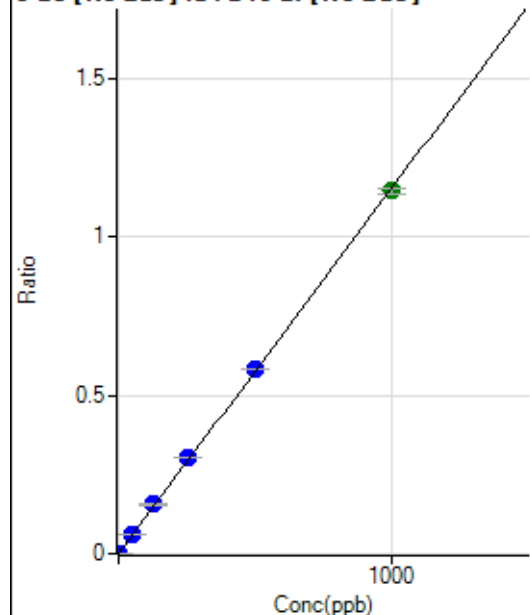


Batch Folder: D:\P8100417- MS.b\
Analysis File: P8100417- MS.batch.bin
DA Date-Time: 2017-10-04 16:08:27
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2017-10-04 11:24:00
2			
3	005CALS.d	S02	2017-10-04 11:31:08
4	006CALS.d	S03	2017-10-04 11:34:38
5	007CALS.d	S04	2017-10-04 11:38:06
6	008CALS.d	S05	2017-10-04 11:41:30
7	009CALS.d	S06	2017-10-04 11:44:48
8	010CALS.d	S07	2017-10-04 11:48:01
9	011CALS.d	S08	2017-10-04 11:51:09

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190.75	0.0002	P	14.9
2	☐	0.100					
3	☐	1.000	0.937	1350.10	0.0013	P	5.3
4	☐	50.000	53.412	67201.13	0.0617	P	1.4
5	☐	125.000	134.532	169725.88	0.1551	P	1.4
6	☐	250.000	262.387	332266.51	0.3023	P	0.9
7	☐	500.000	504.531	661058.64	0.5812	P	0.7
8	☐	1000.000	993.276	1293365.62	1.1440	A	1.8
9	☐			950.06	0.0009	P	8.5

$$y = 0.0012 * x + 1.8366E-004$$

$$R = 0.9999$$

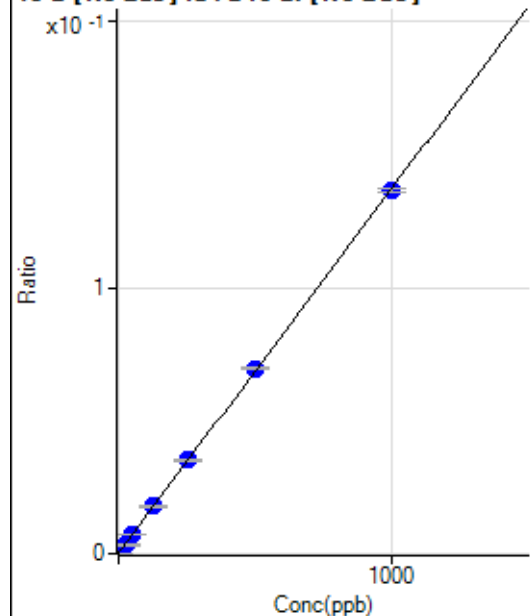
$$DL = 0.07106$$

$$BEC = 0.1595$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	241.68	0.0002	P	26.2
2	☐	2.500					
3	☐	25.000	22.465	3536.71	0.0033	P	7.2
4	☐	50.000	53.269	8199.91	0.0075	P	1.3
5	☐	125.000	128.859	19564.13	0.0179	P	3.6
6	☐	250.000	255.450	38705.90	0.0352	P	1.3
7	☐	500.000	506.948	79249.65	0.0697	P	1.0
8	☐	1000.000	994.581	154297.69	0.1365	P	1.0
9	☐			5451.25	0.0052	P	6.5

$$y = 1.3698E-004 * x + 2.3097E-004$$

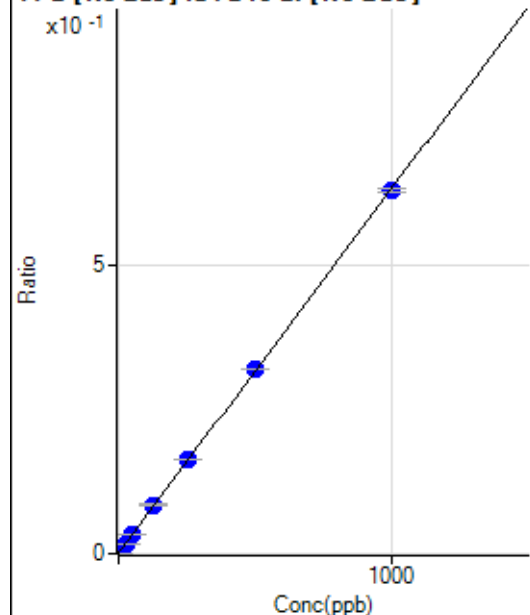
$$R = 0.9999$$

$$DL = 1.323$$

$$BEC = 1.686$$

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	1055.64	0.0010	P	5.3
2	☐	2.500					
3	☐	25.000	22.983	16649.29	0.0156	P	4.3
4	☐	50.000	52.884	37592.03	0.0345	P	1.4
5	☐	125.000	131.343	92123.07	0.0842	P	3.1
6	☐	250.000	257.560	180396.15	0.1641	P	0.6
7	☐	500.000	506.024	365673.86	0.3215	P	0.7
8	☐	1000.000	994.211	713047.70	0.6307	P	0.9
9	☐			23778.89	0.0225	P	9.9

$$y = 6.3332\text{E-}004 * x + 0.0010$$

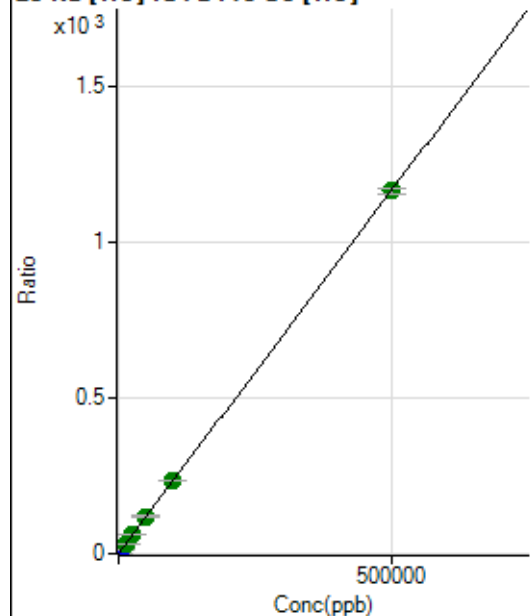
$$R = 0.9999$$

$$DL = 0.2575$$

$$BEC = 1.605$$

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	15269.94	0.4502	P	2.8
2	☐	50.000					
3	☐	500.000	457.496	52874.11	1.5185	P	2.2
4	☐	5000.000	5291.667	442099.60	12.8063	P	2.3
5	☐	12500.000	13102.684	1091119.35	31.0451	A	2.6
6	☐	25000.000	26456.865	2114468.19	62.2271	A	1.0
7	☐	50000.000	51454.539	3853170.53	120.5968	A	2.1
8	☐	100000.00	101079.69	7057630.28	236.4717	A	0.4
9	☐	500000.00	499547.82	34488684.45	1,166.896	A	1.5

$$y = 0.0023 * x + 0.4502$$

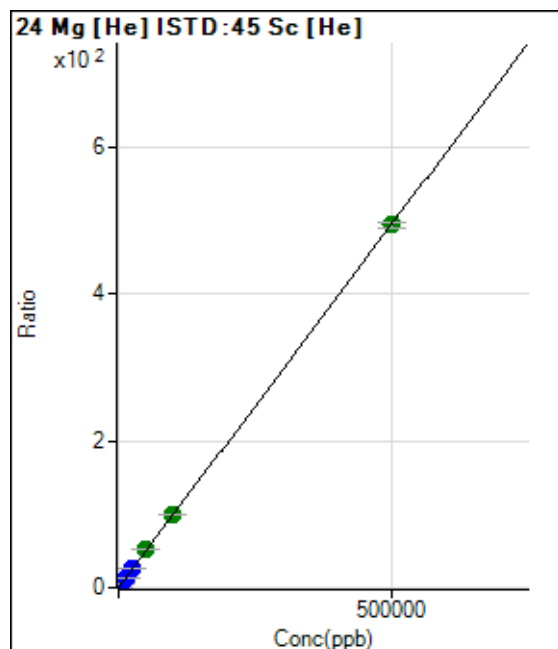
$$R = 1.0000$$

$$DL = 16.4$$

$$BEC = 192.8$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1025.09	0.0302	P	14.8
2	☐	50.000					
3	☐	500.000	464.427	17046.91	0.4896	P	1.8
4	☐	5000.000	5295.148	181876.57	5.2677	P	1.0
5	☐	12500.000	12789.680	445703.35	12.6807	P	1.8
6	☐	25000.000	25787.616	867753.12	25.5372	P	1.1
7	☐	50000.000	52285.106	1653327.73	51.7464	A	2.2
8	☐	100000.00	100912.78	2979631.16	99.8449	A	0.9
9	☐	500000.00	499539.39	14604515.95	494.1341	A	1.6

$$y = 9.8912\text{E-}004 * x + 0.0302$$

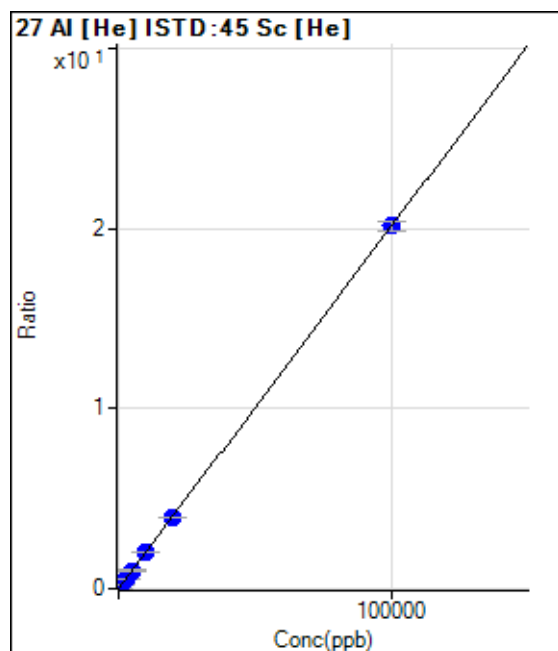
$$R = 1.0000$$

$$DL = 13.58$$

$$BEC = 30.52$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0005	P	50.6
2	☐	2.000					
3	☐	20.000	22.541	175.01	0.0050	P	17.6
4	☐	1000.000	1015.746	7074.32	0.2049	P	1.3
5	☐	2500.000	2496.302	17667.31	0.5028	P	4.9
6	☐	5000.000	4976.452	34038.97	1.0018	P	2.7
7	☐	10000.000	9984.298	64204.23	2.0094	P	1.9
8	☐	20000.000	19795.444	118885.97	3.9835	P	0.4
9	☐	100000.00	100043.59	594937.73	20.1303	P	2.3

$$y = 2.0121\text{E-}004 * x + 4.9311\text{E-}004$$

$$R = 1.0000$$

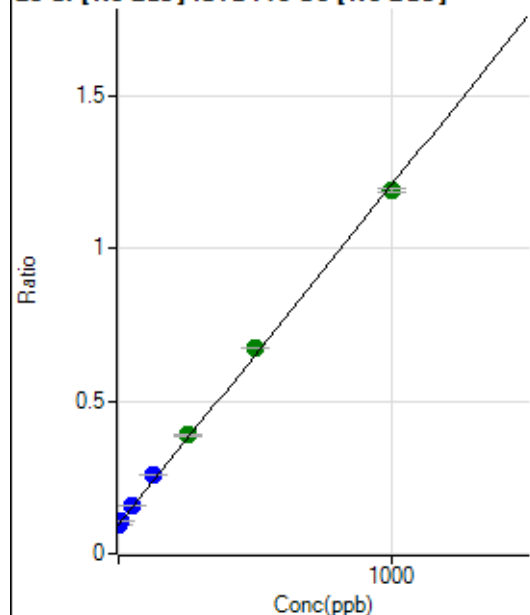
$$DL = 3.72$$

$$BEC = 2.451$$

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	350429.25	0.0957	P	3.3
2	☐	1.000					
3	☐	10.000	8.208	402822.52	0.1049	P	1.0
4	☐	50.000	53.892	602785.70	0.1556	P	0.9
5	☐	125.000	147.427	1005792.47	0.2595	P	0.7
6	☐	250.000	262.862	1497563.01	0.3877	A	0.6
7	☐	500.000	521.187	2592000.97	0.6747	A	0.2
8	☐	1000.000	983.211	4423478.79	1.1880	A	0.9
9	☐			331777.66	0.0970	P	3.8

$$y = 0.0011 * x + 0.0957$$

$$R = 0.9994$$

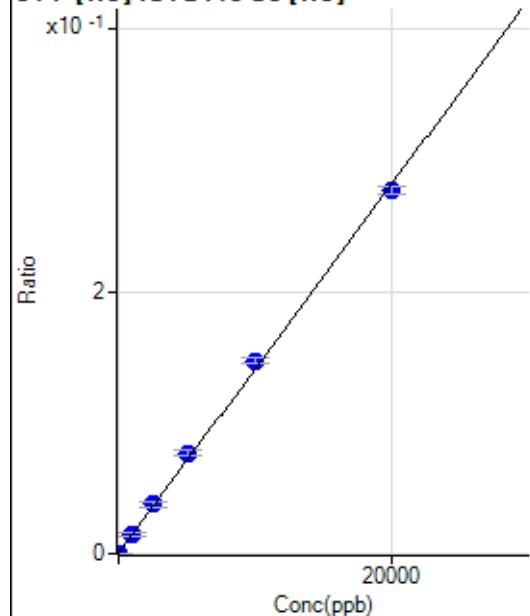
$$DL = 8.447$$

$$BEC = 86.19$$

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	-8.384	2.78	0.0001	P	173.2
2	☐	0.000					
3	☐	0.000	8.384	11.11	0.0003	P	173.2
4	☐	1000.000	1042.883	513.92	0.0149	P	15.1
5	☐	2500.000	2657.121	1319.57	0.0376	P	12.8
6	☐	5000.000	5433.875	2603.12	0.0766	P	5.7
7	☐	10000.000	10441.546	4698.20	0.1470	P	3.3
8	☐	20000.000	19648.974	8252.76	0.2765	P	2.1
9	☐			2.78	0.0001	P	173.2

$$y = 1.4064E-005 * x + 1.9858E-004$$

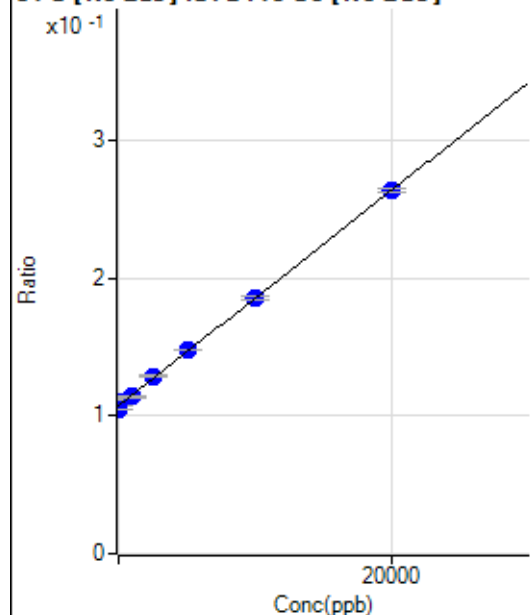
$$R = 0.9993$$

$$DL = 73.37$$

$$BEC = 14.12$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	346.667	402836.47	0.1101	P	3.8
2	☐	0.000					
3	☐	0.000	-346.667	402016.98	0.1047	P	1.1
4	☐	1000.000	819.864	440722.67	0.1138	P	1.4
5	☐	2500.000	2747.519	499397.31	0.1289	P	0.8
6	☐	5000.000	5200.821	571762.83	0.1480	P	0.7
7	☐	10000.000	9987.306	712536.67	0.1855	P	1.1
8	☐	20000.000	19934.209	980325.07	0.2633	P	1.1
9	☐			381907.82	0.1117	P	4.9

$$y = 7.8211\text{E-}006 * x + 0.1074$$

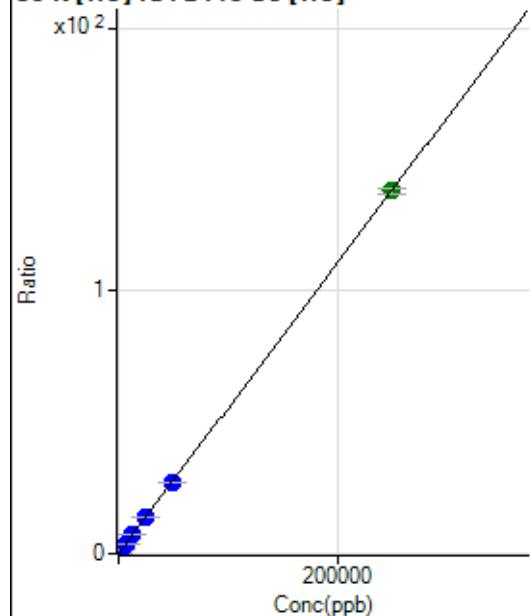
$$R = 0.9994$$

$$DL = 1010$$

$$BEC = 1.373\text{E}+04$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2894.89	0.0854	P	11.0
2	☐	50.000					
3	☐	500.000	460.467	11830.48	0.3397	P	4.0
4	☐	2500.000	2624.927	52997.57	1.5352	P	2.2
5	☐	6250.000	6456.910	128344.74	3.6516	P	2.2
6	☐	12500.000	12940.499	245755.28	7.2324	P	1.7
7	☐	25000.000	25298.371	449155.76	14.0576	P	1.9
8	☐	50000.000	49267.129	814597.83	27.2955	P	0.6
9	☐	250000.00	250088.36	4084823.01	138.2083	A	1.8

$$y = 5.5230\text{E-}004 * x + 0.0854$$

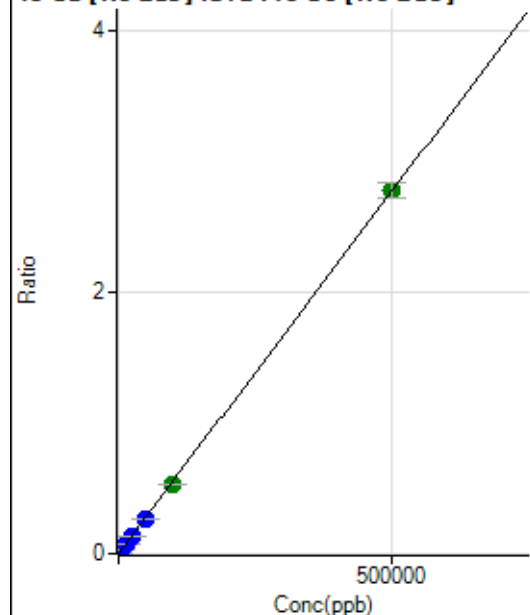
$$R = 1.0000$$

$$DL = 51.02$$

$$BEC = 154.7$$

Weight: <None>

Min Conc: 0

43 Ca [No Gas] ISTD:45 Sc [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1386.25	0.0004	P	6.7
2	☐	50.000					
3	☐	500.000	419.103	10368.16	0.0027	P	3.5
4	☐	5000.000	4795.399	104318.69	0.0269	P	1.1
5	☐	12500.000	11957.045	258068.01	0.0666	P	0.1
6	☐	25000.000	23811.546	510679.67	0.1322	P	0.1
7	☐	50000.000	47656.483	1015161.23	0.2643	P	0.7
8	☐	100000.00	96123.505	1983234.53	0.5326	A	1.3
9	☐	500000.00	501084.77	9490755.16	2.7749	A	4.4

$$y = 5.5370\text{E-}006 * x + 3.7871\text{E-}004$$

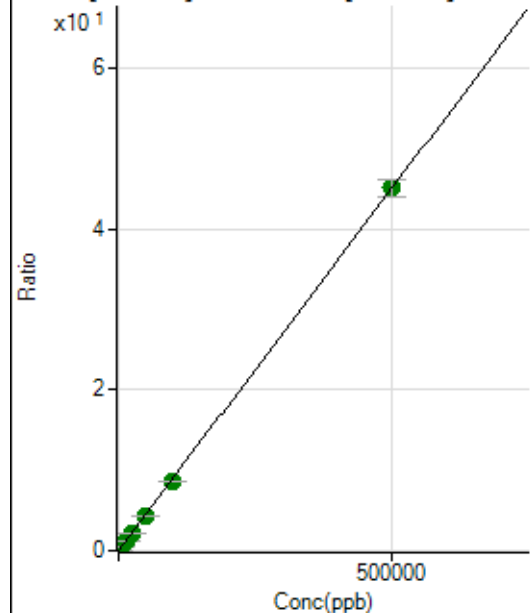
$$R = 1.0000$$

$$DL = 13.73$$

$$BEC = 68.4$$

Weight: <None>

Min Conc: 0

44 Ca [No Gas] ISTD:45 Sc [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	28407.57	0.0078	P	4.3
2	☐	50.000					
3	☐	500.000	420.005	175161.09	0.0456	P	1.1
4	☐	5000.000	4821.504	1712519.38	0.4421	A	1.1
5	☐	12500.000	12096.427	4253418.93	1.0975	A	0.4
6	☐	25000.000	23652.696	8259290.20	2.1385	A	0.2
7	☐	50000.000	47846.294	16587998.64	4.3180	A	0.3
8	☐	100000.00	94814.091	31834275.71	8.5490	A	0.6
9	☐	500000.00	501331.87	154472877.0	45.1698	A	4.7

$$y = 9.0084\text{E-}005 * x + 0.0078$$

$$R = 0.9999$$

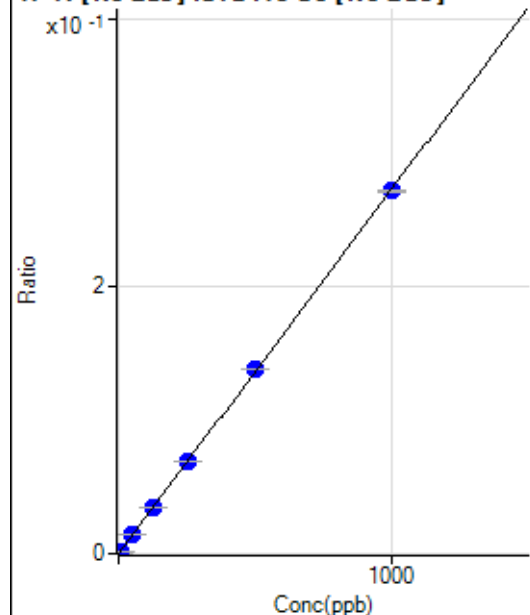
$$DL = 11.1$$

$$BEC = 86.18$$

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	86.11	0.0000	P	47.1
2	☐	0.500					
3	☐	5.000	4.481	4773.26	0.0012	P	9.1
4	☐	50.000	51.086	53918.61	0.0139	P	1.3
5	☐	125.000	128.049	135088.54	0.0349	P	1.4
6	☐	250.000	252.958	265851.39	0.0688	P	0.4
7	☐	500.000	505.411	528245.93	0.1375	P	0.2
8	☐	1000.000	996.122	1009063.49	0.2710	P	0.8
9	☐			583.38	0.0002	P	18.2

$$y = 2.7202\text{E-}004 * x + 2.3296\text{E-}005$$

$$R = 1.0000$$

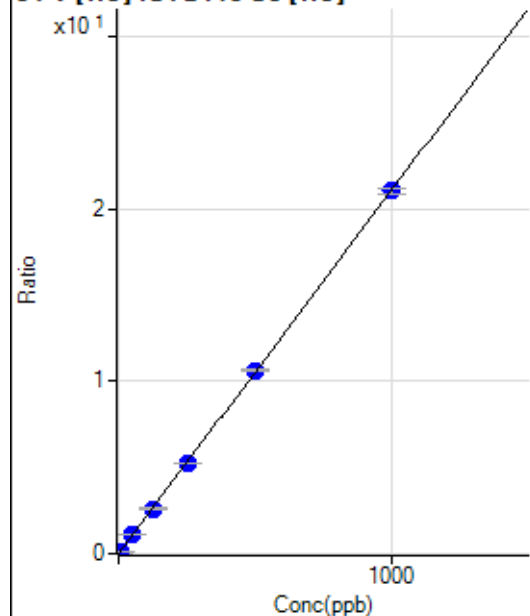
$$DL = 0.1209$$

$$BEC = 0.08564$$

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	11.11	0.0003	P	76.0
2	☐	0.500					
3	☐	5.000	4.512	3327.12	0.0955	P	2.3
4	☐	50.000	50.844	37049.14	1.0731	P	1.6
5	☐	125.000	124.337	92226.75	2.6238	P	1.2
6	☐	250.000	249.703	179042.28	5.2690	P	1.3
7	☐	500.000	503.307	339333.94	10.6200	P	1.2
8	☐	1000.000	998.464	628699.10	21.0677	P	1.3
9	☐			84.44	0.0029	P	34.7

$$y = 0.0211 * x + 3.2748\text{E-}004$$

$$R = 1.0000$$

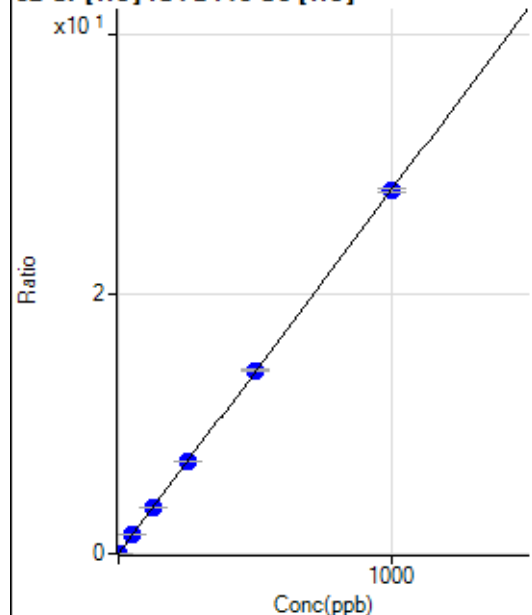
$$DL = 0.03538$$

$$BEC = 0.01552$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	604.47	0.0178	P	5.1
2	☐	0.200					
3	☐	2.000	1.936	2505.83	0.0720	P	4.2
4	☐	50.000	51.051	49889.77	1.4452	P	2.5
5	☐	125.000	125.291	123756.57	3.5209	P	1.4
6	☐	250.000	252.529	240523.96	7.0784	P	0.9
7	☐	500.000	503.138	450049.98	14.0852	P	1.4
8	☐	1000.000	997.710	832987.76	27.9132	P	1.0
9	☐			8333.71	0.2820	P	4.4

$$y = 0.0280 * x + 0.0178$$

$$R = 1.0000$$

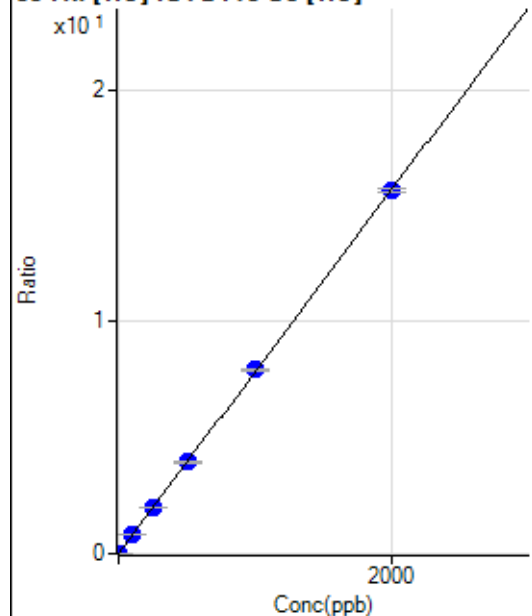
$$DL = 0.09691$$

$$BEC = 0.6374$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	238.90	0.0070	P	8.7
2	☐	0.100					
3	☐	1.000	1.010	521.13	0.0150	P	3.3
4	☐	100.000	102.310	27930.38	0.8090	P	1.7
5	☐	250.000	251.005	69399.14	1.9745	P	2.1
6	☐	500.000	503.098	134238.59	3.9505	P	0.9
7	☐	1000.000	1010.280	253255.41	7.9260	P	1.0
8	☐	2000.000	1993.844	466593.31	15.6355	P	1.1
9	☐			1579.00	0.0534	P	6.0

$$y = 0.0078 * x + 0.0070$$

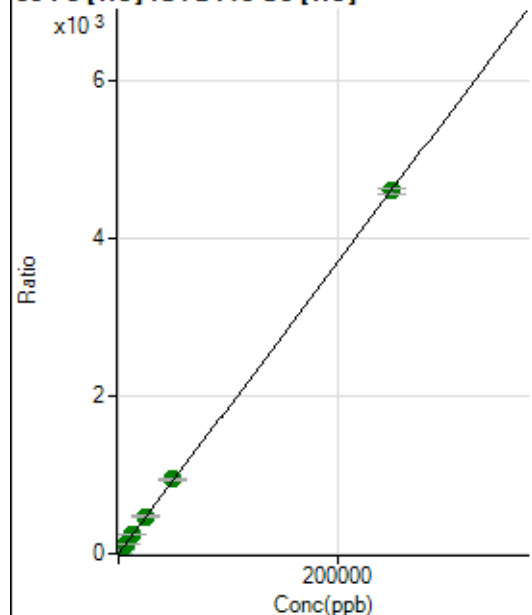
$$R = 1.0000$$

$$DL = 0.2331$$

$$BEC = 0.8983$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3884.00	0.1146	P	6.1
2	☐	5.000					
3	☐	50.000	45.392	33138.02	0.9517	P	2.0
4	☐	2500.000	2631.657	1679465.30	48.6464	A	1.9
5	☐	6250.000	6388.544	4144974.51	117.9291	A	1.9
6	☐	12500.000	12771.150	8006937.22	235.6341	A	0.6
7	☐	25000.000	25776.652	15192650.68	475.4754	A	1.0
8	☐	50000.000	51136.691	28145861.51	943.1532	A	1.1
9	☐	250000.00	249676.66	136089910.4	4,604.533	A	1.6

$$y = 0.0184 * x + 0.1146$$

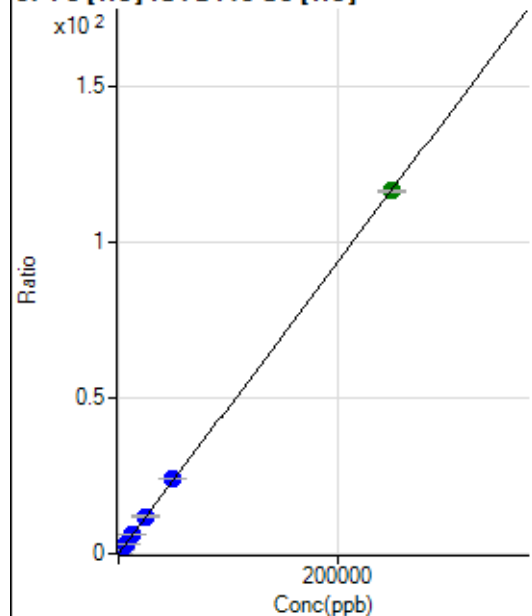
$$R = 1.0000$$

$$DL = 1.133$$

$$BEC = 6.213$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0028	P	32.2
2	☐	5.000					
3	☐	50.000	52.017	940.80	0.0270	P	8.3
4	☐	2500.000	2598.826	41902.33	1.2137	P	1.2
5	☐	6250.000	6294.126	103173.83	2.9354	P	1.9
6	☐	12500.000	12786.887	202537.73	5.9606	P	1.4
7	☐	25000.000	25757.274	383555.00	12.0039	P	1.0
8	☐	50000.000	51307.298	713509.21	23.9084	P	0.6
9	☐	250000.00	249646.37	3438092.18	116.3206	A	0.6

$$y = 4.6593E-004 * x + 0.0028$$

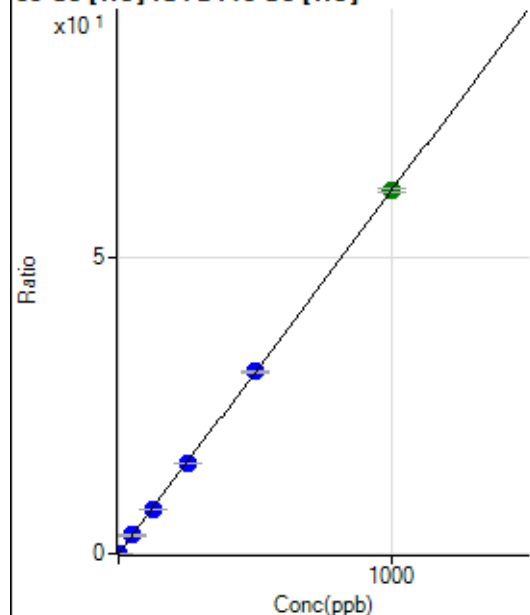
$$R = 1.0000$$

$$DL = 5.778$$

$$BEC = 5.99$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	157.78	0.0046	P	8.3
2	☐	0.100					
3	☐	1.000	0.864	2005.74	0.0576	P	2.5
4	☐	50.000	50.587	107198.19	3.1052	P	2.2
5	☐	125.000	123.498	266225.36	7.5740	P	1.1
6	☐	250.000	248.070	516818.47	15.2091	P	0.8
7	☐	500.000	501.758	982783.66	30.7578	P	1.2
8	☐	1000.000	999.762	1828770.95	61.2807	A	1.0
9	☐			1963.51	0.0664	P	1.5

$$y = 0.0613 * x + 0.0046$$

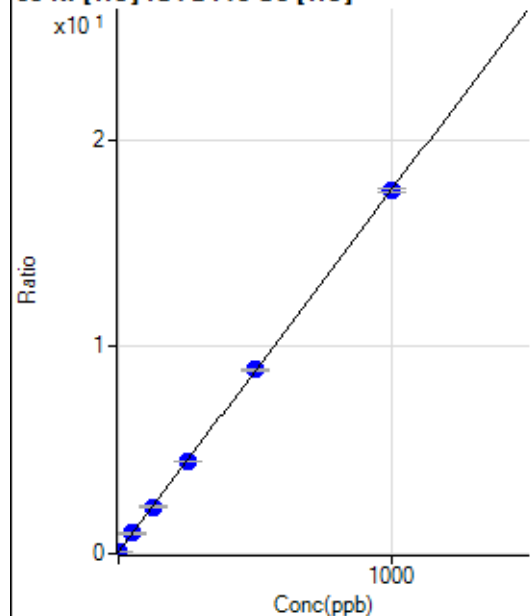
$$R = 1.0000$$

$$DL = 0.0188$$

$$BEC = 0.07586$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3101.52	0.0915	P	6.3
2	☐	0.100					
3	☐	1.000	0.394	3426.03	0.0984	P	2.5
4	☐	50.000	50.996	33926.99	0.9828	P	2.6
5	☐	125.000	124.810	79890.67	2.2729	P	1.2
6	☐	250.000	250.007	151587.74	4.4610	P	0.6
7	☐	500.000	504.317	284555.62	8.9057	P	1.3
8	☐	1000.000	997.814	523157.34	17.5308	P	1.0
9	☐			4094.01	0.1385	P	0.8

$$y = 0.0175 * x + 0.0915$$

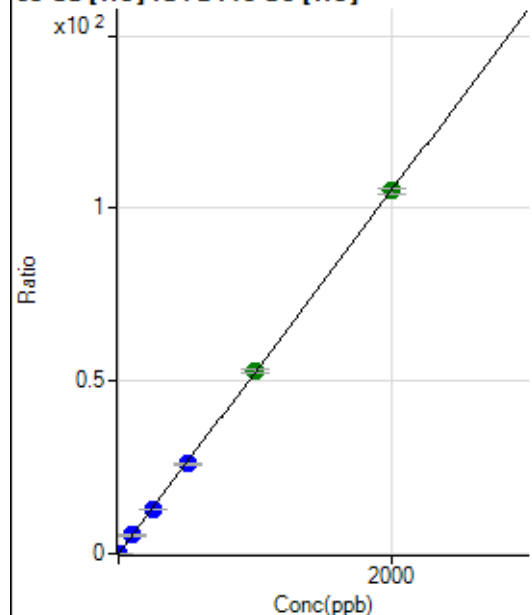
$$R = 1.0000$$

$$DL = 0.9945$$

$$BEC = 5.235$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	777.82	0.0229	P	7.6
2	☐	0.200					
3	☐	2.000	1.796	4086.23	0.1173	P	0.9
4	☐	100.000	100.294	182822.65	5.2954	P	1.4
5	☐	250.000	244.353	452324.91	12.8685	P	1.2
6	☐	500.000	493.223	881856.45	25.9515	P	0.6
7	☐	1000.000	1007.530	1693106.68	52.9885	A	1.4
8	☐	2000.000	1998.621	3135854.40	105.0898	A	1.8
9	☐			3567.19	0.1207	P	2.7

$$y = 0.0526 * x + 0.0229$$

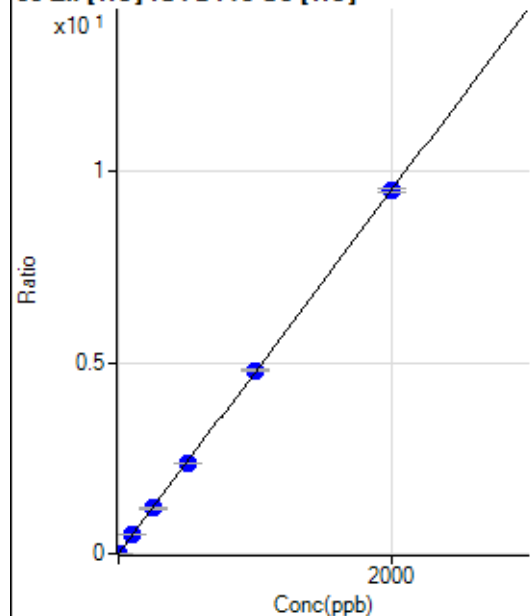
$$R = 1.0000$$

$$DL = 0.09945$$

$$BEC = 0.4365$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	118.89	0.0035	P	8.9
2	☐	0.200					
3	☐	2.000	1.934	442.24	0.0127	P	9.3
4	☐	100.000	102.807	16987.33	0.4920	P	1.8
5	☐	250.000	248.943	41703.76	1.1865	P	1.3
6	☐	500.000	500.293	80904.24	2.3809	P	0.3
7	☐	1000.000	1007.127	153028.54	4.7893	P	1.4
8	☐	2000.000	1996.355	283200.70	9.4900	P	1.1
9	☐			813.37	0.0275	P	1.2

$$y = 0.0048 * x + 0.0035$$

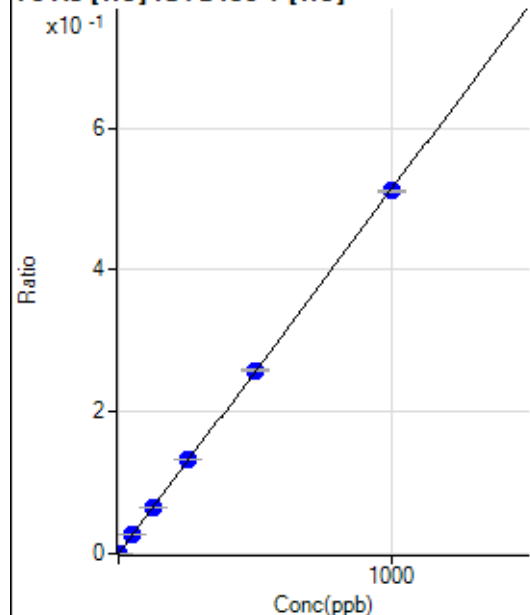
$$R = 1.0000$$

$$DL = 0.198$$

$$BEC = 0.7374$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4.94	0.0000	P	108.4
2	☐	0.100					
3	☐	1.000	1.029	125.92	0.0006	P	11.4
4	☐	50.000	51.875	6160.69	0.0267	P	1.9
5	☐	125.000	128.160	15142.94	0.0658	P	0.9
6	☐	250.000	257.568	29939.21	0.1322	P	0.7
7	☐	500.000	503.806	56288.11	0.2586	P	0.7
8	☐	1000.000	995.716	104886.76	0.5111	P	0.8
9	☐			27.16	0.0001	P	14.5

$$y = 5.1332\text{E-}004 * x + 2.2111\text{E-}005$$

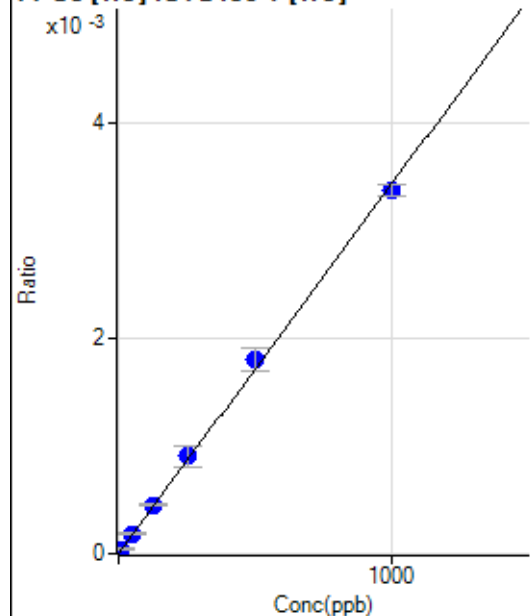
$$R = 1.0000$$

$$DL = 0.1401$$

$$BEC = 0.04307$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	11.323	8.89	0.0000	P	57.4
4	☐	50.000	54.632	43.34	0.0002	P	12.9
5	☐	125.000	132.351	104.45	0.0005	P	5.0
6	☐	250.000	263.192	204.45	0.0009	P	23.0
7	☐	500.000	527.165	393.35	0.0018	P	11.6
8	☐	1000.000	981.937	691.14	0.0034	P	3.2
9	☐			1.11	0.0000	P	173.2

$$y = 3.4299\text{E-}006 * x + 0.0000\text{E+}000$$

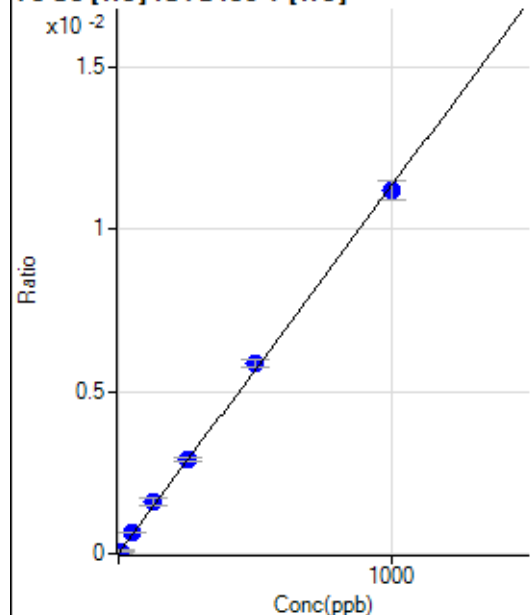
$$R = 0.9994$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.85	0.0000	P	100.0
2	☐	0.500					
3	☐	5.000	5.710	16.67	0.0001	P	44.8
4	☐	50.000	56.331	149.38	0.0006	P	7.4
5	☐	125.000	141.217	369.76	0.0016	P	14.0
6	☐	250.000	255.672	657.43	0.0029	P	5.5
7	☐	500.000	519.357	1282.17	0.0059	P	4.0
8	☐	1000.000	986.556	2294.04	0.0112	P	5.3
9	☐			1.23	0.0000	P	173.2

$$y = 1.1325\text{E-}005 * x + 8.2974\text{E-}006$$

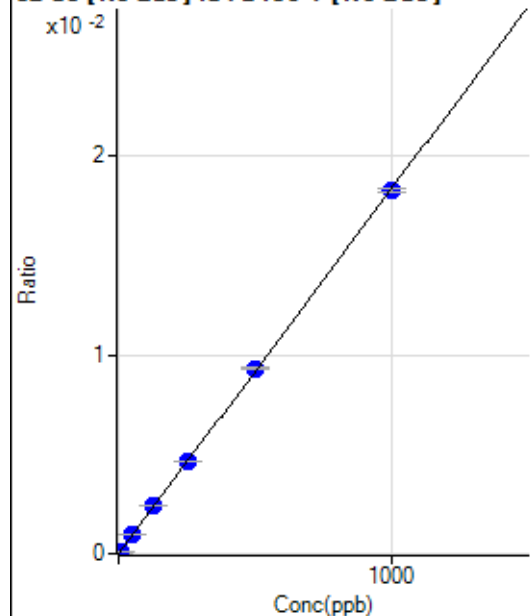
$$R = 0.9996$$

$$DL = 2.199$$

$$BEC = 0.7326$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-9.06	0.0000	P	-609.
2	☐	0.500					
3	☐	5.000	4.372	508.25	0.0001	P	9.7
4	☐	50.000	52.199	6223.76	0.0010	P	2.2
5	☐	125.000	130.310	15804.28	0.0024	P	0.6
6	☐	250.000	252.514	30872.33	0.0046	P	0.8
7	☐	500.000	508.372	62322.73	0.0093	P	0.6
8	☐	1000.000	994.415	120990.15	0.0183	P	1.0
9	☐			33.49	0.0000	P	36.2

$$y = 1.8369\text{E-}005 * x - 1.6713\text{E-}006$$

$$R = 0.9999$$

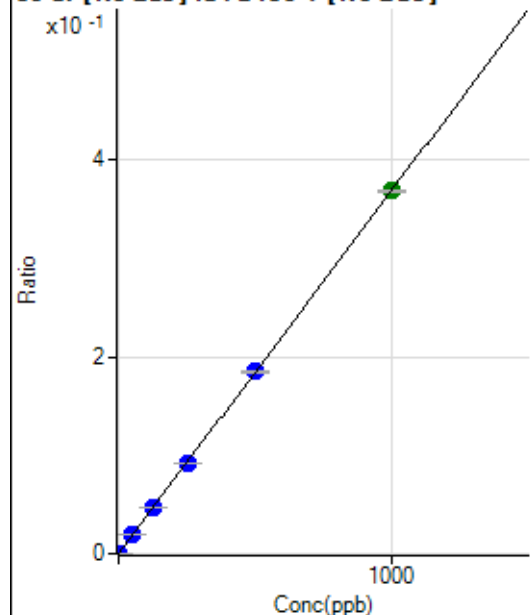
$$DL = 1.663$$

$$BEC = -0.09098$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	663.94	0.0001	P	15.0
2	☐	0.100					
3	☐	1.000	0.891	2808.74	0.0004	P	2.7
4	☐	50.000	51.407	123829.63	0.0190	P	0.2
5	☐	125.000	126.395	308362.04	0.0467	P	1.0
6	☐	250.000	249.903	613734.18	0.0922	P	0.8
7	☐	500.000	500.506	1231522.24	0.1845	P	0.9
8	☐	1000.000	999.527	2440077.79	0.3684	A	0.6
9	☐			79375.01	0.0130	P	4.6

$$y = 3.6842\text{E-}004 * x + 1.0622\text{E-}004$$

$$R = 1.0000$$

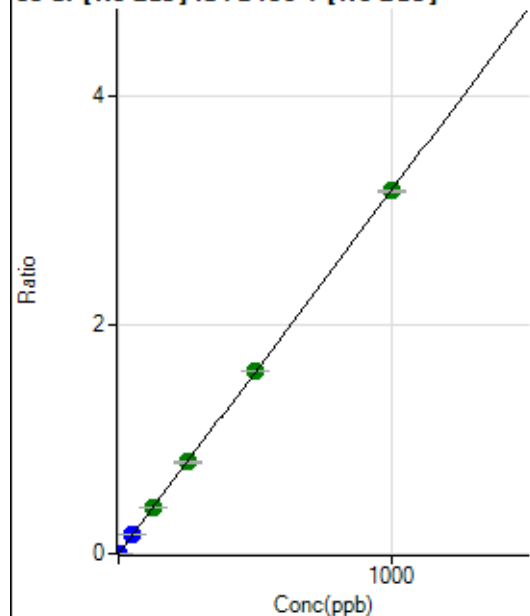
$$DL = 0.1299$$

$$BEC = 0.2883$$

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	280.57	0.0000	P	25.7
2	☐	0.100					
3	☐	1.000	0.920	19217.06	0.0030	P	1.2
4	☐	50.000	51.590	1067508.80	0.1642	P	0.5
5	☐	125.000	128.184	2694867.85	0.4079	A	1.5
6	☐	250.000	251.451	5327090.74	0.8001	A	0.5
7	☐	500.000	501.157	10643971.16	1.5946	A	0.1
8	☐	1000.000	998.582	21046836.06	3.1772	A	0.7
9	☐			688802.20	0.1125	P	4.1

$$y = 0.0032 * x + 4.4954\text{E-}005$$

$$R = 1.0000$$

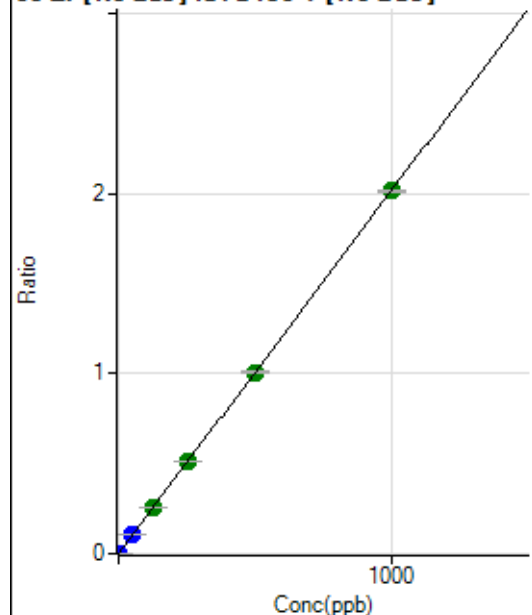
$$DL = 0.0109$$

$$BEC = 0.01413$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	355.58	0.0001	P	3.0
2	☐	0.100					
3	☐	1.000	0.875	11772.29	0.0018	P	2.3
4	☐	50.000	50.977	668574.50	0.1028	P	0.9
5	☐	125.000	127.657	1700904.60	0.2574	A	0.9
6	☐	250.000	253.310	3400635.88	0.5107	A	0.2
7	☐	500.000	499.137	6717056.96	1.0063	A	1.1
8	☐	1000.000	999.223	13344677.55	2.0145	A	0.7
9	☐			1655.73	0.0003	P	11.7

$$y = 0.0020 * x + 5.6721E-005$$

$$R = 1.0000$$

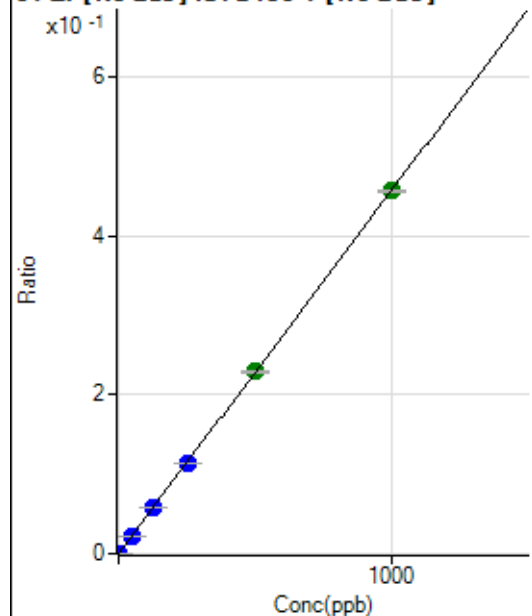
$$DL = 0.002497$$

$$BEC = 0.02814$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	94.45	0.0000	P	28.4
2	☐	0.100					
3	☐	1.000	0.919	2811.54	0.0004	P	3.4
4	☐	50.000	49.936	148424.26	0.0228	P	0.4
5	☐	125.000	126.017	380470.16	0.0576	P	0.9
6	☐	250.000	248.734	756687.03	0.1137	P	1.1
7	☐	500.000	501.982	1530838.90	0.2293	A	1.1
8	☐	1000.000	999.202	3024011.42	0.4565	A	0.7
9	☐			400.02	0.0001	P	19.8

$$y = 4.5685E-004 * x + 1.4978E-005$$

$$R = 1.0000$$

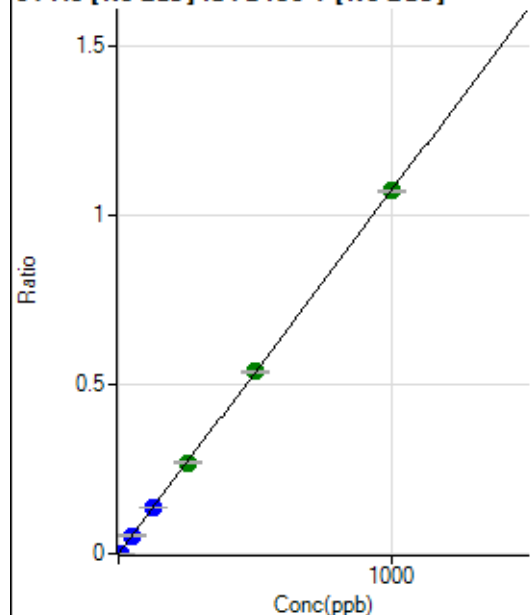
$$DL = 0.02789$$

$$BEC = 0.03279$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	169.45	0.0000	P	16.0
2	☐	0.500					
3	☐	5.000	1.942	13660.24	0.0021	P	2.2
4	☐	50.000	50.159	350561.60	0.0539	P	0.7
5	☐	125.000	125.921	894006.48	0.1353	P	1.0
6	☐	250.000	251.129	1796546.11	0.2698	A	1.2
7	☐	500.000	500.975	3592911.19	0.5383	A	0.8
8	☐	1000.000	999.123	7110910.92	1.0735	A	0.7
9	☐			3856.28	0.0006	P	9.5

$$y = 0.0011 * x + 2.7079E-005$$

$$R = 1.0000$$

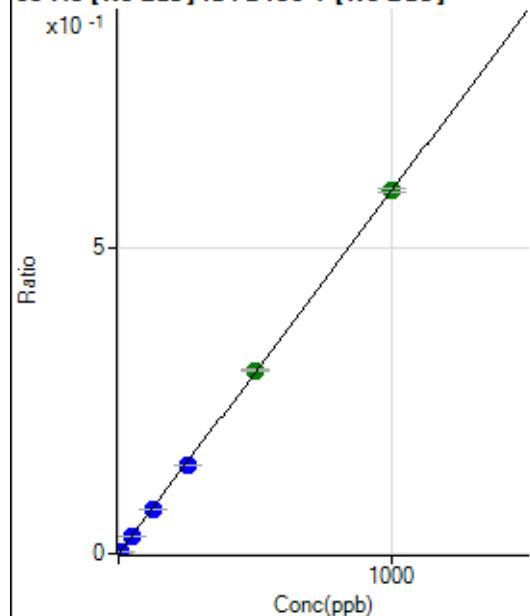
$$DL = 0.01207$$

$$BEC = 0.0252$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	67.6
2	☐	0.500					
3	☐	5.000	4.362	16735.99	0.0026	P	1.3
4	☐	50.000	49.680	191142.73	0.0294	P	1.2
5	☐	125.000	122.634	479353.29	0.0726	P	1.3
6	☐	250.000	241.650	951857.93	0.1430	P	0.3
7	☐	500.000	504.149	1990713.69	0.2982	A	1.1
8	☐	1000.000	1000.328	3919880.43	0.5918	A	1.2
9	☐			5520.83	0.0009	P	3.3

$$y = 5.9155E-004 * x + 9.4229E-006$$

$$R = 0.9999$$

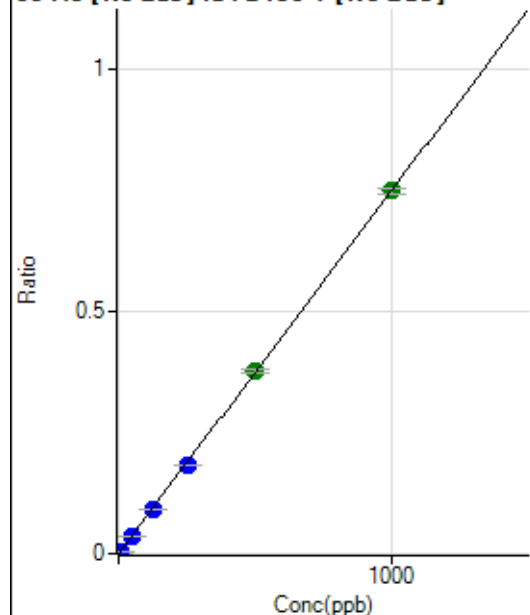
$$DL = 0.03232$$

$$BEC = 0.01593$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	152.79	0.0000	P	37.8
2	☐	0.500					
3	☐	5.000	3.772	18427.11	0.0029	P	2.1
4	☐	50.000	49.436	241054.25	0.0371	P	0.0
5	☐	125.000	124.006	614216.94	0.0930	P	0.5
6	☐	250.000	244.713	1221277.28	0.1834	P	0.7
7	☐	500.000	503.005	2516417.16	0.3770	A	1.5
8	☐	1000.000	999.978	4964431.10	0.7495	A	1.6
9	☐			7641.38	0.0012	P	3.7

$$y = 7.4945\text{E-}004 * x + 2.4360\text{E-}005$$

$$R = 1.0000$$

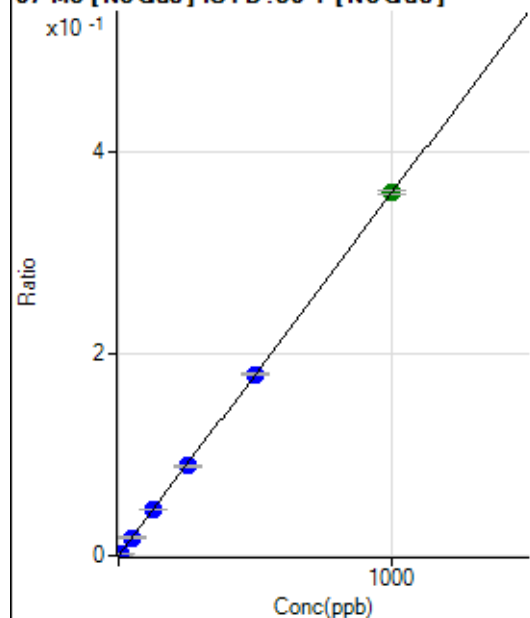
$$DL = 0.03686$$

$$BEC = 0.0325$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	100.01	0.0000	P	53.1
2	☐	0.500					
3	☐	5.000	4.588	10735.23	0.0017	P	1.8
4	☐	50.000	50.177	117096.42	0.0180	P	0.7
5	☐	125.000	125.527	297504.89	0.0450	P	1.3
6	☐	250.000	246.815	589420.59	0.0885	P	0.3
7	☐	500.000	499.690	1196146.99	0.1792	P	1.1
8	☐	1000.000	1000.879	2377612.10	0.3589	A	1.1
9	☐			3500.60	0.0006	P	3.3

$$y = 3.5860\text{E-}004 * x + 1.6126\text{E-}005$$

$$R = 1.0000$$

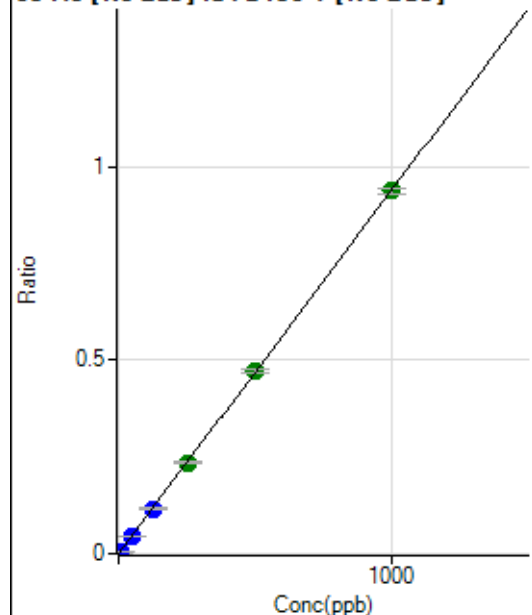
$$DL = 0.07163$$

$$BEC = 0.04497$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	111.12	0.0000	P	37.7
2	☐	0.500					
3	☐	5.000	4.402	26833.04	0.0042	P	3.3
4	☐	50.000	49.503	302412.81	0.0465	P	0.1
5	☐	125.000	123.994	769553.07	0.1165	P	0.7
6	☐	250.000	250.924	1569238.00	0.2357	A	1.0
7	☐	500.000	502.421	3149830.02	0.4719	A	1.3
8	☐	1000.000	998.712	6213571.80	0.9380	A	1.3
9	☐			8978.39	0.0015	P	7.8

$$y = 9.3922\text{E-}004 * x + 1.7760\text{E-}005$$

$$R = 1.0000$$

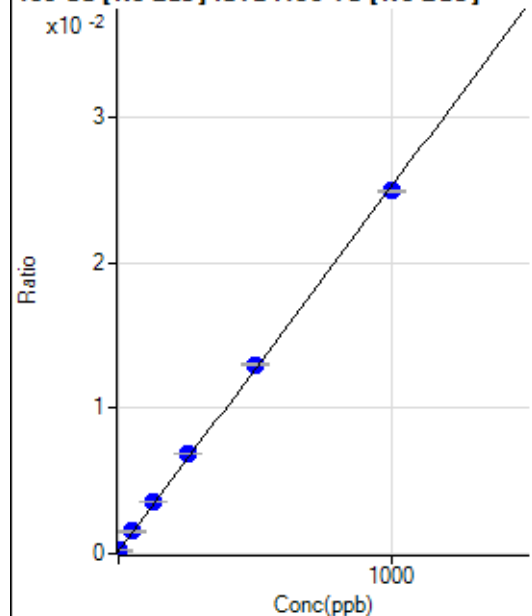
$$DL = 0.02141$$

$$BEC = 0.01891$$

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	1152.88	0.0002	P	18.1
2	☐	0.100					
3	☐	1.000	2.006	1552.94	0.0002	P	9.6
4	☐	50.000	54.364	11405.29	0.0015	P	1.8
5	☐	125.000	136.096	27320.29	0.0036	P	1.3
6	☐	250.000	267.610	53105.85	0.0069	P	1.0
7	☐	500.000	511.946	104371.72	0.0130	P	0.6
8	☐	1000.000	988.018	204750.95	0.0249	P	0.4
9	☐			1172.33	0.0002	P	4.9

$$y = 2.5059\text{E-}005 * x + 1.6053\text{E-}004$$

$$R = 0.9997$$

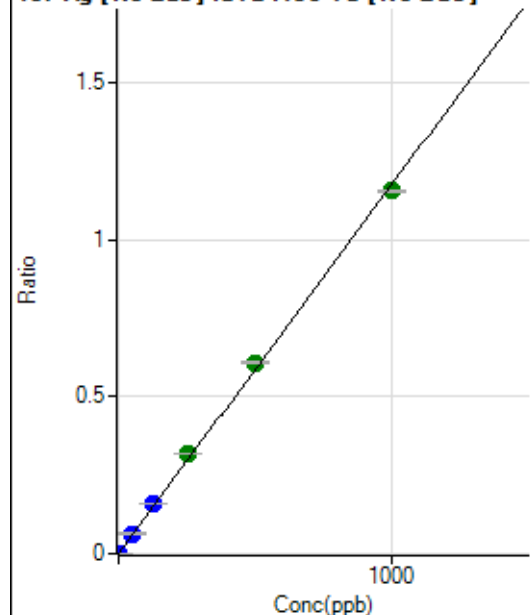
$$DL = 3.471$$

$$BEC = 6.406$$

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	191.68	0.0000	P	41.9
2	☐	0.100					
3	☐	1.000	0.974	8633.71	0.0012	P	2.0
4	☐	50.000	54.461	479778.10	0.0641	P	1.2
5	☐	125.000	135.136	1215661.97	0.1589	P	1.3
6	☐	250.000	270.763	2462217.89	0.3184	A	0.9
7	☐	500.000	518.506	4898449.54	0.6096	A	0.8
8	☐	1000.000	984.066	9506277.30	1.1570	A	0.7
9	☐			1172.33	0.0002	P	13.6

$$y = 0.0012 * x + 2.6886E-005$$

$$R = 0.9995$$

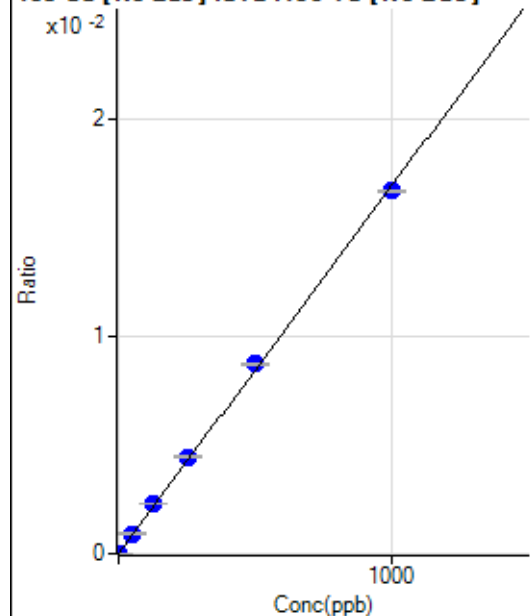
$$DL = 0.02873$$

$$BEC = 0.02287$$

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	6.94	0.0000	P	92.6
2	☐	0.100					
3	☐	1.000	1.124	147.23	0.0000	P	11.0
4	☐	50.000	54.859	6954.71	0.0009	P	2.6
5	☐	125.000	135.965	17592.29	0.0023	P	3.4
6	☐	250.000	263.284	34430.22	0.0045	P	2.4
7	☐	500.000	515.718	70062.91	0.0087	P	0.8
8	☐	1000.000	987.206	137137.18	0.0167	P	0.8
9	☐			26.39	0.0000	P	70.6

$$y = 1.6906E-005 * x + 9.7580E-007$$

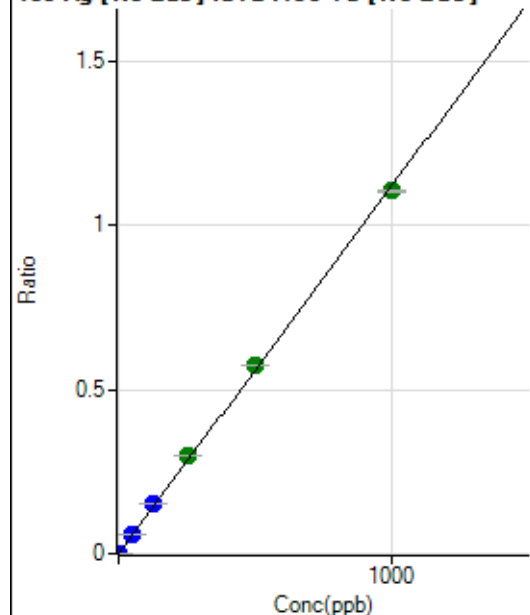
$$R = 0.9997$$

$$DL = 0.1603$$

$$BEC = 0.05772$$

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	152.79	0.0000	P	2.3
2	☐	0.100					
3	☐	1.000	0.942	7922.15	0.0011	P	2.3
4	☐	50.000	54.416	456317.26	0.0609	P	0.7
5	☐	125.000	134.562	1152321.26	0.1506	P	1.2
6	☐	250.000	267.205	2313115.70	0.2991	A	0.9
7	☐	500.000	513.628	4619279.92	0.5749	A	0.6
8	☐	1000.000	987.468	9080858.80	1.1052	A	0.8
9	☐			1158.44	0.0001	P	8.7

$$y = 0.0011 * x + 2.1314E-005$$

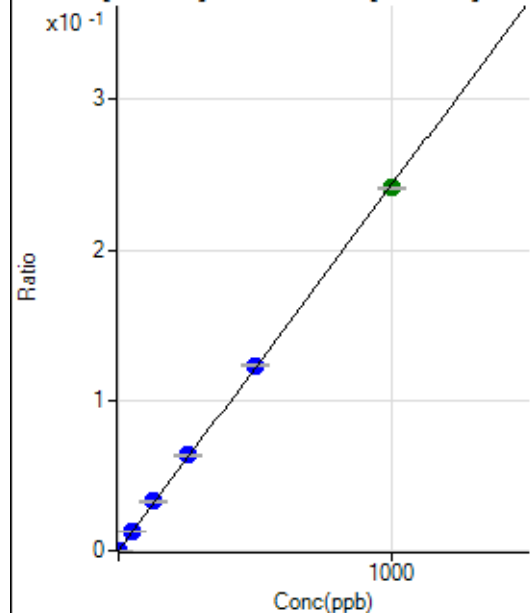
$$R = 0.9997$$

$$DL = 0.001308$$

$$BEC = 0.01904$$

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	818.82	0.0001	P	17.6
2	☐	0.100					
3	☐	1.000	0.998	2627.19	0.0004	P	3.2
4	☐	50.000	53.816	98808.33	0.0132	P	1.7
5	☐	125.000	134.022	250046.28	0.0327	P	0.7
6	☐	250.000	260.752	490948.93	0.0635	P	1.5
7	☐	500.000	507.297	991470.98	0.1234	P	1.1
8	☐	1000.000	992.345	1982414.54	0.2413	A	0.3
9	☐			929.94	0.0001	P	4.5

$$y = 2.4302E-004 * x + 1.1403E-004$$

$$R = 0.9999$$

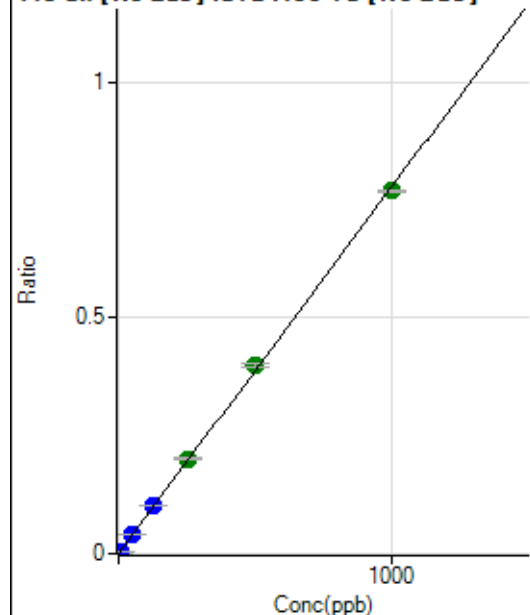
$$DL = 0.2477$$

$$BEC = 0.4692$$

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	511.14	0.0001	P	13.3
2	☐	0.500					
3	☐	5.000	4.712	27515.39	0.0037	P	1.4
4	☐	50.000	52.326	305198.23	0.0407	P	0.7
5	☐	125.000	130.733	778044.25	0.1017	P	1.1
6	☐	250.000	257.938	1551266.16	0.2006	A	1.9
7	☐	500.000	514.581	3214578.72	0.4001	A	1.9
8	☐	1000.000	989.893	6323353.53	0.7696	A	0.8
9	☐			3044.94	0.0004	P	12.5

$$y = 7.7739E-004 * x + 7.1250E-005$$

$$R = 0.9998$$

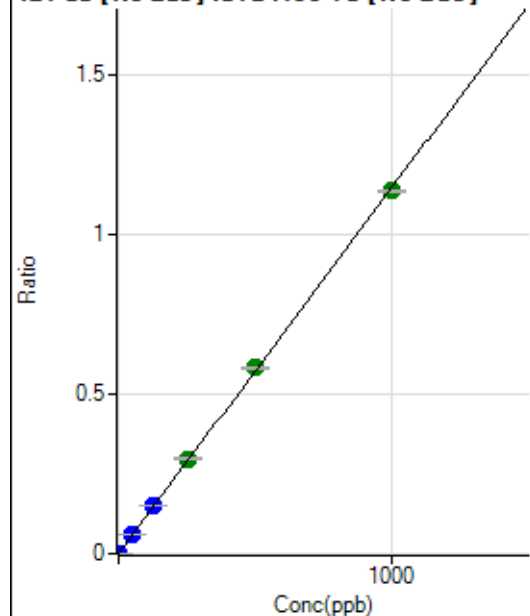
$$DL = 0.03652$$

$$BEC = 0.09165$$

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	30.56	0.0000	P	55.4
2	☐	0.200					
3	☐	2.000	1.867	15754.37	0.0021	P	3.8
4	☐	50.000	52.577	450156.17	0.0601	P	0.9
5	☐	125.000	131.832	1152879.11	0.1507	P	1.1
6	☐	250.000	258.902	2288750.88	0.2959	A	1.7
7	☐	500.000	508.776	4672879.10	0.5816	A	0.7
8	☐	1000.000	992.404	9320499.77	1.1344	A	0.5
9	☐			11199.56	0.0014	P	3.5

$$y = 0.0011 * x + 4.2486E-006$$

$$R = 0.9999$$

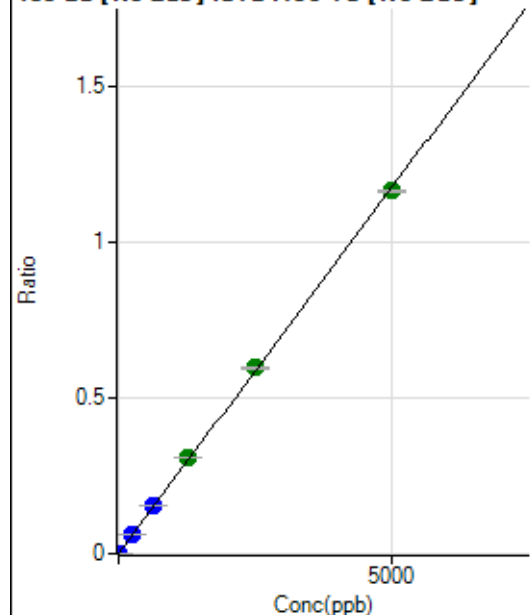
$$DL = 0.006181$$

$$BEC = 0.003717$$

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	44.45	0.0000	P	80.0
2	☐	1.000					
3	☐	10.000	9.609	16705.62	0.0023	P	2.1
4	☐	250.000	263.707	464809.34	0.0621	P	0.9
5	☐	625.000	655.964	1180862.67	0.1544	P	1.3
6	☐	1250.000	1307.909	2380272.04	0.3078	A	0.8
7	☐	2500.000	2543.102	4808222.42	0.5984	A	1.0
8	☐	5000.000	4959.417	9588446.92	1.1670	A	0.3
9	☐			2255.86	0.0003	P	5.5

$$y = 2.3531E-004 * x + 6.2588E-006$$

$$R = 0.9999$$

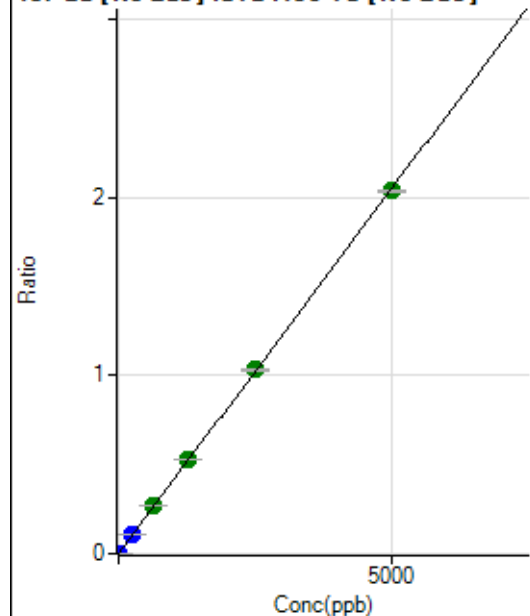
$$DL = 0.0638$$

$$BEC = 0.0266$$

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	55.56	0.0000	P	69.5
2	☐	1.000					
3	☐	10.000	9.431	28498.34	0.0039	P	1.8
4	☐	250.000	263.692	808398.24	0.1079	P	1.0
5	☐	625.000	661.675	2071841.00	0.2708	A	1.4
6	☐	1250.000	1296.975	4105496.62	0.5308	A	1.0
7	☐	2500.000	2520.374	8288318.07	1.0316	A	1.5
8	☐	5000.000	4972.801	16722698.47	2.0353	A	0.8
9	☐			3831.29	0.0005	P	3.5

$$y = 4.0929E-004 * x + 7.7164E-006$$

$$R = 0.9999$$

$$DL = 0.03931$$

$$BEC = 0.01885$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			15.56		P	49.5
2	☐						
3	☐			4.44		P	173.2
4	☐			24.45		P	68.6
5	☐			68.89		P	5.6
6	☐			102.23		P	30.1
7	☐			182.23		P	9.2
8	☐			371.13		P	17.1
9	☐			108.89		P	33.7

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			1.11		P	173.2
5	☐			1.11		P	173.2
6	☐			1.11		P	173.2
7	☐			11.11		P	45.8
8	☐			6.67		P	50.0
9	☐			5.55		P	69.3

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	21.6
2	☐						
3	☐			16.67		P	50.0
4	☐			19.44		P	49.5
5	☐			44.45		P	28.7
6	☐			38.89		P	32.7
7	☐			80.56		P	15.8
8	☐			136.12		P	39.8
9	☐			80.56		P	46.6

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐						
3	☐			1.11		P	173.2
4	☐			6.67		P	0.0
5	☐			7.78		P	65.5
6	☐			12.22		P	56.8
7	☐			10.00		P	33.3
8	☐			18.89		P	56.7
9	☐			15.56		P	53.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			47.23		P	36.7
2	☐						
3	☐			44.45		P	28.7
4	☐			63.89		P	45.8
5	☐			72.23		P	37.1
6	☐			44.44		P	21.7
7	☐			75.01		P	29.4
8	☐			127.79		P	27.2
9	☐			125.00		P	30.5

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	100.1
2	☐						
3	☐			8.89		P	21.6
4	☐			4.44		P	43.4
5	☐			7.78		P	137.8
6	☐			12.22		P	56.8
7	☐			17.78		P	28.6
8	☐			22.22		P	31.2
9	☐			18.89		P	36.7

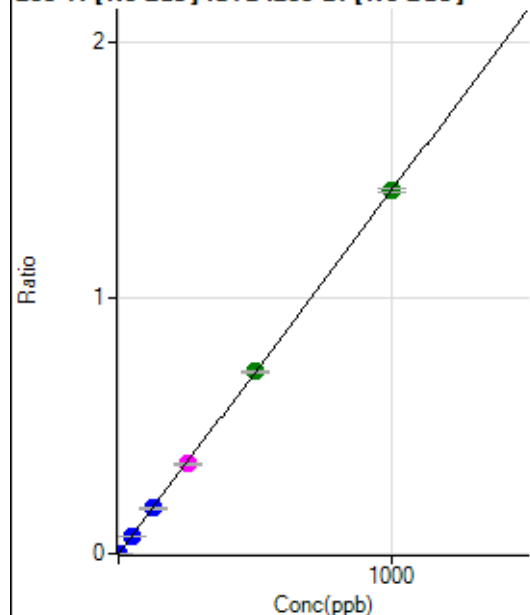
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.56		P	56.8
2	☐						
3	☐			36.11		P	35.3
4	☐			33.33		P	25.0
5	☐			38.89		P	44.6
6	☐			25.00		P	33.3
7	☐			41.67		P	34.6
8	☐			72.23		P	17.6
9	☐			58.34		P	37.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	114.6
2	☐						
3	☐			10.00		P	33.3
4	☐			8.89		P	21.6
5	☐			4.44		P	43.4
6	☐			6.67		P	50.0
7	☐			5.56		P	34.7
8	☐			10.00		P	33.3
9	☐			13.33		P	25.0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	138.89	0.0000	P	15.1
2	☐	0.100					
3	☐	1.000	0.890	5909.97	0.0013	P	3.2
4	☐	50.000	49.529	322204.45	0.0703	P	0.7
5	☐	125.000	124.459	823002.14	0.1766	P	0.5
6	☐	250.000	247.641	1661124.59	0.3514	M	1.4
7	☐	500.000	502.797	3502326.34	0.7134	A	1.0
8	☐	1000.000	999.283	7175801.11	1.4179	A	1.0
9	☐			2286.44	0.0005	P	5.7

$$y = 0.0014 * x + 3.1632E-005$$

$$R = 1.0000$$

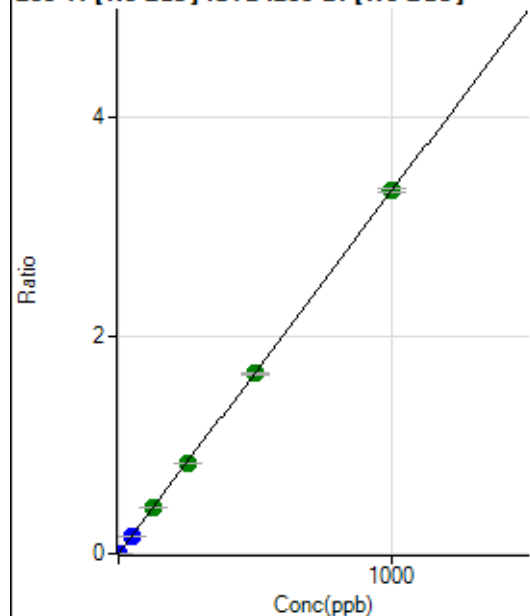
$$DL = 0.01013$$

$$BEC = 0.02229$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	338.91	0.0001	P	19.5
2	☐	0.100					
3	☐	1.000	0.894	13933.20	0.0031	P	0.5
4	☐	50.000	50.209	766156.37	0.1672	P	0.6
5	☐	125.000	127.035	1970445.90	0.4229	A	0.9
6	☐	250.000	249.533	3926135.51	0.8306	A	0.6
7	☐	500.000	497.903	8135100.88	1.6572	A	1.0
8	☐	1000.000	1000.900	16859339.09	3.3312	A	1.1
9	☐			5748.80	0.0012	P	7.6

$$y = 0.0033 * x + 7.6829E-005$$

$$R = 1.0000$$

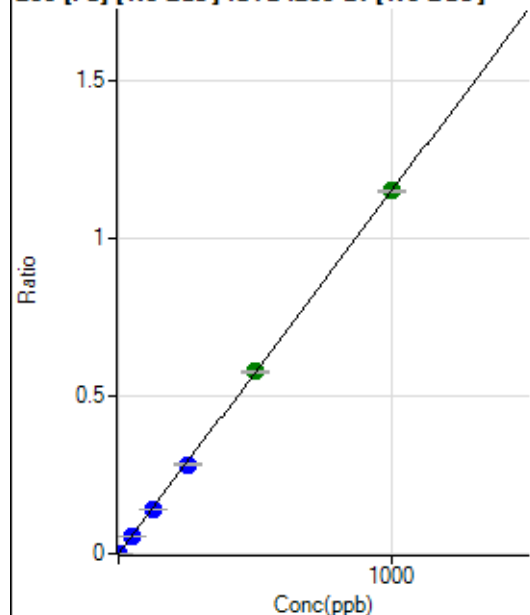
$$DL = 0.01353$$

$$BEC = 0.02308$$

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	394.46	0.0001	P	9.1
2	☐	0.100					
3	☐	1.000	0.883	5034.51	0.0011	P	2.8
4	☐	50.000	49.342	260070.50	0.0567	P	0.4
5	☐	125.000	124.073	664263.48	0.1426	P	0.7
6	☐	250.000	246.425	1338042.42	0.2830	P	0.7
7	☐	500.000	501.709	2828596.33	0.5762	A	0.6
8	☐	1000.000	1000.188	5812841.33	1.1486	A	0.9
9	☐			6581.53	0.0014	P	4.2

$$y = 0.0011 * x + 8.9700E-005$$

$$R = 1.0000$$

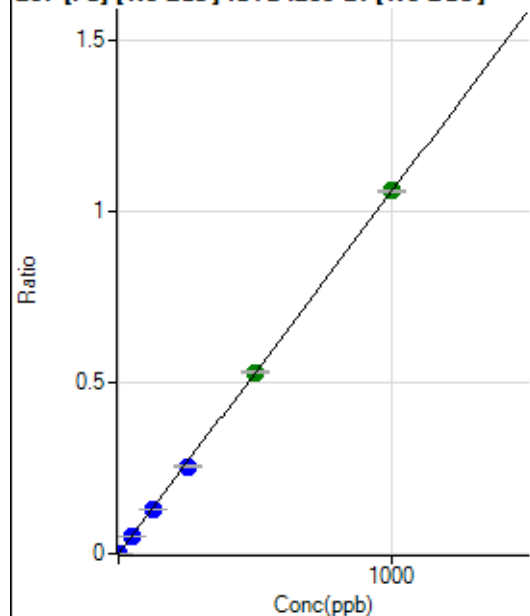
$$DL = 0.02122$$

$$BEC = 0.07812$$

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	301.87	0.0001	P	2.5
2	☐	0.100					
3	☐	1.000	0.876	4539.85	0.0010	P	2.7
4	☐	50.000	48.475	235108.80	0.0513	P	0.7
5	☐	125.000	122.267	602470.30	0.1293	P	0.2
6	☐	250.000	241.567	1207261.69	0.2554	P	0.7
7	☐	500.000	500.395	2596560.59	0.5289	A	1.3
8	☐	1000.000	1002.329	5362060.36	1.0594	A	0.5
9	☐			5603.25	0.0012	P	2.0

$$y = 0.0011 * x + 6.8724E-005$$

$$R = 1.0000$$

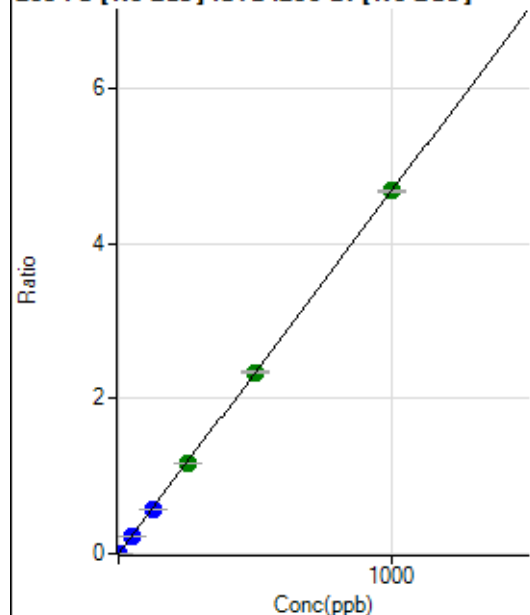
$$DL = 0.004838$$

$$BEC = 0.06502$$

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	1429.71	0.0003	P	3.8
2	☐	0.100					
3	☐	1.000	0.883	20355.19	0.0045	P	0.9
4	☐	50.000	49.289	1058740.04	0.2310	P	0.6
5	☐	125.000	124.016	2706223.79	0.5808	P	0.6
6	☐	250.000	248.868	5507813.69	1.1651	A	0.8
7	☐	500.000	500.029	11491212.20	2.3407	A	0.6
8	☐	1000.000	1000.427	23699732.18	4.6828	A	0.8
9	☐			25575.55	0.0055	P	2.8

$$y = 0.0047 * x + 3.2565E-004$$

$$R = 1.0000$$

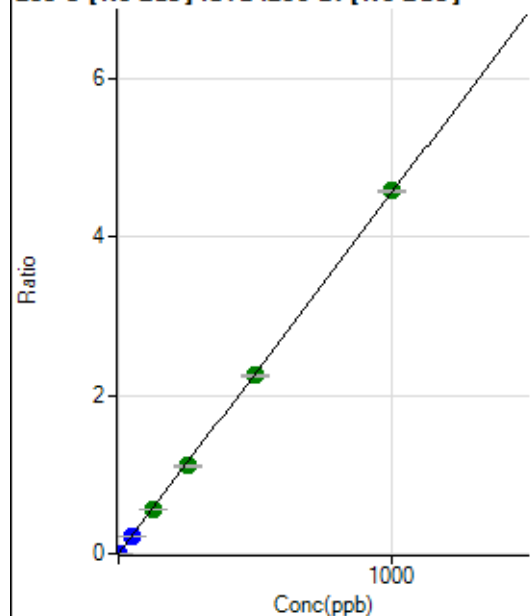
$$DL = 0.007967$$

$$BEC = 0.06958$$

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	152.79	0.0000	P	3.2
2	☐	0.100					
3	☐	1.000	0.863	18111.28	0.0040	P	3.3
4	☐	50.000	48.003	1002984.29	0.2189	P	0.1
5	☐	125.000	122.844	2609434.89	0.5600	A	1.1
6	☐	250.000	242.659	5229098.94	1.1062	A	0.3
7	☐	500.000	493.074	11034742.78	2.2477	A	0.5
8	☐	1000.000	1005.668	23201120.14	4.5843	A	0.8
9	☐			1489.05	0.0003	P	9.3

$$y = 0.0046 * x + 3.4751E-005$$

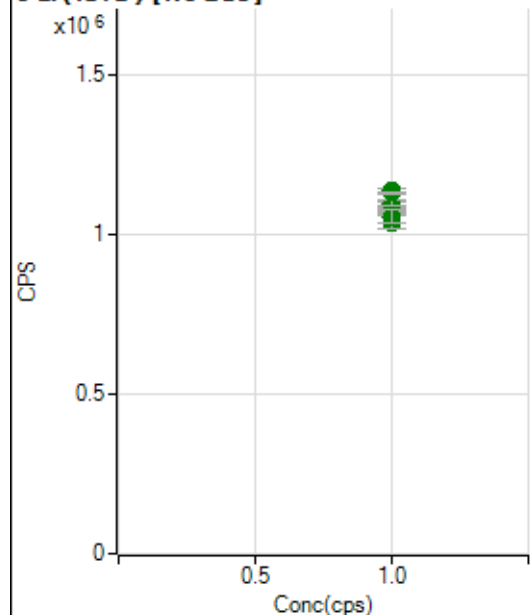
$$R = 0.9999$$

$$DL = 0.000741$$

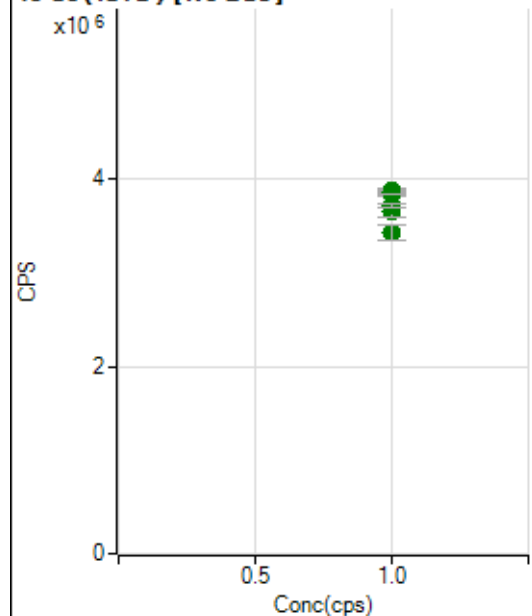
$$BEC = 0.007623$$

Weight: <None>

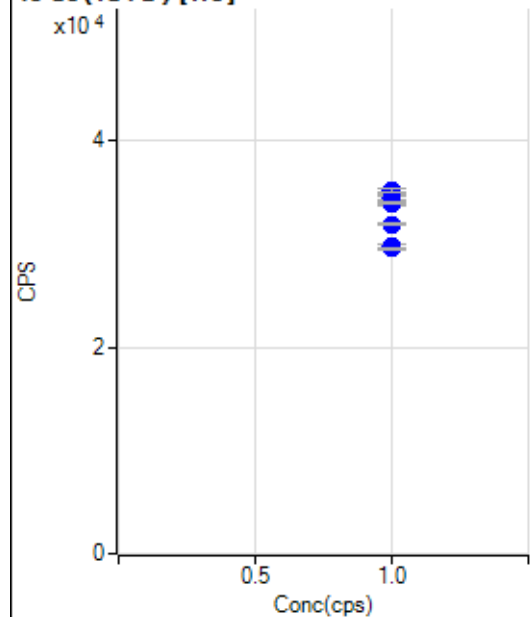
Min Conc: 0

6 Li (ISTD) [No Gas]

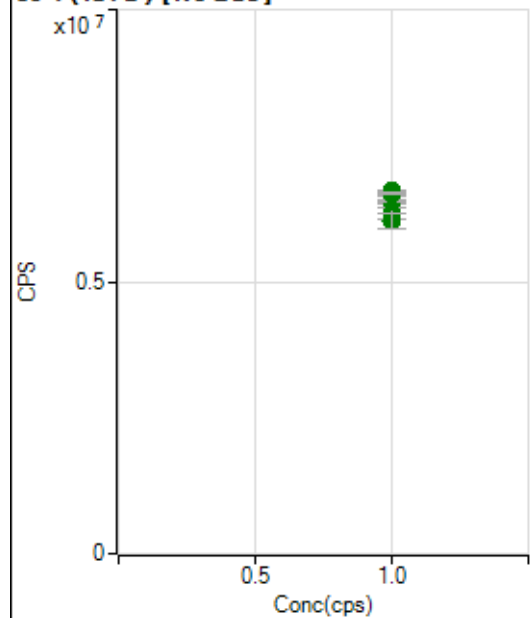
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1039938.46		A	3.7
2	☐	1.000					
3	☐	1.000		1069332.28		A	0.5
4	☐	1.000		1089386.14		A	0.9
5	☐	1.000		1094355.01		A	1.3
6	☐	1.000		1099046.66		A	1.3
7	☐	1.000		1137448.28		A	0.9
8	☐	1.000		1130626.34		A	0.7
9	☐	1.000		1056665.28		A	4.2

45 Sc (ISTD) [No Gas]

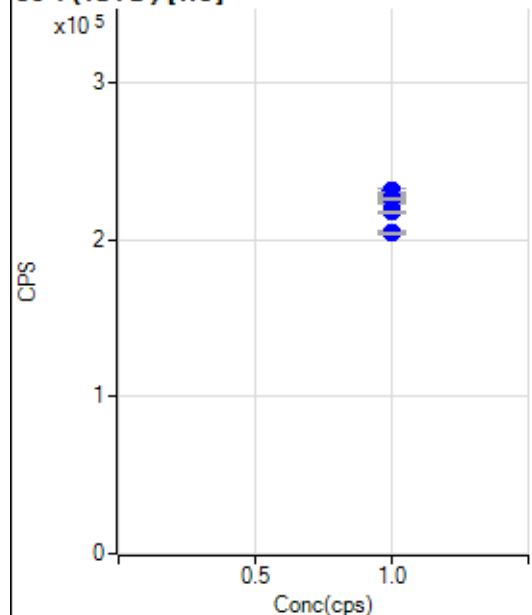
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3662833.76		A	3.6
2	☐	1.000					
3	☐	1.000		3841507.42		A	0.7
4	☐	1.000		3873865.23		A	1.1
5	☐	1.000		3875742.01		A	0.7
6	☐	1.000		3862226.21		A	0.7
7	☐	1.000		3841663.84		A	0.4
8	☐	1.000		3723829.12		A	0.9
9	☐	1.000		3425130.61		A	4.9

45 Sc (ISTD) [He]

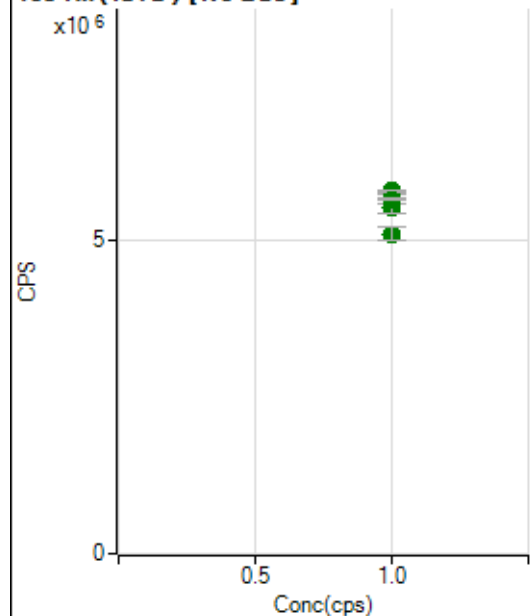
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		33914.45		P	1.3
2	☐	1.000					
3	☐	1.000		34824.42		P	0.9
4	☐	1.000		34529.22		P	1.4
5	☐	1.000		35152.99		P	1.2
6	☐	1.000		33981.21		P	0.6
7	☐	1.000		31954.24		P	0.8
8	☐	1.000		29845.17		P	1.5
9	☐	1.000		29557.95		P	0.8

89 Y (ISTD) [No Gas]

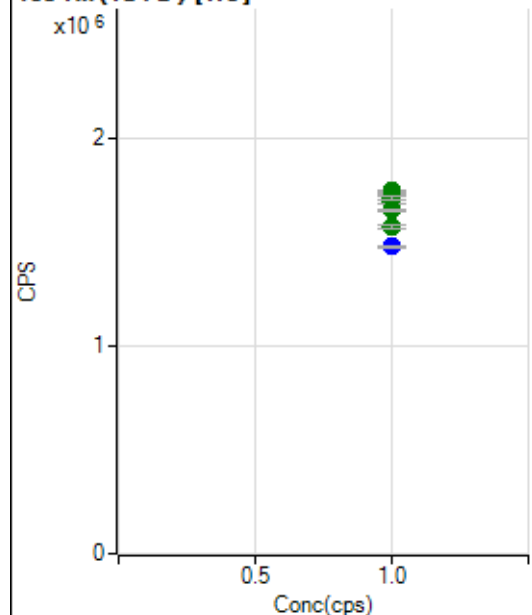
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6271716.09		A	3.4
2	☐	1.000					
3	☐	1.000		6462455.46		A	0.3
4	☐	1.000		6501843.31		A	0.4
5	☐	1.000		6607341.22		A	0.9
6	☐	1.000		6658346.78		A	0.7
7	☐	1.000		6675144.41		A	0.8
8	☐	1.000		6624523.24		A	0.8
9	☐	1.000		6129886.64		A	4.4

89 Y(ISTD) [He]

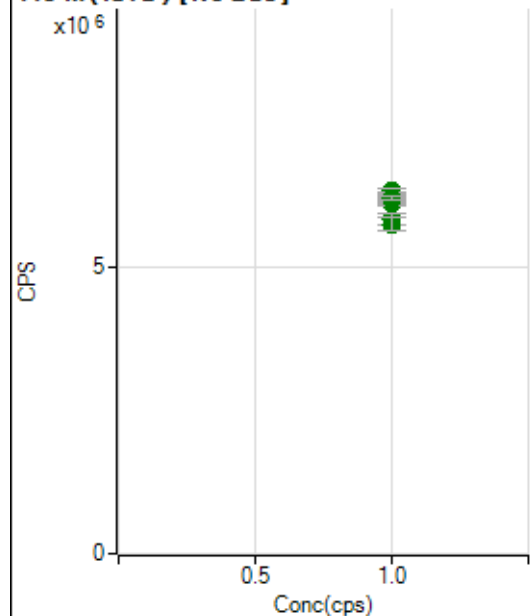
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		223446.86		P	0.3
2	☐	1.000					
3	☐	1.000		228767.89		P	0.6
4	☐	1.000		231188.86		P	0.9
5	☐	1.000		230096.63		P	0.5
6	☐	1.000		226407.87		P	0.3
7	☐	1.000		217639.98		P	0.7
8	☐	1.000		205212.38		P	1.2
9	☐	1.000		204160.47		P	0.3

103 Rh(ISTD) [No Gas]

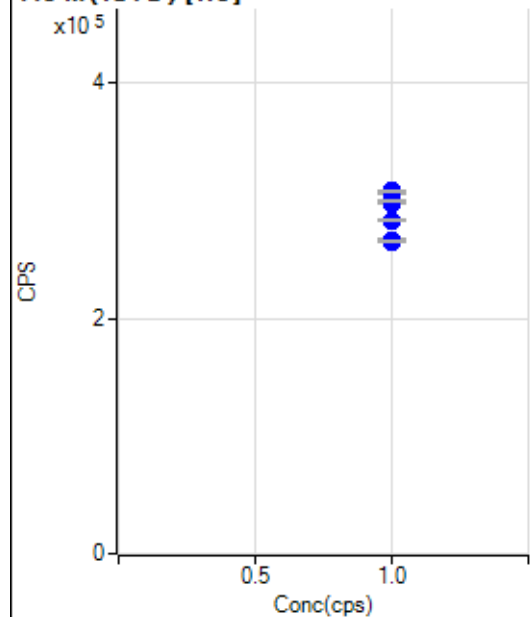
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5520942.96		A	2.6
2	☐	1.000					
3	☐	1.000		5766326.30		A	0.2
4	☐	1.000		5743788.67		A	0.4
5	☐	1.000		5770073.35		A	0.5
6	☐	1.000		5776880.29		A	0.5
7	☐	1.000		5794240.93		A	0.5
8	☐	1.000		5664067.88		A	0.3
9	☐	1.000		5103349.38		A	4.2

103 Rh (ISTD) [He]

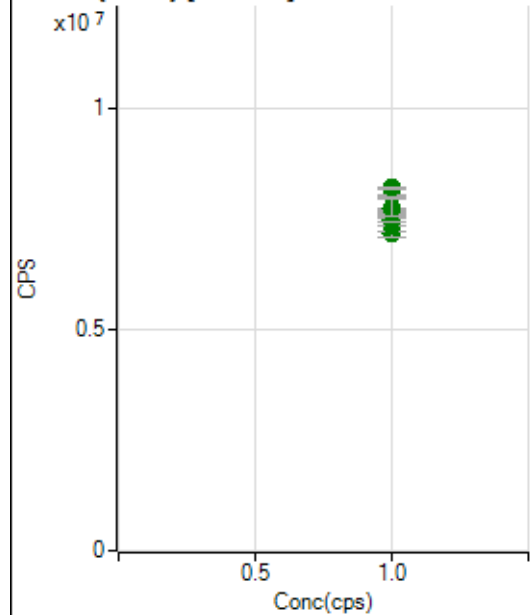
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1696996.09		A	1.1
2	☐	1.000					
3	☐	1.000		1735956.99		A	1.2
4	☐	1.000		1747186.50		A	0.5
5	☐	1.000		1732755.37		A	0.1
6	☐	1.000		1713230.70		A	0.7
7	☐	1.000		1656552.22		A	0.5
8	☐	1.000		1575959.08		A	1.1
9	☐	1.000		1477909.01		P	0.3

115 In (ISTD) [No Gas]

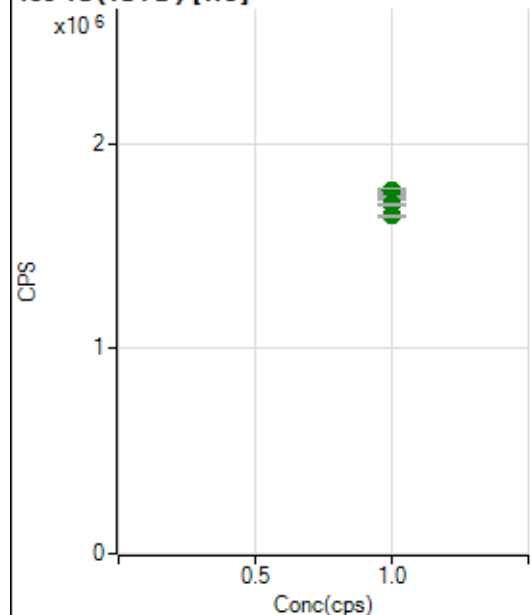
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5851099.76		A	3.4
2	☐	1.000					
3	☐	1.000		6093472.93		A	0.6
4	☐	1.000		6165959.07		A	1.1
5	☐	1.000		6259821.33		A	0.3
6	☐	1.000		6226228.52		A	1.2
7	☐	1.000		6328677.56		A	0.9
8	☐	1.000		6204324.01		A	0.8
9	☐	1.000		5751551.87		A	4.5

115 In (ISTD) [He]

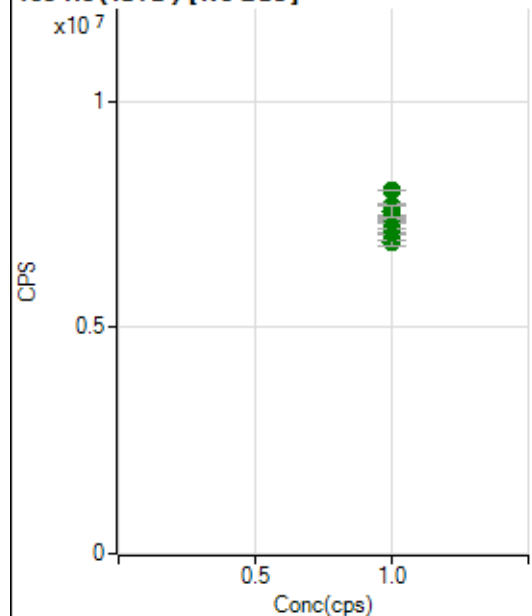
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		297872.87		P	0.4
2	☐	1.000					
3	☐	1.000		306421.55		P	0.1
4	☐	1.000		308464.92		P	0.5
5	☐	1.000		307814.99		P	0.5
6	☐	1.000		299874.01		P	0.4
7	☐	1.000		283468.28		P	0.9
8	☐	1.000		266334.26		P	0.8
9	☐	1.000		265386.67		P	1.0

159 Tb (ISTD) [No Gas]

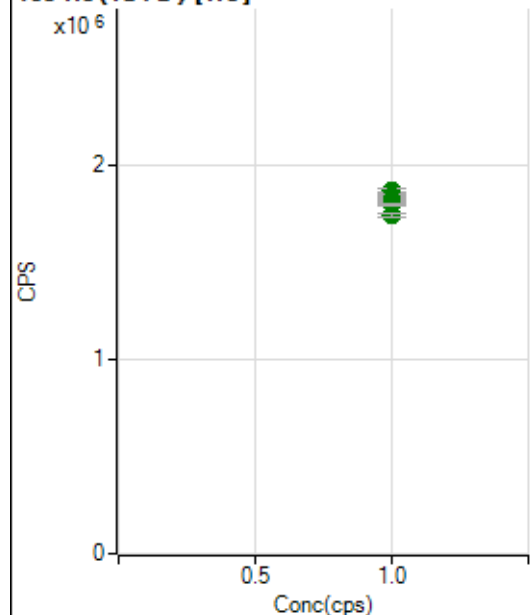
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7168275.10		A	1.9
2	☐	1.000					
3	☐	1.000		7367866.00		A	0.3
4	☐	1.000		7489953.22		A	0.6
5	☐	1.000		7650702.53		A	0.9
6	☐	1.000		7734243.29		A	0.8
7	☐	1.000		8035244.18		A	0.8
8	☐	1.000		8216385.99		A	0.5
9	☐	1.000		7771307.87		A	4.8

159 Tb (ISTD) [He]

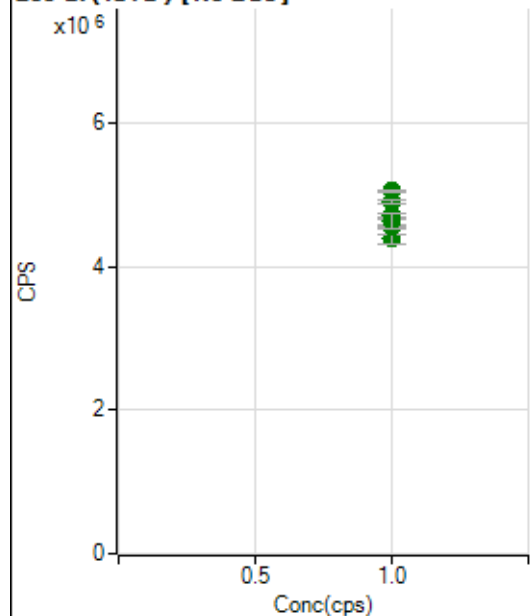
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1728196.19		A	0.4
2	☐	1.000					
3	☐	1.000		1752884.52		A	0.4
4	☐	1.000		1769134.32		A	0.5
5	☐	1.000		1764996.38		A	0.4
6	☐	1.000		1768203.36		A	1.1
7	☐	1.000		1739285.81		A	0.6
8	☐	1.000		1704313.24		A	0.7
9	☐	1.000		1649026.92		A	0.7

165 Ho (ISTD) [No Gas]

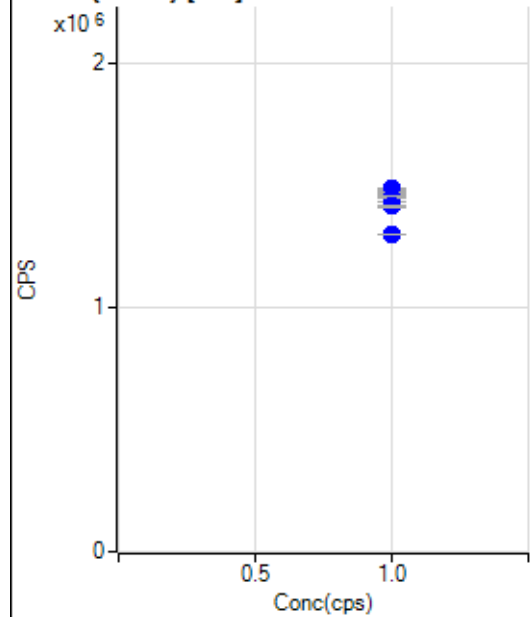
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6862976.28		A	1.7
2	☐	1.000					
3	☐	1.000		7078196.34		A	0.5
4	☐	1.000		7187772.03		A	0.3
5	☐	1.000		7336003.55		A	0.3
6	☐	1.000		7446783.06		A	1.0
7	☐	1.000		7707850.52		A	0.5
8	☐	1.000		8015192.63		A	0.1
9	☐	1.000		7557705.03		A	3.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1798879.63		A	0.3
2	☐	1.000					
3	☐	1.000		1830762.13		A	0.4
4	☐	1.000		1834196.54		A	0.5
5	☐	1.000		1868321.13		A	0.9
6	☐	1.000		1845814.16		A	0.4
7	☐	1.000		1820499.47		A	0.6
8	☐	1.000		1798290.29		A	0.7
9	☐	1.000		1742683.64		A	0.9

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4393698.09		A	3.2
2	☐	1.000					
3	☐	1.000		4563721.15		A	0.1
4	☐	1.000		4582887.19		A	0.4
5	☐	1.000		4659661.42		A	0.2
6	☐	1.000		4727276.59		A	1.0
7	☐	1.000		4909503.57		A	1.5
8	☐	1.000		5061175.48		A	0.7
9	☐	1.000		4641822.29		A	4.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1435132.52		P	0.2
2	☐	1.000					
3	☐	1.000		1466702.31		P	0.2
4	☐	1.000		1480676.97		P	0.4
5	☐	1.000		1487664.60		P	0.2
6	☐	1.000		1473389.73		P	0.2
7	☐	1.000		1452707.27		P	0.4
8	☐	1.000		1417512.41		P	0.4
9	☐	1.000		1301200.81		P	0.3

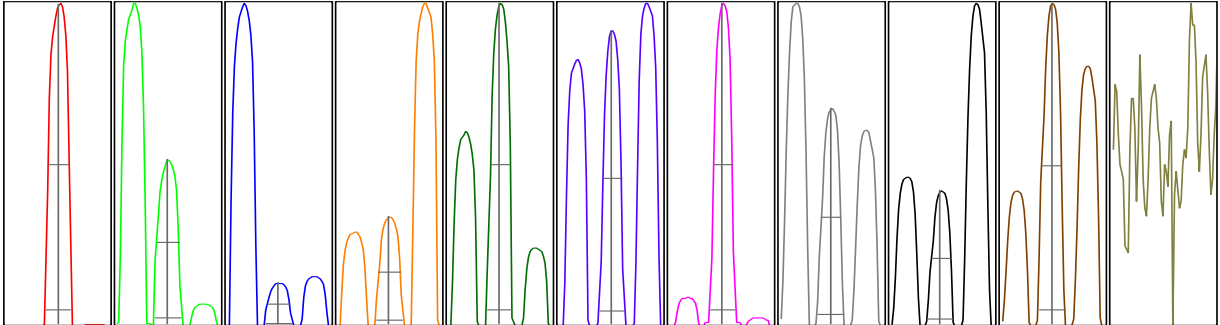
US EPA Tune Check Sample Report

Batch Folder D:\P8100417- MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	7307	1.82	5.00	
24	58699	1.43	5.00	
25	7867	1.70	5.00	
26	8920	1.76	5.00	
59	72626	1.69	5.00	
113	9453	1.93	5.00	
115	119793	2.18	5.00	
206	25245	1.05	5.00	
207	22824	0.96	5.00	
208	54517	0.71	5.00	
220	1	14.68		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	7209	7457	7153	7287	7429
24	58469	59710	57479	58631	59208
25	7859	8070	7698	7831	7876
26	9007	9101	8679	8897	8917
59	73343	73208	71098	73931	71550
113	9699	9296	9331	9597	9341
115	124285	117805	118832	119718	118325
206	25616	24955	25189	25061	25404
207	23069	22673	22893	22531	22954
208	54355	54675	54783	53910	54860
220	1	1	1	1	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	11987	9.05	8.9 - 9.1		0.740	0.900	
24	96005	24.00	23.9 - 24.1		0.784	0.900	
25	12766	25.00	24.9 - 25.1		0.785	0.900	
26	14739	26.00	25.9 - 26.1		0.781	0.900	
59	126746	59.00	58.9 - 59.1		0.733	0.900	
113	17775	113.05	112.9 - 113.1		0.727	0.900	
115	221463	115.05	114.9 - 115.1		0.731	0.900	
206	46008	206.00	205.9 - 206.1		0.768	0.900	
207	41553	206.95	206.9 - 207.1		0.741	0.900	
208	99212	208.00	207.9 - 208.1		0.769	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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.7	V	Deflect	13.2	V
Extract 2	-235.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-105	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination	5.0	V
He Flow	0.0	mL/min	OctP RF	170	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	10541	1.19	
89	2277	1.36	
205	14859	0.96	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	10736	10553	10520	10508	10389
89	2323	2286	2276	2253	2246
205	15040	14936	14845	14814	14658

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.7	V	Deflect	1.6	V
Extract 2	-235.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-105	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	5.0	mL/min	OctP RF	200	V			