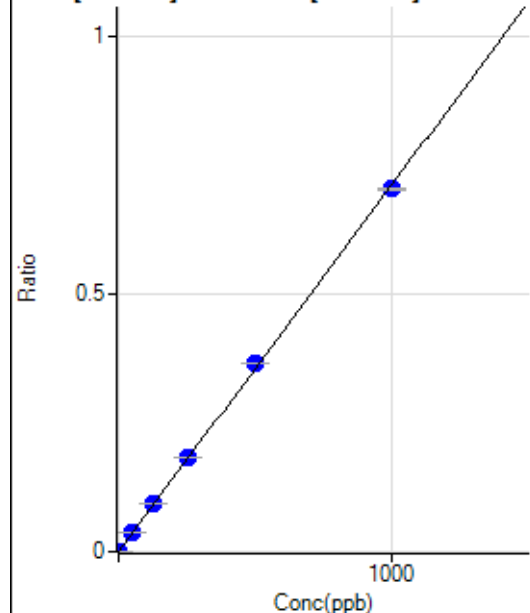


Batch Folder: D:\ICP-MS Data\P7072019-MS.b\
Analysis File: P7072019-MS.batch.bin
DA Date-Time: 2019-07-21 13:31:02
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-07-20 12:43:34
2			
3	005CALS.d	S02	2019-07-20 12:51:21
4	006CALS.d	S03	2019-07-20 12:55:31
5	007CALS.d	S04	2019-07-20 12:59:41
6	008CALS.d	S05	2019-07-20 13:03:51
7	009CALS.d	S06	2019-07-20 13:07:58
8	010CALS.d	S07	2019-07-20 13:12:04
9	011CALS.d	S08	2019-07-20 13:16:08

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37.78	0.0000	P	27.1
2	☐	0.100					
3	☐	1.000	0.975	993.38	0.0007	P	9.1
4	☐	50.000	52.588	51007.59	0.0375	P	0.9
5	☐	125.000	131.515	123173.08	0.0936	P	0.7
6	☐	250.000	257.908	229497.35	0.1836	P	1.0
7	☐	500.000	513.521	433479.55	0.3655	P	0.5
8	☐	1000.000	990.319	845274.33	0.7049	P	0.5
9	☐			127.78	0.0001	P	1.9

$$y = 7.1175\text{E-}004 * x + 2.7349\text{E-}005$$

$$R = 0.9998$$

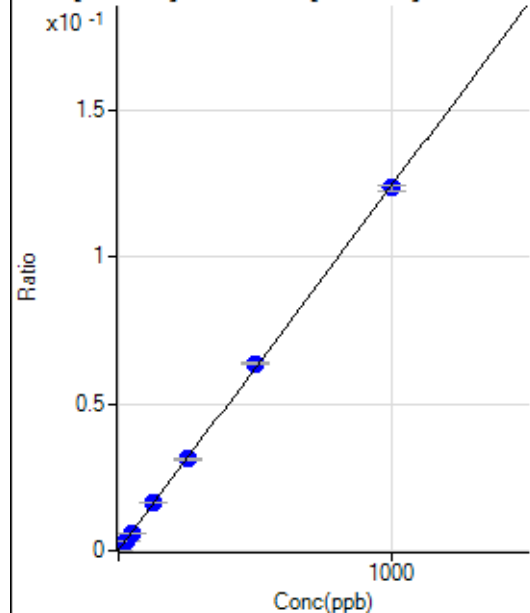
$$DL = 0.03129$$

$$BEC = 0.03843$$

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	205.57	0.0001	P	2.3
2	☐	2.500					
3	☐	25.000	24.010	4314.70	0.0031	P	4.2
4	☐	50.000	47.844	8299.87	0.0061	P	2.5
5	☐	125.000	128.836	21259.99	0.0162	P	0.7
6	☐	250.000	250.672	39126.59	0.0313	P	2.5
7	☐	500.000	510.669	75447.25	0.0636	P	1.1
8	☐	1000.000	994.151	148345.73	0.1237	P	1.4
9	☐			7652.17	0.0067	P	4.6

$$y = 1.2428\text{E-}004 * x + 1.4879\text{E-}004$$

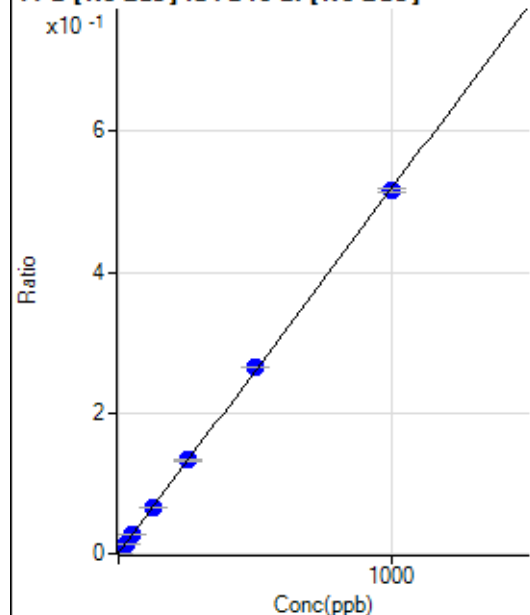
$$R = 0.9999$$

$$DL = 0.08254$$

$$BEC = 1.197$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1013.96	0.0007	P	1.4
2	☐	2.500					
3	☐	25.000	23.365	17691.39	0.0128	P	1.0
4	☐	50.000	51.341	37235.58	0.0273	P	0.8
5	☐	125.000	127.640	87997.35	0.0669	P	0.2
6	☐	250.000	255.339	166352.94	0.1331	P	1.1
7	☐	500.000	509.555	314101.97	0.2648	P	0.7
8	☐	1000.000	993.531	618425.01	0.5157	P	1.0
9	☐			32663.87	0.0284	P	4.9

$$y = 5.1832\text{E-}004 * x + 7.3393\text{E-}004$$

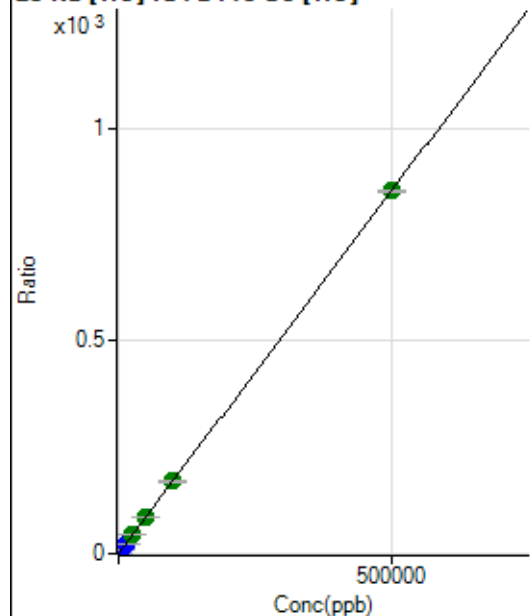
$$R = 0.9999$$

$$DL = 0.05925$$

$$BEC = 1.416$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4145.21	0.0453	P	5.0
2	☐	50.000					
3	☐	500.000	513.534	85241.83	0.9218	P	0.8
4	☐	5000.000	5279.500	819407.66	9.0557	P	0.2
5	☐	12500.000	12834.369	1918400.93	21.9493	P	1.1
6	☐	25000.000	25696.077	3631433.15	43.8999	A	0.7
7	☐	50000.000	50886.281	7145605.89	86.8911	A	0.5
8	☐	100000.00	99557.377	14573377.23	169.9563	A	1.2
9	☐	500000.00	499953.92	71188171.73	853.2984	A	0.3

$$y = 0.0017 * x + 0.0453$$

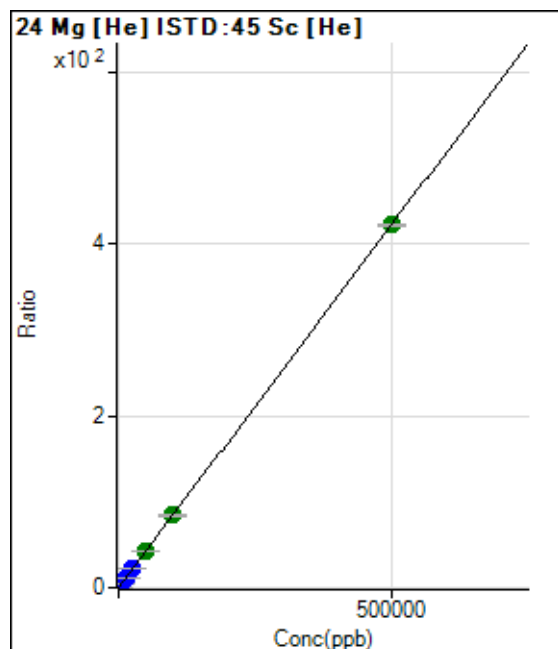
$$R = 1.0000$$

$$DL = 4.023$$

$$BEC = 26.57$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0004	P	50.1
2	☐	50.000					
3	☐	500.000	549.441	42954.20	0.4645	P	0.8
4	☐	5000.000	5510.111	421183.66	4.6547	P	0.6
5	☐	12500.000	13534.928	999303.83	11.4332	P	1.0
6	☐	25000.000	26028.517	1818717.44	21.9864	P	1.1
7	☐	50000.000	51248.972	3560022.65	43.2898	A	0.5
8	☐	100000.00	99443.643	7202750.60	83.9994	A	1.2
9	☐	500000.00	499903.92	35228824.40	422.2640	A	0.6

$$y = 8.4469\text{E-}004 * x + 3.6458\text{E-}004$$

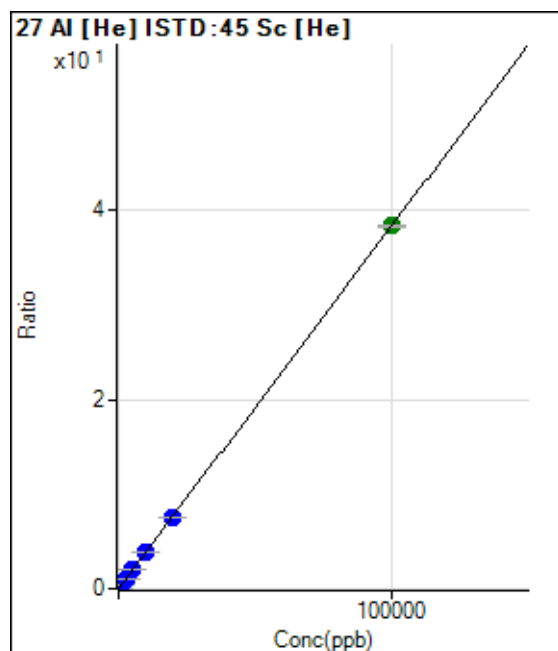
$$R = 1.0000$$

$$DL = 0.6484$$

$$BEC = 0.4316$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.33	0.0001	P	100.
2	☐	2.000					
3	☐	20.000	20.889	750.05	0.0081	P	10.0
4	☐	1000.000	1063.442	36921.67	0.4081	P	2.5
5	☐	2500.000	2619.758	87846.15	1.0051	P	1.5
6	☐	5000.000	5208.026	165286.32	1.9981	P	0.6
7	☐	10000.000	10058.093	317326.05	3.8588	P	0.4
8	☐	20000.000	19620.368	645447.38	7.5273	P	1.3
9	☐	100000.00	100056.08	3202476.16	38.3857	A	0.8

$$y = 3.8364\text{E-}004 * x + 9.1301\text{E-}005$$

$$R = 1.0000$$

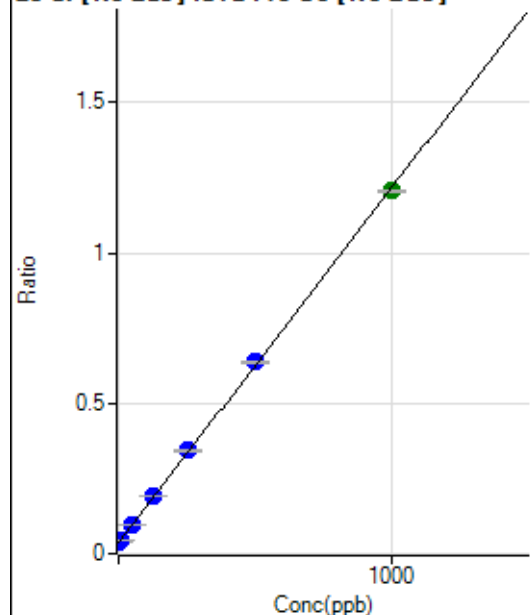
$$DL = 0.7141$$

$$BEC = 0.238$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	70935.13	0.0360	P	1.2
2	☐	1.000					
3	☐	10.000	8.638	92476.59	0.0462	P	0.8
4	☐	50.000	53.284	196714.21	0.0988	P	0.3
5	☐	125.000	132.299	365072.78	0.1920	P	0.5
6	☐	250.000	260.080	622515.14	0.3426	P	0.6
7	☐	500.000	508.897	1110059.59	0.6360	P	0.8
8	☐	1000.000	991.969	2162170.99	1.2056	A	0.4
9	☐			251803.71	0.1408	P	1.6

$$y = 0.0012 * x + 0.0360$$

$$R = 0.9999$$

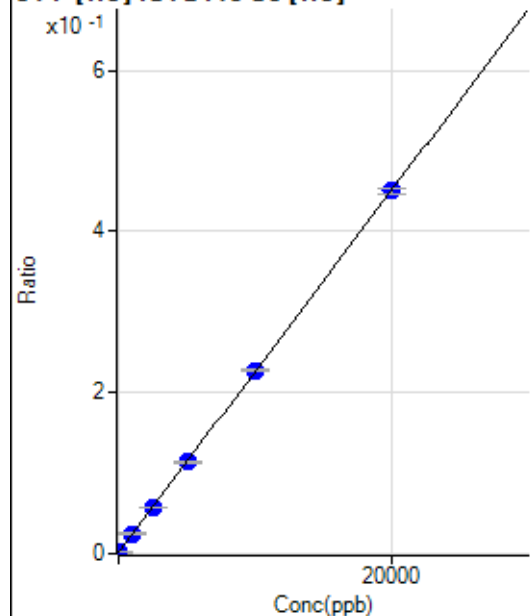
$$DL = 1.093$$

$$BEC = 30.54$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-22.425	88.89	0.0010	P	30.0
2	☐	0.000					
3	☐	0.000	22.425	183.34	0.0020	P	31.3
4	☐	1000.000	1027.573	2222.48	0.0246	P	8.8
5	☐	2500.000	2497.325	5031.59	0.0576	P	2.4
6	☐	5000.000	4989.811	9392.18	0.1135	P	1.1
7	☐	10000.000	10047.922	18678.98	0.2271	P	0.8
8	☐	20000.000	19977.542	38600.94	0.4502	P	1.6
9	☐			77.78	0.0009	P	71.5

$$y = 2.2459E-005 * x + 0.0015$$

$$R = 1.0000$$

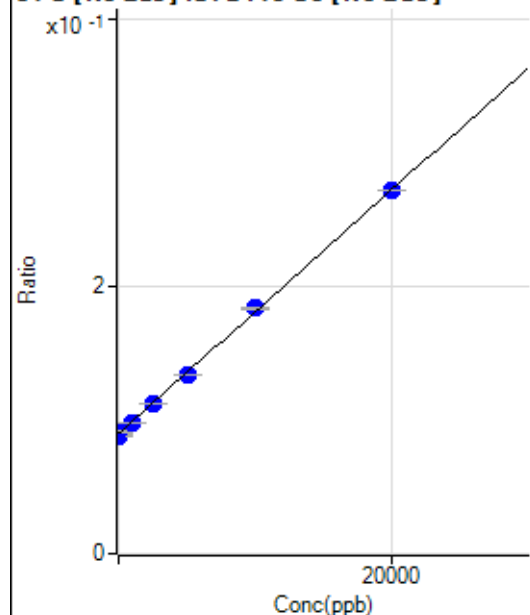
$$DL = 60.77$$

$$BEC = 65.7$$

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	-196.911	173660.90	0.0882	P	0.8
2	☐	0.000					
3	☐	0.000	196.911	183713.90	0.0918	P	1.5
4	☐	1000.000	879.283	195048.74	0.0980	P	1.2
5	☐	2500.000	2472.489	213963.50	0.1125	P	0.1
6	☐	5000.000	4813.397	243239.58	0.1339	P	0.9
7	☐	10000.000	10314.841	321266.72	0.1841	P	0.7
8	☐	20000.000	19898.705	486929.89	0.2715	P	0.1
9	☐			127583.88	0.0713	P	1.4

$$y = 9.1227\text{E-}006 * x + 0.0900$$

$$R = 0.9996$$

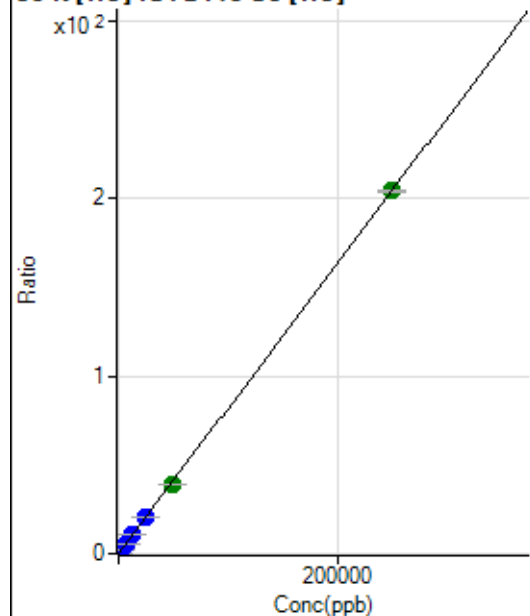
$$DL = 343.1$$

$$BEC = 9862$$

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	6982.49	0.0764	P	7.2
2	☐	50.000					
3	☐	500.000	503.746	45041.51	0.4871	P	1.2
4	☐	2500.000	2630.919	201001.08	2.2214	P	1.3
5	☐	6250.000	6424.752	464479.49	5.3145	P	1.2
6	☐	12500.000	12763.441	867103.17	10.4824	P	0.9
7	☐	25000.000	24853.128	1672568.72	20.3392	P	0.6
8	☐	50000.000	48071.931	3367339.05	39.2695	A	1.0
9	☐	250000.00	250381.44	17036713.05	204.2125	A	0.5

$$y = 8.1530\text{E-}004 * x + 0.0764$$

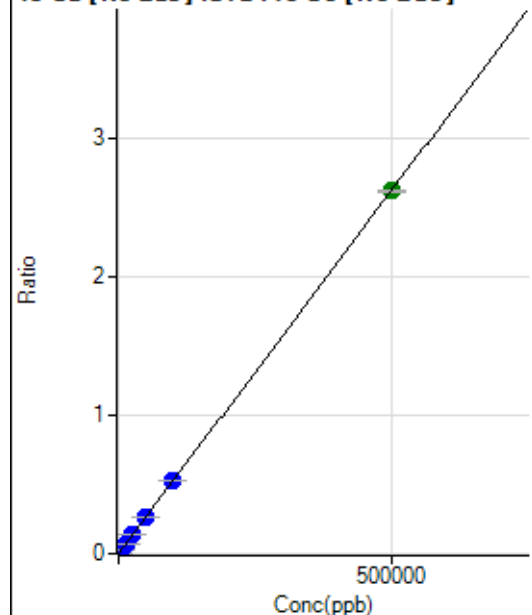
$$R = 1.0000$$

$$DL = 20.28$$

$$BEC = 93.68$$

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	25.00	0.0000	P	65.7
2	☐	50.000					
3	☐	500.000	516.732	5462.32	0.0027	P	6.0
4	☐	5000.000	5131.196	53695.38	0.0270	P	0.6
5	☐	12500.000	12918.428	129109.83	0.0679	P	1.0
6	☐	25000.000	25809.175	246425.10	0.1356	P	0.7
7	☐	50000.000	51482.114	472195.16	0.2705	P	0.2
8	☐	100000.00	101076.18	952638.31	0.5312	P	0.0
9	☐	500000.00	499584.30	4695834.91	2.6253	A	0.9

$$y = 5.2550\text{E-}006 * x + 1.2662\text{E-}005$$

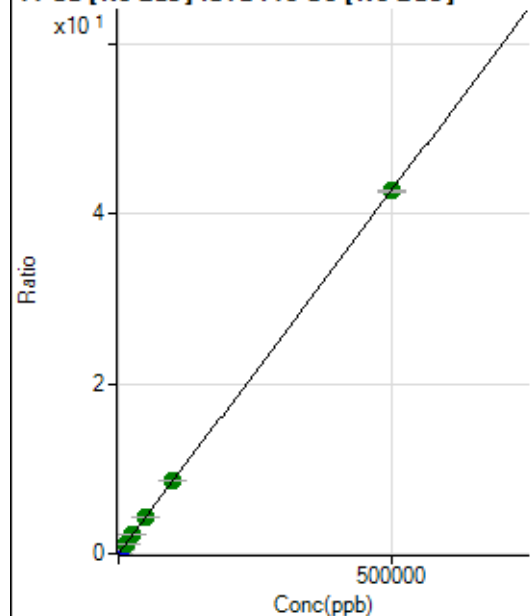
$$R = 1.0000$$

$$DL = 4.751$$

$$BEC = 2.409$$

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	2119.70	0.0011	P	3.0
2	☐	50.000					
3	☐	500.000	478.487	84021.62	0.0420	P	0.9
4	☐	5000.000	4995.880	852030.36	0.4281	P	0.3
5	☐	12500.000	12738.773	2072364.32	1.0899	A	0.6
6	☐	25000.000	25293.201	3929590.93	2.1629	A	0.3
7	☐	50000.000	51324.951	7658194.01	4.3878	A	0.2
8	☐	100000.00	101160.25	15508839.41	8.6472	A	0.6
9	☐	500000.00	499614.88	76384995.46	42.7030	A	0.5

$$y = 8.5470\text{E-}005 * x + 0.0011$$

$$R = 1.0000$$

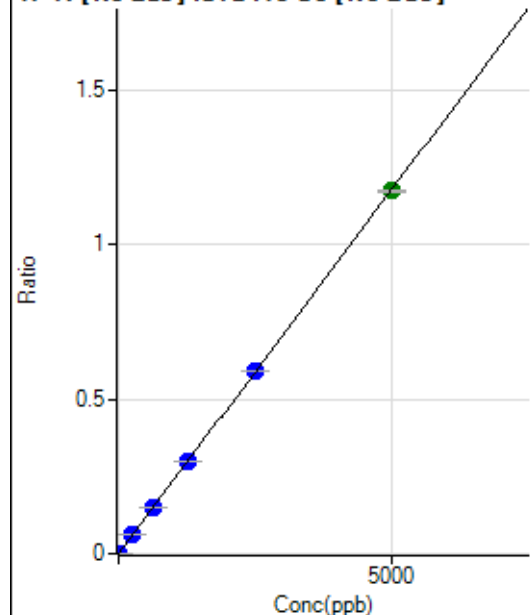
$$DL = 1.118$$

$$BEC = 12.59$$

Weight: <None>

Min Conc: 0

47 Ti [No Gas] ISTD :45 Sc [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	65.7
2	☐	0.500					
3	☐	5.000	5.200	2475.32	0.0012	P	4.0
4	☐	250.000	252.376	118232.35	0.0594	P	0.2
5	☐	625.000	640.619	286674.19	0.1508	P	1.4
6	☐	1250.000	1266.524	541500.37	0.2981	P	0.6
7	☐	2500.000	2513.997	1032551.95	0.5916	P	0.2
8	☐	5000.000	4986.799	2104690.00	1.1735	A	0.6
9	☐			522.25	0.0003	P	15.6

$$y = 2.3532E-004 * x + 1.2608E-005$$

$$R = 1.0000$$

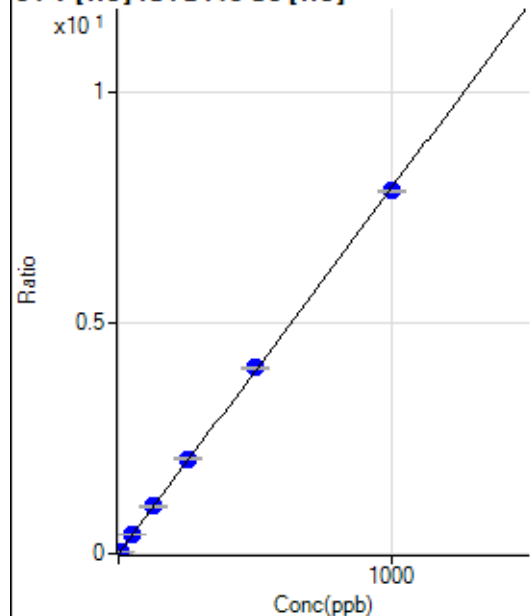
$$DL = 0.1056$$

$$BEC = 0.05358$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5.55	0.0001	P	69.5
2	☐	0.500					
3	☐	5.000	5.150	3784.99	0.0409	P	2.7
4	☐	50.000	52.335	37586.81	0.4154	P	0.3
5	☐	125.000	129.210	89622.29	1.0255	P	1.7
6	☐	250.000	258.691	169819.62	2.0530	P	1.3
7	☐	500.000	509.401	332435.71	4.0426	P	1.0
8	☐	1000.000	992.483	675418.89	7.8763	P	0.5
9	☐			125.56	0.0015	P	15.0

$$y = 0.0079 * x + 6.0785E-005$$

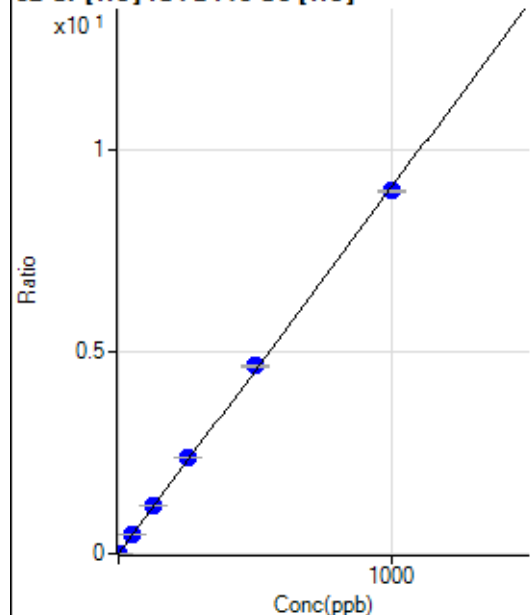
$$R = 0.9999$$

$$DL = 0.01597$$

$$BEC = 0.007659$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	234.45	0.0026	P	12.1
2	☐	0.200					
3	☐	2.000	2.091	1994.61	0.0216	P	2.1
4	☐	50.000	52.835	43682.35	0.4828	P	1.2
5	☐	125.000	130.610	103967.52	1.1896	P	1.8
6	☐	250.000	260.237	195868.78	2.3678	P	0.3
7	☐	500.000	512.604	383322.72	4.6614	P	0.8
8	☐	1000.000	990.296	772051.64	9.0030	P	0.6
9	☐			13656.50	0.1637	P	0.7

$$y = 0.0091 * x + 0.0026$$

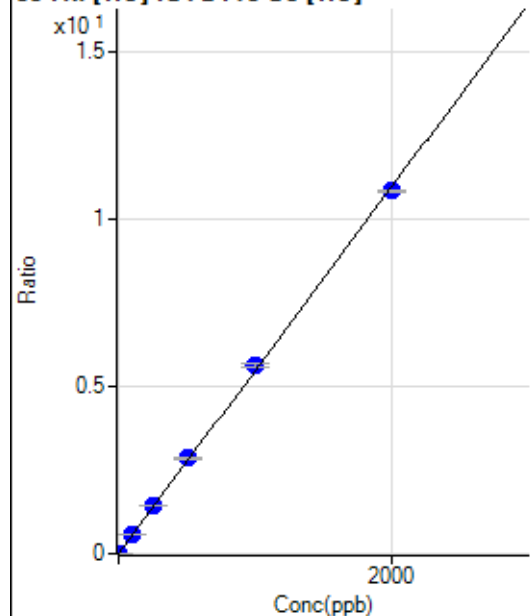
$$R = 0.9998$$

$$DL = 0.1025$$

$$BEC = 0.2822$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	21.11	0.0002	P	39.8
2	☐	0.100					
3	☐	1.000	1.036	545.58	0.0059	P	7.3
4	☐	100.000	103.952	51449.71	0.5686	P	1.7
5	☐	250.000	260.588	124547.27	1.4251	P	1.5
6	☐	500.000	519.758	235108.95	2.8422	P	0.7
7	☐	1000.000	1027.826	462150.76	5.6202	P	1.5
8	☐	2000.000	1979.626	928249.52	10.8245	P	0.6
9	☐			2720.30	0.0326	P	0.9

$$y = 0.0055 * x + 2.3091E-004$$

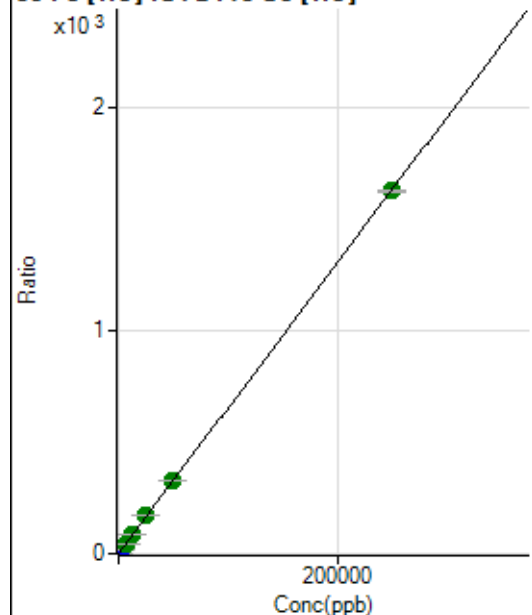
$$R = 0.9998$$

$$DL = 0.05047$$

$$BEC = 0.04223$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1435.34	0.0157	P	9.8
2	☐	5.000					
3	☐	50.000	57.544	36133.71	0.3907	P	0.9
4	☐	2500.000	2772.099	1636153.03	18.0823	P	0.8
5	☐	6250.000	6574.450	3746099.01	42.8633	A	1.5
6	☐	12500.000	13240.203	7139503.17	86.3060	A	0.4
7	☐	25000.000	26122.634	14001873.00	170.2646	A	0.6
8	☐	50000.000	50574.000	28265273.32	329.6214	A	0.8
9	☐	250000.00	249725.09	135780709.5	1,627.547	A	0.2

$$y = 0.0065 * x + 0.0157$$

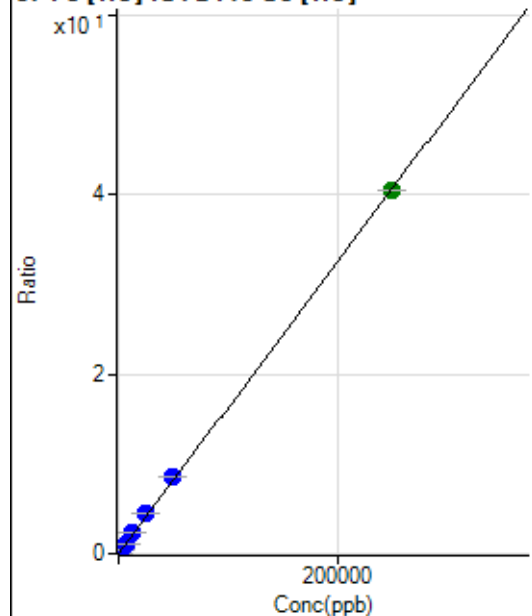
$$R = 1.0000$$

$$DL = 0.7059$$

$$BEC = 2.409$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	87.04	0.0010	P	24.3
2	☐	5.000					
3	☐	50.000	66.213	1081.56	0.0117	P	6.5
4	☐	2500.000	2872.886	42279.67	0.4673	P	0.7
5	☐	6250.000	6932.327	98422.29	1.1261	P	1.4
6	☐	12500.000	13942.718	187281.50	2.2640	P	0.7
7	☐	25000.000	27243.924	363714.18	4.4229	P	0.6
8	☐	50000.000	52688.231	733429.06	8.5528	P	0.7
9	☐	250000.00	249145.03	3373758.29	40.4400	A	0.1

$$y = 1.6231E-004 * x + 9.5217E-004$$

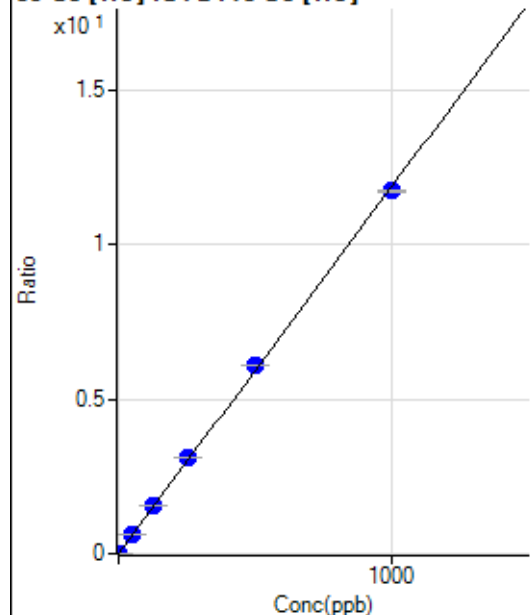
$$R = 0.9999$$

$$DL = 4.279$$

$$BEC = 5.866$$

Weight: <None>

Min Conc: 0

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

$$y = 0.0119 * x + 2.9143E-004$$

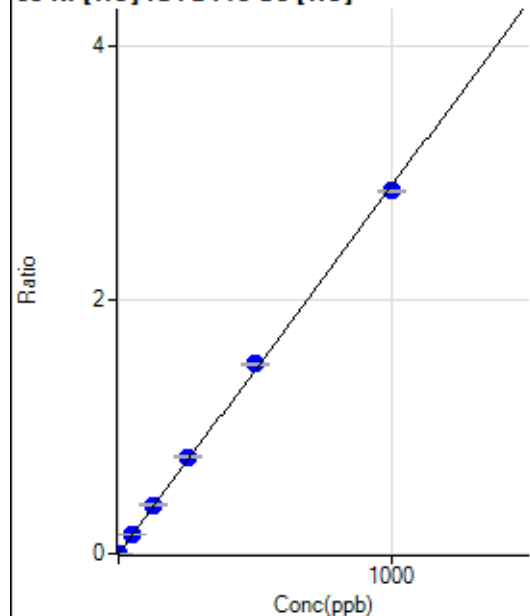
$$R = 0.9998$$

$$DL = 0.033$$

$$BEC = 0.02457$$

Weight: <None>

Min Conc: 0

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

$$y = 0.0029 * x + 1.2154E-004$$

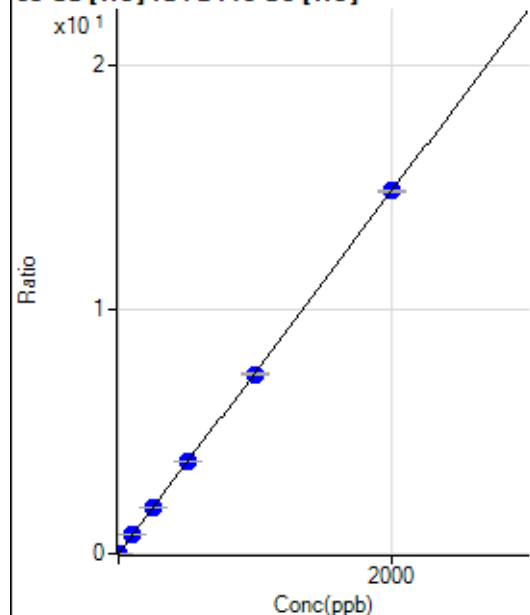
$$R = 0.9997$$

$$DL = 0.02196$$

$$BEC = 0.04194$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	102.23	0.0011	P	18.2
2	☐	0.200					
3	☐	2.000	1.875	1390.09	0.0150	P	3.2
4	☐	100.000	103.985	69935.03	0.7729	P	1.1
5	☐	250.000	256.506	166485.64	1.9049	P	1.7
6	☐	500.000	506.568	311116.66	3.7609	P	0.8
7	☐	1000.000	991.647	605335.10	7.3612	P	0.8
8	☐	2000.000	2001.522	1274001.43	14.8566	P	0.6
9	☐			1579.00	0.0189	P	2.8

$$y = 0.0074 * x + 0.0011$$

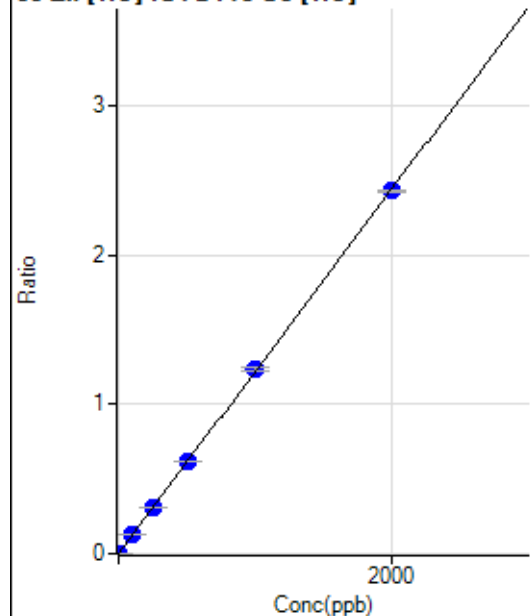
$$R = 1.0000$$

$$DL = 0.08241$$

$$BEC = 0.1506$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	46.67	0.0005	P	7.4
2	☐	0.200					
3	☐	2.000	1.975	270.01	0.0029	P	7.5
4	☐	100.000	102.417	11352.32	0.1255	P	1.3
5	☐	250.000	253.908	27117.53	0.3103	P	1.7
6	☐	500.000	504.537	50961.99	0.6161	P	1.3
7	☐	1000.000	1012.641	101636.27	1.2360	P	1.2
8	☐	2000.000	1991.936	208450.10	2.4308	P	0.6
9	☐			1707.91	0.0205	P	6.8

$$y = 0.0012 * x + 5.1049E-004$$

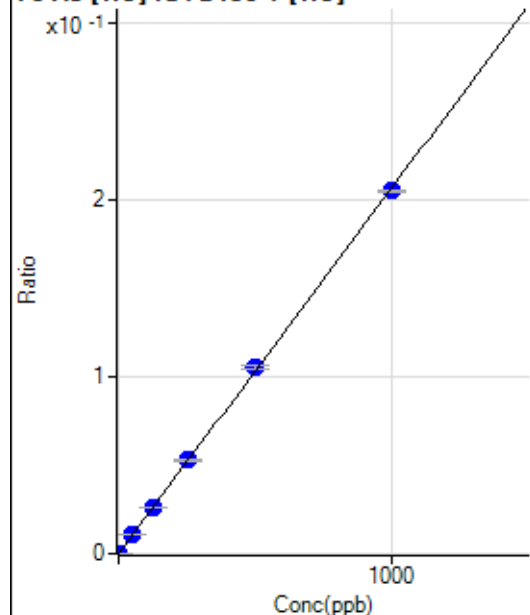
$$R = 1.0000$$

$$DL = 0.09278$$

$$BEC = 0.4184$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3.09	0.0000	P	69.1
2	☐	0.100					
3	☐	1.000	1.087	84.57	0.0002	P	12.1
4	☐	50.000	51.623	3820.91	0.0107	P	1.8
5	☐	125.000	128.159	9201.74	0.0264	P	0.9
6	☐	250.000	255.571	17531.01	0.0527	P	0.9
7	☐	500.000	510.263	34508.80	0.1052	P	1.2
8	☐	1000.000	993.000	70206.55	0.2047	P	0.7
9	☐			99.38	0.0003	P	2.6

$$y = 2.0618\text{E-}004 * x + 8.6411\text{E-}006$$

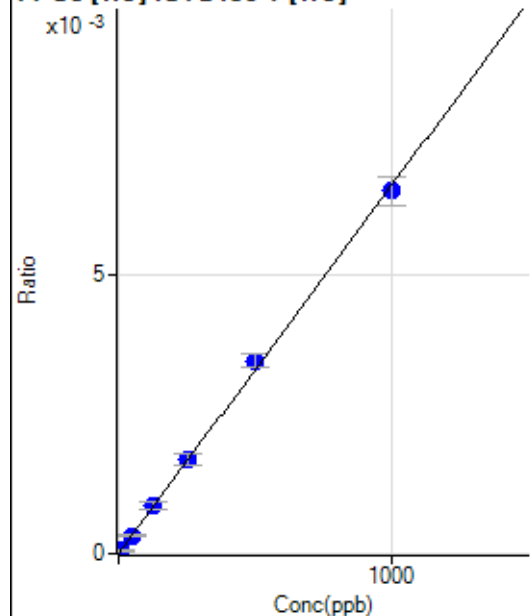
$$R = 0.9999$$

$$DL = 0.08685$$

$$BEC = 0.04191$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	7.889	18.89	0.0001	P	44.5
4	☐	50.000	49.304	116.67	0.0003	P	10.1
5	☐	125.000	132.947	305.56	0.0009	P	16.0
6	☐	250.000	254.727	558.91	0.0017	P	12.8
7	☐	500.000	524.410	1134.51	0.0035	P	6.3
8	☐	1000.000	985.640	2229.10	0.0065	P	8.1
9	☐			3.33	0.0000	P	100.

$$y = 6.5962\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9995$$

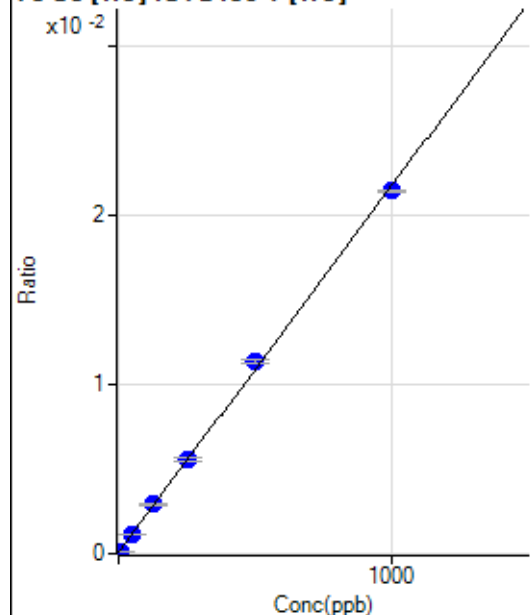
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	27.16	0.0001	P	44.1
2	☐	0.500					
3	☐	5.000	4.096	59.88	0.0002	P	4.6
4	☐	50.000	50.103	416.68	0.0012	P	2.8
5	☐	125.000	131.035	1014.86	0.0029	P	3.5
6	☐	250.000	255.173	1864.33	0.0056	P	3.2
7	☐	500.000	522.391	3736.93	0.0114	P	1.5
8	☐	1000.000	986.756	7356.85	0.0215	P	0.8
9	☐			25.31	0.0001	P	30.7

$$y = 2.1665E-005 * x + 7.6084E-005$$

$$R = 0.9996$$

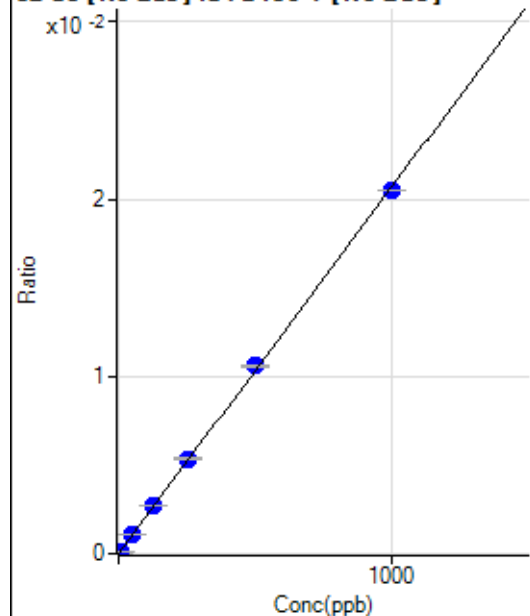
$$DL = 4.65$$

$$BEC = 3.512$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4.48	0.0000	P	383.
2	☐	0.500					
3	☐	5.000	6.256	298.03	0.0001	P	9.9
4	☐	50.000	51.625	2425.49	0.0011	P	1.1
5	☐	125.000	131.120	6074.71	0.0027	P	0.7
6	☐	250.000	259.012	11683.90	0.0054	P	1.5
7	☐	500.000	513.217	22533.88	0.0106	P	1.1
8	☐	1000.000	990.286	44468.66	0.0205	P	0.1
9	☐			51.61	0.0000	P	21.1

$$y = 2.0652E-005 * x + 2.0227E-006$$

$$R = 0.9998$$

$$DL = 1.126$$

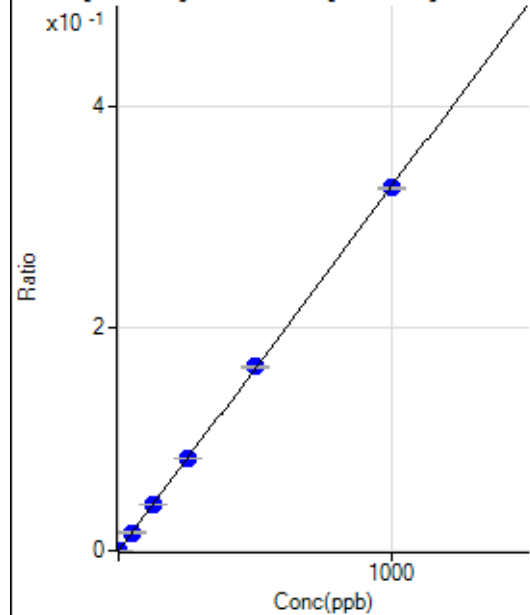
$$BEC = 0.09794$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			70.00		P	17.2
2	☐						
3	☐			60.00		P	33.8
4	☐			75.56		P	46.3
5	☐			67.78		P	27.1
6	☐			60.00		P	9.6
7	☐			86.67		P	13.9
8	☐			75.56		P	10.2
9	☐			75.56		P	16.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	111.12	0.0000	P	15.9
2	☐	0.100					
3	☐	1.000	1.004	858.39	0.0004	P	3.8
4	☐	50.000	49.918	37238.05	0.0164	P	1.9
5	☐	125.000	126.650	93103.76	0.0415	P	1.9
6	☐	250.000	254.882	182397.41	0.0835	P	0.6
7	☐	500.000	504.514	351364.00	0.1653	P	0.5
8	☐	1000.000	996.320	709602.84	0.3264	P	0.4
9	☐			2989.32	0.0015	P	1.9

$$y = 3.2755E-004 * x + 4.9155E-005$$

$$R = 1.0000$$

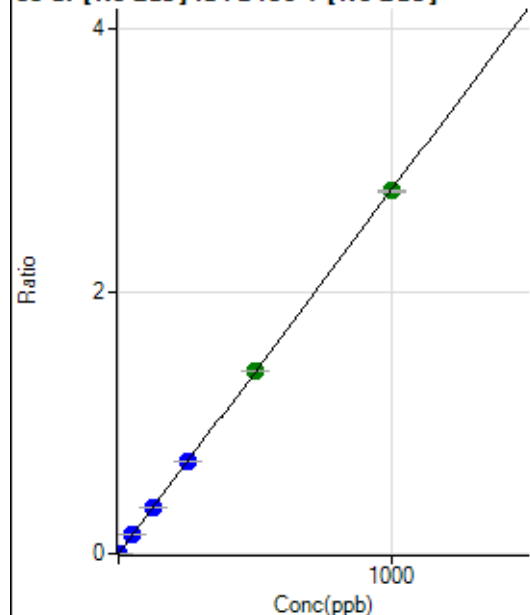
$$DL = 0.07171$$

$$BEC = 0.1501$$

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	16.67	0.0000	P	100.
2	☐	0.100					
3	☐	1.000	0.983	6212.70	0.0027	P	0.5
4	☐	50.000	51.175	322495.27	0.1420	P	1.1
5	☐	125.000	128.406	798834.08	0.3564	P	0.1
6	☐	250.000	253.316	1534995.93	0.7030	P	0.4
7	☐	500.000	502.621	2964962.98	1.3949	A	0.8
8	☐	1000.000	997.376	6017799.74	2.7680	A	0.5
9	☐			23584.00	0.0117	P	3.3

$$y = 0.0028 * x + 7.3478E-006$$

$$R = 1.0000$$

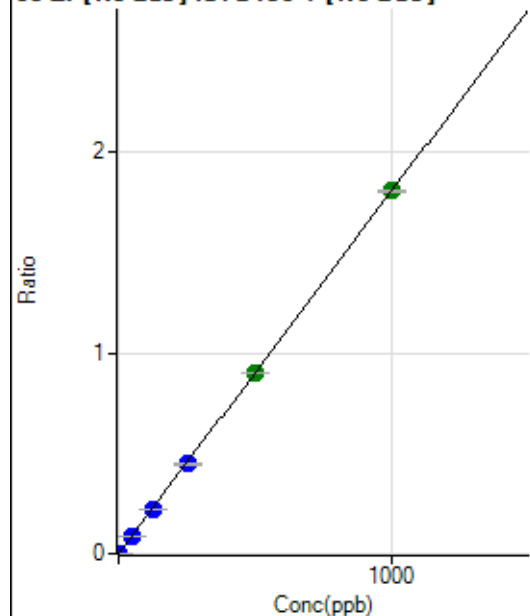
$$DL = 0.00796$$

$$BEC = 0.002648$$

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	180.57	0.0001	P	32.1
2	☐	0.100					
3	☐	1.000	0.848	3656.16	0.0016	P	4.1
4	☐	50.000	49.475	202922.28	0.0894	P	1.1
5	☐	125.000	124.426	503517.78	0.2246	P	0.1
6	☐	250.000	246.788	972587.71	0.4454	P	1.1
7	☐	500.000	500.066	1918372.89	0.9025	A	0.4
8	☐	1000.000	1000.868	3926985.94	1.8063	A	0.4
9	☐			1058.41	0.0005	P	17.0

$$y = 0.0018 * x + 7.9785E-005$$

$$R = 1.0000$$

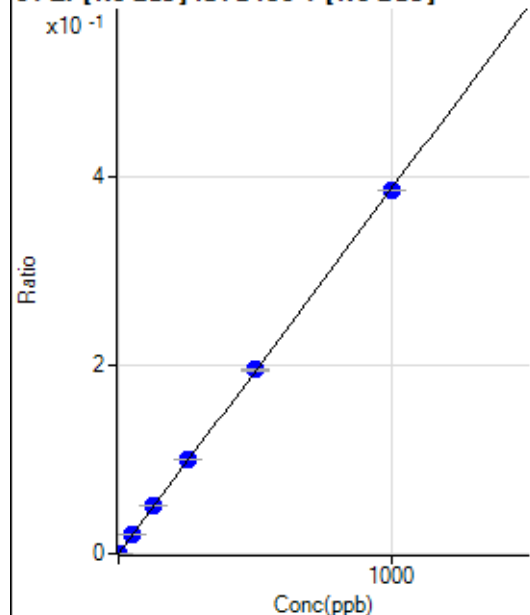
$$DL = 0.04263$$

$$BEC = 0.04421$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.11	0.0000	P	58.1
2	☐	0.100					
3	☐	1.000	0.989	908.40	0.0004	P	6.8
4	☐	50.000	52.238	46091.65	0.0203	P	0.3
5	☐	125.000	130.788	113869.93	0.0508	P	1.3
6	☐	250.000	258.881	219501.09	0.1005	P	0.2
7	☐	500.000	505.596	417290.70	0.1963	P	1.0
8	☐	1000.000	994.147	839210.17	0.3860	P	0.0
9	☐			238.90	0.0001	P	13.8

$$y = 3.8826E-004 * x + 1.5986E-005$$

$$R = 0.9999$$

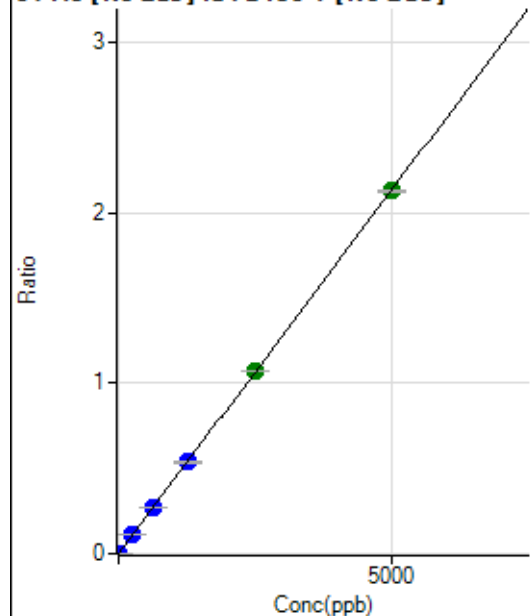
$$DL = 0.07172$$

$$BEC = 0.04117$$

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	97.22	0.0000	P	22.3
2	☐	0.500					
3	☐	5.000	4.699	4653.74	0.0020	P	9.6
4	☐	250.000	252.542	244836.56	0.1078	P	0.2
5	☐	625.000	632.057	604752.91	0.2698	P	0.5
6	☐	1250.000	1257.069	1171457.30	0.5365	P	0.6
7	☐	2500.000	2513.085	2279755.11	1.0725	A	0.8
8	☐	5000.000	4990.681	4630608.13	2.1299	A	0.3
9	☐			2494.77	0.0012	P	4.2

$$y = 4.2676E-004 * x + 4.3046E-005$$

$$R = 1.0000$$

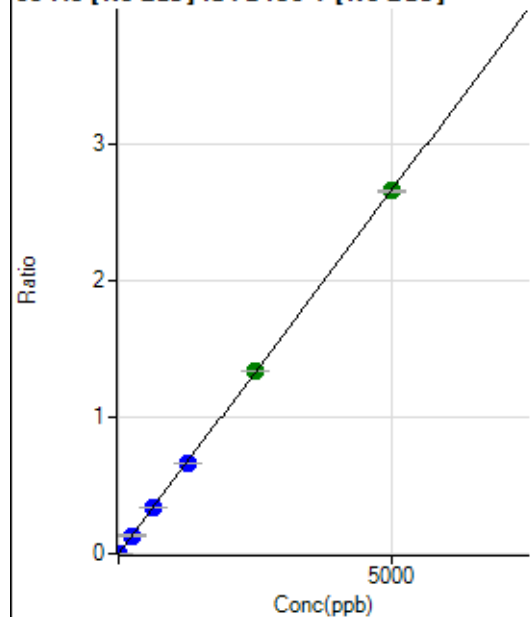
$$DL = 0.06755$$

$$BEC = 0.1009$$

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	8.33	0.0000	P	100.
2	☐	0.500					
3	☐	5.000	4.721	5704.16	0.0025	P	3.3
4	☐	250.000	251.367	303157.70	0.1335	P	0.2
5	☐	625.000	627.587	747152.56	0.3333	P	0.2
6	☐	1250.000	1245.369	1444148.38	0.6614	P	0.7
7	☐	2500.000	2509.275	2832678.15	1.3327	A	0.2
8	☐	5000.000	4996.129	5768789.28	2.6534	A	0.6
9	☐			3703.40	0.0018	P	2.8

$$y = 5.3109\text{E-}004 * x + 3.7051\text{E-}006$$

$$R = 1.0000$$

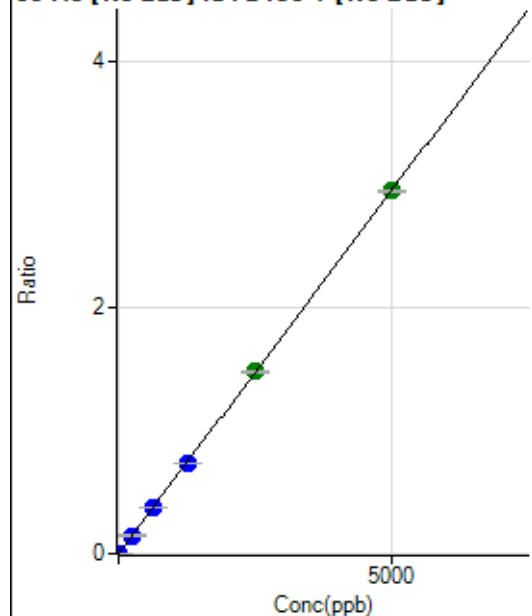
$$DL = 0.021$$

$$BEC = 0.006976$$

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	63.89	0.0000	P	58.8
2	☐	0.500					
3	☐	5.000	4.858	6565.65	0.0029	P	3.9
4	☐	250.000	251.323	336258.98	0.1481	P	0.7
5	☐	625.000	628.612	830196.24	0.3704	P	0.2
6	☐	1250.000	1248.389	1605859.47	0.7355	P	0.9
7	☐	2500.000	2503.640	3135167.24	1.4750	A	0.4
8	☐	5000.000	4998.065	6401666.55	2.9445	A	0.5
9	☐			5982.05	0.0030	P	1.3

$$y = 5.8912\text{E-}004 * x + 2.8297\text{E-}005$$

$$R = 1.0000$$

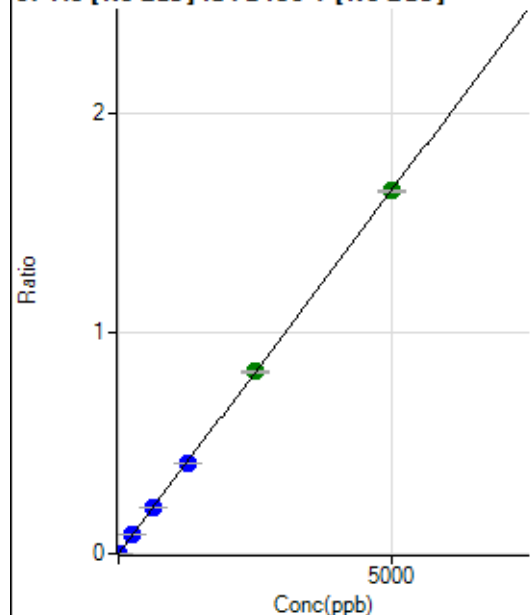
$$DL = 0.0848$$

$$BEC = 0.04803$$

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	25.00	0.0000	P	66.2
2	☐	0.500					
3	☐	5.000	4.614	3481.13	0.0015	P	10.1
4	☐	250.000	253.004	189439.59	0.0834	P	0.8
5	☐	625.000	634.017	468606.61	0.2091	P	0.5
6	☐	1250.000	1253.490	902417.40	0.4133	P	0.2
7	☐	2500.000	2502.687	1753985.80	0.8252	A	0.3
8	☐	5000.000	4996.507	3581636.67	1.6474	A	0.2
9	☐			2280.84	0.0011	P	5.4

$$y = 3.2971\text{E-}004 * x + 1.1040\text{E-}005$$

$$R = 1.0000$$

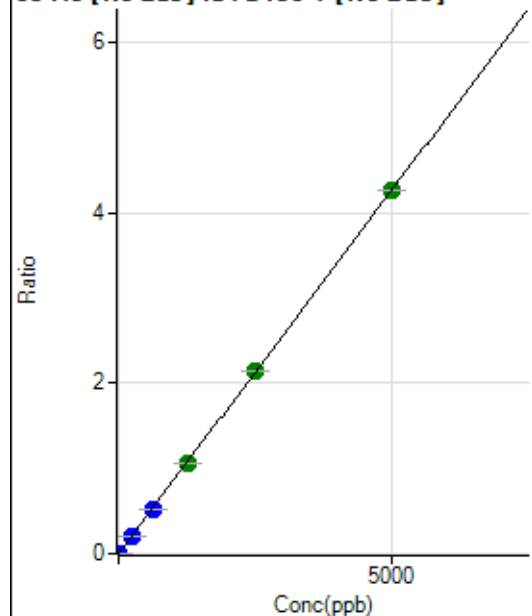
$$DL = 0.06647$$

$$BEC = 0.03348$$

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	47.22	0.0000	P	44.0
2	☐	0.500					
3	☐	5.000	4.766	9281.14	0.0041	P	3.6
4	☐	250.000	249.566	483326.13	0.2128	P	0.5
5	☐	625.000	619.572	1184400.15	0.5284	P	0.7
6	☐	1250.000	1247.387	2322706.86	1.0638	A	0.1
7	☐	2500.000	2510.411	4550611.21	2.1409	A	0.2
8	☐	5000.000	4996.148	9263142.48	4.2607	A	0.1
9	☐			5390.13	0.0027	P	4.4

$$y = 8.5279\text{E-}004 * x + 2.0869\text{E-}005$$

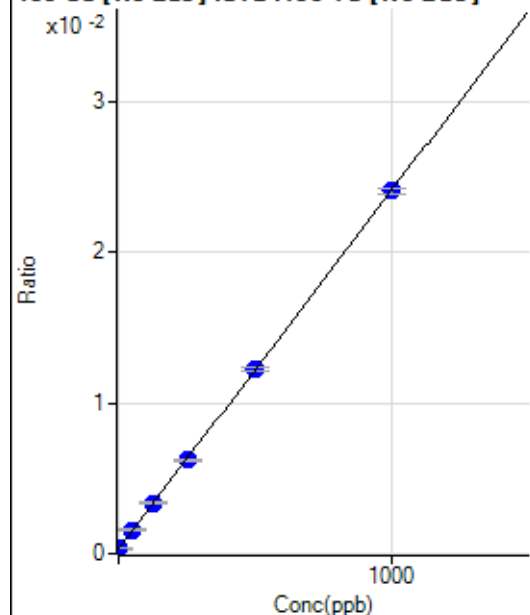
$$R = 1.0000$$

$$DL = 0.03234$$

$$BEC = 0.02447$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	738.94	0.0003	P	12.4
2	☐	0.100					
3	☐	1.000	2.617	894.51	0.0004	P	7.3
4	☐	50.000	53.199	3742.34	0.0016	P	3.0
5	☐	125.000	127.589	8033.13	0.0034	P	6.0
6	☐	250.000	248.059	14863.82	0.0062	P	1.8
7	☐	500.000	502.044	28526.75	0.0122	P	2.1
8	☐	1000.000	998.978	56862.10	0.0241	P	1.4
9	☐			641.71	0.0003	P	9.6

$$y = 2.3759\text{E-}005 * x + 3.2060\text{E-}004$$

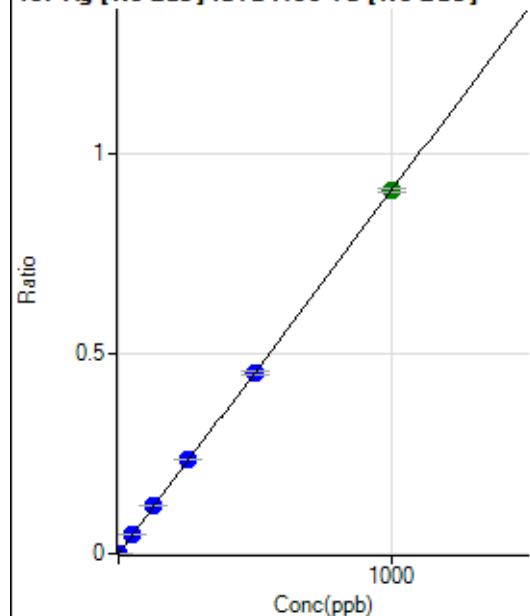
$$R = 1.0000$$

$$DL = 5.024$$

$$BEC = 13.49$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	44.45	0.0000	P	71.2
2	☐	0.100					
3	☐	1.000	1.054	2286.39	0.0010	P	3.4
4	☐	50.000	54.488	117075.96	0.0496	P	0.6
5	☐	125.000	132.115	287944.04	0.1202	P	0.6
6	☐	250.000	257.265	559666.46	0.2340	P	0.2
7	☐	500.000	496.948	1052612.97	0.4519	P	1.4
8	☐	1000.000	998.596	2146406.88	0.9081	A	1.1
9	☐			263.91	0.0001	P	14.8

$$y = 9.0940\text{E-}004 * x + 1.9362\text{E-}005$$

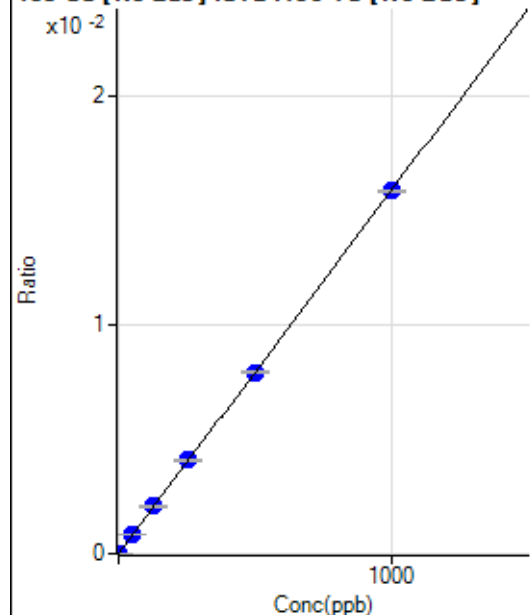
$$R = 0.9999$$

$$DL = 0.04545$$

$$BEC = 0.02129$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.100					
3	☐	1.000	1.385	51.39	0.0000	P	3.9
4	☐	50.000	54.047	2025.19	0.0009	P	1.9
5	☐	125.000	130.032	4944.00	0.0021	P	1.1
6	☐	250.000	257.486	9771.58	0.0041	P	2.2
7	☐	500.000	498.201	18410.80	0.0079	P	1.0
8	☐	1000.000	998.196	37437.14	0.0158	P	0.5
9	☐			13.89	0.0000	P	35.1

$$y = 1.5867\text{E-}005 * x + 0.0000\text{E+}000$$

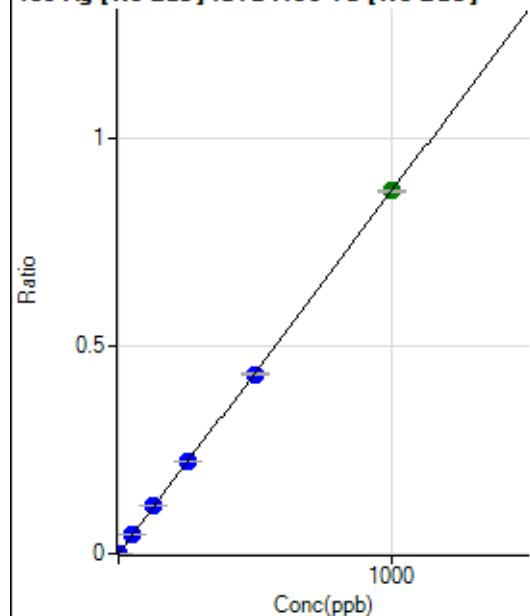
$$R = 1.0000$$

$$DL = 0$$

$$BEC = 0$$

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	11.11	0.0000	P	43.5
2	☐	0.100					
3	☐	1.000	0.998	2041.90	0.0009	P	2.9
4	☐	50.000	54.301	111721.69	0.0473	P	0.7
5	☐	125.000	130.993	273429.35	0.1141	P	0.6
6	☐	250.000	252.862	526861.46	0.2203	P	0.4
7	☐	500.000	495.166	1004539.50	0.4313	P	0.9
8	☐	1000.000	1000.737	2060332.60	0.8717	A	0.6
9	☐			183.34	0.0001	P	27.8

$$y = 8.7104\text{E-}004 * x + 4.8249\text{E-}006$$

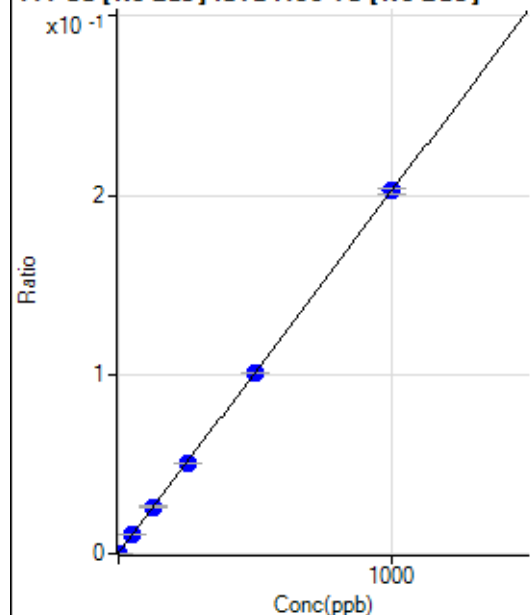
$$R = 1.0000$$

$$DL = 0.007235$$

$$BEC = 0.005539$$

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	522.81	0.0002	P	12.3
2	☐	0.100					
3	☐	1.000	1.108	1052.70	0.0005	P	5.7
4	☐	50.000	52.657	25647.05	0.0109	P	0.8
5	☐	125.000	128.598	62765.36	0.0262	P	1.0
6	☐	250.000	249.713	121149.31	0.0506	P	0.8
7	☐	500.000	497.136	234322.08	0.1006	P	0.4
8	☐	1000.000	1000.921	478219.72	0.2023	P	1.4
9	☐			501.98	0.0002	P	13.7

$$y = 2.0192\text{E-}004 * x + 2.2683\text{E-}004$$

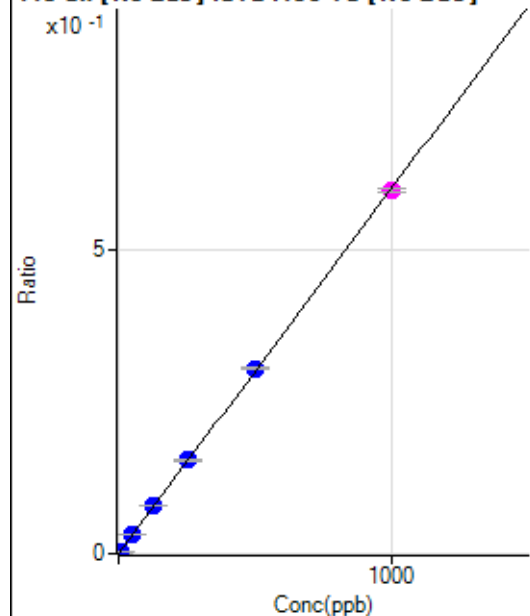
$$R = 1.0000$$

$$DL = 0.4152$$

$$BEC = 1.123$$

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	72.22	0.0000	P	35.6
2	☐	0.500					
3	☐	5.000	5.366	7605.13	0.0033	P	3.5
4	☐	50.000	53.142	75461.35	0.0319	P	1.6
5	☐	125.000	129.543	186519.16	0.0778	P	0.5
6	☐	250.000	256.407	368436.76	0.1540	P	0.9
7	☐	500.000	508.152	710919.42	0.3052	P	0.6
8	☐	1000.000	993.596	1410572.17	0.5968	M	1.1
9	☐			522.25	0.0002	P	16.9

$$y = 6.0061\text{E-}004 * x + 3.1381\text{E-}005$$

$$R = 0.9999$$

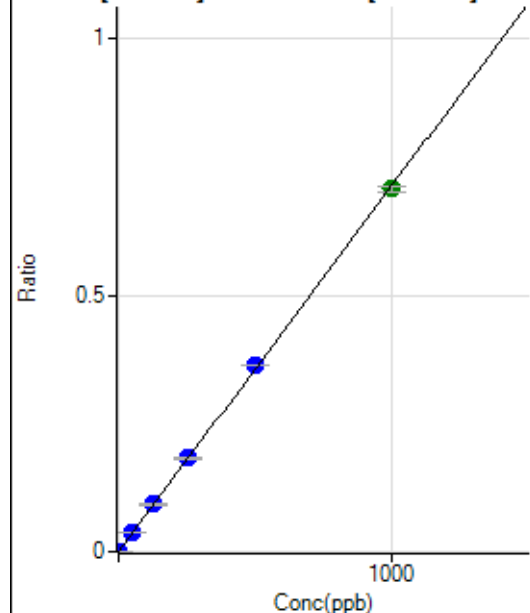
$$DL = 0.05576$$

$$BEC = 0.05225$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.11	0.0000	P	86.6
2	☐	0.200					
3	☐	2.000	1.883	3147.73	0.0013	P	2.5
4	☐	50.000	52.321	88075.77	0.0373	P	0.2
5	☐	125.000	129.433	221047.06	0.0922	P	1.1
6	☐	250.000	255.718	435917.62	0.1822	P	0.7
7	☐	500.000	510.985	848161.06	0.3642	P	0.5
8	☐	1000.000	992.408	1671554.67	0.7073	A	1.4
9	☐			2228.06	0.0011	P	3.6

$$y = 7.1266\text{E-}004 * x + 4.8461\text{E-}006$$

$$R = 0.9999$$

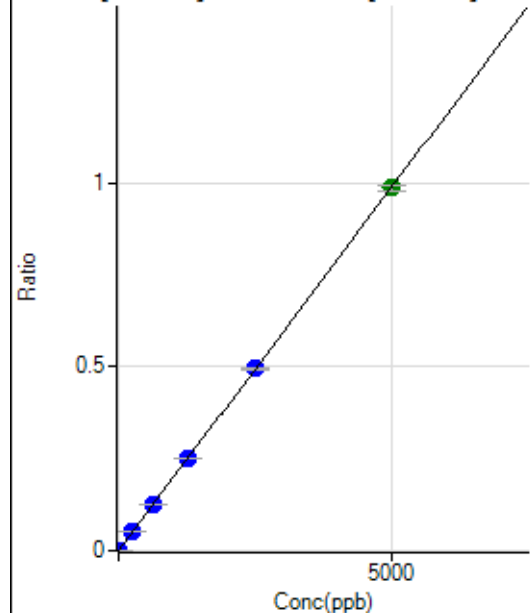
$$DL = 0.01767$$

$$BEC = 0.0068$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.33	0.0000	P	173.
2	☐	1.000					
3	☐	10.000	10.179	4703.79	0.0020	P	3.1
4	☐	250.000	257.280	119948.56	0.0508	P	0.8
5	☐	625.000	636.813	301203.96	0.1257	P	0.6
6	☐	1250.000	1263.503	596529.80	0.2494	P	0.7
7	☐	2500.000	2502.536	1150414.62	0.4940	P	0.7
8	☐	5000.000	4993.515	2329451.22	0.9856	A	1.4
9	☐			300.02	0.0001	P	11.9

$$y = 1.9738\text{E-}004 * x + 3.6244\text{E-}006$$

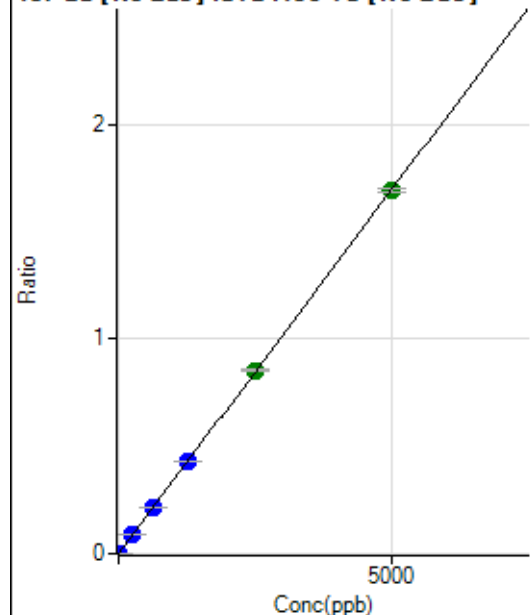
$$R = 1.0000$$

$$DL = 0.09542$$

$$BEC = 0.01836$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	8.33	0.0000	P	0.8
2	☐	1.000					
3	☐	10.000	10.161	8061.03	0.0034	P	3.6
4	☐	250.000	261.345	209332.26	0.0886	P	1.5
5	☐	625.000	643.995	523344.20	0.2184	P	0.5
6	☐	1250.000	1260.772	1022727.17	0.4276	P	0.6
7	☐	2500.000	2516.049	1987287.72	0.8533	A	0.7
8	☐	5000.000	4986.340	3996814.50	1.6910	A	1.0
9	☐			588.93	0.0003	P	5.1

$$y = 3.3913\text{E-}004 * x + 3.6158\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.0002682$$

$$BEC = 0.01066$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐						
3	☐			2.22		P	173.
4	☐			13.33		P	50.0
5	☐			33.33		P	20.0
6	☐			46.67		P	51.5
7	☐			100.01		P	11.5
8	☐			186.67		P	7.1
9	☐			31.11		P	24.7

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.
5	☐			4.44		P	114.
6	☐			5.56		P	34.7
7	☐			13.34		P	86.6
8	☐			12.22		P	95.8
9	☐			17.78		P	47.2

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.78		P	173.
2	☐						
3	☐			0.00		P	
4	☐			2.78		P	173.
5	☐			5.56		P	173.
6	☐			13.89		P	34.7
7	☐			19.44		P	49.5
8	☐			41.67		P	34.6
9	☐			11.11		P	114.

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐						
3	☐			0.00		P	
4	☐			4.44		P	43.4
5	☐			13.33		P	25.0
6	☐			17.78		P	28.6
7	☐			34.45		P	20.1
8	☐			67.78		P	23.2
9	☐			7.78		P	137.

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	91.6
2	☐						
3	☐			16.66		P	86.6
4	☐			8.33		P	100.
5	☐			25.00		P	57.7
6	☐			16.66		P	86.6
7	☐			22.22		P	78.1
8	☐			13.89		P	69.3
9	☐			16.67		P	50.0

160 Gd [He] No available calibration points

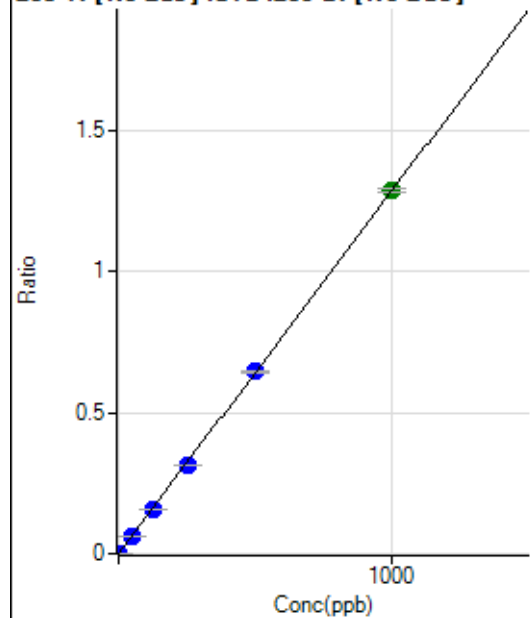
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			52.22		P	25.8
2	☐						
3	☐			50.00		P	11.5
4	☐			50.00		P	23.1
5	☐			52.22		P	32.1
6	☐			34.45		P	11.2
7	☐			65.56		P	19.2
8	☐			44.44		P	4.3
9	☐			63.33		P	18.2

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	86.6
2	☐						
3	☐			8.33		P	0.0
4	☐			5.55		P	86.6
5	☐			11.11		P	43.3
6	☐			13.89		P	69.3
7	☐			11.11		P	114.
8	☐			8.33		P	100.
9	☐			13.89		P	91.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			4.44		P	43.4
4	☐			2.22		P	86.6
5	☐			3.33		P	100.
6	☐			6.66		P	86.6
7	☐			6.66		P	86.6
8	☐			5.56		P	34.7
9	☐			5.56		P	91.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	38.89	0.0000	P	33.5
2	☐	0.100					
3	☐	1.000	0.960	1664.07	0.0013	P	5.1
4	☐	50.000	48.387	82168.09	0.0622	P	1.1
5	☐	125.000	120.576	205398.85	0.1550	P	0.7
6	☐	250.000	242.756	414377.56	0.3121	P	0.7
7	☐	500.000	502.233	816036.91	0.6456	P	0.8
8	☐	1000.000	1001.328	1605885.48	1.2871	A	1.0
9	☐			472.25	0.0005	P	20.0

$$y = 0.0013 * x + 2.9823E-005$$

$$R = 1.0000$$

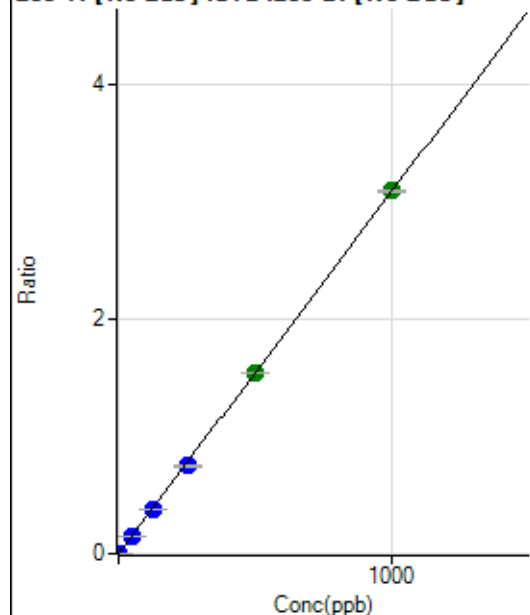
$$DL = 0.0233$$

$$BEC = 0.0232$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	100.00	0.0001	P	8.9
2	☐	0.100					
3	☐	1.000	0.907	3784.05	0.0029	P	2.5
4	☐	50.000	47.789	194823.64	0.1475	P	0.4
5	☐	125.000	121.981	498833.87	0.3765	P	0.8
6	☐	250.000	242.089	991974.77	0.7471	P	1.2
7	☐	500.000	499.326	1947630.01	1.5409	A	0.9
8	☐	1000.000	1002.803	3860810.72	3.0945	A	0.8
9	☐			1419.58	0.0014	P	1.9

$$y = 0.0031 * x + 7.6561E-005$$

$$R = 1.0000$$

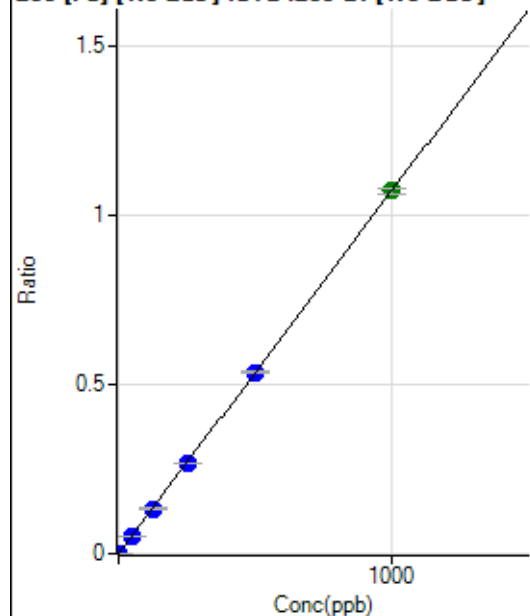
$$DL = 0.006637$$

$$BEC = 0.02481$$

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	64.82	0.0000	P	21.3
2	☐	0.100					
3	☐	1.000	0.884	1309.37	0.0010	P	2.6
4	☐	50.000	49.234	69600.42	0.0527	P	1.4
5	☐	125.000	124.490	176470.84	0.1332	P	1.2
6	☐	250.000	248.354	352738.13	0.2657	P	1.1
7	☐	500.000	499.396	675129.98	0.5341	P	1.3
8	☐	1000.000	1000.816	1335426.98	1.0704	A	1.4
9	☐			1100.08	0.0011	P	6.4

$$y = 0.0011 * x + 4.9578E-005$$

$$R = 1.0000$$

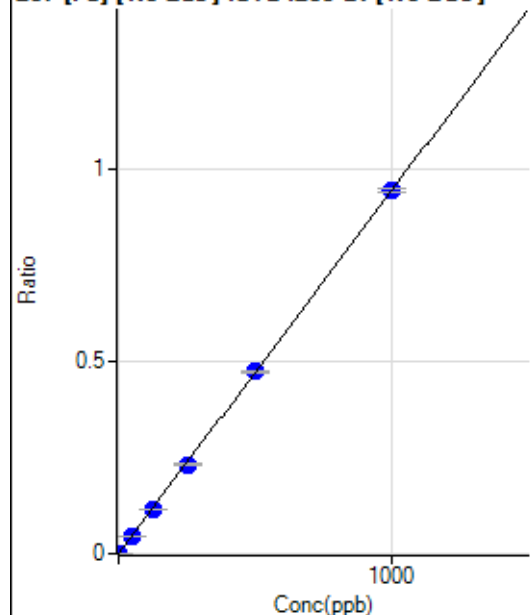
$$DL = 0.02965$$

$$BEC = 0.04636$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.44	0.0000	P	33.2
2	☐	0.100					
3	☐	1.000	0.906	1166.75	0.0009	P	10.0
4	☐	50.000	48.939	60865.28	0.0461	P	1.0
5	☐	125.000	123.450	153982.21	0.1162	P	1.0
6	☐	250.000	244.672	305770.76	0.2303	P	1.4
7	☐	500.000	503.333	598790.97	0.4737	P	1.1
8	☐	1000.000	999.912	1174103.09	0.9411	P	1.0
9	☐			996.37	0.0010	P	2.4

$$y = 9.4110\text{E-}004 * x + 3.4014\text{E-}005$$

$$R = 1.0000$$

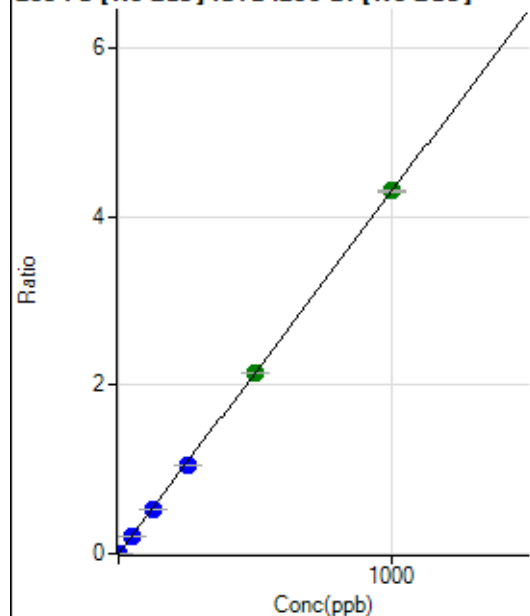
$$DL = 0.03597$$

$$BEC = 0.03614$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	231.49	0.0002	P	6.9
2	☐	0.100					
3	☐	1.000	0.896	5298.72	0.0040	P	5.6
4	☐	50.000	49.119	279018.15	0.2113	P	0.5
5	☐	125.000	124.272	707946.77	0.5343	P	0.4
6	☐	250.000	245.497	1401279.89	1.0553	P	0.9
7	☐	500.000	499.005	2711182.07	2.1449	A	0.7
8	☐	1000.000	1001.759	5372170.59	4.3058	A	0.6
9	☐			4431.91	0.0043	P	4.9

$$y = 0.0043 * x + 1.7723\text{E-}004$$

$$R = 1.0000$$

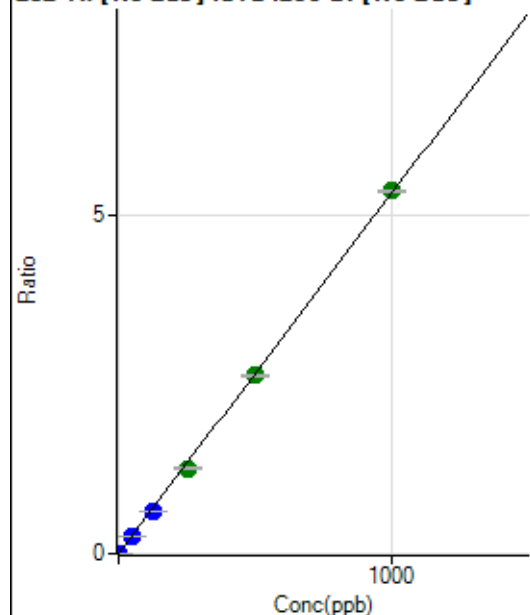
$$DL = 0.008572$$

$$BEC = 0.04123$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	16.67	0.0000	P	120.
2	☐	0.100					
3	☐	1.000	0.795	5588.39	0.0042	P	3.8
4	☐	50.000	46.742	328584.97	0.2488	P	1.2
5	☐	125.000	119.069	839894.11	0.6339	P	0.6
6	☐	250.000	236.541	1672057.50	1.2593	A	0.8
7	☐	500.000	494.781	3329512.69	2.6340	A	0.5
8	☐	1000.000	1006.879	6687766.93	5.3602	A	0.6
9	☐			1174.17	0.0011	P	8.6

$$y = 0.0053 * x + 1.2806E-005$$

$$R = 0.9999$$

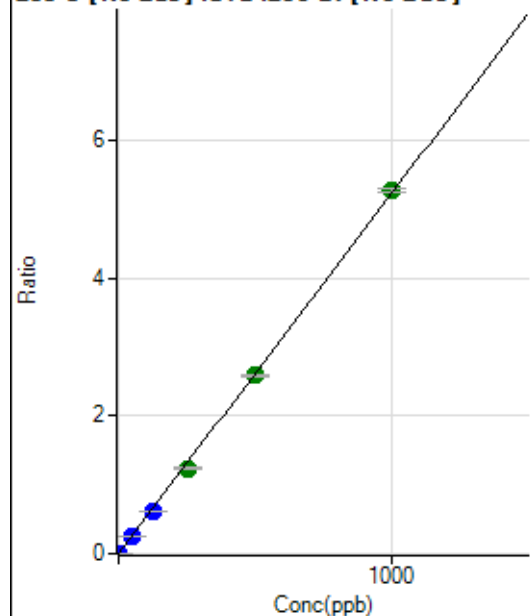
$$DL = 0.00872$$

$$BEC = 0.002406$$

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	119.45	0.0001	P	20.8
2	☐	0.100					
3	☐	1.000	0.872	6118.39	0.0046	P	1.9
4	☐	50.000	47.053	324852.52	0.2460	P	0.8
5	☐	125.000	118.847	823126.72	0.6212	P	1.0
6	☐	250.000	237.105	1645538.19	1.2393	A	0.9
7	☐	500.000	493.856	3262540.35	2.5812	A	0.9
8	☐	1000.000	1007.212	6567757.31	5.2641	A	1.0
9	☐			555.60	0.0005	P	14.8

$$y = 0.0052 * x + 9.1360E-005$$

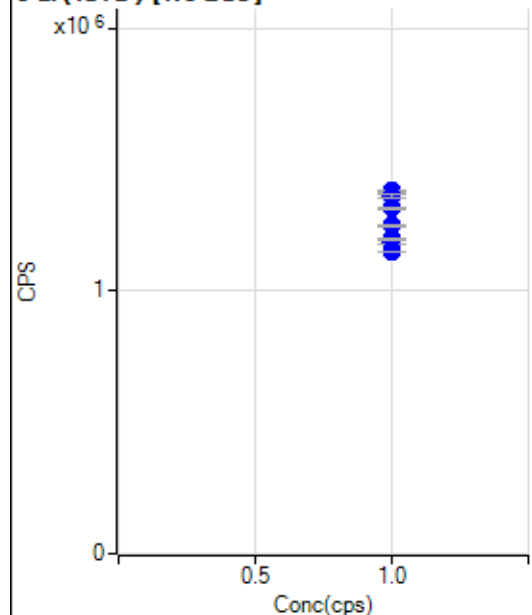
$$R = 0.9999$$

$$DL = 0.01093$$

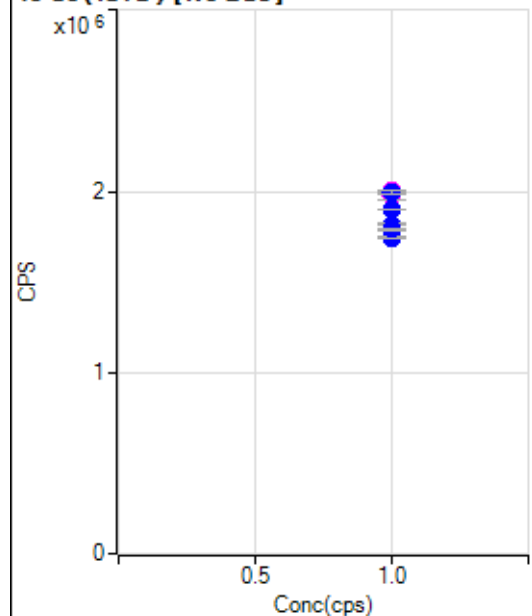
$$BEC = 0.01748$$

Weight: <None>

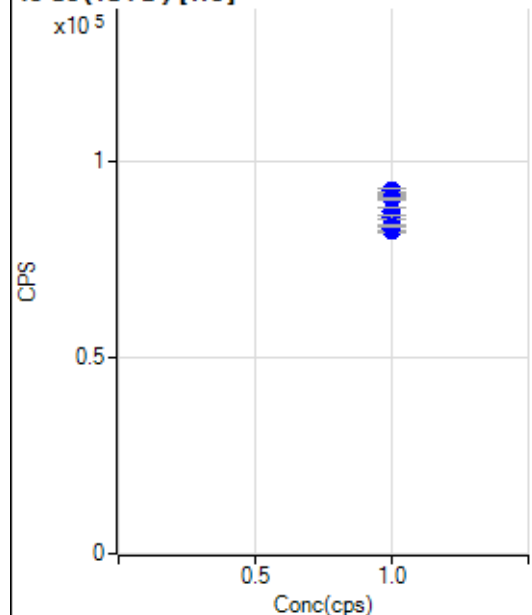
Min Conc: 0

6 Li (ISTD) [No Gas]

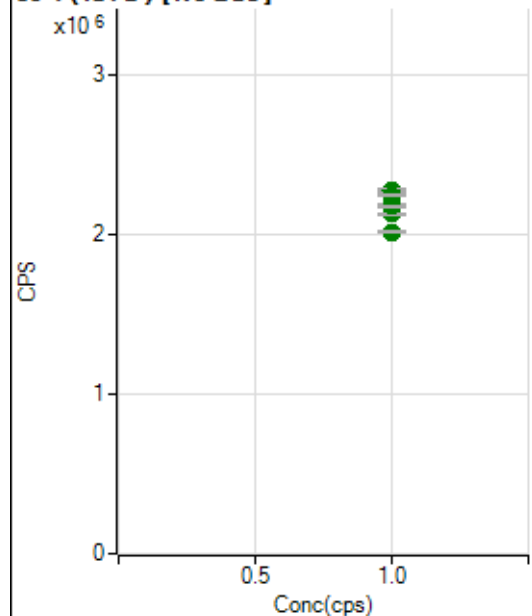
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1381636.47		P	0.8
2	☐	1.000					
3	☐	1.000		1377364.43		P	0.5
4	☐	1.000		1361720.34		P	0.6
5	☐	1.000		1315491.17		P	0.9
6	☐	1.000		1250058.81		P	0.7
7	☐	1.000		1185946.65		P	1.1
8	☐	1.000		1199170.53		P	0.5
9	☐	1.000		1150665.39		P	0.4

45 Sc (ISTD) [No Gas]

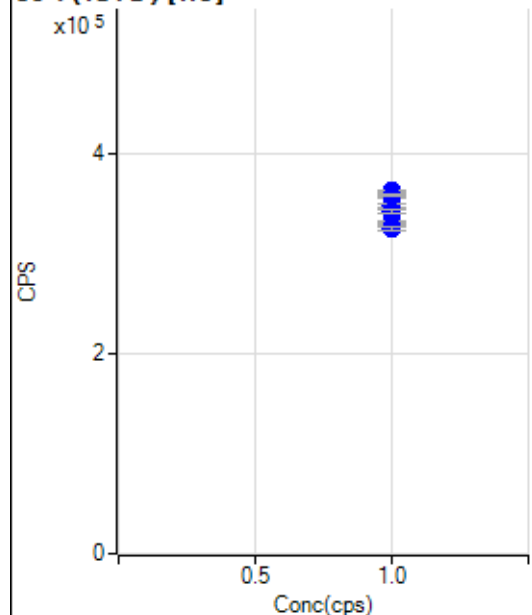
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1969612.87		M	1.6
2	☐	1.000					
3	☐	1.000		2001878.84		M	0.7
4	☐	1.000		1990367.73		P	1.1
5	☐	1.000		1901490.02		P	0.2
6	☐	1.000		1816821.55		P	0.8
7	☐	1.000		1745325.04		P	0.6
8	☐	1.000		1793490.19		P	0.4
9	☐	1.000		1788775.89		P	1.0

45 Sc (ISTD) [He]

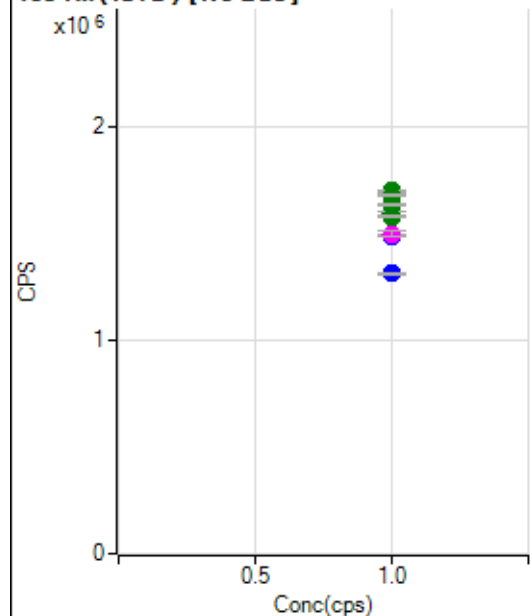
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		91426.69		P	0.3
2	☐	1.000					
3	☐	1.000		92478.35		P	1.1
4	☐	1.000		90486.20		P	0.5
5	☐	1.000		87413.70		P	2.1
6	☐	1.000		82724.85		P	1.1
7	☐	1.000		82235.48		P	0.7
8	☐	1.000		85755.20		P	1.1
9	☐	1.000		83426.61		P	0.6

89 Y (ISTD) [No Gas]

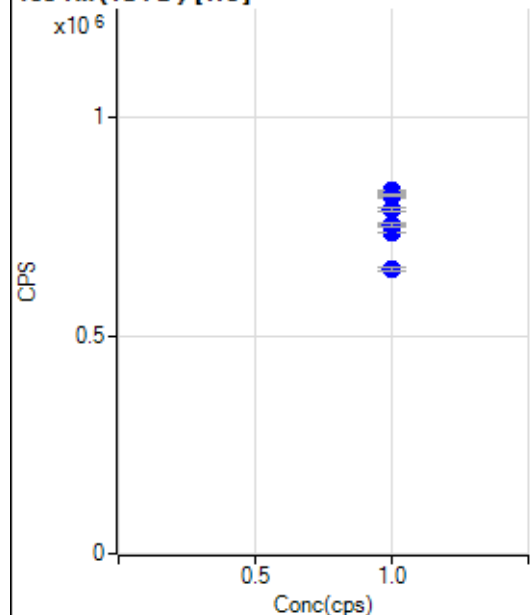
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2261254.03		A	0.8
2	☐	1.000					
3	☐	1.000		2271696.93		A	0.3
4	☐	1.000		2270788.84		A	1.1
5	☐	1.000		2241604.41		A	0.7
6	☐	1.000		2183445.63		A	0.3
7	☐	1.000		2125589.33		A	0.2
8	☐	1.000		2174095.42		A	0.5
9	☐	1.000		2014747.05		A	0.6

89 Y(ISTD) [He]

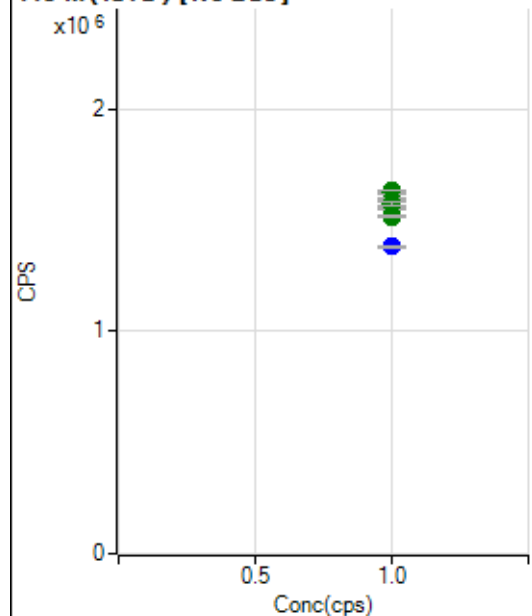
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		356723.10		P	0.3
2	☐	1.000					
3	☐	1.000		363288.75		P	0.4
4	☐	1.000		358684.14		P	0.6
5	☐	1.000		348116.64		P	1.1
6	☐	1.000		332644.51		P	0.8
7	☐	1.000		327983.03		P	0.3
8	☐	1.000		342910.69		P	1.4
9	☐	1.000		326106.99		P	1.3

103 Rh(ISTD) [No Gas]

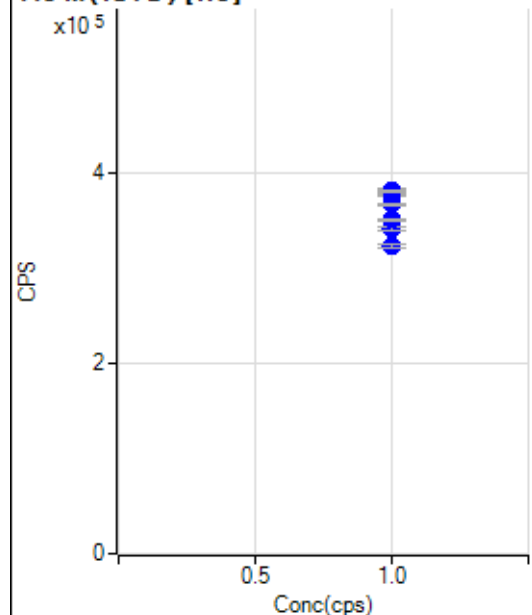
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1595440.85		A	0.9
2	☐	1.000					
3	☐	1.000		1698617.33		A	0.2
4	☐	1.000		1678436.24		A	0.4
5	☐	1.000		1633592.89		A	0.2
6	☐	1.000		1579720.63		A	1.1
7	☐	1.000		1488473.42		P	0.3
8	☐	1.000		1497348.84		M	1.9
9	☐	1.000		1310548.31		P	0.2

103 Rh (ISTD) [He]

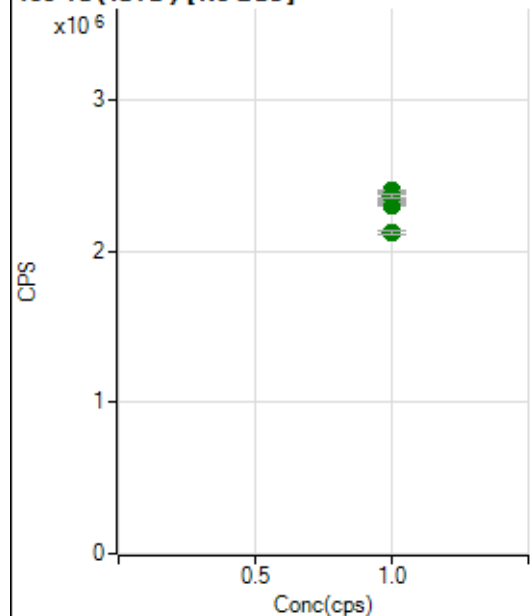
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		819707.78		P	0.5
2	☐	1.000					
3	☐	1.000		832314.62		P	0.5
4	☐	1.000		821054.69		P	0.5
5	☐	1.000		788842.58		P	1.2
6	☐	1.000		756353.85		P	0.3
7	☐	1.000		736908.53		P	0.2
8	☐	1.000		753470.76		P	1.4
9	☐	1.000		651701.70		P	1.2

115 In (ISTD) [No Gas]

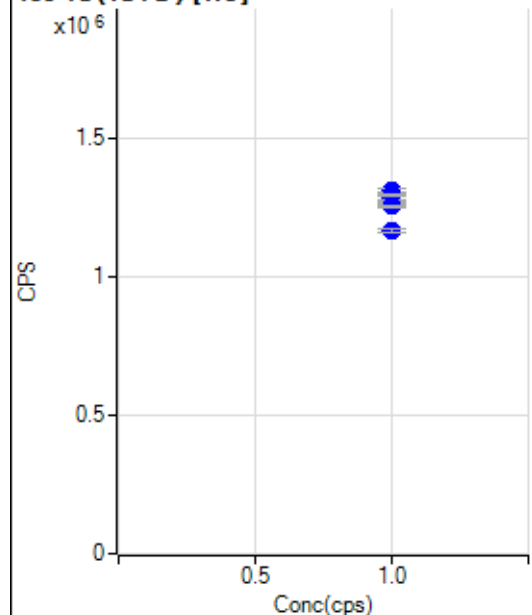
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1554959.57		A	0.9
2	☐	1.000					
3	☐	1.000		1632918.95		A	0.4
4	☐	1.000		1630003.47		A	0.9
5	☐	1.000		1595899.59		A	0.2
6	☐	1.000		1573066.03		A	1.0
7	☐	1.000		1521424.90		A	0.5
8	☐	1.000		1517090.25		A	0.3
9	☐	1.000		1383344.24		P	0.6

115 In (ISTD) [He]

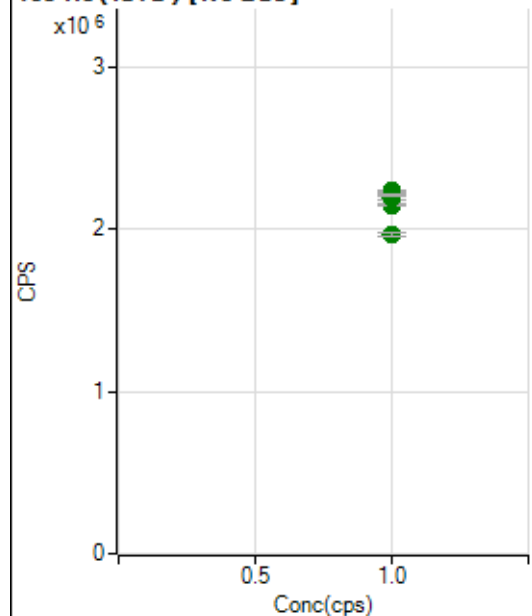
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		375789.22		P	0.3
2	☐	1.000					
3	☐	1.000		380478.73		P	0.9
4	☐	1.000		379273.16		P	0.5
5	☐	1.000		366839.91		P	0.5
6	☐	1.000		350960.13		P	0.5
7	☐	1.000		340654.63		P	1.1
8	☐	1.000		349927.29		P	1.0
9	☐	1.000		323191.05		P	1.2

159 Tb (ISTD) [No Gas]

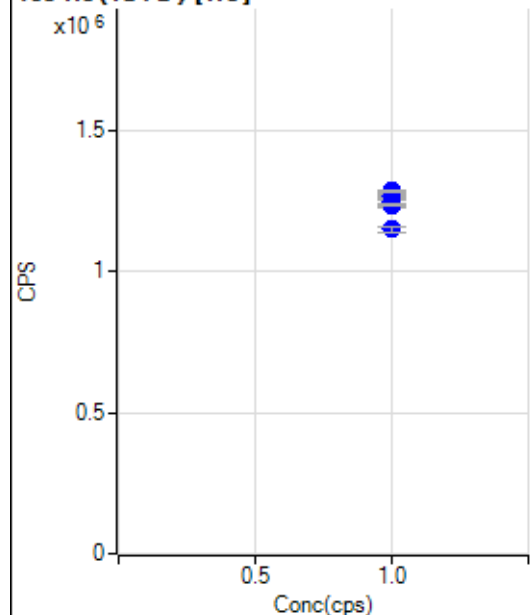
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2303908.73		A	0.8
2	☐	1.000					
3	☐	1.000		2337259.03		A	0.9
4	☐	1.000		2361831.98		A	0.8
5	☐	1.000		2396257.13		A	0.3
6	☐	1.000		2391986.75		A	0.5
7	☐	1.000		2329069.11		A	0.6
8	☐	1.000		2363702.66		A	1.2
9	☐	1.000		2121407.10		A	0.9

159 Tb (ISTD) [He]

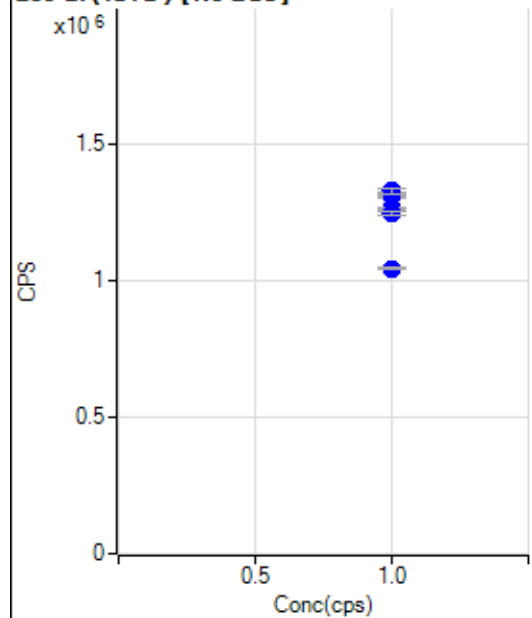
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1265312.16		P	0.3
2	☐	1.000					
3	☐	1.000		1295373.88		P	0.0
4	☐	1.000		1313019.12		P	1.1
5	☐	1.000		1290513.54		P	1.2
6	☐	1.000		1262414.13		P	1.2
7	☐	1.000		1256747.30		P	0.8
8	☐	1.000		1300343.67		P	0.5
9	☐	1.000		1167068.53		P	1.2

165 Ho (ISTD) [No Gas]

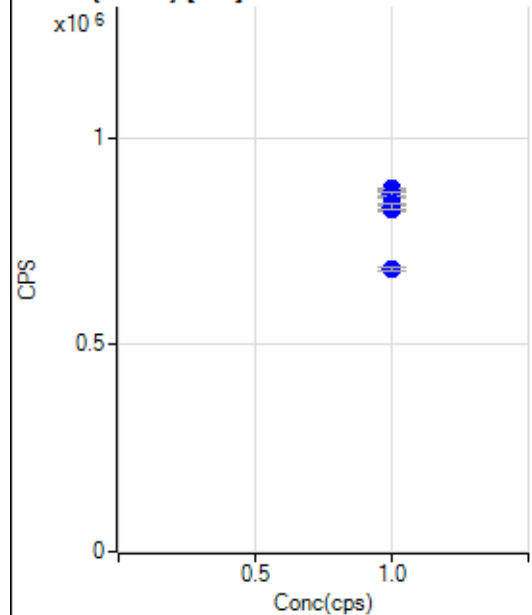
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2237484.32		A	0.4
2	☐	1.000					
3	☐	1.000		2150563.72		A	0.5
4	☐	1.000		2195062.98		A	1.0
5	☐	1.000		2223717.43		A	0.2
6	☐	1.000		2226736.53		A	0.5
7	☐	1.000		2194622.51		A	0.8
8	☐	1.000		2208281.62		A	0.4
9	☐	1.000		1966200.93		A	1.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1233497.98		P	1.1
2	☐	1.000					
3	☐	1.000		1260712.38		P	0.5
4	☐	1.000		1283683.92		P	0.2
5	☐	1.000		1265469.91		P	0.8
6	☐	1.000		1245801.15		P	0.9
7	☐	1.000		1237324.44		P	0.5
8	☐	1.000		1283195.99		P	0.5
9	☐	1.000		1147862.61		P	1.6

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1306689.09		P	0.9
2	☐	1.000					
3	☐	1.000		1316518.90		P	1.1
4	☐	1.000		1320504.81		M	0.8
5	☐	1.000		1324992.46		P	0.1
6	☐	1.000		1327893.88		P	1.3
7	☐	1.000		1264040.61		P	0.8
8	☐	1.000		1247725.31		P	1.2
9	☐	1.000		1041945.81		P	0.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		856563.47		P	0.6
2	☐	1.000					
3	☐	1.000		872975.61		P	0.5
4	☐	1.000		877464.96		P	0.4
5	☐	1.000		865283.42		P	1.1
6	☐	1.000		840930.66		P	0.5
7	☐	1.000		825860.06		P	0.4
8	☐	1.000		834619.74		P	1.4
9	☐	1.000		683806.41		P	1.8

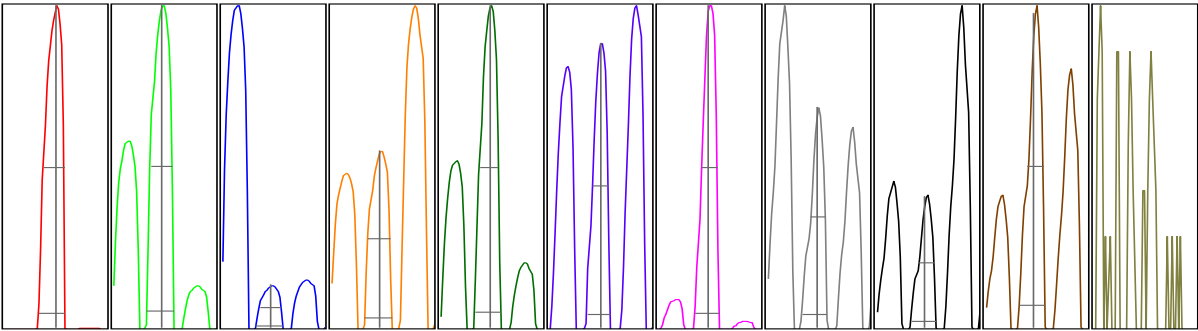
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7072019-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	4838	3.22	5.00	
24	41464	3.06	5.00	
25	5591	3.13	5.00	
26	6304	3.13	5.00	
59	19824	3.29	5.00	
113	1840	2.77	5.00	
115	21850	3.76	5.00	
206	4769	3.56	5.00	
207	4432	3.74	5.00	
208	10475	3.21	5.00	
220	0	51.60		

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
9	4573	4937	4962	4881	4837
24	39287	42132	42441	42012	41448
25	5283	5658	5712	5680	5620
26	5959	6393	6454	6364	6353
59	18694	20122	20362	20033	19908
113	1750	1858	1868	1873	1852
115	20426	22029	22521	22243	22030
206	4467	4856	4862	4834	4827
207	4140	4472	4546	4502	4501
208	9914	10534	10824	10578	10525
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak	Axis	Axis	Axis	Width-X%	Width-X%	Width-
	Height	(Actual)	(Required)	(Flag)	(Actual)	(Required)	X% (Flag)
9	8491	9.05	8.9 - 9.1		0.764	0.900	
24	69266	23.95	23.9 - 24.1		0.784	0.900	
25	9271	24.95	24.9 - 25.1		0.785	0.900	
26	10561	25.95	25.9 - 26.1		0.783	0.900	
59	37056	59.00	58.9 - 59.1		0.771	0.900	
113	3916	113.05	112.9 - 113.1		0.684	0.900	
115	47315	115.00	114.9 - 115.1		0.706	0.900	
206	10504	206.00	205.9 - 206.1		0.731	0.900	
207	9417	206.95	206.9 - 207.1		0.728	0.900	
208	22414	207.95	207.9 - 208.1		0.739	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	8.7	V	Deflect	14.6	V
Extract 2	-125.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	4809	0.94	
89	7719	0.57	
205	4634	1.27	

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
59	4867	4801	4842	4764	4770
89	7795	7710	7715	7698	7679
205	4727	4572	4647	4616	4607

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.0	V	Deflect	1.6	V
Extract 2	-140.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	V	Cell Exit	-60	V			

Cell Parameters

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