-005$$

$$R = 0.9998$$

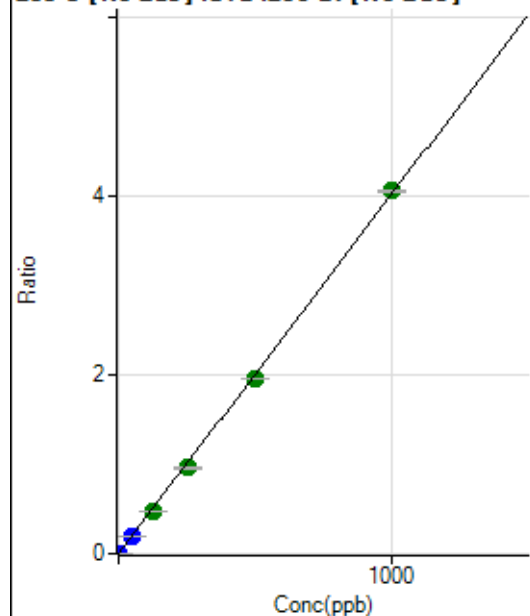
$$DL = 0.001858$$

$$BEC = 0.00827$$

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	136.12	0.0000	P	38.9
2	☐	0.100	0.083	7613.75	0.0003	P	2.7
3	☐	1.000	0.782	74961.83	0.0031	P	2.0
4	☐	50.000	45.786	4041385.81	0.1837	P	0.8
5	☐	125.000	116.816	10217682.09	0.4687	A	0.5
6	☐	250.000	238.231	20528856.54	0.9558	A	0.9
7	☐	500.000	488.545	41651138.08	1.9601	A	0.3
8	☐	1000.000	1009.904	81222613.62	4.0518	A	0.8
9	☐			3542.36	0.0002	P	19.7

$$y = 0.0040 * x + 6.0277E-006$$

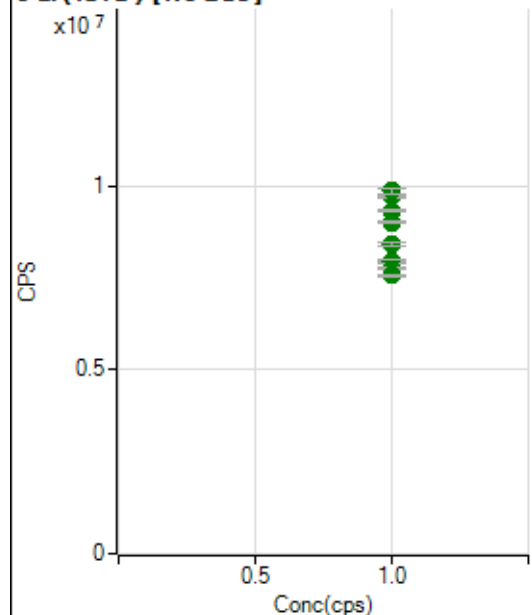
$$R = 0.9998$$

$$DL = 0.001754$$

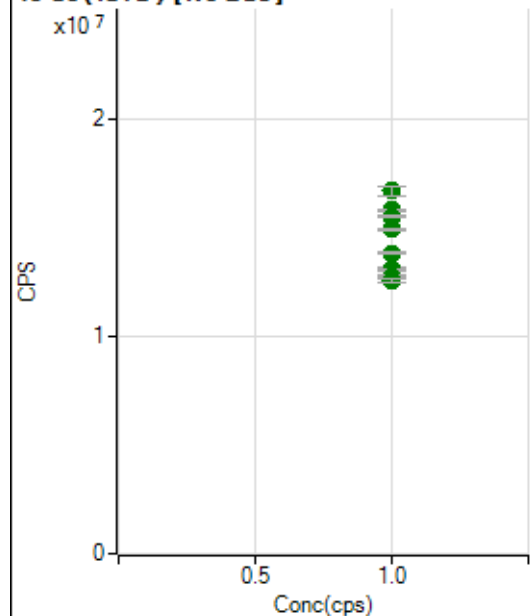
$$BEC = 0.001502$$

Weight: <None>

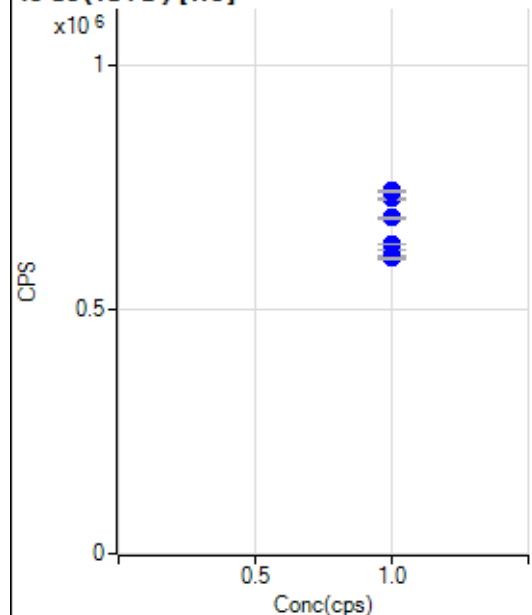
Min Conc: 0

6 Li (ISTD) [No Gas]

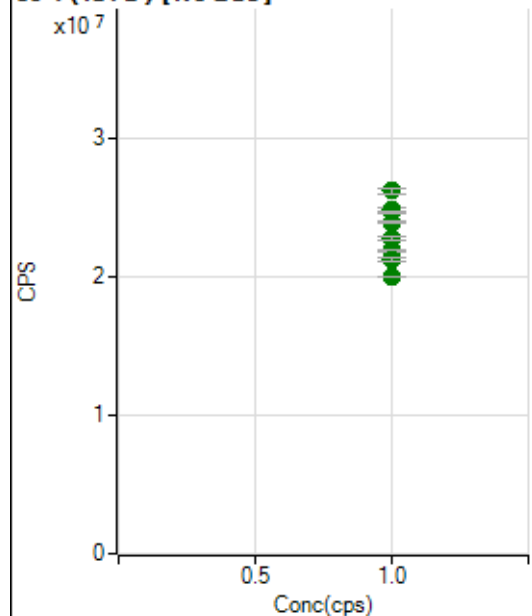
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		9700684.49		A	0.3
2	☐	1.000		9328774.63		A	0.7
3	☐	1.000		9862371.21		A	1.5
4	☐	1.000		9010086.99		A	0.4
5	☐	1.000		8413934.13		A	1.2
6	☐	1.000		7955320.98		A	0.3
7	☐	1.000		7941317.90		A	0.8
8	☐	1.000		7754125.51		A	0.9
9	☐	1.000		7561975.62		A	1.1

45 Sc (ISTD) [No Gas]

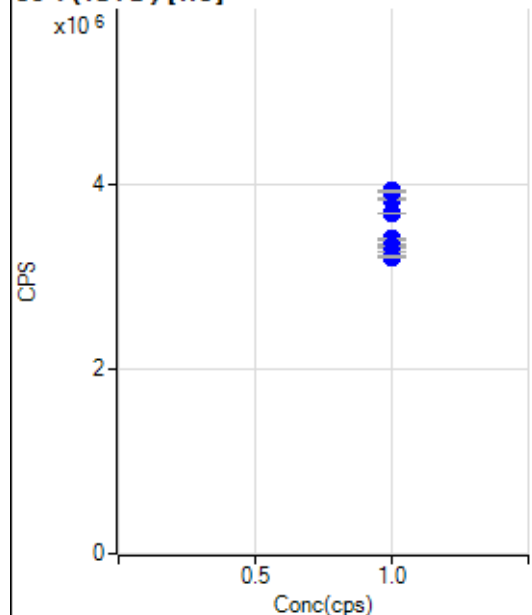
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		15834830.04		A	0.4
2	☐	1.000		15546582.81		A	0.9
3	☐	1.000		16720615.65		A	2.6
4	☐	1.000		14948194.08		A	0.5
5	☐	1.000		13867079.30		A	1.1
6	☐	1.000		13156872.78		A	0.2
7	☐	1.000		13096303.68		A	0.6
8	☐	1.000		12790130.15		A	0.9
9	☐	1.000		12585316.08		A	0.9

45 Sc (ISTD) [He]

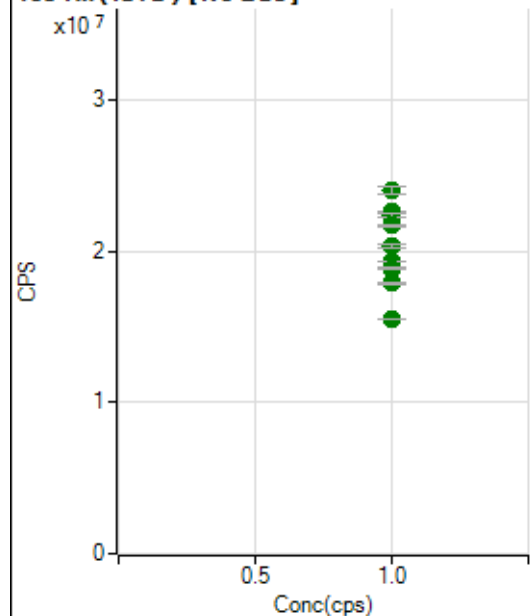
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		725864.53		P	0.3
2	☐	1.000		741731.56		P	0.6
3	☐	1.000		740132.26		P	0.6
4	☐	1.000		686986.21		P	0.4
5	☐	1.000		621247.80		P	0.2
6	☐	1.000		608270.02		P	0.8
7	☐	1.000		603986.25		P	0.5
8	☐	1.000		604280.53		P	0.3
9	☐	1.000		632422.91		P	0.3

89 Y (ISTD) [No Gas]

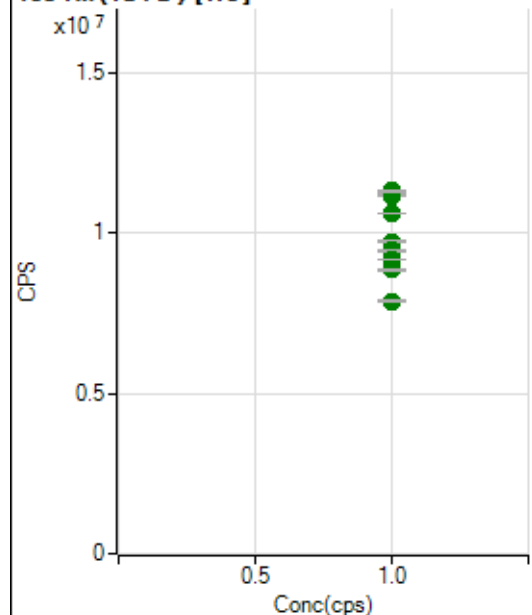
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		24816285.19		A	0.7
2	☐	1.000		24645280.75		A	0.8
3	☐	1.000		26166253.50		A	1.9
4	☐	1.000		23900354.37		A	0.9
5	☐	1.000		22734527.16		A	0.9
6	☐	1.000		21895353.84		A	0.5
7	☐	1.000		21860192.45		A	0.7
8	☐	1.000		21218822.32		A	1.5
9	☐	1.000		19940051.23		A	0.1

89 Y (ISTD) [He]

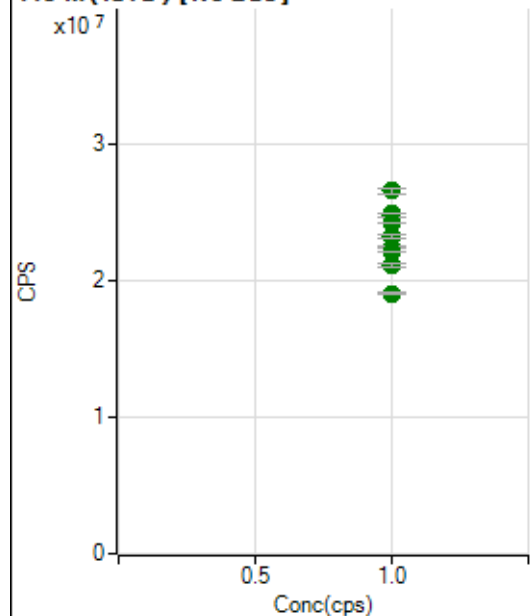
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3834865.15		P	0.8
2	☐	1.000		3921498.69		P	0.6
3	☐	1.000		3917255.91		P	0.7
4	☐	1.000		3681120.36		P	0.3
5	☐	1.000		3399052.90		P	0.3
6	☐	1.000		3329570.78		P	0.5
7	☐	1.000		3310418.70		P	0.7
8	☐	1.000		3263898.49		P	0.4
9	☐	1.000		3207895.09		P	0.7

103 Rh (ISTD) [No Gas]

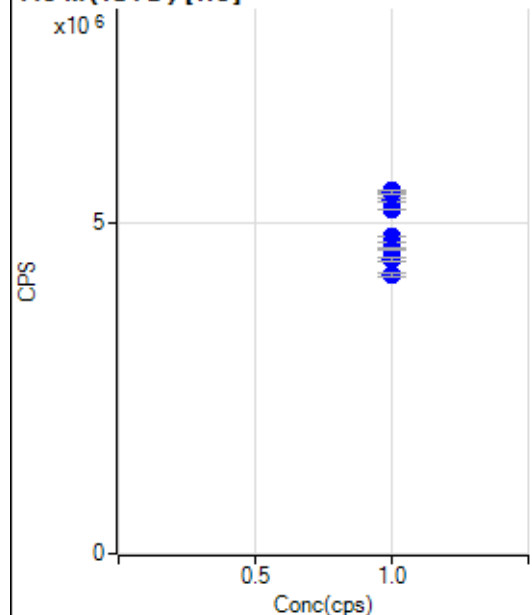
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		22661161.10		A	0.5
2	☐	1.000		22407448.07		A	0.8
3	☐	1.000		24022432.66		A	2.2
4	☐	1.000		21716881.04		A	0.6
5	☐	1.000		20331239.52		A	1.4
6	☐	1.000		19331042.10		A	0.4
7	☐	1.000		18883158.06		A	0.3
8	☐	1.000		17911100.23		A	1.1
9	☐	1.000		15543534.03		A	0.5

103 Rh (ISTD) [He]

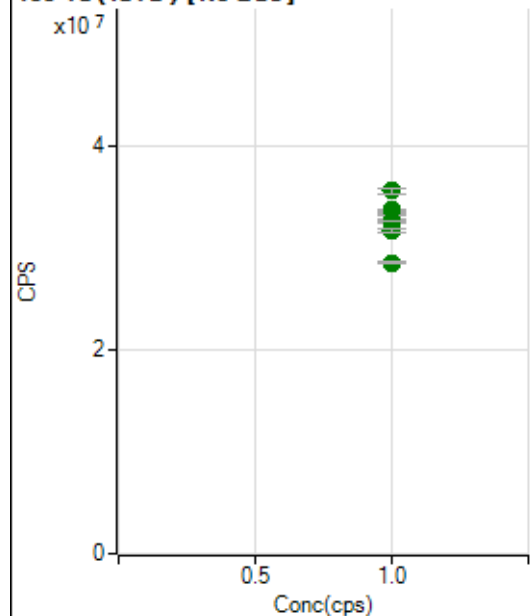
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11172358.58		A	0.2
2	☐	1.000		11235246.36		A	0.2
3	☐	1.000		11330763.72		A	0.3
4	☐	1.000		10611789.70		A	0.2
5	☐	1.000		9749352.42		A	0.4
6	☐	1.000		9486374.65		A	0.7
7	☐	1.000		9193949.03		A	0.4
8	☐	1.000		8870751.74		A	0.6
9	☐	1.000		7891210.02		A	0.4

115 In (ISTD) [No Gas]

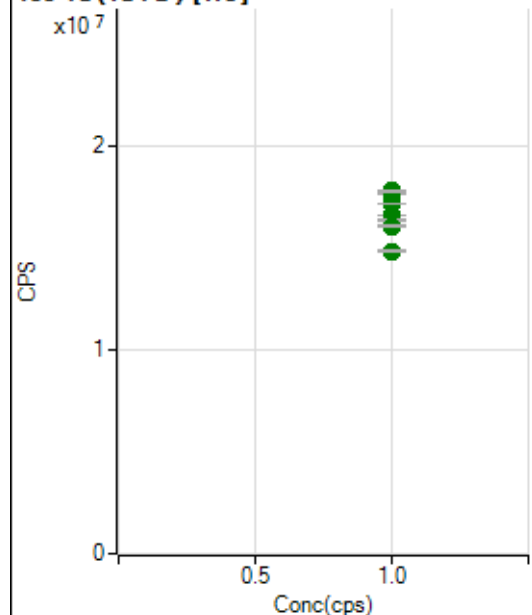
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		24891779.78		A	0.2
2	☐	1.000		24796757.53		A	0.9
3	☐	1.000		26579438.52		A	1.6
4	☐	1.000		24211868.87		A	0.2
5	☐	1.000		23220716.26		A	1.2
6	☐	1.000		22452089.21		A	0.5
7	☐	1.000		22130211.80		A	0.5
8	☐	1.000		21133506.81		A	0.9
9	☐	1.000		19080663.97		A	0.5

115 In (ISTD) [He]

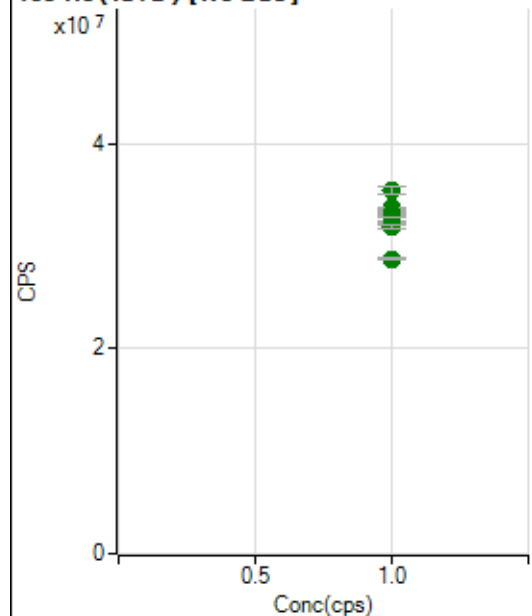
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5364331.57		P	0.7
2	☐	1.000		5498319.96		P	0.5
3	☐	1.000		5473963.51		P	0.7
4	☐	1.000		5215157.99		P	0.2
5	☐	1.000		4819306.58		P	0.1
6	☐	1.000		4725136.56		P	0.1
7	☐	1.000		4619054.69		P	0.6
8	☐	1.000		4459391.00		P	0.8
9	☐	1.000		4227198.05		P	0.8

159 Tb (ISTD) [No Gas]

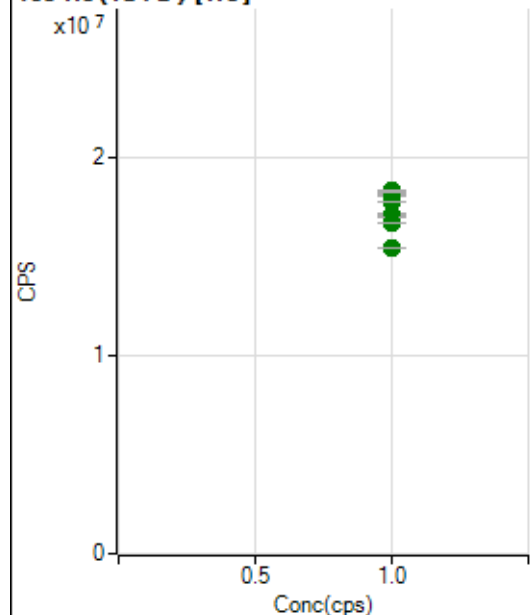
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		33738602.00		A	0.3
2	☐	1.000		33466726.45		A	0.7
3	☐	1.000		35529750.86		A	1.8
4	☐	1.000		33099227.56		A	0.1
5	☐	1.000		32663688.68		A	0.5
6	☐	1.000		32419657.29		A	0.7
7	☐	1.000		32602463.68		A	0.4
8	☐	1.000		31666800.36		A	1.3
9	☐	1.000		28524016.52		A	0.5

159 Tb (ISTD) [He]

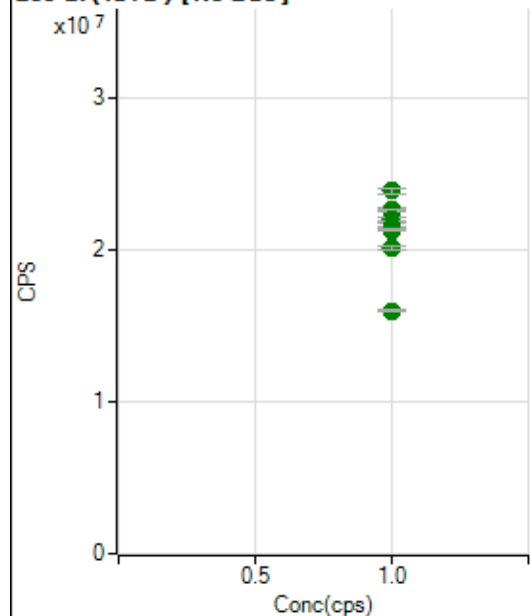
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		17745142.79		A	0.5
2	☐	1.000		17722622.10		A	0.6
3	☐	1.000		17839159.32		A	0.3
4	☐	1.000		17196566.69		A	0.3
5	☐	1.000		16611739.89		A	0.1
6	☐	1.000		16448520.72		A	0.2
7	☐	1.000		16408614.48		A	0.1
8	☐	1.000		16102635.73		A	0.3
9	☐	1.000		14880823.95		A	0.3

165 Ho (ISTD) [No Gas]

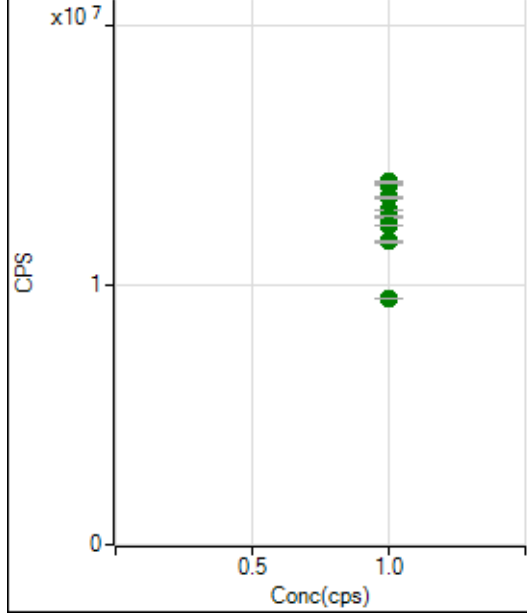
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		33664491.72		A	0.7
2	☐	1.000		33213555.95		A	0.8
3	☐	1.000		35350024.75		A	2.1
4	☐	1.000		32956794.14		A	0.9
5	☐	1.000		32851032.33		A	0.3
6	☐	1.000		32336829.54		A	0.3
7	☐	1.000		32796912.54		A	0.5
8	☐	1.000		31819685.78		A	1.0
9	☐	1.000		28753257.59		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		18090590.70		A	0.1
2	☐	1.000		18281849.45		A	0.7
3	☐	1.000		18352120.14		A	0.4
4	☐	1.000		17779580.57		A	0.3
5	☐	1.000		17166638.91		A	0.5
6	☐	1.000		17094654.88		A	0.2
7	☐	1.000		17036395.58		A	0.4
8	☐	1.000		16750865.17		A	0.2
9	☐	1.000		15437048.38		A	0.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		22584421.33		A	1.1
2	☐	1.000		22529929.67		A	0.7
3	☐	1.000		23851987.98		A	1.8
4	☐	1.000		22000758.70		A	1.1
5	☐	1.000		21801075.09		A	0.3
6	☐	1.000		21478156.07		A	0.1
7	☐	1.000		21249559.27		A	0.6
8	☐	1.000		20047090.95		A	1.2
9	☐	1.000		15988055.59		A	0.2

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		13835882.99		A	0.1
2	☐	1.000		13893704.79		A	0.3
3	☐	1.000		13985090.07		A	0.7
4	☐	1.000		13398119.66		A	0.4
5	☐	1.000		12891256.33		A	0.2
6	☐	1.000		12633957.87		A	0.3
7	☐	1.000		12292203.01		A	0.3
8	☐	1.000		11683627.88		A	0.2
9	☐	1.000		9471755.90		A	0.1

US EPA Tune Check Sample Report

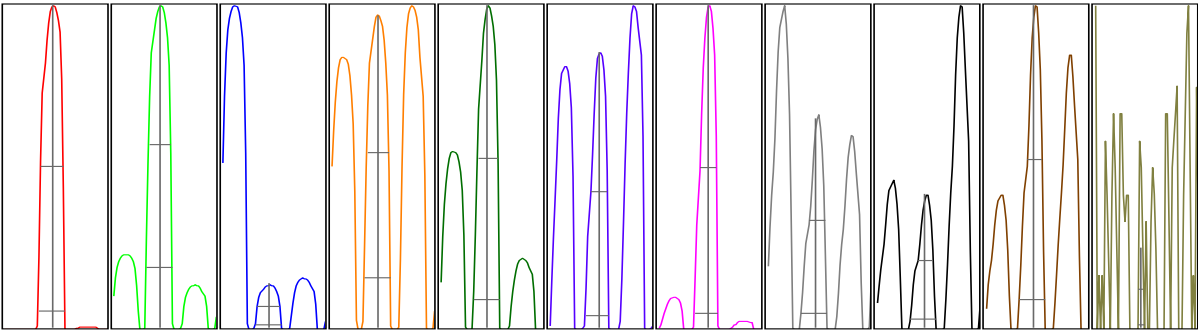
Batch Folder D:\ICP-MS Data\P7041819.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	26736	0.69	5.00	
24	433292	0.42	5.00	
25	60075	0.50	5.00	
26	68042	0.60	5.00	
59	167660	0.56	5.00	
113	21502	0.96	5.00	
115	258457	0.62	5.00	
206	63714	1.12	5.00	
207	59050	0.99	5.00	
208	139350	0.52	5.00	
220	0	86.40		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	26906	26716	26535	26943	26578
24	434554	431831	431156	435577	433343
25	60089	59769	59819	60507	60188
26	68126	68025	67527	68651	67881
59	167234	166930	166839	168896	168401
113	21348	21392	21333	21794	21641
115	258059	257436	257176	261155	258457
206	62810	63566	63340	64551	64301
207	58476	58898	58623	59914	59342
208	138765	139095	138714	140380	139797
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	43424	8.95	8.9 - 9.1		0.783	0.900	
24	699095	23.90	23.9 - 24.1		0.749	0.900	
25	95489	24.90	24.9 - 25.1		0.749	0.900	
26	109939	25.90	25.9 - 26.1		0.755	0.900	
59	293238	58.90	58.9 - 59.1		0.751	0.900	
113	43646	113.00	112.9 - 113.1		0.682	0.900	
115	522174	115.00	114.9 - 115.1		0.682	0.900	
206	133959	205.95	205.9 - 206.1		0.738	0.900	
207	123294	206.95	206.9 - 207.1		0.726	0.900	
208	296679	207.95	207.9 - 208.1		0.731	0.900	
220	0	219.90	-		0.196		

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	8.8	V	Deflect	13.6	V
Extract 2	-115.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	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	160	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	41515	0.28	
89	153817	0.49	
205	58040	0.49	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	41334	41517	41512	41663	41548
89	152858	153260	154407	153937	154624
205	57624	57988	58030	58405	58154

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	9.1	V	Deflect	1.6	V
Extract 2	-125.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination		5.0 V
He Flow	4.1	mL/min	OctP RF	200	V			