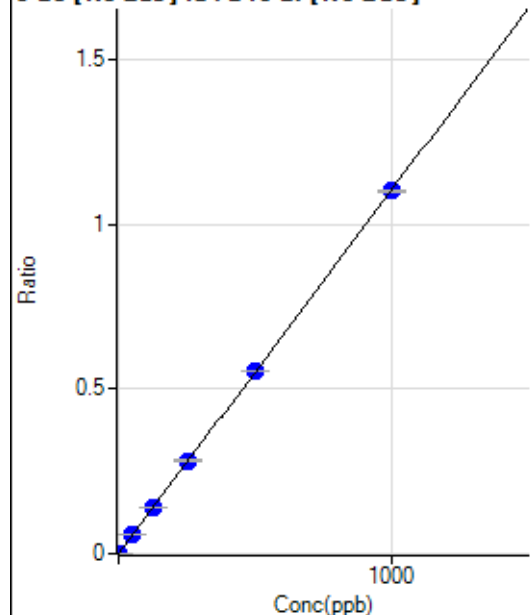


Batch Folder: D:\ICP-MS Data\P7021318-MS.b\
Analysis File: P7021318-MS.batch.bin
DA Date-Time: 2018-02-13 19:19:42
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-02-13 13:17:21
2			
3	005CALS.d	S02	2018-02-13 13:25:22
4	006CALS.d	S03	2018-02-13 13:29:13
5	007CALS.d	S04	2018-02-13 13:33:17
6	008CALS.d	S05	2018-02-13 13:37:03
7	009CALS.d	S06	2018-02-13 13:40:46
8	010CALS.d	S07	2018-02-13 13:44:28
9	011CALS.d	S08	2018-02-13 13:48:11

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	98.15	0.0001	P	25.7
2	☐	0.100					
3	☐	1.000	0.978	1759.41	0.0011	P	7.0
4	☐	50.000	50.655	86939.06	0.0561	P	1.6
5	☐	125.000	125.993	221729.69	0.1393	P	0.9
6	☐	250.000	255.392	429184.73	0.2824	P	2.1
7	☐	500.000	500.833	817282.40	0.5536	P	0.2
8	☐	1000.000	998.078	1565249.77	1.1033	P	0.7
9	☐			485.21	0.0004	P	27.8

$$y = 0.0011 * x + 6.1502E-005$$

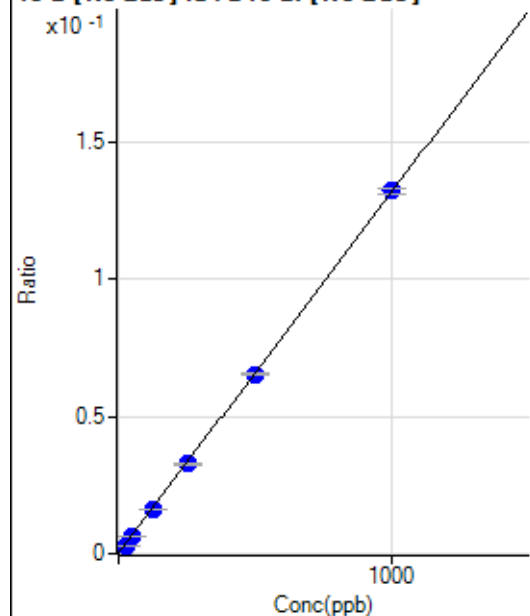
$$R = 1.0000$$

$$DL = 0.04292$$

$$BEC = 0.05564$$

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	200.01	0.0001	P	29.5
2	☐	2.500					
3	☐	25.000	21.651	4584.22	0.0030	P	0.9
4	☐	50.000	47.936	9989.79	0.0064	P	3.8
5	☐	125.000	121.636	25689.51	0.0161	P	2.2
6	☐	250.000	247.287	49674.21	0.0327	P	3.2
7	☐	500.000	495.777	96543.53	0.0654	P	1.4
8	☐	1000.000	1003.397	187613.73	0.1322	P	1.3
9	☐			7535.52	0.0055	P	8.2

$$y = 1.3167E-004 * x + 1.2538E-004$$

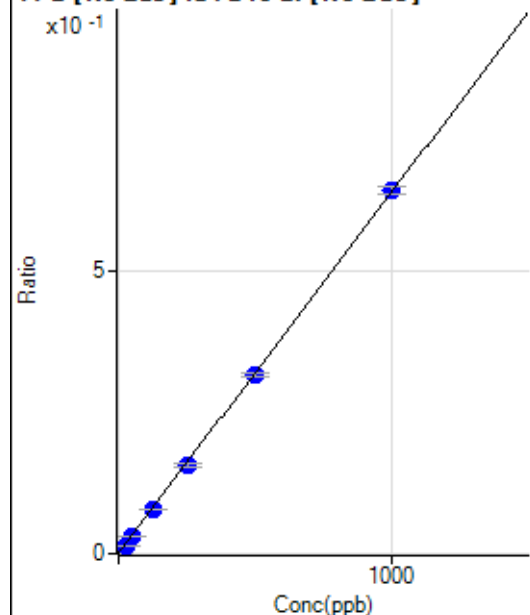
$$R = 1.0000$$

$$DL = 0.8441$$

$$BEC = 0.9523$$

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	1161.21	0.0007	P	2.7
2	☐	2.500					
3	☐	25.000	21.241	22061.25	0.0143	P	1.5
4	☐	50.000	47.970	48754.83	0.0314	P	1.1
5	☐	125.000	119.815	123196.94	0.0774	P	1.5
6	☐	250.000	244.784	239164.74	0.1574	P	4.6
7	☐	500.000	495.148	468843.94	0.3176	P	2.4
8	☐	1000.000	1004.574	913187.18	0.6437	P	2.0
9	☐			36640.16	0.0265	P	9.2

$$y = 6.4000\text{E-}004 * x + 7.2745\text{E-}004$$

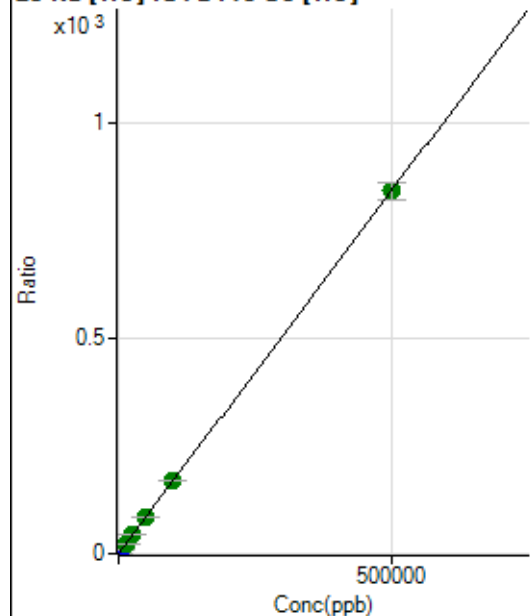
$$R = 1.0000$$

$$DL = 0.09319$$

$$BEC = 1.137$$

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	23099.29	0.0866	P	2.5
2	☐	50.000					
3	☐	500.000	472.081	239930.95	0.8835	P	2.2
4	☐	5000.000	5452.916	2429123.27	9.2923	P	2.7
5	☐	12500.000	13148.826	5928645.27	22.2847	A	1.1
6	☐	25000.000	25989.472	11817268.58	43.9625	A	2.1
7	☐	50000.000	50366.995	23218043.92	85.1172	A	0.5
8	☐	100000.00	100106.56	46086465.27	169.0885	A	0.6
9	☐	500000.00	499871.79	224833191.1	843.9805	A	4.7

$$y = 0.0017 * x + 0.0866$$

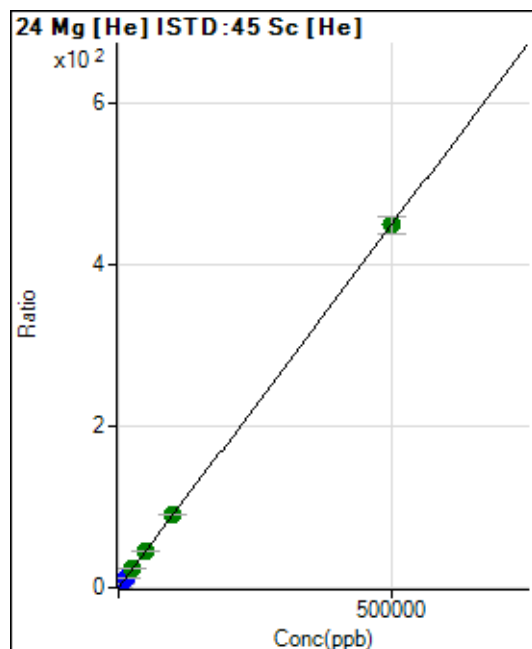
$$R = 1.0000$$

$$DL = 3.831$$

$$BEC = 51.27$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	275.02	0.0010	P	9.1
2	☐	50.000					
3	☐	500.000	474.026	115990.91	0.4271	P	1.5
4	☐	5000.000	5511.233	1295194.30	4.9547	P	2.7
5	☐	12500.000	13331.203	3188133.53	11.9834	P	0.9
6	☐	25000.000	26113.245	6309191.16	23.4723	A	2.4
7	☐	50000.000	50547.379	12393469.20	45.4342	A	0.1
8	☐	100000.00	99894.092	24472224.68	89.7883	A	0.8
9	☐	500000.00	499884.91	119699370.7	449.3098	A	4.6

$$y = 8.9882\text{E-}004 * x + 0.0010$$

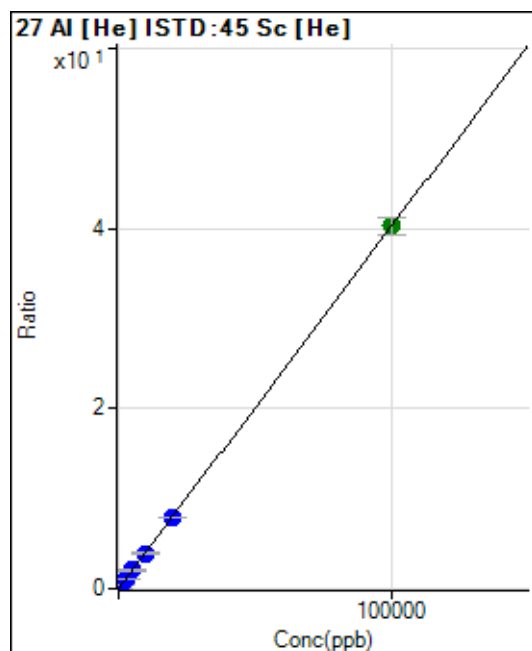
$$R = 1.0000$$

$$DL = 0.3148$$

$$BEC = 1.147$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0001	P	67.8
2	☐	2.000					
3	☐	20.000	17.942	1986.32	0.0073	P	9.2
4	☐	1000.000	1063.087	111801.84	0.4277	P	3.3
5	☐	2500.000	2551.451	273044.46	1.0263	P	1.4
6	☐	5000.000	5063.953	547505.34	2.0369	P	2.4
7	☐	10000.000	9791.576	1074320.63	3.9385	P	0.8
8	☐	20000.000	19521.322	2140099.96	7.8519	P	0.7
9	☐	100000.00	100111.46	10727511.52	40.2667	A	4.5

$$y = 4.0222\text{E-}004 * x + 1.0350\text{E-}004$$

$$R = 1.0000$$

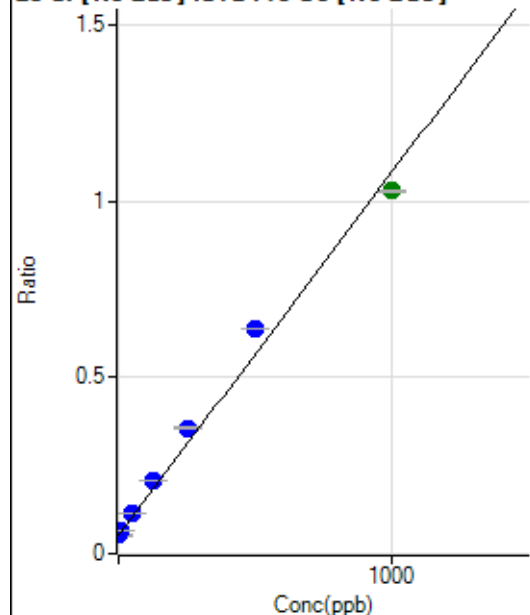
$$DL = 0.5235$$

$$BEC = 0.2573$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	291802.93	0.0518	P	1.5
2	☐	1.000					
3	☐	10.000	15.001	374140.58	0.0673	P	0.4
4	☐	50.000	61.540	632251.38	0.1151	P	1.3
5	☐	125.000	151.133	1147821.27	0.2072	P	0.8
6	☐	250.000	296.822	1987216.32	0.3571	P	3.0
7	☐	500.000	568.892	3576116.79	0.6368	P	0.3
8	☐	1000.000	949.955	5712758.46	1.0287	A	0.7
9	☐			935200.97	0.1744	P	0.7

$$y = 0.0010 * x + 0.0518$$

$$R = 0.9950$$

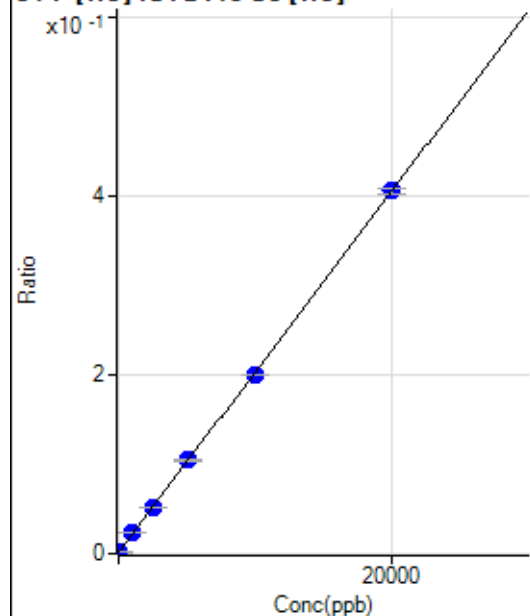
$$DL = 2.333$$

$$BEC = 50.4$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-0.217	305.57	0.0011	P	15.0
2	☐	0.000					
3	☐	0.000	0.217	313.90	0.0012	P	10.9
4	☐	1000.000	1084.065	6023.72	0.0230	P	3.2
5	☐	2500.000	2507.544	13779.15	0.0518	P	1.3
6	☐	5000.000	5145.136	28241.43	0.1051	P	2.1
7	☐	10000.000	9851.297	54586.81	0.2001	P	0.6
8	☐	20000.000	20032.921	110585.28	0.4057	P	1.3
9	☐			358.35	0.0013	P	15.8

$$y = 2.0196E-005 * x + 0.0011$$

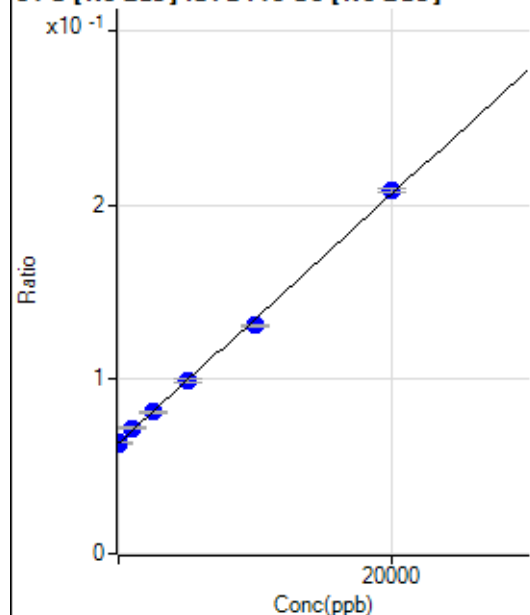
$$R = 0.9999$$

$$DL = 22.09$$

$$BEC = 56.94$$

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	-69.625	354602.93	0.0630	P	1.8
2	☐	0.000					
3	☐	0.000	69.625	355907.73	0.0640	P	0.4
4	☐	1000.000	1159.372	394095.91	0.0718	P	1.6
5	☐	2500.000	2514.976	451038.56	0.0814	P	1.2
6	☐	5000.000	5043.254	553759.43	0.0995	P	2.4
7	☐	10000.000	9456.885	735625.39	0.1310	P	1.0
8	☐	20000.000	20250.903	1155542.30	0.2081	P	1.0
9	☐			300938.78	0.0561	P	0.9

$$y = 7.1408\text{E-}006 * x + 0.0635$$

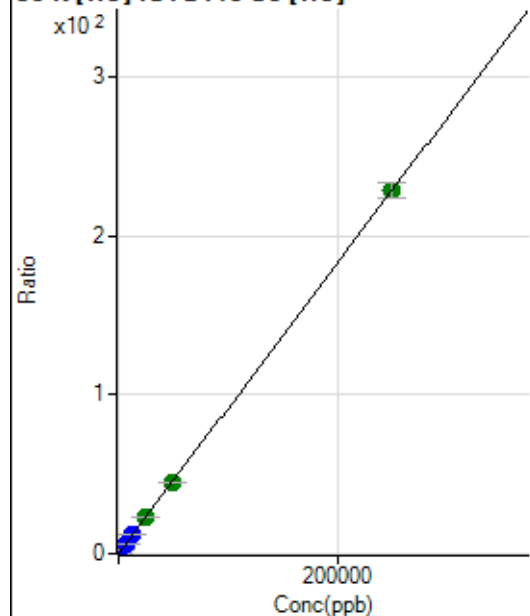
$$R = 0.9994$$

$$DL = 284.3$$

$$BEC = 8889$$

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	31203.18	0.1170	P	2.4
2	☐	50.000					
3	☐	500.000	455.771	144647.61	0.5326	P	1.1
4	☐	2500.000	3206.531	794921.99	3.0410	P	2.9
5	☐	6250.000	6299.179	1559270.41	5.8611	P	1.4
6	☐	12500.000	12783.533	3164859.27	11.7742	P	2.3
7	☐	25000.000	24547.273	6137922.05	22.5014	A	0.3
8	☐	50000.000	49235.087	12268956.53	45.0140	A	0.4
9	☐	250000.00	250175.87	60813497.19	228.2501	A	4.2

$$y = 9.1189\text{E-}004 * x + 0.1170$$

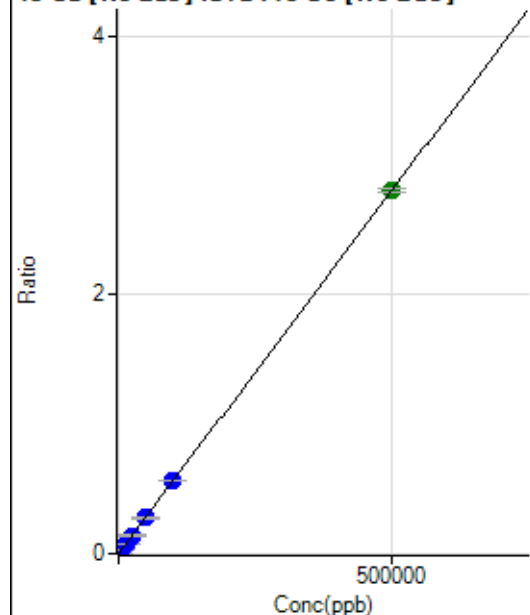
$$R = 1.0000$$

$$DL = 9.241$$

$$BEC = 128.3$$

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	141.67	0.0000	P	12.7
2	☐	50.000					
3	☐	500.000	443.844	13968.21	0.0025	P	4.1
4	☐	5000.000	4963.845	152851.86	0.0278	P	0.4
5	☐	12500.000	12401.895	384810.54	0.0695	P	0.6
6	☐	25000.000	25116.583	782996.96	0.1407	P	2.7
7	☐	50000.000	49171.381	1546373.73	0.2754	P	0.9
8	☐	100000.00	99874.968	3106212.05	0.5593	P	0.6
9	☐	500000.00	500104.90	15017207.46	2.8007	A	0.9

$$y = 5.6001\text{E-}006 * x + 2.5177\text{E-}005$$

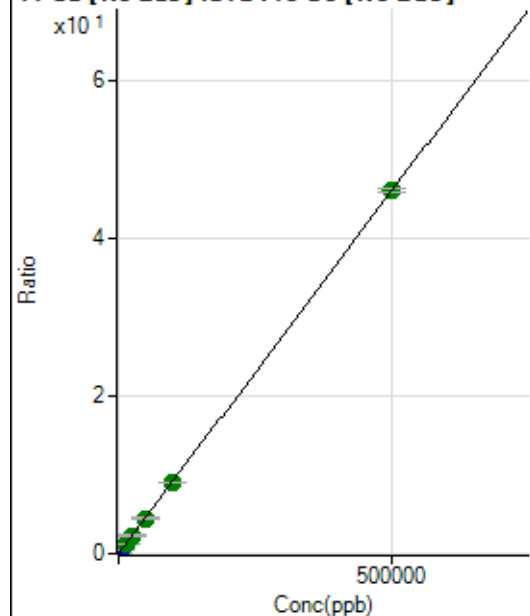
$$R = 1.0000$$

$$DL = 1.714$$

$$BEC = 4.496$$

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	12600.31	0.0022	P	4.2
2	☐	50.000					
3	☐	500.000	447.244	241468.34	0.0434	P	0.7
4	☐	5000.000	4929.196	2504511.82	0.4559	P	0.6
5	☐	12500.000	12339.023	6302613.81	1.1379	A	0.7
6	☐	25000.000	24883.867	12760091.60	2.2926	A	2.7
7	☐	50000.000	48897.378	25284252.47	4.5029	A	0.9
8	☐	100000.00	98596.674	50409149.04	9.0773	A	0.6
9	☐	500000.00	500401.51	246969824.9	46.0603	A	1.2

$$y = 9.2042\text{E-}005 * x + 0.0022$$

$$R = 1.0000$$

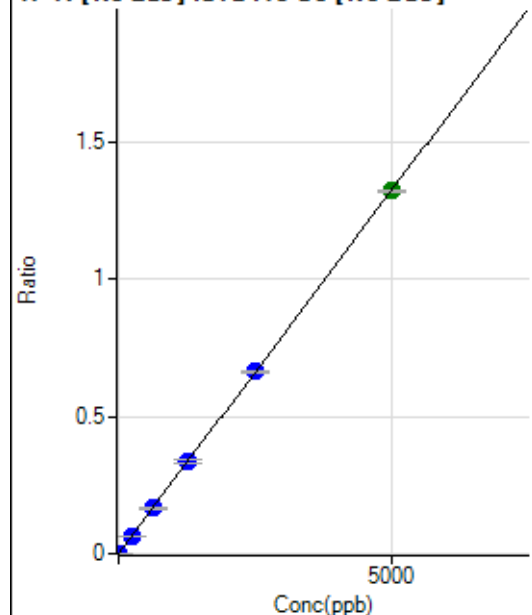
$$DL = 3.09$$

$$BEC = 24.32$$

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	91.67	0.0000	P	17.4
2	☐	0.500					
3	☐	5.000	4.679	6974.11	0.0013	P	3.6
4	☐	250.000	249.075	361910.87	0.0659	P	0.4
5	☐	625.000	623.547	913316.52	0.1649	P	0.9
6	☐	1250.000	1268.456	1866896.20	0.3354	P	2.9
7	☐	2500.000	2502.605	3716033.89	0.6618	P	1.0
8	☐	5000.000	4994.312	7334112.84	1.3207	A	0.8
9	☐			2016.89	0.0004	P	2.5

$$y = 2.6443\text{E-}004 * x + 1.6266\text{E-}005$$

$$R = 1.0000$$

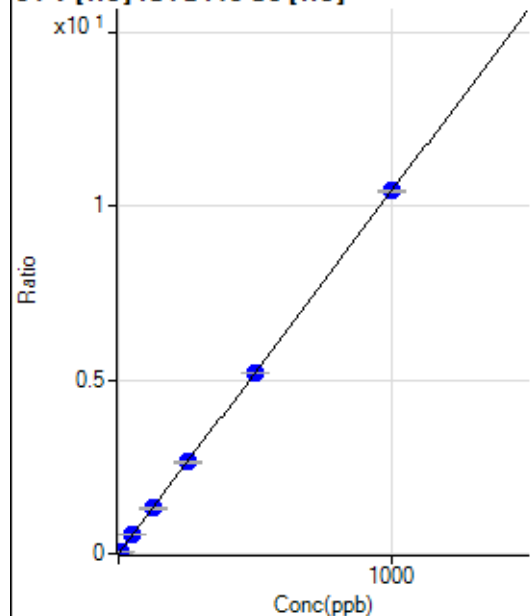
$$DL = 0.03205$$

$$BEC = 0.06151$$

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	31.11	0.0001	P	37.1
2	☐	0.500					
3	☐	5.000	4.518	12819.06	0.0472	P	1.6
4	☐	50.000	51.670	140767.06	0.5386	P	3.2
5	☐	125.000	125.261	347297.74	1.3054	P	1.2
6	☐	250.000	252.677	707783.40	2.6332	P	2.3
7	☐	500.000	497.443	1414025.22	5.1838	P	0.4
8	☐	1000.000	1000.496	2841736.56	10.4260	P	0.2
9	☐			783.37	0.0029	P	6.8

$$y = 0.0104 * x + 1.1727\text{E-}004$$

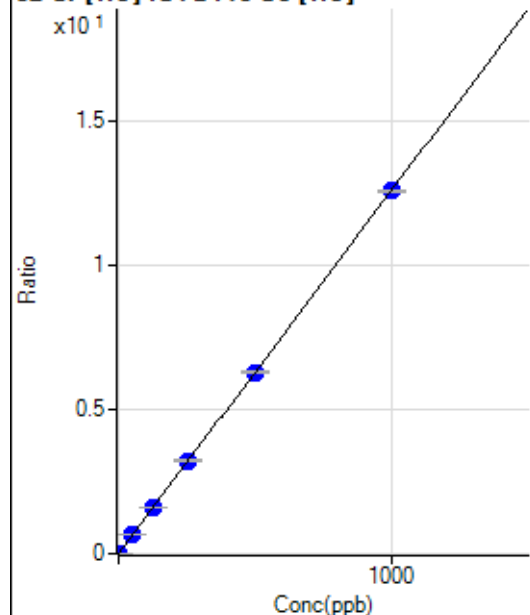
$$R = 1.0000$$

$$DL = 0.01252$$

$$BEC = 0.01125$$

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	521.13	0.0020	P	8.4
2	☐	0.200					
3	☐	2.000	1.991	7329.70	0.0270	P	4.2
4	☐	50.000	52.703	173786.82	0.6648	P	3.0
5	☐	125.000	126.748	424632.68	1.5962	P	1.5
6	☐	250.000	255.027	862763.07	3.2096	P	2.0
7	☐	500.000	499.102	1712925.50	6.2796	P	0.6
8	☐	1000.000	998.839	3424725.33	12.5651	P	0.5
9	☐			64180.20	0.2409	P	4.4

$$y = 0.0126 * x + 0.0020$$

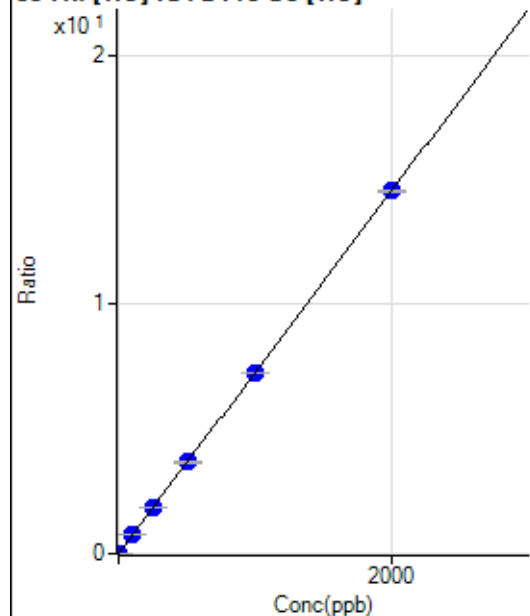
$$R = 1.0000$$

$$DL = 0.03934$$

$$BEC = 0.1553$$

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	45.56	0.0002	P	32.9
2	☐	0.100					
3	☐	1.000	0.963	1947.94	0.0072	P	5.7
4	☐	100.000	104.221	198133.57	0.7580	P	2.8
5	☐	250.000	251.381	486308.17	1.8280	P	1.3
6	☐	500.000	508.096	993091.33	3.6945	P	2.1
7	☐	1000.000	995.111	1973695.73	7.2356	P	0.6
8	☐	2000.000	2000.037	3963673.14	14.5424	P	0.3
9	☐			12066.23	0.0453	P	6.2

$$y = 0.0073 * x + 1.7091E-004$$

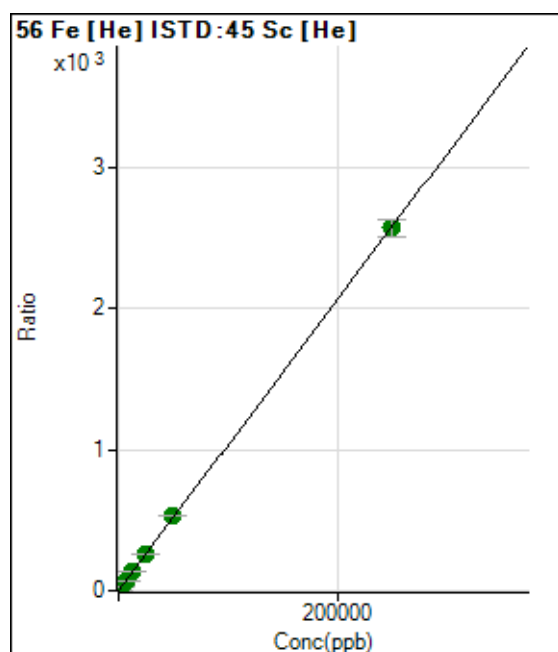
$$R = 1.0000$$

$$DL = 0.0232$$

$$BEC = 0.02351$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2642.91	0.0099	P	5.4
2	☐	5.000					
3	☐	50.000	47.820	136622.20	0.5031	P	1.3
4	☐	2500.000	2703.426	7290694.72	27.8901	A	2.7
5	☐	6250.000	6559.407	17999522.39	67.6565	A	1.0
6	☐	12500.000	13193.646	36576629.98	136.0748	A	2.2
7	☐	25000.000	25689.575	72270591.43	264.9443	A	0.6
8	☐	50000.000	51167.267	143826477.2	527.6936	A	0.5
9	☐	250000.00	249653.13	685871496.8	2,574.661	A	4.7

$$y = 0.0103 * x + 0.0099$$

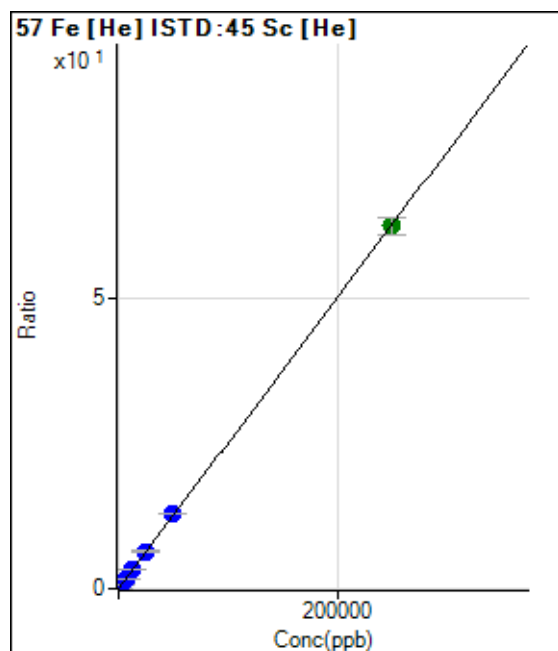
$$R = 1.0000$$

$$DL = 0.154$$

$$BEC = 0.9596$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	188.90	0.0007	P	8.2
2	☐	5.000					
3	☐	50.000	48.486	3493.12	0.0129	P	1.7
4	☐	2500.000	2703.148	177305.75	0.6783	P	2.9
5	☐	6250.000	6523.774	435232.23	1.6360	P	1.2
6	☐	12500.000	13148.172	886077.49	3.2964	P	2.2
7	☐	25000.000	25704.501	1757705.45	6.4438	P	0.8
8	☐	50000.000	51526.943	3520469.41	12.9165	P	0.6
9	☐	250000.00	249582.87	16665578.73	62.5612	A	4.8

$$y = 2.5066E-004 * x + 7.0880E-004$$

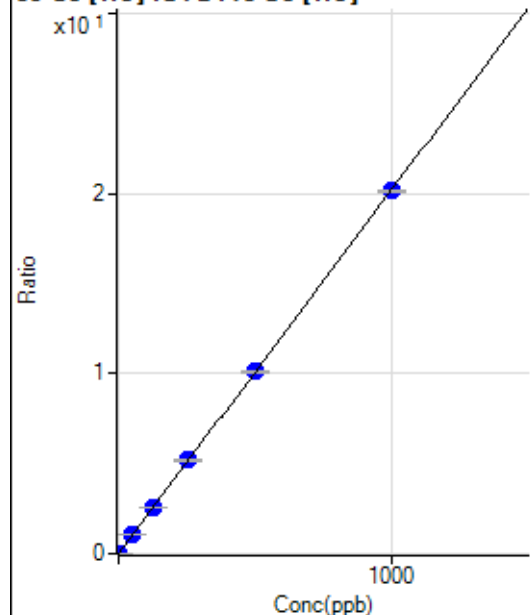
$$R = 1.0000$$

$$DL = 0.6937$$

$$BEC = 2.828$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	226.67	0.0009	P	21.8
2	☐	0.100					
3	☐	1.000	0.971	5556.69	0.0205	P	1.4
4	☐	50.000	52.965	279831.57	1.0705	P	2.8
5	☐	125.000	127.827	687020.76	2.5823	P	0.9
6	☐	250.000	256.873	1394575.00	5.1884	P	2.6
7	☐	500.000	500.662	2758252.18	10.1118	P	0.9
8	☐	1000.000	997.449	5490594.43	20.1444	P	0.2
9	☐			6922.84	0.0260	P	10.2

$$y = 0.0202 * x + 8.5241E-004$$

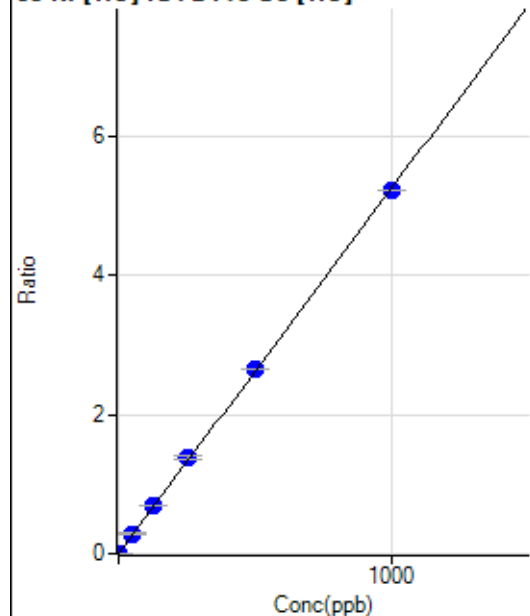
$$R = 1.0000$$

$$DL = 0.02765$$

$$BEC = 0.04221$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	46.67	0.0002	P	20.6
2	☐	0.100					
3	☐	1.000	1.029	1514.55	0.0056	P	2.0
4	☐	50.000	54.825	75265.23	0.2879	P	2.5
5	☐	125.000	130.584	182378.68	0.6855	P	1.0
6	☐	250.000	263.141	371252.28	1.3812	P	2.5
7	☐	500.000	505.057	723082.82	2.6508	P	0.5
8	☐	1000.000	993.247	1420861.51	5.2130	P	0.2
9	☐			17091.26	0.0642	P	6.3

$$y = 0.0052 * x + 1.7533E-004$$

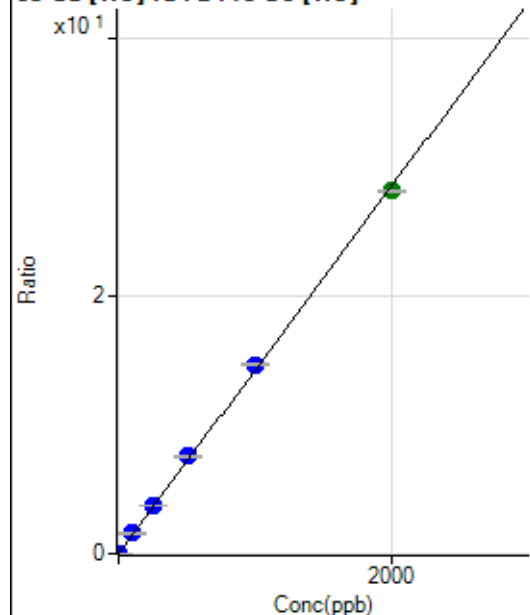
$$R = 0.9999$$

$$DL = 0.02064$$

$$BEC = 0.03341$$

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	2206.87	0.0083	P	3.8
2	☐	0.200					
3	☐	2.000	1.972	9890.13	0.0364	P	1.2
4	☐	100.000	109.765	411662.26	1.5746	P	2.2
5	☐	250.000	264.474	1006248.38	3.7822	P	0.9
6	☐	500.000	531.228	2039813.75	7.5887	P	2.4
7	☐	1000.000	1029.293	4008736.47	14.6960	P	0.6
8	☐	2000.000	1975.249	7684490.16	28.1945	A	0.8
9	☐			12126.30	0.0455	P	7.0

$$y = 0.0143 * x + 0.0083$$

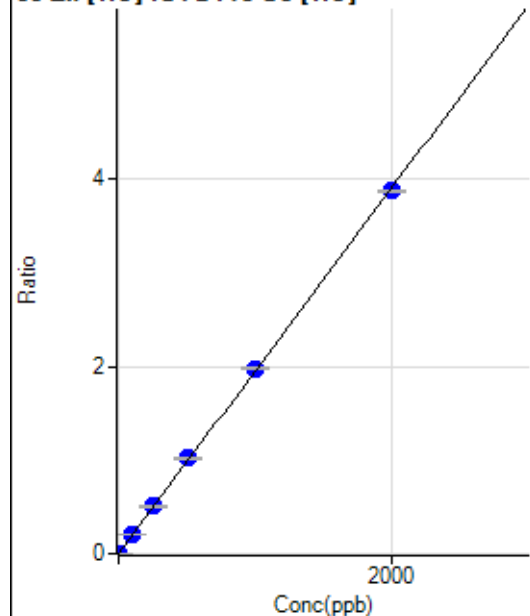
$$R = 0.9997$$

$$DL = 0.06536$$

$$BEC = 0.5799$$

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	155.56	0.0006	P	18.2
2	☐	0.200					
3	☐	2.000	2.181	1313.42	0.0048	P	2.0
4	☐	100.000	107.072	54728.83	0.2093	P	2.2
5	☐	250.000	259.083	134531.38	0.5057	P	2.0
6	☐	500.000	524.690	275132.34	1.0236	P	2.3
7	☐	1000.000	1013.412	539115.57	1.9764	P	0.5
8	☐	2000.000	1985.633	1055325.67	3.8719	P	0.6
9	☐			3257.08	0.0122	P	6.4

$$y = 0.0019 * x + 5.8134E-004$$

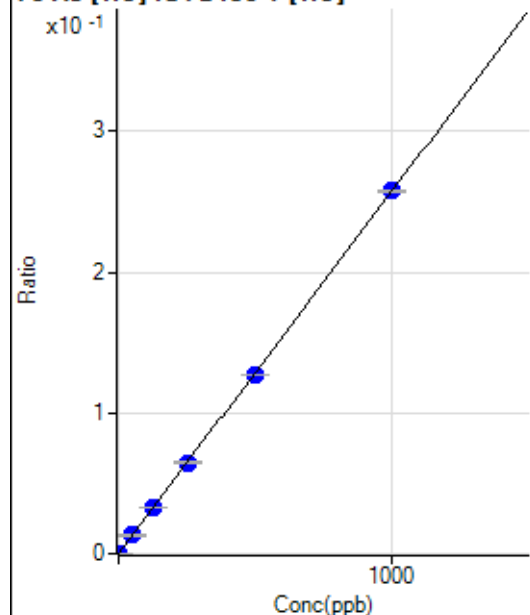
$$R = 0.9999$$

$$DL = 0.1631$$

$$BEC = 0.2982$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.50	0.0000	P	69.0
2	☐	0.100					
3	☐	1.000	0.973	368.52	0.0003	P	13.4
4	☐	50.000	51.107	18411.12	0.0131	P	3.1
5	☐	125.000	125.397	45694.35	0.0323	P	0.7
6	☐	250.000	251.921	94253.88	0.0648	P	1.6
7	☐	500.000	494.567	186920.88	0.1272	P	0.5
8	☐	1000.000	1002.131	374944.49	0.2577	P	0.2
9	☐			206.18	0.0001	P	9.3

$$y = 2.5713\text{E-}004 * x + 7.4872\text{E-}006$$

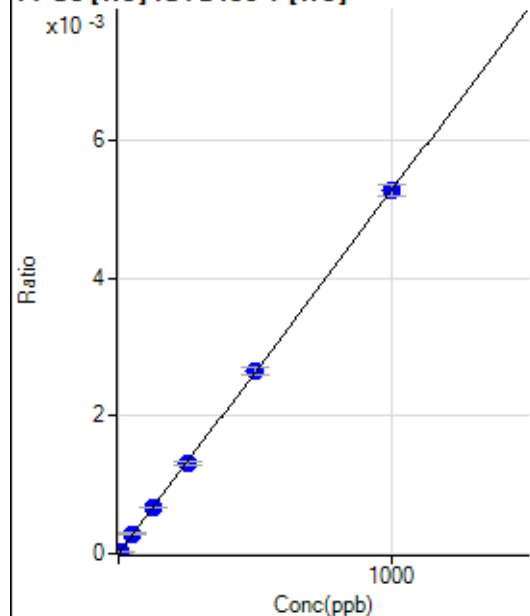
$$R = 1.0000$$

$$DL = 0.06031$$

$$BEC = 0.02912$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.22	0.0000	P	173.2
2	☐	0.500					
3	☐	5.000	3.989	32.22	0.0000	P	17.5
4	☐	50.000	53.612	397.79	0.0003	P	7.6
5	☐	125.000	125.799	941.16	0.0007	P	2.2
6	☐	250.000	250.419	1921.27	0.0013	P	4.5
7	☐	500.000	500.947	3881.69	0.0026	P	4.5
8	☐	1000.000	999.146	7659.91	0.0053	P	3.3
9	☐			5.56	0.0000	P	32.5

$$y = 5.2680\text{E-}006 * x + 1.5422\text{E-}006$$

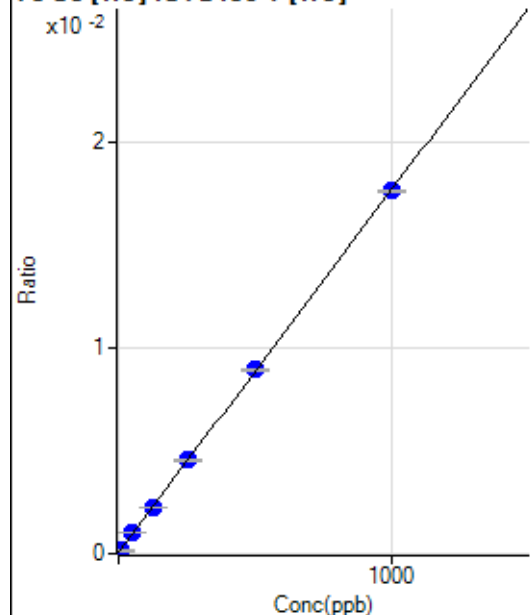
$$R = 1.0000$$

$$DL = 1.521$$

$$BEC = 0.2927$$

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	81.48	0.0001	P	13.1
2	☐	0.500					
3	☐	5.000	4.763	202.47	0.0001	P	9.4
4	☐	50.000	54.488	1427.24	0.0010	P	1.2
5	☐	125.000	123.760	3175.69	0.0022	P	2.2
6	☐	250.000	253.966	6604.03	0.0045	P	2.2
7	☐	500.000	503.869	13151.70	0.0089	P	0.6
8	☐	1000.000	997.006	25680.83	0.0176	P	0.5
9	☐			92.59	0.0001	P	3.7

$$y = 1.7644\text{E-}005 * x + 5.7526\text{E-}005$$

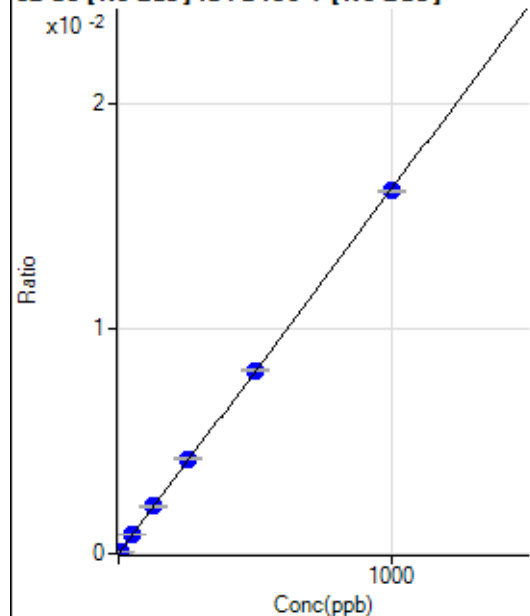
$$R = 1.0000$$

$$DL = 1.28$$

$$BEC = 3.26$$

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	-26.63	0.0000	P	-183.
2	☐	0.500					
3	☐	5.000	4.987	701.47	0.0001	P	3.7
4	☐	50.000	51.736	7387.11	0.0008	P	3.2
5	☐	125.000	129.814	18773.26	0.0021	P	1.3
6	☐	250.000	259.684	38230.36	0.0042	P	1.5
7	☐	500.000	503.561	75233.89	0.0082	P	0.7
8	☐	1000.000	995.110	147184.49	0.0161	P	0.5
9	☐			143.25	0.0000	P	11.1

$$y = 1.6218\text{E-}005 * x - 2.9250\text{E-}006$$

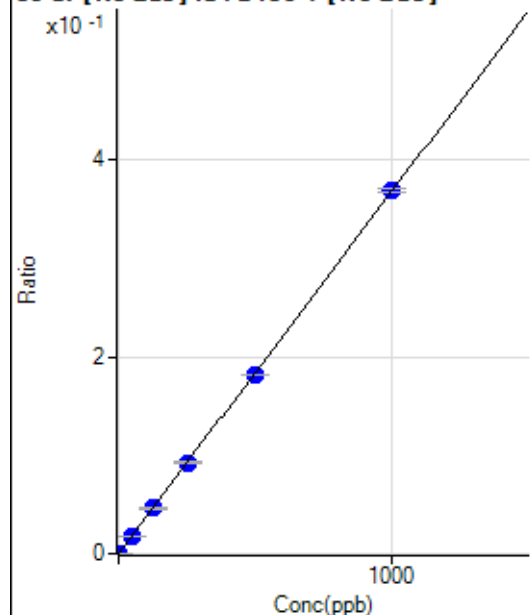
$$R = 0.9999$$

$$DL = 0.9907$$

$$BEC = -0.1804$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	450.03	0.0000	P	6.7
2	☐	0.100					
3	☐	1.000	0.947	3575.62	0.0004	P	6.9
4	☐	50.000	49.393	160808.38	0.0182	P	0.9
5	☐	125.000	124.854	409948.24	0.0459	P	1.1
6	☐	250.000	251.437	839321.06	0.0924	P	2.1
7	☐	500.000	493.764	1671794.06	0.1814	P	0.7
8	☐	1000.000	1002.807	3360176.37	0.3684	P	0.9
9	☐			105146.87	0.0121	P	1.3

$$y = 3.6730E-004 * x + 4.9520E-005$$

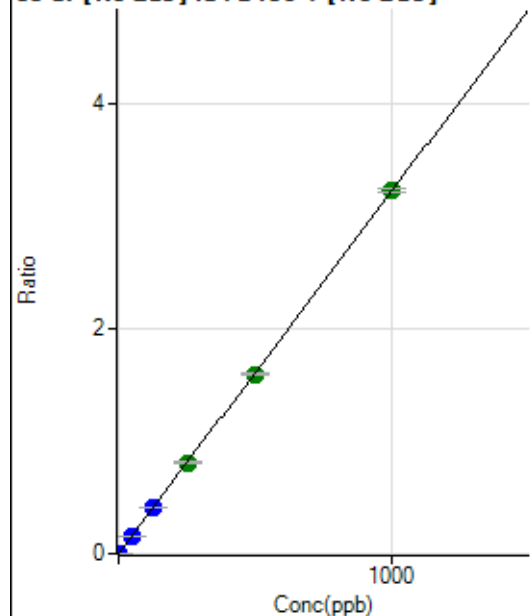
$$R = 1.0000$$

$$DL = 0.0273$$

$$BEC = 0.1348$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	102.78	0.0000	P	49.5
2	☐	0.100					
3	☐	1.000	0.926	26917.72	0.0030	P	0.9
4	☐	50.000	49.577	1410389.31	0.1596	P	1.3
5	☐	125.000	126.156	3625691.79	0.4060	P	1.4
6	☐	250.000	251.776	7360376.03	0.8103	A	2.3
7	☐	500.000	495.510	14697126.37	1.5948	A	0.4
8	☐	1000.000	1001.678	29406260.03	3.2238	A	1.0
9	☐			925451.47	0.1061	P	0.7

$$y = 0.0032 * x + 1.1313E-005$$

$$R = 1.0000$$

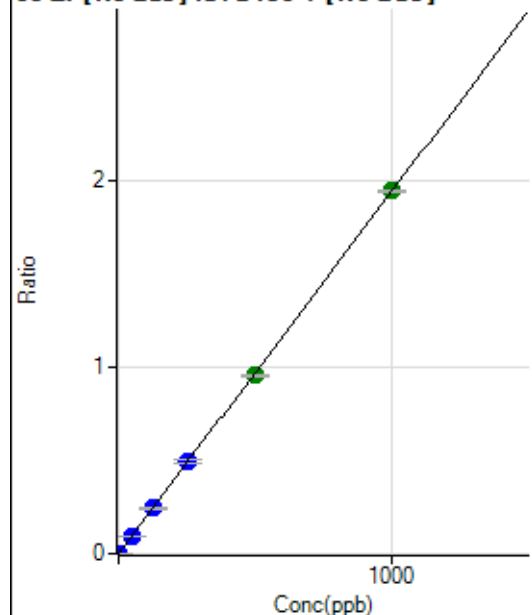
$$DL = 0.005223$$

$$BEC = 0.003515$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	672.27	0.0001	P	9.0
2	☐	0.100					
3	☐	1.000	0.864	15751.05	0.0018	P	3.7
4	☐	50.000	48.683	835409.73	0.0945	P	0.6
5	☐	125.000	125.081	2166957.12	0.2427	P	1.2
6	☐	250.000	254.912	4491266.25	0.4945	P	2.6
7	☐	500.000	492.580	8805017.65	0.9554	A	0.7
8	☐	1000.000	1002.538	17736890.16	1.9445	A	0.8
9	☐			6107.11	0.0007	P	0.3

$$y = 0.0019 * x + 7.3953E-005$$

$$R = 0.9999$$

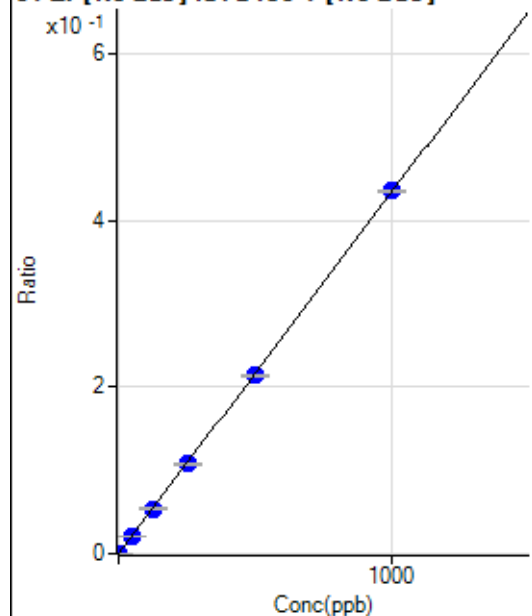
$$DL = 0.01033$$

$$BEC = 0.03813$$

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	161.12	0.0000	P	23.5
2	☐	0.100					
3	☐	1.000	0.814	3333.87	0.0004	P	0.6
4	☐	50.000	48.056	184239.32	0.0208	P	0.2
5	☐	125.000	124.384	481373.06	0.0539	P	2.1
6	☐	250.000	249.178	980812.09	0.1080	P	2.3
7	☐	500.000	492.508	1966727.93	0.2134	P	1.0
8	☐	1000.000	1004.126	3968726.35	0.4351	P	0.3
9	☐			1391.79	0.0002	P	1.4

$$y = 4.3328E-004 * x + 1.7717E-005$$

$$R = 1.0000$$

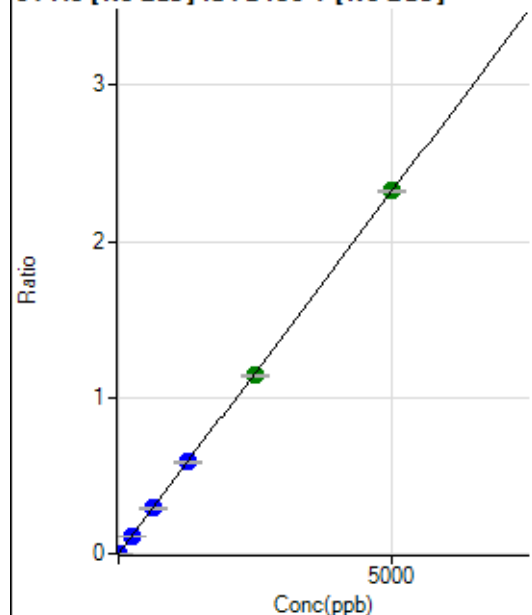
$$DL = 0.02888$$

$$BEC = 0.04089$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	313.91	0.0000	P	20.2
2	☐	0.500					
3	☐	5.000	4.377	18571.07	0.0021	P	2.7
4	☐	250.000	244.415	1001787.60	0.1133	P	0.8
5	☐	625.000	624.789	2586460.28	0.2897	P	1.3
6	☐	1250.000	1271.330	5352973.60	0.5894	P	2.6
7	☐	2500.000	2463.733	10524956.31	1.1421	A	0.9
8	☐	5000.000	5013.107	21196952.04	2.3238	A	0.8
9	☐			16640.86	0.0019	P	8.1

$$y = 4.6354E-004 * x + 3.4519E-005$$

$$R = 1.0000$$

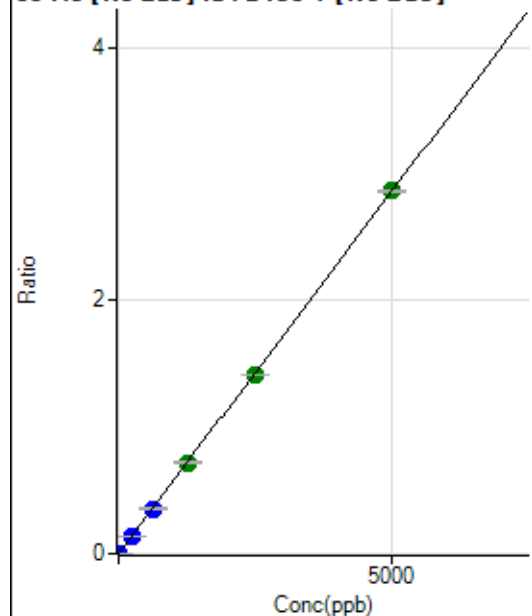
$$DL = 0.04516$$

$$BEC = 0.07447$$

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	166.67	0.0000	P	16.9
2	☐	0.500					
3	☐	5.000	4.470	23169.59	0.0026	P	2.5
4	☐	250.000	246.492	1246306.50	0.1410	P	0.7
5	☐	625.000	623.652	3184958.36	0.3567	P	1.5
6	☐	1250.000	1254.251	6515310.65	0.7173	A	2.5
7	☐	2500.000	2470.944	13023162.79	1.4131	A	0.4
8	☐	5000.000	5013.810	26155096.94	2.8674	A	0.8
9	☐			25562.54	0.0029	P	3.4

$$y = 5.7189E-004 * x + 1.8331E-005$$

$$R = 1.0000$$

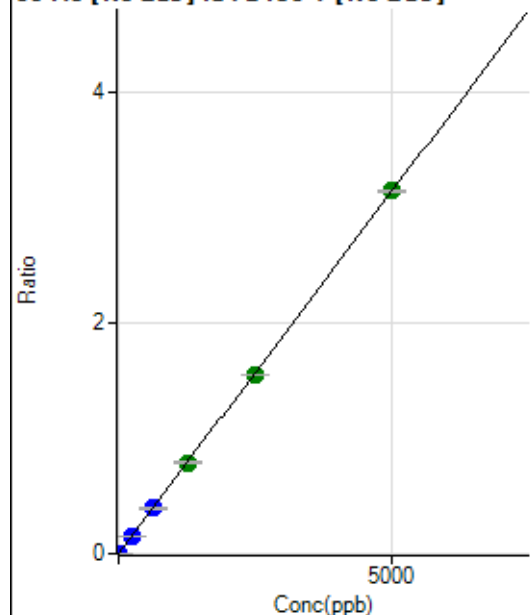
$$DL = 0.0163$$

$$BEC = 0.03205$$

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	216.68	0.0000	P	10.6
2	☐	0.500					
3	☐	5.000	4.414	25089.51	0.0028	P	2.4
4	☐	250.000	247.432	1369668.39	0.1550	P	1.0
5	☐	625.000	627.698	3509856.11	0.3931	P	1.5
6	☐	1250.000	1255.084	7138742.52	0.7859	A	2.0
7	☐	2500.000	2472.461	14267556.05	1.5482	A	0.7
8	☐	5000.000	5012.290	28628439.18	3.1385	A	0.7
9	☐			31830.81	0.0036	P	2.9

$$y = 6.2616\text{E-}004 * x + 2.3849\text{E-}005$$

$$R = 1.0000$$

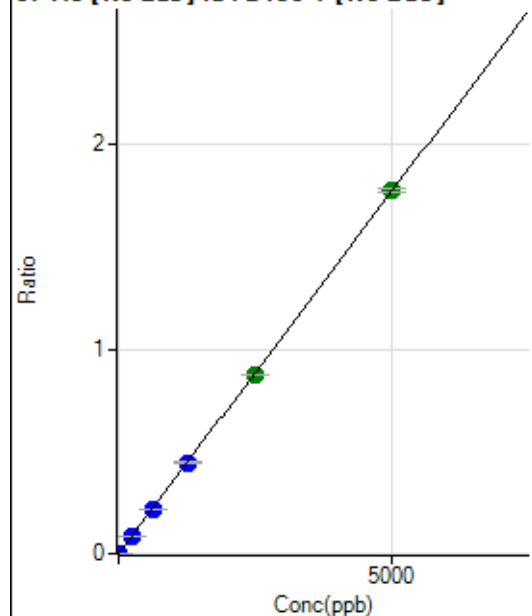
$$DL = 0.01216$$

$$BEC = 0.03809$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	158.34	0.0000	P	15.6
2	☐	0.500					
3	☐	5.000	4.478	14413.55	0.0016	P	1.5
4	☐	250.000	244.360	764319.95	0.0865	P	0.4
5	☐	625.000	619.660	1957558.92	0.2192	P	1.3
6	☐	1250.000	1258.406	4043643.58	0.4452	P	2.1
7	☐	2500.000	2469.234	8049933.95	0.8735	A	0.6
8	☐	5000.000	5014.232	16179615.12	1.7738	A	1.0
9	☐			15503.54	0.0018	P	4.7

$$y = 3.5375\text{E-}004 * x + 1.7420\text{E-}005$$

$$R = 1.0000$$

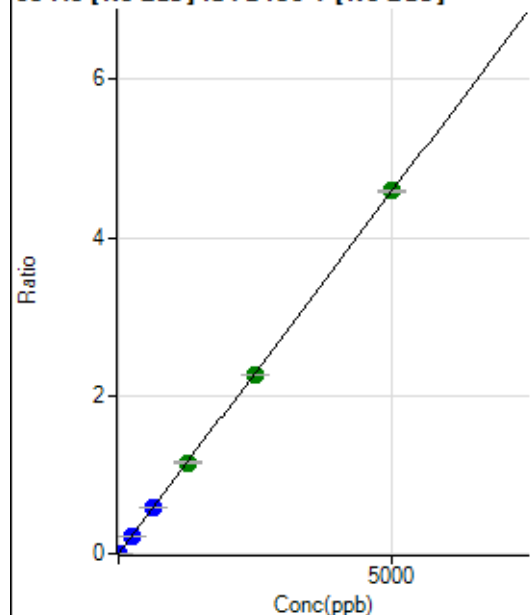
$$DL = 0.02302$$

$$BEC = 0.04924$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	283.35	0.0000	P	15.1
2	☐	0.500					
3	☐	5.000	4.431	36792.93	0.0041	P	0.2
4	☐	250.000	246.617	1996233.40	0.2258	P	1.3
5	☐	625.000	632.828	5174357.19	0.5795	P	1.6
6	☐	1250.000	1252.765	10419353.10	1.1471	A	2.4
7	☐	2500.000	2470.673	20849046.30	2.2623	A	0.3
8	☐	5000.000	5013.163	41871570.38	4.5903	A	0.5
9	☐			39249.66	0.0045	P	4.3

$$y = 9.1565\text{E-}004 * x + 3.1164\text{E-}005$$

$$R = 1.0000$$

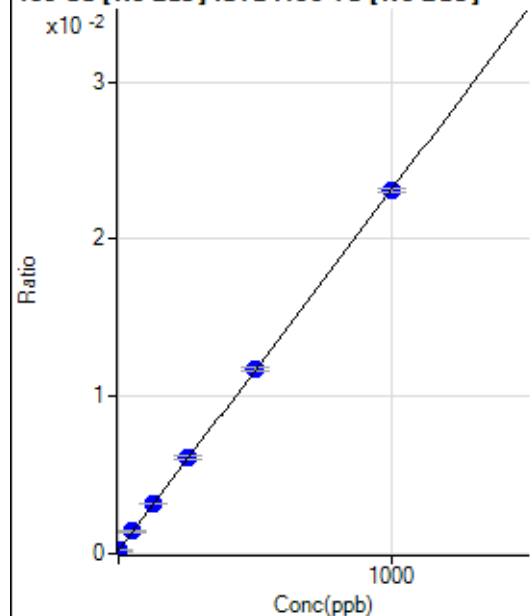
$$DL = 0.01547$$

$$BEC = 0.03403$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2133.59	0.0002	P	8.2
2	☐	0.100					
3	☐	1.000	1.777	2508.66	0.0002	P	5.2
4	☐	50.000	53.071	15144.86	0.0014	P	1.9
5	☐	125.000	128.297	34356.36	0.0031	P	0.3
6	☐	250.000	257.165	67586.29	0.0061	P	3.4
7	☐	500.000	502.328	131779.87	0.0117	P	1.9
8	☐	1000.000	996.478	255992.62	0.0231	P	1.1
9	☐			2314.19	0.0002	P	4.0

$$y = 2.2968\text{E-}005 * x + 1.9122\text{E-}004$$

$$R = 1.0000$$

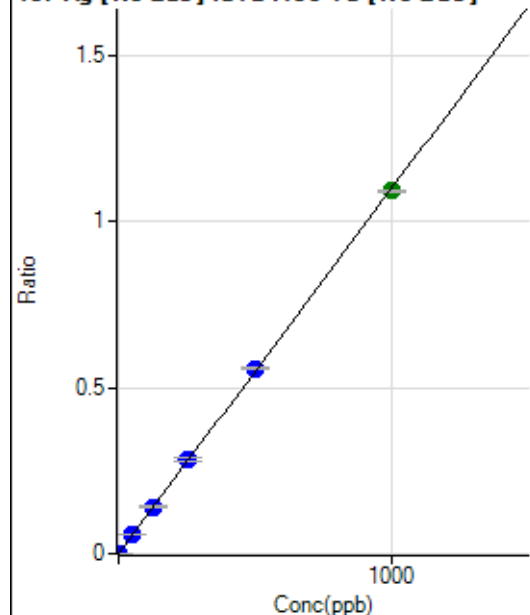
$$DL = 2.053$$

$$BEC = 8.326$$

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	105.56	0.0000	P	17.9
2	☐	0.100					
3	☐	1.000	0.987	11822.06	0.0011	P	3.3
4	☐	50.000	51.312	604732.33	0.0563	P	1.3
5	☐	125.000	128.149	1540097.97	0.1407	P	1.5
6	☐	250.000	258.247	3142573.86	0.2835	P	2.6
7	☐	500.000	506.871	6251967.02	0.5564	P	0.8
8	☐	1000.000	994.044	12104692.11	1.0912	A	0.6
9	☐			1211.21	0.0001	P	6.8

$$y = 0.0011 * x + 9.4577E-006$$

$$R = 0.9999$$

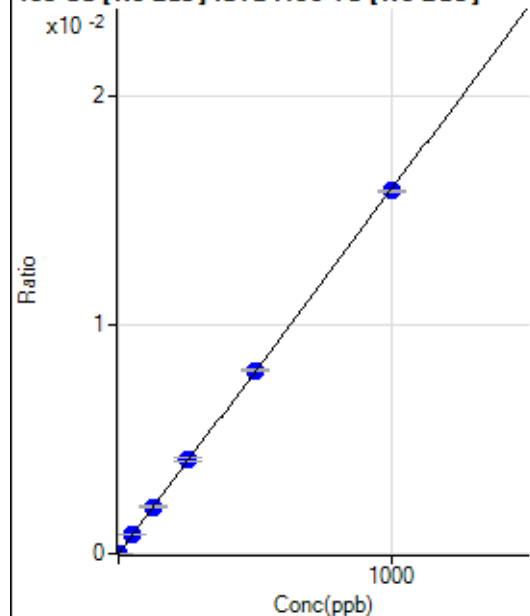
$$DL = 0.004634$$

$$BEC = 0.008615$$

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	11.11	0.0000	P	43.3
2	☐	0.100					
3	☐	1.000	0.826	152.78	0.0000	P	13.3
4	☐	50.000	51.247	8752.89	0.0008	P	4.2
5	☐	125.000	128.920	22448.61	0.0021	P	3.7
6	☐	250.000	258.944	45655.53	0.0041	P	3.7
7	☐	500.000	503.496	89976.53	0.0080	P	0.3
8	☐	1000.000	995.464	175612.29	0.0158	P	0.6
9	☐			59.72	0.0000	P	23.2

$$y = 1.5902E-005 * x + 9.9584E-007$$

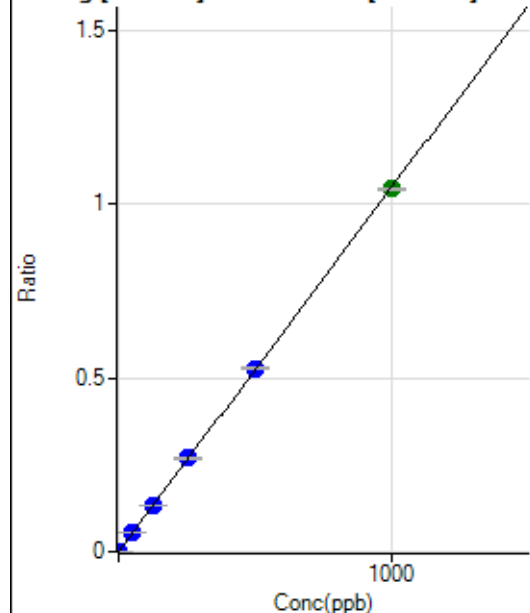
$$R = 0.9999$$

$$DL = 0.08143$$

$$BEC = 0.06262$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.22	0.0000	P	6.3
2	☐	0.100					
3	☐	1.000	0.942	10737.88	0.0010	P	3.4
4	☐	50.000	51.202	576045.52	0.0537	P	0.9
5	☐	125.000	127.433	1461851.42	0.1335	P	1.5
6	☐	250.000	257.376	2989709.53	0.2697	P	2.3
7	☐	500.000	503.406	5926977.26	0.5275	P	0.8
8	☐	1000.000	996.089	11578391.49	1.0438	A	0.4
9	☐			1186.22	0.0001	P	5.7

$$y = 0.0010 * x + 6.4726E-006$$

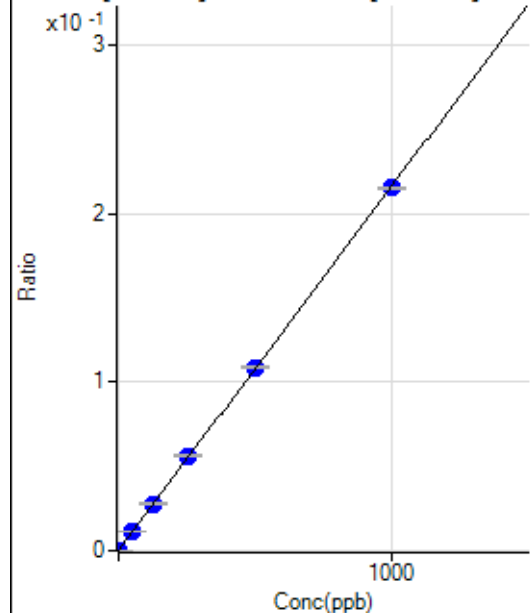
$$R = 1.0000$$

$$DL = 0.001173$$

$$BEC = 0.006177$$

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	1513.52	0.0001	P	8.2
2	☐	0.100					
3	☐	1.000	0.968	3725.70	0.0003	P	1.6
4	☐	50.000	51.812	121495.51	0.0113	P	0.8
5	☐	125.000	128.716	305551.58	0.0279	P	1.6
6	☐	250.000	258.815	620640.39	0.0560	P	2.1
7	☐	500.000	502.067	1218819.36	0.1085	P	1.2
8	☐	1000.000	996.208	2386188.59	0.2151	P	0.7
9	☐			1971.19	0.0002	P	1.4

$$y = 2.1580E-004 * x + 1.3564E-004$$

$$R = 1.0000$$

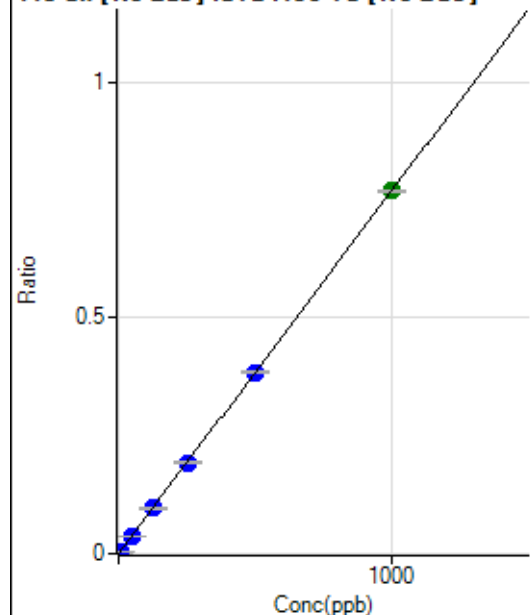
$$DL = 0.1547$$

$$BEC = 0.6286$$

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	1194.54	0.0001	P	7.7
2	☐	0.500					
3	☐	5.000	4.543	38921.55	0.0036	P	0.4
4	☐	50.000	49.469	409443.13	0.0381	P	1.6
5	☐	125.000	124.896	1052537.56	0.0961	P	1.6
6	☐	250.000	251.452	2144630.69	0.1935	P	2.4
7	☐	500.000	498.688	4309936.12	0.3836	P	0.9
8	☐	1000.000	1000.335	8533994.11	0.7693	A	0.8
9	☐			12350.36	0.0012	P	2.9

$$y = 7.6897\text{E-}004 * x + 1.0708\text{E-}004$$

$$R = 1.0000$$

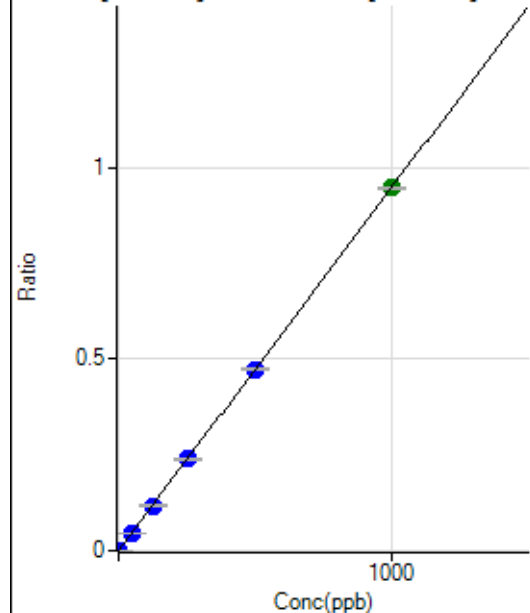
$$DL = 0.03234$$

$$BEC = 0.1393$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	263.91	0.0000	P	10.1
2	☐	0.200					
3	☐	2.000	1.802	18715.94	0.0017	P	2.3
4	☐	50.000	48.443	493028.69	0.0459	P	0.9
5	☐	125.000	123.569	1282047.62	0.1171	P	1.7
6	☐	250.000	252.298	2650426.88	0.2391	P	2.5
7	☐	500.000	500.222	5326280.89	0.4740	P	0.5
8	☐	1000.000	999.572	10507163.69	0.9472	A	0.6
9	☐			28527.09	0.0027	P	2.2

$$y = 9.4759\text{E-}004 * x + 2.3654\text{E-}005$$

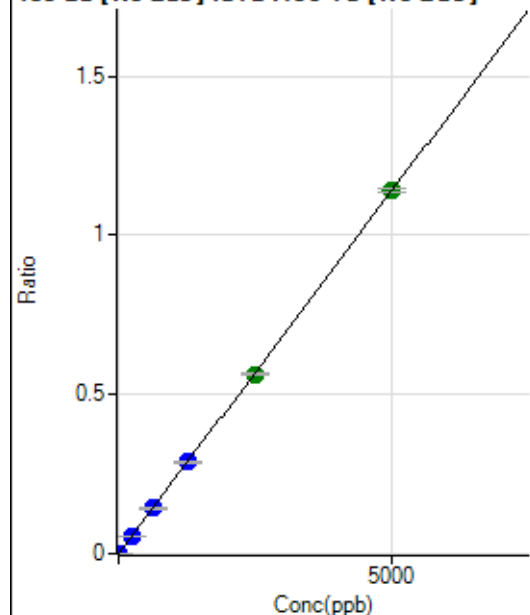
$$R = 1.0000$$

$$DL = 0.007553$$

$$BEC = 0.02496$$

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	38.89	0.0000	P	62.2
2	☐	1.000					
3	☐	10.000	9.080	22374.34	0.0021	P	3.4
4	☐	250.000	246.227	601377.37	0.0560	P	2.3
5	☐	625.000	625.711	1558764.63	0.1424	P	1.7
6	☐	1250.000	1271.108	3206607.21	0.2893	P	2.2
7	☐	2500.000	2479.537	6339994.63	0.5643	A	0.6
8	☐	5000.000	5005.056	12634219.03	1.1390	A	0.9
9	☐			4217.49	0.0004	P	9.0

$$y = 2.2757\text{E-}004 * x + 3.4908\text{E-}006$$

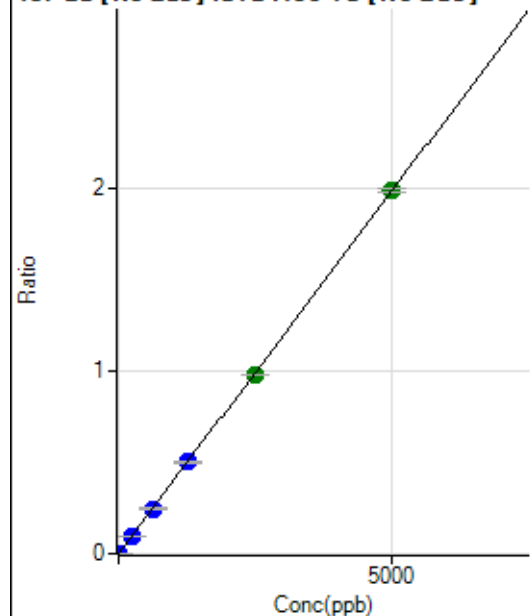
$$R = 1.0000$$

$$DL = 0.02864$$

$$BEC = 0.01534$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.12	0.0000	P	43.3
2	☐	1.000					
3	☐	10.000	9.051	38975.19	0.0036	P	2.5
4	☐	250.000	244.874	1044601.71	0.0973	P	1.9
5	☐	625.000	622.134	2706825.08	0.2473	P	1.5
6	☐	1250.000	1271.011	5599775.39	0.5052	P	2.2
7	☐	2500.000	2473.990	11047770.82	0.9833	A	0.6
8	☐	5000.000	5008.369	22079532.26	1.9905	A	1.1
9	☐			6940.93	0.0007	P	9.5

$$y = 3.9743\text{E-}004 * x + 7.7099\text{E-}006$$

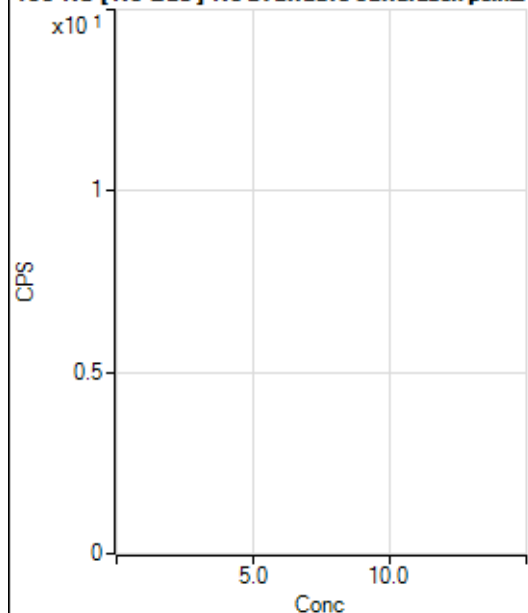
$$R = 1.0000$$

$$DL = 0.02519$$

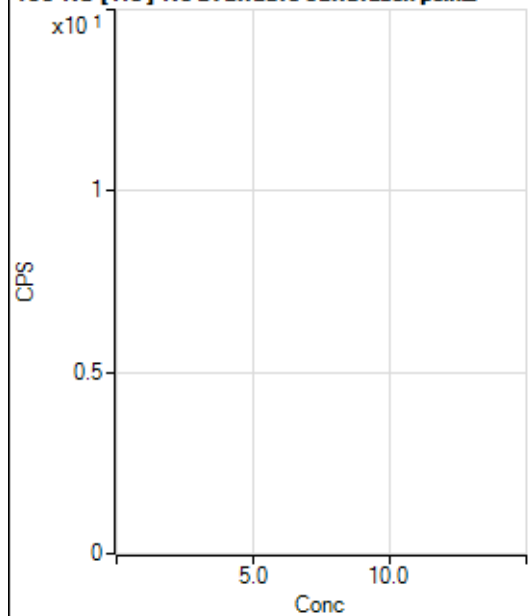
$$BEC = 0.0194$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐						
3	☐			2.22		P	173.2
4	☐			15.56		P	137.8
5	☐			82.23		P	16.9
6	☐			231.12		P	12.0
7	☐			400.02		P	9.3
8	☐			740.04		P	19.3
9	☐			113.34		P	21.2

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐						
3	☐			3.33		P	173.2
4	☐			11.11		P	34.6
5	☐			13.33		P	NaN
6	☐			14.44		P	35.3
7	☐			47.78		P	17.6
8	☐			123.33		P	18.7
9	☐			44.45		P	37.7

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	69.3
2	☐						
3	☐			2.78		P	173.2
4	☐			8.33		P	173.2
5	☐			27.78		P	17.3
6	☐			63.89		P	74.2
7	☐			116.67		P	32.7
8	☐			186.12		P	31.8
9	☐			88.89		P	47.2

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐						
3	☐			4.44		P	43.4
4	☐			8.89		P	78.1
5	☐			7.78		P	65.5
6	☐			33.33		P	20.0
7	☐			58.89		P	6.5
8	☐			121.11		P	11.5
9	☐			41.11		P	65.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			63.89		P	54.3
2	☐						
3	☐			36.11		P	26.7
4	☐			38.89		P	12.4
5	☐			72.23		P	24.0
6	☐			63.89		P	32.8
7	☐			75.01		P	29.4
8	☐			125.01		P	6.7
9	☐			111.12		P	31.2

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			62.23		P	8.2
2	☐						
3	☐			72.23		P	13.3
4	☐			66.67		P	31.2
5	☐			68.89		P	12.2
6	☐			81.11		P	20.7
7	☐			91.11		P	16.5
8	☐			88.89		P	7.8
9	☐			111.11		P	16.5

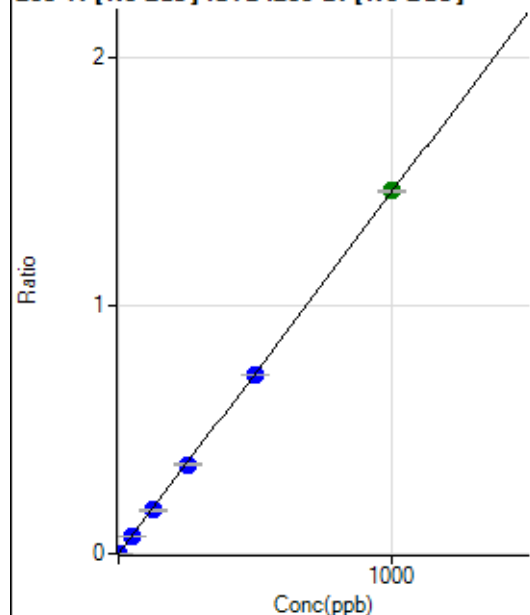
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	26.7
2	☐						
3	☐			63.89		P	32.8
4	☐			33.33		P	25.0
5	☐			41.67		P	52.9
6	☐			52.78		P	24.1
7	☐			63.89		P	15.1
8	☐			55.56		P	31.2
9	☐			44.45		P	10.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	34.6
2	☐						
3	☐			38.89		P	21.6
4	☐			8.89		P	57.3
5	☐			22.22		P	48.2
6	☐			30.00		P	19.2
7	☐			33.33		P	45.8
8	☐			47.78		P	46.5
9	☐			21.11		P	24.1

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0000	P	21.9
2	☐	0.100					
3	☐	1.000	0.894	8505.86	0.0013	P	4.1
4	☐	50.000	47.886	448253.24	0.0696	P	1.7
5	☐	125.000	120.503	1161004.21	0.1752	P	1.6
6	☐	250.000	247.224	2367651.81	0.3595	P	2.9
7	☐	500.000	493.998	4712555.88	0.7184	P	0.4
8	☐	1000.000	1004.363	9155607.15	1.4605	A	0.7
9	☐			4712.14	0.0009	P	7.7

$$y = 0.0015 * x + 1.3534E-005$$

$$R = 1.0000$$

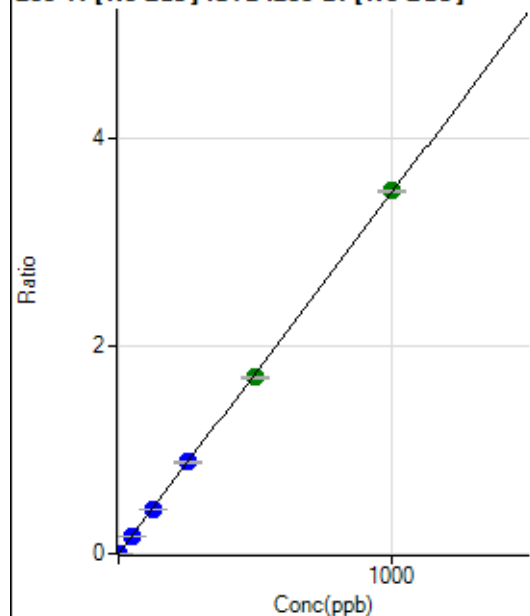
$$DL = 0.006122$$

$$BEC = 0.009307$$

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	263.91	0.0000	P	14.1
2	☐	0.100					
3	☐	1.000	0.897	20419.17	0.0032	P	0.9
4	☐	50.000	48.245	1078076.24	0.1675	P	1.7
5	☐	125.000	121.927	2803983.94	0.4233	P	1.8
6	☐	250.000	253.642	5798311.42	0.8804	P	2.7
7	☐	500.000	488.685	11127345.73	1.6963	A	0.8
8	☐	1000.000	1005.219	21872946.50	3.4892	A	0.3
9	☐			11213.55	0.0020	P	4.0

$$y = 0.0035 * x + 4.0211E-005$$

$$R = 0.9999$$

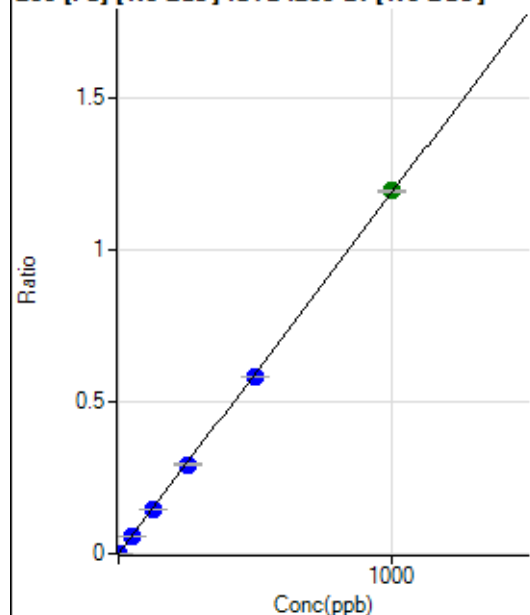
$$DL = 0.004909$$

$$BEC = 0.01158$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	559.29	0.0001	P	7.0
2	☐	0.100					
3	☐	1.000	0.871	7250.30	0.0011	P	0.5
4	☐	50.000	48.227	369211.08	0.0574	P	1.8
5	☐	125.000	121.605	957376.56	0.1445	P	2.4
6	☐	250.000	246.816	1931174.99	0.2932	P	3.0
7	☐	500.000	490.956	3825915.85	0.5832	P	0.8
8	☐	1000.000	1005.831	7489884.95	1.1948	A	0.3
9	☐			14749.25	0.0027	P	1.0

$$y = 0.0012 * x + 8.5070E-005$$

$$R = 0.9999$$

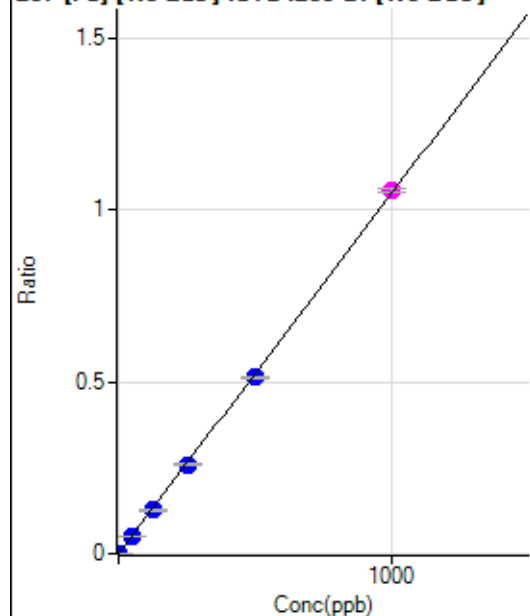
$$DL = 0.01503$$

$$BEC = 0.07162$$

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	516.69	0.0001	P	10.3
2	☐	0.100					
3	☐	1.000	0.903	6629.64	0.0010	P	1.3
4	☐	50.000	48.177	325252.64	0.0505	P	1.4
5	☐	125.000	121.111	840734.29	0.1269	P	2.4
6	☐	250.000	246.251	1698991.51	0.2580	P	2.6
7	☐	500.000	488.534	3356743.04	0.5117	P	1.0
8	☐	1000.000	1007.248	6612939.73	1.0550	M	1.1
9	☐			12000.23	0.0022	P	3.4

$$y = 0.0010 * x + 7.8584E-005$$

$$R = 0.9999$$

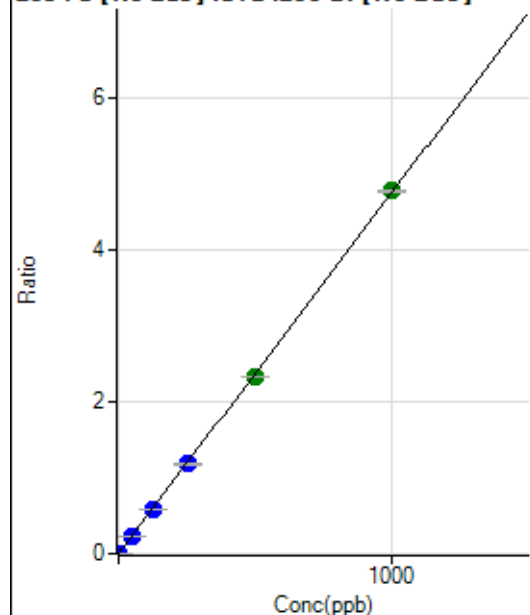
$$DL = 0.02317$$

$$BEC = 0.07504$$

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	2183.46	0.0003	P	4.9
2	☐	0.100					
3	☐	1.000	0.900	29782.53	0.0046	P	0.5
4	☐	50.000	48.350	1477370.13	0.2296	P	1.8
5	☐	125.000	121.982	3833056.08	0.5786	P	2.5
6	☐	250.000	248.425	7758499.75	1.1781	P	2.8
7	☐	500.000	490.285	15249921.63	2.3247	A	0.8
8	☐	1000.000	1005.711	29890891.58	4.7683	A	0.7
9	☐			56253.24	0.0102	P	1.2

$$y = 0.0047 * x + 3.3229E-004$$

$$R = 0.9999$$

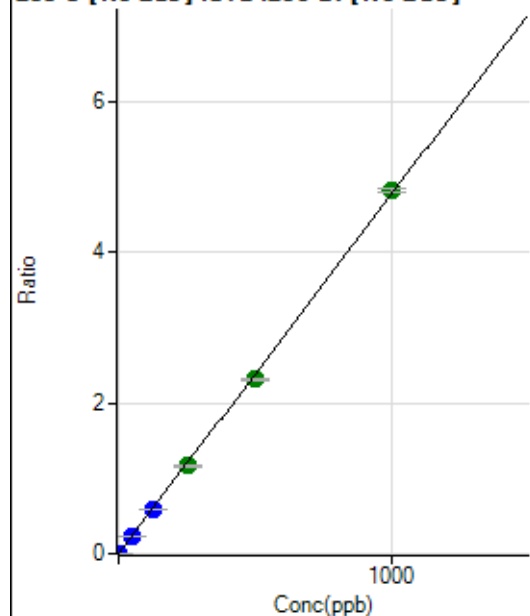
$$DL = 0.01028$$

$$BEC = 0.07009$$

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	380.58	0.0001	P	15.5
2	☐	0.100					
3	☐	1.000	0.864	27029.29	0.0042	P	2.5
4	☐	50.000	47.562	1459660.69	0.2268	P	1.3
5	☐	125.000	122.585	3871263.17	0.5844	P	1.9
6	☐	250.000	245.269	7699679.77	1.1691	A	2.7
7	☐	500.000	485.109	15168907.72	2.3124	A	0.5
8	☐	1000.000	1009.052	30149913.35	4.8098	A	1.0
9	☐			4036.95	0.0007	P	8.5

$$y = 0.0048 * x + 5.7842E-005$$

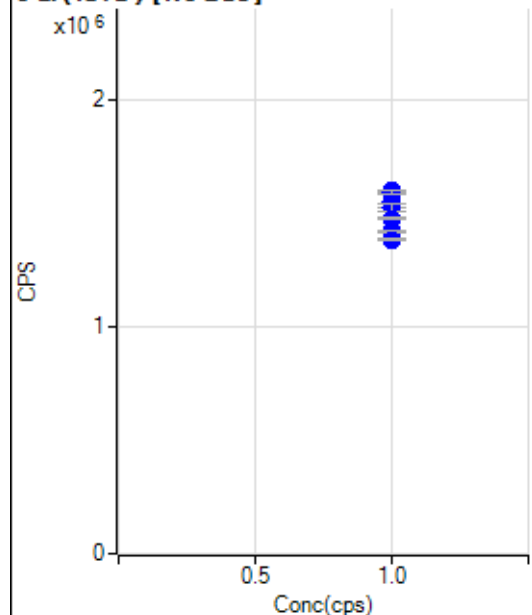
$$R = 0.9998$$

$$DL = 0.005641$$

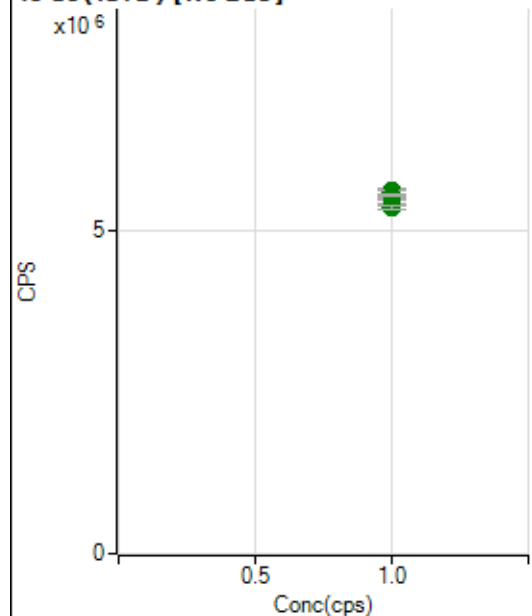
$$BEC = 0.01214$$

Weight: <None>

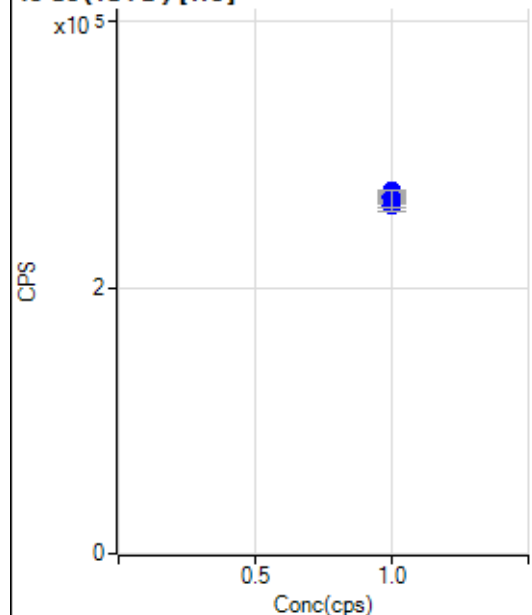
Min Conc: 0

6 Li (ISTD) [No Gas]

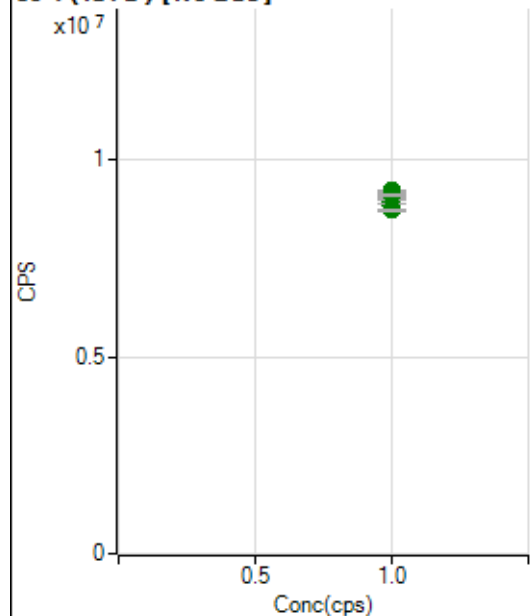
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1596230.23		P	0.5
2	☐	1.000					
3	☐	1.000		1540407.72		P	0.3
4	☐	1.000		1551663.85		P	3.5
5	☐	1.000		1591510.58		P	0.9
6	☐	1.000		1520524.21		P	2.2
7	☐	1.000		1476204.51		P	0.5
8	☐	1.000		1418780.79		P	0.3
9	☐	1.000		1381831.79		P	0.9

45 Sc (ISTD) [No Gas]

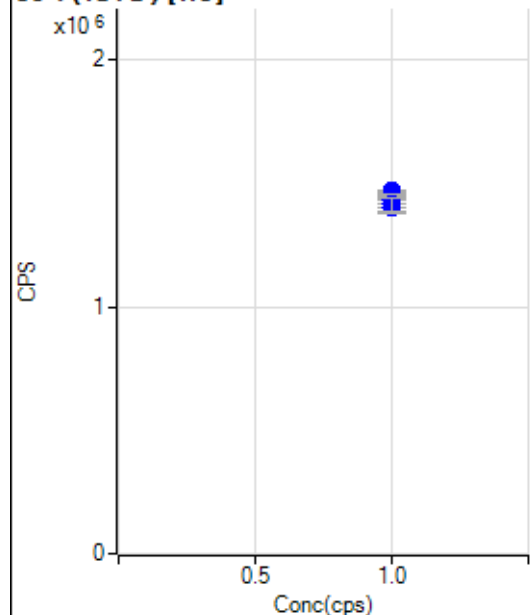
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5631412.45		A	1.5
2	☐	1.000					
3	☐	1.000		5563380.68		A	0.4
4	☐	1.000		5493755.64		A	2.7
5	☐	1.000		5538723.91		A	0.7
6	☐	1.000		5568168.31		A	2.4
7	☐	1.000		5615493.83		A	1.0
8	☐	1.000		5553446.05		A	0.6
9	☐	1.000		5362406.28		A	1.3

45 Sc (ISTD) [He]

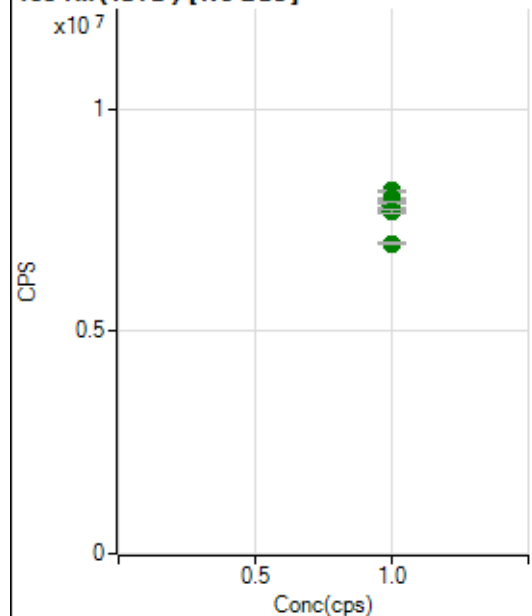
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		266840.53		P	2.4
2	☐	1.000					
3	☐	1.000		271618.16		P	1.6
4	☐	1.000		261559.24		P	3.2
5	☐	1.000		266062.68		P	1.1
6	☐	1.000		268871.82		P	1.9
7	☐	1.000		272778.40		P	0.4
8	☐	1.000		272564.64		P	0.8
9	☐	1.000		266789.40		P	4.7

89 Y (ISTD) [No Gas]

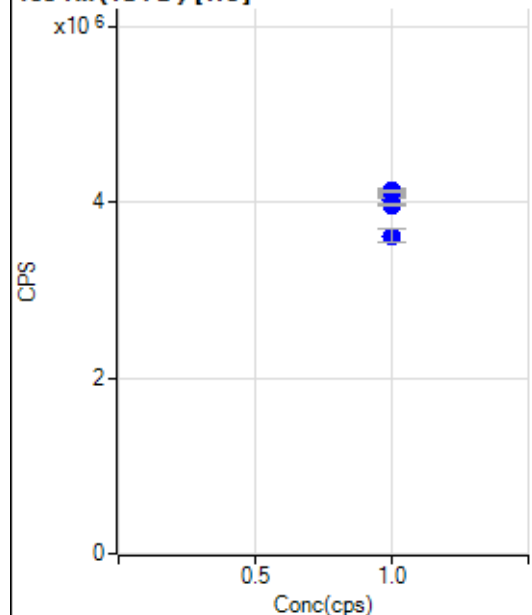
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9088099.73		A	0.5
2	☐	1.000					
3	☐	1.000		8999982.30		A	0.5
4	☐	1.000		8840988.97		A	3.1
5	☐	1.000		8930516.26		A	1.2
6	☐	1.000		9085492.02		A	1.7
7	☐	1.000		9215954.72		A	0.7
8	☐	1.000		9121898.54		A	0.7
9	☐	1.000		8723923.83		A	0.5

89 Y(ISTD) [He]

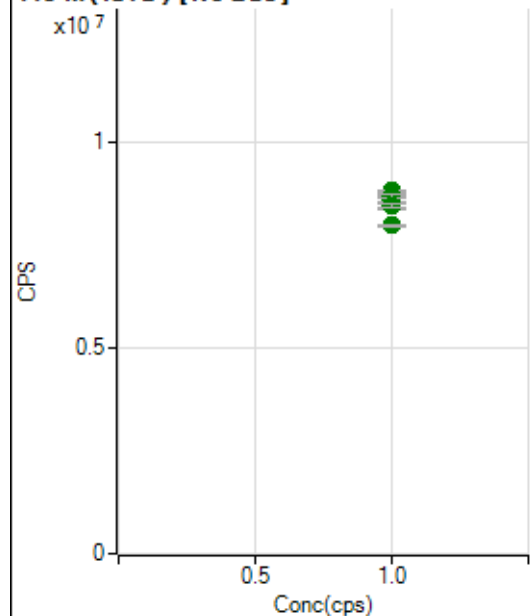
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1416120.12		P	2.2
2	☐	1.000					
3	☐	1.000		1431622.98		P	1.8
4	☐	1.000		1401038.75		P	2.9
5	☐	1.000		1416887.27		P	0.4
6	☐	1.000		1455019.54		P	0.9
7	☐	1.000		1469810.41		P	0.6
8	☐	1.000		1455080.64		P	0.8
9	☐	1.000		1415556.92		P	4.0

103 Rh(ISTD) [No Gas]

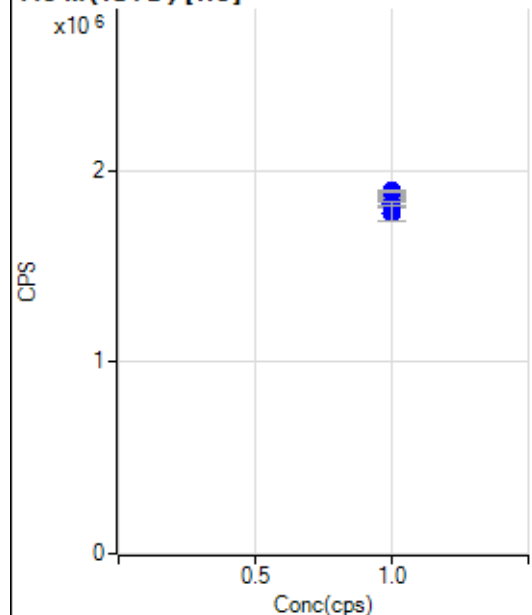
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8155517.54		A	0.5
2	☐	1.000					
3	☐	1.000		7990345.14		A	0.2
4	☐	1.000		7794476.56		A	2.8
5	☐	1.000		7802567.10		A	1.5
6	☐	1.000		7861862.50		A	2.1
7	☐	1.000		7907514.76		A	0.6
8	☐	1.000		7688199.30		A	1.1
9	☐	1.000		6971506.67		A	0.7

103 Rh (ISTD) [He]

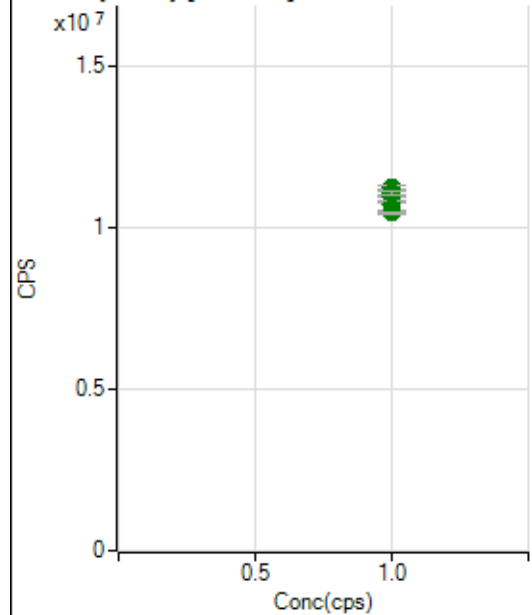
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4099066.64		P	2.2
2	☐	1.000					
3	☐	1.000		4132077.89		P	1.7
4	☐	1.000		4039713.65		P	3.3
5	☐	1.000		4071189.56		P	0.6
6	☐	1.000		4122404.77		P	1.4
7	☐	1.000		4119607.78		P	0.5
8	☐	1.000		3974198.52		P	0.9
9	☐	1.000		3621897.27		P	4.3

115 In (ISTD) [No Gas]

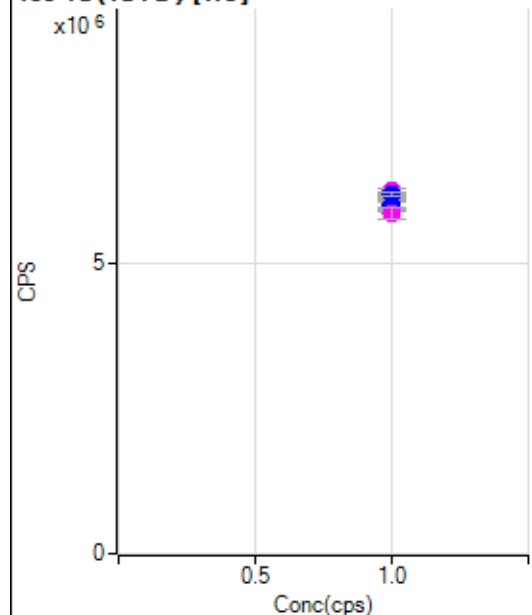
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8798139.60		A	0.5
2	☐	1.000					
3	☐	1.000		8651552.72		A	0.8
4	☐	1.000		8474794.50		A	3.4
5	☐	1.000		8561803.04		A	1.1
6	☐	1.000		8626187.22		A	1.9
7	☐	1.000		8680400.58		A	0.9
8	☐	1.000		8429941.29		A	0.9
9	☐	1.000		7952911.35		A	0.9

115 In (ISTD) [He]

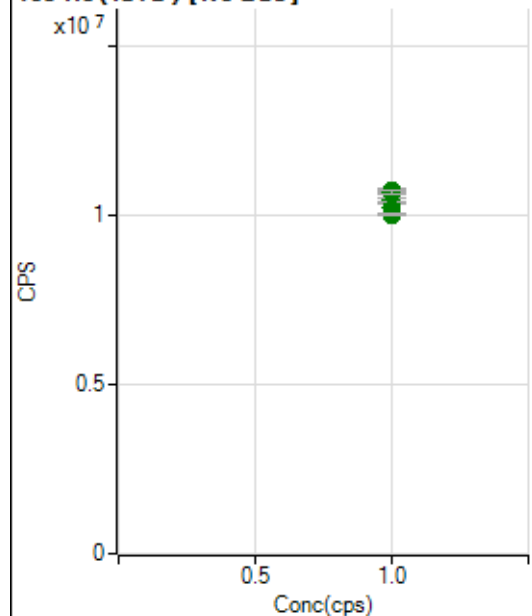
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1858031.68		P	2.1
2	☐	1.000					
3	☐	1.000		1882099.13		P	1.4
4	☐	1.000		1836229.92		P	3.8
5	☐	1.000		1852982.94		P	0.7
6	☐	1.000		1883499.67		P	1.3
7	☐	1.000		1892204.68		P	0.4
8	☐	1.000		1825026.19		P	0.8
9	☐	1.000		1777137.82		P	4.4

159 Tb (ISTD) [No Gas]

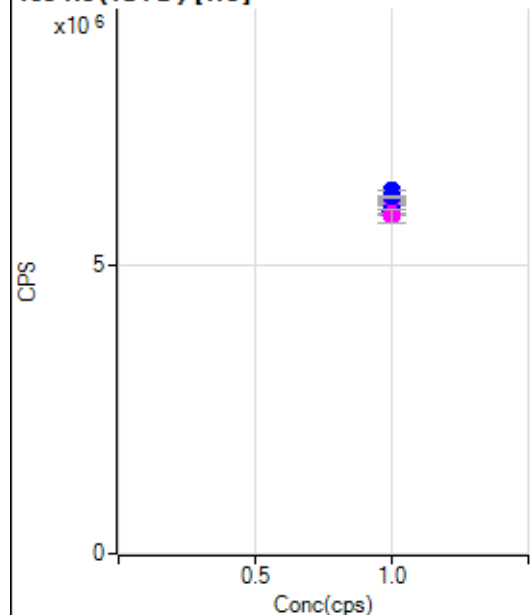
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11156671.50		A	0.4
2	☐	1.000					
3	☐	1.000		10810681.02		A	0.4
4	☐	1.000		10737244.43		A	3.7
5	☐	1.000		10948726.23		A	1.5
6	☐	1.000		11088077.47		A	1.7
7	☐	1.000		11236332.05		A	0.9
8	☐	1.000		11093109.98		A	0.9
9	☐	1.000		10466357.97		A	0.8

159 Tb (ISTD) [He]

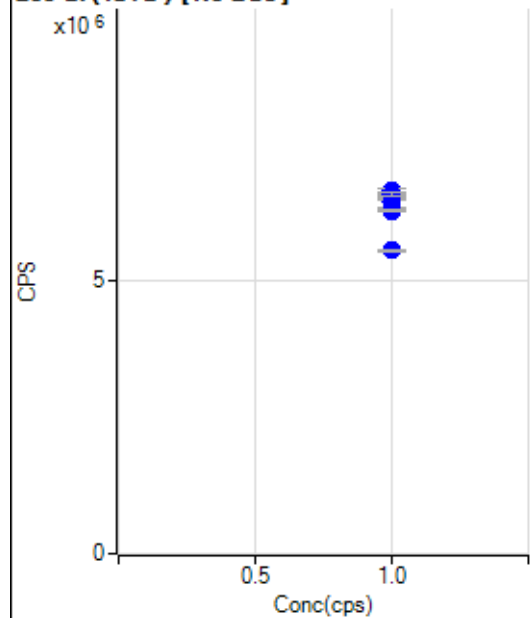
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5990290.05		P	2.1
2	☐	1.000					
3	☐	1.000		6018092.69		P	1.7
4	☐	1.000		5976442.90		P	3.4
5	☐	1.000		6112154.36		P	0.3
6	☐	1.000		6176338.59		M	0.8
7	☐	1.000		6242849.07		M	1.3
8	☐	1.000		6190116.57		P	0.9
9	☐	1.000		5850356.10		M	3.6

165 Ho (ISTD) [No Gas]

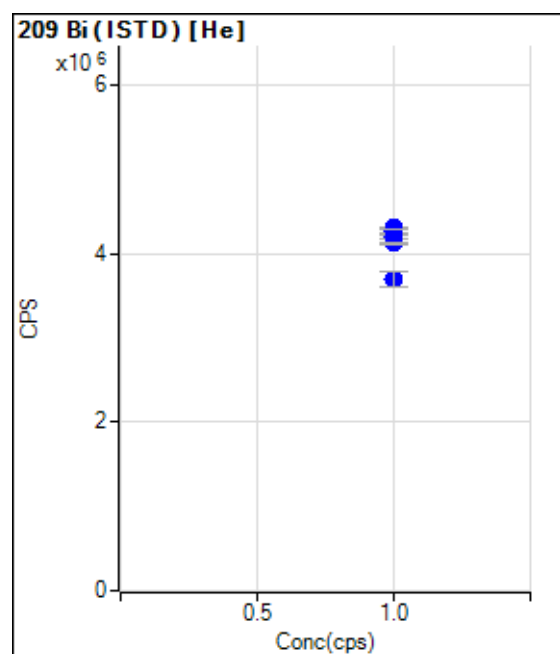
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10665698.15		A	0.2
2	☐	1.000					
3	☐	1.000		10374050.84		A	0.6
4	☐	1.000		10262896.41		A	3.2
5	☐	1.000		10483482.61		A	1.0
6	☐	1.000		10617426.02		A	1.5
7	☐	1.000		10735662.74		A	1.1
8	☐	1.000		10675349.11		A	1.1
9	☐	1.000		10025553.00		A	0.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5969732.97		P	2.2
2	☐	1.000					
3	☐	1.000		5975729.35		P	1.9
4	☐	1.000		5948101.30		P	2.9
5	☐	1.000		6100971.16		P	0.7
6	☐	1.000		6178452.48		M	0.8
7	☐	1.000		6294073.38		P	0.1
8	☐	1.000		6198259.42		P	0.4
9	☐	1.000		5861507.20		M	3.7

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6571337.54		M	1.3
2	☐	1.000					
3	☐	1.000		6474075.11		P	0.6
4	☐	1.000		6438655.11		P	3.9
5	☐	1.000		6626316.57		P	1.9
6	☐	1.000		6588746.92		P	2.5
7	☐	1.000		6560099.07		P	0.8
8	☐	1.000		6268905.46		P	1.0
9	☐	1.000		5539325.37		P	0.9



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4232521.53		P	2.9
2	☐	1.000					
3	☐	1.000		4260954.87		P	2.2
4	☐	1.000		4199585.63		P	4.2
5	☐	1.000		4308004.62		P	0.7
6	☐	1.000		4288482.23		P	1.5
7	☐	1.000		4290961.19		P	0.1
8	☐	1.000		4124754.73		P	0.7
9	☐	1.000		3699918.62		P	4.5

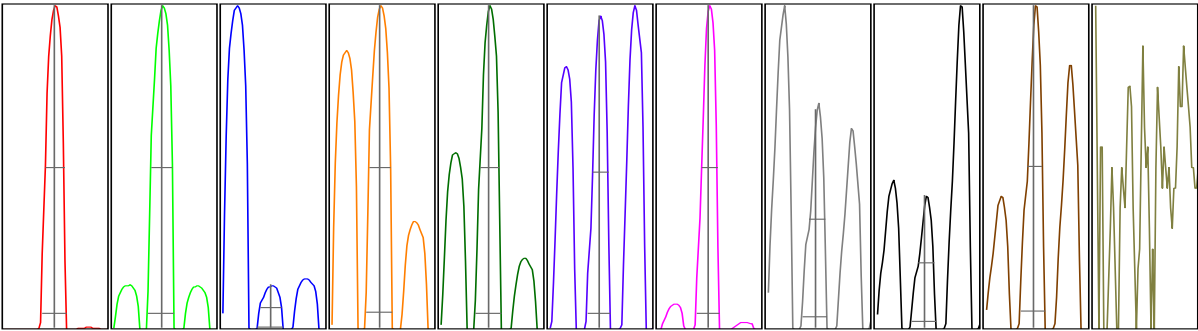
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7021318-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	9031	0.27	5.00	
24	709448	0.23	5.00	
25	95205	0.34	5.00	
26	111149	0.30	5.00	
59	107133	0.27	5.00	
113	11992	0.55	5.00	
115	156583	0.65	5.00	
206	33291	0.26	5.00	
207	29892	0.66	5.00	
208	72256	0.26	5.00	
220	0	28.02		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	9045	9020	8993	9041	9055
24	707218	710741	708260	710029	710991
25	94996	95499	94821	95146	95565
26	111041	111222	110849	110931	111701
59	106954	107153	107565	106791	107203
113	11982	12094	11916	11963	12004
115	156549	158138	155326	156293	156612
206	33386	33324	33174	33343	33230
207	29881	30059	29643	29767	30111
208	72069	72180	72491	72131	72411
220	0	1	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	16730	9.00	8.9 - 9.1		0.732	0.900	
24	1204363	23.95	23.9 - 24.1		0.774	0.900	
25	162797	24.95	24.9 - 25.1		0.740	0.900	
26	189012	25.95	25.9 - 26.1		0.773	0.900	
59	199097	58.95	58.9 - 59.1		0.764	0.900	
113	26064	113.00	112.9 - 113.1		0.683	0.900	
115	342771	115.00	114.9 - 115.1		0.678	0.900	
206	72431	205.95	205.9 - 206.1		0.723	0.900	
207	66163	206.95	206.9 - 207.1		0.723	0.900	
208	160902	207.95	207.9 - 208.1		0.723	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	8.1	V	Deflect	14.0	V
Extract 2	-145.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-70	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	180	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	28972	0.77	
89	96047	0.41	
205	31175	0.45	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	28806	29245	29079	28692	29040
89	95602	96431	96245	95632	96325
205	31178	31398	31020	31115	31162

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.2	V	Deflect	2.4	V
Extract 2	-135.0	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			